

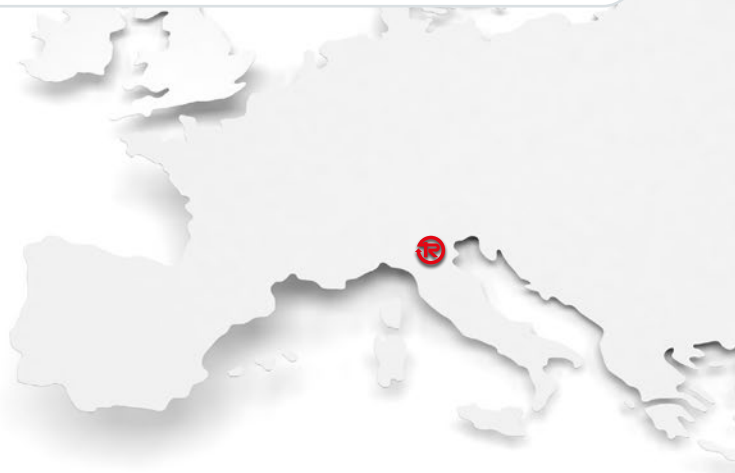




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## INDUSTRIAL LIGHT DUTY LOADS



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## INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING



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## PALLET TRUCK ROLLERS



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## SCAFFOLDINGS



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## WASTE BIN CONTAINERS



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## INSTITUTIONAL



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## FURNITURE



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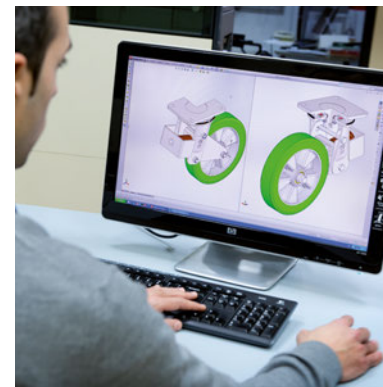


## MILESTONES

- |      |  |      |  |
|------|--|------|--|
| 1950 | Company was set up as a craft business                           | 1980 | The company moved to the current 10,000 square metre plant |
| 1953 | Brand registration and conversion to a joint stock company (SpA) | 1995 | Production of 30,000 wheels a day with 104 employees       |
| 1961 | First foreign customer for wheels with polyurethane coating      | 1996 | ISO 9001 certification                                     |
| 1972 | Production of 2,000 wheels a day with 100 employees              | 2000 | Tellure Rôta do Brasil incorporated                        |
|      |  | 2002 | ISO 9001:2000 certification                                |

**"We are working to improve, always"**

This is how Roberto Lancellotti - founder and current president of Tellure Rôta - summarises the mission of the company, which works every day to satisfy its customers' movement and handling needs for industry and home applications, through the design, manufacture and sale of wheels and brackets.



**Specific design for every sector**

Every day, our designers study innovative movement solutions for multiple application sectors. The result is an offer of over 8,000 catalogue items and the development of special products upon customer requests

From large industries to private homes, from office canteens to every environment of use, there is a specific solution that has been studied, developed and tested within the company, thanks to the know-how of materials and the use of the most modern conception, design and testing software.

In Tellure Rôta, technology and competence are at the customer's service.

- |      |   |      |   |
|------|---|------|---|
| 2004 | ISO 14001 Environmental Certification   | 2012 | Production expansion for thermoplastic moulding with the purchase of a third 1,500 square metre facility next to the main plant |
| 2005 | Production expansion for automatic assembly with the purchase of a 3,000 square metre facility next to the main plant | 2013 | Achievement of sixty years in the business  |
| 2006 | Start of the Lean production project  | 2016 | Expansion of robotic and automated production lines for the manufacture of polyurethane wheels and rollers.                     |
| 2009 | OHSAS 18001:2007 Workplace Health and Safety Certification  | 2016 | ISO 9001:2015 Quality certification and ISO 14001:2015 Environmental Certification  |
| 2011 | Qualification and accreditation of the "Test & Research" lab by the Emilia-Romagna High Technology Network            |      |   |



## Tellure Rôta, more than 60 years of guaranteed Made in Italy quality

The wheels and brackets are manufactured in three plants in Formigine, on a covered surface of 15,000 square metres.

Here, the skills of our people combine with technology to manufacture products which are built following certificated standards, which guarantee quality.

The steel sheets are moulded with automatic presses rated up to 630 Tonnes and pitch moulds. Strict and continuous checks made on the steel sheet and on the moulded components guarantee precise processing tolerances.

The preparation of hubs for coating and casting polyurethane wheels and rollers takes place according to in-house created formulas and by using high quality raw materials. The entire process is strictly controlled to obtain the highest performance of the Tellure Rôta polyurethanes.

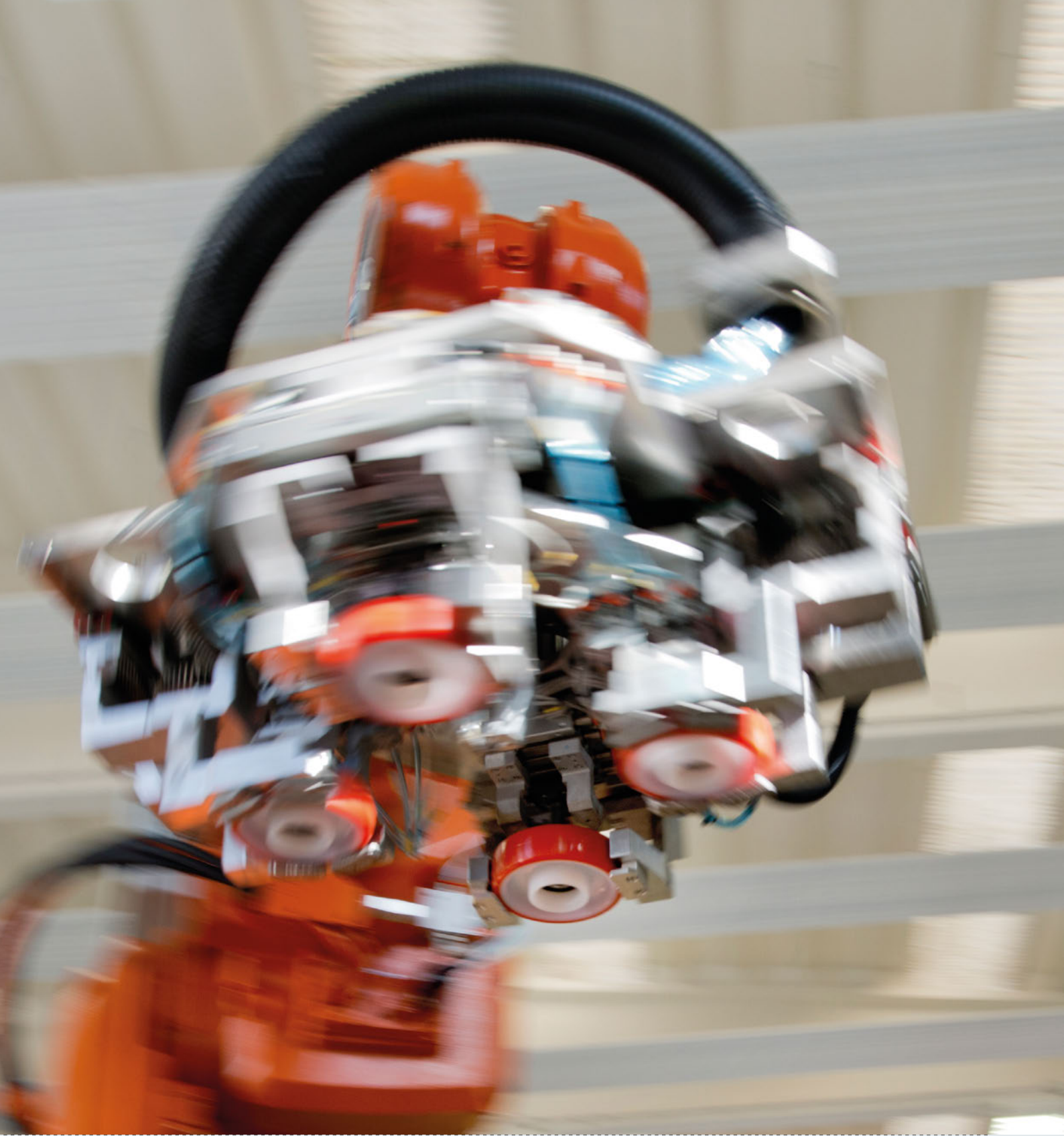
The thermoplastic wheels are moulded in a specific plant with state-of-the-art presses, in a controlled environment and starting from certified materials. The process ends with the assembly of the wheels and brackets on automatic lines that guarantee high production volumes and constant high quality.

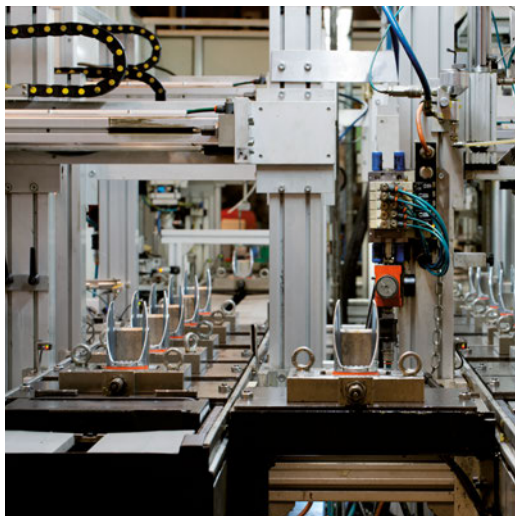
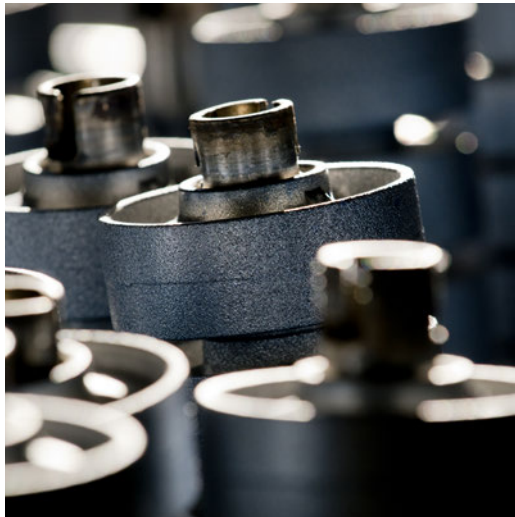
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## OVERVIEWS









Tellure Rôta production process is based on lean production principles, which allows a flexible response to customer requests, ensuring reliable service and rapid delivery.

### Established in Italy, competitive in the world

Thanks to the commitment to product quality and innovative solutions to the different movement and handling requirements, Tellure Rôta is internationally recognised as one of the most important industrial companies in the sector. Tellure Rôta do Brasil was set-up in 2000 to strengthen the presence in South America.

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### CERTIFICATIONS

ISO 9001:2015 certification, that guarantee management of all company processes even more focused on complete and constant customer satisfaction;

ISO 14001:2015 environmental certification, demonstrating Tellure Rôta's ability to combine management which focuses on continuous improvement and customer satisfaction with environmental protection and prevention of pollution;

ISO 45001:2018 health and safety certification, thanks to the implementation of an internal system which guarantees regulations are respected, constant checks are performed and proactive management is done on all risks which can be found in the workplace.



A sales network with over 2,000 customers serves today 70 countries. Tellure Rôta is based in Formigine (Modena) in the north of Italy, on a site consisting of three production plants and the research and development laboratory.





### An in-house laboratory for continuous innovation

In order to guarantee to its customers excellence in designing projects, Tellure Rôta has chosen to qualify and support its production departments with the Test & Research lab, a research laboratory with operational autonomy and accredited since 2011.

Since the laboratory belongs to a network of excellence, it is constantly updated and can expand its know-how to guarantee customers with on-going innovative projects.



#### EQUIPMENT

The supplied equipment consists of machinery and modern and updated technologies; it is divided into:

- test machines and benches for finished products according to the Standards of reference
- measuring instruments for the dimensional control and the physical-mechanical-electrical characterisation of the materials
- FEM design and analysis software workstations

All equipment is integrated with sensors and software for the collection and processing of data and the tests are video-recorded in real time.

### Where research becomes solution

The laboratory guarantees the necessary skills to develop and test new solutions for materials, products and constructive and process technologies.

In particular, it develops and characterises polyurethane mixes and thermoplastic materials able to meet the specific application requirements of wheel users and the right quality/price ratio.

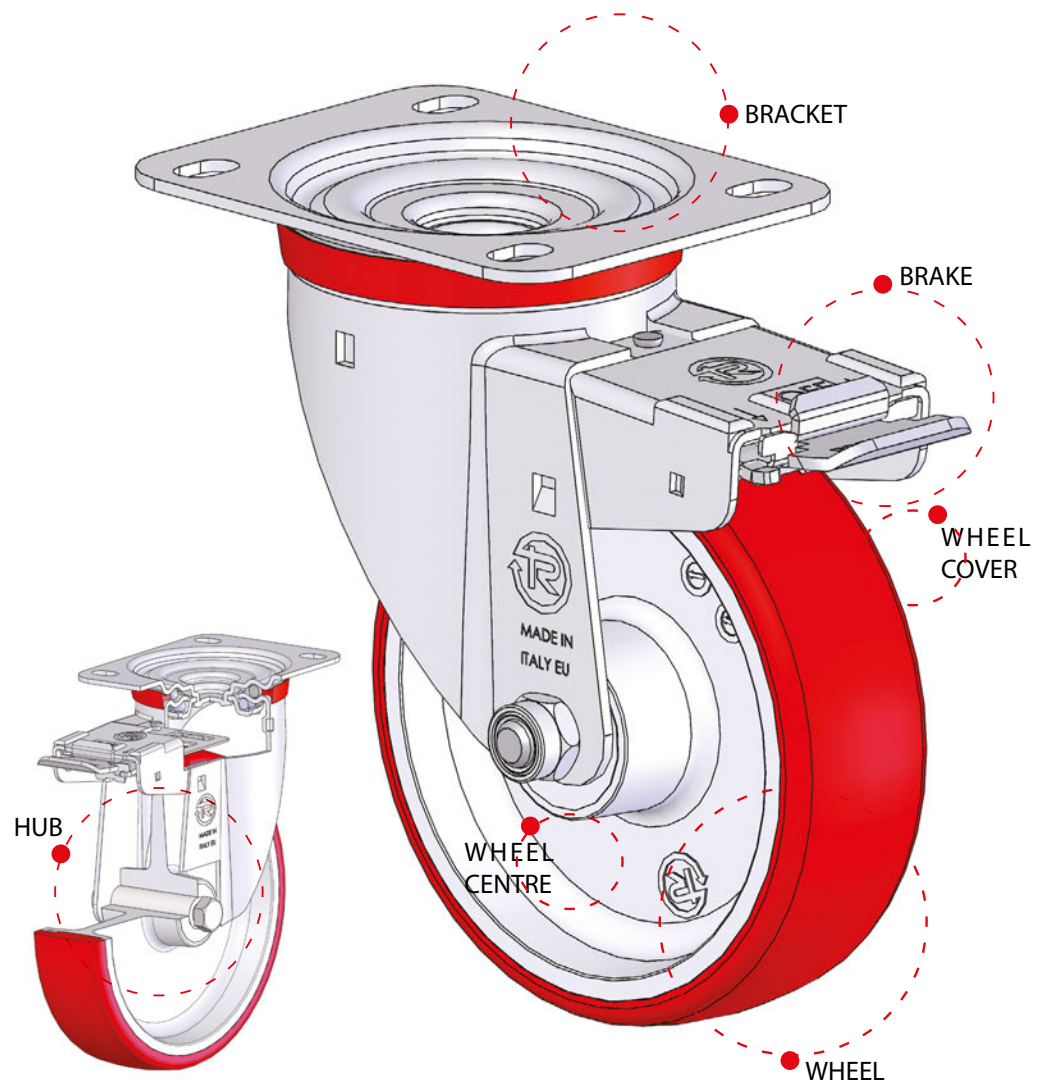
All of the chosen materials and treatments have a low environmental impact and are conform with the RoHS and Reach Directives.

TRLab also researches metal components to make brackets with optimised performance even under heavy-duty uses, and it also experiments with surface treatments that resist external chemical agents.



### SERVICES

- Tests on wheels and brackets according to the wheels and brackets standards
- Tests on wheels and brackets according to standards relating to different applications (waste collection bins, mobile scaffoldings and others)
- Tests on elastomer, thermoplastic and metal materials
- Physical-mechanical characterisation tests of elastomers and vulcanised rubbers (traction, tear, abrasion, resilience, density, hysteresis)
- Electrical resistance tests on antistatic or conductive components
- Specific tests on customer projects



## WHEEL

Round mechanical part allowing the transformation, by rotating around its own axis, of a sliding motion into a rolling motion.

The elements composing the wheel are: the tread, the cover, the centre, the hub and the swivel actions.

In this catalogue the wheels are divided into main usage categories. Each series contains specific information and individual codes.

|   |                             |
|---|-----------------------------|
| Industrial - Light duty loads                         |                             |
| Industrial - Medium duty loads                        |                             |
| Industrial - Heavy duty loads and mechanical handling |                             |
| High temperatures                                     |                             |
| Pallet truck rollers                                  |                             |
| Scaffoldings  | from page 48<br>to page 393 |
| Waste bin containers                                  |                             |
| Institutional   |                             |
| Furniture   |                             |
| Antistatic and statically conductive solutions        |                             |
| Customised solutions                                  |                             |
| Accessories   |                             |

### BRACKET

Connecting element between a wheel and a trolley. All wheels normally require the use of a bracket to be fitted to a trolley; the wheels which have an axis integrated in the trolley itself are an exception.

Swivel bracket: turns on its own vertical axis as the direction of movement changes; it can be swivel with top plate, swivel with bolt hole, swivel with stem. It can be fitted with a lock.

Fixed bracket: it cannot rotate; it has the task of maintaining the wheel along a guideline.

|          |                            |
|----------|----------------------------|
| Brackets | from page 14<br>to page 27 |
|----------|----------------------------|

### BRAKE

Device to brake the rotation of the bracket around its own axis, the rotation of the wheel or the rotation of the complete castor. Front, rear, centralised, total or directional brakes can be fitted onto the swivel brackets.

|        |                            |
|--------|----------------------------|
| Brakes | from page 28<br>to page 33 |
|--------|----------------------------|

### HUB

Central part of the wheel intended to house the axle or the bearings, making rotation easier (ball bearing, roller bearing, plain bores,...).

|      |                            |
|------|----------------------------|
| Hubs | from page 34<br>to page 35 |
|------|----------------------------|

# TELLURE RÔTA BRACKETS

## Light-duty SL



Carrying capacity: 130 daN  
Diameters: 80-125 mm  
Fitting: with top plate,  
with bolt hole  
Brake: front

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## Standard-duty NL-NLX



Carrying capacity: 400 daN  
Diameters: 65-280 mm  
Fitting: with top plate, with  
bolt hole, with threaded  
stem, with Zamak stem  
Brake: front, rear,  
centralised

Page 16

## Medium-duty M



Carrying capacity: 500 daN  
Diameters: 150-200 mm  
Fitting: with top plate  
Brake: adjustable front

Page 18

## Medium-Heavy duty P-PX



Carrying capacity: 750 daN  
Diameters: 80-250 mm  
Fitting: with top plate  
Brake: front, adjustable rear

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## Heavy-duty with hardened ball race grooves PT



Carrying capacity: 900 daN  
Diameters: 125-200 mm  
Fitting: with top plate  
Brake: adjustable rear

Page 20

## Extra heavy-duty EP



Carrying capacity: 1600daN  
Diameters: 100-250 mm  
Fitting: with top plate  
Brake: adjustable rear

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## Electrowelded EE MHD



Carrying capacity: 1500 daN  
Diameters: 100-250 mm  
Fitting: with top plate  
Brake: adjustable rear

Page 22

## Electrowelded EE HD-EE EHD



Carrying capacity: 3500 daN  
Diameters: 150-400 mm  
Fitting: with top plate  
Brake: adjustable rear  
(EE HD only)

Page 23

## Twin electrowelded EEG MHD



Carrying capacity: 1500 daN  
Diameters: 100-200 mm  
Fitting: with top plate  
Brake: adjustable rear  
(diam. 160-200 mm only)

Page 24

## Twin electrowelded EEG HD - EEG EHD



Carrying capacity: 4300 daN  
Diameters: 125-300 mm  
Fitting: with top plate

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## Sprung loaded electrowelded EES MHD



Carrying capacity: 4300 daN  
Diameters: 125-300 mm  
Fitting: with top plate  
Brake: adjustable front

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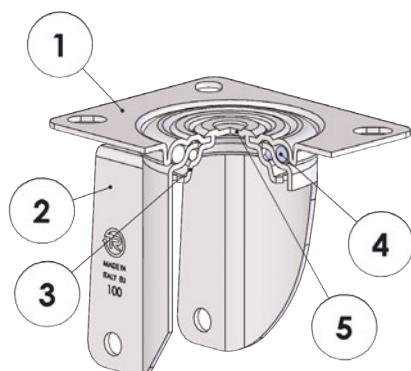
## Scaffolding TRAB



Carrying capacity: 750 daN  
(according to EN 1004:2005)  
Diameters: 125-200 mm  
Fitting: with top plate,  
with solid stem, with  
threaded stem with leveller

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- 1) Plate in electrolytically galvanised steel plate
- 2) Fork in electrolytically galvanised steel plate
- 3) Ball race ring in electrolytically galvanised steel plate
- 4) Swivel actions: on two ball race rings lubricated with grease
- 5) King pin: integrated with ball race ring

## Light-duty SL - max carrying capacity 130 daN

The bracket is made of electrolytically galvanised steel plate.

The swivel action is composed of two roller ball race rings in calibrated tracks obtained on pressed components. The bracket assembly is made by means of cold forming the pin integrated in the lower ring, thus guaranteeing good manoeuvrability and reduced side play.

The shaping of the fixing plate that protects the upper ball race ring and their lubrication using industrial multi-purpose grease reduce maintenance during the normal conditions of use of the bracket.

**Brake:** front

**Fittings with wheels**



SERIES 52

SERIES 53

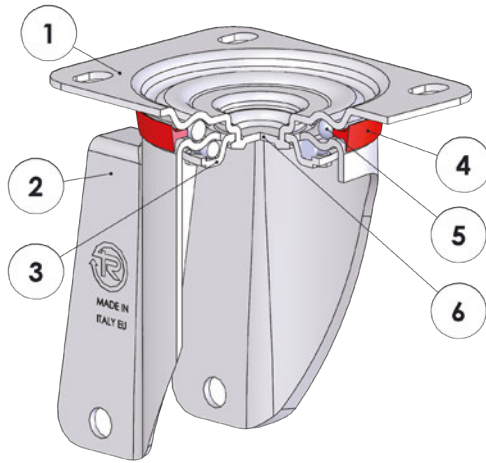
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**Fitting with top plate**

|    |     |    |     |       |       |     |    |     |
|----|-----|----|-----|-------|-------|-----|----|-----|
| TS |     |    |     |       |       |     |    |     |
|    | 80  | 40 | 110 | 95x80 | 80x60 | 8.8 | 33 | 130 |
|    | 100 | 40 | 127 | 95x80 | 80x60 | 8.8 | 29 | 130 |
|    | 125 | 40 | 154 | 95x80 | 80x60 | 8.8 | 32 | 130 |

**Fitting with bolt hole**

|    |     |    |     |    |    |    |     |        |
|----|-----|----|-----|----|----|----|-----|--------|
| TS |     |    |     |    |    |    |     |        |
|    | 80  | 40 | 110 | 12 | 63 | 33 | 130 | 4 km/h |
|    | 100 | 40 | 127 | 12 | 63 | 29 | 130 |        |
|    | 125 | 40 | 154 | 12 | 63 | 32 | 130 |        |



- 1) Top Plate: electrolytically galvanised steel plate or in AISI 304 stainless steel
- 2) Fork: electrolytically galvanised steel plate or in AISI 304 stainless steel
- 3) Ball Race Ring: electrolytically galvanised steel plate or in AISI 304 stainless steel
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

## Standard-duty NL and NLX - max carrying capacity 400 daN

Bracket made of printed steel plate with excellent swivel guaranteed by two ball race rings.

Precise assembly by means of cold-mechanical forming of the top plate integrated pin. The lubrication and adequate protection of the ball race rings against dust, together with the electrolytic galvanisation (NL) or the realisation in AISI 304 stainless steel (NLX) guarantee a long duration and a reduced request for maintenance in normal conditions of use. A specific model intended for uses with a temperature above 100°C is also available.

**Brake:** front, rear, centralised.  
**Directional lock available**

### Fittings with wheels

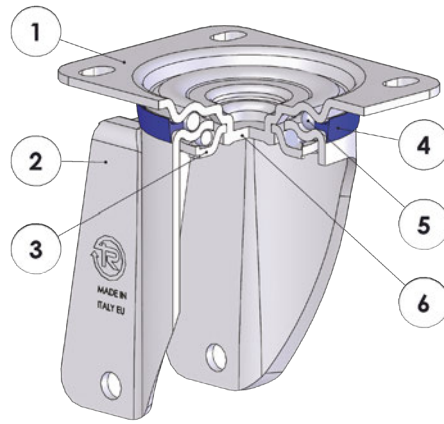


## Fitting with top plate

| NL-NLX |     |     |         |         |         |    |    |     |     |
|--------|-----|-----|---------|---------|---------|----|----|-----|-----|
|        | 65  | 40  | 100     | 100x85  | 80x60   | 9  | 37 | 8   | 200 |
| 80     | 40  | 107 | 100x85  | 80x60   | 9       | 37 | 8  | 200 |     |
| 100    | 45  | 128 | 100x85  | 80x60   | 9       | 35 | 8  | 200 |     |
| 125    | 45  | 156 | 100x85  | 80x60   | 9       | 37 | 8  | 220 |     |
| 125    | 45  | 156 | 140x110 | 105x80  | 11      | 37 | 8  | 220 |     |
| 125    | 60  | 166 | 140x110 | 105x80  | 11      | 57 | 12 | 300 |     |
| 140    | 45  | 176 | 100x85  | 80x60   | 9       | 34 | 8  | 220 |     |
| 150    | 45  | 182 | 100x85  | 80x60   | 9       | 34 | 8  | 220 |     |
| 150    | 45  | 182 | 140x110 | 105x80  | 11      | 34 | 8  | 220 |     |
| 150    | 60  | 194 | 140x110 | 105x80  | 11      | 56 | 12 | 300 |     |
| 160    | 60  | 187 | 100x85  | 80x60   | 9       | 50 | 12 | 220 |     |
| 160    | 60  | 198 | 140x110 | 105x80  | 11      | 56 | 12 | 300 |     |
| 175    | 60  | 217 | 140x110 | 105x80  | 11      | 56 | 12 | 300 |     |
| 180    | 60  | 219 | 140x110 | 105x80  | 11      | 56 | 12 | 300 |     |
| 200    | 60  | 240 | 140x110 | 105x80  | 11      | 56 | 12 | 300 |     |
| NL     | 225 | 60  | 263     | 140x110 | 105x80  | 11 | 56 | 12  | 300 |
|        | 250 | 90  | 296     | 200x160 | 160x120 | 14 | 86 | 12  | 350 |
|        | 260 | 90  | 300     | 200x160 | 160x120 | 14 | 86 | 12  | 350 |
|        | 280 | 90  | 311     | 200x160 | 160x120 | 14 | 86 | 12  | 400 |

## Fitting with bolt hole

| NL-NLX |    |     |     |     |    |    |     |
|--------|----|-----|-----|-----|----|----|-----|
|        | 65 | 40  | 100 | 12  | 73 | 37 | 8   |
| 80     | 40 | 107 | 12  | 73  | 37 | 8  | 200 |
| 100    | 45 | 128 | 12  | 73  | 35 | 8  | 200 |
| 125    | 45 | 156 | 12  | 73  | 37 | 8  | 220 |
| 140    | 45 | 176 | 12  | 73  | 34 | 8  | 220 |
| 150    | 45 | 182 | 12  | 73  | 34 | 8  | 220 |
| 150    | 60 | 188 | 20  | 102 | 56 | 12 | 300 |
| 160    | 60 | 193 | 20  | 102 | 50 | 12 | 300 |
| 175    | 60 | 212 | 20  | 102 | 56 | 12 | 300 |
| 180    | 60 | 214 | 20  | 102 | 56 | 12 | 300 |
| 200    | 60 | 236 | 20  | 102 | 56 | 12 | 300 |



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: blue polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

## Medium-duty M - max carrying capacity 500 daN

Bracket made of pressed steel plate thicker than the NL model. Excellent swivelling guaranteed by the two ball race ring. Precise assembly by means of cold-mechanical forming of the top plate integrated pin, the lubrication and adequate protection of the ball race rings against dust, together with the electrolytic galvanisation guarantee long duration and a reduced request for maintenance in normal conditions of use.

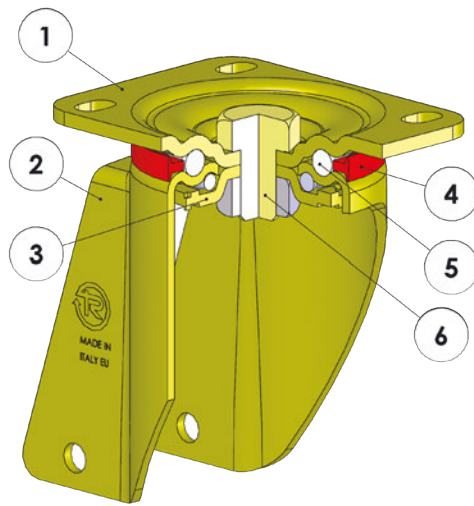
**Brake:** adjustable front

**Fittings with wheels**



**Fitting with top plate**

| M   |    |     |         |        |    |    |    |     |  |
|-----|----|-----|---------|--------|----|----|----|-----|--|
| 150 | 60 | 194 | 140x110 | 105x80 | 11 | 58 | 12 | 500 |  |
| 160 | 60 | 199 | 140x110 | 105x80 | 11 | 58 | 12 | 500 |  |
| 200 | 60 | 240 | 140x110 | 105x80 | 11 | 50 | 12 | 500 |  |



- 1) Top Plate: electrolytically colonial galvanised steel plate or AISI 304 stainless steel plate
- 2) Fork: electrolytically colonial galvanised steel plate or AISI 304 stainless steel plate
- 3) Ball Race Ring: electrolytically galvanised steel plate or AISI 304 stainless steel plate
- 4) Dust seal: orange polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: steel screw, class 8.8 and nut or A2 stainless steel screw and nut

## Heavy-duty P-PX - max carrying capacity 750 daN

Bracket made of thick pressed steel plate with excellent swivelling guaranteed by two ball race rings.

Precise assembly by means of highly mechanically resistant bolt and locknut anti-loosening system. The lubrication and adequate protection of the ball race rings against dust, together with the highly resistant to corrosion electrolytic galvanisation or the realisation in AISI 304 stainless steel guarantee a long duration and a reduced request for maintenance in normal conditions of use.

**Brake:** front in diameters 80-125 and adjustable rear in diameters 125-200

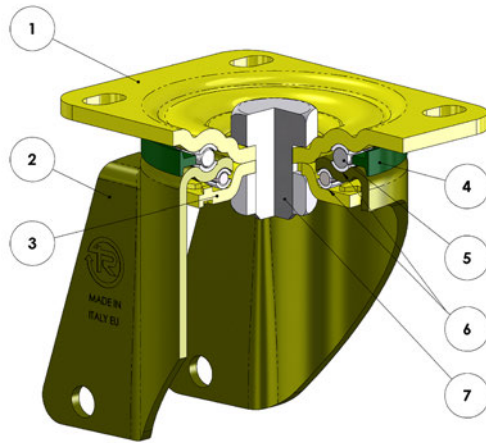
**Directional lock available.**

### Fittings with wheels



### Fitting with top plate

| P    |     |    |     |         |        |    |    |    |          |
|------|-----|----|-----|---------|--------|----|----|----|----------|
|      | 80  | 45 | 128 | 100x85  | 80x60  | 9  | 46 | 8  | 4-6 km/h |
|      | 100 | 45 | 138 | 100x85  | 80x60  | 9  | 46 | 8  | 350      |
|      | 125 | 45 | 161 | 100x85  | 80x60  | 9  | 44 | 8  | 350      |
| P-PX | 125 | 60 | 170 | 140x110 | 105x80 | 11 | 70 | 12 | 750      |
|      | 150 | 60 | 200 | 140x110 | 105x80 | 11 | 70 | 12 | 750      |
|      | 160 | 60 | 205 | 140x110 | 105x80 | 11 | 70 | 12 | 750      |
|      | 175 | 60 | 225 | 140x110 | 105x80 | 11 | 70 | 12 | 750      |
|      | 180 | 60 | 228 | 140x110 | 105x80 | 11 | 70 | 12 | 750      |
| P    | 200 | 60 | 250 | 140x110 | 105x80 | 11 | 70 | 12 | 750      |
|      | 250 | 60 | 298 | 140x110 | 105x80 | 11 | 66 | 12 | 750      |



- 1) Top Plate: electrolytically colonial galvanised steel plate
- 2) Fork: electrolytically colonial galvanised steel plate
- 3) Ball Race Ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) Ball race: tempered carbon steel
- 7) King pin: steel screw, class 8.8 and nut or A2 stainless steel screw and nut

## Heavy duty PT with hardened ball race- max carrying capacity 900 daN

Bracket made of thick pressed steel plate with excellent swivelling guaranteed by two ball race rings; unlike the standard heavy-duty P, those ball race rings are made of tempered carbon steel.

Precise assembly by means of highly mechanically resistant bolt and locknut anti-loosening system. The lubrication and adequate protection of the ball race rings against dust, together with the highly resistant to corrosion electrolytic galvanisation.

The lubrication and adequate protection of the ball race rings against dust, together with the highly resistant to corrosion electrolytic galvanisation guarantee a long duration and a reduced request for maintenance in normal conditions of use.

**Brake:** adjustable rear

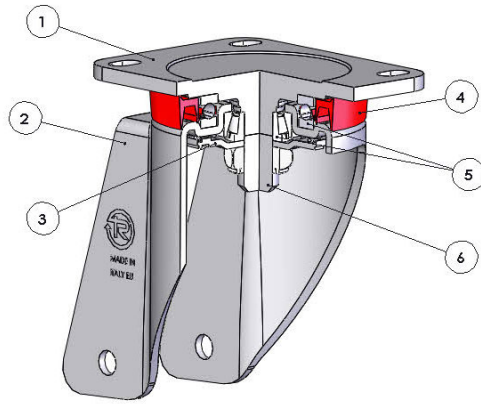
**Directional lock available.**

### Fittings with wheels



## PT

| 125 | 60 | 170 | 140x110 | 105x80 | 11 | 70 | 12 | 700 |  |
|-----|----|-----|---------|--------|----|----|----|-----|--|
| 150 | 60 | 200 | 140x110 | 105x80 | 11 | 70 | 12 | 900 |  |
| 160 | 60 | 205 | 140x110 | 105x80 | 11 | 70 | 12 | 900 |  |
| 175 | 60 | 225 | 140x110 | 105x80 | 11 | 70 | 12 | 900 |  |
| 180 | 60 | 228 | 140x110 | 105x80 | 11 | 70 | 12 | 900 |  |
| 200 | 60 | 250 | 140x110 | 105x80 | 11 | 70 | 12 | 900 |  |



- 1) Plate: white galvanised forged steel
- 2) Fork: white galvanised steel plate
- 3) Lower bearing protection ring
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: axial ball bearing and tapered roller bearing
- 6) King pin: integrated with the machine-processed plate

## Extra-heavy duty EP - max carrying capacity 1600 daN

Heavy-duty load brackets equipped with fixing plate made of forged steel and integrated pin; fork in thick pressed steel plate; excellent swivelling thanks to the use of an axial bearing that guarantees vertical load and tapered bearing to compensate the oblique forces.

Low-maintenance and long-duration bracket thanks to the use of purposely shaped dust seal, lubrication of the bearings (option with grease nipple available) and highly resistant electrolytic galvanising against corrosion.

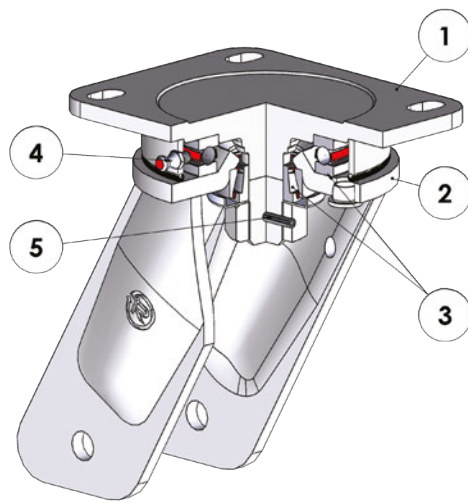
**Brake:** adjustable rear

### Fittings with wheels



### Fitting with top plate

| EP  |    |     |         |         |    |    |    |      |  |
|-----|----|-----|---------|---------|----|----|----|------|--|
| 100 | 45 | 140 | 100x85  | 80x60   | 9  | 46 | 8  | 350  |  |
| 125 | 45 | 164 | 100x85  | 80x60   | 9  | 48 | 8  | 350  |  |
| 125 | 60 | 188 | 135x110 | 105x80  | 11 | 70 | 12 | 1100 |  |
| 150 | 60 | 200 | 135x110 | 105x80  | 11 | 70 | 12 | 1100 |  |
| 160 | 60 | 205 | 135x110 | 105x80  | 11 | 70 | 12 | 1100 |  |
| 175 | 60 | 225 | 135x110 | 105x80  | 11 | 70 | 12 | 1100 |  |
| 180 | 60 | 227 | 135x110 | 105x80  | 11 | 70 | 12 | 1100 |  |
| 200 | 60 | 250 | 135x110 | 105x80  | 11 | 70 | 12 | 1100 |  |
| 250 | 90 | 300 | 175x140 | 140x105 | 14 | 66 | 18 | 1600 |  |



- 1) Plate: forged steel with electrolytically galvanized integrated pin
- 2) Fork: deep-drawn legs electro-welded to the electrolytically galvanized flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

**Electrowelded EE MHD - max carrying capacity 1000 daN**

Bracket suitable for applications with loads up to 1000 daN, even under heavy-duty conditions (mechanised towing and high speeds). Fixing plate made of forged steel with integrated pin, fork with legs shaped by means of deep-drawing process and welded to the flange; the axial and taper bearing guarantee excellent manoeuvrability also at full load and increase the side impact resistance of the bracket.

Bracket grease nipple, locknut anti-loosening system, protective o-ring against dust and zinc electroplating guarantee its extremely long duration and simple maintenance.

**Brake:** adjustable rear

**Directional lock available.**

Fittings with wheels

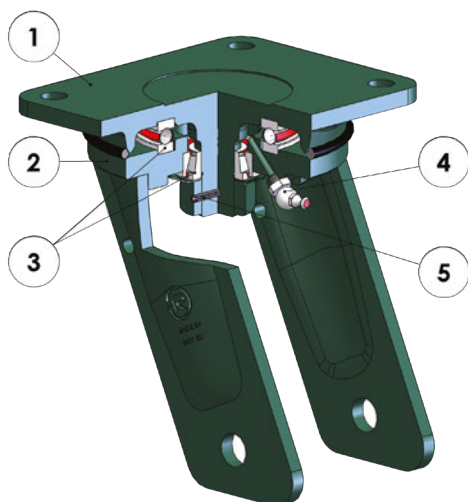


Fitting with top plate

EE MHD

| 100 | 60 | 170 | 135x110 | 105x80 | 11 | 51 | 12 | 1000 |  |
|-----|----|-----|---------|--------|----|----|----|------|--|
| 125 | 60 | 182 | 135x110 | 105x80 | 11 | 51 | 12 | 1000 |  |
| 150 | 60 | 210 | 135x110 | 105x80 | 11 | 60 | 12 | 1000 |  |
| 160 | 60 | 215 | 135x110 | 105x80 | 11 | 60 | 12 | 1000 |  |
| 180 | 60 | 242 | 135x110 | 105x80 | 11 | 70 | 12 | 1000 |  |
| 200 | 60 | 252 | 135x110 | 105x80 | 11 | 70 | 12 | 1000 |  |
| 250 | 60 | 300 | 135x110 | 105x80 | 11 | 83 | 12 | 1000 |  |





- 1) Top plate: forged steel with integrated pin painted with dark green powder
- 2) Fork: drawn legs electrowelded to the flange painted with dark green powder
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

## Electrowelded EE HD and EHD - max carrying capacity 3500 daN

Bracket suitable for applications with loads up to 3500 daN, even under heavy-duty conditions (mechanised towing and high speeds). Fixing plate made of thick forged steel with integrated pin, fork with thick legs shaped by means of deep-drawing process and welded to the flange; the axial and taper bearing guarantee excellent manoeuvrability also at full load and increase the side impact resistance of the bracket. Bracket grease nipple, locknut anti-loosening system, protective o-ring against dust and green powder painting guarantee its extremely long duration and simple maintenance.

**Brake:** adjustable rear (EE HD model only)

**Directional lock available** (EE HD model only)

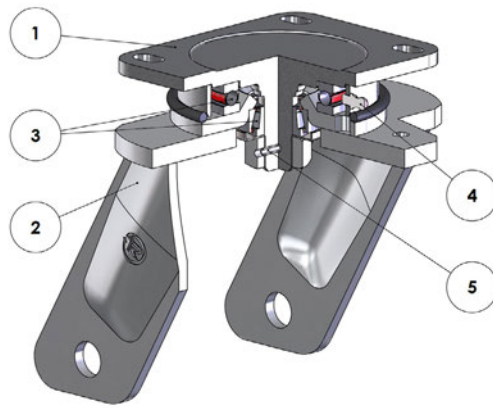
### Fittings with wheels



**SERIES 62GH   SERIES 63GH   SERIES 64   SERIES 68   SERIES 72GH**

### Fitting with top plate

| EE HD  |     |     |     |         |         |      |    |    |      |
|--------|-----|-----|-----|---------|---------|------|----|----|------|
|        | 150 | 90  | 218 | 175x140 | 140x105 | 14,5 | 50 | 18 | 1600 |
|        | 150 | 90  | 223 | 200x160 | 160x120 | 14,5 | 65 | 18 | 2500 |
|        | 200 | 90  | 275 | 175x140 | 140x105 | 14,5 | 65 | 18 | 1600 |
|        | 200 | 90  | 280 | 200x160 | 160x120 | 17   | 74 | 18 | 2500 |
|        | 250 | 90  | 320 | 175x140 | 140x105 | 14,5 | 74 | 18 | 1600 |
|        | 250 | 90  | 325 | 200x160 | 160x120 | 17   | 74 | 18 | 2500 |
|        | 300 | 90  | 360 | 175x140 | 140x105 | 14,5 | 81 | 18 | 1600 |
|        | 300 | 90  | 365 | 200x160 | 160x120 | 17   | 81 | 18 | 2500 |
| EE EHD | 300 | 130 | 384 | 250x200 | 210x160 | 19   | 78 | 24 | 3500 |
|        | 400 | 130 | 475 | 250x200 | 210x160 | 19   | 95 | 24 | 3500 |



- 1) Plate: forged steel with electrolytically galvanised integrated pin
- 2) Fork: deep-drawn legs electro-welded to the electrolytically galvanised flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

## Twin electrowelded EEG MHD - max carrying capacity 1500 daN

Bracket suitable for applications with loads up to 1500 daN, even under heavy-duty conditions (mechanised towing and high speeds). Fixing plate made of forged steel with integrated pin, fork with legs shaped by means of deep-drawing process and welded to the flange; the axial and taper bearing guarantee excellent manoeuvrability also at full load and increase the side impact resistance of the bracket. Bracket grease nipple, locknut anti-loosening system, protective o-ring against dust and zinc electroplating guarantee its extremely long duration and simple maintenance.

**Brake:** adjustable rear (on diam. 160-200 mm), operating on wheel rotation only

**Directional lock available** (on diam. 100-125 mm).

### Fittings with wheels



**SERIES 62AL**  
100-200 mm

**SERIES 62ER**  
160-200 mm

**SERIES 63GH**  
100-125 mm

**SERIES 64**  
100-125 mm

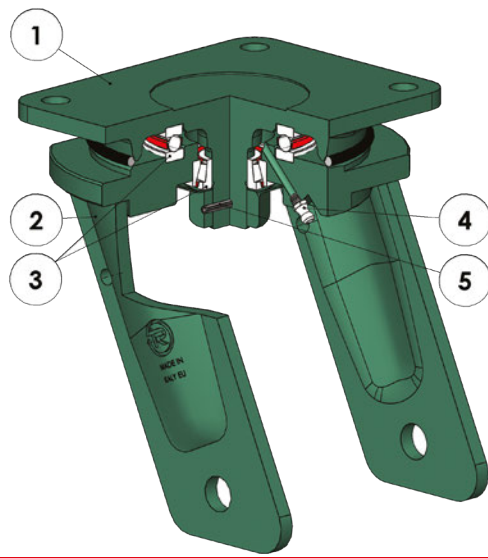
**SERIES 65HT**  
160-200 mm

**SERIES 65ER**  
160-200 mm

**SERIES 72AL**  
100-125 mm

### Fitting with top plate

|                |     |     |     |         |        |    |    |    |      |
|----------------|-----|-----|-----|---------|--------|----|----|----|------|
| <b>EEG MHD</b> |     |     |     |         |        |    |    |    |      |
|                | 100 | 90  | 140 | 135x110 | 105x80 | 11 | 55 | 12 | 1000 |
|                | 125 | 90  | 175 | 135x110 | 105x80 | 11 | 55 | 12 | 1000 |
|                | 160 | 130 | 221 | 135x110 | 105x80 | 11 | 55 | 18 | 1500 |
|                | 200 | 130 | 258 | 135x110 | 105x80 | 11 | 65 | 18 | 1500 |



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

## Twin electrowelded EEG HD and EHD - max carrying capacity 4300 daN

Bracket suitable for applications with loads up to 4300 daN, even under heavy-duty conditions (mechanised towing and high speeds). Fixing plate made of thick forged steel with integrated pin, fork with thick legs shaped by means of deep-drawing process and welded to the flange; the axial and taper bearing guarantee excellent manoeuvrability also at full load and increase the side impact resistance of the bracket. Bracket grease nipple, locknut anti-loosening system, protective o-ring against dust and green powder painting guarantee its extremely long duration and simple maintenance.

The top plate's longer side of fixed brackets is parallel to the axle of the wheel.

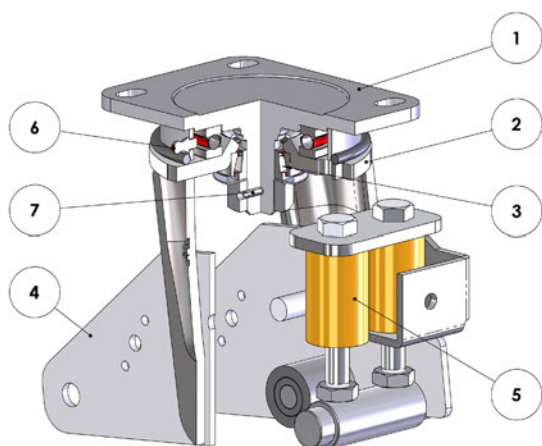
### Fittings with wheels



**SERIES 62    SERIES 63GH    SERIES 64    SERIES 68P    SERIES 72AL    SERIES 72GH**

### Fitting with top plate

| EEG HD  |     |     |     |         |         |    |    |    |          |
|---------|-----|-----|-----|---------|---------|----|----|----|----------|
|         | 125 | 130 | 210 | 175x140 | 140x105 | 14 | 50 | 18 | 4-6 km/h |
|         | 150 | 130 | 223 | 175x140 | 140x105 | 14 | 50 | 18 | 1600     |
|         | 160 | 130 | 228 | 175x140 | 140x105 | 14 | 50 | 18 | 1600     |
|         | 200 | 130 | 280 | 175x140 | 140x105 | 14 | 65 | 18 | 1600     |
|         | 200 | 130 | 285 | 200x160 | 160x120 | 17 | 62 | 18 | 2000     |
| EEG EHD | 200 | 190 | 280 | 250x200 | 210x160 | 19 | 62 | 24 | 3500     |
|         | 250 | 190 | 330 | 250x200 | 210x160 | 19 | 62 | 24 | 3500     |
|         | 300 | 190 | 385 | 250x200 | 210x160 | 19 | 75 | 30 | 4300     |



- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
- 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) spring-hinged plates: plates electrowelded to the axle
- 5) Polyurethane springs
- 6) Grease nipple

**Electrowelded sprung-loaded bracket EES MHD - max load capacity 1000 daN (tension up to 400 daN)**

Bracket suitable for applications with loads up to 1000 daN, even under heavy-duty conditions (powered towing and high speeds). The polyurethane springs ensure a great vibration damping effect in presence of obstacles or uneven surfaces.

Fixing plate made of forged steel with integrated pin. Main fork with legs shaped by means of deep-drawing process and welded to the flange; spring-hinged plates electrowelded to the axle. The axial and taper bearings guarantee excellent manoeuvrability also at full load and increase the side-impact resistance of the bracket. The grease nipple, the anti-loosening locknut system, the dust-protective o-ring and the zinc-electroplating guarantee an extremely long duration and a simple maintenance of the bracket.

**Brake:** front adjustable brake which locks the wheel only.

**Directional lock available ( not suitable for models with brake)**

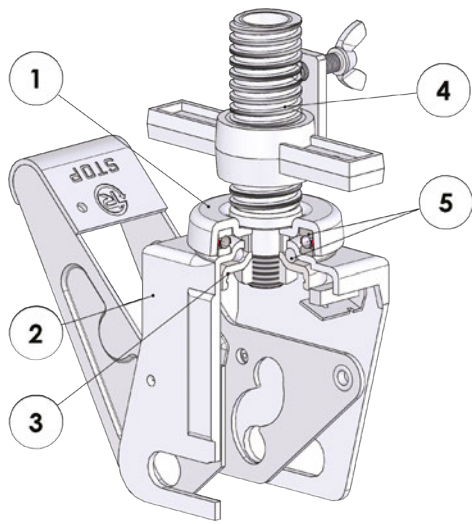
**Fittings with wheels**



**Fitting with top plate**

**EES MHD**

| mm  | mm | mm  | mm      | mm     | mm | mm  | mm | mm | mm | daN        | daN         | daN      |
|-----|----|-----|---------|--------|----|-----|----|----|----|------------|-------------|----------|
| 150 | 65 | 243 | 135x110 | 105x80 | 11 | 100 | 12 | 25 | 50 | <b>400</b> | <b>1000</b> | 4-6 km/h |
| 160 | 65 | 248 | 135x110 | 105x80 | 11 | 100 | 12 | 25 | 50 | <b>400</b> | <b>1000</b> |          |
| 200 | 65 | 268 | 135x110 | 105x80 | 11 | 100 | 12 | 25 | 50 | <b>400</b> | <b>1000</b> |          |
| 250 | 65 | 316 | 135x110 | 105x80 | 11 | 110 | 12 | 25 | 50 | <b>400</b> | <b>1000</b> |          |



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electroplated galvanised steel
- 4) King pin: stem with acme thread manufactured steel from tube, nut locked by mechanical deformation (different for top plate and solid stem models)
- 5) Swivel actions: for brackets diam. 125 and 150 mm: 125 and 150 mm: grease-lubricated double ball raceways; for brackets diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

**Scaffolding - max carrying capacity 750 daN according to UNI EN 1004:2005**

Bracket designed for the specific requirements of the scaffolding sector, regulated by Standard EN 1004:2005.

When the brake is actioned, its construction allows eliminating the offset of the wheel by aligning the bracket's swivel axis and the wheel's swivel axis on the same vertical, thus significantly increasing the set's resistance to static loads.

Also available with double pedal (one pedal to lock and one to release)



**Fitting with top plate**

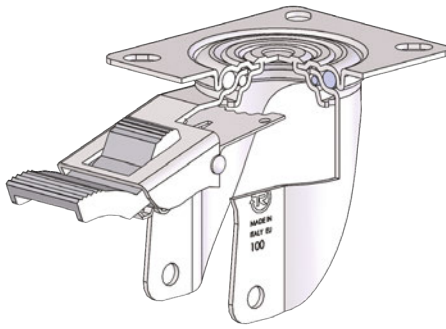
|             |     |     |         |        |    |    |     |     |
|-------------|-----|-----|---------|--------|----|----|-----|-----|
| <b>TRAB</b> |     |     |         |        |    |    |     |     |
|             | 150 | 192 | 140x110 | 105x80 | 19 | 40 | 300 | 700 |
|             | 200 | 243 | 140x110 | 105x80 | 19 | 40 | 400 | 750 |

**Fitting with threaded stem**

|             |     |     |    |       |     |    |     |     |
|-------------|-----|-----|----|-------|-----|----|-----|-----|
| <b>TRAB</b> |     |     |    |       |     |    |     |     |
|             | 150 | 192 | 83 | M38x6 | 500 | 40 | 300 | 700 |
|             | 200 | 243 | 81 | M38x6 | 500 | 40 | 400 | 750 |

**Fitting with solid stem**

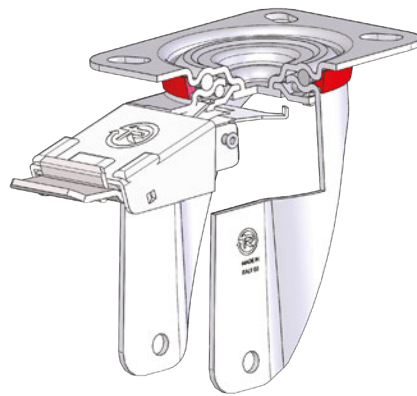
|             |     |     |    |    |    |    |     |     |
|-------------|-----|-----|----|----|----|----|-----|-----|
| <b>TRAB</b> |     |     |    |    |    |    |     |     |
|             | 125 | 150 | 89 | 38 | 57 | 30 | 250 | 500 |
|             | 150 | 192 | 83 | 38 | 57 | 40 | 300 | 700 |
|             | 200 | 243 | 81 | 38 | 57 | 40 | 400 | 750 |



**Front brake for SL bracket diameters 80-125 mm**

Total brake, it locks both wheel and bracket rotation.

The braking device is integral with the fork. The plastic brake pedal is used for locking and releasing the device. The extremely low position of the pedal makes it easier to use even when fitting to particularly bulky structures. The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.



**Front brake for NL - NLX - P brackets diameters 80-150 mm**

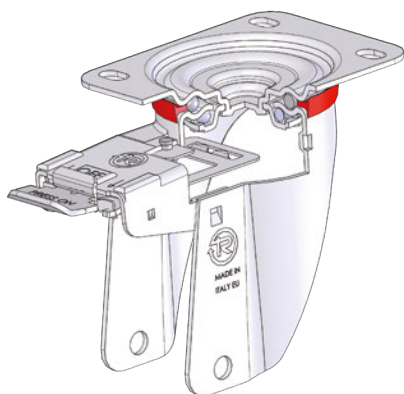
Total brake, it locks both wheel and bracket rotation

The front brake remains within the operator's reach while pushing the trolley. This brake has double lock/release pedal to improve accessibility. The fold-away braking release pedal reduces clearances.

The shape of the wheel's braking spring optimises wheel locking in both rotation directions.

The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.

For NLX brackets, this brake is available in a completely STAINLESS STEEL version.



### Front brake for NL - NLX brackets diameters 150-200 mm

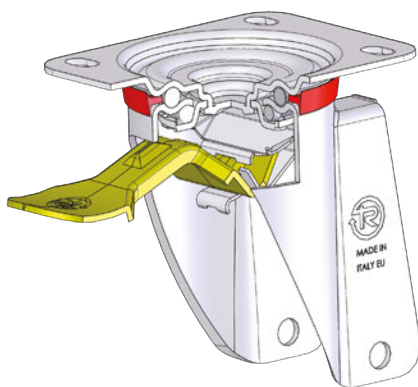
Total brake, it locks both wheel and bracket rotation.

The front brake remains within the operator's reach while pushing the trolley. This brake has a double lock/release pedal to improve its accessibility. The fold-away braking release pedal reduces clearances.

The shape of the wheel's braking spring optimises wheel locking in both rotation directions.

The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.

For brackets NLX, this brake is available in a completely STAINLESS STEEL version.



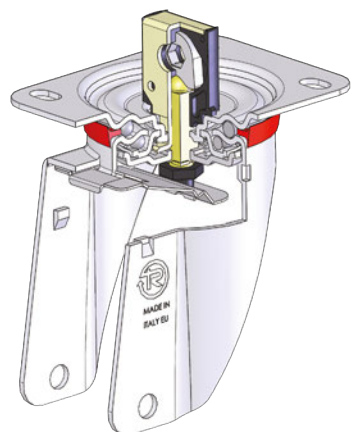
### Rear brake for NL brackets diameters 160-200 mm

Total brake, it locks both wheel and bracket rotation.

The rear type brake conceived for maximum simplicity of use, has a single lock and release pedal, specially ribbed to ensure optimal strength.

The position of the lock pedal is within the operator's reach when towing the trolley.

The hardened carbon steel springs coated with thin zinc sheets and the steel braking pedal coated with yellow electrolytic galvanising, are highly resistant to corrosion.

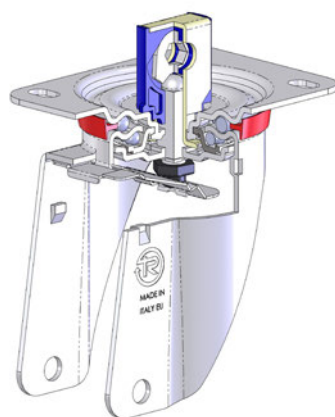


### Adjustable centralised brake for NL brackets diameters 150-200 mm

The cam system is designed so that the brake can be engaged on two brackets at the same time, using a connection rod and just one lock pedal.

The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance. This brake is equipped with an adjustment system to compensate for normal wheel wear during use.

Brake set-up for use with 11 mm hexagonal bar spanner.



### Adjustable central braking system for brackets NL diameters 150-200 mm

**Total brake with locking / unlocking position.**

The locking takes place by means of a 11 mm hexagonal bar which rotates until the brake is on.

The brake will be on until it is voluntarily released.

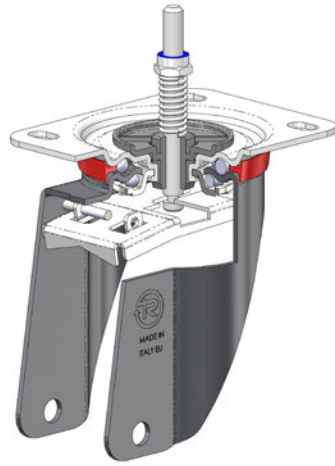
This braking system is usually fitted in pairs, allowing the activation of both brakes with a single operating shaft.

This a total breaking system blocking both the swivel head and the wheel rotation.

The hardened carbon steel spring, coated with thin zinc sheets, ensures very high corrosion resistance

This brake is equipped with an adjustment system to compensate for normal wheel wear during use





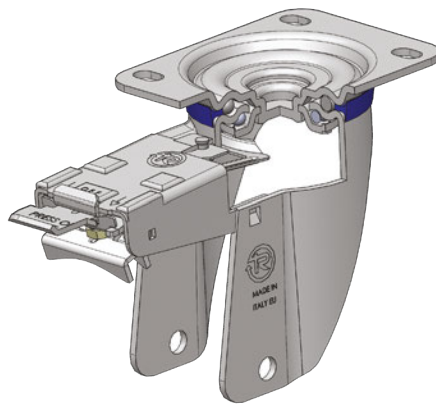
### Dead man brake for brackets NL diameters 150-200 mm

Dead man brake is normally on during non-operating conditions.

A vertical pressure on the M10 threaded stem, placed at the center of the top plate, releases the brake and unlocks the wheel and bracket, allowing the movement of the structure to which it is fitted.

Once the M10 threaded stem is released, the locking of the castor is restored.

The braking efficiency can be adjusted by increasing or decreasing the pressure applied on the wire spring assembled to the M10 stem.



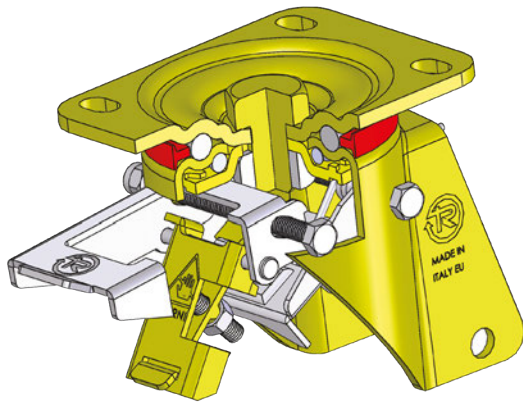
### Adjustable front brake for M brackets diam. 150-200 mm

Total brake, it locks both wheel and bracket rotation

The front brake remains within the operator's reach while pushing the trolley. This brake has double lock/release pedal to improve accessibility. The fold-away braking release pedal reduces clearances.

The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.

Locking force can be adjusted using an M8 socket screw and 13 mm spanner. This system has been designed to optimise braking based on the hardness of the wheel tread, its wear and the conditions of use. Make sure that the braking setting obtained (by means of adjustment) is suitable for the specific operating requirements.

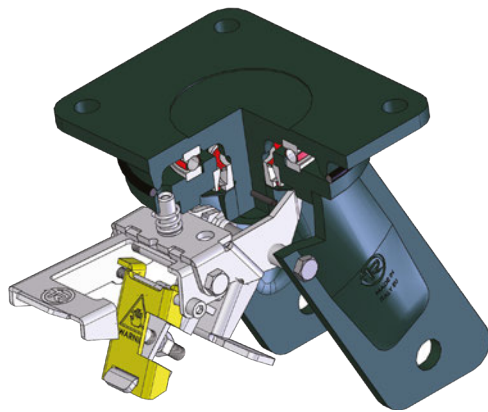


**Adjustable rear brake for P-PX-PT-EP brackets diameters 150-200 mm**

Total brake, it locks both wheel and bracket rotation.

The rear type brake remains within the operator's reach while towing the trolley. This brake is made to obtain optimal braking values, while maintaining maximum simplicity of use.

A top-to-bottom movement using the tip of the foot on two independent pedals is all that's needed to engage and release the brake quickly and smoothly. Locking force can be adjusted using an M8 socket screw, in order to optimise braking based on the hardness of the wheel tread, its wear and the conditions of use; before use, we suggest making sure that the brake setting obtained (by means of adjustment) is suitable for the specific operating requirements.

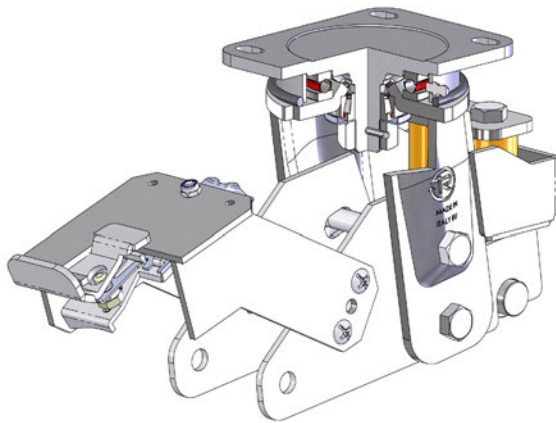


**Adjustable rear brake for EE MHD and EE HD brackets diam. 125-300**

Total brake, it locks both wheel and bracket rotation.

The rear type brake remains within the operator's reach while towing the trolley. This brake is made to obtain optimal braking values, while maintaining maximum simplicity of use and the necessary strength.

A top-to-bottom movement using the tip of the foot on two independent pedals is all that's needed to engage and release the brake quickly and smoothly. Locking force can be adjusted using an M8 socket screw, in order to optimise braking based on the hardness of the wheel tread, its wear and the conditions of use; before use, we suggest making sure that the braking setting obtained (by means of adjustment) is suitable for the specific operating requirements. The brake for electrowelded brackets is a parking brake suitable for flat floors.



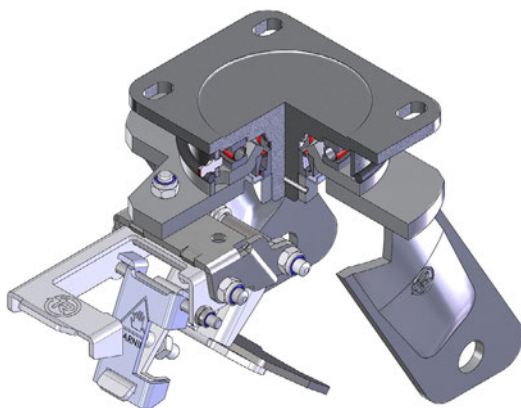
### Adjustable front brake for sprung-loaded brackets EES MHD - diam. 150-250 mm

Front locking system, it locks only the wheel.

Single lock /unlock pedal, with top-down activation for maximum reduction of encumbrance.

The hardened carbon steel spring, coated with thin zinc sheets, ensures very high corrosion resistance.

Locking force can be adjusted using an M8 hexagonal head screw and a 13 mm spanner; this system has been designed to optimize braking operations according to the hardness of the wheel tread, to the wheel wear level and to the environment of use. It is recommended to check that the braking setting obtained by means of adjustment is suitable for the specific operating requirements.



### Adjustable rear brake for EEG MHD twin brackets diameters 160-200 mm

The brakes operates on wheel rotation only

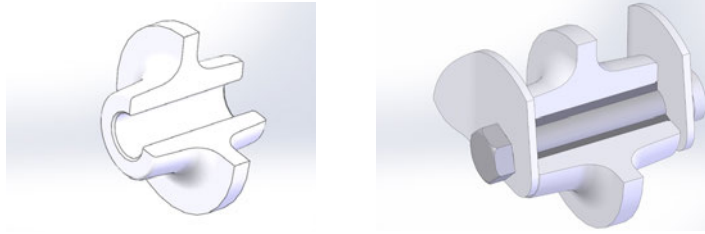
The rear type brake remains within the operator's reach while towing the trolley. This brake is made to obtain optimal braking values, while maintaining maximum simplicity of use and the necessary strength.

A top-to-bottom movement using the tip of the foot on two independent pedals is all that's needed to engage and release the brake quickly and smoothly.

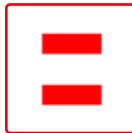
The shaped U-bolt allows to obtain optimal braking values.

Locking force can be adjusted using an M8 socket screw, in order to optimise braking based on the hardness of the wheel tread, its wear and the conditions of use; before use, we suggest making sure that the braking setting obtained (by means of adjustment) is suitable for the specific operating requirements.

The brake for electrowelded brackets is a parking brake suitable for flat floors.



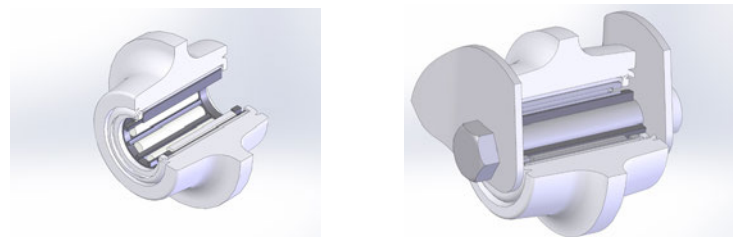
### Hub with plain bore



Suitable for applications involving non-continuous movements and limited loads.

**The relative sliding friction coefficient range is  $b= 0.003-0.005$ .**

The plain bearing can be joined directly to the wheel bore. The axle set is made with a calibrated and machined tube to create a homogeneous and precision bearing coupling surface. Acting like a spacer, the tube is inserted into the bearing and tightened to the bracket using a screw and nut up to the predefined torque setting. The bearing slides freely on the tube. Axle sets can be supplied in the galvanised steel or stainless steel version. The centre of model P64 C/B is specifically dimensioned to obtain the variations for spline and key housing in the precision hole, in order to make this a drive wheel.



### Hub with roller bearings

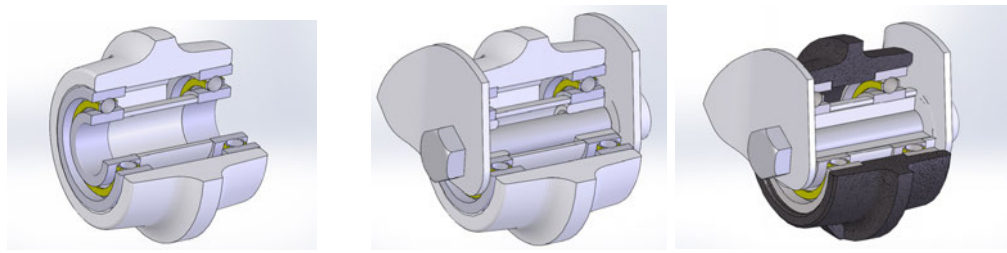


Suitable for applications involving non-continuous movements and heavier loads respect to wheels with hub with plain bore, as it guarantees low friction coefficients even in the presence of heavy loads.

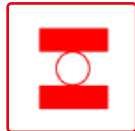
**The indicative sliding friction coefficient is  $b=0.0025$ .**

The bearing with steel cylindrical rollers or stainless steel rollers, with plastic cage is assembled in the seat specifically obtained on the hub. The axle set is made with a calibrated and machined tube to create a homogeneous and precision roller bearing coupling surface.

Acting like a spacer, the tube is inserted into the roller bearing and tightened to the bracket using a screw and nut up to the predefined torque setting. The roller bearing slides freely on the tube. Axle sets can be supplied in the galvanised steel or stainless steel version.



### Hub with ball bearings



This is the ideal solution for heavier loads and continuous movements.

The indicative sliding friction coefficient is  $b=0.0015$ .

The shielded ball bearings are placed inside the seats of the wheel hub. The tolerance of the seats ensures a proper coupling with the ball bearings. An internal spacer is also inserted between the ball bearings for a proper functioning of the ball bearings once the axle material has been fitted.

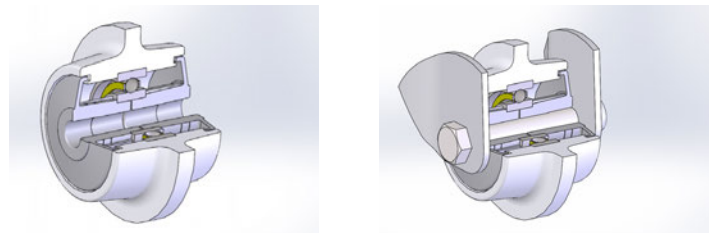
The axle material can comprise the following components:

**Solution a):** a machined axle bushing (to be inserted inside the ball bearings), two side spacers, a bolt and a nut. The axle material is tightened up by locking the nut on the bolt with a proper torque force.

**Solution b):** two top hats (t-bushes), a bolt and a self locking nut. Each top hat is inserted inside each ball bearing bore. The side collar of the top hat works as a side spacer. The axle material is then tightened up by locking the nut on the bolt with a proper torque force.

The axle components can be made of standard steel or stainless steel.

The loose wheels and rollers can be ordered with bearing facilities only (please note that the internal spacer is not supplied along with the wheel without ball bearings).



### Hub with single ball bearing



Solution for applications involving continuous movements and non-heavy loads.

The indicative sliding friction coefficient is  $b=0.0015$ .

The hub of the thermoplastic wheel is overprinted on a radial type ball bearing with double shield, making them permanently integral.

Two polyamide plain bores loaded with fibreglass with internal labyrinth protect the bearing against dirt, processing residues and aggressive agents.

Stainless steel ball bearing model is also available.

The wheel is directly fitted by means of partially threaded screw and self-locking nut.

The safety and easy handling of a trolley depends on choosing the most suitable wheel, therefore, it is recommended to consider the following factors:

## 1. NATURE AND CONDITION OF THE FLOOR

The type of floor and the presence of any obstacles will have an influence on the thrust/traction force required to move the trolley, on the transmission of vibrations and wear of the wheel:

- Extremely thick wheels with soft tread and large diameter are normally chosen for uneven floors or with obstacles;
- Wheels with a more sturdy tread are normally chosen for smooth floors and heavy loads.

For each series, the catalogue shows the floor for which a wheel is suitable:

|   |   |   |  |   |   |
|---|---|---|--|---|---|
|  |  |  |  |  |  |
| TILES   | ASPHALT   | RESIN-CEMENT  | NOT PAVED  | EXPANDED METAL  | WITH CHIPS  |
| ↓   | ↓   | ↓   | ↓  | ↓   | ↓   |
| PLASTIC MATERIALS, POLYURETHANE, RUBBER   | RUBBER OR ELASTIC POLYURETHANE  | PLASTIC MATERIALS, POLYURETHANE, RUBBER   | RUBBER OR ELASTIC POLYURETHANE   | RUBBER OR ELASTIC POLYURETHANE  | RUBBER OR ELASTIC POLYURETHANE  |

## 2. ENVIRONMENT OF USE

The wheel and bracket materials may or may not be suitable for use in aggressive environments: extreme temperatures, humidity, acids, solvents, bases and hydrocarbons.

The table on page 40 shows the compatibility with a detailed list of chemical substances. The table on page 42 shows the carrying capacity reduction upon temperature variation.

## 3. MAGNITUDE AND NATURE OF THE LOAD

The weight of the load, its nature (solid or liquid) and the tare of the trolley determine the minimum carrying capacity the wheel must have to guarantee safe handling.

### GLOSSARY

#### Static load



Maximum load (expressed in daN) that a motionless (stationary) wheel can support without generating any permanent deformation that may reduce operating efficiency.

#### Dynamic carrying capacity



Maximum load value (expressed in daN) that can be supported by a moving wheel. This value is determined in compliance with Standard ISO 22883-22884 for industrial use and ISO 22879-22880 for civil and domestic use. See page 42-43 for the test conditions.

With a 4-wheel trolley, calculate the minimum carrying capacity required using the following formula:

**Solid load:**

**MINIMUM CARRYING CAPACITY REQUIRED = (SOLID LOAD WEIGHT + TROLLEY TARE): 3**  
(3 out of 4 wheels are always in contact with the ground)

**Liquid load:**

**MINIMUM CARRYING CAPACITY REQUIRED = (LIQUID LOAD WEIGHT + TROLLEY TARE): 2**  
(2 out of 4 wheels are always in contact with the ground)

For each series, the catalogue shows the static, dynamic carrying capacity values and rolling resistance of each wheel.

**4. MEANS OF TRACTION AND SPEED**

For a static use (trolley handled only occasionally and stopped for most of the time), it is recommended to check:

**STATIC CARRYING CAPACITY OF THE WHEEL > MINIMUM CARRYING CAPACITY REQUIRED**

Whereas, if the trolley is intended for frequent use or for long distances, assess the type of handling: manual, with towed mechanical means or applied to a driving mechanism.

**Manual handling**

The trolley speed is generally less than 4 km/h; it is recommended to check:

**DYNAMIC CARRYING CAPACITY OF THE WHEEL > MINIMUM CARRYING CAPACITY REQUIRED**

**ROLLING RESISTANCE > (SOLID/LIQUID LOAD WEIGHT + TROLLEY TARE):4**

The smoother the wheel, the less effort is required.

For each wheel, Tellure Rôta catalogue shows the ROLLING RESISTANCE value: it is the maximum applicable load in correspondence of which the traction/thrust effort remains below 5 daN.

**Rolling resistance**



The rolling resistance is the value (expressed in daN) of the maximum load that can be supported by each single wheel at a constant speed of 4 km/h with application of a tractive force or thrust equal to 5 daN (excluding the initial pickup).

The 20 daN of traction/thrust force (corresponding to a 4-wheeled trolley) is the recommended limit for most of the adult working population. The tables in the introductory notes to each series highlight the traction force required for keeping a wheel, burdened by a certain weight, moving.

The values are detected on the TRLab laboratory test bench that detects the rolling resistance on a 1 metre long metal surface. They represent the average traction/thrust force value.

The force required for starting a wheel, defined starting point, significantly depends on the alignment position of the brackets and is always higher than indicated on the table.

The necessary force decreases if the wheel diameter increases: we recommend increasing the diameter down to traction/thrust values below 3 daN, for high movement frequency or movement along long sections.

For each series, the catalogue shows a table with the traction/thrust force at different load values, upon varying the diameter.

### Towed mechanical movement

The dynamic carrying capacity of the wheels refers to a speed not higher than 4 km/h (1.1 m/s); the carrying capacity decreases if speed exceeds this value. Use the correction factor of the carrying capacity shown in the table on page 39 and we recommend to check:

**WHEEL DYNAMIC CARRYING CAPACITY x CORRECTION FACTOR (%) > MINIMUM CARRYING CAPACITY REQUIRED**

### On-board mechanical movement

In this case the wheels are subjected to particular stress and strain, different case by case.

We recommend contacting Tellure Rôta Technical Service to choose the most suitable product for your application.

Based on the above information, the path provides:

- Choice of recommended wheels for the environmental conditions defined by the application (temperature, humidity, any aggressive chemicals and type of floor), based on the material compatibility tables and geometry of the product respect to its use.
- Choice of strap diameter and width to meet the carrying capacity, speed requirements and the product's easy movement.
- Choice of suitable bracket for the environment of use and for the requested speed and carrying capacity features.

Tellure Rôta provides its experience and know-how in the movement solutions sector so that choosing a wheel becomes the most satisfying process for the final user.

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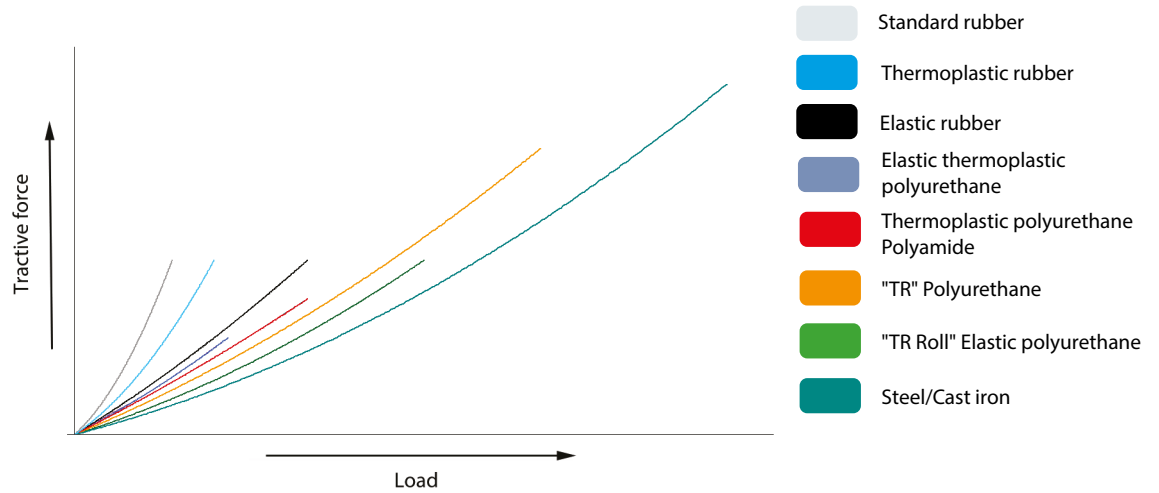
## FURTHER DETAILS AND INFORMATION

### AVAILABLE TABLES

|  |         |
|--|---------|
| • AGGRESSIVE CHEMICAL AGENTS COMPATIBILITY           | PAGE 40 |
| • CARRYING CAPACITY ADJUSTMENTS BASED ON TEMPERATURE | PAGE 42 |
| • CARRYING CAPACITY ADJUSTMENTS BASED ON SPEED       | PAGE 43 |
| • TABLE FOR CHOICE OF WHEEL                          | PAGE 44 |



### Comparison chart of the rolling resistance between the different materials



### Comparison table of the hardness between the different materials

|         | Elastic rubber | "TR Roll" Elastic polyurethane | Standard rubber | Thermoplastic rubber<br>Elastic thermoplastic polyurethane |    | "TR" Polyurethane | Thermoplastic polyurethane |    | Polyamide |    |
|---------|----------------|--------------------------------|-----------------|--|----|-------------------|----------------------------|----|-----------|----|
| Shore A | 70             | 75                             | 80              | 85   | 90 | 92                |                            |    |           |    |
| Shore D |                |                                |                 |  |    | 45                | 55                         | 65 | 70        | 75 |

#### For further information on choosing the right wheel:

- see Internet site [www.tellurerota.com](http://www.tellurerota.com)
- contact Tellure Rôta Sales Department:  
Tel. Export: 0039 059.410231-253 - Tel Italian Sales Dept.: 059.410300-306  
E-mail: [comm.estero@tellurerota.com](mailto:comm.estero@tellurerota.com) - [comm.italia@tellurerota.com](mailto:comm.italia@tellurerota.com)

## COMPATIBILITY WITH AGGRESSIVE CHEMICAL AGENTS

| Materials     |                              | Steel | Stainless steel | Aluminium alloys | Cast iron | Standard rubber |
|---------------|------------------------------|-------|-----------------|------------------|-----------|-----------------|
| %             |                              |       |                 |                  |           |                 |
| WEAK ACIDS    | Fatty acids                  | ●     | ●               | ●                | ●         | ●               |
|               | Acetic acid                  | ●     | ●               | ●                | ●         | ●               |
|               | Boric acid in solution 30    | ●     | ●               | ●                | ●         | ●               |
|               | Oleic acid                   | ●     | ●               | ●                | ●         | ●               |
|               | Oxalic acid in solution 10   | ●     | ●               | ●                | ●         | ●               |
| STRONG ACIDS  | Sulphuric acid               | ●     | ●               | ●                | ●         | ●               |
|               | Hydrochloric acid in sol. 30 | ●     | ●               | ●                | ●         | ●               |
|               | Chromic acid in solution 10  | ●     | ●               | ●                | ●         | ●               |
|               | Phosphoric acid in sol. 10   | ●     | ●               | ●                | ●         | ●               |
|               | Nitric acid in solution 10   | ●     | ●               | ●                | ●         | ●               |
|               | Sulphuric acid in sol. 10    | ●     | ●               | ●                | ●         | ●               |
| WEAK BASES    | Aluminium acetate            | ●     | ●               | ●                | ●         | ●               |
|               | Ammonium carbonate           | ●     | ●               | ●                | ●         | ●               |
|               | Ammonium sulphate            | ●     | ●               | ●                | ●         | ●               |
|               | Sodium cyanide in sol. 10    | ●     | ●               | ●                | ●         | ●               |
|               | Alkaline solutions at 80°C   | ●     | ●               | ●                | ●         | ●               |
| STRONG BASES  | Ammonium hydrate             | ●     | ●               | ●                | ●         | ●               |
|               | Sodium carbonate in sol. 10  | ●     | ●               | ●                | ●         | ●               |
|               | Sodium phosphate in sol. 10  | ●     | ●               | ●                | ●         | ●               |
|               | Sodium hydroxide in sol.     | ●     | ●               | ●                | ●         | ●               |
|               | Sodium silicate in sol. 10   | ●     | ●               | ●                | ●         | ●               |
| ALCOHOL       | Alkybenzols                  | ●     | ●               | ●                | ●         | ●               |
|               | Amyl alcohol                 | ●     | ●               | ●                | ●         | ●               |
|               | Ethyl alcohol                | ●     | ●               | ●                | ●         | ●               |
|               | Methyl alcohol               | ●     | ●               | ●                | ●         | ●               |
|               | Propyl alcohol               | ●     | ●               | ●                | ●         | ●               |
| HYDRO CARBONS | Acetone                      | ●     | ●               | ●                | ●         | ●               |
|               | Turpentine                   | ●     | ●               | ●                | ●         | ●               |
|               | Amyl acetate                 | ●     | ●               | ●                | ●         | ●               |
| OTHERS        | Petrol                       | ●     | ●               | ●                | ●         | ●               |
|               | Diesel oil                   | ●     | ●               | ●                | ●         | ●               |
|               | Mineral oils                 | ●     | ●               | ●                | ●         | ●               |
| OTHERS        | Sea Water                    | ●     | ●               | ●                | ●         | ●               |
|               | Water at 80°C                | ●     | ●               | ●                | ●         | ●               |
|               | Cold water                   | ●     | ●               | ●                | ●         | ●               |
|               | Sodium Chloride in sol.      | ●     | ●               | ●                | ●         | ●               |
|               | Saturated steam 10           | ●     | ●               | ●                | ●         | ●               |

● recommended      ● partially resistant      ● not suitable



## CARRYING CAPACITY ADJUSTMENT CHART BASED ON TEMPERATURE FOR USE WITH MANUAL HANDLING

|  |              | Carrying capacity % |                 |        |         |                 |                 |           |        |
|--|--------------|---------------------|-----------------|--------|---------|-----------------|-----------------|-----------|--------|
| Temperature  |              | -40/-20°C           | -20/0°C         | 0/20°C | 20/40°C | 40/ 60°C        | 60/ 80°C        | 80/ 130°C | >130°C |
| <b>INDUSTRIAL - LIGHT DUTY LOADS</b>                       | <b>22</b>    | -                   | 80              | 100    | 100     | 85              | 50              | -         | -      |
|  | <b>23</b>    | 40                  | 100             | 100    | 100     | 85              | 60              | -         | -      |
|  | <b>52</b>    | -                   | 80              | 100    | 100     | 85              | 50              | -         | -      |
|  | <b>53</b>    | 40                  | 100             | 100    | 100     | 85              | 60              | -         | -      |
|  | <b>71</b>    | -                   | 80              | 100    | 100     | 85              | 50              | -         | -      |
|  | <b>82</b>    | -                   | 100             | 100    | 100     | 100             | -               | -         | -      |
|  | <b>82AF</b>  | -                   | 100             | 100    | 100     | 100             | -               | -         | -      |
| <b>INDUSTRIAL - MEDIUM DUTY LOADS</b>                      | <b>60</b>    | -                   | 100             | 100    | 100     | 90              | 70              | 40        | -      |
|  | <b>61</b>    | -                   | 100             | 100    | 100     | 85              | 60              | -         | -      |
|  | <b>68</b>    | 50                  | 100             | 100    | 100     | 90              | 70              | 60        | -      |
|  | <b>73</b>    | 40                  | 100             | 100    | 100     | 85              | 60              | 50        | -      |
|  | <b>73AE</b>  | -                   | 100             | 100    | 100     | 85              | 60              | -         | -      |
| <b>INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING</b> | <b>62BS</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>62AL</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>62ER</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>62GH</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>62NY</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>63AC</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>63GH</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>64</b>    | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>65AL</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>65GH</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>65HT</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>65ER</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>66</b>    | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>68P</b>   | 50                  | 100             | 100    | 100     | 90              | 70              | 60        | -      |
|  | <b>69</b>    | 100                 | 100             | 100    | 100     | 100             | 100             | 100*      | 100*   |
| <b>72AL</b>  | 40           | 100                 | 100             | 100    | 85      | 60              | 40              | -         |        |
| <b>72GH</b>  | 40           | 100                 | 100             | 100    | 85      | 60              | 40              | -         |        |
| <b>HIGH TEMPERATURE</b>                                    | <b>67</b>    | 50                  | 100             | 100    | 100     | 100             | 100             | 100       | 100    |
|  | <b>68FV</b>  | 70                  | 100             | 100    | 100     | 100             | 100             | 100       | -      |
|  | <b>72GS</b>  | 50                  | 50              | 100    | 100     | 100             | 100             | 100       | 50     |
| <b>PALLET TRUCK ROLLERS</b>                                | <b>74</b>    | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>75</b>    | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>75HS</b>  | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>76</b>    | 50                  | 100             | 100    | 100     | 90              | 70              | 60        | -      |
|  | <b>77</b>    | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
|  | <b>78</b>    | -                   | 100             | 100    | 100     | 90              | 70              | 40        | -      |
|  | <b>79</b>    | -                   | 100             | 100    | 100     | 90              | 80              | -         | -      |
| <b>ANTISTATIC AND STATICALLY CONDUCTIVE SOLUTIONS</b>      | <b>53AS</b>  | 40                  | 100             | 100    | 100     | 85              | 60              | -         | -      |
|  | <b>62ESD</b> | -                   | contact with TR | 100    | 100     | contact with TR | contact with TR | -         | -      |
|  | <b>65ESD</b> | -                   | contact with TR | 100    | 100     | contact with TR | contact with TR | -         | -      |

- = not suitable

\* = not suitable in ball bearing hub model

## CARRYING CAPACITY ADJUSTMENT CHART BASED ON SPEED

| Speed  |              | Carrying capacity % |        |         |         |         |                 |
|--|--------------|---------------------|--------|---------|---------|---------|-----------------|
|  |              | < 4 km/h            | 6 km/h | 10 km/h | 12 km/h | 16 km/h | > 16 km/h       |
| <b>INDUSTRIAL -<br/>MEDIUM DUTY LOADS</b>                                  | <b>60</b>    | 100                 | 60     | -       | -       | -       | -               |
|  | <b>61</b>    | 100                 | 60     | -       | -       | -       | -               |
| <b>INDUSTRIAL<br/>HEAVY DUTY LOADS<br/>AND<br/>MECHANICAL<br/>HANDLING</b> | <b>62AL</b>  | 100                 | 100    | 80      | 70      | 60      | -               |
|  | <b>62ER</b>  | 100                 | 100    | 80      | 70      | 60      | -               |
|  | <b>62GH</b>  | 100                 | 100    | 80      | 70      | 60      | -               |
|  | <b>62NY</b>  | 100                 | 80     | -       | -       | -       | -               |
|  | <b>63AC</b>  | 100                 | 80     | 65      | 60      | 50      | contact with TR |
|  | <b>63GH</b>  | 100                 | 80     | 65      | 60      | 50      | contact with TR |
|  | <b>64</b>    | 100                 | 80     | 60      | 50      | 40      | -               |
|  | <b>65AL</b>  | 100                 | 80     | -       | -       | -       | -               |
|  | <b>65GH</b>  | 100                 | 80     | 60      | 50      | 40      | -               |
|  | <b>65HT</b>  | 100                 | 80     | 60      | 50      | -       | -               |
|  | <b>65ER</b>  | 100                 | 80     | 60      | 50      | -       | -               |
|  | <b>66</b>    | 100                 | 80     | -       | -       | -       | -               |
|  | <b>72AL</b>  | 100                 | 80     | -       | -       | -       | -               |
| <b>72GH</b>  | 100          | 80                  | -      | -       | -       | -       |                 |
| <b>PALLET TRUCK<br/>ROLLERS</b>  | <b>74</b>    | 100                 | 80     | 65      | 60      | 50      | contact with TR |
|  | <b>75</b>    | 100                 | 70     | 50      | 40      | 30      | -               |
|  | <b>75HS</b>  | 100                 | 80     | 60      | 50      | 40      | -               |
|  | <b>77</b>    | 100                 | 80     | -       | -       | -       | -               |
|  | <b>79</b>    | 100                 | 80     | 65      | 60      | -       | -               |
| <b>ANTISTATIC<br/>AND STATICALLY<br/>CONDUCTIVE<br/>SOLUTIONS</b>          | <b>62ESD</b> | 100                 | 100    | 80      | 70      | 60      | -               |
|  | <b>65ESD</b> | 100                 | 80     | -       | -       | -       | -               |

This table only shows references to the types of wheels that Tellure Rôta recommends for use at speeds above 4 km/h.

For the products not found in this table, use with mechanical handling and at speeds above 4 km/h is not recommended.

For use at speeds above 4 km/h, we recommend using wheels with ball bearing hub, combined with Medium-heavy duty brackets P-PX, heavy-duty brackets with hardened ball race PT, extra-heavy duty EP, electrowelded EE MHD, EE HD, EE EHD, twin electrowelded EEG MHD, EEG HD, EEG EHD, sprung loaded electrowelded EES MHD.

The light-duty SL, NL, NLX and medium-duty M brackets are not recommended for use at high speeds.

## SUMMARY TABLE FOR CHOOSING THE RIGHT WHEEL

|  |       | Load capacity daN |           |       | Rolling resistance daN |       | Means of traction |            |
|--|-------|-------------------|-----------|-------|------------------------|-------|-------------------|------------|
|  |       | < 250             | 250 / 500 | > 500 | < 125                  | > 125 | Manual            | Mechanical |
| <b>INDUSTRIAL - LIGHT DUTY LOADS</b>                       | 22    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 23    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 52    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 53    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 71    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 82    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 82AF  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
| <b>INDUSTRIAL - MEDIUM DUTY LOADS</b>                      | 60    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 61    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 68    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 73    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 73AE  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
| <b>INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING</b> | 62BS  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 62AL  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 62ER  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 62GH  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 62NY  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 63AC  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 63GH  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 64    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 65AL  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 65GH  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 65HT  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 65ER  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 66    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 68P   | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 69    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 72AL  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
| 72GH   | ●     | ●                 | ●         | ●     | ●                      | ●     | ●                 |            |
| <b>HIGH TEMPERATURE</b>                                    | 67    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 68FV  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 72GS  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
| <b>PALLET TRUCK ROLLERS</b>                                | 74    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 75    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 75HS  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 76    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 77    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 78    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 79    | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
| <b>ANTISTATIC AND STATICALLY CONDUCTIVE SOLUTIONS</b>      | 53AS  | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 62ESD | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |
|  | 65ESD | ●                 | ●         | ●     | ●                      | ●     | ●                 | ●          |

● recommended

● partially resistant

● not suitable



Tellure Rôta products are produced in conformity with the international standards for wheels and brackets sector.

The following table summarises the main international standards, with references to Tellure Rôta series designed and tested in accordance with the specifications of each standard.

| Standard                            | Title  | TR Series to which it applies   |
|-------------------------------------|--|---|
| ISO 22877:2004<br>UNI EN 12526:2002 | Vocabulary, recommended symbols and multilingual dictionary                              | All series  |
| ISO 22878:2004<br>UNI EN 12527:2001 | Wheels and brackets, test methods and equipment  | All series  |
| ISO 22879:2004<br>UNI EN 12528:2001 | Wheels and brackets, wheels for furniture  | 33, 34, 35, 39  |
| ISO 22880:2004<br>UNI EN 12529:2001 | Wheels and brackets, wheels for furniture, wheels for swivel chairs                      | 34  |
| ISO 22881:2004<br>UNI EN 12530:2001 | Wheels and brackets, wheels and brackets for manually propelled institutional equipment  | 32, 36, 37, 38  |
| ISO 22883:2004<br>UNI EN 12532:2001 | Wheels and brackets, wheels and brackets for applications up to 1.1 m/s                  | 22, 23, 52, 53, 60, 61, 62, 63, 64, 65, 66, 67, 68, 68P, 68FV, 69, 71, 72, 72GS, 73, 73AE, 74, 75, 76, 77, 78, 79, 82   |
| ISO 22884:2004<br>UNI EN 12533:2001 | Wheels and brackets, wheels and brackets for applications over 1.1 m/s and up to 4.4 m/s | 62AL, 62ER, 62GH, 62ESD, 62NY, 63GH, 63AL, 64, 65AL, 65GH, 65HT, 65ER, 65ESD, 66, 68P, 72AL, 72GH, 74, 75, 75HS, 77, 79 |

Tellure Rôta also guarantees that:



- the catalogue products are all conform with the European Directives 2011/65/CE (RoHS II) and 2015/863/CE (RoHS III) specifications; Tellure Rôta commits to maintaining product conformity, even after the upgrading of Directive.



- the products respect specifications stated under regulation 1907/06/EC (REACH) and, together with its suppliers, commits to working in respect of subsequent upgrades.



- a wide range of products is compatible for each category regulated by the Decision of AfPS (Assembly for Product Security), with regard to the PAH (Polycyclic aromatic hydrocarbons) content limits in GS certified products.

## THE TRLAB TESTS





The quality of the Tellure Rôta products is guaranteed by in-house testing procedures that include acceptance tests on raw materials and of all other purchased components, tests on semi-finished products in various stages of the process and tests on the finished product.

The “Test & Research” laboratory is equipped with testing machines and benches for in-house testing as provided by the international standards in the wheels and brackets sector and of specific application sectors.

Specifically:

- Dynamic load test on wheels and brackets for the industrial sector in accordance with Standard ISO 22883:2004 or ISO 22884:2004
- Dynamic load test on wheels and brackets for the waste collection container sector in accordance with UNI EN 840-5:2013
- Dynamic load test on wheels and brackets for the institutional sector in accordance with ISO 22881:2004
- Conformity tests on wheels and brackets for the mobile scaffolding sector in accordance with Standard UNI EN 1004-1:2021;
- Rolling resistance tests on wheels and brackets for the industrial sector in accordance with UNI 11330:2009;
- Braking efficiency and engagement tests of the braking device in accordance with ISO 22883:2004 or ISO 22884:2004;
- Static load tests on wheels for the institutional sector in accordance with ISO 22881:2004

The following layout describes the tests made in accordance with the sector standards, in order to determine the industrial wheels' carrying capacity stated in the catalogue.

|                       | Industrial wheels<br>manual handling   | Industrial wheels<br>mechanical handling   |
|-----------------------|--|--|
| Standard              | ISO 22883  | ISO 22884  |
| Test load             | Rated carrying capacity  |  |
| Test speed            | 4 km/h   | A= 6 km/h; B= 10 km/h; C= 16 km/h  |
| Env. temperature      | Between 15 and 28 °C   |  |
| Floor                 | Hard floor with obstacles  |  |
| Height of obstacles   | 5% of the wheel diameter for soft rolling strip (hardness $\leq$ 90 ShA); 2.5% of the wheel diameter for hard rolling strip (hardness $>$ 90 ShA)                                      |  |
| Layout of obstacles   | width 100 mm, rounded corners with radius between 1.5 and 5 mm and arranged 45 degrees with respect to the translation axis and in an alternating pattern to the right and to the left |  |
| Quantity of obstacles | 500 obstacles separated from each other between 1 and 3 m  | 5 times the wheel diameter in mm (e.g. one wheel diam. 200 mm must pass 1,000 obstacles); the obstacles are spaced out: $\geq$ 1 m; B $\geq$ 1.5 m; $\geq$ 3 m                     |
| Duration              | Sequence of cycles with a maximum duration of 3 min., with a maximum pause time of 1 min.. The wheel must pass the foreseen obstacles, and complete 15,000 revs without obstacles.     | Sequence of cycles with a maximum duration of 3 min., with a maximum pause time of 1 min.. The wheel must pass the foreseen obstacles, and complete 15,000 revs without obstacles. |

For any further details or explanations contact Tellure Rôta Sales Department.

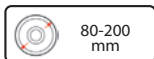
**INDUSTRIAL  
LIGHT DUTY LOADS**



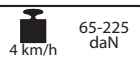


SERIES **22**

GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE



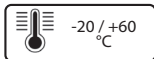
80-200 mm



4 km/h 65-225 daN



50-140 daN



-20/+60 °C

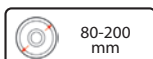
**INOX**

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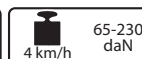


SERIES **23**

GREY RUBBER WHEELS PRESSED STEEL DISCS



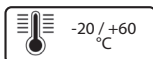
80-200 mm



4 km/h 65-230 daN



50-140 daN



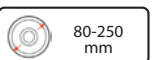
-20/+60 °C

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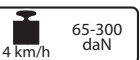


SERIES **52**

BLACK RUBBER WHEELS WITH POLYPROPYLENE CENTRE



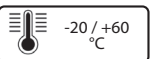
80-250 mm



4 km/h 65-300 daN



50-175 daN



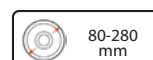
-20/+60 °C

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SERIES **53**

BLACK RUBBER WHEELS PRESSED STEEL DISCS



80-280 mm



4 km/h 65-390 daN



50-200 daN



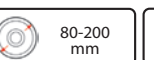
-20/+60 °C

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SERIES **71**

THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE



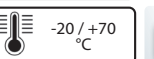
80-200 mm



4 km/h 70-225 daN



70-225 daN



-20/+70 °C

**INOX**

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SERIES **82**

PNEUMATIC WHEELS WITH POLYPROPYLENE CENTRE



260 mm



4 km/h 150 daN



-20/+60 °C

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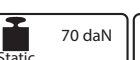


SERIES **82<sup>AF</sup>**

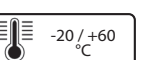
PUNCTURE-PROOF PNEUMATIC WHEELS WITH POLYPROPYLENE CENTRE



260 mm



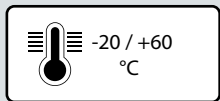
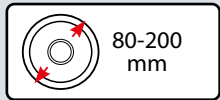
Static 70 daN



-20/+60 °C

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## GREY NON-MARKING RUBBER WHEELS WITH POLYPROPYLENE CENTRE



### Description

Tyre: grey non-marking standard rubber, hardness 80 Shore A

Centre: polypropylene.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing with plastic cage.

### Uses

Suitable for trolleys with light-duty loads, also in the presence of obstacles and for indoor-outdoor use.

The grey non-marking rubber tyre makes them suitable for use on fragile floors as well as in domestic/institutional environments.

Examples of recommended applications: luggage trolleys, tool trolleys, small mobile scaffoldings, waste bin containers.

### Environments of use

Suitable for industrial and institutional environments, also in the presence of humidity and weak acids. Not suitable in presence of strong acids, bases and solvents.

Fitted with stainless steel brackets, they are also suitable in presence of medium-harsh chemical agents.

|              |  |  |  |              |  |  |
|--------------|--|--|--|--------------|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40

### Floors



Suitable for all types of floors, even outdoors.

They facilitate overcoming of obstacles.

They do not damage or mark floors.



### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 225 kg |
|---|-------|--------|--------|--------|--------|
| 80 mm   | 5     | ----   | ----   | ----   | ----   |
| 100 mm  | 2.5   | ----   | ----   | ----   | ----   |
| 125 mm  | 2.2   | 6      | ----   | ----   | ----   |
| 140 mm  | 2     | 5.5    | ----   | ----   | ----   |
| 150 mm  | 2     | 5      | ----   | ----   | ----   |
| 160 mm  | 1.5   | 3.5    | 7.5    | ----   | ----   |
| 180 mm  | 1     | 3.2    | 6      | ----   | ----   |
| 200 mm  | 1     | 3      | 5.5    | 8.5    | 10     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 225 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.



#### Stainless steel standard-duty brackets NLX










Maximum carrying capacity 225 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.

### Options available to order:










The series 22 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

## GREY NON-MARKING RUBBER WHEELS WITH POLYPROPYLENE CENTRE

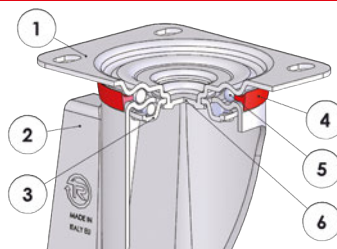


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.11  | 222101  | 12  | 39  | 150   | 50  | 65  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.21  | 222102  | 12  | 44  | 200   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.41  | 221103  | 15  | 44  | 225   | 85  | 110   |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.60  | 221104  | 15  | 44  | 250   | 95  | 120   |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.67  | 221111  | 15  | 44  | 275   | 100   | 130   |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 0.73  | 221110  | 20  | 59  | 300   | 120   | 150   |  |  |  |  |  |  |  |  |  |  |
| 180   | 45  | 1.02  | 221105  | 20  | 59  | 350   | 130   | 180   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.51  | 221106  | 20  | 59  | 400   | 140   | 225   |  |  |  |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.14  | 224101  | 12  | 39  | 150   | 50  | 65  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.24  | 224102  | 12  | 44  | 200   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.44  | 223103  | 15  | 44  | 225   | 85  | 110   |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.63  | 223104  | 15  | 44  | 250   | 95  | 120   |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.70  | 223111  | 15  | 44  | 275   | 100   | 130   |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 0.75  | 223110  | 20  | 59  | 300   | 120   | 150   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.84  | 223106  | 20  | 59  | 400   | 140   | 225   |  |  |  |  |  |  |  |  |  |  |

Standard-duty brackets NL - max carrying capacity 225 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm   | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|------|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80  | 25   | 0,64 | 224401 | 0,36 | 225701 | 0,82 | 225201 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 65  |
| 100 | 30   | 0,73 | 224402 | 0,48 | 225702 | 0,88 | 225202 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 80  |
| 125 | 37.5 | 1,06 | 224403 | 0,71 | 225703 | 1,20 | 225203 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 110 |
| 140 | 37.5 | 1,18 | 224404 | 0,80 | 225704 | 1,32 | 225204 | 177 | 100x85  | 80x60  | 9  | 34 | 120 | 120 |
| 150 | 40   | 1,31 | 224411 | 0,93 | 225711 | 1,45 | 225211 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | 130 |
| 160 | 40   | 2,10 | 224410 | 1,73 | 225710 | 2,38 | 225210 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 150 |
| 180 | 45   | 2,40 | 224405 | 2,11 | 225705 | 2,69 | 225205 | 219 | 140x110 | 105x80 | 11 | 56 | 156 | 180 |
| 200 | 50   | 2,72 | 224406 | 2,50 | 225706 | 3,00 | 225206 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 225 |
| 80  | 25   | 0,69 | 224601 | 0,39 | 225901 | 0,86 | 225221 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 65  |
| 100 | 30   | 0,78 | 224602 | 0,51 | 225902 | 0,93 | 225222 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 80  |
| 125 | 37.5 | 1,09 | 224603 | 0,73 | 225903 | 1,24 | 225223 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 110 |
| 140 | 37.5 | 1,20 | 224604 | 0,82 | 225904 | 1,35 | 225224 | 177 | 100x85  | 80x60  | 9  | 34 | 120 | 120 |
| 150 | 40   | 1,31 | 224611 | 0,93 | 225911 | 1,45 | 225231 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | 130 |
| 160 | 40   | 2,18 | 224610 | 1,75 | 225910 | 2,47 | 225230 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 150 |
| 200 | 50   | 2,76 | 224606 | 2,67 | 225906 | 3,04 | 225226 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 225 |

Options available to order



Bracket with rear brake d. 150-200 mm



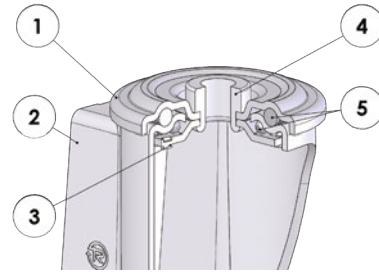
Bracket with directional lock d. 80-125 mm



Directional lock for brackets d. 150-200 mm

## GREY NON-MARKING RUBBER WHEELS WITH POLYPROPYLENE CENTRE

Standard-duty brackets NL - max carrying capacity 225 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm   | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |
|-----|------|------|--------|------|--------|-----|-----|----|----|-----|------------|--|--|--|--|
| 80  | 25   | 0.55 | 227701 | 0.68 | 225601 | 107 | 73  | 12 | 37 | 120 | <b>65</b>  |  |  |  |  |
| 100 | 30   | 0.68 | 227702 | 0.75 | 225602 | 128 | 73  | 12 | 35 | 120 | <b>80</b>  |  |  |  |  |
| 125 | 37.5 | 0.96 | 227703 | 1.10 | 225603 | 156 | 73  | 12 | 37 | 120 | <b>110</b> |  |  |  |  |
| 140 | 37.5 | 1.12 | 227704 | 1.26 | 225604 | 177 | 73  | 12 | 34 | 120 | <b>120</b> |  |  |  |  |
| 150 | 40   | 1.25 | 227711 | 1.39 | 225611 | 182 | 73  | 12 | 34 | 120 | <b>130</b> |  |  |  |  |
| 160 | 40   | 1.44 | 227710 | 1.73 | 225610 | 193 | 102 | 20 | 56 | 156 | <b>150</b> |  |  |  |  |
| 180 | 45   | 2.28 | 227705 | 2.57 | 225605 | 214 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |
| 200 | 50   | 2.62 | 227706 | 2.91 | 225606 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |  |  |  |  |
| 80  | 25   | 0.58 | 227901 | 0.70 | 225621 | 107 | 73  | 12 | 37 | 120 | <b>65</b>  |  |  |  |  |
| 100 | 30   | 0.71 | 227902 | 0.78 | 225622 | 128 | 73  | 12 | 35 | 120 | <b>80</b>  |  |  |  |  |
| 125 | 37.5 | 1.08 | 227903 | 1.23 | 225623 | 156 | 73  | 12 | 37 | 120 | <b>110</b> |  |  |  |  |
| 140 | 37.5 | 1.19 | 227904 | 1.34 | 225624 | 177 | 73  | 12 | 34 | 120 | <b>120</b> |  |  |  |  |
| 150 | 40   | 1.35 | 227911 | 1.50 | 225631 | 182 | 73  | 12 | 34 | 120 | <b>130</b> |  |  |  |  |
| 160 | 40   | 1.47 | 227910 | 1.75 | 225630 | 193 | 102 | 20 | 56 | 156 | <b>150</b> |  |  |  |  |
| 200 | 50   | 2.80 | 227906 | 3.08 | 225626 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |  |  |  |  |

### Options available to order



Fitting with stem in Zamak alloy d. 80-125 mm

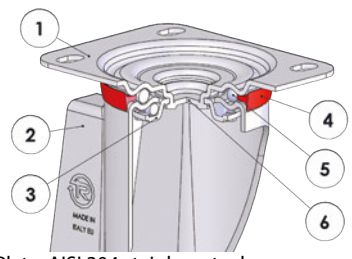


Fitting with threaded stem d. 80-200 mm



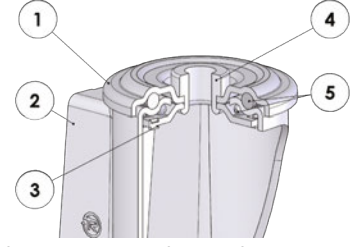
**Stainless steel standard-duty brackets NLX - max carrying capacity 225 daN**

**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm   | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|------|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 80  | 25   | 0.59 | 224801 | 0.33 | 226101 | 0.76 | 225401 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>65</b>  |
| 100 | 30   | 0.70 | 224802 | 0.45 | 226102 | 0.88 | 225402 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>80</b>  |
| 125 | 37.5 | 0.96 | 224803 | 0.80 | 226103 | 1.10 | 225403 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>110</b> |
| 140 | 37.5 | 1.10 | 224804 | 0.88 | 226104 | 1.25 | 225404 | 177 | 100x85  | 80x60  | 9  | 34 | 120 | <b>120</b> |
| 150 | 40   | 1.24 | 224811 | 1.02 | 226111 | 1.38 | 225411 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | <b>130</b> |
| 160 | 40   | 2.04 | 224810 | 1.60 | 226110 | 2.31 | 225410 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | <b>150</b> |
| 180 | 45   | 2.34 | 224805 | 1.90 | 226105 | 2.63 | 225405 | 219 | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |
| 200 | 50   | 2.69 | 224806 | 2.24 | 226106 | 2.98 | 225406 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |








- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

**INOX**

| mm  | mm   | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm  | daN        |
|-----|------|------|--------|------|--------|-----|-----|----|----|-----|------------|
| 80  | 25   | 0.53 | 227801 | 0.70 | 225501 | 107 | 73  | 12 | 37 | 120 | <b>65</b>  |
| 100 | 30   | 0.66 | 227802 | 0.86 | 225502 | 128 | 73  | 12 | 35 | 120 | <b>80</b>  |
| 125 | 37.5 | 0.94 | 227803 | 1.09 | 225503 | 156 | 73  | 12 | 37 | 120 | <b>110</b> |
| 140 | 37.5 | 1.10 | 227804 | 1.18 | 225504 | 177 | 73  | 12 | 34 | 120 | <b>120</b> |
| 150 | 40   | 1.17 | 227811 | 1.31 | 225511 | 182 | 73  | 12 | 34 | 120 | <b>130</b> |
| 160 | 40   | 1.83 | 227810 | 2.14 | 225510 | 193 | 102 | 20 | 56 | 156 | <b>150</b> |
| 180 | 45   | 2.15 | 227805 | 2.44 | 225505 | 214 | 102 | 20 | 56 | 156 | <b>180</b> |
| 200 | 50   | 2.61 | 227806 | 2.89 | 225506 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |

## GREY NON-MARKING RUBBER WHEELS WITH PRESSED STEEL DISCS

-  80-200 mm
-  80 Shore A
-  65-230 daN  
4 km/h
-  50-140 daN
-  -20 / +60 °C



### Description

Tyre: grey non-marking standard rubber, hardness 80 Shore A

Centre: electrolytically galvanised steel plate, made of two riveted discs.

Hub with polyamide self-lubricating plain bore.

Cylindrical roller bearing hub with plastic cage.

### Uses


Suitable for trolleys with light-duty loads, also in presence of obstacles and for indoor-outdoor use.

The grey non-marking rubber tyre makes them suitable for use on fragile floors as well as in domestic/institutional environments.

Examples of recommended applications: luggage trolleys, tool trolleys, small mobile scaffoldings, waste bin containers.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and oils. Not suitable in presence of aggressive chemical agents.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors



Suitable for all types of floors, even outdoors.

They facilitate the overcoming of obstacles.

They do not damage or mark floors.



### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 230 kg |
|---|-------|--------|--------|--------|--------|
| 80 mm   | 5     | ----   | ----   | ----   | ----   |
| 100 mm  | 3     | ----   | ----   | ----   | ----   |
| 125 mm  | 2.5   | 6      | ----   | ----   | ----   |
| 140 mm  | 2.2   | 5.5    | 9      | ----   | ----   |
| 150 mm  | 2     | 5      | 8.5    | ----   | ----   |
| 160 mm  | 1.5   | 3.5    | 7.5    | ----   | ----   |
| 200 mm  | 1     | 3      | 5.5    | 8.5    | 11     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 230 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.

### Options available to order:

The series 23 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.












Wheels with SL brackets d. 80-125 mm










SERIES **23**

**GREY NON-MARKING RUBBER WHEELS  
WITH PRESSED STEEL DISCS**

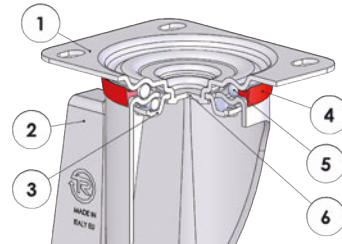


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.17  | 231121  | 12  | 39  | <b>260</b>  | <b>50</b>   | <b>65</b>   |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.28  | 231122  | 12  | 44  | <b>300</b>  | <b>75</b>   | <b>80</b>   |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.51  | 231103  | 15  | 44  | <b>330</b>  | <b>85</b>   | <b>130</b>  |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.64  | 231104  | 15  | 44  | <b>340</b>  | <b>95</b>   | <b>150</b>  |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.73  | 231111  | 15  | 44  | <b>350</b>  | <b>100</b>  | <b>170</b>  |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 1.00  | 231110  | 20  | 58  | <b>370</b>  | <b>120</b>  | <b>180</b>  |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.75  | 231106  | 20  | 58  | <b>410</b>  | <b>140</b>  | <b>230</b>  |  |  |  |  |  |  |  |  |  |  |

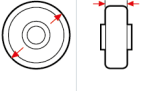

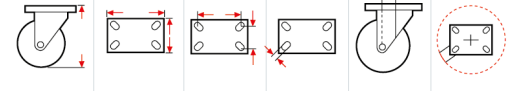



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.19  | 233121  | 12  | 39  | <b>260</b>  | <b>50</b>   | <b>65</b>   |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.31  | 233122  | 12  | 44  | <b>300</b>  | <b>75</b>   | <b>80</b>   |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.54  | 233103  | 15  | 44  | <b>330</b>  | <b>85</b>   | <b>130</b>  |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.66  | 233104  | 15  | 44  | <b>340</b>  | <b>95</b>   | <b>150</b>  |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.76  | 233111  | 15  | 44  | <b>350</b>  | <b>100</b>  | <b>170</b>  |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 1.07  | 233110  | 20  | 58  | <b>370</b>  | <b>120</b>  | <b>180</b>  |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.81  | 233106  | 20  | 58  | <b>410</b>  | <b>140</b>  | <b>230</b>  |  |  |  |  |  |  |  |  |  |  |

Standard-duty brackets NL - max carrying capacity 230 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|  |      |  |        |      |        |      |        |  |         |        |    |    |     |  |
|--|------|---|--------|------|--------|------|--------|--|---------|--------|----|----|-----|---|
| mm   | mm   | kg  | CODE   | kg   | CODE   | kg   | CODE   | mm   | mm      | mm     | mm | mm | mm  | daN   |
| 80   | 25   | 0.69  | 234401 | 0.49 | 235701 | 0.87 | 235201 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>65</b>   |
| 100  | 30   | 0.82  | 234402 | 0.62 | 235702 | 1.00 | 235202 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>80</b>   |
| 125  | 37.5 | 1.18  | 234403 | 0.92 | 235703 | 1.30 | 235203 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>130</b>  |
| 140  | 37.5 | 1.31  | 234404 | 0.93 | 235704 | 1.46 | 235204 | 177  | 100x85  | 80x60  | 9  | 34 | 120 | <b>150</b>  |
| 150  | 40   | 1.42  | 234411 | 1.04 | 235711 | 1.57 | 235211 | 182  | 100x85  | 80x60  | 9  | 34 | 120 | <b>170</b>  |
| 160  | 40   | 2.44  | 234410 | 2.07 | 235710 | 2.69 | 235210 | 199  | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b>  |
| 200  | 50   | 3.25  | 234406 | 2.89 | 235706 | 3.39 | 235206 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>230</b>  |
| 80   | 25   | 0.70  | 234601 | 0.51 | 235901 | 0.89 | 235221 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>65</b>   |
| 100  | 30   | 0.84  | 234602 | 0.65 | 235902 | 1.03 | 235222 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>80</b>   |
| 125  | 37.5 | 1.21  | 234603 | 0.95 | 235903 | 1.33 | 235223 | 156  | 100x85  | 80x60  | 9  | 34 | 120 | <b>130</b>  |
| 140  | 37.5 | 1.34  | 234604 | 0.96 | 235904 | 1.49 | 235224 | 177  | 100x85  | 80x60  | 9  | 34 | 120 | <b>150</b>  |
| 150  | 40   | 1.45  | 234611 | 1.07 | 235911 | 1.60 | 235231 | 182  | 100x85  | 80x60  | 9  | 37 | 120 | <b>170</b>  |
| 160  | 40   | 2.50  | 234610 | 2.13 | 235910 | 2.75 | 235230 | 199  | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b>  |
| 200  | 50   | 3.31  | 234606 | 3.05 | 235906 | 3.45 | 235226 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>230</b>  |

Options available to order:



Bracket with rear brake  
d. 150-200 mm

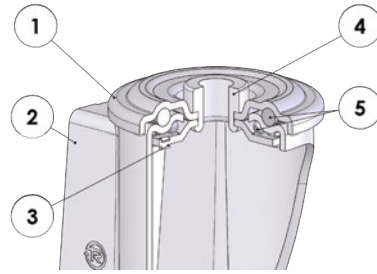


Bracket with directional lock  
d. 80-125 mm
















Directional lock for brackets  
d. 150-200 mm

**Standard-duty brackets NL - max carrying capacity 230 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|
| mm   | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm  | daN   |   |  |  |  |  |  |
| 80   | 25  | 0.61  | 237701  | 0.79  | 235601  | 107   | 73  | 12  | 37  | 120   | <b>65</b>   |   |  |  |  |  |  |
| 100  | 30  | 0.74  | 237702  | 0.94  | 235602  | 128   | 73  | 12  | 35  | 120   | <b>80</b>   |   |  |  |  |  |  |
| 125  | 37.5  | 1.09  | 237703  | 1.24  | 235603  | 156   | 73  | 12  | 37  | 120   | <b>130</b>  |   |  |  |  |  |  |
| 140  | 37.5  | 1.23  | 237704  | 1.38  | 235604  | 177   | 73  | 12  | 34  | 120   | <b>150</b>  |   |  |  |  |  |  |
| 150  | 40  | 1.35  | 237711  | 1.49  | 235611  | 182   | 73  | 12  | 34  | 120   | <b>170</b>  |   |  |  |  |  |  |
| 160  | 40  | 1.78  | 237710  | 2.04  | 235610  | 193   | 102   | 20  | 56  | 156   | <b>180</b>  |   |  |  |  |  |  |
| 200  | 50  | 3.16  | 237706  | 3.29  | 235606  | 236   | 102   | 20  | 56  | 156   | <b>230</b>  |   |  |  |  |  |  |
| 80   | 25  | 0.63  | 237901  | 0.80  | 235621  | 107   | 73  | 12  | 37  | 120   | <b>65</b>   |   |  |  |  |  |  |
| 100  | 30  | 0.76  | 237902  | 0.96  | 235622  | 128   | 73  | 12  | 35  | 120   | <b>80</b>   |   |  |  |  |  |  |
| 125  | 37.5  | 1.12  | 237903  | 1.27  | 235623  | 156   | 73  | 12  | 37  | 120   | <b>130</b>  |   |  |  |  |  |  |
| 140  | 37.5  | 1.26  | 237904  | 1.41  | 235624  | 177   | 73  | 12  | 34  | 120   | <b>150</b>  |   |  |  |  |  |  |
| 150  | 40  | 1.38  | 237911  | 1.52  | 235631  | 182   | 73  | 12  | 34  | 120   | <b>170</b>  |   |  |  |  |  |  |
| 160  | 40  | 1.85  | 237910  | 2.10  | 235630  | 193   | 102   | 20  | 56  | 156   | <b>180</b>  |   |  |  |  |  |  |
| 200  | 50  | 3.22  | 237906  | 3.35  | 235626  | 236   | 102   | 20  | 56  | 156   | <b>230</b>  |   |  |  |  |  |  |

**Options available to order:**








Fitting  
with stem  
in Zamak  
alloy



Experience and innovation

**BLACK RUBBER WHEELS  
WITH POLYPROPYLENE CENTRE**

|  |                         |
|--|-------------------------|
|  | 80-250<br>mm            |
|  | 80 Shore A              |
|  | 65-300<br>daN<br>4 km/h |
|  | 50-175<br>daN           |
|  | -20 / +60<br>°C         |



**Description**

Tyre: black standard rubber, hardness 80 Shore A.

Centre: polypropylene.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing with plastic cage.

**Uses**

Suitable for trolleys with light-duty loads, also in the presence of obstacles and for indoor-outdoor use.

Examples of recommended applications: luggage trolleys, tool trolleys, small mobile scaffoldings, waste bin containers.

**Environments of use**

Suitable for industrial and institutional environments, also in presence of humidity and weak acids. Not suitable in presence of strong acids, bases and solvents.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

**Floors**


Suitable for all types of floors, even outdoors.

They easily overcome obstacles, do not damage fragile floors, but they may mark the floor.





**Force required to push or tow a wheel**

|   | 50 kg | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg |
|---|-------|--------|--------|--------|--------|--------|
| 80 mm   | 5     | ----   | ----   | ----   | ----   | ----   |
| 100 mm  | 2.5   | ----   | ----   | ----   | ----   | ----   |
| 125 mm  | 2.2   | 6      | ----   | ----   | ----   | ----   |
| 140 mm  | 2     | 5.5    | ----   | ----   | ----   | ----   |
| 150 mm  | 2     | 5      | ----   | ----   | ----   | ----   |
| 160 mm  | 1.5   | 3.5    | 7.5    | ----   | ----   | ----   |
| 180 mm  | 1     | 3.2    | 6      | ----   | ----   | ----   |
| 200 mm  | 1     | 3      | 5.5    | 8.5    | ----   | ----   |
| 250 mm  | 1     | 2.2    | 4      | 6      | 8.2    | 11     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

**Fittings with brackets**



**Light-duty brackets SL**

Maximum carrying capacity 110 daN - available diameters 80-125 mm  
Top plate and bolt hole fittings. Available with front brake.



**Standard-duty brackets NL**









Maximum carrying capacity 300 daN - available diameters 80-250 mm  
Top plate, bolt hole, solid stem fittings. Available with front brake.

**Options available to order:**









The series 52 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

## BLACK RUBBER WHEELS WITH POLYPROPYLENE CENTRE

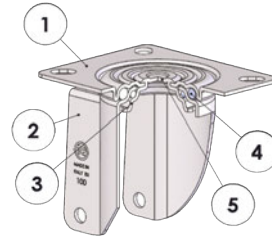


|  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|-----|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.11  | 522101  | 12  | 39  | 150   | 50  | 65  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.21  | 522102  | 12  | 44  | 200   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.19  | 521132  | 12  | 39  | 200   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.41  | 521103  | 15  | 44  | 225   | 85  | 110 |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.35  | 521133  | 12  | 39  | 225   | 85  | 110 |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.48  | 521104  | 15  | 44  | 250   | 95  | 120 |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.61  | 521111  | 15  | 44  | 275   | 100   | 130 |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 0.73  | 521110  | 20  | 59  | 300   | 120   | 150 |  |  |  |  |  |  |  |  |  |  |
| 180   | 45  | 1.02  | 521105  | 20  | 59  | 350   | 130   | 180 |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.31  | 521106  | 20  | 59  | 400   | 140   | 225 |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.28  | 521206  | 25  | 59  | 400   | 140   | 225 |  |  |  |  |  |  |  |  |  |  |
| 250   | 60  | 2.59  | 521108  | 25  | 75  | 500   | 175   | 300 |  |  |  |  |  |  |  |  |  |  |



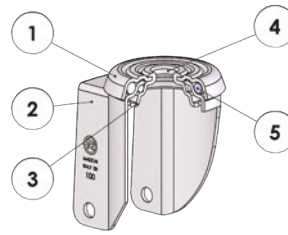
|  |  |  |  |  |  |  |  |     |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|-----|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.14  | 524101  | 12  | 39  | 150   | 50  | 65  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.24  | 524102  | 12  | 44  | 200   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.44  | 523103  | 15  | 44  | 225   | 85  | 110 |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.51  | 523104  | 15  | 44  | 250   | 95  | 120 |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.61  | 523111  | 15  | 44  | 275   | 100   | 130 |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 0.75  | 523110  | 20  | 59  | 300   | 120   | 150 |  |  |  |  |  |  |  |  |  |  |
| 180   | 45  | 1.18  | 523105  | 20  | 59  | 350   | 130   | 180 |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.48  | 523106  | 20  | 59  | 400   | 140   | 225 |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.45  | 523206  | 25  | 59  | 400   | 140   | 225 |  |  |  |  |  |  |  |  |  |  |
| 250   | 60  | 2.78  | 523108  | 25  | 75  | 500   | 175   | 300 |  |  |  |  |  |  |  |  |  |  |

**Light-duty brackets SL - max carrying capacity 110 daN**



- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel plate
  - 4) Swivel actions: on two ball race rings lubricated with grease
  - 5) Bracket closing king pin integrated with ball race ring
- Available with total front foot brake

| mm  | mm   | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm    | mm     | mm    | mm  | mm | mm  | mm | daN        |
|-----|------|------|--------|------|--------|------|--------|-----|-------|--------|-------|-----|----|-----|----|------------|
| 80  | 25   | 0.45 | 525801 | 0.44 | 526001 | 0.57 | 526301 | 110 | 95x80 | 100x85 | 80x60 | 8.8 | 33 | 120 |    | <b>65</b>  |
| 100 | 30   | 0.54 | 525802 | 0.53 | 526002 | 0.68 | 526302 | 127 | 95x80 | 100x85 | 80x60 | 8.8 | 29 | 120 |    | <b>80</b>  |
| 125 | 37.5 | 0.78 | 525803 | 0.76 | 526003 | 0.89 | 526303 | 154 | 95x80 | 100x85 | 80x60 | 8.8 | 32 | 120 |    | <b>110</b> |

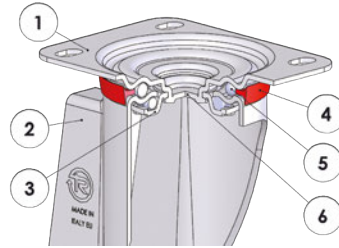


- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel plate
  - 4) Bracket closing king pin integrated with ball race ring
  - 5) Swivel actions: on two ball race rings lubricated with grease
- Available with total front foot brake

| mm  | mm   | kg   | CODE   | kg   | CODE   | mm  | mm | mm | mm | mm  | daN        |
|-----|------|------|--------|------|--------|-----|----|----|----|-----|------------|
| 80  | 25   | 0.40 | 526101 | 0.50 | 526201 | 110 | 63 | 12 | 33 | 120 | <b>65</b>  |
| 100 | 30   | 0.49 | 526102 | 0.60 | 526202 | 127 | 63 | 12 | 29 | 120 | <b>80</b>  |
| 125 | 37.5 | 0.72 | 526103 | 0.82 | 526203 | 154 | 63 | 12 | 32 | 120 | <b>110</b> |

**BLACK RUBBER WHEELS  
WITH POLYPROPYLENE CENTRE**

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm   | mm   | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN |  |
|------|------|------|--------|------|--------|------|--------|-----|---------|---------|----|----|-----|-----|--|
| 80   | 25   | 0.64 | 524401 | 0.36 | 525701 | 0.82 | 525201 | 107 | 100x85  | 80x60   | 9  | 37 | 120 | 65  |  |
| 100  | 30   | 0.73 | 524402 | 0.48 | 525702 | 0.88 | 525202 | 128 | 100x85  | 80x60   | 9  | 35 | 120 | 80  |  |
| 125  | 37.5 | 1.06 | 524403 | 0.71 | 525703 | 1.20 | 525203 | 156 | 100x85  | 80x60   | 9  | 37 | 120 | 110 |  |
| 140  | 37.5 | 1.18 | 524404 | 0.80 | 525704 | 1.32 | 525204 | 177 | 100x85  | 80x60   | 9  | 34 | 120 | 120 |  |
| 150  | 40   | 1.31 | 524411 | 0.93 | 525711 | 1.45 | 525211 | 182 | 100x85  | 80x60   | 9  | 34 | 120 | 130 |  |
| 160B | 40   | 1.41 | 524412 | 1.25 | 525712 |      |        | 187 | 100x85  | 80x60   | 9  | 50 |     | 150 |  |
| 160  | 40   | 2.10 | 524410 | 1.73 | 525710 | 2.38 | 525210 | 199 | 140x110 | 105x80  | 11 | 56 | 156 | 150 |  |
| 180  | 45   | 2.40 | 524405 | 2.11 | 525705 | 2.69 | 525205 | 219 | 140x110 | 105x80  | 11 | 56 | 156 | 180 |  |
| 200  | 50   | 2.72 | 524406 | 2.50 | 525706 | 3.00 | 525206 | 240 | 140x110 | 105x80  | 11 | 56 | 156 | 225 |  |
| 250  | 60   | 6.02 | 524708 | 4.52 | 525708 |      |        | 296 | 200x160 | 160x120 | 14 | 87 |     | 300 |  |

|      |      |      |        |      |        |      |        |     |         |         |    |    |     |     |
|------|------|------|--------|------|--------|------|--------|-----|---------|---------|----|----|-----|-----|
| 80   | 25   | 0.69 | 524601 | 0.39 | 525901 | 0.86 | 525221 | 107 | 100x85  | 80x60   | 9  | 37 | 120 | 65  |
| 100  | 30   | 0.78 | 524602 | 0.51 | 525902 | 0.93 | 525222 | 128 | 100x85  | 80x60   | 9  | 35 | 120 | 80  |
| 125  | 37.5 | 1.09 | 524603 | 0.73 | 525903 | 1.24 | 525223 | 156 | 100x85  | 80x60   | 9  | 37 | 120 | 110 |
| 140  | 37.5 | 1.20 | 524604 | 0.82 | 525904 | 1.35 | 525224 | 177 | 100x85  | 80x60   | 9  | 34 | 120 | 120 |
| 150  | 40   | 1.31 | 524611 | 0.93 | 525911 | 1.45 | 525231 | 182 | 100x85  | 80x60   | 9  | 34 | 120 | 130 |
| 160B | 40   | 1.43 | 524612 | 1.23 | 525912 |      |        | 187 | 100x85  | 80x60   | 9  | 50 |     | 150 |
| 160  | 40   | 2.18 | 524610 | 1.75 | 525910 | 2.47 | 525230 | 199 | 140x110 | 105x80  | 11 | 56 | 156 | 150 |
| 180  | 45   | 2.40 | 524605 | 2.27 | 525905 | 2.68 | 525225 | 219 | 140x110 | 105x80  | 11 | 56 | 156 | 180 |
| 200  | 50   | 2.76 | 524606 | 2.67 | 525906 | 3.04 | 525226 | 240 | 140x110 | 105x80  | 11 | 56 | 156 | 225 |
| 250  | 60   | 6.12 | 524908 | 4.70 | 525908 |      |        | 296 | 200x160 | 160x120 | 14 | 87 |     | 300 |

**Options available to order:**



Bracket with rear brake  
d. 150-200 mm

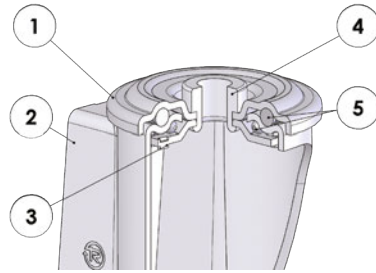


Bracket with directional lock  
d. 80-125 mm















Directional lock for brackets  
d. 150-200 mm

Standard-duty brackets NL - max carrying capacity 300 daN



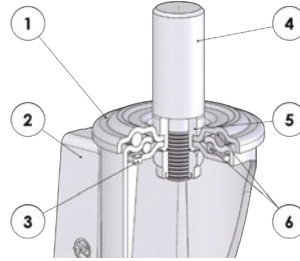
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |     |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|--|---|-----|--|--|--|--|
| mm   | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm   | 4 km/h  | daN |  |  |  |  |
| 80   | 25  | 0.55  | 527701  | 0.68  | 525601  | 107   | 73  | 12  | 37  | 120  | <b>65</b>   |     |  |  |  |  |
| 100  | 30  | 0.68  | 527702  | 0.75  | 525602  | 128   | 73  | 12  | 35  | 120  | <b>80</b>   |     |  |  |  |  |
| 125  | 37.5  | 0.96  | 527703  | 1.10  | 525603  | 156   | 73  | 12  | 37  | 120  | <b>110</b>  |     |  |  |  |  |
| 140  | 37.5  | 1.12  | 527704  | 1.26  | 525604  | 177   | 73  | 12  | 34  | 120  | <b>120</b>  |     |  |  |  |  |
| 150  | 40  | 1.25  | 527711  | 1.39  | 525611  | 182   | 73  | 12  | 34  | 120  | <b>130</b>  |     |  |  |  |  |
| 160  | 40  | 1.44  | 527710  | 1.73  | 525610  | 193   | 102   | 20  | 56  | 156  | <b>150</b>  |     |  |  |  |  |
| 180  | 45  | 2.28  | 527705  | 2.57  | 525605  | 214   | 102   | 20  | 56  | 156  | <b>180</b>  |     |  |  |  |  |
| 200  | 50  | 2.62  | 527706  | 2.91  | 525606  | 236   | 102   | 20  | 56  | 156  | <b>225</b>  |     |  |  |  |  |
| 80   | 25  | 0.58  | 527901  | 0.70  | 525621  | 107   | 73  | 12  | 37  | 120  | <b>65</b>   |     |  |  |  |  |
| 100  | 30  | 0.71  | 527902  | 0.78  | 525622  | 128   | 73  | 12  | 35  | 120  | <b>80</b>   |     |  |  |  |  |
| 125  | 37.5  | 1.08  | 527903  | 1.23  | 525623  | 156   | 73  | 12  | 37  | 120  | <b>110</b>  |     |  |  |  |  |
| 140  | 37.5  | 1.19  | 527904  | 1.34  | 525624  | 177   | 73  | 12  | 34  | 120  | <b>120</b>  |     |  |  |  |  |
| 150  | 40  | 1.35  | 527911  | 1.50  | 525631  | 182   | 73  | 12  | 34  | 120  | <b>130</b>  |     |  |  |  |  |
| 160  | 40  | 1.47  | 527910  | 1.75  | 525630  | 193   | 102   | 20  | 56  | 156  | <b>150</b>  |     |  |  |  |  |
| 180  | 45  | 2.44  | 527905  | 2.73  | 525625  | 214   | 102   | 20  | 56  | 156  | <b>180</b>  |     |  |  |  |  |
| 200  | 50  | 2.80  | 527906  | 3.08  | 525626  | 236   | 102   | 20  | 56  | 156  | <b>225</b>  |     |  |  |  |  |














SERIES **52**

**BLACK RUBBER WHEELS  
WITH POLYPROPYLENE CENTRE**

**Standard-duty brackets NL - max carrying capacity 300 daN**



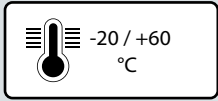
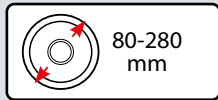
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm   | mm  | daN   |  |  |  |  |
| 100   | 30  | 0,81  | 529202  | 0,96  | 529302  | 128   | 73  | 22  | 47  | 35   | 120   | <b>80</b>   |  |  |  |  |
| 125   | 37.5  | 1,11  | 529203  | 1,28  | 529303  | 156   | 73  | 22  | 47  | 37   | 120   | <b>110</b>  |  |  |  |  |
| 150   | 40  | 1,34  | 529211  | 1,50  | 529311  | 182   | 73  | 22  | 47  | 34   | 120   | <b>130</b>  |  |  |  |  |
| 160   | 40  | 2,32  | 529210  | 2,62  | 529310  | 193   | 102   | 26  | 56  | 56   | 156   | <b>150</b>  |  |  |  |  |
| 160   | 40  | 2,96  | 525520  | 3,26  | 525620  | 193   | 102   | 40  | 86  | 56   | 156   | <b>150</b>  |  |  |  |  |
| 200   | 50  | 2,96  | 529206  | 3,27  | 529306  | 236   | 102   | 26  | 56  | 56   | 156   | <b>225</b>  |  |  |  |  |
| 200   | 50  | 3,60  | 525516  | 3,91  | 525616  | 236   | 102   | 40  | 86  | 56   | 156   | <b>225</b>  |  |  |  |  |



Products made in Italy

## BLACK RUBBER WHEELS WITH PRESSED STEEL DISCS



### Description

Tyre: black standard rubber, hardness 80 Shore A.

Centre: electrolytically galvanised steel plate, made of two riveted discs.

Hub with polyamide self-lubricating plain bore.

Cylindrical roller bearing hub in plastic cage.

### Uses

Suitable for trolleys with light-duty loads, also in the presence of obstacles and for indoor-outdoor use.

Examples of recommended applications: tool trolleys, trolleys for industrial indoor handling, small mobile scaffoldings, waste bin containers.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and oils. Not suitable in presence of aggressive chemical agents.

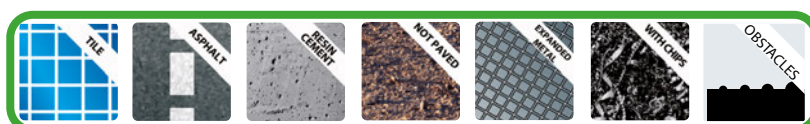
|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

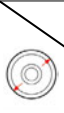

Suitable for all types of floors, even outdoors.

They easily overcome obstacles, do not damage fragile floors, but they may mark the floor.





**Force required to push or tow a wheel**

|   | 50 kg | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg |
|---|-------|--------|--------|--------|--------|--------|
| 80 mm   | 5     | ---    | ---    | ---    | ---    | ---    |
| 100 mm  | 3     | ---    | ---    | ---    | ---    | ---    |
| 125 mm  | 2.5   | 6      | ---    | ---    | ---    | ---    |
| 140 mm  | 2.2   | 5.5    | 9      | ---    | ---    | ---    |
| 150 mm  | 2     | 5      | 8      | ---    | ---    | ---    |
| 160 mm  | 1.5   | 3.5    | 7.5    | ---    | ---    | ---    |
| 180 mm  | 1     | 3      | 6.1    | ---    | ---    | ---    |
| 200 mm  | 1     | 3      | 5.5    | 8.5    | ---    | ---    |
| 225 mm  | < 1   | 2.1    | 4.8    | 7.5    | 11     | ---    |
| 250 mm  | < 1   | 2      | 4      | 6      | 9      | 12     |
| 280 mm  | < 1   | 2      | 3.5    | 5      | 7      | 9      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

**Fittings with brackets**



**Light-duty brackets SL**

Maximum carrying capacity 130 daN - available diameters 80-125 mm  
Top plate and bolt hole fittings. Available with front brake.



**Standard-duty brackets NL**

Maximum carrying capacity 390 daN - available diameters 80-280 mm  
Top plate, bolt hole and solid stem fittings. Available with front brake.

**Options available to order:**

The series 53 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.












Wheel with conductive rubber tread (roller bearing hub only, see p. 360)












SERIES **53**

**BLACK RUBBER WHEELS  
WITH PRESSED STEEL DISCS**



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.17  | 531121  | 12  | 39  | 260   | 50  | 65  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.28  | 531122  | 12  | 44  | 300   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.25  | 531132  | 12  | 39  | 300   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.51  | 531103  | 15  | 44  | 330   | 85  | 130   |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.44  | 531133  | 12  | 39  | 330   | 85  | 130   |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.64  | 531104  | 15  | 44  | 340   | 95  | 150   |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.73  | 531111  | 15  | 44  | 350   | 100   | 170   |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 1.00  | 531110  | 20  | 58  | 370   | 120   | 180   |  |  |  |  |  |  |  |  |  |  |
| 180   | 45  | 1.33  | 531105  | 20  | 58  | 390   | 130   | 200   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.75  | 531106  | 20  | 58  | 410   | 140   | 230   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.74  | 531206  | 25  | 58  | 410   | 140   | 230   |  |  |  |  |  |  |  |  |  |  |
| 225   | 50  | 2.16  | 531107  | 20  | 58  | 420   | 160   | 250   |  |  |  |  |  |  |  |  |  |  |
| 250   | 60  | 3.24  | 531108  | 25  | 73  | 500   | 175   | 300   |  |  |  |  |  |  |  |  |  |  |
| 280   | 60  | 3.92  | 531109  | 25  | 73  | 550   | 200   | 390   |  |  |  |  |  |  |  |  |  |  |



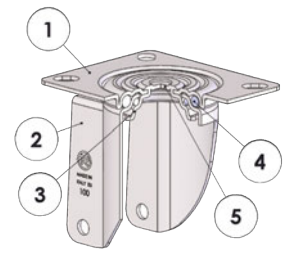
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.19  | 533121  | 12  | 39  | 260   | 50  | 65  |  |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.31  | 533122  | 12  | 44  | 300   | 75  | 80  |  |  |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.54  | 533103  | 15  | 44  | 330   | 85  | 130   |  |  |  |  |  |  |  |  |  |  |
| 140   | 37.5  | 0.66  | 533104  | 15  | 44  | 340   | 95  | 150   |  |  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.76  | 533111  | 15  | 44  | 350   | 100   | 170   |  |  |  |  |  |  |  |  |  |  |
| 160   | 40  | 1.07  | 533110  | 20  | 58  | 370   | 120   | 180   |  |  |  |  |  |  |  |  |  |  |
| 180   | 45  | 1.39  | 533105  | 20  | 58  | 390   | 130   | 200   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.81  | 533106  | 20  | 58  | 410   | 140   | 230   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.78  | 533206  | 25  | 58  | 410   | 140   | 230   |  |  |  |  |  |  |  |  |  |  |
| 225   | 50  | 2.42  | 533107  | 20  | 58  | 420   | 160   | 250   |  |  |  |  |  |  |  |  |  |  |
| 250   | 60  | 3.14  | 533108  | 25  | 73  | 500   | 175   | 300   |  |  |  |  |  |  |  |  |  |  |
| 280   | 60  | 3.84  | 533109  | 25  | 73  | 550   | 200   | 390   |  |  |  |  |  |  |  |  |  |  |

Options available to order:



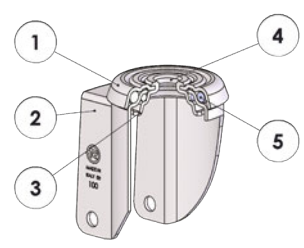
Wheel with conductive rubber tread (roller bearing hub only, see p. 360)

Light-duty brackets SL - max carrying capacity 130 daN



- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel plate
  - 4) Swivel actions: on two ball race rings lubricated with grease
  - 5) Bracket closing king pin integrated with ball race ring
- Available with total front foot brake

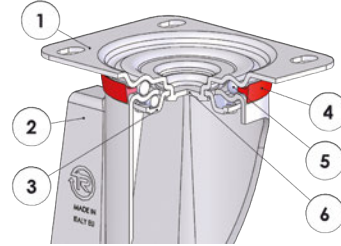
| mm  |      | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm    | mm     | mm    | mm  | mm | mm  | mm         | daN |
|-----|------|------|--------|------|--------|------|--------|-----|-------|--------|-------|-----|----|-----|------------|-----|
| 80  | 25   | 0.51 | 535801 | 0.50 | 536001 | 0.63 | 536301 | 110 | 95x80 | 100x85 | 80x60 | 8.8 | 33 | 120 | <b>65</b>  |     |
| 100 | 30   | 0.60 | 535802 | 0.59 | 536002 | 0.74 | 536302 | 127 | 95x80 | 100x85 | 80x60 | 8.8 | 29 | 120 | <b>80</b>  |     |
| 125 | 37.5 | 0.87 | 535803 | 0.85 | 536003 | 0.98 | 536303 | 154 | 95x80 | 100x85 | 80x60 | 8.8 | 32 | 120 | <b>130</b> |     |



- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel plate
  - 4) Bracket closing king pin integrated with ball race ring
  - 5) Swivel actions: on two ball race rings lubricated with grease
- Available with total front foot brake

| mm  |      | kg   | CODE   | kg   | CODE   | mm  | mm | mm | mm | mm  | daN        |
|-----|------|------|--------|------|--------|-----|----|----|----|-----|------------|
| 80  | 25   | 0.46 | 536101 | 0.56 | 536201 | 110 | 63 | 12 | 33 | 120 | <b>65</b>  |
| 100 | 30   | 0.55 | 536102 | 0.66 | 536202 | 127 | 63 | 12 | 29 | 120 | <b>80</b>  |
| 125 | 37.5 | 0.81 | 536103 | 0.91 | 536203 | 154 | 63 | 12 | 32 | 120 | <b>130</b> |

**Standard-duty brackets NL - max carrying capacity 390 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| Wheel |      | Bracket |        | Weight |        | Weight |        | Weight |         | Bracket |    | Bracket |     | Bracket    |    | Bracket |    | Bracket |    |
|-------|------|---------|--------|--------|--------|--------|--------|--------|---------|---------|----|---------|-----|------------|----|---------|----|---------|----|
| mm    | mm   | kg      | CODE   | kg     | CODE   | kg     | CODE   | mm     | mm      | mm      | mm | mm      | mm  | mm         | mm | mm      | mm | mm      | mm |
| 80    | 25   | 0.69    | 535001 | 0.49   | 535701 | 0.87   | 535401 | 107    | 100x85  | 80x60   | 9  | 37      | 120 | <b>65</b>  |    |         |    |         |    |
| 100   | 30   | 0.82    | 535002 | 0.62   | 535702 | 1.00   | 535402 | 128    | 100x85  | 80x60   | 9  | 35      | 120 | <b>80</b>  |    |         |    |         |    |
| 125   | 37.5 | 1.18    | 535003 | 0.92   | 535703 | 1.30   | 535403 | 156    | 100x85  | 80x60   | 9  | 37      | 120 | <b>130</b> |    |         |    |         |    |
| 140   | 37.5 | 1.27    | 535004 | 1.09   | 535704 | 1.46   | 535404 | 177    | 100x85  | 80x60   | 9  | 34      | 120 | <b>150</b> |    |         |    |         |    |
| 150   | 40   | 1.40    | 535011 | 1.22   | 535711 | 1.57   | 535411 | 182    | 100x85  | 80x60   | 9  | 34      | 120 | <b>170</b> |    |         |    |         |    |
| 160B  | 40   | 1.75    | 535012 | 1.55   | 535712 |        |        | 187    | 100x85  | 80x60   | 9  | 50      |     | <b>180</b> |    |         |    |         |    |
| 160   | 40   | 2.44    | 535010 | 2.07   | 535710 | 2.69   | 535410 | 199    | 140x110 | 105x80  | 11 | 56      | 156 | <b>180</b> |    |         |    |         |    |
| 180   | 45   | 2.78    | 535005 | 2.49   | 535705 | 3.07   | 535405 | 219    | 140x110 | 105x80  | 11 | 56      | 156 | <b>200</b> |    |         |    |         |    |
| 200   | 50   | 3.25    | 535006 | 2.89   | 535706 | 3.39   | 535406 | 240    | 140x110 | 105x80  | 11 | 56      | 156 | <b>230</b> |    |         |    |         |    |
| 225   | 50   | 3.67    | 535007 | 3.18   | 535707 | 3.95   | 535407 | 263    | 140x110 | 105x80  | 11 | 56      | 156 | <b>250</b> |    |         |    |         |    |
| 250   | 60   | 6.66    | 534708 | 5.16   | 535708 |        |        | 296    | 200x160 | 160x120 | 14 | 87      |     | <b>300</b> |    |         |    |         |    |
| 280   | 60   | 7.35    | 534709 | 5.84   | 535709 |        |        | 311    | 200x160 | 160x120 | 14 | 87      |     | <b>390</b> |    |         |    |         |    |

|      |      |      |        |      |        |      |        |     |         |         |    |    |     |            |  |  |  |  |  |
|------|------|------|--------|------|--------|------|--------|-----|---------|---------|----|----|-----|------------|--|--|--|--|--|
| 80   | 25   | 0.70 | 535101 | 0.51 | 535901 | 0.89 | 535421 | 107 | 100x85  | 80x60   | 9  | 37 | 120 | <b>65</b>  |  |  |  |  |  |
| 100  | 30   | 0.84 | 535102 | 0.65 | 535902 | 1.03 | 535422 | 128 | 100x85  | 80x60   | 9  | 35 | 120 | <b>80</b>  |  |  |  |  |  |
| 125  | 37.5 | 1.21 | 535103 | 0.95 | 535903 | 1.33 | 535423 | 156 | 100x85  | 80x60   | 9  | 37 | 120 | <b>130</b> |  |  |  |  |  |
| 140  | 37.5 | 1.34 | 535104 | 0.96 | 535904 | 1.49 | 535424 | 177 | 100x85  | 80x60   | 9  | 34 | 120 | <b>150</b> |  |  |  |  |  |
| 150  | 40   | 1.45 | 535111 | 1.07 | 535911 | 1.60 | 535431 | 182 | 100x85  | 80x60   | 9  | 34 | 120 | <b>170</b> |  |  |  |  |  |
| 160B | 40   | 1.81 | 535112 | 1.61 | 535912 |      |        | 187 | 100x85  | 80x60   | 9  | 50 |     | <b>180</b> |  |  |  |  |  |
| 160  | 40   | 2.50 | 535110 | 2.13 | 535910 | 2.75 | 535430 | 199 | 140x110 | 105x80  | 11 | 56 | 156 | <b>180</b> |  |  |  |  |  |
| 180  | 45   | 2.85 | 535105 | 2.56 | 535905 | 3.13 | 535425 | 219 | 140x110 | 105x80  | 11 | 56 | 156 | <b>200</b> |  |  |  |  |  |
| 200  | 50   | 3.31 | 535106 | 3.05 | 535906 | 3.45 | 535426 | 240 | 140x110 | 105x80  | 11 | 56 | 156 | <b>230</b> |  |  |  |  |  |
| 225  | 50   | 3.93 | 535107 | 3.45 | 535907 | 4.22 | 535427 | 263 | 140x110 | 105x80  | 11 | 56 | 156 | <b>250</b> |  |  |  |  |  |
| 250  | 60   | 6.56 | 534908 | 5.06 | 535908 |      |        | 296 | 200x160 | 160x120 | 14 | 87 |     | <b>300</b> |  |  |  |  |  |
| 280  | 60   | 7.27 | 534909 | 5.76 | 535909 |      |        | 311 | 200x160 | 160x120 | 14 | 87 |     | <b>390</b> |  |  |  |  |  |

**Options available to order:**



Wheel with conductive rubber tread (roller bearing hub only, see p. 360)



Bracket with rear brake d. 150-200 mm

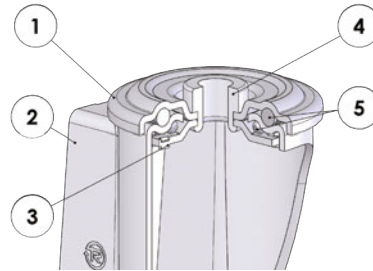


Bracket with directional lock d. 80-125 mm



Directional lock for brackets d. 150-200 mm

**Standard-duty brackets NL - max carrying capacity 230 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

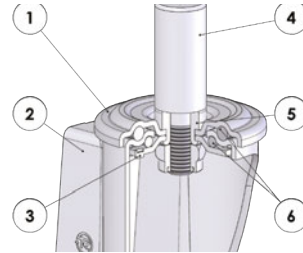
| mm  | mm   | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |  |
|-----|------|------|--------|------|--------|-----|-----|----|----|-----|------------|--|--|--|--|--|
| 80  | 25   | 0.61 | 537701 | 0.78 | 538201 | 107 | 73  | 12 | 37 | 120 | <b>65</b>  |  |  |  |  |  |
| 100 | 30   | 0.74 | 537702 | 0.94 | 538202 | 128 | 73  | 12 | 35 | 120 | <b>80</b>  |  |  |  |  |  |
| 125 | 37.5 | 1.09 | 537703 | 1.24 | 538203 | 156 | 73  | 12 | 37 | 120 | <b>130</b> |  |  |  |  |  |
| 140 | 37.5 | 1.23 | 537704 | 1.38 | 538204 | 177 | 73  | 12 | 34 | 120 | <b>150</b> |  |  |  |  |  |
| 150 | 40   | 1.35 | 537711 | 1.49 | 538211 | 182 | 73  | 12 | 34 | 120 | <b>170</b> |  |  |  |  |  |
| 160 | 40   | 1.78 | 537710 | 2.04 | 538210 | 193 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |  |
| 180 | 45   | 2.66 | 537705 | 3.95 | 538205 | 214 | 102 | 20 | 56 | 156 | <b>200</b> |  |  |  |  |  |
| 200 | 50   | 3.16 | 537706 | 3.29 | 538206 | 236 | 102 | 20 | 56 | 156 | <b>230</b> |  |  |  |  |  |
| 80  | 25   | 0.63 | 537901 | 0.80 | 538221 | 107 | 73  | 12 | 37 | 120 | <b>65</b>  |  |  |  |  |  |
| 100 | 30   | 0.76 | 537902 | 0.96 | 538222 | 128 | 73  | 12 | 35 | 120 | <b>80</b>  |  |  |  |  |  |
| 125 | 37.5 | 1.12 | 537903 | 1.27 | 538223 | 156 | 73  | 12 | 37 | 120 | <b>130</b> |  |  |  |  |  |
| 140 | 37.5 | 1.26 | 537904 | 1.41 | 538224 | 177 | 73  | 12 | 34 | 120 | <b>150</b> |  |  |  |  |  |
| 150 | 40   | 1.38 | 537911 | 1.52 | 538231 | 182 | 73  | 12 | 34 | 120 | <b>170</b> |  |  |  |  |  |
| 160 | 40   | 1.85 | 537910 | 2.10 | 538230 | 193 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |  |
| 180 | 45   | 2.73 | 537905 | 3.01 | 538225 | 214 | 102 | 20 | 56 | 156 | <b>200</b> |  |  |  |  |  |
| 200 | 50   | 3.22 | 537906 | 3.35 | 538226 | 236 | 102 | 20 | 56 | 156 | <b>230</b> |  |  |  |  |  |

**Options available to order:**



Wheel with conductive rubber tread (roller bearing hub only, see p. 360)

**Standard-duty brackets NL - max carrying capacity 230 daN**



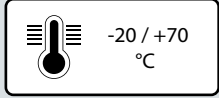
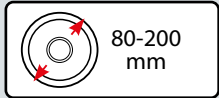
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm   | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm | mm  | daN        |  |  |  |
|-----|------|------|--------|------|--------|-----|-----|----|----|----|-----|------------|--|--|--|
| 100 | 30   | 0,88 | 539202 | 1,03 | 538802 | 128 | 73  | 22 | 47 | 35 | 120 | <b>80</b>  |  |  |  |
| 125 | 37.5 | 1,21 | 539203 | 1,38 | 538803 | 156 | 73  | 22 | 47 | 37 | 120 | <b>130</b> |  |  |  |
| 150 | 40   | 1,46 | 539211 | 1,62 | 538811 | 182 | 73  | 22 | 47 | 34 | 120 | <b>170</b> |  |  |  |
| 160 | 40   | 2,59 | 539210 | 2,89 | 538810 | 193 | 102 | 26 | 56 | 56 | 156 | <b>180</b> |  |  |  |
| 160 | 40   | 3,23 | 535520 | 3,53 | 535620 | 193 | 102 | 40 | 86 | 56 | 156 | <b>180</b> |  |  |  |
| 180 | 45   | 3,59 | 535515 | 3,89 | 535615 | 214 | 102 | 40 | 86 | 56 | 156 | <b>200</b> |  |  |  |
| 200 | 50   | 3,40 | 539206 | 3,71 | 538806 | 236 | 102 | 26 | 56 | 56 | 156 | <b>230</b> |  |  |  |
| 200 | 50   | 4,04 | 535516 | 4,35 | 535616 | 236 | 102 | 40 | 86 | 56 | 156 | <b>230</b> |  |  |  |



Technology at work

## GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE



### Description

Tyre: grey non-marking thermoplastic rubber, hardness 85 Shore A, excellent rolling resistance and elasticity.

Centre: polypropylene.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing in plastic cage. Also available with stainless steel roller bearing. Hub with double shielding ball bearing, coprinted in the centre of the wheel: diam. 80-125 mm. Hub with double shielding ball bearings: diam. 150-200 mm.

The bearings are protected from dirt, machining residue and corrosive substances by a glass-fibre reinforced polyamide installation bushing with internal labyrinth seal.

Also available with stainless steel ball bearings.

### Uses

Indicated for trolleys with light-duty loads, mainly for indoor use; the grey non-marking rubber tyre makes it suitable for use on fragile floors and also in domestic/institutional environments.

Excellent rolling resistance guarantees minimum effort in manual handling.

Examples of recommended applications: luggage trolleys, tool trolleys, institutional and catering trolleys, trolleys for industrial indoor use, tubular trolleys.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity. Fitted with stainless steel brackets, they are also recommended for environments with presence of aggressive chemical agents. Not suitable in presence of organic solvents, chlorinated substances, hydrocarbons and mineral oils.

|              |  |  |  |              |  |  |  |
|--------------|--|--|--|--------------|--|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

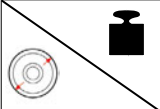

It does not stain or damage fragile floors. Suitable for tiles and cement-resin.

Not recommended on abrasive, unpaved floors or in presence of processing residues.





### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 225 kg |
|---|-------|--------|--------|--------|--------|
| 80 mm   | 3,5   | ----   | ----   | ----   | ----   |
| 100 mm  | 2,2   | 5      | ----   | ----   | ----   |
| 125 mm  | 1,5   | 3,5    | ----   | ----   | ----   |
| 150x35 mm   | 1     | 2,5    | 4,7    | ----   | ----   |
| 150x45 mm   | < 1   | 2      | 3,8    | ----   | ----   |
| 160 mm  | < 1   | 1,3    | 2,5    | 3,2    | ----   |
| 200 mm  | < 1   | 1,3    | 2,5    | 2,8    | 4,2    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Light-duty brackets SL

Maximum carrying capacity 120 daN - available diameters 80-125 mm  
Top plate and bolt hole fittings. Available with front brake.



#### Standard-duty brackets NL

Maximum carrying capacity 225 daN - available diameters 80-200 mm  
Top plate, bolt hole and Zamak expander stem fittings. Available with front brake.



#### Stainless steel standard-duty brackets NLX

Maximum carrying capacity 225 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.

### Options available to order:










The series 71 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.














Wheel for large commercial kitchens (conforms to Standard DIN 18867-8)  
d. 160 and 200 mm

**GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE**














|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |
| 80  | 30  | 0,09  | 711101  | 12  | 39  | <b>100</b>  | <b>70</b>   | <b>70</b>   |  |  |  |  |  |  |  |  |
| 100   | 30  | 0,12  | 711102  | 12  | 44  | <b>150</b>  | <b>100</b>  | <b>100</b>  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0,11  | 711132  | 12  | 39  | <b>150</b>  | <b>100</b>  | <b>100</b>  |  |  |  |  |  |  |  |  |
| 125   | 35  | 0,20  | 711103  | 15  | 44  | <b>180</b>  | <b>120</b>  | <b>120</b>  |  |  |  |  |  |  |  |  |
| 125   | 35  | 0,20  | 711133  | 12  | 39  | <b>180</b>  | <b>120</b>  | <b>120</b>  |  |  |  |  |  |  |  |  |
| 150   | 35  | 0,27  | 711105  | 15  | 44  | <b>210</b>  | <b>140</b>  | <b>140</b>  |  |  |  |  |  |  |  |  |
| 150   | 45  | 0,36  | 711104  | 20  | 59  | <b>270</b>  | <b>180</b>  | <b>180</b>  |  |  |  |  |  |  |  |  |
| 200   | 50  | 0,70  | 711106  | 20  | 59  | <b>330</b>  | <b>225</b>  | <b>225</b>  |  |  |  |  |  |  |  |  |

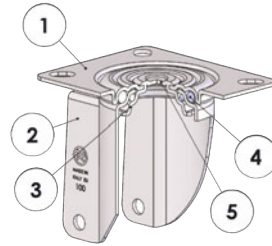


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |  |
| 80  | 30  | 0,11  | 713101  | 0,11  | 713201  | 12  | 39  | <b>100</b>  | <b>70</b>   | <b>70</b>  |  |  |  |  |  |  |
| 100   | 30  | 0,14  | 713102  | 0,14  | 713202  | 12  | 44  | <b>150</b>  | <b>100</b>  | <b>100</b>   |  |  |  |  |  |  |
| 125   | 35  | 0,22  | 713103  | 0,22  | 713203  | 15  | 44  | <b>180</b>  | <b>120</b>  | <b>120</b>   |  |  |  |  |  |  |
| 150   | 35  | 0,30  | 713105  | 0,30  | 713205  | 15  | 44  | <b>210</b>  | <b>140</b>  | <b>140</b>   |  |  |  |  |  |  |
| 150   | 45  | 0,41  | 713104  | 0,41  | 713204  | 20  | 59  | <b>270</b>  | <b>180</b>  | <b>180</b>   |  |  |  |  |  |  |
| 200   | 50  | 0,74  | 713106  | 0,74  | 713206  | 20  | 59  | <b>330</b>  | <b>225</b>  | <b>225</b>   |  |  |  |  |  |  |



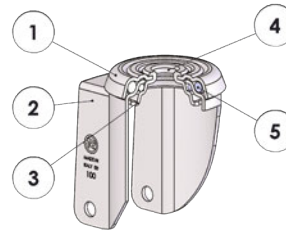
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |  |
| 80  | 30  | 0,14  | 712201  |   |   | 8   | 40  | <b>100</b>  | <b>70</b>   | <b>70</b>  |  |  |  |  |  |  |
| 100   | 30  | 0,18  | 712202  |   |   | 8   | 45  | <b>150</b>  | <b>100</b>  | <b>100</b>   |  |  |  |  |  |  |
| 125   | 35  | 0,25  | 712203  |   |   | 8   | 45  | <b>180</b>  | <b>120</b>  | <b>120</b>   |  |  |  |  |  |  |
| 150   | 45  | 0,62  | 712204  | 0,62  | 712404  | 12  | 60  | <b>270</b>  | <b>180</b>  | <b>180</b>   |  |  |  |  |  |  |
| 160   | 50  | 0,71  | 712210  | 0,71  | 712410  | 12  | 60  | <b>300</b>  | <b>200</b>  | <b>200</b>   |  |  |  |  |  |  |
| 200   | 50  | 0,92  | 712206  | 0,92  | 712406  | 12  | 60  | <b>330</b>  | <b>225</b>  | <b>225</b>   |  |  |  |  |  |  |

**Light-duty brackets SL - max carrying capacity 120 daN**



- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel plate
  - 4) Swivel actions: on two ball race rings lubricated with grease
  - 5) Bracket closing king pin integrated with ball race ring
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm    | mm     | mm    | mm  | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|-------|--------|-------|-----|----|-----|------------|-----|
| 80  | 30 | 0,43 | 715801 | 0,42 | 716001 | 0,55 | 716301 | 110 | 95x80 | 100x85 | 80x60 | 8,8 | 33 | 120 | <b>70</b>  |     |
| 100 | 30 | 0,46 | 715802 | 0,45 | 716002 | 0,60 | 716302 | 127 | 95x80 | 100x85 | 80x60 | 8,8 | 29 | 120 | <b>100</b> |     |
| 125 | 35 | 0,63 | 715803 | 0,61 | 716003 | 0,74 | 716303 | 154 | 95x80 | 100x85 | 80x60 | 8,8 | 32 | 120 | <b>120</b> |     |



- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel
  - 4) Bracket closing king pin integrated with ball race ring
  - 5) Swivel actions: on two ball race rings lubricated with grease
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|----|----|----|-----|------------|
| 80  | 30 | 0,38 | 716101 | 0,48 | 716201 | 110 | 63 | 12 | 33 | 120 | <b>70</b>  |
| 100 | 30 | 0,41 | 716102 | 0,52 | 716202 | 127 | 63 | 12 | 29 | 120 | <b>100</b> |
| 125 | 30 | 0,57 | 716103 | 0,67 | 716203 | 154 | 63 | 12 | 32 | 120 | <b>120</b> |

**Options available to order:**



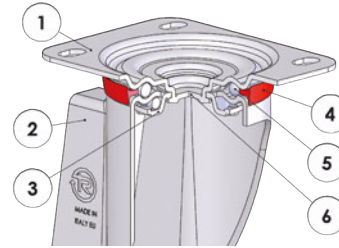
Wheel for large commercial kitchens (conforms to Standard DIN 18867-8)  
d. 160 and 200 mm



Wheel with single stainless steel ball bearing  
d. 80-125 mm

## GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

Standard-duty brackets NL - max carrying capacity 225 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm         |  | mm |  | mm |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|------------|--|----|--|----|--|-----|--|
| 80  | 30 | 0,60 | 714201 | 0,36 | 715701 | 0,79 | 716601 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>70</b>  |  |    |  |    |  |     |  |
| 100 | 30 | 0,70 | 714202 | 0,39 | 715702 | 0,85 | 716602 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>100</b> |  |    |  |    |  |     |  |
| 125 | 35 | 0,86 | 714203 | 0,61 | 715703 | 1,00 | 716603 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |  |    |  |    |  |     |  |
| 150 | 35 | 0,96 | 714204 | 0,76 | 715704 | 1,14 | 716604 | 182  | 100x85  | 80x60  | 9  | 34 | 120 | <b>140</b> |  |    |  |    |  |     |  |
| 150 | 45 | 1,72 | 714211 | 1,35 | 715711 | 2,00 | 716611 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |  |    |  |    |  |     |  |
| 200 | 50 | 2,07 | 714206 | 1,86 | 715706 | 2,35 | 716606 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |  |    |  |    |  |     |  |
| 80  | 30 | 0,61 | 714501 | 0,38 | 715901 | 0,82 | 716621 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>70</b>  |  |    |  |    |  |     |  |
| 100 | 30 | 0,71 | 714502 | 0,39 | 715902 | 0,86 | 716622 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>100</b> |  |    |  |    |  |     |  |
| 125 | 35 | 0,87 | 714503 | 0,62 | 715903 | 1,03 | 716623 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |  |    |  |    |  |     |  |
| 150 | 35 | 1,11 | 714504 | 0,81 | 715904 | 1,16 | 716624 | 182  | 100x85  | 80x60  | 9  | 34 | 120 | <b>140</b> |  |    |  |    |  |     |  |
| 150 | 45 | 1,87 | 714511 | 1,40 | 715911 | 2,05 | 716631 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |  |    |  |    |  |     |  |
| 200 | 50 | 2,10 | 714506 | 2,02 | 715906 | 2,34 | 716626 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |  |    |  |    |  |     |  |
| 80  | 30 | 0,58 | 714701 | 0,45 | 714801 | 0,75 | 714901 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>70</b>  |  |    |  |    |  |     |  |
| 100 | 30 | 0,64 | 714702 | 0,50 | 714802 | 0,81 | 714902 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>100</b> |  |    |  |    |  |     |  |
| 125 | 35 | 0,81 | 714703 | 0,61 | 714803 | 0,97 | 714903 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |  |    |  |    |  |     |  |
| 150 | 45 | 1,86 | 714731 | 1,68 | 714811 | 2,15 | 714911 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |  |    |  |    |  |     |  |
| 160 | 50 | 1,95 | 714710 | 1,77 | 714810 | 2,24 | 714910 | 199  | 140x110 | 105x80 | 11 | 56 | 156 | <b>200</b> |  |    |  |    |  |     |  |
| 200 | 50 | 2,22 | 714736 | 2,13 | 714806 | 2,51 | 714906 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |  |    |  |    |  |     |  |

Options available to order:



Bracket with directional lock d. 80-125 mm

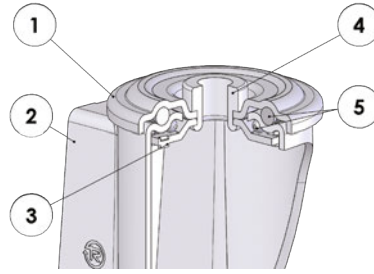


Directional lock for brackets d. 150-200 mm



Wheel for large commercial kitchens (conforms to Standard DIN 18867-8) d. 160 and 200 mm

**Standard-duty brackets NL - max carrying capacity 225 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|--|--|--|--|
| 80  | 30 | 0,53 | 717401 | 0,71 | 716501 | 107 | 73  | 12 | 37 | 120 | <b>70</b>  |  |  |  |  |
| 100 | 30 | 0,63 | 717402 | 0,84 | 716502 | 128 | 73  | 12 | 35 | 120 | <b>100</b> |  |  |  |  |
| 125 | 35 | 0,80 | 717403 | 0,95 | 716503 | 156 | 73  | 12 | 37 | 120 | <b>120</b> |  |  |  |  |
| 150 | 35 | 0,90 | 717404 | 1,04 | 716504 | 182 | 73  | 12 | 34 | 120 | <b>140</b> |  |  |  |  |
| 150 | 45 | 1,58 | 717411 | 1,87 | 716511 | 188 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |
| 200 | 50 | 1,97 | 717406 | 2,26 | 716506 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |  |  |  |  |
| 80  | 30 | 0,55 | 717801 | 0,73 | 716521 | 107 | 73  | 12 | 37 | 120 | <b>70</b>  |  |  |  |  |
| 100 | 30 | 0,64 | 717802 | 0,84 | 716522 | 128 | 73  | 12 | 35 | 120 | <b>100</b> |  |  |  |  |
| 125 | 35 | 0,82 | 717803 | 0,98 | 716523 | 156 | 73  | 12 | 37 | 120 | <b>120</b> |  |  |  |  |
| 150 | 35 | 0,93 | 717804 | 1,00 | 716524 | 182 | 73  | 12 | 34 | 120 | <b>140</b> |  |  |  |  |
| 150 | 45 | 1,85 | 717811 | 1,92 | 716531 | 188 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |
| 200 | 50 | 2,02 | 717806 | 2,29 | 716526 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |  |  |  |  |
| 80  | 30 | 0,53 | 714301 | 0,70 | 715501 | 107 | 73  | 12 | 37 | 120 | <b>70</b>  |  |  |  |  |
| 100 | 30 | 0,58 | 714302 | 0,75 | 715502 | 128 | 73  | 12 | 35 | 120 | <b>100</b> |  |  |  |  |
| 125 | 35 | 0,74 | 714303 | 0,94 | 715503 | 156 | 73  | 12 | 37 | 120 | <b>120</b> |  |  |  |  |
| 150 | 45 | 1,74 | 714331 | 2,06 | 715511 | 188 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |
| 160 | 50 | 1,83 | 714310 | 2,15 | 715510 | 193 | 102 | 20 | 56 | 156 | <b>200</b> |  |  |  |  |
| 200 | 50 | 2,11 | 714336 | 2,41 | 715506 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |  |  |  |  |

**Options available to order:**



Wheel for large commercial kitchens (conforms to Standard DIN 18867-8) d. 160 and 200 mm



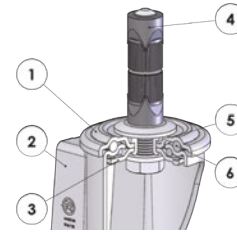
Fitting with threaded stem



Fitting with unthreaded stem with dimensions that can be customised

## GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

Standard-duty brackets NL - max carrying capacity 225 daN

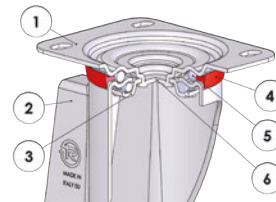


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Stem: zamak expander
  - 5) King pin: bushing in electrolytically galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm | mm | mm    | mm | mm  | daN        | 4 km/h |
|-----|----|------|--------|------|--------|-----|----|----|-------|----|-----|------------|--------|
| 80  | 30 | 0,65 | 719201 | 0,83 | 719301 | 109 | 20 | 65 | 20-24 | 37 | 120 | <b>70</b>  |        |
| 100 | 30 | 0,75 | 719202 | 0,96 | 719302 | 130 | 20 | 65 | 20-24 | 35 | 120 | <b>100</b> |        |
| 125 | 35 | 1,02 | 719203 | 1,07 | 719303 | 158 | 20 | 65 | 20-24 | 37 | 120 | <b>120</b> |        |

Stainless steel standard-duty brackets NLX - max carrying capacity 225 daN

**INOX**

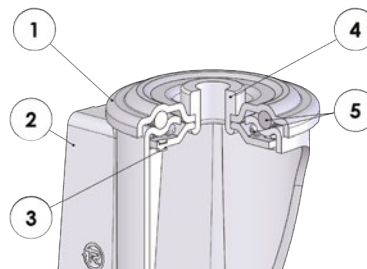


- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | 4 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--------|
| 80  | 30 | 0,59 | 714401 | 0,33 | 715301 | 0,76 | 716701 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>70</b>  |        |
| 100 | 30 | 0,61 | 714402 | 0,36 | 715302 | 0,79 | 716702 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>100</b> |        |
| 125 | 35 | 0,76 | 714403 | 0,59 | 715303 | 0,90 | 716703 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |        |
| 150 | 35 | 0,99 | 714404 | 0,76 | 715304 | 1,01 | 716704 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | <b>140</b> |        |
| 150 | 45 | 1,63 | 714411 | 1,22 | 715311 | 1,95 | 716711 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |        |
| 200 | 50 | 2,04 | 714406 | 1,59 | 715306 | 2,33 | 716706 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |        |
| 80  | 30 | 0,61 | 714601 | 0,36 | 715601 | 0,79 | 716721 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>70</b>  |        |
| 100 | 30 | 0,64 | 714602 | 0,37 | 715602 | 0,80 | 716722 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>100</b> |        |
| 125 | 35 | 0,78 | 714603 | 0,62 | 715603 | 0,93 | 716723 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |        |
| 150 | 35 | 1,03 | 714604 | 0,81 | 715604 | 1,03 | 716724 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | <b>140</b> |        |
| 150 | 45 | 1,71 | 714611 | 1,27 | 715611 | 2,00 | 716731 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |        |
| 200 | 50 | 2,09 | 714606 | 1,62 | 715606 | 2,36 | 716726 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |        |
| 150 | 45 | 1,85 | 715411 | 1,55 | 715011 | 2,14 | 716911 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>180</b> |        |
| 160 | 50 | 1,94 | 715410 | 1,64 | 715010 | 2,23 | 716910 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | <b>200</b> |        |
| 200 | 50 | 2,22 | 715406 | 1,97 | 715036 | 2,51 | 716906 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |        |

**Stainless steel standard-duty brackets NLX - max carrying capacity 225 daN**

**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  |    | kg   |        | kg   |        | mm  |     | mm |    | mm  |            | daN |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|-----|--|
| 80  | 30 | 0,53 | 717901 | 0,70 | 718801 | 107 | 73  | 12 | 37 | 120 | <b>70</b>  |     |  |
| 100 | 30 | 0,57 | 717902 | 0,78 | 718802 | 128 | 73  | 12 | 35 | 120 | <b>100</b> |     |  |
| 125 | 35 | 0,74 | 717903 | 0,89 | 718803 | 156 | 73  | 12 | 37 | 120 | <b>120</b> |     |  |
| 150 | 35 | 0,95 | 717904 | 0,97 | 718804 | 182 | 73  | 12 | 34 | 120 | <b>140</b> |     |  |
| 150 | 45 | 1,46 | 717911 | 1,74 | 718811 | 188 | 102 | 20 | 56 | 156 | <b>180</b> |     |  |
| 200 | 50 | 1,99 | 717906 | 2,25 | 718806 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |     |  |
| 80  | 30 | 0,56 | 718001 | 0,73 | 718821 | 107 | 73  | 12 | 37 | 120 | <b>70</b>  |     |  |
| 100 | 30 | 0,58 | 718002 | 0,78 | 718822 | 128 | 73  | 12 | 35 | 120 | <b>100</b> |     |  |
| 125 | 35 | 0,77 | 718003 | 0,92 | 718823 | 156 | 73  | 12 | 37 | 120 | <b>120</b> |     |  |
| 150 | 35 | 1,00 | 718004 | 0,99 | 718824 | 182 | 73  | 12 | 34 | 120 | <b>140</b> |     |  |
| 150 | 45 | 1,51 | 718011 | 1,79 | 718831 | 188 | 102 | 20 | 56 | 156 | <b>180</b> |     |  |
| 200 | 50 | 2,02 | 718006 | 2,28 | 718826 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |     |  |
| 150 | 45 | 1,71 | 716311 | 2,06 | 716541 | 188 | 102 | 20 | 56 | 156 | <b>180</b> |     |  |
| 160 | 50 | 1,80 | 716310 | 2,15 | 716510 | 193 | 102 | 20 | 56 | 156 | <b>200</b> |     |  |
| 200 | 50 | 2,11 | 716336 | 2,41 | 716546 | 236 | 102 | 20 | 56 | 156 | <b>225</b> |     |  |

**Options available to order:**



Wheel with single stainless steel ball bearing d. 80-125 mm



Wheel for large commercial kitchens (conforms to Standard DIN 18867-8) d. 160 and 200 mm

## PNEUMATIC WHEELS WITH POLYPROPYLENE CENTRE

|  |                   |
|--|-------------------|
|  | 260 mm            |
|  | 150 daN<br>4 km/h |
|  | -20 / +60 °C      |



### Description

Tyre: four plies ribbed or country profiled tyre; working pressure 2 bar.

Centre: polypropylene.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing with plastic cage.

### Uses

Suitable for use with light and medium-duty loads, on any type of flooring, also for mixed indoor and outdoor use.

Also suitable on sandy base.

Examples of recommended applications: wheelbarrows, box charts.

### Environments of use

Suitable for industrial and outdoor environments, also in presence of humidity and medium-harsh chemical agents.

Not suitable in presence of organic solvents, chlorinated substances, hydrocarbons and mineral oils.

|              |  |  |  |              |  |  |
|--------------|--|--|--|--------------|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36.

### Floors

It is functional on all type of floors and especially on uneven floors and soft floor surfaces such as grass, as well as on floor with obstacles and with chips.

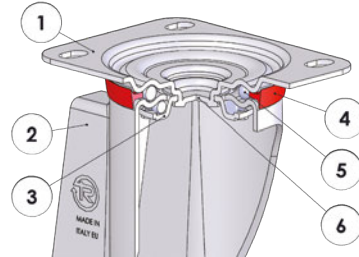






| mm  |    | kg   |        | CODE |        | mm |    | mm  |  | daN |                 |
|-----|----|------|--------|------|--------|----|----|-----|--|-----|-----------------|
| 260 | 85 | 0.91 | 821601 | 1.03 | 823601 | 20 | 74 | 150 |  |     | ribbed profile  |
| 260 | 85 | 0.90 | 821602 | 1.00 | 823602 | 25 | 74 | 150 |  |     | ribbed profile  |
| 260 | 85 | 0.96 | 822601 | 1.08 | 824601 | 20 | 74 | 150 |  |     | country profile |
| 260 | 85 | 0.95 | 822602 | 1.05 | 824602 | 25 | 74 | 150 |  |     | country profile |

**Standard-duty brackets NL - max carrying capacity 150 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

| mm  |    | kg   |        | CODE |        | mm  |         | mm      |    | mm |     | mm | mm | daN |
|-----|----|------|--------|------|--------|-----|---------|---------|----|----|-----|----|----|-----|
| 260 | 85 | 4.33 | 825601 | 2.83 | 826601 | 300 | 200x160 | 160x120 | 14 | 86 | 150 |    |    |     |
| 260 | 85 | 4.43 | 825701 | 2.93 | 826701 | 300 | 200x160 | 160x120 | 14 | 86 | 150 |    |    |     |



| mm  |    | kg   |        | CODE |        | mm  |         | mm      |    | mm |     | mm | mm | daN |
|-----|----|------|--------|------|--------|-----|---------|---------|----|----|-----|----|----|-----|
| 260 | 85 | 4.38 | 825602 | 2.89 | 826602 | 300 | 200x160 | 160x120 | 14 | 86 | 150 |    |    |     |
| 260 | 85 | 4.48 | 825702 | 2.98 | 826702 | 300 | 200x160 | 160x120 | 14 | 86 | 150 |    |    |     |

## PUNCTURE-PROOF PNEUMATIC WHEELS WITH POLYPROPYLENE CENTRE

|  |              |
|--|--------------|
|  | 260 mm       |
|  | 70 daN       |
|  | -20 / +60 °C |



### Description

Tyre: expanded polyurethane foam, without inner tube.

Centre: polypropylene.

Hub with cylindrical roller bearing with plastic cage.

### Uses

Suitable for use with light and medium-duty loads, on any type of flooring, also for mixed indoor and outdoor use. The expanded polyurethane foam tyre eliminates wheel failure as a consequence of a puncture that can occur with traditional pneumatic (air filled) wheels.

Also suitable on sandy base.

Examples of recommended applications: wheelbarrows, box charts.

### Environments of use

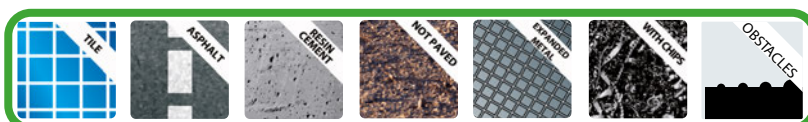
Suitable for industrial and outdoor environments, also in presence of humidity and medium-harsh chemical agents. Not suitable in presence of organic solvents, chlorinated substances, hydrocarbons and mineral oils.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40*

### Floors

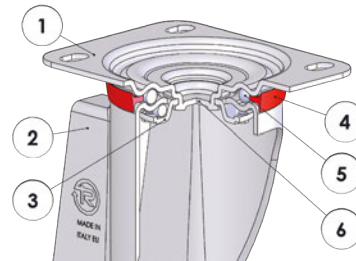
It is functional on all type of floors and especially on uneven floors and soft floor surfaces such as grass, as well as on floor with obstacles and with chips.





| mm  | mm | kg   | COD.   | mm | mm | daN       |                        |  |  |  |  |  |  |  |
|-----|----|------|--------|----|----|-----------|------------------------|--|--|--|--|--|--|--|
| 260 | 75 | 1,03 | 823701 | 20 | 77 | <b>70</b> | <b>country profile</b> |  |  |  |  |  |  |  |

**Standard-duty brackets NL - max carrying capacity 70 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm      | mm      | mm | mm | daN       |  |  |  |  |
|-----|----|------|--------|------|--------|-----|---------|---------|----|----|-----------|--|--|--|--|
| 260 | 75 | 4,48 | 827601 | 2,98 | 828601 | 300 | 200x160 | 160x120 | 14 | 86 | <b>70</b> |  |  |  |  |

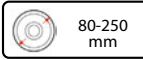
**INDUSTRIAL  
MEDIUM DUTY LOADS**



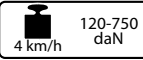


SERIES **60**

THERMOPLASTIC POLYURETHANE  
WHEELS WITH POLYAMIDE 6 CENTRE



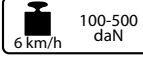
80-250  
mm



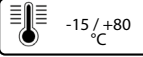
4 km/h  
120-750  
daN



120-450  
daN



6 km/h  
100-500  
daN



-15 / +80  
°C

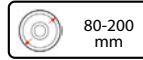
**INOX**

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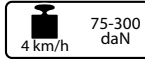


SERIES **61**

THERMOPLASTIC POLYURETHANE  
WHEELS WITH POLYAMIDE 6 CENTRE



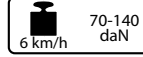
80-200  
mm



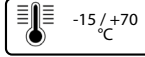
4 km/h  
75-300  
daN



75-300  
daN



6 km/h  
70-140  
daN



-15 / +70  
°C

**INOX**

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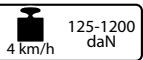


SERIES **68**

SOLID WHEELS  
IN POLYAMIDE 6



65-250  
mm



4 km/h  
125-1200  
daN



90-450  
daN



-30 / +80  
°C

**INOX**

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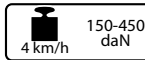


SERIES **73**

WHEELS IN SIGMA ELASTIC RUBBER  
WITH POLYAMIDE 6 CENTRE



100-200  
mm



4 km/h  
150-450  
daN



100-350  
daN



-20 / +70  
°C

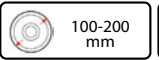
**INOX**

PAGE 122

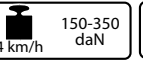


SERIES **73<sup>EE</sup><sub>A</sub>**

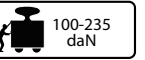
ELASTIC RUBBER WHEELS  
WITH POLYAMIDE CENTRE



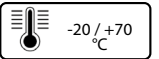
100-200  
mm



4 km/h  
150-350  
daN









100-235  
daN



-20 / +70  
°C

PAGE 130

## THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

-  80-250 mm
-  55 Shore D
-  120-750 daN  
4 km/h
-  100-500 daN  
6 km/h
-  120-450 daN
-  -15 / +80 °C

**INOX**



### Description

Tyre: red thermoplastic polyurethane, hardness 55 Shore D, excellent rolling resistance and elasticity features, good resistance to wear and tearing.

Centre: polyamide 6.

Hub with plain bore which directly houses the axle.  
 Hub with cylindrical roller bearing in plastic cage. Also available with stainless steel roller bearing.  
 Hub with double shielding ball bearing, co-printed in centre (diam. 80-125 mm). Hub with double shielding ball bearings (diam. 150-200 mm). The bearings are protected from dirt, machining residue and corrosive substances by a glass-fibre reinforced polyamide installation bushing with internal labyrinth seal. Diam. 250 mm: hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding. Also available with stainless steel ball bearing.

### Uses

Suitable for trolleys and machinery with medium-duty loads, also in case of continuous handling.

Suitable for indoor and outdoor use with frequent washing and sterilisation.

Examples of recommended applications: trolleys for industrial use, tubular trolleys, trolleys for food and chemical industry, mobile scaffoldings (fitted with suitable brackets, they meet Standard UNI EN 1004:2005).

### Environments of use

Suitable for industrial environments, also in presence of water and saturated vapour, alcohol and glycol, mineral and organic acids.

|              |   |   |   |              |   |   |   |
|--------------|---|---|---|--------------|---|---|---|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable for tiles and cement-resin.



Not recommended unpaved floors or in presence of processing residues.

Not suitable in presence of obstacles, even if small.

They do not mark fragile floors.



### Force required to push or tow a wheel

|   | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg | 350 kg | 400 kg | 450 kg | 750 kg |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 80 mm   | 4,5    | ----   | ----   | ----   | ----   | ----   | ----   | ----   | ----   |
| 100 mm  | 2,2    | 4,5    | ----   | ----   | ----   | ----   | ----   | ----   | ----   |
| 125 mm  | 1,2    | 2,2    | 4      | ----   | ----   | ----   | ----   | ----   | ----   |
| 150x35 mm   | < 1    | 2      | 3,2    | 5      | ----   | ----   | ----   | ----   | ----   |
| 150x45 mm   | < 1    | 1,8    | 2,6    | 3,5    | 5      | 5,3    | ----   | ----   | ----   |
| 160 mm  | < 1    | 1,6    | 2,2    | 3      | 3,9    | 5,1    | 6      | ---    | ---    |
| 200 mm  | < 1    | 1,5    | 2      | 2,8    | 3,7    | 4,8    | 5,5    | 6,5    | ----   |
| 250 mm  | < 1    | < 1    | < 1    | 2      | 2,8    | 3,7    | 4,8    | 5      | 7      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate, bolt hole, solid stem, Zama expander fittings. Available with front brake.



#### Stainless steel standard-duty brackets NLX

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.



#### Medium-duty brackets M

Maximum carrying capacity 450 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 100-250 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Medium-heavy duty brackets PX in stainless steel

Maximum carrying capacity 450 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Mobile scaffolding brackets (See Scaffolding section on page 310)

Maximum carrying capacity 400 daN - maximum capacity according to UNI EN 1004-1:2021 750 daN  
Available diameters 125-200 mm. Top plate, unthreaded stem, threaded stem with leveller fittings. Available with brake and double brake pedal.









### Options available to order

The series 60 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.










SERIES **60**

**THERMOPLASTIC POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**












|  |  |  |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|------------|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | mm  | mm.   | daN   | daN   | daN        |  |  |  |  |  |  |  |  |  |
| 80  | 30  | 0,11  | 601101  | 12  | 39  | <b>220</b>  | <b>120</b>  | <b>120</b> |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0,15  | 601102  | 12  | 44  | <b>300</b>  | <b>170</b>  | <b>170</b> |  |  |  |  |  |  |  |  |  |
| 125   | 35  | 0,25  | 601103  | 15  | 44  | <b>350</b>  | <b>230</b>  | <b>230</b> |  |  |  |  |  |  |  |  |  |
| 150   | 35  | 0,35  | 601105  | 15  | 44  | <b>500</b>  | <b>250</b>  | <b>250</b> |  |  |  |  |  |  |  |  |  |
| 150   | 45  | 0,51  | 601104  | 20  | 59  | <b>700</b>  | <b>280</b>  | <b>350</b> |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 0,87  | 601106  | 20  | 59  | <b>750</b>  | <b>320</b>  | <b>450</b> |  |  |  |  |  |  |  |  |  |



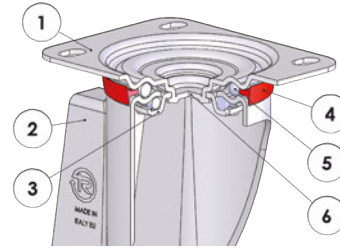
|  |  |  |  |  |  |  |  |  |            |            |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|--|------------|------------|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | daN  | daN        | daN        |  |  |  |  |  |  |  |
| 80  | 30  | 0,13  | 603101  | 0,13  | 603201  | 12  | 39  | <b>220</b>   | <b>120</b> | <b>120</b> |  |  |  |  |  |  |  |
| 100   | 30  | 0,17  | 603102  | 0,17  | 603202  | 12  | 44  | <b>300</b>   | <b>170</b> | <b>170</b> |  |  |  |  |  |  |  |
| 125   | 35  | 0,25  | 603103  | 0,25  | 603203  | 15  | 44  | <b>350</b>   | <b>230</b> | <b>230</b> |  |  |  |  |  |  |  |
| 150   | 35  | 0,37  | 603105  | 0,37  | 603205  | 15  | 44  | <b>500</b>   | <b>250</b> | <b>250</b> |  |  |  |  |  |  |  |
| 150   | 45  | 0,54  | 603104  | 0,54  | 603204  | 20  | 59  | <b>700</b>   | <b>280</b> | <b>350</b> |  |  |  |  |  |  |  |
| 200   | 50  | 0,92  | 603106  | 0,92  | 603206  | 20  | 59  | <b>750</b>   | <b>320</b> | <b>450</b> |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |            |            |            |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|--|------------|------------|------------|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | daN  | daN        | daN        | daN        |  |  |  |  |  |  |
| 80  | 30  | 0,17  | 602201  | 0,17  | 602401  | 8   | 40  | <b>220</b>   | <b>130</b> | <b>130</b> | <b>100</b> |  |  |  |  |  |  |
| 100   | 30  | 0,21  | 602202  | 0,21  | 602402  | 8   | 45  | <b>300</b>   | <b>200</b> | <b>200</b> | <b>160</b> |  |  |  |  |  |  |
| 125   | 35  | 0,30  | 602203  | 0,30  | 602403  | 8   | 45  | <b>350</b>   | <b>250</b> | <b>250</b> | <b>200</b> |  |  |  |  |  |  |
| 150   | 45  | 0,76  | 602204  | 0,76  | 602404  | 12  | 60  | <b>700</b>   | <b>300</b> | <b>350</b> | <b>280</b> |  |  |  |  |  |  |
| 160   | 50  | 0,87  | 602210  | 0,87  | 602410  | 12  | 60  | <b>720</b>   | <b>320</b> | <b>400</b> | <b>320</b> |  |  |  |  |  |  |
| 200   | 50  | 1,16  | 602206  | 1,16  | 602406  | 12  | 60  | <b>750</b>   | <b>360</b> | <b>450</b> | <b>360</b> |  |  |  |  |  |  |
| 250   | 50  | 1,50  | 602208  |   |   | 20  | 58  | <b>1000</b>  | <b>450</b> | <b>750</b> | <b>500</b> |  |  |  |  |  |  |



**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         |        |    |    |     | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80  | 30 | 0,57 | 604201 | 0,42 | 605701 | 0,73 | 606601 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 120 |
| 100 | 30 | 0,64 | 604202 | 0,50 | 605702 | 0,80 | 606602 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 170 |
| 125 | 35 | 0,85 | 604203 | 0,65 | 605703 | 1,01 | 606603 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 150 | 35 | 0,97 | 604204 | 0,78 | 605704 | 1,13 | 606604 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | 220 |
| 150 | 45 | 1,84 | 604211 | 1,70 | 605711 | 2,12 | 606611 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200 | 50 | 2,28 | 604206 | 2,23 | 605706 | 2,57 | 606606 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 80  | 30 | 0,59 | 604501 | 0,44 | 605901 | 0,74 | 606621 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 120 |
| 100 | 30 | 0,66 | 604502 | 0,52 | 605902 | 0,82 | 606622 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 170 |
| 125 | 35 | 0,87 | 604503 | 0,67 | 605903 | 1,03 | 606623 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 150 | 35 | 0,99 | 604504 | 0,80 | 605904 | 1,15 | 606624 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | 220 |
| 150 | 45 | 1,87 | 604511 | 1,73 | 605911 | 2,17 | 606631 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200 | 50 | 2,31 | 604506 | 2,27 | 605906 | 2,60 | 606626 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 80  | 30 | 0,62 | 604701 | 0,47 | 604801 | 0,77 | 604901 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 130 |
| 100 | 30 | 0,69 | 604702 | 0,54 | 604802 | 0,85 | 604902 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |
| 125 | 35 | 0,87 | 604703 | 0,67 | 604803 | 1,03 | 604903 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 150 | 45 | 2,00 | 604731 | 1,85 | 604811 | 2,29 | 604911 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 160 | 50 | 2,11 | 604710 | 1,96 | 604810 | 2,40 | 604910 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200 | 50 | 2,46 | 604736 | 2,41 | 604806 | 2,75 | 604906 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |

**Options available to order**



Bracket with directional lock  
d. 80-125 mm

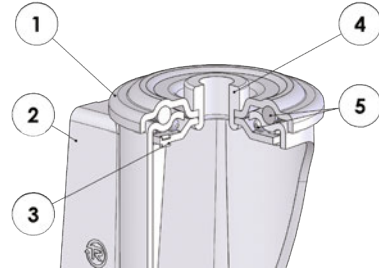


Directional lock for brackets  
d. 150-200 mm














SERIES **60**

**THERMOPLASTIC POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

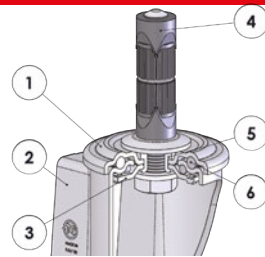
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|---|---|---|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | mm  | mm   | mm  | daN   |   |  |  |  |  |
| 80  | 30  | 0,51  | 607701  | 0,67  | 606401  | 107   | 73  | 12  | 37   | 120   | <b>120</b>  |   |  |  |  |  |
| 100   | 30  | 0,58  | 607702  | 0,73  | 606402  | 128   | 73  | 12  | 35   | 120   | <b>170</b>  |   |  |  |  |  |
| 125   | 35  | 0,78  | 607703  | 0,95  | 606403  | 156   | 73  | 12  | 37   | 120   | <b>220</b>  |   |  |  |  |  |
| 150   | 35  | 0,91  | 607704  | 1,07  | 606404  | 182   | 73  | 12  | 34   | 120   | <b>220</b>  |   |  |  |  |  |
| 150   | 45  | 1,73  | 607711  | 2,05  | 606411  | 188   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |
| 200   | 50  | 2,19  | 607706  | 2,50  | 606406  | 236   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |
| 80  | 30  | 0,52  | 607801  | 0,68  | 606421  | 107   | 73  | 12  | 37   | 120   | <b>120</b>  |   |  |  |  |  |
| 100   | 30  | 0,60  | 607802  | 0,75  | 606422  | 128   | 73  | 12  | 35   | 120   | <b>170</b>  |   |  |  |  |  |
| 125   | 35  | 0,80  | 607803  | 0,97  | 606423  | 156   | 73  | 12  | 37   | 120   | <b>220</b>  |   |  |  |  |  |
| 150   | 35  | 0,93  | 607804  | 1,09  | 606424  | 182   | 73  | 12  | 34   | 120   | <b>220</b>  |   |  |  |  |  |
| 150   | 45  | 1,75  | 607811  | 2,05  | 606431  | 188   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |
| 200   | 50  | 2,22  | 607806  | 2,53  | 606426  | 236   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |
| 80  | 30  | 0,55  | 604301  | 0,71  | 605501  | 107   | 73  | 12  | 37   | 120   | <b>130</b>  |   |  |  |  |  |
| 100   | 30  | 0,62  | 604302  | 0,78  | 605502  | 128   | 73  | 12  | 35   | 120   | <b>200</b>  |   |  |  |  |  |
| 125   | 35  | 0,80  | 604303  | 0,97  | 605503  | 156   | 73  | 12  | 37   | 120   | <b>220</b>  |   |  |  |  |  |
| 150   | 45  | 1,34  | 604331  | 1,50  | 605511  | 188   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |
| 160   | 50  | 2,02  | 604310  | 2,32  | 605510  | 193   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |
| 200   | 50  | 2,37  | 604336  | 2,68  | 605506  | 236   | 102   | 20  | 56   | 156   | <b>300</b>  |   |  |  |  |  |

**Options available to order**



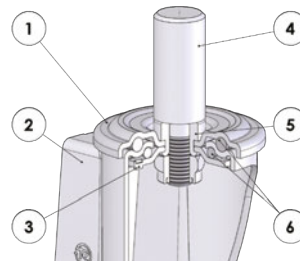
Fastening with threaded stem

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Stem: zamak expander
  - 5) King pin: bushing in electrolytically galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm | mm | mm | mm    | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|----|----|----|-------|----|-----|------------|
| 80  | 30 | 0,63 | 609201 | 0,79 | 609301 | 109 | 73 | 20 | 65 | 20-24 | 37 | 120 | <b>120</b> |
| 100 | 30 | 0,70 | 609202 | 0,85 | 609302 | 130 | 73 | 20 | 65 | 20-24 | 35 | 120 | <b>130</b> |
| 125 | 35 | 0,90 | 609203 | 1,07 | 609303 | 158 | 73 | 20 | 65 | 20-24 | 37 | 120 | <b>130</b> |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in electrolytically galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|-----|----|----|----|-----|------------|
| 100 | 30 | 0,75 | 606102 | 0,90 | 606202 | 128 | 73  | 22 | 47 | 35 | 120 | <b>170</b> |
| 125 | 35 | 0,95 | 606103 | 1,12 | 606203 | 156 | 73  | 22 | 47 | 37 | 120 | <b>220</b> |
| 150 | 35 | 1,08 | 606104 | 1,24 | 606204 | 182 | 73  | 22 | 47 | 34 | 120 | <b>220</b> |
| 150 | 45 | 2,10 | 606111 | 2,40 | 606211 | 188 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |
| 200 | 50 | 2,53 | 606106 | 2,84 | 606206 | 236 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |

**Options available to order**



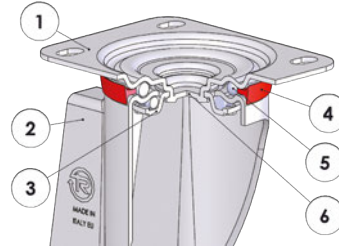
Bracket with Zama stem fitted with wheels with roller bearings and single ball bearing d. 80-125 mm



Connection with solid stem with dimensions that can be customised

Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN

**INOX**

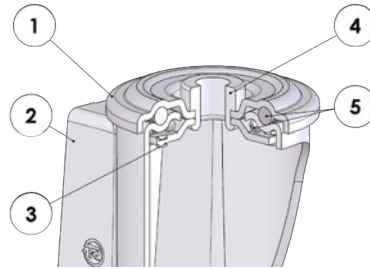


- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake














| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | 4 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--------|
| 80  | 30 | 0,57 | 604401 | 0,42 | 605101 | 0,73 | 606701 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |        |
| 100 | 30 | 0,64 | 604402 | 0,50 | 605102 | 0,80 | 606702 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>170</b> |        |
| 125 | 35 | 0,78 | 604403 | 0,66 | 605103 | 0,94 | 606703 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |        |
| 150 | 35 | 1,06 | 604404 | 0,94 | 605104 | 1,22 | 606704 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | <b>220</b> |        |
| 150 | 45 | 1,87 | 604411 | 1,73 | 605111 | 2,14 | 606711 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |
| 200 | 50 | 2,28 | 604406 | 2,23 | 605106 | 2,57 | 606706 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |
| 80  | 30 | 0,59 | 604601 | 0,44 | 605601 | 0,74 | 606721 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>120</b> |        |
| 100 | 30 | 0,66 | 604602 | 0,52 | 605602 | 0,82 | 606722 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>170</b> |        |
| 125 | 35 | 0,80 | 604603 | 0,68 | 605603 | 0,96 | 606723 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |        |
| 150 | 35 | 0,92 | 604604 | 0,80 | 605604 | 1,08 | 606724 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | <b>220</b> |        |
| 150 | 45 | 1,87 | 604611 | 1,73 | 605611 | 2,17 | 606731 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |
| 200 | 50 | 2,31 | 604606 | 2,27 | 605606 | 2,60 | 606726 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |
| 80  | 30 | 0,62 | 605401 | 0,47 | 605001 | 0,77 | 606901 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>130</b> |        |
| 100 | 30 | 0,69 | 605402 | 0,54 | 605002 | 0,85 | 606902 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |        |
| 125 | 35 | 0,80 | 605403 | 0,68 | 605003 | 0,96 | 606903 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |        |
| 150 | 45 | 2,00 | 605411 | 1,85 | 605011 | 2,29 | 606911 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |
| 160 | 50 | 2,11 | 605410 | 1,96 | 605010 | 2,40 | 606910 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |
| 200 | 50 | 2,46 | 605406 | 2,41 | 605006 | 2,75 | 606906 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |        |

**Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN**

**INOX**

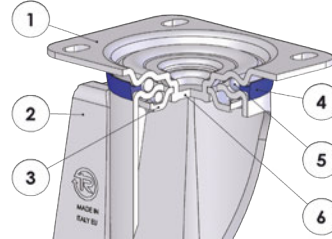


- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | mm  | mm  | mm   | daN   |   |  |  |  |  |
| 80  | 30  | 0,51  | 607901  | 0,67  | 608801  | 107   | 73  | 12  | 37  | 120  | <b>120</b>  |   |  |  |  |  |
| 100   | 30  | 0,58  | 607902  | 0,73  | 608802  | 128   | 73  | 12  | 35  | 120  | <b>170</b>  |   |  |  |  |  |
| 125   | 35  | 0,72  | 607903  | 0,88  | 608803  | 156   | 73  | 12  | 37  | 120  | <b>220</b>  |   |  |  |  |  |
| 150   | 35  | 0,78  | 607904  | 0,94  | 608804  | 182   | 73  | 12  | 34  | 120  | <b>220</b>  |   |  |  |  |  |
| 150   | 45  | 1,75  | 607911  | 2,05  | 608811  | 188   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |
| 200   | 50  | 2,19  | 607906  | 2,50  | 608806  | 236   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |
| 80  | 30  | 0,52  | 608001  | 0,68  | 608821  | 107   | 73  | 12  | 37  | 120  | <b>120</b>  |   |  |  |  |  |
| 100   | 30  | 0,60  | 608002  | 0,75  | 608822  | 128   | 73  | 12  | 35  | 120  | <b>170</b>  |   |  |  |  |  |
| 125   | 35  | 0,74  | 608003  | 0,90  | 608823  | 156   | 73  | 12  | 37  | 120  | <b>220</b>  |   |  |  |  |  |
| 150   | 35  | 0,84  | 608004  | 1,00  | 608824  | 182   | 73  | 12  | 34  | 120  | <b>220</b>  |   |  |  |  |  |
| 150   | 45  | 1,78  | 608011  | 2,08  | 608831  | 188   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |
| 200   | 50  | 2,22  | 608006  | 2,53  | 608826  | 236   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |
| 80  | 30  | 0,55  | 606301  | 0,71  | 606501  | 107   | 73  | 12  | 37  | 120  | <b>130</b>  |   |  |  |  |  |
| 100   | 30  | 0,62  | 606302  | 0,78  | 606502  | 128   | 73  | 12  | 35  | 120  | <b>200</b>  |   |  |  |  |  |
| 125   | 35  | 0,74  | 606303  | 0,90  | 606503  | 156   | 73  | 12  | 37  | 120  | <b>220</b>  |   |  |  |  |  |
| 150   | 45  | 1,34  | 606311  | 1,50  | 606511  | 188   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |
| 160   | 50  | 2,02  | 606310  | 2,32  | 606510  | 193   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |
| 200   | 50  | 2,37  | 606306  | 2,68  | 606506  | 236   | 102   | 20  | 56  | 156  | <b>300</b>  |   |  |  |  |  |

## THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

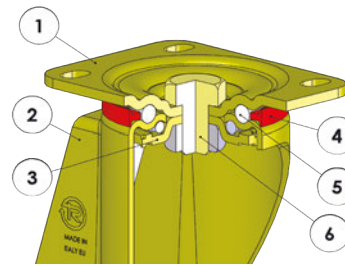
### Medium-duty brackets M - max carrying capacity 450 daN



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electroplated galvanised steel
- 4) Dust seal: blue polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted  
Available with adjustable total front foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm  |  | mm |  | mm |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|--|----|--|----|--|-----|--|
| 150 | 45 | 2,16 | 604311 | 1,70 | 605711 | 2,64 | 606811 | 194  | 140x110 | 105x80 | 11 | 58 | 178 | 350 |  |    |  |    |  |     |  |
| 200 | 50 | 2,64 | 604306 | 2,23 | 605706 | 3,04 | 606806 | 240  | 140x110 | 105x80 | 11 | 50 | 178 | 450 |  |    |  |    |  |     |  |
| 150 | 45 | 2,19 | 604711 | 1,73 | 605911 | 2,68 | 606831 | 194  | 140x110 | 105x80 | 11 | 58 | 178 | 350 |  |    |  |    |  |     |  |
| 200 | 50 | 2,67 | 604706 | 2,27 | 605906 | 3,11 | 606826 | 240  | 140x110 | 105x80 | 11 | 50 | 178 | 450 |  |    |  |    |  |     |  |
| 150 | 45 | 2,32 | 608411 | 1,85 | 604811 | 2,74 | 608911 | 194  | 140x110 | 105x80 | 11 | 58 | 178 | 350 |  |    |  |    |  |     |  |
| 160 | 50 | 2,43 | 608410 | 2,96 | 604810 | 2,85 | 608910 | 199  | 140x110 | 105x80 | 11 | 58 | 178 | 400 |  |    |  |    |  |     |  |
| 200 | 50 | 2,82 | 608406 | 2,41 | 604806 | 3,27 | 608906 | 240  | 140x110 | 105x80 | 11 | 50 | 178 | 450 |  |    |  |    |  |     |  |

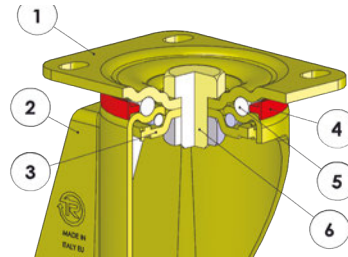
### Medium-heavy duty brackets P - max carrying capacity 450 daN



- 1) Plate: yellow galvanised steel plate
- 2) Fork: yellow galvanised steel plate
- 3) Ball race ring: yellow galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: steel bolt in grade 8.8 steel and steel nut  
Available with total front foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |        | mm    |   | mm |     | mm  |     | mm |  | mm |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|--------|-------|---|----|-----|-----|-----|----|--|----|--|-----|--|
| 100 | 30 | 1,04 | 607102 | 0,63 | 608102 | 1,18 | 609002 | 138  | 100x85 | 80x60 | 9 | 46 | 123 | 170 |     |    |  |    |  |     |  |
| 125 | 35 | 1,19 | 607103 | 0,74 | 608103 | 1,34 | 609003 | 161  | 100x85 | 80x60 | 9 | 44 | 123 | 230 |     |    |  |    |  |     |  |
| 100 | 30 | 1,06 | 607302 | 0,65 | 608302 | 1,20 | 609102 | 138  | 100x85 | 80x60 | 9 | 46 | 123 | 170 |     |    |  |    |  |     |  |
| 125 | 35 | 1,21 | 607303 | 0,76 | 608303 | 1,36 | 609103 | 161  | 100x85 | 80x60 | 9 | 44 | 123 | 230 |     |    |  |    |  |     |  |
| 100 | 30 | 1,08 | 608202 | 0,67 | 608222 | 1,23 | 608242 | 138  | 100x85 | 80x60 | 9 | 46 | 123 | 200 | 160 |    |  |    |  |     |  |
| 125 | 35 | 1,21 | 608203 | 0,76 | 608223 | 1,36 | 608243 | 161  | 100x85 | 80x60 | 9 | 44 | 123 | 250 | 200 |    |  |    |  |     |  |

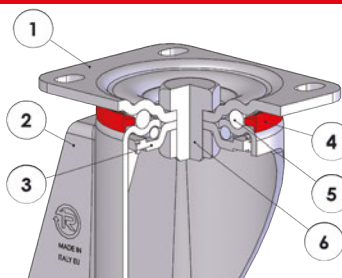
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--------|--------|
| 150 | 45 | 2,77 | 607604 | 1,85 | 608604 | 3,34 | 609004 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>350</b> |        |        |
| 200 | 50 | 3,26 | 607606 | 2,40 | 608606 | 3,83 | 609006 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> |        |        |
| 150 | 45 | 2,80 | 607504 | 1,88 | 608504 | 3,37 | 609104 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>350</b> |        |        |
| 200 | 50 | 3,29 | 607506 | 2,44 | 608506 | 3,87 | 609106 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> |        |        |
| 150 | 45 | 2,93 | 608211 | 2,01 | 608231 | 3,37 | 608251 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>350</b> |        |        |
| 160 | 50 | 3,04 | 608210 | 2,12 | 608230 | 3,60 | 608250 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>400</b> |        |        |
| 200 | 50 | 3,44 | 608206 | 2,58 | 608226 | 4,01 | 608246 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> |        |        |
| 250 | 50 | 3,99 | 608208 | 3,13 | 608228 | 4,73 | 608248 | 298 | 140x110 | 105x80 | 11 | 66 | 126 | <b>750</b> |        |        |

**Stainless steel medium-heavy duty brackets PX - max carrying capacity 450 daN**

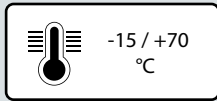
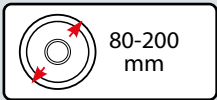


**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with adjustable total rear foot brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--------|--------|
| 150 | 45 | 2,77 | 607004 | 1,85 | 607114 | 3,34 | 607214 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>350</b> |        |        |
| 200 | 50 | 3,26 | 607006 | 2,40 | 607116 | 3,83 | 607216 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> |        |        |
| 150 | 45 | 2,80 | 607314 | 1,88 | 607414 | 3,37 | 607514 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>350</b> |        |        |
| 200 | 50 | 3,29 | 607316 | 2,44 | 607416 | 3,87 | 607516 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> |        |        |
| 150 | 45 | 2,93 | 609411 | 2,01 | 609811 | 3,37 | 609911 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>350</b> |        |        |
| 160 | 50 | 3,04 | 609410 | 2,12 | 609810 | 3,60 | 609910 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>400</b> |        |        |
| 200 | 50 | 3,44 | 609406 | 2,58 | 609806 | 4,01 | 609906 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> |        |        |

## THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE



**INOX**



### Description

Tyre: blue non-marking thermoplastic polyurethane, hardness 85 Shore A, excellent rolling resistance and elasticity, good resistance to wear and tearing.

Centre: polyamide 6.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing in a plastic cage. Also available with stainless steel roller bearings.

Hub with double shielding ball bearing, co-printed in centre (diam. 80-125 mm). Hub with double shielding ball bearing (diam. 150-200 mm). The bearing is protected from dirt, machining residue and corrosive substances by a glass-fibre reinforced polyamide installation bushing with internal labyrinth seal.

### Uses

Suitable for trolleys and machinery with medium-duty loads, also in case of continuous handling.

Suitable for indoor use for frequent washing and sterilisation.

Excellent rolling resistance guarantees minimum effort in manual handling.

Examples of recommended applications: trolleys for industrial indoor use, tubular trolleys, trolleys for food and chemical industry, mobile scaffoldings (fitted with suitable brackets, they meet Standard UNI EN 1004:2005).

### Environments of use

Suitable for industrial environments, also in presence of water and oils. Not suitable in presence of aggressive chemicals.

|              |  |  |  |              |  |  |
|--------------|--|--|--|--------------|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*








### Floors

Suitable for tiles and cement-resin. Not recommended on unpaved floors or in presence of processing residues. They facilitate overcoming small obstacles along the path. They do not mark or damage fragile floors.





### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg |
|---|-------|--------|--------|--------|--------|--------|
| 80 mm   | 3,4   | ----   | ----   | ----   | ----   | ----   |
| 100 mm  | 1,5   | 4      | ----   | ----   | ----   | ----   |
| 125 mm  | 1     | 2,5    | 4      | ----   | ----   | ----   |
| 150x35 mm   | < 1   | 2      | 3      | 4,5    | ----   | ----   |
| 150x45 mm    | < 1   | 1,8    | 3      | 3,3    | 4,1    | ----   |
| 150x45 mm    | < 1   | 1,3    | 2,5    | 2,3    | 2,8    | ----   |
| 160 mm   | < 1   | 1,3    | 1,7    | 2,2    | 3,3    | ----   |
| 200 mm   | < 1   | < 1    | 1,6    | 2,5    | 3,7    | 5      |
| 200 mm   | < 1   | < 1    | 1,4    | 1,9    | 2,3    | 2,9    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 80-200 mm

Top plate, bolt hole, solid stem, Zamak expander fittings. Available with front brake.



#### Stainless steel standard-duty brackets NLX

Maximum carrying capacity 300 daN - available diameters 80-200 mm

Top plate and bolt hole fittings Available with front brake.

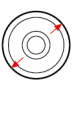
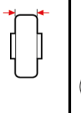


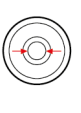
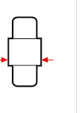



### Options available to order:

The series 61 wheels are also available with assembled thread guards (version with hub and roller bearings). To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

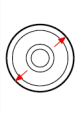
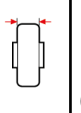




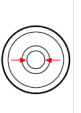
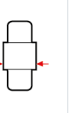



SERIES **61**

**THERMOPLASTIC POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**

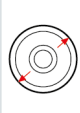
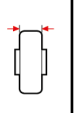




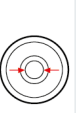
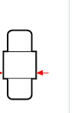





|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |
| 80  | 30  | 0,11  | 611101  | 12  | 39  | <b>160</b>  | <b>75</b>   | <b>75</b>   |  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0,15  | 611102  | 12  | 44  | <b>200</b>  | <b>120</b>  | <b>120</b>  |  |  |  |  |  |  |  |  |  |
| 125   | 35  | 0,25  | 611103  | 15  | 44  | <b>350</b>  | <b>180</b>  | <b>180</b>  |  |  |  |  |  |  |  |  |  |
| 150   | 35  | 0,35  | 611105  | 15  | 44  | <b>400</b>  | <b>220</b>  | <b>230</b>  |  |  |  |  |  |  |  |  |  |
| 150   | 45  | 0,51  | 611104  | 20  | 59  | <b>450</b>  | <b>240</b>  | <b>250</b>  |  |  |  |  |  |  |  |  |  |
| 200   | 50  | 0,87  | 611106  | 20  | 59  | <b>500</b>  | <b>300</b>  | <b>300</b>  |  |  |  |  |  |  |  |  |  |

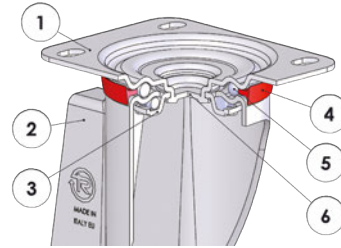


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |  |  |
| 80  | 30  | 0,13  | 613101  | 0,13  | 613201  | 12  | 39  | <b>160</b>  | <b>75</b>   | <b>75</b>  |  |  |  |  |  |  |  |
| 100   | 30  | 0,17  | 613102  | 0,17  | 613202  | 12  | 44  | <b>200</b>  | <b>120</b>  | <b>120</b>   |  |  |  |  |  |  |  |
| 125   | 35  | 0,25  | 613103  | 0,25  | 613203  | 15  | 44  | <b>350</b>  | <b>180</b>  | <b>180</b>   |  |  |  |  |  |  |  |
| 150   | 35  | 0,37  | 613105  | 0,37  | 613205  | 15  | 44  | <b>400</b>  | <b>220</b>  | <b>230</b>   |  |  |  |  |  |  |  |
| 150   | 45  | 0,54  | 613104  | 0,54  | 613204  | 20  | 59  | <b>450</b>  | <b>240</b>  | <b>250</b>   |  |  |  |  |  |  |  |
| 200   | 50  | 0,92  | 613106  | 0,92  | 613206  | 20  | 59  | <b>500</b>  | <b>300</b>  | <b>300</b>   |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | daN   | daN   | daN  |  |  |  |  |  |  |  |
| 80  | 30  | 0,17  | 612201  | 0,17  | 612401  | 8   | 40  | <b>160</b>  | <b>85</b>   | <b>85</b>  |  |  |  |  |  |  |  |
| 100   | 30  | 0,21  | 612202  | 0,21  | 612402  | 8   | 45  | <b>200</b>  | <b>120</b>  | <b>120</b>   |  |  |  |  |  |  |  |
| 125   | 35  | 0,30  | 612203  | 0,30  | 612403  | 8   | 45  | <b>350</b>  | <b>180</b>  | <b>180</b>   |  |  |  |  |  |  |  |
| 150   | 45  | 0,76  | 612204  | 0,76  | 612404  | 12  | 60  | <b>450</b>  | <b>250</b>  | <b>250</b>   |  |  |  |  |  |  |  |
| 160   | 50  | 0,87  | 612210  | 0,87  | 612410  | 12  | 60  | <b>470</b>  | <b>275</b>  | <b>275</b>   |  |  |  |  |  |  |  |
| 200   | 50  | 1,16  | 612206  | 1,16  | 612406  | 12  | 60  | <b>500</b>  | <b>300</b>  | <b>300</b>   |  |  |  |  |  |  |  |

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm         |  | mm |  | mm |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|------------|--|----|--|----|--|-----|--|
| 80  | 30 | 0,57 | 614201 | 0,42 | 615701 | 0,73 | 616601 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>75</b>  |  |    |  |    |  |     |  |
| 100 | 30 | 0,64 | 614202 | 0,50 | 615702 | 0,80 | 616602 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>120</b> |  |    |  |    |  |     |  |
| 125 | 35 | 0,85 | 614203 | 0,65 | 615703 | 1,01 | 616603 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>180</b> |  |    |  |    |  |     |  |
| 150 | 35 | 0,97 | 614204 | 0,78 | 615704 | 1,13 | 616604 | 182  | 100x85  | 80x60  | 9  | 34 | 120 | <b>220</b> |  |    |  |    |  |     |  |
| 150 | 45 | 1,84 | 614211 | 1,70 | 615711 | 2,14 | 616611 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>250</b> |  |    |  |    |  |     |  |
| 200 | 50 | 2,28 | 614206 | 2,23 | 615706 | 2,57 | 616606 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |  |    |  |    |  |     |  |
| 80  | 30 | 0,59 | 614501 | 0,44 | 615901 | 0,74 | 616621 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>75</b>  |  |    |  |    |  |     |  |
| 100 | 30 | 0,66 | 614502 | 0,52 | 615902 | 0,82 | 616622 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>120</b> |  |    |  |    |  |     |  |
| 125 | 35 | 0,87 | 614503 | 0,67 | 615903 | 1,03 | 616623 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>180</b> |  |    |  |    |  |     |  |
| 150 | 35 | 0,99 | 614504 | 0,80 | 615904 | 1,15 | 616624 | 182  | 100x85  | 80x60  | 9  | 34 | 120 | <b>220</b> |  |    |  |    |  |     |  |
| 150 | 45 | 1,87 | 614511 | 1,73 | 615911 | 2,17 | 616631 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>250</b> |  |    |  |    |  |     |  |
| 200 | 50 | 2,31 | 614506 | 2,27 | 615906 | 2,60 | 616626 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |  |    |  |    |  |     |  |
| 80  | 30 | 0,62 | 614701 | 0,47 | 614801 | 0,77 | 614901 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>85</b>  |  |    |  |    |  |     |  |
| 100 | 30 | 0,69 | 614702 | 0,54 | 614802 | 0,85 | 614902 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>120</b> |  |    |  |    |  |     |  |
| 125 | 35 | 0,87 | 614703 | 0,67 | 614803 | 1,03 | 614903 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>180</b> |  |    |  |    |  |     |  |
| 150 | 45 | 2,00 | 614731 | 1,85 | 614811 | 2,29 | 614911 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>250</b> |  |    |  |    |  |     |  |
| 160 | 50 | 2,11 | 614710 | 1,96 | 614810 | 2,40 | 614910 | 199  | 140x110 | 105x80 | 11 | 56 | 156 | <b>275</b> |  |    |  |    |  |     |  |
| 200 | 50 | 2,46 | 614736 | 2,41 | 614806 | 2,75 | 614906 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |  |    |  |    |  |     |  |

**Options available to order:**

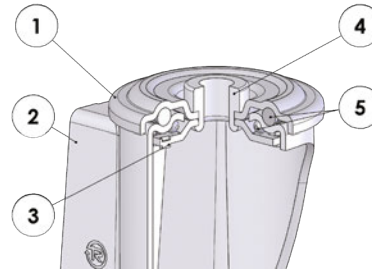


Bracket with directional lock  
d. 80-125 mm



Directional lock for brackets  
d. 150-200 mm

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

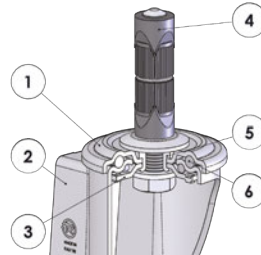
| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|--|--|--|--|
| 80  | 30 | 0,51 | 617701 | 0,67 | 616401 | 107 | 73  | 12 | 37 | 120 | <b>75</b>  |  |  |  |  |
| 100 | 30 | 0,58 | 617702 | 0,73 | 616402 | 128 | 73  | 12 | 35 | 120 | <b>120</b> |  |  |  |  |
| 125 | 35 | 0,78 | 617703 | 0,95 | 616403 | 156 | 73  | 12 | 37 | 120 | <b>180</b> |  |  |  |  |
| 150 | 35 | 0,91 | 617704 | 1,07 | 616404 | 182 | 73  | 12 | 34 | 120 | <b>220</b> |  |  |  |  |
| 150 | 45 | 1,73 | 617711 | 2,05 | 616411 | 188 | 102 | 20 | 56 | 156 | <b>250</b> |  |  |  |  |
| 200 | 50 | 2,19 | 617706 | 2,50 | 616406 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |
| 80  | 30 | 0,52 | 617801 | 0,68 | 616421 | 107 | 73  | 12 | 37 | 120 | <b>75</b>  |  |  |  |  |
| 100 | 30 | 0,60 | 617802 | 0,75 | 616422 | 128 | 73  | 12 | 35 | 120 | <b>120</b> |  |  |  |  |
| 125 | 35 | 0,80 | 617803 | 0,97 | 616423 | 156 | 73  | 12 | 37 | 120 | <b>180</b> |  |  |  |  |
| 150 | 35 | 0,93 | 617804 | 1,09 | 616424 | 182 | 73  | 12 | 34 | 120 | <b>220</b> |  |  |  |  |
| 150 | 45 | 1,78 | 617811 | 2,08 | 616431 | 188 | 102 | 20 | 56 | 156 | <b>250</b> |  |  |  |  |
| 200 | 50 | 2,22 | 617806 | 2,53 | 616426 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |
| 80  | 30 | 0,55 | 614301 | 0,71 | 615501 | 107 | 73  | 12 | 37 | 120 | <b>85</b>  |  |  |  |  |
| 100 | 30 | 0,62 | 614302 | 0,78 | 615502 | 128 | 73  | 12 | 35 | 120 | <b>120</b> |  |  |  |  |
| 125 | 35 | 0,79 | 614303 | 0,96 | 615503 | 156 | 73  | 12 | 37 | 120 | <b>180</b> |  |  |  |  |
| 150 | 45 | 1,34 | 614331 | 1,50 | 615511 | 188 | 102 | 20 | 56 | 156 | <b>250</b> |  |  |  |  |
| 160 | 50 | 2,02 | 614310 | 2,32 | 615510 | 193 | 102 | 20 | 56 | 156 | <b>275</b> |  |  |  |  |
| 200 | 50 | 2,37 | 614336 | 2,68 | 615506 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |

**Options available to order:**



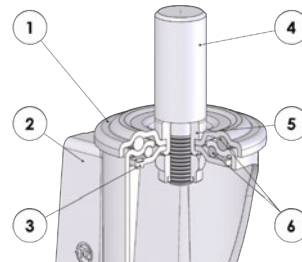
Fitting with threaded stem

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Stem: zamak expander
  - 5) King pin: bushing in electrolytically galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm | mm | mm    | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|----|----|-------|----|-----|------------|
| 80  | 30 | 0,63 | 619201 | 0,79 | 619301 | 109 | 20 | 65 | 20-24 | 37 | 120 | <b>75</b>  |
| 100 | 30 | 0,70 | 619202 | 0,85 | 619302 | 130 | 20 | 65 | 20-24 | 35 | 120 | <b>120</b> |
| 125 | 35 | 0,90 | 619203 | 1,07 | 619303 | 158 | 20 | 65 | 20-24 | 37 | 120 | <b>130</b> |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|-----|----|----|----|-----|------------|
| 100 | 30 | 0,75 | 616102 | 0,90 | 616202 | 128 | 73  | 22 | 47 | 35 | 120 | <b>120</b> |
| 125 | 35 | 0,95 | 616103 | 1,12 | 616203 | 156 | 73  | 22 | 47 | 37 | 120 | <b>180</b> |
| 150 | 35 | 1,08 | 616104 | 1,24 | 616204 | 182 | 73  | 22 | 47 | 34 | 120 | <b>220</b> |
| 150 | 45 | 2,10 | 616111 | 2,40 | 616211 | 188 | 102 | 26 | 56 | 56 | 156 | <b>250</b> |
| 200 | 50 | 2,53 | 616106 | 2,84 | 616206 | 236 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |

**Options available to order:**



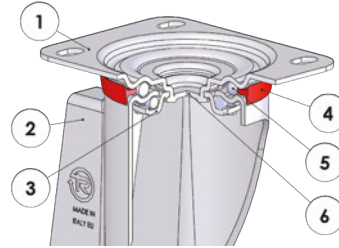
Bracket with Zamak stem fitted with wheels with roller bearings and single ball bearing d. 80-125 mm



Fitting with solid stem with customised dimensions

### Standard-duty brackets NLX in stainless steel - max carrying capacity 300 daN

**INOX**

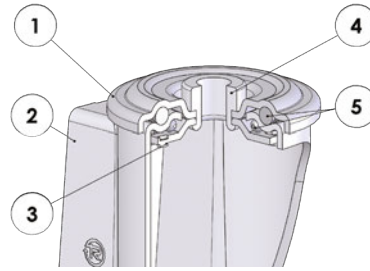


- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80  | 30 | 0,57 | 614401 | 0,42 | 615101 | 0,73 | 616701 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 75  |
| 100 | 30 | 0,64 | 614402 | 0,50 | 615102 | 0,80 | 616702 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 120 |
| 125 | 35 | 0,78 | 614403 | 0,66 | 615103 | 0,94 | 616703 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |
| 150 | 35 | 1,06 | 614404 | 0,94 | 615104 | 1,22 | 616704 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | 220 |
| 150 | 45 | 1,87 | 614411 | 1,73 | 615111 | 2,14 | 616711 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 250 |
| 200 | 50 | 2,28 | 614406 | 2,23 | 615106 | 2,57 | 616706 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 80  | 30 | 0,59 | 614601 | 0,44 | 615601 | 0,74 | 616721 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 75  |
| 100 | 30 | 0,66 | 614602 | 0,52 | 615602 | 0,82 | 616722 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 120 |
| 125 | 35 | 0,80 | 614603 | 0,68 | 615603 | 0,96 | 616723 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |
| 150 | 35 | 0,92 | 614604 | 0,80 | 615604 | 1,08 | 616724 | 182 | 100x85  | 80x60  | 9  | 34 | 120 | 220 |
| 150 | 45 | 1,87 | 614611 | 1,73 | 615611 | 2,17 | 616731 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 250 |
| 200 | 50 | 2,31 | 614606 | 2,27 | 615606 | 2,60 | 616726 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 80  | 30 | 0,62 | 615401 | 0,47 | 615001 | 0,77 | 616901 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 85  |
| 100 | 30 | 0,69 | 615402 | 0,54 | 615002 | 0,85 | 616902 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 120 |
| 125 | 35 | 0,80 | 615403 | 0,68 | 615003 | 0,96 | 616903 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |
| 150 | 45 | 2,00 | 615411 | 1,85 | 615011 | 2,29 | 616911 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 250 |
| 160 | 50 | 2,11 | 615410 | 1,96 | 615010 | 2,40 | 616910 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 275 |
| 200 | 50 | 2,46 | 615406 | 2,41 | 615006 | 2,75 | 616906 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |

**Standard-duty brackets NLX in stainless steel - max carrying capacity 300 daN**

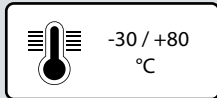
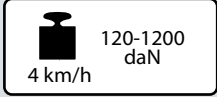
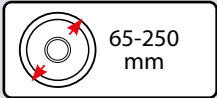
**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|--|--|--|--|
| 80  | 30 | 0,51 | 617901 | 0,67 | 618801 | 107 | 73  | 12 | 37 | 120 | <b>75</b>  |  |  |  |  |
| 100 | 30 | 0,58 | 617902 | 0,73 | 618802 | 128 | 73  | 12 | 35 | 120 | <b>120</b> |  |  |  |  |
| 125 | 35 | 0,72 | 617903 | 0,88 | 618803 | 156 | 73  | 12 | 37 | 120 | <b>180</b> |  |  |  |  |
| 150 | 35 | 0,78 | 617904 | 0,94 | 618804 | 182 | 73  | 12 | 34 | 120 | <b>220</b> |  |  |  |  |
| 150 | 45 | 1,75 | 617911 | 2,05 | 618811 | 188 | 102 | 20 | 56 | 156 | <b>250</b> |  |  |  |  |
| 200 | 50 | 2,19 | 617906 | 2,50 | 618806 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |
| 80  | 30 | 0,52 | 618001 | 0,68 | 618821 | 107 | 73  | 12 | 37 | 120 | <b>75</b>  |  |  |  |  |
| 100 | 30 | 0,60 | 618002 | 0,75 | 618822 | 128 | 73  | 12 | 35 | 120 | <b>120</b> |  |  |  |  |
| 125 | 35 | 0,74 | 618003 | 0,90 | 618823 | 156 | 73  | 12 | 37 | 120 | <b>180</b> |  |  |  |  |
| 150 | 35 | 0,84 | 618004 | 1,00 | 618824 | 182 | 73  | 12 | 34 | 120 | <b>220</b> |  |  |  |  |
| 150 | 45 | 1,78 | 618011 | 2,08 | 618831 | 188 | 102 | 20 | 56 | 156 | <b>250</b> |  |  |  |  |
| 200 | 50 | 2,22 | 618006 | 2,53 | 618826 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |
| 80  | 30 | 0,55 | 616301 | 0,71 | 616501 | 107 | 73  | 12 | 37 | 120 | <b>85</b>  |  |  |  |  |
| 100 | 30 | 0,62 | 616302 | 0,78 | 616502 | 128 | 73  | 12 | 35 | 120 | <b>120</b> |  |  |  |  |
| 125 | 35 | 0,74 | 616303 | 0,90 | 616503 | 156 | 73  | 12 | 37 | 120 | <b>180</b> |  |  |  |  |
| 150 | 45 | 1,34 | 616311 | 1,50 | 616511 | 188 | 102 | 20 | 56 | 156 | <b>250</b> |  |  |  |  |
| 160 | 50 | 2,02 | 616310 | 2,32 | 616510 | 193 | 102 | 20 | 56 | 156 | <b>275</b> |  |  |  |  |
| 200 | 50 | 2,37 | 616306 | 2,68 | 616506 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |

## POLYAMIDE 6 SOLID WHEELS



**INOX**



### Description

Polyamide 6 solid wheels 6, hardness 70 Shore D.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing with plastic cage. Also available with stainless steel roller bearings.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding. The wheel is also available without bearings.

### Uses

Intended mainly for static uses, for medium-heavy capacities.

The excellent rolling resistance ensures that minimum manual effort is needed in handling, but only on smooth floors.

Examples of recommended applications: trolleys for internal use in the food and canning industries, tannery equipment, flower trolleys, manual pallet trucks, mobile scaffoldings (fitted with adequate brackets, they meet UNI EN 1004:2005 Standards).

### Environments of use

Designed for industrial environments, even in presence of aggressive chemical substances. Not recommended in areas with strong organic acids and concentrated mineral acids.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

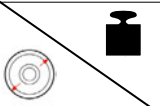
Suitable only for smooth and compact floors.

Not suited for areas with obstacles.





### Force required to push or tow a wheel

|  100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 700 kg | 1000 kg | 1200 kg |
|--|--------|--------|--------|--------|--------|---------|---------|
| 65 mm  | 5.5    | ----   | ----   | ----   | ----   | ----    | ----    |
| 80 mm  | 4      | ----   | ----   | ----   | ----   | ----    | ----    |
| 100 mm   | 3.5    | 6      | 9      | ----   | ----   | ----    | ----    |
| 125 mm   | 2.5    | 5      | 6      | 8      | ----   | ----    | ----    |
| 150 mm   | 1      | 2.5    | 6      | 8      | 10     | ----    | ----    |
| 175 mm   | < 1    | 2      | 5.5    | 7      | 9      | ----    | ----    |
| 200 mm   | < 1    | 1.8    | 4.7    | 5.8    | 6.5    | 7.8     | ----    |
| 250 mm   | < 1    | 1.5    | 4      | 4.5    | 6      | 8       | 12      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 350 daN - available diameters 65-250 mm  
Top plate, bolt hole, solid stem fittings. Available with front brake.



#### Standard-duty brackets NLX in stainless steel

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fittings. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 730 daN - available diameters 100-200 mm  
Top plate fittings. Available with front brake and adjustable rear brake.



#### Heavy supports in PX stainless steel

Maximum carrying capacity 730 daN - available diameters 150-200 mm  
Top plate fittings. Available with adjustable rear brake.



#### Electrowelded brackets EE HD

Maximum carrying capacity 1200 daN - available diameters 250 mm  
Top plate fittings. Available with adjustable rear brake.



#### Mobile scaffolding brackets (See Scaffolding section on page 310)

Maximum carrying capacity 400 daN - maximum capacity according to UNI EN 1004-2:2021 750 daN  
Available diameters 125-200 mm. Top plate, solid stem and threaded stem with leveller fittings. Available with single brake and double pedal.

### Options available to order:

The series 68 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.












Black polypropylene wheels (only version with hub with plain bore)














Polyamide 6 wheels for high loads (page 238)
















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm.   | daN   | daN   | daN   |  |  |  |  |  |  |  |  |
| 65  | 30  | 0.06  | 681100  | 12  | 34  | <b>125</b>  | <b>90</b>   | <b>120</b>  |  |  |  |  |  |  |  |  |
| 80  | 30  | 0.08  | 681111  | 12  | 39  | <b>200</b>  | <b>150</b>  | <b>180</b>  |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.13  | 681112  | 12  | 44  | <b>350</b>  | <b>175</b>  | <b>300</b>  |  |  |  |  |  |  |  |  |
| 125   | 38  | 0.23  | 681103  | 15  | 44  | <b>450</b>  | <b>200</b>  | <b>400</b>  |  |  |  |  |  |  |  |  |
| 150   | 45  | 0.34  | 681104  | 20  | 59  | <b>600</b>  | <b>250</b>  | <b>500</b>  |  |  |  |  |  |  |  |  |
| 175   | 45  | 0.48  | 681105  | 20  | 59  | <b>700</b>  | <b>275</b>  | <b>630</b>  |  |  |  |  |  |  |  |  |
| 200   | 50  | 0.64  | 681106  | 20  | 59  | <b>800</b>  | <b>315</b>  | <b>730</b>  |  |  |  |  |  |  |  |  |
| 250   | 60  | 1.30  | 681108  | 25  | 88  | <b>1300</b>   | <b>450</b>  | <b>1200</b>   |  |  |  |  |  |  |  |  |

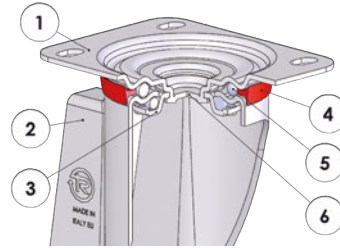


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |  |
| 80  | 30  | 0.10  | 683111  | 0.10  | 683211  | 12  | 39  | <b>200</b>  | <b>150</b>  | <b>180</b>   |  |  |  |  |  |  |
| 100   | 30  | 0.15  | 683112  | 0.15  | 683212  | 12  | 44  | <b>350</b>  | <b>175</b>  | <b>300</b>   |  |  |  |  |  |  |
| 125   | 38  | 0.25  | 683103  | 0.25  | 683203  | 15  | 44  | <b>450</b>  | <b>200</b>  | <b>400</b>   |  |  |  |  |  |  |
| 150   | 45  | 0.51  | 683104  | 0.51  | 683204  | 20  | 59  | <b>600</b>  | <b>250</b>  | <b>500</b>   |  |  |  |  |  |  |
| 175   | 45  | 0.60  | 683105  | 0.60  | 683205  | 20  | 59  | <b>700</b>  | <b>275</b>  | <b>630</b>   |  |  |  |  |  |  |
| 200   | 50  | 0.82  | 683106  | 0.82  | 683206  | 20  | 59  | <b>800</b>  | <b>315</b>  | <b>730</b>   |  |  |  |  |  |  |
| 200   | 50  | 0.81  | 683116  | 0.81  | 683216  | 25  | 59  | <b>800</b>  | <b>315</b>  | <b>730</b>   |  |  |  |  |  |  |
| 250   | 60  | 1.38  | 683108  |   |   | 25  | 88  | <b>1300</b>   | <b>450</b>  | <b>1200</b>  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm.   | mm  | mm  | daN  | daN   | daN   |  |  |  |  |
| 200   | 50  | 0.82  | 683306  | 0.63  | 682106  | 20  | 60  | 47  | 14  | <b>800</b>   | <b>315</b>  | <b>730</b>  |  |  |  |  |
| 200   | 50  | 0.81  | 683316  | 0.63  | 682106  | 25  | 60  | 47  | 14  | <b>800</b>   | <b>315</b>  | <b>730</b>  |  |  |  |  |

**Standard-duty brackets NL - max carrying capacity 350 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm    |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |         |    |    |     | daN |
|-------|----|------|--------|------|--------|------|--------|-----|---------|---------|----|----|-----|-----|
| 65    | 30 | 0.57 | 684500 | 0.37 | 685100 |      |        | 100 | 100x85  | 80x60   | 9  | 37 |     | 120 |
| 80    | 30 | 0.58 | 684501 | 0.39 | 685101 | 0.78 | 686801 | 107 | 100x85  | 80x60   | 9  | 37 | 120 | 180 |
| 100   | 30 | 0.65 | 684502 | 0.46 | 685102 | 0.85 | 686802 | 128 | 100x85  | 80x60   | 9  | 35 | 120 | 200 |
| 125   | 38 | 0.89 | 684503 | 0.64 | 685103 | 1.04 | 686803 | 156 | 100x85  | 80x60   | 9  | 37 | 120 | 220 |
| 125PG | 38 | 1.10 | 684513 | 0.91 | 685143 | 1.30 | 686843 | 156 | 140x110 | 105x80  | 11 | 37 | 120 | 220 |
| 150B  | 45 | 1.02 | 684512 | 0.85 | 685142 |      |        | 182 | 100x85  | 80x60   | 9  | 50 |     | 220 |
| 150   | 45 | 1.77 | 684504 | 1.45 | 685104 | 1.99 | 686804 | 194 | 140x110 | 105x80  | 11 | 56 | 156 | 300 |
| 175   | 45 | 1.90 | 684505 | 1.56 | 685105 | 2.13 | 686805 | 217 | 140x110 | 105x80  | 11 | 56 | 156 | 300 |
| 200   | 50 | 2.14 | 684506 | 1.92 | 685106 | 2.33 | 686806 | 240 | 140x110 | 105x80  | 11 | 56 | 156 | 300 |
| 250   | 60 | 4.62 | 684108 | 3.19 | 685108 |      |        | 296 | 200x160 | 160x120 | 14 | 86 |     | 350 |

|       |    |      |        |      |        |      |        |     |         |        |    |    |     |     |
|-------|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80    | 30 | 0.61 | 684801 | 0.41 | 685301 | 0.80 | 686821 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |
| 100   | 30 | 0.68 | 684802 | 0.49 | 685302 | 0.88 | 686822 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |
| 125   | 38 | 0.91 | 684803 | 0.66 | 685303 | 1.07 | 686823 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 125PG | 38 | 1.12 | 684813 | 0.94 | 685323 | 1.33 | 686853 | 156 | 140x110 | 105x80 | 11 | 37 | 120 | 220 |
| 150B  | 45 | 1.20 | 684812 | 1.03 | 685322 |      |        | 182 | 100x85  | 80x60  | 9  | 50 |     | 220 |
| 150   | 45 | 1.94 | 684804 | 1.63 | 685304 | 2.17 | 686824 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 175   | 45 | 2.02 | 684805 | 1.68 | 685305 | 2.27 | 686825 | 217 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200   | 50 | 2.32 | 684806 | 2.10 | 685306 | 2.46 | 686826 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |

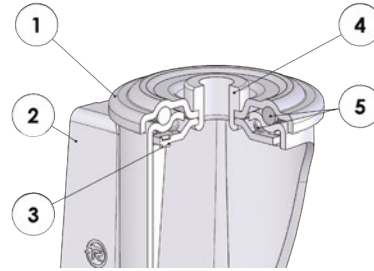
|     |    |      |        |      |        |      |        |     |         |        |    |    |     |     |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 200 | 50 | 2.50 | 684866 | 2.30 | 685166 | 2.67 | 686846 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|

**Options available to order:**















Black polypropylene wheels (only version with hub with plain bore)

Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

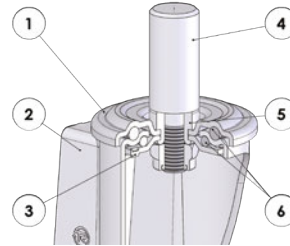
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm  | daN   |  |  |  |  |
| 65  | 30  | 0.51  | 687700  |   |   | 100   | 73  | 12  | 37  |   | <b>120</b>  |  |  |  |  |
| 80  | 30  | 0.52  | 687701  | 0.70  | 686701  | 107   | 73  | 12  | 37  | 120   | <b>180</b>  |  |  |  |  |
| 100   | 30  | 0.55  | 687702  | 0.80  | 686702  | 128   | 73  | 12  | 35  | 120   | <b>200</b>  |  |  |  |  |
| 125   | 38  | 0.85  | 687703  | 0.99  | 686703  | 156   | 73  | 12  | 37  | 120   | <b>220</b>  |  |  |  |  |
| 150   | 45  | 1.57  | 687704  | 1.86  | 686704  | 188   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |
| 175   | 45  | 1.73  | 687705  | 2.02  | 686705  | 212   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |
| 200   | 50  | 1.95  | 687706  | 2.24  | 686706  | 236   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |
| 80  | 30  | 0.54  | 687901  | 0.73  | 686721  | 107   | 73  | 12  | 37  | 120   | <b>180</b>  |  |  |  |  |
| 100   | 30  | 0.62  | 687902  | 0.83  | 686722  | 128   | 73  | 12  | 35  | 120   | <b>200</b>  |  |  |  |  |
| 125   | 38  | 0.87  | 687903  | 1.02  | 686723  | 156   | 73  | 12  | 37  | 120   | <b>220</b>  |  |  |  |  |
| 150   | 45  | 1.75  | 687904  | 2.03  | 686724  | 188   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |
| 175   | 45  | 1.85  | 687905  | 2.14  | 686725  | 212   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |
| 200   | 50  | 2.13  | 687906  | 2.42  | 686726  | 236   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |
| 200   | 50  | 2.19  | 688006  | 2.48  | 686606  | 236   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |

Options available to order:



Fitting with threaded stem

Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm | mm  | daN        |  |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|----|-----|------------|--|--|
| 100 | 30 | 0,73 | 686102 | 0,88 | 687102 | 128 | 73  | 22 | 47 | 35 | 120 | <b>200</b> |  |  |
| 125 | 38 | 0,93 | 686103 | 1,10 | 687103 | 156 | 73  | 22 | 47 | 37 | 120 | <b>220</b> |  |  |
| 150 | 45 | 1,93 | 686104 | 2,23 | 687104 | 188 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |  |  |
| 200 | 50 | 2,29 | 686106 | 2,60 | 687106 | 236 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |  |  |

Options available to order:



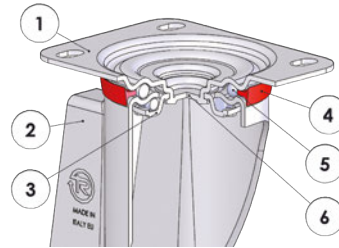
Fitting with expansion stem in polyamide d. 80-125 mm



Fitting with solid stem with dimensions that can be customised

Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN

**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

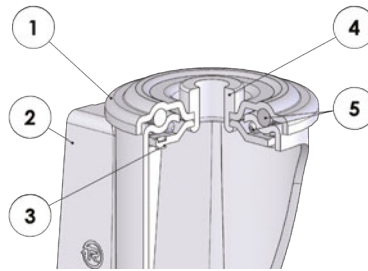
| mm   |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    |     | daN |
|------|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80   | 30 | 0.55 | 684401 | 0.29 | 685401 | 0.73 | 689001 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |
| 100  | 30 | 0.61 | 684402 | 0.36 | 685402 | 0.76 | 689002 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |
| 125  | 38 | 0.78 | 684403 | 0.63 | 685403 | 0.95 | 689003 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 150B | 45 | 1.03 | 684408 | 0.83 | 685408 |      |        | 182 | 100x85  | 80x60  | 9  | 50 |     | 220 |
| 150  | 45 | 1.65 | 684404 | 1.20 | 685404 | 1.94 | 689004 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 175  | 45 | 1.79 | 684405 | 1.35 | 685405 | 2.08 | 689005 | 217 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200  | 50 | 2.02 | 684406 | 1.56 | 685406 | 2.30 | 689006 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |

|      |    |      |        |      |        |      |        |     |         |        |    |    |     |     |
|------|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80   | 30 | 0.56 | 684601 | 0.31 | 685601 | 0.75 | 689101 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |
| 100  | 30 | 0.64 | 684602 | 0.39 | 685602 | 0.79 | 689102 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |
| 125  | 38 | 0.80 | 684603 | 0.65 | 685603 | 0.97 | 689103 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 150B | 45 | 1.21 | 684608 | 1.00 | 685608 |      |        | 182 | 100x85  | 80x60  | 9  | 50 |     | 220 |
| 150  | 45 | 1.83 | 684604 | 1.39 | 685604 | 2.11 | 689104 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 175  | 45 | 1.91 | 684605 | 1.47 | 685605 | 2.20 | 689105 | 217 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200  | 50 | 2.20 | 684606 | 1.75 | 685606 | 2.48 | 689106 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |

**Stainless steel standard-duty brackets NLX -- max carrying capacity 300 daN**

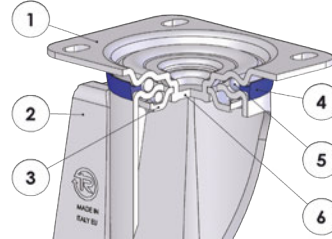
**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm  | mm         | daN |  |  |  |  |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|-----|--|--|--|--|--|
| 80  | 30 | 0.50 | 685801 | 0.68 | 686001 | 107 | 73  | 12 | 37 | 120 | <b>180</b> |     |  |  |  |  |  |
| 100 | 30 | 0.61 | 685802 | 0.79 | 686002 | 128 | 73  | 12 | 35 | 120 | <b>200</b> |     |  |  |  |  |  |
| 125 | 38 | 0.79 | 685803 | 0.93 | 686003 | 156 | 73  | 12 | 37 | 120 | <b>220</b> |     |  |  |  |  |  |
| 150 | 45 | 1.45 | 685804 | 1.75 | 686004 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |     |  |  |  |  |  |
| 175 | 45 | 1.61 | 685805 | 1.89 | 686005 | 212 | 102 | 20 | 56 | 156 | <b>300</b> |     |  |  |  |  |  |
| 200 | 50 | 1.93 | 685806 | 2.22 | 686006 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |     |  |  |  |  |  |
| 80  | 30 | 0.52 | 685901 | 0.73 | 686021 | 107 | 73  | 12 | 37 | 120 | <b>180</b> |     |  |  |  |  |  |
| 100 | 30 | 0.63 | 685902 | 0.81 | 686022 | 128 | 73  | 12 | 35 | 120 | <b>200</b> |     |  |  |  |  |  |
| 125 | 38 | 0.81 | 685903 | 0.96 | 686023 | 156 | 73  | 12 | 37 | 120 | <b>220</b> |     |  |  |  |  |  |
| 150 | 45 | 1.63 | 685904 | 1.93 | 686024 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |     |  |  |  |  |  |
| 175 | 45 | 1.73 | 685905 | 2.01 | 686025 | 212 | 102 | 20 | 56 | 156 | <b>300</b> |     |  |  |  |  |  |
| 200 | 50 | 2.11 | 685906 | 2.40 | 686026 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |     |  |  |  |  |  |

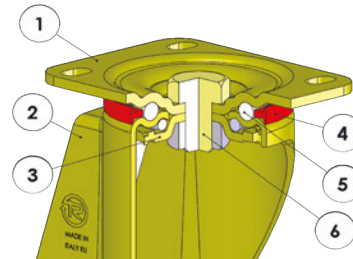
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: blue polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted  
Available with adjustable total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 150 | 45 | 2.12 | 684704 | 1.45 | 685104 | 2.52 | 688204 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | 500 |
| 200 | 50 | 2.53 | 684706 | 1.92 | 685106 | 2.89 | 688206 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 500 |
| 150 | 45 | 2.29 | 685004 | 1.63 | 685304 | 2.70 | 689204 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | 500 |
| 200 | 50 | 2.71 | 685006 | 2.10 | 685306 | 3.01 | 689206 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 500 |
| 200 | 50 | 2.69 | 684206 | 2.10 | 685166 | 3.22 | 684306 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 500 |

**Medium-heavy duty brackets P - max carrying capacity 730 daN**

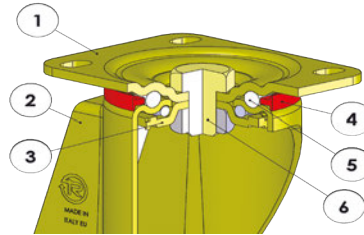


- 1) Plate: yellow galvanised steel plate
- 2) Fork: yellow galvanised steel plate
- 3) Ball race ring: yellow galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: steel bolt in grade 8.8 steel and steel nut  
Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|
| 100 | 30 | 0.99 | 687502 | 0.60 | 688502 | 1.14 | 686902 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 300 |
| 125 | 38 | 1.16 | 687503 | 0.64 | 688503 | 1.27 | 686903 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 350 |
| 100 | 30 | 1.02 | 687602 | 0.63 | 688602 | 1.17 | 686922 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 300 |
| 125 | 38 | 1.18 | 687603 | 0.66 | 688603 | 1.29 | 686923 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 350 |



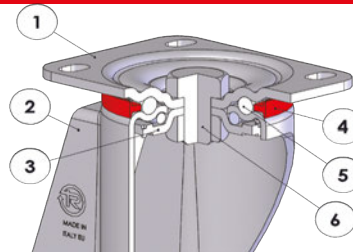
**Medium-heavy duty brackets P - max carrying capacity 730 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |         | mm     |    | mm |     | mm         |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--|-----|--|
| 150 | 45 | 2.80 | 687504 | 1.67 | 688504 | 2.98 | 686904 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>500</b> |  |     |  |
| 175 | 45 | 2.86 | 687505 | 1.45 | 688505 | 3.43 | 686905 | 225 | 140x110 | 105x80 | 11 | 70 | 156 | <b>630</b> |  |     |  |
| 200 | 50 | 3.11 | 687506 | 1.65 | 688506 | 3.39 | 686906 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>730</b> |  |     |  |
| 150 | 45 | 2.97 | 687604 | 1.57 | 688604 | 3.54 | 686924 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>500</b> |  |     |  |
| 175 | 45 | 2.98 | 687605 | 1.69 | 688605 | 3.55 | 686925 | 225 | 140x110 | 105x80 | 11 | 70 | 156 | <b>630</b> |  |     |  |
| 200 | 50 | 3.28 | 687606 | 1.83 | 688606 | 3.85 | 686926 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>730</b> |  |     |  |
| 200 | 50 | 3.35 | 684966 | 1.89 | 685366 | 3.63 | 686946 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>730</b> |  |     |  |

**Stainless steel medium-heavy duty brackets PX - max carrying capacity 730 daN**

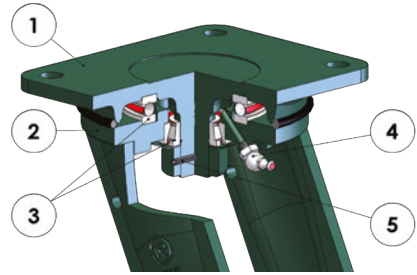


**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: red polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |         | mm     |    | mm |     | mm         |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--|-----|--|
| 150 | 45 | 2.66 | 687004 | 1.23 | 687114 | 3.23 | 687214 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>500</b> |  |     |  |
| 175 | 45 | 2.86 | 687005 | 1.42 | 687115 | 3.43 | 687215 | 225 | 140x110 | 105x80 | 11 | 70 | 156 | <b>630</b> |  |     |  |
| 200 | 50 | 3.06 | 687006 | 1.62 | 687116 | 3.63 | 687216 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>730</b> |  |     |  |
| 150 | 45 | 2.86 | 687314 | 1.41 | 687414 | 3.40 | 687514 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>500</b> |  |     |  |
| 175 | 45 | 2.94 | 687315 | 1.54 | 687415 | 3.51 | 687515 | 225 | 140x110 | 105x80 | 11 | 70 | 156 | <b>630</b> |  |     |  |
| 200 | 50 | 3.24 | 687316 | 1.80 | 687416 | 3.81 | 687516 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>730</b> |  |     |  |

Electrowelded brackets EE HD - max carrying capacity 1200 daN



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn tips electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable rear drive brake

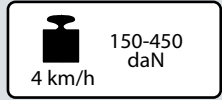
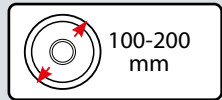
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | mm          | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|---------|----|----|-----|-------------|-----|
| 250 | 60 | 7.99 | 688307 | 6.40 | 688407 | 8.87 | 688707 | 320 | 175x140 | 140x105 | 14 | 74 | 166 | <b>1200</b> |     |



Our work, our passion

 **tellureRôta**

## SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE



### Description

Tyre: blue non-marking Sigma Elastic rubber, hardness 70 Shore A, good resistance to tear and wear.

Centre: polyamide 6.

Hub with plain bore which directly houses the axle.

Hub with cylindrical roller bearing in plastic cage. Also available with stainless steel roller bearings.

Hub with ball bearings with interference assembly in the seats obtained by centre moulding. The wheel is also available without bearings.

### Uses

Wheels with excellent elasticity features, they are particularly suitable for use on uneven surfaces, in presence of obstacles or for mixed indoor/outdoor uses with medium-duty loads.

The good elasticity and rolling resistance guarantee minimum effort, particularly on uneven surfaces.

Examples of recommended applications: trolleys for industrial indoor and outdoor handling, manual pallet trucks, flight cases for transporting musical instruments.

### Environments of use

Designed for industrial environments, even in presence of medium-harsh chemical agents. Not suitable in presence of organic, aromatic solvents, chlorinated substances and hydrocarbons.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

They are suitable for use on all types of floors, even in presence of obstacles. They do not mark or damage fragile floors.



### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 300 kg | 400 kg |
|---|-------|--------|--------|--------|--------|--------|
| 100 mm  | 2     | 5      | 8      | ----   | ----   | ----   |
| 125 mm  | 1.8   | 3      | 5      | 7      | ----   | ----   |
| 160 mm  | 1     | 2      | 3      | 5      | 8.5    | ----   |
| 180 mm  | < 1   | 1      | 2      | 3      | 5.5    | ----   |
| 200 mm  | < 1   | < 1    | 1      | 1.7    | 3.5    | 6.5    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate, bolt hole and solid stem fittings. Available with front brake.



#### Stainless steel standard-duty brackets NLX

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake.



#### Medium-duty brackets M

Maximum carrying capacity 450 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 450 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Stainless steel medium-heavy duty brackets PX










Maximum carrying capacity 450 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear brake.

### Options available to order:












The series 73 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

**SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE**
















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm.   | daN   | daN   | daN   |  |  |  |  |  |  |  |  |
| 100   | 40  | 0.31  | 731102  | 12  | 44  | <b>200</b>  | <b>100</b>  | <b>150</b>  |  |  |  |  |  |  |  |  |
| 125   | 40  | 0.38  | 731103  | 15  | 44  | <b>270</b>  | <b>150</b>  | <b>230</b>  |  |  |  |  |  |  |  |  |
| 160   | 50  | 0.83  | 731104  | 20  | 59  | <b>350</b>  | <b>200</b>  | <b>300</b>  |  |  |  |  |  |  |  |  |
| 180   | 50  | 0.90  | 731105  | 20  | 59  | <b>400</b>  | <b>280</b>  | <b>350</b>  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.04  | 731106  | 20  | 59  | <b>510</b>  | <b>350</b>  | <b>450</b>  |  |  |  |  |  |  |  |  |

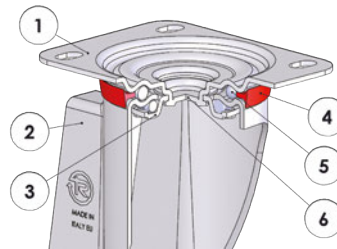


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |  |
| 100   | 40  | 0.36  | 733102  | 0,36  | 733202  | 12  | 44  | <b>200</b>  | <b>100</b>  | <b>150</b>   |  |  |  |  |  |  |
| 125   | 40  | 0.58  | 733103  | 0,58  | 733203  | 20  | 44  | <b>270</b>  | <b>150</b>  | <b>230</b>   |  |  |  |  |  |  |
| 160   | 50  | 1.04  | 733104  | 1.04  | 733204  | 20  | 59  | <b>350</b>  | <b>200</b>  | <b>300</b>   |  |  |  |  |  |  |
| 180   | 50  | 1.10  | 733105  | 1.10  | 733205  | 20  | 59  | <b>400</b>  | <b>280</b>  | <b>350</b>   |  |  |  |  |  |  |
| 200   | 50  | 1.25  | 733106  | 1.25  | 733206  | 20  | 59  | <b>510</b>  | <b>350</b>  | <b>450</b>   |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm.   | mm  | mm  | daN  | daN   | daN   |  |  |  |  |
| 100   | 40  | 0.36  | 732102  | 0.29  | 734102  | 12  | 40  | 32  | 11.5  | <b>200</b>   | <b>120</b>  | <b>150</b>  |  |  |  |  |
| 125   | 40  | 0.58  | 732103  | 0.38  | 734103  | 20  | 44  | 47  | 17  | <b>270</b>   | <b>200</b>  | <b>230</b>  |  |  |  |  |
| 160   | 50  | 0.99  | 732104  | 0.79  | 734104  | 20  | 58  | 47  | 17  | <b>350</b>   | <b>250</b>  | <b>300</b>  |  |  |  |  |
| 160   | 50  | 0.94  | 732114  | 0.79  | 734104  | 25  | 58  | 47  | 17  | <b>350</b>   | <b>250</b>  | <b>300</b>  |  |  |  |  |
| 180   | 50  | 1.05  | 732105  | 0.85  | 734105  | 20  | 58  | 47  | 17  | <b>400</b>   | <b>320</b>  | <b>350</b>  |  |  |  |  |
| 180   | 50  | 1.00  | 732115  | 0.85  | 734105  | 25  | 58  | 47  | 17  | <b>400</b>   | <b>320</b>  | <b>350</b>  |  |  |  |  |
| 200   | 50  | 1.12  | 732106  | 0.92  | 734106  | 20  | 58  | 47  | 17  | <b>510</b>   | <b>350</b>  | <b>450</b>  |  |  |  |  |
| 200   | 50  | 1.07  | 732116  | 0.92  | 734106  | 25  | 58  | 47  | 17  | <b>510</b>   | <b>350</b>  | <b>450</b>  |  |  |  |  |

Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  |    | kg   |        | CODE |        | kg   |        | CODE |         | mm     |    | mm |     | mm  |  | mm |  | mm |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|--|----|--|----|--|-----|--|
| 100 | 40 | 0.85 | 735002 | 0.65 | 735102 | 0.97 | 735202 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | 150 |  |    |  |    |  |     |  |
| 125 | 40 | 1.08 | 735003 | 0.81 | 735103 | 1.19 | 735203 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | 220 |  |    |  |    |  |     |  |
| 160 | 50 | 2.11 | 735004 | 1.74 | 735104 | 2.36 | 735204 | 198  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 180 | 50 | 2.22 | 735005 | 1.81 | 735105 | 2.46 | 735205 | 219  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 200 | 50 | 2.44 | 735006 | 1.98 | 735106 | 2.69 | 735206 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 100 | 40 | 0.91 | 735302 | 0.70 | 735402 | 1.02 | 735502 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | 150 |  |    |  |    |  |     |  |
| 125 | 40 | 1.23 | 735303 | 0.96 | 735403 | 1.34 | 735503 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | 220 |  |    |  |    |  |     |  |
| 160 | 50 | 2.32 | 735304 | 1.89 | 735404 | 2.51 | 735504 | 198  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 180 | 50 | 2.42 | 735305 | 1.96 | 735405 | 2.61 | 735505 | 219  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 200 | 50 | 2.65 | 735306 | 2.06 | 735406 | 2.77 | 735506 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 100 | 40 | 0.91 | 735602 | 0.70 | 735702 | 1.02 | 735802 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | 150 |  |    |  |    |  |     |  |
| 125 | 40 | 1.23 | 735603 | 0.96 | 735703 | 1.34 | 735803 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | 220 |  |    |  |    |  |     |  |
| 160 | 50 | 2.32 | 735604 | 1.94 | 735704 | 2.56 | 735804 | 198  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 180 | 50 | 2.42 | 735605 | 2.01 | 735705 | 2.66 | 735805 | 219  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |
| 200 | 50 | 2.65 | 735606 | 2.19 | 735706 | 2.89 | 735806 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |  |    |  |    |  |     |  |

Options available to order:



Bracket with directional lock  
d. 80-125 mm

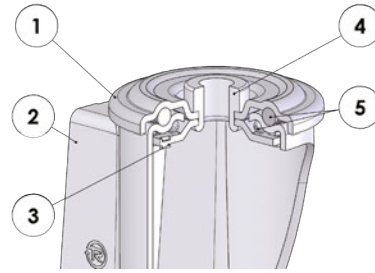


Directional lock for brackets  
d. 150-200 mm















Bracket with active centralised brake  
d. 160-200 mm

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm  | daN   |  |  |  |  |  |
| 100   | 40  | 0.75  | 737702  | 0.93  | 738202  | 128   | 73  | 12  | 35  | 120   | <b>150</b>  |  |  |  |  |  |
| 125   | 40  | 0.90  | 737703  | 1.11  | 738203  | 156   | 73  | 12  | 37  | 120   | <b>220</b>  |  |  |  |  |  |
| 160   | 50  | 1.43  | 737704  | 1.56  | 738204  | 193   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 180   | 50  | 2.21  | 737705  | 2.49  | 738205  | 214   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 200   | 50  | 2.35  | 737706  | 2.63  | 738206  | 236   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 100   | 40  | 0.81  | 737802  | 0.98  | 738302  | 128   | 73  | 12  | 35  | 120   | <b>150</b>  |  |  |  |  |  |
| 125   | 40  | 1.05  | 737803  | 1.26  | 738303  | 156   | 73  | 12  | 37  | 120   | <b>220</b>  |  |  |  |  |  |
| 160   | 50  | 1.64  | 737804  | 1.77  | 738304  | 193   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 180   | 50  | 2.41  | 737805  | 2.69  | 738305  | 214   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 200   | 50  | 2.56  | 737806  | 2.84  | 738306  | 236   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 100   | 40  | 0.81  | 735902  | 0.98  | 738402  | 128   | 73  | 12  | 35  | 120   | <b>150</b>  |  |  |  |  |  |
| 125   | 40  | 1.05  | 735903  | 1.26  | 738403  | 156   | 73  | 12  | 37  | 120   | <b>220</b>  |  |  |  |  |  |
| 160   | 50  | 1.64  | 735904  | 1.77  | 738404  | 193   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 180   | 50  | 2.41  | 735905  | 2.69  | 738405  | 214   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |
| 200   | 50  | 2.56  | 735906  | 2.84  | 738406  | 236   | 102   | 20  | 56  | 156   | <b>300</b>  |  |  |  |  |  |

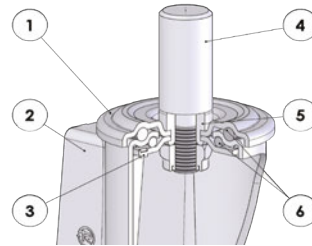
**Options available to order:**



Bracket with Zamak stem fitted  
d. 80-125 mm



**Standard-duty brackets NL - max carrying capacity 300 daN**

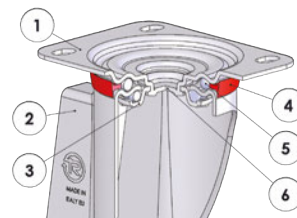


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|-----|----|----|----|-----|------------|
| 100 | 40 | 0,81 | 738702 | 0,96 | 738802 | 128 | 73  | 22 | 47 | 35 | 120 | <b>150</b> |
| 125 | 40 | 1,02 | 738703 | 1,19 | 738803 | 156 | 73  | 22 | 47 | 37 | 120 | <b>220</b> |
| 160 | 50 | 1,44 | 738704 | 1,60 | 738804 | 193 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |
| 180 | 50 | 2,44 | 738705 | 2,74 | 738805 | 214 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |
| 200 | 50 | 2,62 | 738706 | 2,93 | 738806 | 236 | 102 | 26 | 56 | 56 | 156 | <b>300</b> |

**Stainless steel - standard duty brackets NLX - max carrying capacity 300 daN**

**INOX**

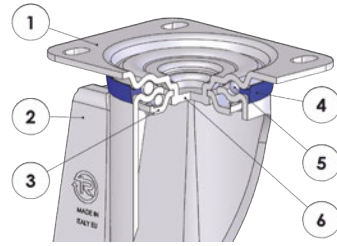


- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 100 | 40 | 0.85 | 739402 | 0.65 | 739502 | 0.97 | 739602 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>150</b> |
| 125 | 40 | 1.08 | 739403 | 0.81 | 739503 | 1.19 | 739603 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |
| 160 | 50 | 2.11 | 739404 | 1.74 | 739504 | 2.36 | 739604 | 198 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |
| 200 | 50 | 2.44 | 739406 | 1.98 | 739506 | 2.69 | 739606 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |
| 100 | 40 | 0.91 | 739702 | 0.70 | 739802 | 1.02 | 739902 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>150</b> |
| 125 | 40 | 1.23 | 739703 | 0.96 | 739803 | 1.34 | 739903 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |
| 160 | 50 | 2.32 | 739704 | 1.89 | 739804 | 2.51 | 739904 | 198 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |
| 200 | 50 | 2.65 | 739706 | 2.06 | 739806 | 2.77 | 739906 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |

**SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE**

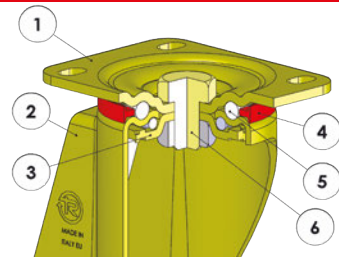
**Medium-duty brackets M - max carrying capacity 450 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 160 | 50 | 2.46 | 736904 | 1.74 | 735104 | 2.89 | 737604 | 198 | 140x110 | 105x80 | 11 | 58 | 178 | 300 |
| 200 | 50 | 2.83 | 736906 | 1.98 | 735106 | 3.24 | 737606 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 450 |
| 160 | 50 | 2.67 | 738904 | 1.94 | 735404 | 3.09 | 739004 | 198 | 140x110 | 105x80 | 11 | 58 | 178 | 300 |
| 200 | 50 | 3.04 | 738906 | 2.19 | 735406 | 3.44 | 739006 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 450 |
| 160 | 50 | 2.62 | 739104 | 1.89 | 735704 | 3.04 | 739204 | 198 | 140x110 | 105x80 | 11 | 58 | 178 | 300 |
| 200 | 50 | 2.91 | 739106 | 2.06 | 735706 | 3.32 | 739206 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 450 |

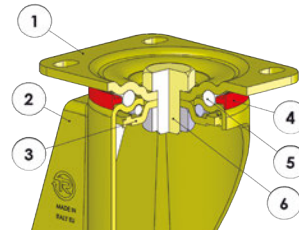
**Medium-heavy duty brackets P - max carrying capacity 450 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|
| 100 | 40 | 1,18 | 736002 | 0,69 | 736102 | 1,33 | 736202 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 150 |
| 125 | 40 | 1,34 | 736003 | 0,82 | 736103 | 1,48 | 736203 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 230 |
| 100 | 40 | 1,23 | 736302 | 0,73 | 736402 | 1,37 | 736502 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 150 |
| 125 | 40 | 1,49 | 736303 | 0,97 | 736403 | 1,63 | 736503 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 230 |
| 100 | 40 | 1,23 | 736602 | 0,73 | 736702 | 1,37 | 736802 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 150 |
| 125 | 40 | 1,49 | 736603 | 0,97 | 736703 | 1,63 | 736803 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 230 |

## Medium-heavy duty brackets P - max carrying capacity 450 daN

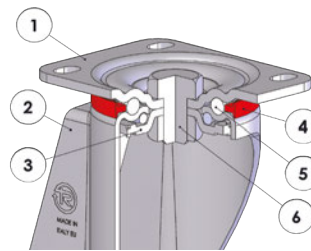


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |         | mm     |    | mm |     | mm  |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|--|-----|--|
| 160 | 50 | 3,18 | 736004 | 1,79 | 736104 | 3,75 | 736204 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |  |     |  |
| 180 | 50 | 3,29 | 736005 | 1,89 | 736105 | 3,86 | 736205 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |  |     |  |
| 200 | 50 | 3,54 | 736006 | 2,05 | 736106 | 4,11 | 736206 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 450 |  |     |  |
| 160 | 50 | 3,39 | 736304 | 1,99 | 736404 | 3,91 | 736504 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |  |     |  |
| 180 | 50 | 3,49 | 736305 | 2,09 | 736405 | 4,06 | 736505 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |  |     |  |
| 200 | 50 | 3,74 | 736306 | 2,26 | 736406 | 4,31 | 736506 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 450 |  |     |  |
| 160 | 50 | 3,34 | 736604 | 1,99 | 736704 | 3,91 | 736804 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |  |     |  |
| 180 | 50 | 3,44 | 736605 | 2,04 | 736705 | 4,01 | 736805 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |  |     |  |
| 200 | 50 | 3,62 | 736606 | 2,13 | 736706 | 4,19 | 736806 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 450 |  |     |  |

## Stainless steel medium-heavy duty brackets PX - max carrying capacity 450 daN

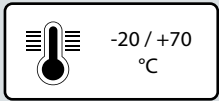
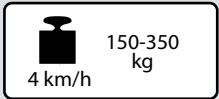
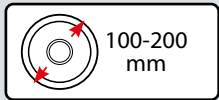
**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |         | mm     |    | mm |     | mm  |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|--|-----|--|
| 160 | 50 | 3,19 | 737004 | 1,74 | 737104 | 3,76 | 737204 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |  |     |  |
| 180 | 50 | 3,36 | 737005 | 1,81 | 737105 | 3,93 | 737205 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |  |     |  |
| 200 | 50 | 3,58 | 737006 | 1,98 | 737106 | 4,15 | 737206 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 450 |  |     |  |
| 160 | 50 | 3,40 | 737304 | 1,94 | 737404 | 3,97 | 737504 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |  |     |  |
| 180 | 50 | 3,56 | 737305 | 2,01 | 737405 | 4,13 | 737505 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |  |     |  |
| 200 | 50 | 3,78 | 737306 | 2,19 | 737406 | 4,35 | 737506 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 450 |  |     |  |

## ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE



### Description

Tyre: blue non-marking elastic rubber, hardness 70 Shore A

Centre: in polyamide 6.

Hub with plain bore hole which directly houses the axle.

Hub with ball bearings with interference assembly in the seats obtained by centre moulding.

### Uses

Wheels with good elasticity, they are particularly suitable for use on uneven surfaces, in presence of obstacles or for mixed indoor/outdoor uses with medium-duty loads. Examples of recommended applications: trolleys for industrial indoor and outdoor handling, manual transpallet, flight cases for transporting musical instruments.

### Environments of use

Designed for industrial environments, even in presence of medium-harsh chemical agents. Not suitable in presence of organic, aromatic solvents, chlorinated substances and hydrocarbons.

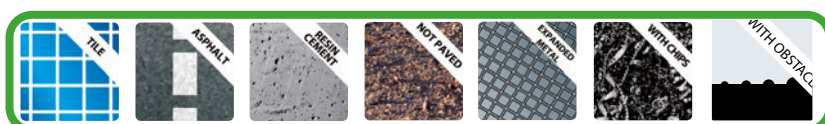
|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |



For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

They are suitable for use on all types of floors, even in the presence of obstacles. They do not mark or damage fragile floors.



### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 300 kg | 400 kg |
|---|-------|--------|--------|--------|--------|--------|
| 100 mm  | 2     | 5      | 8      | ----   | ----   | ----   |
| 125 mm  | 1.8   | 3      | 5      | 7      | ----   | ----   |
| 160 mm  | 1     | 2      | 3      | 6      | 8.5    | ----   |
| 200 mm  | < 1   | 1.7    | 2.5    | 3.8    | 6.5    | ----   |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and centralised brake.












#### Medium-heavy duty brackets P

Maximum carrying capacity 350 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.












SERIES **73AE**

ELASTIC RUBBER WHEELS  
WITH POLYAMIDE 6 CENTRE

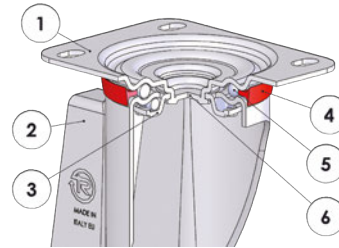


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |  |
| 100   | 36  | 0.22  | 731102AE  | 12  | 44  | <b>200</b>  | <b>100</b>  | <b>150</b>  |  |  |  |  |  |  |  |  |  |
| 125   | 36  | 0.33  | 731103AE  | 12  | 44  | <b>270</b>  | <b>150</b>  | <b>200</b>  |  |  |  |  |  |  |  |  |  |
| 160   | 48  | 0.76  | 731104AE  | 20  | 59  | <b>350</b>  | <b>175</b>  | <b>300</b>  |  |  |  |  |  |  |  |  |  |
| 200   | 48  | 1.06  | 731106AE  | 20  | 59  | <b>510</b>  | <b>235</b>  | <b>350</b>  |  |  |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |  |  |
| 100   | 36  | 0.32  | 732102AE  | 12  | 40  | 32  | 10  | <b>200</b>  | <b>100</b>  | <b>150</b>   |  |  |  |  |  |  |  |
| 125   | 36  | 0.41  | 732103AE  | 12  | 40  | 32  | 10  | <b>270</b>  | <b>150</b>  | <b>200</b>   |  |  |  |  |  |  |  |
| 160   | 48  | 0.98  | 732104AE  | 20  | 55  | 47  | 14  | <b>350</b>  | <b>175</b>  | <b>300</b>   |  |  |  |  |  |  |  |
| 200   | 48  | 1.28  | 732106AE  | 20  | 55  | 47  | 14  | <b>510</b>  | <b>235</b>  | <b>350</b>   |  |  |  |  |  |  |  |

**Standard-duty brackets NL - max carrying capacity 300 daN**



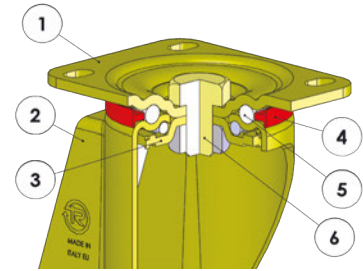
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | CODE     | kg   | CODE     | kg   | CODE     | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|----------|------|----------|------|----------|-----|---------|--------|----|----|-----|------------|-----|
| 100 | 36 | 0.76 | 735002AE | 0.56 | 735102AE | 0.88 | 735202AE | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>150</b> |     |
| 125 | 36 | 1.03 | 735003AE | 0.76 | 735103AE | 1.14 | 735203AE | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>200</b> |     |
| 160 | 48 | 2.04 | 735004AE | 1.67 | 735104AE | 2.29 | 735204AE | 198 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 48 | 2.46 | 735006AE | 2.00 | 735106AE | 2.71 | 735206AE | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 100 | 36 | 0.87 | 735602AE | 0.66 | 735702AE | 0.93 | 735802AE | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>150</b> |     |
| 125 | 36 | 1.06 | 735603AE | 0.79 | 735703AE | 1.12 | 735803AE | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>200</b> |     |
| 160 | 48 | 2.26 | 735604AE | 1.88 | 735704AE | 2.50 | 735804AE | 198 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 48 | 2.68 | 735606AE | 2.22 | 735706AE | 2.93 | 735806AE | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |



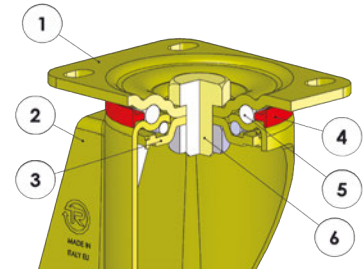
| mm  | mm | kg   | COD.     | mm  | mm      | mm     | mm | mm | mm      | mm | daN        |
|-----|----|------|----------|-----|---------|--------|----|----|---------|----|------------|
| 160 | 50 | 2,47 | 734804AE | 199 | 140x110 | 105x80 | 11 | 56 | M10x1,5 | 65 | <b>300</b> |
| 200 | 50 | 2,87 | 734806AE | 240 | 140x110 | 105x80 | 11 | 56 | M10x1,5 | 65 | <b>300</b> |

**Medium-heavy duty brackets P - max carrying capacity 350 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | CODE     | kg   | CODE     | kg   | CODE     | mm  | mm     | mm    | mm | mm | mm  | daN |
|-----|----|------|----------|------|----------|------|----------|-----|--------|-------|----|----|-----|-----|
| 100 | 36 | 1.09 | 736002AE | 0.60 | 736102AE | 1.24 | 736202AE | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 150 |
| 125 | 36 | 1.29 | 736003AE | 0.77 | 736103AE | 1.28 | 736203AE | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 200 |
| 100 | 36 | 1.19 | 736602AE | 0.69 | 736702AE | 1.33 | 736802AE | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 150 |
| 125 | 36 | 1.32 | 736603AE | 0.80 | 736703AE | 1.46 | 736803AE | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 200 |



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE     | kg   | CODE     | kg   | CODE     | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|----------|------|----------|------|----------|-----|---------|--------|----|----|-----|-----|
| 160 | 48 | 3.11 | 736004AE | 1.72 | 736104AE | 3.68 | 736204AE | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |
| 200 | 48 | 3.56 | 736006AE | 2.07 | 736106AE | 4.13 | 736206AE | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |
| 160 | 48 | 3.33 | 736604AE | 1.98 | 736704AE | 3.90 | 736804AE | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 300 |
| 200 | 48 | 3.78 | 736606AE | 2.29 | 736706AE | 4.35 | 736806AE | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 350 |





Details make the difference

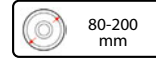
 **tellureRôta**

# INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING

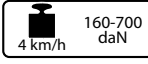


SERIES **62<sup>BS</sup>**

"TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE



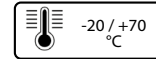
80-200  
mm



4 km/h 160-700  
daN



160-700  
daN



-20 / +70  
°C

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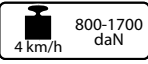


SERIES **62<sup>FG</sup>**

"TR-ROLL" POLYURETHANE WHEELS WITH CAST IRON CENTRE



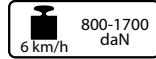
200-400  
mm



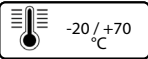
4 km/h 800-1700  
daN



700-900  
daN



6 km/h 800-1700  
daN



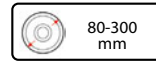
-20 / +70  
°C

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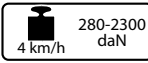


SERIES **63<sup>FG</sup>**

VULKOLLAN® WHEELS WITH CAST IRON CENTRE



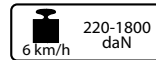
80-300  
mm



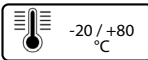
4 km/h 280-2300  
daN



190-600  
daN



6 km/h 220-1800  
daN



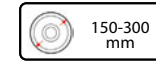
-20 / +80  
°C

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SERIES **65<sup>FG</sup>**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE



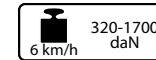
150-300  
mm



4 km/h 400-2200  
daN



280-550  
daN



6 km/h 320-1700  
daN



-20 / +80  
°C

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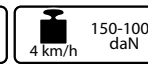


SERIES **66**

"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE



80-250  
mm



4 km/h 150-1000  
daN



100-400  
daN



6 km/h 120-480  
daN



-20 / +80  
°C

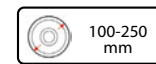
**INOX**

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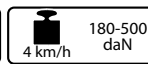


SERIES **72<sup>AL</sup>**

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE



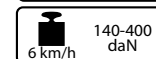
100-250  
mm



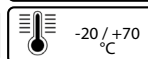
4 km/h 180-500  
daN



180-300  
daN



6 km/h 140-400  
daN



-20 / +70  
°C

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### SERIES 62<sup>AL</sup>

THICK "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

|                       |                       |             |
|-----------------------|-----------------------|-------------|
| 100-250 mm            | 300-800 daN<br>4 km/h | 300-700 daN |
| 300-800 daN<br>6 km/h | -20/+70 °C            |             |

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### SERIES 62<sup>E</sup>

"TR-ROLL" POLYURETHANE WHEELS WITH ERGONOMIC ROUND PROFILE AND ALUMINIUM CENTRE

|                       |                       |                          |
|-----------------------|-----------------------|--------------------------|
| 100-250 mm            | 200-800 daN<br>4 km/h | 200-800 daN              |
| 200-700 daN<br>6 km/h | -20/+70 °C            | <b>ERGO</b><br>WORKPLACE |

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### SERIES 62<sup>E</sup>

"TR-ROLL" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

|                       |                       |                          |
|-----------------------|-----------------------|--------------------------|
| 100-200 mm            | 230-500 daN<br>4 km/h | 230-500 daN              |
| 230-450 daN<br>6 km/h | -20/+70 °C            | <b>ERGO</b><br>WORKPLACE |

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### SERIES 63<sup>AC</sup>

VULKOLLAN® WHEELS WITH STEEL CENTRE

|                        |                        |             |
|------------------------|------------------------|-------------|
| 100-250 mm             | 250-1500 daN<br>4 km/h | 190-550 daN |
| 200-1200 daN<br>6 km/h | -20/+80 °C             |             |

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### SERIES 64

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

|                        |                        |             |
|------------------------|------------------------|-------------|
| 80-400 mm              | 150-3500 daN<br>4 km/h | 150-750 daN |
| 120-2800 daN<br>6 km/h | -20/+80 °C             |             |

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### SERIES 65<sup>AL</sup>

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

|                       |                       |             |
|-----------------------|-----------------------|-------------|
| 80-200 mm             | 220-850 daN<br>4 km/h | 150-360 daN |
| 170-680 daN<br>6 km/h | -20/+80 °C            |             |

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### SERIES 65<sup>E</sup>

THICK "TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

|                       |                        |             |
|-----------------------|------------------------|-------------|
| 100-250 mm            | 350-1000 daN<br>4 km/h | 270-380 daN |
| 280-800 daN<br>6 km/h | -20/+80 °C             |             |

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### SERIES 65<sup>E</sup>

"TR" POLYURETHANE WHEELS WITH ERGONOMIC ROUND PROFILE AND ALUMINIUM CENTRE

|                       |                       |                          |
|-----------------------|-----------------------|--------------------------|
| 100-250 mm            | 450-800 daN<br>4 km/h | 250-330 daN              |
| 360-800 daN<br>6 km/h | -20/+80 °C            | <b>ERGO</b><br>WORKPLACE |

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### SERIES 68<sup>A</sup>

POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS

|            |                        |             |
|------------|------------------------|-------------|
| 100-200 mm | 350-1500 daN<br>4 km/h | 200-650 daN |
| -30/+80 °C | <b>INOX</b>            |             |

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### SERIES 69

CAST IRON SOLID WHEELS

|             |                        |             |
|-------------|------------------------|-------------|
| 100-200 mm  | 500-1400 daN<br>4 km/h | 260-800 daN |
| -40/+400 °C |                        |             |

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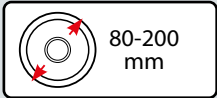
### SERIES 72<sup>E</sup>

SIGMA ELASTIC RUBBER WHEELS CAST IRON CENTRE

|                       |                       |             |
|-----------------------|-----------------------|-------------|
| 120-300 mm            | 300-950 daN<br>4 km/h | 250-500 daN |
| 240-760 daN<br>6 km/h | -20/+70 °C            |             |

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## "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE



### Description

Tyre: TR-Roll polyurethane, hardness 75 Shore A, with excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

They show excellent rolling resistance and ability to damp noise when manually handling medium/heavy-duty loads, for mostly indoor use, on regular floors or slightly uneven surfaces with small obstacles.

Not suitable for mechanical handling.

Examples of applications: trolleys for indoor industrial handling, containers, manual pallet trucks, tilt trucks.

### Environments of use

Industrial environments, even in presence of humidity and oils. Not suitable in presence of strong acids and solvents.

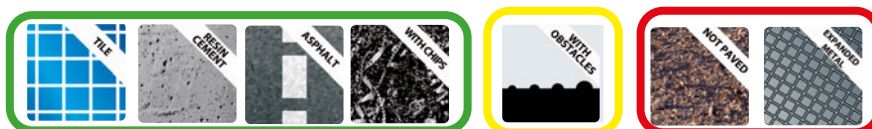
|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for tiles, cement-resin, asphalt and expanded metal.

Not suitable on unpaved floors and/or in case large obstacles are present.



### Force required to push or tow a wheel

|   | 150 kg | 250 kg | 350 kg | 450 kg | 550 kg | 700 kg |
|---|--------|--------|--------|--------|--------|--------|
| 80 mm   | 2,5    | ---    | ---    | ---    | ---    | ---    |
| 100 mm  | 2,2    | ---    | ---    | ---    | ---    | ---    |
| 125 mm  | 1      | 2,3    | ---    | ---    | ---    | ---    |
| 150 mm  | <1     | 1,7    | 2,7    | 3,8    | ---    | ---    |
| 160 mm  | <1     | 1,4    | 2,3    | 3,5    | 4,9    | ---    |
| 200 mm  | <1     | 1,2    | 1,8    | 2,6    | 3,4    | 4,6    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate fitting. Available with front brake.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

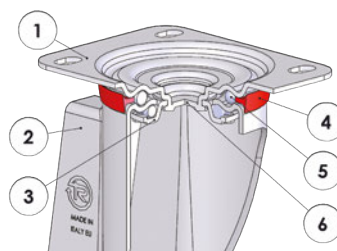
Maximum carrying capacity 700 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.

## "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE



| mm  | mm | kg   | COD.   | kg   | COD.   | mm | mm. | mm | mm | daN         | daN        | daN        |
|-----|----|------|--------|------|--------|----|-----|----|----|-------------|------------|------------|
| 80  | 25 | 0,20 | 622181 | 0,15 | 624181 | 12 | 30  | 28 | 8  | <b>230</b>  | <b>160</b> | <b>160</b> |
| 100 | 30 | 0,34 | 622182 | 0,25 | 624182 | 12 | 40  | 32 | 10 | <b>300</b>  | <b>200</b> | <b>200</b> |
| 125 | 35 | 0,50 | 622183 | 0,41 | 624183 | 12 | 40  | 32 | 10 | <b>400</b>  | <b>250</b> | <b>250</b> |
| 150 | 40 | 0,83 | 622184 | 0,59 | 624184 | 20 | 50  | 47 | 14 | <b>750</b>  | <b>450</b> | <b>450</b> |
| 160 | 50 | 1,23 | 622185 | 0,99 | 624185 | 20 | 58  | 47 | 14 | <b>850</b>  | <b>550</b> | <b>550</b> |
| 200 | 50 | 1,47 | 622186 | 1,16 | 624186 | 20 | 55  | 52 | 15 | <b>1000</b> | <b>700</b> | <b>700</b> |

### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 80  | 25 | 0,72 | 625951 | 0,52 | 626751 | 0,91 | 627151 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>160</b> |     |
| 100 | 30 | 0,81 | 625952 | 0,67 | 626752 | 1,08 | 627152 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |     |
| 125 | 35 | 1,05 | 625953 | 0,83 | 626753 | 1,28 | 627153 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |     |
| 150 | 40 | 2,19 | 625954 | 2,00 | 626754 | 2,63 | 627154 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 160 | 50 | 2,40 | 625960 | 2,29 | 626760 | 2,97 | 627160 | 198 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 50 | 2,86 | 625956 | 2,90 | 626756 | 3,12 | 627156 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |

### Options available to order:

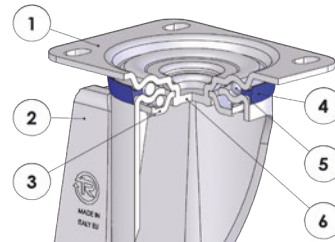


Directional lock for brackets d. 150-200 mm



Footguards for brackets NL-M-P-PT

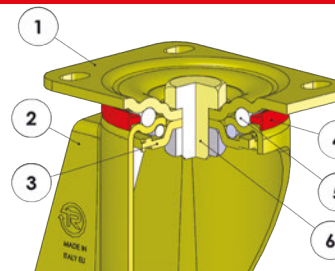
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanized steel plate
  - 2) Fork: electrolytically galvanized steel plate
  - 3) Ball race ring: electrolytically galvanized steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 150 | 40 | 2,47 | 624514 | 2,00 | 626754 | 2,91 | 627414 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>450</b> |
| 160 | 50 | 2,71 | 624510 | 2,29 | 626760 | 3,15 | 627410 | 199 | 140x110 | 105x80 | 11 | 58 | 178 | <b>500</b> |
| 200 | 50 | 3,30 | 624516 | 2,90 | 626756 | 3,74 | 627416 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |

**Medium-heavy duty brackets P - max carrying capacity 700 daN**



- 1) Plate: yellow galvanized steel plate
  - 2) Fork: yellow galvanized steel plate
  - 3) Ball race ring: yellow galvanized steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

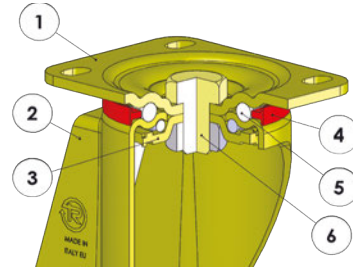
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm     | mm    | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|------------|
| 100 | 30 | 1,20 | 627612 | 0,78 | 628542 | 1,35 | 627212 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | <b>200</b> |
| 125 | 35 | 1,60 | 627633 | 0,98 | 628543 | 1,52 | 627233 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | <b>250</b> |

**Options available to order:**



Footguards for brackets NL-M-P-PT

Medium-heavy duty brackets P - max carrying capacity 700 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| Wheel |    | Bracket |        | Bracket |        | Bracket |        | Bracket |         | Bracket |    | Bracket |     | Bracket |            |
|-------|----|---------|--------|---------|--------|---------|--------|---------|---------|---------|----|---------|-----|---------|------------|
| mm    | mm | kg      | COD.   | kg      | COD.   | kg      | COD.   | mm      | mm      | mm      | mm | mm      | mm  | mm      | daN        |
| 150   | 40 | 3,18    | 627614 | 2,19    | 628544 | 3,75    | 627244 | 200     | 140x110 | 105x80  | 11 | 70      | 126 |         | <b>450</b> |
| 160   | 50 | 3,52    | 627620 | 2,53    | 628550 | 4,09    | 627220 | 205     | 140x110 | 105x80  | 11 | 70      | 126 |         | <b>550</b> |
| 200   | 50 | 3,94    | 627616 | 2,48    | 628546 | 4,51    | 627216 | 250     | 140x110 | 105x80  | 11 | 70      | 126 |         | <b>700</b> |

Options available to order:



Directional lock for brackets P d. 150-200 mm



Footguards for brackets NL-M-P-PT

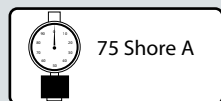
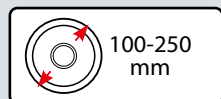




Flexibility you need

 **tellureRôta**

## THICK "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE



### Description

Tyre: very thick TR-Roll polyurethane, hardness 75 Shore A, with excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Innovative product that combines the load capacity and the resistance to wear and tear of the polyurethane with the ability to overcome obstacles and to damp noise, vibrations and impacts of the elastic rubber. Combined with appropriate brackets, they guarantee excellent performance for mechanical handling up to 16 km/h. The excellent rolling resistance guarantees an easy handling of heavy loads even with wheels of small diameter.

Examples of application: trolleys for the automotive industry, towing applications.

### Environments of use

Industrial environments, even in presence of humidity and oils. Not suitable in presence of strong acids and solvents.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.



### Floors

Suitable for all types of industrial floors, even outdoors. Facilitates the overcoming of obstacles.

It does not damage the floors.



### Force required to push or tow a wheel

|   | 150 kg | 250 kg | 350 kg | 450 kg | 550 kg | 700 kg |
|---|--------|--------|--------|--------|--------|--------|
| 100 mm  | 2      | ---    | ---    | ---    | ---    | ---    |
| 125x40 mm   | < 1    | 1,5    | 5      | ---    | ---    | ---    |
| 125x50 mm   | < 1    | 1      | 2      | 3      | ---    | ---    |
| 160 mm  | < 1    | 1      | 2      | 3      | 3,5    | ---    |
| 200 mm  | < 1    | < 1    | 1      | 2      | 3      | 4      |
| 250 mm  | < 1    | < 1    | 1      | 2      | 3      | 4      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-125 mm  
Top plate fitting. Available with front brake and centralised brake.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 100-250 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 700 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Extra-heavy duty brackets EP

Maximum carrying capacity 700 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Electrowelded brackets EE MHD

Maximum carrying capacity 700 daN - available diameters 100-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Twin electrowelded brackets EEG MHD - EEG HD

Maximum carrying capacity 1400 daN - available diameters 100-200 mm  
Top plate fitting. Available with adjustable rear foot brake, operating on wheel rotation only (diam. 160-200 mm)



#### Electrowelded sprung-loaded brackets EES MHD

Maximum carrying capacity 800 daN - available diameters 160-250 mm  
Top plate fitting. Available with adjustable front brake.

### Options available to order:



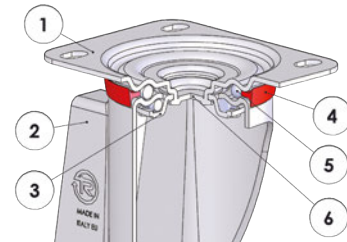
ESD polyurethane wheels, with electrical resistance <math>< 10^9 \Omega</math> (page 364)





| mm  | mm | kg   | CODE   | kg   | CODE   | mm | mm. | mm | mm   | daN         | daN        | daN        | daN        |
|-----|----|------|--------|------|--------|----|-----|----|------|-------------|------------|------------|------------|
| 100 | 40 | 0,45 | 622102 | 0,37 | 624102 | 15 | 40  | 32 | 10   | <b>400</b>  | <b>300</b> | <b>300</b> | <b>300</b> |
| 125 | 40 | 0,79 | 622113 | 0,54 | 624113 | 20 | 40  | 47 | 14   | <b>500</b>  | <b>350</b> | <b>350</b> | <b>350</b> |
| 125 | 40 | 0,75 | 622103 | 0,53 | 624103 | 20 | 50  | 47 | 14   | <b>500</b>  | <b>350</b> | <b>350</b> | <b>350</b> |
| 160 | 50 | 1,20 | 622104 | 0,95 | 624104 | 20 | 58  | 47 | 14,5 | <b>800</b>  | <b>550</b> | <b>550</b> | <b>550</b> |
| 160 | 50 | 1,24 | 622114 | 0,95 | 624104 | 25 | 58  | 47 | 14,5 | <b>800</b>  | <b>550</b> | <b>550</b> | <b>550</b> |
| 180 | 50 | 1,37 | 622105 | 1,15 | 624105 | 20 | 58  | 47 | 14   | <b>900</b>  | <b>600</b> | <b>600</b> | <b>600</b> |
| 200 | 50 | 1,74 | 622106 | 1,52 | 624106 | 20 | 58  | 47 | 14   | <b>1000</b> | <b>700</b> | <b>700</b> | <b>700</b> |
| 200 | 50 | 1,84 | 622116 | 1,60 | 624106 | 25 | 58  | 47 | 14   | <b>1000</b> | <b>700</b> | <b>700</b> | <b>700</b> |
| 250 | 50 | 2,40 | 622108 | 2,10 | 624108 | 20 | 55  | 52 | 15   | <b>1000</b> | <b>700</b> | <b>800</b> | <b>800</b> |

### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 100 | 40 | 0,86 | 624402 | 0,83 | 626202 | 1,05 | 627302 | 128 | 100x85  | 80x60  | 9  | 37 | 120 | <b>200</b> |     |
| 125 | 40 | 1,35 | 624413 | 1,17 | 626213 | 1,51 | 627313 | 156 | 100x85  | 80x60  | 9  | 35 | 120 | <b>220</b> |     |
| 125 | 40 | 1,46 | 624403 | 1,11 | 626203 | 2,34 | 627303 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | <b>300</b> |     |
| 160 | 50 | 2,88 | 624410 | 2,24 | 627704 | 3,42 | 627304 | 199 | 140x110 | 105x80 | 11 | 57 | 156 | <b>300</b> |     |
| 200 | 50 | 3,18 | 624406 | 3,04 | 627706 | 3,70 | 627306 | 240 | 140x110 | 105x80 | 11 | 57 | 156 | <b>300</b> |     |

### Options available to order:



Footguard for brackets NL-M-P

**Standard-duty brackets NL - max carrying capacity 300 daN**

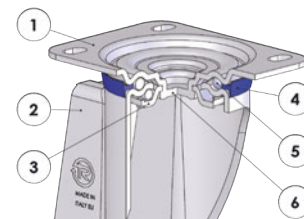


| mm  | mm | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm      | mm | mm         | daN |
|-----|----|------|--------|-----|---------|--------|----|----|---------|----|------------|-----|
| 160 | 50 | 2,74 | 624804 | 199 | 140x110 | 105x80 | 11 | 56 | M10x1,5 | 65 | <b>300</b> |     |
| 200 | 50 | 3,32 | 624806 | 240 | 140x110 | 105x80 | 11 | 56 | M10x1,5 | 65 | <b>300</b> |     |



| mm  | mm | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm | mm   | mm | mm   | mm         | daN |
|-----|----|------|--------|-----|---------|--------|----|----|----|------|----|------|------------|-----|
| 125 | 40 | 2,44 | 624903 | 165 | 140x110 | 105x80 | 11 | 46 | 40 | 17,5 | 35 | 18,5 | <b>300</b> |     |
| 160 | 50 | 2,86 | 624910 | 199 | 140x110 | 105x80 | 11 | 56 | 40 | 17,5 | 35 | 18,5 | <b>300</b> |     |
| 200 | 50 | 3,38 | 624916 | 240 | 140x110 | 105x80 | 11 | 56 | 40 | 17,5 | 35 | 18,5 | <b>300</b> |     |

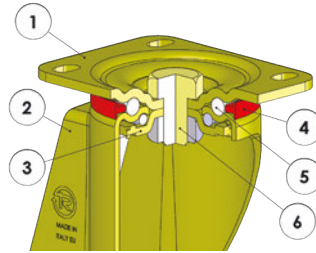
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

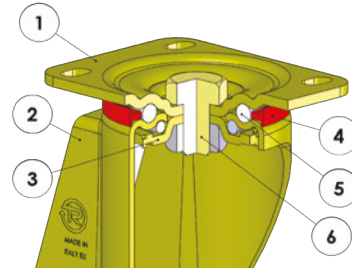
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 160 | 50 | 2.95 | 624504 | 2.24 | 627704 | 3.42 | 627404 | 199 | 140x110 | 105x80 | 11 | 58 | 178 | <b>500</b> |     |
| 200 | 50 | 3.69 | 624506 | 3.04 | 627706 | 4.07 | 627406 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |     |

**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |        | mm    |   | mm |     | mm         |            | mm         |            | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|--------|-------|---|----|-----|------------|------------|------------|------------|-----|--|
| 100 | 40 | 1,35 | 627602 | 0,85 | 628512 | 1,52 | 627202 | 138  | 100x85 | 80x60 | 9 | 46 | 123 | 4 km/h     | 6 km/h     | <b>300</b> | <b>300</b> |     |  |
| 125 | 40 | 1,70 | 627613 | 1,26 | 628513 | 1,87 | 627213 | 161  | 100x85 | 80x60 | 9 | 44 | 123 | <b>350</b> | <b>350</b> | <b>350</b> | <b>350</b> |     |  |



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm         |            | mm         |            | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|------------|------------|------------|------------|-----|--|
| 125 | 40 | 2,33 | 627603 | 1,69 | 628503 | 2,86 | 627203 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 4 km/h     | 6 km/h     | <b>350</b> | <b>350</b> |     |  |
| 160 | 50 | 3,60 | 627610 | 2,11 | 628514 | 4,17 | 627204 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | <b>550</b> | <b>550</b> | <b>550</b> | <b>550</b> |     |  |
| 180 | 50 | 3,84 | 627605 | 2,42 | 628515 | 4,41 | 627205 | 228  | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> | <b>600</b> | <b>600</b> | <b>600</b> |     |  |
| 200 | 50 | 4,31 | 627516 | 2,85 | 628516 | 4,91 | 627206 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>700</b> | <b>700</b> | <b>700</b> |     |  |
| 250 | 50 | 4,84 | 627608 | 3,74 | 628518 | 5,54 | 627208 | 298  | 140x110 | 105x80 | 11 | 70 | 173 | <b>750</b> | <b>750</b> | <b>750</b> | <b>750</b> |     |  |

**Options available to order:**

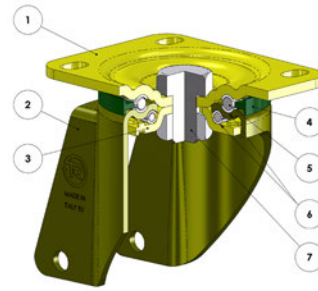


Footguard for brackets NL-M-P-PT



Directional lock for brackets P-PT diam. 160-200 mm

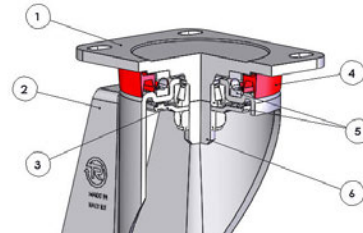
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 700 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm         |            | mm         |            | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|------------|------------|------------|------------|-----|--|-----|--|
| 125 | 40 | 2,33 | 625003 | 1,69 | 628503 | 2,86 | 629903 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 4 km/h     | 6 km/h     | <b>350</b> | <b>350</b> |     |  |     |  |
| 160 | 50 | 3,52 | 625010 | 2,11 | 628514 | 4,12 | 629904 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | <b>550</b> | <b>550</b> |            |            |     |  |     |  |
| 180 | 50 | 3,91 | 625005 | 2,42 | 628515 | 4,38 | 629905 | 228  | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> | <b>600</b> |            |            |     |  |     |  |
| 200 | 50 | 4,10 | 625016 | 2,85 | 628516 | 4,66 | 629906 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>700</b> |            |            |     |  |     |  |

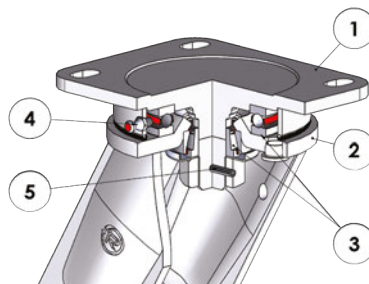
**Extra-heavy duty brackets EP - max carrying capacity 700 daN**



- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm         |            | mm         |            | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|------------|------------|------------|------------|-----|--|-----|--|
| 160 | 50 | 3,76 | 627824 | 3,35 | 628824 | 4,28 | 626664 | 205  | 135x110 | 105x80 | 11 | 70 | 126 | 4 km/h     | 6 km/h     | <b>550</b> | <b>550</b> |     |  |     |  |
| 200 | 50 | 4,57 | 627826 | 4,13 | 628826 | 5,14 | 626656 | 250  | 135x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>700</b> |            |            |     |  |     |  |

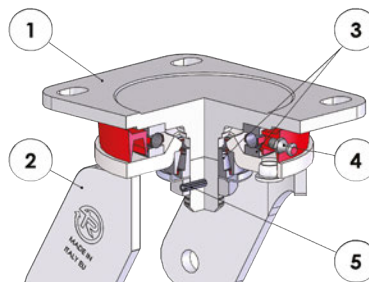
### Electrowelded brackets EE MHD - max carrying capacity 700 daN



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|--------|--------|
| 100 | 40 | 3,38 | 628302 | 2,40 | 628402 | 4,26 | 628602 | 170 | 135x110 | 105x80 | 11 | 51 | 157 | 300    | 300    |
| 125 | 40 | 3,71 | 628303 | 2,73 | 628403 | 4,59 | 628603 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | 350    | 350    |
| 160 | 50 | 4,25 | 628314 | 3,26 | 628414 | 5,13 | 628614 | 215 | 135x110 | 105x80 | 11 | 60 | 157 | 550    | 550    |
| 180 | 50 | 4,62 | 628305 | 3,64 | 628405 | 5,51 | 628605 | 242 | 135x110 | 105x80 | 11 | 70 | 157 | 600    | 600    |
| 200 | 50 | 4,97 | 628306 | 3,99 | 628406 | 6,31 | 628606 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | 700    | 700    |

### Twin electrowelded brackets EEG MHD - max carrying capacity 700 daN



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn tips electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | 4 km/h | 6 km/h |
|-----|-------|------|--------|------|--------|-----|---------|--------|----|----|--------|--------|
| 100 | 40+40 | 3.45 | 628062 | 2.65 | 628162 | 140 | 135x110 | 105x80 | 11 | 55 | 600    | 600    |
| 125 | 40+40 | 4.20 | 628063 | 3.40 | 628163 | 170 | 135x110 | 105x80 | 11 | 55 | 700    | 700    |

#### Options available to order:



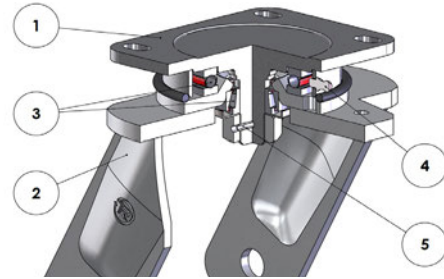
Wheels EE MHD with steering system



Directional lock for brackets EE MHD  
- EE HD - EED MHD: - EES MHD  
see page 390



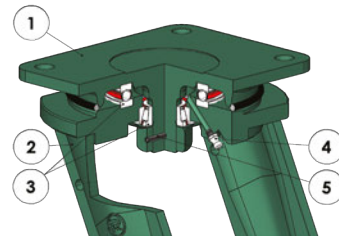
**Twin electrowelded brackets EEG MHD - max carrying capacity 1400 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn tips electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable rear foot brake, operating on wheel rotation only

| mm  | mm    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm      | mm     | mm | mm | mm  | mm | daN  | daN  |
|-----|-------|------|--------|------|--------|------|--------|-----|---------|---------|--------|----|----|-----|----|------|------|
| 160 | 50+50 | 7,18 | 628074 | 6,31 | 628174 | 8,17 | 628274 | 221 | 135x110 | 135x175 | 105x80 | 11 | 55 | 182 |    | 1100 | 1100 |
| 200 | 50+50 | 8,36 | 628076 | 7,51 | 628176 | 9,35 | 628276 | 258 | 135x110 | 135x175 | 105x80 | 11 | 65 | 182 |    | 1400 | 1400 |

**Twin electrowelded brackets EEG HD - max carrying capacity 1400 daN**

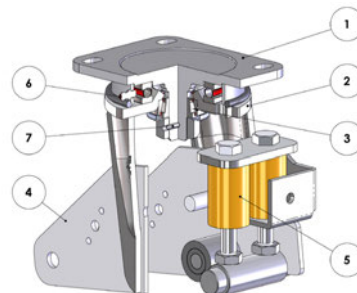


- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | daN  | daN  |
|-----|-------|-------|--------|------|--------|-----|---------|---------|----|----|------|------|
| 160 | 50+50 | 10,60 | 628084 | 6,20 | 628184 | 228 | 175x140 | 140x105 | 14 | 50 | 1100 | 1100 |
| 200 | 50+50 | 12,30 | 628086 | 7,70 | 628166 | 280 | 175x140 | 140x105 | 14 | 65 | 1400 | 1400 |


**THICK "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE**


**Electrowelded sprung-loaded bracket EES MHD - max load capacity 800 daN - damping up to 400 daN**




- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) spring-hinged plates: plates electrowelded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm  |     | mm |    | mm  |     | daN |  | daN |  | 4 km/h |  | 6 km/h |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|-----|-----|----|----|-----|-----|-----|--|-----|--|--------|--|--------|--|
| 160 | 50 | 7,07 | 626304 | 5,82 | 626404 | 8,13 | 626504 | 248  | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50 | 400 | 550 | 550 |  |     |  |        |  |        |  |
| 200 | 50 | 7,67 | 626306 | 6,42 | 626406 | 8,78 | 626506 | 268  | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50 | 400 | 700 | 700 |  |     |  |        |  |        |  |
| 250 | 50 | 8,75 | 626308 | 7,54 | 626408 | 9,99 | 626508 | 316  | 135x110 | 105x80 | 11 | 110 | 315 | 25 | 50 | 400 | 800 | 800 |  |     |  |        |  |        |  |

 **Spring travel (mm):** maximum difference in the total height of the castor depending on the spring tension

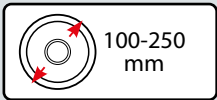
 **Initial tension (daN):** in case of lighter loads than indicated, the bracket works with no damping

 **Spring tension (daN):** in case of heavier loads than indicated, the bracket works with no damping



Our work, our passion

## "TR-ROLL" POLYURETHANE WHEELS WITH ERGONOMIC ROUND PROFILE AND ALUMINIUM CENTRE



### Description

Tyre: very thick TR-Roll polyurethane with ergonomic round profile, hardness 75 Shore A, excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

The round profile reduces the start-up coefficient when the castors are positioned at 90° from the line of movement and therefore greatly reduces the amount of effort required by the operators when handling trolleys.

Combined with appropriate brackets, they guarantee excellent performance for mechanical handling up to 16 km/h.

Examples of application: trolleys for the automotive industry, lean manufacturing trolleys and whenever a combination of manual/powerd handling is involved.

### Environments of use

Industrial environments, even in presence of humidity and oils. Not suitable in presence of strong acids and solvents.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for all types of industrial floors, even outdoors. Facilitates the overcoming of obstacles.

It does not damage the floors.



## Force required to push or tow a wheel

|   | 150 kg | 250 kg | 350 kg | 450 kg | 550 kg | 700 kg |
|---|--------|--------|--------|--------|--------|--------|
| 100 mm  | 2      | ---    | ---    | ---    | ---    | ---    |
| 125x40 mm   | < 1    | 1,5    | 5      | ---    | ---    | ---    |
| 125x50 mm   | < 1    | 1      | 2      | 3      | ---    | ---    |
| 160 mm  | < 1    | 1      | 2      | 3      | 3,5    | ---    |
| 200 mm  | < 1    | < 1    | 1      | 2      | 3      | 4      |
| 250 mm  | < 1    | < 1    | 1      | 2      | 3      | 4      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

## Fittings with brackets



### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake.



### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



### Medium-heavy duty brackets P

Maximum carrying capacity 700 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 700 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Extra-heavy duty brackets EP

Maximum carrying capacity 700 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Electrowelded brackets EE MHD

Maximum carrying capacity 700 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Twin electrowelded brackets EEG MHD - EEG HD

Maximum carrying capacity 1400 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear foot brake, operating on wheel rotation only.



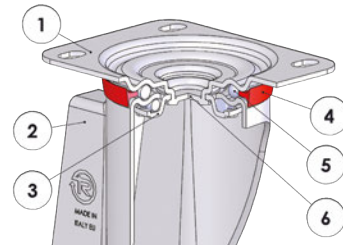
### Electrowelded sprung-loaded brackets EES MHD

Maximum carrying capacity 700 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



| mm  | mm | kg   | COD.   | kg   | COD.   | mm | mm. | mm | mm   | daN         | daN        | daN        | daN        |
|-----|----|------|--------|------|--------|----|-----|----|------|-------------|------------|------------|------------|
| 100 | 40 | 0,57 | 622142 | 0,52 | 624142 | 20 | 40  | 47 | 14   | <b>500</b>  | <b>200</b> | <b>200</b> | <b>200</b> |
| 125 | 40 | 0,68 | 622163 | 0,45 | 624163 | 20 | 40  | 47 | 14   | <b>500</b>  | <b>350</b> | <b>350</b> | <b>350</b> |
| 125 | 40 | 0,73 | 622143 | 0,51 | 624143 | 20 | 50  | 47 | 14   | <b>500</b>  | <b>350</b> | <b>350</b> | <b>350</b> |
| 125 | 50 | 0,88 | 622153 | 0,65 | 624153 | 20 | 58  | 47 | 14   | <b>500</b>  | <b>450</b> | <b>450</b> | <b>450</b> |
| 160 | 50 | 1,11 | 622144 | 0,89 | 624144 | 20 | 58  | 47 | 14,5 | <b>800</b>  | <b>550</b> | <b>550</b> | <b>550</b> |
| 200 | 50 | 1,68 | 622146 | 1,44 | 624146 | 20 | 58  | 47 | 14   | <b>1000</b> | <b>700</b> | <b>700</b> | <b>700</b> |
| 250 | 50 | 2,40 | 622148 | 2,10 | 624148 | 20 | 55  | 52 | 15   | <b>1000</b> | <b>700</b> | <b>800</b> | <b>800</b> |

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 100 | 40 | 0.96 | 628702 | 0.80 | 628802 | 1.06 | 628902 | 156 | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |     |
| 125 | 40 | 1.35 | 628703 | 1.11 | 628803 | 1.51 | 628903 | 156 | 100x85  | 80x60  | 9  | 35 | 120 | <b>220</b> |     |
| 125 | 40 | 1.46 | 628713 | 1,17 | 628813 | 2,34 | 628913 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | <b>300</b> |     |
| 160 | 50 | 2,95 | 628704 | 2,24 | 628204 | 3,42 | 628904 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 50 | 3,69 | 628716 | 3,04 | 628206 | 4,07 | 628916 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |

**Options available to order:**

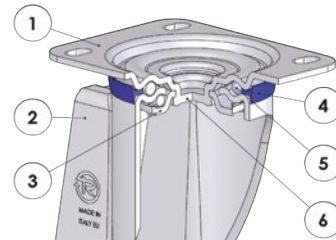


Footguard for brackets NL-M-P-PT



Directional lock for brackets NL diam. 160-200 mm

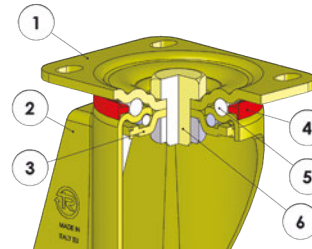
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 160 | 50 | 2,81 | 624604 | 2,10 | 628204 | 3,28 | 627904 | 199 | 140x110 | 105x80 | 11 | 58 | 178 | 500 |
| 200 | 50 | 3,52 | 624606 | 2,87 | 628206 | 3,90 | 627906 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 500 |

**Medium-heavy duty brackets P - max carrying capacity 700 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

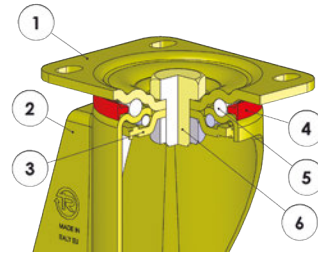
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm     | mm    | mm | mm | daN | daN |     |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|-----|
| 125 | 40 | 2,27 | 629023 | 1,63 | 629123 | 2,83 | 629523 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 350 | 350 |

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

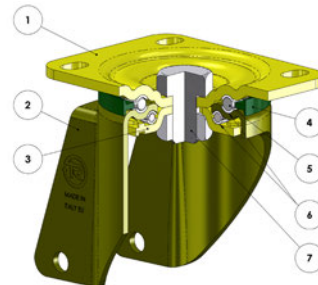
**Heavy duty brackets P - max carrying capacity 700 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm  |     | mm     |        | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|-----|--------|--------|-----|--|-----|--|
| 125 | 40 | 2,27 | 629003 | 1,63 | 629103 | 2,83 | 629203 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 350 | 350 | 4 km/h | 6 km/h |     |  |     |  |
| 125 | 50 | 2,42 | 629013 | 2,78 | 629113 | 2,95 | 629213 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 450 | 400 |        |        |     |  |     |  |
| 160 | 50 | 3,46 | 629004 | 2,28 | 629104 | 4,27 | 629204 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 550 | 550 |        |        |     |  |     |  |
| 200 | 50 | 4,14 | 629006 | 2,68 | 629106 | 4,74 | 629206 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 700 | 700 |        |        |     |  |     |  |

**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 700 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm  |     | mm     |        | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|-----|--------|--------|-----|--|-----|--|
| 125 | 50 | 2,42 | 629033 | 1,96 | 629113 | 2,95 | 629233 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 450 | 400 | 4 km/h | 6 km/h |     |  |     |  |
| 160 | 50 | 3,52 | 629034 | 2,28 | 629104 | 4,12 | 629234 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 550 | 550 |        |        |     |  |     |  |
| 200 | 50 | 4,10 | 629036 | 2,68 | 629106 | 4,66 | 629236 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 700 | 700 |        |        |     |  |     |  |

**Options available to order:**



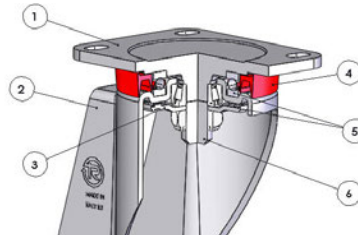
Footguard for brackets NL-M-P-PT



Directional lock for brackets P-PT diam. 160-200 mm



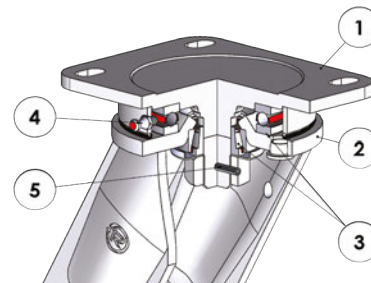
**Extra-heavy duty brackets EP - max carrying capacity 700 daN**



- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|-----|
| 160 | 50 | 3,62 | 629304 | 3,21 | 629404 | 4,14 | 629504 | 205 | 135x110 | 105x80 | 11 | 70 | 126 | 550 | 550 |
| 200 | 50 | 4,40 | 629306 | 3,96 | 629406 | 4,97 | 629506 | 250 | 135x110 | 105x80 | 11 | 70 | 126 | 700 | 700 |

**Electrowelded brackets EE MHD - max carrying capacity 700 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|-----|
| 125 | 40 | 3,65 | 629603 | 2,67 | 629703 | 4,53 | 629803 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | 350 | 350 |
| 125 | 50 | 3,80 | 629613 | 2,82 | 629713 | 4,68 | 629813 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | 450 | 400 |
| 160 | 50 | 4,11 | 629604 | 3,12 | 629704 | 4,99 | 629804 | 215 | 135x110 | 105x80 | 11 | 60 | 157 | 550 | 550 |
| 200 | 50 | 4,80 | 629606 | 3,82 | 629706 | 6,14 | 629806 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | 700 | 700 |

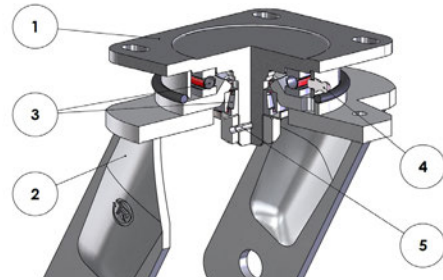
**Options available to order:**



Directional lock for brackets EE MHD  
 - EE HD - EEG MHD - EES MHD:  
 see page 390

**"TR-ROLL" POLYURETHANE WHEELS WITH ERGONOMIC ROUND PROFILE AND ALUMINIUM CENTRE**

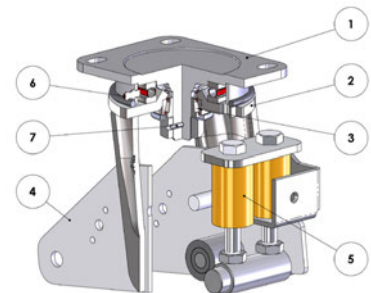
**Twin electrowelded brackets EEG MHD - max carrying capacity 1400 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn tips electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable rear foot brake, operating on wheel rotation only


| mm  |       | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm      | mm     | mm | mm | mm  | mm   | daN  | daN |
|-----|-------|------|--------|------|--------|------|--------|-----|---------|---------|--------|----|----|-----|------|------|-----|
| 160 | 50+50 | 7,01 | 629074 | 6,14 | 629174 | 8,00 | 629274 | 221 | 135x110 | 135x175 | 105x80 | 11 | 55 | 182 | 1100 | 1100 |     |
| 200 | 50+50 | 8,18 | 629076 | 7,33 | 629176 | 9,17 | 629276 | 258 | 135x110 | 135x175 | 105x80 | 11 | 65 | 182 | 1400 | 1400 |     |


**Electrowelded sprung-loaded bracket EES MHD - max load capacity 700 daN - damping up to 400 daN**




- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) spring-hinged plates: plates electrowelded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm  | mm  | mm | daN | daN | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|-----|-----|----|-----|-----|-----|-----|
| 160 | 50 | 7,07 | 626804 | 5,82 | 626904 | 8,13 | 627004 | 248 | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50  | 400 | 550 | 550 |
| 200 | 50 | 7,67 | 626806 | 6,42 | 626906 | 8,78 | 627006 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50  | 400 | 700 | 700 |

 **Spring travel (mm):** maximum difference in the total height of the group wheel + support depending on the spring tension

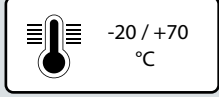
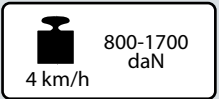
 **Initial tension (daN):** in case of lighter loads than indicated, the bracket works with no damping

 **Spring tension (daN):** in case of heavier loads than indicated, the bracket works with no damping



Technology at work

## "TR-ROLL" POLYURETHANE WHEELS WITH CAST IRON CENTRE



### Technical features

Tyre: very thick TR-Roll polyurethane, hardness 75 Shore A, with excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: cast iron.

Hub with shielded ball bearing press-fitted in the seats obtained by precision turning on the centre; also available without bearings.

### Uses

Innovative product, which combines an excellent rolling resistance with the ability to damp down vibrations and overcoming obstacles and very good performance and durability in case of heavy usages and mechanical handling at speeds up to 16 km/h. Examples of applications: mechanically handled trolleys in automotive industries, logistics, carpentries; AGV trolleys; electrical pallet trucks.

### Environments of use

Designed for industrial environments, even in the presence of alcohols, glycols, hydrocarbons.

Not recommended in areas with organic acids and mineral acids, base solutions and saturated steam. In case of use in particularly aggressive environments, it is possible to use a protective lacker available on request.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

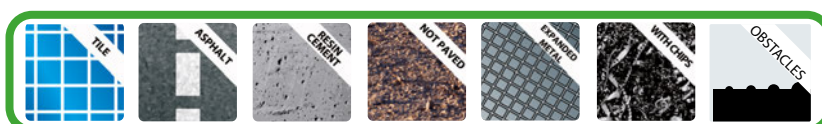
|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.



### Floors

Suitable for all types of industrial floors, even outdoors. Facilitates the overcoming of obstacles.

It does not damage the floors.



### Force required to push or tow a wheel

|   | 200 kg | 400 kg | 600 kg | 800 kg | 1000 kg | 1200 kg | 1400 kg | 1600 kg |
|---|--------|--------|--------|--------|---------|---------|---------|---------|
| 200x50 mm   | <1     | 2,5    | 4      | 6      | ---     | ---     | ---     | ---     |
| 200x80 mm   | <1     | 2      | 3,5    | 5,5    | ---     | ---     | ---     | ---     |
| 250 mm  | <1     | 1,5    | 3      | 5      | 7       | 9       | ---     | ---     |
| 300 mm  | <1     | 1      | 2,5    | 4,5    | 6       | 8       | 10      | ---     |
| 400 mm  | <1     | <1     | 1      | 3      | 5,5     | 7       | 8       | 10      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



**Heavy-duty PT brackets with hardened ball race grooves**  
 Maximum carrying capacity 800 daN - available diameters 200 mm  
 Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE MHD**  
 Maximum carrying capacity 800 daN – available diameters 200 mm  
 Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE HD**  
 Maximum carrying capacity 1400 daN – available diameters 200-300 mm  
 Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE EHD**  
 Maximum carrying capacity 1700 daN – available diameters 400 mm  
 Top plate fitting.



**Electrowelded sprung loaded brackets EES MHD**  
 Maximum carrying capacity 800 daN - available diameter 200 mm  
 Top plate fitting. Available with adjustable front brake.

### Options available to order:

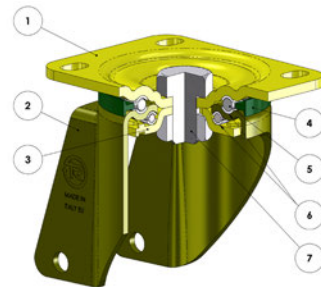


Wheel with key housing



| Top View |     | Side View |        | Weight |        | Dimensions |     |    |    | Performance |            |            |            |
|----------|-----|-----------|--------|--------|--------|------------|-----|----|----|-------------|------------|------------|------------|
| mm       | mm  | kg        | COD.   | kg     | COD.   | mm         | mm. | mm | mm | Static daN  | 4 km/h daN | 4 km/h daN | 6 km/h daN |
| 200      | 50  | 3,40      | 622126 | 3,17   | 624126 | 20         | 55  | 47 | 14 | 1000        | 700        | 800        | 800        |
| 200      | 80  | 6,63      | 622136 | 6,14   | 624136 | 25         | 88  | 62 | 18 | 1200        | 750        | 900        | 900        |
| 250      | 80  | 8,50      | 622127 | 8,00   | 624127 | 25         | 86  | 62 | 17 | 1600        | 800        | 1200       | 1200       |
| 300      | 80  | 11,50     | 622128 | 11,00  | 624128 | 30         | 86  | 62 | 17 | 1900        | 850        | 1400       | 1400       |
| 400      | 100 | 33,50     | 622109 | 32,70  | 624109 | 40         | 100 | 80 | 18 | 2000        | 900        | 1700       | 1700       |

### Heavy-duty PT brackets with hardened ball race grooves - Max. carrying capacity 800 daN



- 1) Top Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball Race Ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

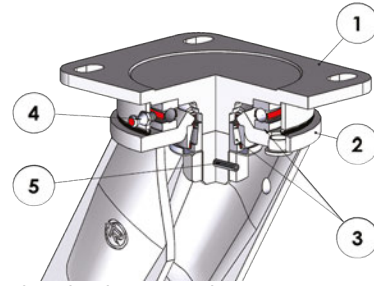
| Top View |    | Side View |        | Weight |        | Dimensions |        |     |         | Performance |    |    |            |            |     |
|----------|----|-----------|--------|--------|--------|------------|--------|-----|---------|-------------|----|----|------------|------------|-----|
| mm       | mm | kg        | COD.   | kg     | COD.   | kg         | COD.   | mm  | mm      | mm          | mm | mm | 4 km/h daN | 6 km/h daN |     |
| 200      | 50 | 5,80      | 627646 | 5,42   | 628656 | 6,35       | 627246 | 250 | 140x110 | 105x80      | 11 | 70 | 126        | 800        | 800 |

### Options available to order:



Wheel with key housing

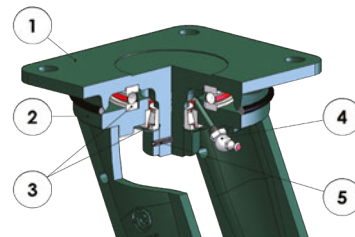
**Electrowelded brackets EE MHD - Max. carrying capacity 800 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|-----|
| 200 | 50 | 6,54 | 628316 | 5,56 | 628416 | 7,42 | 628616 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | 800 | 800 |

**Electrowelded brackets EE HD - Max. carrying capacity 1400 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  | mm | kg    | COD.   | kg    | COD.   | kg    | COD.   | mm  | mm      | mm      | mm   | mm | mm  | daN  | daN  |
|-----|----|-------|--------|-------|--------|-------|--------|-----|---------|---------|------|----|-----|------|------|
| 200 | 80 | 13,10 | 628706 | 11,56 | 628806 | 13,98 | 628906 | 275 | 175x140 | 140x105 | 14,5 | 65 | 166 | 900  | 900  |
| 250 | 80 | 15,19 | 628708 | 13,60 | 628808 | 16,07 | 628908 | 320 | 175x140 | 140x105 | 14,5 | 74 | 166 | 1200 | 1200 |
| 300 | 80 | 18,31 | 628718 | 16,69 | 628818 | 19,19 | 628918 | 360 | 175x140 | 140x105 | 14,5 | 81 | 166 | 1400 | 1400 |

Options available to order:

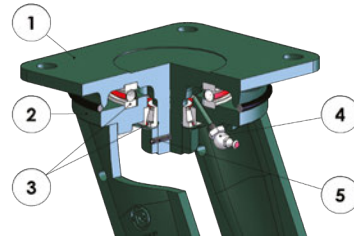


Wheel with key housing



Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 390

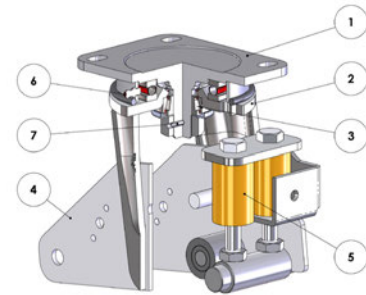
### Electrowelded brackets EE EHD - Max. carrying capacity 1700 daN



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  | mm  | kg    | COD.   | kg    | COD.   | mm  | mm      | mm      | mm | mm | 4 km/h | 6 km/h |
|-----|-----|-------|--------|-------|--------|-----|---------|---------|----|----|--------|--------|
| mm  | mm  | kg    | COD.   | kg    | COD.   | mm  | mm      | mm      | mm | mm | daN    | daN    |
| 400 | 100 | 49,55 | 628729 | 44,85 | 628829 | 475 | 250x200 | 210x160 | 19 | 95 | 1700   | 1700   |

### Electrowelded sprung-loaded brackets EES MHD - max carrying capacity 800 daN - damping up to 400 daN



- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Spring-hinged plates: plates electrowelded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| mm  | mm | kg   | COD.   | kg   | COD.   | kg    | COD.   | mm  | mm      | mm     | mm | mm  | mm  | daN | daN | 4 km/h | 6 km/h |     |
|-----|----|------|--------|------|--------|-------|--------|-----|---------|--------|----|-----|-----|-----|-----|--------|--------|-----|
| mm  | mm | kg   | COD.   | kg   | COD.   | kg    | COD.   | mm  | mm      | mm     | mm | mm  | mm  | daN | daN | daN    | daN    |     |
| 200 | 50 | 9,22 | 625706 | 7,97 | 625806 | 10,33 | 626006 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25  | 50  | 400    | 800    | 800 |



**Spring travel** (mm): maximum difference in the total height of the group wheel + support depending on the spring tension



**Initial tension** (daN): in case of lighter loads than indicated, the bracket works with no damping



**Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

#### Options available to order:



Directional lock for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 390





Details make the difference

## "TR-ROLL" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

-  100-200 mm
-  75 Shore A
-  230-500 daN  
4 km/h
-  230-400 daN  
6 km/h
-  230-500 daN
-  -20 / +70 °C



### Description

Tyre: very thick TR-Roll polyurethane, hardness 75 Shore A, with excellent rolling resistance and elasticity and good resistance to wear and tear.

Available also with ergonomic round profile (wheel diam. 125-160-200 mm).

Centre: polyamide 6.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Excellent for trolleys and equipments handling medium-heavy and heavy duty loads, also suitable for continuous handling, even in presence of humidity and aggressive chemicals.

Suitable for towing applications and manual/mechanical handling up to 6 km/h.

They offer a higher load capacity and rolling resistance in comparison to standard elastic rubber wheels, whilst maintaining the same specifications of elasticity, vibrations absorption and obstacle overcoming.

The ergonomic round profile variant also enables to reduce the start-up coefficient when pushing/pulling a trolley from a still position.

Examples of applications are: automotive industry, lean manufacturing, cash& carry, trolleys and dollies for the chemical and food processing industry.

### Environments of use

Suitable for indoor industrial environments, also in presence of medium-harsh chemical agents, alcohol, glycol and water.

Not suitable in presence of strong acids and solvents.

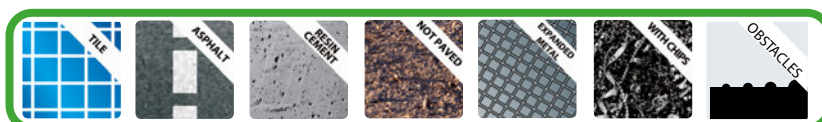
|              |                                     |                          |                          |                                     |              |                                     |                          |                          |                                     |
|--------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| WEAK ACIDS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | WEAK BASES   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| STRONG ACIDS | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | STRONG BASES | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| WATER        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | HYDROCARBONS | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| ALCOHOL      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | SOLVENTS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for all types of industrial floors, even outdoors. Facilitates the overcoming of obstacles.

It does not damage the floors.



## Force required to push or tow a wheel

|   | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg | 350 kg | 400 kg | 500 kg |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| 100 mm  | < 1    | 1      | 2      | ---    | ---    | ---    | ---    | ---    |
| 125 mm  | < 1    | < 1    | 1,5    | 2      | 2,5    | ---    | ---    | ---    |
| 125 ER mm   | < 1    | < 1    | 1,5    | 2      | ---    | ---    | ---    | ---    |
| 160 mm  | < 1    | < 1    | 1      | 1,5    | 1,8    | 2,2    | 2,6    | ---    |
| 160 ER mm   | < 1    | < 1    | 1      | 1,5    | 1,8    | 2,2    | 2,6    | ---    |
| 200 mm  | < 1    | < 1    | 1      | 1,4    | 1,7    | 2      | 2,4    | 3,2    |
| 200 ER mm   | < 1    | < 1    | 1      | 1,4    | 1,7    | 2      | 2,4    | 3,2    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

## Abbinamento ai supporti



### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-200 mm.  
Top plate fittings. Available with front brake.



### Stainless steel standard-duty brackets NLX

Maximum carrying capacity 300 daN - available diameters 100-200 mm.  
Top plate fittings. Available with front brake.



### Medium duty brackets M

Maximum carrying capacity 500 daN - available diameters 160-200 mm  
Top plate fitting. Available with front adjustable brake.



### Medium-heavy duty brackets P

Maximum carrying capacity 500 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



### Stainless steel medium-heavy duty brackets PX

Maximum carrying capacity 500 daN - available diameters 100-200 mm  
Top plate fitting. Available with adjustable rear brake.



| mm  |    | kg   |        | COD. |        | kg   |        | COD. |    | mm |    | mm  |     | mm  |     | mm  |     | Static | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|------|----|----|----|-----|-----|-----|-----|-----|-----|--------|--------|--------|
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm   | mm | mm | mm | daN | daN | daN | daN | daN | daN | daN    | daN    |        |
| 100 | 40 | 0,34 | 622302 | 0,34 | 622402 | 0,27 | 624302 | 15   | 40 | 32 | 9  | 300 | 230 | 230 | 230 | 230 | 230 | 230    | 230    |        |
| 125 | 40 | 0,45 | 622303 | 0,45 | 622403 | 0,37 | 624303 | 15   | 40 | 32 | 9  | 350 | 280 | 280 | 280 | 280 | 280 | 280    | 280    |        |
| 160 | 50 | 1,06 | 622304 | 1,06 | 622404 | 0,97 | 624304 | 20   | 55 | 47 | 14 | 450 | 400 | 400 | 400 | 400 | 400 | 400    | 360    |        |
| 200 | 50 | 1,36 | 622306 | 1,36 | 622406 | 1,27 | 624306 | 20   | 55 | 47 | 14 | 600 | 500 | 500 | 500 | 500 | 500 | 500    | 450    |        |

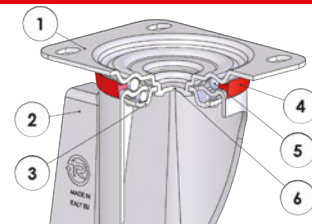


Ergonomic round profile



| mm    |    | kg   |        | COD. |        | kg   |        | COD. |    | mm |    | mm  |     | mm  |     | mm  |     | Static | 4 km/h | 6 km/h |
|-------|----|------|--------|------|--------|------|--------|------|----|----|----|-----|-----|-----|-----|-----|-----|--------|--------|--------|
| mm    | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm   | mm | mm | mm | daN | daN | daN | daN | daN | daN | daN    | daN    |        |
| 125ER | 40 | 0,40 | 622603 | 0,40 | 622503 | 0,32 | 624603 | 15   | 40 | 32 | 9  | 300 | 250 | 250 | 250 | 250 | 250 | 250    | 250    |        |
| 160ER | 50 | 1,00 | 622604 | 1,00 | 622504 | 0,91 | 624704 | 20   | 55 | 47 | 14 | 450 | 400 | 400 | 400 | 400 | 400 | 400    | 360    |        |
| 200ER | 50 | 1,27 | 622606 | 1,27 | 622506 | 1,18 | 624706 | 20   | 55 | 47 | 14 | 600 | 500 | 500 | 500 | 500 | 500 | 500    | 450    |        |

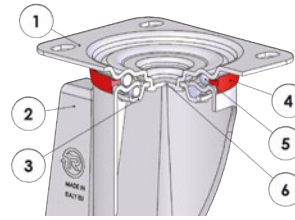
### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm    |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm  |    | mm |    | mm |    | 4 km/h |
|-------|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|----|----|----|----|----|--------|
| mm    | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm   | mm      | mm     | mm | mm | mm  | mm  | mm | mm | mm | mm | mm | daN    |
| 100   | 40 | 0,94 | 624422 | 0,69 | 626222 | 1,08 | 627322 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | 200 |    |    |    |    |    |        |
| 125   | 40 | 1,10 | 624423 | 0,85 | 626223 | 1,24 | 627323 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | 220 |    |    |    |    |    |        |
| 125ER | 40 | 1,05 | 629303 | 0,80 | 629403 | 1,19 | 629503 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | 220 |    |    |    |    |    |        |
| 160   | 50 | 2,49 | 624434 | 2,19 | 627724 | 2,78 | 627334 | 199  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |    |    |    |    |        |
| 160ER | 50 | 2,43 | 624424 | 2,13 | 627734 | 2,72 | 627324 | 199  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |    |    |    |    |        |
| 200   | 50 | 2,87 | 624436 | 2,63 | 627726 | 3,07 | 627336 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |    |    |    |    |        |
| 200ER | 50 | 2,78 | 624426 | 2,54 | 627736 | 2,98 | 627326 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |    |    |    |    |        |

**Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN**

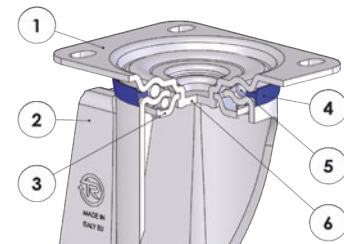


**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with adjustable total rear foot brake

| mm    |    | kg   |        | COD. |        | kg   |        | COD. |         | kg     |    | COD. |     | mm  |  | mm |  | mm |  | mm |  | mm |  | daN |  |
|-------|----|------|--------|------|--------|------|--------|------|---------|--------|----|------|-----|-----|--|----|--|----|--|----|--|----|--|-----|--|
| 100   | 40 | 0,94 | 625122 | 0,69 | 625222 | 1,08 | 625322 | 128  | 100x85  | 80x60  | 9  | 35   | 120 | 200 |  |    |  |    |  |    |  |    |  |     |  |
| 125   | 40 | 1,10 | 625123 | 0,85 | 625223 | 1,24 | 625323 | 156  | 100x85  | 80x60  | 9  | 37   | 120 | 220 |  |    |  |    |  |    |  |    |  |     |  |
| 125ER | 40 | 1,05 | 625103 | 0,80 | 625203 | 1,19 | 625303 | 156  | 100x85  | 80x60  | 9  | 37   | 120 | 220 |  |    |  |    |  |    |  |    |  |     |  |
| 160   | 50 | 2,49 | 625134 | 2,19 | 625234 | 2,78 | 625334 | 198  | 140x110 | 105x80 | 11 | 56   | 156 | 300 |  |    |  |    |  |    |  |    |  |     |  |
| 160ER | 50 | 2,43 | 625124 | 2,13 | 625224 | 2,72 | 625324 | 198  | 140x110 | 105x80 | 11 | 56   | 156 | 300 |  |    |  |    |  |    |  |    |  |     |  |
| 200   | 50 | 2,87 | 625136 | 2,63 | 625236 | 3,07 | 625336 | 240  | 140x110 | 105x80 | 11 | 56   | 156 | 300 |  |    |  |    |  |    |  |    |  |     |  |
| 200ER | 50 | 2,78 | 625126 | 2,54 | 625226 | 2,98 | 625326 | 240  | 140x110 | 105x80 | 11 | 56   | 156 | 300 |  |    |  |    |  |    |  |    |  |     |  |

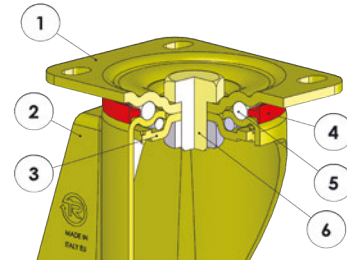
**Medium duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

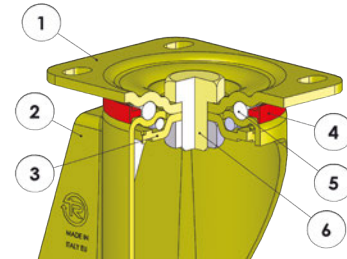
| mm    |    | kg   |        | CODE |        | kg   |        | CODE |         | kg     |    | CODE |     | mm  |  | mm |  | mm |  | mm |  | daN |  |
|-------|----|------|--------|------|--------|------|--------|------|---------|--------|----|------|-----|-----|--|----|--|----|--|----|--|-----|--|
| 160   | 50 | 2,49 | 624544 | 2,19 | 627724 | 2,78 | 627444 | 199  | 140x110 | 105x80 | 11 | 58   | 178 | 400 |  |    |  |    |  |    |  |     |  |
| 160ER | 50 | 2,43 | 624534 | 2,13 | 627734 | 2,72 | 627434 | 199  | 140x110 | 105x80 | 11 | 50   | 178 | 400 |  |    |  |    |  |    |  |     |  |
| 200   | 50 | 3,20 | 624546 | 2,55 | 627726 | 3,58 | 627446 | 240  | 140x110 | 105x80 | 11 | 50   | 178 | 500 |  |    |  |    |  |    |  |     |  |
| 200ER | 50 | 3,11 | 624536 | 2,40 | 627736 | 3,49 | 627436 | 240  | 140x110 | 105x80 | 11 | 50   | 178 | 500 |  |    |  |    |  |    |  |     |  |

### Medium-heavy duty brackets P - max carrying capacity 500 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

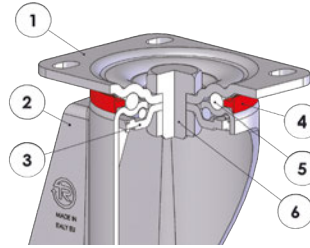
| mm    |    | kg   |        | COD. |        | kg   |        | COD. |        | mm    |   | mm |     | mm  |     | mm     |        | daN |  | daN |  |
|-------|----|------|--------|------|--------|------|--------|------|--------|-------|---|----|-----|-----|-----|--------|--------|-----|--|-----|--|
| 100   | 40 | 1,20 | 627622 | 0,82 | 628522 | 1,35 | 627222 | 138  | 100x85 | 80x60 | 9 | 46 | 123 | 230 | 230 | 4 km/h | 6 km/h |     |  |     |  |
| 125   | 40 | 1,35 | 627623 | 0,93 | 628523 | 1,50 | 627223 | 161  | 100x85 | 80x60 | 9 | 44 | 123 | 280 | 280 |        |        |     |  |     |  |
| 125ER | 40 | 1,30 | 629313 | 0,88 | 629413 | 1,45 | 629513 | 161  | 100x85 | 80x60 | 9 | 44 | 123 | 250 | 250 |        |        |     |  |     |  |



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total adjustable rear foot brake

| mm    |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm  |     | mm     |        | daN |  | daN |  |
|-------|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|-----|--------|--------|-----|--|-----|--|
| 160   | 50 | 3,33 | 627634 | 2,00 | 628534 | 5,03 | 627234 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 400 | 360 | 4 km/h | 6 km/h |     |  |     |  |
| 160ER | 50 | 3,27 | 627624 | 1,94 | 628524 | 4,96 | 627224 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 400 | 360 |        |        |     |  |     |  |
| 200   | 50 | 3,82 | 627636 | 2,36 | 628536 | 4,42 | 627236 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 500 | 450 |        |        |     |  |     |  |
| 200ER | 50 | 3,73 | 627626 | 2,27 | 628526 | 4,33 | 627226 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 500 | 450 |        |        |     |  |     |  |



**Stainless steel medium-heavy duty brackets PX - max carrying capacity 500 daN**



**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with adjustable total rear foot brake

| 160   |    | 160ER |        | 200  |        | 200ER |        | 205  |         |        |        |      | 250    |      |        |      |        | 4 km/h |        | 6 km/h  |        |    |    |     |     |     |     |     |
|-------|----|-------|--------|------|--------|-------|--------|------|---------|--------|--------|------|--------|------|--------|------|--------|--------|--------|---------|--------|----|----|-----|-----|-----|-----|-----|
| mm    | mm | kg    | COD.   | kg   | COD.   | kg    | COD.   | mm   | mm      | mm     | mm     | mm   | mm     | mm   | mm     | daN  | daN    | daN    | daN    |         |        |    |    |     |     |     |     |     |
| 160   | 50 | 3,33  | 625434 | 3,27 | 625424 | 2,00  | 625534 | 3,82 | 625436  | 2,27   | 625526 | 5,03 | 625634 | 4,42 | 625636 | 4,96 | 625624 | 4,33   | 625626 | 140x110 | 105x80 | 11 | 70 | 126 | 400 | 360 | 400 | 360 |
| 200   | 50 | 3,82  | 625436 | 2,36 | 625536 | 4,42  | 625636 | 205  | 140x110 | 105x80 | 11     | 70   | 126    | 500  | 450    | 500  | 450    |        |        |         |        |    |    |     |     |     |     |     |
| 200ER | 50 | 3,73  | 625426 | 2,27 | 625526 | 4,33  | 625626 | 250  | 140x110 | 105x80 | 11     | 70   | 126    | 500  | 450    | 500  | 450    |        |        |         |        |    |    |     |     |     |     |     |

-  100-250 mm
-  93 Shore A
-  250-1500 daN  
4 km/h
-  200-1200 daN  
6 km/h
-  190-550 daN
-  -20 / +80 °C



### Description

Tyre: Vulkollan®, hardness 93 Shore A: excellent rolling resistance and elasticity, highly resistant to wear, tear and deformations.

Centre: forged steel.

Hub with shielded ball bearings with interference assembly in the seats obtained by machining the centre; also available without bearings.

### Uses

Ideal for applications with heavy duty loads, even with mechanical handling at high speeds. Fitted with appropriate brackets, they guarantee excellent performance up to 16 km/h.

The excellent rolling resistance allows an easy handling of heavy loads even with wheels of a small diameter.

Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks, forklift trucks.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.



### Floors

Suitable for tiles and cement-resin.  
Not suitable if large obstacles are present.





### Force required to push or tow a wheel

|   | 150 kg | 300 kg | 450 kg | 600 kg | 1000 kg | 1500 kg |
|---|--------|--------|--------|--------|---------|---------|
| 100 mm  | 4      | ---    | ---    | ---    | ---     | ---     |
| 125 mm  | 3.3    | 6.7    | ---    | ---    | ---     | ---     |
| 150 mm  | 2.4    | 4.8    | 7.2    | 9.6    | ---     | ---     |
| 175 mm  | 2.2    | 4.5    | 6.8    | 9      | ---     | ---     |
| 200 mm  | 1.7    | 3.5    | 5.5    | 7.6    | 14.2    | ---     |
| 250 mm  | 1.2    | 2.5    | 4      | 5.6    | 10.5    | 18      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate fitting.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 80-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 900 daN - available diameters 150-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Extra-heavy duty brackets EP

Maximum carrying capacity 1500 daN - available diameters 100-250 mm  
Top plate fitting. Available with adjustable rear brake.

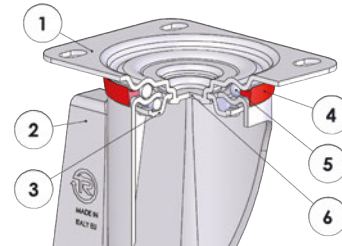
### Options available to order:

The series 63AC wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.



| mm  | mm | kg   | COD.   | kg   | COD.   | mm | mm | mm | mm | daN         | daN        | daN         | daN         |
|-----|----|------|--------|------|--------|----|----|----|----|-------------|------------|-------------|-------------|
| 100 | 30 | 0,74 | 632122 | 0,67 | 634122 | 12 | 30 | 32 | 10 | <b>375</b>  | <b>190</b> | <b>250</b>  | <b>200</b>  |
| 125 | 40 | 1,38 | 632123 | 1,31 | 634123 | 12 | 40 | 32 | 10 | <b>500</b>  | <b>230</b> | <b>350</b>  | <b>280</b>  |
| 150 | 40 | 1,84 | 632124 | 1,66 | 634124 | 17 | 40 | 40 | 12 | <b>900</b>  | <b>320</b> | <b>750</b>  | <b>600</b>  |
| 150 | 40 | 1,76 | 632224 | 1,60 | 634224 | 20 | 40 | 42 | 12 | <b>900</b>  | <b>320</b> | <b>750</b>  | <b>600</b>  |
| 175 | 40 | 2,80 | 632125 | 2,56 | 634125 | 20 | 40 | 47 | 14 | <b>1200</b> | <b>340</b> | <b>850</b>  | <b>680</b>  |
| 200 | 50 | 4,03 | 632126 | 3,79 | 634126 | 20 | 50 | 47 | 14 | <b>1800</b> | <b>420</b> | <b>1100</b> | <b>880</b>  |
| 200 | 50 | 4,00 | 632226 | 3,72 | 634226 | 25 | 50 | 52 | 15 | <b>1800</b> | <b>420</b> | <b>1100</b> | <b>880</b>  |
| 250 | 60 | 8,03 | 632128 | 7,75 | 634128 | 25 | 60 | 52 | 15 | <b>2200</b> | <b>550</b> | <b>1500</b> | <b>1200</b> |

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

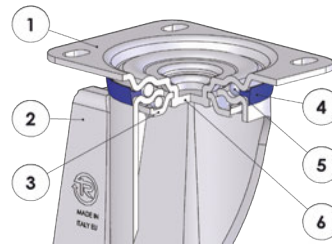
| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | daN        |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|------------|
| 100 | 30 | 1.26 | 637322 | 1.01 | 638222 | 128 | 100x85  | 80x60  | 9  | 35 | <b>200</b> |
| 125 | 40 | 2.03 | 637323 | 1.68 | 638223 | 156 | 100x85  | 80x60  | 9  | 37 | <b>220</b> |
| 150 | 40 | 2.54 | 637304 | 2.15 | 638214 | 182 | 100x85  | 80x60  | 9  | 34 | <b>220</b> |
| 150 | 40 | 3.21 | 637324 | 2.84 | 638224 | 194 | 140x110 | 105x80 | 11 | 56 | <b>300</b> |
| 175 | 40 | 4.18 | 637325 | 3.89 | 638225 | 217 | 140x110 | 105x80 | 11 | 56 | <b>300</b> |
| 200 | 50 | 5.43 | 637326 | 5.21 | 638226 | 240 | 140x110 | 105x80 | 11 | 56 | <b>300</b> |

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

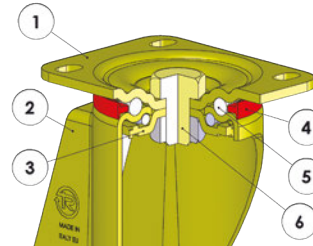
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 150 | 40 | 3.56 | 637404 | 2.84 | 638224 | 4.13 | 636704 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | 500 |
| 200 | 50 | 5.82 | 637406 | 5.21 | 638226 | 6.18 | 636706 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 500 |

**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

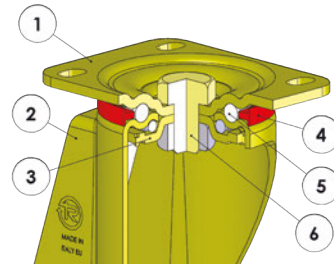
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|-----|
| 100 | 30 | 1.61 | 637622 | 1.11 | 638622 | 1.75 | 636302 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 250 | 200 |
| 125 | 40 | 2.29 | 637623 | 1.76 | 638623 | 2.43 | 636303 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 350 | 280 |

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

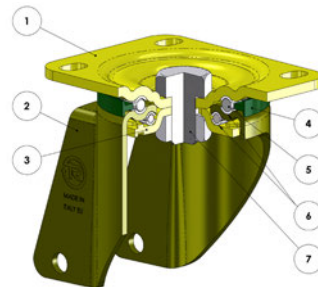
### Heavy duty brackets P - max carrying capacity 750 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total adjustable rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    |     | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|--------|--------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN    | daN    |
| 150 | 40 | 4.19 | 637624 | 2.70 | 638624 | 4.76 | 636304 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | 750    | 600    |
| 175 | 40 | 5.14 | 637625 | 3.72 | 638625 | 5.71 | 636305 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 750    | 600    |
| 200 | 50 | 6.44 | 637626 | 4.98 | 638626 | 7.01 | 636306 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 750    | 600    |

### Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

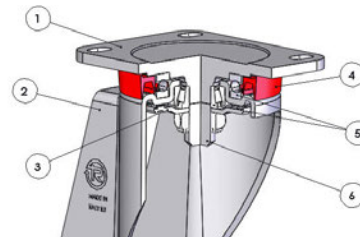
| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         |        |    |    |     | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|--------|--------|
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN    | daN    |
| 150 | 40 | 4,19 | 635604 | 2,70 | 638624 | 4,76 | 635304 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | 750    | 600    |
| 175 | 40 | 5,14 | 635605 | 3,72 | 638625 | 5,71 | 635305 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 850    | 680    |
| 200 | 50 | 6,44 | 635606 | 4,98 | 638626 | 7,01 | 635306 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 900    | 800    |

#### Options available to order:



Footguard  
for brackets NL-  
M-P-PT

**Extra-heavy duty brackets EP - max carrying capacity 1500 daN**



- 1) Plate: white galvanised forged steel
- 2) Fork: white galvanised forged steel
- 3) Lower bearing protection ring
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: axial ball bearing and tapered roller bearing
- 6) King pin: integrated with the machine-processed plate  
Available with adjustable total rear foot brake

| mm  | mm | kg    | CODE   | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | 4 km/h      | 6 km/h      |
|-----|----|-------|--------|-------|--------|------|--------|-----|---------|---------|----|----|-----|-------------|-------------|
| mm  | mm | kg    | CODE   | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN         | daN         |
| 100 | 30 | 1.85  | 637822 | 1.61  | 638822 |      |        | 140 | 100x85  | 80x60   | 9  | 46 |     | <b>250</b>  | <b>200</b>  |
| 125 | 40 | 2.56  | 637823 | 1.70  | 638823 |      |        | 164 | 100x85  | 80x60   | 9  | 45 |     | <b>350</b>  | <b>280</b>  |
| 150 | 40 | 4.46  | 637824 | 3.97  | 638824 | 5.03 | 636504 | 200 | 135x110 | 105x80  | 11 | 70 | 126 | <b>750</b>  | <b>600</b>  |
| 175 | 40 | 5.44  | 637825 | 5.02  | 638825 | 6.01 | 636505 | 225 | 135x110 | 105x80  | 11 | 70 | 126 | <b>850</b>  | <b>680</b>  |
| 200 | 50 | 6.75  | 637826 | 6.30  | 638826 | 7.32 | 636506 | 250 | 135x110 | 105x80  | 11 | 70 | 126 | <b>1100</b> | <b>880</b>  |
| 250 | 60 | 13.58 | 637828 | 11.74 | 638828 |      |        | 300 | 175x140 | 140x105 | 14 | 66 |     | <b>1500</b> | <b>1200</b> |

-  80-300 mm
-  93 Shore A
-  280-2300 daN  
4 km/h
-  220-1800 daN  
6 km/h
-  190-600 daN
-  -20 / +80 °C



### Description

Tyre: Vulkollan®, hardness 93 Shore A: excellent rolling resistance and elasticity, highly resistant to wear, tear and deformations.

Centre: cast iron.

Hub with shielded ball bearings with interference assembly in the seats obtained by machining the centre; also available without bearings.

### Uses









Ideal for applications with heavy duty loads, even with mechanical handling at high speeds. Combined with appropriate brackets, they guarantee excellent performance up to 16 km/h.

The excellent rolling resistance allows an easy handling of heavy loads even with wheels of small diameter.

Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks, forklift trucks.

### Environments for use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable for tiles and cement-resin.  
Not suitable if large obstacles are present.



**Force required to push or tow a wheel**

|   | 150 kg | 300 kg | 450 kg | 600 kg | 1000 kg | 1500 kg | 2000 kg |
|---|--------|--------|--------|--------|---------|---------|---------|
| 80 mm   | 4,5    | 11     | ----   | ----   | ----    | ----    | ----    |
| 100 mm  | 3,8    | 7,7    | ----   | ----   | ----    | ----    | ----    |
| 125x38 mm   | 3,5    | 7      | 11,5   | ----   | ----    | ----    | ----    |
| 125x50 mm   | 3,3    | 6,5    | 11     | ----   | ----    | ----    | ----    |
| 150x50 mm   | 2,5    | 5,2    | 8,6    | 12,6   | ----    | ----    | ----    |
| 160x50 mm   | 2,3    | 5      | 8,3    | 12     | ----    | ----    | ----    |
| 180x50 mm   | 2      | 4,1    | 6,8    | 9,7    | ----    | ----    | ----    |
| 200x50 mm   | 1,7    | 3,8    | 6      | 8,5    | 16      | ----    | ----    |
| 200x80 mm   | 1,3    | 3,5    | 5,0    | 6,7    | 11,5    | 17      | ----    |
| 250x60 mm   | 1      | 3      | 4,7    | 6,3    | 10,9    | 16      | ----    |
| 250x80 mm   | < 1    | 2,5    | 4,5    | 6      | 10,3    | 15,5    | ----    |
| 300x60 mm   | < 1    | 2      | 4      | 5,5    | 9,6     | 15      | ----    |
| 300x80 mm   | < 1    | 1,5    | 3,5    | 5      | 8,6     | 13      | 16      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

**Available with brackets:**



**Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate fitting. Available with front brake.



**Medium-duty brackets M**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



**Medium-heavy duty brackets P**

Maximum carrying capacity 750 daN - available diameters 80-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



**Heavy-duty PT brackets with hardened ball race grooves**

Maximum carrying capacity 900 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



**Extra-heavy duty brackets EP**

Maximum carrying capacity 1600 daN - available diameters 100-250 mm  
Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE MHD - EE HD - EE EHD.**

Maximum carrying capacity 2300 daN - available diameters 125-400 mm  
Top plate fitting. Available with adjustable rear brake.



**Twin electrowelded brackets EEG MHD - EEG HD - EEG EHD**

Maximum carrying capacity 3500 daN - available diameters 100-250 mm  
Top plate fitting.



**Electrowelded sprung-loaded brackets EES MHD**

Maximum carrying capacity 1000 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.

**Options available to order:**

















Wheel with key housing



Wheel with very thick tyre



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm  | daN   | daN   | daN   | daN   |  |  |
| 80  | 28  | 0,51  | 632151  | 0,46  | 634151  | 12  | 32  | 28  | 8   | <b>370</b>  | <b>190</b>  | <b>280</b>  | <b>220</b>  |  |  |
| 100   | 38  | 1,02  | 632152  | 0,91  | 634152  | 15  | 40  | 35  | 11  | <b>500</b>  | <b>220</b>  | <b>380</b>  | <b>300</b>  |  |  |
| 125   | 38  | 1,45  | 632153  | 1,34  | 634153  | 15  | 40  | 35  | 11  | <b>600</b>  | <b>240</b>  | <b>450</b>  | <b>360</b>  |  |  |
| 125   | 50  | 1,98  | 632163  | 1,76  | 634163  | 20  | 55  | 47  | 14  | <b>800</b>  | <b>270</b>  | <b>600</b>  | <b>440</b>  |  |  |
| 125   | 50  | 1,96  | 632363  | 1,76  | 634163  | 25  | 55  | 47  | 14  | <b>800</b>  | <b>270</b>  | <b>600</b>  | <b>440</b>  |  |  |
| 150   | 50  | 2,50  | 632154  | 2,28  | 634154  | 20  | 55  | 47  | 14  | <b>910</b>  | <b>290</b>  | <b>700</b>  | <b>560</b>  |  |  |
| 150   | 50  | 2,48  | 632354  | 2,28  | 634154  | 25  | 55  | 47  | 14  | <b>910</b>  | <b>290</b>  | <b>700</b>  | <b>560</b>  |  |  |
| 160   | 50  | 2,65  | 632164  | 2,43  | 634164  | 20  | 55  | 47  | 14  | <b>1000</b>   | <b>300</b>  | <b>750</b>  | <b>600</b>  |  |  |
| 160   | 50  | 2,63  | 632364  | 2,43  | 634164  | 25  | 55  | 47  | 14  | <b>1000</b>   | <b>300</b>  | <b>750</b>  | <b>600</b>  |  |  |
| 180   | 50  | 3,02  | 632155  | 2,80  | 634155  | 20  | 55  | 47  | 14  | <b>1100</b>   | <b>350</b>  | <b>900</b>  | <b>720</b>  |  |  |
| 200   | 50  | 3,65  | 632156  | 3,43  | 634156  | 20  | 55  | 47  | 14  | <b>1500</b>   | <b>380</b>  | <b>1000</b>   | <b>800</b>  |  |  |
| 200   | 50  | 3,63  | 632356  | 3,43  | 634156  | 25  | 55  | 47  | 14  | <b>1500</b>   | <b>380</b>  | <b>1000</b>   | <b>800</b>  |  |  |
| 200   | 78  | 7,26  | 632166  | 6,74  | 634166  | 25  | 86  | 62  | 17  | <b>2000</b>   | <b>450</b>  | <b>1600</b>   | <b>1300</b>   |  |  |
| 200   | 78  | 7,24  | 632366  | 6,74  | 634166  | 30  | 86  | 62  | 17  | <b>2000</b>   | <b>450</b>  | <b>1600</b>   | <b>1300</b>   |  |  |
| 250   | 60  | 8,13  | 632157  | 7,61  | 634157  | 25  | 65  | 62  | 17  | <b>2500</b>   | <b>480</b>  | <b>1500</b>   | <b>1200</b>   |  |  |
| 250   | 60  | 8,10  | 632357  | 7,61  | 634157  | 30  | 65  | 62  | 17  | <b>2500</b>   | <b>480</b>  | <b>1500</b>   | <b>1200</b>   |  |  |
| 250   | 78  | 9,81  | 632167  | 9,29  | 634167  | 25  | 86  | 62  | 17  | <b>2800</b>   | <b>500</b>  | <b>1900</b>   | <b>1500</b>   |  |  |
| 250   | 78  | 9,80  | 632367  | 9,29  | 634167  | 30  | 86  | 62  | 17  | <b>2800</b>   | <b>500</b>  | <b>1900</b>   | <b>1500</b>   |  |  |
| 300   | 60  | 11,43   | 632158  | 10,96   | 634158  | 30  | 65  | 62  | 17  | <b>3200</b>   | <b>550</b>  | <b>1750</b>   | <b>1400</b>   |  |  |
| 300   | 78  | 13,80   | 632168  | 13,33   | 634168  | 30  | 86  | 62  | 17  | <b>3400</b>   | <b>600</b>  | <b>2300</b>   | <b>1800</b>   |  |  |

Options available to order:



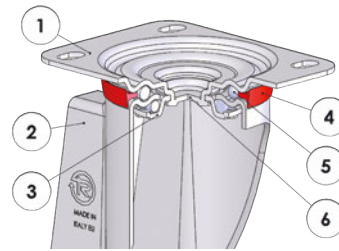
Wheel with key housing



Wheel with very thick tyre



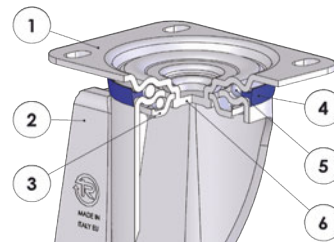
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 80  | 28 | 0.95 | 634551 | 0.82 | 634651 | 1.11 | 635451 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>200</b> |     |
| 100 | 38 | 1.51 | 634552 | 1.40 | 634652 | 1.67 | 635452 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |     |
| 125 | 38 | 1.97 | 634553 | 1.86 | 634653 | 2.13 | 635453 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |     |
| 125 | 50 | 3.38 | 634563 | 2.89 | 634663 | 3.58 | 635463 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | <b>300</b> |     |
| 150 | 50 | 3.87 | 634554 | 3.59 | 634654 |      |        | 194 | 140x110 | 105x80 | 11 | 56 |     | <b>300</b> |     |
| 160 | 50 | 3.98 | 634564 | 3.71 | 634664 | 4.23 | 635474 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 180 | 50 | 4.48 | 634555 | 4.21 | 634655 | 4.68 | 635465 | 220 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 50 | 5.16 | 634556 | 4.92 | 634656 | 5.36 | 635466 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |

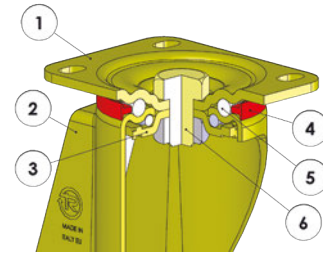
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

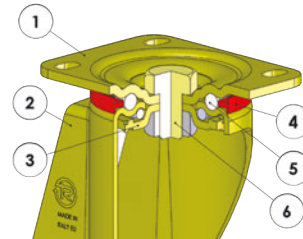
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 150 | 50 | 4.21 | 637424 | 3.59 | 634654 | 4.65 | 636724 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>500</b> |     |
| 160 | 50 | 4.33 | 637434 | 3.71 | 634664 | 4.78 | 636734 | 199 | 140x110 | 105x80 | 11 | 58 | 178 | <b>500</b> |     |
| 200 | 50 | 5.55 | 637426 | 4.92 | 634656 | 5.91 | 636726 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |     |

Heavy-duty brackets P - max carrying capacity 750 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|-----|
| 80  | 28 | 1.38 | 635851 | 0.96 | 636851 |      |        | 128 | 100x85 | 80x60 | 9  | 46 |     | 280 | 220 |
| 100 | 38 | 1.93 | 635852 | 1.52 | 636852 | 2.06 | 634852 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 350 | 300 |
| 125 | 38 | 2.37 | 635853 | 2.04 | 636853 | 2.50 | 634853 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 350 | 300 |



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total adjustable rear foot brake

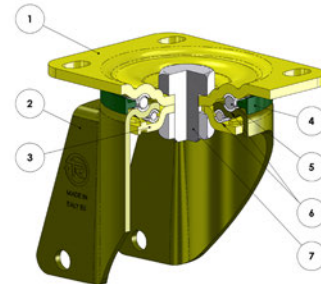
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|-----|
| 125 | 50 | 3.66 | 635863 | 2.65 | 636863 | 4.24 | 634863 | 170 | 140x110 | 105x80 | 11 | 70 | 126 | 550 | 440 |
| 150 | 50 | 4.81 | 635854 | 3.55 | 636854 | 5.33 | 634854 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | 700 | 560 |
| 160 | 50 | 4.93 | 635864 | 4.08 | 636864 | 5.45 | 634864 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |
| 180 | 50 | 5.30 | 635855 | 4.45 | 636855 | 5.90 | 634855 | 228 | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |
| 200 | 50 | 6.06 | 635856 | 5.15 | 636856 | 6.66 | 634856 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |

Options available to order:



Footguard for brackets NL-M-P-PT

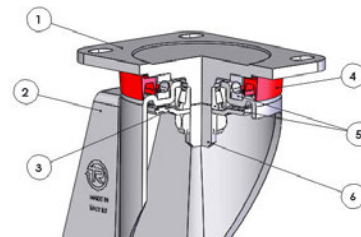
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         |        |    |    |     | 4 km/h     | 6 km/h     |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
| 125 | 50 | 3,66 | 635003 | 2,65 | 636863 | 4,24 | 639903 | 170 | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> | <b>440</b> |
| 150 | 50 | 4,81 | 635004 | 3,55 | 636854 | 5,33 | 639904 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>560</b> |
| 160 | 50 | 4,93 | 635014 | 4,08 | 636864 | 5,45 | 639914 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |
| 180 | 50 | 5,30 | 635005 | 4,45 | 636855 | 5,90 | 639905 | 228 | 140x110 | 105x80 | 11 | 70 | 126 | <b>900</b> | <b>720</b> |
| 200 | 50 | 6,06 | 635006 | 5,15 | 636856 | 6,66 | 639906 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>900</b> | <b>800</b> |

**Extra-heavy duty brackets EP - max carrying capacity 1600 daN**



- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

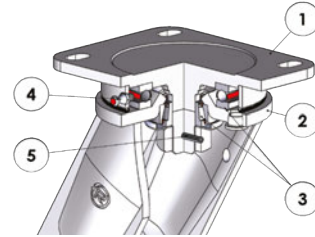
| mm  |    | kg    | CODE   | kg    | CODE   | kg   | CODE   | mm  |         |         |    |    |     | 4 km/h      | 6 km/h      |
|-----|----|-------|--------|-------|--------|------|--------|-----|---------|---------|----|----|-----|-------------|-------------|
| mm  | mm | kg    | CODE   | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN         | daN         |
| 100 | 38 | 2.15  | 637852 | 1.92  | 638852 |      |        | 140 | 100x85  | 80x60   | 9  | 46 |     | <b>350</b>  | <b>300</b>  |
| 125 | 38 | 2.64  | 637853 | 2.44  | 638853 |      |        | 164 | 100x85  | 80x60   | 9  | 48 |     | <b>350</b>  | <b>300</b>  |
| 150 | 50 | 5.04  | 637854 | 4.63  | 638854 | 5.56 | 636654 | 200 | 135x110 | 105x80  | 11 | 70 | 126 | <b>700</b>  | <b>560</b>  |
| 160 | 50 | 5.16  | 637864 | 4.75  | 638864 | 5.68 | 636664 | 205 | 135x110 | 105x80  | 11 | 70 | 126 | <b>750</b>  | <b>560</b>  |
| 180 | 50 | 5.60  | 637855 | 5.20  | 638855 | 6.20 | 636655 | 228 | 135x110 | 105x80  | 11 | 70 | 126 | <b>900</b>  | <b>720</b>  |
| 200 | 50 | 6.35  | 637856 | 6.06  | 638856 | 6.95 | 636656 | 250 | 135x110 | 105x80  | 11 | 70 | 126 | <b>1000</b> | <b>800</b>  |
| 200 | 80 | 12.30 | 637866 | 10.46 | 638866 |      |        | 275 | 175x140 | 140x105 | 14 | 66 |     | <b>1600</b> | <b>1300</b> |
| 250 | 60 | 13.16 | 637857 | 11.32 | 638857 |      |        | 300 | 175x140 | 140x105 | 14 | 66 |     | <b>1500</b> | <b>1200</b> |

Options available to order:



Footguard for brackets  
NL-M-P-PT

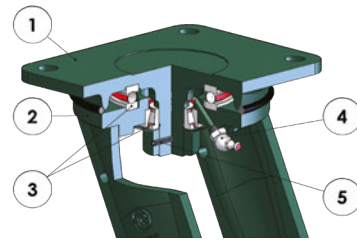
**Electrowelded brackets EE MHD - max carrying capacity 1000 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    |     | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|--------|--------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN    | daN    |
| 125 | 50 | 4.88 | 638303 | 3.90 | 638403 | 5.76 | 638903 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | 600    | 440    |
| 150 | 50 | 5.50 | 638304 | 4.51 | 638404 | 6.38 | 638904 | 210 | 135x110 | 105x80 | 11 | 60 | 157 | 700    | 560    |
| 160 | 50 | 5.65 | 638314 | 4.66 | 638414 | 6.53 | 638914 | 215 | 135x110 | 105x80 | 11 | 60 | 157 | 750    | 600    |
| 180 | 50 | 6.14 | 638305 | 5.16 | 638405 | 7.02 | 638905 | 242 | 135x110 | 105x80 | 11 | 70 | 157 | 900    | 720    |
| 200 | 50 | 6.77 | 638306 | 5.79 | 638406 | 7.65 | 638906 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | 1000   | 800    |

**Electrowelded brackets EE HD - max carrying capacity 2300 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  |    | kg    | CODE   | kg    | CODE   | kg    | CODE   | mm  |         |         |    |    |     | 4 km/h | 6 km/h |
|-----|----|-------|--------|-------|--------|-------|--------|-----|---------|---------|----|----|-----|--------|--------|
| mm  | mm | kg    | CODE   | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN    | daN    |
| 200 | 80 | 13.72 | 638316 | 12.18 | 638416 | 14.60 | 638916 | 275 | 175x140 | 140x105 | 14 | 65 | 166 | 1600   | 1300   |
| 250 | 60 | 14.82 | 638307 | 13.23 | 638407 | 15.70 | 638907 | 320 | 175x140 | 140x105 | 14 | 74 | 166 | 1500   | 1200   |
| 250 | 80 | 16.50 | 638317 | 14.91 | 638417 | 17.38 | 638917 | 320 | 175x140 | 140x105 | 14 | 74 | 166 | 1600   | 1300   |
| 250 | 80 | 17.56 | 638327 | 15.23 | 638427 | 18.44 | 638927 | 325 | 200x160 | 160x120 | 17 | 74 | 166 | 1900   | 1500   |
| 300 | 60 | 18.24 | 638308 | 16.62 | 638408 | 19.12 | 638908 | 360 | 175x140 | 140x105 | 14 | 81 | 166 | 1600   | 1300   |
| 300 | 60 | 19.30 | 638328 | 16.95 | 638428 | 20.18 | 638928 | 365 | 200x160 | 160x120 | 17 | 81 | 166 | 1750   | 1400   |
| 300 | 80 | 20.61 | 638318 | 18.99 | 638418 | 21.49 | 638918 | 360 | 175x140 | 140x105 | 14 | 81 | 166 | 1600   | 1300   |
| 300 | 80 | 21.67 | 638338 | 19.32 | 638438 | 22.55 | 638938 | 365 | 200x160 | 160x120 | 17 | 81 | 166 | 2300   | 1800   |

Options available to order:

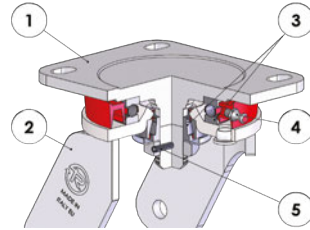


Directional lock  
for brackets EE MHD  
- EE HD - EED MHD - EES  
MHD: see page 390



Bracket  
EE MHD  
with steering  
system

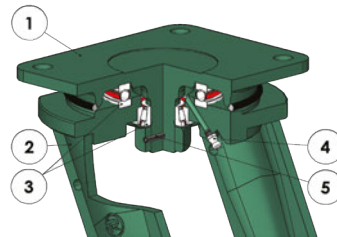
**Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | 4 km/h daN | 6 km/h daN |
|-----|-------|------|--------|------|--------|-----|---------|--------|----|----|------------|------------|
| 100 | 38+38 | 4.50 | 638062 | 3.75 | 638162 | 140 | 135x110 | 105x80 | 11 | 55 | <b>700</b> | <b>600</b> |
| 125 | 38+38 | 5.45 | 638063 | 4.70 | 638163 | 170 | 135x110 | 105x80 | 11 | 55 | <b>900</b> | <b>720</b> |

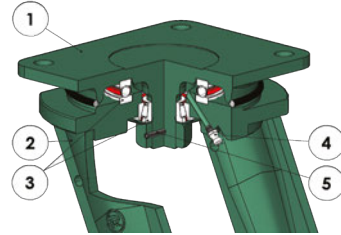
**Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | 4 km/h daN  | 6 km/h daN  |
|-----|-------|-------|--------|-------|--------|-----|---------|---------|----|----|-------------|-------------|
| 125 | 50+50 | 11.00 | 638072 | 7.70  | 638172 | 210 | 175x140 | 140x105 | 14 | 50 | <b>1200</b> | <b>880</b>  |
| 150 | 50+50 | 13.10 | 638074 | 8.70  | 638174 | 223 | 175x140 | 140x105 | 14 | 50 | <b>1400</b> | <b>1100</b> |
| 160 | 50+50 | 13.40 | 638084 | 9.00  | 638184 | 228 | 175x140 | 140x105 | 14 | 50 | <b>1500</b> | <b>1200</b> |
| 200 | 50+50 | 15.90 | 638066 | 11.30 | 638166 | 280 | 175x140 | 140x105 | 14 | 65 | <b>1600</b> | <b>1300</b> |
| 200 | 50+50 | 17.55 | 638076 | 12.70 | 638176 | 285 | 200x160 | 160x120 | 17 | 65 | <b>2000</b> | <b>1600</b> |

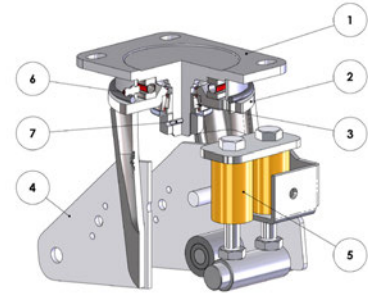
### Twin electrowelded brackets EEG MHD - max carrying capacity 3500 daN



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | 4 km/h daN | 6 km/h daN |
|-----|-------|-------|--------|-------|--------|-----|---------|---------|----|----|------------|------------|
| 200 | 80+80 | 34.80 | 638086 | 25.05 | 638186 | 280 | 250x200 | 210x160 | 19 | 52 | 3200       | 2500       |
| 250 | 60+60 | 36.95 | 638067 | 27.20 | 638167 | 330 | 250x200 | 210x160 | 19 | 62 | 3000       | 2400       |
| 250 | 80+80 | 40.30 | 638077 | 30.55 | 638177 | 330 | 250x200 | 210x160 | 19 | 62 | 3500       | 2800       |

### Electrowelded sprung-loaded brackets EES MHD - max carrying capacity 1000 daN - damping up to 400 daN



- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
- 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Spring-hinged plates: plates electrowelded to the axle
- 5) Polyurethane springs
- 6) Grease nipple
- 7) Anti-loosening system nut

| mm  | mm | kg   | COD.   | kg   | COD.   | kg    | COD.   | mm  | mm      | mm     | mm | mm  | mm  | mm | daN | daN | 4 km/h daN | 6 km/h daN |
|-----|----|------|--------|------|--------|-------|--------|-----|---------|--------|----|-----|-----|----|-----|-----|------------|------------|
| 160 | 50 | 8,47 | 639304 | 7,22 | 639404 | 9,53  | 639504 | 248 | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50  | 400 | 750        | 600        |
| 200 | 50 | 9,47 | 639306 | 7,82 | 639406 | 10,18 | 639506 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50  | 400 | 1000       | 800        |

**Spring travel** (mm): maximum difference in the total height of the group wheel + support depending on the spring tension

**Initial tension** (daN): in case of lighter loads than indicated, the bracket works with no damping

**Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

#### Options available to order:



Directional lock for brackets EE MHD - EE HD - EED MHD - EES MHD: see page 390

# TR SAFETY



# TR LEAN MANUFACTURING

**Value**  
Identifica il valore per il cliente

**Value stream**  
Identifica il flusso del valore e combatti le attività che non generano valore

Crea il flusso d in modo che

**Pull**  
Fai in modo che il flusso del valore sia tirato dal cliente

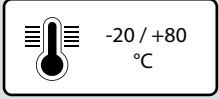
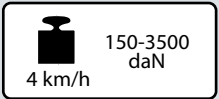
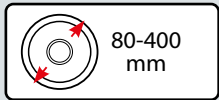
**Perfection**  
Inseguì la perfezione tramite il miglioramento continuo

Prodotto e Processo



Lean manufacturing

## "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent rolling resistance and elasticity, highly resistant to wear.

Centre: cast iron.

Hub with plain bore so that it can easily be re-worked to achieve a spline. Also available with key housing.

Hub with shielded ball bearing press-fitted in the seats obtained by precision machining the centre; also available without bearings.

### Uses

Ideal for applications with heavy duty loads, even with mechanical handling at high speeds. Combined with appropriate brackets, they guarantee excellent performance up to 16 km/h.

The excellent rolling resistance allows an easy handling of heavy loads even with wheels of small diameter.

The plain bore version, with key way or spline, is suitable for use as a drive wheel.

Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated steam.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors



Suitable for tiles and cement-resin.

Not suitable if large obstacles are present.





**Force required to push or tow a wheel**

|   | 150 kg | 300 kg | 450 kg | 600 kg | 1000 kg | 1500 kg | 2000 kg | 2800 kg |
|---|--------|--------|--------|--------|---------|---------|---------|---------|
| 80 mm   | 4,5    | 11     | ---    | ---    | ---     | ---     | ---     | ---     |
| 100 mm  | 3,8    | 7,7    | ---    | ---    | ---     | ---     | ---     | ---     |
| 125x38 mm   | 3,5    | 7      | 11,5   | ---    | ---     | ---     | ---     | ---     |
| 125x50 mm   | 3,3    | 6,5    | 11     | ---    | ---     | ---     | ---     | ---     |
| 125x60 mm   | 3,3    | 6,5    | 11     | 14     | ---     | ---     | ---     | ---     |
| 150x50 mm   | 2,5    | 5,2    | 8,6    | 12,6   | ---     | ---     | ---     | ---     |
| 150x60 mm   | 2      | 4      | 8      | 11     | ---     | ---     | ---     | ---     |
| 150x80 mm   | 1,8    | 3,5    | 6      | 10,5   | 18      | ---     | ---     | ---     |
| 160x50 mm   | 2,3    | 5      | 8,3    | 12     | ---     | ---     | ---     | ---     |
| 180x50 mm   | 2      | 4,1    | 6,8    | 9,7    | ---     | ---     | ---     | ---     |
| 200x50 mm   | 1,7    | 3,8    | 6      | 8,5    | 16      | ---     | ---     | ---     |
| 200x80 mm   | 1,3    | 3,5    | 5,0    | 6,7    | 11,5    | 17      | ---     | ---     |
| 250x60 mm   | 1      | 3      | 4,7    | 6,3    | 10,9    | 16      | ---     | ---     |
| 250x80 mm   | < 1    | 2,5    | 4,5    | 6      | 10,3    | 15,5    | ---     | ---     |
| 300x60 mm   | < 1    | 2      | 4      | 5,5    | 9,6     | 15      | ---     | ---     |
| 300x80 mm   | < 1    | 1,5    | 3,5    | 5      | 8,6     | 13      | 16      | ---     |
| 400x100 mm  | < 1    | < 1    | 2      | 3,2    | 6,8     | 11      | 13      | 21      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

**Available with brackets:**



**Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate fitting. Available with front brake.



**Medium-duty brackets M**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



**Medium-heavy duty brackets P**

Maximum carrying capacity 750 daN - available diameters 80-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



**Heavy-duty PT brackets with hardened ball race grooves**

Maximum carrying capacity 900 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



**Extra-heavy duty brackets EP**

Maximum carrying capacity 1600 daN - available diameters 100-250 mm  
Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE MHD - EE HD - EE EHD.**

Maximum carrying capacity 2800 daN - available diameters 125-400 mm  
Top plate fitting. Available with adjustable rear brake.



**Twin electrowelded brackets EEG MHD - EEG HD - EEG EHD**

Maximum carrying capacity 4300 daN - available diameters 100-300 mm  
Top plate fitting



**Electrowelded sprung-loaded brackets EES MHD**

Maximum carrying capacity 1000 daN - available diameters 160-250 mm  
Top plate fitting. Available with adjustable front brake.



| mm  | mm  | kg    | COD.   | mm    | mm. | mm. | mm. | daN         | daN         | daN         |  |  |  |
|-----|-----|-------|--------|-------|-----|-----|-----|-------------|-------------|-------------|--|--|--|
| 100 | 40  | 1,50  | 641102 | 15 H7 | 45  | 55  | 30  | <b>500</b>  | <b>300</b>  | <b>300</b>  |  |  |  |
| 125 | 40  | 2,10  | 641103 | 20 H7 | 60  | 60  | 30  | <b>600</b>  | <b>400</b>  | <b>400</b>  |  |  |  |
| 150 | 40  | 2,90  | 641104 | 20 H7 | 60  | 70  | 40  | <b>730</b>  | <b>500</b>  | <b>500</b>  |  |  |  |
| 150 | 50  | 3,70  | 641114 | 20 H7 | 60  | 70  | 40  | <b>910</b>  | <b>700</b>  | <b>700</b>  |  |  |  |
| 180 | 50  | 4,40  | 641105 | 20 H7 | 60  | 70  | 40  | <b>1100</b> | <b>800</b>  | <b>800</b>  |  |  |  |
| 200 | 50  | 4,60  | 641106 | 20 H7 | 60  | 70  | 40  | <b>1500</b> | <b>950</b>  | <b>950</b>  |  |  |  |
| 200 | 60  | 6,00  | 641116 | 25 H7 | 60  | 70  | 40  | <b>1700</b> | <b>1000</b> | <b>1000</b> |  |  |  |
| 200 | 80  | 8,40  | 641126 | 40 H7 | 80  | 95  | 60  | <b>2000</b> | <b>1400</b> | <b>1400</b> |  |  |  |
| 250 | 50  | 6,60  | 641107 | 20 H7 | 60  | 75  | 45  | <b>1800</b> | <b>1100</b> | <b>1100</b> |  |  |  |
| 250 | 80  | 11,00 | 641117 | 40 H7 | 80  | 95  | 60  | <b>2800</b> | <b>1600</b> | <b>1600</b> |  |  |  |
| 250 | 80  | 10,10 | 641127 | 60 H7 | 80  | 95  | 60  | <b>2800</b> | <b>1600</b> | <b>1600</b> |  |  |  |
| 300 | 80  | 14,40 | 641108 | 50 H7 | 80  | 100 | 65  | <b>3400</b> | <b>2000</b> | <b>2000</b> |  |  |  |
| 300 | 100 | 21,20 | 641118 | 50 H7 | 100 | 120 | 80  | <b>4200</b> | <b>2500</b> | <b>2500</b> |  |  |  |
| 350 | 100 | 26,10 | 641109 | 50 H7 | 100 | 120 | 80  | <b>4700</b> | <b>2800</b> | <b>2800</b> |  |  |  |
| 400 | 100 | 31,60 | 641110 | 50 H7 | 100 | 120 | 80  | <b>5000</b> | <b>3500</b> | <b>3500</b> |  |  |  |

These wheels can also be used as drive wheels: the wheel hub is manufactured so that it can easily be reworked to achieve a spline or key housing. The carrying capacity given is valid for movements at a maximum speed of 6 km/h also if used as a drive wheel on mainly straight routes.

To use as a steering drive wheel or at speeds higher than 6 km/h it is advisable to contact Tellure Rôta to assess any reduction of the maximum applicable loads that may be necessary. To prevent the polyurethane tyre from deteriorating, any reworking on the wheel must be done keeping the temperature under 80°C (which is recommended as the maximum limit during normal use of the product).



| mm  | mm  | kg    | COD.   | mm    | mm. | mm.   | mm.  | daN         | daN         | daN         |  |  |  |
|-----|-----|-------|--------|-------|-----|-------|------|-------------|-------------|-------------|--|--|--|
| 100 | 40  | 1,50  | 641202 | 15 H7 | 45  | 5x5   | 17,3 | <b>500</b>  | <b>300</b>  | <b>300</b>  |  |  |  |
| 125 | 40  | 2,10  | 641203 | 20 H7 | 60  | 6x6   | 22,8 | <b>600</b>  | <b>400</b>  | <b>400</b>  |  |  |  |
| 150 | 40  | 2,90  | 641204 | 20 H7 | 60  | 6x6   | 22,8 | <b>730</b>  | <b>500</b>  | <b>500</b>  |  |  |  |
| 150 | 50  | 3,70  | 641214 | 20 H7 | 60  | 6x6   | 22,8 | <b>910</b>  | <b>700</b>  | <b>700</b>  |  |  |  |
| 180 | 50  | 4,40  | 641205 | 20 H7 | 60  | 6x6   | 22,8 | <b>1100</b> | <b>800</b>  | <b>800</b>  |  |  |  |
| 200 | 50  | 4,60  | 641206 | 20 H7 | 60  | 6x6   | 22,8 | <b>1500</b> | <b>950</b>  | <b>950</b>  |  |  |  |
| 200 | 60  | 6,00  | 641216 | 25 H7 | 60  | 8x7   | 28,3 | <b>1700</b> | <b>1000</b> | <b>1000</b> |  |  |  |
| 200 | 80  | 8,40  | 641226 | 40 H7 | 80  | 12x8  | 43,3 | <b>2000</b> | <b>1400</b> | <b>1400</b> |  |  |  |
| 250 | 50  | 6,60  | 641207 | 20 H7 | 60  | 6x6   | 22,8 | <b>1800</b> | <b>1100</b> | <b>1100</b> |  |  |  |
| 250 | 80  | 11,00 | 641217 | 40 H7 | 80  | 12x8  | 43,3 | <b>2800</b> | <b>1600</b> | <b>1600</b> |  |  |  |
| 250 | 80  | 10,10 | 641227 | 60 H7 | 80  | 18x11 | 64,4 | <b>2800</b> | <b>1600</b> | <b>1600</b> |  |  |  |
| 300 | 80  | 14,40 | 641208 | 50 H7 | 80  | 14x9  | 53,8 | <b>3400</b> | <b>2000</b> | <b>2000</b> |  |  |  |
| 300 | 100 | 21,20 | 641218 | 50 H7 | 100 | 14x9  | 53,8 | <b>4200</b> | <b>2500</b> | <b>2500</b> |  |  |  |
| 350 | 100 | 26,10 | 641209 | 50 H7 | 100 | 14x9  | 53,8 | <b>4700</b> | <b>2800</b> | <b>2800</b> |  |  |  |
| 400 | 100 | 31,60 | 641210 | 50 H7 | 100 | 14x9  | 53,8 | <b>5000</b> | <b>3500</b> | <b>3500</b> |  |  |  |















The standard reference used by Tellure Rôta for the construction of the key housing is UNI EN 6604-69; therefore, the tolerance on the width of the key housing is JS9.

Tellure Rôta is at your disposal to customise the product, modifying the bore with a groove for a key housing of different dimensions or a groove for a tongue according to the specifications of the Italian (UNI 6604 and UNI 6607) and European (DIN 6885) regulations in force. The maximum applicable diameter for each wheel, guaranteeing the carrying capacity values, is given in the product dimensions column

SERIES **64**

**"TR" POLYURETHANE WHEELS  
WITH CAST IRON CENTRE**



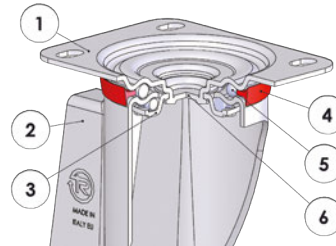
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|---|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm  | daN  | daN   | daN   | daN   |  |  |
| 80  | 20  | 0,36  | 642181  | 0,34  | 644181  | 12  | 18  | 32  | 14  | <b>200</b>   | <b>150</b>  | <b>150</b>  | <b>120</b>  |  |  |
| 80  | 28  | 0,51  | 642151  | 0,46  | 644151  | 12  | 32  | 28  | 8   | <b>370</b>   | <b>190</b>  | <b>280</b>  | <b>220</b>  |  |  |
| 100   | 38  | 1,02  | 642152  | 0,91  | 644152  | 15  | 40  | 35  | 11  | <b>500</b>   | <b>220</b>  | <b>380</b>  | <b>300</b>  |  |  |
| 125   | 38  | 1,45  | 642153  | 1,34  | 644153  | 15  | 40  | 35  | 11  | <b>600</b>   | <b>240</b>  | <b>450</b>  | <b>360</b>  |  |  |
| 125   | 50  | 1,98  | 642163  | 1,76  | 644163  | 20  | 55  | 47  | 14  | <b>800</b>   | <b>270</b>  | <b>550</b>  | <b>440</b>  |  |  |
| 125   | 50  | 1,96  | 642363  | 1,76  | 644163  | 25  | 55  | 47  | 14  | <b>800</b>   | <b>270</b>  | <b>550</b>  | <b>440</b>  |  |  |
| 125   | 58  | 2,86  | 642103  | 2,62  | 644103  | 20  | 58  | 47  | 15  | <b>800</b>   | <b>250</b>  | <b>600</b>  | <b>480</b>  |  |  |
| 150   | 50  | 2,50  | 642154  | 2,28  | 644154  | 20  | 55  | 47  | 14  | <b>910</b>   | <b>290</b>  | <b>750</b>  | <b>600</b>  |  |  |
| 150   | 50  | 2,48  | 642354  | 2,28  | 644154  | 25  | 55  | 47  | 14  | <b>910</b>   | <b>290</b>  | <b>750</b>  | <b>600</b>  |  |  |
| 150   | 58  | 2,83  | 642104  | 2,59  | 644104  | 20  | 58  | 47  | 15  | <b>1400</b>  | <b>350</b>  | <b>850</b>  | <b>680</b>  |  |  |
| 150   | 78  | 5,69  | 642124  | 5,19  | 644124  | 25  | 88  | 62  | 18  | <b>1700</b>  | <b>400</b>  | <b>1000</b>   | <b>800</b>  |  |  |
| 160   | 50  | 2,65  | 642164  | 2,43  | 644164  | 20  | 55  | 47  | 14  | <b>1000</b>  | <b>300</b>  | <b>750</b>  | <b>600</b>  |  |  |
| 160   | 50  | 2,63  | 642364  | 2,43  | 644164  | 25  | 55  | 47  | 14  | <b>1000</b>  | <b>300</b>  | <b>750</b>  | <b>600</b>  |  |  |
| 180   | 50  | 3,02  | 642155  | 2,80  | 644155  | 20  | 55  | 47  | 14  | <b>1100</b>  | <b>350</b>  | <b>900</b>  | <b>720</b>  |  |  |
| 200   | 50  | 3,65  | 642156  | 3,43  | 644156  | 20  | 55  | 47  | 14  | <b>1500</b>  | <b>380</b>  | <b>1000</b>   | <b>800</b>  |  |  |
| 200   | 50  | 3,63  | 642356  | 3,43  | 644156  | 25  | 55  | 47  | 14  | <b>1500</b>  | <b>380</b>  | <b>1000</b>   | <b>800</b>  |  |  |
| 200   | 78  | 7,26  | 642166  | 6,74  | 644166  | 25  | 86  | 62  | 17  | <b>2000</b>  | <b>450</b>  | <b>1600</b>   | <b>1300</b>   |  |  |
| 200   | 78  | 7,24  | 642366  | 6,74  | 644166  | 30  | 86  | 62  | 17  | <b>2000</b>  | <b>450</b>  | <b>1600</b>   | <b>1300</b>   |  |  |
| 250   | 50  | 7,00  | 642147  | 6,92  | 644147  | 20  | 55  | 52  | 15  | <b>1750</b>  | <b>400</b>  | <b>1000</b>   | <b>960</b>  |  |  |
| 250   | 60  | 8,13  | 642157  | 7,61  | 644157  | 25  | 65  | 62  | 17  | <b>2500</b>  | <b>480</b>  | <b>1500</b>   | <b>1200</b>   |  |  |
| 250   | 60  | 8,10  | 642357  | 7,61  | 644157  | 30  | 65  | 62  | 17  | <b>2500</b>  | <b>480</b>  | <b>1500</b>   | <b>1200</b>   |  |  |
| 250   | 78  | 9,81  | 642167  | 9,81  | 644167  | 25  | 86  | 62  | 17  | <b>2800</b>  | <b>500</b>  | <b>1900</b>   | <b>1500</b>   |  |  |
| 250   | 78  | 9,80  | 642367  | 9,81  | 644167  | 30  | 86  | 62  | 17  | <b>2800</b>  | <b>500</b>  | <b>1900</b>   | <b>1500</b>   |  |  |
| 300   | 60  | 11,43   | 642158  | 10,96   | 644158  | 30  | 65  | 62  | 17  | <b>3200</b>  | <b>550</b>  | <b>1750</b>   | <b>1400</b>   |  |  |
| 300   | 78  | 13,80   | 642168  | 13,33   | 644168  | 30  | 86  | 62  | 17  | <b>3400</b>  | <b>600</b>  | <b>2300</b>   | <b>1800</b>   |  |  |
| 300   | 100   | 22,75   | 642178  | 22,46   | 644178  | 45  | 100   | 85  | 19  | <b>3400</b>  | <b>600</b>  | <b>2500</b>   | <b>2000</b>   |  |  |
| 360   | 120   | 31,63   | 642139  | 30,50   | 644139  | 40  | 120   | 90  | 23  | <b>3800</b>  | <b>750</b>  | <b>2800</b>   | <b>2200</b>   |  |  |
| 400   | 100   | 28,86   | 642129  | 26,30   | 644129  | 50  | 120   | 110   | 28  | <b>4500</b>  | <b>750</b>  | <b>2800</b>   | <b>2200</b>   |  |  |

Options available to order:



Wheel  
with very thick  
tyre

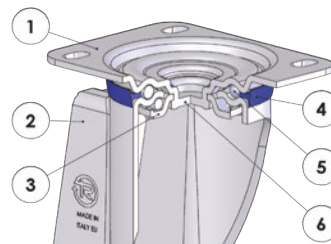
## Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 80  | 28 | 0.95 | 644551 | 0.82 | 644651 | 1.11 | 645451 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 200 |
| 100 | 38 | 1.51 | 644552 | 1.40 | 644652 | 1.67 | 645452 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |
| 125 | 38 | 1.97 | 644553 | 1.86 | 644653 | 2.13 | 645453 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |
| 125 | 50 | 3.38 | 644563 | 2.89 | 644663 | 3.58 | 645463 | 166 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 150 | 50 | 3.87 | 644554 | 3.59 | 644654 | 4.12 | 645464 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 160 | 50 | 3.98 | 644564 | 3.71 | 644664 | 4.23 | 645474 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 180 | 50 | 4.48 | 644555 | 4.21 | 644655 | 4.68 | 645465 | 220 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |
| 200 | 50 | 5.16 | 644556 | 4.92 | 644656 | 5.36 | 645466 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |

## Medium-duty brackets M - max carrying capacity 500 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 150 | 50 | 4.21 | 644954 | 3.59 | 644654 | 4.65 | 645564 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | 500 |
| 160 | 50 | 4.33 | 644964 | 3.71 | 644664 | 4.78 | 645574 | 199 | 140x110 | 105x80 | 11 | 58 | 178 | 500 |
| 200 | 50 | 5.55 | 644956 | 4.92 | 644656 | 5.91 | 645566 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | 500 |

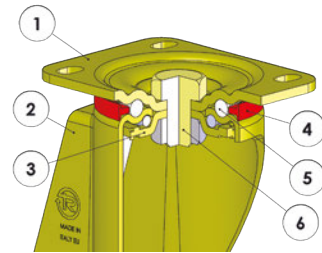
### Options available to order:



Footguard  
for brackets NL-  
M-P-PT

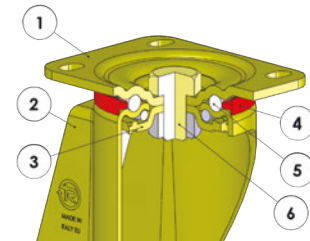
**"TR" POLYURETHANE WHEELS  
WITH CAST IRON CENTRE**

**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  |    | kg   |        | CODE |        | kg   |        | CODE |        | mm    |   | mm |     | mm  |     | mm     |        | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|--------|-------|---|----|-----|-----|-----|--------|--------|-----|--|-----|--|
| 80  | 28 | 1.38 | 645851 | 0.96 | 646851 | 2.06 | 644852 | 128  | 100x85 | 80x60 | 9 | 46 | 123 | 280 | 220 | 4 km/h | 6 km/h |     |  |     |  |
| 100 | 38 | 1.93 | 645852 | 1.52 | 646852 | 2.50 | 644853 | 138  | 100x85 | 80x60 | 9 | 46 | 123 | 350 | 300 |        |        |     |  |     |  |
| 125 | 38 | 2.37 | 645853 | 2.04 | 646853 |      |        | 161  | 100x85 | 80x60 | 9 | 48 | 123 | 350 | 300 |        |        |     |  |     |  |



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total adjustable rear foot brake

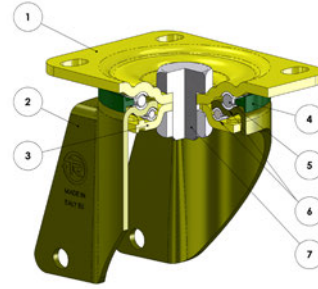
| mm  |    | kg   |        | CODE |        | kg   |        | CODE |         | mm     |    | mm |     | mm  |     | mm     |        | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|-----|--------|--------|-----|--|-----|--|
| 125 | 50 | 3.66 | 645863 | 2.65 | 646863 | 4.24 | 644863 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 550 | 440 | 4 km/h | 6 km/h |     |  |     |  |
| 150 | 50 | 4.81 | 645854 | 3.55 | 646854 | 5.33 | 644854 | 200  | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |        |        |     |  |     |  |
| 160 | 50 | 4.93 | 645864 | 4.08 | 646864 | 5.45 | 644864 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |        |        |     |  |     |  |
| 180 | 50 | 5.30 | 645855 | 4.45 | 646855 | 5.90 | 644855 | 228  | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |        |        |     |  |     |  |
| 200 | 50 | 6.06 | 645856 | 5.15 | 646856 | 6.66 | 644856 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |        |        |     |  |     |  |

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

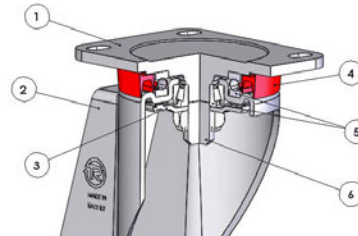
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |         | mm     |    | mm |     | mm  |     | mm |  | daN |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|-----|-----|----|--|-----|--|-----|--|
| 125 | 50 | 3,66 | 645003 | 2,65 | 646863 | 4,24 | 649903 | 170  | 140x110 | 105x80 | 11 | 70 | 126 | 550 | 440 |    |  |     |  |     |  |
| 150 | 50 | 4,67 | 645004 | 3,55 | 646854 | 5,33 | 649904 | 200  | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |    |  |     |  |     |  |
| 160 | 50 | 4,93 | 645014 | 4,08 | 646864 | 5,45 | 649914 | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 750 | 600 |    |  |     |  |     |  |
| 180 | 50 | 5,30 | 645005 | 4,45 | 646855 | 5,90 | 649905 | 228  | 140x110 | 105x80 | 11 | 70 | 126 | 900 | 720 |    |  |     |  |     |  |
| 200 | 50 | 6,06 | 645006 | 5,15 | 646856 | 6,66 | 649906 | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 900 | 800 |    |  |     |  |     |  |

**Extra-heavy duty brackets EP - max carrying capacity 1600 daN**



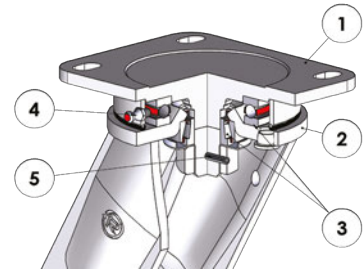
- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

| mm  |    | kg    |        | CODE  |        | kg   |         | CODE    |         | mm     |      | mm   |     | mm   |     | mm |  | daN |  | daN |  |
|-----|----|-------|--------|-------|--------|------|---------|---------|---------|--------|------|------|-----|------|-----|----|--|-----|--|-----|--|
| 100 | 38 | 2.15  | 647852 | 1.92  | 648852 | 140  | 100x85  | 80x60   | 9       | 46     | 350  | 300  |     |      |     |    |  |     |  |     |  |
| 125 | 38 | 2.64  | 647853 | 2.44  | 648853 | 164  | 100x85  | 80x60   | 9       | 48     | 350  | 300  |     |      |     |    |  |     |  |     |  |
| 125 | 50 | 4.61  | 647863 | 4.16  | 648863 | 188  | 135x110 | 105x80  | 11      | 70     | 550  | 440  |     |      |     |    |  |     |  |     |  |
| 150 | 50 | 5.04  | 647854 | 4.63  | 648854 | 5.56 | 646654  | 200     | 135x110 | 105x80 | 11   | 70   | 126 | 750  | 600 |    |  |     |  |     |  |
| 150 | 58 | 5.44  | 647824 | 4.96  | 648824 | 200  | 135x110 | 105x80  | 11      | 70     | 850  | 680  |     |      |     |    |  |     |  |     |  |
| 160 | 50 | 5.16  | 647864 | 4.75  | 648864 | 5.68 | 646664  | 205     | 135x110 | 105x80 | 11   | 70   | 126 | 750  | 600 |    |  |     |  |     |  |
| 180 | 50 | 5.60  | 647855 | 5.20  | 648855 | 6.20 | 646655  | 228     | 135x110 | 105x80 | 11   | 70   | 126 | 900  | 720 |    |  |     |  |     |  |
| 200 | 50 | 6.35  | 647856 | 6.06  | 648856 | 6.95 | 646656  | 250     | 135x110 | 105x80 | 11   | 70   | 126 | 1000 | 800 |    |  |     |  |     |  |
| 200 | 78 | 12.30 | 647866 | 10.46 | 648866 | 275  | 175x140 | 140x105 | 14      | 66     | 1600 | 1300 |     |      |     |    |  |     |  |     |  |
| 250 | 60 | 13.16 | 647857 | 11.32 | 648857 | 300  | 175x140 | 140x105 | 14      | 66     | 1500 | 1200 |     |      |     |    |  |     |  |     |  |

# SERIES 64

## "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

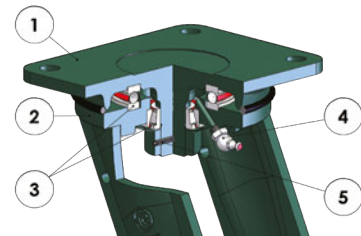
### Electrowelded brackets EE MHD - max carrying capacity 1000 daN



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    |     | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|--------|--------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN    | daN    |
| 125 | 50 | 4.88 | 648303 | 3.90 | 648403 | 5.76 | 648503 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | 550    | 440    |
| 150 | 50 | 5.50 | 648304 | 4.51 | 648404 | 6.38 | 648504 | 210 | 135x110 | 105x80 | 11 | 60 | 157 | 750    | 600    |
| 160 | 50 | 5.65 | 648314 | 4.66 | 648414 | 6.53 | 648514 | 215 | 135x110 | 105x80 | 11 | 60 | 157 | 750    | 600    |
| 180 | 50 | 6.14 | 648305 | 5.16 | 648405 | 7.02 | 648505 | 242 | 135x110 | 105x80 | 11 | 70 | 157 | 900    | 720    |
| 200 | 50 | 6.77 | 648306 | 5.79 | 648406 | 7.65 | 648506 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | 1000   | 800    |

### Electrowelded brackets EE HD - max carrying capacity 2300 daN

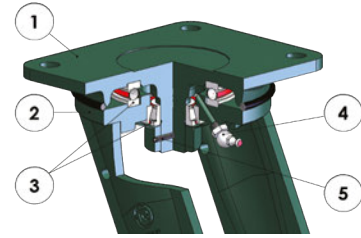


- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  |    | kg    | CODE   | kg    | CODE   | kg    | CODE   | mm  |         |         |    |    |     | 4 km/h | 6 km/h |
|-----|----|-------|--------|-------|--------|-------|--------|-----|---------|---------|----|----|-----|--------|--------|
| mm  | mm | kg    | CODE   | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN    | daN    |
| 150 | 78 | 12.15 | 648315 | 10.61 | 648415 | 13.03 | 648515 | 218 | 175x140 | 140x105 | 14 | 50 | 166 | 1000   | 800    |
| 150 | 78 | 12.15 | 648324 | 10.61 | 648424 |       |        | 223 | 200x160 | 160x120 | 17 | 50 | 166 | 1000   | 800    |
| 200 | 78 | 13.72 | 648316 | 12.18 | 648416 | 14.60 | 648516 | 275 | 175x140 | 140x105 | 14 | 65 | 166 | 1600   | 1300   |
| 250 | 60 | 14.82 | 648307 | 13.23 | 648407 | 15.70 | 648507 | 320 | 175x140 | 140x105 | 14 | 74 | 166 | 1500   | 1200   |
| 250 | 78 | 16.50 | 648317 | 14.91 | 648417 | 17.38 | 648517 | 320 | 175x140 | 140x105 | 14 | 74 | 166 | 1600   | 1300   |
| 250 | 78 | 17.56 | 648327 | 15.23 | 648427 | 18.44 | 648527 | 325 | 200x160 | 160x120 | 17 | 74 | 166 | 1900   | 1500   |
| 300 | 60 | 18.24 | 648308 | 16.62 | 648408 | 19.12 | 648508 | 360 | 175x140 | 140x105 | 14 | 81 | 166 | 1600   | 1300   |
| 300 | 60 | 19.30 | 648328 | 16.95 | 648428 | 20.18 | 648528 | 365 | 200x160 | 160x120 | 17 | 81 | 166 | 1750   | 1400   |
| 300 | 78 | 20.61 | 648318 | 18.99 | 648418 | 21.49 | 648518 | 360 | 175x140 | 140x105 | 14 | 81 | 166 | 1600   | 1300   |
| 300 | 78 | 21.67 | 648338 | 19.32 | 648438 | 22.55 | 648538 | 365 | 200x160 | 160x120 | 17 | 81 | 166 | 2300   | 1800   |



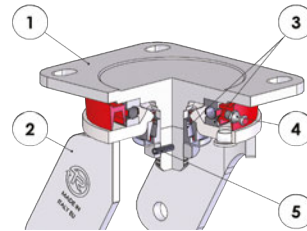
**Electrowelded bracket EE EHD - max carrying capacity 2800 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm  | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | 4 km/h      | 6 km/h      |
|-----|-----|-------|--------|-------|--------|-----|---------|---------|----|----|-------------|-------------|
| 300 | 100 | 29.80 | 648309 | 25.10 | 648409 | 384 | 250x200 | 210x160 | 19 | 78 | <b>2500</b> | <b>2000</b> |
| 400 | 100 | 44.91 | 648310 | 40.21 | 648410 | 475 | 250x200 | 210x160 | 19 | 95 | <b>2800</b> | <b>2200</b> |

**Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | 4 km/h     | 6 km/h     |
|-----|-------|------|--------|------|--------|-----|---------|--------|----|----|------------|------------|
| 100 | 38+38 | 4.50 | 648062 | 3.75 | 648162 | 140 | 135x110 | 105x80 | 11 | 55 | <b>700</b> | <b>600</b> |
| 125 | 38+38 | 5.45 | 648063 | 4.70 | 648163 | 170 | 135x110 | 105x80 | 11 | 55 | <b>900</b> | <b>720</b> |

**Options available to order:**



Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 388

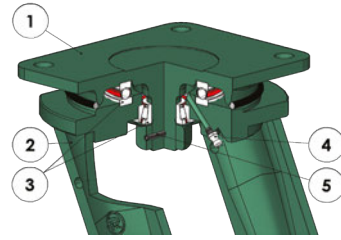


Bracket EE MHD with steering system

# SERIES 64

## "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

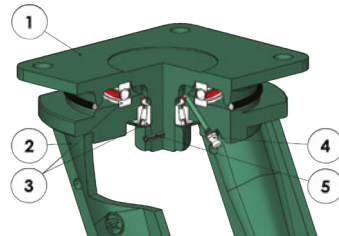
### Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | daN  | daN  |
|-----|-------|-------|--------|-------|--------|-----|---------|---------|----|----|------|------|
| 125 | 50+50 | 11.00 | 648072 | 7.70  | 648172 | 210 | 175x140 | 140x105 | 14 | 50 | 1100 | 880  |
| 150 | 50+50 | 13.10 | 648074 | 8.70  | 648174 | 223 | 175x140 | 140x105 | 14 | 50 | 1500 | 1200 |
| 160 | 50+50 | 13.40 | 648084 | 9.00  | 648184 | 228 | 175x140 | 140x105 | 14 | 50 | 1500 | 1200 |
| 200 | 50+50 | 15.90 | 648066 | 11.30 | 648166 | 280 | 175x140 | 140x105 | 14 | 65 | 1600 | 1300 |
| 200 | 50+50 | 17.55 | 648076 | 12.70 | 648176 | 285 | 200x160 | 160x120 | 17 | 65 | 2000 | 1600 |

### Twin electrowelded brackets EEG MHD - max carrying capacity 4300 daN



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

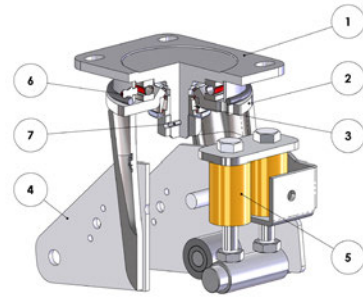
| mm  | mm    | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | daN  | daN  |
|-----|-------|-------|--------|-------|--------|-----|---------|---------|----|----|------|------|
| 200 | 78+78 | 34.80 | 648086 | 25.05 | 648186 | 280 | 250x200 | 210x160 | 19 | 52 | 3200 | 2500 |
| 250 | 60+60 | 36.95 | 648067 | 27.20 | 648167 | 330 | 250x200 | 210x160 | 19 | 62 | 3000 | 2400 |
| 250 | 78+78 | 40.30 | 648077 | 30.55 | 648177 | 330 | 250x200 | 210x160 | 19 | 62 | 3500 | 2800 |
| 300 | 78+78 | 50.00 | 648078 | 40.00 | 648178 | 385 | 250x200 | 210x160 | 19 | 75 | 4300 | 3500 |

#### Options available to order:




Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES  
MHD: see page 388


**Electrowelded sprung-loaded brackets EES HD - max carrying capacity 1000 daN - damping up to 400 daN**




- 1) Piastra: acciaio forgiato con perno integrato zincata elettroliticamente
  - 2) Forcella esterna fissa: orecchie imbutite elettrosaldate alla flangia, sagoma a U elettrosaldato alle orecchie, zincatura elettrolitica
  - 3) Organi di rotazione: cuscinetto assiale a sfere e cuscinetto a rulli conici
  - 4) Forcella interna mobile: orecchie elettrosaldate al tubetto
  - 5) Molle in poliuretano
  - 6) Ingrassatore
  - 7) Sistema anti allentamento dado
- Abbinabile a freno registrabile ad azionamento anteriore

| mm  | mm | kg    | COD.   | kg    | COD.   | kg    | COD.   | mm  | mm      | mm     | mm | mm  | mm  | mm | mm | daN        | daN         | daN        | daN |
|-----|----|-------|--------|-------|--------|-------|--------|-----|---------|--------|----|-----|-----|----|----|------------|-------------|------------|-----|
| 160 | 50 | 8,47  | 649304 | 7,22  | 649404 | 9,53  | 649504 | 248 | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50 | <b>400</b> | <b>750</b>  | <b>600</b> |     |
| 200 | 50 | 9,47  | 649306 | 7,82  | 649406 | 10,18 | 649506 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50 | <b>400</b> | <b>1000</b> | <b>800</b> |     |
| 250 | 50 | 11,85 | 649308 | 10,64 | 649408 | 13,09 | 649508 | 316 | 135x110 | 105x80 | 11 | 110 | 315 | 25 | 50 | <b>400</b> | <b>1000</b> | <b>960</b> |     |

 **Spring travel (mm):** maximum difference in the total height of the group wheel + support depending on the spring tension

 **Initial tension (daN):** in case of lighter loads than indicated, the bracket works with no damping

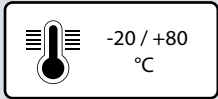
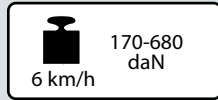
 **Spring tension (daN):** in case of heavier loads than indicated, the bracket works with no damping

**Options available to order:**



Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 388

## "TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent rolling resistance and elasticity, highly resistant to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Suitable for applications with medium/heavy-duty loads, also with mechanical handling, with speed up to 6 km/h.

The excellent rolling resistance allows an easy handling of heavy loads even with wheels of small diameter.

Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks, tilt trucks.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons.

Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |                          |
|--------------|--------------------------|
| WEAK ACIDS   | <input type="checkbox"/> |
| STRONG ACIDS | <input type="checkbox"/> |
| WATER        | <input type="checkbox"/> |
| ALCOHOL      | <input type="checkbox"/> |

|              |                          |
|--------------|--------------------------|
| WEAK BASES   | <input type="checkbox"/> |
| STRONG BASES | <input type="checkbox"/> |
| HYDROCARBONS | <input type="checkbox"/> |
| SOLVENTS     | <input type="checkbox"/> |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for tiles and cement-resin.

Not suitable if large obstacles are present.



Force required to push or tow a wheel

|   | 150 kg | 250 kg | 350 kg | 450 kg | 550 kg | 700 kg | 850 kg |
|---|--------|--------|--------|--------|--------|--------|--------|
| 80 mm   | 3,2    | ---    | ---    | ---    | ---    | ---    |        |
| 100 mm  | 2,3    | 5,2    | ---    | ---    | ---    | ---    |        |
| 125 mm  | 1,7    | 4,5    | 6,5    | ---    | ---    | ---    |        |
| 150 mm  | 1,2    | 3,8    | 6      | 7      | 8      | ---    |        |
| 160 mm  | <1     | 3,3    | 5      | 6,5    | 8      | 11,2   |        |
| 200 mm  | <1     | 3      | 4,9    | 6      | 7,8    | 10,5   | 18     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

Available with brackets :



**Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with the front brake and centralised brake.



**Medium-duty brackets M**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



**Medium-heavy duty brackets P**

Maximum carrying capacity 750 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



**Heavy-duty PT brackets with hardened ball race grooves**

Maximum carrying capacity 850 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable rear brake.



**Extra-heavy duty brackets EP**

Maximum carrying capacity 850 daN - available diameters 100-200 mm  
Top plate fitting. Available with adjustable rear brake.

Options available to order:

The series 65AL wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

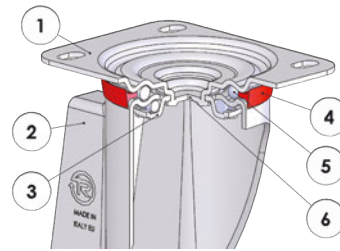


ESD polyurethane wheels, with electrical resistance <math>< 10^9 \text{ Ohm}</math> (page 374)



| mm  |    | kg   |        | COD. |        | mm |    | mm |    | daN         |            | daN        |            | daN    |        | daN    |        |
|-----|----|------|--------|------|--------|----|----|----|----|-------------|------------|------------|------------|--------|--------|--------|--------|
| mm  | mm | kg   | COD.   | kg   | COD.   | mm | mm | mm | mm | Static      | 4 km/h     | 4 km/h     | 6 km/h     | 6 km/h | 6 km/h | 6 km/h | 6 km/h |
| 80  | 25 | 0,20 | 652101 | 0,15 | 654101 | 12 | 30 | 28 | 8  | <b>280</b>  | <b>150</b> | <b>220</b> | <b>170</b> |        |        |        |        |
| 100 | 30 | 0,34 | 652102 | 0,25 | 654102 | 12 | 40 | 32 | 10 | <b>350</b>  | <b>225</b> | <b>250</b> | <b>200</b> |        |        |        |        |
| 125 | 35 | 0,50 | 652103 | 0,41 | 654103 | 12 | 40 | 32 | 10 | <b>500</b>  | <b>280</b> | <b>400</b> | <b>320</b> |        |        |        |        |
| 150 | 40 | 0,91 | 651104 | 0,66 | 653104 | 20 | 50 | 47 | 14 | <b>850</b>  | <b>330</b> | <b>600</b> | <b>480</b> |        |        |        |        |
| 160 | 50 | 1,25 | 652114 | 0,99 | 654114 | 20 | 58 | 47 | 14 | <b>950</b>  | <b>350</b> | <b>800</b> | <b>640</b> |        |        |        |        |
| 200 | 50 | 1,47 | 651106 | 1,16 | 653106 | 20 | 55 | 52 | 15 | <b>1000</b> | <b>360</b> | <b>850</b> | <b>680</b> |        |        |        |        |
| 200 | 50 | 1,45 | 651206 | 1,16 | 653106 | 25 | 55 | 52 | 15 | <b>1000</b> | <b>360</b> | <b>850</b> | <b>680</b> |        |        |        |        |

### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm  |    | kg   |        | CODE |        | kg   |        | CODE |         | mm     |    | mm |     | mm         |    | mm |    | mm |    | daN |     |
|-----|----|------|--------|------|--------|------|--------|------|---------|--------|----|----|-----|------------|----|----|----|----|----|-----|-----|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm   | mm      | mm     | mm | mm | mm  | mm         | mm | mm | mm | mm | mm | mm  | daN |
| 80  | 25 | 0.72 | 659301 | 0.52 | 658201 | 0.91 | 656501 | 107  | 100x85  | 80x60  | 9  | 37 | 120 | <b>200</b> |    |    |    |    |    |     |     |
| 100 | 30 | 0.94 | 659302 | 0.69 | 658202 | 1.08 | 656502 | 128  | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |    |    |    |    |    |     |     |
| 125 | 35 | 1.14 | 659303 | 0.89 | 658203 | 1.28 | 656503 | 156  | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |    |    |    |    |    |     |     |
| 150 | 40 | 1.66 | 659312 | 1.52 | 658112 |      |        | 182  | 100x85  | 80x60  | 9  | 50 |     | <b>220</b> |    |    |    |    |    |     |     |
| 150 | 40 | 2.34 | 659304 | 2.04 | 658104 | 2.63 | 656504 | 194  | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |    |    |    |    |    |     |     |
| 160 | 50 | 2.68 | 659514 | 2.38 | 658114 | 2.97 | 656514 | 198  | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |    |    |    |    |    |     |     |
| 200 | 50 | 3.05 | 659306 | 2.76 | 658106 | 3.25 | 656506 | 240  | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |    |    |    |    |    |     |     |

### Options available to order:



Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

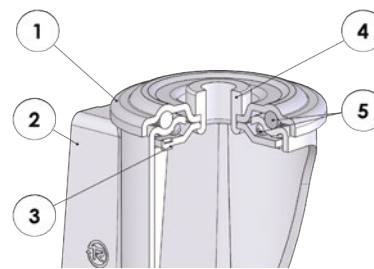
Standard-duty brackets NL - max carrying capacity 300 daN



| mm  | mm | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm      | mm | mm         | daN |
|-----|----|------|--------|-----|---------|--------|----|----|---------|----|------------|-----|
| 160 | 50 | 2,61 | 654804 | 199 | 140x110 | 105x80 | 11 | 56 | M10x1,5 | 65 | <b>300</b> |     |
| 200 | 50 | 3,96 | 654806 | 240 | 140x110 | 105x80 | 11 | 56 | M10x1,5 | 65 | <b>300</b> |     |



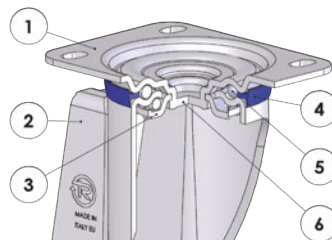
| mm  | mm | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm | mm   | mm | mm   | daN        |
|-----|----|------|--------|-----|---------|--------|----|----|----|------|----|------|------------|
| 160 | 50 | 2.84 | 654710 | 199 | 140x110 | 105x80 | 11 | 56 | 40 | 17,5 | 35 | 18,5 | <b>300</b> |
| 200 | 50 | 3.05 | 654716 | 240 | 140x110 | 105x80 | 11 | 56 | 40 | 17,5 | 35 | 18,5 | <b>300</b> |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|
| 80  | 25 | 0,65 | 656401 | 0,78 | 656801 | 107 | 73  | 12 | 37 | 120 | <b>200</b> |
| 100 | 30 | 0,88 | 656402 | 1,02 | 656802 | 128 | 73  | 12 | 35 | 120 | <b>200</b> |
| 125 | 35 | 1,08 | 656403 | 1,23 | 656803 | 156 | 73  | 12 | 37 | 120 | <b>220</b> |
| 150 | 40 | 2,20 | 656404 | 2,49 | 656804 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |
| 160 | 50 | 2,54 | 656414 | 2,96 | 656814 | 193 | 102 | 20 | 56 | 156 | <b>300</b> |
| 200 | 50 | 2,95 | 656406 | 3,24 | 656806 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |

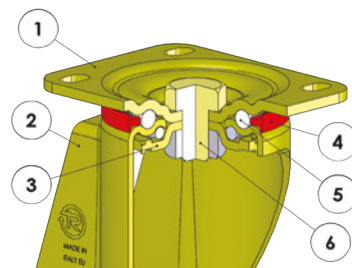
### Medium-duty brackets M - max carrying capacity 500 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |         | mm     |    | mm |     | mm |    | daN        |  |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|----|----|------------|--|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm | mm | daN        |  |
| 150 | 40 | 2.68 | 659604 | 2.04 | 658104 | 3.16 | 659704 | 194 | 140x110 | 105x80 | 11 | 58 | 178 |    |    | <b>500</b> |  |
| 160 | 50 | 3.03 | 659614 | 2.38 | 658114 | 3.49 | 659714 | 199 | 140x110 | 105x80 | 11 | 58 | 178 |    |    | <b>500</b> |  |
| 200 | 50 | 3.44 | 659606 | 2.76 | 658106 | 3.80 | 659706 | 240 | 140x110 | 105x80 | 11 | 50 | 178 |    |    | <b>500</b> |  |

### Heavy duty brackets P - max carrying capacity 750 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |        | mm    |    | mm |     | mm |    | daN        |            |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|----|----|------------|------------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | mm | mm | daN        | daN        |
| 100 | 30 | 1.20 | 657602 | 0.82 | 658602 | 1.35 | 656602 | 138 | 100x85 | 80x60 | 9  | 46 | 123 |    |    | <b>250</b> | <b>200</b> |
| 125 | 35 | 1.39 | 657603 | 0.97 | 658603 | 1.54 | 656603 | 161 | 100x85 | 80x60 | 9  | 44 | 123 |    |    | <b>350</b> | <b>280</b> |

#### Options available to order:



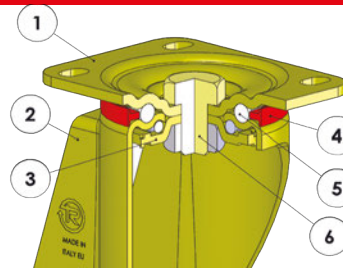
Directional lock for P-PT brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT



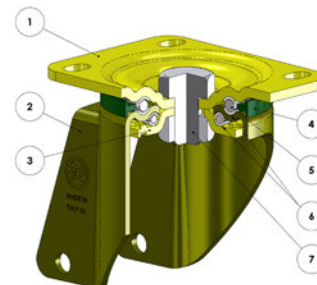
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 150 | 40 | 3.18 | 657604 | 2.19 | 658604 | 3.75 | 656604 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> | <b>480</b> |
| 160 | 50 | 3.52 | 657514 | 2.53 | 658614 | 4.09 | 656614 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |
| 200 | 50 | 3.94 | 657606 | 2.48 | 658606 | 4.51 | 656606 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |

**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 850 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 150 | 40 | 3,18 | 657544 | 2,19 | 658604 | 3,66 | 656674 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> | <b>480</b> |
| 160 | 50 | 3,52 | 657554 | 2,53 | 658614 | 4,09 | 656684 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>800</b> | <b>640</b> |
| 200 | 50 | 3,94 | 657546 | 2,48 | 658606 | 4,41 | 656676 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>850</b> | <b>680</b> |

Options available to order:

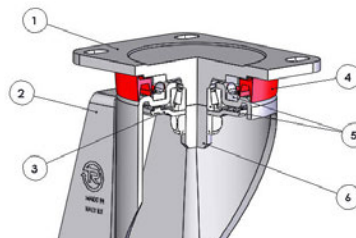


Directional lock for P-PT brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

Extra-heavy duty brackets EP - max carrying capacity 850 daN




- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 100 | 30 | 1.44 | 657802 | 1.31 | 658802 |      |        | 140 | 100x85  | 80x60  | 9  | 46 |     | <b>250</b> | <b>200</b> |
| 125 | 35 | 1.79 | 657803 | 1.45 | 658803 |      |        | 164 | 100x85  | 80x60  | 9  | 48 |     | <b>350</b> | <b>280</b> |
| 150 | 40 | 3.44 | 657704 | 2.96 | 658704 | 4.01 | 656904 | 200 | 135x110 | 105x80 | 11 | 70 | 126 | <b>600</b> | <b>480</b> |
| 160 | 50 | 3.78 | 657714 | 3.30 | 658714 | 4.35 | 657014 | 205 | 135x110 | 105x80 | 11 | 70 | 126 | <b>800</b> | <b>640</b> |
| 200 | 50 | 4.19 | 657706 | 3.75 | 658706 | 4.76 | 656906 | 250 | 135x110 | 105x80 | 11 | 70 | 126 | <b>850</b> | <b>680</b> |



Technology at work

## "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

-  150-300 mm
-  92 Shore A
-  400-2200 daN  
4 km/h
-  320-1700 daN  
6 km/h
-  280-550 daN
-  -20 / +80 °C



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent rolling resistance and elasticity features, highly resistant to wear and tear.

Centre: cast iron.

Hub with shielded ball bearings with interference assembly in the seats obtained by machining the centre; also available without bearings.

### Uses


Suitable for applications with medium/heavy-duty loads, also with mechanical handling, with speed up to 6 km/h.

The excellent rolling resistance allows a manually handling of heavy loads.

Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks, tilt trucks.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for tiles and cement-resin.

Not suitable if large obstacles are present.



### Force required to push or tow a wheel

|   | 100 kg | 300 kg | 500 kg | 700 kg | 1000 kg | 2000 kg |
|---|--------|--------|--------|--------|---------|---------|
| 150x30 mm   | 1.4    | 5.7    | ----   | ----   | ----    | ----    |
| 150x35 mm   | 1.9    | 5      | ----   | ----   | ----    | ----    |
| 175 mm  | 1      | 3.9    | 11.6   | ----   | ----    | ----    |
| 200 mm  | < 1    | 2.2    | 6      | 10.4   | 19      | ----    |
| 250 mm  | < 1    | 2      | 5.8    | 8.4    | 14.8    | ----    |
| 300 mm  | < 1    | 1.7    | 4.5    | 7      | 10      | 19.3    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Combination with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 150-200 mm  
Top plate and bolt hole fittings. Available with front brake.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 150-250 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 900 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable rear brake.

















#### Extra-heavy duty brackets EP

Maximum carrying capacity 1200 daN - available diameters 150-250 mm  
Top plate fitting. Available with adjustable rear brake.

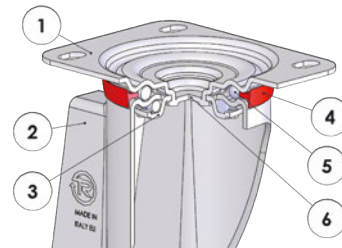
### Options available to order:

The series 65GH wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.


















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|---|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm  | daN  | daN   | daN   | daN   |
| 150   | 30  | 1,45  | 652104  | 0,96  | 654104  | 17  | 30  | 40  | 12  | <b>700</b>   | <b>280</b>  | <b>400</b>  | <b>320</b>  |
| 150   | 35  | 1,60  | 652224  | 1,36  | 654224  | 20  | 35  | 47  | 14  | <b>825</b>   | <b>290</b>  | <b>490</b>  | <b>390</b>  |
| 175   | 35  | 2,03  | 652105  | 1,79  | 654105  | 20  | 35  | 47  | 14  | <b>900</b>   | <b>350</b>  | <b>650</b>  | <b>520</b>  |
| 200   | 45  | 3,51  | 652106  | 3,27  | 654106  | 20  | 45  | 47  | 14  | <b>1125</b>  | <b>380</b>  | <b>1000</b>   | <b>800</b>  |
| 200   | 45  | 3,42  | 652206  | 3,14  | 654206  | 25  | 45  | 52  | 15  | <b>1125</b>  | <b>380</b>  | <b>1000</b>   | <b>800</b>  |
| 250   | 50  | 5,50  | 652208  | 5,31  | 654108  | 20  | 50  | 52  | 15  | <b>1750</b>  | <b>400</b>  | <b>1200</b>   | <b>960</b>  |
| 250   | 50  | 5,59  | 652108  | 5,31  | 654108  | 25  | 50  | 52  | 15  | <b>1750</b>  | <b>400</b>  | <b>1200</b>   | <b>960</b>  |
| 300   | 70  | 12,31   | 652109  | 11,85   | 654109  | 30  | 70  | 62  | 16  | <b>3000</b>  | <b>550</b>  | <b>2200</b>   | <b>1700</b>   |

### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel sheet
  - 2) Fork: electrolytically galvanised steel sheet
  - 3) Ball race ring: electrolytically galvanised steel sheet
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| mm  | mm  | kg  | CODE  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm   | mm  | mm  | mm  | daN   |
| 150   | 30  | 2.81  | 656204  | 2.45  | 658204  | 3.10  | 656524  | 192   | 140x110   | 105x80   | 11  | 56  | 156   | <b>300</b>  |
| 150   | 35  | 2.96  | 656214  | 2.60  | 658214  | 3.25  | 656534  | 192   | 140x110   | 105x80   | 11  | 56  | 156   | <b>300</b>  |
| 175   | 35  | 3.41  | 656205  | 3.12  | 658205  | 3.69  | 656525  | 217   | 140x110   | 105x80   | 11  | 56  | 156   | <b>300</b>  |
| 200   | 45  | 4.92  | 656206  | 4.70  | 658206  | 4.70  | 656526  | 240   | 140x110   | 105x80   | 11  | 56  | 156   | <b>300</b>  |

### Options available to order:

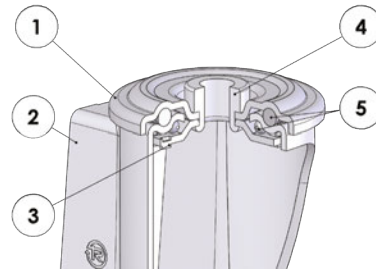


Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

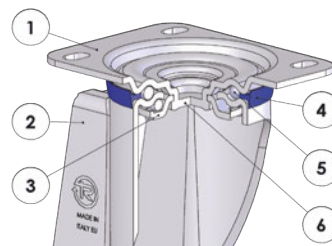
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel sheet
  - 2) Fork: electrolytically galvanised steel sheet
  - 3) Ball race ring: electrolytically galvanised steel sheet
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm  | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|
| 150 | 30 | 2,68 | 656424 | 2,96 | 656824 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |
| 150 | 35 | 2,83 | 656434 | 3,11 | 656834 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |
| 175 | 35 | 3,29 | 656425 | 3,57 | 656825 | 212 | 102 | 20 | 56 | 156 | <b>300</b> |
| 200 | 45 | 4,77 | 656426 | 5,06 | 656826 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |

**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel sheet
  - 2) Fork: electrolytically galvanised steel sheet
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

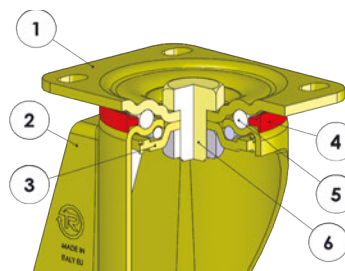
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 150 | 35 | 3.31 | 657214 | 2.60 | 658214 | 3.78 | 657334 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>490</b> |
| 200 | 45 | 5.31 | 657206 | 4.70 | 658206 | 5.25 | 657326 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

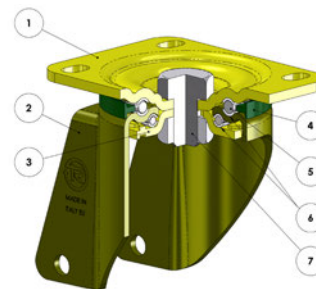
### Medium-heavy duty brackets P - max carrying capacity 750 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | COD. |      | kg     |  | COD. |        | mm  |         | mm     |    | mm |     | mm         |            | daN |  | daN |  |
|-----|----|------|--------|------|------|--------|--|------|--------|-----|---------|--------|----|----|-----|------------|------------|-----|--|-----|--|
| 150 | 30 | 3,80 | 657404 |      | 2,36 | 658404 |  | 4,08 | 656624 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>400</b> | <b>320</b> |     |  |     |  |
| 150 | 35 | 3,95 | 657414 |      | 2,51 | 658414 |  | 4,52 | 656634 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>490</b> | <b>390</b> |     |  |     |  |
| 175 | 35 | 4,42 | 657405 |      | 3,00 | 658405 |  | 4,99 | 656625 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | <b>650</b> | <b>520</b> |     |  |     |  |
| 200 | 45 | 5,89 | 657406 |      | 4,43 | 658406 |  | 6,46 | 656626 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |     |  |     |  |
| 250 | 50 | 8,10 | 657408 |      | 7,00 | 658408 |  | 8,80 | 656628 | 298 | 140x110 | 105x80 | 11 | 66 | 173 | <b>750</b> | <b>600</b> |     |  |     |  |

### Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   |        | COD. |      | kg     |  | COD. |        | mm  |         | mm     |    | mm |     | mm         |            | daN |  | daN |  |
|-----|----|------|--------|------|------|--------|--|------|--------|-----|---------|--------|----|----|-----|------------|------------|-----|--|-----|--|
| 150 | 35 | 3,95 | 657444 |      | 2,51 | 658414 |  | 4,52 | 658314 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>490</b> | <b>390</b> |     |  |     |  |
| 175 | 35 | 4,42 | 657435 |      | 3,00 | 658405 |  | 4,99 | 658305 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | <b>650</b> | <b>520</b> |     |  |     |  |
| 200 | 45 | 5,89 | 657436 |      | 4,43 | 658406 |  | 6,20 | 658306 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>900</b> | <b>800</b> |     |  |     |  |

Options available to order:



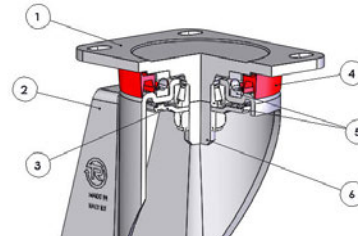
Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT



**Extra-heavy duty brackets EP - max carrying capacity 1200 daN**



- 1) Plate: white galvanised forged steel
- 2) Fork: white galvanised forged steel
- 3) Lower bearing protection ring
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: axial ball bearing and tapered roller bearing
- 6) King pin: integrated with the machine-processed plate  
Available with adjustable total rear foot brake

| mm  | mm | kg    | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN         | daN        | 4 km/h | 6 km/h |
|-----|----|-------|--------|------|--------|------|--------|-----|---------|---------|----|----|-----|-------------|------------|--------|--------|
| 150 | 30 | 4.06  | 657804 | 2.32 | 658804 |      |        | 200 | 135x110 | 105x80  | 11 | 70 |     | <b>400</b>  | <b>320</b> |        |        |
| 150 | 35 | 4.21  | 657814 | 3.73 | 658814 | 4.78 | 656914 | 200 | 135x110 | 105x80  | 11 | 70 | 126 | <b>490</b>  | <b>390</b> |        |        |
| 175 | 35 | 4.66  | 657805 | 4.24 | 658805 | 5.23 | 656915 | 225 | 135x110 | 105x80  | 11 | 70 | 126 | <b>650</b>  | <b>520</b> |        |        |
| 200 | 45 | 6.14  | 657806 | 5.70 | 658806 | 6.71 | 656916 | 250 | 135x110 | 105x80  | 11 | 70 | 126 | <b>1000</b> | <b>800</b> |        |        |
| 250 | 50 | 11.14 | 657808 | 9.30 | 658808 |      |        | 300 | 175x140 | 140x105 | 14 | 66 |     | <b>1200</b> | <b>960</b> |        |        |

## WHEELS WITH THICK "TR" POLYURETHANE AND ALUMINIUM CENTRE

-  100-250 mm
-  92 Shore A
-  350-1000 daN  
4 km/h
-  280-800 daN  
6 km/h
-  270-380 daN
-  -20 / +80 °C



### Technical features

Tyre: very thick "TR" polyurethane, hardness 92 Shore A; excellent rolling resistance and elasticity, highly resistant to wear and tear.

Centre: made of cast aluminium.



Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Designed to improve trolleys' handling under heavy loads on uneven surfaces. The thick tread guarantees: excellent ability to overcome obstacles, reduced fatigue when pushing the trolley, excellent performance in presence of mechanical handling or mixed manual-mechanical handling, excellent performance over time, even at high speeds (up to 12 km/h).  
Examples of recommended applications: trolleys for indoor handling in the logistics and automotive industry, electrical pallet trucks.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable for all types of industrial floors, except unpaved; it easily overcomes obstacles.



### Force required to push or tow a wheel

|   | 100 kg | 300 kg | 400 kg | 500 kg | 650 kg | 800 kg |
|---|--------|--------|--------|--------|--------|--------|
| 100 mm  | 2.5    | 5.5    | ----   | ----   | ----   | ----   |
| 125 mm  | 2.4    | 5.3    | ----   | ----   | ----   | ----   |
| 160 mm  | 1.8    | 4.7    | 5.8    | 7      | 11     | ----   |
| 180 mm  | 1.5    | 4.4    | 5.6    | 6.5    | 10     | ----   |
| 200 mm  | 1.2    | 4      | 5.4    | 6.2    | 9      | 12     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Available with brackets



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 100-250 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 800 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Electrowelded brackets EE MHD

Maximum carrying capacity 800 daN - available diameters 100-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Electrowelded twin brackets EEG MHD

Maximum carrying capacity 1500 daN – available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear foot brake, operating on wheel rotation only



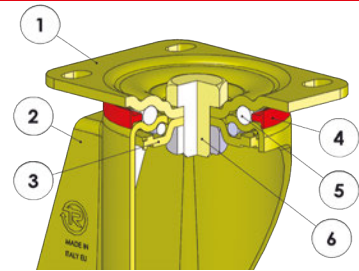
#### Electrowelded sprung-loaded brackets EES MHD

Maximum carrying capacity 1000 daN - available diameters 160-250 mm  
Top plate fitting. Available with adjustable front brake.



| mm  |    | kg   |        | kg   |        | mm |    |    |      | Static      | 4 km/h     | 6 km/h      |
|-----|----|------|--------|------|--------|----|----|----|------|-------------|------------|-------------|
| mm  | mm | kg   | CODE   | kg   | CODE   | mm | mm | mm | mm   | daN         | daN        | daN         |
| 100 | 40 | 0,45 | 652302 | 0,37 | 654302 | 15 | 40 | 32 | 9    | <b>500</b>  | <b>270</b> | <b>350</b>  |
| 125 | 40 | 0,76 | 652303 | 0,53 | 654303 | 20 | 50 | 47 | 14   | <b>650</b>  | <b>280</b> | <b>450</b>  |
| 160 | 50 | 1,18 | 652304 | 0,95 | 654304 | 20 | 58 | 47 | 14,5 | <b>900</b>  | <b>320</b> | <b>700</b>  |
| 180 | 50 | 1,37 | 652305 | 1,15 | 654305 | 20 | 58 | 47 | 14   | <b>950</b>  | <b>335</b> | <b>750</b>  |
| 200 | 50 | 1,70 | 652306 | 1,47 | 654306 | 20 | 58 | 47 | 14   | <b>1000</b> | <b>350</b> | <b>800</b>  |
| 250 | 50 | 2,40 | 652308 | 2,10 | 654308 | 20 | 55 | 52 | 15   | <b>1200</b> | <b>380</b> | <b>1000</b> |

### Medium-heavy duty brackets P - max carrying capacity 750 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

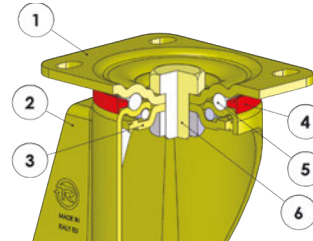
| mm  |    | kg   |        | kg   |        | kg   |        | mm  |        |       |    | 4 km/h | 6 km/h |            |            |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|--------|--------|------------|------------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm     | daN    | daN        |            |
| 100 | 40 | 1.33 | 655302 | 0.83 | 655412 | 1.50 | 655502 | 138 | 100x85 | 80x60 | 9  | 46     | 123    | <b>350</b> | <b>280</b> |

### Options available to order:



Footguard  
for brackets M-  
P-PT

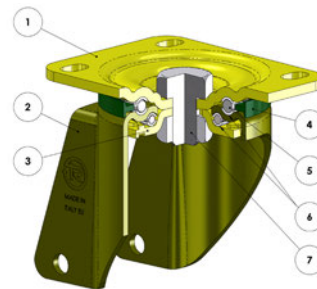
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         | mm     | mm | mm | mm  | mm         | 4 km/h     | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|--------|
| 125 | 40 | 2.30 | 655303 | 1.63 | 655403 | 2.83 | 655503 | 170 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> | <b>360</b> |        |
| 160 | 50 | 3.53 | 655310 | 2.04 | 655414 | 4.10 | 655504 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>560</b> |        |
| 180 | 50 | 3.78 | 655305 | 2.36 | 655415 | 4.35 | 655505 | 228 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |        |
| 200 | 50 | 4.22 | 655316 | 2.76 | 655416 | 4.82 | 655506 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |        |
| 250 | 50 | 4.84 | 655318 | 3.74 | 655418 | 5.54 | 655508 | 298 | 140x110 | 105x80 | 11 | 66 | 126 | <b>750</b> | <b>600</b> |        |

**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 800 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         | mm     | mm | mm | mm  | mm         | 4 km/h     | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|--------|
| 125 | 40 | 2,30 | 655333 | 1,63 | 655403 | 2,83 | 655533 | 170 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> | <b>360</b> |        |
| 160 | 50 | 3,34 | 655344 | 2,04 | 655414 | 3,97 | 655544 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>560</b> |        |
| 180 | 50 | 3,71 | 655335 | 2,36 | 655415 | 4,35 | 655535 | 228 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>600</b> |        |
| 200 | 50 | 4,36 | 655336 | 2,76 | 655416 | 4,89 | 655536 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>800</b> | <b>640</b> |        |

**Options available to order:**

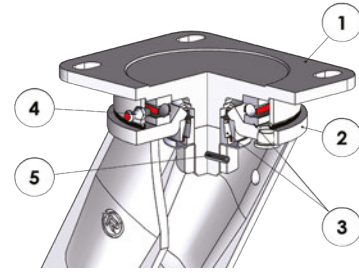


Directional lock for P brackets d. 150-200 mm



Footguard for brackets M-P-PT

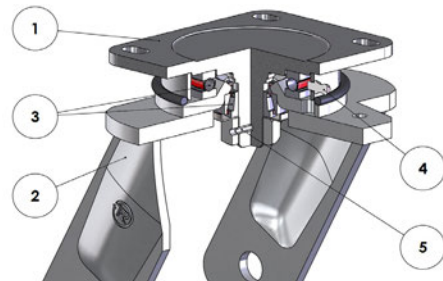
### Electrowelded brackets EE MHD - max carrying capacity 800 daN



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    |     | 4 km/h | 6 km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|--------|--------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN    | daN    |
| 100 | 40 | 3.36 | 655602 | 2.38 | 655702 | 4.24 | 655802 | 170 | 135x110 | 105x80 | 11 | 51 | 157 | 350    | 280    |
| 125 | 40 | 3.68 | 655603 | 2.70 | 655703 | 4.56 | 655803 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | 450    | 360    |
| 160 | 50 | 4.18 | 655614 | 3.19 | 655714 | 5.06 | 655814 | 215 | 135x110 | 105x80 | 11 | 60 | 157 | 700    | 560    |
| 180 | 50 | 4.56 | 655605 | 3.58 | 655705 | 5.45 | 655805 | 242 | 135x110 | 105x80 | 11 | 70 | 157 | 750    | 600    |
| 200 | 50 | 4.88 | 655606 | 3.90 | 655706 | 6.22 | 655806 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | 800    | 640    |

### Electrowelded twin brackets EE MHD - max carrying capacity 1500 daN



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn tips electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable rear foot brake, operating on wheel rotation only

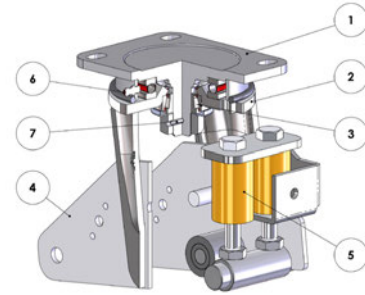
| mm  |       | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         |         |        |    |    | 4 km/h | 6 km/h |      |
|-----|-------|------|--------|------|--------|------|--------|-----|---------|---------|--------|----|----|--------|--------|------|
| mm  | mm    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm      | mm     | mm | mm | daN    | daN    |      |
| 160 | 50+50 | 7,15 | 658074 | 6,28 | 658174 | 8,14 | 658274 | 221 | 135x110 | 135x175 | 105x80 | 11 | 55 | 182    | 1400   | 1100 |
| 200 | 50+50 | 8,37 | 658076 | 7,52 | 628176 | 9,37 | 658276 | 258 | 135x110 | 135x175 | 105x80 | 11 | 65 | 182    | 1500   | 1280 |

#### Options available to order:




Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 390


**Electrowelded sprung-loaded brackets EES MHD - max carrying capacity 1000 daN - damping up to 400 daN**




- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) spring-hinged plates: plates electrowelded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm  | mm  | mm | mm | daN | daN  | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|-----|-----|----|----|-----|------|-----|-----|
| 160 | 50 | 7,07 | 655004 | 5,82 | 657104 | 8,13 | 654904 | 248 | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50 | 400 | 700  | 560 |     |
| 200 | 50 | 7,67 | 655006 | 6,42 | 657106 | 8,78 | 654906 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50 | 400 | 800  | 640 |     |
| 250 | 50 | 8,75 | 655008 | 7,54 | 657108 | 9,99 | 654908 | 316 | 135x110 | 105x80 | 11 | 110 | 315 | 25 | 50 | 400 | 1000 | 800 |     |

 **Spring travel** (mm): maximum difference in the total height of the group wheel + support depending on the spring tension

 **Initial tension** (daN): in case of lighter loads than indicated, the bracket works with no damping

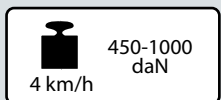
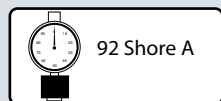
 **Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

**Options available to order:**



Directional lock for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 388

## "TR" POLYURETHANE WHEELS WITH ERGONOMIC ROUND PROFILE AND ALUMINIUM CENTRE



### Description

Tyre: very thick TR-Roll polyurethane with ergonomic round profile; hardness 92 Shore A; excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Designed to improve trolleys' manual handling under heavy loads. The round profile reduces the start-up coefficient when the castors are positioned at 90° from the line of movement and therefore greatly reduces the amount of effort required by the operators when handling trolleys.

Combined with appropriate brackets they guarantee excellent performance for mechanical handling up to 12 km/h.

Examples of application: trolleys for the automotive industry, lean manufacturing trolleys and electrical pallet trucks.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for all types of industrial floors, except unpaved; it easily overcomes obstacles.





## Force required to push or tow a wheel

|   | 100 kg | 250 kg | 400 kg | 500 kg | 650 kg | 800 kg |
|---|--------|--------|--------|--------|--------|--------|
| 125 mm  | 2,5    | 5      | 7      | ---    | ---    | ---    |
| 160 mm  | 1,8    | 4,7    | 6      | 7      | 11     | ---    |
| 200 mm  | 1,2    | 4,5    | 5,4    | 6,2    | 9      | 12     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

## Fittings with brackets



### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 800 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Extra-heavy duty brackets EP

Maximum carrying capacity 800 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Electrowelded brackets EE MHD

Maximum carrying capacity 800 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



### Electrowelded twin brackets EEG MHD















Maximum carrying capacity 1500 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear foot brake, operating on wheel rotation only



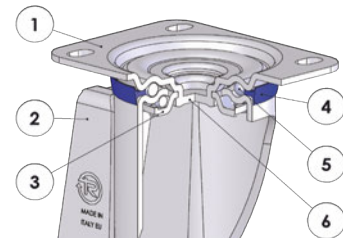
### Electrowelded sprung-loaded brackets EES MHD

Maximum carrying capacity 800 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.


















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm   | daN   | daN   | daN   | daN   |
| 125   | 40  | 0,73  | 652503  | 0,51  | 654503  | 20  | 50  | 47  | 14   | <b>650</b>  | <b>250</b>  | <b>450</b>  | <b>360</b>  |
| 160   | 50  | 1,11  | 652504  | 0,89  | 654504  | 20  | 58  | 47  | 14,5   | <b>900</b>  | <b>280</b>  | <b>700</b>  | <b>560</b>  |
| 200   | 50  | 1,68  | 652506  | 1,44  | 654506  | 20  | 58  | 47  | 14   | <b>1000</b>   | <b>300</b>  | <b>800</b>  | <b>640</b>  |
| 250   | 50  | 2,40  | 652508  | 2,10  | 654508  | 20  | 55  | 52  | 15   | <b>1200</b>   | <b>330</b>  | <b>1000</b>   | <b>800</b>  |

**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

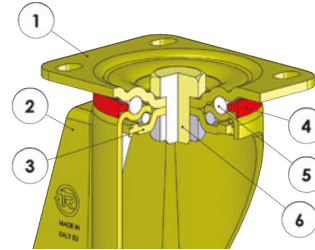
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| mm  | mm  | kg  | COD.  | kg  | COD.  | kg  | COD.  | mm  | mm  | mm   | mm  | mm  | mm  | daN   |
| 160   | 50  | 2,81  | 655904  | 2,10  | 656004  | 3,28  | 656304  | 199   | 140x110   | 105x80   | 11  | 58  | 178   | <b>500</b>  |
| 200   | 50  | 3,52  | 655906  | 2,87  | 656006  | 3,90  | 656306  | 240   | 140x110   | 105x80   | 11  | 50  | 178   | <b>500</b>  |

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

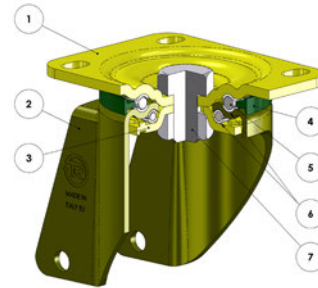
**Heavy duty brackets P - max carrying capacity 750 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         |        |    |    | daN | daN        |            |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 125 | 40 | 2,27 | 655913 | 1,63 | 656013 | 2,83 | 656313 | 170 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> | <b>360</b> |
| 160 | 50 | 3,46 | 655914 | 2,28 | 656014 | 4,27 | 656314 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>560</b> |
| 200 | 50 | 4,14 | 655916 | 2,68 | 656016 | 4,74 | 656316 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>750</b> | <b>640</b> |

**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  |         |        |    |    | daN | daN        |            |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 125 | 40 | 2,27 | 655953 | 1,63 | 656013 | 2,83 | 656353 | 170 | 140x110 | 105x80 | 11 | 70 | 126 | <b>450</b> | <b>360</b> |
| 160 | 50 | 3,34 | 655954 | 2,28 | 656014 | 3,97 | 656354 | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>560</b> |
| 200 | 50 | 4,36 | 655956 | 2,68 | 656016 | 4,89 | 656356 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>800</b> | <b>640</b> |

**Options available to order:**



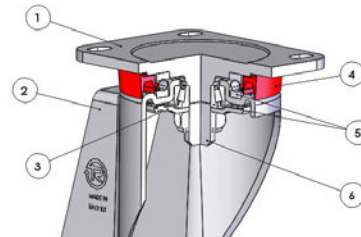
Footguard for brackets NL M-P-PT



Directional lock for brackets P-PT diam. 160-200 mm

**"TR" POLYURETHANE WHEELS WITH ERGONOMIC ROUND PROFILE AND ALUMINIUM CENTRE**

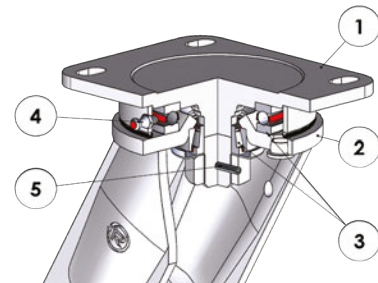
**Extra-heavy duty brackets EP - max carrying capacity 800 daN**



- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 160 | 50 | 3,62 | 655924 | 3,21 | 656024 | 4,14 | 656324 | 205 | 135x110 | 105x80 | 11 | 70 | 126 | <b>700</b> | <b>560</b> |
| 200 | 50 | 4,40 | 655926 | 3,96 | 656026 | 4,97 | 656326 | 250 | 135x110 | 105x80 | 11 | 70 | 126 | <b>800</b> | <b>640</b> |

**Electrowelded brackets EE MHD - max carrying capacity 800 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

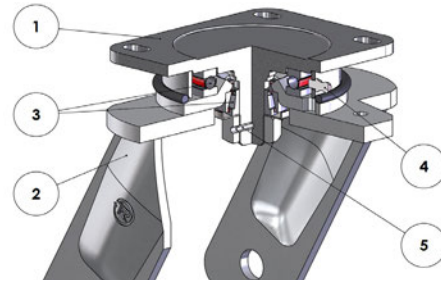
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 125 | 40 | 3,65 | 655933 | 2,67 | 656033 | 4,53 | 656333 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | <b>450</b> | <b>360</b> |
| 160 | 50 | 4,11 | 655934 | 3,12 | 656034 | 4,99 | 656334 | 215 | 135x110 | 105x80 | 11 | 60 | 157 | <b>700</b> | <b>560</b> |
| 200 | 50 | 4,80 | 655936 | 3,82 | 656036 | 6,14 | 656336 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | <b>800</b> | <b>640</b> |

Options available to order:



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 390

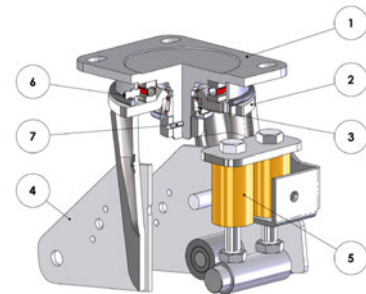
**Electrowelded twin brackets EE MHD - max carrying capacity 1500 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn tips electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable rear foot brake, operating on wheel rotation only

| mm  | mm    | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm      | mm     | mm | mm | mm  | mm   | daN  | daN |
|-----|-------|------|--------|------|--------|------|--------|-----|---------|---------|--------|----|----|-----|------|------|-----|
| 160 | 50+50 | 7,01 | 659074 | 6,15 | 659174 | 8,01 | 659274 | 221 | 135x110 | 135x175 | 105x80 | 11 | 55 | 182 | 1400 | 1100 |     |
| 200 | 50+50 | 8,19 | 659076 | 7,45 | 659176 | 9,19 | 659276 | 258 | 135x110 | 135x175 | 105x80 | 11 | 65 | 182 | 1500 | 1280 |     |


**Electrowelded sprung-loaded bracket EES MHD - max load capacity 800 daN - damping up to 400 daN**




- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electro-welded to the flange and electrolytically galvanised U-shaped component electro-welded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) spring-hinged plates: plates electro-welded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm  | mm  | mm | daN | daN | daN | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|-----|-----|----|-----|-----|-----|-----|
| 160 | 50 | 7,07 | 657904 | 5,82 | 658504 | 8,13 | 659904 | 248 | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50  | 400 | 700 | 560 |
| 200 | 50 | 7,67 | 657906 | 6,42 | 658506 | 8,78 | 659906 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50  | 400 | 800 | 640 |

 **Spring travel** (mm): maximum difference in the total height of the group wheel + support depending on the spring tension

 **Initial tension** (daN): in case of lighter loads than indicated, the bracket works with no damping

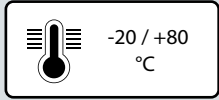
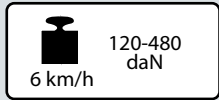
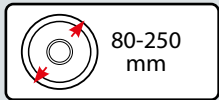
 **Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

Options available to order:



Directional lock for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 390

## "TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE



**INOX**



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent rolling resistance and elasticity, highly resistant to wear.

Centre: polyamide 6.

Hub with plain bore hole which directly houses the axle.

Hub with cylindrical roller bearing with plastic cage. Also available with stainless steel roller bearings.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding. The wheel is also available without bearings.

### Uses

Excellent for trolleys and machinery with medium/heavy-duty loads, also in presence of continuous handling.

Also suitable for mechanical or mixed manual-mechanical handling, up to 6 km/h.

Its excellent rolling resistance guarantees minimum effort by manual handling.

Examples of recommended applications: trolleys for indoor industrial handling, trolleys for the food and chemical industry, manual and electric pallet trucks, equipment for dry cleaner's, slaughterhouses, meat factories.

### Environments of use

Suitable for indoor environments, also in presence of medium-harsh chemical agents, alcohol, glycol and water. They are suitable for industrial environments.

Not recommended in areas with strong organic acids and mineral acids.

|              |  |  |  |              |  |  |  |
|--------------|--|--|--|--------------|--|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors



They do not mark or damage delicate floors.

Suitable on tiles, resin-cement, asphalt even in presence of small obstacles on the path.

Not recommended on unpaved floors or in presence of processing residues.



Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 600 kg | 800 kg | 1000 kg |
|---|--------|--------|--------|--------|--------|--------|--------|---------|
| 80 mm   | 5      | ---    | ---    | ---    | ---    | ---    | ---    | ---     |
| 100 mm  | 4.5    | 8      | ---    | ---    | ---    | ---    | ---    | ---     |
| 125 mm  | 4.2    | 7      | ---    | ---    | ---    | ---    | ---    | ---     |
| 150 mm  | 2.5    | 4      | 6      | 8      |        |        |        |         |
| 175 mm  | 1.5    | 3.7    | 5.5    | 7.5    | ---    | ---    | ---    | ---     |
| 200 mm  | < 1    | 3.5    | 5      | 8.5    | 11     | 17     | ---    | ---     |
| 250 mm  | < 1    | 3      | 4      | 5      | 10     | 13     | 16     | 22      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

Available with brackets:



**Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.



**Stainless steel standard-duty brackets NLX**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with front brake.



**Medium-duty brackets M**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



**Medium-heavy duty brackets P**

Maximum carrying capacity 600 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



**Stainless steel medium-heavy duty brackets PX**

Maximum carrying capacity 600 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable rear brake.










Options available to order

The series 66 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the wheel+bracket code. To order loose thread guards see the Accessories section.












SERIES **66**

**"TR" POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**
















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | mm  | mm.   | daN   | daN   | daN   |  |  |  |  |  |  |
| 80  | 25  | 0,10  | 661101  | 12  | 39  | <b>225</b>  | <b>100</b>  | <b>150</b>  |  |  |  |  |  |  |
| 100   | 30  | 0,16  | 661102  | 12  | 44  | <b>300</b>  | <b>135</b>  | <b>200</b>  |  |  |  |  |  |  |
| 125   | 30  | 0,25  | 661103  | 15  | 44  | <b>400</b>  | <b>150</b>  | <b>250</b>  |  |  |  |  |  |  |
| 150   | 40  | 0,45  | 661104  | 20  | 59  | <b>600</b>  | <b>240</b>  | <b>400</b>  |  |  |  |  |  |  |
| 175   | 40  | 0,62  | 661105  | 20  | 59  | <b>680</b>  | <b>270</b>  | <b>470</b>  |  |  |  |  |  |  |
| 200   | 50  | 0,78  | 661106  | 20  | 59  | <b>800</b>  | <b>300</b>  | <b>600</b>  |  |  |  |  |  |  |
| 200   | 50  | 0,75  | 661206  | 25  | 59  | <b>800</b>  | <b>300</b>  | <b>600</b>  |  |  |  |  |  |  |
| 250   | 60  | 1,41  | 661108  | 25  | 88  | <b>1200</b>   | <b>400</b>  | <b>1000</b>   |  |  |  |  |  |  |



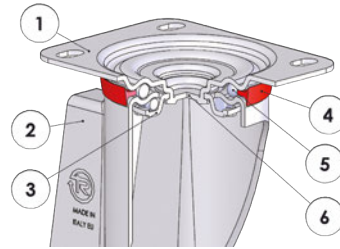
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | daN   | daN   | daN  |  |  |  |  |  |
| 80  | 25  | 0,13  | 663101  | 0,13  | 663201  | 12  | 39  | <b>225</b>  | <b>100</b>  | <b>150</b>   |  |  |  |  |  |
| 100   | 30  | 0,19  | 663102  | 0,19  | 663202  | 12  | 44  | <b>300</b>  | <b>135</b>  | <b>200</b>   |  |  |  |  |  |
| 125   | 30  | 0,28  | 663103  | 0,28  | 663203  | 15  | 44  | <b>400</b>  | <b>150</b>  | <b>250</b>   |  |  |  |  |  |
| 150   | 40  | 0,54  | 663104  | 0,54  | 663204  | 20  | 59  | <b>600</b>  | <b>240</b>  | <b>400</b>   |  |  |  |  |  |
| 175   | 40  | 0,73  | 663105  | 0,73  | 663205  | 20  | 59  | <b>680</b>  | <b>270</b>  | <b>470</b>   |  |  |  |  |  |
| 200   | 50  | 0,89  | 663106  | 0,89  | 663206  | 20  | 59  | <b>800</b>  | <b>300</b>  | <b>600</b>   |  |  |  |  |  |
| 200   | 50  | 0,85  | 663116  |   |   | 25  | 59  | <b>800</b>  | <b>300</b>  | <b>600</b>   |  |  |  |  |  |
| 250   | 60  | 1,52  | 663108  | 1,52  | 663208  | 25  | 88  | <b>1200</b>   | <b>400</b>  | <b>1000</b>  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |            |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|------------|--|--|--|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm  | daN  | daN   | daN   | daN        |  |  |  |
| 80  | 25  | 0,15  | 662101  | 0,10  | 664101  | 12  | 32  | 28  | 10  | <b>225</b>   | <b>100</b>  | <b>150</b>  | <b>120</b> |  |  |  |
| 100   | 30  | 0,25  | 662102  | 0,15  | 664102  | 12  | 40  | 32  | 11,5  | <b>300</b>   | <b>135</b>  | <b>200</b>  | <b>160</b> |  |  |  |
| 125   | 30  | 0,33  | 662103  | 0,25  | 664103  | 15  | 40  | 35  | 13,5  | <b>400</b>   | <b>150</b>  | <b>250</b>  | <b>200</b> |  |  |  |
| 175   | 40  | 0,85  | 662105  | 0,60  | 664105  | 20  | 55  | 47  | 14  | <b>680</b>   | <b>270</b>  | <b>470</b>  | <b>380</b> |  |  |  |
| 200   | 50  | 1,07  | 662106  | 0,76  | 664106  | 20  | 55  | 52  | 15  | <b>800</b>   | <b>300</b>  | <b>600</b>  | <b>480</b> |  |  |  |
| 200   | 50  | 1,06  | 662126  | 0,76  | 664106  | 25  | 55  | 52  | 15  | <b>800</b>   | <b>300</b>  | <b>600</b>  | <b>480</b> |  |  |  |



**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm    |    | kg   |        | COD. |      | kg     |      | COD.   |     | mm      |        | mm |    | mm  |     | mm |  | mm |  | daN |  |  |
|-------|----|------|--------|------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|----|--|----|--|-----|--|--|
| 80    | 25 | 0,61 | 664201 |      | 0,37 | 665701 | 0,80 | 666601 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 150 |    |  |    |  |     |  |  |
| 100   | 30 | 0,75 | 664202 |      | 0,44 | 665702 | 0,90 | 666602 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |    |  |    |  |     |  |  |
| 125   | 30 | 0,91 | 664203 |      | 0,66 | 665703 | 1,05 | 666603 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |    |  |    |  |     |  |  |
| 125PG | 30 | 1,10 | 664213 |      | 0,86 | 665713 | 1,30 | 666643 | 156 | 140x110 | 105x80 | 11 | 37 | 120 | 220 |    |  |    |  |     |  |  |
| 150   | 40 | 1,81 | 664204 |      | 1,44 | 665704 | 2,09 | 666604 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |  |    |  |     |  |  |
| 175   | 40 | 1,99 | 664205 |      | 1,70 | 665705 | 2,27 | 666605 | 217 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |  |    |  |     |  |  |
| 200   | 50 | 2,19 | 664206 |      | 1,97 | 665706 | 2,45 | 666606 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |  |    |  |     |  |  |
| 80    | 25 | 0,63 | 664501 |      | 0,41 | 665901 | 0,84 | 666621 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | 150 |    |  |    |  |     |  |  |
| 100   | 30 | 0,78 | 664502 |      | 0,46 | 665902 | 0,93 | 666622 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | 200 |    |  |    |  |     |  |  |
| 125   | 30 | 0,93 | 664503 |      | 0,68 | 665903 | 1,08 | 666623 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | 220 |    |  |    |  |     |  |  |
| 125PG | 30 | 1,13 | 664513 |      | 0,89 | 665913 | 1,33 | 666653 | 156 | 140x110 | 105x80 | 11 | 37 | 120 | 220 |    |  |    |  |     |  |  |
| 150   | 40 | 2,00 | 664504 |      | 1,53 | 665904 | 2,18 | 666624 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |  |    |  |     |  |  |
| 175   | 40 | 2,12 | 664505 |      | 1,79 | 665905 | 2,38 | 666625 | 217 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |  |    |  |     |  |  |
| 200   | 50 | 2,29 | 604506 |      | 2,08 | 665906 | 2,53 | 666626 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |    |  |    |  |     |  |  |

**Options available to order**



Wheel with ball bearings fitted with NL bracket



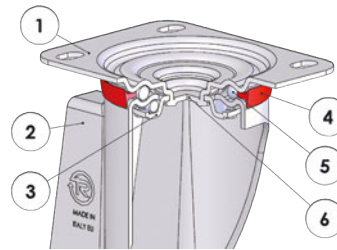
Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT



**Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN**



**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

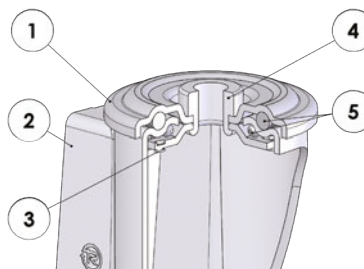
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 80  | 25 | 0.60 | 664401 | 0.34 | 665401 | 0.77 | 666701 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>150</b> |     |
| 100 | 30 | 0.66 | 664402 | 0.41 | 665402 | 0.84 | 666702 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |     |
| 125 | 30 | 0.81 | 664403 | 0.64 | 665403 | 0.95 | 666703 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |     |
| 150 | 40 | 1.75 | 664404 | 1.31 | 665404 | 2.04 | 666704 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 175 | 40 | 1.93 | 664405 | 1.49 | 665405 | 2.21 | 666705 | 215 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 50 | 2.16 | 664406 | 1.70 | 665406 | 2.44 | 666706 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 80  | 25 | 0.64 | 664601 | 0.38 | 665601 | 0.81 | 666721 | 107 | 100x85  | 80x60  | 9  | 37 | 120 | <b>150</b> |     |
| 100 | 30 | 0.68 | 664602 | 0.44 | 665602 | 0.87 | 666722 | 128 | 100x85  | 80x60  | 9  | 35 | 120 | <b>200</b> |     |
| 125 | 30 | 0.84 | 664603 | 0.67 | 665603 | 0.98 | 666723 | 156 | 100x85  | 80x60  | 9  | 37 | 120 | <b>220</b> |     |
| 150 | 40 | 1.84 | 664604 | 1.40 | 665604 | 2.13 | 666724 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 175 | 40 | 2.04 | 664605 | 1.60 | 665605 | 2.32 | 666725 | 215 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 50 | 2.27 | 664606 | 1.81 | 665606 | 2.55 | 666726 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |

SERIES **66**

**"TR" POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**

**Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN**

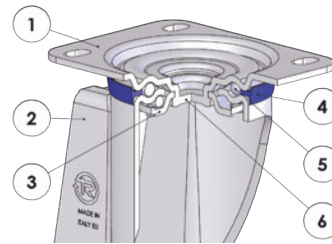
**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |  |
|-----|----|------|--------|------|--------|-----|-----|----|----|-----|------------|--|--|--|--|--|
| 80  | 25 | 0.54 | 667901 | 0.71 | 668801 | 107 | 73  | 12 | 37 | 120 | <b>150</b> |  |  |  |  |  |
| 100 | 30 | 0.62 | 667902 | 0.83 | 668802 | 128 | 73  | 12 | 35 | 120 | <b>200</b> |  |  |  |  |  |
| 125 | 30 | 0.79 | 667903 | 0.94 | 668803 | 156 | 73  | 12 | 37 | 120 | <b>220</b> |  |  |  |  |  |
| 150 | 40 | 1.55 | 667904 | 1.83 | 668804 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |  |
| 175 | 40 | 1.74 | 667905 | 2.02 | 668805 | 212 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |  |
| 200 | 50 | 2.10 | 667906 | 2.36 | 668806 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |  |
| 80  | 25 | 0.58 | 668001 | 0.75 | 668821 | 107 | 73  | 12 | 37 | 120 | <b>150</b> |  |  |  |  |  |
| 100 | 30 | 0.65 | 668002 | 0.85 | 668822 | 128 | 73  | 12 | 35 | 120 | <b>200</b> |  |  |  |  |  |
| 125 | 30 | 0.82 | 668003 | 0.97 | 668823 | 156 | 73  | 12 | 37 | 120 | <b>220</b> |  |  |  |  |  |
| 150 | 40 | 1.64 | 668004 | 1.32 | 668824 | 188 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |  |
| 175 | 40 | 1.85 | 668005 | 2.13 | 668825 | 212 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |  |
| 200 | 50 | 2.21 | 668006 | 2.47 | 668826 | 236 | 102 | 20 | 56 | 156 | <b>300</b> |  |  |  |  |  |

**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with adjustable total front foot brake

| mm  |    | kg   |        | kg   |        | kg   |        | mm  |         | mm     |    | mm |     | mm         |  | daN |  |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|--|-----|--|
| 150 | 40 | 2.16 | 664304 | 1.44 | 665704 | 2.62 | 668704 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>400</b> |  |     |  |
| 200 | 50 | 2.58 | 664306 | 1.97 | 665706 | 3.00 | 668706 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |  |     |  |
| 150 | 40 | 2.35 | 664804 | 1.53 | 665904 | 2.71 | 668904 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>400</b> |  |     |  |
| 200 | 50 | 2.68 | 664806 | 2.08 | 665906 | 3.08 | 668906 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |  |     |  |
| 200 | 50 | 2.93 | 665306 | 2.32 | 665806 | 3.35 | 669206 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |  |     |  |

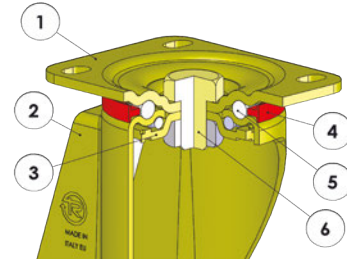
**Options available to order**



Footguard for brackets NL-M-P-PT

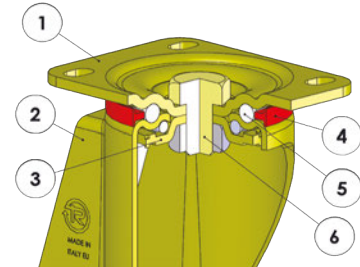
**"TR" POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**

**Medium-heavy duty brackets P - max carrying capacity 600 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|
| 100 | 30 | 1.04 | 667102 | 0.55 | 668102 | 1.19 | 669002 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 200 |
| 125 | 30 | 1.17 | 667103 | 0.75 | 668103 | 1.31 | 669003 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 250 |
| 100 | 30 | 1.08 | 667302 | 0.58 | 668302 | 1.22 | 669102 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 200 |
| 125 | 30 | 1.20 | 667303 | 0.78 | 668303 | 1.34 | 669103 | 161 | 100x85 | 80x60 | 9  | 44 | 123 | 250 |



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 150 | 40 | 2.79 | 667604 | 1.37 | 668604 | 3.36 | 669004 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | 400 |
| 175 | 40 | 3.01 | 667605 | 1.58 | 668605 | 3.57 | 669005 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 470 |
| 200 | 50 | 3.25 | 667606 | 1.79 | 668606 | 3.82 | 669006 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 600 |
| 150 | 40 | 2.89 | 667504 | 1.46 | 668504 | 3.46 | 669104 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | 400 |
| 175 | 40 | 3.11 | 667505 | 1.69 | 668505 | 3.68 | 669105 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | 470 |
| 200 | 50 | 3.36 | 667506 | 1.90 | 668506 | 3.93 | 669106 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | 600 |

**Options available to order**



Wheel with ball bearings fitted with P bracket



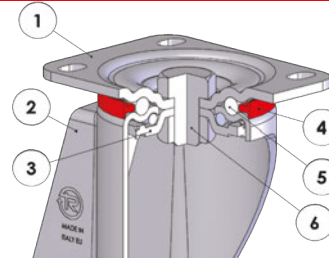
Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

**Stainless steel medium-heavy duty brackets PX - max carrying capacity 600 daN**

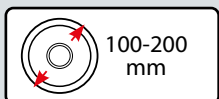
**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 150 | 40 | 2.75 | 667004 | 1.36 | 667114 | 3.32 | 667214 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>400</b> |
| 175 | 40 | 2.95 | 667005 | 1.56 | 667115 | 3.52 | 667215 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | <b>470</b> |
| 200 | 50 | 3.20 | 667006 | 1.76 | 667116 | 3.77 | 667216 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> |
| 150 | 40 | 2.77 | 667314 | 1.55 | 667414 | 3.34 | 667514 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>400</b> |
| 175 | 40 | 3.09 | 667315 | 1.69 | 667415 | 3.66 | 667515 | 225 | 140x110 | 105x80 | 11 | 70 | 126 | <b>470</b> |
| 200 | 50 | 3.30 | 667316 | 1.87 | 667416 | 3.87 | 667516 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>600</b> |

## POLYAMIDE 6 SOLID WHEELS FOR HEAVY LOADS



**INOX**

### Description

Polyamide 6 solid wheels for heavy-duty loads, hardness 70 Shore D.

Hub with plain bore hole which directly houses the axle.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding. The wheel is also available without bearings.

### Uses

Intended mainly for static uses, for high carrying capacities.

The excellent rolling resistance ensures that a minimum manual effort is needed when handling, but only on smooth floors.

Examples of recommended applications: trolley for internal use in the food and canning industries, tannery equipment, flower trolley, manual pallet trucks, mobile scaffolding.

### Environments of use

Designed for industrial environments, even in presence of aggressive chemical substances. Not recommended in areas with strong organic acids and concentrated mineral acids.

|              |  |  |  |  |
|--------------|--|--|--|--|
| WEAK ACIDS   |  |  |  |  |
| STRONG ACIDS |  |  |  |  |
| WATER        |  |  |  |  |
| ALCOHOL      |  |  |  |  |

|              |  |  |  |  |
|--------------|--|--|--|--|
| WEAK BASES   |  |  |  |  |
| STRONG BASES |  |  |  |  |
| HYDROCARBONS |  |  |  |  |
| SOLVENTS     |  |  |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors



Suitable only for smooth and compact floors.

Not suited for areas with obstacles.





### Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 500 kg | 700 kg | 900 kg |
|---|--------|--------|--------|--------|--------|--------|
| 100 mm  | 2.5    | 3.5    | 4.5    | ---    | ---    | ---    |
| 125x35 mm   | 2      | 2.8    | 3.8    | ---    | ---    | ---    |
| 125x45 mm   | 2.2    | 3.2    | 4      | 6.5    | ---    | ---    |
| 150 mm  | 1.8    | 2.3    | 3.5    | 5.5    | 7      | ---    |
| 200 mm  | 1.2    | 1.8    | 2.7    | 3.4    | 5.5    | 8      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Available with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 125 mm  
Top plate fitting. Available with front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Stainless steel medium-heavy duty brackets PX

Maximum carrying capacity 750 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 900 daN - available diameters 200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Extra-heavy duty brackets EP

Maximum carrying capacity 1000 daN - available diameters 200 mm  
Top plate fitting. Available with adjustable rear brake.



#### Electrowelded brackets EE MHD

Maximum carrying capacity 1500 daN - available diameters 125-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



#### Twin electrowelded brackets EEG HD

Maximum carrying capacity 2000 daN - available diameters 125-200 mm  
Top plate fitting.

### Options available to order



Wheel in solid polyamide 6 for extremely heavy loads










Polyamide 6 wheel for heavy loads with customised colours











# 68<sup>P</sup>

## POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS













|  |    |  |        |  |    |  |            |  |  |  Static |  |  |  4 km/h |  |  |  |  |  |
|---|----|---|--------|---|----|---|------------|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm | kg  | CODE   | mm  | mm | daN   | daN        | daN   |  |  |  |  |  |  |  |  |  |  |
| 100   | 35 | 0.26  | 681202 | 20  | 44 | <b>450</b>  | <b>200</b> | <b>400</b>  |  |  |  |  |  |  |  |  |  |  |
| 125   | 45 | 0.36  | 681203 | 20  | 58 | <b>700</b>  | <b>200</b> | <b>650</b>  |  |  |  |  |  |  |  |  |  |  |
| 150   | 45 | 0.50  | 681204 | 20  | 58 | <b>800</b>  | <b>300</b> | <b>750</b>  |  |  |  |  |  |  |  |  |  |  |
| 200   | 50 | 0.90  | 681206 | 20  | 58 | <b>1000</b>   | <b>400</b> | <b>900</b>  |  |  |  |  |  |  |  |  |  |  |



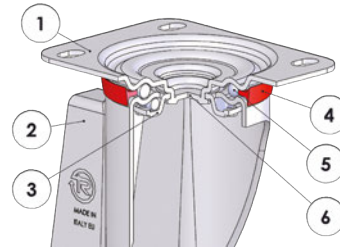
|  |    |  |        |  |        |  |     |  |    |  |            |  |  |  |  |  Static |  |  |  4 km/h |  |  |  |  |  |
|---|----|---|--------|---|--------|---|-----|---|----|---|------------|---|--|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm | kg  | CODE   | kg  | CODE   | mm  | mm. | mm  | mm | daN   | daN        | daN   |  |   |  |  |  |  |  |  |  |  |  |  |
| 100   | 35 | 0.33  | 683402 | 0.20  | 682202 | 15  | 40  | 35  | 11 | <b>450</b>  | <b>350</b> | <b>350</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 125   | 35 | 0.42  | 683403 | 0.29  | 682203 | 15  | 40  | 35  | 11 | <b>500</b>  | <b>450</b> | <b>450</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 125   | 45 | 0.61  | 683413 | 0.39  | 682213 | 20  | 56  | 47  | 13 | <b>700</b>  | <b>400</b> | <b>650</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 125   | 45 | 0.60  | 683423 | 0.39  | 682213 | 25  | 56  | 47  | 13 | <b>700</b>  | <b>400</b> | <b>650</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 150   | 45 | 0.74  | 683404 | 0.52  | 682204 | 20  | 56  | 47  | 13 | <b>800</b>  | <b>455</b> | <b>750</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 150   | 45 | 0.73  | 683424 | 0.52  | 682204 | 25  | 56  | 47  | 13 | <b>800</b>  | <b>455</b> | <b>750</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50 | 1.10  | 683406 | 0.89  | 682206 | 20  | 56  | 47  | 13 | <b>1000</b>   | <b>650</b> | <b>900</b>  |  |   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50 | 1.08  | 683426 | 0.89  | 682206 | 25  | 56  | 47  | 13 | <b>1000</b>   | <b>650</b> | <b>900</b>  |  |   |  |  |  |  |  |  |  |  |  |  |



### EXTRA-HEAVY DUTY WHEEL

|  |    |  |        |  |        |  |     |  |    |  |            |  |  |  |  |  Static |  |  |  4 km/h |  |  |  |  |  |
|---|----|---|--------|---|--------|---|-----|---|----|---|------------|---|--|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm | kg  | COD.   | kg  | COD.   | mm  | mm. | mm  | mm | daN   | daN        | daN   |  |   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50 | 1,42  | 682126 | 1,12  | 683326 | 20  | 58  | 52  | 15 | <b>2250</b>   | <b>650</b> | <b>1500</b>   |  |   |  |  |  |  |  |  |  |  |  |  |
| 200   | 50 | 1,36  | 682136 | 1,12  | 683326 | 25  | 58  | 52  | 15 | <b>2250</b>   | <b>650</b> | <b>1500</b>   |  |   |  |  |  |  |  |  |  |  |  |  |

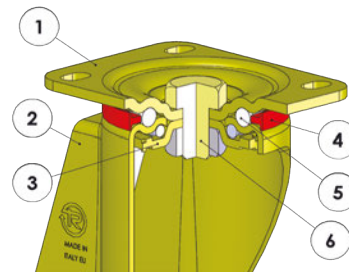
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 125 | 45 | 1.48 | 684523 | 1.44 | 685113 | 1.70 | 686813 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | 300 |
| 125 | 45 | 1.73 | 684873 | 1.69 | 685173 | 1.95 | 686863 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | 300 |

**Medium-heavy duty brackets P - max carrying capacity 350 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|--------|-------|----|----|-----|-----|
| 100 | 35 | 1.13 | 687522 | 0.74 | 688522 | 1.28 | 686912 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 350 |
| 100 | 35 | 1.20 | 684972 | 0.81 | 685372 | 1.35 | 686952 | 138 | 100x85 | 80x60 | 9  | 46 | 123 | 350 |
| 125 | 35 | 1.35 | 684973 | 0.83 | 685373 | 1.46 | 686953 | 161 | 100x85 | 80x60 | 9  | 48 | 123 | 350 |

**Options available to order**

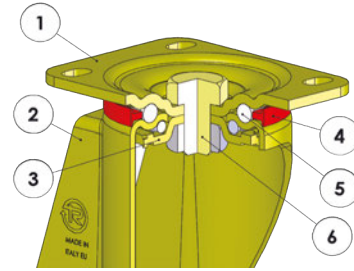


Directional lock for brackets d. 150-200 mm

# SERIES 68<sup>Pa</sup>

## POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS

### Medium-heavy duty brackets P - max carrying capacity 750 daN

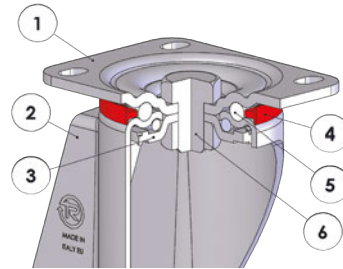


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 125 | 45 | 2.28 | 687533 | 1.49 | 688533 | 2.83 | 686913 | 170 | 140x110 | 105x80 | 11 | 70 | 156 | <b>650</b> |     |
| 150 | 45 | 2.96 | 687524 | 1.83 | 688524 | 3.14 | 686914 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>750</b> |     |
| 200 | 50 | 3.37 | 687526 | 1.91 | 688526 | 3.68 | 686916 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>750</b> |     |
| 125 | 45 | 2.53 | 684993 | 1.74 | 685393 | 3.08 | 686933 | 170 | 140x110 | 105x80 | 11 | 70 | 156 | <b>650</b> |     |
| 150 | 45 | 3.20 | 684974 | 2.07 | 685374 | 3.77 | 686954 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>750</b> |     |
| 200 | 50 | 3.64 | 684976 | 2.18 | 685376 | 3.92 | 686956 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>750</b> |     |

### Stainless steel medium-heavy duty brackets PX - max carrying capacity 750 daN

**INOX**



- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel A
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 125 | 45 | 2.52 | 687033 | 1.10 | 687133 | 3.07 | 687233 | 170 | 140x110 | 105x80 | 11 | 70 | 156 | <b>650</b> |     |
| 150 | 45 | 2.86 | 687014 | 1.42 | 687124 | 3.43 | 687224 | 200 | 140x110 | 105x80 | 11 | 70 | 156 | <b>750</b> |     |
| 200 | 50 | 3.32 | 687016 | 1.88 | 687126 | 3.88 | 687226 | 250 | 140x110 | 105x80 | 11 | 70 | 156 | <b>750</b> |     |

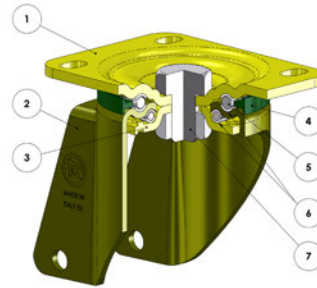
#### Options available to order



Directional lock for brackets P d. 150-200 mm

**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN**

**EXTRA-HEAVY DUTY WHEEL**

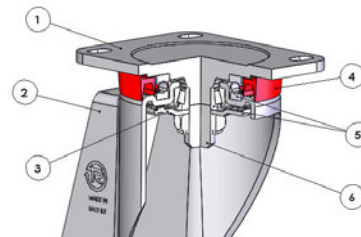


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 200 | 50 | 3,74 | 682906 | 2,88 | 685386 | 4,32 | 682916 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>900</b> |

**Extra-heavy duty brackets EP - max carrying capacity 1000 daN**

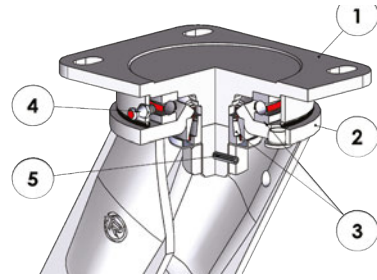
**EXTRA-HEAVY DUTY WHEEL**



- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available with adjustable total rear foot brake

| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN         |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-------------|
| 200 | 50 | 4,08 | 682926 | 3,77 | 682936 | 4,63 | 682946 | 250 | 135x110 | 105x80 | 11 | 70 | 126 | <b>1000</b> |

**Electrowelded brackets EE MHD - max carrying capacity 1500 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | mm | mm | mm | mm | mm | mm | mm | mm | mm | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|----|----|----|----|----|----|----|----|----|-----|
| 125 | 45 | 3.26 | 688303 | 2.03 | 688403 | 4.14 | 688703 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | <b>650</b> |    |    |    |    |    |    |    |    |    |     |
| 150 | 45 | 3.50 | 688304 | 2.51 | 688404 | 4.38 | 688704 | 210 | 135x110 | 105x80 | 11 | 60 | 157 | <b>750</b> |    |    |    |    |    |    |    |    |    |     |
| 200 | 50 | 4.02 | 688306 | 3.04 | 688406 | 4.90 | 688706 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | <b>900</b> |    |    |    |    |    |    |    |    |    |     |
| 125 | 45 | 3.51 | 689303 | 2.28 | 689403 | 4.39 | 689803 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | <b>650</b> |    |    |    |    |    |    |    |    |    |     |
| 150 | 45 | 3.74 | 689304 | 2.75 | 689404 | 4.62 | 689804 | 210 | 135x110 | 105x80 | 11 | 60 | 157 | <b>750</b> |    |    |    |    |    |    |    |    |    |     |
| 200 | 50 | 4.22 | 689306 | 3.24 | 689406 | 5.10 | 689806 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | <b>900</b> |    |    |    |    |    |    |    |    |    |     |

**EXTRA HEAVY-DUTY WHEEL**



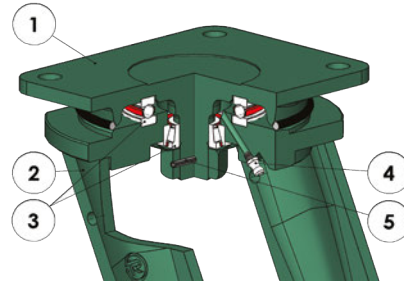
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | mm          | mm | mm | mm | mm | mm | mm | mm | mm | mm | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-------------|----|----|----|----|----|----|----|----|----|-----|
| 200 | 50 | 4,58 | 682956 | 3,36 | 682966 | 5,39 | 682986 | 250 | 135x110 | 105x80 | 11 | 70 | 157 | <b>1500</b> |    |    |    |    |    |    |    |    |    |     |

**Options available to order**



Directional lock  
for brackets EE MHD  
- EE HD - EED MHD - EES  
MHD: see page 390

**Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

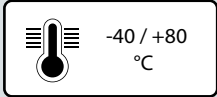
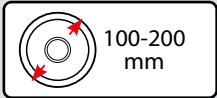
| mm  | mm    | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | daN         |  |  |  |
|-----|-------|-------|--------|------|--------|-----|---------|---------|----|----|-------------|--|--|--|
| 125 | 45+45 | 9.35  | 688072 | 4.90 | 688172 | 210 | 175x140 | 140x105 | 14 | 50 | <b>1300</b> |  |  |  |
| 150 | 45+45 | 9.62  | 688074 | 5.20 | 688174 | 223 | 175x140 | 140x105 | 14 | 50 | <b>1500</b> |  |  |  |
| 200 | 50+50 | 12.40 | 688066 | 7.60 | 688166 | 285 | 200x160 | 160x120 | 17 | 65 | <b>1800</b> |  |  |  |

**EXTRA HEAVY-DUTY WHEEL**



| mm  | mm    | kg    | COD.   | kg   | COD.   | mm  | mm      | mm      | mm | mm | daN         |  |  |  |
|-----|-------|-------|--------|------|--------|-----|---------|---------|----|----|-------------|--|--|--|
| 200 | 50+50 | 13,64 | 682996 | 8,64 | 682998 | 285 | 200x160 | 160x120 | 17 | 65 | <b>2000</b> |  |  |  |

## CAST IRON SOLID WHEELS



### Description

Cast iron solid wheels.

Hub with plain bore which directly houses the axle.

Hub with shielded ball bearings with interference assembly in the seats obtained by machining the centre. The wheel is also available without bearings.

### Uses

Intended mainly for static uses and for high carrying capacities.

The model with plain bore is resistant to temperatures from -40 C to +400°C and is, therefore, particularly suitable for oven applications. To use a castor at temperatures above 100 °C, the wheel needs to be fitted with a specific bracket for high-temperature use.

Examples of recommended applications: trolleys for workshops, industrial ovens.

### Environments of use

Designed for industrial environments, even in presence of medium-harsh chemical agents. Not recommended in humid environments and in presence of strong organic acids and concentrated mineral acids.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable only for smooth and compact floors.



Not suited for areas with obstacles.

They may damage fragile floors.





### Force required to push or tow a wheel

|   | 100 kg | 300 kg | 500 kg | 700 kg | 1000 kg | 1400 kg |
|---|--------|--------|--------|--------|---------|---------|
| 100x30 mm   | < 1    | 5.6    | 15     | ----   | ----    | ----    |
| 100x40 mm   | < 1    | 4.3    | 11.2   | ----   | ----    | ----    |
| 125 mm  | < 1    | 3.2    | 7.6    | 14     | ----    | ----    |
| 150 mm  | < 1    | 2.5    | 4.7    | 7.4    | 12.2    | ----    |
| 200 mm  | < 1    | 1.7    | 3.5    | 5.8    | 10.3    | 18      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Available with brackets:



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-150 mm  
Top plate fitting.



#### Medium-heavy duty brackets P

Maximum carrying capacity 750 daN - available diameters 125-200 mm  
Top plate fitting.



#### Extra-heavy duty brackets EP

Maximum carrying capacity 1100 daN - available diameters 150-200 mm  
Top plate fitting.

### Options available to order












Steel wheel for extremely heavy loads















Wheel with brackets NL and P for high temperatures

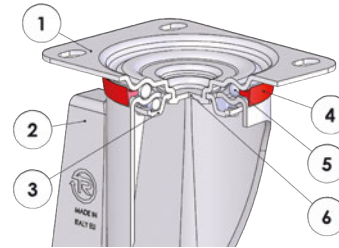


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |
| 100   | 30  | 0.62  | 691102  | 15  | 34  | <b>800</b>  | <b>260</b>  | <b>500</b>  |  |  |  |  |  |  |
| 100   | 30  | 0.70  | 691112  | 15  | 44  | <b>800</b>  | <b>260</b>  | <b>500</b>  |  |  |  |  |  |  |
| 100   | 40  | 0.92  | 691202  | 20  | 44  | <b>900</b>  | <b>300</b>  | <b>600</b>  |  |  |  |  |  |  |
| 125   | 40  | 1.09  | 691103  | 15  | 44  | <b>1200</b>   | <b>350</b>  | <b>700</b>  |  |  |  |  |  |  |
| 125   | 40  | 1.12  | 691203  | 20  | 44  | <b>1200</b>   | <b>350</b>  | <b>700</b>  |  |  |  |  |  |  |
| 150   | 45  | 1.81  | 691104  | 20  | 59  | <b>1500</b>   | <b>500</b>  | <b>1200</b>   |  |  |  |  |  |  |
| 200   | 45  | 3.34  | 691106  | 20  | 59  | <b>1900</b>   | <b>600</b>  | <b>1400</b>   |  |  |  |  |  |  |
| 200   | 45  | 3.19  | 691206  | 25  | 59  | <b>1900</b>   | <b>800</b>  | <b>1400</b>   |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|---|---|-------------|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm.   | mm  | mm   | daN   | daN   | daN         |  |  |  |  |
| 100   | 38  | 1.33  | 692122  | 1.14  | 694102  | 15  | 40  | 42  | 13   | <b>900</b>  | <b>300</b>  | <b>600</b>  |  |  |  |  |
| 100   | 38  | 1.28  | 692102  | 1.14  | 694102  | 20  | 40  | 42  | 13   | <b>900</b>  | <b>300</b>  | <b>600</b>  |  |  |  |  |
| 125   | 40  | 1.67  | 692103  | 1.43  | 694103  | 20  | 40  | 47  | 14   | <b>1200</b>   | <b>350</b>  | <b>700</b>  |  |  |  |  |
| 150   | 50  | 2.46  | 692104  | 2.18  | 694104  | 20  | 55  | 47  | 14   | <b>1500</b>   | <b>500</b>  | <b>1200</b> |  |  |  |  |
| 200   | 50  | 3.64  | 692106  | 3.29  | 694106  | 20  | 55  | 52  | 15   | <b>1900</b>   | <b>600</b>  | <b>1400</b> |  |  |  |  |
| 200   | 50  | 3.57  | 692126  | 3.57  | 694106  | 25  | 56  | 52  | 15   | <b>1900</b>   | <b>600</b>  | <b>1400</b> |  |  |  |  |

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

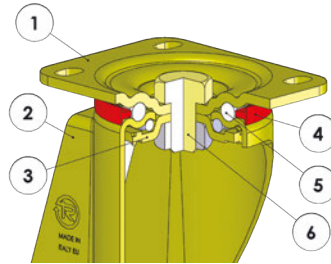
| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | daN        |  |  |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|------------|--|--|
| 100 | 30 | 1.16 | 694802 | 0.89 | 695702 | 128 | 100x85  | 80x60  | 9  | 35 | <b>200</b> |  |  |
| 100 | 40 | 1.50 | 694812 | 1.16 | 695712 | 128 | 100x85  | 80x60  | 9  | 35 | <b>200</b> |  |  |
| 125 | 40 | 1.73 | 694803 | 1.38 | 695703 | 156 | 100x85  | 80x60  | 9  | 37 | <b>220</b> |  |  |
| 150 | 45 | 3.24 | 694804 | 2.87 | 695704 | 194 | 140x110 | 105x80 | 11 | 56 | <b>300</b> |  |  |
| 100 | 40 | 1.91 | 694902 | 1.57 | 695802 | 128 | 100x85  | 80x60  | 9  | 35 | <b>200</b> |  |  |
| 125 | 40 | 2.31 | 694903 | 1.96 | 695803 | 156 | 100x85  | 80x60  | 9  | 37 | <b>220</b> |  |  |
| 150 | 50 | 3.89 | 694904 | 3.52 | 695804 | 194 | 140x110 | 105x80 | 11 | 56 | <b>300</b> |  |  |

**Options available to order**



Wheel with NL and P brackets for high temperatures

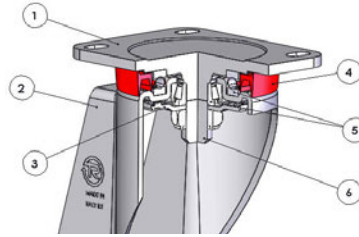
Medium-heavy duty brackets P - max carrying capacity 750 daN



- 1) Plate: yellow galvanised steel plate
- 2) Fork: yellow galvanised steel plate
- 3) Ball race ring: galvanised colonial steel plate
- 4) Dust seal: orange polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: steel bolt in grade 8.8 steel and steel nut

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | daN        |  |  |  |  |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|------------|--|--|--|--|
| 125 | 40 | 1.96 | 697603 | 1.46 | 698603 | 161 | 100x85  | 80x60  | 9  | 48 | <b>350</b> |  |  |  |  |
| 150 | 45 | 4.16 | 697504 | 2.73 | 698504 | 200 | 140x110 | 105x80 | 11 | 70 | <b>750</b> |  |  |  |  |
| 200 | 45 | 5.81 | 697506 | 4.35 | 698506 | 250 | 140x110 | 105x80 | 11 | 70 | <b>750</b> |  |  |  |  |
| 125 | 40 | 2.75 | 696203 | 2.05 | 696303 | 161 | 100x85  | 80x60  | 9  | 48 | <b>350</b> |  |  |  |  |
| 150 | 50 | 4.81 | 696204 | 3.38 | 696304 | 200 | 140x110 | 105x80 | 11 | 70 | <b>750</b> |  |  |  |  |
| 200 | 50 | 6.11 | 696206 | 4.65 | 696306 | 250 | 140x110 | 105x80 | 11 | 70 | <b>750</b> |  |  |  |  |

**Extra-heavy duty brackets EP - max carrying capacity 1100 daN**



- 1) Plate: white galvanised forged steel
- 2) Fork: white galvanised forged steel
- 3) Lower bearing protection ring
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: axial ball bearing and tapered roller bearing
- 6) King pin: integrated with the machine-processed plate

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | daN         |  |  |  |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|-------------|--|--|--|
| 150 | 45 | 4.43 | 697804 | 3.94 | 698804 | 200 | 135x110 | 105x80 | 11 | 70 | <b>1100</b> |  |  |  |
| 200 | 45 | 6.03 | 697806 | 5.62 | 698806 | 250 | 135x110 | 105x80 | 11 | 70 | <b>1100</b> |  |  |  |
| 150 | 50 | 5.08 | 697604 | 4.59 | 697704 | 200 | 135x110 | 105x80 | 11 | 70 | <b>1100</b> |  |  |  |
| 200 | 50 | 6.30 | 697606 | 5.92 | 697706 | 250 | 135x110 | 105x80 | 11 | 70 | <b>1100</b> |  |  |  |

## SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

-  100-250 mm
-  70 Shore A
-  180-500 daN  
4 km/h
-  140-400 daN  
6 km/h
-  180-300 daN
-  -20 / +70 °C



### Description

Tyre: Sigma Elastic rubber, hardness 70 Shore A, excellent elasticity and good resistance to tear and wear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses



The excellent elasticity guarantees an easy overcoming of obstacles, vibration damping and noise reduction during use.

Combined with appropriate brackets, they are also suitable for mechanical handling up to 6 km/h.

Good rolling resistance means less fatigue for the operator handling the equipment. Examples of recommended applications: trolleys for indoor and outdoor industrial-handling, manual pallet trucks, heavy waste collection bins.

### Environments of use

Industrial environments, even in presence of humidity. Not suitable in presence of strong acids and solvents.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

Suitable for all types of industrial floor, even outdoors.

Allows easily overcoming the obstacles and does not damage floors.



Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg |
|---|--------|--------|--------|--------|--------|
| 100 mm  | 3      | ---    | ---    | ---    | ---    |
| 125x40 mm   | 2.5    | 5      | ---    | ---    | ---    |
| 160 mm  | 1.8    | 3.5    | 5      | ---    | ---    |
| 180 mm  | 2.3    | 4      | 6      | ---    | ---    |
| 200 mm  | 1      | 2.4    | 5      | 6.5    | 9      |
| 250 mm  | 1      | 2.4    | 5      | 6.5    | 9      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

Available with brackets :



**Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake. and centralised brake.



**Medium-duty brackets M**

Maximum carrying capacity 500 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



**Medium-heavy duty brackets P**

Maximum carrying capacity 500 daN - available diameters 100-250 mm  
Top plate fitting. Available with adjustable rear brake.



**Heavy-duty PT brackets with hardened ball race grooves**

Maximum carrying capacity 500 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE MHD**

Maximum carrying capacity 500 daN - available diameters 100-250 mm  
Top plate fitting. Available with adjustable rear brake.



**Twin electrowelded brackets EEG MHD**

Maximum carrying capacity 400 daN - available diameters 100-125 mm  
Top plate fitting.



**Twin electrowelded brackets EEG MHD - EEG HD**

Maximum carrying capacity 1000 daN - available diameters 160-200 mm  
Top plate fitting.



**Electrowelded sprung-loaded brackets EES MHD**

Maximum carrying capacity 500 daN - available diameters 160-250 mm  
Top plate fitting. Available with adjustable front brake.

Options available to order



Wheel with grey rubber tyre

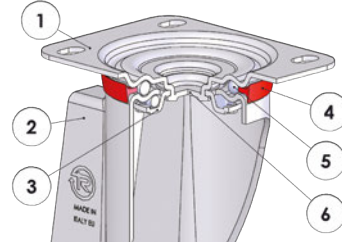
# SERIES 72<sup>AL</sup>

## SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE



| mm  | mm | kg   | CODE   | kg   | CODE   | mm | mm. | mm | mm   | daN  | daN | daN | daN |
|-----|----|------|--------|------|--------|----|-----|----|------|------|-----|-----|-----|
| 100 | 40 | 0.44 | 721202 | 0.39 | 723102 | 15 | 40  | 32 | 9    | 250  | 180 | 180 | 140 |
| 125 | 40 | 0.76 | 721103 | 0.50 | 723003 | 20 | 40  | 47 | 14   | 280  | 200 | 200 | 160 |
| 125 | 40 | 0.78 | 721203 | 0.52 | 723103 | 20 | 50  | 47 | 14   | 280  | 200 | 200 | 160 |
| 125 | 50 | 0.84 | 721213 | 0.62 | 723113 | 20 | 59  | 47 | 14   | 320  | 230 | 230 | 180 |
| 160 | 50 | 1.22 | 721210 | 0.96 | 723104 | 20 | 58  | 47 | 14   | 420  | 300 | 300 | 240 |
| 160 | 50 | 1.20 | 721110 | 0.96 | 723104 | 25 | 58  | 47 | 14   | 420  | 300 | 300 | 240 |
| 180 | 50 | 1.47 | 721205 | 1.21 | 723105 | 20 | 60  | 47 | 14   | 490  | 250 | 350 | 280 |
| 200 | 50 | 2.00 | 721306 | 1.71 | 723126 | 20 | 58  | 47 | 14   | 1000 | 300 | 500 | 400 |
| 200 | 50 | 2.00 | 721206 | 1.71 | 723106 | 20 | 58  | 52 | 16,5 | 1000 | 300 | 500 | 400 |
| 200 | 50 | 1.99 | 721106 | 1.71 | 723106 | 25 | 58  | 52 | 16,5 | 1000 | 300 | 500 | 400 |
| 250 | 50 | 2.30 | 721208 | 1.97 | 723108 | 20 | 60  | 52 | 15   | 1000 | 300 | 500 | 400 |

### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|-----|
| 100 | 40 | 0.96 | 724402 | 0.71 | 726202 | 1.17 | 727302 | 128 | 100x85  | 80x60  | 9  | 37 | 120 | 180 |     |
| 125 | 50 | 1.49 | 724413 | 1.14 | 726213 | 2.37 | 727313 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | 230 |     |
| 160 | 50 | 2.59 | 724410 | 2.22 | 726210 | 2.80 | 727310 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |     |
| 180 | 50 | 2.85 | 724405 | 2.56 | 726205 | 3.06 | 727305 | 219 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |     |
| 200 | 50 | 3.40 | 724306 | 3.18 | 725206 | 3.66 | 727106 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 300 |     |

### Options available to order



Wheel with grey rubber tyre



Directional lock for brackets d. 150-200 mm

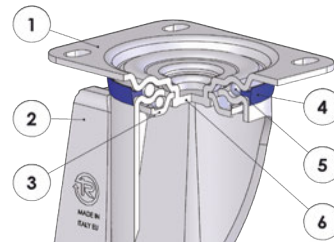


**Standard-duty brackets NL - max carrying capacity 300 daN**



| mm  | mm | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm | mm   | mm | mm   | mm | daN        |
|-----|----|------|--------|-----|---------|--------|----|----|----|------|----|------|----|------------|
| 125 | 40 | 2,41 | 724703 | 165 | 140x110 | 105x80 | 11 | 46 | 40 | 17,5 | 35 | 18,5 |    | <b>230</b> |
| 160 | 50 | 2,81 | 724710 | 199 | 140x110 | 105x80 | 11 | 56 | 40 | 17,5 | 35 | 18,5 |    | <b>300</b> |
| 200 | 50 | 3,45 | 724706 | 240 | 140x110 | 105x80 | 11 | 56 | 40 | 17,5 | 35 | 18,5 |    | <b>300</b> |

**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

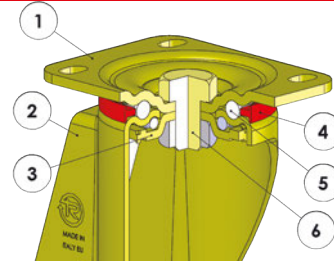
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 160 | 50 | 2.94 | 724610 | 2.22 | 726210 | 3.33 | 727910 | 199 | 140x110 | 105x80 | 11 | 58 | 178 | <b>300</b> |
| 200 | 50 | 3.79 | 724506 | 3.18 | 725206 | 4.21 | 727706 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |

**Options available to order**



Wheel with grey rubber tyre

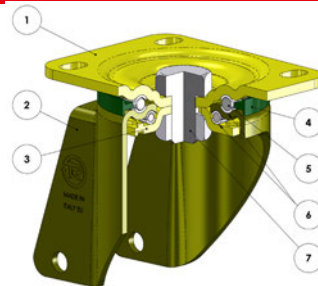
### Medium-heavy duty brackets P - max carrying capacity 500 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |        | CODE |        | kg   |        | CODE |  | mm  |         | mm     |    | mm |     | mm |  | daN |     | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|--|-----|---------|--------|----|----|-----|----|--|-----|-----|-----|--|
| 100 | 40 | 1.31 | 727602 | 0.81 | 728512 |      |        |      |  | 138 | 100x85  | 80x60  | 9  | 46 |     |    |  | 180 | 140 |     |  |
| 125 | 50 | 2.30 | 727613 | 1.66 | 728523 |      |        |      |  | 170 | 140x110 | 105x80 | 11 | 70 |     |    |  | 230 | 180 |     |  |
| 160 | 50 | 3.57 | 727610 | 2.08 | 728514 | 4.14 | 727204 |      |  | 205 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 300 | 240 |     |  |
| 180 | 50 | 3.81 | 727605 | 2.39 | 728515 | 4.38 | 727205 |      |  | 228 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 350 | 280 |     |  |
| 200 | 50 | 4.46 | 727516 | 3.00 | 728516 | 5.06 | 727206 |      |  | 250 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 500 | 400 |     |  |
| 250 | 50 | 4.74 | 727518 | 3.64 | 728518 | 5.44 | 727208 |      |  | 298 | 140x110 | 105x80 | 11 | 66 | 173 |    |  | 500 | 400 |     |  |

### Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 500 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   |        | COD. |        | kg   |        | COD. |  | mm  |         | mm     |    | mm |     | mm |  | daN |     | daN |  |
|-----|----|------|--------|------|--------|------|--------|------|--|-----|---------|--------|----|----|-----|----|--|-----|-----|-----|--|
| 125 | 50 | 2,30 | 725503 | 1,66 | 728523 | 2,86 | 728203 |      |  | 170 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 230 | 180 |     |  |
| 160 | 50 | 3,59 | 725510 | 2,08 | 728514 | 4,14 | 728204 |      |  | 205 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 300 | 240 |     |  |
| 180 | 50 | 3,90 | 725505 | 2,39 | 728515 | 4,38 | 728205 |      |  | 228 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 350 | 280 |     |  |
| 200 | 50 | 4,46 | 725516 | 3,00 | 728516 | 5,03 | 728206 |      |  | 250 | 140x110 | 105x80 | 11 | 70 | 126 |    |  | 500 | 400 |     |  |

#### Options available to order

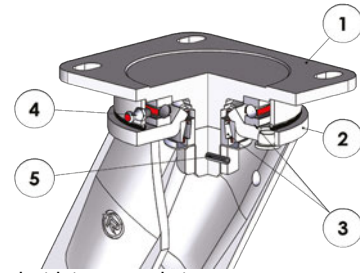


Wheel with grey rubber tyre



Directional lock for brackets P-PT d. 150-200 mm

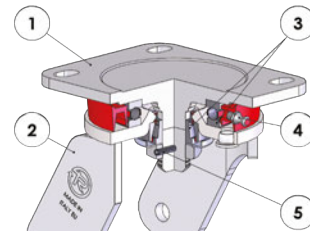
**Electrowelded brackets EE MHD - max carrying capacity 500 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    | 4 km/h | 6 km/h |     |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|--------|--------|-----|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm     | daN    | daN |
| 125 | 50 | 3.74 | 728303 | 2.76 | 728403 | 4.62 | 728603 | 182 | 135x110 | 105x80 | 11 | 51 | 157    | 230    | 180 |
| 160 | 50 | 4.22 | 728314 | 3.23 | 728414 | 5.10 | 728614 | 215 | 135x110 | 105x80 | 11 | 60 | 157    | 300    | 240 |
| 180 | 50 | 4.59 | 728305 | 3.61 | 728405 | 5.47 | 728605 | 242 | 135x110 | 105x80 | 11 | 70 | 157    | 350    | 280 |
| 200 | 50 | 5.12 | 728306 | 4.14 | 728406 | 6.00 | 728606 | 252 | 135x110 | 105x80 | 11 | 70 | 157    | 500    | 400 |
| 250 | 50 | 5.58 | 728307 | 4.55 | 728407 | 6.46 | 728607 | 300 | 135x110 | 105x80 | 11 | 83 | 157    | 500    | 400 |

**Twin electrowelded brackets EEG MHD - max carrying capacity 400 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  |       | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    | 4 km/h | 6 km/h |
|-----|-------|------|--------|------|--------|-----|---------|--------|----|----|--------|--------|
| mm  | mm    | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | daN    | daN    |
| 100 | 40+40 | 3.35 | 728062 | 2.60 | 728162 | 140 | 135x110 | 105x80 | 11 | 55 | 360    | 280    |
| 125 | 40+40 | 4.10 | 728063 | 3.35 | 728163 | 170 | 135x110 | 105x80 | 11 | 55 | 400    | 320    |

**Options available to order**



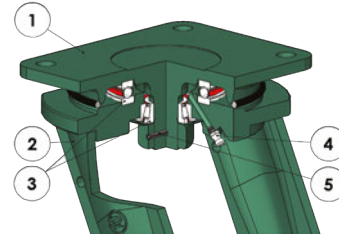
Wheel with grey rubber tyre



Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 390

# 72<sup>AL</sup> SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

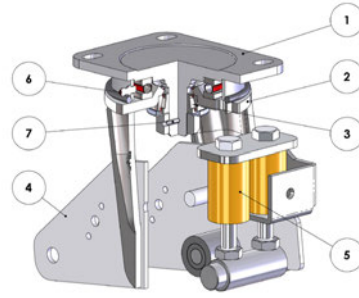
Twin electrowelded brackets EEG HD - max carrying capacity 1000 daN



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm  | mm    | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | daN         | daN        | 4 km/h | 6 km/h |  |
|-----|-------|-------|--------|------|--------|-----|---------|---------|----|----|-------------|------------|--------|--------|--|
| 160 | 50+50 | 10.60 | 728084 | 6.15 | 728184 | 228 | 175x140 | 140x105 | 14 | 50 | <b>600</b>  | <b>480</b> |        |        |  |
| 200 | 50+50 | 12.55 | 728086 | 8.00 | 728186 | 280 | 175x140 | 140x105 | 14 | 65 | <b>1000</b> | <b>800</b> |        |        |  |


**Electrowelded brackets EE MHD - max carrying capacity 500 daN - damping up to 400 daN**




- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) spring-hinged plates: plates electrowelded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| Wheel diameter |    | Wheel width |        | Weight |        | COD. |        | Wheel diameter |         | Wheel width |    | Wheel diameter |     | Wheel width |    | Spring travel |     | Initial tension |        | Spring tension |     |
|----------------|----|-------------|--------|--------|--------|------|--------|----------------|---------|-------------|----|----------------|-----|-------------|----|---------------|-----|-----------------|--------|----------------|-----|
| mm             | mm | kg          | COD.   | kg     | COD.   | kg   | COD.   | mm             | mm      | mm          | mm | mm             | mm  | mm          | mm | daN           | daN | 4 km/h          | 6 km/h | daN            | daN |
| 160            | 50 | 7,04        | 726304 | 5,79   | 726404 | 8,10 | 726504 | 248            | 135x110 | 105x80      | 11 | 100            | 240 | 25          | 50 | 300           | 300 | 300             | 240    |                |     |
| 200            | 50 | 7,82        | 726306 | 6,57   | 726406 | 8,93 | 726506 | 268            | 135x110 | 105x80      | 11 | 100            | 265 | 25          | 50 | 400           | 500 | 500             | 400    |                |     |
| 250            | 50 | 8,65        | 726308 | 7,44   | 726408 | 9,89 | 726508 | 316            | 135x110 | 105x80      | 11 | 110            | 315 | 25          | 50 | 400           | 500 | 500             | 400    |                |     |

 **Spring travel** (mm): maximum difference in the total height of the group wheel + support depending on the spring tension

 **Initial tension** (daN): in case of lighter loads than indicated, the bracket works with no damping

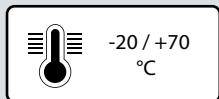
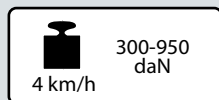
 **Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

**Options available to order**



Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 390

## SIGMA ELASTIC RUBBER WHEELS WITH CAST IRON CENTRE



### Description

Tyre: Sigma Elastic rubber, hardness 70 Shore A, excellent elasticity and good resistance to tear and wear.

Centre: cast iron.

Hub with shielded ball bearings with interference assembly in the seats obtained by machining the centre; also available without bearings.

### Uses

The excellent elasticity guarantees an easy overcoming of obstacles, vibration damping and noise reduction during use.

Combined with appropriate brackets, they are also suitable for mechanical handling up to 6 km/h.

Also suitable for mixed indoor-outdoor uses.

Examples of recommended applications: trolleys for indoor and outdoor industrial handling, manual pallet trucks, heavy waste collection bins.

### Environments of use

Industrial environments, even in presence of humidity. Not suitable in presence of organic, aromatic solvents, chlorinated substances and hydrocarbons.

|              |  |  |  |
|--------------|--|--|--|
| WEAK ACIDS   |  |  |  |
| STRONG ACIDS |  |  |  |
| WATER        |  |  |  |
| ALCOHOL      |  |  |  |

|              |  |  |  |
|--------------|--|--|--|
| WEAK BASES   |  |  |  |
| STRONG BASES |  |  |  |
| HYDROCARBONS |  |  |  |
| SOLVENTS     |  |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.



### Floors

Suitable for all types of industrial floor, even outdoors.

Allows easily overcoming the obstacles and does not damage floors.



Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 700 kg | 900 kg |
|---|--------|--------|--------|--------|--------|--------|--------|
| 125 mm  | 1,4    | 3,7    | 7      | ---    | ---    |        |        |
| 150 mm  | 1      | 3      | 5,8    | 9,5    | ---    |        |        |
| 200x50 mm   | < 1    | 1,8    | 4      | 7,1    | 11     |        |        |
| 200x75 mm   | < 1    | 1,8    | 3,3    | 5      | 7      | 12     |        |
| 250 mm  | < 1    | 1,5    | 2,7    | 4,1    | 6      | 10,3   |        |
| 300 mm  | < 1    | 1,4    | 2,4    | 3,6    | 5      | 8,5    | 12,8   |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth floors. For manual handling of a 4-wheel trolley choose diameters that have values < 5 daN, for frequent handling choose values < 3 daN.

Available with brackets:



**Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 125-200 mm  
Top plate fitting. Available with the front brake.



**Medium-duty brackets M**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



**Medium-heavy duty brackets P**

Maximum carrying capacity 500 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.



**Extra-heavy duty brackets EP**

Maximum carrying capacity 800 daN - available diameters 150-250 mm  
Top plate fitting. Available with adjustable rear brake.



**Electrowelded brackets EE MHD - EE HD**

Maximum carrying capacity 950 daN - available diameters 125-300 mm  
Top plate fitting. Available with adjustable rear brake.



**Twin electrowelded brackets EEG HD**

Maximum carrying capacity 1000 daN - available diameters 150-200 mm  
Top plate fitting.



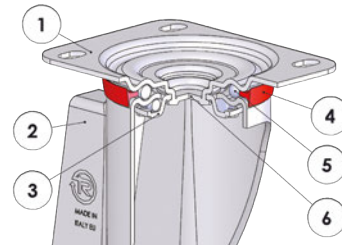
**Electrowelded sprung-loaded brackets EES MHD**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake



| mm  | mm | kg   | CODE   | kg   | CODE   | mm | mm | mm | mm   | daN         | daN        | daN        | daN        |
|-----|----|------|--------|------|--------|----|----|----|------|-------------|------------|------------|------------|
| 125 | 50 | 1.88 | 722103 | 1.64 | 724103 | 20 | 55 | 47 | 14   | <b>450</b>  | <b>250</b> | <b>300</b> | <b>240</b> |
| 150 | 50 | 2.30 | 722104 | 2.06 | 724104 | 20 | 55 | 47 | 14   | <b>600</b>  | <b>275</b> | <b>400</b> | <b>320</b> |
| 150 | 50 | 2.28 | 722124 | 2.06 | 724104 | 25 | 55 | 47 | 14   | <b>600</b>  | <b>275</b> | <b>400</b> | <b>320</b> |
| 200 | 50 | 3.15 | 722106 | 2.87 | 724106 | 25 | 55 | 52 | 17   | <b>1000</b> | <b>335</b> | <b>500</b> | <b>400</b> |
| 200 | 75 | 5.35 | 722126 | 5.07 | 724126 | 25 | 85 | 52 | 17.5 | <b>1200</b> | <b>400</b> | <b>700</b> | <b>560</b> |
| 250 | 75 | 7.17 | 722108 | 6.67 | 724108 | 25 | 85 | 52 | 17.5 | <b>1500</b> | <b>450</b> | <b>800</b> | <b>640</b> |
| 300 | 85 | 8.51 | 722109 | 8.05 | 724109 | 30 | 90 | 62 | 16   | <b>1800</b> | <b>500</b> | <b>950</b> | <b>760</b> |
| 300 | 85 | 8.49 | 722129 | 8.05 | 724109 | 35 | 90 | 62 | 16   | <b>1800</b> | <b>500</b> | <b>950</b> | <b>760</b> |

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | mm         | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|-----|
| 125 | 50 | 3.00 | 724313 | 2.63 | 725213 | 3.22 | 727113 | 166 | 140x110 | 105x80 | 11 | 57 | 156 | <b>300</b> |     |
| 150 | 50 | 3.67 | 724304 | 3.30 | 725204 | 3.96 | 727124 | 194 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |
| 200 | 50 | 4.56 | 724336 | 4.34 | 725236 | 4.86 | 727126 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>300</b> |     |

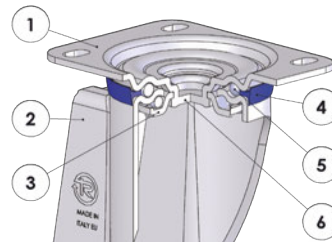
**Options available to order**



Directional lock for brackets d. 150-200 mm



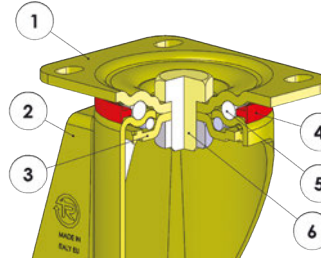
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        | km/h |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------|
| 150 | 50 | 4.02 | 724504 | 3.30 | 725204 | 4.49 | 727724 | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>400</b> | 4    |
| 200 | 50 | 4.95 | 724536 | 4.34 | 725236 | 5.11 | 727726 | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> | 4    |

**Medium-heavy duty brackets P - max carrying capacity 500 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

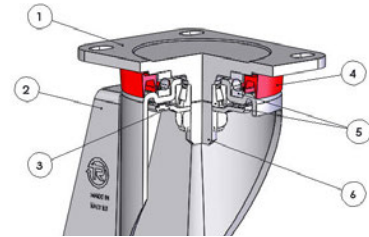
| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| 125 | 50 | 3,80 | 727513 | 3,24 | 728513 |      |        | 170 | 140x110 | 105x80 | 11 | 70 |     | <b>300</b> | <b>240</b> |
| 150 | 50 | 4,65 | 727504 | 3,42 | 728504 | 5,22 | 727224 | 200 | 140x110 | 105x80 | 11 | 70 | 126 | <b>400</b> | <b>320</b> |
| 200 | 50 | 5,62 | 727506 | 4,16 | 728506 | 6,19 | 727226 | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>500</b> | <b>400</b> |

**Options available to order**



Directional lock for P brackets d. 150-200 mm

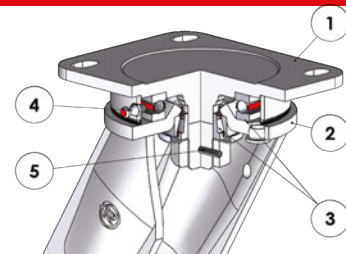
**Extra-heavy duty brackets EP - max carrying capacity 800 daN**



- 1) Plate: white galvanised forged steel
- 2) Fork: white galvanised forged steel
- 3) Lower bearing protection ring
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: axial ball bearing and tapered roller bearing
- 6) King pin: integrated with the machine-processed plate  
Available with adjustable total rear foot brake

| mm  |    | kg    | CODE   | kg    | CODE   | kg   | CODE   | mm  |         |         |    |    |     | 4 km/h     | 6 km/h     |
|-----|----|-------|--------|-------|--------|------|--------|-----|---------|---------|----|----|-----|------------|------------|
| mm  | mm | kg    | CODE   | kg    | CODE   | kg   | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN        | daN        |
| 150 | 50 | 4.92  | 727814 | 4.43  | 728814 | 5.49 | 727324 | 200 | 135x110 | 105x80  | 11 | 70 | 126 | <b>400</b> | <b>320</b> |
| 200 | 50 | 5.87  | 727816 | 5.43  | 728816 | 6.44 | 727326 | 250 | 135x110 | 105x80  | 11 | 70 | 126 | <b>500</b> | <b>400</b> |
| 200 | 75 | 10.90 | 727806 | 9.06  | 728806 |      |        | 275 | 175x140 | 140x105 | 14 | 66 |     | <b>700</b> | <b>560</b> |
| 250 | 75 | 12.71 | 727808 | 10.88 | 728808 |      |        | 300 | 175x140 | 140x105 | 14 | 66 |     | <b>800</b> | <b>640</b> |

**Electrowelded brackets EE MHD - max carrying capacity 500 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Nut anti-loosening system  
Available with adjustable total rear foot brake

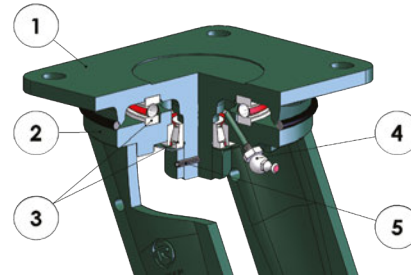
| mm  |    | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  |         |        |    |    |     | 4 km/h     | 6 km/h     |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|------------|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        | daN        |
| 125 | 50 | 4.78 | 729303 | 3.80 | 729403 | 5.66 | 729603 | 182 | 135x110 | 105x80 | 11 | 51 | 157 | <b>300</b> | <b>180</b> |
| 150 | 50 | 5.30 | 729304 | 4.31 | 729404 | 6.18 | 729604 | 210 | 135x110 | 105x80 | 11 | 60 | 157 | <b>400</b> | <b>320</b> |
| 200 | 50 | 6.27 | 729306 | 5.29 | 729406 | 7.15 | 729606 | 252 | 135x110 | 105x80 | 11 | 70 | 157 | <b>500</b> | <b>400</b> |

**Options available to order**



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES  
MHD see page 390

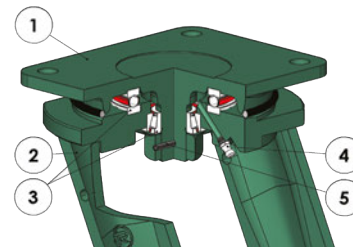
**Electrowelded brackets EE HD - max carrying capacity 950 daN**



- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Nut anti-loosening system
- Available with adjustable total rear foot brake

| mm  | mm | kg    | CODE   | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | mm  | 4 km/h     | 6 km/h     |
|-----|----|-------|--------|-------|--------|-------|--------|-----|---------|---------|----|----|-----|------------|------------|
| mm  | mm | kg    | CODE   | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | mm  | daN        | daN        |
| 200 | 75 | 11.81 | 729316 | 10.27 | 729416 | 12.69 | 729616 | 275 | 175x140 | 140x105 | 14 | 65 | 166 | <b>700</b> | <b>560</b> |
| 250 | 75 | 13.86 | 729307 | 12.27 | 729407 | 14.74 | 729607 | 320 | 175x140 | 140x105 | 14 | 74 | 166 | <b>800</b> | <b>640</b> |
| 300 | 85 | 15.32 | 729308 | 13.70 | 729408 | 16.20 | 729608 | 360 | 175x140 | 140x105 | 14 | 81 | 166 | <b>950</b> | <b>760</b> |

**Twin electrowelded brackets EEG HD - max carrying capacity 1000 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Nut anti-loosening system

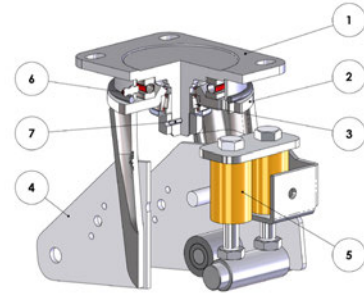
| mm  | mm    | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | 4 km/h      | 6 km/h     |  |  |
|-----|-------|-------|--------|-------|--------|-----|---------|---------|----|----|-------------|------------|--|--|
| mm  | mm    | kg    | CODE   | kg    | CODE   | mm  | mm      | mm      | mm | mm | daN         | daN        |  |  |
| 150 | 50+50 | 12.75 | 728074 | 8.30  | 728174 | 228 | 175x140 | 140x105 | 14 | 50 | <b>800</b>  | <b>640</b> |  |  |
| 200 | 50+50 | 14.90 | 728066 | 10.35 | 728166 | 280 | 175x140 | 140x105 | 14 | 65 | <b>1000</b> | <b>800</b> |  |  |
| 200 | 50+50 | 16.55 | 728076 | 11.75 | 728176 | 285 | 200x160 | 160x120 | 17 | 65 | <b>1000</b> | <b>800</b> |  |  |

**Options available to order**



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES  
MHD see page 390

**Electrowelded sprung-loaded brackets EES HD - max carrying capacity 500 daN - damping up to 400 daN**



- 1) Top plate: electrolytically galvanised forged steel with integrated pin.
  - 2) Main fork: deep-drawn legs electrowelded to the flange and electrolytically galvanised U-shaped component electrowelded to the legs.
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) spring-hinged plates: plates electrowelded to the axle
  - 5) Polyurethane springs
  - 6) Grease nipple
  - 7) Anti-loosening locknut system
- Available with adjustable front lock

| mm  | mm | kg   | COD.   | kg   | COD.   | kg    | COD.   | mm  | mm      | mm     | mm | mm  | mm  | mm | daN | daN        | 4 km/h     | 6 km/h     |
|-----|----|------|--------|------|--------|-------|--------|-----|---------|--------|----|-----|-----|----|-----|------------|------------|------------|
| 150 | 50 | 8,12 | 725704 | 6,87 | 725804 | 9,18  | 726004 | 243 | 135x110 | 105x80 | 11 | 100 | 240 | 25 | 50  | <b>400</b> | <b>400</b> | <b>320</b> |
| 200 | 50 | 8,97 | 725706 | 7,72 | 725806 | 10,08 | 726006 | 268 | 135x110 | 105x80 | 11 | 100 | 265 | 25 | 50  | <b>400</b> | <b>500</b> | <b>400</b> |



**Spring travel** (mm): maximum difference in the total height of the group wheel + support depending on the spring tension



**Initial tension** (daN): in case of lighter loads than indicated, the bracket works with no damping



**Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

**Options available to order**



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES  
MHD see page 390



Experience and innovation

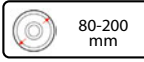
# HIGH TEMPERATURE



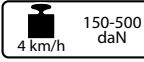


SERIES **67**

SOLID THERMOSETTING RESIN WHEELS



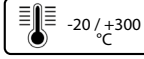
80-200 mm



4 km/h



125-240 daN



-20 / +300 °C



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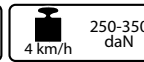


SERIES **68F**

POLYAMIDE 6 SOLID WHEELS CHARGED WITH GLASS FIBER



100-125 mm



4 km/h



250-350 daN



-30 / +130 °C

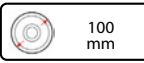


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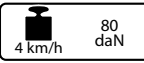


SERIES **72G**

SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE



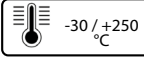
100 mm



4 km/h



80 daN

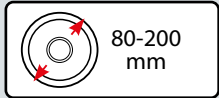


-30 / +250 °C



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## THERMOSETTING RESIN SOLID WHEELS



### Description

Thermosetting resin solid wheels, resistant to temperature from -20°C up to 300°C.

Hub with plain bore hole which directly houses the axle.

Hub with shielded ball bearings lubricated with a grease for high temperatures; steel thread-guards to protect the ball bearings from external agents and dirt. Also available with stainless steel ball bearings.

### Uses

Their resistance to high temperature makes them particularly suitable for use in the food industry and in cooking ovens, particularly in the bakeries.

They are fitted with brackets and axle components, which are specific for high temperatures.

The ball bearings version ensures an excellent performance and the absence of squeaking over long cycle time applications, even in presence of heavy loads.

They are resistant to medium-harsh chemical agents.

Not suitable in presence of obstacles along the path or on delicate flooring.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and chemical agents.

|              |                                     |                          |                          |                                     |              |                                     |                          |                          |                                     |
|--------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| WEAK ACIDS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | WEAK BASES   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| STRONG ACIDS | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | STRONG BASES | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| WATER        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | HYDROCARBONS | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| ALCOHOL      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | SOLVENTS     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors



Suitable on tiles and resin-cement; not recommended on abrasive, unpaved floors or in presence of processing residues.

Not suitable on fragile floor or with obstacles along the path.





### Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg |
|---|--------|--------|--------|--------|--------|
| 80 mm   | 4      | ---    | ---    | ---    | ---    |
| 100 mm  | 3.7    | 8.2    | ---    | ---    | ---    |
| 125 mm  | 3      | 7      | 11     | ---    | ---    |
| 150 mm  | 2      | 5.5    | 9      | ---    | ---    |
| 200 mm  | 1      | 4      | 6.5    | 9      | 12     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

#### Available with brackets:



##### **Standard-duty brackets NL**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings.



##### **Stainless steel standard-duty brackets NLX**

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings.



##### **Stainless steel medium-heavy brackets PX**

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting.



| mm  | mm | kg   | COD.   | mm | mm | daN        | daN        | daN        |  |  |  |  |  |  |  |  |  |
|-----|----|------|--------|----|----|------------|------------|------------|--|--|--|--|--|--|--|--|--|
| 80  | 35 | 0,18 | 672201 | 12 | 39 | <b>250</b> | <b>125</b> | <b>150</b> |  |  |  |  |  |  |  |  |  |
| 100 | 35 | 0,30 | 671102 | 12 | 44 | <b>300</b> | <b>130</b> | <b>200</b> |  |  |  |  |  |  |  |  |  |
| 100 | 35 | 0,29 | 672202 | 15 | 44 | <b>300</b> | <b>130</b> | <b>200</b> |  |  |  |  |  |  |  |  |  |
| 125 | 35 | 0,43 | 672203 | 15 | 44 | <b>400</b> | <b>180</b> | <b>300</b> |  |  |  |  |  |  |  |  |  |
| 150 | 50 | 0,90 | 672104 | 20 | 58 | <b>500</b> | <b>190</b> | <b>300</b> |  |  |  |  |  |  |  |  |  |
| 200 | 50 | 1,68 | 672106 | 20 | 58 | <b>700</b> | <b>240</b> | <b>500</b> |  |  |  |  |  |  |  |  |  |

**Axle sets**



**Low tickness PTFE-coated steel axle tubes.**  
Available for fitting with 80,100 and 125mm standard duty NL brackets.  
Suitable also for heavy usages over short cycle time applications.



**Standard steel and stainless steel axle tubes** for 150 and 200mm wheels fitted with standard duty NL and NLX brackets, as well as with PX medium-heavy duty brackets.  
Suitable also for heavy usages over short cycle time applications.



**High tickness PTFE-coated stainless steel axle tube** for assembly with 80,100 and 125mm standard duty NLX brackets.  
Available to order for fitting with other brackets.  
Suitable for medium-heavy duty loads over long cycle time applications.



**Low friction innovative PTFE bushings** over a steel or stainless steel axle tube.  
Available for fitting with 80 and 100mm NL and NLX brackets.  
Suitable for situations of heavier duty and long cycle time applications.

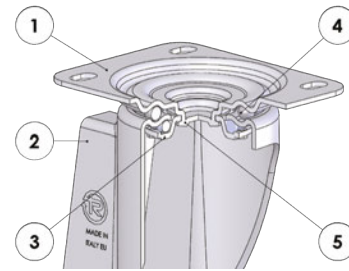


| mm  | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm | mm | mm | mm. | daN        | daN        | daN        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|----|------|--------|------|--------|------|--------|----|----|----|-----|------------|------------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 80  | 35 | 0,27 | 672501 | 0,27 | 672601 | 0,21 | 674101 | 15 | 35 | 32 | 9   | <b>250</b> | <b>160</b> | <b>160</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100 | 38 | 0,44 | 672502 | 0,44 | 672602 | 0,37 | 674102 | 15 | 38 | 32 | 9   | <b>300</b> | <b>240</b> | <b>240</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



**Ball bearings protection kit composed of:**  
- n° 2 galvanised steel/stainless steel threadguards  
- n° 2 galvanised steel/stainless steel spacers  
Item nr. 924610VE (galvanised) - nr. 924609VE (stainless steel)

Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Swivel actions: double ball ring with grease lubrication for high temperatures
- 5) King pin: integrated with the plate and cold-rieveted

|     |    |      |        |      |        |     |         |        |    |    |     | Axle set |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|-----|----------|
| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | daN |          |
| 80  | 35 | 0,71 | 677101 | 0,43 | 678101 | 107 | 100x85  | 80x60  | 9  | 37 | 150 |          |
| 100 | 35 | 0,85 | 677102 | 0,53 | 678102 | 128 | 100x85  | 80x60  | 9  | 35 | 200 |          |
| 125 | 35 | 1,07 | 677103 | 0,73 | 678103 | 156 | 100x85  | 80x60  | 9  | 37 | 220 |          |
| 150 | 50 | 2,23 | 677314 | 1,90 | 678304 | 194 | 140x110 | 105x80 | 11 | 56 | 300 |          |
| 200 | 50 | 3,08 | 677316 | 2,87 | 678306 | 240 | 140x110 | 105x80 | 11 | 56 | 300 |          |
| 80  | 35 | 0,77 | 677201 | 0,49 | 677401 | 107 | 100x85  | 80x60  | 9  | 37 | 150 |          |
| 100 | 35 | 0,91 | 677202 | 0,59 | 677402 | 128 | 100x85  | 80x60  | 9  | 35 | 200 |          |



|     |    |      |        |      |        |     |        |       |    |    |     | Axle set |
|-----|----|------|--------|------|--------|-----|--------|-------|----|----|-----|----------|
| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm     | mm    | mm | mm | daN |          |
| 80  | 35 | 0,75 | 677111 | 0,63 | 678111 | 107 | 100x85 | 80x60 | 9  | 37 | 160 |          |
| 100 | 38 | 0,95 | 677112 | 0,80 | 678112 | 128 | 100x85 | 80x60 | 9  | 35 | 200 |          |

Options available to order (plain bore)



Axle components with stainless steel tube coated with hi-thickness PTFE

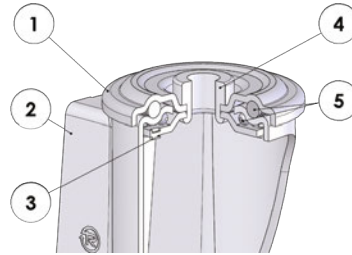


Axle components with stainless steel tube coated with hi-thickness PTFE and spacers

SERIES **67**

**THERMOSETTING RESIN  
SOLID WHEELS**

**Standard-duty brackets NL - max carrying capacity 300 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: bushing in electrolytically galvanised steel
- 5) Swivel actions: double ball ring with grease lubrication for high temperatures

|     |    |      |        |     |    |    |    |            |     | Axle set |
|-----|----|------|--------|-----|----|----|----|------------|-----|----------|
| mm  | mm | kg   | COD.   | mm  | mm | mm | mm | mm         | daN |          |
| 80  | 35 | 0,62 | 676101 | 107 | 73 | 12 | 37 | <b>150</b> |     |          |
| 100 | 35 | 0,72 | 676102 | 128 | 73 | 12 | 35 | <b>200</b> |     |          |
| 125 | 35 | 1,05 | 676103 | 156 | 73 | 12 | 37 | <b>220</b> |     |          |
| 80  | 35 | 0,68 | 677501 | 107 | 73 | 12 | 37 | <b>150</b> |     |          |
| 100 | 35 | 0,78 | 677502 | 128 | 73 | 12 | 35 | <b>200</b> |     |          |



|     |    |      |        |     |    |    |    |            |     | Axle set |
|-----|----|------|--------|-----|----|----|----|------------|-----|----------|
| mm  | mm | kg   | COD.   | mm  | mm | mm | mm | mm         | daN |          |
| 80  | 35 | 0,70 | 676111 | 107 | 73 | 12 | 37 | <b>160</b> |     |          |
| 100 | 38 | 0,87 | 676112 | 128 | 73 | 12 | 35 | <b>200</b> |     |          |

**Options available to order (plain bore)**



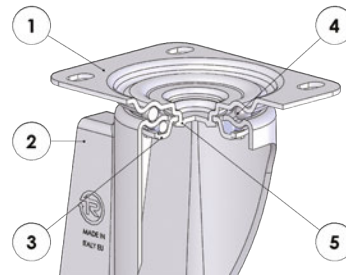
Axle components with stainless steel tube coated with hi-thickness PTFE



Axle components with stainless steel tube coated with hi-thickness PTFE and spacers

**Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN**

**INOX**



- 1) Plate: AISI 304 stainless steel
- 2) Fork: AISI 304 stainless steel
- 3) Ball race ring: AISI 304 stainless steel
- 4) Swivel actions: double stainless steel ball ring with grease lubrication for high temperatures
- 5) King pin: integrated with the plate and cold-rieveted

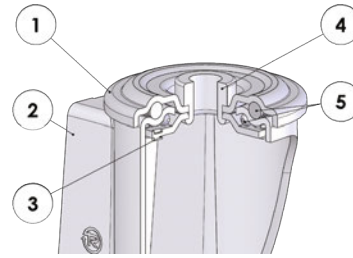
| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm      | mm     | mm | mm | daN | Axle set |  |  |  |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|-----|----------|--|--|--|
| 80  | 35 | 0,71 | 677701 | 0,40 | 678701 | 107 | 100x85  | 80x60  | 9  | 37 | 150 |          |  |  |  |
| 100 | 35 | 0,79 | 677702 | 0,52 | 678702 | 128 | 100x85  | 80x60  | 9  | 35 | 200 |          |  |  |  |
| 125 | 35 | 0,92 | 677713 | 0,80 | 678713 | 156 | 100x85  | 80x60  | 9  | 37 | 220 |          |  |  |  |
| 150 | 50 | 2,21 | 677704 | 1,77 | 678704 | 194 | 140x110 | 105x80 | 11 | 56 | 300 |          |  |  |  |
| 200 | 50 | 3,06 | 677706 | 2,60 | 678706 | 240 | 140x110 | 105x80 | 11 | 56 | 300 |          |  |  |  |
| 80  | 35 | 0,78 | 677901 | 0,47 | 678001 | 107 | 100x85  | 80x60  | 9  | 37 | 150 |          |  |  |  |
| 100 | 35 | 0,86 | 677902 | 0,59 | 678002 | 128 | 100x85  | 80x60  | 9  | 35 | 200 |          |  |  |  |



| mm  | mm | kg   | COD.   | kg   | COD.   | mm  | mm     | mm    | mm | mm | daN | Axle set |  |
|-----|----|------|--------|------|--------|-----|--------|-------|----|----|-----|----------|--|
| 80  | 35 | 0,75 | 678801 | 0,63 | 678901 | 107 | 100x85 | 80x60 | 9  | 37 | 160 |          |  |
| 100 | 38 | 0,95 | 678802 | 0,80 | 678902 | 128 | 100x85 | 80x60 | 9  | 35 | 200 |          |  |

Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN

**INOX**



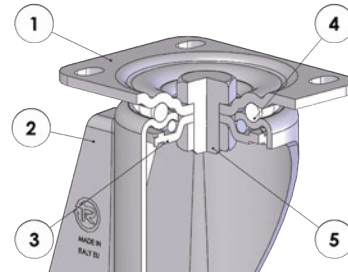
- 1) Plate: AISI 304 stainless steel
- 2) Fork: AISI 304 stainless steel
- 3) Ball race ring: AISI 304 stainless steel
- 4) King pin: bushing in stainless steel
- 5) Swivel actions: double ball ring with grease lubrication

| MM  | MM | КГ   | КОД.   | MM  | MM | MM | MM | даН | Axle set |
|-----|----|------|--------|-----|----|----|----|-----|----------|
| 80  | 35 | 0,62 | 676701 | 107 | 73 | 12 | 37 | 150 |          |
| 100 | 35 | 0,72 | 676702 | 128 | 73 | 12 | 35 | 200 |          |
| 125 | 35 | 1,05 | 676703 | 156 | 73 | 12 | 37 | 220 |          |
| 80  | 35 | 0,69 | 678201 | 107 | 73 | 12 | 37 | 150 |          |
| 100 | 35 | 0,79 | 678202 | 128 | 73 | 12 | 35 | 200 |          |



| MM  | MM | КГ   | КОД.   | MM  | MM | MM | MM | даН | Axle set |
|-----|----|------|--------|-----|----|----|----|-----|----------|
| 80  | 35 | 0,70 | 676711 | 107 | 73 | 12 | 37 | 160 |          |
| 100 | 38 | 0,87 | 676712 | 128 | 73 | 12 | 35 | 200 |          |

**Stainless steel medium-heavy duty brackets PX - max carrying capacity 500 daN**

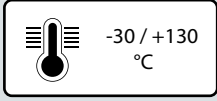
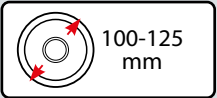


**INOX**

- 1) Plate: AISI 304 stainless steel
- 2) Fork: AISI 304 stainless steel
- 3) Ball race ring: AISI 304 stainless steel
- 4) Swivel actions: double stainless steel ball ring with grease lubrication for high temperatures
- 5) King pin: screw and nut in stainless steel

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | daN        | Axle set |  |  |
|-----|----|------|--------|------|--------|-----|---------|--------|----|----|------------|----------|--|--|
| 150 | 50 | 3.25 | 677004 | 1.90 | 677104 | 200 | 140x110 | 105x80 | 11 | 70 | <b>300</b> |          |  |  |
| 200 | 50 | 4.25 | 677006 | 2.74 | 677106 | 250 | 140x110 | 105x80 | 11 | 70 | <b>500</b> |          |  |  |

## POLYAMIDE 6 SOLID WHEELS CHARGED WITH GLASS FIBER



**INOX**



### Description

Polyamide 6 solid wheels charged with glass fiber, to increase the resistance to temperature from -30°C up to +130°C. Hardness 80 Shore D.

Hub with ball bearings with interference assembly in the seats obtained by moulding. The bearing is protected against external agents by polyamide plain bore caps charged with glass fiber with internal labyrinth. Also available with stainless steel ball bearings.

### Uses

Mainly suitable for static uses on smooth and compact flooring, for medium-duty carrying capacities. Resistant to temperatures between -30°C and +130°C, suitable for use on equipment that has to be frequently washed and sterilised, especially in autoclaves.

The excellent rolling resistance ensures that minimum effort is needed when manual handling, but only on smooth floors.

They are combined with brackets and axle components which are specific for high temperature environments.

Examples of recommended applications: trolleys for internal use in the food and canning industries, tannery equipments.

### Environments of use

Resistant to medium-harsh chemical agents, they are suitable for industrial and institutional environments, also in presence of humidity and chemical agents.

Not recommended in areas with strong organic acids and mineral acids.

|              |  |  |  |              |  |  |  |
|--------------|--|--|--|--------------|--|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Only suitable on smooth and compact tile and resin-cement flooring. Not suitable in presence of obstacles.



They may damage fragile floors.

Not recommended on abrasive, unpaved floors or in presence of processing residues.





### Force required to push or tow a wheel

|   | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg | 350 kg |
|---|--------|--------|--------|--------|--------|--------|
| 100 mm  | <1     | 1.2    | 1.5    | 2      | ---    | ---    |
| 125 mm  | <1     | < 1    | 1.1    | 1.5    | 1.8    | 2.2    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Combination with brackets



**Standard-duty brackets NL**










Maximum carrying capacity 220 daN - available diameters 100-125 mm  
Top plate and bolt hole fittings.



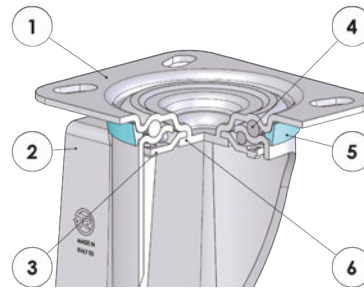
**Stainless steel standard-duty brackets NLX**

Maximum carrying capacity 220 daN - available diameters 100-125 mm  
Top plate and bolt hole fittings.















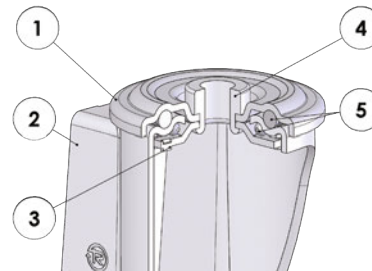
|  |  |  |  |  |  |  |  |  |            |            |  |  |  |  |
|---|---|---|---|---|---|---|---|---|------------|------------|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | daN   | daN        | daN        |  |  |  |  |
| 100   | 30  | 0.27  | 683502  | 0.27  | 683602  | 12  | 45  | <b>250</b>  | <b>250</b> | <b>250</b> |  |  |  |  |
| 125   | 30  | 0.33  | 683503  | 0.33  | 683603  | 12  | 45  | <b>350</b>  | <b>350</b> | <b>350</b> |  |  |  |  |

**Standard-duty brackets NL - max carrying capacity 220 daN**












- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Dust seal: blue polyamide
- 4) Ball race ring: electrolytically galvanised steel plate
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|--|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm   | daN   |  |  |  |  |
| 100   | 30  | 0.74  | 684882  | 0.63  | 685182  | 128   | 100x85  | 80x60   | 9   | 35   | <b>220</b>  |  |  |  |  |
| 125   | 30  | 0.83  | 684883  | 0.72  | 685183  | 156   | 100x85  | 80x60   | 9   | 37   | <b>220</b>  |  |  |  |  |

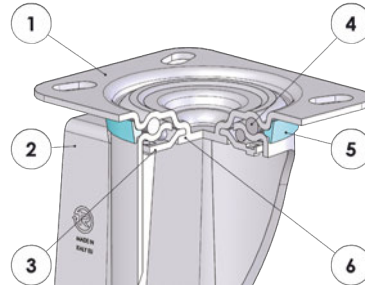


- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: bushing in electrolytically galvanised steel
- 5) Swivel actions: double ball ring with grease lubrication

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| mm   | mm  | kg  | CODE  | mm  | mm  | mm  | mm  | daN   |  |  |  |  |  |  |  |
| 100  | 30  | 0.69  | 688082  | 128   | 73  | 12  | 35  | <b>220</b>  |  |  |  |  |  |  |  |
| 125  | 30  | 0.78  | 688083  | 156   | 73  | 12  | 37  | <b>220</b>  |  |  |  |  |  |  |  |

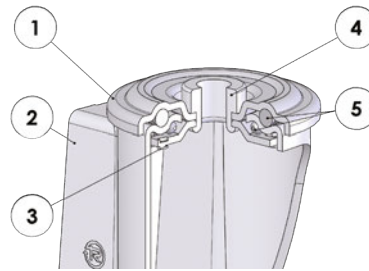
**Stainless steel standard-duty brackets NLX - max carrying capacity 220 daN**

**INOX**



- 1) Plate: AISI 304 stainless steel
- 2) Fork: AISI 304 stainless steel
- 3) Ball race ring: AISI 304 stainless steel
- 4) Dust seal: blue polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

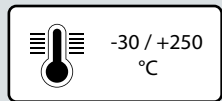
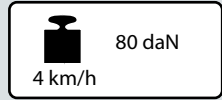
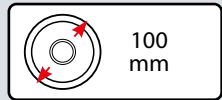
| mm  |    | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | daN |
|-----|----|------|--------|------|--------|-----|--------|-------|----|----|-----|
| 100 | 30 | 0.74 | 684682 | 0.63 | 685682 | 128 | 100x85 | 80x60 | 9  | 35 | 220 |
| 125 | 30 | 0.83 | 684683 | 0.72 | 685683 | 156 | 100x85 | 80x60 | 9  | 37 | 220 |



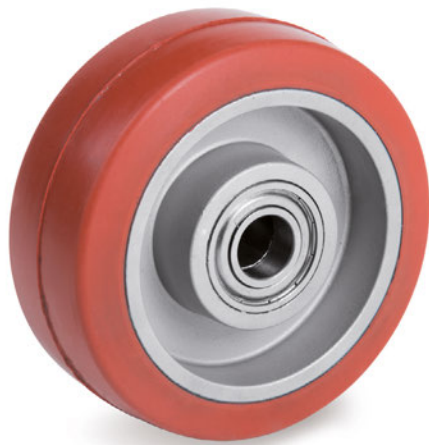
- 1) Plate: AISI 304 stainless steel
- 2) Fork: AISI 304 stainless steel
- 3) Ball race ring: AISI 304 stainless steel
- 4) King pin: bushing in stainless steel
- 5) Swivel actions: double ball ring with grease lubrication

| mm  |    | kg   | CODE   | mm  | mm | mm | mm | daN |
|-----|----|------|--------|-----|----|----|----|-----|
| 100 | 30 | 0.69 | 685982 | 128 | 73 | 12 | 35 | 220 |
| 125 | 30 | 0.78 | 685983 | 156 | 73 | 12 | 37 | 220 |

## SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE



**INOX**



### Description

Tyre: red non-marking silicone rubber, hardness 80 Shore A, resistant to temperatures up to 250°C.

Centre: aluminium.

Hub with ball bearings with silicone grease for high temperatures, interference assembly in the seats obtained by moulding.

### Uses

Suitable for use at temperatures from -30 up to +250°C. Particularly suitable for intermittent use in baking ovens (maximum permanence at 250°C is of 30 minutes, with subsequent period of resting of at least 30 minutes, at room temperature). They have excellent elasticity features and guarantee an easy overcoming of obstacles on uneven flooring also; compared to high temperature solid wheels, they allow a significant noise reduction. They are combined with brackets and axle components specific for high temperatures; all wheels are also fitted with threadguards. Not suitable in presence of obstacles along the path or on delicate flooring.

### Environments of use

Suitable for industrial and institutional environments. They are resistant to medium-harsh chemical agents and humidity. Not recommended in areas with strong acids and oils.

|              |                                     |                                     |                          |                                     |              |                          |                                     |                                     |                          |
|--------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| WEAK ACIDS   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | WEAK BASES   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| STRONG ACIDS | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | STRONG BASES | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| WATER        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | HYDROCARBONS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| ALCOHOL      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | SOLVENTS     | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable for use on tiles, resin-cement; not recommended on abrasive, unpaved floors or in the presence of processing residues. Not suitable on delicate floor or with obstacles along the path. They do not mark the floor.



### Force required to push or tow a wheel

|   | 50 kg | 75 kg | 100 kg |
|---|-------|-------|--------|
| 100 mm  | <1    | 4     | ----   |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Available with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 80 daN - available diameters 100 mm  
Top plate and bolt hole fittings. Available with front brake.



#### Stainless steel standard-duty brackets NLX

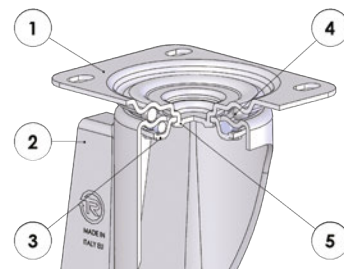
Maximum carrying capacity 80 daN - available diameters 100 mm  
Top plate and bolt hole fittings. Available with front brake.

SERIES **72G** SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE



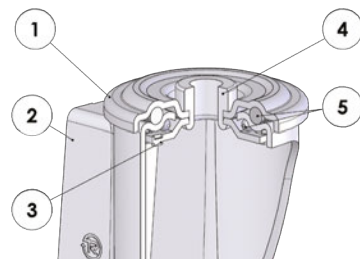
| mm  | mm | kg   | CODE   | mm | mm | Static | 4 km/h | 4 km/h | 250 °C | 250 °C | 250 °C |
|-----|----|------|--------|----|----|--------|--------|--------|--------|--------|--------|
| mm  | mm | kg   | CODE   | mm | mm | daN    | daN    | daN    | daN    | daN    | daN    |
| 100 | 40 | 0.43 | 722152 | 15 | 40 | 100    | 80     | 80     | 40     | 40     | 40     |

Standard-duty brackets NL - max carrying capacity 80 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication for high temperatures
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

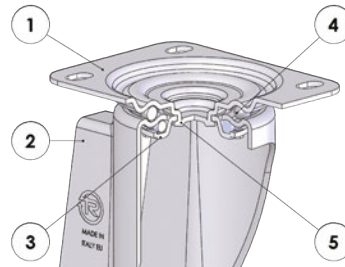
| mm  | mm | kg   | CODE     | kg   | CODE     | kg   | CODE     | mm  | mm     | mm    | mm | mm | mm  | daN | daN | 250 °C |
|-----|----|------|----------|------|----------|------|----------|-----|--------|-------|----|----|-----|-----|-----|--------|
| mm  | mm | kg   | CODE     | kg   | CODE     | kg   | CODE     | mm  | mm     | mm    | mm | mm | mm  | daN | daN |        |
| 100 | 40 | 0.96 | 724452PF | 0.71 | 726252PF | 1.17 | 727152PF | 128 | 100x85 | 80x60 | 9  | 35 | 120 | 80  | 40  |        |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication for high temperatures
- Available with total front foot brake

| mm  | mm | kg   | CODE     | kg   | CODE     | mm  | mm | mm | mm | mm  | daN | daN | 250 °C |
|-----|----|------|----------|------|----------|-----|----|----|----|-----|-----|-----|--------|
| mm  | mm | kg   | CODE     | kg   | CODE     | mm  | mm | mm | mm | mm  | daN | daN |        |
| 100 | 40 | 0.86 | 727352PF | 1.07 | 727452PF | 128 | 73 | 12 | 35 | 120 | 80  | 40  |        |

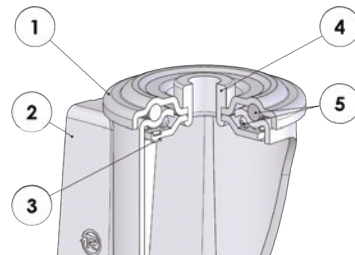
**Stainless steel standard-duty brackets NLX - max carrying capacity 80 daN**



**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Swivel actions: double stainless steel ball ring with grease lubrication for high temperatures
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  | mm | kg   | CODE     | kg   | CODE     | kg   | CODE     | mm  | mm     | mm    | mm | mm | mm  | mm | daN | daN    | 250 °C |  |
|-----|----|------|----------|------|----------|------|----------|-----|--------|-------|----|----|-----|----|-----|--------|--------|--|
| 100 | 40 | 0.96 | 724462PF | 0.71 | 726262PF | 1.17 | 727162PF | 128 | 100x85 | 80x60 | 9  | 35 | 120 | 80 | 40  | 4 km/h | 4 km/h |  |



**INOX**

- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) King pin: bushing in stainless steel
  - 5) Swivel actions: double stainless steel ball ring with grease lubrication for high temperatures
- Available with total front foot brake

| mm  | mm | kg   | CODE     | kg   | CODE     | mm  | mm | mm | mm | mm  | daN | daN | 250 °C |        |  |  |  |  |
|-----|----|------|----------|------|----------|-----|----|----|----|-----|-----|-----|--------|--------|--|--|--|--|
| 100 | 40 | 0.86 | 727362PF | 1.07 | 727462PF | 128 | 73 | 12 | 35 | 120 | 80  | 40  | 4 km/h | 4 km/h |  |  |  |  |

# PALLET TRUCK ROLLERS







SERIES **74** CONVEX VULKOLLAN®  
VULKOLLAN® ROLLERS  
WITH STEEL CENTRE

|          |              |             |
|----------|--------------|-------------|
| 80-85 mm | 400-1000 daN | 180-450 daN |
| 6 km/h   | -20 / +80 °C |             |

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SERIES **75**  
"TR" POLYURETHANE ROLLERS  
WITH STEEL CENTRE

|          |              |             |
|----------|--------------|-------------|
| 35-85 mm | 350-800 daN  | 200-475 daN |
| 6 km/h   | -20 / +80 °C |             |

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SERIE **75H**  
"TR" POLYURETHANE ROLLERS  
WITH STEEL CENTRE

|        |              |             |
|--------|--------------|-------------|
| 85 mm  | 480-890 daN  | 400-560 daN |
| 6 km/h | -20 / +80 °C |             |

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SERIES **76**  
POLYAMIDE 6 SOLID ROLLERS

|              |              |             |
|--------------|--------------|-------------|
| 40-85 mm     | 700-1200 daN | 335-500 daN |
| -30 / +80 °C |              |             |

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SERIES **77**  
"TR" POLYURETHANE ROLLERS  
WITH POLYAMIDE 6 CENTRE

|          |              |             |
|----------|--------------|-------------|
| 82-85 mm | 450-600 daN  | 300-380 daN |
| 6 km/h   | -20 / +80 °C |             |

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SERIES **78**  
THERMOPLASTIC POLYURETHANE  
ROLLERS WITH POLYAMIDE 6 CENTRE

|              |             |             |
|--------------|-------------|-------------|
| 82 mm        | 450-750 daN | 390-530 daN |
| -15 / +80 °C |             |             |







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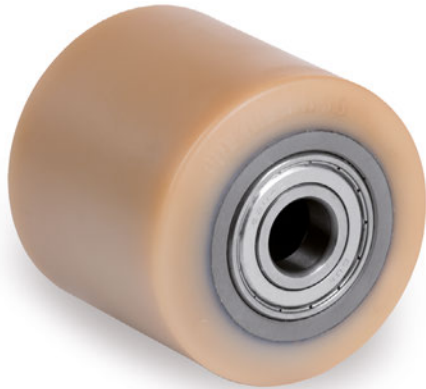


SERIES **79**  
"TR-ROLL" POLYURETHANE ROLLERS  
WITH STEEL CENTRE

|          |              |             |
|----------|--------------|-------------|
| 80-85 mm | 400-650 daN  | 400-650 daN |
| 6 km/h   | -20 / +70 °C |             |

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-  80-85 mm
-  93 Shore A
-  400-1000 daN  
4 km/h
-  320-800 daN  
6 km/h
-  250-500 daN
-  -20 / +80 °C



**Description**

Tyre: Vulkollan®, hardness 93 Shore A: excellent values of rolling resistance and elasticity, highly resistant to wear, tear and deformations.

Centre: obtained from a steel tube.

Hub with shielded ball bearing with interference assembly in the seats obtained by precision machining of the centre; also available without bearings.

























Model with labyrinth seals: protective plastic-rings, with interference assembly into the ball bearings. They ensure longer life, by preventing entry of dust and foreign bodies.

**Uses**

Excellent for use on electric pallet trucks, also in case of heavy loads and high speed handling (up to 16 km/h). Their excellent values of rolling resistance make the manual handling of heavy loads easier.

**Environments of use**

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |   |   |   |              |   |   |   |
|--------------|---|---|---|--------------|---|---|---|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

**Floors**

Suitable for tiles and cement-resin.  
Not suitable if voluminous obstacles are present.



### Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 600 kg | 800 kg |
|---|--------|--------|--------|--------|--------|--------|--------|
| 80x70 mm  | 1      | 2,2    | 3,4    | 4,7    | 7      | ----   | ----   |
| 80x90 mm  | <1     | 2      | 2,8    | 4,1    | 5,6    | 7,4    | 15     |
| 85x40 mm  | 1,2    | 3,1    | 6      | 8,5    | ----   | ----   | ----   |
| 85x70 mm  | <1     | 2,1    | 3,2    | 4,4    | 6,6    | 7,8    | ----   |
| 85x80 mm  | <1     | 2      | 2,9    | 4,2    | 5,5    | 7,5    | 13     |
| 85x90 mm  | <1     | 1,9    | 2,6    | 3,9    | 5,3    | 7      | 12     |
| 85x100 mm   | <1     | 1,8    | 2,4    | 3,5    | 5      | 6,6    | 11     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Options available to order

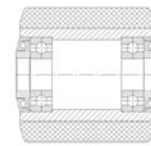


Rollers fitted with electrowelded brackets EE MHD



| mm | mm  | kg   | COD.   | kg   | COD.   | mm | mm  | mm | mm | daN         | daN        | daN         | daN        |  |
|----|-----|------|--------|------|--------|----|-----|----|----|-------------|------------|-------------|------------|--|
| 80 | 70  | 1,07 | 742202 | 0,83 | 744202 | 20 | 70  | 47 | 14 | <b>1000</b> | <b>410</b> | <b>700</b>  | <b>560</b> |  |
| 80 | 90  | 1,38 | 742105 | 1,14 | 744105 | 20 | 90  | 47 | 14 | <b>1200</b> | <b>470</b> | <b>900</b>  | <b>720</b> |  |
| 85 | 40  | 0,72 | 742121 | 0,48 | 744121 | 20 | 40  | 47 | 14 | <b>575</b>  | <b>250</b> | <b>400</b>  | <b>320</b> |  |
| 85 | 70  | 1,13 | 742122 | 0,89 | 744122 | 20 | 70  | 47 | 14 | <b>1000</b> | <b>430</b> | <b>700</b>  | <b>560</b> |  |
| 85 | 80  | 1,26 | 742123 | 1,02 | 744123 | 20 | 80  | 47 | 14 | <b>1050</b> | <b>460</b> | <b>800</b>  | <b>640</b> |  |
| 85 | 80  | 1,19 | 742224 | 0,91 | 744224 | 25 | 80  | 52 | 15 | <b>1050</b> | <b>460</b> | <b>800</b>  | <b>640</b> |  |
| 85 | 90  | 1,41 | 742125 | 1,17 | 744125 | 20 | 90  | 47 | 14 | <b>1200</b> | <b>480</b> | <b>900</b>  | <b>720</b> |  |
| 85 | 100 | 1,54 | 742127 | 1,30 | 744127 | 20 | 100 | 47 | 14 | <b>1300</b> | <b>500</b> | <b>1000</b> | <b>800</b> |  |

**With labyrinths**



Labyrinths: protective plastic-rings, with interference assembly in front of the ball bearings. They ensure longer life, protecting them from dust and foreign bodies that may limit the roller's free rotation.

| mm | mm | kg   | COD.   | mm | mm  | mm | mm   | daN         | daN        | daN        | daN        |  |  |  |
|----|----|------|--------|----|-----|----|------|-------------|------------|------------|------------|--|--|--|
| 80 | 65 | 0,98 | 743201 | 20 | 70  | 47 | 20,5 | <b>930</b>  | <b>400</b> | <b>650</b> | <b>520</b> |  |  |  |
| 80 | 85 | 1,32 | 743202 | 20 | 90  | 47 | 20,5 | <b>1130</b> | <b>460</b> | <b>850</b> | <b>680</b> |  |  |  |
| 85 | 65 | 1,07 | 743203 | 20 | 70  | 47 | 20,5 | <b>930</b>  | <b>410</b> | <b>750</b> | <b>600</b> |  |  |  |
| 85 | 75 | 1,20 | 743204 | 20 | 80  | 47 | 20,5 | <b>980</b>  | <b>450</b> | <b>750</b> | <b>600</b> |  |  |  |
| 85 | 75 | 1,13 | 743224 | 25 | 80  | 47 | 20,5 | <b>980</b>  | <b>450</b> | <b>750</b> | <b>600</b> |  |  |  |
| 85 | 85 | 1,35 | 743205 | 20 | 90  | 47 | 20,5 | <b>1130</b> | <b>470</b> | <b>850</b> | <b>680</b> |  |  |  |
| 85 | 95 | 1,48 | 743206 | 20 | 100 | 47 | 20,5 | <b>1230</b> | <b>490</b> | <b>950</b> | <b>760</b> |  |  |  |

**Options available to order**



Rollers fitted with electrowelded brackets EE MHD

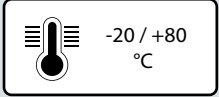


Rollers with customised dimensions



TR Lab, we work for the future

## "TR" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent values of rolling resistance and elasticity, highly resistant to wear.

Centre: obtained from a steel tube:

Hub with shielded ball bearing with interference assembly in the seats obtained by precision machining of the centre; also available without bearings.

Model with labyrinth seals: protective plastic-rings, with interference assembly into the ball bearings. They ensure longer life, by preventing entry of dust and foreign bodies.

### Uses

Excellent for use on manual pallet trucks, also in case of heavy loads. Their excellent values of rolling resistance make the manual handling of heavy loads easier. The model with electrowelded brackets allows handling heavy loads while maintaining a low centre of gravity. It is a common solution to move set design in the show business sector.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable for tiles and cement-resin.  
Not suitable if voluminous obstacles are present.



Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 600 kg | 800 kg |
|---|--------|--------|--------|--------|--------|--------|--------|
| 80x70 mm  | 1      | 2,4    | 3,7    | 5,1    | 7,6    | ----   | ----   |
| 80x90 mm  | <1     | 2,2    | 3,1    | 4,5    | 6,1    | 7,8    | ----   |
| 82x70 mm  | 1      | 2,4    | 3,6    | 5      | 7,5    | ----   | ----   |
| 82x85 mm  | <1     | 2,3    | 3,4    | 4,8    | 6,8    | 7,7    | ----   |
| 82x90 mm  | <1     | 2,1    | 3      | 4,3    | 6      | 7,6    | ----   |
| 82x100 mm   | <1     | 2      | 2,7    | 4      | 5,6    | 7,5    | 13,5   |
| 85x40 mm  | 1,2    | 3,4    | 6      | ----   | ----   | ----   | ----   |
| 85x70 mm  | <1     | 2,3    | 3,5    | 4,8    | 7,2    | ----   | ----   |
| 85x80 mm  | <1     | 2,2    | 3,1    | 4,6    | 6      | 8,6    | ----   |
| 85x90 mm  | <1     | 2,1    | 3,1    | 4,7    | 6,4    | 7,7    | ----   |
| 85x100 mm   | <1     | 1,9    | 2,6    | 3,8    | 5,4    | 7,2    | 12     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

Available with brackets



**Institutional brackets**

Maximum carrying capacity 150 daN - available diameters 35-50 mm  
Top plate and bolt hole fitting.



**Electrowelded brackets EE MHD**

Maximum carrying capacity 800 daN - available diameters 80-85 mm  
Top plate fitting.



| mm | mm  | kg   | COD.   | kg   | COD.   | mm | mm  | mm | mm | daN         | daN        | daN        | daN        | daN        |
|----|-----|------|--------|------|--------|----|-----|----|----|-------------|------------|------------|------------|------------|
| 35 | 27  | 0,06 | 752099 |      |        | 6  | 30  | 22 | 7  |             |            | <b>100</b> |            |            |
| 50 | 40  | 0,23 | 752100 | 0,18 | 754100 | 15 | 40  | 35 | 11 |             |            | <b>150</b> |            |            |
| 80 | 40  | 0,82 | 752101 | 0,62 | 754101 | 20 | 40  | 47 | 14 | <b>400</b>  | <b>200</b> |            | <b>350</b> | <b>235</b> |
| 80 | 70  | 1,06 | 752102 | 0,82 | 754102 | 20 | 70  | 47 | 14 | <b>700</b>  | <b>390</b> |            | <b>560</b> | <b>375</b> |
| 80 | 90  | 1,35 | 752105 | 1,11 | 754105 | 20 | 90  | 47 | 14 | <b>900</b>  | <b>430</b> |            | <b>700</b> | <b>470</b> |
| 82 | 60  | 0,95 | 752131 | 0,71 | 754131 | 20 | 67  | 47 | 14 | <b>600</b>  | <b>360</b> |            | <b>480</b> | <b>325</b> |
| 82 | 70  | 1,09 | 752132 | 0,85 | 754132 | 20 | 70  | 47 | 14 | <b>700</b>  | <b>400</b> |            | <b>560</b> | <b>375</b> |
| 82 | 70  | 1,04 | 752232 | 0,84 | 754232 | 20 | 70  | 47 | 16 | <b>700</b>  | <b>400</b> |            | <b>560</b> | <b>375</b> |
| 82 | 75  | 1,14 | 752143 | 0,90 | 754143 | 20 | 75  | 47 | 14 | <b>750</b>  | <b>400</b> |            | <b>590</b> | <b>400</b> |
| 82 | 85  | 1,27 | 752134 | 1,03 | 754134 | 20 | 85  | 47 | 14 | <b>850</b>  | <b>425</b> |            | <b>670</b> | <b>450</b> |
| 82 | 90  | 1,33 | 752135 | 1,09 | 754135 | 20 | 90  | 47 | 14 | <b>900</b>  | <b>440</b> |            | <b>700</b> | <b>470</b> |
| 82 | 100 | 1,45 | 752137 | 1,21 | 754137 | 20 | 100 | 47 | 14 | <b>1000</b> | <b>460</b> |            | <b>800</b> | <b>540</b> |
| 85 | 40  | 0,72 | 752121 | 0,48 | 754121 | 20 | 40  | 47 | 14 | <b>400</b>  | <b>250</b> |            | <b>350</b> | <b>235</b> |
| 85 | 70  | 1,12 | 752122 | 0,88 | 754122 | 20 | 70  | 47 | 14 | <b>700</b>  | <b>410</b> |            | <b>560</b> | <b>375</b> |
| 85 | 75  | 1,17 | 752129 | 0,93 | 754129 | 20 | 75  | 47 | 14 | <b>750</b>  | <b>410</b> |            | <b>590</b> | <b>400</b> |
| 85 | 80  | 1,25 | 752123 | 1,01 | 754123 | 20 | 80  | 47 | 14 | <b>800</b>  | <b>430</b> |            | <b>630</b> | <b>425</b> |
| 85 | 80  | 1,08 | 752223 | 0,90 | 754223 | 25 | 80  | 52 | 15 | <b>800</b>  | <b>430</b> |            | <b>630</b> | <b>425</b> |
| 85 | 90  | 1,39 | 752125 | 1,15 | 754125 | 20 | 90  | 47 | 14 | <b>900</b>  | <b>450</b> |            | <b>700</b> | <b>470</b> |
| 85 | 100 | 1,52 | 752127 | 1,28 | 754127 | 20 | 100 | 47 | 14 | <b>1000</b> | <b>475</b> |            | <b>800</b> | <b>540</b> |

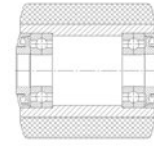
Options available to order














Rollers with customised dimensions



With labyrinths

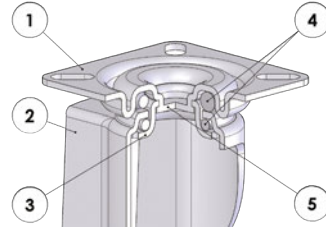


Labyrinths: protective plastic-rings, with interference assembly in front of the ball bearings. They ensure longer life, protecting them from dust and foreign bodies that may limit the roller's free rotation.

|  |  |  |  |  |  |  |  |  |  |  |            |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|--|------------|--|--|--|--|
| mm   | mm  | kg  | COD.  | mm  | mm  | mm  | mm  | daN   | daN   | daN  | daN        |  |  |  |  |
| 80   | 65  | 0.97  | 753101  | 20  | 70  | 47  | 20.5  | <b>650</b>  | <b>360</b>  | <b>530</b>   | <b>350</b> |  |  |  |  |
| 80   | 85  | 1.29  | 753102  | 20  | 90  | 47  | 20.5  | <b>850</b>  | <b>420</b>  | <b>670</b>   | <b>450</b> |  |  |  |  |
| 82   | 65  | 1.03  | 753103  | 20  | 70  | 47  | 20.5  | <b>650</b>  | <b>380</b>  | <b>530</b>   | <b>350</b> |  |  |  |  |
| 82   | 80  | 1.21  | 753104  | 20  | 85  | 47  | 20.5  | <b>800</b>  | <b>405</b>  | <b>630</b>   | <b>425</b> |  |  |  |  |
| 82   | 85  | 1.27  | 753105  | 20  | 90  | 47  | 20.5  | <b>850</b>  | <b>425</b>  | <b>670</b>   | <b>450</b> |  |  |  |  |
| 82   | 95  | 1.39  | 753106  | 20  | 100   | 47  | 20.5  | <b>950</b>  | <b>450</b>  | <b>750</b>   | <b>500</b> |  |  |  |  |
| 85   | 65  | 1.06  | 753107  | 20  | 70  | 47  | 20.5  | <b>650</b>  | <b>390</b>  | <b>530</b>   | <b>350</b> |  |  |  |  |
| 85   | 75  | 1.19  | 753108  | 20  | 80  | 47  | 20.5  | <b>750</b>  | <b>410</b>  | <b>590</b>   | <b>400</b> |  |  |  |  |
| 85   | 75  | 1.12  | 753223  | 25  | 80  | 47  | 20.5  | <b>750</b>  | <b>410</b>  | <b>590</b>   | <b>400</b> |  |  |  |  |
| 85   | 85  | 1.33  | 753109  | 20  | 90  | 47  | 20.5  | <b>850</b>  | <b>440</b>  | <b>670</b>   | <b>450</b> |  |  |  |  |
| 85   | 95  | 1.46  | 753110  | 20  | 100   | 47  | 20.5  | <b>950</b>  | <b>460</b>  | <b>750</b>   | <b>500</b> |  |  |  |  |

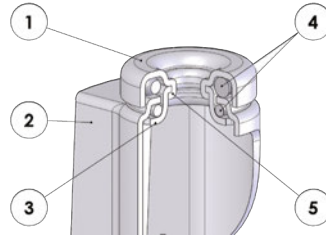
**"TR" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE**

**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

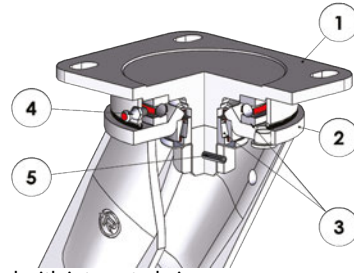
| mm | mm | kg   | CODE   | kg   | CODE   | mm   | mm    | mm    | mm | mm   | mm | daN        |
|----|----|------|--------|------|--------|------|-------|-------|----|------|----|------------|
| 35 | 27 | 0,25 | 757300 | 0,27 | 757400 | 53   | 60x60 | 45x45 | 6  | 17   | 70 | <b>100</b> |
| 50 | 40 | 0,57 | 757301 | 0,63 | 757401 | 71,5 | 60x60 | 45x45 | 6  | 25,5 | 83 | <b>150</b> |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm | mm | kg   | CODE   | kg   | CODE   | mm | mm | mm | mm   | mm | mm | daN        |
|----|----|------|--------|------|--------|----|----|----|------|----|----|------------|
| 35 | 27 | 0,21 | 757500 | 0,24 | 757600 | 56 | 55 | 10 | 17   | 70 |    | <b>100</b> |
| 50 | 40 | 0,56 | 757501 | 0,61 | 757601 | 71 | 55 | 10 | 25,5 | 83 |    | <b>150</b> |

**Electrowelded brackets EE MHD - max carrying capacity 630 daN**



- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

| mm | mm | kg   | COD.   | kg   | COD.   | mm    | mm      | mm     | mm | mm | 4 km/h     | 6 km/h     | daN | daN |  |
|----|----|------|--------|------|--------|-------|---------|--------|----|----|------------|------------|-----|-----|--|
| 80 | 70 | 3,96 | 758301 | 2,98 | 758401 | 130   | 135x110 | 105x80 | 11 | 55 | <b>560</b> | <b>375</b> |     |     |  |
| 85 | 70 | 4,02 | 758311 | 3,04 | 758411 | 132,5 | 135x110 | 105x80 | 11 | 55 | <b>560</b> | <b>375</b> |     |     |  |
| 85 | 80 | 4,15 | 758321 | 3,17 | 758421 | 132,5 | 135x110 | 105x80 | 11 | 55 | <b>630</b> | <b>425</b> |     |     |  |

## "TR" POLYURETHANE PALLET TRUCK ROLLERS FOR ELECTRIC PALLET TRUCKS WITH STEEL CENTRE

-  85 mm
-  92 Shore A
-  480-890 daN  
4 km/h
-  390-720 daN  
6 km/h
-  400-560 daN
-  -20 / +80 °C



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent values of rolling resistance and elasticity, highly resistant to wear.

Centre: obtained from a steel tube:

Hub with Sealed ball bearings 6006 type 2RS, protective plastic-rings, with plastic labyrinths with integrated lip, to protect them from dust and other elements that could limit their correct functioning over time.

### Uses

Designed for assembly on electric pallet trucks, both walk-behind model and with operator on board.

They ensure a long product life under continuous mechanical handling. Their excellent values of rolling resistance make anyway the manual handling of heavy loads easier.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |



*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable for tiles and cement-resin.  
Not suitable if voluminous obstacles are present.

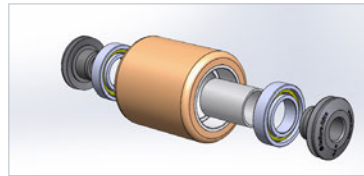














Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 600 kg | 800 kg |
|---|--------|--------|--------|--------|--------|--------|--------|
| 85x60 mm  | <1     | 2,2    | 3,6    | 5      | ----   | ----   | ----   |
| 85x65 mm  | <1     | 2,2    | 3,6    | 5      | ----   | ----   | ----   |
| 85x70 mm  | <1     | 1,9    | 2,9    | 4      | 6      | ----   | ----   |
| 85x75 mm  | <1     | 1,9    | 2,9    | 4      | 6      | ----   | ----   |
| 85x80 mm  | <1     | 1,8    | 2,6    | 3,8    | 5      | 7,2    | ----   |
| 85x85 mm  | <1     | 1,8    | 2,6    | 3,8    | 5      | 7,2    | ----   |
| 85x90 mm  | <1     | 1,7    | 2,4    | 3,5    | 4,8    | 6,4    | ----   |
| 85x95 mm  | <1     | 1,7    | 2,4    | 3,5    | 4,8    | 6,4    | ----   |
| 85x100 mm   | <1     | 1,6    | 2,2    | 3,2    | 4,5    | 6      | 10     |
| 85x105 mm   | <1     | 1,6    | 2,2    | 3,2    | 4,5    | 6      | 10     |
| 85x110 mm   | <1     | 1,5    | 2      | 3      | 4,2    | 5,7    | 10,5   |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

## "TR" POLYURETHANE PALLET TRUCK ROLLERS FOR ELECTRIC PALLET TRUCKS WITH STEEL CENTRE

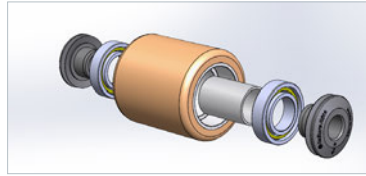
















|  |  |  |           |  |        |  |  |  |  |  |  |  |  |
|---|---|---|-----------|---|--------|---|---|---|---|---|---|---|---|
|   |   | kg  | COD.      | kg  | COD.   |   |   |   |   |   |   |   |   |
| 85  | 60  | 0,84  | 753151F12 | 0,54  | 755151 | 12  | 65  | 55  | 22  | 600   | 400   | 480   | 390   |
| 85  | 60  | 0,84  | 753151F17 | 0,54  | 755151 | 17  | 65  | 55  | 22  | 600   | 400   | 480   | 390   |
| 85  | 60  | 0,84  | 753151F20 | 0,54  | 755151 | 20  | 65  | 55  | 22  | 600   | 400   | 480   | 390   |
| 85  | 60  | 0,82  | 753151F25 | 0,54  | 755151 | 25  | 65  | 55  | 22  | 600   | 400   | 480   | 390   |
| 85  | 65  | 0,96  | 753152F12 | 0,65  | 755152 | 12  | 70  | 55  | 22  | 650   | 400   | 530   | 430   |
| 85  | 65  | 0,95  | 753152F17 | 0,65  | 755152 | 17  | 70  | 55  | 22  | 650   | 400   | 530   | 430   |
| 85  | 65  | 0,95  | 753152F20 | 0,65  | 755152 | 20  | 70  | 55  | 22  | 650   | 400   | 530   | 430   |
| 85  | 65  | 0,94  | 753152F25 | 0,65  | 755152 | 25  | 70  | 55  | 22  | 650   | 400   | 530   | 430   |
| 85  | 70  | 1,04  | 753153F12 | 0,72  | 755153 | 12  | 75  | 55  | 22  | 700   | 450   | 560   | 450   |
| 85  | 70  | 1,03  | 753153F17 | 0,72  | 755153 | 17  | 75  | 55  | 22  | 700   | 450   | 560   | 450   |
| 85  | 70  | 1,03  | 753153F20 | 0,72  | 755153 | 20  | 75  | 55  | 22  | 700   | 450   | 560   | 450   |
| 85  | 70  | 1,02  | 753153F25 | 0,72  | 755153 | 25  | 75  | 55  | 22  | 700   | 450   | 560   | 450   |
| 85  | 75  | 1,12  | 753154F12 | 0,79  | 755154 | 12  | 80  | 55  | 22  | 750   | 450   | 590   | 480   |
| 85  | 75  | 1,11  | 753154F17 | 0,79  | 755154 | 17  | 80  | 55  | 22  | 750   | 450   | 590   | 480   |
| 85  | 75  | 1,11  | 753154F20 | 0,79  | 755154 | 20  | 80  | 55  | 22  | 750   | 450   | 590   | 480   |
| 85  | 75  | 1,10  | 753154F25 | 0,79  | 755154 | 25  | 80  | 55  | 22  | 750   | 450   | 590   | 480   |
| 85  | 80  | 1,19  | 753155F12 | 0,86  | 755155 | 12  | 85  | 55  | 22  | 800   | 500   | 630   | 510   |
| 85  | 80  | 1,19  | 753155F17 | 0,86  | 755155 | 17  | 85  | 55  | 22  | 800   | 500   | 630   | 510   |
| 85  | 80  | 1,19  | 753155F20 | 0,86  | 755155 | 20  | 85  | 55  | 22  | 800   | 500   | 630   | 510   |
| 85  | 80  | 1,18  | 753155F25 | 0,86  | 755155 | 25  | 85  | 55  | 22  | 800   | 500   | 630   | 510   |
| 85  | 85  | 1,27  | 753156F12 | 0,92  | 755156 | 12  | 90  | 55  | 22  | 850   | 500   | 670   | 540   |
| 85  | 85  | 1,26  | 753156F17 | 0,92  | 755156 | 17  | 90  | 55  | 22  | 850   | 500   | 670   | 540   |
| 85  | 85  | 1,26  | 753156F20 | 0,92  | 755156 | 20  | 90  | 55  | 22  | 850   | 500   | 670   | 540   |
| 85  | 85  | 1,25  | 753156F25 | 0,92  | 755156 | 25  | 90  | 55  | 22  | 850   | 500   | 670   | 540   |

### Options available to order








Rollers with labrynth and axle tube with bore 13 mm



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |    |
|--|---|---|---|---|---|---|---|---|---|--|---|---|---|----|----|
|  |   |   |   |   |   |   |   |   |   |  |   |   |   | mm | mm |
| 85   | 90  | 1,34  | 753157F12   | 0,99  | 755157  | 12  | 95  | 55  | 22  | <b>900</b>   | <b>525</b>  | <b>700</b>  | <b>560</b>  |    |    |
| 85   | 90  | 1,34  | 753157F17   | 0,99  | 755157  | 17  | 95  | 55  | 22  | <b>900</b>   | <b>525</b>  | <b>700</b>  | <b>560</b>  |    |    |
| 85   | 90  | 1,34  | 753157F20   | 0,99  | 755157  | 20  | 95  | 55  | 22  | <b>900</b>   | <b>525</b>  | <b>700</b>  | <b>560</b>  |    |    |
| 85   | 90  | 1,33  | 753157F25   | 0,99  | 755157  | 25  | 95  | 55  | 22  | <b>900</b>   | <b>525</b>  | <b>700</b>  | <b>560</b>  |    |    |
| 85   | 95  | 1,42  | 753158F12   | 1,06  | 755158  | 12  | 100   | 55  | 22  | <b>950</b>   | <b>525</b>  | <b>750</b>  | <b>610</b>  |    |    |
| 85   | 95  | 1,41  | 753158F17   | 1,06  | 755158  | 17  | 100   | 55  | 22  | <b>950</b>   | <b>525</b>  | <b>750</b>  | <b>610</b>  |    |    |
| 85   | 95  | 1,41  | 753158F20   | 1,06  | 755158  | 20  | 100   | 55  | 22  | <b>950</b>   | <b>525</b>  | <b>750</b>  | <b>610</b>  |    |    |
| 85   | 95  | 1,40  | 753158F25   | 1,06  | 755158  | 25  | 100   | 55  | 22  | <b>950</b>   | <b>525</b>  | <b>750</b>  | <b>610</b>  |    |    |
| 85   | 100   | 1,50  | 753159F12   | 1,13  | 755159  | 12  | 105   | 55  | 22  | <b>1000</b>  | <b>540</b>  | <b>800</b>  | <b>640</b>  |    |    |
| 85   | 100   | 1,49  | 753159F17   | 1,13  | 755159  | 17  | 105   | 55  | 22  | <b>1000</b>  | <b>540</b>  | <b>800</b>  | <b>640</b>  |    |    |
| 85   | 100   | 1,49  | 753159F20   | 1,13  | 755159  | 20  | 105   | 55  | 22  | <b>1000</b>  | <b>540</b>  | <b>800</b>  | <b>640</b>  |    |    |
| 85   | 100   | 1,48  | 753159F25   | 1,13  | 755159  | 25  | 105   | 55  | 22  | <b>1000</b>  | <b>540</b>  | <b>800</b>  | <b>640</b>  |    |    |
| 85   | 105   | 1,57  | 753160F12   | 1,19  | 755160  | 12  | 110   | 55  | 22  | <b>1050</b>  | <b>540</b>  | <b>840</b>  | <b>680</b>  |    |    |
| 85   | 105   | 1,56  | 753160F17   | 1,19  | 755160  | 17  | 110   | 55  | 22  | <b>1050</b>  | <b>540</b>  | <b>840</b>  | <b>680</b>  |    |    |
| 85   | 105   | 1,56  | 753160F20   | 1,19  | 755160  | 20  | 110   | 55  | 22  | <b>1050</b>  | <b>540</b>  | <b>840</b>  | <b>680</b>  |    |    |
| 85   | 105   | 1,55  | 753160F25   | 1,19  | 755160  | 25  | 110   | 55  | 22  | <b>1050</b>  | <b>540</b>  | <b>840</b>  | <b>680</b>  |    |    |
| 85   | 110   | 1,65  | 753161F12   | 1,26  | 755161  | 12  | 115   | 55  | 22  | <b>1100</b>  | <b>560</b>  | <b>890</b>  | <b>720</b>  |    |    |
| 85   | 110   | 1,64  | 753161F17   | 1,26  | 755161  | 17  | 115   | 55  | 22  | <b>1100</b>  | <b>560</b>  | <b>890</b>  | <b>720</b>  |    |    |
| 85   | 110   | 1,64  | 753161F20   | 1,26  | 755161  | 20  | 115   | 55  | 22  | <b>1100</b>  | <b>560</b>  | <b>890</b>  | <b>720</b>  |    |    |
| 85   | 110   | 1,63  | 753161F25   | 1,26  | 755161  | 25  | 115   | 55  | 22  | <b>1100</b>  | <b>560</b>  | <b>890</b>  | <b>720</b>  |    |    |

## POLYAMIDE 6 PALLET TRUCK ROLLERS

-  40-85 mm
-  70 Shore D
-  700-1200 daN  
4 km/h
-  335-500 daN
-  -30 / +80 °C



### Description

Solid polyamide 6 pallet truck rollers, hardness 70 Shore D; excellent values of rolling and impact resistance. Reduced deformation under load.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings. Hub with plain bore hole which directly houses the axle.



### Uses

Suitable for use on manual pallet trucks, also with humidity and highly aggressive chemical agents.

Their excellent values of rolling resistance make the manual handling of heavy loads easier. It is specifically recommended for use in the food and canning industries.

### Environments of use

Suitable for industrial environments, also in presence of humidity and chemical agents. Not recommended in areas with strong organic acids and concentrated mineral acids.

|              |   |   |   |              |   |   |   |
|--------------|---|---|---|--------------|---|---|---|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.



### Floors

Suitable for tiles and cement-resin.  
Not recommended in presence of obstacles.  
They may damage fragile flooring.
















Force required to push or tow a wheel







|   | 100 kg | 200 kg | 300 kg | 500 kg | 600 kg | 800 kg | 1000 kg |
|---|--------|--------|--------|--------|--------|--------|---------|
| 82x60 mm  | 1.2    | 2.6    | 4.5    | 7      | 8.7    | ---    | ---     |
| 82x70 mm  | 1.2    | 2.5    | 3.8    | 6.5    | 7.9    | 10.8   | ---     |
| 82x90 mm  | < 1    | 1.9    | 2.9    | 5.5    | 6      | 8.4    | 10.8    |
| 82x100 mm   | < 1    | 1.7    | 2.6    | 5      | 5.5    | 7.5    | 9.7     |




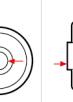


For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.



|  |  |  |  |  |  |  |  |  |  |  |     |      |
|---|---|---|---|---|---|---|---|---|---|---|-----|------|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | daN   | daN | daN  |
| 82  | 60  | 0.47  | 763011  | 0.23  | 761011  | 20  | 60  | 47  | 14  | 1000  | 335 | 700  |
| 82  | 70  | 0.49  | 763012  | 0.25  | 761012  | 20  | 70  | 47  | 14  | 1100  | 350 | 850  |
| 82  | 90  | 0.57  | 763014  | 0.33  | 761014  | 20  | 90  | 47  | 14  | 1300  | 450 | 1100 |
| 82  | 100   | 0.65  | 763015  | 0.41  | 761015  | 20  | 100   | 47  | 14  | 1400  | 500 | 1200 |



|  |  |  |  |  |  |
|---|---|---|---|---|---|
| mm  | mm  | kg  | CODE  | mm  | mm  |
| 50  | 55  | 0.12  | 760002  | 12  | 55  |

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| mm  | mm  | kg  | CODE  | mm  | mm  |
| 40  | 43  | 0.05  | 760001  | 17  | 45  |

Options available to order



Rollers fitted with 25 mm bore ball bearings

## "TR" POLYURETHANE PALLET TRUCK ROLLERS WITH POLYAMIDE CENTRE 6

-  82-85 mm
-  92 Shore A
-  450-600 daN  
4 km/h
-  360-480 daN  
6 km/h
-  320-470 daN
-  -20 / +80 °C



### Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent values of rolling resistance and elasticity, highly resistant to wear.

Centre: polyamide 6.



Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Suitable for use on manual and electric pallet trucks, with speed up to 6 km/h. Their excellent values of rolling resistance make the manual handling of heavy loads easier.

### Environments of use

Designed for industrial environments, even in presence of medium-harsh chemical agents. Not recommended in areas with strong organic acids and mineral acids.

|              |   |   |   |              |   |   |   |
|--------------|---|---|---|--------------|---|---|---|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

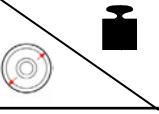

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

Suitable for tiles and cement-resin.  
Not suitable if voluminous obstacles are present.
















Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 600 kg |
|---|--------|--------|--------|--------|--------|--------|
| 82x70 mm  | 1.1    | 2.7    | 5      | 7.8    | ----   | ----   |
| 82x90 mm  | < 1    | 2.1    | 4      | 6.6    | 9.7    | ----   |
| 82x100 mm   | < 1    | 1.9    | 3.5    | 5.4    | 7.8    | 10.5   |
| 85x70 mm  | < 1    | 2.5    | 4.7    | 7.6    | 11     | ----   |
| 85x90 mm  | < 1    | 2.3    | 4      | 6      | 8      | 11     |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single roller at the constant speed of 4 km/h on smooth floor. For manual handling of a trolley choose diameters that have values < 5 daN, for frequent handling choose values < 3 da N.



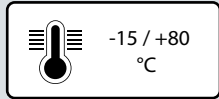
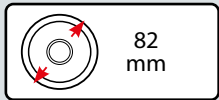
|  |  |  kg |  |  kg |  |  |  |  |  |  Static |  4 km/h |  6 km/h |            |
|---|---|--|---|--|---|---|---|---|---|--|--|--|------------|
| mm  | mm  | kg   | CODE  | kg   | CODE  | mm  | mm  | mm  | mm  | daN  | daN  | daN  | daN        |
| 82  | 70  | 0.60   | 772132  | 0.36   | 774132  | 20  | 70  | 47  | 14  | <b>550</b>   | <b>300</b>   | <b>450</b>   | <b>360</b> |
| 82  | 90  | 0.70   | 772135  | 0.46   | 774135  | 20  | 90  | 47  | 14  | <b>610</b>   | <b>340</b>   | <b>510</b>   | <b>400</b> |
| 82  | 100   | 0.76   | 772137  | 0.52   | 774137  | 20  | 100   | 47  | 14  | <b>700</b>   | <b>380</b>   | <b>600</b>   | <b>480</b> |
| 85  | 70  | 0.65   | 772122  | 0.41   | 774122  | 20  | 70  | 47  | 14  | <b>600</b>   | <b>310</b>   | <b>500</b>   | <b>400</b> |
| 85  | 90  | 0.76   | 772125  | 0.52   | 774125  | 20  | 90  | 47  | 14  | <b>700</b>   | <b>350</b>   | <b>600</b>   | <b>480</b> |

Options available to order



Rollers fitted with 25 mm bore ball bearings

## THERMOPLASTIC POLYURETHANE PALLET TRUCK ROLLERS WITH POLYAMIDE CENTRE 6



### Description

Tyre: thermoplastic polyurethane, hardness 60 Shore D, excellent values of rolling resistance and elasticity, highly resistant to wear and tear.

Centre: polyamide 6.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Suitable for use on manual pallet trucks, also with humidity and highly aggressive chemical agents.

Their excellent values of rolling resistance make the manual handling of heavy loads easier.

It is specifically recommended for use in the food and canning industries.

### Environments of use

Suitable for industrial environments, also in presence of humidity and chemical agents. Not recommended in areas with strong organic acids and concentrated mineral acids.

|              |  |  |  |
|--------------|--|--|--|
| WEAK ACIDS   |  |  |  |
| STRONG ACIDS |  |  |  |
| WATER        |  |  |  |
| ALCOHOL      |  |  |  |

|              |  |  |  |
|--------------|--|--|--|
| WEAK BASES   |  |  |  |
| STRONG BASES |  |  |  |
| HYDROCARBONS |  |  |  |
| SOLVENTS     |  |  |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for tiles and cement-resin.

Not suitable if voluminous obstacles are present.














Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 600 kg | 700 kg |
|---|--------|--------|--------|--------|--------|--------|--------|
| 82x60 mm  | 1.2    | 2.4    | 3.8    | 5.2    | ---    | ---    | ---    |
| 82x70 mm  | < 1    | 2      | 3.3    | 4.8    | 6.5    | ---    | ---    |
| 82x80 mm  | < 1    | 1.5    | 2.4    | 3.7    | 5.2    | 7      | ---    |
| 82x90 mm  | < 1    | 1.5    | 2.4    | 3.6    | 4.8    | 6.1    | 7.5    |
| 82x100 mm   | < 1    | 1.5    | 2.4    | 3.5    | 4.7    | 5.9    | 7.3    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.






|  |  |  |  |  |  |  |  |  |  |  |            |            |  |  |  |
|---|---|---|---|---|---|---|---|--|---|---|------------|------------|--|--|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm   | mm  | daN   | daN        | daN        |  |  |  |
| 82  | 60  | 0.47  | 782101  | 0.27  | 784101  | 20  | 60  | 47   | 14  | <b>450</b>  | <b>390</b> | <b>450</b> |  |  |  |
| 82  | 70  | 0.53  | 782102  | 0.32  | 784102  | 20  | 70  | 47   | 14  | <b>500</b>  | <b>410</b> | <b>500</b> |  |  |  |
| 82  | 80  | 0.59  | 782103  | 0.38  | 784103  | 20  | 80  | 47   | 14  | <b>600</b>  | <b>500</b> | <b>600</b> |  |  |  |
| 82  | 90  | 0.64  | 782104  | 0.43  | 784104  | 20  | 90  | 47   | 14  | <b>700</b>  | <b>525</b> | <b>700</b> |  |  |  |
| 82  | 100   | 0.69  | 782105  | 0.49  | 784105  | 20  | 100   | 47   | 14  | <b>750</b>  | <b>530</b> | <b>750</b> |  |  |  |

Options available to order



Rollers fitted with 25 mm bore ball bearings

## “TR-ROLL” PALLET TRUCK ROLLERS WITH STEEL CENTRE

-  82-85 mm
-  75 Shore A
-  400-650 daN  
4 km/h
-  320-520 daN  
6 km/h
-  400-650 daN
-  -20 / +70 °C



### Description

Tyre: TR-Roll polyurethane; hardness 75 Shore A; excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: obtained from a steel tube.

Hub with shielded ball bearing with interference assembly in the seats obtained by precision machining of the centre; also available without bearings.


### Uses

Excellent for use on electric pallet trucks, also in case of heavy loads and high speed handling (up to 12 km/h; for applications at higher speeds please contact Tellure Rôta). They guarantee silent running and vibration damping and are suitable also on uneven surfaces and in presence of obstacles.

Their excellent values of rolling resistance make the manual handling of heavy loads easier.

### Environments of use

Designed for industrial environments, even in the presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

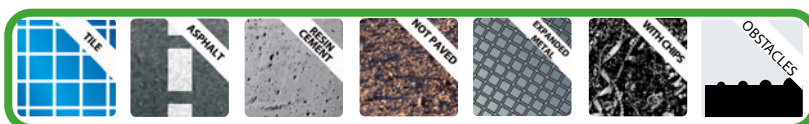
|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for all types of industrial floors, even outdoors. Facilitates the overcoming of obstacles.

It does not damage the floors.














Force required to push or tow a wheel

|   | 100 kg | 200 kg | 400 kg | 500 kg | 600 kg | 700 kg |
|---|--------|--------|--------|--------|--------|--------|
| 80x90 mm  | <1     | 1,5    | 3,5    | 4,5    | 5,5    |        |
| 82x60 mm  | 1      | 2      | 3,5    |        |        |        |
| 82x70 mm  | <1     | 1,5    | 2,5    | 4      |        |        |
| 82x90 mm  | <1     | 1      | 2,5    | 3,5    | 4,5    |        |
| 82x100 mm   | <1     | 1,5    | 2,5    | 3      | 3,5    | 4,5    |
| 85x70 mm  | <1     | 1,5    | 2,8    | 5      |        |        |
| 85x80 mm  | <1     | 1,5    | 2,5    | 3,5    |        |        |
| 85x90mm   | <1     | 1      | 2,5    | 3,5    | 4,5    |        |
| 85x100 mm   | <1     | 1      | 2      | 3      | 3,5    |        |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.



|  |  |  |  |  |  |  |  |  |  |  |            |            |            |
|--|---|---|---|---|---|---|---|--|---|---|------------|------------|------------|
| mm   | mm  | kg  | COD.  | kg  | COD.  | mm  | mm  | mm   | mm  | daN   | daN        | daN        | daN        |
| 80   | 90  | 1,25  | 792105  | 1,06  | 794105  | 20  | 90  | 47   | 14  | <b>750</b>  | <b>490</b> | <b>580</b> | <b>460</b> |
| 82   | 60  | 0,87  | 792121  | 0,67  | 794121  | 20  | 60  | 47   | 14  | <b>500</b>  | <b>400</b> | <b>400</b> | <b>320</b> |
| 82   | 70  | 0,98  | 792122  | 0,79  | 794122  | 20  | 70  | 47   | 14  | <b>550</b>  | <b>450</b> | <b>450</b> | <b>360</b> |
| 82   | 90  | 1,21  | 792125  | 1,03  | 794125  | 20  | 90  | 47   | 14  | <b>750</b>  | <b>580</b> | <b>580</b> | <b>460</b> |
| 82   | 100   | 1,34  | 792127  | 1,15  | 794127  | 20  | 100   | 47   | 14  | <b>850</b>  | <b>620</b> | <b>650</b> | <b>520</b> |
| 85   | 70  | 1,04  | 792132  | 0,84  | 794132  | 20  | 70  | 47   | 14  | <b>550</b>  | <b>450</b> | <b>450</b> | <b>360</b> |
| 85   | 80  | 1,16  | 792133  | 0,96  | 794133  | 20  | 80  | 47   | 14  | <b>600</b>  | <b>520</b> | <b>520</b> | <b>400</b> |
| 85   | 90  | 1,28  | 792135  | 1,08  | 794135  | 20  | 90  | 47   | 16  | <b>750</b>  | <b>580</b> | <b>580</b> | <b>460</b> |
| 85   | 100   | 1,40  | 792137  | 1,20  | 794137  | 20  | 100   | 47   | 14  | <b>850</b>  | <b>650</b> | <b>650</b> | <b>520</b> |

Options available to order



Rollers fitted with 25 mm bore ball bearings



Rollers with labyrinths

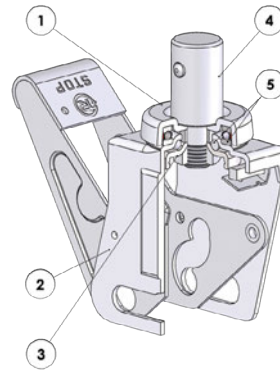
# SCAFFOLDINGS





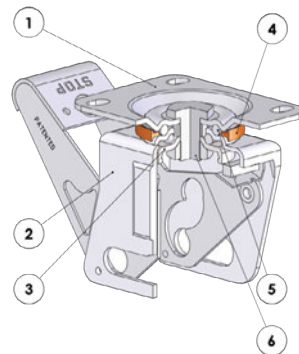
Thermoplastic polyurethane wheels with polyamide 6 centre

Wheel description on page 92-94




- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: diam. 150-200 mm: solid stem in steel and nut locked by mechanical deformation; diam. 125 mm: cold-headed solid stem
- 5) Swivel actions: diam. 125-150 mm: grease-lubricated double ball raceways; diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

| 1 PEDAL |    | 2 PEDALS |        |      |        |     |    |    |    |    |     |            |            |  |  |
|---------|----|----------|--------|------|--------|-----|----|----|----|----|-----|------------|------------|--|--|
| mm      | mm | kg       | CODE   | kg   | CODE   | mm  | mm | mm | mm | mm | mm  | daN        | daN        |  |  |
| 125     | 35 | 1.72     | 609553 | 1.94 | 609563 | 150 | 89 | 38 | 57 | 30 | 130 | <b>250</b> | <b>600</b> |  |  |
| 150     | 45 | 3.16     | 609554 | 3.58 | 609564 | 192 | 83 | 38 | 57 | 40 | 150 | <b>300</b> | <b>700</b> |  |  |
| 200     | 50 | 3.86     | 609576 | 4.21 | 609586 | 243 | 81 | 38 | 57 | 40 | 165 | <b>400</b> | <b>750</b> |  |  |



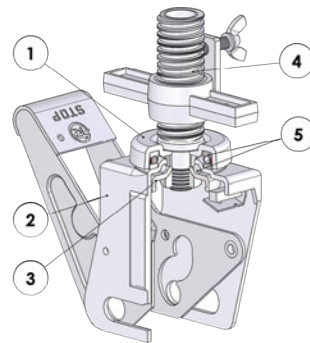
- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) King pin: steel pin and nut locked through mechanical deformation
- 6) Swivel actions: diam. 150 mm: grease-lubricated double ball raceways; diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

| mm  | mm | kg   | CODE   | kg  | CODE    | mm     | mm | mm | mm  | daN        | daN        |  |  |  |  |
|-----|----|------|--------|-----|---------|--------|----|----|-----|------------|------------|--|--|--|--|
| 150 | 45 | 3.01 | 609654 | 192 | 140x110 | 105x80 | 12 | 40 | 150 | <b>300</b> | <b>700</b> |  |  |  |  |
| 200 | 50 | 3.61 | 609676 | 243 | 140x110 | 105x80 | 12 | 40 | 165 | <b>400</b> | <b>750</b> |  |  |  |  |

 This symbol indicates the castor carrying capacity according to UNI EN 1004-2:2021, par. 7.5 (Castor Wheels), that is guaranteed when the brake is engaged, without bracket offset and when the wheel is in a static position. With the brake released and the wheel free to rotate, the maximum load capacity is indicated in the "Dynamic carrying capacity" column at 4 km/h, defined in accordance with ISO 22883:2004

Thermoplastic polyurethane wheels with polyamide 6 centre

Wheel description on page 92-94



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: stem with acme thread manufactured steel from tube, nut locked by mechanical deformation
- 5) Swivel actions: diam. 150 mm: grease-lubricated double ball raceways; diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

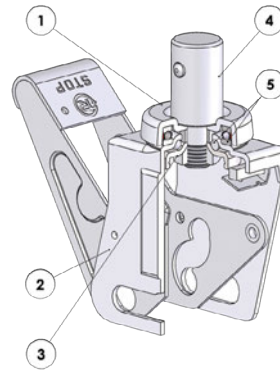
|     |    | 1 PEDAL |        | 2 PEDALS |        |     |    |       |     |    | 4 km/h |            | EN 1004    |  |  |
|-----|----|---------|--------|----------|--------|-----|----|-------|-----|----|--------|------------|------------|--|--|
| mm  | mm | kg      | CODE   | kg       | CODE   | mm  | mm | mm    | mm  | mm | mm     | daN        | daN        |  |  |
| 150 | 45 | 3.86    | 609704 | 5.37     | 609714 | 192 | 83 | M38x6 | 500 | 40 | 150    | <b>300</b> | <b>700</b> |  |  |
| 200 | 50 | 4.56    | 609726 | 5.67     | 609736 | 243 | 81 | M38x6 | 500 | 40 | 165    | <b>400</b> | <b>750</b> |  |  |



This symbol indicates the castor carrying capacity according to UNI EN 1004-2:2021, par. 7.5 (Castor Wheels), that is guaranteed when the brake is engaged, without bracket offset and when the wheel is in a static position. With the brake released and the wheel free to rotate, the maximum load capacity is indicated in the "Dynamic carrying capacity" column at 4 km/h, defined in accordance with ISO 22883:2004

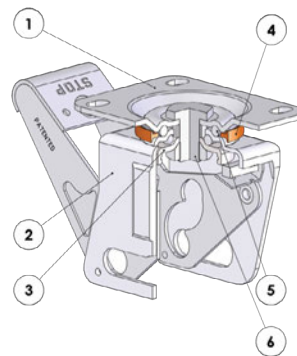
**Polyamide 6 solid wheels**

**Wheel description on page 110-112**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: diam. 150-200 mm: solid stem in steel and nut locked by mechanical deformation; diam. 125 mm: cold-headed solid stem
- 5) Swivel actions: diam. 125-150 mm: grease-lubricated double ball raceways; diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

| 1 PEDAL |    | 2 PEDALS |        | 2 PEDALS |        | 2 PEDALS |    | 2 PEDALS |    | 2 PEDALS |     | 2 PEDALS   |            | 2 PEDALS |         |
|---------|----|----------|--------|----------|--------|----------|----|----------|----|----------|-----|------------|------------|----------|---------|
| mm      | mm | kg       | CODE   | kg       | CODE   | mm       | mm | mm       | mm | mm       | mm  | daN        | EN 1004    | daN      | EN 1004 |
| 125     | 38 | 1.69     | 689503 | 1.91     | 689513 | 150      | 89 | 38       | 57 | 30       | 130 | <b>250</b> | <b>500</b> |          |         |
| 150     | 45 | 3.06     | 689504 | 3.37     | 689514 | 192      | 83 | 38       | 57 | 40       | 150 | <b>300</b> | <b>700</b> |          |         |
| 200     | 50 | 3.68     | 689506 | 3.99     | 689516 | 243      | 81 | 38       | 57 | 40       | 165 | <b>400</b> | <b>750</b> |          |         |



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) King pin: steel pin and nut locked through mechanical deformation
- 6) Swivel actions: diam. 150 mm: grease-lubricated double ball raceways; diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

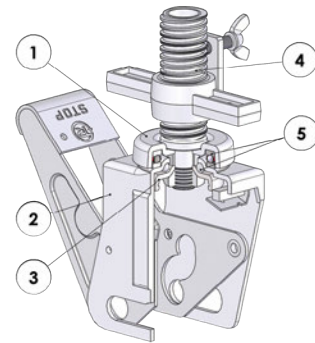
| 1 PEDAL |    | 2 PEDALS |        | 2 PEDALS |         | 2 PEDALS |    | 2 PEDALS |     | 2 PEDALS |            | 2 PEDALS   |     | 2 PEDALS |     |
|---------|----|----------|--------|----------|---------|----------|----|----------|-----|----------|------------|------------|-----|----------|-----|
| mm      | mm | kg       | CODE   | mm       | mm      | mm       | mm | mm       | mm  | mm       | daN        | EN 1004    | daN | EN 1004  | daN |
| 150     | 45 | 3.76     | 689604 | 192      | 140x110 | 105x80   | 12 | 40       | 150 | 150      | <b>300</b> | <b>700</b> |     |          |     |
| 200     | 50 | 4.38     | 689606 | 243      | 140x110 | 105x80   | 12 | 40       | 165 | 165      | <b>400</b> | <b>750</b> |     |          |     |



This symbol indicates the castor carrying capacity according to UNI EN 1004-2:2021, par. 7.5 (Castor Wheels), that is guaranteed when the brake is engaged, without bracket offset and when the wheel is in a static position. With the brake released and the wheel free to rotate, the maximum load capacity is indicated in the "Dynamic carrying capacity" column at 4 km/h, defined in accordance with ISO 22883:2004

### Polyamide 6 solid wheels

Description on page 110-112



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: stem with acme thread manufactured steel from tube, nut locked by mechanical deformation
- 5) Swivel actions: diam. 150 mm: grease-lubricated double ball raceways; diam. 200 mm: single direction axial bearing and a grease-lubricated single ball raceway

| 150 |    | 150  |        | 200  |        | 200 |    | 200   |     | 200 |     | 200 |            | 200        |  |
|-----|----|------|--------|------|--------|-----|----|-------|-----|-----|-----|-----|------------|------------|--|
| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm | mm    | mm  | mm  | mm  | mm  | daN        | daN        |  |
| 150 | 45 | 3.76 | 689704 | 4.07 | 689714 | 192 | 83 | M38x6 | 500 | 40  | 150 | 165 | <b>300</b> | <b>700</b> |  |
| 200 | 50 | 4.38 | 689706 | 5.49 | 689716 | 243 | 81 | M38x6 | 500 | 40  | 165 |     | <b>400</b> | <b>750</b> |  |



This symbol indicates the castor carrying capacity according to UNI EN 1004-2:2021, par. 7.5 (Castor Wheels), that is guaranteed when the brake is engaged, without bracket offset and when the wheel is in a static position. With the brake released and the wheel free to rotate, the maximum load capacity is indicated in the "Dynamic carrying capacity" column at 4 km/h, defined in accordance with ISO 22883:2004

## Customisations for scaffolding castors

Customised products are made upon customer's specific request for:

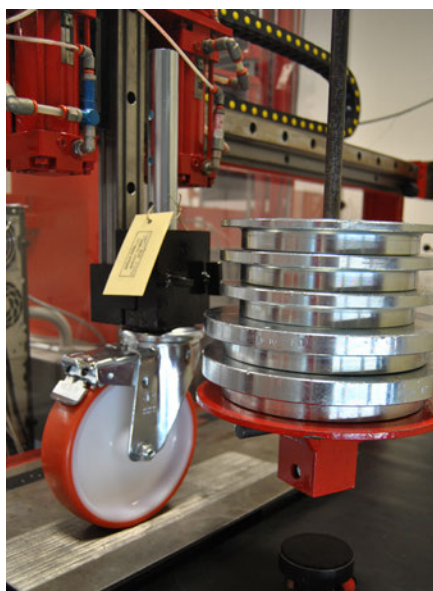
- NL brackets and Scaffolding brackets with stems of different dimensions and sizes
- assembly with different wheels.



### TEST REPORT ACCORDING TO UNI EN 1004-2:2021

The TR Lab, Test & Research laboratory of Tellure Rôta, has the necessary equipment for conformity testing on wheel and castor according to **UNI EN 1004-2:2021, par. 7.5**; the test is carried out under static load and also measures the braking efficiency. The conformity requires carrying out 2 tests on 5 equal products.

The laboratory releases a test report with the results of the tests.



WASTE BIN CONTAINERS

and Paper Only

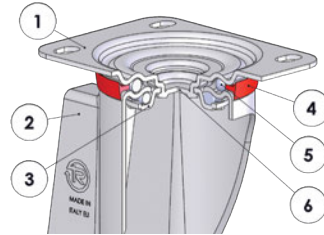


CONTINENTAL 1100



**Black rubber wheels with polypropylene centre**

**Wheel description on page 62-64**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake, total rear foot brake, centralised brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 160 | 40 | 2.10 | 524410 | 2.38 | 525210 | 2.60 | 524010 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | <b>150</b> |
| 200 | 50 | 2.72 | 524406 | 3.00 | 525206 | 3.22 | 524006 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | <b>225</b> |



| mm  | mm | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm | mm | mm   | mm         | daN |
|-----|----|------|--------|-----|---------|--------|----|----|----|----|------|------------|-----|
| 200 | 50 | 3.45 | 524206 | 240 | 140x110 | 105x80 | 11 | 56 | 40 | 34 | 16.5 | <b>225</b> |     |

**Options available to order**



Directional lock for brackets d. 150-200 mm



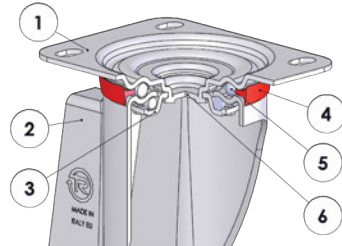
Wheel with roller bearings



Wheel with grey rubber tyre

### Black rubber wheels with pressed steel discs

#### Wheel description on page 70-72



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake, total rear foot brake, centralised brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|-----|
| 160 | 40 | 2.44 | 535010 | 2.69 | 535410 | 2.97 | 534010 | 199 | 140x110 | 105x80 | 11 | 56 | 156 | 180 |
| 200 | 50 | 3.25 | 535006 | 3.39 | 535406 | 3.67 | 534006 | 240 | 140x110 | 105x80 | 11 | 56 | 156 | 230 |



| mm  | mm | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm | mm | mm   | daN |
|-----|----|------|--------|-----|---------|--------|----|----|----|----|------|-----|
| 200 | 50 | 3.45 | 534806 | 240 | 140x110 | 105x80 | 11 | 56 | 40 | 34 | 16.5 | 230 |

#### Options available to order



Directional lock for brackets  
d. 150-200 mm



Wheel with roller bearings

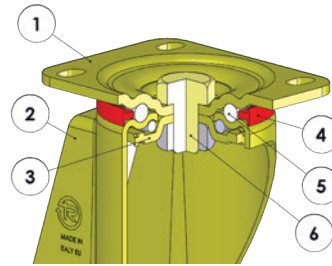


Wheel with grey rubber tyre



**Sigma Elastic rubber wheels with aluminium centre**

Wheel description on page 252-254

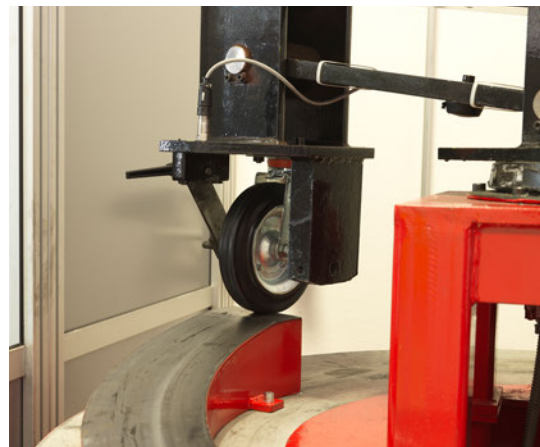
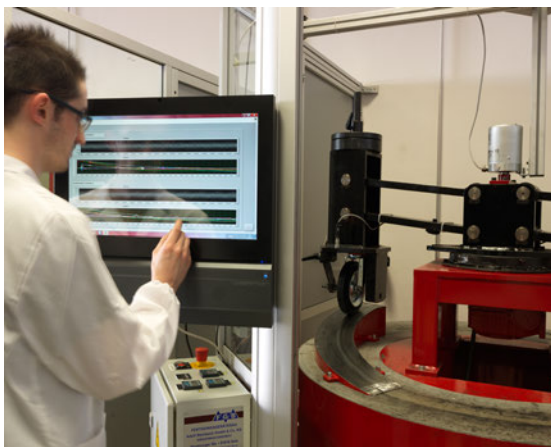


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|--------|------|--------|------|--------|-----|---------|--------|----|----|-----|------------|
| 200 | 50 | 4.46 | 727516 | 3.00 | 728516 | 5.06 | 727206 | 250 | 140x110 | 105x80 | 11 | 56 | 126 | <b>500</b> |

TEST REPORT ACCORDING TO UNI EN 840-5: 2013

The TR Lab, Test & Research laboratory of Tellure Rôta has the necessary equipment for Dynamic testing on wheel and castor according to **UNI EN 840-5:2013, par. 4.9.3**.  
The laboratory issues a test report with the results of the tests.



INSTITUTIONAL





SERIES **32**

POLYAMIDE 6 WHEELS

40-60 mm  
 -5 / +40 °C

30-90 daN  
3 km/h

PAGE 322



SERIES **36**

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

30-75 mm  
 -5 / +40 °C

30-140 daN  
3 km/h

PAGE 328



SERIES **37**

GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE

40-125 mm  
 -5 / +40 °C

30-80 daN  
3 km/h

PAGE 332



SERIES **38**

THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

40-80 mm  
 -5 / +40 °C

30-70 daN  
3 km/h

PAGE 338



SERIES **51**




THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

80-250 mm  
 -15 / +70 °C

30-120 daN  
Static

PAGE 342

## POLYAMIDE 6 WHEELS

|  |                     |
|--|---------------------|
|  | 40-60 mm            |
|  | 30-90 daN<br>3 km/h |
|  | -5 / +40 °C         |



### Description

Polyamide 6 solid wheels.

Hub with plain bore hole which directly houses the axle.

### Uses




Recommended for use on catering and institutional trolleys having light carrying capacities.

Good resistance to chemical agents: not suitable on uneven flooring.

Examples of recommended applications: shop display units, trolleys for restaurants, furniture with light loads.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and chemical agents.

|              |   |   |   |              |   |   |   |
|--------------|---|---|---|--------------|---|---|---|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

Suitable on tiles and resin-cement; not recommended on abrasive, unpaved floors or in presence of processing residues.

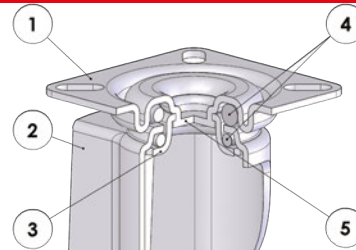
Not suitable on fragile floor or with obstacles along the path.





| mm | mm | kg   | CODE   | mm | mm | daN       |
|----|----|------|--------|----|----|-----------|
| 40 | 17 | 0.02 | 321102 | 8  | 21 | <b>30</b> |
| 50 | 17 | 0.02 | 321104 | 8  | 22 | <b>40</b> |
| 50 | 22 | 0.03 | 321105 | 8  | 28 | <b>50</b> |
| 60 | 22 | 0.03 | 321106 | 8  | 28 | <b>60</b> |

**Institutional brackets**



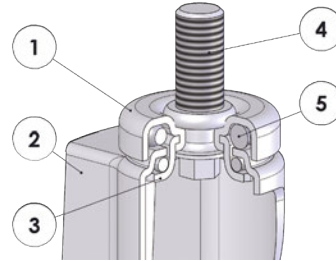
- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Swivel actions: double ball ring with grease lubrication
- 5) King pin: integrated with the plate and cold-riveted

| mm | mm | kg   | CODE   | kg   | CODE   | mm | mm    | mm    | mm | mm | daN       |
|----|----|------|--------|------|--------|----|-------|-------|----|----|-----------|
| 40 | 17 | 0.12 | 324101 | 0.29 | 324001 | 61 | 42x42 | 30x30 | 5  | 24 | <b>30</b> |
| 50 | 17 | 0.12 | 324102 | 0.31 | 324002 | 66 | 42x42 | 30x30 | 5  | 24 | <b>40</b> |
| 60 | 22 | 0.22 | 324103 | 0.56 | 324003 | 82 | 60x60 | 45x45 | 6  | 21 | <b>60</b> |



| mm | mm | kg   | CODE   | mm | mm    | mm    | mm | daN       |
|----|----|------|--------|----|-------|-------|----|-----------|
| 40 | 17 | 0.10 | 325101 | 61 | 55x25 | 42    | 5  | <b>30</b> |
| 50 | 17 | 0.10 | 325102 | 66 | 55x25 | 42    | 5  | <b>40</b> |
| 60 | 22 | 0.20 | 325103 | 82 | 60x60 | 45x45 | 6  | <b>60</b> |

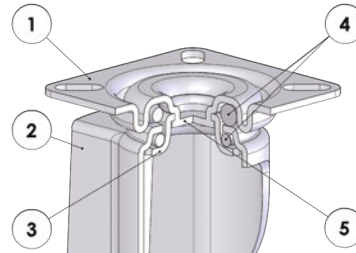
Institutional brackets



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Galvanised steel threaded stem
- 5) Swivel actions: double ball ring with grease lubrication

|    |    |      |        | 2 pc package |        |    |    |     |    |    |     |  |  |
|----|----|------|--------|--------------|--------|----|----|-----|----|----|-----|--|--|
| mm | mm | kg   | CODE   | kg           | CODE   | mm | mm | mm  | mm | mm | daN |  |  |
| 40 | 17 | 0.12 | 326101 | 0.26         | 326001 | 61 | 35 | M10 | 20 | 24 | 30  |  |  |
| 50 | 17 | 0.14 | 326102 | 0.28         | 326002 | 66 | 35 | M10 | 20 | 24 | 40  |  |  |
| 60 | 22 | 0.23 | 326103 | 0.47         | 326003 | 82 | 41 | M12 | 24 | 21 | 60  |  |  |

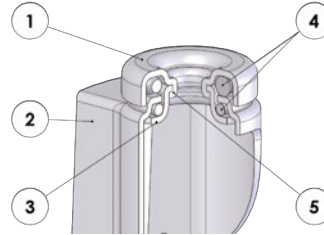
Institutional twin brackets for high carrying capacity



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

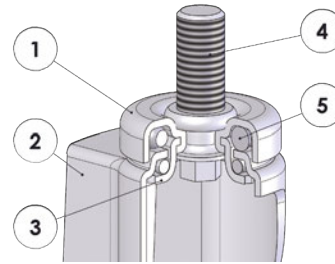
| mm | mm    | kg   | CODE   | kg   | CODE   | mm | mm    | mm    | mm | mm   | mm | daN |  |
|----|-------|------|--------|------|--------|----|-------|-------|----|------|----|-----|--|
| 50 | 18+18 | 0.28 | 324302 | 0.33 | 328202 | 71 | 60x60 | 45x45 | 6  | 25.5 | 83 | 90  |  |

**Institutional twin brackets for high carrying capacity**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

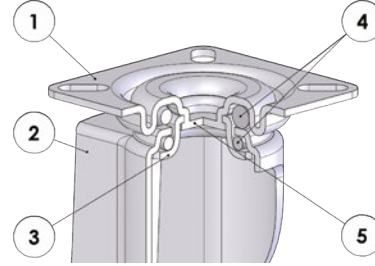
| mm | mm    | kg   | CODE   | kg   | CODE   | mm | mm | mm | mm   | mm | daN |
|----|-------|------|--------|------|--------|----|----|----|------|----|-----|
| 50 | 18+18 | 0.26 | 323202 | 0.31 | 327202 | 71 | 55 | 10 | 25.5 | 83 | 90  |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

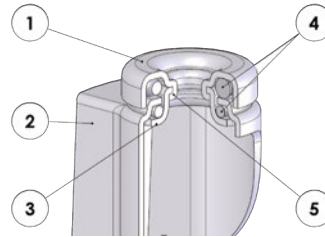
| mm | mm    | kg   | CODE   | kg   | CODE   | mm | mm | mm  | mm | mm   | daN |
|----|-------|------|--------|------|--------|----|----|-----|----|------|-----|
| 50 | 18+18 | 0.29 | 326202 | 0.34 | 329202 | 71 | 52 | M10 | 25 | 25.5 | 90  |

Institutional brackets for high carrying capacity



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|    |    |      |        |      |        |    |       |       |    |      |    |           |  |  |  |  |
|----|----|------|--------|------|--------|----|-------|-------|----|------|----|-----------|--|--|--|--|
|    |    |      |        |      |        |    |       |       |    |      |    |           |  |  |  |  |
| mm | mm | kg   | CODE   | kg   | CODE   | mm | mm    | mm    | mm | mm   | mm | daN       |  |  |  |  |
| 50 | 30 | 0.27 | 324402 | 0.32 | 328302 | 71 | 60x60 | 45x45 | 6  | 25.5 | 83 | <b>80</b> |  |  |  |  |

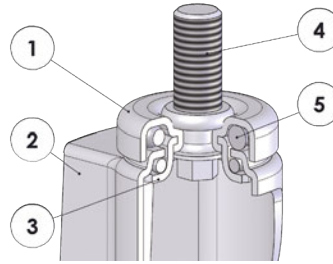


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|    |    |      |        |      |        |    |    |    |      |    |           |     |  |  |  |  |
|----|----|------|--------|------|--------|----|----|----|------|----|-----------|-----|--|--|--|--|
|    |    |      |        |      |        |    |    |    |      |    |           |     |  |  |  |  |
| mm | mm | kg   | CODE   | kg   | CODE   | mm | mm | mm | mm   | mm | mm        | daN |  |  |  |  |
| 50 | 30 | 0.24 | 323302 | 0.29 | 327302 | 71 | 55 | 10 | 25.5 | 83 | <b>80</b> |     |  |  |  |  |



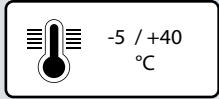
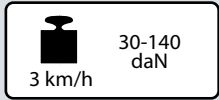
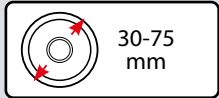
**Institutional brackets for high carrying capacity**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm | mm | kg   | CODE   | kg   | CODE   | mm | mm | mm  | mm | mm   | mm | daN |  |  |
|----|----|------|--------|------|--------|----|----|-----|----|------|----|-----|--|--|
| 50 | 30 | 0.28 | 326302 | 0.33 | 329302 | 71 | 52 | M10 | 25 | 25.5 | 83 | 80  |  |  |

## THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE



### Description

Tyre: thermoplastic polyurethane.

Centre: polyamide 6.

Hub with plain bore hole which directly houses the axle.

### Uses

Suitable for use on different types of trolleys within the institutional sector, particularly in catering.

Good load carrying capacity in relation to small diameter wheels.

Resist well to frequent washing, making them suitable in environments where hygiene must be guaranteed.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and chemical agents.

|              |  |  |  |              |  |  |  |
|--------------|--|--|--|--------------|--|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable on tiles and resin-cement; not recommended on abrasive, unpaved floors or in the presence of processing residues.

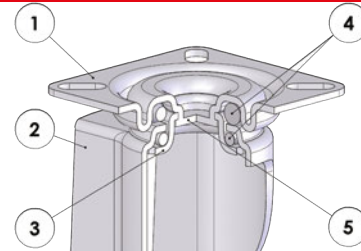
They do not damage fragile flooring and are also suitable in presence of small obstacles.





| mm | mm | kg   | CODE   | mm | mm | daN       |
|----|----|------|--------|----|----|-----------|
| 30 | 18 | 0,02 | 361100 | 6  | 21 | <b>30</b> |
| 40 | 18 | 0,02 | 361101 | 8  | 21 | <b>40</b> |
| 50 | 18 | 0,02 | 361102 | 8  | 22 | <b>55</b> |
| 60 | 25 | 0,06 | 361103 | 8  | 28 | <b>70</b> |
| 75 | 24 | 0,07 | 361104 | 8  | 28 | <b>90</b> |

**Institutional brackets**



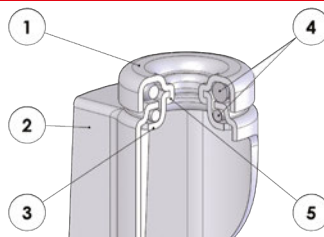
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm | mm | kg   | CODE   | kg   | CODE   | kg   | CODE   | mm   | mm    | mm    | mm | mm   | mm | daN       |
|----|----|------|--------|------|--------|------|--------|------|-------|-------|----|------|----|-----------|
| 30 | 18 | 0,08 | 364300 | 0,08 | 365100 |      |        | 47,5 | 42x42 | 32x32 | 5  | 14,5 |    | <b>30</b> |
| 40 | 18 | 0,11 | 364301 | 0,11 | 365101 | 0,13 | 368101 | 59   | 42x42 | 32x32 | 5  | 23   | 76 | <b>40</b> |
| 50 | 18 | 0,13 | 364302 | 0,12 | 365102 | 0,16 | 368102 | 66   | 55x55 | 40x40 | 6  | 24   | 76 | <b>55</b> |
| 60 | 25 | 0,24 | 364303 | 0,21 | 365103 | 0,28 | 368103 | 82   | 60x60 | 45x45 | 6  | 21   | 84 | <b>70</b> |
| 75 | 24 | 0,28 | 364304 | 0,24 | 365104 | 0,33 | 368104 | 101  | 60x60 | 45x45 | 6  | 30   | 91 | <b>90</b> |



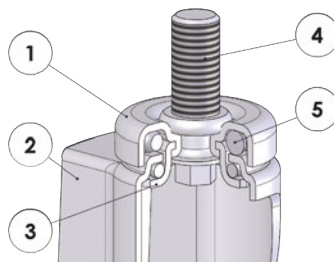
| mm | mm | kg   | CODE   | mm | mm    | mm    | mm | mm | daN       |
|----|----|------|--------|----|-------|-------|----|----|-----------|
| 40 | 18 | 0,30 | 324001 | 59 | 42x42 | 32x32 | 5  | 23 | <b>40</b> |
| 50 | 18 | 0,34 | 324002 | 66 | 55x55 | 40x40 | 6  | 24 | <b>55</b> |
| 60 | 25 | 0,56 | 324003 | 82 | 60x60 | 45x45 | 6  | 21 | <b>70</b> |

**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

| mm | mm | kg   | CODE   | kg   | CODE   | mm   | mm | mm | mm   | mm | daN       |
|----|----|------|--------|------|--------|------|----|----|------|----|-----------|
| 30 | 18 | 0,07 | 363100 |      |        | 47,5 | 35 | 10 | 14,5 |    | <b>30</b> |
| 40 | 18 | 0.10 | 363101 | 0.12 | 367101 | 59   | 35 | 10 | 23   | 76 | <b>40</b> |
| 50 | 18 | 0.13 | 363102 | 0.13 | 367102 | 66   | 35 | 10 | 24   | 76 | <b>55</b> |
| 60 | 25 | 0.24 | 363103 | 0.25 | 367103 | 82   | 41 | 12 | 21   | 84 | <b>70</b> |
| 75 | 24 | 0,24 | 363104 | 0,29 | 367104 | 101  | 41 | 12 | 30   | 91 | <b>90</b> |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

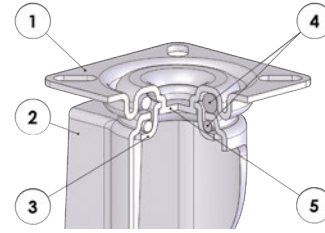
| mm | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm   | mm | mm  | mm | mm   | mm | daN       |
|----|----|------|--------|------|--------|------|--------|------|----|-----|----|------|----|-----------|
| 30 | 18 | 0,09 | 366300 |      |        |      |        | 47,5 | 35 | M10 | 20 | 14,5 |    | <b>30</b> |
| 40 | 18 | 0,12 | 366301 | 0,14 | 369101 | 0,34 | 366001 | 59   | 35 | M10 | 20 | 23   | 76 | <b>40</b> |
| 50 | 18 | 0,13 | 366302 | 0,16 | 369102 | 0,38 | 366002 | 66   | 35 | M10 | 20 | 24   | 76 | <b>55</b> |
| 60 | 25 | 0,24 | 366303 | 0,28 | 369103 | 0,62 | 366003 | 82   | 42 | M12 | 25 | 21   | 84 | <b>70</b> |
| 75 | 24 | 0,28 | 366314 | 0,33 | 369114 |      |        | 101  | 41 | M12 | 25 | 30   | 91 | <b>90</b> |

**Options available to order**



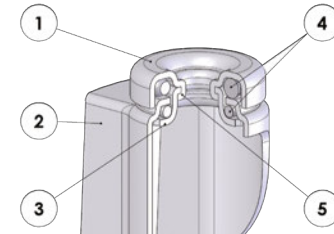
Different stem dimensions

**Institutional twin brackets for high carrying capacity**



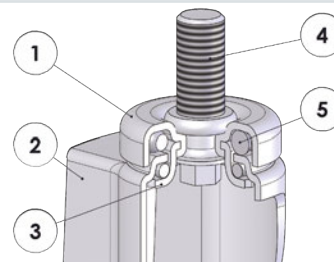
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

|    |       |      |        |      |        |    |       |       |    |      |    |     |  |
|----|-------|------|--------|------|--------|----|-------|-------|----|------|----|-----|--|
|    |       |      |        |      |        |    |       |       |    |      |    |     |  |
| mm | mm    | kg   | CODE   | kg   | CODE   | mm | mm    | mm    | mm | mm   | mm | daN |  |
| 50 | 18+18 | 0.30 | 364402 | 0.35 | 368202 | 71 | 60x60 | 45x45 | 6  | 25.5 | 83 | 140 |  |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available with total front foot brake

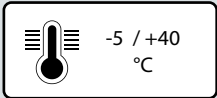
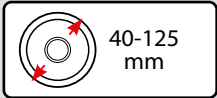
|    |       |      |        |      |        |    |    |    |      |    |     |  |
|----|-------|------|--------|------|--------|----|----|----|------|----|-----|--|
|    |       |      |        |      |        |    |    |    |      |    |     |  |
| mm | mm    | kg   | CODE   | kg   | CODE   | mm | mm | mm | mm   | mm | daN |  |
| 50 | 18+18 | 0.27 | 363202 | 0.32 | 367202 | 71 | 55 | 10 | 25.5 | 83 | 140 |  |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

|    |       |      |        |      |        |    |    |     |    |      |     |     |
|----|-------|------|--------|------|--------|----|----|-----|----|------|-----|-----|
|    |       |      |        |      |        |    |    |     |    |      |     |     |
| mm | mm    | kg   | CODE   | kg   | CODE   | mm | mm | mm  | mm | mm   | daN |     |
| 50 | 18+18 | 0.31 | 366402 | 0.36 | 369202 | 71 | 52 | M10 | 25 | 25.5 | 83  | 140 |

## GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE



### Description

Tyre: non-marking grey rubber, good elasticity.

Centre: polypropylene with metal thread-guards.

Hub with plain bore hole which directly houses the axle.

### Uses

Suitable for use on different types of trolleys within the furniture and institutional sector.

They can also be used on fragile floors and in presence of small obstacles.

Example of recommended applications: shop display units and windows, low carrying capacity tool trolleys, supermarket trolleys.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and medium-harsh chemical agents. Not suitable in the presence of organic solvents, chlorinated substances, hydrocarbons and mineral oils.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

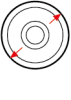
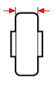



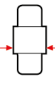

### Floors

Suitable on tiles and resin-cement; not recommended on abrasive, unpaved floors or in presence of processing residues.

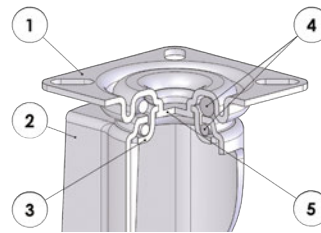
They do not damage fragile floors and are also suitable in the presence of small obstacles.



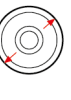
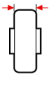







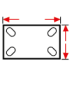
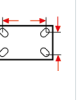
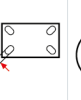

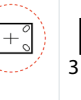



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm   | mm  | kg  | CODE  | mm  | mm  | daN   |  |  |  |  |  |  |  |  |
| 40   | 18  | 0.03  | 371100  | 8   | 21  | <b>30</b>   |  |  |  |  |  |  |  |  |
| 50   | 18  | 0.06  | 371101  | 8   | 22  | <b>35</b>   |  |  |  |  |  |  |  |  |
| 60   | 24  | 0.10  | 371102  | 8   | 28  | <b>50</b>   |  |  |  |  |  |  |  |  |
| 75   | 24  | 0.14  | 371203  | 8   | 28  | <b>55</b>   |  |  |  |  |  |  |  |  |
| 80   | 24  | 0.17  | 371103  | 8   | 28  | <b>55</b>   |  |  |  |  |  |  |  |  |
| 100  | 24  | 0.22  | 371104  | 8   | 28  | <b>60</b>   |  |  |  |  |  |  |  |  |
| 125  | 30  | 0.46  | 371105  | 10  | 35  | <b>80</b>   |  |  |  |  |  |  |  |  |

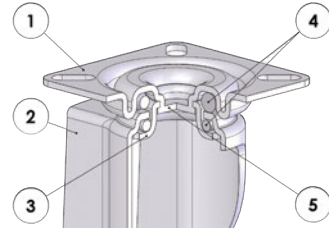
**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

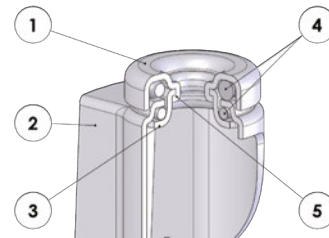
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|---|---|--|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| mm   | mm  | kg  | CODE  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm   | mm  | mm  | mm  | daN   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40   | 18  | 0.12  | 374100  | 0.11  | 375100  | 0.15  | 378100  | 59  | 42x42   | 30x30  | 5   | 24  | 78  | <b>30</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50   | 18  | 0.20  | 374101  | 0.20  | 375101  | 0.24  | 378101  | 66  | 55x55   | 40x40  | 6   | 24  | 76  | <b>35</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60   | 24  | 0.28  | 374102  | 0.26  | 375102  | 0.40  | 378102  | 82  | 60x60   | 45x45  | 6   | 21  | 83  | <b>50</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75   | 24  | 0.40  | 374303  | 0.31  | 375303  | 0.48  | 378303  | 101   | 60x60   | 45x45  | 6   | 25  | 91  | <b>55</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 80   | 24  | 0.43  | 374103  | 0.34  | 375103  | 0.50  | 378103  | 104   | 60x60   | 45x45  | 6   | 25  | 91  | <b>55</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 100  | 24  | 0.48  | 374104  | 0.40  | 375104  | 0.57  | 378104  | 121   | 60x60   | 45x45  | 6   | 32  | 95  | <b>55</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 125  | 30  | 0.87  | 374105  | 0.80  | 375105  | 0.97  | 378105  | 152   | 77x67   | 55x45  | 8   | 40  | 115   | <b>80</b>   |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Swivel actions: double ball ring with grease lubrication
- 5) King pin: integrated with the plate and cold-riveted

| mm |  | kg   |  | CODE   |  | mm |  | mm    |  | mm    |  | mm |  | mm |  | daN       |  |
|----|--|------|--|--------|--|----|--|-------|--|-------|--|----|--|----|--|-----------|--|
| 50 |  | 0.39 |  | 374001 |  | 66 |  | 55x55 |  | 40x40 |  | 6  |  | 24 |  | <b>35</b> |  |
| 60 |  | 0.68 |  | 374002 |  | 82 |  | 60x60 |  | 45x45 |  | 6  |  | 21 |  | <b>50</b> |  |

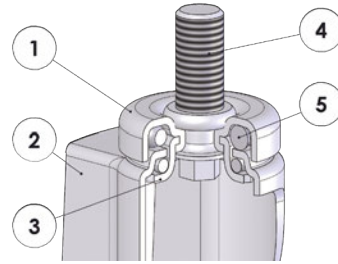


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm  |  | kg   |  | CODE   |  | kg   |  | CODE   |  | mm  |  | mm |  | mm |  | mm |  | mm  |  | daN       |  |
|-----|--|------|--|--------|--|------|--|--------|--|-----|--|----|--|----|--|----|--|-----|--|-----------|--|
| 40  |  | 0.11 |  | 373100 |  | 0.14 |  | 377100 |  | 59  |  | 35 |  | 10 |  | 24 |  | 78  |  | <b>30</b> |  |
| 50  |  | 0.16 |  | 373101 |  | 0.19 |  | 377101 |  | 66  |  | 35 |  | 10 |  | 24 |  | 76  |  | <b>35</b> |  |
| 60  |  | 0.25 |  | 373102 |  | 0.32 |  | 377102 |  | 82  |  | 41 |  | 12 |  | 21 |  | 83  |  | <b>50</b> |  |
| 75  |  | 0.31 |  | 373303 |  | 0.40 |  | 377303 |  | 101 |  | 41 |  | 12 |  | 25 |  | 91  |  | <b>55</b> |  |
| 80  |  | 0.34 |  | 373103 |  | 0.43 |  | 377103 |  | 104 |  | 41 |  | 12 |  | 25 |  | 91  |  | <b>55</b> |  |
| 100 |  | 0.40 |  | 373104 |  | 0.49 |  | 377104 |  | 121 |  | 41 |  | 12 |  | 32 |  | 91  |  | <b>55</b> |  |
| 125 |  | 0.76 |  | 373105 |  | 0.87 |  | 377105 |  | 149 |  | 55 |  | 12 |  | 40 |  | 115 |  | <b>80</b> |  |



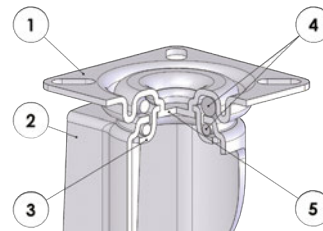
**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  |    | kg   | CODE   | kg   | CODE   | 2 pc package |        | mm  |    |     |    |    | mm  | daN |
|-----|----|------|--------|------|--------|--------------|--------|-----|----|-----|----|----|-----|-----|
| mm  | mm | kg   | CODE   | kg   | CODE   | kg           | CODE   | mm  | mm | mm  | mm | mm | mm  | daN |
| 40  | 18 | 0.13 | 376100 | 0.18 | 379100 |              |        | 59  | 35 | M8  | 15 | 24 | 78  | 30  |
| 50  | 18 | 0.18 | 376101 | 0.21 | 379101 | 0.34         | 376001 | 66  | 35 | M8  | 15 | 24 | 76  | 35  |
| 60  | 24 | 0.29 | 376102 | 0.36 | 379102 | 0.60         | 376002 | 82  | 41 | M12 | 25 | 21 | 83  | 50  |
| 75  | 24 | 0.36 | 376303 | 0.43 | 379303 |              |        | 101 | 41 | M12 | 25 | 25 | 91  | 55  |
| 80  | 24 | 0.39 | 376103 | 0.46 | 379103 |              |        | 104 | 41 | M12 | 25 | 25 | 91  | 55  |
| 100 | 24 | 0.44 | 376104 | 0.53 | 379104 |              |        | 121 | 41 | M12 | 25 | 32 | 95  | 55  |
| 125 | 30 | 0.79 | 376105 | 0.89 | 379105 |              |        | 149 | 52 | M12 | 25 | 40 | 115 | 80  |

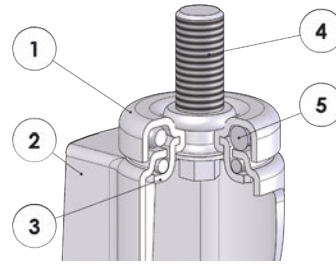
**Institutional twin brackets**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

| mm |       | kg   | CODE   | kg   | CODE   | mm  |       |       |    |    | mm | daN |
|----|-------|------|--------|------|--------|-----|-------|-------|----|----|----|-----|
| mm | mm    | kg   | CODE   | kg   | CODE   | mm  | mm    | mm    | mm | mm | mm | daN |
| 50 | 18+18 | 0.35 | 374201 | 0.40 | 378201 | 70  | 60x60 | 45x45 | 6  | 30 | 82 | 60  |
| 75 | 24+24 | 0.64 | 374203 | 0.72 | 378203 | 100 | 60x60 | 45x45 | 6  | 33 | 95 | 80  |

**Twin brackets for institutional**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

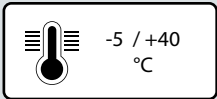
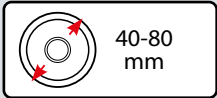
| mm | mm    | kg   | CODE   | kg   | CODE   | mm  | mm | mm  | mm | mm | mm | daN       |  |  |
|----|-------|------|--------|------|--------|-----|----|-----|----|----|----|-----------|--|--|
| 50 | 18+18 | 0.30 | 376201 | 0.37 | 379201 | 70  | 42 | M10 | 15 | 30 | 82 | <b>60</b> |  |  |
| 75 | 24+24 | 0.50 | 376203 | 0.68 | 379203 | 100 | 52 | M12 | 25 | 33 | 95 | <b>80</b> |  |  |



Quality You need

 **tellureRôta**

## GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE



### Description

Tyre: grey non-marking thermoplastic rubber.

Centre: polypropylene.

Hub with plain bore which houses the axle.

### Uses

Suitable for institutional trolleys, especially for catering. The grey non-marking thermoplastic rubber tyre makes them also suitable on delicate floorings. They can resist frequent washings and are therefore a good option in those environments where cleanliness must be guaranteed.

### Environments of use

Suitable for industrial and institutional environments, also in the presence of humidity. Not suitable in the presence of organic solvents, chlorinated substances, hydrocarbons and mineral oils. Not recommended in presence of strong organic and mineral acids.

|              |  |  |  |              |  |  |  |
|--------------|--|--|--|--------------|--|--|--|
| WEAK ACIDS   |  |  |  | WEAK BASES   |  |  |  |
| STRONG ACIDS |  |  |  | STRONG BASES |  |  |  |
| WATER        |  |  |  | HYDROCARBONS |  |  |  |
| ALCOHOL      |  |  |  | SOLVENTS     |  |  |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

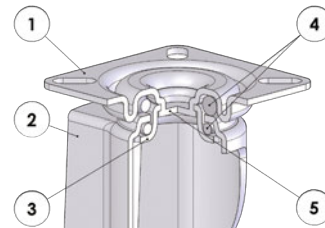
It does not stain or damage fragile floors. Suitable for tiles and cement-resin. Not recommended on abrasive, unpaved floors or in the presence of processing residues.





| mm | mm | kg   | COD.   | mm | mm | daN       | 3 km/h |
|----|----|------|--------|----|----|-----------|--------|
| 40 | 18 | 0,01 | 381100 | 8  | 21 | <b>30</b> |        |
| 50 | 18 | 0,02 | 381101 | 8  | 22 | <b>40</b> |        |
| 60 | 24 | 0,04 | 381102 | 8  | 28 | <b>60</b> |        |
| 75 | 24 | 0,05 | 381203 | 8  | 28 | <b>70</b> |        |
| 80 | 24 | 0,07 | 381103 | 8  | 28 | <b>70</b> |        |

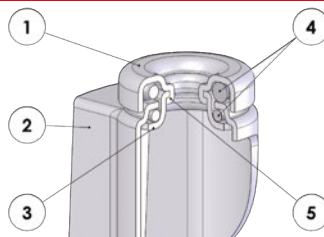
**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available with front locking brakes

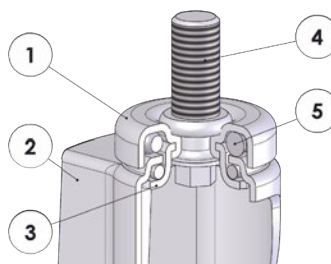
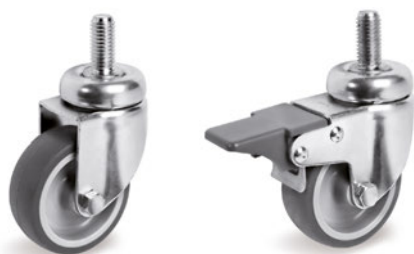
| mm | mm | kg   | COD.   | kg   | COD.   | kg   | COD.   | mm  | mm    | mm    | mm | mm | mm | daN       |
|----|----|------|--------|------|--------|------|--------|-----|-------|-------|----|----|----|-----------|
| 40 | 18 | 0,09 | 384200 | 0,10 | 385200 | 0,12 | 388200 | 59  | 42x42 | 30x30 | 5  | 24 | 78 | <b>30</b> |
| 50 | 18 | 0,13 | 384201 | 0,14 | 385201 | 0,15 | 388201 | 66  | 55x55 | 40x40 | 6  | 24 | 78 | <b>40</b> |
| 60 | 24 | 0,22 | 384202 | 0,19 | 385202 | 0,26 | 388202 | 82  | 60x60 | 45x45 | 6  | 21 | 83 | <b>60</b> |
| 75 | 24 | 0,26 | 384303 | 0,22 | 385303 | 0,32 | 388303 | 101 | 60x60 | 45x45 | 6  | 25 | 91 | <b>70</b> |
| 80 | 24 | 0,28 | 384203 | 0,24 | 385203 | 0,33 | 388203 | 104 | 60x60 | 45x45 | 6  | 25 | 91 | <b>70</b> |

**Supporti per collettività**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with front locking brakes

| mm | mm | kg   | COD.   | kg   | COD.   | mm  | mm | mm | mm | mm | daN       | 3 km/h |  |
|----|----|------|--------|------|--------|-----|----|----|----|----|-----------|--------|--|
| 40 | 18 | 0,08 | 383200 | 0,11 | 387200 | 59  | 35 | 10 | 24 | 78 | <b>30</b> |        |  |
| 50 | 18 | 0,10 | 383201 | 0,12 | 387201 | 66  | 35 | 10 | 24 | 78 | <b>40</b> |        |  |
| 60 | 24 | 0,19 | 383202 | 0,22 | 387202 | 82  | 41 | 12 | 21 | 83 | <b>60</b> |        |  |
| 75 | 24 | 0,23 | 383303 | 0,28 | 387303 | 101 | 41 | 12 | 25 | 91 | <b>70</b> |        |  |
| 80 | 24 | 0,24 | 383203 | 0,29 | 387203 | 104 | 41 | 12 | 25 | 91 | <b>70</b> |        |  |



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with front locking brakes

| mm | mm | kg   | COD.   | kg   | COD.   | mm  | mm | mm  | mm | mm | daN | 3 km/h    |  |
|----|----|------|--------|------|--------|-----|----|-----|----|----|-----|-----------|--|
| 40 | 18 | 0,09 | 386200 | 0,12 | 389200 | 59  | 35 | M8  | 15 | 24 | 78  | <b>30</b> |  |
| 50 | 18 | 0,11 | 386201 | 0,14 | 389201 | 66  | 35 | M8  | 15 | 24 | 78  | <b>40</b> |  |
| 60 | 24 | 0,22 | 386202 | 0,26 | 389202 | 82  | 41 | M12 | 25 | 21 | 83  | <b>60</b> |  |
| 75 | 24 | 0,26 | 386303 | 0,32 | 389303 | 101 | 41 | M12 | 25 | 25 | 91  | <b>70</b> |  |
| 80 | 24 | 0,28 | 386203 | 0,33 | 389203 | 104 | 41 | M12 | 25 | 25 | 91  | <b>70</b> |  |

**Options available to order**

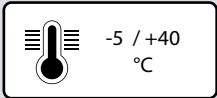
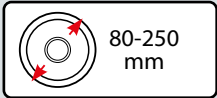


Various dimensions stems



People make the difference

## BLACK THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE



### Description

Tyre: black thermoplastic rubber.

Centre: polypropylene.

Hub with plain bore hole which directly houses the axle.

### Uses

Mainly suitable for static applications, on even flooring and for light carrying capacities.

Example of recommended applications: compressors, welding machines.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity. Not suitable in the presence of organic solvents, chlorinated substances, hydrocarbons and mineral oils.

|              |                                     |                                     |                                     |
|--------------|-------------------------------------|-------------------------------------|-------------------------------------|
| WEAK ACIDS   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| STRONG ACIDS | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| WATER        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| ALCOHOL      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|              |                          |                                     |                                     |
|--------------|--------------------------|-------------------------------------|-------------------------------------|
| WEAK BASES   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| STRONG BASES | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| HYDROCARBONS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| SOLVENTS     | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors








Suitable on tiles and resin-cement; not recommended on abrasive, unpaved floors or in presence of processing residues.

Not suitable for uneven surfaces.

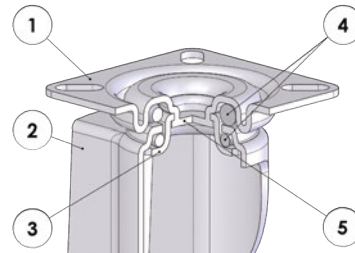















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   |  |  |  |  |  |  |  |
| 80  | 26  | 0.09  | 511101  | 10  | 34  | <b>30</b>   |  |  |  |  |  |  |  |
| 100   | 30  | 0.11  | 511112  | 8   | 35  | <b>35</b>   |  |  |  |  |  |  |  |
| 100   | 30  | 0.11  | 511122  | 12  | 35  | <b>35</b>   |  |  |  |  |  |  |  |
| 125   | 35  | 0.18  | 511103  | 15  | 44  | <b>50</b>   |  |  |  |  |  |  |  |
| 150   | 35  | 0.23  | 511104  | 15  | 44  | <b>90</b>   |  |  |  |  |  |  |  |
| 175   | 45  | 0.33  | 511105  | 20  | 59  | <b>100</b>  |  |  |  |  |  |  |  |
| 200   | 50  | 0.72  | 511106  | 20  | 59  | <b>120</b>  |  |  |  |  |  |  |  |
| 250   | 50  | 0.89  | 511108  | 20  | 59  | <b>120</b>  |  |  |  |  |  |  |  |

**Institutional brackets**

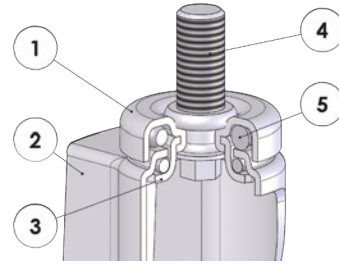


- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Swivel actions: double ball ring with grease lubrication
- 5) King pin: integrated with the plate and cold-riveted

|  |  |  |  |  |  |  |  |  |           |  |  |  |  |
|---|---|---|---|---|---|---|---|---|-----------|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | mm  | mm  | mm  | daN       |  |  |  |  |
| 80  | 26  | 0.43  | 514411  | 106   | 60x60   | 45x45   | 6   | 28  | <b>30</b> |  |  |  |  |
| 100   | 30  | 0.48  | 514412  | 128   | 60x60   | 45x45   | 6   | 32  | <b>35</b> |  |  |  |  |

**BLACK THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE**

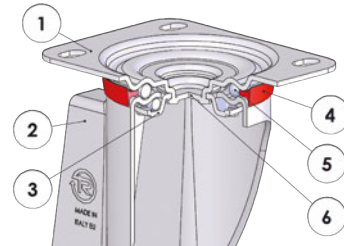
**Institutional brackets**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Galvanised steel threaded stem
- 5) Swivel actions: double ball ring with grease lubrication

| mm  | mm | kg   | CODE   | mm  | mm | mm  | mm | mm | daN       |
|-----|----|------|--------|-----|----|-----|----|----|-----------|
| 80  | 26 | 0.35 | 516801 | 103 | 41 | M12 | 25 | 28 | <b>30</b> |
| 100 | 30 | 0.40 | 516802 | 126 | 41 | M12 | 25 | 32 | <b>35</b> |

**Standard-duty brackets NL - max carrying capacity 90 daN**



- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyethylene
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: integrated with the plate and cold-riveted

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm     | mm    | mm | mm | kg        |
|-----|----|------|--------|------|--------|-----|--------|-------|----|----|-----------|
| 80  | 26 | 0.62 | 514401 | 0.34 | 515701 | 107 | 100x85 | 80x60 | 9  | 37 | <b>30</b> |
| 100 | 30 | 0.63 | 514402 | 0.37 | 515702 | 128 | 100x85 | 80x60 | 9  | 35 | <b>35</b> |
| 125 | 35 | 0.82 | 514403 | 0.48 | 515703 | 156 | 100x85 | 80x60 | 9  | 37 | <b>50</b> |
| 150 | 35 | 0.91 | 514404 | 0.54 | 515704 | 182 | 100x85 | 80x60 | 9  | 42 | <b>90</b> |



Sixty years of reliability

 **tellureRôta**

FURNITURE





SERIES **33**

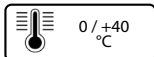
RUBBER BALL WHEELS



30-50  
mm



10-30  
daN



0 / +40  
°C

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SERIES **34**

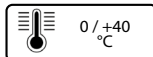
PAIRED POLYAMIDE 6 OR POLYPROPYLENE WHEELS



35-100  
mm



10-40  
daN



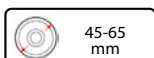
0 / +40  
°C

PAGE 350

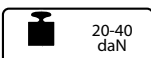


SERIES **35**

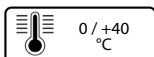
RUBBER HALF-BALL WHEELS



45-65  
mm



20-40  
daN



0 / +40  
°C

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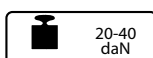


SERIES **39**

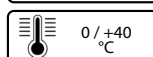
TRANSPARENT POLYURETHANE WHEELS WITH METHACRYLATE CENTRE



50-75  
mm



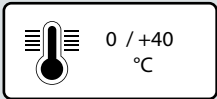
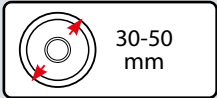
20-40  
daN



0 / +40  
°C

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## RUBBER BALL WHEELS



### Description

Black rubber ball wheels with zinc-plated brackets.

Hub with plain bore hole which directly houses the axle.

### Uses

Suitable for indoor applications, without aggressive chemicals. They can be used on fragile flooring, even carpet.

Examples of recommended applications: house and office furniture with low carrying capacity.

### Environments of use

Suitable for domestic environments without aggressive chemicals.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*

### Floors

Suitable on tiles and delicate flooring; not recommended on abrasive, unpaved floors or in presence of processing residues.

Not recommended in presence of obstacles.





| mm | kg   | CODE   | 2 pc package |        | mm | mm    | mm    | mm | daN |  |  |  |  |
|----|------|--------|--------------|--------|----|-------|-------|----|-----|--|--|--|--|
|    |      |        | kg           | CODE   |    |       |       |    |     |  |  |  |  |
| 30 | 0.11 | 334101 | 0.26         | 334001 | 48 | 40x40 | 27x27 | 5  | 10  |  |  |  |  |
| 40 | 0.15 | 334102 | 0.34         | 334002 | 59 | 40x40 | 27x27 | 5  | 20  |  |  |  |  |
| 50 | 0.23 | 334103 | 0.51         | 334003 | 69 | 47x47 | 35x35 | 6  | 30  |  |  |  |  |



| mm | kg   | CODE   | 2 pc package |        | mm | mm | mm | daN |  |  |  |  |
|----|------|--------|--------------|--------|----|----|----|-----|--|--|--|--|
|    |      |        | kg           | CODE   |    |    |    |     |  |  |  |  |
| 30 | 0.09 | 333101 | 0.21         | 333001 | 46 | 32 | 9  | 10  |  |  |  |  |
| 40 | 0.13 | 333102 | 0.30         | 333002 | 57 | 32 | 9  | 20  |  |  |  |  |
| 50 | 0.20 | 333103 | 0.43         | 333003 | 66 | 36 | 10 | 30  |  |  |  |  |



| mm | kg   | CODE   | 2 pc package |        | mm | mm         | mm | mm | daN |  |  |  |
|----|------|--------|--------------|--------|----|------------|----|----|-----|--|--|--|
|    |      |        | kg           | CODE   |    |            |    |    |     |  |  |  |
| 30 | 0.10 | 336101 | 0.25         | 336001 | 51 | SPANNER 13 | M8 | 15 | 10  |  |  |  |
| 40 | 0.14 | 336102 | 0.33         | 336002 | 63 | SPANNER 13 | M8 | 15 | 20  |  |  |  |
| 50 | 0.22 | 336103 | 0.47         | 336003 | 73 | SPANNER 13 | M8 | 15 | 30  |  |  |  |

## PAIRED POLYAMIDE 6 AND POLYPROPYLENE WHEELS

35-100 mm

10-40 daN

0 / +40 °C



### Description

Paired wheels in black or grey polyamide 6.  
Steel stems and plates



Paired wheels in transparent or blue polypropylene.  
Steel stems and plates.

### Uses

Suitable for indoor applications, without aggressive chemicals. They can be used on fragile flooring, even carpet.

Examples of recommended applications: chairs with low carrying capacity for home and office.

### Environments of use

Suitable for domestic environments without aggressive chemicals.

|              |                          |                          |                          |              |                          |                          |                          |
|--------------|--------------------------|--------------------------|--------------------------|--------------|--------------------------|--------------------------|--------------------------|
| WEAK ACIDS   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | WEAK BASES   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| STRONG ACIDS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | STRONG BASES | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| WATER        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | HYDROCARBONS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ALCOHOL      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | SOLVENTS     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

Suitable on tiles and fragile floors not recommended on abrasive, unpaved floors or in presence of processing residues.

Not recommended in presence of obstacles.







**Black polyamide 6 wheels**

| mm | mm | kg   | CODE   | mm | mm    | mm    | mm | daN |
|----|----|------|--------|----|-------|-------|----|-----|
| 35 | 39 | 0.05 | 344100 | 50 | 28x28 | 19x19 | 5  | 10  |
| 50 | 59 | 0.09 | 344101 | 68 | 38x38 | 27x27 | 5  | 30  |



**Black polyamide 6 wheels**

| mm | mm | kg   | CODE   | mm   | mm         | mm  | mm | daN |
|----|----|------|--------|------|------------|-----|----|-----|
| 35 | 39 | 0.04 | 346200 | 44.5 | SPANNER 12 | M8  | 15 | 10  |
| 50 | 59 | 0.07 | 346201 | 62   | SPANNER 12 | M10 | 15 | 30  |



**Black polyamide 6 wheels  
Package with 2 pieces and 4 fittings**

| mm | mm | kg   | CODE   | mm      | mm    | mm    | mm | mm         | mm  | mm | daN |
|----|----|------|--------|---------|-------|-------|----|------------|-----|----|-----|
| 35 | 39 | 0.22 | 340000 | 50/44,5 | 28x28 | 19x19 | 5  | SPANNER 12 | M8  | 15 | 10  |
| 50 | 59 | 0.30 | 340001 | 68/62   | 38x38 | 27x27 | 5  | SPANNER 12 | M10 | 15 | 30  |



Grey polyamide 6 wheels

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm    | mm    | mm | mm  | daN |  |  |
|-----|----|------|--------|------|--------|-----|-------|-------|----|-----|-----|--|--|
| 60  | 42 | 0.13 | 347403 | 0.14 | 342103 | 86  | 48x48 | 34x34 | 6  | 74  | 30  |  |  |
| 75  | 48 | 0.16 | 347404 | 0.19 | 342104 | 106 | 48x48 | 34x34 | 6  | 87  | 30  |  |  |
| 100 | 57 | 0.51 | 347405 | 0.53 | 342105 | 124 | 60x60 | 42x42 | 6  | 115 | 40  |  |  |



Grey polyamide 6 wheels

| mm  | mm | kg   | CODE   | kg   | CODE   | mm  | mm         | mm  | mm | mm  | daN |  |  |
|-----|----|------|--------|------|--------|-----|------------|-----|----|-----|-----|--|--|
| 60  | 42 | 0.09 | 342203 | 0.10 | 342303 | 77  | SPANNER 12 | M10 | 15 | 74  | 30  |  |  |
| 75  | 48 | 0.12 | 342204 | 0.13 | 342304 | 95  | SPANNER 12 | M10 | 15 | 87  | 30  |  |  |
| 100 | 57 | 0.54 | 342205 | 0.57 | 342305 | 114 | SPANNER 12 | M10 | 15 | 115 | 40  |  |  |



Transparent polypropylene wheels

| mm | mm | kg   | CODE   | mm | mm    | mm    | mm | mm | daN |  |  |  |  |
|----|----|------|--------|----|-------|-------|----|----|-----|--|--|--|--|
| 50 | 54 | 0.09 | 347002 | 66 | 35x35 | 26x26 | 4  |    | 20  |  |  |  |  |



**Transparent polypropylene wheels**

| mm | mm | kg   | CODE   | mm | mm         | mm  | mm | daN |
|----|----|------|--------|----|------------|-----|----|-----|
| 50 | 54 | 0.08 | 347102 | 61 | SPANNER 12 | M10 | 15 | 20  |



**Blue polypropylene wheels**

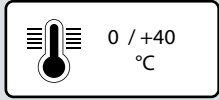
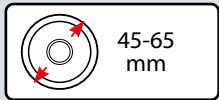
| mm | mm | kg   | CODE   | mm | mm    | mm    | mm | daN |
|----|----|------|--------|----|-------|-------|----|-----|
| 50 | 54 | 0.09 | 347202 | 66 | 35x35 | 26x26 | 4  | 20  |



**Blue polypropylene wheels**

| mm | mm | kg   | CODE   | mm | mm         | mm  | mm | daN |
|----|----|------|--------|----|------------|-----|----|-----|
| 50 | 54 | 0.08 | 347302 | 61 | SPANNER 12 | M10 | 15 | 20  |

## RUBBER SPHERICAL WHEELS



### Description

Black rubber spherical wheels with chrome-plated brackets and electrolytically galvanised Zamak alloy fittings. The wheels are supplied in pair only (one right and one left wheels).

### Uses

Suitable for indoor applications, without aggressive chemicals. They can be used on fragile floors, even carpet. Examples of recommended applications: house and office furniture with low carrying capacity.

### Environments of use

Suitable for domestic environments without aggressive chemicals.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |







For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors







Suitable on tiles and delicate flooring; not recommended on abrasive, unpaved floors or in presence of processing residues. Not recommended in presence of obstacles.















|  | RH   |        | LH   |        |  |  |  |  |  | daN |
|---|------|--------|------|--------|---|---|---|---|---|-----|
|   | mm   | kg     | CODE | kg     |   |   |   |   |   |     |
| 45  | 0.09 | 354101 | 0.09 | 354201 | 56  | 28x28   | 19x19   | 5   | <b>20</b>   |     |
| 55  | 0.14 | 354102 | 0.14 | 354202 | 66  | 38x38   | 27x27   | 5   | <b>30</b>   |     |
| 65  | 0.19 | 354103 | 0.19 | 354203 | 76  | 38x38   | 27x27   | 5   | <b>40</b>   |     |



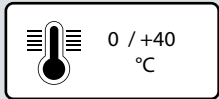
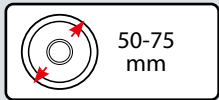
|  | RH   |        | LH   |        |  |  |  |  |  | daN |
|---|------|--------|------|--------|---|---|---|---|---|-----|
|   | mm   | kg     | CODE | kg     |   |   |   |   |   |     |
| 45  | 0.09 | 356101 | 0.09 | 356201 | 52  | SPANNER 12  | M8  | 15  | <b>20</b>   |     |
| 55  | 0.13 | 356102 | 0.13 | 356202 | 62  | SPANNER 12  | M8  | 15  | <b>30</b>   |     |
| 65  | 0.18 | 356103 | 0.18 | 356203 | 72  | SPANNER 12  | M10   | 15  | <b>40</b>   |     |



**Package with 2 wheels and 4 fittings**

|  |  |        |  |  |  |  |  |  |  |  | daN |
|---|---|--------|---|---|---|---|---|---|--|---|-----|
|   | mm  | kg     |   |   |   |   |   |   |  |   |     |
| 45  | 0.25  | 350001 | 52  | 28x28   | 19x19   | 5   | SPANNER 12  | M8  | 15   | <b>20</b>   |     |
| 55  | 0.35  | 350002 | 62  | 38x38   | 27x27   | 5   | SPANNER 12  | M8  | 15   | <b>30</b>   |     |

## TRANSPARENT POLYURETHANE WHEELS WITH METHACRYLATE CENTRE



### Description

Tyre: transparent polyurethane.

Centre: methacrylate.

Hub with plain bore hole which directly houses the axle.

Zinc-plated brackets.

### Uses

Suitable for indoor applications, without aggressive chemicals. They can be used on delicate flooring, even carpet.

Examples of recommended applications: house and office furniture with low carrying capacity.

### Environments of use

Suitable for domestic environments without aggressive chemicals.

|              |  |              |  |
|--------------|--|--------------|--|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*













### Floors

Suitable on tiles and fragile flooring; not recommended on abrasive, unpaved floors or in presence of processing residues.












Not recommended in presence of obstacles.





|  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|--|---|---|---|---|---|---|--|--|--|--|--|--|
| mm   | mm  | kg  | CODE   | mm  | mm  | mm  | mm  | mm  | daN   |  |  |  |  |  |  |
| 50   | 20  | 0.14  | 392002  | 71  | 42x42   | 32x32   | 4.5   | 19  | <b>20</b>   |  |  |  |  |  |  |
| 75   | 22  | 0.33  | 392004  | 103   | 60x60   | 43x43   | 6.5   | 28  | <b>40</b>   |  |  |  |  |  |  |



|  |  |  |         |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|--|---|---|---|---|---|--|--|--|--|--|--|--|
| mm   | mm  | kg  | CODE   | mm  | mm  | mm  | mm  | daN   |  |  |  |  |  |  |  |
| 50   | 20  | 0.14  | 392102  | 71  | M8  | 15  | 19  | <b>20</b>   |  |  |  |  |  |  |  |
| 75   | 22  | 0.31  | 392104  | 103   | M10   | 25  | 28  | <b>40</b>   |  |  |  |  |  |  |  |

Options available to order



Wheels with thread bracket d. 78 mm



Wheels with thread bracket d. 78 mm

# ANTISTATIC AND STATICALLY CONDUCTIVE SOLUTIONS



*ESD Protected Area*







SERIES **53 AS**

ELECTRICAL CONDUCTIVE RUBBER WHEELS WITH PRESSED STEEL DISCS

|              |                   |            |
|--------------|-------------------|------------|
| 80-200 mm    | 4 km/h 65-230 daN | 50-140 daN |
| -20 / +60 °C | <b>R</b> <10°Ω    |            |

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SERIES **62 ESD**

ESD "TR-ROLL" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <10°Ω WITH ALUMINIUM CENTRE

|                    |                    |                |
|--------------------|--------------------|----------------|
| 100-200 mm         | 4 km/h 225-560 daN | 225-480 daN    |
| 6 km/h 225-560 daN | -20 / +70 °C*      | <b>R</b> <10°Ω |

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SERIES **65 ESD**

ESD "TR" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <10°Ω WITH ALUMINIUM CENTRE

|                    |                    |                |
|--------------------|--------------------|----------------|
| 80-200 mm          | 4 km/h 170-680 daN | 150-360 daN    |
| 6 km/h 130-540 daN | -20 / +70 °C*      | <b>R</b> <10°Ω |

PAGE 370



SERIES **68 AS**

ELECTRICAL CONDUCTIVE POLYAMIDE 6 SOLID WHEELS

|              |                |
|--------------|----------------|
| upon request | <b>R</b> <10°Ω |
|--------------|----------------|

USE AND MAINTENANCE SUGGESTIONS

1. The user must ascertain the suitability of the wheels for use in ESD environments or in environments at risk of explosion (ATEX), in accordance with national or community legislation or with the technical standards of the sector for which it is intended (Directive 2014/34/EC, Directive 1999/92/EC, CEI EN 61340-5-1:2016, and similar).
2. Electrical resistance values indicated in Tellure Rôta documentation are measured in the temperature range prescribed by the ISO 22878:2004 standard (18-25 °C). As wheels may vary their electrical resistance according to the temperature, for environments with operating temperatures below 10 °C please contact Tellure Rôta.
3. When realising trolleys, chairs and furniture, it is not recommended to rely on a single conductive wheel. Because of the fact that the equipment may not rest on all wheels at the same time, an adequate number of conductive wheels must be used to ensure, in all conditions, the possibility of discharge the built up static to the ground.
4. It is forbidden to make changes to the product that could compromise its conductivity or performance.
5. Before use, make sure that the product is clean; the presence of dust or dirt could compromise the conductivity of the wheel. During cleaning, make sure you do not use products that create insulating films.
6. Check the wear of the tread and the cleanliness of the wheel at least quarterly, and in any case with appropriate frequency considering the environment, the use and the type of application, the conductivity.
7. Follow the maintenance instructions given in the user guide in the general catalogue.
8. Grease the components using products with conductivity and use characteristics suitable for the type of application.

NORMS OF REFERENCE

The main norms of reference for wheels and castors with specific electrical resistance are:






- **ISO 22878:2004** which defines the methods of measuring the electrical resistance of wheels;
- **ISO 22883:2004** which defines the range of the electrical resistance.

The reference standards for ATEX and ESD environments can be considered:

- Directive 1999/92/EC minimum requirements for improving the protection of the safety and health of workers who may be exposed to the risk of explosive atmospheres
- Directive 2014/34/EC on the harmonization of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres
- CEI EN 61340-5-1:2016 Electrostatics Part 5-1 general requirements for the protection of electronic devices from electrostatic phenomena.

**It is recommended to check any regulation on health and safety on the workplace or on specific application sector in force in the country where the product will be used.**

## ELECTRICAL CONDUCTIVE RUBBER WHEELS WITH PRESSED STEEL DISCS

-  80-200 mm
-  80 Shore A
-  65-230 daN  
4 km/h
-  50-140 daN
-  -20 / +60 °C



### Description

Tyre: electrical conductive rubber (electrical resistance below  $10^5$  Ohm), hardness 80 Shore A.

Centre: electrolytically galvanised steel plate, made of two riveted discs.

Cylindrical roller bearing hub in plastic cage.


### Uses

Suitable for trolleys with light-duty loads, also in potentially explosive areas and for ESD sensible environments. Suitable in the presence of obstacles and for indoor-outdoor use.

Examples of recommended applications: tool trolleys, trolleys for industrial indoor handling, small mobile scaffoldings, waste bin containers.

### Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and oils. Not suitable in presence of aggressive chemical agents.

|              |   |              |   |
|--------------|---|--------------|---|
| WEAK ACIDS   |  | WEAK BASES   |  |
| STRONG ACIDS |  | STRONG BASES |  |
| WATER        |  | HYDROCARBONS |  |
| ALCOHOL      |  | SOLVENTS     |  |

*For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.*



### Floors

Suitable for all types of floors, even outdoors.

They easily overcome obstacles, do not damage fragile floors, but they may mark the floor.



### Force required to push or tow a wheel

|   | 50 kg | 100 kg | 150 kg | 200 kg | 250 kg | 300 kg |
|---|-------|--------|--------|--------|--------|--------|
| 80 mm   | 5     | ----   | ----   | ----   | ----   | ----   |
| 100 mm  | 3     | ----   | ----   | ----   | ----   | ----   |
| 125 mm  | 2.5   | 6      | ----   | ----   | ----   | ----   |
| 140 mm  | 2.2   | 5.5    | 9      | ----   | ----   | ----   |
| 150 mm  | 2     | 5      | 8      | ----   | ----   | ----   |
| 160 mm  | 1.5   | 3.5    | 7.5    | ----   | ----   | ----   |
| 180 mm  | 1     | 3      | 6.1    | ----   | ----   | ----   |
| 200 mm  | 1     | 3      | 5.5    | 8.5    | ----   | ----   |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.










### Fittings with brackets



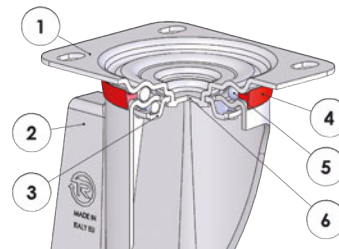
#### Standard-duty brackets NL

Maximum carrying capacity 230 daN - available diameters 80-200 mm  
Top plate, bolt hole and solid stem fittings. Available with front brake.



















|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|
| mm  | mm  | kg  | CODE  | mm  | mm  | daN   | daN   | daN   |  |  |  |  |  |  |  |  |
| 80  | 25  | 0.19  | 533121AS  | 12  | 39  | <b>260</b>  | <b>50</b>   | <b>65</b>   |  |  |  |  |  |  |  |  |
| 100   | 30  | 0.31  | 533122AS  | 12  | 44  | <b>300</b>  | <b>75</b>   | <b>80</b>   |  |  |  |  |  |  |  |  |
| 125   | 37.5  | 0.54  | 533103AS  | 15  | 44  | <b>330</b>  | <b>85</b>   | <b>130</b>  |  |  |  |  |  |  |  |  |
| 150   | 40  | 0.76  | 533111AS  | 15  | 44  | <b>350</b>  | <b>100</b>  | <b>170</b>  |  |  |  |  |  |  |  |  |
| 160   | 40  | 1.07  | 533110AS  | 20  | 58  | <b>370</b>  | <b>120</b>  | <b>180</b>  |  |  |  |  |  |  |  |  |
| 180   | 45  | 1.39  | 533105AS  | 20  | 58  | <b>390</b>  | <b>130</b>  | <b>200</b>  |  |  |  |  |  |  |  |  |
| 200   | 50  | 1.81  | 533106AS  | 20  | 58  | <b>410</b>  | <b>140</b>  | <b>230</b>  |  |  |  |  |  |  |  |  |

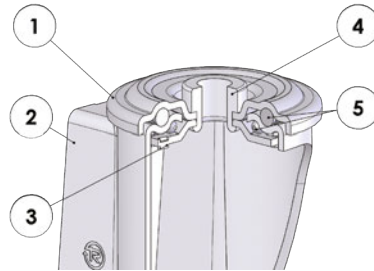
**Standard-duty brackets NL - max carrying capacity 230 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| mm  | mm  | kg  | CODE  | kg  | CODE  | kg  | CODE  | mm  | mm  | mm  | mm  | mm  | mm  | daN   |   |  |
| 80  | 25  | 0.70  | 535101AS  | 0.51  | 535901AS  | 0.89  | 535421AS  | 107   | 100x85  | 80x60   | 9   | 37  | 120   | <b>65</b>   |   |  |
| 100   | 30  | 0.84  | 535102AS  | 0.65  | 535902AS  | 1.03  | 535422AS  | 128   | 100x85  | 80x60   | 9   | 35  | 120   | <b>80</b>   |   |  |
| 125   | 37.5  | 1.21  | 535103AS  | 0.95  | 535903AS  | 1.33  | 535423AS  | 156   | 100x85  | 80x60   | 9   | 37  | 120   | <b>130</b>  |   |  |
| 150   | 40  | 1.45  | 535111AS  | 1.07  | 535911AS  | 1.60  | 535431AS  | 182   | 100x85  | 80x60   | 9   | 34  | 120   | <b>170</b>  |   |  |
| 160   | 40  | 2.50  | 535110AS  | 2.13  | 535910AS  | 2.75  | 535430AS  | 199   | 140x110   | 105x80  | 11  | 56  | 156   | <b>180</b>  |   |  |
| 180   | 45  | 2.85  | 535105AS  | 2.56  | 535905AS  | 3.13  | 535425AS  | 219   | 140x110   | 105x80  | 11  | 56  | 156   | <b>200</b>  |   |  |
| 200   | 50  | 3.31  | 535106AS  | 3.05  | 535906AS  | 3.45  | 535426AS  | 240   | 140x110   | 105x80  | 11  | 56  | 156   | <b>230</b>  |   |  |

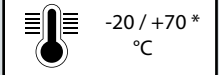
**Standard-duty brackets NL - max carrying capacity 230 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

| mm  | mm   | kg   | CODE     | kg   | CODE     | mm  | mm  | mm | mm | mm  | daN        |  |  |  |  |  |  |  |  |  |  |
|-----|------|------|----------|------|----------|-----|-----|----|----|-----|------------|--|--|--|--|--|--|--|--|--|--|
| 80  | 25   | 0.63 | 537901AS | 0.80 | 538221AS | 107 | 73  | 12 | 37 | 120 | <b>65</b>  |  |  |  |  |  |  |  |  |  |  |
| 100 | 30   | 0.76 | 537902AS | 0.96 | 538222AS | 128 | 73  | 12 | 35 | 120 | <b>80</b>  |  |  |  |  |  |  |  |  |  |  |
| 125 | 37.5 | 1.12 | 537903AS | 1.27 | 538223AS | 156 | 73  | 12 | 37 | 120 | <b>130</b> |  |  |  |  |  |  |  |  |  |  |
| 150 | 40   | 1.38 | 537911AS | 1.52 | 538231AS | 182 | 73  | 12 | 34 | 120 | <b>170</b> |  |  |  |  |  |  |  |  |  |  |
| 160 | 40   | 1.85 | 537910AS | 2.10 | 538230AS | 193 | 102 | 20 | 56 | 156 | <b>180</b> |  |  |  |  |  |  |  |  |  |  |
| 180 | 45   | 2.73 | 537905AS | 3.01 | 538225AS | 214 | 102 | 20 | 56 | 156 | <b>200</b> |  |  |  |  |  |  |  |  |  |  |
| 200 | 50   | 3.22 | 537906AS | 3.35 | 538226AS | 236 | 102 | 20 | 56 | 156 | <b>230</b> |  |  |  |  |  |  |  |  |  |  |

## ESD "TR-ROLL" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <math><10^9 \Omega</math> WITH ALUMINIUM CENTRE



### Description

Tyre: very thick ESD TR-Roll polyurethane, light-grey non-marking colour, hardness 75 Shore A, with excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Suitable for medium-heavy duty application, in those environments where, for safety reasons or for the correct functioning of the equipment, an electro static discharge is required.

This polyurethane compound combines the carrying capacity and the resistance to wear and tear of the polyurethanes with the ability to overcome obstacles and to damp noise, vibrations and impacts of the elastic rubber.

Combined with appropriate brackets, they guarantee excellent performance for mechanical handling up to 16 km/h.

The excellent rolling resistance guarantees an easy handling of heavy loads even with wheels of small diameter.

### Environments of use

Industrial environments, even in presence of humidity and oils. Not suitable in presence of strong acids and solvents.

\* Electrical resistance values measured in the temperature range 18-25 ° C (as per ISO 22878: 2004). For environments with operating temperatures below 10 ° C, please contact Tellure Rôta.

|              |  |
|--------------|--|
| WEAK ACIDS   |  |
| STRONG ACIDS |  |
| WATER        |  |
| ALCOHOL      |  |

|              |  |
|--------------|--|
| WEAK BASES   |  |
| STRONG BASES |  |
| HYDROCARBONS |  |
| SOLVENTS     |  |

For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.



### Floors

Suitable for all types of industrial floors, even outdoors. Facilitates the overcoming of obstacles.

It does not damage the floors.



### Force required to push or tow a wheel

|   | 100 kg | 200 kg | 300 kg | 400 kg | 500 kg | 550 kg |
|---|--------|--------|--------|--------|--------|--------|
| 100 mm  | <1     | 2      | ----   | ----   | ----   | ----   |
| 125 mm  | <1     | 1,7    | 3,1    | ----   | ----   | ----   |
| 160 mm  | <1     | 1,6    | 2,8    | 4,4    | ----   | ----   |
| 200 mm  | <1     | 1,2    | 2,3    | 3,7    | 5,2    | 6,1    |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Fittings with brackets



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and centralised brake.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 560 daN - available diameters 100-250 mm  
Top plate fitting. Available with front brake and adjustable rear brake.

















#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 560 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear brake.

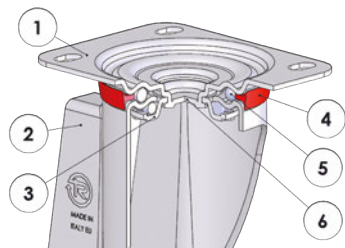
SERIES **62ESD**

**ESD "TR-ROLL" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <math> <math>**








|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm   | daN   | daN   | daN   | daN   |
| 100   | 40  | 0,45  | 622102ESD   | 0,37  | 624102ESD   | 15  | 40  | 32  | 9  | <b>320</b>  | <b>240</b>  | <b>240</b>  | <b>240</b>  |
| 125   | 40  | 0,79  | 622113ESD   | 0,54  | 624113ESD   | 20  | 40  | 47  | 14   | <b>400</b>  | <b>280</b>  | <b>280</b>  | <b>280</b>  |
| 160   | 50  | 1,20  | 622104ESD   | 0,95  | 624104ESD   | 20  | 58  | 47  | 14   | <b>640</b>  | <b>440</b>  | <b>440</b>  | <b>440</b>  |
| 200   | 50  | 1,74  | 622106ESD   | 1,52  | 624106ESD   | 20  | 58  | 47  | 14   | <b>800</b>  | <b>480</b>  | <b>560</b>  | <b>560</b>  |

**Standard-duty brackets NL - max carrying capacity 300 daN**

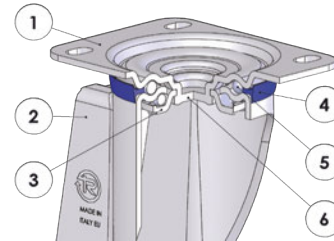


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|
| mm  | mm  | kg  | COD.  | kg  | COD.  | kg  | COD.  | mm  | mm   | mm  | mm  | mm  | mm  | mm  | daN   |
| 100   | 40  | 0,86  | 624402ESD   | 0,83  | 626202ESD   | 1,05  | 627302ESD   | 128   | 100x85   | 80x60   | 9   | 35  | 120   | <b>200</b>  |   |
| 125   | 40  | 1,35  | 624413ESD   | 1,17  | 626213ESD   | 1,51  | 627313ESD   | 156   | 100x85   | 80x60   | 9   | 37  | 120   | <b>220</b>  |   |
| 160   | 50  | 2,88  | 624410ESD   | 2,24  | 627704ESD   | 3,42  | 627304ESD   | 199   | 140x110  | 105x80  | 11  | 56  | 156   | <b>300</b>  |   |
| 200   | 50  | 3,18  | 624406ESD   | 3,04  | 627706ESD   | 3,70  | 627306ESD   | 240   | 140x110  | 105x80  | 11  | 56  | 156   | <b>300</b>  |   |



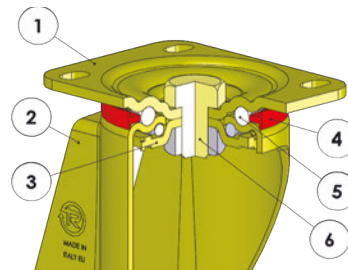
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electroplated galvanised steel
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | COD.      | kg   | COD.      | kg   | COD.      | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|-----------|------|-----------|------|-----------|-----|---------|--------|----|----|-----|------------|
| 160 | 50 | 2,95 | 624504ESD | 2,24 | 627704ESD | 3,42 | 627404ESD | 199 | 140x110 | 105x80 | 11 | 58 | 178 | <b>440</b> |
| 200 | 50 | 3,69 | 624506ESD | 3,04 | 627706ESD | 4,07 | 627406ESD | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |

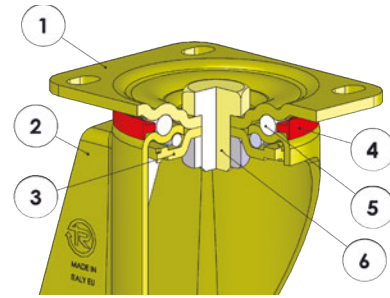
**Medium-heavy duty brackets P - max carrying capacity 560 daN**



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | COD.      | kg   | COD.      | kg   | COD.      | mm  | mm     | mm    | mm | mm | mm  | daN        | daN        |
|-----|----|------|-----------|------|-----------|------|-----------|-----|--------|-------|----|----|-----|------------|------------|
| 100 | 40 | 1,35 | 627602ESD | 0,85 | 628512ESD | 1,52 | 627202ESD | 138 | 100x85 | 80x60 | 9  | 46 | 123 | <b>240</b> | <b>240</b> |
| 125 | 40 | 1,70 | 627613ESD | 1,26 | 628513ESD | 1,87 | 627213ESD | 161 | 100x85 | 80x60 | 9  | 44 | 123 | <b>280</b> | <b>280</b> |

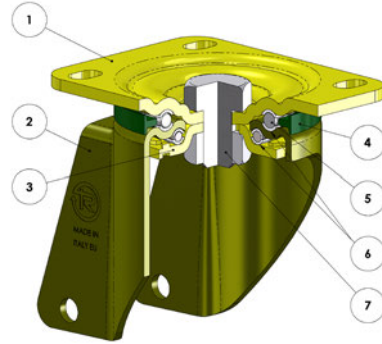
Medium-heavy duty brackets P - max carrying capacity 560 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| 160 |    | 200  |           | 205  |           | 250  |           | 140x110 |         | 105x80 |    | 11 |     | 70  |     | 126 |     | 4 km/h |     | 6 km/h |     |
|-----|----|------|-----------|------|-----------|------|-----------|---------|---------|--------|----|----|-----|-----|-----|-----|-----|--------|-----|--------|-----|
| mm  | mm | kg   | COD.      | kg   | COD.      | kg   | COD.      | mm      | mm      | mm     | mm | mm | mm  | mm  | mm  | daN | daN | daN    | daN | daN    | daN |
| 160 | 50 | 3,60 | 627610ESD | 2,11 | 628514ESD | 4,17 | 627204ESD | 205     | 140x110 | 105x80 | 11 | 70 | 126 | 440 | 440 | 440 | 440 | 440    | 440 | 440    | 440 |
| 200 | 50 | 4,31 | 627516ESD | 2,85 | 628516ESD | 4,91 | 627206ESD | 250     | 140x110 | 105x80 | 11 | 70 | 126 | 560 | 560 | 560 | 560 | 560    | 560 | 560    | 560 |

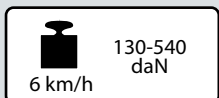
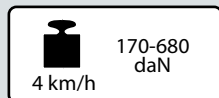
Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 560 daN



- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

| mm  |    | kg   |           | kg   |           | kg   |           | mm  |         |        |    |    | daN |            |            |
|-----|----|------|-----------|------|-----------|------|-----------|-----|---------|--------|----|----|-----|------------|------------|
| mm  | mm | kg   | COD.      | kg   | COD.      | kg   | COD.      | mm  | mm      | mm     | mm | mm | mm  | 4 km/h     | 6 km/h     |
| 160 | 50 | 3,52 | 625010ESD | 2,11 | 628514ESD | 4,12 | 629904ESD | 205 | 140x110 | 105x80 | 11 | 70 | 126 | <b>440</b> | <b>440</b> |
| 200 | 50 | 4,10 | 625016ESD | 2,85 | 628516ESD | 4,66 | 629906ESD | 250 | 140x110 | 105x80 | 11 | 70 | 126 | <b>560</b> | <b>560</b> |

## ESD "TR" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <math><10^9 \Omega</math> WITH ALUMINIUM CENTRE



### Description

Tyre: ESD TR polyurethane, dark-grey non-marking colour, hardness 90 Shore A, with excellent rolling resistance and elasticity and good resistance to wear and tear.

Centre: made of cast aluminium.

Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding; also available without bearings.

### Uses

Suitable for medium-heavy duty application, in those environments where, for safety reasons or for the correct functioning of the equipment, an electro static discharge is required, also with mechanical handling, with speed up to 6 km/h. .

The excellent rolling resistance allows an easy handling of heavy loads even with wheels of small diameter.

### Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated vapour.

\* Electrical resistance values measured in the temperature range 18-25 ° C (as per ISO 22878: 2004). For environments with operating temperatures below 10 ° C, please contact Tellure Rôta.

|              |                          |
|--------------|--------------------------|
| WEAK ACIDS   | <input type="checkbox"/> |
| STRONG ACIDS | <input type="checkbox"/> |
| WATER        | <input type="checkbox"/> |
| ALCOHOL      | <input type="checkbox"/> |

|              |                          |
|--------------|--------------------------|
| WEAK BASES   | <input type="checkbox"/> |
| STRONG BASES | <input type="checkbox"/> |
| HYDROCARBONS | <input type="checkbox"/> |
| SOLVENTS     | <input type="checkbox"/> |



For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 40.

### Floors

Suitable for tiles and cement-resin.  
Not suitable if large obstacles are present.



### Force required to push or tow a wheel

|   | 150 kg | 250 kg | 350 kg | 450 kg | 550 kg | 650 kg |
|---|--------|--------|--------|--------|--------|--------|
| 80 mm   | 3,2    | ---    | ---    | ---    | ---    | ---    |
| 100 mm  | 2,3    | 5,2    | ---    | ---    | ---    | ---    |
| 125 mm  | 1,7    | 4,5    | 6,5    | ---    | ---    | ---    |
| 150 mm  | 1,2    | 3,8    | 6      | 7      | 8      | ---    |
| 160 mm  | <1     | 3,3    | 5      | 6,5    | 8      | ---    |
| 200 mm  | <1     | 3      | 4,9    | 6      | 7,8    | 9      |

For each load and diameter, the table indicates the force (in daN) needed to push or tow a single wheel at the constant speed of 4 km/h on smooth flooring. For manual handling of a 4-wheeled trolley we recommend diameters that have values < 5 daN, for frequent handling we recommend diameters with values < 3 daN.

### Available with brackets :



#### Standard-duty brackets NL

Maximum carrying capacity 300 daN - available diameters 80-200 mm  
Top plate and bolt hole fittings. Available with the front brake.



#### Medium-duty brackets M

Maximum carrying capacity 500 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable front brake.



#### Medium-heavy duty brackets P

Maximum carrying capacity 680 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.



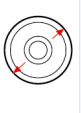
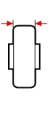




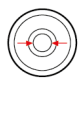

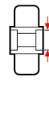





#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 680 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable rear brake.

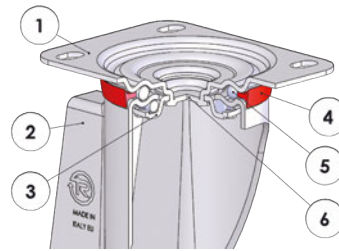
# 65<sup>ESD</sup>

## ESD "TR" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE $<10^9 \Omega$ WITH ALUMINIUM CENTRE

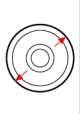








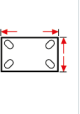
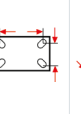
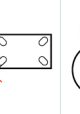
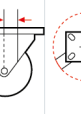



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|--|---|---|---|
| mm  | mm  | kg  | COD.  | kg  | COD.  | mm  | mm.   | mm  | mm  | daN  | daN   | daN   | daN   |
| 80  | 25  | 0,20  | 652101ESD   | 0,15  | 654101ESD   | 12  | 30  | 28  | 8   | <b>220</b>   | <b>150</b>  | <b>170</b>  | <b>130</b>  |
| 100   | 30  | 0,34  | 652102ESD   | 0,25  | 654102ESD   | 12  | 40  | 32  | 10  | <b>280</b>   | <b>225</b>  | <b>200</b>  | <b>160</b>  |
| 125   | 35  | 0,50  | 652103ESD   | 0,41  | 654103ESD   | 12  | 40  | 32  | 10  | <b>400</b>   | <b>280</b>  | <b>320</b>  | <b>250</b>  |
| 150   | 40  | 0,91  | 651104ESD   | 0,66  | 653104ESD   | 20  | 50  | 47  | 14  | <b>680</b>   | <b>330</b>  | <b>480</b>  | <b>380</b>  |
| 160   | 50  | 1,25  | 652114ESD   | 0,99  | 654114ESD   | 20  | 58  | 47  | 14  | <b>750</b>   | <b>350</b>  | <b>640</b>  | <b>510</b>  |
| 200   | 50  | 1,47  | 651106ESD   | 1,16  | 653106ESD   | 20  | 55  | 52  | 15  | <b>800</b>   | <b>360</b>  | <b>680</b>  | <b>540</b>  |

### Standard-duty brackets NL - max carrying capacity 300 daN



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |            |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------|
| mm  | mm  | kg  | COD.  | kg  | COD.  | kg  | COD.  | mm  | mm  | mm  | mm  | mm  | daN   |            |
| 80  | 25  | 0,72  | 659301ESD   | 0,52  | 658201ESD   | 0,91  | 656501ESD   | 107   | 100x85  | 80x60   | 9   | 37  | 120   | <b>170</b> |
| 100   | 30  | 0,94  | 659302ESD   | 0,69  | 658202ESD   | 1,08  | 656502ESD   | 128   | 100x85  | 80x60   | 9   | 35  | 120   | <b>200</b> |
| 125   | 35  | 1,14  | 659303ESD   | 0,89  | 658203ESD   | 1,28  | 656503ESD   | 156   | 100x85  | 80x60   | 9   | 37  | 120   | <b>220</b> |
| 150   | 40  | 2,34  | 659304ESD   | 2,04  | 658104ESD   | 2,63  | 656504ESD   | 194   | 140x110   | 105x80  | 11  | 56  | 156   | <b>300</b> |
| 160   | 50  | 2,68  | 659514ESD   | 2,38  | 658114ESD   | 2,97  | 656514ESD   | 198   | 140x110   | 105x80  | 11  | 56  | 156   | <b>300</b> |
| 200   | 50  | 3,05  | 659306ESD   | 2,76  | 658106ESD   | 3,25  | 656506ESD   | 240   | 140x110   | 105x80  | 11  | 56  | 156   | <b>300</b> |

#### Options available to order:

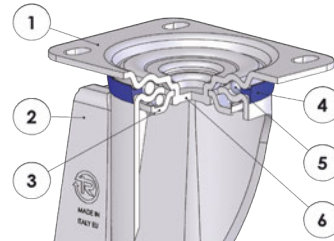


Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

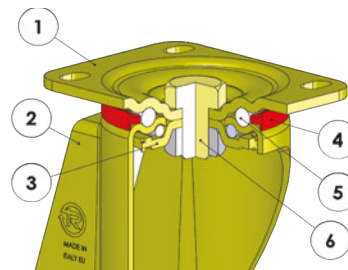
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: blue polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with the plate and cold-riveted
- Available with adjustable total front foot brake

| mm  | mm | kg   | COD.      | kg   | COD.      | kg   | COD.      | mm  | mm      | mm     | mm | mm | mm  | daN        |
|-----|----|------|-----------|------|-----------|------|-----------|-----|---------|--------|----|----|-----|------------|
| 150 | 40 | 2,68 | 659604ESD | 2,04 | 658104ESD | 3,16 | 659704ESD | 194 | 140x110 | 105x80 | 11 | 58 | 178 | <b>480</b> |
| 160 | 50 | 3,03 | 659614ESD | 2,38 | 658114ESD | 3,49 | 659714ESD | 199 | 140x110 | 105x80 | 11 | 58 | 178 | <b>500</b> |
| 200 | 50 | 3,44 | 659606ESD | 2,76 | 658106ESD | 3,80 | 659706ESD | 240 | 140x110 | 105x80 | 11 | 50 | 178 | <b>500</b> |

**Heavy duty brackets P - max carrying capacity 680 daN**



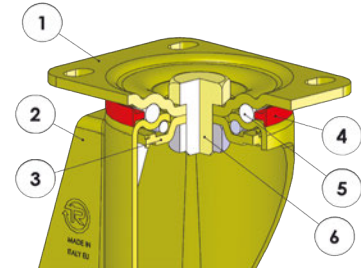
- 1) Plate: galvanised colonial steel plate
  - 2) Fork: galvanised colonial steel plate
  - 3) Ball race ring: galvanised colonial steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with total front foot brake

| mm  | mm | kg   | COD.      | kg   | COD.      | kg   | COD.      | mm  | mm     | mm    | mm | mm | mm  | daN        | daN        |
|-----|----|------|-----------|------|-----------|------|-----------|-----|--------|-------|----|----|-----|------------|------------|
| 100 | 30 | 1,20 | 657602ESD | 0,82 | 658602ESD | 1,35 | 656602ESD | 138 | 100x85 | 80x60 | 9  | 46 | 123 | <b>200</b> | <b>160</b> |
| 125 | 35 | 1,39 | 657603ESD | 0,97 | 658603ESD | 1,54 | 656603ESD | 161 | 100x85 | 80x60 | 9  | 44 | 123 | <b>320</b> | <b>250</b> |

SERIES **65<sup>ESD</sup>**

**ESD "TR" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <math>10^9 \Omega</math> WITH ALUMINIUM CENTRE**

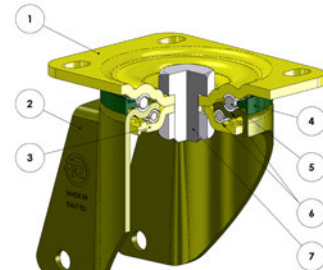
**Medium-heavy duty brackets P - max carrying capacity 680 daN**



- 1) Plate: galvanised colonial steel plate
  - 2) Fork: galvanised colonial steel plate
  - 3) Ball race ring: galvanised colonial steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear foot brake

| mm  |    | kg   |           | COD. |           | kg   |           | COD. |         | mm     |    | mm |     | mm  |     | daN |  |
|-----|----|------|-----------|------|-----------|------|-----------|------|---------|--------|----|----|-----|-----|-----|-----|--|
| 150 | 40 | 3,18 | 657604ESD | 2,19 | 658604ESD | 3,75 | 656604ESD | 200  | 140x110 | 105x80 | 11 | 70 | 126 | 480 | 250 |     |  |
| 160 | 50 | 3,52 | 657514ESD | 2,53 | 658614ESD | 4,09 | 656614ESD | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 640 | 380 |     |  |
| 200 | 50 | 3,94 | 657606ESD | 2,48 | 658606ESD | 4,51 | 656606ESD | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 680 | 510 |     |  |

**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 680 daN**



- 1) Top Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball Race Ring: electrolytically galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King pin: steel screw, class 8.8 and stainless steel nut
- Available with rear adjustable brake

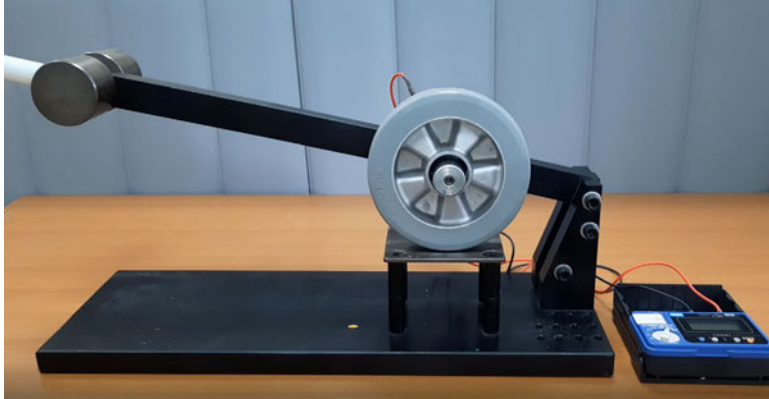
| mm  |    | kg   |           | COD. |           | kg   |           | COD. |         | mm     |    | mm |     | mm  |     | daN |  |
|-----|----|------|-----------|------|-----------|------|-----------|------|---------|--------|----|----|-----|-----|-----|-----|--|
| 150 | 40 | 3,18 | 657544ESD | 2,19 | 658604ESD | 3,66 | 656674ESD | 200  | 140x110 | 105x80 | 11 | 70 | 126 | 480 | 250 |     |  |
| 160 | 50 | 3,52 | 657554ESD | 2,53 | 658614ESD | 4,09 | 656684ESD | 205  | 140x110 | 105x80 | 11 | 70 | 126 | 640 | 380 |     |  |
| 200 | 50 | 3,94 | 657546ESD | 2,48 | 658606ESD | 4,41 | 656676ESD | 250  | 140x110 | 105x80 | 11 | 70 | 126 | 680 | 510 |     |  |



## ELECTRICAL RESISTANCE MEASUREMENT ACCORDING TO ISO 2878: 2004

The TR Lab, Test & Research laboratory of Tellure Rôta, has the necessary equipment for the measurement of electrical resistance on the wheel according to **ISO 22878: 2004**.

At the customer's request, the laboratory can issue a test report with the results of the tests carried out.

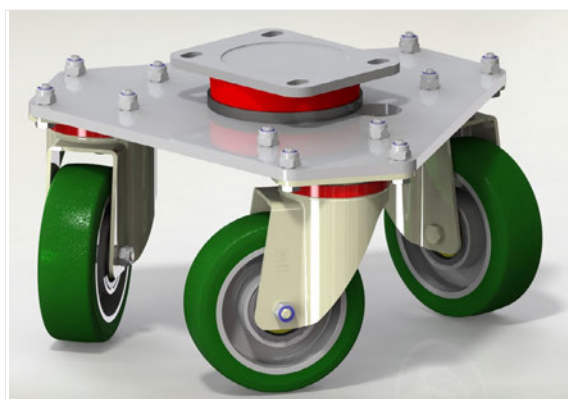


## TRIPODS















Originally designed to move theatre stage sets, Tellure Rôta tripods are ideally suited to **transporting heavy loads in a tight space** with minimal effort by operators as well as very little noise and few vibrations. Using “TR” and “TR-Roll” polyurethane wheels ensures a long lifespan together with low starting and rolling resistance.













## TRIPODS WITH WHEELS FROM SERIES 62AL



### Available with NL brackets (standard duty)

|  |  |  |         |  |  |  |  |  |  |
|---|---|---|--|---|---|---|--|---|---|
| mm  | mm  | kg  | COD.   | mm  | mm  | mm  | mm   | mm  | daN   |
| 100   | 40  | 8.47  | 062074  | 170   | 135x110   | 105x80  | 11   | 416   | <b>600</b>  |
| 125   | 40  | 10.20   | 062140  | 198   | 135x110   | 105x80  | 11   | 466   | <b>660</b>  |

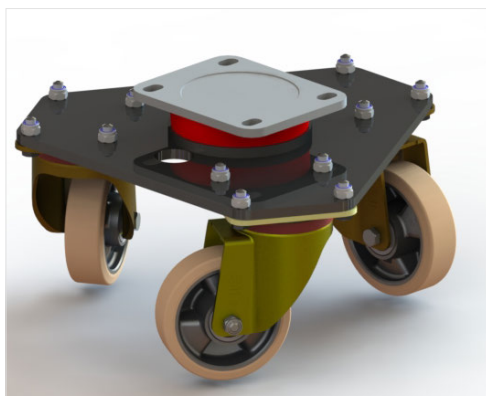
### Available with P brackets (medium-heavy duty)

|  |  |  |         |  |  |  |  |  |  |
|---|---|---|--|---|---|---|--|---|---|
| mm  | mm  | kg  | COD.   | mm  | mm  | mm  | mm   | mm  | daN   |
| 100   | 40  | 9.63  | 062141  | 179   | 135x110   | 105x80  | 11   | 440   | <b>900</b>  |
| 125   | 40  | 11.20   | 062199  | 202   | 135x110   | 105x80  | 11   | 480   | <b>1000</b>   |

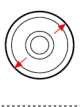
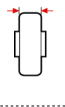

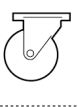

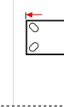


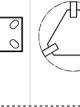





The loading capacity refers to manual handling (up to 4 km/h), on regular surfaces and in the absence of obstacles.

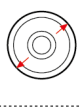
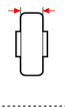

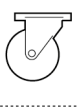
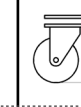

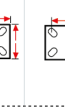
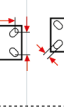
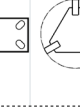



## TRIPODS WITH WHEELS FROM SERIES 65AL



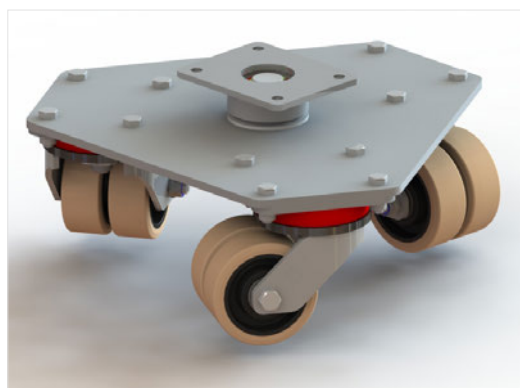
### Available with NL brackets (standard duty)

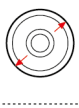
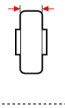

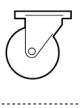
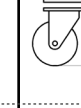


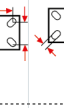



|  |  |  |         |  |  |  |  |  |  |  |
|---|---|---|--|---|---|---|---|---|---|--|
| mm  | mm  | kg  | COD.   | mm  | mm  | mm  | mm  | mm  | daN   |  |
| 100   | 30  | 7.92  | 065016  | 170   | 135x110   | 105x80  | 11  | 416   | <b>600</b>  |  |
| 125   | 35  | 9.54  | 065017  | 198   | 135x110   | 105x80  | 11  | 466   | <b>660</b>  |  |

### Available with P brackets (medium-heavy duty)

|  |  |  |         |  |  |  |  |  |  |  |
|---|---|---|--|---|---|---|---|---|---|--|
| mm  | mm  | kg  | COD.   | mm  | mm  | mm  | mm  | mm  | daN   |  |
| 100   | 30  | 8.82  | 065123  | 179   | 135x110   | 105x80  | 11  | 440   | <b>750</b>  |  |
| 125   | 35  | 10.40   | 065134  | 202   | 135x110   | 105x80  | 11  | 480   | <b>1000</b>   |  |

## TRIPODS WITH WHEELS FROM SERIES 64

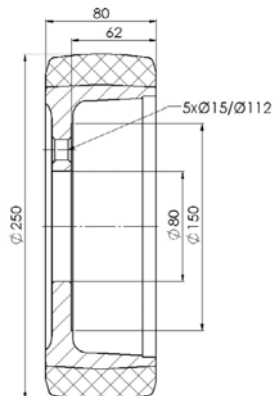


|  |  |  |         |  |  |  |  |  |  |  |
|---|---|---|--|---|---|---|---|---|---|--|
| mm  | mm  | kg  | COD.   | mm  | mm  | mm  | mm  | mm  | daN   |  |
| 100   | 38+38   | 23.60   | 064328  | 190   | 135x110   | 105x80  | 11  | 540   | <b>1000</b>   |  |

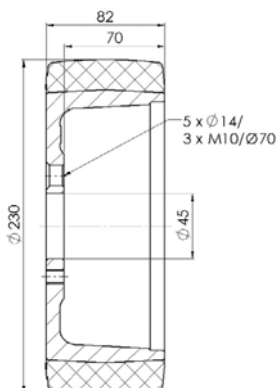


The loading capacity refers to manual handling (up to 4 km/h), on regular surfaces and in the absence of obstacles.

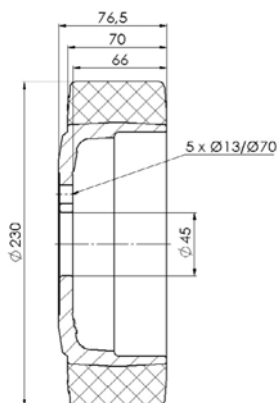
## "TR" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



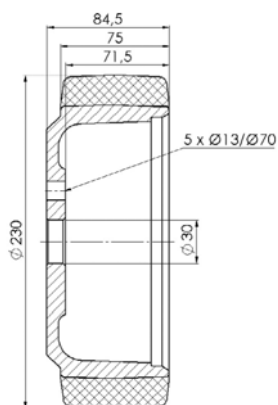
|     |    |      |             |
|-----|----|------|-------------|
|     |    |      |             |
| mm  | mm | kg   | CODE        |
| 250 | 80 | 7,24 | 064413      |
|     |    |      | daN         |
|     |    |      | <b>1400</b> |



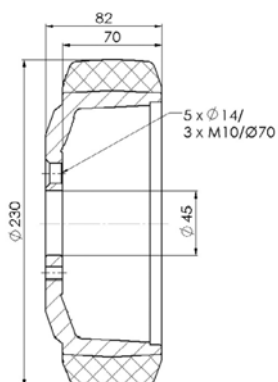
|     |    |      |             |
|-----|----|------|-------------|
|     |    |      |             |
| mm  | mm | kg   | CODE        |
| 230 | 82 | 5,91 | 064665      |
|     |    |      | daN         |
|     |    |      | <b>1100</b> |



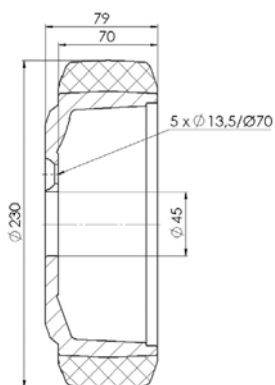
|     |    |      |             |
|-----|----|------|-------------|
|     |    |      |             |
| mm  | mm | kg   | CODE        |
| 230 | 70 | 4,80 | 064712      |
|     |    |      | daN         |
|     |    |      | <b>1000</b> |



|     |    |      |        |             |
|-----|----|------|--------|-------------|
|     |    |      |        |             |
| mm  | mm | kg   | CODE   | daN         |
| 230 | 75 | 6,80 | 064222 | <b>1400</b> |

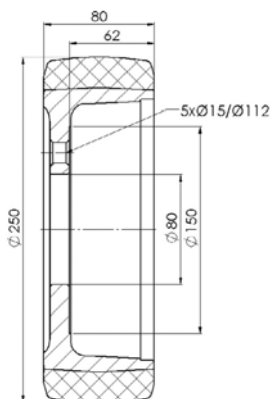
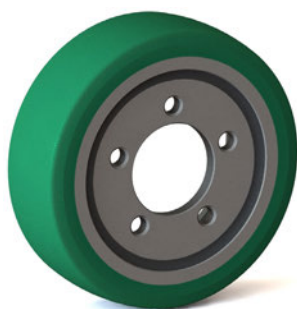


|     |    |      |        |             |
|-----|----|------|--------|-------------|
|     |    |      |        |             |
| mm  | mm | kg   | CODE   | daN         |
| 230 | 70 | 5,73 | 064673 | <b>1000</b> |

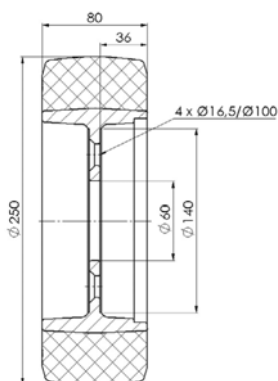


|     |    |      |        |             |
|-----|----|------|--------|-------------|
|     |    |      |        |             |
| mm  | mm | kg   | CODE   | daN         |
| 230 | 70 | 5,47 | 064674 | <b>1000</b> |

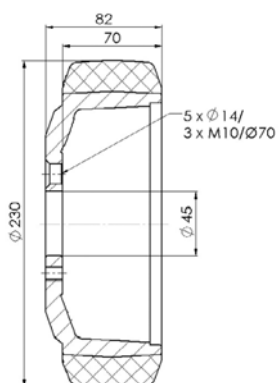
**"TR-ROLL" POLYURETHANE DRIVE WHEELS,  
CAST IRON CENTRE**



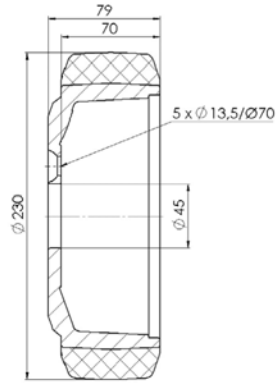
|     |    |      |        |             |
|-----|----|------|--------|-------------|
|     |    |      |        |             |
| mm  | mm | kg   | CODE   | daN         |
| 250 | 80 | 7,24 | 062730 | <b>1000</b> |



|     |    |      |        |             |
|-----|----|------|--------|-------------|
|     |    |      |        |             |
| mm  | mm | kg   | CODE   | daN         |
| 250 | 80 | 6,17 | 062719 | <b>1200</b> |



|     |    |      |        |             |
|-----|----|------|--------|-------------|
|     |    |      |        |             |
| mm  | mm | kg   | CODE   | daN         |
| 230 | 70 | 5,03 | 062728 | <b>1000</b> |



|     |    |      |             |
|-----|----|------|-------------|
|     |    |      |             |
| mm  | mm | kg   | CODE        |
| 230 | 70 | 5,02 | 062729      |
|     |    |      | daN         |
|     |    |      | <b>1000</b> |

## PRODUCTS FOR SPECIFIC CUSTOMER REQUIREMENTS

Tellure Rôta designs and implements customised solutions, manufactured according to the specific requirements of customers.

Thanks to its flexible production system and a specific prototyping department, Tellure Rôta can make customised products which are then tested in TR Lab to verify their performance.

The manufacturing of special solutions is subject to minimum quantities, which can vary according to the type of product.

The designing of a Tellure Rôta customised goes through the following phases:

- MEETING THE CUSTOMER TO ACQUIRE THE SPECIFIC REQUIREMENTS
- CREATING A DEDICATED PROJECT
- SHARING THE RESULTS WITH THE CUSTOMER
- IMPLEMENTING THE WHEEL PROTOTYPE
- QUALITY TEST
- CUSTOMER VALIDATION
- PRODUCTION START

### Some examples of customised projects



THERMOPLASTIC MATERIAL WHEEL WITH CUSTOMISED COLOURS



THERMOPLASTIC MATERIAL WHEEL FOR THE PALLET TRUCK SECTOR



ELECTROWELDED CASTORS WITH STEERING SYSTEM



POLYURETHANE WHEELS WITH INCREASED THICKNESS TO BETTER OVERCOME OBSTACLES





BRACKETS WITH CUSTOMISED STEM



BRACKETS WITH CUSTOMISED STEM



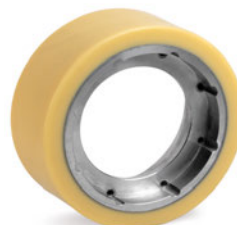
WHEEL WITH TWIN ELECTROWELDED BRACKET  
DIAM. 400 MM FOR HEAVY-DUTY LOADS



POLYAMIDE 6 WHEEL FOR EXTRA-HEAVY LOADS



CASTORS WITH LOW TOTAL HEIGHT FOR  
AGV-AMR



HIGH PERFORMANCE POLYURETHANE DRIVE WHEELS



POLYURETHANE COATING



COATING FOR MOTORWHEELS

# ACCESSORIES FOR WHEELS AND CASTORS: THREADGUARDS AND COUNTER-PLATES

## Threadguards

### Threadguards in galvanised steel for series 22-52

|          |      | GALVANISED |  |
|----------|------|------------|--|
| mm       | mm   | CODE       |  |
| 80       | 25   | 100027     |  |
| 100      | 30   | 100027     |  |
| 125      | 37.5 | 100010     |  |
| 140      | 37.5 | 100010     |  |
| 150 - 22 | 40   | 100028     |  |
| 150 - 52 | 40   | 100005     |  |
| 200      | 50   | 100007     |  |

### Threadguards in galvanised steel for series 23-53

|     |      | GALVANISED |  |
|-----|------|------------|--|
| mm  | mm   | CODE       |  |
| 80  | 25   | 100010     |  |
| 100 | 30   | 100009     |  |
| 125 | 37.5 | 100012     |  |
| 140 | 37.5 | 100014     |  |
| 150 | 40   | 100014     |  |
| 160 | 40   | 100015     |  |
| 180 | 50   | 100016     |  |
| 200 | 50   | 100017     |  |

### Polyamide 6 threadguards and galva- nised steel series 60-61-71 (models with plain bore and ball bearing)

|     |    | POL 6  | GALVANISED |
|-----|----|--------|------------|
| mm  | mm | CODE   | CODE       |
| 80  | 30 | 100501 | 100461     |
| 100 | 30 | 100502 | 100462     |
| 125 | 35 | 100503 | 100463     |
| 150 | 35 | 100504 |            |
| 150 | 45 | 100514 |            |
| 200 | 50 | 100506 |            |

### Threadguards in galvanised steel for series 63AC

|     |    | GALVANISED |  |
|-----|----|------------|--|
| mm  | mm | CODE       |  |
| 100 | 30 | 100031     |  |
| 125 | 40 | 100032     |  |
| 150 | 40 | 100033     |  |
| 200 | 50 | 100035     |  |

### Threadguards in galvanised steel for series 65AL

|     |    | GALVANISED |  |
|-----|----|------------|--|
| mm  | mm | CODE       |  |
| 80  | 25 | 100461     |  |
| 100 | 30 | 100462     |  |
| 125 | 35 | 100463     |  |
| 150 | 40 | 100464     |  |
| 200 | 50 | 100466     |  |

### Threadguards in galvanised steel for series 65GH

|     |    | GALVANISED |  |
|-----|----|------------|--|
| mm  | mm | CODE       |  |
| 150 | 30 | 100033     |  |
| 150 | 35 | 100033     |  |
| 175 | 35 | 100034     |  |
| 200 | 45 | 100035     |  |

## Threadguards

### Threadguards in galvanised steel and stainless steel for series 66

| GALVANISED |    |        |
|------------|----|--------|
| mm         | mm | CODE   |
| 80         | 25 | 100461 |
| 100        | 30 | 100031 |
| 125        | 30 | 100032 |
| 150        | 40 | 100033 |
| 175        | 40 | 100034 |
| 200        | 50 | 100035 |

### Threadguards in galvanised steel and in stainless steel for series 68

| GALVANISED |    |        |
|------------|----|--------|
| mm         | mm | CODE   |
| 80         | 30 | 100491 |
| 100        | 30 | 100498 |
| 125        | 38 | 100493 |
| 150        | 45 | 100494 |
| 175        | 45 | 100495 |
| 200        | 50 | 100496 |

### Threadguards in galvanised steel and stainless steel for series 73

| ZINCATI |    |        |
|---------|----|--------|
| mm      | mm | COD.   |
| 100     | 40 | 100012 |
| 125     | 40 | 100040 |
| 180     | 50 | 100034 |
| 200     | 50 | 100495 |

## Counter-plates

### Counter-plates for brackets NL

| mm      | mm     | mm  | CODE   |
|---------|--------|-----|--------|
| 100x85  | 80x60  | 3.0 | 110401 |
| 140x110 | 105x80 | 3.5 | 110105 |

### Counter-plates for brackets NLX

| mm      | mm     | mm  | CODE   |
|---------|--------|-----|--------|
| 100x85  | 80x60  | 2.5 | 110402 |
| 140x110 | 105x80 | 3.0 | 110106 |

### Counter-plates for brackets P

| mm      | mm     | mm  | CODE   |
|---------|--------|-----|--------|
| 100x85  | 80x60  | 4.0 | 110403 |
| 135x110 | 105x80 | 6.0 | 110204 |


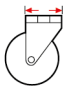





### Counter-plates for brackets EP

| mm      | mm      | mm  | CODE   |
|---------|---------|-----|--------|
| 100x85  | 80x60   | 5.0 | 110202 |
| 135x110 | 105x80  | 6.0 | 110204 |
| 135x110 | 105x80  | 6.0 | 110204 |
| 175x140 | 140x105 | 8.0 | 110208 |

All counter-plates are supplied raw (not treated on the surface) to favour their welding to the trolley.

## ACCESSORIES FOR WHEELS AND CASTORS: STEMS

### Solid stems and nuts for assembly


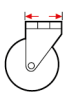
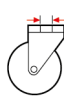






|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|
| mm  | mm  | mm  | mm  | mm  | CODE  | CODE  |  |  |  |  |  |  |  |  |  |  |
| 80  | 73  | 12  | 22  | 47  | 926044  | 921079  |  |  |  |  |  |  |  |  |  |  |
| 100   | 73  | 12  | 22  | 47  | 926044  | 921079  |  |  |  |  |  |  |  |  |  |  |
| 125   | 73  | 12  | 22  | 47  | 926044  | 921079  |  |  |  |  |  |  |  |  |  |  |
| 140/150   | 73  | 12  | 22  | 47  | 926044  | 921079  |  |  |  |  |  |  |  |  |  |  |
| 150/160   | 102   | 20  | 26  | 56  | 926006  | 921070  |  |  |  |  |  |  |  |  |  |  |
| 175/180   | 102   | 20  | 26  | 56  | 926006  | 921070  |  |  |  |  |  |  |  |  |  |  |
| 200   | 102   | 20  | 26  | 56  | 926006  | 921070  |  |  |  |  |  |  |  |  |  |  |

### Solid stems assembly layout



### Threaded stems, bolts, nuts

#### Threaded stems

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|
| mm  | mm  | mm  | mm  | mm  | CODE  | CODE  | CODE  | CODE   |  |  |  |  |  |  |  |  |
| 80  | 73  | 12  | 10x1.5  | 25  | 925005  | 922028  |   |  |  |  |  |  |  |  |  |  |
| 100   | 73  | 12  | 10x1.5  | 25  | 925005  | 922028  |   |  |  |  |  |  |  |  |  |  |
| 125   | 73  | 12  | 12x1.75   | 45  | 925006  | 922112  |   |  |  |  |  |  |  |  |  |  |
| 140/150   | 73  | 12  | 12x1.75   | 45  | 925006  | 922112  |   |  |  |  |  |  |  |  |  |  |
| 150/160   | 102   | 20  | 16x2  | 35  | 925007  | 922108  | 929324  | 947015   |  |  |  |  |  |  |  |  |
| 175/180   | 102   | 20  | 16x2  | 35  | 925007  | 922108  | 929324  | 947015   |  |  |  |  |  |  |  |  |
| 200   | 102   | 20  | 16x2  | 35  | 925007  | 922108  | 929324  | 947015   |  |  |  |  |  |  |  |  |

### Threaded stems assembly layout



## Expander in Zamak alloy

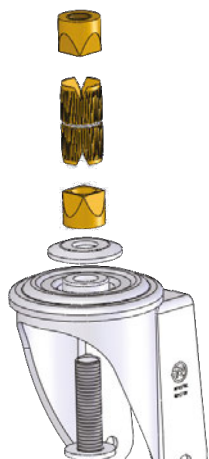


Designed to optimise the handling of tubular trolleys and perfect for use on modular trolleys.

It can be combined with bolt hole swivel castors with diameter from 80 to 125 mm and it is suitable for assembly on tubes having a diameter from 20 to 24 mm.

Standard fitting with series 60, 61, 71.

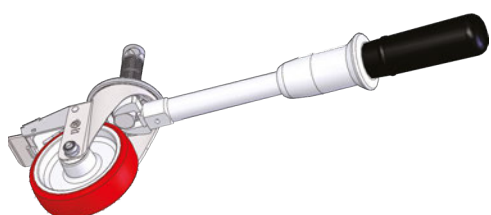
### Assembly and maintenance recommendations



We recommend fastening the castor with expansion stem to the tubular structures by using adequate tightening torques. Insufficient tightening torques can jeopardise the overall carrying capacity and/or the stability of the product.

The torques must be compatible with the thickness and mechanical resistance of the tube in which the product is used. The recommended carrying capacities and maintenance cycles relate to brackets with expanders secured with fastening torque of 40 N/m.

Expander fitting are subject to adjustment during use: we recommend to periodically check its proper fastening. The stem is subject to an initial adjustment during the first days of use; following control cycles may be planned according on the intervals indicated on the Use and Maintenance Guide.

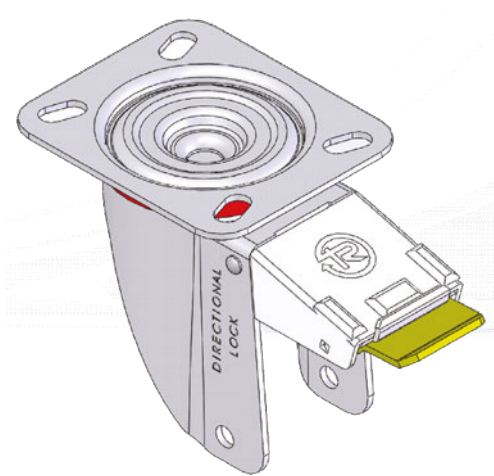


## ACCESSORIES FOR WHEELS AND BRACKETS: DIRECTIONAL LOCK

### Directional lock for brackets NL-P

Directional lock is an accessory that can be fitted to the top plate of a swivel bracket plate by using the same fixing bolts to the trolley. When engaged, it locks the bracket rotation in a precise direction, turning it into a fixed castor. The device is used on at least two of the four swivel brackets fitted on a trolley, thus allowing the simultaneous towing of more trolleys.

### Directional lock for NL brackets, diam. up to 150 mm

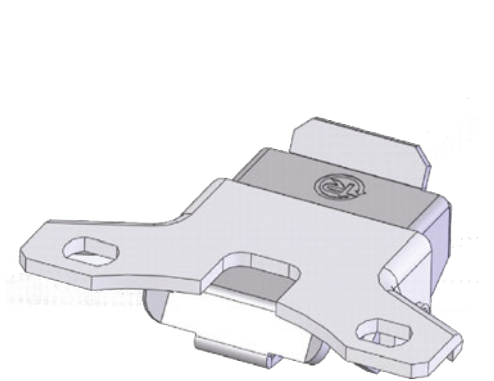


The directional lock is integrated in the swivel bracket. It is suitable for manually handled trolleys or mechanically towed trolleys at low speed (max. 6 km/h) on good condition floors.

It offers a simple engagement by self-inserting into position after pushing the front pedal.

Applicable to NL brackets diameter 80-100-125-140/150 upon request.

### Directional lock for NL- P -PT brackets, diam. from 150 to 200 mm (Item nr 401215)



Designed for assembly on the top plate's shorter side.

It consists of galvanised steel plate parts and is suitable for manually handled or mechanically towed trolleys at low speed (max 6 km/h) on good condition floors.

It offers a simple engagement by self-inserting into position after pushing the front pedal.

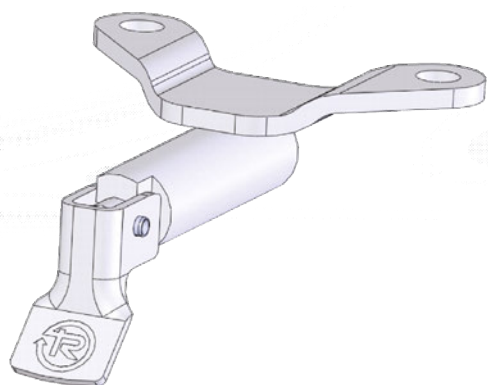
It can be purchased as an accessory and combined with the NL, P and PT series swivel brackets for wheels diameters 150, 160, 175, 180 and 200 mm.

It can be used with swivel NL-P-PT brackets with rear brake and central brake.

It cannot be combined to NL-P brackets with front foot brake.

## Directional lock for electrowelded brackets

### Directional lock for EE MHD-EEG MHD- EE HD brackets (Item nr 401216-401217)

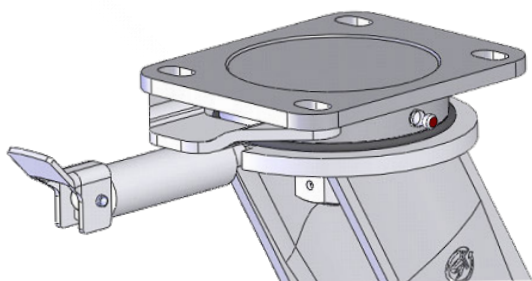


Designed for assembly on the top plate's short side, it consists of galvanised steel parts and is suitable for trolleys subject to mechanical towing at speeds up to 16 km/h on indoor and outdoor floors (asphalt, cement).

Easy to engage by self-clicking into position.

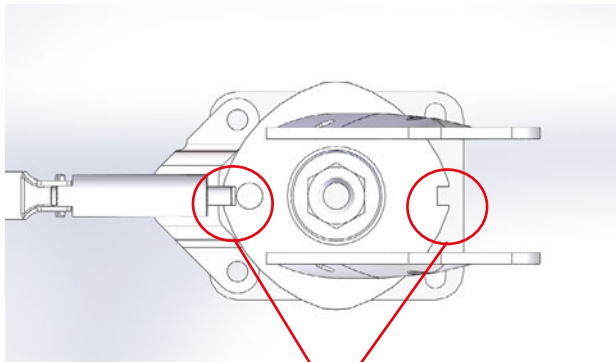
#### Specifications:

- it is fitted to the top plate of a castor by using the same fixing bolts which secure the castor to the trolley
- it can be fitted with EE MHD and EE HD electrowelded castors, to EEG MHD twin electrowelded castors (only on diam. 100-125 mm), to EES MHD sprung-loaded electrowelded castors (please see the table on the following page for details)
- it can be fitted to Tellure Rôta brackets which have the appropriate slots

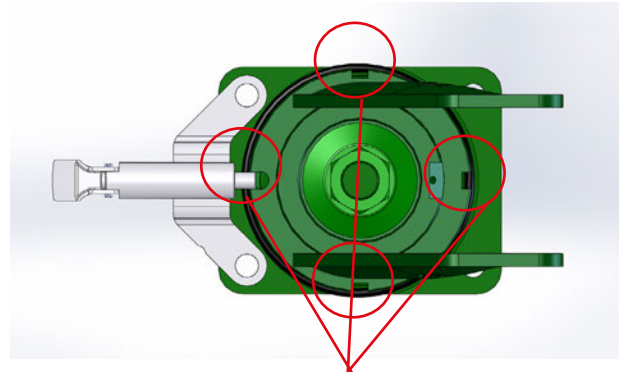


# ACCESSORIES FOR WHEELS AND BRACKETS: DIRECTIONAL LOCK

## Directional lock for electrowelded brackets







Bracket with 2 slots at 180°



Bracket with 4 slots at 90°

### Fittings

| EE | MHD |  |  |  |  | Directional lock part number | Suffix 2x180° slots | Dir. lock to be fitted on the side of the top plate with dimension: | Suffix 4x90° slots |     |
|----|-----|---|---|---|---|------------------------------|---------------------|---|--------------------|-----|
|    |     |   |   | 4-6 km/h  |   |                              |                     |   |                    |     |
| EE | MHD | 100   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    |     | 125   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    |     | 150   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    |     | 160   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    |     | 180   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    |     | 200   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    |     | 250   | 135x110   | 1000  | Si  | Si                           | <b>401216</b>       | -B2   | 110 mm             | -B4 |
| EE | EES | 150   | 135x110   | 1000  | Si  | No                           | <b>401216</b>       | -   | 110 mm             |     |
|    | MHD | 160   | 135x110   | 1000  | Si  | No                           | <b>401216</b>       | -   | 110 mm             |     |
|    |     | 200   | 135x110   | 1000  | Si  | No                           | <b>401216</b>       | -   | 110 mm             |     |
|    |     | 250   | 135x110   | 1000  | Si  | No                           | <b>401216</b>       | -   | 110 mm             |     |
| EE | EEG | 100   | 135x110   | 1000  | Si  | N.d.                         | <b>401216</b>       | -B2   | 110 mm             | -B4 |
|    | MHD | 125   | 135x110   | 1000  | Si  | N.d.                         | <b>401216</b>       | -B2   | 110 mm             | -B4 |
| EE | HD  | 150   | 175x140   | 1600  | Si  | No                           | <b>401217</b>       | -D2   | 140 mm             | -D4 |
|    |     | 200   | 175x140   | 1600  | Si  | No                           | <b>401217</b>       | -D2   | 140 mm             | -D4 |
|    |     | 250   | 175x140   | 1600  | Si  | No                           | <b>401217</b>       | -D2   | 140 mm             | -D4 |
|    |     | 300   | 175x140   | 1600  | Si  | No                           | <b>401217</b>       | -D2   | 140 mm             | -D4 |

The directional lock for electrowelded castors can be assembled **with brackets with appropriate slots**. To order castors configured with slots, please add the above specified suffix to the part number of the complete castor.

*Example: to order the part number 628314 with 2 slots, it is necessary to show the part number 628314B2.*

**Sprung electrowelded castors EES MHD are an exception, since they are realised in standard version with 2 slots.**



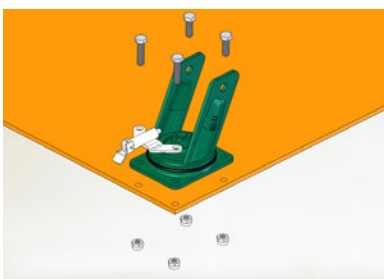
## Directional lock for electrowelded brackets

### Scheme of assembly

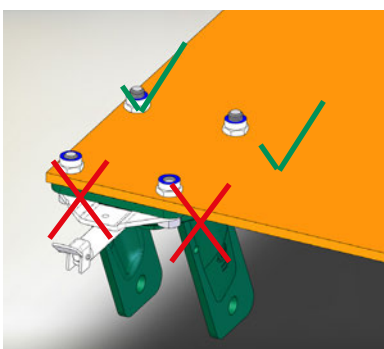
1. Four M10 bolt and four M10 nuts are required for directional lock 401216 (MHD type); M14 bolt and nuts are instead required for directional lock 401217 (HD type). Self-locking nuts and 8.8 bolt strength are recommended. The length of the bolt depends on the characteristics of the trolley the castors have to be fitted onto (it should be usually longer than 40mm).



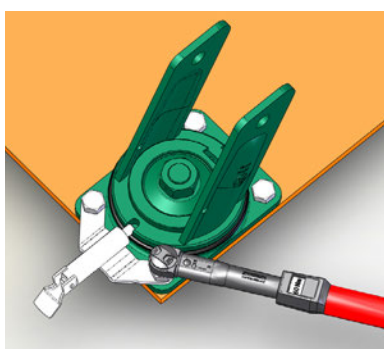
2. The directional lock and the castor have to be positioned and subsequently fastened as per the exemplification in the adjacent picture (note: the picture shows the bracket without the wheel for handiness of the image only).



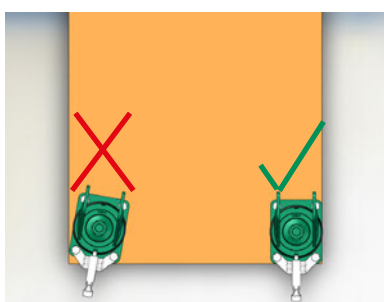
3. The bolt has to protrude through the nut by at least 3 threads.



4. The proper tightening of the bolts has to be verified by a torque wrench. The recommended tightening torque of a self-locking nut is of 25Nm for dir. lock 401216 (M10 bolts) and of 60NM for dir. lock 401217 (M14 bolts).



5. Make sure that the directional lock engages properly into the slots of the bracket and that the castors are aligned to the direction of movement of the trolley once the directional lock is applied.



Direction of movement

## ACCESSORIES FOR WHEELS AND BRACKETS: FOOTGUARDS

### Footguards for brackets NL - M - P - PT

Tellure Rôta's footguard is specifically designed to prevent the operator's foot crushing when handling trolleys or machines.

Due to the fixed nature of this device, in fact, safety while manoeuvring carts is ensured at all times.



#### Features:




- it must be fitted to the forks of the bracket by means of the axle's screw, which, for this reason, must be longer than usual;
- can be fitted to Standard-duty (NL), Medium-duty (M), Medium-heavy duty (P), as well as Heavy Duty with hardened ball race (PT) brackets

For details on the available fittings please have a look at the tables on page 369.

For fittings different than the one shown in the tables please contact our Sales Department to check availability.

## Footguards for brackets NL - M - P - PT

## Fittings

| NL  |  |  |  | Footguard item nr. for swivel castor | Footguard item nr. for fixed castor |
|-----|---|---|---|--------------------------------------|-------------------------------------|
|     | 125   | 100x85  | 45  | 094635VE                             | 094630VE                            |
| 125 | 140x110   | 60  | 094744VE  | 094688VE                             |                                     |
| 150 | 140x110   | 60  | 094781VE  | 094761VE                             |                                     |
| 160 | 140x110   | 60  | 094781VE  | 094761VE                             |                                     |
| 200 | 140x110   | 60  | 094782VE  | 094762VE                             |                                     |
| M   | 150   | 140x110   | 60  | 094641VE                             | 094761VE                            |
|     | 160   | 140x110   | 60  | 094641VE                             | 094761VE                            |
|     | 200   | 140x110   | 60  | 094783VE                             | 094762VE                            |
| P   | 125   | 100x85  | 45  | 094689VE                             | 094630VE                            |
|     | 150   | 140x110   | 60  | 094641VE                             | 094641VE                            |
|     | 160   | 140x110   | 60  | 094641VE                             | 094641VE                            |
|     | 175-180   | 140x110   | 60  | 094784VE                             | 094784VE                            |
|     | 200   | 140x110   | 60  | 094784VE                             | 094784VE                            |
| PT  | 150   | 140x110   | 60  | 094641VE                             | 094641VE                            |
|     | 160   | 140x110   | 60  | 094641VE                             | 094641VE                            |
|     | 175-180   | 140x110   | 60  | 094784VE                             | 094784VE                            |
|     | 200   | 140x110   | 60  | 094784VE                             | 094784VE                            |

## CORRECT PRODUCT USE

Italy has implemented EEC directive no. 83/374 concerning the manufacturer's responsibility with Italian DPR no. 224 of 24/05/1988.

Subsequent to that directive, the user must comply with and apply all the recommendations provided by the manufacturer regarding use, assembly as well as preventive and periodic maintenance of its products.

Such recommendations are summarised in the following paragraphs.

For further information, please ask Tellure Rôta for the Technical Handbook or for the "Use guide" booklet prepared by the Union of Italian Wheel Manufacturers (UCIR).

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### Wheel maximum load and carrying capacity

The carrying capacity declared by the manufacturer is the maximum value, expressed in daN, that a wheel or a bracket can be subjected to without reducing its operating efficiency.

The user must check the suitability of the carrying capacity declared by the manufacturer in relation to the load, the wheel and bracket layout on the trolley to be moved, the number of them actually in contact with the ground and any other conditions (type of surface on which the trolley moves, temperature, humidity, presence of aggressive chemical agents in the operating environment) that may affect the operating conditions of the mechanical moving parts.

---

### Tractive force

The user must check that the force needed to move the trolley with the foreseen load is compatible with current provisions. To make it easier to choose the right wheel, and based on the force required to move the trolley, the rolling resistance value of each wheel is indicated in Tellure Rôta catalogue.

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### Speed

The maximum speed for which Tellure Rôta refers to the rated carrying capacity is 4 km/h (1.1 m/s). For applications at higher speeds, please contact Tellure Rôta.

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### Floor

The rated load capacity declared in this catalogue refers to use on smooth and compact floors in good condition. Uneven floors, obstacles and different levels require wheels with a larger diameter and a covering with greater elasticity.

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### Means of traction and moving intensity

The rated carrying capacity declared in this catalogue refers to manual handling with interruptions during use. For continuous operation or motorised handling, please contact Tellure Rôta.

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### Environment

The user must check that the materials used to make the selected product are compatible with physical-chemical conditions of the operating environment. The catalogue indicates the "normal" operating conditions for each type of wheel.

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### Electrical conductivity

If it is necessary to guarantee the electric conductivity from the connecting part to the tread, please contact Tellure Rôta.

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### Braking and/or locking device

Tellure Rôta produces brackets equipped with brakes and/or locks. They are designed to park

the trolley on slopes of generally no more than 3% under the condition that at least two wheels of the trolley equipped with such devices are in contact with the ground. In case of use on steeper gradients, to ensure the trolley remains at a standstill in these conditions, either the load must be reduced or the number of braking devices must be increased. Tellure Rôta is available for any further details or explanations.

### Storage

Products must be stored in a well-ventilated area, without excessive humidity, with a thermal excursion ranging between -10 and +40 C and protected from dust. Never expose products to direct sunlight for extended periods of time and, in general, avoid extended storage. To store the product more efficiently and to protect it against dust, Tellure Rôta items are supplied in standard shrink-wrapped packages.

### INCORRECT ACTIONS

To use wheels and brackets correctly, avoid the following:

- overloads, non-uniform load distribution, violent application of the load
- extended stationary periods under load
- impacts, collisions and falling from different heights
- activation of locks and/or brakes while the trolley is moving
- moving the trolley with locks and/or brakes engaged
- parking the trolley with the locks and/or brakes engaged on slopes of more than 3%
- washing with chemically aggressive cleaners
- replacing the wheel and/or bracket with spare parts that do not comply with the Tellure Rôta specifications.

### INSTALLATION

For efficient production operation and extended service life, follow the assembly instructions listed below.

#### Wheel assembly

- Check the mechanical strength of the attachment parts (axle sets, nuts, washers) used for the type of assembling (projecting or fork) and the load to which they are subjected
- House the axle set horizontally, perpendicular to the operating direction, and prevent it from rotating
- Check that the nut is tightened on the axle set; Check that the wheel rotates freely once the installation has been completed.

#### Bracket assembly

The trolley structure must be sized to withstand the stress exerted on it and to guarantee that attachment surfaces are level. They must be flat, horizontal and sized to guarantee that the corresponding bracket attachment surfaces are perfectly coplanar in the attachment point. Connecting through welding is not recommended. It is recommended:

- To mount the bracket with a plate using screws, nuts and washers with the sizes and quantity indicated by the manufacturer
- To tighten the nuts or screws with the appropriate torque
- To guarantee that the axle set, for fixed castors, is perpendicular to the operating direction
- To guarantee that brackets with a solid stem are attached to tubular structures with precise

tolerances

- To attach the stems with the cross hole with screws that have an adequate diameter and length
- To guarantee that the tubular structure of the trolley rests completely on the bracket attachment surface
- To guarantee, for brackets with a threaded stem or bolt hole, that the bracket connection surface adheres completely to the surface equipment without interpositions. The brackets with a bolt hole must be attached using screws with the diameter indicated by the manufacturer.

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## MAINTENANCE

The user must carry out scheduled maintenance that includes the inspections listed below at the intervals that vary according to operating conditions.

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### Trolley structure check and maintenance

- Check damage to the trolley frame that may have reduced product connection efficiency;
- Check that the product connection parts are correctly tightened on the trolley structure.

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### Wheels and brackets checks and maintenance

- Check that the product is undamaged, fully operational and that there is no excessive clearance, wear, deformation or tearing
- Check that any locks and/or brakes, if present, are working efficiently
- Check that the environmental conditions have not changed the product (oxidation, corrosion, foreign bodies etc.), thus reducing its operating efficiency
- For products that ensure electrical conductivity, clean the rolling strip and periodically check the electrical conductivity
- Check that the wheel axle set is correctly tightened, reapplying the necessary torque
- Lubricate the moving parts with a lubricant suitable for the specific applications.

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### Frequency of checks and maintenance

The maximum time interval between two successive checks is as follows:

- damage to the trolley's frame: 12 months
- tightening of connection parts: 6 months
- product condition: 6 months
- brake efficiency: 3 months
- product alteration: 6 months
- electrical conductivity: 3 months
- wheel axle set tightness: 6 months
- lubrication top-up: 6 months (but the top-up lubrication has to be done every time the product is washed).

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## PROCEDURES FOR DISPOSING AND RECYCLING PRODUCTS

To dispose of and/or recycle the products after use, first, separate the wheel+bracket assemblies from the equipment on which they are fitted. It is best to split the wheel+bracket assemblies down into the following component parts:

- bracket
- axle unit (screw, tube, nut)
- wheel

In particular, the dismantling of the wheel from the bracket is crucial if these are prevalently made from plastic material or aluminium alloy.

Below are details of disposal and recycling of the main materials making up the Tellure Rôta wheels and brackets. In any case, we suggest comparing and supplementing these details with the procedures and rules established by the company in charge of waste disposal in the area or locality where the products are used.

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### Brackets and axle components

Steel and stainless steel can be recycled as ferrous scrap.

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### Wheels

We suggest that product recycling procedures include preliminary treatments that involve sorting the different materials in the wheels so as to ensure the correct disposal and/or recycling of each type.

- Steel and engineering cast iron can be recycled as ferrous scrap
- Aluminium alloy can be recycled as non-ferrous metal
- Plastic, thermoplastic rubber and vulcanised rubber parts can be recycled once they have been separated from the ferrous and non-ferrous metals
- Thermosetting resin can be disposed of in waste dumps
- The polyurethane parts can be disposed of in waste dumps, once separated from ferrous and non-ferrous metals.

Shrink-wrap packaging is recyclable as low density polyethylene (PE-LD).

Wooden pallets can be reused or recycled. Any paper or cardboard packaging can be returned to the paper production cycle.

As regards recycling procedures, please refer to the production consortia in the countries where the parts are disposed of.

## 1. General terms

The contractual relationship, further to the conclusion of each single order, is regulated by these general terms of sale and by specific terms which may be indicated in the order, where specifically undersigned. Orders passed on to commercial assistants and intermediaries are accepted subject to the approval of Tellure Rôta S.p.A.

## 2. Offer

The documents forming part of the offer, such as illustrations, drawings, indications of weight and size, are only determinant in approximate terms to the extent that they have not been expressly indicated as binding. Tellure Rôta S.p.A. reserves the right of ownership and copyright with regards to the cost estimates, drawings and other documents, which must not be made accessible to third parties. The purchaser assumes full responsibility for the documents it has sent to Tellure Rôta S.p.A. in the event of breach of third party industrial protection rights, also in relation with Tellure Rôta S.p.A. The latter is obliged to make projects, indicated by the purchaser as confidential, accessible to third parties only upon the purchaser's approval.

## 3. Orders

Except in the event of different written terms, orders of less than Euro 500.00 are not accepted.

## 4. Variation in the confirmed order

Tellure Rôta reserves the right to refuse or accept, also only partially, any subsequent changes in the order and proposals by the purchaser. In the event of acceptance of these variations, the new price, methods of payment and new delivery dates shall be established by Tellure Rôta, with all other terms remaining unchanged.

## 5. Cancellation of a confirmed order

The purchaser that cancels a confirmed order, for any cause or motive, is bound to pay in full the amount relating to materials and to supplies already ordered by Tellure Rôta S.p.A. In any case, Tellure Rôta S.p.A. has the right to a minimum compensation equal to 25% of the agreed price, with the right to withdraw this amount even from possible sums received as advance payment for the supply.

## 6. Prices

Prices are considered as applying to material delivered ex works from Tellure Rôta S.p.A., except in the event of different written terms. The prices of products are those shown by Tellure Rôta S.p.A. in its price list or in its offers; these prices, if not yet agreed, may however be changed at any moment and will be absolutely applied at the date fixed by Tellure Rôta S.p.A.

## 7. Payments

Payment of supplies must be made within the period and the terms agreed to in the order. In all events, Tellure Rôta S.p.A. is authorised to issue drafts on the customer for the sums and at the due dates. The relative costs are to be borne by the customer. Every shipment is considered as independent of others for the purpose of payment. Delays in payments or any other breach give right to the suspension of the remaining supplies and to the rescission of the contract in progress, besides giving rise to default action against the purchaser with the immediate application of interests on arrears. On sums falling due and not paid, without prejudice to Tellure Rôta S.p.A.'s right to demand payment, interests on arrears will apply, with full right, from the day after the due date, at the legal rate of interest on arrears plus eight points, in compliance with the rate set by the ECB in respect of Italian Legislative Decree no. 192/2012. Requests for reimbursement of payments or for compensations by virtue of any possible counter-claim on the part of the purchaser are not accepted.

## 8. Delivery terms

The agreed and confirmed shipment and/or delivery terms are expressed in working days and are only indicative and as such are not legally binding, except in the event of a definite undertak-



ing on the part of Tellure Rôta S.p.A., which must be expressly indicated on the order confirmation, and except in cases of force majeure. Any delays may not therefore, in any event, give rise to compensation for damages or the rescission, even partial, of the contract, except where such consequences are expressly accepted by Tellure Rôta S.p.A. in the order confirmation.

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### 9. Shipment and transport

With the exception of a contrary agreement, which must be indicated in the order confirmation, the sale takes place Ex-Works. Partial shipments by Tellure Rôta S.p.A. are also accepted. Also in the event that Tellure Rôta S.p.A. is obliged to pay the relative transport cost for the goods as far as the agreed destination, the risk of loss or damage to the goods, as well as any additional costs due to events occurring after the goods have been consigned to the carrier, is transferred from Tellure Rôta S.p.A. to the purchaser at the moment in which the goods are consigned to the carrier. Any reserves, claims, or actions deriving from or in any case connected with the transport and consequent operations, must be raised by the purchaser, and exclusively against the carrier, with the absolute term of eight days from receipt of the goods, since Tellure Rôta S.p.A. is not responsible for events occurring after the consignment of the material to the carrier. Tellure Rôta S.p.A. will take care of the packaging according to experience and common practice, remaining explicitly exonerated from any responsibility for loss and/or damage. The use of special packaging, including the exclusion of packaging in the case of goods for which this is normal practice must be agreed to between Tellure Rôta S.p.A. and the purchaser upon making the order. With regards to matters not provided for, reference should be made to articles 1678 and 1702 of the Civil Code if, and to the extent, they are compatible with this clause. Samples are made available by Tellure Rôta S.p.A.'s only upon the application of a supplementary charge to be agreed from time to time on the relative price in force.

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### 10. Faults and defects

Any claims for materials not corresponding, both in terms of quantity and of quality, to the conditions agreed to in the order, must be raised in writing within the maximum term of eight days from receipt of the goods on penalty of forfeiture. In the event of a prompt and justified claim, Tellure Rôta S.p.A.'s obligation is limited to the replacement of the goods acknowledged as not corresponding (in any case at supply conditions), to the same delivery destination as the initial supply, subject to the restitution of this initial supply, excluding any right on the part of the purchaser to request the rescission of the contract and compensation for direct or indirect damages and the reimbursement of any costs sustained for any reason. Tellure Rôta S.p.A. will not accept claims and will not be liable for damages suffered by third parties upon the occurrence of any of the following conditions: inappropriate or incorrect use, defective assembly on the part of the purchaser or of a third party, natural wear and tear, incorrect or negligent handling, electric or chemical effects, to the extent that these are not attributable to the fault of Tellure Rôta S.p.A. The purchaser loses every right of claim, and therefore the replacement of the goods, in the event that it fails to immediately suspend the use of the materials to which the claim refers.

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### 11. Returns of materials

In the event of errors by the purchaser during the ordering phase, the material may be returned exclusively carriage free, against Tellure Rôta S.p.A.'s written authorisation, and only if perfectly integral and unused.

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### 12. Changes in the construction

Tellure Rôta S.p.A. may make any changes in its construction without the obligation to inform the purchaser. Changes made subsequent to the order cannot give rise to compensation of any kind.

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| 062140              | 376     | 100495              | 385  | 226006   | 55   | 225711              | 53   | 234402   | 59   |
| 062141              | 376     | 100496              | 385  | 226010   | 55   | 225901              | 53   | 234403   | 59   |
| 062199              | 376     | 100498              | 385  | 226011   | 55   | 225902              | 53   | 234404   | 59   |
| 062719              | 380     | 100501              | 384  | 225201   | 53   | 225903              | 53   | 234406   | 59   |
| 062728              | 380     | 100502              | 384  | 225202   | 53   | 225904              | 53   | 234410   | 59   |
| 062729              | 381     | 100503              | 384  | 225203   | 53   | 225906              | 53   | 234411   | 59   |
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| 064222              | 379     | 100506              | 384  | 225205   | 53   | 225911              | 53   | 234602   | 59   |
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| 064712              | 378     | 110202              | 385  | 225221   | 53   | 226104              | 55   | 234610   | 59   |
| 064222              | 379     | 110202              | 385  | 225222   | 53   | 226105              | 55   | 234611   | 59   |
| 065016              | 377     | 110204              | 385  | 225223   | 53   | 226106              | 55   | 235201   | 59   |
| 065017              | 377     | 110204              | 385  | 225224   | 53   | 226110              | 55   | 235202   | 59   |
| 065523              | 377     | 110208              | 385  | 225226   | 53   | 226111              | 55   | 235203   | 59   |
| 065534              | 377     | 110401              | 385  | 225230   | 53   | 227701              | 54   | 235204   | 59   |
| 094630VE            | 393     | 110402              | 385  | 225231   | 53   | 227702              | 54   | 235206   | 59   |
| 094635VE            | 393     | 110403              | 385  | 225401   | 55   | 227703              | 54   | 235210   | 59   |
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| 094761VE            | 393     | 221104              | 52   | 225403   | 55   | 227705              | 54   | 235221   | 59   |
| 094762VE            | 393     | 221105              | 52   | 225404   | 55   | 227706              | 54   | 235222   | 59   |
| 094781VE            | 393     | 221106              | 52   | 225405   | 55   | 227710              | 54   | 235223   | 59   |
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| 100009              | 384     | 222102              | 52   | 225502   | 55   | 227804              | 55   | 236001   | 60   |
| 100010              | 384     | 223103              | 52   | 225503   | 55   | 227805              | 55   | 236002   | 60   |
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| 327302            | 326  | 354201            | 355    | 369101            | 330    | 377105   | 334    | 388202            | 339    | 523104            | 60     |     |
| 328202            | 324  | 354202            | 355    | 369102            | 330    | 377327   | 334    | 388203            | 339    | 523105            | 60     |     |
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|                   |      | 356203            | 355    | 371101            | 333    | 378201   | 335    |                   |        | 524010            | 317    |     |
| <b>33 . . . .</b> |      |                   |        | 371102            | 333    | 378203   | 335    |                   |        | 524101            | 60     |     |
| 333001            | 349  |                   |        | 371103            | 333    | 378303   | 333    | <b>39 . . . .</b> |        | 524102            | 60     |     |
| 333002            | 349  |                   |        | 371104            | 333    | 379100   | 335    | 392002            | 361    | 524206            | 317    |     |
| 333003            | 349  |                   |        | 371105            | 333    | 379101   | 335    | 392004            | 361    | 524401            | 62     |     |
| 333101            | 349  | <b>36 . . . .</b> |        | 371203            | 333    | 379102   | 335    | 392102            | 361    | 524402            | 62     |     |
| 333102            | 349  |                   | 361100 | 329               |        |          | 379103 | 335               | 392104 | 361               | 524402 | 66  |
| 333103            | 349  | 361101            | 329    |                   |        |          |        |                   |        |                   |        |     |
| 334001            | 349  | 361102            | 329    |                   |        |          |        |                   |        |                   |        |     |

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| 524411   | 66     | 525802   | 65   | 531111   | 72     | 535402   | 74     | 535910AS | 366  |
| 524412   | 66     | 525803   | 65   | 531121   | 72     | 535403   | 74     | 535911   | 74   |
| 525841   | 66     | 525901   | 66   | 531122   | 72     | 535404   | 74     | 535911AS | 366  |
| 525842   | 66     | 525902   | 66   | 531132   | 72     | 535405   | 74     | 535912   | 74   |
| 525843   | 66     | 525903   | 66   | 531133   | 72     | 535406   | 74/318 | 536001   | 73   |
| 525844   | 66     | 525904   | 66   | 531206   | 72     | 535407   | 74     | 536002   | 73   |
| 525845   | 66     | 525905   | 66   | 533103   | 72     | 535410   | 74/318 | 536003   | 73   |
| 525846   | 66     | 525906   | 66   | 533104   | 72     | 535411   | 74     | 536101   | 73   |
| 525850   | 66     | 525908   | 66   | 533105   | 72     | 535421   | 74     | 536102   | 73   |
| 525851   | 66     | 525910   | 66   | 533105AS | 366    | 535421AS | 366    | 536103   | 73   |
| 525852   | 66     | 525911   | 66   | 533106AS | 366    | 535422   | 74     | 536201   | 73   |
| 525908   | 66     | 525912   | 66   | 533106   | 72     | 535422AS | 366    | 536202   | 73   |
| 524908   | 66     | 526401   | 65   | 533107   | 72     | 535423   | 74     | 536203   | 73   |
| 525201   | 66     | 526402   | 65   | 533107AS | 366    | 535423AS | 366    | 536303   | 73   |
| 525202   | 66     | 526403   | 65   | 533108   | 72     | 535424   | 74     | 536302   | 73   |
| 525203   | 66     | 526501   | 65   | 533109   | 72     | 535425   | 74     | 536315   | 73   |
| 525204   | 66     | 526502   | 65   | 533110   | 72     | 535425AS | 366    | 537741   | 75   |
| 525205   | 66     | 526503   | 65   | 533110AS | 366    | 535426   | 74     | 537742   | 75   |
| 525206   | 66/317 | 526641   | 65   | 533111   | 72     | 535426AS | 366    | 537743   | 75   |
| 525210   | 66/317 | 526642   | 65   | 533111AS | 366    | 535427   | 74     | 537744   | 75   |
| 525211   | 66     | 526643   | 65   | 533121   | 72     | 535430   | 74     | 537745   | 75   |
| 525221   | 66     | 526701   | 65   | 533121AS | 366    | 535430AS | 366    | 537706   | 75   |
| 525222   | 66     | 526702   | 65   | 533122   | 72     | 535431   | 74     | 537750   | 75   |
| 525223   | 66     | 526703   | 65   | 533122AS | 366    | 535431AS | 366    | 537751   | 75   |
| 525224   | 66     | 527701   | 67   | 533206   | 72     | 535515   | 76     | 537901   | 75   |
| 525225   | 66     | 527702   | 67   | 534006   | 318    | 535516   | 76     | 537901AS | 367  |
| 525226   | 66     | 527703   | 67   | 534010   | 318    | 535520   | 76     | 537902   | 75   |
| 525230   | 66     | 527704   | 67   | 534748   | 74     | 535615   | 76     | 537902AS | 367  |
| 525231   | 66     | 527705   | 67   | 534749   | 74     | 535616   | 76     | 537903   | 75   |
| 525516   | 68     | 527706   | 67   | 534806   | 318    | 535620   | 76     | 537903AS | 367  |
| 525520   | 68     | 527710   | 67   | 534908   | 74     | 535741   | 74     | 537904   | 75   |
| 525641   | 67     | 527711   | 67   | 534909   | 74     | 535742   | 74     | 537905   | 75   |
| 525642   | 67     | 527901   | 67   | 535001   | 74     | 535743   | 74     | 537905AS | 367  |
| 525643   | 67     | 527902   | 67   | 535002   | 74     | 535744   | 74     | 537906   | 75   |
| 525644   | 67     | 527903   | 67   | 535003   | 74     | 535745   | 74     | 537906AS | 367  |
| 525645   | 67     | 527904   | 67   | 535004   | 74     | 535746   | 74     | 537910   | 75   |
| 525646   | 67     | 527905   | 67   | 535005   | 74     | 535747   | 74     | 537910AS | 367  |
| 525650   | 67     | 527906   | 67   | 535006   | 74/318 | 535748   | 74     | 537911   | 75   |
| 525651   | 67     | 527910   | 67   | 535007   | 74     | 535749   | 74     | 537911AS | 367  |
| 525656   | 64     | 527911   | 67   | 535010   | 74/318 | 535750   | 74     | 538201   | 75   |
| 525664   | 64     | 529602   | 68   | 535011   | 74     | 535751   | 74     | 538202   | 75   |
| 525665   | 67     | 529603   | 68   | 535012   | 74     | 535752   | 74     | 538203   | 75   |
| 525662   | 67     | 529606   | 68   | 535101   | 74     | 535801   | 73     | 538204   | 75   |
| 525667   | 67     | 529610   | 68   | 535101AS | 366    | 535802   | 73     | 538205   | 75   |
| 525664   | 67     | 529611   | 68   | 535102   | 74     | 535803   | 73     | 538206   | 75   |
| 525665   | 67     | 529702   | 68   | 535102AS | 366    | 535901   | 74     | 538210   | 75   |
| 525666   | 67     | 529715   | 68   | 535103   | 74     | 535901AS | 366    | 538211   | 75   |
| 525670   | 67     | 529706   | 68   | 535103AS | 366    | 535902   | 74     | 538221   | 75   |
| 525671   | 67     | 529710   | 68   | 535104   | 74     | 535902AS | 366    | 538221AS | 367  |
| 525701   | 66     | 529711   | 68   | 535105   | 74     | 535903   | 74     | 538222   | 75   |
| 525702   | 66     |          |      | 535105AS | 366    | 535903AS | 366    | 538222AS | 367  |
| 525703   | 66     |          |      | 535106   | 74     | 535904   | 74     | 538223   | 75   |
| 525704   | 66     | 531103   | 72   | 535106AS | 366    | 535905   | 74     | 538223AS | 367  |
| 525705   | 66     | 531104   | 72   | 535107   | 74     | 535905AS | 366    | 538224   | 75   |
| 525706   | 66     | 531105   | 72   | 535110   | 74     | 535906   | 74     | 538225   | 75   |
| 525708   | 66     | 531106   | 72   | 535110AS | 366    | 535906AS | 366    | 538225AS | 367  |
| 525710   | 66     | 531107   | 72   | 535111   | 74     | 535907   | 74     | 538226   | 75   |
| 525711   | 66     | 531108   | 72   | 535111AS | 366    | 535908   | 74     | 538226AS | 367  |
| 525712   | 66     | 531109   | 72   | 535112   | 74     | 535909   | 74     | 538230   | 75   |
| 525801   | 65     | 531110   | 72   | 535401   | 74     | 535910   | 74     | 538230AS | 367  |

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| 538231         | 75   | 604402   | 94    | 605506   | 96    | 606622   | 95   | 607902   | 99   |
| 538231AS       | 367  | 604403   | 94    | 605601   | 94    | 606623   | 95   | 607903   | 99   |
| 538802         | 76   | 604404   | 94    | 605602   | 94    | 606624   | 95   | 607904   | 99   |
| 538803         | 76   | 604406   | 94    | 605603   | 94    | 606626   | 95   | 607906   | 99   |
| 538806         | 76   | 604411   | 94    | 605604   | 94    | 606631   | 95   | 607911   | 99   |
| 538810         | 76   | 604501   | 95    | 605606   | 94    | 606701   | 98   | 608001   | 99   |
| 538811         | 76   | 604502   | 95    | 605611   | 94    | 606702   | 98   | 608002   | 99   |
| 539202         | 76   | 604503   | 95    | 605701   | 95    | 606703   | 98   | 608003   | 99   |
| 539203         | 76   | 604504   | 95    | 605702   | 95    | 606704   | 98   | 608004   | 99   |
| 539206         | 76   | 604506   | 95    | 605703   | 95    | 606706   | 98   | 608006   | 99   |
| 539210         | 76   | 604511   | 95    | 605704   | 95    | 606711   | 98   | 608011   | 99   |
| 539211         | 76   | 604601   | 94    | 605706   | 95/96 | 606721   | 98   | 608102   | 100  |
|                |      | 604602   | 94    | 605711   | 95/96 | 606722   | 98   | 608103   | 100  |
| <b>60.....</b> |      | 604603   | 94    | 605941   | 95    | 606723   | 98   | 608202   | 100  |
| 601101         | 94   | 604604   | 94    | 605942   | 95    | 606724   | 98   | 608203   | 100  |
| 601102         | 94   | 604606   | 94    | 605943   | 95    | 606726   | 98   | 608206   | 101  |
| 601103         | 94   | 604611   | 94    | 605944   | 95    | 606731   | 98   | 608208   | 101  |
| 601104         | 94   | 604701   | 95    | 605946   | 95/96 | 606806   | 100  | 608210   | 101  |
| 601105         | 94   | 604702   | 95    | 605951   | 95/96 | 606811   | 100  | 608211   | 101  |
| 601106         | 94   | 604703   | 95    | 606102   | 97    | 606826   | 100  | 608222   | 100  |
| 602201         | 94   | 604706   | 96    | 606103   | 97    | 606831   | 100  | 608223   | 100  |
| 602202         | 94   | 604710   | 96    | 606104   | 97    | 606901   | 98   | 608226   | 101  |
| 602203         | 94   | 604731   | 95    | 606106   | 97    | 606902   | 98   | 608228   | 101  |
| 602204         | 94   | 604736   | 95    | 606111   | 97    | 606903   | 98   | 608230   | 101  |
| 602206         | 94   | 604711   | 95    | 606202   | 97    | 606906   | 98   | 608231   | 101  |
| 602208         | 94   | 604801   | 95    | 606203   | 97    | 606910   | 98   | 608242   | 100  |
| 602210         | 94   | 604802   | 95    | 606204   | 97    | 606911   | 98   | 608243   | 100  |
| 602401         | 94   | 604803   | 95    | 606206   | 97    | 607004   | 101  | 608258   | 101  |
| 602402         | 94   | 604810   | 95/96 | 606211   | 97    | 607006   | 101  | 608250   | 101  |
| 602403         | 94   | 604811   | 95/96 | 606303   | 99    | 607102   | 100  | 608251   | 101  |
| 602404         | 94   | 604806   | 95/96 | 606302   | 99    | 607103   | 100  | 608260   | 101  |
| 602406         | 94   | 604941   | 95    | 606315   | 99    | 607114   | 101  | 608302   | 100  |
| 602410         | 94   | 604942   | 95    | 606306   | 99    | 607116   | 101  | 608315   | 100  |
| 603101         | 94   | 604943   | 95    | 606310   | 99    | 607214   | 101  | 608406   | 100  |
| 603102         | 94   | 604950   | 95    | 606311   | 99    | 607216   | 101  | 608410   | 100  |
| 603103         | 94   | 604951   | 95    | 606401   | 96    | 607302   | 100  | 608406   | 100  |
| 603104         | 94   | 604946   | 95    | 606402   | 96    | 607315   | 100  | 608504   | 101  |
| 603105         | 94   | 605001   | 94    | 606403   | 96    | 607314   | 101  | 608506   | 101  |
| 603106         | 94   | 605002   | 94    | 606404   | 96    | 607316   | 101  | 608604   | 101  |
| 603201         | 94   | 605003   | 94    | 606406   | 96    | 607414   | 101  | 608606   | 101  |
| 603202         | 94   | 605010   | 94    | 606411   | 96    | 607416   | 101  | 608801   | 99   |
| 603203         | 94   | 605011   | 94    | 606421   | 96    | 607504   | 101  | 608802   | 99   |
| 603204         | 94   | 605006   | 94    | 606422   | 96    | 607506   | 101  | 608803   | 99   |
| 603205         | 94   | 605101   | 94    | 606423   | 96    | 607514   | 101  | 608804   | 99   |
| 603206         | 94   | 605102   | 94    | 606424   | 96    | 607516   | 101  | 608806   | 99   |
| 604201         | 95   | 605103   | 94    | 606426   | 96    | 607604   | 101  | 608811   | 99   |
| 604202         | 95   | 605104   | 94    | 606431   | 96    | 607606   | 101  | 608821   | 99   |
| 604203         | 95   | 605106   | 94    | 606501   | 99    | 607701   | 96   | 608822   | 99   |
| 604204         | 95   | 605111   | 94    | 606502   | 99    | 607702   | 96   | 608823   | 99   |
| 604206         | 95   | 605401   | 94    | 606503   | 99    | 607703   | 96   | 608824   | 99   |
| 604211         | 95   | 605402   | 94    | 606506   | 99    | 607704   | 96   | 608826   | 99   |
| 604303         | 96   | 605403   | 94    | 606510   | 99    | 607706   | 96   | 608831   | 99   |
| 604302         | 96   | 605406   | 94    | 606511   | 99    | 607711   | 96   | 608906   | 100  |
| 604315         | 96   | 605410   | 94    | 606601   | 95    | 607801   | 96   | 608910   | 100  |
| 604310         | 96   | 605411   | 94    | 606602   | 95    | 607802   | 96   | 608911   | 100  |
| 604306         | 96   | 605501   | 96    | 606603   | 95    | 607803   | 96   | 609002   | 100  |
| 604311         | 96   | 605502   | 96    | 606604   | 95    | 607804   | 96   | 609003   | 100  |
| 604331         | 96   | 605503   | 96    | 606606   | 95    | 607806   | 96   | 609004   | 101  |
| 604336         | 96   | 605510   | 96    | 606611   | 95    | 607811   | 96   | 609006   | 101  |
| 604401         | 94   | 605511   | 96    | 606621   | 95    | 607901   | 99   | 609102   | 100  |





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| 632164   | 182  | 635006   | 185  | 637426   | 183     | 638338   | 186  |                | 641103 | 192 |
| 632182   | 182  | 635014   | 185  | 637434   | 183     | 638403   | 185  |                | 641104 | 192 |
| 632167   | 182  | 635304   | 178  | 637622   | 177     | 638404   | 185  |                | 641105 | 192 |
| 632168   | 182  | 635305   | 178  | 637623   | 177     | 638405   | 185  |                | 641106 | 192 |
| 632224   | 176  | 635306   | 178  | 637624   | 178     | 638406   | 185  |                | 641107 | 192 |
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| 632356   | 182  | 635453   | 183  | 637822   | 179     | 638414   | 185  |                | 641110 | 192 |
| 632357   | 182  | 635463   | 183  | 637823   | 179     | 638416   | 186  |                | 641111 | 192 |
| 632363   | 182  | 635465   | 183  | 637824   | 179     | 638417   | 186  | 641112         | 192    |     |
| 632364   | 182  | 635466   | 183  | 637825   | 179     | 638418   | 186  | 641113         | 192    |     |
| 632366   | 182  | 635474   | 183  | 637826   | 179     | 638427   | 186  | 641114         | 192    |     |
| 632367   | 182  | 635604   | 178  | 637828   | 179     | 638428   | 186  | 641115         | 192    |     |
| 634122   | 176  | 635605   | 178  | 637852   | 185     | 638438   | 186  | 641116         | 192    |     |
| 634123   | 176  | 635606   | 178  | 637853   | 185     | 638622   | 177  | 641117         | 192    |     |
| 634124   | 176  | 635851   | 184  | 637854   | 185     | 638623   | 177  | 641118         | 192    |     |
| 634125   | 176  | 635852   | 184  | 637855   | 185     | 638624   | 178  | 641119         | 192    |     |
| 634126   | 176  | 635853   | 184  | 637856   | 185     | 638625   | 178  | 641120         | 193    |     |
| 634128   | 176  | 635854   | 184  | 637857   | 185     | 638626   | 178  | 641201         | 193    |     |
| 634151   | 182  | 635855   | 184  | 637864   | 185     | 638822   | 179  | 641202         | 193    |     |
| 634152   | 182  | 635856   | 184  | 637866   | 185     | 638823   | 179  | 641203         | 193    |     |
| 634153   | 182  | 635863   | 184  | 638062   | 186     | 638824   | 179  | 641204         | 193    |     |
| 634162   | 182  | 635864   | 184  | 638063   | 186     | 638825   | 179  | 641205         | 193    |     |
| 634155   | 182  | 636302   | 177  | 638066   | 187     | 638826   | 179  | 641206         | 193    |     |
| 634156   | 182  | 636315   | 177  | 638067   | 187     | 638828   | 179  | 641207         | 193    |     |
| 634157   | 182  | 636316   | 178  | 638072   | 187     | 638852   | 185  | 641208         | 193    |     |
| 634158   | 182  | 636304   | 178  | 638074   | 187     | 638853   | 185  | 641209         | 193    |     |
| 634163   | 182  | 636305   | 178  | 638076   | 187     | 638854   | 185  | 641210         | 193    |     |
| 634164   | 182  | 636306   | 178  | 638077   | 187     | 638855   | 185  | 641211         | 193    |     |
| 634182   | 182  | 636504   | 178  | 638084   | 187     | 638856   | 185  | 641212         | 193    |     |
| 634173   | 182  | 636505   | 179  | 638086   | 187     | 638857   | 185  | 641213         | 193    |     |
| 634174   | 182  | 636506   | 179  | 638162   | 186     | 638864   | 185  | 641214         | 193    |     |
| 634224   | 176  | 636654   | 185  | 638163   | 186     | 638866   | 185  | 641215         | 193    |     |
| 634226   | 176  | 636655   | 185  | 638166   | 187     | 638903   | 185  | 641216         | 193    |     |
| 634551   | 183  | 636656   | 178  | 638167   | 187     | 638904   | 185  | 641217         | 193    |     |
| 634552   | 183  | 636656   | 185  | 638172   | 187     | 638905   | 185  | 641218         | 193    |     |
| 634553   | 183  | 636664   | 185  | 638174   | 187     | 638906   | 185  | 641219         | 193    |     |
| 634554   | 183  | 636704   | 169  | 638184   | 187     | 638907   | 186  | 641220         | 193    |     |
| 634555   | 183  | 636706   | 169  | 638187   | 187     | 638908   | 186  | 641221         | 193    |     |
| 634556   | 183  | 636724   | 183  | 638184   | 187     | 638914   | 185  | 641222         | 193    |     |
| 634563   | 183  | 636726   | 183  | 638186   | 187     | 638916   | 186  | 641223         | 193    |     |
| 634564   | 183  | 636734   | 183  | 638214   | 176     | 638917   | 186  | 641224         | 193    |     |
| 634651   | 183  | 636851   | 184  | 638222   | 176     | 638918   | 186  | 641225         | 193    |     |
| 634652   | 183  | 636852   | 184  | 638223   | 176     | 638927   | 186  | 641226         | 193    |     |
| 634653   | 183  | 636853   | 184  | 638224   | 176/177 | 638928   | 186  | 641227         | 193    |     |
| 634654   | 183  | 636854   | 184  | 638225   | 176     | 638938   | 186  | 641228         | 193    |     |
| 634655   | 183  | 636855   | 184  | 638226   | 176/177 | 638928   | 186  | 641229         | 193    |     |
| 634656   | 183  | 636856   | 184  | 638315   | 185     | 638938   | 186  | 641230         | 193    |     |
| 634663   | 183  | 636863   | 184  | 638316   | 185     | 639316   | 187  | 641231         | 193    |     |
| 634664   | 183  | 636864   | 184  | 638305   | 185     | 639306   | 187  | 641232         | 193    |     |
| 634852   | 184  | 637316   | 176  | 638306   | 185     | 639404   | 187  | 641233         | 193    |     |
| 634853   | 184  | 637322   | 176  | 638307   | 186     | 639406   | 187  | 641234         | 193    |     |
| 634854   | 184  | 637323   | 176  | 638308   | 186     | 639504   | 187  | 641235         | 193    |     |
| 634855   | 184  | 637324   | 176  | 638314   | 185     | 639506   | 187  | 641236         | 193    |     |
| 634856   | 184  | 637325   | 176  | 638316   | 186     | 639904   | 185  | 641237         | 193    |     |
| 634863   | 184  | 637326   | 176  | 638317   | 186     | 639905   | 185  | 641238         | 193    |     |
| 634864   | 184  | 637404   | 177  | 638318   | 186     | 639906   | 185  | 641239         | 193    |     |
| 635004   | 185  | 637406   | 177  | 638327   | 186     | 639914   | 185  | 641240         | 193    |     |











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| 714315   | 83   | 715506   | 83   | 716603   | 82   | 718822        | 85   | 724452PF | 284     |
| 714310   | 83   | 715510   | 83   | 716604   | 82   | 718823        | 85   | 724462PF | 285     |
| 714331   | 83   | 715511   | 83   | 716606   | 82   | 718824        | 85   | 724504   | 255     |
| 714336   | 83   | 715601   | 84   | 716611   | 82   | 718826        | 85   | 724506   | 255     |
| 714401   | 84   | 715602   | 84   | 716621   | 82   | 718831        | 85   | 724536   | 263     |
| 714402   | 84   | 715603   | 84   | 716622   | 82   | 719201        | 84   | 724703   | 255     |
| 714403   | 84   | 715604   | 84   | 716623   | 82   | 719202        | 84   | 724706   | 255     |
| 714404   | 84   | 715606   | 84   | 716624   | 82   | 719203        | 84   | 724710   | 255     |
| 714406   | 84   | 715611   | 84   | 716626   | 82   | 720303        | 84   | 725810   | 255     |
| 714411   | 84   | 715701   | 82   | 716631   | 82   | 720302        | 84   | 725903   | 255     |
| 714501   | 82   | 715702   | 82   | 716701   | 84   | 720315        | 84   | 725906   | 255     |
| 714502   | 82   | 715703   | 82   | 716702   | 84   |               |      | 725910   | 255     |
| 714503   | 82   | 715704   | 82   | 716703   | 84   | <b>72....</b> |      | 725204   | 254/255 |
| 714504   | 82   | 715706   | 82   | 716704   | 84   | 721103        | 254  | 725206   | 254/255 |
| 714506   | 82   | 715711   | 82   | 716706   | 84   | 721106        | 254  | 725213   | 262     |
| 714511   | 82   | 715801   | 81   | 716711   | 84   | 721110        | 254  | 725236   | 262/263 |
| 714601   | 84   | 715802   | 81   | 716721   | 84   | 721202        | 254  | 725505   | 256     |
| 714602   | 84   | 715803   | 81   | 716722   | 84   | 721203        | 254  | 725510   | 256     |
| 714603   | 84   | 715901   | 82   | 716723   | 84   | 721205        | 254  | 725506   | 256     |
| 714604   | 84   | 715902   | 82   | 716724   | 84   | 721206        | 254  | 725704   | 266     |
| 714606   | 84   | 715903   | 82   | 716726   | 84   | 721208        | 254  | 725706   | 266     |
| 714611   | 84   | 715904   | 82   | 716731   | 84   | 721210        | 254  | 725804   | 266     |
| 714701   | 82   | 715906   | 82   | 716906   | 84   | 721213        | 254  | 725806   | 266     |
| 714702   | 82   | 715911   | 82   | 716910   | 84   | 722103        | 262  | 726004   | 266     |
| 714703   | 82   | 716001   | 81   | 716911   | 84   | 722104        | 262  | 726006   | 266     |
| 714710   | 82   | 716002   | 81   | 717401   | 83   | 722106        | 262  | 726202   | 254     |
| 714731   | 82   | 716003   | 81   | 717402   | 83   | 722108        | 262  | 726205   | 254     |
| 714736   | 82   | 716101   | 81   | 717403   | 83   | 722109        | 262  | 726210   | 254/255 |
| 714801   | 82   | 716102   | 81   | 717404   | 83   | 722111        | 262  | 726213   | 254     |
| 714802   | 82   | 716103   | 81   | 717406   | 83   | 722124        | 262  | 726252PF | 24      |
| 714803   | 82   | 716201   | 81   | 717411   | 83   | 722126        | 262  | 726262PF | 285     |
| 714806   | 82   | 716202   | 81   | 717801   | 83   | 722129        | 262  | 726316   | 258     |
| 714810   | 82   | 716203   | 81   | 717802   | 83   | 722152        | 284  | 726306   | 258     |
| 714811   | 82   | 716303   | 81   | 717803   | 83   | 723003        | 250  | 726308   | 258     |
| 714806   | 82   | 716302   | 81   | 717804   | 83   | 723102        | 250  | 726404   | 258     |
| 714901   | 82   | 716310   | 85   | 717806   | 83   | 723103        | 250  | 726406   | 258     |
| 714902   | 82   | 716311   | 85   | 717811   | 83   | 723104        | 250  | 726408   | 258     |
| 714903   | 82   | 716336   | 85   | 717901   | 85   | 723105        | 254  | 726504   | 258     |
| 714906   | 82   | 716315   | 81   | 717902   | 85   | 723106        | 254  | 726506   | 258     |
| 714910   | 82   | 716501   | 83   | 717903   | 85   | 723108        | 254  | 726508   | 258     |
| 714911   | 82   | 716502   | 83   | 717904   | 85   | 723113        | 254  | 727106   | 254     |
| 715006   | 84   | 716503   | 83   | 717906   | 85   | 724103        | 262  | 727113   | 262     |
| 715010   | 84   | 716504   | 83   | 717911   | 85   | 724104        | 262  | 727124   | 262     |
| 715011   | 84   | 716506   | 83   | 718001   | 85   | 724106        | 262  | 727126   | 262     |
| 715303   | 84   | 716511   | 83   | 718002   | 85   | 724108        | 262  | 727152PF | 284     |
| 715302   | 84   | 716521   | 83   | 718003   | 85   | 724109        | 262  | 727162PF | 285     |
| 715315   | 84   | 716522   | 83   | 718004   | 85   | 724111        | 262  | 727204   | 255     |
| 715316   | 84   | 716523   | 83   | 718006   | 85   | 724126        | 262  | 727205   | 255     |
| 715306   | 84   | 716524   | 83   | 718011   | 85   | 724316        | 262  | 727206   | 267/319 |
| 715311   | 84   | 716526   | 83   | 718801   | 85   | 724306        | 262  | 727208   | 267     |
| 715406   | 84   | 716531   | 83   | 718802   | 85   | 724313        | 272  | 727224   | 263     |
| 715410   | 84   | 716510   | 85   | 718803   | 85   | 724336        | 272  | 727226   | 263     |
| 715411   | 84   | 716541   | 85   | 718804   | 85   | 724402        | 254  | 727302   | 254     |
| 715501   | 83   | 716546   | 85   | 718806   | 85   | 724405        | 254  | 727305   | 254     |
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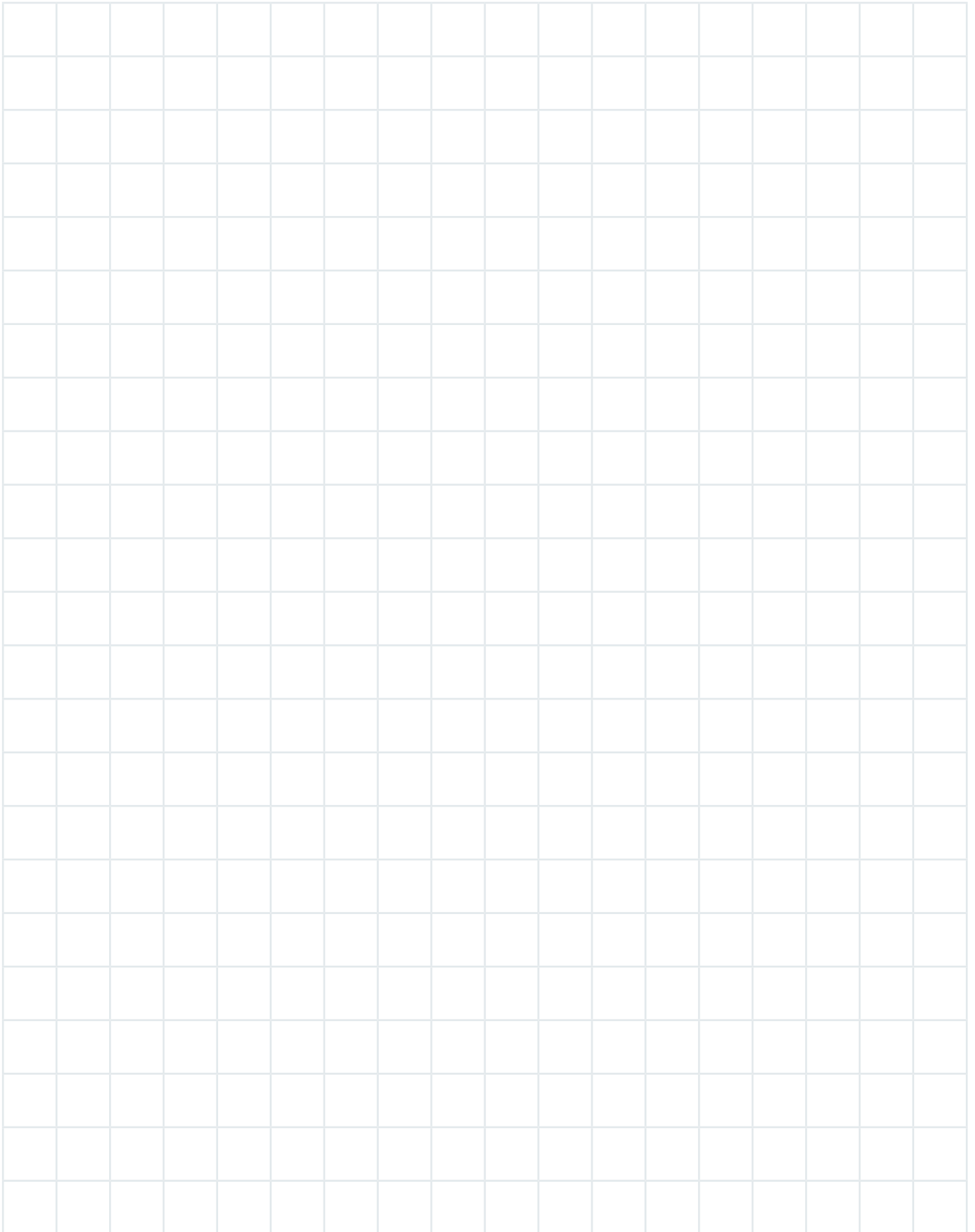
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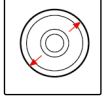
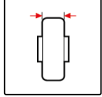
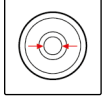
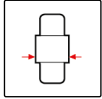
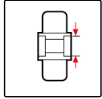
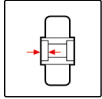
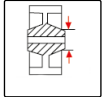
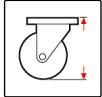
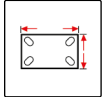
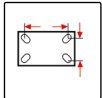
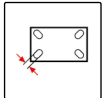
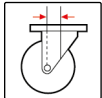
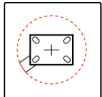
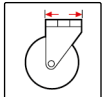
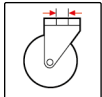
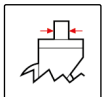
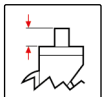
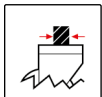
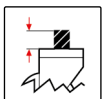
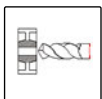
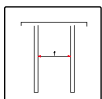
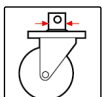
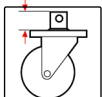
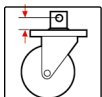
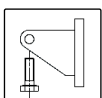
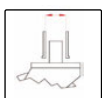
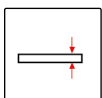
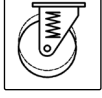
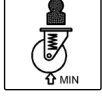

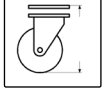
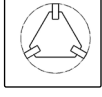
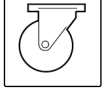
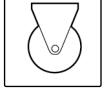
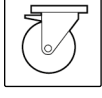
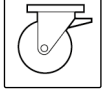
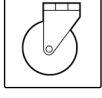
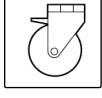
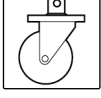
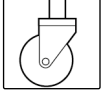

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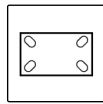
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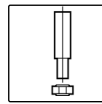




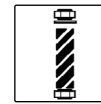
|   |  |   |                            |   |   |
|---|--|---|----------------------------|---|---|
|    | Wheel diameter   |    | Wheel width                |    | Hub bore diameter                         |
|    | Hub length   |    | Ball bearing seat diameter |    | Ball bearing seat depth                   |
|    | Hub diameter   |    | Overall height             |    | Top-plate outer dimensions                |
|    | Hole spacing   |    | Hole width                 |    | Offset                                    |
|    | Brake swept radius                                       |    | Plate diameter             |    | Bolt hole diameter                        |
|    | Solid stem diameter                                      |    | Solid stem length          |    | Threaded stem diameter                    |
|  | Threaded stem length                                     |  | Max. dimension of hub bore |  | Fork width                                |
|  | Hexagonal pin diameter                                   |  | Hexagonal pin protrusion   |  | Hexagonal height                          |
|  | Axle bore diameter                                       |  | Tube diameter              |  | Counter-plate thickness                   |
|  | Spring travel  |  | Initial tension            |  | Spring tension                            |
|  | Overall height (tripods)                                 |  | Plate dimension (tripods)  |   |   |
|  | Swivel top plate bracket                                 |  | Fixed bracket              |  | Swivel top plate bracket with front brake |
|  | Swivel top plate bracket with rear brake                 |  | Swivel bolt hole bracket   |  | Swivel bolt hole bracket with front brake |
|  | Swivel bracket with centralised (hexagonal) brake system |  | Swivel bracket with stem   |  | Swivel bracket with stem and front brake  |



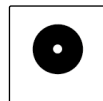
Counter-plate



Solid stem, nut



Threaded stem, washer, nut



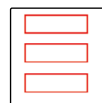
Threadguards



Spacers



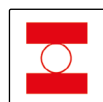
Hub with plain bore



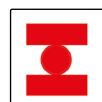
Hub with roller bearings



Hub with stainless steel roller bearings



Hub with ball bearings



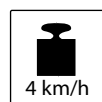
Hub with stainless steel ball bearings



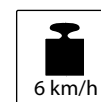
Hub with ball bearing seats



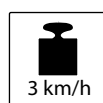
Static load



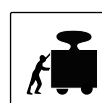
Dynamic carrying capacity at 4 km/h



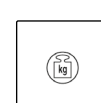
Dynamic carrying capacity at 6 km/h



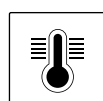
Dynamic carrying capacity at 3 km/h



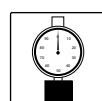
Rolling resistance



Weight



Temperature



Hardness



Available with stainless steel brackets



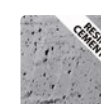
Wheel with ergonomic round profile



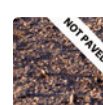
Tile floor



Asphalt floor



Resin-cement floor



Not paved floor



Expanded metal floor



Floor with chips



Floor with obstacles



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213075



**Tellure Rôta**

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