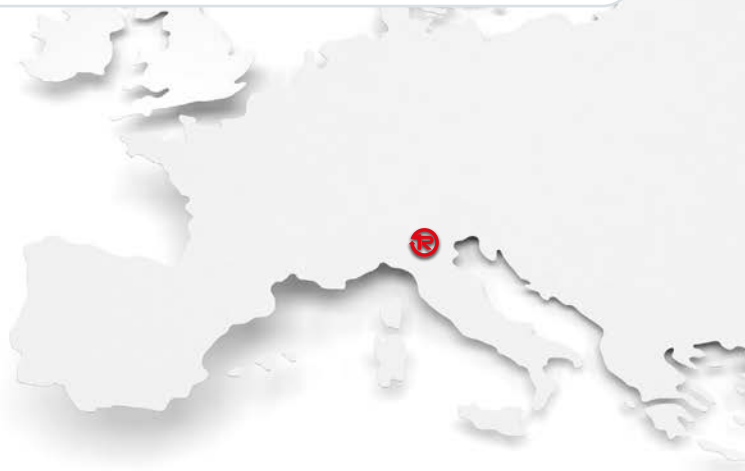


**tellureRôta**  
TOGETHER WE MOVE

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PRODUCT CATEGORY INDEX



### INDUSTRIAL - LIGHT DUTY LOADS



### INDUSTRIAL - MEDIUM DUTY LOADS



### INDUSTRIAL - HEAVY DUTY LOADS AND MECHANICAL HANDLING



### HIGH TEMPERATURE



### ANTISTATIC AND STATICALLY CONDUCTIVE



### PALLET TRUCK ROLLERS



## DRIVE WHEELS



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## COMPACT CASTORS



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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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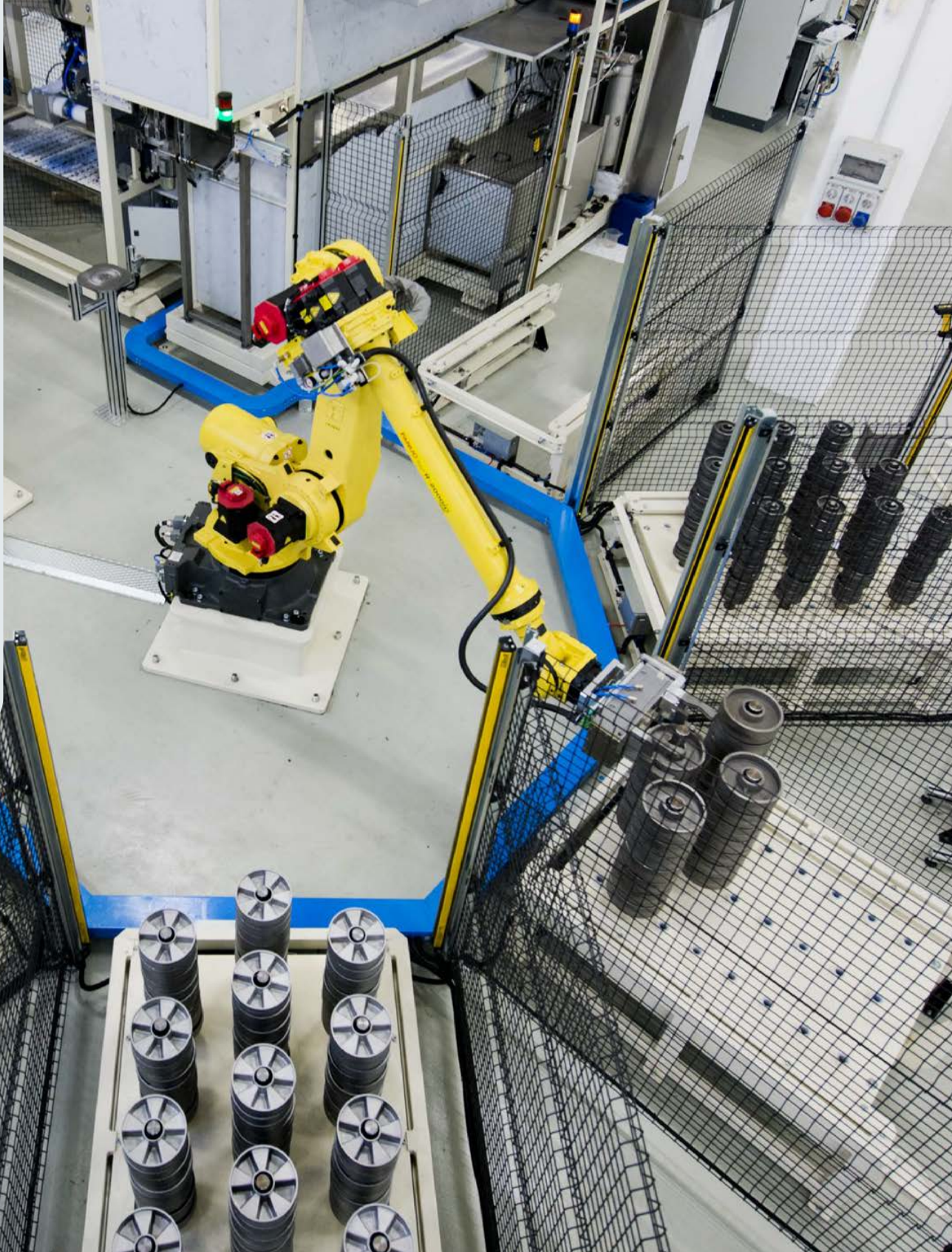
## CUSTOMISED SOLUTIONS



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## ACCESSORIES

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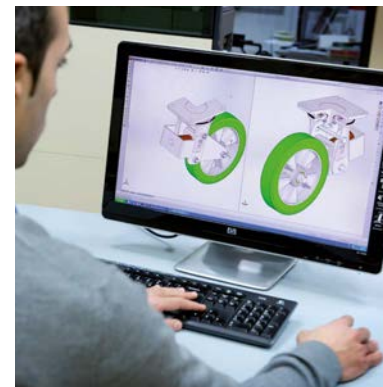


## MILESTONES

- |      |  |      |   |
|------|--|------|---|
| 1950 | Company was set up as a craft business                           | 1995 | Production of 30,000 wheels a day with 104 employees  |
| 1953 | Brand registration and conversion to a joint stock company (SpA) | 1996 | ISO 9001 certification  |
| 1961 | First foreign customer for wheels with polyurethane coating      | 2000 | Tellure Rôta do Brasil incorporated   |
| 1972 | Production of 2,000 wheels a day with 100 employees              | 2002 | ISO 9001:2000 certification   |
| 1980 | The company moved to the current 10,000 square metre plant       | 2004 | ISO 14001 Environmental Certification   |
|      |  | 2005 | Production expansion for automatic assembly with the purchase of a 3,000 square metre facility next to the main plant |

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

This is how Roberto Lancellotti - founder 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.

- |      |   |      |   |
|------|---|------|---|
| 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                      | 2021 | Tellure Rôta "Historical brand of national interest"  |
| 2012 | Production expansion for thermoplastic moulding with the purchase of a third 1,500 square metre facility next to the main plant | 2023 | "Together we move": 70th anniversary  |
| 2013 | Achievement of sixty years in the business  |      |   |



## Tellure Rôta, 70 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.

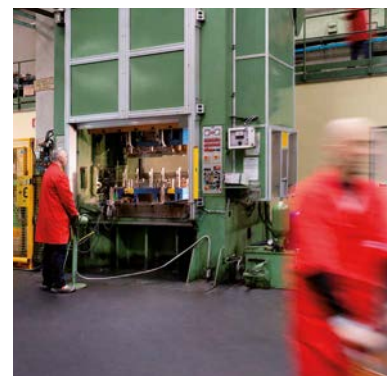
The steel sheets are moulded with automatic presses rated up to 630 Tonnes and pitch moulds. Strict and continuous checks made on the steel sheet and on the moulded components guarantee precise processing tolerances.

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.

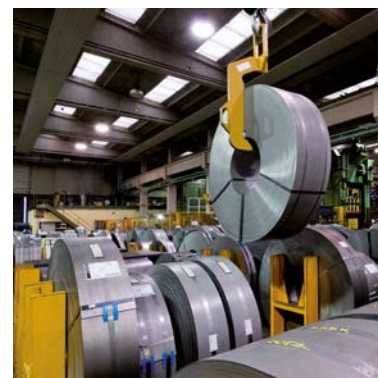
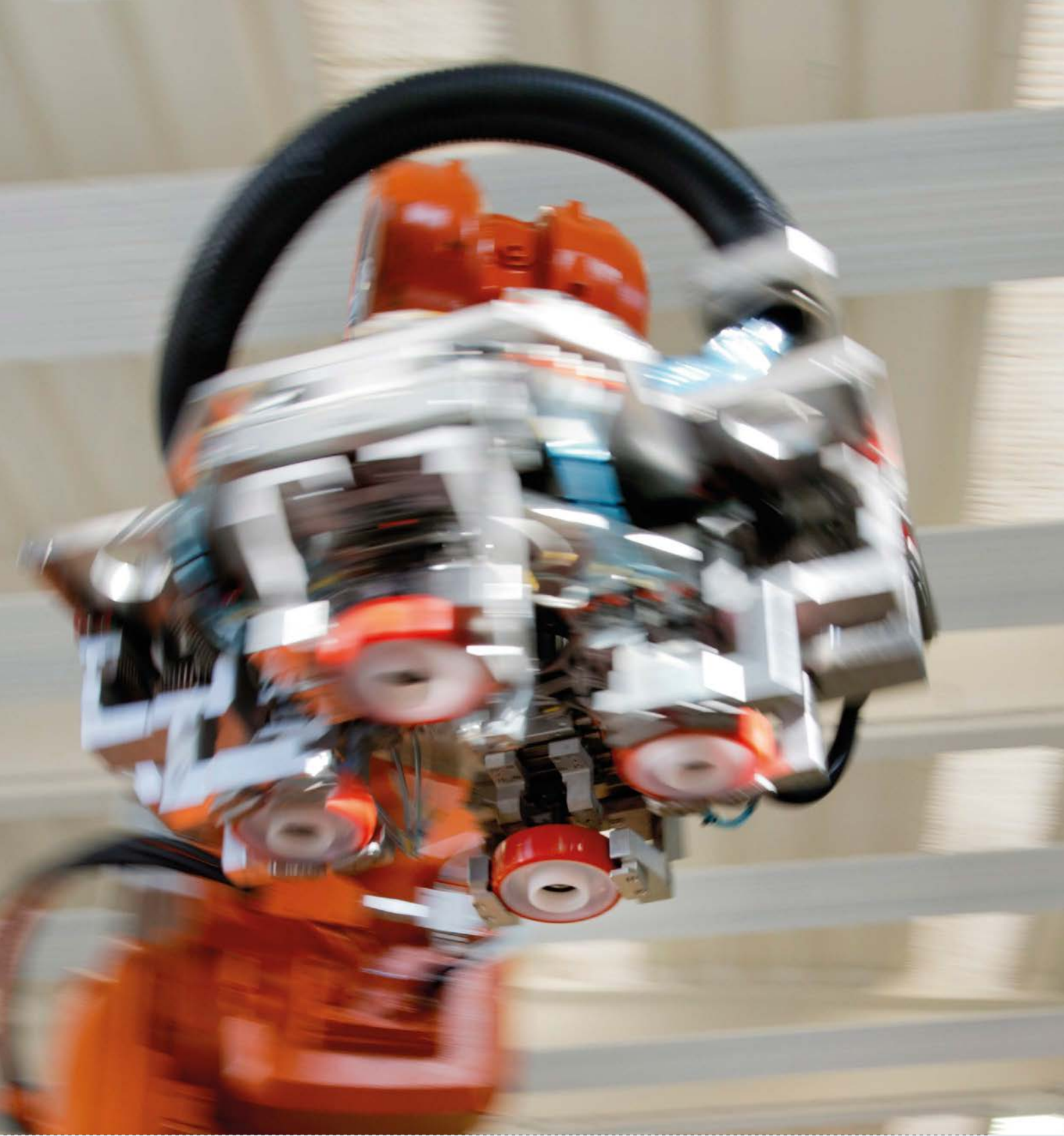
The thermoplastic wheels are moulded in a specific plant with state-of-the-art presses, in a controlled environment and starting from certified materials. The process ends with the assembly of the wheels and brackets on automatic lines that guarantee high production volumes and constant high quality.

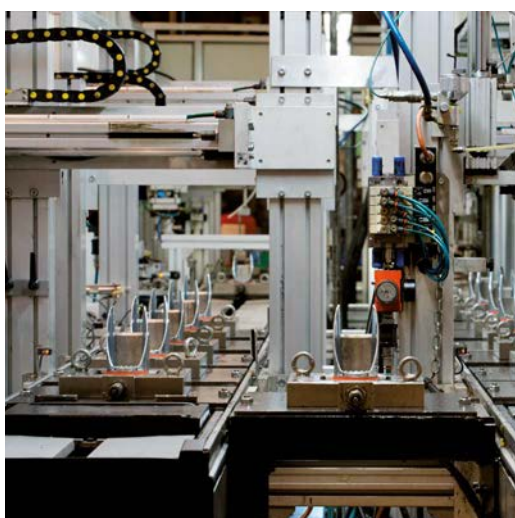
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## OVERVIEWS









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.

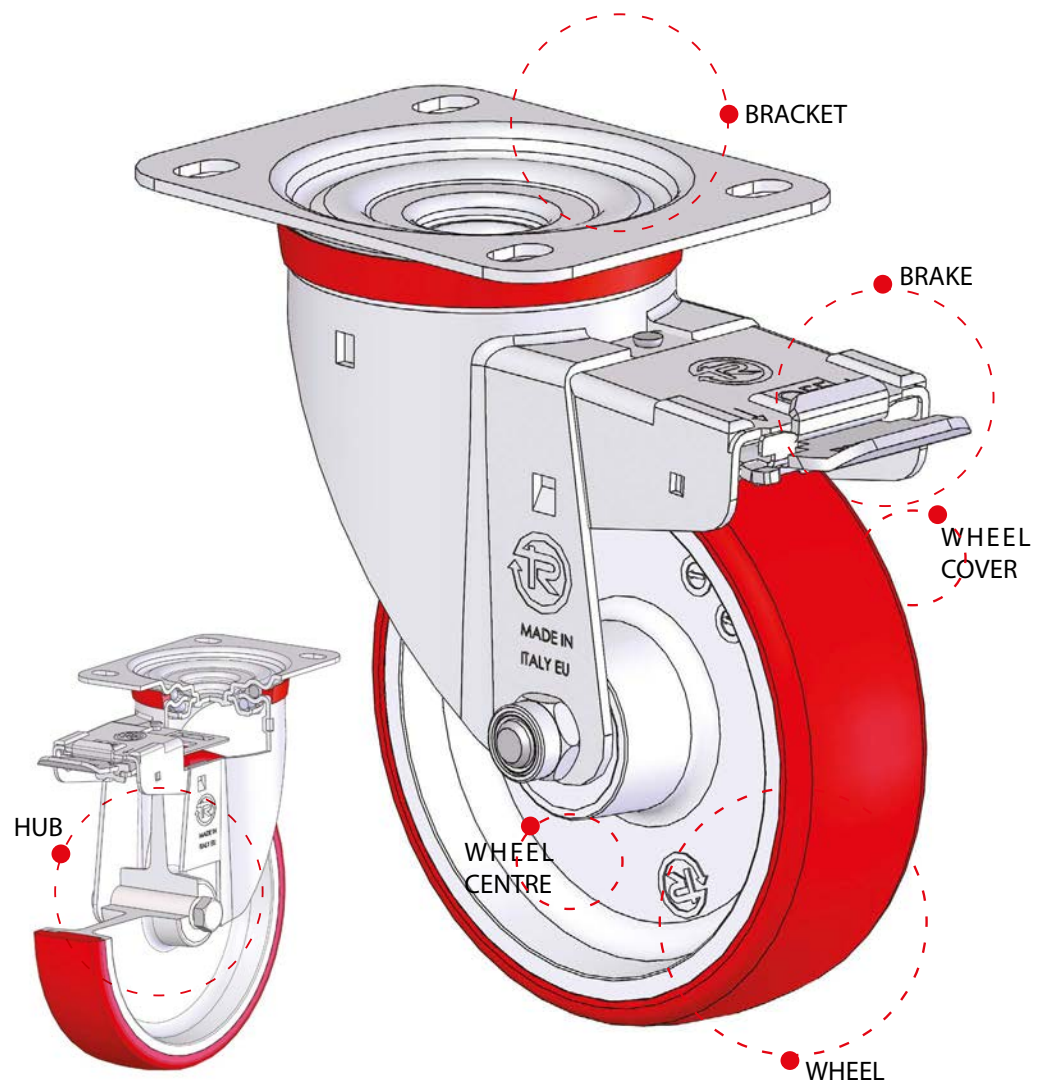
All of the chosen materials and treatments have a low environmental impact and are conform with the RoHS and Reach Directives.

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	
Antistatic and statically conductive solutions	
Pallet truck rollers	
Drive wheels	from page 48 to page 423
Compact castors	
Scaffoldings	
Waste bin containers	
Institutional	
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Customised solutions	
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### 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 to page 27
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### 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 to page 33
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### 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 to page 35
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# TELLURE RÔTA BRACKETS

## Light-duty SL



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

Page 15

## 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

Page 19

## 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

Page 21

## 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: 60-200 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

Page 25

## Sprung loaded electrowelded EES MHD



Carrying capacity: 4300 daN  
Diameters: 50-300 mm  
Fitting: with top plate  
Brake: adjustable front  
(diam. 150-250 mm  
only)

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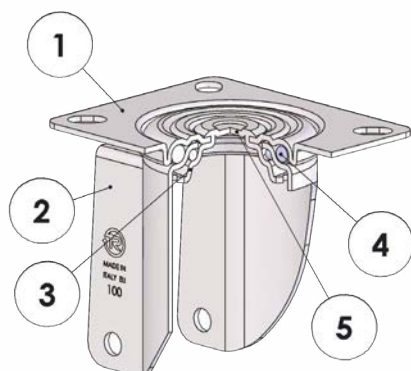
## Scaffolding TRAB



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

Page 27





- 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**

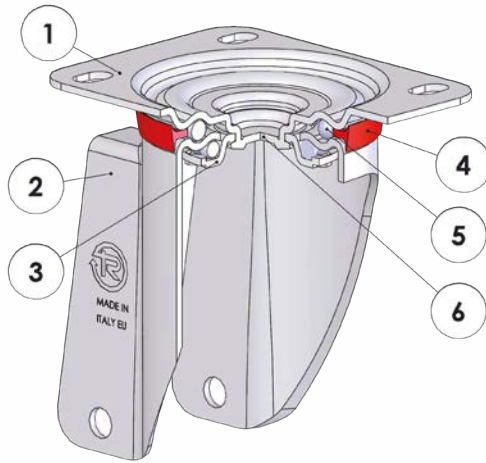
**SERIES 71**

### Fitting with top plate

SL								
	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

SL							
	80	40	110	12	63	33	130
	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

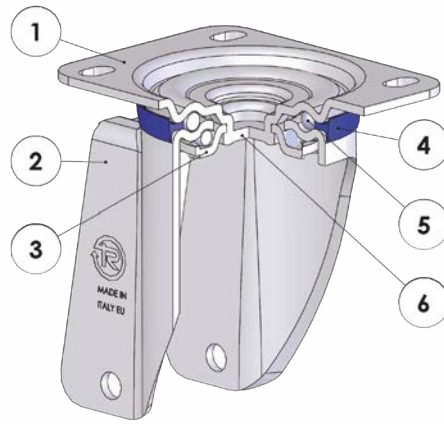


## Fitting with top plate

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	200
	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.

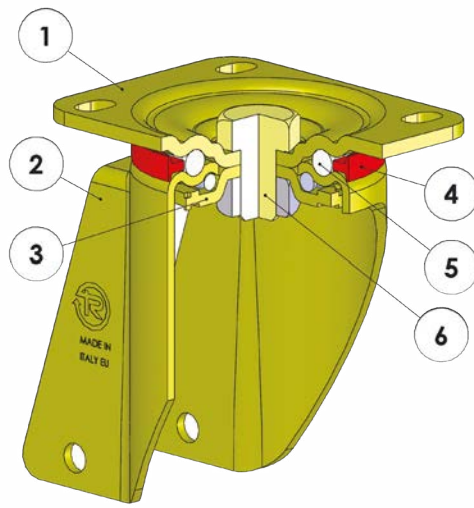
**Brake:** adjustable front

**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

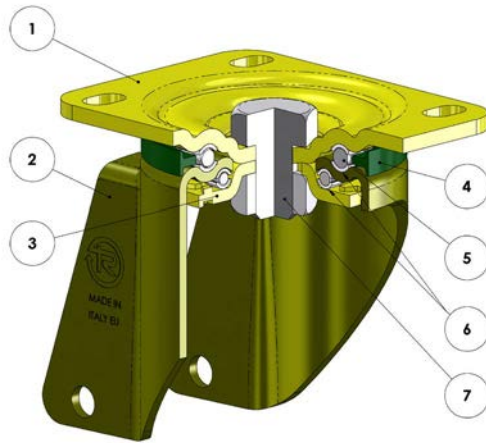
**Directional lock available.**

### Fittings with wheels



### Fitting with top plate

<b>P</b>	80	45	128	100x85	80x60	9	46	8	350
	100	45	138	100x85	80x60	9	46	8	350
	125	45	161	100x85	80x60	9	44	8	350
<b>P-PX</b>	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
	200	60	250	140x110	105x80	11	70	12	750
<b>P</b>	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

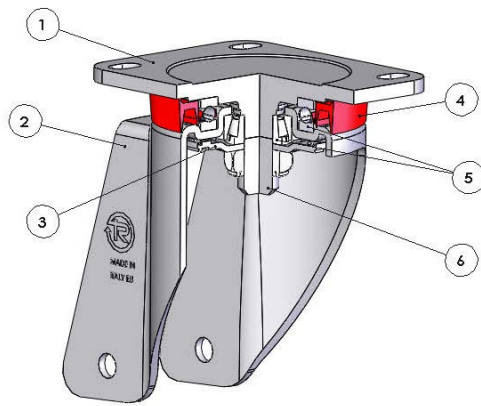
**Directional lock available.**

### 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.

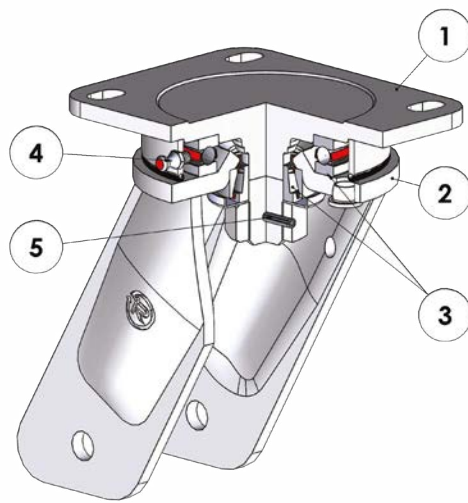
**Brake:** adjustable rear

### 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	
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

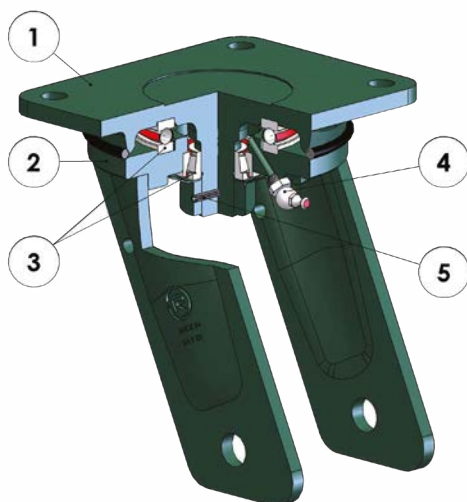


Fitting with top plate

EE MHD

100	60	170	135x110	105x80	11	51	12	1500	4-6 km/h
125	60	182	135x110	105x80	11	51	12	1500	
150	60	210	135x110	105x80	11	60	12	1500	
160	60	215	135x110	105x80	11	60	12	1500	
180	60	242	135x110	105x80	11	70	12	1500	
200	60	252	135x110	105x80	11	70	12	1500	
250	60	300	135x110	105x80	11	83	12	1500	





- 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)

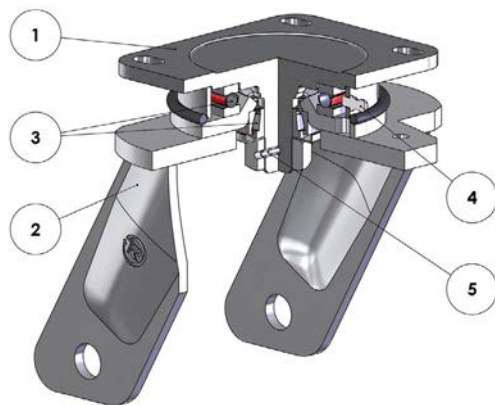
**Directional lock available** (EE HD model only)

### Fittings with wheels



### 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 (only diam. 100-200 mm)

## 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

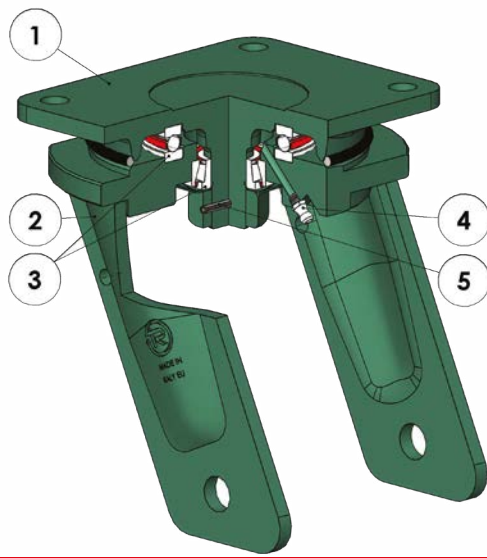
**Directional lock available** (on diam. 100-125 mm).

### Fittings with wheels



### Fitting with top plate

<b>EEG MHD</b>									
	60	80	92	100x85	80x60	9	40	12	500
	70	80	100	100x85	80x60	9	43	12	500
	80	80	112	100x85	80x60	9	42	12	500
	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.

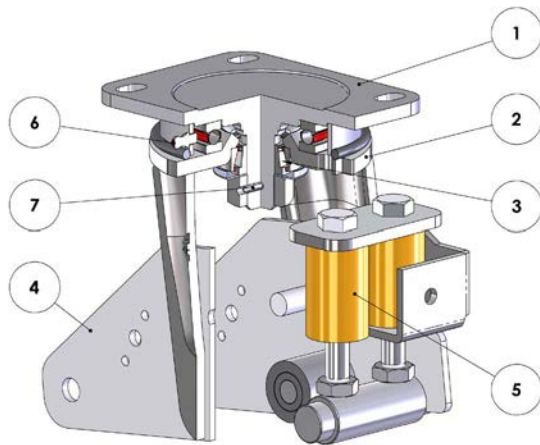
The top plate's longer side of fixed brackets is parallel to the axle of the wheel.

**Fittings with wheels**



**Fitting with top plate**

<b>EEG HD</b>	125	130	210	175x140	140x105	14	50	18	1600
	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
<b>EEG EHD</b>	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 (on diam. 150-250 mm)

**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 (on diam. 150-250 mm)

**Directional lock available (only on diam. 150-200 mm and not suitable for models with brake)**

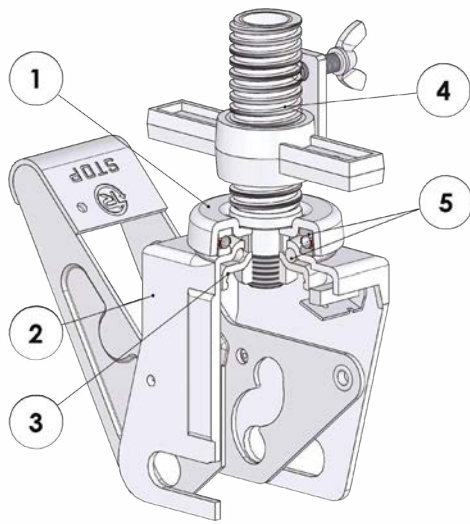
**Fittings with wheels**



**Fitting with top plate**

EES MHD

mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	daN	daN	daN
50	71	93	100x85	80x60	9	34	12	7	30	<b>300</b>	<b>300</b>	<b>300</b>
75	71	118	100x85	80x60	9	35	12	9	30	<b>350</b>	<b>350</b>	<b>350</b>
150	65	243	135x110	105x80	11	100	12	25	50	<b>400</b>	<b>400</b>	<b>1000</b>
160	65	248	135x110	105x80	11	100	12	25	50	<b>400</b>	<b>400</b>	<b>1000</b>
200	65	268	135x110	105x80	11	100	12	25	50	<b>400</b>	<b>400</b>	<b>1000</b>
250	65	316	135x110	105x80	11	110	12	25	50	<b>400</b>	<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 1004-1:2021**

Bracket designed for the specific requirements of the scaffolding sector, regulated by Standard EN 1004-1:2021.

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**

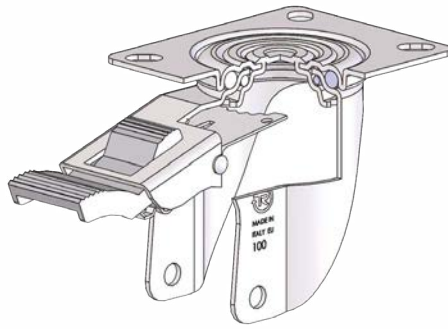
<b>TRAB</b>								
	150	192	140x110	105x80	19	40	300	700
	200	243	140x110	105x80	19	40	400	750

**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**

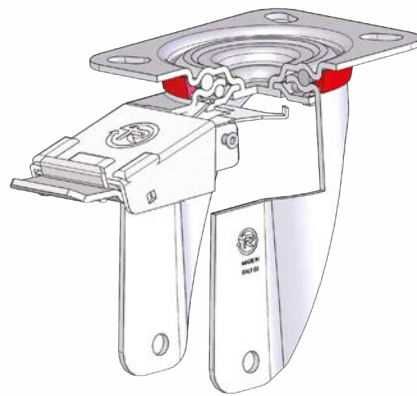
<b>TRAB</b>								
	125	150	89	38	57	30	250	500
	150	192	83	38	57	40	300	700
	200	243	81	38	57	40	400	750



**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**

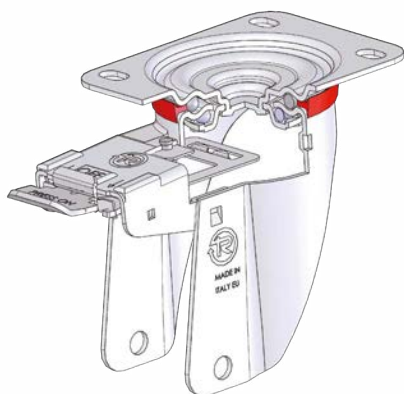
Total brake, it locks both wheel and bracket rotation

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

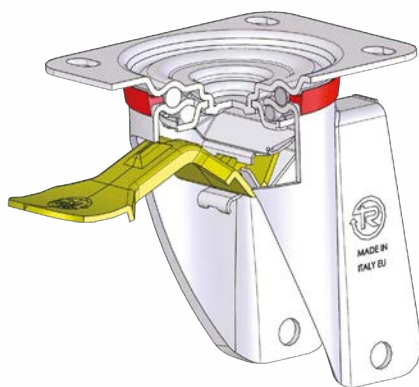
Total brake, it locks both wheel and bracket rotation.

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.



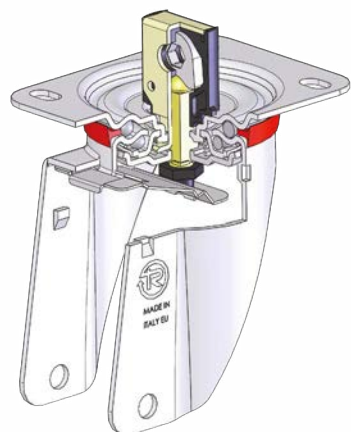
### Rear brake for NL brackets diameters 160-200 mm

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.

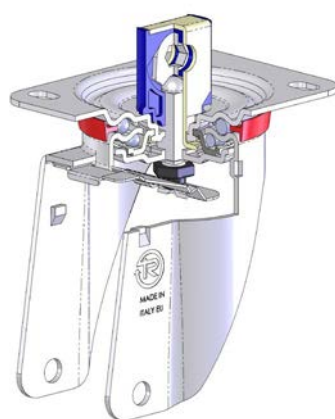


### Adjustable centralised brake for NL brackets diameters 160-200 mm

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 160-200 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.

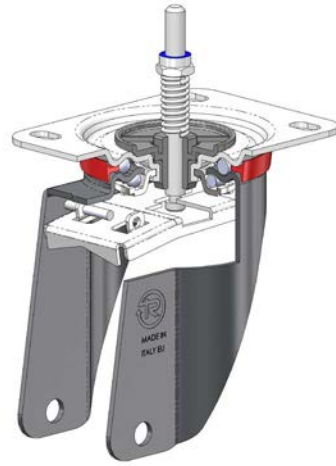
This braking system is usually fitted in pairs, allowing the activation of both brakes with a single operating shaft.

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





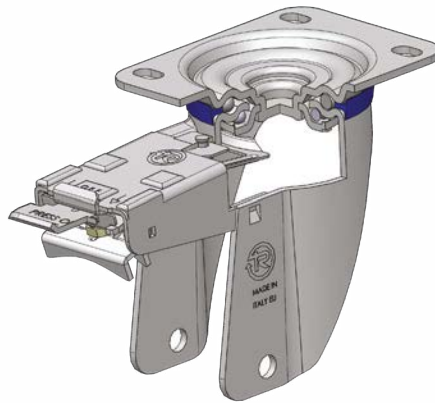
### Dead man brake for brackets NL diameters 160-200 mm

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.



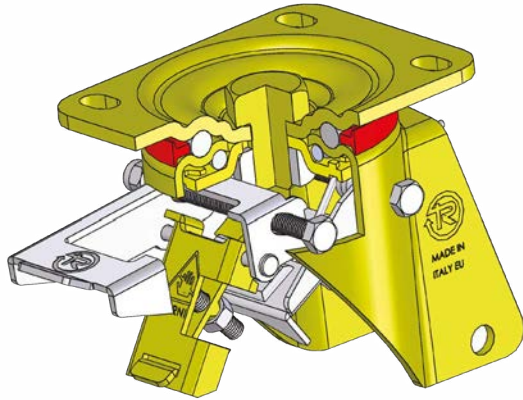
### Adjustable front brake for M brackets diam. 150-200 mm

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.

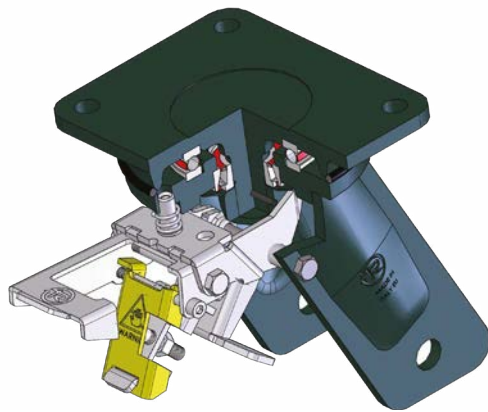


**Adjustable rear brake for P-PX-PT-EP brackets diameters 150-200 mm**

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.

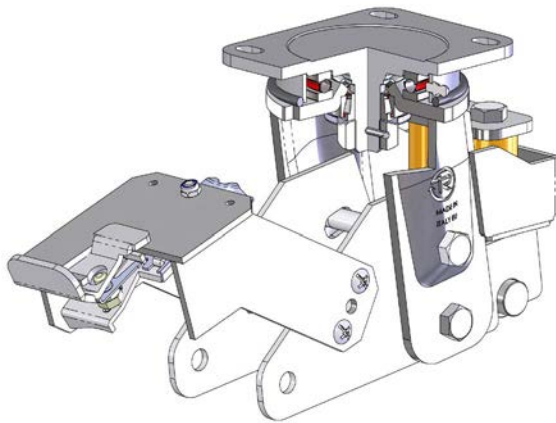


**Adjustable rear brake for EE MHD and EE HD brackets diam. 125-300**

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.



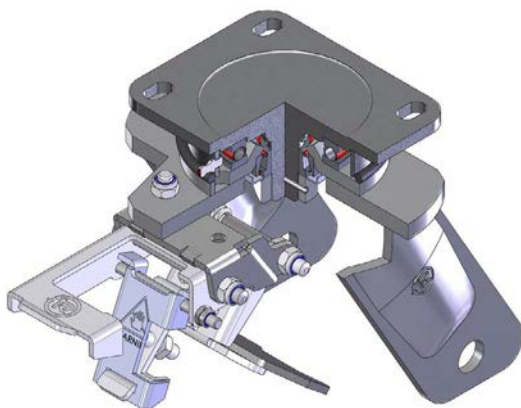
### Adjustable front brake for sprung-loaded brackets EES MHD - diam. 150-250 mm

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

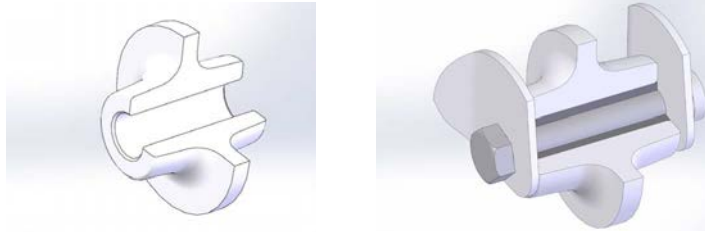
The brakes operates on wheel rotation only

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.

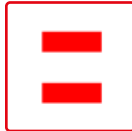
A top-to-bottom movement using the tip of the foot on two independent pedals is all that's needed to engage and release the brake quickly and smoothly. The shaped U-bolt allows to obtain optimal braking values.

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.



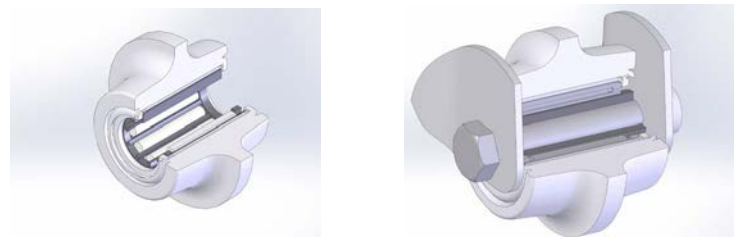
### Hub with plain bore



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

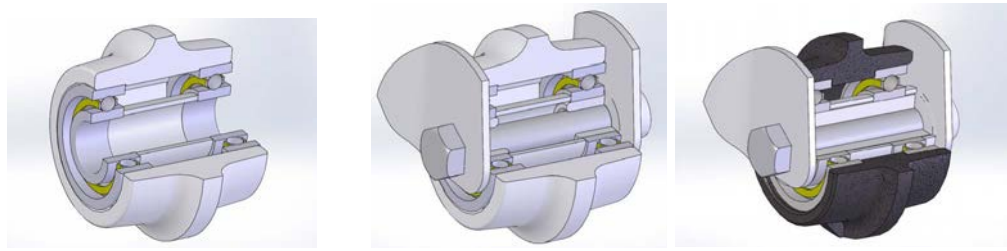


Suitable for applications involving non-continuous movements and heavier loads respect to wheels with hub with plain bore, as it guarantees low friction coefficients even in the presence of heavy loads.

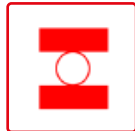
**The indicative sliding friction coefficient is  $b=0.0025$ .**

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.

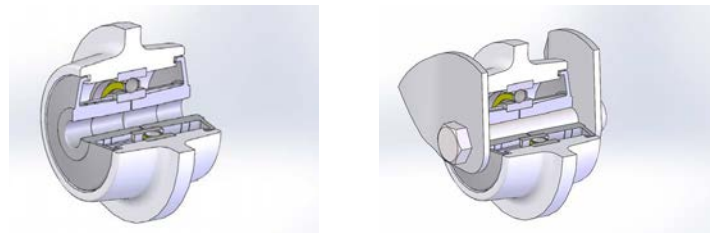
The axle material can comprise the following components:

**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 46-47 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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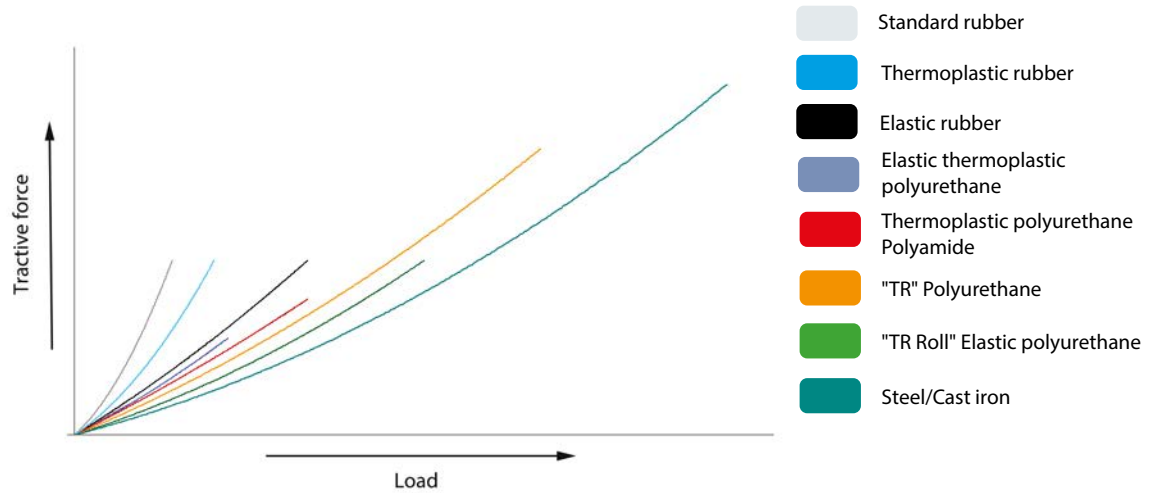
## FURTHER DETAILS AND INFORMATION

### 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 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



## ON-LOAD BEHAVIOUR VARIATION BASED ON TEMPERATURE FOR NON-INTENSIVE USE WITH MANUAL HANDLING

		Load resistance %							
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>58AL</b>	-	100	100	100	90	80	-	-
	<b>58HT</b>	-	100	100	100	90	80	-	-
	<b>58GH</b>	-	100	100	100	90	80	-	-
	<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>59HS</b>	-	100	100	100	90	80	-	-
	<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 wheel

The % reduction of the load capacity are indicative and are shown in order not to compromise the product functionality. A dynamic use in environments constantly above 40° and below 0° must be carefully evaluated with Tellure Rôta, depending on the real conditions of use.

## 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 - MEDIUM DUTY LOADS</b>	<b>60</b>	100	60	-	-	-	-
	<b>61</b>	100	60	-	-	-	-
<b>INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING</b>	<b>58AL</b>	100	80	-	-	-	-
	<b>58HT</b>	100	80	60	50	-	-
	<b>58GH</b>	100	80	65	60	50	contact with TR
	<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>PALLET TRUCK ROLLERS</b>	<b>72AL</b>	100	80	-	-	-	-
	<b>72GH</b>	100	80	-	-	-	-
	<b>59HS</b>	100	80	65	60	50	contact with TR
	<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>ANTISTATIC AND STATICALLY CONDUCTIVE SOLUTIONS</b>	<b>77</b>	100	80	-	-	-	-
	<b>79</b>	100	80	65	60	-	-
	<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
INDUSTRIAL - LIGHT DUTY LOADS	22	●	●	●	●	●	●	●
	23	●	●	●	●	●	●	●
	52	●	●	●	●	●	●	●
	53	●	●	●	●	●	●	●
	71	●	●	●	●	●	●	●
	82	●	●	●	●	●	●	●
	82AF	●	●	●	●	●	●	●
INDUSTRIAL - MEDIUM DUTY LOADS	60	●	●	●	●	●	●	●
	61	●	●	●	●	●	●	●
	68	●	●	●	●	●	●	●
	73	●	●	●	●	●	●	●
	73AE	●	●	●	●	●	●	●
INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING	58AL	●	●	●	●	●	●	●
	58HT	●	●	●	●	●	●	●
	58GH	●	●	●	●	●	●	●
	62BS	●	●	●	●	●	●	●
	62AL	●	●	●	●	●	●	●
	62ER	●	●	●	●	●	●	●
	62GH	●	●	●	●	●	●	●
	62NY	●	●	●	●	●	●	●
	63AC	●	●	●	●	●	●	●
	63GH	●	●	●	●	●	●	●
	64	●	●	●	●	●	●	●
	65AL	●	●	●	●	●	●	●
	65GH	●	●	●	●	●	●	●
	65HT	●	●	●	●	●	●	●
	65ER	●	●	●	●	●	●	●
	66	●	●	●	●	●	●	●
	68P	●	●	●	●	●	●	●
69	●	●	●	●	●	●	●	
72AL	●	●	●	●	●	●	●	
72GH	●	●	●	●	●	●	●	
HIGH TEMPERATURE	67	●	●	●	●	●	●	●
	68FV	●	●	●	●	●	●	●
	72GS	●	●	●	●	●	●	●
PALLET TRUCK ROLLERS	59HS	●	●	●	●	●	●	●
	74	●	●	●	●	●	●	●
	75	●	●	●	●	●	●	●
	75HS	●	●	●	●	●	●	●
	76	●	●	●	●	●	●	●
	77	●	●	●	●	●	●	●
	78	●	●	●	●	●	●	●
	79	●	●	●	●	●	●	●
ANTISTATIC AND STATICALLY CONDUCTIVE SOLUTIONS	53AS	●	●	●	●	●	●	●
	62ESD	●	●	●	●	●	●	●
	65ESD	●	●	●	●	●	●	●



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 UNI EN 12526:2002	Vocabulary, recommended symbols and multilingual dictionary	All series
ISO 22878:2004 UNI EN 12527:2001	Wheels and brackets, test methods and equipment	All series
ISO 22879:2016 UNI EN 12528:2001	Wheels and brackets, wheels for furniture	33, 34, 35, 39
ISO 22880:2016 UNI EN 12529:2001	Wheels and brackets, wheels for furniture, wheels for swivel chairs	34
ISO 22881:2004 UNI EN 12530:2001	Wheels and brackets, wheels and brackets for manually propelled institutional equipment	32, 36, 37, 38
ISO 22883:2004 UNI EN 12532:2001	Wheels and brackets, wheels and brackets for applications up to 1.1 m/s	22, 23, 52, 53, 58, 59, 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 UNI EN 12533:2001	Wheels and brackets, wheels and brackets for applications over 1.1 m/s and up to 4.4 m/s	58AL, 58HT, 58GH, 59, 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 840-5:2020
- 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 manual handling	Industrial wheels 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	<b>INOX</b>		

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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	<b>INOX</b>		

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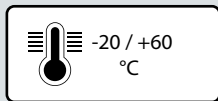
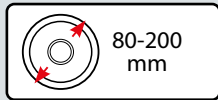
SERIES **82<sup>AF</sup>**

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

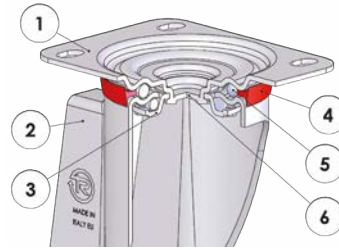


																		
mm	mm	kg	CODE	mm	mm	daN	daN	daN										
80	25	0.11	222101	12	39	150	50	65										
100	30	0.21	222102	12	44	200	75	80										
125	37.5	0.41	221103	15	44	225	85	110										
140	37.5	0.60	221104	15	44	250	95	120										
150	40	0.67	221111	15	44	275	100	130										
160	40	0.73	221110	20	59	300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

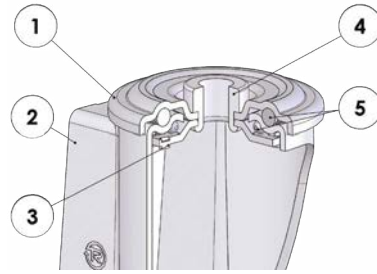
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
80	25	0,64	224401	0,36	225701	0,82	225201	107	100x85	80x60	9	37	120	<b>65</b>	
100	30	0,73	224402	0,48	225702	0,88	225202	128	100x85	80x60	9	35	120	<b>80</b>	
125	37.5	1,06	224403	0,71	225703	1,20	225203	156	100x85	80x60	9	37	120	<b>110</b>	
140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

**Options available to order**



## 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

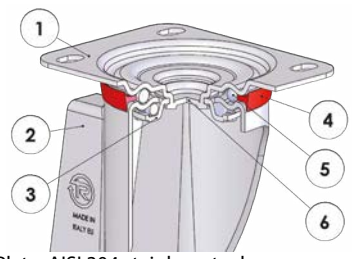


Fitting with threaded stem d. 80-200 mm



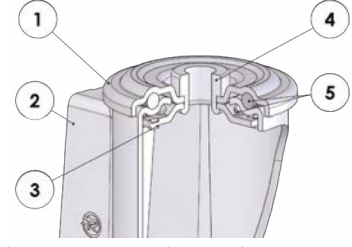
**Stainless steel standard-duty brackets NLX - max carrying capacity 225 daN**

**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**

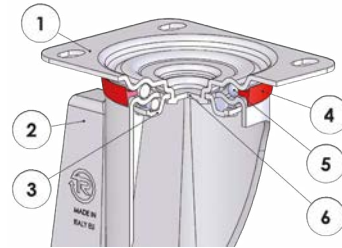


																		
mm	mm	kg	CODE	mm	mm	daN	daN	daN										
80	25	0.17	231121	12	39	<b>260</b>	<b>50</b>	<b>65</b>										
100	30	0.28	231122	12	44	<b>300</b>	<b>75</b>	<b>80</b>										
125	37.5	0.51	231103	15	44	<b>330</b>	<b>85</b>	<b>130</b>										
140	37.5	0.64	231104	15	44	<b>340</b>	<b>95</b>	<b>150</b>										
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	kg	CODE	kg	CODE	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	daN	4 km/h			
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



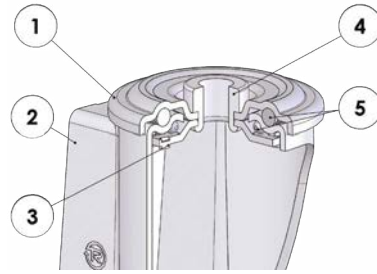
Bracket with directional lock  
d. 80-125 mm
















Directional lock for brackets  
d. 150-200 mm

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

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 mm
	80 Shore A
	65-300 daN 4 km/h
	50-175 daN
	-20 / +60 °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

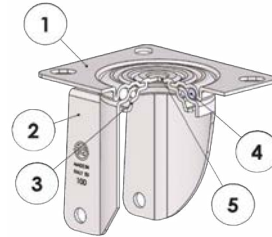


																		
mm	mm	kg	CODE	mm	mm	daN	daN	daN										
80	25	0.11	522101	12	39	150	50	65										
100	30	0.21	522102	12	44	200	75	80										
100	30	0.19	521132	12	39	200	75	80										
125	37.5	0.41	521103	15	44	225	85	110										
125	37.5	0.35	521133	12	39	225	85	110										
140	37.5	0.48	521104	15	44	250	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										



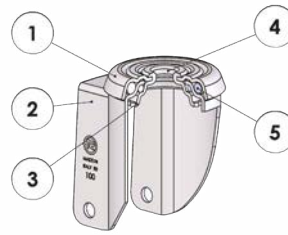
																		
mm	mm	kg	CODE	mm	mm	daN	daN	daN										
80	25	0.14	524101	12	39	150	50	65										
100	30	0.24	524102	12	44	200	75	80										
125	37.5	0.44	523103	15	44	225	85	110										
140	37.5	0.51	523104	15	44	250	95	120										
150	40	0.61	523111	15	44	275	100	130										
160	40	0.75	523110	20	59	300	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>	

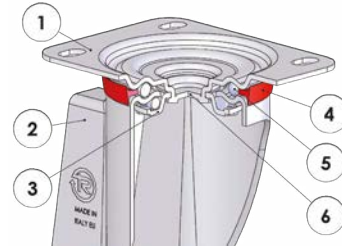


- 1) Plate in electrolytically galvanised printed steel plate
  - 2) Fork in electrolytically galvanised printed steel plate
  - 3) Ball Race Ring in electrolytically galvanised printed steel plate
  - 4) Bracket closing king pin integrated with ball race ring
  - 5) Swivel actions: on two ball race 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	mm	mm	mm	mm	mm	mm	mm	mm	mm	daN
80	25	0.64	524401	0.36	525701	0.82	525201	107	100x85	80x60	9	37	120	<b>65</b>									
100	30	0.73	524402	0.48	525702	0.88	525202	128	100x85	80x60	9	35	120	<b>80</b>									
125	37.5	1.06	524403	0.71	525703	1.20	525203	156	100x85	80x60	9	37	120	<b>110</b>									
140	37.5	1.18	524404	0.80	525704	1.32	525204	177	100x85	80x60	9	34	120	<b>120</b>									
150	40	1.31	524411	0.93	525711	1.45	525211	182	100x85	80x60	9	34	120	<b>130</b>									
160B	40	1.41	524412	1.25	525712			187	100x85	80x60	9	50		<b>150</b>									
160	40	2.10	524410	1.73	525710	2.38	525210	199	140x110	105x80	11	56	156	<b>150</b>									
180	45	2.40	524405	2.11	525705	2.69	525205	219	140x110	105x80	11	56	156	<b>180</b>									
200	50	2.72	524406	2.50	525706	3.00	525206	240	140x110	105x80	11	56	156	<b>225</b>									
250	60	6.02	524708	4.52	525708			296	200x160	160x120	14	87		<b>300</b>									

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

Options available to order:



Bracket with rear brake  
d. 150-200 mm

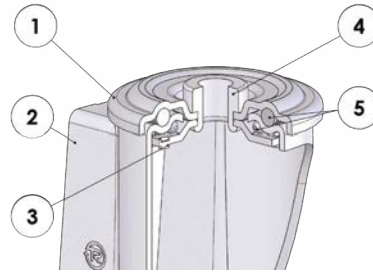


Bracket with directional lock  
d. 80-125 mm



Directional lock for brackets  
d. 150-200 mm

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



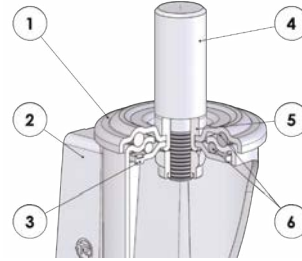
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) King pin: bushing in electrolytically galvanised steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN				
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**

-  80-280 mm
-  80 Shore A
-  65-390 daN  
4 km/h
-  50-200 daN
-  -20 / +60 °C



**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

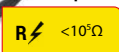
Maximum carrying capacity 390 daN - available diameters 80-280 mm  
Top plate, bolt hole and solid stem fittings. Available with front brake.

### 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. 304)












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										



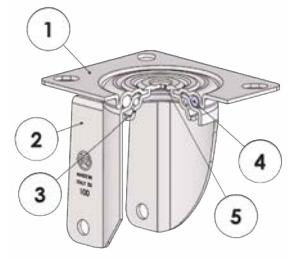
																		
mm	mm	kg	CODE	mm	mm	daN	daN	daN										
80	25	0.19	533121	12	39	260	50	65										
100	30	0.31	533122	12	44	300	75	80										
125	37.5	0.54	533103	15	44	330	85	130										
140	37.5	0.66	533104	15	44	340	95	150										
150	40	0.76	533111	15	44	350	100	170										
160	40	1.07	533110	20	58	370	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:



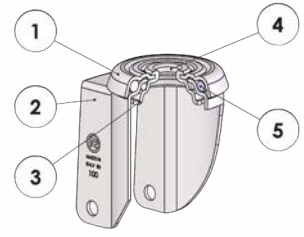
Wheel with conductive rubber tread (roller bearing hub only, see p. 304)

**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

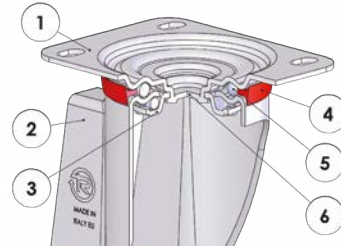
mm		kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	mm	daN
80	25	0.51	535801	0.50	536001	0.63	536301	110	95x80	100x85	80x60	8.8	33	120	<b>65</b>	
100	30	0.60	535802	0.59	536002	0.74	536302	127	95x80	100x85	80x60	8.8	29	120	<b>80</b>	
125	37.5	0.87	535803	0.85	536003	0.98	536303	154	95x80	100x85	80x60	8.8	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		Wheel		Bracket		Wheel		Bracket		Wheel		Bracket		daN
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	mm	4 km/h
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. 304)



Bracket with rear brake d. 150-200 mm

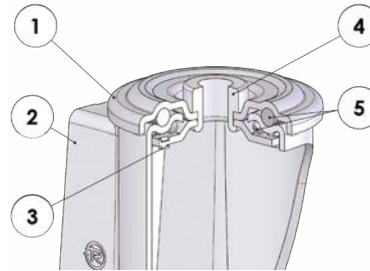


Bracket with directional lock d. 80-125 mm



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

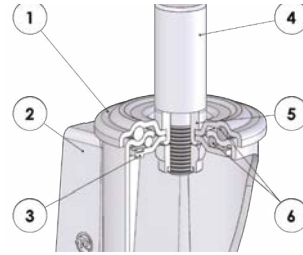
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN				
80	25	0.61	537701	0.78	538201	107	73	12	37	120	<b>65</b>				
100	30	0.74	537702	0.94	538202	128	73	12	35	120	<b>80</b>				
125	37.5	1.09	537703	1.24	538203	156	73	12	37	120	<b>130</b>				
140	37.5	1.23	537704	1.38	538204	177	73	12	34	120	<b>150</b>				
150	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. 304)

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



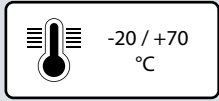
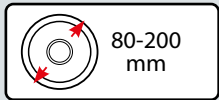
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease 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	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	STRONG BASES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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

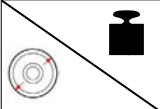

It does not stain or damage fragile floors. Suitable for tiles and cement-resin.

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>								

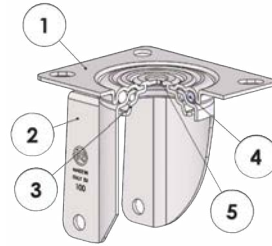


																
mm	mm	kg	COD.	kg	COD.	mm	mm	daN	daN	daN						
80	30	0,11	713101	0,11	713201	12	39	<b>100</b>	<b>70</b>	<b>70</b>						
100	30	0,14	713102	0,14	713202	12	44	<b>150</b>	<b>100</b>	<b>100</b>						
125	35	0,22	713103	0,22	713203	15	44	<b>180</b>	<b>120</b>	<b>120</b>						
150	35	0,30	713105	0,30	713205	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>						



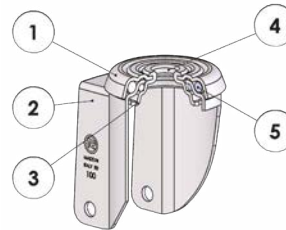
																
mm	mm	kg	COD.	kg	COD.	mm	mm	daN	daN	daN						
80	30	0,14	712201			8	40	<b>100</b>	<b>70</b>	<b>70</b>						
100	30	0,18	712202			8	45	<b>150</b>	<b>100</b>	<b>100</b>						
125	35	0,25	712203			8	45	<b>180</b>	<b>120</b>	<b>120</b>						
150	45	0,62	712204	0,62	712404	12	60	<b>270</b>	<b>180</b>	<b>180</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:**



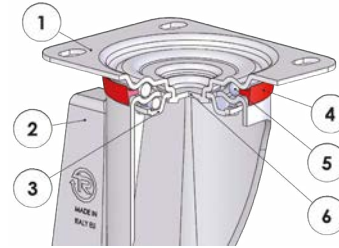
Wheel for large commercial kitchens (conforms to Standard DIN 18867-8)  
d. 160 and 200 mm



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

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

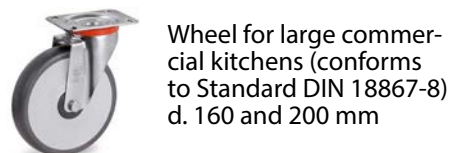
**Standard-duty brackets NL - max carrying capacity 225 daN**



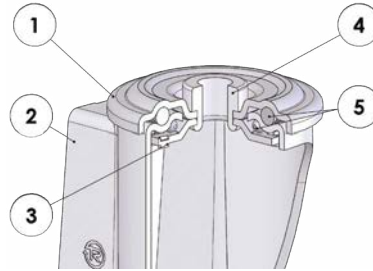
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with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

Wheel		Bracket		Bracket		Bracket		Bracket					4 km/h	daN
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm		
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:**



**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



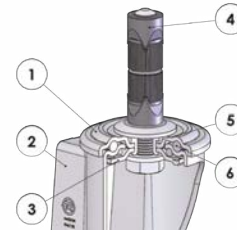
Fitting with threaded stem



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**

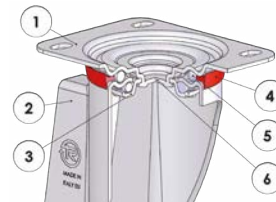


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Stem: zamak expander
  - 5) King pin: bushing in electrolytically galvanised steel
  - 6) Swivel actions: double ball ring with 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**

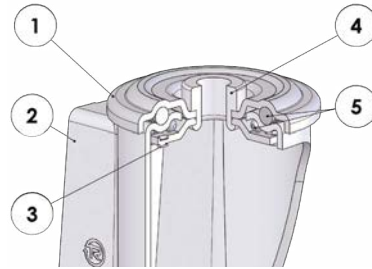
**INOX**



- 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	mm	kg	COD.	kg	COD.	mm	mm	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 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.

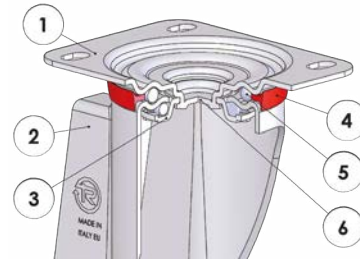






mm	mm	kg	CODE	kg	CODE	mm	mm	daN			
260	85	0.91	821601	1.03	823601	20	74	150	ribbed profile		
260	85	0.90	821602	1.00	823602	25	74	150	ribbed profile		
260	85	0.96	822601	1.08	824601	20	74	150	country profile		
260	85	0.95	822602	1.05	824602	25	74	150	country profile		

**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	mm	kg	CODE	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	mm	kg	CODE	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

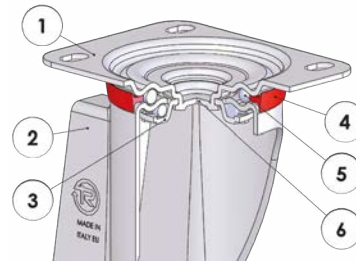
It is functional on all type of floors and especially on uneven floors and soft floor surfaces such as grass, as well as on floor with obstacles and with chips.


















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

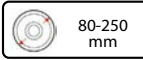
**INDUSTRIAL  
MEDIUM DUTY LOADS**



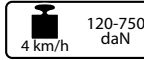


SERIES **60**

THERMOPLASTIC POLYURETHANE  
WHEELS WITH POLYAMIDE 6 CENTRE



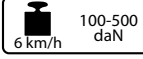
80-250  
mm



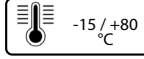
120-750  
daN



120-450  
daN



6 km/h



-15 / +80  
°C

**INOX**

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SERIES **61**

THERMOPLASTIC POLYURETHANE  
WHEELS WITH POLYAMIDE 6 CENTRE



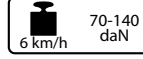
80-200  
mm



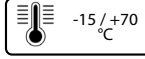
75-300  
daN



75-300  
daN



6 km/h



-15 / +70  
°C

**INOX**

PAGE 102

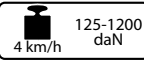


SERIES **68**

SOLID WHEELS  
IN POLYAMIDE 6



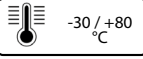
65-250  
mm



125-1200  
daN



90-450  
daN



-30 / +80  
°C

**INOX**

PAGE 110

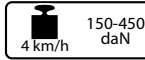


SERIES **73**

WHEELS IN SIGMA ELASTIC RUBBER  
WITH POLYAMIDE 6 CENTRE



100-200  
mm



150-450  
daN



100-350  
daN



-20 / +70  
°C

**INOX**

PAGE 122

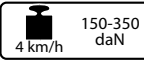


SERIES **73<sup>E</sup>**

ELASTIC RUBBER WHEELS  
WITH POLYAMIDE CENTRE



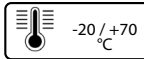
100-200  
mm



150-350  
daN









100-235  
daN



-20 / +70  
°C

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## 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 1004-1:2021).

### 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 360)

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>									



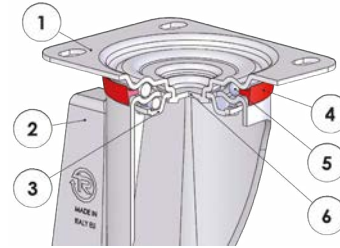
																	
mm	mm	kg	COD.	kg	COD.	mm	mm	daN	daN	daN							
80	30	0,13	603101	0,13	603201	12	39	<b>220</b>	<b>120</b>	<b>120</b>							
100	30	0,17	603102	0,17	603202	12	44	<b>300</b>	<b>170</b>	<b>170</b>							
125	35	0,25	603103	0,25	603203	15	44	<b>350</b>	<b>230</b>	<b>230</b>							
150	35	0,37	603105	0,37	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**

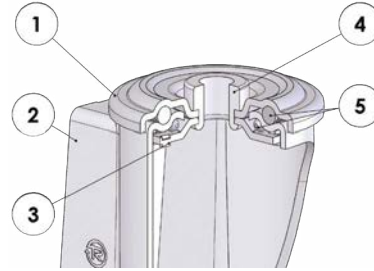


Bracket with directional lock  
d. 80-125 mm
















Directional lock for brackets  
d. 150-200 mm

**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

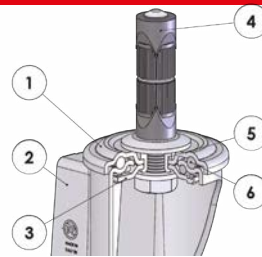
																
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	4 km/h				
80	30	0,51	607701	0,67	606401	107	73	12	37	120	<b>120</b>					
100	30	0,58	607702	0,73	606402	128	73	12	35	120	<b>170</b>					
125	35	0,78	607703	0,95	606403	156	73	12	37	120	<b>220</b>					
150	35	0,91	607704	1,07	606404	182	73	12	34	120	<b>220</b>					
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**



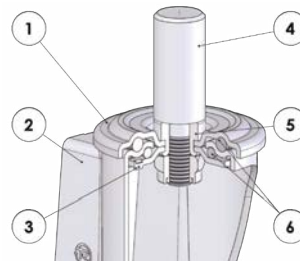
Fastening with threaded stem

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



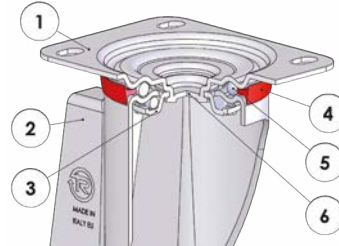
Bracket with Zama stem fitted with wheels with roller bearings and single ball bearing d. 80-125 mm



Connection with solid stem with dimensions that can be customised

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

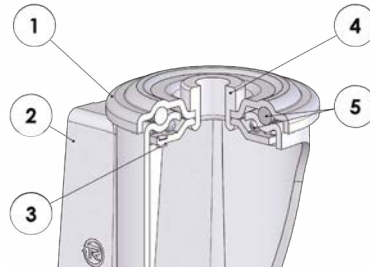
**INOX**



- 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**



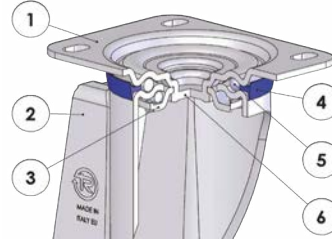
**INOX**

- 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

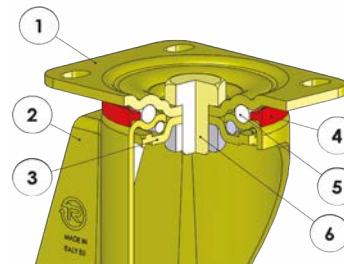
### Medium-duty brackets M - max carrying capacity 450 daN



- 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

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

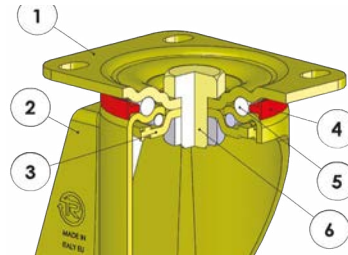
### Medium-heavy duty brackets P - max carrying capacity 450 daN



- 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

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

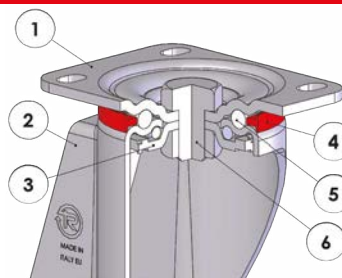
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 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 adjustable total rear foot brake

mm		kg	COD.	kg	COD.	kg	COD.	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**

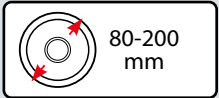


**INOX**

- 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						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**



**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 1004-1:2021).

**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>									

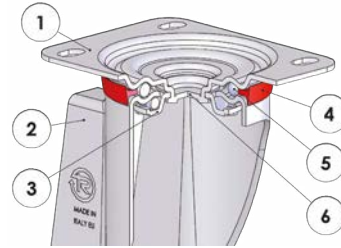


																	
mm	mm	kg	COD.	kg	COD.	mm	mm	daN	daN	daN							
80	30	0,13	613101	0,13	613201	12	39	<b>160</b>	<b>75</b>	<b>75</b>							
100	30	0,17	613102	0,17	613202	12	44	<b>200</b>	<b>120</b>	<b>120</b>							
125	35	0,25	613103	0,25	613203	15	44	<b>350</b>	<b>180</b>	<b>180</b>							
150	35	0,37	613105	0,37	613205	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:**

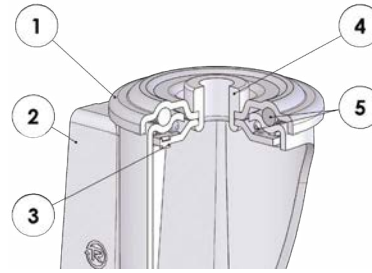


Bracket with directional lock  
d. 80-125 mm



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

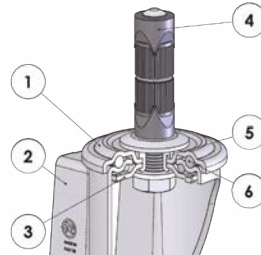
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN				
80	30	0,51	617701	0,67	616401	107	73	12	37	120	<b>75</b>				
100	30	0,58	617702	0,73	616402	128	73	12	35	120	<b>120</b>				
125	35	0,78	617703	0,95	616403	156	73	12	37	120	<b>180</b>				
150	35	0,91	617704	1,07	616404	182	73	12	34	120	<b>220</b>				
150	45	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:**



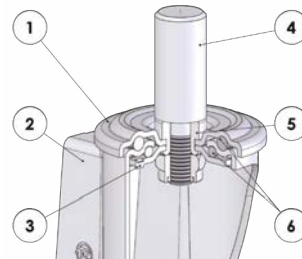
Fitting with threaded stem

**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

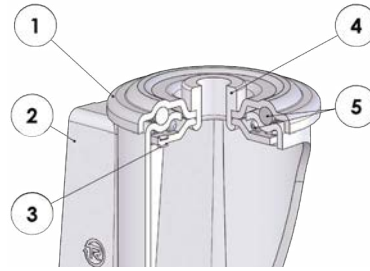


Fitting with solid stem with customised dimensions



**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) King pin: bushing in stainless steel
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot brake

mm		kg	COD.	kg	COD.	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 1004-1:2021 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

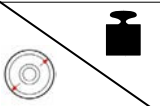
Suitable only for smooth and compact floors.

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 360)

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 254)
















															
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>							

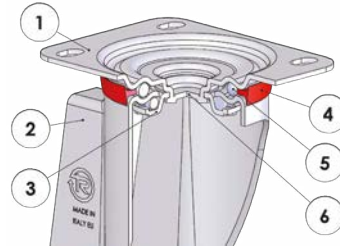


															
mm	mm	kg	CODE	kg	CODE	mm	mm	daN	daN	daN					
80	30	0.10	683111	0.10	683211	12	39	<b>200</b>	<b>150</b>	<b>180</b>					
100	30	0.15	683112	0.15	683212	12	44	<b>350</b>	<b>175</b>	<b>300</b>					
125	38	0.25	683103	0.25	683203	15	44	<b>450</b>	<b>200</b>	<b>400</b>					
150	45	0.51	683104	0.51	683204	20	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

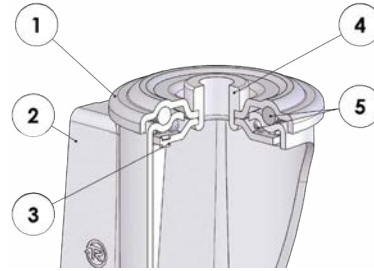
200	50	2.50	684866	2.30	685166	2.67	686846	240	140x110	105x80	11	56	156	300
-----	----	------	--------	------	--------	------	--------	-----	---------	--------	----	----	-----	-----

**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

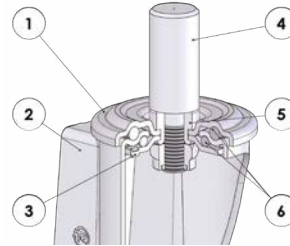
															
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN				
65	30	0.51	687700			100	73	12	37		<b>120</b>				
80	30	0.52	687701	0.70	686701	107	73	12	37	120	<b>180</b>				
100	30	0.55	687702	0.80	686702	128	73	12	35	120	<b>200</b>				
125	38	0.85	687703	0.99	686703	156	73	12	37	120	<b>220</b>				
150	45	1.57	687704	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:



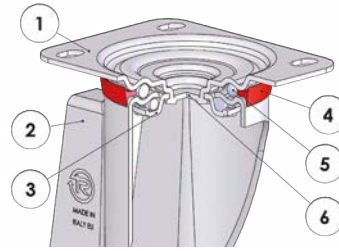
Fitting with expansion stem in polyamide d. 80-125 mm



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

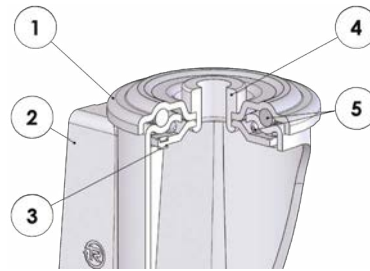
mm		kg		CODE		kg		CODE		mm		mm		mm		mm		mm		daN	
80	30	0.55	684401	0.29	685401	0.73	689001	107	100x85	80x60	9	37	120	<b>180</b>							
100	30	0.61	684402	0.36	685402	0.76	689002	128	100x85	80x60	9	35	120	<b>200</b>							
125	38	0.78	684403	0.63	685403	0.95	689003	156	100x85	80x60	9	37	120	<b>220</b>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

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

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

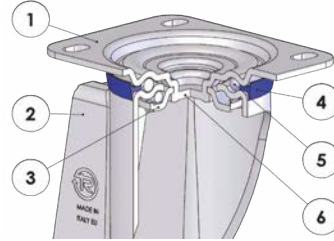
**INOX**



- 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	CODE	kg	CODE	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>						

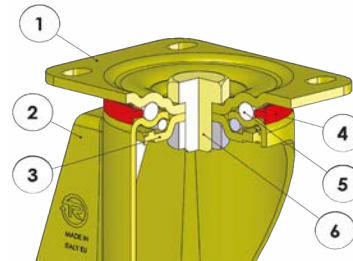
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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**

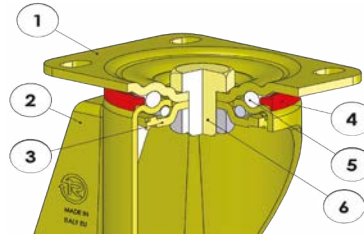


- 1) Plate: yellow galvanised steel plate
- 2) Fork: yellow galvanised steel plate
- 3) Ball race ring: yellow galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) Swivel actions: double ball ring with grease lubrication
- 6) King pin: steel bolt in grade 8.8 steel and steel nut  
Available with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



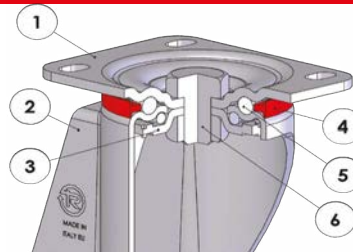
**Medium-heavy duty brackets P - max carrying capacity 730 daN**



- 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	126	<b>500</b>			
175	45	2.86	687505	1.45	688505	3.43	686905	225	140x110	105x80	11	70	126	<b>630</b>			
200	50	3.11	687506	1.65	688506	3.39	686906	250	140x110	105x80	11	70	126	<b>730</b>			
150	45	2.97	687604	1.57	688604	3.54	686924	200	140x110	105x80	11	70	126	<b>500</b>			
175	45	2.98	687605	1.69	688605	3.55	686925	225	140x110	105x80	11	70	126	<b>630</b>			
200	50	3.28	687606	1.83	688606	3.85	686926	250	140x110	105x80	11	70	126	<b>730</b>			
200	50	3.35	684966	1.89	685366	3.63	686946	250	140x110	105x80	11	70	126	<b>730</b>			

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

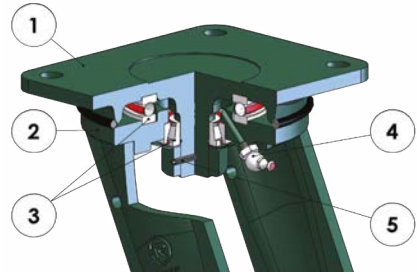


**INOX**

- 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	126	<b>500</b>			
175	45	2.86	687005	1.42	687115	3.43	687215	225	140x110	105x80	11	70	126	<b>630</b>			
200	50	3.06	687006	1.62	687116	3.63	687216	250	140x110	105x80	11	70	126	<b>730</b>			
150	45	2.86	687314	1.41	687414	3.40	687514	200	140x110	105x80	11	70	126	<b>500</b>			
175	45	2.94	687315	1.54	687415	3.51	687515	225	140x110	105x80	11	70	126	<b>630</b>			
200	50	3.24	687316	1.80	687416	3.81	687516	250	140x110	105x80	11	70	126	<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

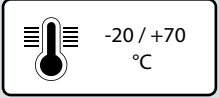
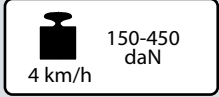
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
250	60	7.99	688307	6.40	688407	8.87	688707	320	175x140	140x105	14	74	166	<b>1200</b>	



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>								

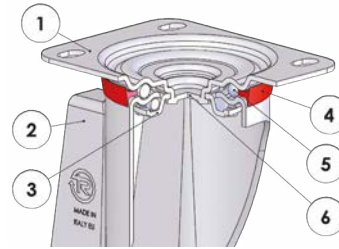


																
mm	mm	kg	CODE	kg	CODE	mm	mm	daN	daN	daN						
100	40	0.36	733102	0,36	733202	12	44	<b>200</b>	<b>100</b>	<b>150</b>						
125	40	0.58	733103	0,58	733203	20	44	<b>270</b>	<b>150</b>	<b>230</b>						
160	50	1.04	733104	1.04	733204	20	59	<b>350</b>	<b>200</b>	<b>300</b>						
180	50	1.10	733105	1.10	733205	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-rieveted
- Available with total front foot brake

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

**Options available to order:**



Bracket with directional lock  
d. 80-125 mm

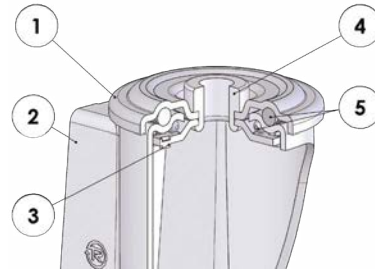


Directional lock for brackets  
d. 150-200 mm
















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>					

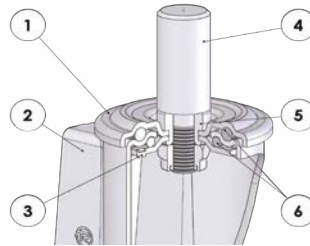
**Options available to order:**



Bracket with Zamak stem fitted  
d. 80-125 mm



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

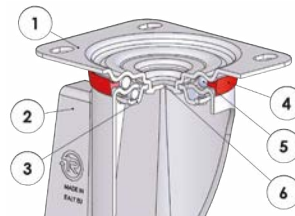


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Solid stem: galvanised steel
  - 5) King pin: bushing in galvanised steel
  - 6) Swivel actions: double ball ring with grease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

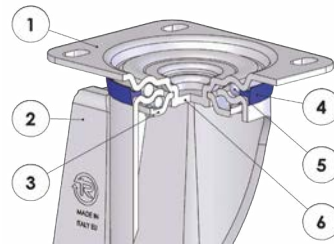


- 1) Plate: AISI 304 stainless steel
  - 2) Fork: AISI 304 stainless steel
  - 3) Ball race ring: AISI 304 stainless steel
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: screw and nut in stainless steel
- Available with total front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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	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**

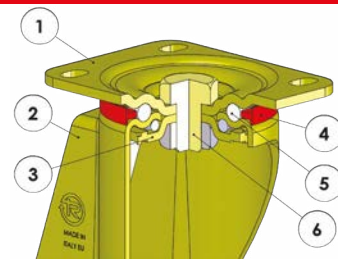
**Medium-duty brackets M - max carrying capacity 450 daN**



- 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-riveted
- Available with adjustable total front foot brake

mm		kg		kg		kg		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			

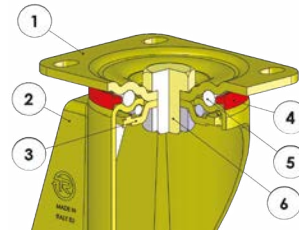
**Medium-heavy duty brackets P - max carrying capacity 450 daN**



- 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		kg		kg		kg		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			

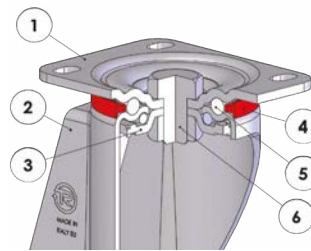
## Medium-heavy duty brackets P - max carrying capacity 450 daN



- 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

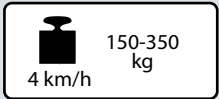


**INOX**

- 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		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 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**

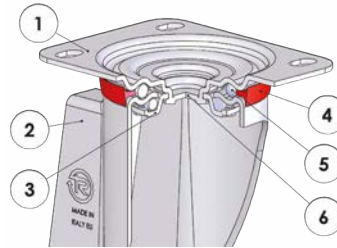


																	
mm	mm	kg	CODE	mm	mm	daN	daN	daN									
100	36	0.22	731102AE	12	44	<b>200</b>	<b>100</b>	<b>150</b>									
125	36	0.33	731103AE	12	44	<b>270</b>	<b>150</b>	<b>200</b>									
160	48	0.76	731104AE	20	59	<b>350</b>	<b>175</b>	<b>300</b>									
200	48	1.06	731106AE	20	59	<b>510</b>	<b>235</b>	<b>350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



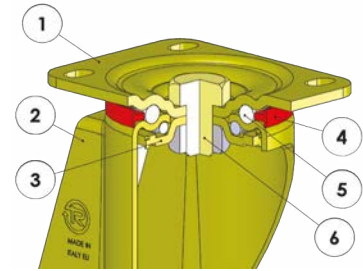
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with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



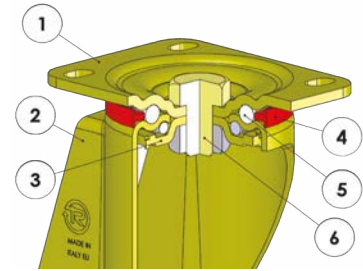
mm	mm	kg	COD.	mm	mm	mm	mm	mm	mm	mm	daN
160	50	2,47	734804AE	199	140x110	105x80	11	56	M10x1,5	65	<b>300</b>
200	50	2,87	734806AE	240	140x110	105x80	11	56	M10x1,5	65	<b>300</b>

**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	<b>150</b>
125	36	1.29	736003AE	0.77	736103AE	1.28	736203AE	161	100x85	80x60	9	44	123	<b>200</b>
100	36	1.19	736602AE	0.69	736702AE	1.33	736802AE	138	100x85	80x60	9	46	123	<b>150</b>
125	36	1.32	736603AE	0.80	736703AE	1.46	736803AE	161	100x85	80x60	9	44	123	<b>200</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	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	<b>300</b>
200	48	3.56	736006AE	2.07	736106AE	4.13	736206AE	250	140x110	105x80	11	70	126	<b>350</b>
160	48	3.33	736604AE	1.98	736704AE	3.90	736804AE	205	140x110	105x80	11	70	126	<b>300</b>
200	48	3.78	736606AE	2.29	736706AE	4.35	736806AE	250	140x110	105x80	11	70	126	<b>350</b>





Details make the difference






 **tellureRôta**

# INDUSTRIAL HEAVY DUTY LOADS AND MECHANICAL HANDLING



## SERIES 58AL

"TR-POWERHIGH" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE





 100-200 mm	 250-850 daN	 250-430 daN
 200-680 daN	 -20 / +80 °C	

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## SERIES 62BS

"TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE






 80-200 mm	 160-700 daN	 160-700 daN
 -20 / +70 °C		

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## SERIES 62T

"TR-ROLL" POLYURETHANE WHEELS WITH CAST IRON CENTRE






 200-400 mm	 800-1700 daN	 700-900 daN
 800-1700 daN	 -20 / +70 °C	

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## SERIES 63T VULKOLLAN®

VULKOLLAN® WHEELS WITH CAST IRON CENTRE






 80-300 mm	 280-2300 daN	 190-600 daN
 220-1800 daN	 -20 / +80 °C	

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## SERIES 64

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE






 80-400 mm	 150-3500 daN	 150-750 daN
 120-2800 daN	 -20 / +80 °C	

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## SERIES 65E

THICK "TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE







 100-250 mm	 350-1000 daN	 270-380 daN
 280-800 daN	 -20 / +80 °C	

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## SERIES 65B

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





 100-250 mm	 450-800 daN	 250-330 daN
 360-800 daN	 -20 / +80 °C	

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## SERIES 69

CAST IRON SOLID WHEELS






 100-200 mm	 500-1400 daN	 260-800 daN
 -40 / +80 °C		

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## SERIES 72AL

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

 100-250 mm	 180-500 daN	 180-300 daN
 140-400 daN	 -20 / +70 °C	

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## SERIES 58H

THICK "TR-POWERHIGH" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

100-200 mm	280-400 daN 4 km/h	270-350 daN
280-640 daN 6 km/h	-20 / +80 °C	

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## SERIES 58T

"TR-POWERHIGH" POLYURETHANE WHEELS WITH CAST IRON CENTRE

80-400 mm	350-3000 daN 4 km/h	210-820 daN
280-2400 daN 6 km/h	-20 / +70 °C	

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## SERIES 62A

THICK "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

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

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## SERIES 62B

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

100-250 mm	200-800 daN 4 km/h	200-800 daN
200-700 daN 6 km/h	-20 / +70 °C	

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## SERIES 62Z

"TR-ROLL" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

100-200 mm	230-500 daN 4 km/h	230-500 daN
230-450 daN 6 km/h	-20 / +70 °C	

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## SERIES 63AC

VULKOLLAN® WHEELS WITH STEEL CENTRE



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

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## SERIES 65A

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

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

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## SERIES 65T

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

150-300 mm	400-2200 daN 4 km/h	280-550 daN
320-1700 daN 6 km/h	-20 / +80 °C	

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## SERIES 66

"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

80-250 mm	150-1000 daN 4 km/h	100-400 daN
120-480 daN 6 km/h	-20 / +80 °C	

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## SERIES 68A

POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS

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

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## SERIES 72T

SIGMA ELASTIC RUBBER WHEELS CAST IRON CENTRE

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

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## “TR-POWERHIGH” POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

-  100-200 mm
-  92 Shore A
-  250-850 daN  
4 km/h
-  200-680 daN  
6 km/h
-  250-430 daN
-  -20 / +80 °C



### Description

Tyre: “TR- PowerHigh” polyurethane for high dynamic performance, hardness 92 Shore A, excellent rolling resistance and elasticity, very good resistance to wear and to tear, good resistance to hydrolisis.

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 rolling resistance allows easy manual handling of even very high loads; they are suitable for use also for towed applications with speeds up to 8 km / h; for these reasons, they are perfect in case of use with mixed manual-mechanical handling. Examples of recommended applications: trolleys for internal handling in the logistics and automotive industries, electric 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 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
100 mm	2	5					
125 mm	1,5	4,1	6,2				
160 mm	<1	3	4,8	6,3	7,7	10	
200 mm	<1	3	4,9	6	7,8	9	15,50

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-heavy duty brackets P

Maximum carrying capacity 350 daN - available diameters 100-125 mm  
Top plate fitting. Available with front brake.



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

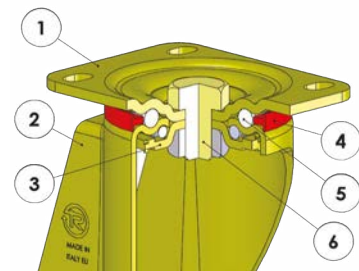
Heavy-duty PT brackets with hardened ball race grooves.  
Maximum carrying capacity 850 daN - available diameters 160-200 mm

## "TR-POWERHIGH POLYURETHANE WHEELS WITH ALUMINIUM CENTRE



mm		kg		COD.		mm				Static	4 km/h	6 km/h	
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN
100	30	0,34	582002	0,25	583102	12	40	32	10	<b>350</b>	<b>250</b>	<b>250</b>	<b>200</b>
125	35	0,50	582003	0,41	583103	12	40	32	10	<b>500</b>	<b>310</b>	<b>400</b>	<b>320</b>
160	50	1,25	582014	0,99	583114	20	58	47	14	<b>950</b>	<b>375</b>	<b>800</b>	<b>640</b>
200	50	1,47	582006	1,16	583106	20	55	52	15	<b>1000</b>	<b>430</b>	<b>850</b>	<b>680</b>

### 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		kg		COD.		kg		COD.		mm		mm		mm		mm		4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	daN	daN
100	30	1,20	587602	0,82	588602	1,35	586602	138	100x85	80x60	9	46	123	<b>250</b>	<b>200</b>				
125	35	1,39	587603	0,97	588603	1,54	586603	161	100x85	80x60	9	44	123	<b>350</b>	<b>320</b>				

### Options available to order:

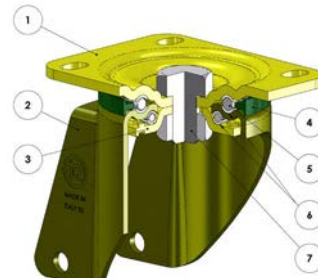


Directional lock for P-PT brackets d. 150-200 mm



Footguard for brackets P-PT

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		kg		kg		mm		mm		mm		mm		daN	
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	mm	4 km/h	6 km/h
160	50	3,52	587554	2,53	588614	4,09	586684	205	140x110	105x80	11	70	126			<b>800</b>	<b>640</b>
200	50	3,94	587546	2,48	588606	4,41	586676	250	140x110	105x80	11	70	126			<b>850</b>	<b>680</b>

## WHEELS WITH THICK "TR-POWERHIGH" POLYURETHANE AND ALUMINIUM CENTRE

-  100-200 mm
-  92 Shore A
-  350-800 daN  
4 km/h
-  280-640 daN  
6 km/h
-  280-400 daN
-  -20 / +80 °C



### Description

Tyre: "TR- PowerHigh" polyurethane for high dynamic performance, hardness 92 Shore A, excellent rolling resistance and elasticity, very good resistance to wear and to tear, good resistance to hydrolisis.

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 thick tread design guarantees excellent ability to overcome obstacles and 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	500kg	650 kg	800 kg
100 mm	2,3	5,3				
125 mm	2,2	5				
160 mm	1,6	4,3	5,4	6,5	10	
200 mm	1	3,8	5	6,1	8	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



#### Medium-heavy duty brackets P

Maximum carrying capacity 350 daN - available diameters 100 mm  
Top plate fitting. Available with front 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.



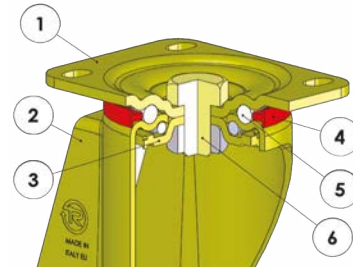
#### Electrowelded twin brackets EEG MHD

Maximum carrying capacity 1500 daN – available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear foot brake, operating on wheel rotation only



mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN		
100	40	0,45	582302	0,37	584302	15	40	32	9	<b>500</b>	<b>280</b>	<b>350</b>	<b>280</b>		
125	40	0,76	582303	0,53	584303	20	50	47	14	<b>650</b>	<b>300</b>	<b>450</b>	<b>360</b>		
160	50	1,21	582304	0,95	584304	20	58	47	14	<b>900</b>	<b>350</b>	<b>700</b>	<b>560</b>		
200	50	1,75	582306	1,47	584306	20	60	47	14	<b>1000</b>	<b>400</b>	<b>800</b>	<b>640</b>		

### 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	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	daN	
100	40	1,33	585302	0,83	585412	1,50	585502	138	100x85	80x60	9	46	123	<b>350</b>	<b>280</b>

### Options available to order:

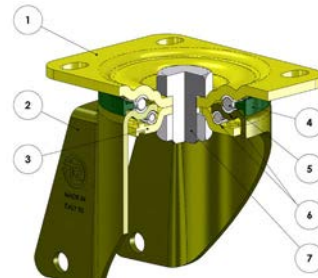


Directional lock for P-PT brackets d. 150-200 mm



Footguard for brackets P-PT

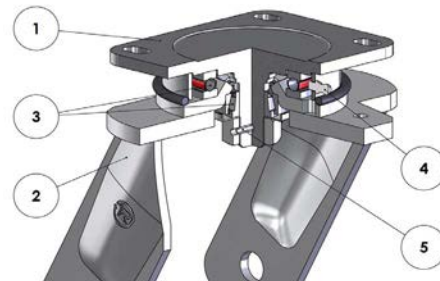
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 800 daN**



- 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.		mm		mm		mm		mm		daN		daN	
125	40	2,30	585333	1,63	585403	2,83	585533	170	140x110	105x80	11	70	126	450	360	4 km/h	6 km/h				
160	50	3,34	585344	2,04	585414	3,97	585544	205	140x110	105x80	11	70	126	700	560						
200	50	4,36	585336	2,76	585416	4,89	585536	250	140x110	105x80	11	70	126	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.		mm		mm		mm		mm		daN		daN	
160	50+50	7,15	588074	6,28	588174	8,14	588274	221	135x110	135x175	105x80	11	55	182	1400	1100	4 km/h	6 km/h			
200	50+50	8,37	588076	7,52	588176	9,37	588276	258	135x110	135x175	105x80	11	65	182	1500	1280					

## “TR-POWERHIGH” POLYURETHANE WHEELS WITH CAST IRON CENTRE

-  80-400 mm
-  92 Shore A
-  350-3000 daN  
4 km/h
-  280-2400 daN  
6 km/h
-  210-820 daN
-  -20 / +80 °C



### Description

Tyre: “TR- PowerHigh” polyurethane for high dynamic performance, hardness 92 Shore A, excellent rolling resistance and elasticity, very good resistance to wear and to tear, good resistance to hydrolisis.

Centre: cast iron.

Hub available in following configurations:

- with plain bore so that it can easily be reworked to achieve a spline or a key housing;
- with shielded ball bearing press-fitted in the seats obtained by precision machining the centre; also available without bearings.

### Uses

TR- PowerHigh is the most suitable solution in case of applications with very high loads, speed of use above 12-16 km/h, intensive use, even in environments requiring resistance to hydrolisis. The excellent rolling resistance allows to easily handle high loads even with small diameter wheels.

The plain bore version, with key way or spline, is suitable for use as a drive wheel. Examples of recommended applications: AGVs, AMRs and robotic solutions, automation, electric pallet trucks and forklifts, amusement park equipments, elevators, towed trolleys for industrial use.

### 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	10	----	----	----	----	----	----
100 mm	3,4	7	----	----	----	----	----	----
125x38 mm	3,1	6	10,3	----	----	----	----	----
125x50 mm	3	5,8	9,9	----	----	----	----	----
125x60 mm	3	5,8	9,9	12,5	----	----	----	----
140x54 mm	3	5,8	9,9	12,5	----	----	----	----
150x50 mm	2,2	4,7	7,7	11,3	----	----	----	----
150x54 mm	2,2	4,7	7,7	11,3	----	----	----	----
160x50 mm	2	4,5	7,4	10,8	----	----	----	----
200x50 mm	1,5	3,4	5,4	7,6	14,4	----	----	----
200x80 mm	1,1	3,1	4,5	6	10,3	15,3	----	----
250x60 mm	<1	2,7	4,2	5,6	9,8	14,4	----	----
250x80 mm	<1	2,2	4	5,4	9,2	14	----	----
300x60 mm	<1	2,5	4,5	6	10,3	15,5	----	----
300x80 mm	<1	1,3	3,1	4,5	7,7	11,7	14,4	----
300x100 mm	<1	1,3	3,1	4,5	7,7	11,7	14,4	----
400x100 mm	<1	<1	1,8	2,9	6,1	9,9	11,7	18,9

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:

**Medium-heavy duty brackets P**

Maximum carrying capacity 350 daN - available diameters 80-125 mm  
Top plate fitting. Available with front 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.

**Electrowelded brackets EE MHD**

Maximum carrying capacity 1100 daN - available diameters 125-200 mm  
Top plate fitting. Available with adjustable rear brake.

**Electrowelded brackets EE HD**

Maximum carrying capacity 2400 daN - available diameters 200-300 mm  
Top plate fitting. Available with adjustable rear brake.












**Electrowelded brackets EE EHD**

Maximum carrying capacity 3500 daN - available diameters 300-400 mm  
Top plate fitting. Available with adjustable rear brake.

**Twin electrowelded brackets EEG MHD - EEG HD - EEG EHD**

Maximum carrying capacity 3800 daN - available diameters 100-300 mm  
Top plate fitting.



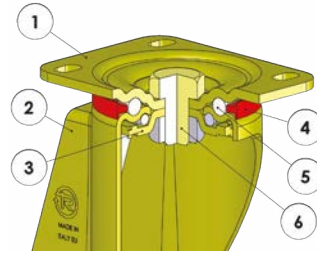
													
mm	mm	kg	COD.	mm	mm.	mm.	mm.	daN	daN	daN			
100	40	1,50	581102	15 H7	45	55	30	<b>500</b>	<b>350</b>	<b>300</b>			
125	40	2,10	581103	20 H7	60	60	30	<b>600</b>	<b>440</b>	<b>350</b>			
125	50	2,36	581113	20 H7	60	60	30	<b>600</b>	<b>600</b>	<b>480</b>			
150	50	3,27	581114	20 H7	60	70	40	<b>910</b>	<b>720</b>	<b>580</b>			
200	50	4,86	581106	20 H7	60	70	40	<b>1500</b>	<b>880</b>	<b>700</b>			
200	80	8,51	581126	40 H7	80	95	60	<b>2000</b>	<b>1360</b>	<b>1100</b>			
250	50	7,74	581107	20 H7	60	75	45	<b>1800</b>	<b>1000</b>	<b>800</b>			
250	80	11,52	581117	40 H7	80	95	60	<b>2800</b>	<b>1500</b>	<b>1200</b>			
300	80	14,88	581128	40 H7	80	100	65	<b>3400</b>	<b>1900</b>	<b>1550</b>			
300	80	14,40	581108	50 H7	80	100	65	<b>3400</b>	<b>1900</b>	<b>1550</b>			
300	100	23,29	581118	50 H7	100	120	80	<b>4200</b>	<b>2400</b>	<b>1950</b>			
350	100	30,88	581109	50 H7	100	120	80	<b>4700</b>	<b>2700</b>	<b>2200</b>			
400	100	35,58	581110	50 H7	100	120	80	<b>5000</b>	<b>3000</b>	<b>2400</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). Tellure Rôta is at your disposal to customise the product, modifying the bore with a groove for a key housing 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.



mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN	daN	daN	daN	daN	daN	daN
80	28	0,51	582151	0,46	584151	12	32	28	8	370	210	350	280	220					
100	38	1,02	582152	0,91	584152	15	40	35	11	500	240	450	360	300					
125	38	1,45	582153	1,34	584153	15	40	35	11	600	260	550	440	350					
125	50	1,98	582163	1,76	584163	20	55	47	14	800	300	750	600	480					
125	50	1,96	582363	1,76	584163	25	55	47	14	800	300	750	600	480					
125	58	2,86	582103	2,62	584103	20	58	47	15	800	330	850	680	550					
140	54	2,35	058012	2,11	058011	20	60	47	14	800	330	900	720	580					
150	50	2,50	582154	2,28	584154	20	55	47	14	910	320	900	720	580					
150	54	2,48	582174	2,28	584174	20	60	47	14	950	350	950	760	620					
160	50	2,65	582164	2,43	584164	20	55	47	14	1000	375	950	760	620					
200	50	3,65	582156	3,43	584156	20	55	47	14	1500	420	1100	880	700					
200	78	7,26	582166	6,74	584166	25	86	62	17	2000	500	1700	1360	1100					
250	60	8,13	582157	7,61	584157	25	65	62	17	2500	530	1500	1200	970					
250	78	9,81	582167	9,81	584167	25	86	62	17	2800	550	1900	1500	1200					
250	78	9,80	582367	9,81	584167	30	86	62	17	2800	550	1900	1500	1200					
300	78	13,80	582168	13,33	584168	30	86	62	17	3400	660	2400	1900	1550					
300	100	22,75	582178	22,46	584178	45	100	85	19	3400	660	3000	2400	1950					
400	100	28,86	582129	26,30	584129	50	120	110	28	4500	820	3800	3000	2400					

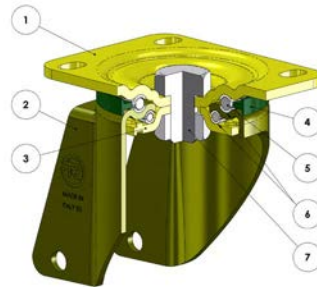
### Medium-heavy duty brackets P - max carrying capacity 350 daN



- 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		kg	COD.	kg	COD.	kg	COD.	mm						daN	daN
80	28	1,38	585851	0,96	586851			128	100x85	80x60	9	46	123	350	280
100	38	1,93	585852	1,52	586852	2,06	584852	138	100x85	80x60	9	46	123	350	350
125	38	2,37	585853	2,04	586853	2,50	584853	161	100x85	80x60	9	44	123	350	350

### 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						daN	daN
125	50	3,66	585003	2,65	586863	4,24	589903	170	140x110	105x80	11	70	126	750	600
150	50	4,67	585004	3,55	586854	5,33	589904	200	140x110	105x80	11	70	126	900	720
160	50	4,93	585014	4,08	586864	5,45	589914	205	140x110	105x80	11	70	126	900	720
200	50	6,06	585006	5,15	586856	6,66	589906	250	140x110	105x80	11	70	126	900	880

#### Options available to order:



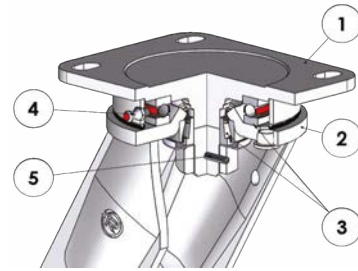
Footguard for brackets P-PT



Directional lock for P-PT brackets d. 150-200 mm



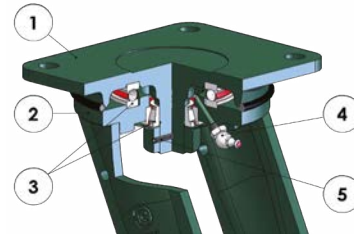
**Electrowelded brackets EE MHD - max carrying capacity 1100 daN**



- 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	50	4,88	588303	3,90	588403	5,76	588503	182	135x110	105x80	11	51	157	<b>750</b>	<b>600</b>
150	50	5,50	588304	4,51	588404	6,38	588504	210	135x110	105x80	11	60	157	<b>900</b>	<b>720</b>
160	50	5,65	588314	4,66	588414	6,53	588514	215	135x110	105x80	11	60	157	<b>900</b>	<b>720</b>
200	50	6,77	588306	5,79	588406	7,65	588506	252	135x110	105x80	11	70	157	<b>1100</b>	<b>880</b>

**Electrowelded brackets EE HD - max carrying capacity 2400 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

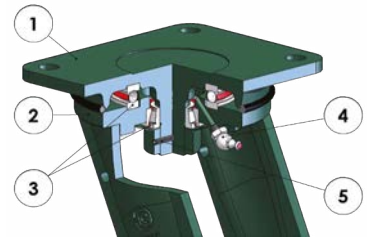
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
200	78	13,72	588316	12,18	588416	14,60	588516	275	175x140	140x105	14	65	166	<b>1600</b>	<b>1360</b>
250	60	14,82	588307	13,23	588407	15,70	588507	320	175x140	140x105	14	74	166	<b>1500</b>	<b>1200</b>
250	78	17,56	588327	15,23	588427	18,44	588527	325	200x160	160x120	17	74	166	<b>1900</b>	<b>1500</b>
300	78	21,67	588338	19,32	588438	22,55	588538	365	200x160	160x120	17	81	166	<b>2400</b>	<b>1900</b>

Options available to order:



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 420

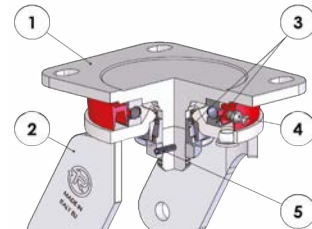
### Electrowelded bracket EE EHD - max carrying capacity 3500 daN



- 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	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	daN
300	100	29,80	588309	25,10	588409	384	250x200	210x160	19	78	<b>3000</b>	<b>2400</b>
400	100	44,91	588310	40,21	588410	475	250x200	210x160	19	95	<b>3500</b>	<b>3000</b>

### Twin electrowelded brackets EEG 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

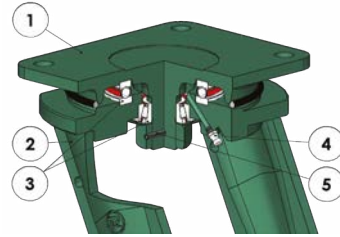
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	daN
100	38+38	4,50	588062	3,75	588162	140	135x110	105x80	11	55	<b>900</b>	<b>720</b>
125	38+38	5,45	588063	4,70	588163	170	135x110	105x80	11	55	<b>1000</b>	<b>880</b>

#### Options available to order:



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 420

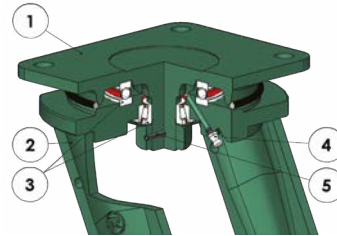
**Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN**



- 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	COD.	kg	COD.	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50+50	11,00	588072	7,70	588172	210	175x140	140x105	14	50	<b>1500</b>	<b>1200</b>
150	50+50	13,10	588074	8,70	588174	223	175x140	140x105	14	50	<b>1600</b>	<b>1440</b>
160	50+50	13,40	588084	9,00	588184	228	175x140	140x105	14	50	<b>1600</b>	<b>1440</b>
200	50+50	17,55	588076	12,70	588176	285	200x160	160x120	17	65	<b>2000</b>	<b>1760</b>

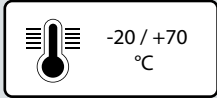
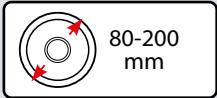
**Twin electrowelded brackets EEG EHD - max carrying capacity 3800 daN**



- 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 daN	6 km/h daN
200	78+78	34,80	588086	25,05	588186	280	250x200	210x160	19	52	<b>3400</b>	<b>2720</b>
250	60+60	36,95	588067	27,20	588167	330	250x200	210x160	19	62	<b>3000</b>	<b>2400</b>
250	78+78	40,30	588077	30,55	588177	330	250x200	210x160	19	62	<b>3500</b>	<b>3000</b>
300	78+78	50,00	588078	40,00	588178	385	250x200	210x160	19	75	<b>3800</b>	<b>3100</b>

## "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.

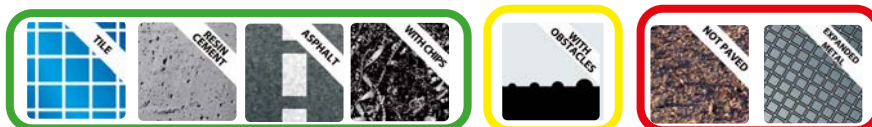
WEAK ACIDS		WEAK BASES	
STRONG ACIDS		STRONG BASES	
WATER		HYDROCARBONS	
ALCOHOL		SOLVENTS	

*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

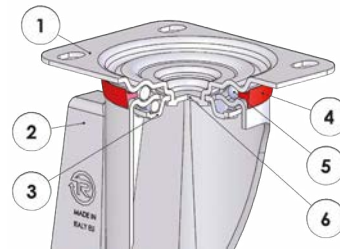
Maximum carrying capacity 700 daN - available diameters 100-200 mm  
Top plate fitting. Available with front brake and adjustable rear brake.

## "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:

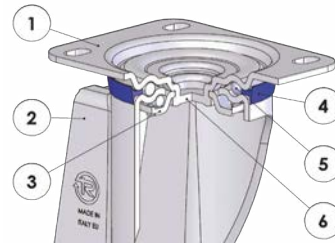


Directional lock for brackets d. 150-200 mm



Footguards for brackets NL-M-P-PT

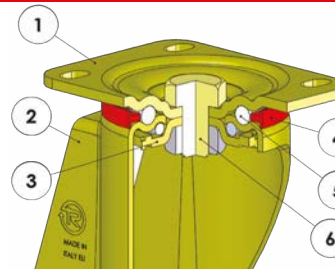
**Medium-duty brackets M - max carrying capacity 500 daN**



- 1) Plate: electrolytically 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	daN
150	40	2,47	624514	2,00	626754	2,91	627414	194	140x110	105x80	11	58	178	450
160	50	2,71	624510	2,29	626760	3,15	627410	199	140x110	105x80	11	58	178	500
200	50	3,30	624516	2,90	626756	3,74	627416	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

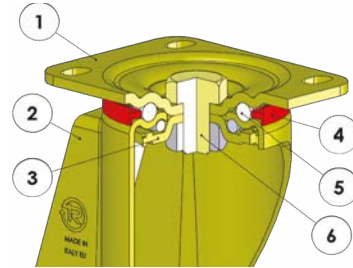
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN
100	30	1,20	627612	0,78	628542	1,35	627212	138	100x85	80x60	9	46	123	200
125	35	1,60	627633	0,98	628543	1,52	627233	161	100x85	80x60	9	44	123	250

**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	450	
160	50	3,52	627620	2,53	628550	4,09	627220	205	140x110	105x80	11	70	126	550	
200	50	3,94	627616	2,48	628546	4,51	627216	250	140x110	105x80	11	70	126	700	

Options available to order:



Directional lock for brackets P d. 150-200 mm



Footguards for brackets NL-M-P-PT

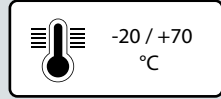
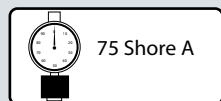




Flexibility you need

 **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:



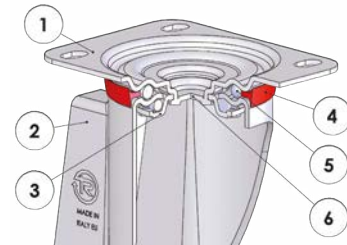
R <math>10^9\Omega</math>

ESD polyurethane wheels, with electrical resistance <math>< 10^9\text{ Ohm}</math> (page 308)



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	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>	

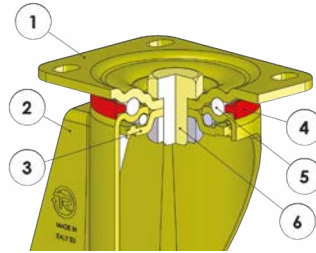
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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

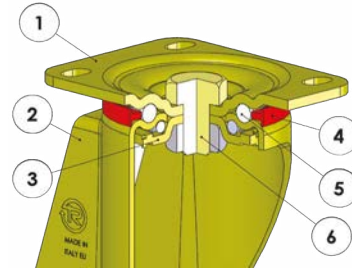
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
160	50	2.95	624504	2.24	627704	3.42	627404	199	140x110	105x80	11	58	178	<b>500</b>	
200	50	3.69	624506	3.04	627706	4.07	627406	240	140x110	105x80	11	50	178	<b>500</b>	

**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	300	300	4 km/h	6 km/h		
125	40	1,70	627613	1,26	628513	1,87	627213	161	100x85	80x60	9	44	123	350	350				



- 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	350	350	4 km/h	6 km/h		
160	50	3,60	627610	2,11	628514	4,17	627204	205	140x110	105x80	11	70	126	550	550				
180	50	3,84	627605	2,42	628515	4,41	627205	228	140x110	105x80	11	70	126	600	600				
200	50	4,31	627516	2,85	628516	4,91	627206	250	140x110	105x80	11	70	126	700	700				
250	50	4,84	627608	3,74	628518	5,54	627208	298	140x110	105x80	11	70	173	750	750				

**Options available to order:**

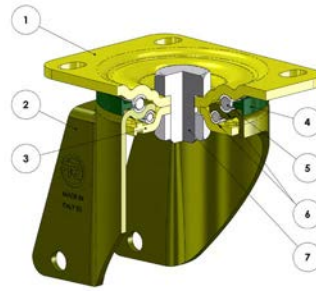


Footguard for brackets NL-M-P-PT



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

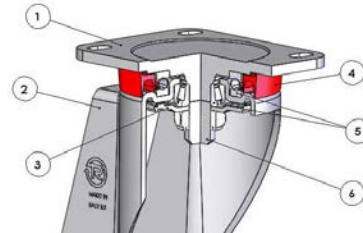
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 700 daN**



- 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	350	350	4 km/h	6 km/h				
160	50	3,52	625010	2,11	628514	4,12	629904	205	140x110	105x80	11	70	126	550	550						
180	50	3,91	625005	2,42	628515	4,38	629905	228	140x110	105x80	11	70	126	600	600						
200	50	4,10	625016	2,85	628516	4,66	629906	250	140x110	105x80	11	70	126	700	700						

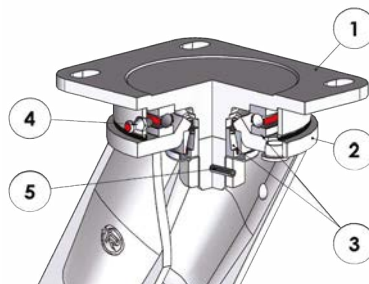
**Extra-heavy duty brackets EP - max carrying capacity 700 daN**



- 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	550	550	4 km/h	6 km/h				
200	50	4,57	627826	4,13	628826	5,14	626656	250	135x110	105x80	11	70	126	700	700						

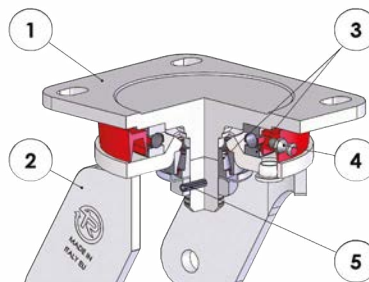
### Electrowelded brackets EE MHD - max carrying capacity 700 daN



- 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	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:



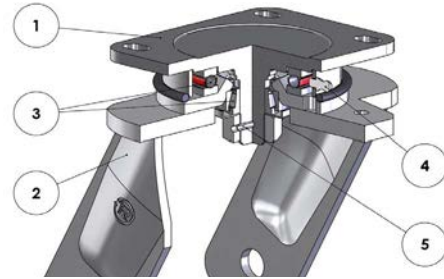
Wheels EE MHD with steering system



Directional lock for brackets EE MHD - EE HD - EED MHD: - EES MHD see page 420



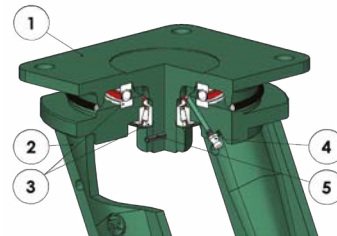
**Twin electrowelded brackets EEG MHD - max carrying capacity 1400 daN**



- 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**



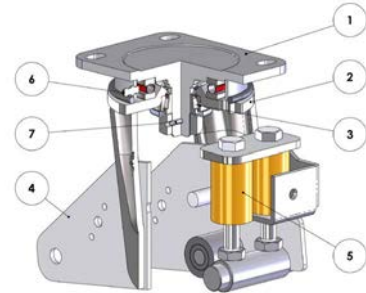
- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

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

SERIES **62<sup>AL</sup>**


**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	<b>400</b>	<b>550</b>	<b>550</b>							
200	50	7,67	626306	6,42	626406	8,78	626506	268	135x110	105x80	11	100	265	25	50	<b>400</b>	<b>700</b>	<b>700</b>							
250	50	8,75	626308	7,54	626408	9,99	626508	316	135x110	105x80	11	110	315	25	50	<b>400</b>	<b>800</b>	<b>800</b>							

 **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

-  100-250 mm
-  75 Shore A
-  200-800 daN  
4 km/h
-  200-800 daN  
6 km/h
-  200-700 daN
-  -20 / +70 °C



### 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		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

 	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.



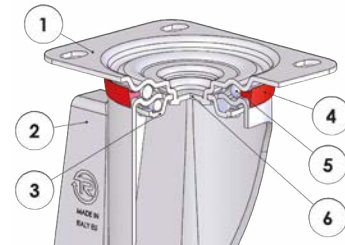
### Electrowelded sprung-loaded brackets EES MHD

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	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:**

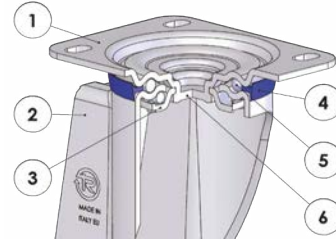


Footguard for brackets NL-M-P-PT



Directional lock for brackets NL diam. 160-200 mm

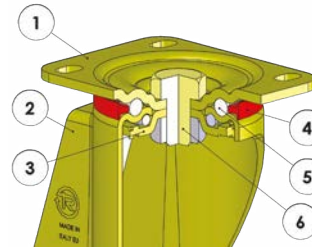
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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

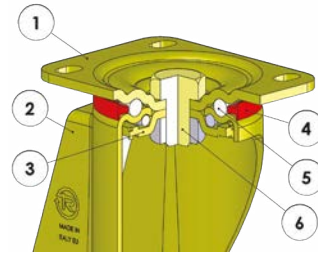
**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

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

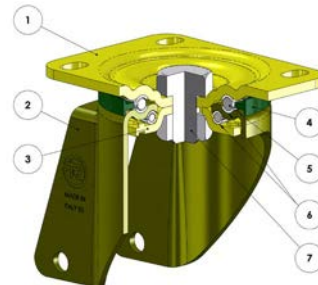
**Heavy duty brackets P - max carrying capacity 700 daN**



- 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	4 km/h	6 km/h				
160	50	3,46	629004	2,28	629104	4,27	629204	205	140x110	105x80	11	70	126	550	550	4 km/h	6 km/h				
200	50	4,14	629006	2,68	629106	4,74	629206	250	140x110	105x80	11	70	126	700	700	4 km/h	6 km/h				

**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	4 km/h	6 km/h				
200	50	4,10	629036	2,68	629106	4,66	629236	250	140x110	105x80	11	70	126	700	700	4 km/h	6 km/h				

**Options available to order:**



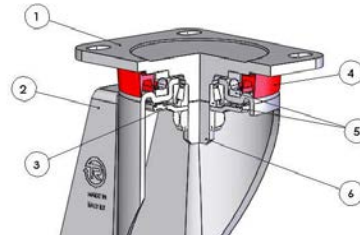
Footguard for brackets NL-M-P-PT



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



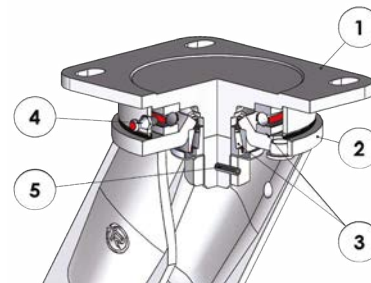
**Extra-heavy duty brackets EP - max carrying capacity 700 daN**



- 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

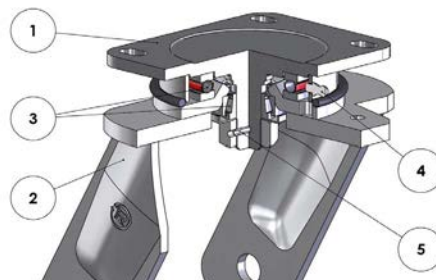
**Options available to order:**



Directional lock for brackets EE MHD  
 - EE HD - EEG MHD - EES MHD:  
 see page 420

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

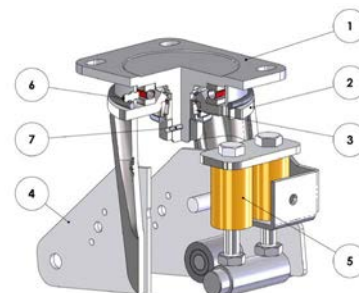
**Twin electrowelded brackets EEG MHD - max carrying capacity 1400 daN**



- 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	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	mm	4 km/h	6 km/h
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	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	daN	daN	4 km/h	6 km/h
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



200-400 mm

75 Shore A

800-1700 daN  
4 km/h

800-1700 daN  
6 km/h

700-900 daN

-20 / +70 °C

### 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:

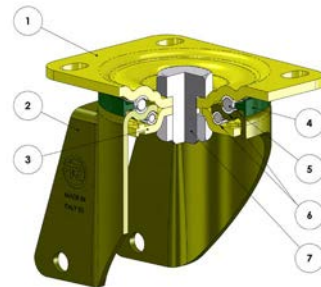


Wheel with key housing



										Static			
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN
200	50	3,40	622126	3,17	624126	20	55	47	14	<b>1000</b>	<b>700</b>	<b>800</b>	<b>800</b>
200	80	6,63	622136	6,14	624136	25	88	62	18	<b>1200</b>	<b>750</b>	<b>900</b>	<b>900</b>
250	80	8,50	622127	8,00	624127	25	86	62	17	<b>1600</b>	<b>800</b>	<b>1200</b>	<b>1200</b>
300	80	11,50	622128	11,00	624128	30	86	62	17	<b>1900</b>	<b>850</b>	<b>1400</b>	<b>1400</b>
400	100	33,50	622109	32,70	624109	40	100	80	18	<b>2000</b>	<b>900</b>	<b>1700</b>	<b>1700</b>

### 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

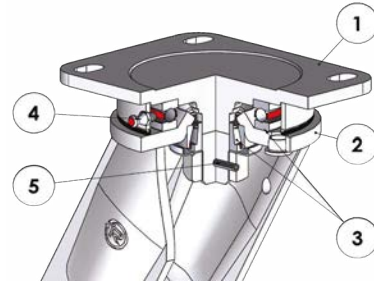
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	daN	
200	50	5,80	627646	5,42	628656	6,35	627246	250	140x110	105x80	11	70	126	<b>800</b>	<b>800</b>

### Options available to order:



Wheel with key housing

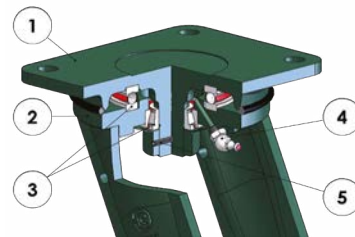
**Electrowelded brackets EE MHD - Max. carrying capacity 800 daN**



- 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:

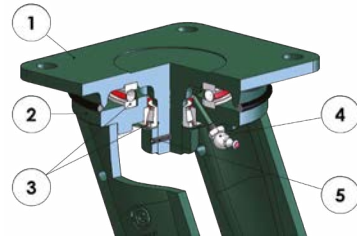


Wheel with key housing



Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 420

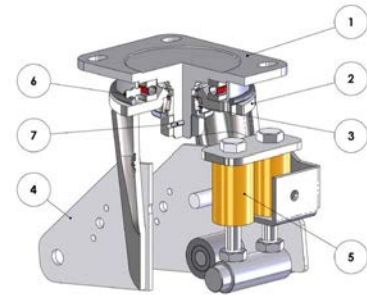
### Electrowelded brackets EE EHD - Max. carrying capacity 1700 daN



- 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	mm	daN	daN	4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	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 420





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	

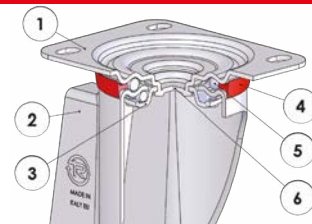


Ergonomic round profile



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	

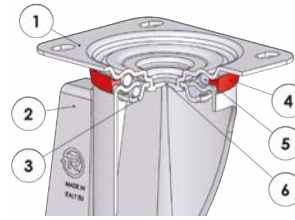
### Standard-duty brackets NL - max carrying capacity 300 daN



- 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**

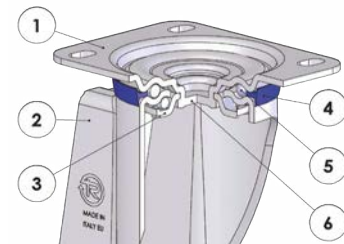


**INOX**

- 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	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	daN
100	40	0,94	625122	0,69	625222	1,08	625322	128	100x85	80x60	9	35	120	<b>200</b>	
125	40	1,10	625123	0,85	625223	1,24	625323	156	100x85	80x60	9	37	120	<b>220</b>	
125ER	40	1,05	625103	0,80	625203	1,19	625303	156	100x85	80x60	9	37	120	<b>220</b>	
160	50	2,49	625134	2,19	625234	2,78	625334	198	140x110	105x80	11	56	156	<b>300</b>	
160ER	50	2,43	625124	2,13	625224	2,72	625324	198	140x110	105x80	11	56	156	<b>300</b>	
200	50	2,87	625136	2,63	625236	3,07	625336	240	140x110	105x80	11	56	156	<b>300</b>	
200ER	50	2,78	625126	2,54	625226	2,98	625326	240	140x110	105x80	11	56	156	<b>300</b>	

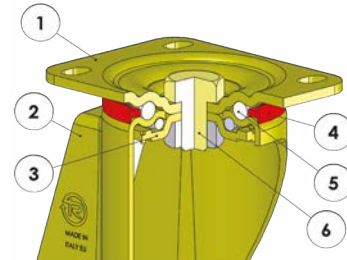
**Medium duty brackets M - max carrying capacity 500 daN**



- 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

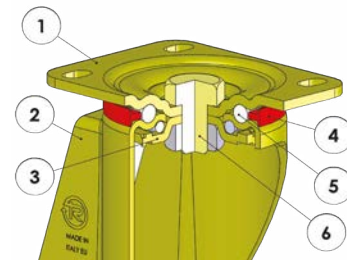
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
160	50	2,49	624544	2,19	627724	2,78	627444	199	140x110	105x80	11	58	178	<b>400</b>	
160ER	50	2,43	624534	2,13	627734	2,72	627434	199	140x110	105x80	11	50	178	<b>400</b>	
200	50	3,20	624546	2,55	627726	3,58	627446	240	140x110	105x80	11	50	178	<b>500</b>	
200ER	50	3,11	624536	2,40	627736	3,49	627436	240	140x110	105x80	11	50	178	<b>500</b>	

### 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

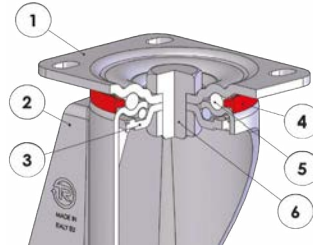
mm		kg		COD.		kg		COD.		mm		mm		mm		mm		daN		daN	
100	40	1,20	627622	0,82	628522	1,35	627222	138	100x85	80x60	9	46	123	230	230						
125	40	1,35	627623	0,93	628523	1,50	627223	161	100x85	80x60	9	44	123	280	280						
125ER	40	1,30	629313	0,88	629413	1,45	629513	161	100x85	80x60	9	44	123	250	250						



- 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						
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

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	3,33	625434	2,00	625534	5,03	625634	205	140x110	105x80	11	70	126	<b>400</b>	<b>360</b>
160ER	50	3,27	625424	1,94	625524	4,96	625624	205	140x110	105x80	11	70	126	<b>400</b>	<b>360</b>
200	50	3,82	625436	2,36	625536	4,42	625636	250	140x110	105x80	11	70	126	<b>500</b>	<b>450</b>
200ER	50	3,73	625426	2,27	625526	4,33	625626	250	140x110	105x80	11	70	126	<b>500</b>	<b>450</b>

- 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.

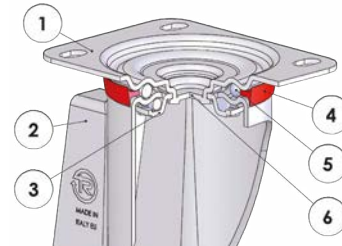
### Options available to order:

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-rieveted

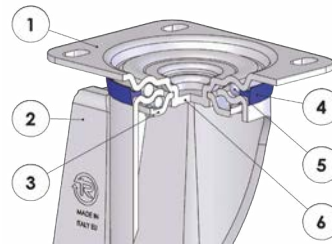
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
100	30	1.26	637322	1.01	638222	128	100x85	80x60	9	35	<b>200</b>
125	40	2.03	637323	1.68	638223	156	100x85	80x60	9	37	<b>220</b>
150	40	2.54	637304	2.15	638214	182	100x85	80x60	9	34	<b>220</b>
150	40	3.21	637324	2.84	638224	194	140x110	105x80	11	56	<b>300</b>
175	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

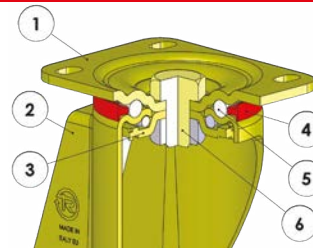
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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

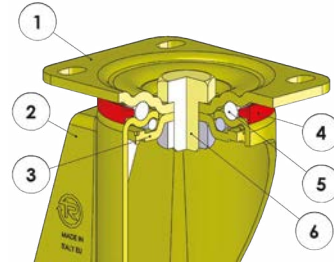
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	30	1.61	637622	1.11	638622	1.75	636302	138	100x85	80x60	9	46	123	250	200
125	40	2.29	637623	1.76	638623	2.43	636303	161	100x85	80x60	9	44	123	350	280

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

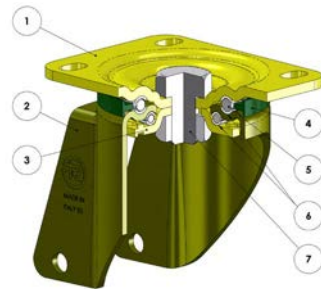
### Heavy duty brackets P - max carrying capacity 750 daN



- 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

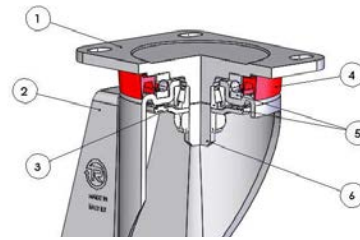
mm		kg	COD.	kg	COD.	kg	COD.	mm						4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
150	40	4,19	635604	2,70	638624	4,76	635304	200	140x110	105x80	11	70	126	750	600
175	40	5,14	635605	3,72	638625	5,71	635305	225	140x110	105x80	11	70	126	850	680
200	50	6,44	635606	4,98	638626	7,01	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	370	190	280	220	
100	38	1,02	632152	0,91	634152	15	40	35	11	500	220	380	300	
125	38	1,45	632153	1,34	634153	15	40	35	11	600	240	450	360	
125	50	1,98	632163	1,76	634163	20	55	47	14	800	270	600	440	
125	50	1,96	632363	1,76	634163	25	55	47	14	800	270	600	440	
150	50	2,50	632154	2,28	634154	20	55	47	14	910	290	750	600	
150	50	2,48	632354	2,28	634154	25	55	47	14	910	290	750	600	
160	50	2,65	632164	2,43	634164	20	55	47	14	1000	300	750	600	
160	50	2,63	632364	2,43	634164	25	55	47	14	1000	300	750	600	
180	50	3,02	632155	2,80	634155	20	55	47	14	1100	350	900	720	
200	50	3,65	632156	3,43	634156	20	55	47	14	1500	380	1000	800	
200	50	3,63	632356	3,43	634156	25	55	47	14	1500	380	1000	800	
200	78	7,26	632166	6,74	634166	25	86	62	17	2000	450	1600	1300	
200	78	7,24	632366	6,74	634166	30	86	62	17	2000	450	1600	1300	
250	60	8,13	632157	7,61	634157	25	65	62	17	2500	480	1500	1200	
250	60	8,10	632357	7,61	634157	30	65	62	17	2500	480	1500	1200	
250	78	9,81	632167	9,29	634167	25	86	62	17	2800	500	1900	1500	
250	78	9,80	632367	9,29	634167	30	86	62	17	2800	500	1900	1500	
300	60	11,43	632158	10,96	634158	30	65	62	17	3200	550	1750	1400	
300	78	13,80	632168	13,33	634168	30	86	62	17	3400	600	2300	1800	

Options available to order:



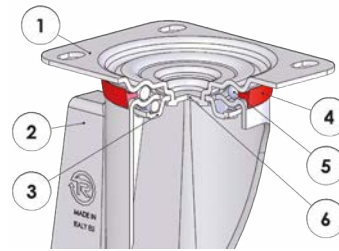
Wheel with key housing



Wheel with very thick tyre



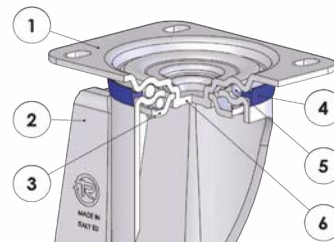
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 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>	

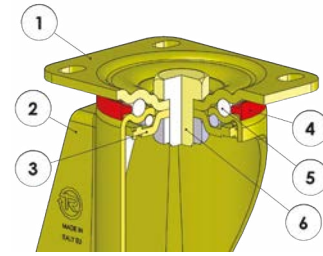
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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

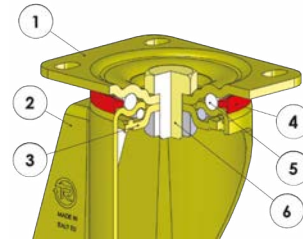
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
150	50	4.21	637424	3.59	634654	4.65	636724	194	140x110	105x80	11	58	178	<b>500</b>	
160	50	4.33	637434	3.71	634664	4.78	636734	199	140x110	105x80	11	58	178	<b>500</b>	
200	50	5.55	637426	4.92	634656	5.91	636726	240	140x110	105x80	11	50	178	<b>500</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		<b>280</b>	<b>220</b>
100	38	1.93	635852	1.52	636852	2.06	634852	138	100x85	80x60	9	46	123	<b>350</b>	<b>300</b>
125	38	2.37	635853	2.04	636853	2.50	634853	161	100x85	80x60	9	44	123	<b>350</b>	<b>300</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 total adjustable rear foot brake

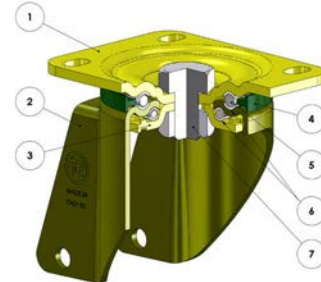
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
125	50	3.66	635863	2.65	636863	4.24	634863	170	140x110	105x80	11	70	126	<b>550</b>	<b>440</b>
150	50	4.81	635854	3.55	636854	5.33	634854	200	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>
160	50	4.93	635864	4.08	636864	5.45	634864	205	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>
180	50	5.30	635855	4.45	636855	5.90	634855	228	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>
200	50	6.06	635856	5.15	636856	6.66	634856	250	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>

Options available to order:



Footguard  
for brackets  
NL-M-P-PT

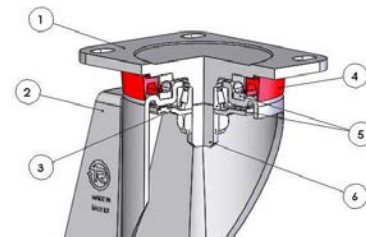
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN**



- 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>750</b>	<b>600</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

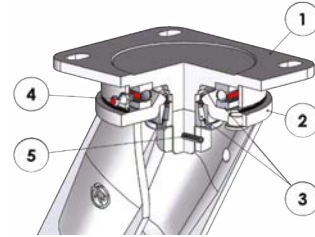
mm		kg	CODE	kg	CODE	kg	CODE	mm						4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	38	2.15	637852	1.92	638852			140	100x85	80x60	9	46		<b>350</b>	<b>300</b>
125	38	2.64	637853	2.44	638853			164	100x85	80x60	9	48		<b>350</b>	<b>300</b>
150	50	5.04	637854	4.63	638854	5.56	636654	200	135x110	105x80	11	70	126	<b>750</b>	<b>600</b>
160	50	5.16	637864	4.75	638864	5.68	636664	205	135x110	105x80	11	70	126	<b>750</b>	<b>600</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

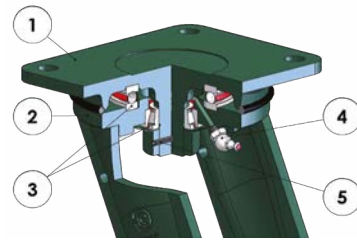
**Electrowelded brackets EE MHD - max carrying capacity 1000 daN**



- 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	<b>600</b>	<b>440</b>
150	50	5.50	638304	4.51	638404	6.38	638904	210	135x110	105x80	11	60	157	<b>750</b>	<b>600</b>
160	50	5.65	638314	4.66	638414	6.53	638914	215	135x110	105x80	11	60	157	<b>750</b>	<b>600</b>
180	50	6.14	638305	5.16	638405	7.02	638905	242	135x110	105x80	11	70	157	<b>900</b>	<b>720</b>
200	50	6.77	638306	5.79	638406	7.65	638906	252	135x110	105x80	11	70	157	<b>1000</b>	<b>800</b>

**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	<b>1600</b>	<b>1300</b>
250	60	14.82	638307	13.23	638407	15.70	638907	320	175x140	140x105	14	74	166	<b>1500</b>	<b>1200</b>
250	80	16.50	638317	14.91	638417	17.38	638917	320	175x140	140x105	14	74	166	<b>1600</b>	<b>1300</b>
250	80	17.56	638327	15.23	638427	18.44	638927	325	200x160	160x120	17	74	166	<b>1900</b>	<b>1500</b>
300	60	18.24	638308	16.62	638408	19.12	638908	360	175x140	140x105	14	81	166	<b>1600</b>	<b>1300</b>
300	60	19.30	638328	16.95	638428	20.18	638928	365	200x160	160x120	17	81	166	<b>1750</b>	<b>1400</b>
300	80	20.61	638318	18.99	638418	21.49	638918	360	175x140	140x105	14	81	166	<b>1600</b>	<b>1300</b>
300	80	21.67	638338	19.32	638438	22.55	638938	365	200x160	160x120	17	81	166	<b>2300</b>	<b>1800</b>

**Options available to order:**

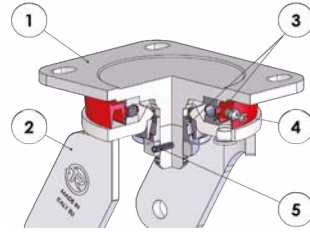


Directional lock  
for brackets EE MHD  
- EE HD - EED MHD - EES  
MHD: see page 420



Bracket  
EE MHD  
with steering  
system

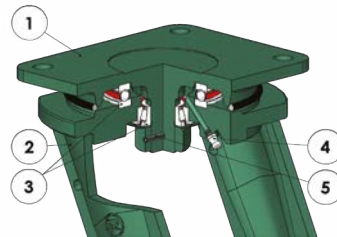
**Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN**



- 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>

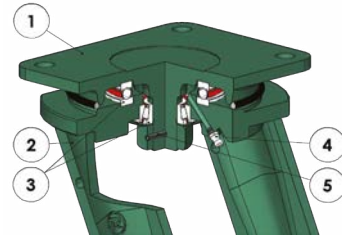
**Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN**



- 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>1500</b>	<b>1200</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>

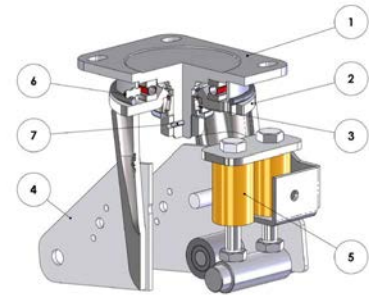
### Twin electrowelded brackets EEG EHD - max carrying capacity 3500 daN



- 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

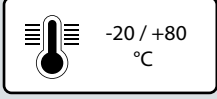
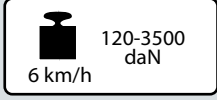
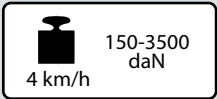
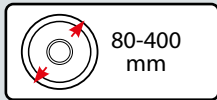
#### Options available to order:



Directional lock for brackets EE MHD - EE HD - EED MHD - EES MHD: see page 420



## "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 available in following configurations:

- with plain bore so that it can easily be reworked to achieve a spline, also available with key housing;
- 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.

**"TR" POLYURETHANE WHEELS  
WITH CAST IRON CENTRE**














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	641102	15 H7	45	55	30	500	400	300			
100	40	1,45	641112	20 H7	45	55	30	500	400	300			
100	40	1,39	641122	25 H7	45	55	30	500	400	300			
125	40	2,10	641103	20 H7	60	60	30	600	450	360			
125	40	2,07	641143	25 H7	60	60	30	600	450	360			
125	50	2,36	641113	20 H7	60	60	30	700	550	440			
125	50	2,28	641123	25 H7	60	60	30	700	550	440			
125	50	2,19	641133	30 H7	60	60	30	700	550	440			
150	40	3,00	641104	20 H7	60	70	40	730	550	440			
150	50	3,27	641114	20 H7	60	70	40	910	700	560			
150	50	3,13	641154	25 H7	60	70	40	910	700	560			
150	50	3,04	641164	30 H7	60	70	40	910	700	560			
150	50	2,93	641174	35 H7	60	70	40	910	700	560			
160	50	3,35	641124	20 H7	60	70	40	910	700	560			
160	50	3,27	641134	25 H7	60	70	40	910	700	560			
160	50	3,18	641144	30 H7	60	70	40	910	700	560			
180	50	4,30	641105	20 H7	60	70	40	1100	800	650			
180	50	4,26	641115	25 H7	60	70	40	1100	800	650			
180	50	4,17	641125	30 H7	60	70	40	1100	800	650			
180	50	4,05	641135	35 H7	60	70	40	1100	800	650			
200	50	4,86	641106	20 H7	60	70	40	1500	950	750			
200	50	4,72	641156	25 H7	60	70	40	1500	950	750			
200	50	4,63	641166	30 H7	60	70	40	1500	950	750			
200	50	4,52	641176	35 H7	60	70	40	1500	950	750			
200	50	4,39	641186	40 H7	60	70	40	1500	950	750			
200	60	5,20	641116	25 H7	60	70	40	1700	1100	900			
200	80	8,51	641136	35 H7	80	95	60	2000	1400	1150			
250	50	7,74	641107	20 H7	60	75	45	1800	1100	900			
250	50	7,63	641007	25 H7	60	75	45	1800	1100	900			
250	50	7,54	641017	30 H7	60	75	45	1800	1100	900			
250	50	7,43	641027	35 H7	60	75	45	1800	1100	900			
250	50	7,30	641037	40 H7	60	75	45	1800	1100	900			
250	80	11,52	641117	40 H7	80	95	60	2800	1600	1300			
250	80	11,09	641177	50 H7	80	95	60	2800	1600	1300			
250	80	10,46	641127	60 H7	80	95	60	2800	1600	1300			
300	80	14,88	641128	40 H7	80	100	65	3400	2100	1700			
300	80	14,40	641108	50 H7	80	100	65	3400	2100	1700			
300	100	23,80	641138	40 H7	100	120	80	4200	2500	2000			
300	100	23,29	641118	50 H7	100	120	80	4200	2500	2000			
300	100	22,67	641148	60 H7	100	120	80	4200	2500	2000			
350	100	30,88	641109	50 H7	100	120	80	4700	2800	2250			
400	100	35,58	641110	50 H7	100	120	80	5000	3500	2800			



													
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>400</b>	<b>300</b>			
125	40	2,10	641203	20 H7	60	6x6	22,8	<b>600</b>	<b>450</b>	<b>360</b>			
150	40	2,90	641204	20 H7	60	6x6	22,8	<b>730</b>	<b>550</b>	<b>440</b>			
150	50	3,70	641214	20 H7	60	6x6	22,8	<b>910</b>	<b>700</b>	<b>560</b>			
180	50	4,40	641205	20 H7	60	6x6	22,8	<b>1100</b>	<b>800</b>	<b>650</b>			
200	50	4,60	641206	20 H7	60	6x6	22,8	<b>1500</b>	<b>950</b>	<b>750</b>			
200	60	6,00	641216	25 H7	60	8x7	28,3	<b>1700</b>	<b>1100</b>	<b>900</b>			
200	80	8,40	641226	40 H7	80	12x8	43,3	<b>2000</b>	<b>1400</b>	<b>1150</b>			
250	50	6,60	641207	20 H7	60	6x6	22,8	<b>1800</b>	<b>1100</b>	<b>900</b>			
250	80	11,00	641217	40 H7	80	12x8	43,3	<b>2800</b>	<b>1600</b>	<b>1300</b>			
250	80	10,10	641227	60 H7	80	18x11	64,4	<b>2800</b>	<b>1600</b>	<b>1300</b>			
300	80	14,40	641208	50 H7	80	14x9	53,8	<b>3400</b>	<b>2100</b>	<b>1700</b>			
300	100	21,20	641218	50 H7	100	14x9	53,8	<b>4200</b>	<b>2500</b>	<b>2000</b>			
350	100	26,10	641209	50 H7	100	14x9	53,8	<b>4700</b>	<b>2800</b>	<b>2250</b>			
400	100	31,60	641210	50 H7	100	14x9	53,8	<b>5000</b>	<b>3500</b>	<b>2800</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**



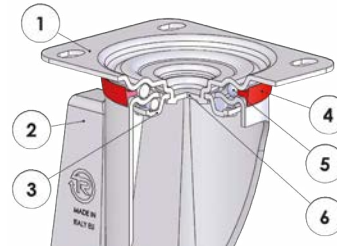
															
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN		
80	20	0,36	642181	0,34	644181	12	18	32	14	<b>200</b>	<b>150</b>	<b>150</b>	<b>120</b>		
80	28	0,51	642151	0,46	644151	12	32	28	8	<b>370</b>	<b>190</b>	<b>280</b>	<b>220</b>		
100	38	1,02	642152	0,91	644152	15	40	35	11	<b>500</b>	<b>220</b>	<b>380</b>	<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>1200</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

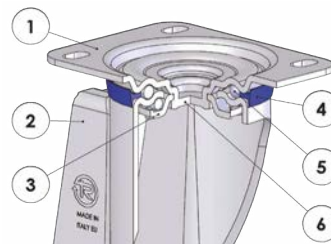
## Standard-duty brackets NL - max carrying capacity 300 daN



- 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		kg		kg		kg		mm		mm		mm		mm		daN
80	28	0.95	644551	0.82	644651	1.11	645451	107	100x85	80x60	9	37	120		<b>200</b>	
100	38	1.51	644552	1.40	644652	1.67	645452	128	100x85	80x60	9	35	120		<b>200</b>	
125	38	1.97	644553	1.86	644653	2.13	645453	156	100x85	80x60	9	37	120		<b>220</b>	
125	50	3.38	644563	2.89	644663	3.58	645463	166	140x110	105x80	11	56	156		<b>300</b>	
150	50	3.87	644554	3.59	644654	4.12	645464	194	140x110	105x80	11	56	156		<b>300</b>	
160	50	3.98	644564	3.71	644664	4.23	645474	199	140x110	105x80	11	56	156		<b>300</b>	
180	50	4.48	644555	4.21	644655	4.68	645465	220	140x110	105x80	11	56	156		<b>300</b>	
200	50	5.16	644556	4.92	644656	5.36	645466	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-riveted
- Available with adjustable total front foot brake

mm		kg		kg		kg		mm		mm		mm		mm		daN
150	50	4.21	644954	3.59	644654	4.65	645564	194	140x110	105x80	11	58	178		<b>500</b>	
160	50	4.33	644964	3.71	644664	4.78	645574	199	140x110	105x80	11	58	178		<b>500</b>	
200	50	5.55	644956	4.92	644656	5.91	645566	240	140x110	105x80	11	50	178		<b>500</b>	

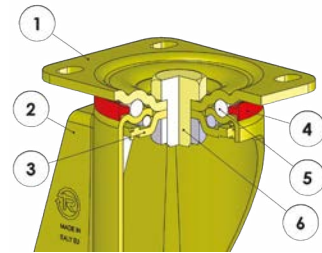
### Options available to order:



Footguard  
for brackets NL-  
M-P-PT

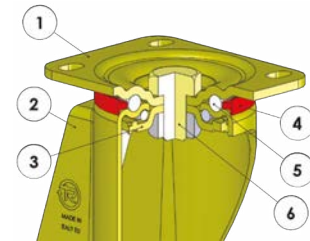
**"TR" POLYURETHANE WHEELS  
WITH CAST IRON CENTRE**

**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					128	100x85	80x60	9	46	123	<b>280</b>	<b>220</b>	4 km/h	6 km/h		
100	38	1.93	645852	1.52	646852	2.06	644852			138	100x85	80x60	9	46	123	<b>350</b>	<b>300</b>				
125	38	2.37	645853	2.04	646853	2.50	644853			161	100x85	80x60	9	48	123	<b>350</b>	<b>300</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 total adjustable rear foot brake

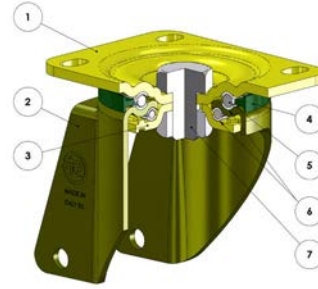
mm		kg		CODE		kg		CODE		mm		mm		mm		mm		daN		daN	
125	50	3.66	645863	2.65	646863	4.24	644863			170	140x110	105x80	11	70	126	<b>550</b>	<b>440</b>	4 km/h	6 km/h		
150	50	4.81	645854	3.55	646854	5.33	644854			200	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>				
160	50	4.93	645864	4.08	646864	5.45	644864			205	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>				
180	50	5.30	645855	4.45	646855	5.90	644855			228	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>				
200	50	6.06	645856	5.15	646856	6.66	644856			250	140x110	105x80	11	70	126	<b>750</b>	<b>600</b>				

Options available to order:



Footguard  
for brackets NL-  
M-P-PT

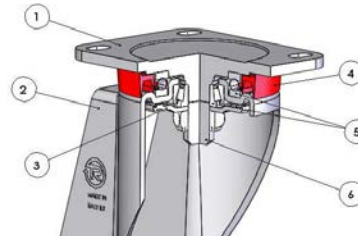
**Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN**



- 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**



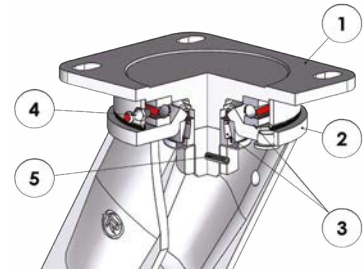
- 1) Plate: white galvanised forged steel
  - 2) Fork: white galvanised forged steel
  - 3) Lower bearing protection ring
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: axial ball bearing and tapered roller bearing
  - 6) King pin: integrated with the machine-processed plate
- Available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

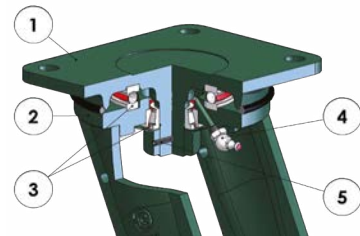
### Electrowelded brackets EE MHD - max carrying capacity 1000 daN



- 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	mm	daN	daN
125	50	4.88	648303	3.90	648403	5.76	648503	182	135x110	105x80	11	51	157	<b>550</b>	<b>440</b>	
150	50	5.50	648304	4.51	648404	6.38	648504	210	135x110	105x80	11	60	157	<b>750</b>	<b>600</b>	
160	50	5.65	648314	4.66	648414	6.53	648514	215	135x110	105x80	11	60	157	<b>750</b>	<b>600</b>	
180	50	6.14	648305	5.16	648405	7.02	648505	242	135x110	105x80	11	70	157	<b>900</b>	<b>720</b>	
200	50	6.77	648306	5.79	648406	7.65	648506	252	135x110	105x80	11	70	157	<b>1000</b>	<b>800</b>	

### Electrowelded brackets EE HD - max carrying capacity 2300 daN

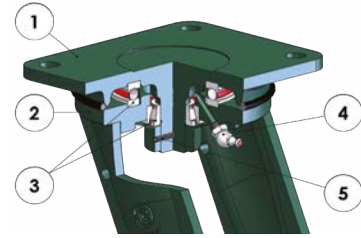


- 1) Plate: forged steel with integrated pin
  - 2) Fork: deep-drawn legs electro-welded to the flange
  - 3) Swivel actions: axial ball bearing and tapered roller bearing
  - 4) Grease nipple
  - 5) Anti-loosening system nut
- Available with adjustable total rear foot brake

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	mm	daN	daN
150	78	12.15	648315	10.61	648415	13.03	648515	218	175x140	140x105	14	50	166	<b>1000</b>	<b>800</b>	
150	78	12.15	648324	10.61	648424			223	200x160	160x120	17	50	166	<b>1000</b>	<b>800</b>	
200	78	13.72	648316	12.18	648416	14.60	648516	275	175x140	140x105	14	65	166	<b>1600</b>	<b>1300</b>	
250	60	14.82	648307	13.23	648407	15.70	648507	320	175x140	140x105	14	74	166	<b>1500</b>	<b>1200</b>	
250	78	16.50	648317	14.91	648417	17.38	648517	320	175x140	140x105	14	74	166	<b>1600</b>	<b>1300</b>	
250	78	17.56	648327	15.23	648427	18.44	648527	325	200x160	160x120	17	74	166	<b>1900</b>	<b>1500</b>	
300	60	18.24	648308	16.62	648408	19.12	648508	360	175x140	140x105	14	81	166	<b>1600</b>	<b>1300</b>	
300	60	19.30	648328	16.95	648428	20.18	648528	365	200x160	160x120	17	81	166	<b>1750</b>	<b>1400</b>	
300	78	20.61	648318	18.99	648418	21.49	648518	360	175x140	140x105	14	81	166	<b>1600</b>	<b>1300</b>	
300	78	21.67	648338	19.32	648438	22.55	648538	365	200x160	160x120	17	81	166	<b>2300</b>	<b>1800</b>	



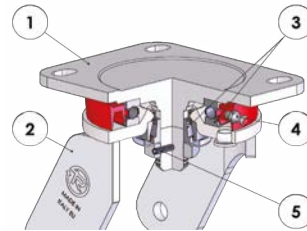
**Electrowelded bracket EE EHD - max carrying capacity 2800 daN**



- 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
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN
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
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN
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 420

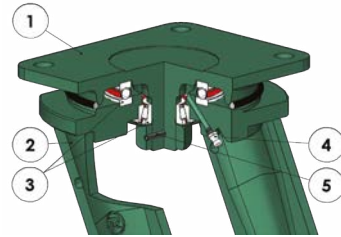


Bracket EE MHD with steering system

# SERIES 64

## "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

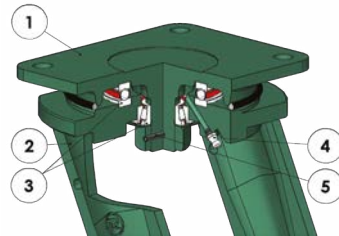
### Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN



- 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 EHD - 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

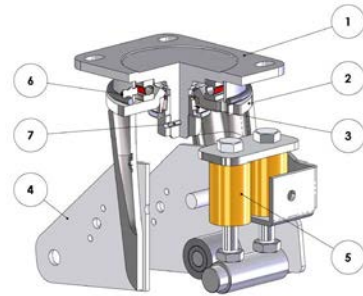
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN
200	78+78	34.80	648086	25.05	648186	280	250x200	210x160	19	52	3200	2500
250	60+60	36.95	648067	27.20	648167	330	250x200	210x160	19	62	3000	2400
250	78+78	40.30	648077	30.55	648177	330	250x200	210x160	19	62	3500	2800
300	78+78	50.00	648078	40.00	648178	385	250x200	210x160	19	75	4300	3500

#### Options available to order:



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES  
MHD: see page 420


**Electrowelded sprung-loaded brackets EES HD - 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	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 420

## "TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

-  80-200 mm
-  92 Shore A
-  220-850 daN  
4 km/h
-  170-680 daN  
6 km/h
-  150-360 daN
-  -20 / +80 °C



### 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		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	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.

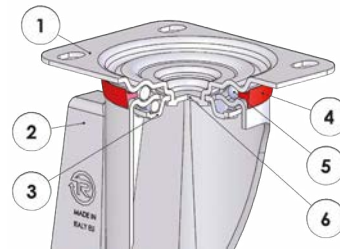


ESD polyurethane wheels, with electrical resistance <math><10^9\Omega</math> (page 314)



mm		kg	COD.	kg	COD.	mm				daN	daN	daN	daN
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	daN	daN	daN	daN
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-riveted
- Available with total front foot brake

mm		kg	CODE	kg	CODE	kg	CODE	mm				mm	mm	mm	daN
mm	mm	kg	CODE	kg	CODE	kg	CODE	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

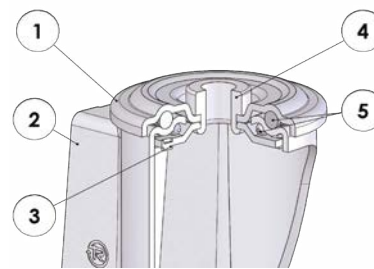
Standard-duty brackets NL - max carrying capacity 300 daN



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>	



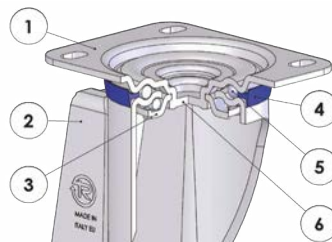
mm	mm	kg	COD.	mm	mm	mm	mm	mm	mm	mm	mm	mm	daN
160	50	2.84	654710	199	140x110	105x80	11	56	40	17,5	35	18,5	<b>300</b>
200	50	3.05	654716	240	140x110	105x80	11	56	40	17,5	35	18,5	<b>300</b>



- 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>

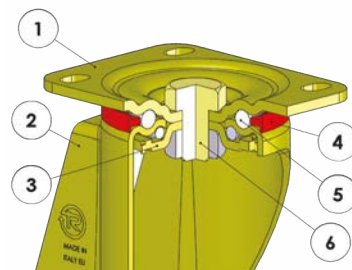
### Medium-duty brackets M - max carrying capacity 500 daN



- 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		mm		daN		
150	40	2.68	659604	2.04	658104	3.16	659704	194	140x110	105x80	11	58	178	500						
160	50	3.03	659614	2.38	658114	3.49	659714	199	140x110	105x80	11	58	178	500						
200	50	3.44	659606	2.76	658106	3.80	659706	240	140x110	105x80	11	50	178	500						

### 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		mm		daN	
100	30	1.20	657602	0.82	658602	1.35	656602	138	100x85	80x60	9	46	123	250	200				
125	35	1.39	657603	0.97	658603	1.54	656603	161	100x85	80x60	9	44	123	350	280				

#### Options available to order:



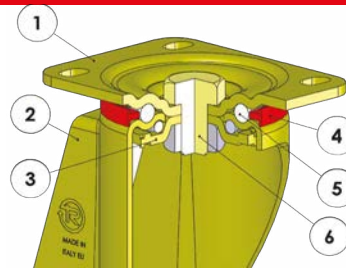
Directional lock for P-PT brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT



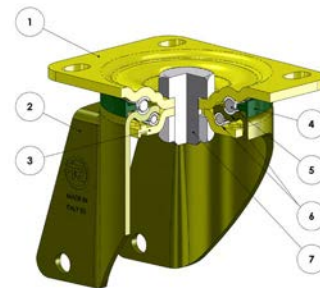
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 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	mm	kg	CODE	kg	CODE	kg	CODE	mm	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	mm	kg	COD.	kg	COD.	kg	COD.	mm	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:

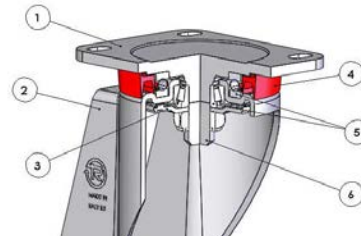


Directional lock for P-PT brackets d. 150-200 mm



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	mm	mm	daN	daN	4 km/h	6 km/h
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



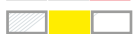



Suitable for applications with medium/heavy-duty loads, also with mechanical handling, with speed up to 6 km/h.

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.

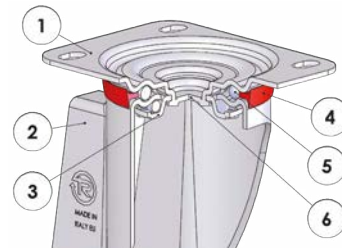
### Options available to order:

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:

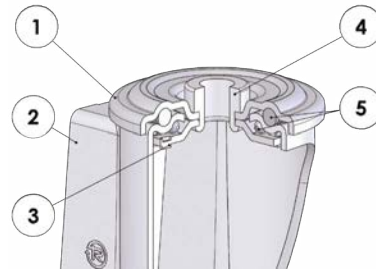


Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

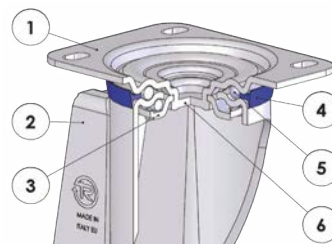
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 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

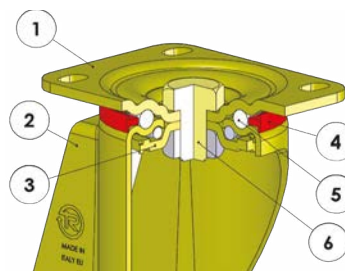
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	35	3.31	657214	2.60	658214	3.78	657334	194	140x110	105x80	11	58	178	<b>490</b>
200	45	5.31	657206	4.70	658206	5.25	657326	240	140x110	105x80	11	50	178	<b>500</b>

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

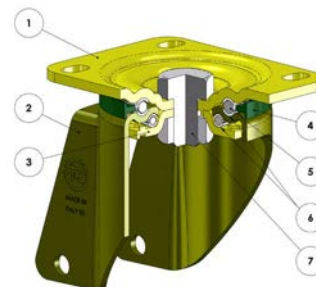
### Medium-heavy duty brackets P - max carrying capacity 750 daN



- 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 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	
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:



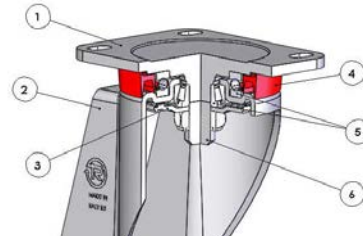
Directional lock for brackets d. 150-200 mm



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	daN	daN	
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



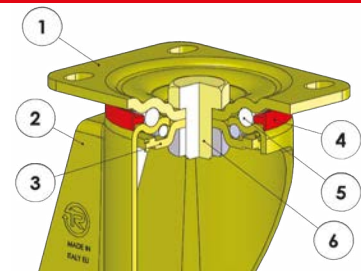
#### Electrowelded sprung-loaded brackets EES MHD

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

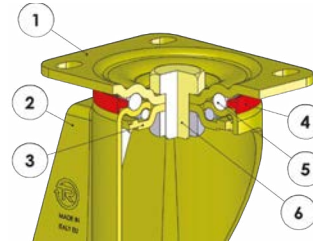
mm		kg		kg		kg		mm				4 km/h	6 km/h		
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN	
100	40	1.33	655302	0.83	655412	1.50	655502	138	100x85	80x60	9	46	123	<b>350</b>	<b>280</b>

### Options available to order:



Footguard  
for brackets M-  
P-PT

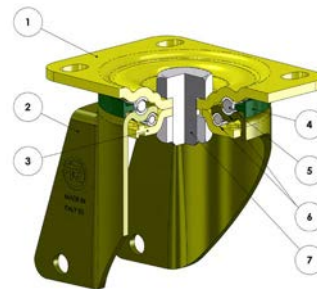
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 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:**

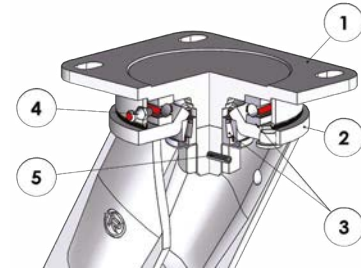


Directional lock for P brackets d. 150-200 mm



Footguard for brackets M-P-PT

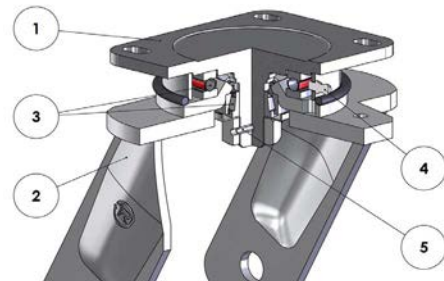
### Electrowelded brackets EE MHD - max carrying capacity 800 daN



- 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	mm	mm	mm	mm	mm	4 km/h	6 km/h
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

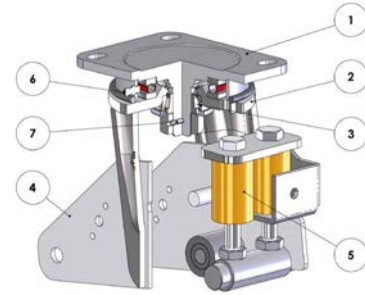
mm		kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h	6 km/h	
160	50+50	7,15	658074	6,28	658174	8,14	658274	221	135x110	135x175	105x80	11	55	182	1400	1100
200	50+50	8,37	658076	7,52	658176	9,37	658276	258	135x110	135x175	105x80	11	65	182	1500	1280

#### Options available to order:



Directional lock  
for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 420


**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

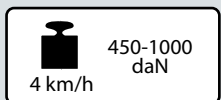
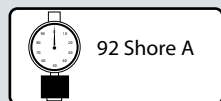
 **Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

**Options available to order:**



Directional lock for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 420

## "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



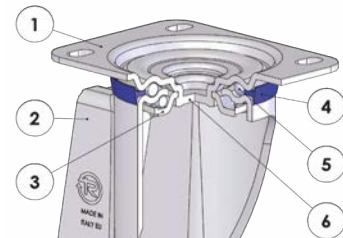
### Electrowelded sprung-loaded brackets EES MHD

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

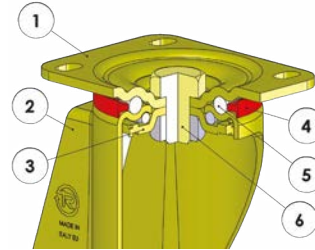
														
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN
160	50	2,81	655904	2,10	656004	3,28	656304	199	140x110	105x80	11	58	178	<b>500</b>
200	50	3,52	655906	2,87	656006	3,90	656306	240	140x110	105x80	11	50	178	<b>500</b>

**Options available to order:**



Footguard  
for brackets NL-  
M-P-PT

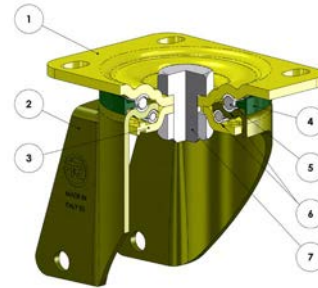
**Heavy duty brackets P - max carrying capacity 750 daN**



- 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:**



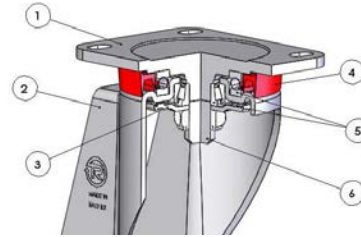
Footguard for brackets NL M-P-PT



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

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

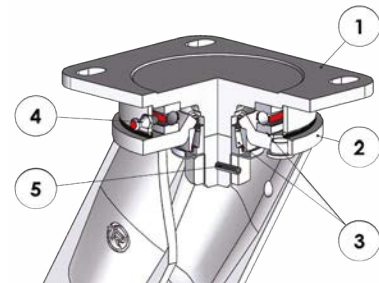
**Extra-heavy duty brackets EP - max carrying capacity 800 daN**



- 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

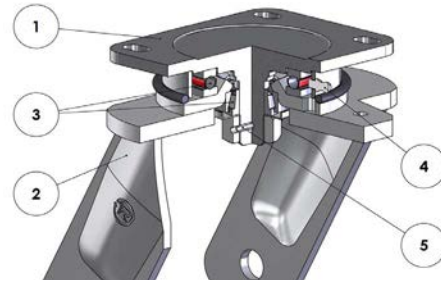
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
125	40	3,65	655933	2,67	656033	4,53	656333	182	135x110	105x80	11	51	157	<b>450</b>	<b>360</b>
160	50	4,11	655934	3,12	656034	4,99	656334	215	135x110	105x80	11	60	157	<b>700</b>	<b>560</b>
200	50	4,80	655936	3,82	656036	6,14	656336	252	135x110	105x80	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 420

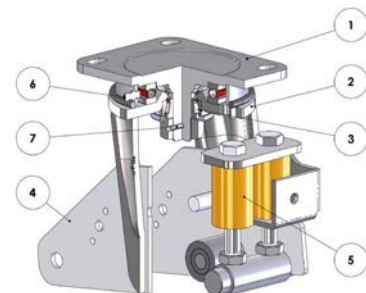
**Electrowelded twin brackets EE MHD - max carrying capacity 1500 daN**



- 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

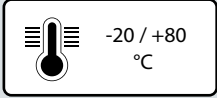
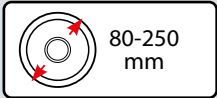
**Spring tension** (daN): in case of heavier loads than indicated, the bracket works with no damping

Options available to order:



Directional lock for brackets EE MHD  
- EE HD - EEG MHD - EES MHD:  
see page 420

## "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				
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 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>						



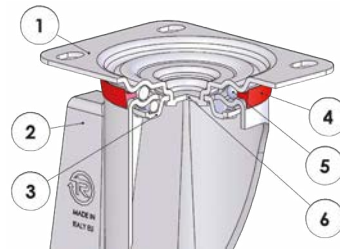
															
mm	mm	kg	COD.	kg	COD.	mm	mm	daN	daN	daN					
80	25	0,13	663101	0,13	663201	12	39	<b>225</b>	<b>100</b>	<b>150</b>					
100	30	0,19	663102	0,19	663202	12	44	<b>300</b>	<b>135</b>	<b>200</b>					
125	30	0,28	663103	0,28	663203	15	44	<b>400</b>	<b>150</b>	<b>250</b>					
150	40	0,54	663104	0,54	663204	20	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-riveted
- Available with total front foot brake

mm		kg	COD.	kg	COD.	kg	COD.	mm	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	664506	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

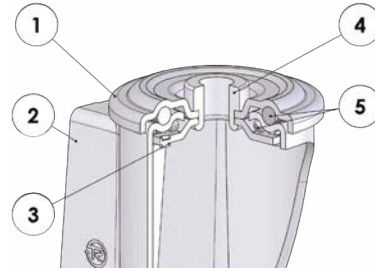


Footguard for brackets NL-M-P-PT

# SERIES 66

## "TR" 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	CODE	kg	CODE	mm	mm	mm	mm	mm	daN				
80	25	0.54	667701	0.72	666401	107	73	12	37	120	150				
100	30	0.68	667702	0.89	666402	128	73	12	35	120	200				
125	30	0.85	667703	1.00	666403	156	73	12	37	120	220				
150	40	1.67	667704	1.96	666404	188	102	20	56	156	300				
175	40	1.86	667705	2.15	666405	212	102	20	56	156	300				
200	50	2.09	667706	2.37	666406	236	102	20	56	156	300				
80	25	0.57	667801	0.75	666421	107	73	12	37	120	150				
100	30	0.71	667802	0.91	666422	128	73	12	35	120	200				
125	30	0.88	667803	1.03	666423	156	73	12	37	120	220				
150	40	1.76	667804	2.05	666424	188	102	20	56	156	300				
175	40	1.97	667805	2.26	666425	212	102	20	56	156	300				
200	50	2.20	667806	2.48	666426	236	102	20	56	156	300				

### Options available to order

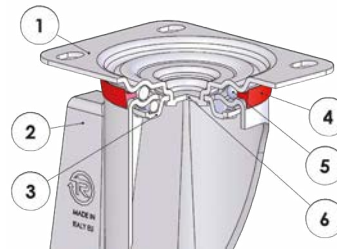


Wheel with ball bearings fitted with NL bracket



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

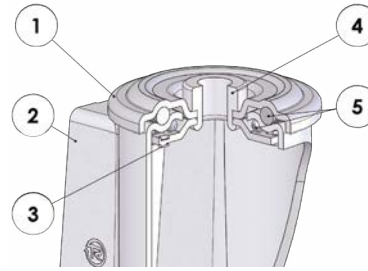
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
80	25	0.60	664401	0.34	665401	0.77	666701	107	100x85	80x60	9	37	120	<b>150</b>	
100	30	0.66	664402	0.41	665402	0.84	666702	128	100x85	80x60	9	35	120	<b>200</b>	
125	30	0.81	664403	0.64	665403	0.95	666703	156	100x85	80x60	9	37	120	<b>220</b>	
150	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**

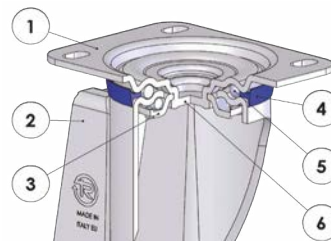
**INOX**



- 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	150						
100	30	0.62	667902	0.83	668802	128	73	12	35	120	200						
125	30	0.79	667903	0.94	668803	156	73	12	37	120	220						
150	40	1.55	667904	1.83	668804	188	102	20	56	156	300						
175	40	1.74	667905	2.02	668805	212	102	20	56	156	300						
200	50	2.10	667906	2.36	668806	236	102	20	56	156	300						
80	25	0.58	668001	0.75	668821	107	73	12	37	120	150						
100	30	0.65	668002	0.85	668822	128	73	12	35	120	200						
125	30	0.82	668003	0.97	668823	156	73	12	37	120	220						
150	40	1.64	668004	1.32	668824	188	102	20	56	156	300						
175	40	1.85	668005	2.13	668825	212	102	20	56	156	300						
200	50	2.21	668006	2.47	668826	236	102	20	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		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>			

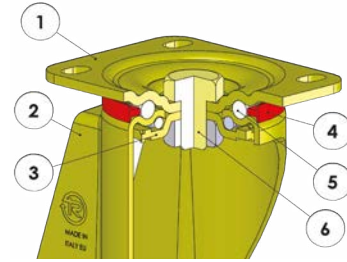
**Options available to order**



Footguard for brackets NL-M-P-PT

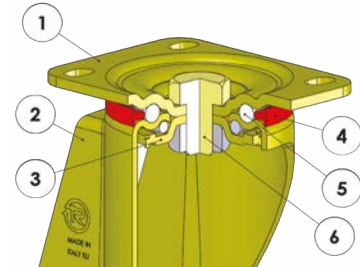
**"TR" POLYURETHANE WHEELS  
WITH POLYAMIDE 6 CENTRE**

**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

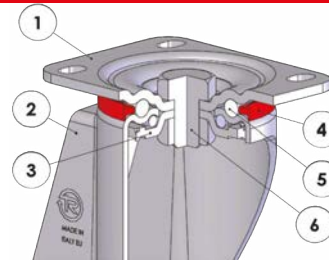


Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P-PT

**Stainless steel medium-heavy duty brackets PX - max carrying capacity 600 daN**

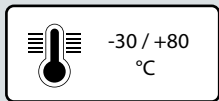
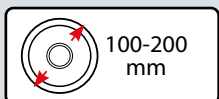


**INOX**

- 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	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	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
















														
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>						



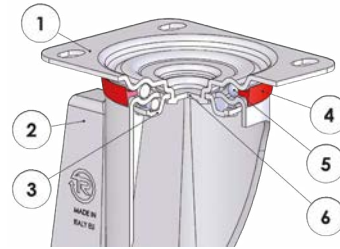
															
mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	daN	daN	daN			
100	35	0.33	683402	0.20	682202	15	40	35	11	<b>450</b>	<b>350</b>	<b>350</b>			
125	35	0.42	683403	0.29	682203	15	40	35	11	<b>500</b>	<b>450</b>	<b>450</b>			
125	45	0.61	683413	0.39	682213	20	56	47	13	<b>700</b>	<b>400</b>	<b>650</b>			
125	45	0.60	683423	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

															
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>			

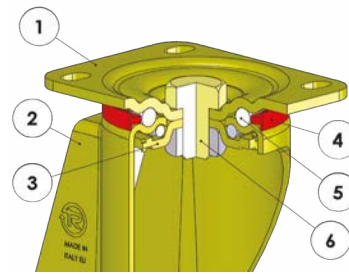
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 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

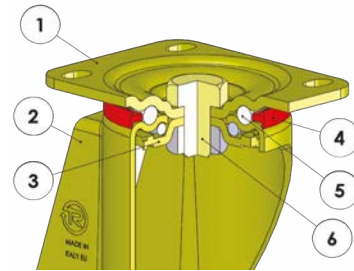
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
100	35	1.13	687522	0.74	688522	1.28	686912	138	100x85	80x60	9	46	123	350
100	35	1.20	684972	0.81	685372	1.35	686952	138	100x85	80x60	9	46	123	350
125	35	1.35	684973	0.83	685373	1.46	686953	161	100x85	80x60	9	48	123	350

**Options available to order**



Directional lock for brackets d. 150-200 mm

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

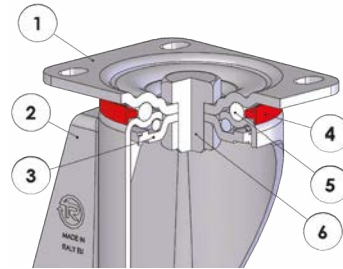


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available with adjustable total rear 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	126	<b>650</b>	
150	45	2.96	687524	1.83	688524	3.14	686914	200	140x110	105x80	11	70	126	<b>750</b>	
200	50	3.37	687526	1.91	688526	3.68	686916	250	140x110	105x80	11	70	126	<b>750</b>	
125	45	2.53	684993	1.74	685393	3.08	686933	170	140x110	105x80	11	70	126	<b>650</b>	
150	45	3.20	684974	2.07	685374	3.77	686954	200	140x110	105x80	11	70	126	<b>750</b>	
200	50	3.64	684976	2.18	685376	3.92	686956	250	140x110	105x80	11	70	126	<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	126	<b>650</b>	
150	45	2.86	687014	1.42	687124	3.43	687224	200	140x110	105x80	11	70	126	<b>750</b>	
200	50	3.32	687016	1.88	687126	3.88	687226	250	140x110	105x80	11	70	126	<b>750</b>	

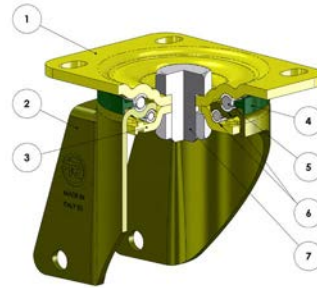
**Options available to order**



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**

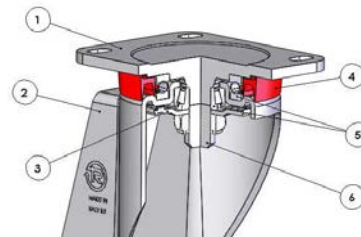


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust Seal: dark green polyamide 6
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) Ball race: hardened carbon steel grooves
  - 7) King 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**

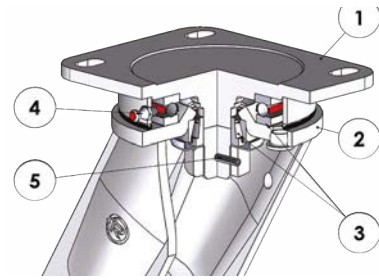
**EXTRA-HEAVY DUTY WHEEL**



- 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		kg		kg		kg		mm		mm		mm		mm		daN	
125	45	3.26	688303	2.03	688403	4.14	688703	182	135x110	105x80	11	51	157	650			
150	45	3.50	688304	2.51	688404	4.38	688704	210	135x110	105x80	11	60	157	750			
200	50	4.02	688306	3.04	688406	4.90	688706	252	135x110	105x80	11	70	157	900			
125	45	3.51	689303	2.28	689403	4.39	689803	182	135x110	105x80	11	51	157	650			
150	45	3.74	689304	2.75	689404	4.62	689804	210	135x110	105x80	11	60	157	750			
200	50	4.22	689306	3.24	689406	5.10	689806	252	135x110	105x80	11	70	157	900			

**EXTRA HEAVY-DUTY WHEEL**



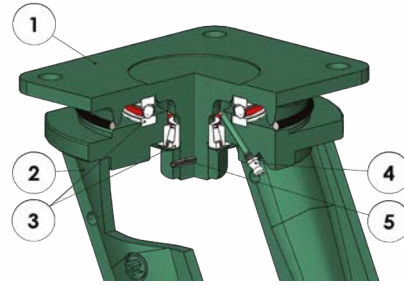
mm		kg		kg		kg		mm		mm		mm		mm		daN	
200	50	4,58	682956	3,36	682966	5,39	682986	250	135x110	105x80	11	70	157	1500			

**Options available to order**



Directional lock  
for brackets EE MHD  
- EE HD - EED MHD - EES  
MHD: see page 420

**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

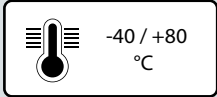
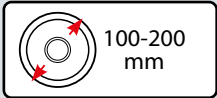
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN			
125	45+45	9.35	688072	4.90	688172	210	175x140	140x105	14	50	<b>1300</b>			
150	45+45	9.62	688074	5.20	688174	223	175x140	140x105	14	50	<b>1500</b>			
200	50+50	12.40	688066	7.60	688166	285	200x160	160x120	17	65	<b>1800</b>			

**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		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.

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

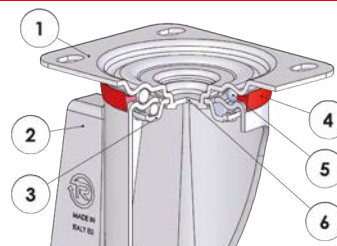


															
mm	mm	kg	CODE	mm	mm	daN	daN	daN							
100	30	0.62	691102	15	34	<b>800</b>	<b>260</b>	<b>500</b>							
100	30	0.70	691112	15	44	<b>800</b>	<b>260</b>	<b>500</b>							
100	40	0.92	691202	20	44	<b>900</b>	<b>300</b>	<b>600</b>							
125	40	1.09	691103	15	44	<b>1200</b>	<b>350</b>	<b>700</b>							
125	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

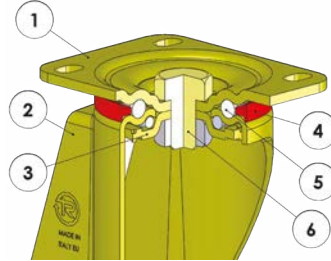
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN		
100	30	1.16	694802	0.89	695702	128	100x85	80x60	9	35	<b>200</b>		
100	40	1.50	694812	1.16	695712	128	100x85	80x60	9	35	<b>200</b>		
125	40	1.73	694803	1.38	695703	156	100x85	80x60	9	37	<b>220</b>		
150	45	3.24	694804	2.87	695704	194	140x110	105x80	11	56	<b>300</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

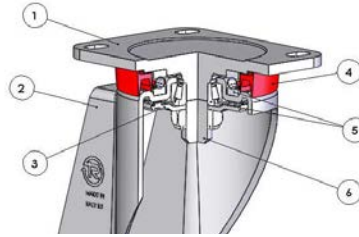
**Medium-heavy duty brackets P - max carrying capacity 750 daN**



- 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	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>						

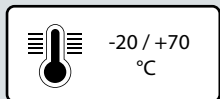
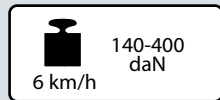
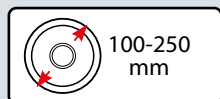
Extra-heavy duty brackets EP - max carrying capacity 1100 daN



- 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		kg		kg		mm		mm		mm		mm		daN	
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	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



### 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STRONG ACIDS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALCOHOL	<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 BASES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HYDROCARBONS	<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 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

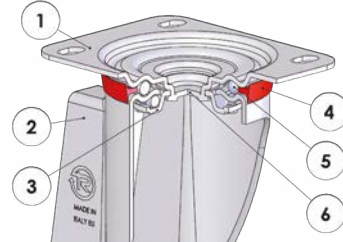
SERIES **72AL**

**SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE**



										Static			
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	<b>250</b>	<b>180</b>	<b>180</b>	<b>140</b>
125	40	0.76	721103	0.50	723003	20	40	47	14	<b>280</b>	<b>200</b>	<b>200</b>	<b>160</b>
125	40	0.78	721203	0.52	723103	20	50	47	14	<b>280</b>	<b>200</b>	<b>200</b>	<b>160</b>
125	50	0.84	721213	0.62	723113	20	59	47	14	<b>320</b>	<b>230</b>	<b>230</b>	<b>180</b>
160	50	1.22	721210	0.96	723104	20	58	47	14	<b>420</b>	<b>300</b>	<b>300</b>	<b>240</b>
160	50	1.20	721110	0.96	723104	25	58	47	14	<b>420</b>	<b>300</b>	<b>300</b>	<b>240</b>
180	50	1.47	721205	1.21	723105	20	60	47	14	<b>490</b>	<b>250</b>	<b>350</b>	<b>280</b>
200	50	2.00	721306	1.71	723126	20	58	47	14	<b>1000</b>	<b>300</b>	<b>500</b>	<b>400</b>
200	50	2.00	721206	1.71	723106	20	58	52	16,5	<b>1000</b>	<b>300</b>	<b>500</b>	<b>400</b>
200	50	1.99	721106	1.71	723106	25	58	52	16,5	<b>1000</b>	<b>300</b>	<b>500</b>	<b>400</b>
250	50	2.30	721208	1.97	723108	20	60	52	15	<b>1000</b>	<b>300</b>	<b>500</b>	<b>400</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	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	<b>180</b>	
125	50	1.49	724413	1.14	726213	2.37	727313	166	140x110	105x80	11	57	156	<b>230</b>	
160	50	2.59	724410	2.22	726210	2.80	727310	199	140x110	105x80	11	56	156	<b>300</b>	
180	50	2.85	724405	2.56	726205	3.06	727305	219	140x110	105x80	11	56	156	<b>300</b>	
200	50	3.40	724306	3.18	725206	3.66	727106	240	140x110	105x80	11	56	156	<b>300</b>	

**Options available to order**



Wheel with grey rubber tyre



Directional lock for brackets d. 150-200 mm

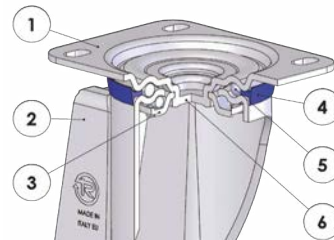


Standard-duty brackets NL - max carrying capacity 300 daN



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		230
160	50	2,81	724710	199	140x110	105x80	11	56	40	17,5	35	18,5		300
200	50	3,45	724706	240	140x110	105x80	11	56	40	17,5	35	18,5		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

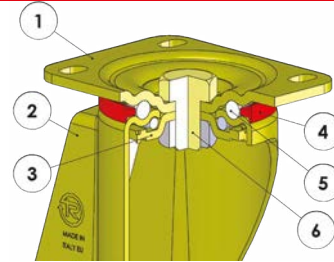
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
160	50	2.94	724610	2.22	726210	3.33	727910	199	140x110	105x80	11	58	178	300
200	50	3.79	724506	3.18	725206	4.21	727706	240	140x110	105x80	11	50	178	500

Options available to order



Wheel with grey rubber tyre

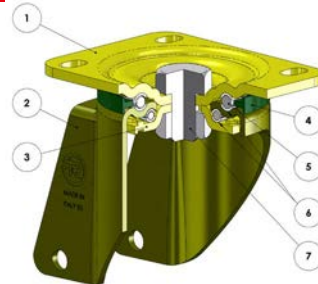
### Medium-heavy duty brackets P - max carrying capacity 500 daN



- 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

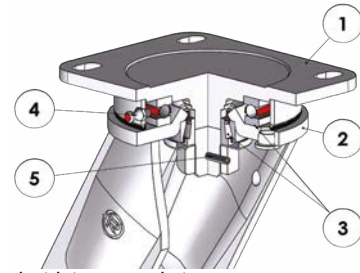


Wheel with grey rubber tyre



Directional lock for brackets P-PT d. 150-200 mm

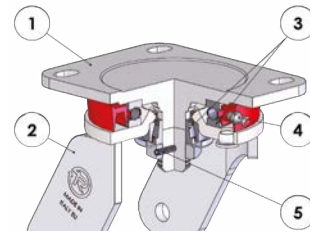
**Electrowelded brackets EE MHD - max carrying capacity 500 daN**



- 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**

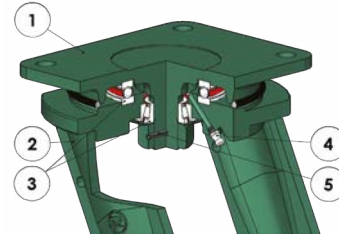


Wheel with grey rubber tyre

















Directional lock for brackets EE MHD - EE HD - EEG MHD - EES MHD: see page 420

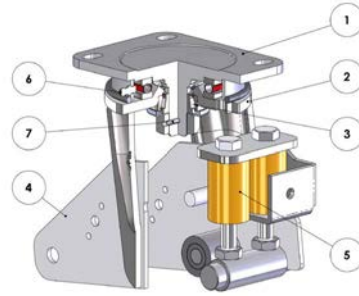
### Twin electrowelded brackets EEG HD - max carrying capacity 1000 daN



- 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	mm	4 km/h	6 km/h	daN	daN
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

mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	mm	daN	daN	daN	daN
160	50	7,04	726304	5,79	726404	8,10	726504	248	135x110	105x80	11	100	240	25	50	300	300	240	
200	50	7,82	726306	6,57	726406	8,93	726506	268	135x110	105x80	11	100	265	25	50	400	500	400	
250	50	8,65	726308	7,44	726408	9,89	726508	316	135x110	105x80	11	110	315	25	50	400	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 420

## SIGMA ELASTIC RUBBER WHEELS WITH CAST IRON CENTRE

-  125-300 mm
-  70 Shore A
-  300-950 daN  
4 km/h
-  240-760 daN  
6 km/h
-  250-500 daN
-  -20 / +70 °C



### 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				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	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.



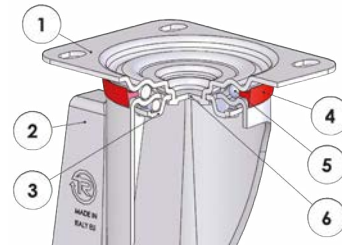
**Electrowelded sprung-loaded brackets EES MHD**

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>	

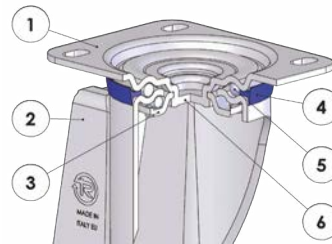
**Options available to order**



Directional lock for brackets d. 150-200 mm



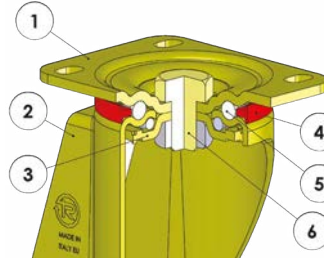
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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	mm	daN
150	50	4.02	724504	3.30	725204	4.49	727724	194	140x110	105x80	11	58	178	<b>400</b>	
200	50	4.95	724536	4.34	725236	5.11	727726	240	140x110	105x80	11	50	178	<b>500</b>	

**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

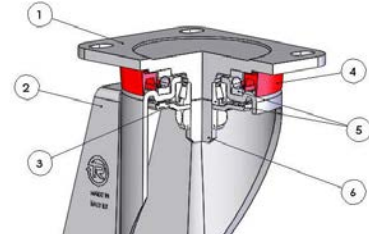
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
125	50	3,80	727513	3,24	728513			170	140x110	105x80	11	70		<b>300</b>	<b>240</b>
150	50	4,65	727504	3,42	728504	5,22	727224	200	140x110	105x80	11	70	126	<b>400</b>	<b>320</b>
200	50	5,62	727506	4,16	728506	6,19	727226	250	140x110	105x80	11	70	126	<b>500</b>	<b>400</b>

**Options available to order**



Directional lock for P brackets d. 150-200 mm

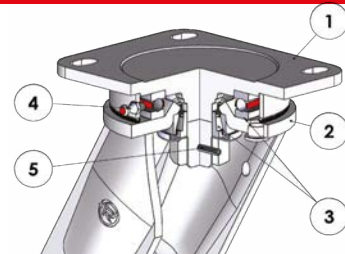
**Extra-heavy duty brackets EP - max carrying capacity 800 daN**



- 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

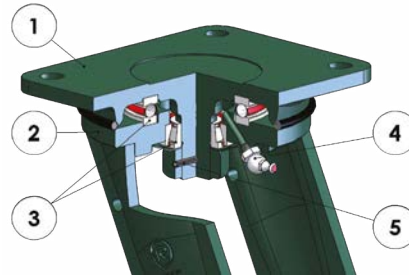
mm		kg	CODE	kg	CODE	kg	CODE	mm						4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
125	50	4.78	729303	3.80	729403	5.66	729603	182	135x110	105x80	11	51	157	<b>300</b>	<b>180</b>
150	50	5.30	729304	4.31	729404	6.18	729604	210	135x110	105x80	11	60	157	<b>400</b>	<b>320</b>
200	50	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 420

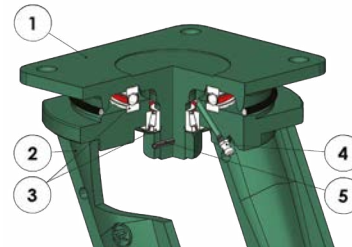
**Electrowelded brackets EE HD - max carrying capacity 950 daN**



- 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

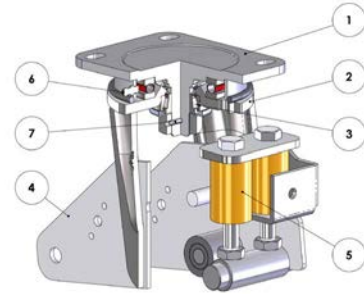
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h	6 km/h		
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN		
150	50+50	12.75	728074	8.30	728174	228	175x140	140x105	14	50	<b>800</b>	<b>640</b>		
200	50+50	14.90	728066	10.35	728166	280	175x140	140x105	14	65	<b>1000</b>	<b>800</b>		
200	50+50	16.55	728076	11.75	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 420

**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	400	400	320
200	50	8,97	725706	7,72	725806	10,08	726006	268	135x110	105x80	11	100	265	25	50	400	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 420



Experience and innovation

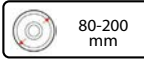
# HIGH TEMPERATURE



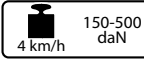


# SERIES 67

SOLID THERMOSETTING RESIN WHEELS



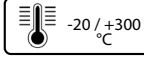
80-200 mm



150-500 daN



125-240 daN



-20 / +300 °C



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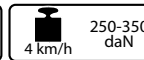


# SERIES 68F

POLYAMIDE 6 SOLID WHEELS CHARGED WITH GLASS FIBER



100-125 mm



250-350 daN



250-350 daN



-30 / +130 °C



PAGE 294



# SERIES 72G

SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE



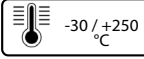
100 mm



80 daN



80 daN

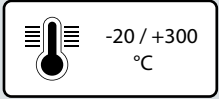
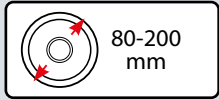


-30 / +250 °C



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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.

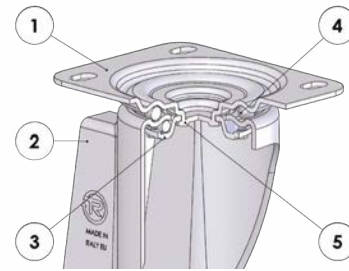


mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm.	daN	daN	daN															
80	35	0,27	672501	0,27	672601	0,21	674101	15	35	32	9	<b>250</b>	<b>160</b>	<b>160</b>															
100	38	0,44	672502	0,44	672602	0,37	674102	15	38	32	9	<b>300</b>	<b>240</b>	<b>240</b>															



**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)

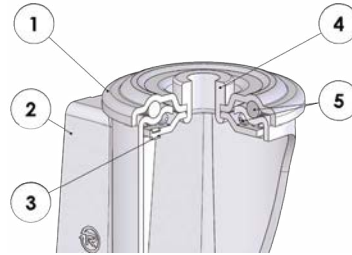


Axle components with stainless steel tube coated with hi-thickness PTFE



Axle components with stainless steel tube coated with hi-thickness PTFE and spacers

**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)**

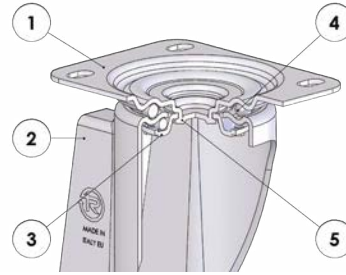


Axle components with stainless steel tube coated with hi-thickness PTFE



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-rievted

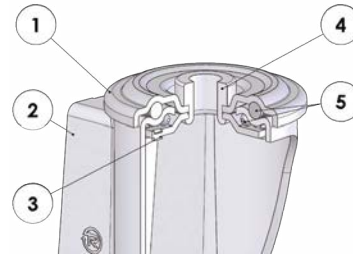
													Axle set		
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN				
80	35	0,71	677701	0,40	678701	107	100x85	80x60	9	37	150				
100	35	0,79	677702	0,52	678702	128	100x85	80x60	9	35	200				
125	35	0,92	677713	0,80	678713	156	100x85	80x60	9	37	220				
150	50	2,21	677704	1,77	678704	194	140x110	105x80	11	56	300				
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				



													Axle set		
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN				
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**



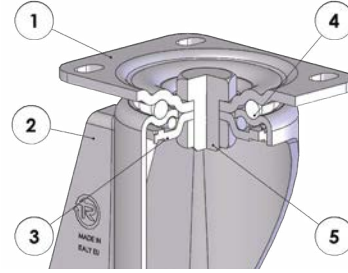
- 1) Plate: AISI 304 stainless steel
- 2) Fork: AISI 304 stainless steel
- 3) Ball race ring: AISI 304 stainless steel
- 4) King pin: bushing in stainless steel
- 5) Swivel actions: double ball ring with grease lubrication

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**

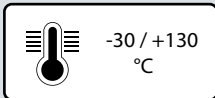
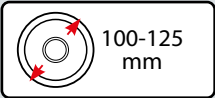


**INOX**

- 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.



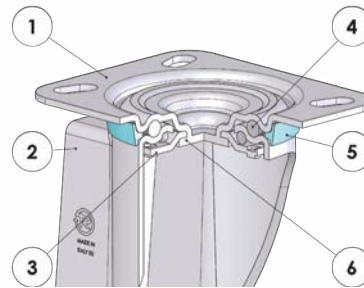
**Stainless steel standard-duty brackets NLX**

Maximum carrying capacity 220 daN - available diameters 100-125 mm  
Top plate and bolt hole fittings.



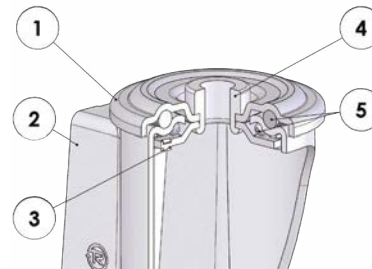
mm	mm	kg	CODE	kg	CODE	mm	mm	daN	daN	daN
100	30	0.27	683502	0.27	683602	12	45	<b>250</b>	<b>250</b>	<b>250</b>
125	30	0.33	683503	0.33	683603	12	45	<b>350</b>	<b>350</b>	<b>350</b>

**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>

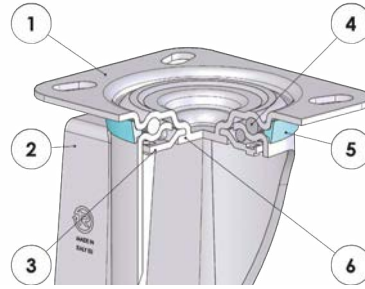


- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) King pin: bushing in electrolytically galvanised steel
- 5) Swivel actions: double ball ring with grease lubrication

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>

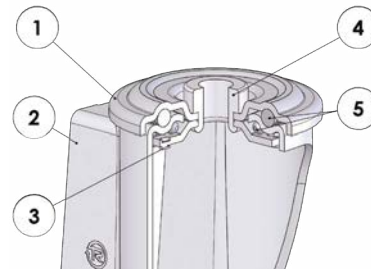
**Stainless steel standard-duty brackets NLX - max carrying capacity 220 daN**

**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

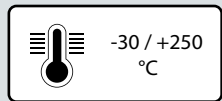
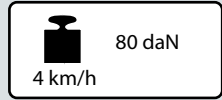
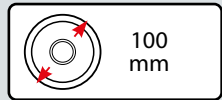
mm		kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
100	30	0.74	684682	0.63	685682	128	100x85	80x60	9	35	220
125	30	0.83	684683	0.72	685683	156	100x85	80x60	9	37	220



- 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

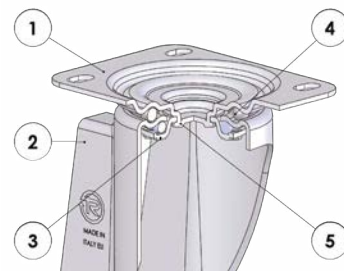
Maximum carrying capacity 80 daN - available diameters 100 mm  
Top plate and bolt hole fittings. Available with front brake.

SERIES **72G** SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE



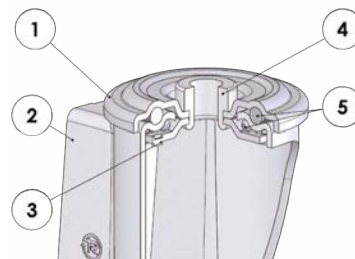
mm	mm	kg	CODE	mm	mm	Static	4 km/h	4 km/h	250 °C	250 °C	250 °C
mm	mm	kg	CODE	mm	mm	daN	daN	daN	daN	daN	daN
100	40	0.43	722152	15	40	100	80	80	40	40	40

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

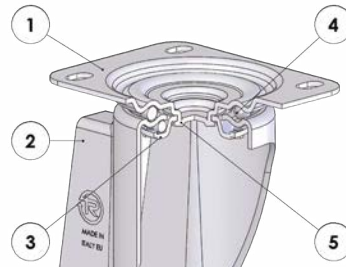
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN	250 °C
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN	
100	40	0.96	724452PF	0.71	726252PF	1.17	727152PF	128	100x85	80x60	9	35	120	80	40	



- 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	

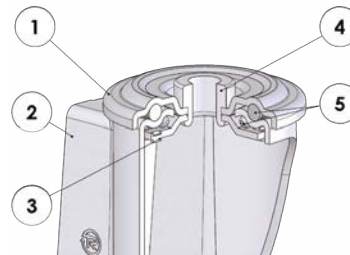
**Stainless steel standard-duty brackets NLX - max carrying capacity 80 daN**



**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	daN	daN
100	40	0.96	724462PF	0.71	726262PF	1.17	727162PF	128	100x85	80x60	9	35	120	80	40



**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
100	40	0.86	727362PF	1.07	727462PF	128	73	12	35	120	80	40

# 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		

PAGE 304



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

PAGE 308



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 314



SERIES  
**68 AS**

ELECTRICAL CONDUCTIVE POLYAMIDE  
6 SOLID WHEELS

upon request	<b>R</b> <10°Ω
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## USE AND MAINTENANCE SUGGESTIONS

- 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).
- 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.
- 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.
- It is forbidden to make changes to the product that could compromise its conductivity or performance.
- 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.
- 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.
- Follow the maintenance instructions given in the user guide in the general catalogue.
- 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
-  R  $<10^5 \Omega$



### Description

Tyre: electrical conductive rubber (electrical resistance below  $10^5 \text{ Ohm}$ ), 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



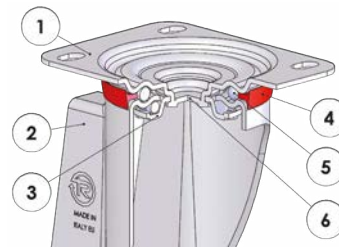
#### Standard-duty brackets NL

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**

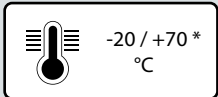
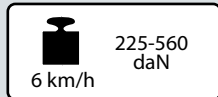
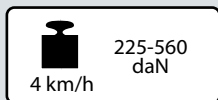
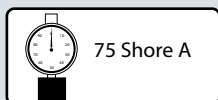


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with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



## 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		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	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.



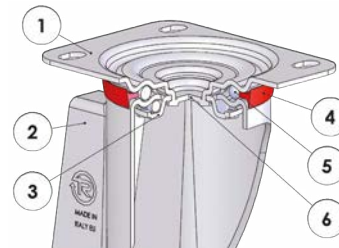
#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 560 daN - available diameters 160-200 mm  
Top plate fitting. Available with adjustable rear brake.



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**

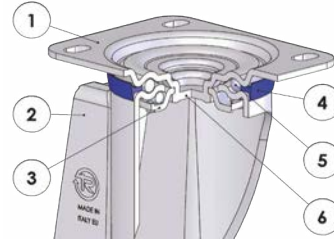


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Dust seal: orange polyethylene
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: integrated with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



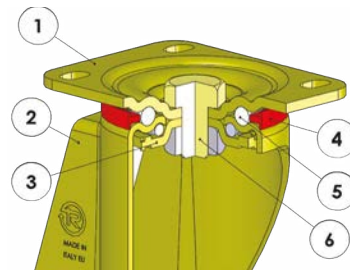
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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>

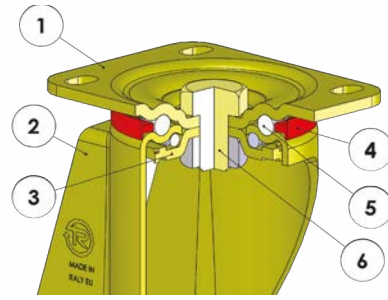
**Medium-heavy duty brackets P - max carrying capacity 560 daN**



- 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
100	40	1,35	627602ESD	0,85	628512ESD	1,52	627202ESD	138	100x85	80x60	9	46	123	<b>240</b>
125	40	1,70	627613ESD	1,26	628513ESD	1,87	627213ESD	161	100x85	80x60	9	44	123	<b>280</b>

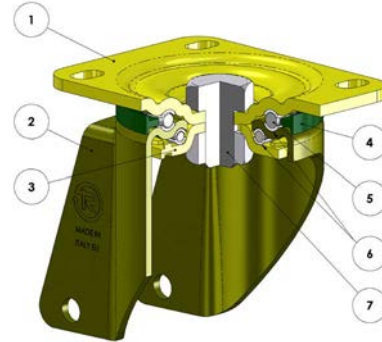
Medium-heavy duty brackets P - max carrying capacity 560 daN



- 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

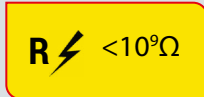
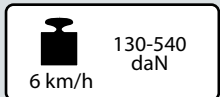
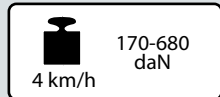
Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 560 daN



- 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		COD.		kg		COD.		mm		mm		mm		mm		daN	
160	50	3,52	625010ESD	2,11	628514ESD	4,12	629904ESD	205	140x110	105x80	11	70	126	440	440	4 km/h	6 km/h		
200	50	4,10	625016ESD	2,85	628516ESD	4,66	629906ESD	250	140x110	105x80	11	70	126	560	560				

## 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.

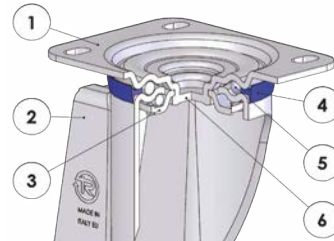


#### Heavy-duty PT brackets with hardened ball race grooves

Maximum carrying capacity 680 daN - available diameters 150-200 mm  
Top plate fitting. Available with adjustable rear brake.



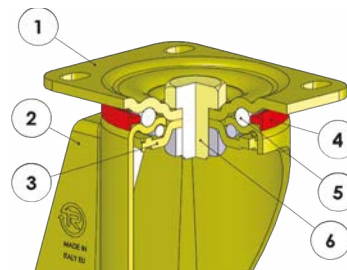
**Medium-duty brackets M - max carrying capacity 500 daN**



- 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	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**

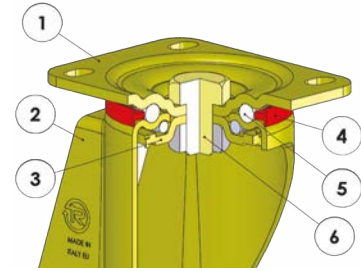


- 1) Plate: galvanised colonial steel plate
  - 2) Fork: galvanised colonial steel plate
  - 3) Ball race ring: galvanised colonial steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut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

**ESD "TR" POLYURETHANE WHEELS, ELECTRICAL RESISTANCE <math><10^9 \Omega</math> WITH ALUMINIUM CENTRE**

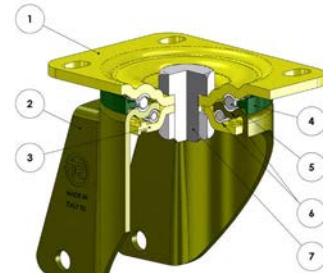
**Medium-heavy duty brackets P - max carrying capacity 680 daN**



- 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		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		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.



# PALLET TRUCK ROLLERS





SERIES **59H**

"TR-POWERHIGH" POLYURETHANE ROLLERS WITH STEEL CENTRE

85 mm	600-1100 daN	400-560 daN
6 km/h	-20 / +80 °C	

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SERIES **74** **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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SERIES **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	320-420 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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## “TR-POWERHIGH” POLYURETHANE PALLET TRUCK ROLLERS FOR ELECTRIC PALLET TRUCKS WITH STEEL CENTRE

-  85 mm
-  92 Shore A
-  600-1100 daN  
4 km/h
-  480-880 daN  
6 km/h
-  400-560 daN
-  -20 / +80 °C



### Description

Tyre: “TR- PowerHigh” polyurethane for high dynamic performance, hardness 92 Shore A, excellent rolling resistance and elasticity, very good resistance to wear and to tear, good resistance to hydrolisis.

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 the bearings from dust and other elements that could limit their correct functioning over time.

### Uses

Perfect for use on electric pallet trucks, both walk-behind and with operator on board models, even in case of handling very heavy loads, at speeds above 12-16 km / h, and intensive use even over long terms.

The excellent rolling resistance still allows to move manually easily high loads. They are also suitable for use in environments where resistance to hydrolisis is required.

### 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	---	---	---
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	---
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-POWERHIGH" POLYURETHANE PALLET TRUCK ROLLERS FOR ELECTRIC PALLET TRUCKS WITH STEEL CENTRE



mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	daN	daN	daN	daN
85	60	0,84	593101F12	0,54	595101	12	65	55	22	<b>900</b>	<b>400</b>	<b>600</b>	<b>480</b>
85	60	0,84	593101F17	0,54	595101	17	65	55	22	<b>900</b>	<b>400</b>	<b>600</b>	<b>480</b>
85	60	0,84	593101F20	0,54	595101	20	65	55	22	<b>900</b>	<b>400</b>	<b>600</b>	<b>480</b>
85	60	0,82	593101F25	0,54	595101	25	65	55	22	<b>900</b>	<b>400</b>	<b>600</b>	<b>480</b>
85	70	1,04	593103F12	0,72	595103	12	59	55	22	<b>1000</b>	<b>450</b>	<b>700</b>	<b>560</b>
85	70	1,03	593103F17	0,72	595103	17	59	55	22	<b>1000</b>	<b>450</b>	<b>700</b>	<b>560</b>
85	70	1,03	593103F20	0,72	595103	20	59	55	22	<b>1000</b>	<b>450</b>	<b>700</b>	<b>560</b>
85	70	1,02	593103F25	0,72	595103	25	59	55	22	<b>1000</b>	<b>450</b>	<b>700</b>	<b>560</b>
85	75	1,12	593104F12	0,79	595104	12	80	55	22	<b>1000</b>	<b>450</b>	<b>750</b>	<b>600</b>
85	75	1,11	593104F17	0,79	595104	17	80	55	22	<b>1000</b>	<b>450</b>	<b>750</b>	<b>600</b>
85	75	1,11	593104F20	0,79	595104	20	80	55	22	<b>1000</b>	<b>450</b>	<b>750</b>	<b>600</b>
85	75	1,10	593104F25	0,79	595104	25	80	55	22	<b>1000</b>	<b>450</b>	<b>750</b>	<b>600</b>
85	80	1,19	593105F12	0,86	595105	12	85	55	22	<b>1100</b>	<b>500</b>	<b>800</b>	<b>640</b>
85	80	1,19	593105F17	0,86	595105	17	85	55	22	<b>1100</b>	<b>500</b>	<b>800</b>	<b>640</b>
85	80	1,19	593105F20	0,86	595105	20	85	55	22	<b>1100</b>	<b>500</b>	<b>800</b>	<b>640</b>
85	80	1,18	593105F25	0,86	595105	25	85	55	22	<b>1100</b>	<b>500</b>	<b>800</b>	<b>640</b>
85	85	1,27	593106F12	0,92	595106	12	90	55	22	<b>1100</b>	<b>500</b>	<b>850</b>	<b>680</b>
85	85	1,26	593106F17	0,92	595106	17	90	55	22	<b>1100</b>	<b>500</b>	<b>850</b>	<b>680</b>
85	85	1,26	593106F20	0,92	595106	20	90	55	22	<b>1100</b>	<b>500</b>	<b>850</b>	<b>680</b>
85	85	1,25	593106F25	0,92	595106	25	90	55	22	<b>1100</b>	<b>500</b>	<b>850</b>	<b>680</b>
85	90	1,34	593107F12	0,99	595107	12	95	55	22	<b>1200</b>	<b>525</b>	<b>900</b>	<b>720</b>
85	90	1,34	593107F17	0,99	595107	17	95	55	22	<b>1200</b>	<b>525</b>	<b>900</b>	<b>720</b>
85	90	1,34	593107F20	0,99	595107	20	95	55	22	<b>1200</b>	<b>525</b>	<b>900</b>	<b>720</b>
85	90	1,33	593107F25	0,99	595107	25	95	55	22	<b>1200</b>	<b>525</b>	<b>900</b>	<b>720</b>
85	100	1,50	593109F12	1,13	595109	12	105	55	22	<b>1300</b>	<b>540</b>	<b>1000</b>	<b>800</b>
85	100	1,49	593109F17	1,13	595109	17	105	55	22	<b>1300</b>	<b>540</b>	<b>1000</b>	<b>800</b>
85	100	1,49	593109F20	1,13	595109	20	105	55	22	<b>1300</b>	<b>540</b>	<b>1000</b>	<b>800</b>
85	100	1,48	593109F25	1,13	595109	25	105	55	22	<b>1300</b>	<b>540</b>	<b>1000</b>	<b>800</b>
85	105	1,57	593110F12	1,19	595110	12	110	55	22	<b>1300</b>	<b>540</b>	<b>1050</b>	<b>840</b>
85	105	1,56	593110F17	1,19	595110	17	110	55	22	<b>1300</b>	<b>540</b>	<b>1050</b>	<b>840</b>
85	105	1,56	593110F20	1,19	595110	20	110	55	22	<b>1300</b>	<b>540</b>	<b>1050</b>	<b>840</b>
85	105	1,55	593110F25	1,19	595110	25	110	55	22	<b>1300</b>	<b>540</b>	<b>1050</b>	<b>840</b>
85	110	1,65	593111F12	1,26	595111	12	115	55	22	<b>1400</b>	<b>560</b>	<b>1100</b>	<b>880</b>
85	110	1,64	593111F17	1,26	595111	17	115	55	22	<b>1400</b>	<b>560</b>	<b>1100</b>	<b>880</b>
85	110	1,64	593111F20	1,26	595111	20	115	55	22	<b>1400</b>	<b>560</b>	<b>1100</b>	<b>880</b>
85	110	1,63	593111F25	1,26	595111	25	115	55	22	<b>1400</b>	<b>560</b>	<b>1100</b>	<b>880</b>



													
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	daN	daN	daN	daN
85	74	1,20	059007	0,99	059003	12	75	55	22	<b>1000</b>	<b>450</b>	<b>740</b>	<b>590</b>

-  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.*

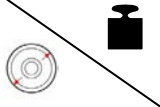
**Floors**

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

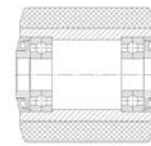


Rollers fitted with electrowelded brackets EE MHD



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>650</b>	<b>520</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

-  35-85 mm
-  92 Shore A
-  350-800 daN  
4 km/h
-  235-540 daN  
6 km/h
-  200-475 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 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		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	2,4	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.

Options available to order



Compact castors:  
see page 354

"TR" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE



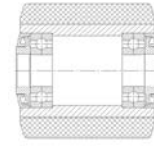
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	daN	daN	daN	daN	daN
35	27	0,06	752099			6	30	22	7			<b>100</b>		
50	40	0,23	752100	0,18	754100	15	40	35	11			<b>150</b>		
80	40	0,82	752101	0,62	754101	20	40	47	14	<b>400</b>	<b>200</b>		<b>350</b>	<b>235</b>
80	70	1,06	752102	0,82	754102	20	70	47	14	<b>700</b>	<b>390</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 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 the bearings 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.



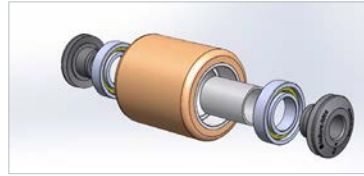














Force required to push or tow a wheel

 	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

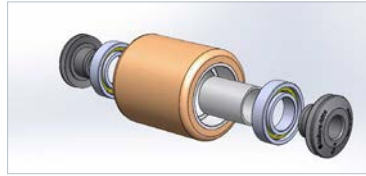















													
		kg	COD.	kg	COD.								
85	60	0,84	753151F12	0,54	755151	12	65	55	22	600	400	480	390
85	60	0,84	753151F17	0,54	755151	17	65	55	22	600	400	480	390
85	60	0,84	753151F20	0,54	755151	20	65	55	22	600	400	480	390
85	60	0,82	753151F25	0,54	755151	25	65	55	22	600	400	480	390
85	65	0,96	753152F12	0,65	755152	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	kg	COD.	kg	COD.	mm	mm	mm	mm	daN	daN	daN	daN	daN	daN	daN	daN	daN	daN	daN	daN	daN	daN		
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.









								Static				
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.



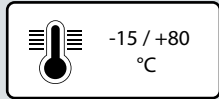
													
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	daN	daN	daN	daN
82	70	0.60	772132	0.36	774132	20	70	47	14	<b>550</b>	<b>300</b>	<b>450</b>	<b>360</b>
82	90	0.70	772135	0.46	774135	20	90	47	14	<b>610</b>	<b>340</b>	<b>510</b>	<b>400</b>
82	100	0.76	772137	0.52	774137	20	100	47	14	<b>700</b>	<b>380</b>	<b>600</b>	<b>480</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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STRONG ACIDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WATER	<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"/>

WEAK BASES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STRONG BASES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HYDROCARBONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SOLVENTS	<input type="checkbox"/>	<input checked="" 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 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

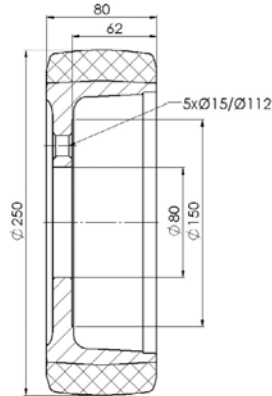


Rollers with labyrinths

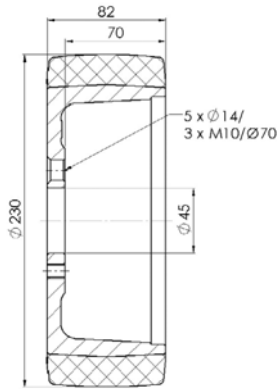
# DRIVE WHEELS



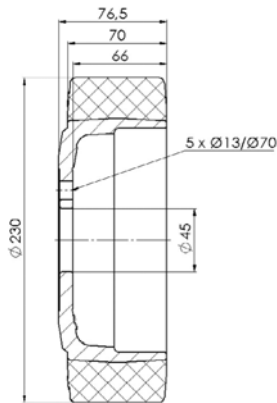
# "TR" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



mm	mm	kg	CODE
250	80	7,24	064413

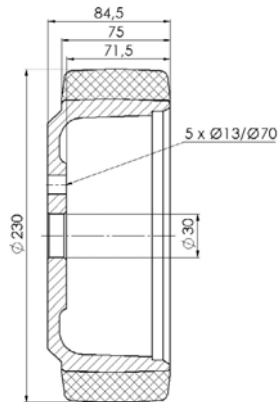


mm	mm	kg	CODE
230	82	5,91	064665

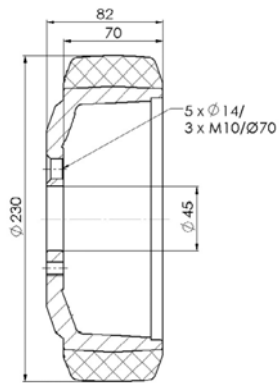


mm	mm	kg	CODE
230	70	4,80	064712

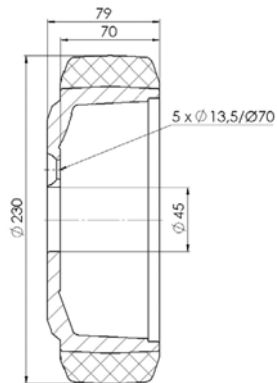
# "TR" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



mm	mm	kg	CODE
230	75	6,80	064222

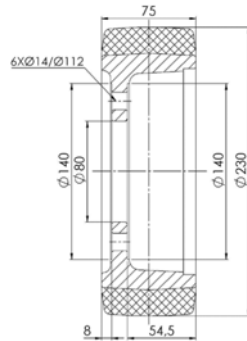


mm	mm	kg	CODE
230	70	5,73	064673

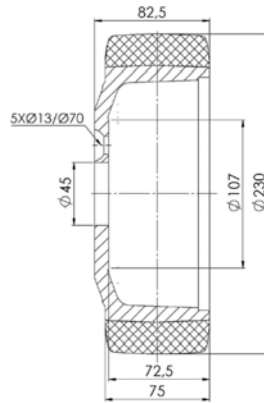


mm	mm	kg	CODE
230	70	5,47	064674

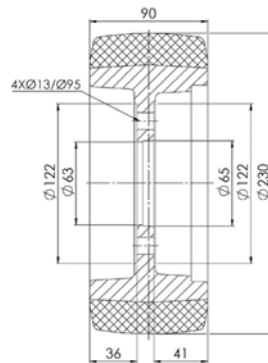
# "TR" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



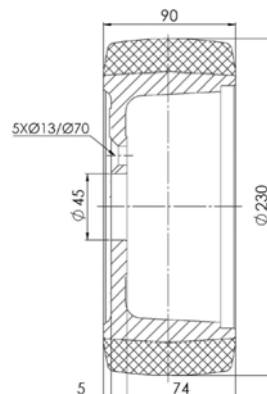
mm	mm	kg	CODE
230	75	6,64	064838



mm	mm	kg	CODE
230	75	5,83	064839

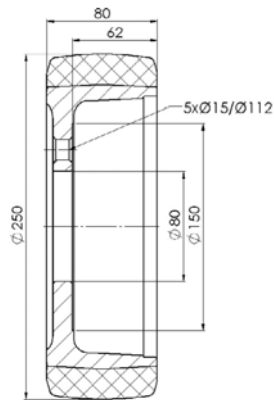


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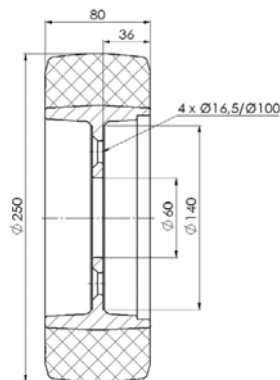


mm	mm	kg	CODE
230	90	7,28	064837

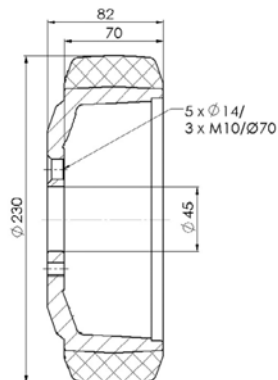
# "TR-ROLL" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



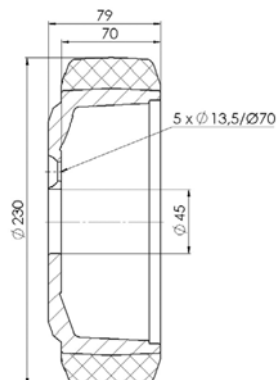
mm	mm	kg	CODE
250	80	7,24	062730



mm	mm	kg	CODE
250	80	6,17	062719



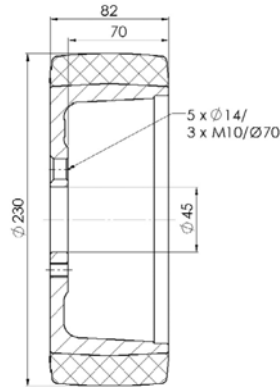
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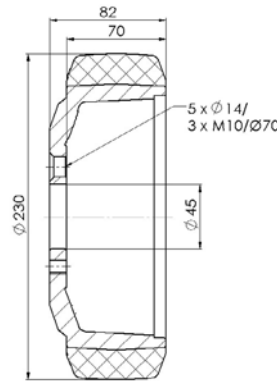
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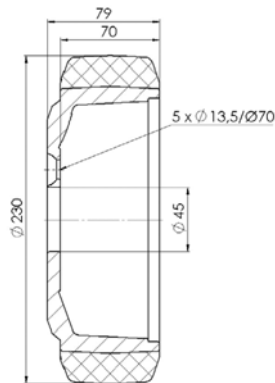
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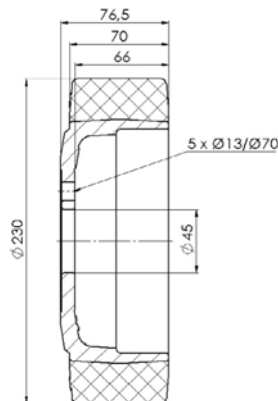
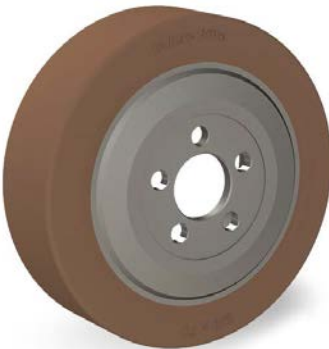
mm	mm	kg	CODE
230	82	5,91	580103



mm	mm	kg	CODE
230	70	5,73	580101

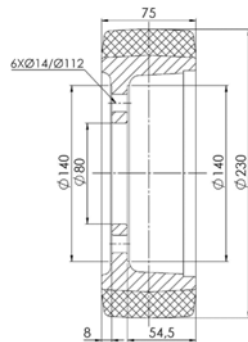
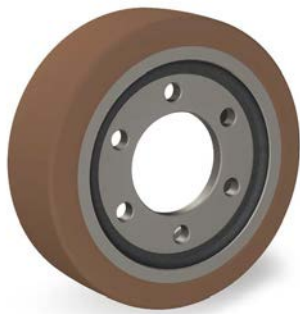


mm	mm	kg	CODE
230	70	5,47	580102

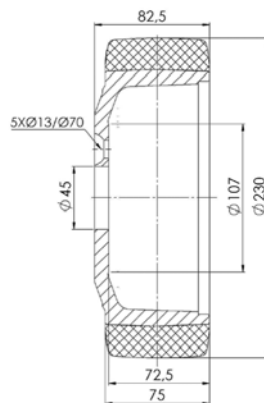


mm	mm	kg	CODE
230	70	4,80	580104

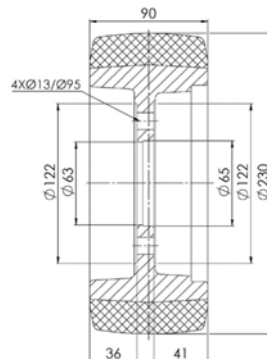
# "TR-POWERHIGH" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



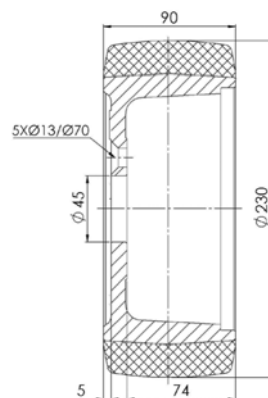
mm	mm	kg	CODE
230	75	6,64	580109



mm	mm	kg	CODE
230	75	5,83	580110

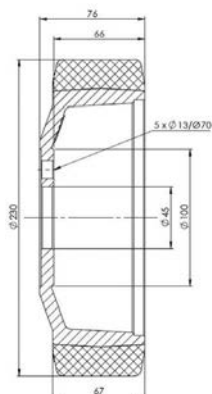


mm	mm	kg	CODE
230	90	8,69	580107

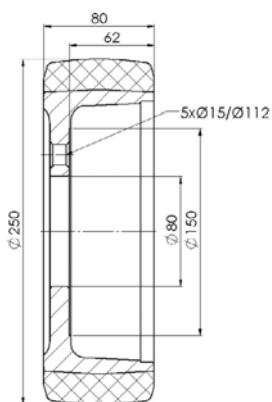


mm	mm	kg	CODE
230	90	7,28	580108

# "TR-POWERHIGH" POLYURETHANE DRIVE WHEELS, CAST IRON CENTRE



mm	mm	kg	CODE
230	66,8	5,05	580105



mm	mm	kg	CODE
250	80	7,24	580106

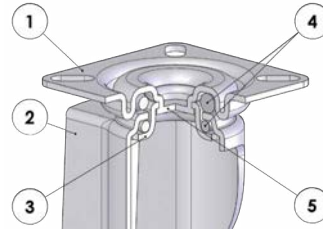


**Compact castors for AGV, AMR and other automated handling equipment**, and wherever intensive use of the wheel is required, with high load capacities and reduced height and radius dimensions. In the version in Power High material, designed specifically for very intensive use and to maximize performance, the wheel has a crowned tread in order to ease the rotation of the the swivel bracket during frequent changes of direction.

# "TR" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE

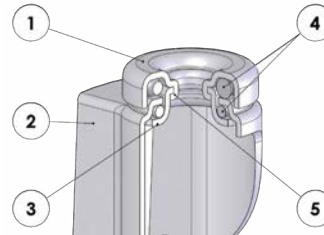
SERIES **75**

## 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

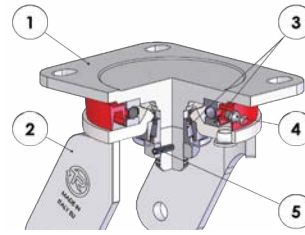
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
35	27	0,25	757300	0,27	757400	53	60x60	45x45	6	17	70	100
50	40	0,57	757301	0,63	757401	71	60x60	45x45	6	25,5	83	150



















- 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	53	55	10	17	70	100	
50	40	0,56	757501	0,61	757601	71	55	10	25,5	83	150	

**Electrowelded brackets EE MHD - max carrying capacity 630 daN**



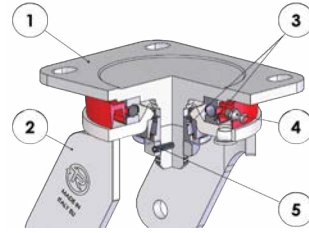
- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

 		 		 		 		 		 		 		 	
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	daN	4 km/h	6 km/h	
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 WHEELS WITH CAST IRON CENTRE

SERIES **64**

**Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN**

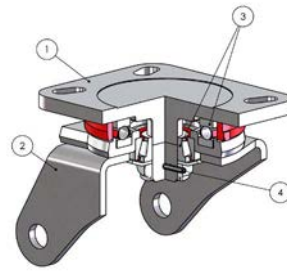


- 1) Plate: forged steel with integrated pin
- 2) Fork: deep-drawn legs electro-welded to the flange
- 3) Swivel actions: axial ball bearing and tapered roller bearing
- 4) Grease nipple
- 5) Anti-loosening system nut

mm	mm	kg	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				
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>				

## "TR-POWERHIGH" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE

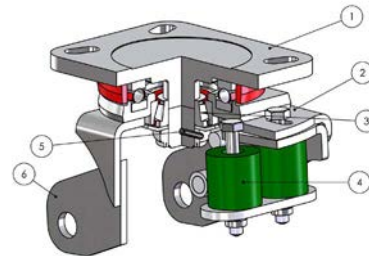
**Twin electrowelded brackets EEG MHD - max carrying capacity 500 daN**



- 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) Anti-loosening system nut

mm	mm	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
60	35+35	1,72	590102	92	100x85	80x60	9	40	40	<b>400</b>	<b>320</b>
70	35+35	2,29	590103	100	100x85	80x60	9	43	43	<b>500</b>	<b>400</b>
80	35+35	2,55	590105	112	100x85	80x60	9	42	42	<b>500</b>	<b>500</b>

**Electrowelded sprung-loaded brackets EES HD - max carrying capacity 250 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) Polyurethane springs
- 5) Anti-loosening locknut system
- 6) Spring-hinged plates: plates electrowelded to the axle

mm	mm	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN	daN	4 km/h daN	6 km/h daN
50	32+32	2,23	590201	93	100x85	80x60	9	34	34	<b>7</b>	<b>30</b>	<b>250</b>	<b>300</b>	<b>240</b>
75	30+30	2,90	590204	118	100x85	80x60	9	35	35	<b>9</b>	<b>30</b>	<b>300</b>	<b>350</b>	<b>280</b>

### Options available to order



TR-Roll elastic polyurethane rollers

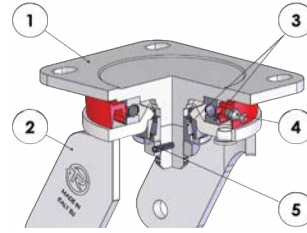


TR polyurethane rollers



"TR-POWERHIGH" POLYURETHANE WHEELS WITH CAST IRON CENTRE **SERIES 58GH**

**Twin electrowelded brackets EEG 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

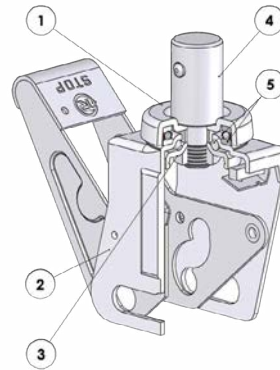
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	4 km/h	6 km/h	daN	daN							
100	38+38	4,50	588062	3,75	588162	140	135x110	105x80	11	55	<b>900</b>	<b>720</b>									
125	38+38	5,45	588063	4,70	588163	170	135x110	105x80	11	55	<b>1000</b>	<b>880</b>									

# SCAFFOLDINGS



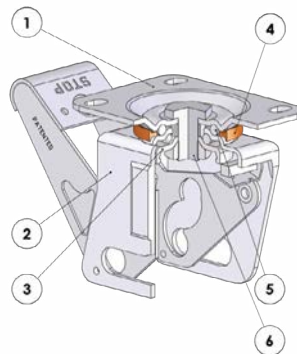
Thermoplastic polyurethane wheels with polyamide 6 centre

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>		



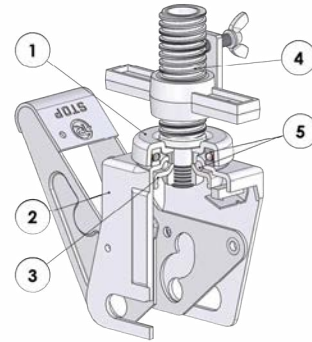
- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Dust seal: orange polyamide
- 5) King pin: steel pin and nut locked through mechanical deformation
- 6) Swivel actions: diam. 150 mm: 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 1004-1:2021, 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

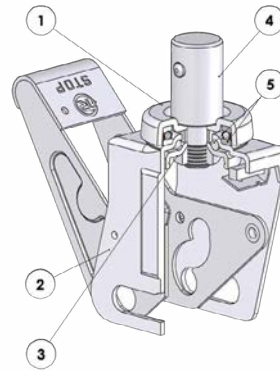
		1 PEDAL		2 PEDALS							4 km/h		EN 1004		
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN		
150	45	3.86	609704	5.37	609714	192	83	M38x6	500	40	150	<b>300</b>	<b>700</b>		
200	50	4.56	609726	5.67	609736	243	81	M38x6	500	40	165	<b>400</b>	<b>750</b>		



This symbol indicates the castor carrying capacity according to UNI EN 1004-1:2021, 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

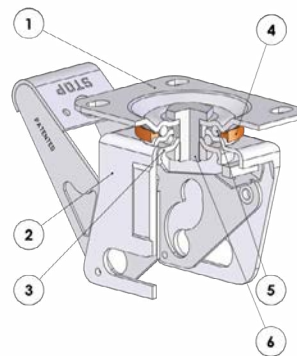
**Polyamide 6 solid wheels**

**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

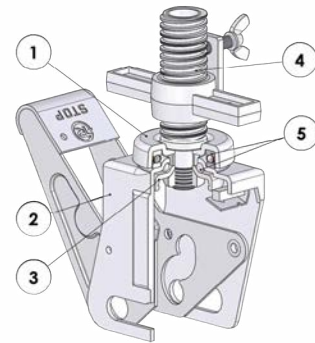
1 PEDAL		2 PEDALS		2 PEDALS		2 PEDALS		2 PEDALS		2 PEDALS		2 PEDALS		2 PEDALS	
mm	mm	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN	EN 1004	daN	EN 1004	daN
150	45	3.76	689604	192	140x110	105x80	12	40	150	150	<b>300</b>	<b>700</b>			
200	50	4.38	689606	243	140x110	105x80	12	40	165	165	<b>400</b>	<b>750</b>			



This symbol indicates the castor carrying capacity according to UNI EN 1004-1:2021, 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

		1 PEDAL		2 PEDALS										
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	300	700	
200	50	4.38	689706	5.49	689716	243	81	M38x6	500	40	165	400	750	



This symbol indicates the castor carrying capacity according to UNI EN 1004-1:2021, 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 1004-1:2021

The TR Lab, Test & Research laboratory of Tellure Rôta, has the necessary equipment for conformity testing on wheel and castor according to **UNI EN 1004-1:2021, 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



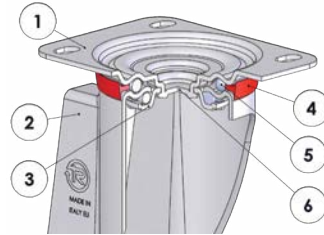
CONTINENTAL 1100





**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



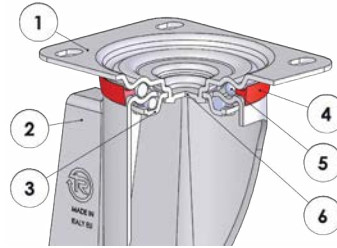
Wheel with roller bearings



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	<b>180</b>
200	50	3.25	535006	3.39	535406	3.67	534006	240	140x110	105x80	11	56	156	<b>230</b>



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	<b>230</b>

#### Options available to order



Directional lock for brackets  
d. 150-200 mm



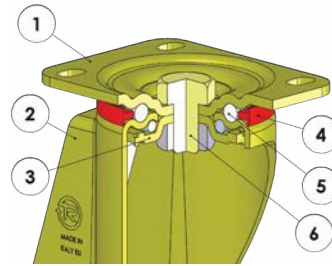
Wheel with roller bearings



Wheel with grey rubber tyre

**Sigma Elastic rubber wheels with aluminium centre**

Wheel description on page 268-270

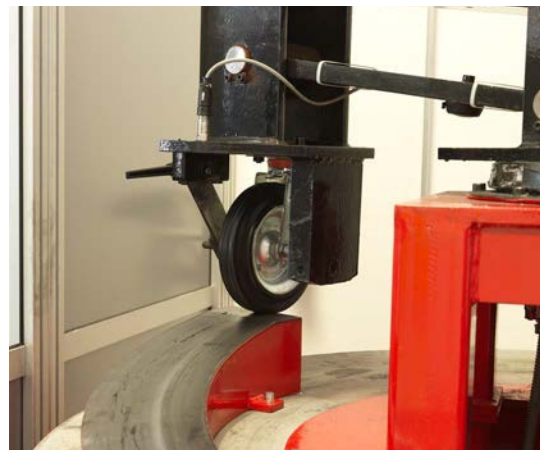
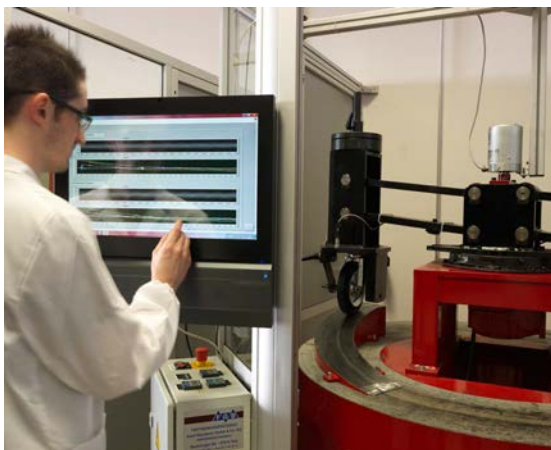


- 1) Plate: yellow galvanised steel plate
  - 2) Fork: yellow galvanised steel plate
  - 3) Ball race ring: yellow galvanised steel plate
  - 4) Dust seal: orange polyamide
  - 5) Swivel actions: double ball ring with grease lubrication
  - 6) King pin: steel bolt in grade 8.8 steel and steel nut
- Available 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: 2020

The TR Lab, Test & Research laboratory of Tellure Rôta has the necessary equipment for Dynamic testing on wheel and castor according to **UNI EN 840-5:2020, 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 372



SERIES **36**

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

30-75 mm  
 -5 / +40 °C

30-140 daN  
3 km/h

**INOX**

PAGE 378



SERIES **37**

GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE

40-125 mm  
 -5 / +40 °C

30-80 daN  
3 km/h

PAGE 384



SERIES **38**

THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

40-80 mm  
 -5 / +40 °C

30-70 daN  
3 km/h

**INOX**

PAGE 390



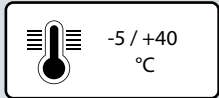
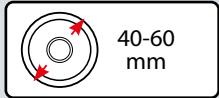
SERIES **51**

THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

80-250 mm  
 -15 / +70 °C

30-120 daN  
Static

PAGE 394



**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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STRONG ACIDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WATER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALCOHOL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WEAK BASES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STRONG BASES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HYDROCARBONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SOLVENTS	<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 on tiles and resin-cement; not recommended on abrasive, unpaved floors or in presence of processing residues.

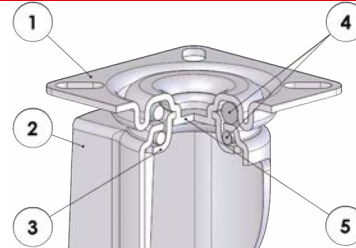
Not suitable on fragile floor or with obstacles along the path.





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**



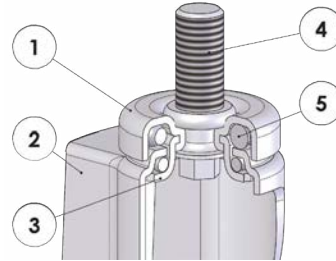
- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Swivel actions: double ball ring with grease lubrication
- 5) King pin: integrated with the plate and cold-riveted

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>

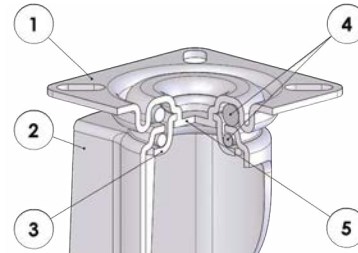
Institutional brackets



- 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

mm		kg	CODE	2 pc package		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

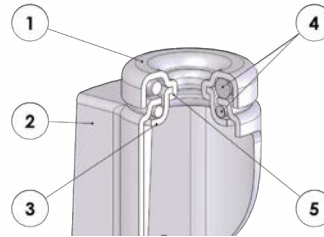


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available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

mm		kg	CODE	kg		mm	mm	mm	mm	mm	mm	daN		
50	18+18	0.28	324302	0.33	328202	71	60x60	45x45	6	25.5	83	90		

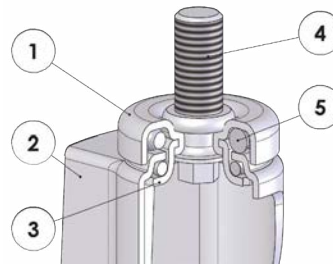


**Institutional twin brackets for high carrying capacity**



- 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

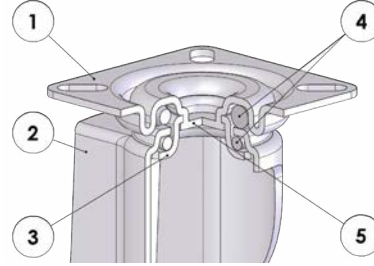
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
50	18+18	0.26	323202	0.31	327202	71	55	10	25.5	83	90



- 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

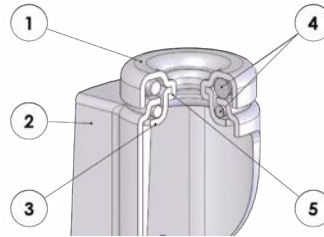
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
50	18+18	0.29	326202	0.34	329202	71	52	M10	25	25.5	90

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

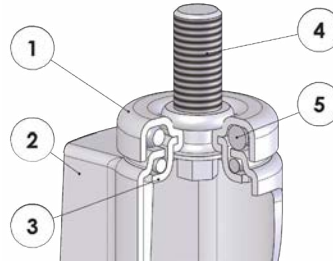
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	3 km/h				
50	30	0.27	324402	0.32	328302	71	60x60	45x45	6	25.5	83	<b>80</b>					



- 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	3 km/h				
50	30	0.24	323302	0.29	327302	71	55	10	25.5	83	<b>80</b>						

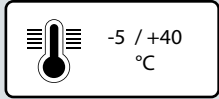
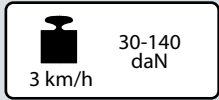
**Institutional brackets for high carrying capacity**



- 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				
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 on tiles and resin-cement; not recommended on abrasive, unpaved floors or in the presence of processing residues.

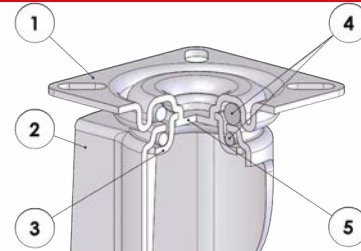
They do not damage fragile flooring and are also suitable in presence of small obstacles.





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**



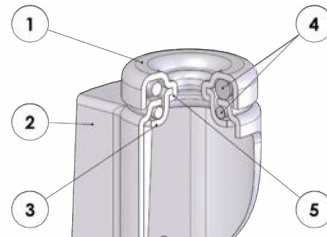
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available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



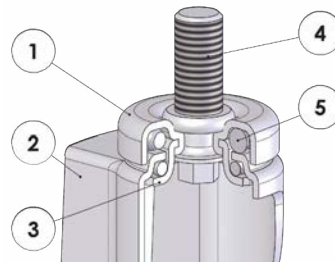
		2 pc package							
mm	mm	kg	CODE	mm	mm	mm	mm	mm	daN
40	18	0,30	324001	59	42x42	32x32	5	23	<b>40</b>
50	18	0,34	324002	66	55x55	40x40	6	24	<b>55</b>
60	25	0,56	324003	82	60x60	45x45	6	21	<b>70</b>

**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-riveted
- 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

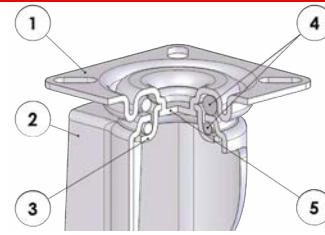
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN
30	18	0,09	366300					47,5	35	M10	20	14,5		<b>30</b>
40	18	0,12	366301	0,14	369101	0,34	366001	59	35	M10	20	23	76	<b>40</b>
50	18	0,13	366302	0,16	369102	0,38	366002	66	35	M10	20	24	76	<b>55</b>
60	25	0,24	366303	0,28	369103	0,62	366003	82	42	M12	25	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**



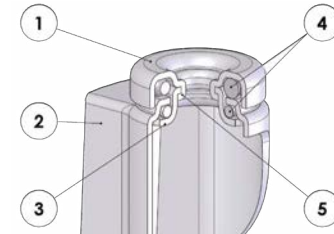
Different stem dimensions

**Institutional twin brackets for high carrying capacity**



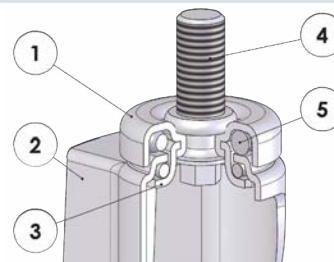
- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Swivel actions: double ball ring with grease lubrication
  - 5) King pin: integrated with the plate and cold-rieveted
- Available 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

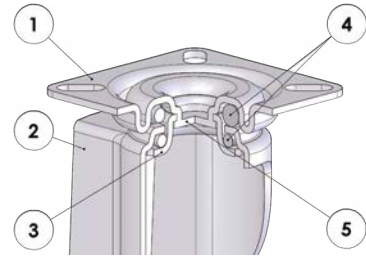


- 1) Plate: electrolytically galvanised steel plate
  - 2) Fork: electrolytically galvanised steel plate
  - 3) Ball race ring: electrolytically galvanised steel plate
  - 4) Galvanised steel threaded stem
  - 5) Swivel actions: double ball ring with grease lubrication
- Available with total front foot 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

**Stainless steel institutional brackets**

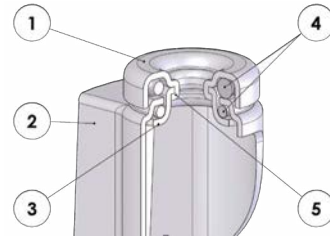
**INOX**



- 1) Plate: AISI 304 stainless steel plate
  - 2) Fork: AISI 304 stainless steel plate
  - 3) Ball race ring: AISI 420 stainless steel plate
  - 4) Swivel actions: double ball ring in stainless steel 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
50	24	0.20	364312NX	0.16	365112NX	0.24	368102NX	71	60x60	45x45	6	22	80	<b>55</b>
60	25	0.23	364303NX	0.18	365103NX	0.27	368103NX	82	60x60	45x45	6	22	84	<b>70</b>
75	24	0.25	364304NX	0.20	365104NX	0.32	368104NX	101	60x60	45x45	6	27	91	<b>90</b>

**INOX**



- 1) Plate: AISI 304 stainless steel plate
  - 2) Fork: AISI 304 stainless steel plate
  - 3) Ball race ring: AISI 420 stainless steel plate
  - 4) Swivel actions: double ball ring in stainless steel with grease lubrication
  - 5) King pin: integrated with the plate and cold-riveted
- Available with total front foot brake

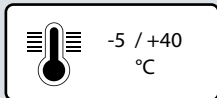
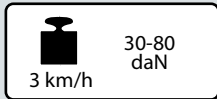
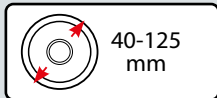
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
50	24	0.17	363102NX	0.21	367102NX	71	42	12	22	80	<b>55</b>
60	25	0.18	363103NX	0.24	367103NX	82	42	12	22	84	<b>70</b>
75	24	0.20	363104NX	0.29	367104NX	101	42	12	27	91	<b>90</b>





People make the difference

## 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.

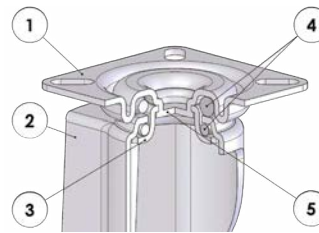
They do not damage fragile floors and are also suitable in the presence of small obstacles.




















															
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>									

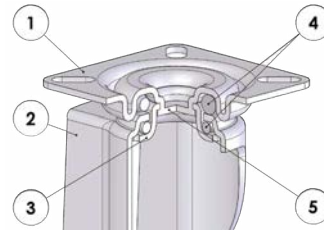
**Institutional brackets**



- 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

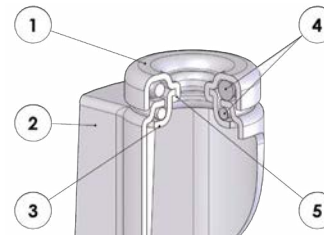
																																					
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN																							
40	18	0.12	374100	0.11	375100	0.15	378100	59	42x42	30x30	5	24	78	<b>30</b>																							
50	18	0.20	374101	0.20	375101	0.24	378101	66	55x55	40x40	6	24	76	<b>35</b>																							
60	24	0.28	374102	0.26	375102	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

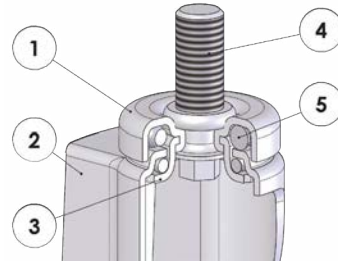
mm		kg		CODE		mm		mm		mm		mm		daN	
50	18	0.39	374001	66	55x55	40x40	6	24	35						
60	24	0.68	374002	82	60x60	45x45	6	21	50						



- 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		mm		mm		mm		mm		daN	
40	18	0.11	373100	0.14	377100	59	35	10	24	78	30				
50	18	0.16	373101	0.19	377101	66	35	10	24	76	35				
60	24	0.25	373102	0.32	377102	82	41	12	21	83	50				
75	24	0.31	373303	0.40	377303	101	41	12	25	91	55				
80	24	0.34	373103	0.43	377103	104	41	12	25	91	55				
100	24	0.40	373104	0.49	377104	121	41	12	32	91	55				
125	30	0.76	373105	0.87	377105	149	55	12	40	115	80				

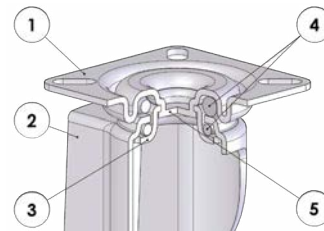
**Institutional brackets**



- 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	mm	mm	mm	mm	daN
40	18	0.13	376100	0.18	379100			59	35	M8	15	24	78	<b>30</b>	
50	18	0.18	376101	0.21	379101	0.34	376001	66	35	M8	15	24	76	<b>35</b>	
60	24	0.29	376102	0.36	379102	0.60	376002	82	41	M12	25	21	83	<b>50</b>	
75	24	0.36	376303	0.43	379303			101	41	M12	25	25	91	<b>55</b>	
80	24	0.39	376103	0.46	379103			104	41	M12	25	25	91	<b>55</b>	
100	24	0.44	376104	0.53	379104			121	41	M12	25	32	95	<b>55</b>	
125	30	0.79	376105	0.89	379105			149	52	M12	25	40	115	<b>80</b>	

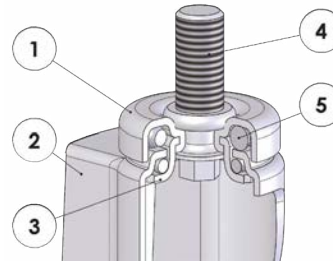
**Institutional twin brackets**



- 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-rieveted
- Available with total front foot brake

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	<b>60</b>
75	24+24	0.64	374203	0.72	378203	100	60x60	45x45	6	33	95	<b>80</b>

**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

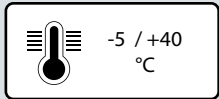
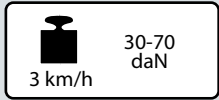
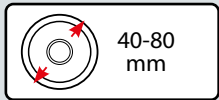
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN		
50	18+18	0.30	376201	0.37	379201	70	42	M10	15	30	82	<b>60</b>		
75	24+24	0.50	376203	0.68	379203	100	52	M12	25	33	95	<b>80</b>		



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.

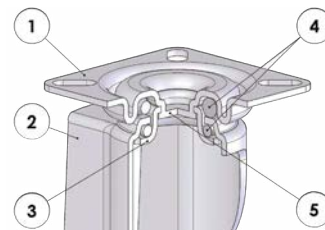






mm	mm	kg	COD.	mm	mm	daN
40	18	0,01	381100	8	21	<b>30</b>
50	18	0,02	381101	8	22	<b>40</b>
60	24	0,04	381102	8	28	<b>60</b>
75	24	0,05	381203	8	28	<b>70</b>
80	24	0,07	381103	8	28	<b>70</b>

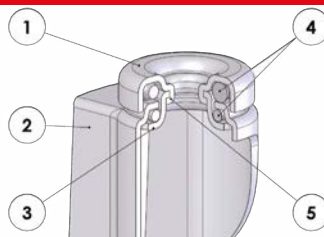
**Institutional brackets**



- 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

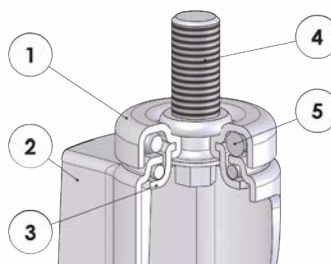
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN
40	18	0,09	384200	0,10	385200	0,12	388200	59	42x42	30x30	5	24	78	<b>30</b>
50	18	0,13	384201	0,14	385201	0,15	388201	66	55x55	40x40	6	24	78	<b>40</b>
60	24	0,22	384202	0,19	385202	0,26	388202	82	60x60	45x45	6	21	83	<b>60</b>
75	24	0,26	384303	0,22	385303	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
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	mm	daN
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>

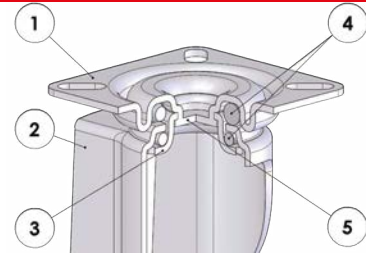
**Options available to order**



Various dimensions stems

**Stainless steel institutional brackets**

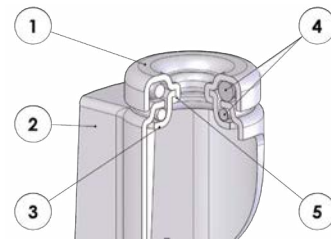
**INOX**



- 1) Plate: AISI 304 stainless steel plate
  - 2) Fork: AISI 304 stainless steel plate
  - 3) Ball race ring: AISI 420 stainless steel plate
  - 4) Swivel actions: double ball ring in stainless steel 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
50	24	0.20	384211NX	0.15	385211NX	0.24	388211NX	71	60x60	45x45	6	22	80	<b>40</b>
60	24	0.22	384202NX	0.17	385202NX	0.26	388202NX	82	60x60	45x45	6	22	84	<b>60</b>
75	24	0.24	384303NX	0.19	385303NX	0.30	388303NX	101	60x60	45x45	6	27	91	<b>70</b>

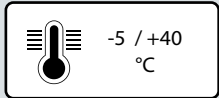
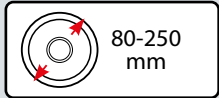
**INOX**



- 1) Plate: AISI 304 stainless steel plate
  - 2) Fork: AISI 304 stainless steel plate
  - 3) Ball race ring: AISI 420 stainless steel plate
  - 4) Swivel actions: double ball ring in stainless steel 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	3 km/h
50	24	0.17	383211NX	0.21	387211NX	71	42	12	22	80	<b>40</b>	
60	24	0.19	383202NX	0.23	387202NX	82	42	12	22	84	<b>60</b>	
75	24	0.21	383303NX	0.27	387303NX	101	42	12	27	91	<b>70</b>	

## 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.

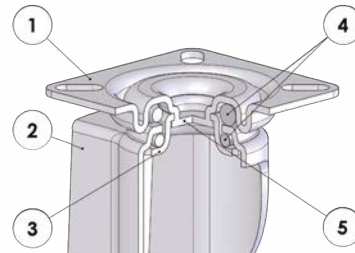
Not suitable for uneven surfaces.














													
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**

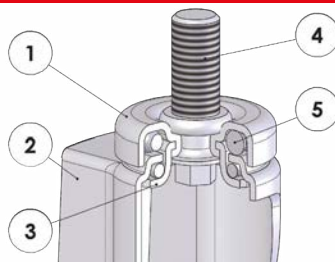


- 1) Plate: electrolytically galvanised steel plate
- 2) Fork: electrolytically galvanised steel plate
- 3) Ball race ring: electrolytically galvanised steel plate
- 4) Swivel actions: double ball ring with grease lubrication
- 5) King pin: integrated with the plate and cold-riveted

													
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**

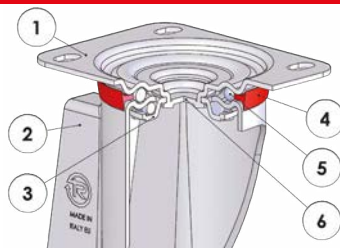
**Institutional brackets**



- 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

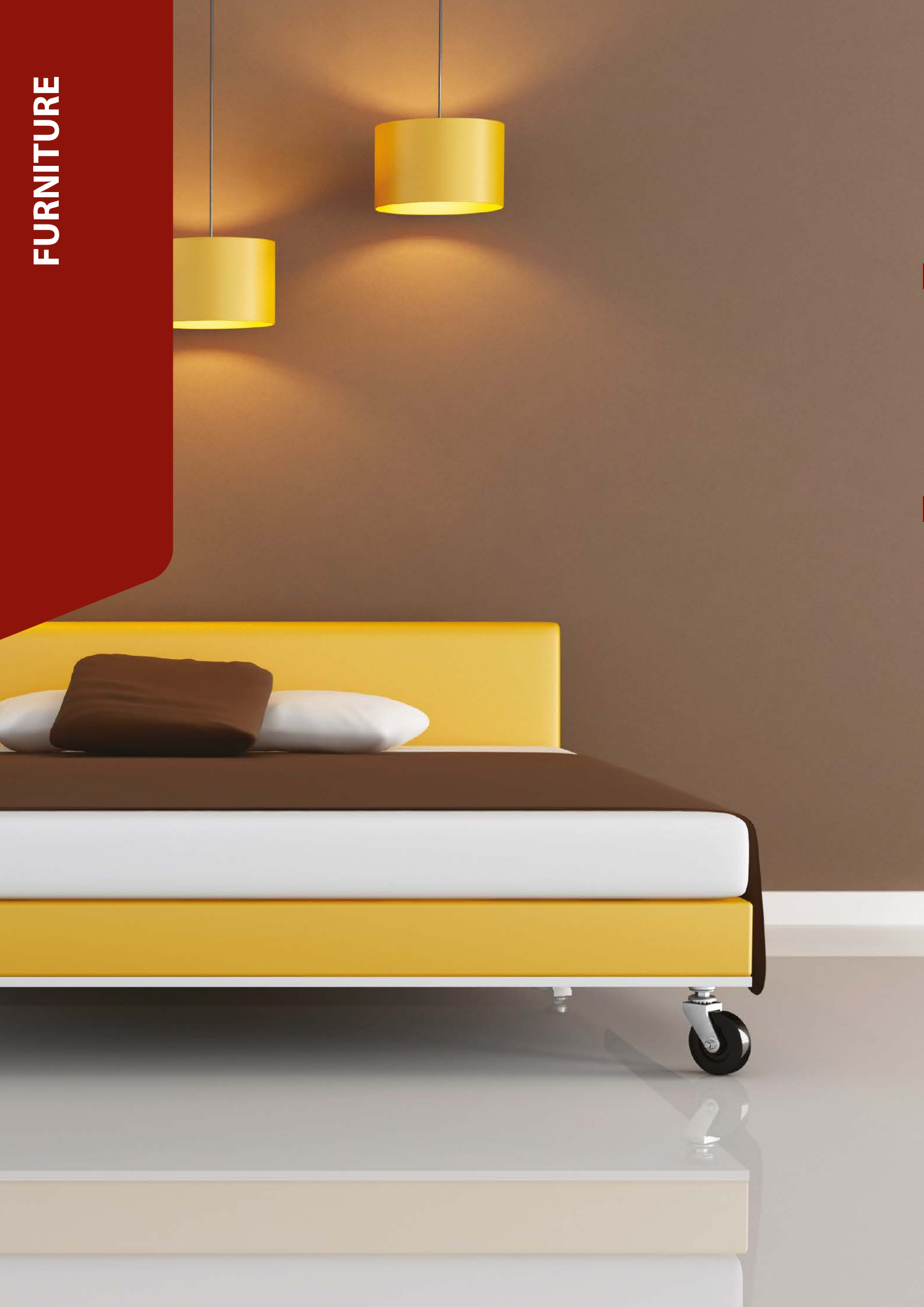
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	kg			
80	26	0.62	514401	0.34	515701	107	100x85	80x60	9	37	<b>30</b>			
100	30	0.63	514402	0.37	515702	128	100x85	80x60	9	35	<b>35</b>			
125	35	0.82	514403	0.48	515703	156	100x85	80x60	9	37	<b>50</b>			
150	35	0.91	514404	0.54	515704	182	100x85	80x60	9	42	<b>90</b>			



Seventy years of reliability

 **tellureRôta**

FURNITURE

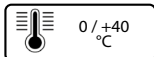






SERIES **33**

RUBBER BALL WHEELS

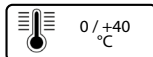
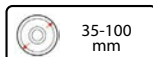


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SERIES **34**

PAIRED POLYAMIDE 6 OR POLYPROPYLENE WHEELS

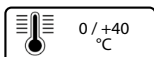
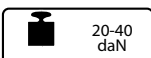
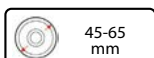


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SERIES **35**

RUBBER HALF-BALL WHEELS

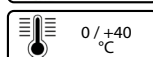
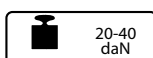


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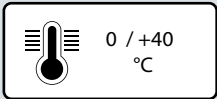
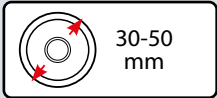
SERIES **39**

TRANSPARENT POLYURETHANE WHEELS WITH METHACRYLATE CENTRE



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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				

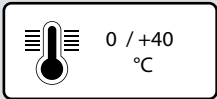
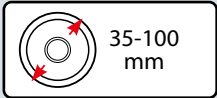


mm	kg	CODE	2 pc package		mm	mm	mm	daN				
			kg	CODE								
30	0.09	333101	0.21	333001	46	32	9	10				
40	0.13	333102	0.30	333002	57	32	9	20				
50	0.20	333103	0.43	333003	66	36	10	30				



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



### 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	25	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**

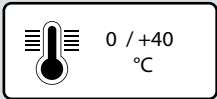
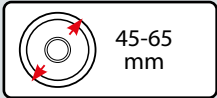
mm	mm	kg	CODE	mm	mm	mm	mm	daN
50	54	0.09	347202	66	35x35	26x26	4	20



**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
		CODE		CODE						
mm	kg		kg	CODE	mm	mm	mm	mm		
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>



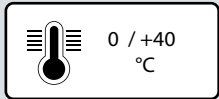
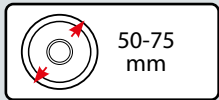
	RH		LH							daN
		CODE		CODE						
mm	kg		kg	CODE	mm	mm	mm	mm		
45	0.09	356101	0.09	356201	52	SPANNER 12	M8	15		<b>20</b>
55	0.13	356102	0.13	356202	62	SPANNER 12	M8	15		<b>30</b>
65	0.18	356103	0.18	356203	72	SPANNER 12	M10	15		<b>40</b>



**Package with 2 wheels and 4 fittings**

											daN
		CODE									
mm	kg		mm	mm	mm	mm	mm	mm	mm		
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	25	<b>20</b>						
75	23	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	69	M8	15	25	<b>20</b>							
75	23	0.31	392104	101	M10	25	28	<b>40</b>							

Options available to order



Wheels with thread bracket d. 78 mm



Wheels with thread bracket d. 78 mm

## 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>

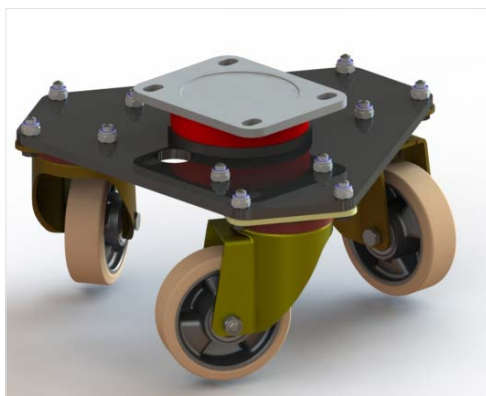
### Available with P brackets (medium-heavy duty)

									
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>

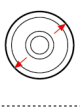
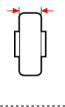

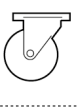

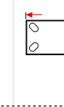


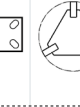





The loading capacity refers to manual handling (up to 4 km/h), on regular surfaces and in the absence of obstacles.

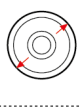
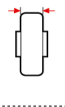

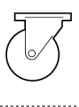
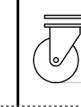

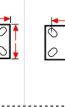
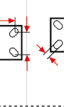
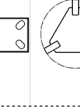



## TRIPODS WITH WHEELS FROM SERIES 65AL



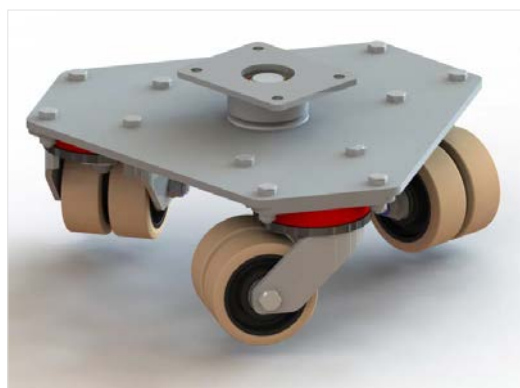
### Available with NL brackets (standard duty)

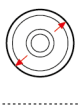
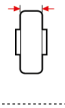

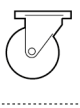
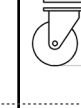


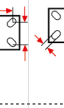



										
mm	mm	kg	COD.	mm	mm	mm	mm	mm	daN	
100	30	7.92	065016 	170	135x110	105x80	11	416	<b>600</b>	
125	35	9.54	065017 	198	135x110	105x80	11	466	<b>660</b>	

### 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.

## 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	

### 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

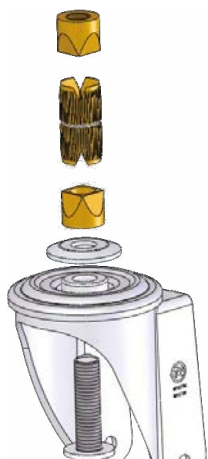


Designed to optimise the handling of tubular trolleys and perfect for use on modular trolleys.

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.

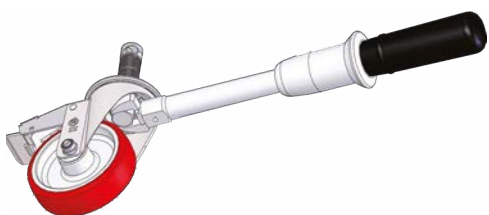
## Assembly and maintenance recommendations



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.

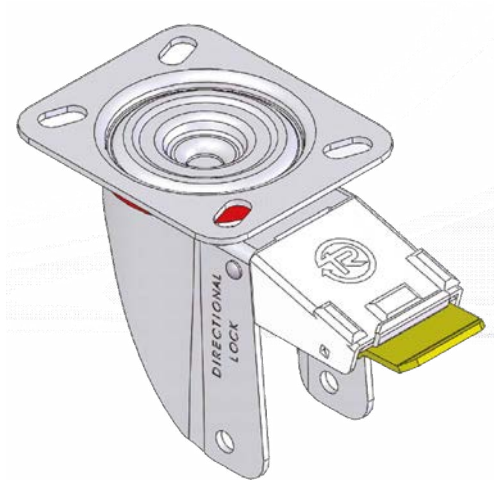


## ACCESSORIES FOR WHEELS AND BRACKETS: DIRECTIONAL LOCK

### 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

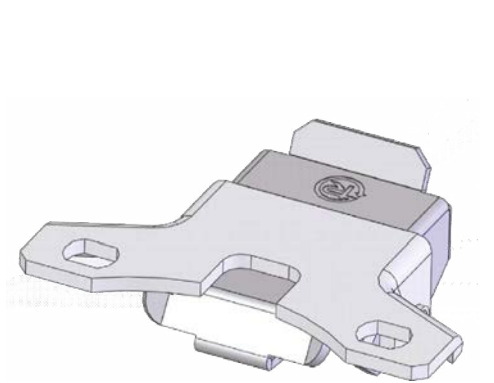


The directional lock is integrated in the swivel bracket. It is suitable for manually handled trolleys or mechanically towed trolleys at low speed (max. 6 km/h) on good condition floors.

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 (plate dimensions 100x85 mm).

### 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.

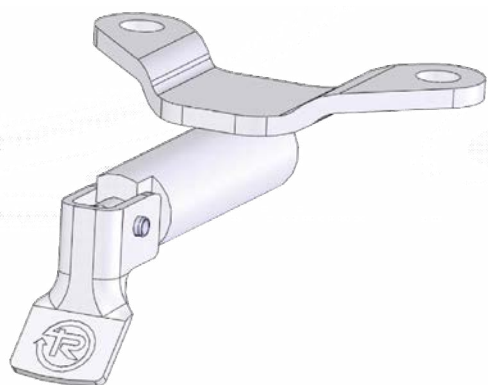
It offers a simple engagement by self-inserting into position after pushing the front pedal.

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 (plate dimensions 140x110 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)

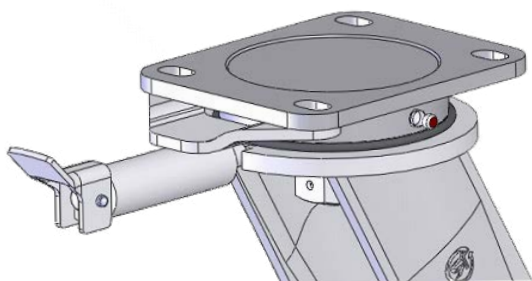


Designed for assembly on the top plate's short side, it consists of galvanised steel parts and is suitable for trolleys subject to mechanical towing at speeds up to 16 km/h on indoor and outdoor floors (asphalt, cement).

Easy to engage by self-clicking into position.

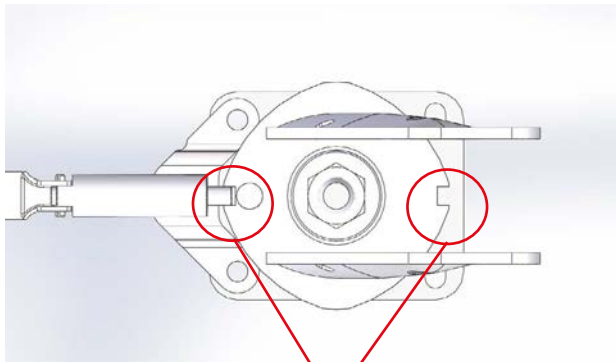
#### Specifications:

- 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

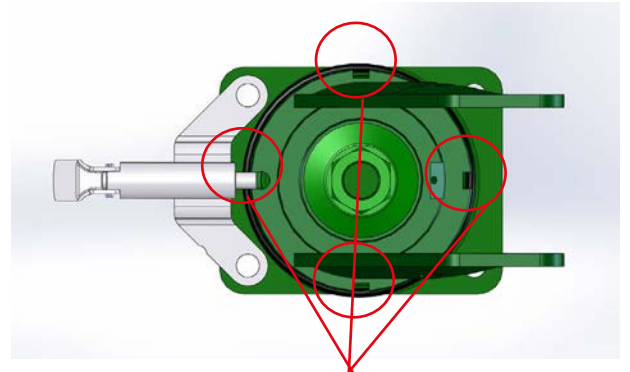


# ACCESSORIES FOR WHEELS AND BRACKETS: DIRECTIONAL LOCK

## 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									
		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	MHD	150	135x110	1000	Si	No	<b>401216</b>	-	110 mm	
			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	MHD	100	135x110	1000	Si	N.d.	<b>401216</b>	-B2	110 mm	-B4	
		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

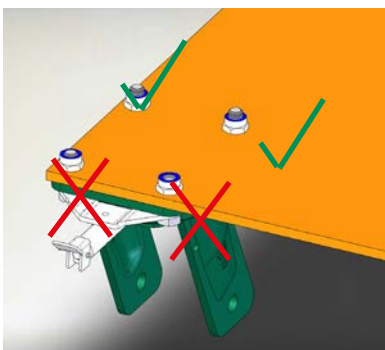
1. Four M10 bolt and four M10 nuts are required for directional lock 401216 (MHD type); M14 bolt and nuts are instead required for directional lock 401217 (HD type). Self-locking nuts and 8.8 bolt strenght are recommended. The length of the bolt depends on the characteristics of the trolley the castors have to be fitted onto (it should be usually longer than 40mm).



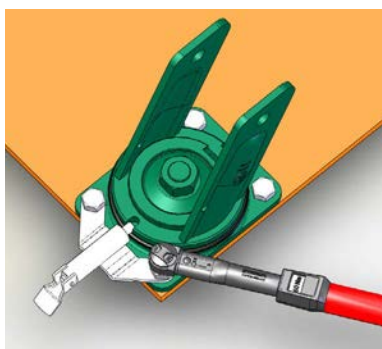
2. The directional lock and the castor have to be positioned and subsequently fastened as per the exemplification in the adjacent picture (note: the picture shows the bracket without the wheel for handiness of the image only).



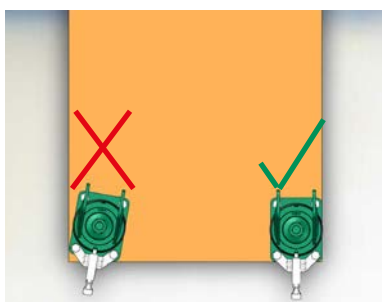
3. The bolt has to protrude through the nut by at least 3 threads.



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 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 423.

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.

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### 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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524411	66	525802	65			535402	74	535910AS	307
524412	66	525803	65			535403	74	535911	74
525841	66	525901	66			535404	74	535911AS	307
525842	66	525902	66			535405	74	535912	74
525843	66	525903	66			535406	74/368	536001	73
525844	66	525904	66			535407	74	536002	73
525845	66	525905	66			535410	74/368	536003	73
525846	66	525906	66			535411	74	536101	73
525850	66	525908	66			535421	74	536102	73
525851	66	525910	66			535421AS	307	536103	73
525852	66	525911	66			535422	74	536201	73
525908	66	525912	66			535422AS	307	536202	73
524908	66	526401	65			535423	74	536203	73
525201	66	526402	65			535423AS	307	536303	73
525202	66	526403	65			535424	74	536302	73
525203	66	526501	65			535425	74	536315	73
525204	66	526502	65			535425AS	307	537741	75
525205	66	526503	65			535426	74	537742	75
525206	66/367	526641	65			535426AS	307	537743	75
525210	66/367	526642	65			535427	74	537744	75
525211	66	526643	65			535430	74	537745	75
525221	66	526701	65			535430AS	307	537706	75
525222	66	526702	65			535431	74	537750	75
525223	66	526703	65			535431AS	307	537751	75
525224	66	527701	67			535515	76	537901	75
525225	66	527702	67			535516	76	537901AS	307
525226	66	527703	67			535520	76	537902	75
525230	66	527704	67			535615	76	537902AS	307
525231	66	527705	67			535616	76	537903	75
525516	68	527706	67			535620	76	537903AS	307
525520	68	527710	67			535741	74	537904	75
525641	67	527711	67			535742	74	537905	75
525642	67	527901	67			535743	74	537905AS	307
525643	67	527902	67			535744	74	537906	75
525644	67	527903	67			535745	74	537906AS	307
525645	67	527904	67			535746	74	537910	75
525646	67	527905	67			535747	74	537910AS	307

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604706	96	609553	311	614911	106	615601	108	616624	105
604710	96	609554	311	614401	108	615602	108	616626	105
604731	95	609563	311	614402	108	615603	108	616631	105
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604711	95	609576	311	614404	108	615606	108	616702	108
604801	95	609586	311	614406	108	615611	108	616703	108
604802	95	609654	311	614411	108	615701	105	616704	108
604803	95	609676	311	614501	101	615702	105	616706	108
604810	95/96	609704	362	614502	101	615703	105	616711	108
604811	95/96	609714	362	614503	105	615704	105	616721	108
604806	95/96	609726	362	614504	105	615706	105	616722	108
604941	95	609736	362	614506	105	615711	105	616723	108
604942	95	609806	101	614511	105	615901	105	616724	108
604943	95	609810	101	614601	108	615902	105	616726	108
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604946	95	609910	101	614604	108	615906	105	616902	108
605001	94	609911	101	614606	108	615911	105	616903	108
605002	94			614611	108	616106	107	616906	108
605003	94			614701	105	616107	107	616910	108
605010	94			614702	105	616108	107	616911	108
605011	94			614703	105	616106	107	617701	106
605006	94			614710	105	616111	107	617702	106
605101	94			614731	105	616202	107	617703	106
605102	94			614736	105	616203	107	617704	106
605103	94			614801	105	616204	107	617706	106
605104	94			614802	105	616206	107	617711	106
605106	94			614803	105	616211	107	617801	106
605111	94			614806	105	616303	109	617802	106
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605402	94			614811	105	616303	109	617804	106
605403	94			614901	105	616306	109	617806	106
605406	94			614902	105	616310	109	617811	106
605410	94			614903	105	616311	109	617901	109
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605502	96			614911	105	616403	106	617904	109
605503	96			615001	108	616404	106	617906	109
605510	96			615002	108	616406	106	617911	109
605511	96			615003	108	616411	106	618001	109
605506	96			615006	108	616421	106	618002	109
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605603	94			615101	108	616424	106	618006	109
605604	94			615102	108	616426	106	618011	109
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605702	95			615111	108	616503	109	618804	109
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609106	101			615403	108	616511	109	618821	109
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609603	97			615411	108	616603	105	618824	109
609701	97			615501	106	616604	105	618826	109
609702	97			615502	106	616606	105	618831	109
609703	97			615503	106	616611	105	619201	107
609806	101			615506	106	616621	105	619202	107
609810	101			615510	106	616622	105	619203	107

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629704	175	634173	198	636505	195	638086	203	638857	201
629706	175	634174	198	636506	195	638162	202	638864	201
629713	175	634224	192	636654	201	638163	202	638866	201
<b>63.....</b>		634226	192	636655	201	638166	203	638903	201
632122	192	634551	199	636656	194	638167	203	638904	201
632123	192	634552	199	636656	201	638172	203	638905	201
632124	192	634553	199	636664	201	638174	203	638906	201
632125	192	634554	199	636704	185	638184	203	638907	202
632126	192	634555	199	636706	185	638187	203	638908	202
632128	192	634556	199	636724	199	638184	203	638914	201
632128	192	634563	199	636726	199	638186	203	638916	202
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632153	198	634652	199	636852	200	638223	192	638927	202
632162	198	634653	199	636853	200	638224	176/177	638928	202
632155	198	634654	199	636854	200	638225	192	638938	202
632156	198	634655	199	636855	200	638226	176/177	638928	202
632157	198	634656	199	636856	200	638315	201	638938	202
632158	198	634663	199	636863	200	638316	201	639316	203
632163	198	634664	199	636864	200	638305	201	639306	203
632164	198	634852	200	637316	192	638306	201	639404	203
632182	198	634853	200	637322	192	638307	202	639406	203
632167	198	634854	200	637323	192	638308	202	639504	203
632168	198	634855	200	637324	192	638314	201	639506	203
632151	198	634856	200	637325	192	638316	202	639904	201
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632163	198	635005	201	637424	199	638328	202		
632164	198	635006	201	637426	199	638338	202	<b>64.....</b>	
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632354	198	635452	199	637626	194	638408	202	641107	208
632356	198	635453	199	637822	195	638414	201	641108	208
632357	198	635463	199	637823	195	638416	202	641109	208
632363	198	635465	199	637824	195	638417	202	641110	208
632364	198	635466	199	637825	195	638418	202	641114	208
632366	198	635474	199	637826	195	638427	202	641116	208
632367	198	635604	194	637828	195	638428	202	641117	208
634122	192	635605	194	637852	201	638438	202	641118	208
634123	192	635606	194	637853	201	638622	193	641126	208
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634128	192	635854	200	637857	201	638626	194	641204	209
634151	198	635855	200	637864	201	638822	195	641205	209
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634153	198	635863	200	638062	202	638824	195	641207	209
634162	198	635864	200	638063	202	638825	195	641208	209
634155	198	636302	193	638066	203	638826	195	641209	209
634156	198	636315	193	638067	203	638828	195	641210	209
634157	198	636316	194	638072	203	638852	201	641214	209
634158	198	636304	194	638074	203	638853	201	641216	209
634163	198	636305	194	638076	203	638854	201	641217	209
634164	198	636306	194	638077	203	638855	201	641218	209

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641227	209	644655	211	648063	215	648508	214	652308	234
642103	210	644656	211	648066	215	648514	214	652503	240
642104	210	644663	211	648067	216	648515	214	652504	240
642124	210	644664	211	648072	216	648516	214	652506	240
642129	210	644852	212	648074	216	648517	214	652508	240
642139	210	644853	212	648076	216	648518	214	653104	220
642147	210	644854	212	648077	216	648527	214	653104ESD	388
642151	210	644855	212	648078	216	648528	214	653106	220
642152	210	644856	212	648084	216	648538	214	653106ESD	388
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642155	210	644954	211	648163	215	648853	213	654102	220
642156	210	644956	211	648166	215	648854	213	654102ESD	388
642157	210	644964	211	648167	216	648855	213	654103	220
642158	210	645004	213	648172	216	648856	213	654103ESD	388
642163	210	645005	213	648174	216	648857	213	654104	228
642164	210	645006	213	648176	216	648863	213	654105	228
642166	210	645014	213	648177	216	648864	213	654106	228
642167	210	645451	211	648178	216	648866	213	654108	228
642168	210	645452	211	648184	216	649304	217	654114	220
642181	210	645453	211	648186	216	649306	217	654114ESD	388
642354	210	645463	211	648315	214	649308	217	654206	228
642356	210	645464	211	648316	214	649404	217	654224	228
642357	210	645465	211	648305	214	649406	217	654302	234
642363	210	645466	211	648306	214	649408	217	654303	234
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644103	210	645574	213	648310	215	649904	213	654308	234
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644139	210	645854	212	648317	214			654508	240
644147	210	645855	212	648318	214			654710	221
644151	210	645856	212	648324	214	651104	220	654716	221
644152	210	645863	212	648327	214	651104ESD	388	654804	221
644153	210	645864	212	648328	214	651106	220	654806	221
644162	210	646654	213	648338	214	651106ESD	388	654904	237
644155	210	646655	213	648403	214	651206	220	654906	237
644156	210	646656	213	648404	214	652101	220	654908	237
644157	210	646664	213	648405	214	652101ESD	388	655004	237
644158	210	646851	212	648406	214	652102	220	655006	237
644163	210	646852	212	648407	214	652102ESD	388	655008	237
644164	210	646853	212	648408	214	652103	220	655302	234
644166	210	646854 #VALORE!		648409	215	652103ESD	388	655303	235
644167	210	646855 #VALORE!		648410	215	652124	228	655305	235
644168	210	646856 #VALORE!		648414	214	652125	228	655310	235
644181	210	646863	212	648415	214	652126	228	655316	235
644551	219	646864 #VALORE!		648416	214	652128	228	655318	235
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644553	211	647852	213	648418	214	652114	220	655336	235
644554	211	647853	213	648424	214	652114ESD	388	655344	235
644555	211	647854	213	648427	214	652206	228	655403	235
644556	211	647855	213	648428	214	652208	228	655412	234
644563	211	647856	213	648438	214	652224	228	655414	235
644564	211	647857	213	648503	214	652302	234	655415	235
644651	211	647863	213	648504	214	652315	234	655416	235
644652	211	647864	213	648505	214	652316	234	655418	235
644653	211	647866	213	648506	214	652305	234	655502	234

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655416	235	656404	221	657104	237	658203ESD	388	659606ESD	389
655418	235	656406	221	657106	237	658204	228	659614	222
655502	234	656414	221	657108	237	658205	228	659614ESD	389
655503	235	656424	229	657206	229	658206	212/213	659704	222
655504	235	656425	229	657214	229	16		659704ESD	389
655505	235	656426	229	657326	229	658214	228	659706	222
655506	235	656434	229	657334	229	658274	236	659706ESD	389
655508	235	656501	220	657404	230	658276	236	659714	222
655535	235	656501ESD	388	657405	230	658314	230	659714ESD	389
655536	235	656502	220	657406	230	658305	230	659904	227
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655602	236	656503	220	657414	230	658404 #VALORE!			
655603	236	656503ESD	388	657435	230	658405	230		
655605	236	656504	220	657436	230	658406	230		
655606	236	656504ESD	388	657444	230	658414	230		
655614	236	656506	220	657514	223	658408	230		
655702	236	656506EDS	388	657514ESD	390	658504	243		
655703	236	656514	220	657544	223	658506	243		
655705	236	656514ESD	388	657544ESD	390	658602	222		
655706	236	656524	228	657546	223	658602ESD	389		
655714	236	656525	228	657546ESD	390	658603	222		
655802	236	656526	228	657554	223	658603ESD	389		
655803	236	656534	228	657554ESD	390	658604	223		
655924	242	656602	222	657602	222	658604ESD#VALORE!			
655926	242	656602ESD	390	657602ESD	389	658606	223		
655933	242	656603	222	657603	222	658606ESD#VALORE!			
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655936	242	656604	221	657604	223	658614ESD#VALORE!			
655954	241	656604ESD	390	657604ESD	390	658704	224		
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656013	241	656614ESD	390	657706	224	658803	224		
656014	241	656624	230	657714	224	658804	231		
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656026	242	656628	230	657804	231	658808	231		
656033	242	656634	230	657805	231	658814	231		
656034	242	656674	223	657806	231	659074	243		
656036	242	656674ESD	390	657808	231	659076	243		
656204	228	656676	223	657814	231	659174	243		
656205	228	656676ESD	390	657904	243	659176	243		
656206	228	656684	223	657906	243	659274	243		
656214	228	656684ESD	390	658074	236	659276	243		
656316	228	656801	221	658076	236	659303	220		
656304	240	656802	221	658104 #VALORE!		659303ESD	388		
656306	240	656803	221	658104ESD#VALORE!		659302	220		
656313	241	656804	221	658106 #VALORE!		659302ESD	388		
656314	241	656806	221	658106ESD#VALORE!		659303	220		
656316	241	656814	221	658112	220	659303ESD	388		
656324	241	656824	229	658114 #VALORE!		659316	220		
656326	241	656825	229	658114ESD372/373		659306	220		
656333	242	656826	229	16		659306ESD	388		
656334	242	656834	229	658174	236	659304	220		
656336	242	656904	224	658176	236	659304ESD	392		
656354	241	656906	224	658201	220	659514	220		
656326	241	656914	231	658201ESD	388	659514ESD	388		
656401	221	656915	231	658202	220	659604	222		

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664404	249	666602	247	667802	248	672202	286	681106	112	684512	113
664405	249	666603	247	667803	248	672203	286	681112	112	684513	113
664406	249	666604	247	667804	248	672501	286	681111	112	684523	241
664501	249	666605	247	667805	248	672502	286	681112	112	684601	116
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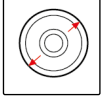
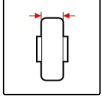
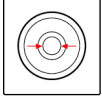
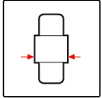
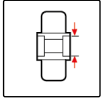
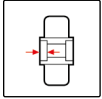
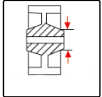
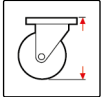
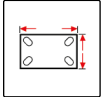
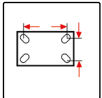
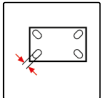
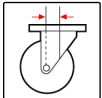
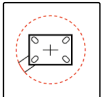
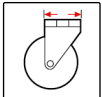
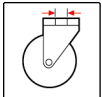
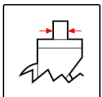
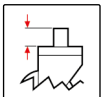
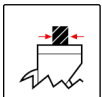
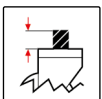
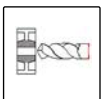
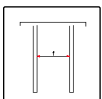
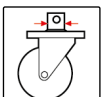
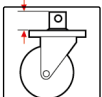
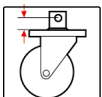
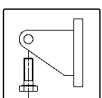
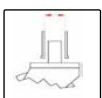
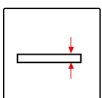
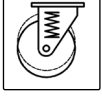


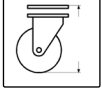
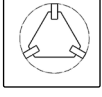
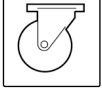
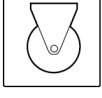
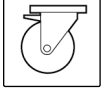
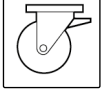
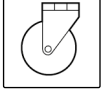
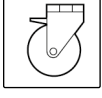
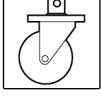
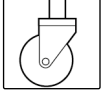

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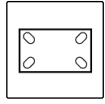
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727706	279	735003	125	735706AE	133	736602	128	737805	126
727724	291	735003AE	133	735802	125	736602AE	134	737806	126
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727806	292	735004AE	133	735803	125	736603AE	134	738203	126
727808	292	735005	125	735803AE	133	736604	128	738204	126
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727910	283	735102	125	735805	125	736606	128	738302	126
728062	272	735102AE	133	735806	125	736606AE	134	738315	126
728063	272	735103	125	735806AE	129	736702	128	738316	126
728066	281	735103AE	133	735902	125	736702AE	134	738305	126
728074	281	735104	125/127	735903	126	736703	128	738306	126
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728084	273	735105	125	735905	126	736704	128	738403	126
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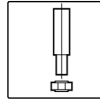
73.....

ITEM NR.	PAGE	ITEM NR.	PAGE	ITEM NR.	PAGE	ITEM NR.	PAGE	ITEM NR.	PAGE
738706	127	752223	332	753209	332	772122	341	825602	87
738802	127	753101	333	753223	333	772125	341	825701	87
738803	127	753102	333	754100	332	772132	341	825702	87
738804	127	753103	333	754101	332	772135	341	826601	87
738805	127	753104	333	754102	332	772137	341	826602	87
738806	127	753105	333	754105	332	774122	341	826701	87
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739004	127	753108	333	754123	332	774135	341	828601	89
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739104	127	753110	333	754127	332			<b>92.....</b>	
739106	127	753151F12	336	754132	332	<b>78.....</b>		921070	386
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742105	328	753152F17	336	755151	336	782105	341	924610VE	272
742121	328	753152F20	336	755121	336	784101	341	925005	386
742122	328	753152F25	336	755153	336	784102	341	925006	386
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742127	328	753153F20	336	755156	336	784105	341	928644	386
742202	328	753153F25	336	755157	337			922124	386
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<b>75.....</b>		753158F17	337	758421	356	794135	345		
752099	332	753158F20	337			794137	345		
752100	332	753158F25	337	<b>76.....</b>					
752101	332	753159F12	337	760001	339	<b>82.....</b>			
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752134	332	753161F17	337	763395	339	825802	87		
752135	332	753161F20	337			825601	87		
752137	332	753161F25	337	<b>77.....</b>					

	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



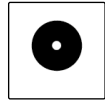
Counter-plate



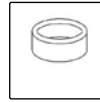
Solid stem, nut



Threaded stem, washer, nut



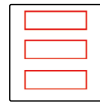
Threadguards



Spacers



Hub with plain bore



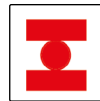
Hub with roller bearings



Hub with stainless steel roller bearings



Hub with ball bearings



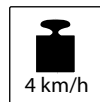
Hub with stainless steel ball bearings



Hub with ball bearing seats



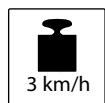
Static load



Dynamic carrying capacity at 4 km/h



Dynamic carrying capacity at 6 km/h



Dynamic carrying capacity at 3 km/h



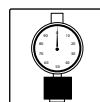
Rolling resistance



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



SEE WEBSITE



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UNI EN ISO 9001:2015



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