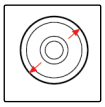
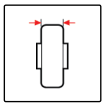
tellureRôta

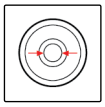
MOVING SOLUTION

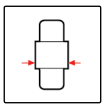
CATALOGUE 01/2014

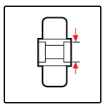
KEY

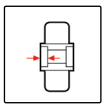

Wheel diameter

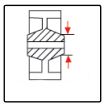

Wheel width

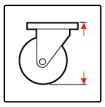

Hub bore diameter

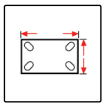

Hub length

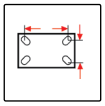

Ball bearing seat diameter

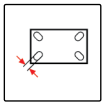

Ball bearing seat depth

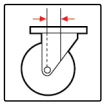

Hub diameter

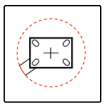

Overall height


Top-plate outer dimensions


Hole spacing


Hole width


Offset


Brake swept radius

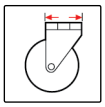
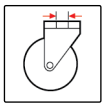
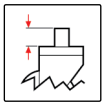
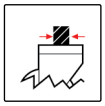


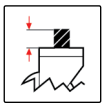
Plate diameter

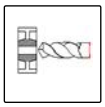

Bolt hole diameter

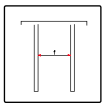
Solid stem diameter

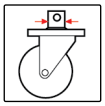

Solid stem length

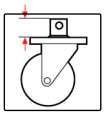

Threaded stem diameter

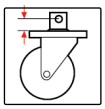

Threaded stem length

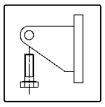

Max. dimension of hub bore


Fork width

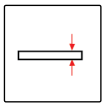

Hexagonal pin diameter


Hexagonal pin protrusion


Hexagonal height


Axle bore diameter

Tube diameter


Counter-plate thickness

Swivel top plate bracket

Fixed bracket

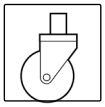
Swivel top plate bracket with front brake

Swivel top plate bracket with rear brake

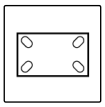
Swivel bolt hole bracket

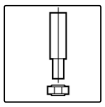
Swivel bolt hole bracket with front brake

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

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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

INOX

Available with stainless steel brackets

ERGO WORKPLACE

Wheel with ergonomic round profile

Tile floor

Asphalt floor

Resin-cement floor

Not paved floor

Expanded metal floor

Floor with chips

Floor with obstacles

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- Industrial - Heavy duty loads and mechanical handling PAGE 132
- High temperatures PAGE 236
- Pallet truck rollers PAGE 254
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* = series also available with stainless steel brackets

SCAFFOLDINGS

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WASTE BIN CONTAINERS

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INSTITUTIONAL

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ANTISTATIC AND STATICALLY CONDUCTIVE

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CUSTOMISED SOLUTIONS

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ACCESSORIES

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THE COMPANY

MILESTONES

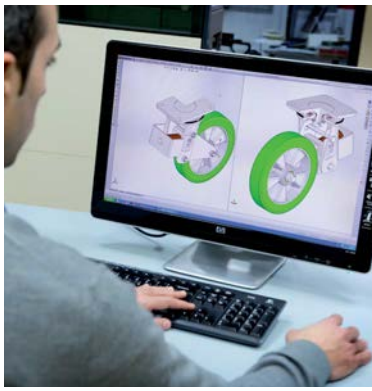
1950	Company was set up as a craft business
1953	Brand registration and conversion to a joint stock company (SpA)
1961	First foreign customer for wheels with polyurethane coating
1972	Production of 2,000 wheels a day with 100 employees
1980	The company moved to the current 10,000 square metre plant
1995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

tellure Rôta

1953 • 2013
60
years of quality

"We are working to improve, always"

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



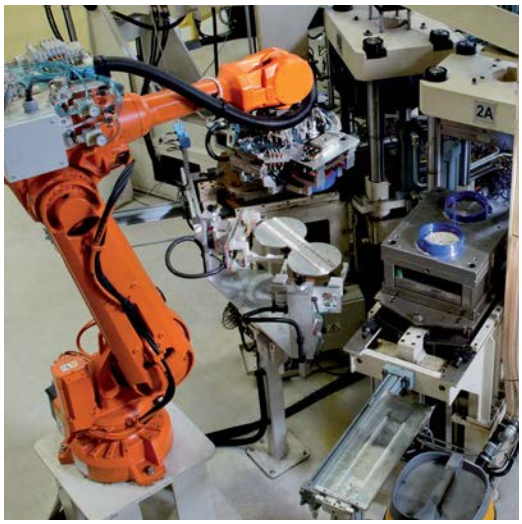
Specific design for every sector

Every day, our designers study innovative movement solutions for multiple application sectors. The result is an offer of over 3,500 catalogue items and the development of special products upon customer requests

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

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

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



Tellure Rôta, 60 years of guaranteed, Made in Italy quality

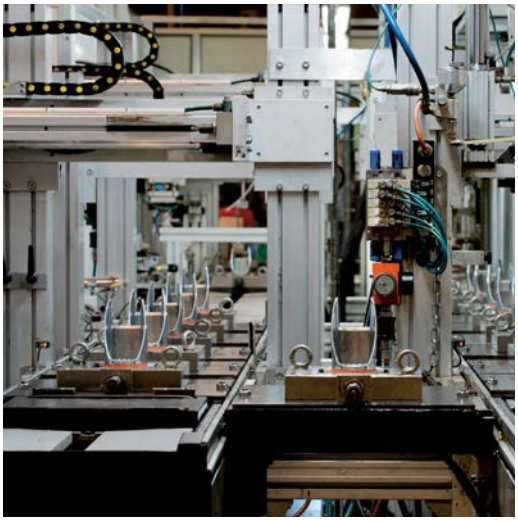
The wheels and brackets are manufactured in three plants in Formigine, on a covered surface of 15,000 square metres.
Here, the skills of our people combine with technology to manufacture products which are built following certificated standards, which guarantee quality.

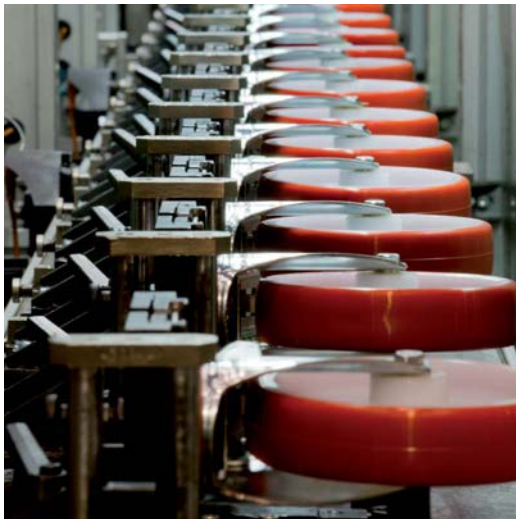
The steel sheets are moulded with automatic presses rated up to 630 Tonnes and pitch moulds. Strict and continuous checks made on the steel sheet and on the moulded components guarantee precise processing tolerances.

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

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

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.

CERTIFICATIONS

1996: ISO 9001 certification, updated in January 2002 according to the new Vision 2000 standards, that guarantee management of all company processes even more focused on complete and constant customer satisfaction;

2005: ISO 14001:2004 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;

2009: OHSAS 18001:2007 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 57 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.

CERTIFICATO

tellure Rôta

TELLURE ROTA S.p.A.

CERTIFICATO

tellure Rôta

TELLURE RÔTA S.p.A.

SWISS TS

CERTIFICATO

tellure Rôta

TR Lab
Test & Research

An in-house laboratory for continuous innovation

In order to guarantee to its customers excellence in designing projects, Tellure Rôta has chosen to qualify and support its production departments with the Test & Research lab, a research laboratory with operational autonomy and accredited since 2011.
Since the laboratory belongs to a network of excellence, it is constantly updated and can expand its know-how to guarantee customers with on-going innovative projects.

EQUIPMENT

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

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

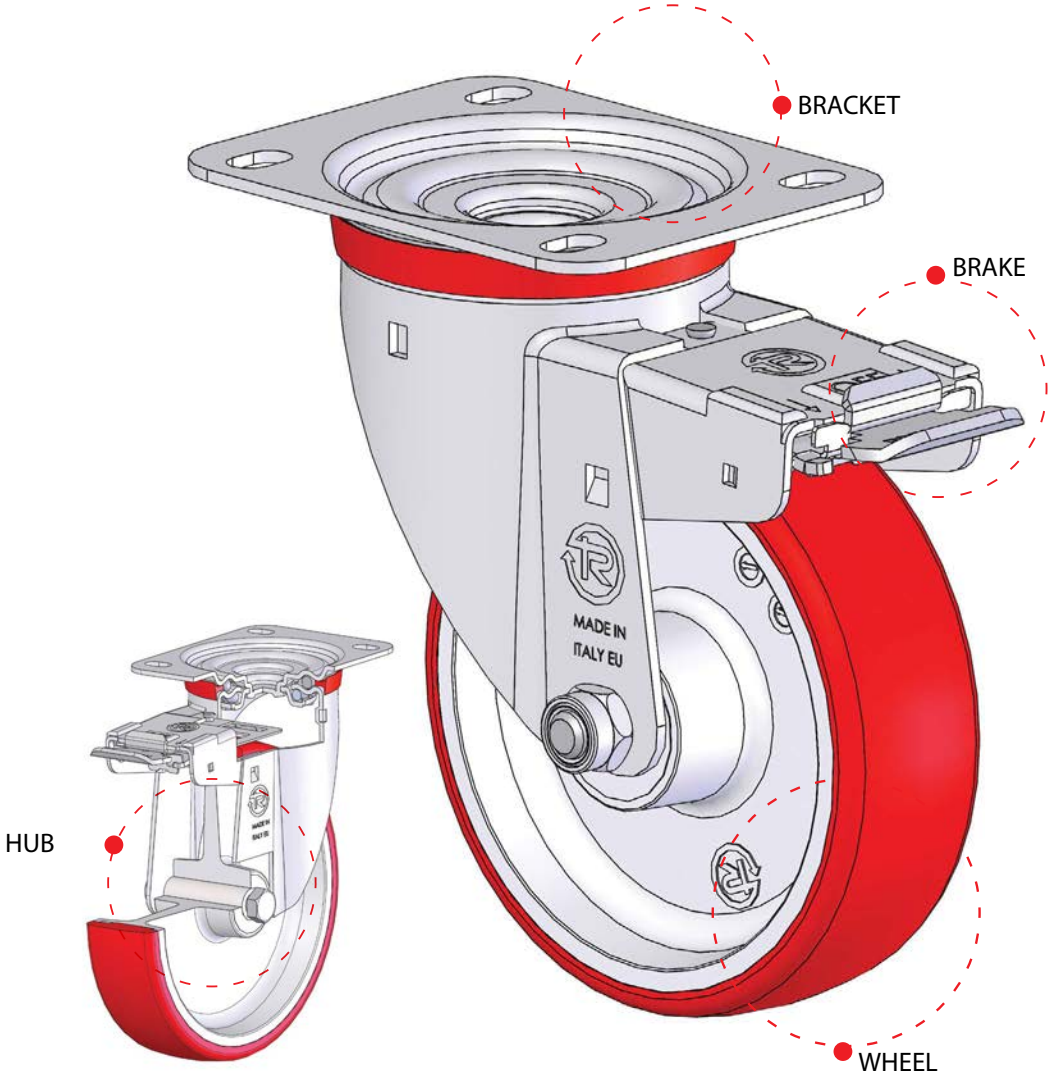
All equipment is integrated with sensors and software for the collection and processing of data and the tests are video-recorded in real time.

Where research becomes solution

The laboratory guarantees the necessary skills to develop and test new solutions for materials, products and constructive and process technologies.
In particular, it develops and characterises polyurethane mixes and thermoplastic materials able to meet the specific application requirements of wheel users and the right quality/price ratio.
All of the chosen materials and treatments have a low environmental impact and are conform with the RoHS and Reach Directives.
TRLab also researches metal components to make brackets with optimised performance even under heavy-duty uses, and it also experiments with surface treatments that resist external chemical agents.

SERVICES

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



WHEEL

Round mechanical part allowing the transformation, by rotating around its own axis, of a sliding motion into a rolling motion.
The elements composing the wheel are: the tread, the cover, the centre, the hub and the swivel actions.

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

- Industrial - Light duty loads
- Industrial - Medium duty loads
- Industrial - Heavy duty loads and mechanical handling
- High temperatures
- Pallet truck rollers
- Scaffoldings
- Waste bin containers
- Institutional
- Furniture
- Antistatic and statically conductive solutions
- Customised solutions
- Accessories

from page 44 to page 327

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 25

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 26 to page 29

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 30 to page 31

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

Heavy-duty P-PX

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

Page 19

Extra heavy-duty EP

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

Page 20

Electrowelded EE MHD

Carrying capacity: 1000 daN
Diameters: 100-250 mm
Fitting: with top plate
Brake: adjustable rear

Page 21

Electrowelded EE HD-EE EHD

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

Page 22

Twin electrowelded EEG MHD

Carrying capacity: 1000 daN
Diameters: 100-125 mm
Fitting: with top plate

Page 23

Twin electrowelded EEG HD - EEG EHD

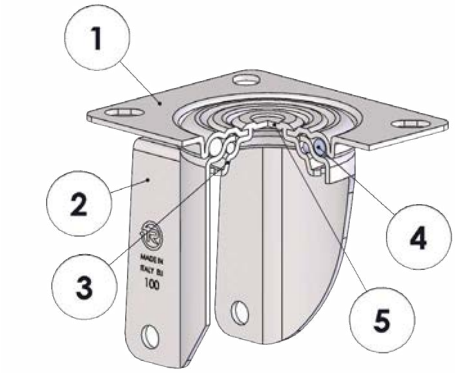
Carrying capacity: 4300 daN
Diameters:125-300 mm
Fitting: with top plate

Page 24

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 25



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

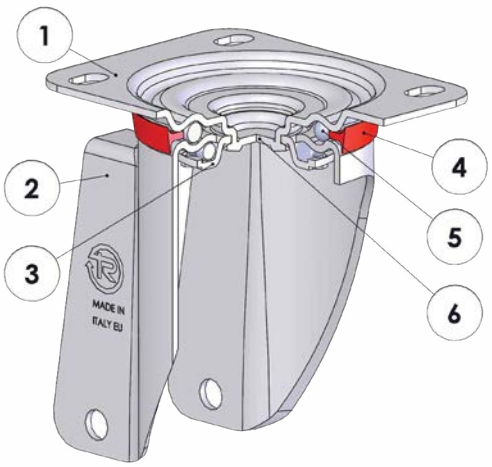
SL

							4 km/h
80	40	109	95x80	80x60	8.8	36	130
100	40	127	95x80	80x60	8.8	33	130
125	40	153	95x80	80x60	8.8	29	130

Fitting with bolt hole

SL

						4 km/h
80	40	109	12	63	36	130
100	40	127	12	63	33	130
125	40	153	12	63	29	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

SERIES 22 | SERIES 23 | SERIES 51 | SERIES 52 | SERIES 53 | SERIES 60 | SERIES 61

SERIES 62AL | SERIES 62NY | SERIES 63AC | SERIES 63GH | SERIES 64 | SERIES 65AL | SERIES 65GH

SERIES 66 | SERIES 67 | SERIES 68 | SERIES 68P | SERIES 68FV | SERIES 69 | SERIES 71

SERIES 72AL | SERIES 72GH | SERIES 72GS | SERIES 73 | SERIES 73AE | SERIES 82 | SERIES 82AF

Fitting with top plate

NL-NLX

								4 km/h
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	165	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

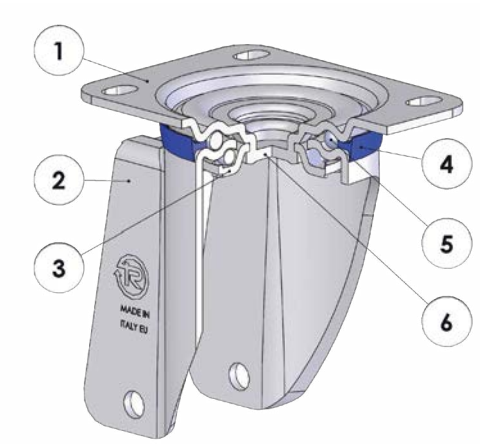
NL

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

							4 km/h
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

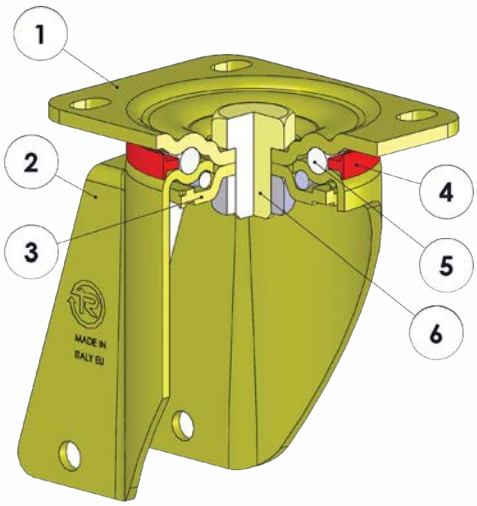
SERIES 60 | SERIES 62AL | SERIES 62ER | SERIES 63AC | SERIES 63GH | SERIES 64 | SERIES 65AL

SERIES 65GH | SERIES 65ER | SERIES 66 | SERIES 68 | SERIES 72AL | SERIES72GH | SERIES73

Fitting with top plate

M

								4 km/h
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

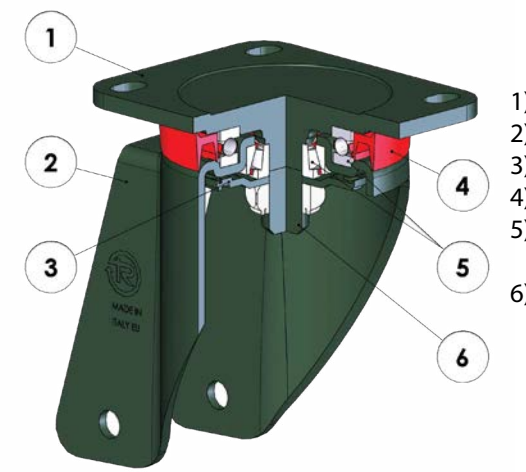
SERIES 60 | SERIES 62AL | SERIES 62ER | SERIES 62NY | SERIES 63AC | SERIES 63GH | SERIES 64

SERIES 65AL | SERIES 65GH | SERIES 65HT | SERIES 65ER | SERIES 66 | SERIES 67 | SERIES 68-68P

SERIES 72AL | SERIES 72GH | SERIES 73-73AE

Fitting with top plate

P									4-6 km/h
	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
P-PX	125	60	170	140x110	105x80	11	70	12	750
	150	60	200	140x110	105x80	11	70	12	750
	160	60	205	140x110	105x80	11	70	12	750
	175	60	225	140x110	105x80	11	70	12	750
	180	60	228	140x110	105x80	11	70	12	750
	200	60	250	140x110	105x80	11	70	12	750
P	250	60	298	140x110	105x80	11	66	12	750



1) Plate: green galvanised forged steel
2) Fork: green 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

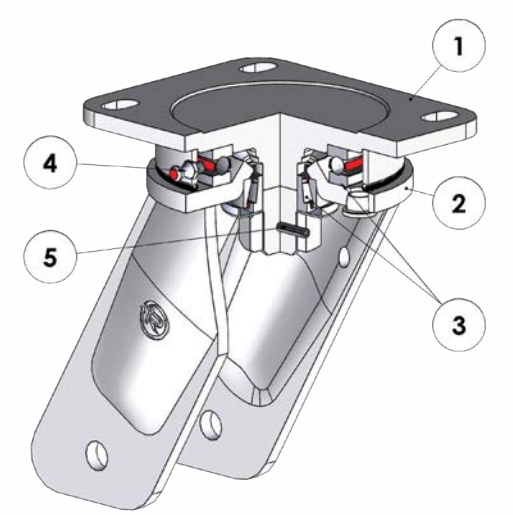
SERIES 62AL SERIES 62ER SERIES 63AC SERIES 63GH SERIES 64 SERIES 65AL SERIES 65GH

SERIES 65ER SERIES 72GH

Fitting with top plate

EP

								4-6 km/h
100	45	140	100x85	80x60	9	46	8	350
125	45	164	100x85	80x60	9	48	8	350
125	60	188	135x110	105x80	11	70	12	1100
150	60	200	135x110	105x80	11	70	12	1100
160	60	205	135x110	105x80	11	70	12	1100
175	60	225	135x110	105x80	11	70	12	1100
180	60	227	135x110	105x80	11	70	12	1100
200	60	250	135x110	105x80	11	70	12	1100
250	90	300	175x140	140x105	14	66	18	1600



1) Plate: forged steel with electrolytically 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

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

SERIES 62AL

SERIES 62ER

SERIES 62GH

SERIES63GH

SERIES64

SERIES65HT

SERIES65ER

SERIES 68P

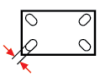
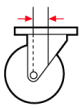
SERIES 72AL

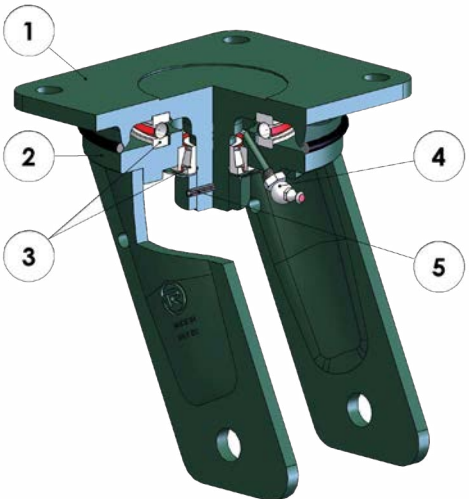
SERIES 72GH

SERIES 75

Fitting with top plate

EE MHD

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



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

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

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

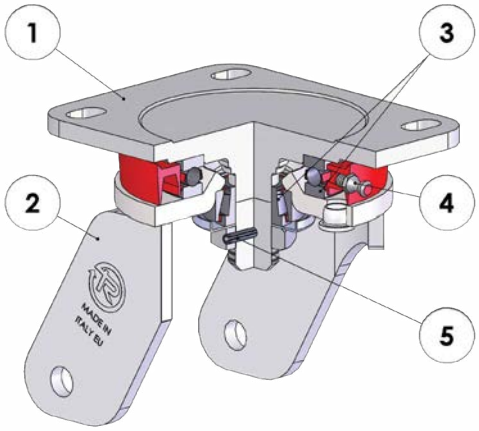
Brake: adjustable rear (EE HD model only)
Directional lock available (EE HD model only)

Fittings with wheels

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

Fitting with top plate

EE HD									4 km/h
	150	90	218	175x140	140x105	14.5	50	18	1600
	200	90	275	175x140	140x105	14.5	65	18	1600
	250	90	320	175x140	140x105	14.5	74	18	1600
	250	90	325	200x160	160x120	17	74	18	2500
	300	90	360	175x140	140x105	14.5	81	18	1600
	300	90	365	200x160	160x120	17	81	18	2500
EE EHD	300	130	384	250x200	210x160	19	78	24	3500
	400	130	475	250x200	210x160	19	95	24	3500



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

Twin electrowelded EEG MHD - max carrying capacity 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.
Directional lock available.

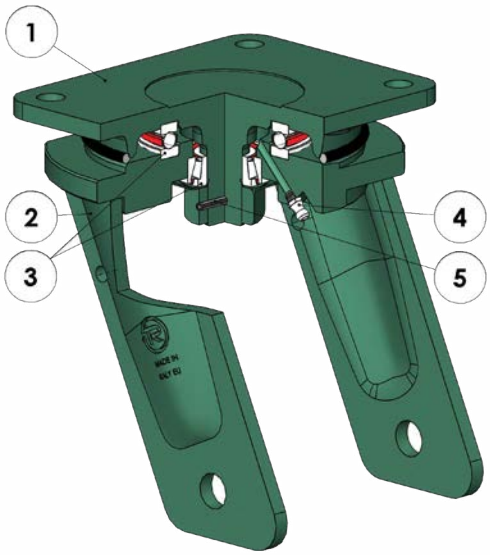
Fittings with wheels

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

Fitting with top plate

EEG MHD

								4 km/h
100	90	140	135x110	105x80	11	55	12	1000
125	90	175	135x110	105x80	11	55	12	1000



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 - EHD - max carrying capacity 4300 daN

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

Fittings with wheels

SERIES 62

SERIES 63GH

SERIES 64

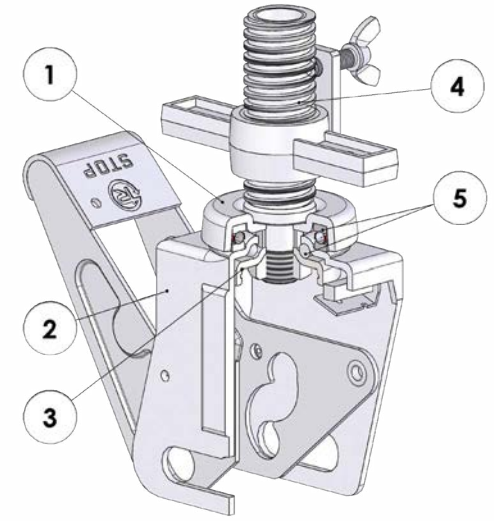
SERIES 68P

SERIES 72AL

SERIES 72GH

Fitting with top plate

									4 km/h
EEG HD	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
EEG EHD	200	190	280	250x200	210x160	19	62	24	3500
	250	190	330	250x200	210x160	19	62	24	3500
	300	190	385	250x200	210x160	19	75	30	4300



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

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

Bracket designed for the specific requirements of the scaffolding sector, regulated by Standard EN 1004:2005.
When the brake is actioned, its construction allows eliminating the offset of the wheel by aligning the bracket's swivel axis and the wheel's swivel axis on the same vertical, thus significantly increasing the set's resistance to static loads.

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

Fittings with wheels

SERIES 60

SERIES 68

Fitting with top plate

TRAB

						4 km/h	EN 1004
150	192	140x110	105x80	19	40	300	700
200	243	140x110	105x80	19	40	400	750

Fitting with threaded stem

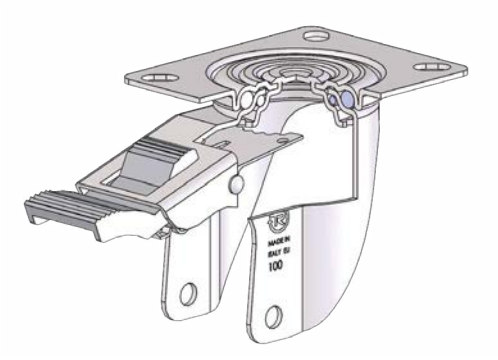
TRAB

						4 km/h	EN 1004
150	192	83	M38x6	500	40	300	700
200	243	81	M38x6	500	40	400	750

Fitting with solid stem

TRAB

						4 km/h	EN 1004
125	150	89	38	57	30	250	500
150	192	83	38	57	40	300	700
200	243	81	38	57	40	400	750



Front brake for SL bracket diameters 80-125 mm

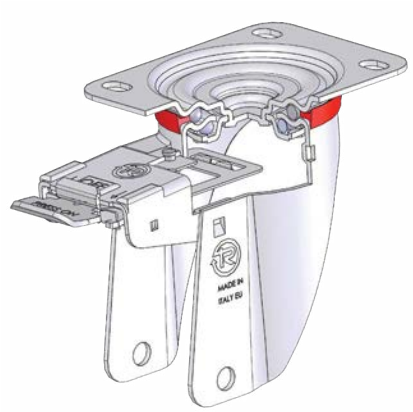
Total brake, it locks both wheel and bracket rotation.

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

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

Total brake, it locks both wheel and bracket rotation

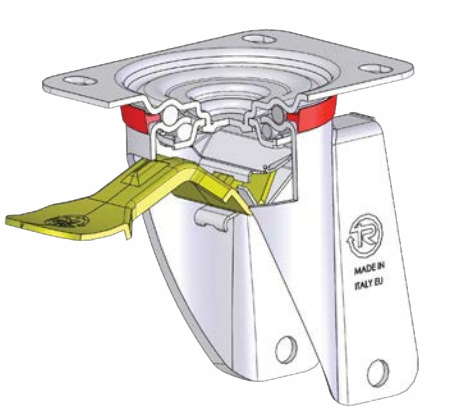
The front brake remains within the operator's reach while pushing the trolley. This brake has double lock/release pedal to improve accessibility. The fold-away braking release pedal reduces clearances.
The shape of the wheel's braking spring optimises wheel locking in both rotation directions.
The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.
For NLX brackets, this brake is available in a completely STAINLESS STEEL version.



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

Total brake, it locks both wheel and bracket rotation.

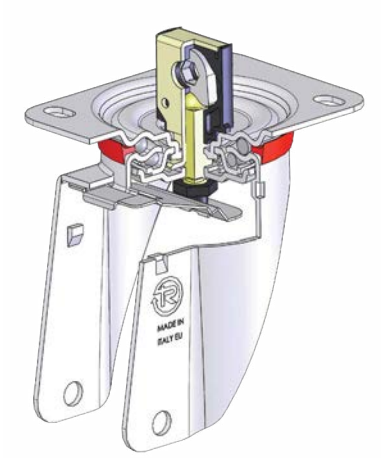
The front brake remains within the operator's reach while pushing the trolley. This brake has a double lock/release pedal to improve its accessibility. The fold-away braking release pedal reduces clearances.
The shape of the wheel's braking spring optimises wheel locking in both rotation directions.
The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.
For brackets NLX, this brake is available in a completely STAINLESS STEEL version.



Rear brake for NL brackets diameters 160-200 mm

Total brake, it locks both wheel and bracket rotation.

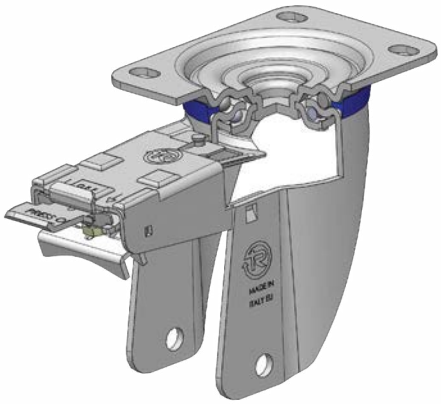
The rear type brake conceived for maximum simplicity of use, has a single lock and release pedal, specially ribbed to ensure optimal strength.
The position of the lock pedal is within the operator's reach when towing the trolley.
The hardened carbon steel springs coated with thin zinc sheets and the steel braking pedal coated with yellow electrolytic galvanising, are highly resistant to corrosion.



Adjustable centralised brake for NL brackets diameters 150-200 mm

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

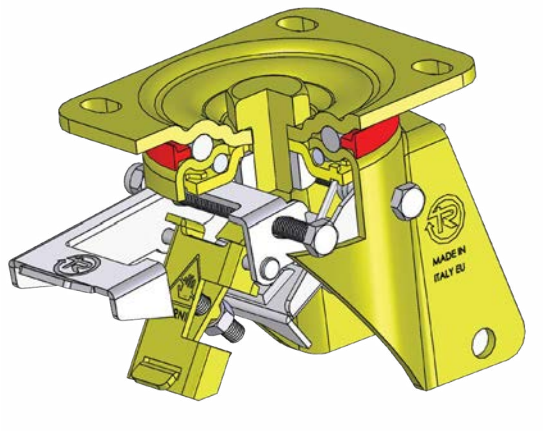
The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance. This brake is equipped with an adjustment system to compensate for normal wheel wear during use.
Brake set-up for use with 11 mm hexagonal bar spanner.



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

Total brake, it locks both wheel and bracket rotation

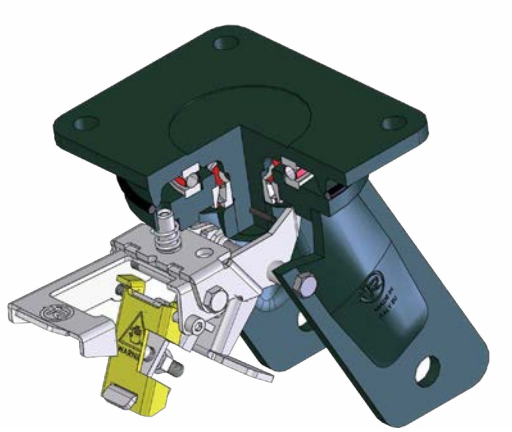
The front brake remains within the operator's reach while pushing the trolley. This brake has double lock/release pedal to improve accessibility. The fold-away braking release pedal reduces clearances.
The hardened carbon steel spring, coated with thin zinc sheets, has very high corrosion resistance.
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-EP brackets diameters 150-200 mm

Total brake, it locks both wheel and bracket rotation.

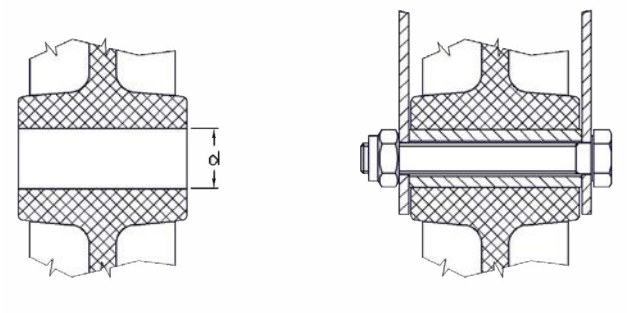
The rear type brake remains within the operator's reach while towing the trolley. This brake is made to obtain optimal braking values, while maintaining maximum simplicity of use.
A top-to-bottom movement using the tip of the foot on two independent pedals is all that's needed to engage and release the 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.



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.

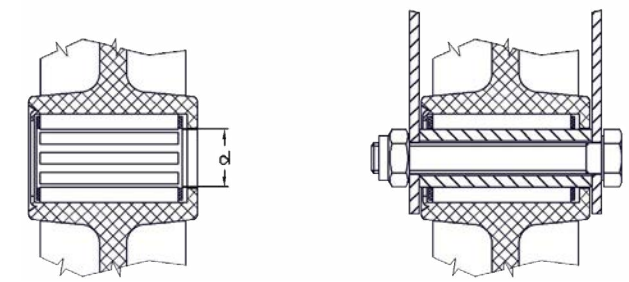


Hub with plain bore

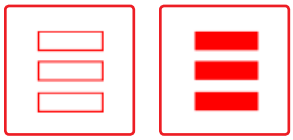
Suitable for applications involving non-continuous movements and limited loads.

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.



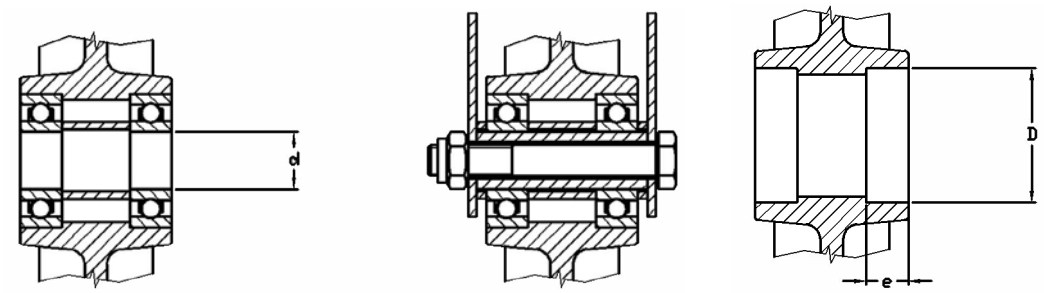
Hub with roller bearings



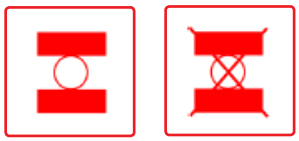
Suitable for applications involving non-continuous movements and heavier loads respect to wheels with hub with plain bore, as it guarantees low friction coefficients even in the presence of heavy loads.

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.



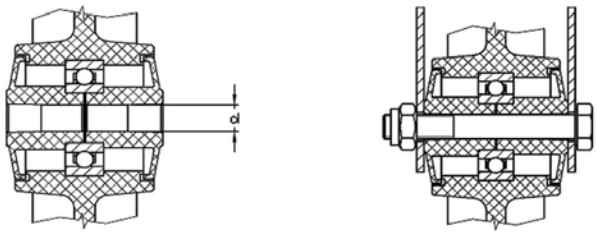
Hub with ball bearings



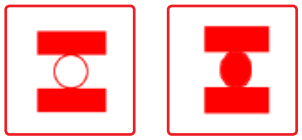
This is the ideal solution for heavier loads and continuous movements.

The indicative sliding friction coefficient is b=0.0015.

The shielded ball bearings are assembled in the relative seats in the wheel hub, in order to obtain the adequate interference tolerances.
The axle set is mounted using a calibrated and machined tube to create a homogeneous surface on which to insert the bearings and spacers.
The screw and nut are tightened to secure the spacer and the ball bearings.
Axle sets can be supplied in the galvanised steel or stainless steel version. The wheels and rollers can be supplied with only the bearings housing seat.



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 → PLASTIC MATERIALS, POLYURETHANE, RUBBER

ASPHALT → RUBBER OR ELASTIC POLYURETHANE

RESIN-CEMENT → PLASTIC MATERIALS, POLYURETHANE, RUBBER

NOT PAVED → RUBBER OR ELASTIC POLYURETHANE

EXPANDED METAL → RUBBER OR ELASTIC POLYURETHANE

WITH CHIPS → 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 36 shows the compatibility with a detailed list of chemical substances.
The table on page 38 shows the carrying capacity reduction upon temperature variation.

3. MAGNITUDE AND NATURE OF THE LOAD

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

GLOSSARY

Static load

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

Dynamic carrying capacity

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

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

Solid load:

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

Liquid load:

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

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

4. MEANS OF TRACTION AND SPEED

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

STATIC CARRYING CAPACITY OF THE WHEEL > MINIMUM CARRYING CAPACITY REQUIRED

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

Manual handling

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

DYNAMIC CARRYING CAPACITY OF THE WHEEL > MINIMUM CARRYING CAPACITY REQUIRED
ROLLING RESISTANCE > (SOLID/LIQUID LOAD WEIGHT + TROLLEY TARE):4

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

Rolling resistance

The rolling resistance is the value (expressed in daN) of the maximum load that can be supported by each single wheel at a constant speed of 4 km/h with application of a tractive force or thrust equal to 5 daN (excluding the initial pickup).
The 20 daN of traction/thrust force (corresponding to a 4-wheeled trolley) is the recommended limit for most of the adult working population. The tables in the introductory notes to each series highlight the traction force required for keeping a wheel, burdened by a certain weight, moving.

The values are detected on the TRLab laboratory test bench that detects the rolling resistance on a 1 metre long metal surface. They represent the average traction/thrust force value.
The force required for starting a wheel, defined starting point, significantly depends on the alignment position of the brackets and is always higher than indicated on the table.

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

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

Towed mechanical movement

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

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

On-board mechanical movement

In this case the wheels are subjected to particular stress and strain, different case by case.
We recommend contacting Tellure Rôta Technical Service to choose the most suitable product for your application.

Based on the above information, the path provides:

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

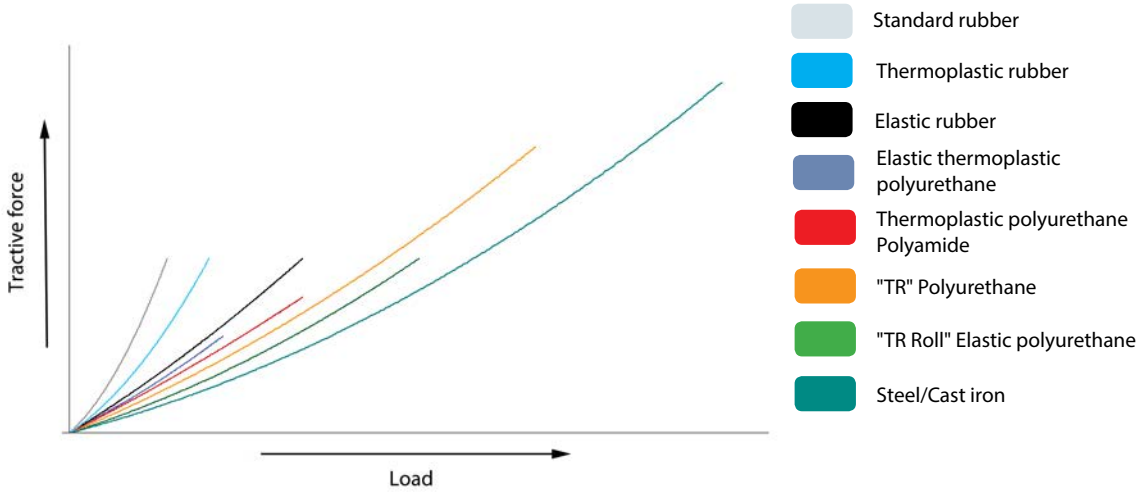
Tellure Rôta provides its experience and know-how in the movement solutions sector so that choosing a wheel becomes the most satisfying process for the final user.

FURTHER DETAILS AND INFORMATION

AVAILABLE TABLES

- AGGRESSIVE CHEMICAL AGENTS COMPATIBILITY PAGE 36
- CARRYING CAPACITY ADJUSTMENTS BASED ON TEMPERATURE PAGE 38
- CARRYING CAPACITY ADJUSTMENTS BASED ON SPEED PAGE 39
- TABLE FOR CHOICE OF WHEEL PAGE 40

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	Elastic thermoplastic polyurethane	Thermoplastic rubber	"TR" Polyurethane	Thermoplastic polyurethane		Polyamide	
Shore A	70	75	80	85	90	95				
Shore D						45	55	65	70	75

For further information on choosing the right wheel:

- see Internet site 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 - comm.italia@tellurerota.com

COMPATIBILITY WITH AGGRESSIVE CHEMICAL AGENTS

	Materials		Steel	Stainless steel	Aluminium alloys	Cast iron	Standard rubber
ACIDS WEAK	Fatty acids		🔴	🟢	🟢	🟡	🟡
	Acetic acid		🔴	🟢	🟢	🟡	🟢
	Boric acid in solution	30	🔴	🟢	🟢	🟡	🟢
	Oleic acid		🔴	🟢	🟢	🟡	🟡
	Oxalic acid in solution	10	🔴	🟢	🟢	🟡	🟢
	Sulphurous acid		🔴	🟢	🟢	🔴	🟢
STRONG ACIDS	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		🟢	🟢	🟢	🟡	🔴
SOLVENTS	Acetone		🟢	🟢	🟡	🔴	🟡
	Turpentine		🔴	🟢	🟡	🔴	🔴
	Amyl acetate		🟢	🟢	🟡	🟡	🟡
HYDRO CARBONS-	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

Elastic rubber	Thermoplastic rubber	Polyamide	Polypropyl-ene	TR Polyure-thane	TR-Roll Poly-urethane	Vulkollan® Bayer	Thermoplastic polyurethane	Resin
🟡	🟡	🟢	🟢	🟢	🟢	🟢	🟢	🟢
🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟡	🟢
🟢	🟢	🟡	🟢	🟢	🟢	🟢	🟢	🟢
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🟡	🟡	🔴	🟡	🔴	🔴	🔴	🔴	🔴
🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
🟡	🟢	🔴	🟢	🔴	🔴	🔴	🔴	🔴
🔴	🟢	🔴	🟢	🔴	🔴	🔴	🔴	🔴
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🔴	🟡	🔴	🔴	🔴	🔴	🔴	🔴	🟢
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🟡	🟢	🟡	🟢	🔴	🔴	🔴	🔴	🟢
🟡	🟡	🟡	🟡	🔴	🔴	🔴	🔴	🟢

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

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

- = not suitable
* = not suitable in ball bearing hub model

CARRYING CAPACITY ADJUSTMENT CHART BASED ON SPEED

		Carrying capacity %					
Speed		**< 4 km/h**	**6 km/h**	**10 km/h**	**12 km/h**	**16 km/h**	**> 16 km/h**
INDUSTRIAL - MEDIUM DUTY LOADS	**60**	100	60	-	-	-	-
	61	100	60	-	-	-	-
INDUSTRIAL - HEAVY DUTY LOADS AND MECHANICAL HANDLING	**62AL**	100	100	80	70	60	-
	62ER	100	100	80	70	60	-
	62GH	100	100	80	70	60	-
	62NY	100	80	-	-	-	-
	63AC	100	80	65	60	50	Contact Tellure Rôta
	63GH	100	80	65	60	50	Contact Tellure Rôta
	64	100	80	60	50	40	-
	65AL	100	80	-	-	-	-
	65GH	100	80	60	50	40	-
	65HT	100	80	60	50	-	-
	65ER	100	80	60	50	-	-
	66	100	80	-	-	-	-
	72AL	100	80	-	-	-	-
	72GH	100	80	-	-	-	-
PALLET TRUCK ROLLERS	**74**	100	80	65	60	50	Contact Tellure Rôta
	75	100	80	60	50	40	-
	77	100	80	-	-	-	-
	79	100	80	65	60	-	-

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, extra-heavy duty EP, electrowelded EE MHD, EE HD, EE EHD, twin electrowelded EEG MHD, EEG HD, EEG EHD.
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

		Carrying capacity daN			Rolling resistance daN		Means of traction	
		< 250	250 / 500	> 500	< 125	> 125	Manual	Mechani-cal
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	62AL	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	62ER	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	62GH	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	62NY	🟢	🟢	🔴	🟢	🟢	🟢	🟢
	63AC	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	63GH	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	64	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	65AL	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	65GH	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	65HT	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	65ER	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	66	🟢	🟢	🟢	🟢	🟢	🟢	🟡
	68P	🟢	🟢	🟢	🟢	🟢	🟢	🔴
	69	🟢	🟢	🟢	🟢	🟢	🟢	🔴
	72AL	🟢	🟢	🟢	🟢	🟢	🟢	🟡
	72GH	🟢	🟢	🟢	🟢	🟢	🟢	🟡
HIGH TEMPERATURE	67	🟢	🟢	🔴	🟢	🟢	🟢	🔴
	68FV	🟢	🟢	🔴	🟢	🟢	🟢	🔴
	72GS	🟢	🔴	🔴	🟢	🟢	🟢	🔴
PALLET TRUCK ROLLERS	74	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	75	🟢	🟢	🟢	🟢	🟢	🟢	🟢
	76	🟢	🟢	🟢	🟢	🟢	🟢	🔴
	77	🟢	🟢	🟢	🟢	🟢	🟢	🟡
	78	🟢	🟡	🔴	🟢	🟡	🟢	🟢
	79	🟢	🟢	🟢	🟢	🟢	🟢	🟢

🟢 recommended 🟡 partially resistant 🔴 not suitable

Temperature °C				Chemical agents	Flooring					
- 40 / - 20	- 20 / +80	+80 / +130	> +130							
🔴	🟢	🔴	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟢
🟡	🟢	🔴	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢
🔴	🟢	🔴	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢
🟡	🟢	🟡	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢
🔴	🟢	🔴	🔴	🟢	🟢	🟡	🟢	🟡	🔴	🔴
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🔴	🟢	🔴	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢
🔴	🟢	🔴	🔴	🟢	🟢	🟡	🟢	🟡	🔴	🔴
🔴	🟢	🔴	🔴	🟢	🟢	🟡	🟢	🟡	🟡	🟡
🟡	🟢	🟡	🔴	🟢	🟡	🔴	🟢	🟡	🔴	🔴
🟡	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟢
🔴	🟢	🔴	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟢
🔴	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟡
🔴	🟢	🟡	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟡
🔴	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟡
🔴	🟢	🟡	🔴	🟢	🟢	🟡	🟢	🟡	🟡	🟡
🟡	🟢	🟡	🟡	🟢	🟡	🔴	🟢	🟡	🔴	🔴
🟢	🟢	🟢	🔴	🟢	🟡	🔴	🟢	🟡	🔴	🔴
🟡	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟢
🟡	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🟢	🟢	🟢
🟡	🟢	🟢	🟢	🟢	🟡	🔴	🟢	🟡	🔴	🔴
🟡	🟢	🟢	🟢	🟢	🟡	🔴	🟢	🟡	🔴	🔴
🟡	🟢	🟢	🟢	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🟢	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🟢	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🟡	🟢	🟡	🔴	🟢	🟡	🔴	🟢	🟡	🔴	🔴
🟢	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
🟢	🟢	🟡	🔴	🟢	🟢	🟡	🟢	🟡	🟡	🟡
🟢	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡

Tellure Rôta products are produced in conformity 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 22879:2004 UNI EN 12528:2001	Wheels and brackets, wheels for furniture	33, 34, 35, 39
ISO 22880:2004 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
ISO 22883:2004 UNI EN 12532:2001	Wheels and brackets, wheels and brackets for applications up to 1.1 m/s	22, 23, 51, 52, 53, 60, 61, 62, 63, 64, 65, 66, 67, 68, 68P, 68FV, 69, 71, 72, 72GS, 73, 73AE, 74, 75, 76, 77, 78, 79, 82
ISO 22884:2004 UNI EN 12533:2001	Wheels and brackets, wheels and brackets for applications over 1.1 m/s and up to 4.4 m/s	62AL, 62ER, 62GH, 62NY 63GH, 63AL, 64, 65AL, 65GH, 65HT, 65ER, 66, 68P, 72AL, 72GH, 74, 75, 77, 79

Tellure Rôta also guarantees that:

- the catalogue products are all conform with the European Directive 2002/95/EC (RoHS) specifications; Tellure Rôta commits to maintaining product conformity, even after the upgrading of Directive 2011/65/EC (RoHS 2).

- the products respect specifications stated under regulation 1907/96/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 ZEK 01-08 document issued by the Central Experience Exchange Committee, with regard to the PAH contents (Polycyclic aromatic hydrocarbons).

THE TRLAB TESTS

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

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

Specifically:

- Dynamic load test on wheels and brackets for the industrial sector in accordance with Standard ISO 22883:2004 or ISO 22884:2004
- Dynamic load test on wheels and brackets for the waste collection container sector in accordance with UNI EN 840-5:2013
- Dynamic load test on wheels and brackets for the institutional sector in accordance with ISO 22881:2004
- Conformity tests on wheels and brackets for the mobile scaffolding sector in accordance with Standard UNI EN 1004:2005;
- Rolling resistance tests on wheels and brackets for the industrial sector in accordance with UNI 11330;
- 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 <= 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: >= 1 m; B>= 1.5 m; >= 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 all the foreseen obstacles.

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

INDUSTRIAL
LIGHT DUTY LOADS

SERIES **22**

GREY RUBBER WHEELS
WITH POLYPROPYLENE CENTRE

80-200 mm | 4 km/h 65-225 daN | 50-140 daN | -20 / +60 °C | INOX

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SERIES **23**

GREY RUBBER WHEELS
PRESSED STEEL DISCS

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

PAGE 52

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

PAGE 66

SERIES **71**

THERMOPLASTIC RUBBER WHEELS
WITH POLYPROPYLENE CENTRE

80-200 mm | 4 km/h 70-225 daN | 70-225 daN | -20 / +70 °C | INOX

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SERIES **82**

PNEUMATIC WHEELS
WITH POLYPROPYLENE CENTRE

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

PAGE 82

SERIES **82 AF**

PUNCTURE-PROOF PNEUMATIC WHEELS
WITH POLYPROPYLENE CENTRE

260 mm | Static 70 daN | -20 / +60 °C

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SERIES 22

GREY NON-MARKING RUBBER WHEELS WITH POLYPROPYLENE CENTRE

80-200 mm

80 Shore A

65-225 daN
4 km/h

50-140 daN

-20 / +60 °C

INOX

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 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 36.

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.

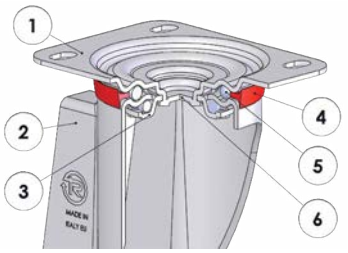
Wheels
with SL bracket
d. 80-125 mm

GREY NON-MARKING RUBBER WHEELS WITH POLYPROPYLENE CENTRE

						Static		4 km/h
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**

						Static		4 km/h
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	4 km/h daN
80	25	0.64	224401	0.36	225701	0.82	225201	107	100x85	80x60	9	37	120	**65**
100	30	0.73	224402	0.48	225702	0.88	225202	128	100x85	80x60	9	35	120	**80**
125	37.5	1.06	224403	0.71	225703	1.20	225203	156	100x85	80x60	9	37	120	**110**
140	37.5	1.18	224404	0.80	225704	1.32	225204	177	100x85	80x60	9	34	120	**120**
150	40	1.31	224411	0.93	225711	1.45	225211	182	100x85	80x60	9	34	120	**130**
160	40	2.10	224410	1.73	225710	2.38	225210	199	140x110	105x80	11	56	156	**150**
180	45	2.40	224405	2.11	225705	2.69	225205	219	140x110	105x80	11	56	156	**180**
200	50	2.72	224406	2.50	225706	3.00	225206	240	140x110	105x80	11	56	156	**225**
80	25	0.69	224601	0.39	225901	0.86	225221	107	100x85	80x60	9	37	120	**65**
100	30	0.78	224602	0.51	225902	0.93	225222	128	100x85	80x60	9	35	120	**80**
125	37.5	1.09	224603	0.73	225903	1.24	225223	156	100x85	80x60	9	37	120	**110**
140	37.5	1.20	224604	0.82	225904	1.35	225224	177	100x85	80x60	9	34	120	**120**
150	40	1.31	224611	0.93	225911	1.45	225231	182	100x85	80x60	9	34	120	**130**
160	40	2.18	224610	1.75	225910	2.47	225230	199	140x110	105x80	11	56	156	**150**
200	50	2.76	224606	2.67	225906	3.04	225226	240	140x110	105x80	11	56	156	**225**

Options available to order

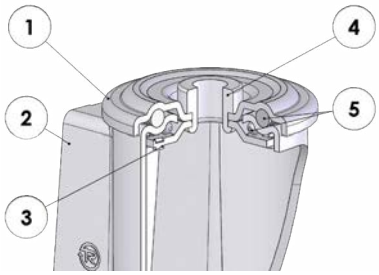
Bracket
with rear
brake
d. 150-200 mm

Bracket
with directional
lock
d. 80-125 mm

Directional lock
for brackets
d. 150-200 mm

GREY NON-MARKING RUBBER WHEELS WITH POLYPROPYLENE CENTRE

Standard-duty brackets NL - max carrying capacity 225 daN



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

Available with total front foot brake

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

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

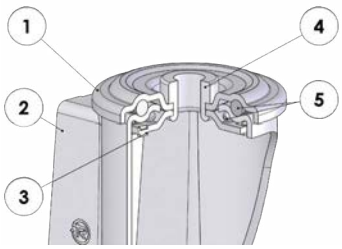
INOX

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

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

SERIES 23

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 in-door-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 36.

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.

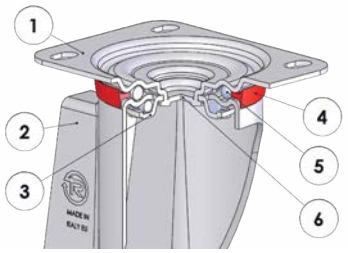
Wheels
with SL brackets
d. 80-125 mm

GREY NON-MARKING RUBBER WHEELS WITH PRESSED STEEL DISCS

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	25	0.17	231121	12	39	**260**	**50**	**65**
100	30	0.28	231122	12	44	**300**	**75**	**80**
125	37.5	0.51	231103	15	44	**330**	**85**	**130**
140	37.5	0.64	231104	15	44	**340**	**95**	**150**
150	40	0.73	231111	15	44	**350**	**100**	**170**
160	40	1.00	231110	20	58	**370**	**120**	**180**
200	50	1.75	231106	20	58	**410**	**140**	**230**

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	25	0.19	233121	12	39	**260**	**50**	**65**
100	30	0.31	233122	12	44	**300**	**75**	**80**
125	37.5	0.54	233103	15	44	**330**	**85**	**130**
140	37.5	0.66	233104	15	44	**340**	**95**	**150**
150	40	0.76	233111	15	44	**350**	**100**	**170**
160	40	1.07	233110	20	58	**370**	**120**	**180**
200	50	1.81	233106	20	58	**410**	**140**	**230**

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

Options available to order:

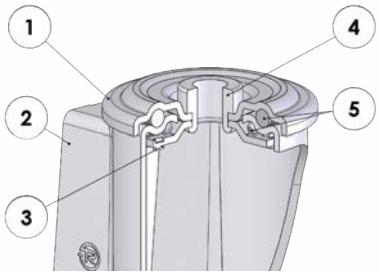
Bracket with rear brake d. 150-200 mm

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	**65**
100	30	0.74	237702	0.94	235602	128	73	12	35	120	**80**
125	37.5	1.09	237703	1.24	235603	156	73	12	37	120	**130**
140	37.5	1.23	237704	1.38	235604	177	73	12	34	120	**150**
150	40	1.35	237711	1.49	235611	182	73	12	34	120	**170**
160	40	1.78	237710	2.04	235610	193	102	20	56	156	**180**
200	50	3.16	237706	3.29	235606	236	102	20	56	156	**230**

80	25	0.63	237901	0.80	235621	107	73	12	37	120	**65**
100	30	0.76	237902	0.96	235622	128	73	12	35	120	**80**
125	37.5	1.12	237903	1.27	235623	156	73	12	37	120	**130**
140	37.5	1.26	237904	1.41	235624	177	73	12	34	120	**150**
150	40	1.38	237911	1.52	235631	182	73	12	34	120	**170**
160	40	1.85	237910	2.10	235630	193	102	20	56	156	**180**
200	50	3.22	237906	3.35	235626	236	102	20	56	156	**230**

Options available to order:

Fitting with stem in Zamak alloy

Experience and innovation

tellureRôta

SERIES 52

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 36.

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:

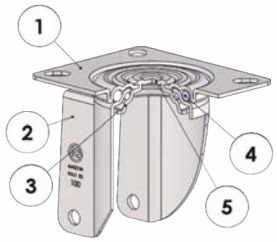
The series 52 wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

BLACK RUBBER WHEELS WITH POLYPROPYLENE CENTRE

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h 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**

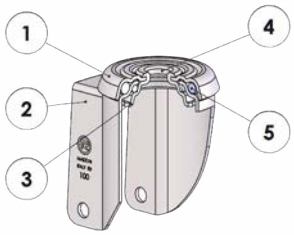
mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	25	0.14	524101	12	39	**150**	**50**	**65**
100	30	0.24	524102	12	44	**200**	**75**	**80**
125	37.5	0.44	523103	15	44	**225**	**85**	**110**
140	37.5	0.51	523104	15	44	**250**	**95**	**120**
150	40	0.61	523111	15	44	**275**	**100**	**130**
160	40	0.75	523110	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	daN
80	25	0.45	525801	0.44	526001	0.57	526301	109	95x80	100x85	80x60	8.8	36	120	**65**
100	30	0.54	525802	0.53	526002	0.68	526302	127	95x80	100x85	80x60	8.8	33	120	**80**
125	37.5	0.78	525803	0.76	526003	0.89	526303	153	95x80	100x85	80x60	8.8	29	120	**110**

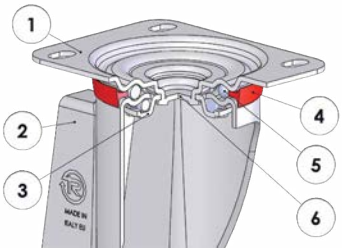


1) Plate in electrolytically galvanised printed steel plate
2) Fork in electrolytically galvanised printed steel plate
3) Ball Race Ring in electrolytically galvanised printed steel plate
4) Bracket closing king pin integrated with ball race ring
5) Swivel actions: on two ball race rings lubricated with 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	109	63	12	36	120	**65**
100	30	0.49	526102	0.60	526202	127	63	12	33	120	**80**
125	37.5	0.72	526103	0.82	526203	153	63	12	29	120	**110**

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

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

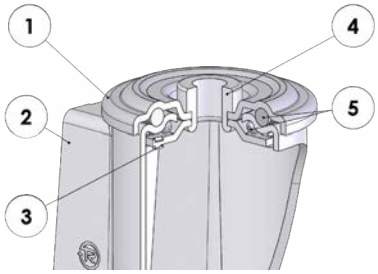
Options available to order:

Bracket with rear brake d. 150-200 mm

Bracket with directional lock d. 80-125 mm

Directional lock for brackets d. 150-200 mm

Standard-duty brackets NL - max carrying capacity 300 daN



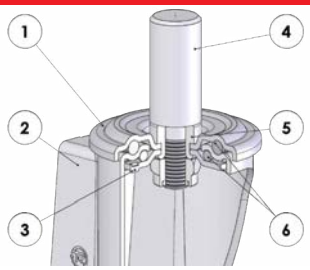
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication

Available with total front foot brake

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

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	4 km/h daN
100	30	1.68	529202	1.75	529302	128	73	22	47	35	120	**80**
125	37.5	1.96	529203	2.10	529303	156	73	22	47	37	120	**110**
150	40	2.25	529211	2.39	529311	182	73	22	47	34	120	**130**
160	40	1.81	529210	2.01	529310	193	102	26	56	56	156	**150**
160	40	2.44	525520	2.73	525620	193	102	40	86	56	156	**150**
200	50	2.99	529206	3.28	529306	236	102	26	56	56	156	**225**
200	50	3.62	525516	3.91	525616	236	102	40	86	56	156	**225**

Products made in Italy

tellureRôta

SERIES 53

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 36.

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 tread
in anti-static rubber
(roller bearing hub only)

BLACK RUBBER WHEELS WITH PRESSED STEEL DISCS

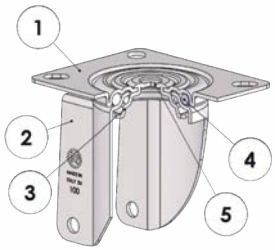
mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	25	0.17	531121	12	39	**260**	**50**	**65**
100	30	0.28	531122	12	44	**300**	**75**	**80**
100	30	0.25	531132	12	39	**300**	**75**	**80**
125	37.5	0.51	531103	15	44	**330**	**85**	**130**
125	37.5	0.44	531133	12	39	**330**	**85**	**130**
140	37.5	0.64	531104	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	Static daN	daN	4 km/h 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:

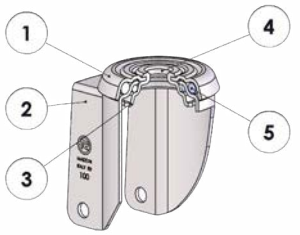
Wheel with coating
in anti-static rubber
(roller bearing model only)

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	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	4 km/h daN
80	25	0.51	535801	0.50	536001	0.63	536301	109	95x80	100x85	80x60	8.8	36	120	**65**
100	30	0.60	535802	0.59	536002	0.74	536302	127	95x80	100x85	80x60	8.8	33	120	**80**
125	37.5	0.87	535803	0.85	536003	0.98	536303	153	95x80	100x85	80x60	8.8	29	120	**130**

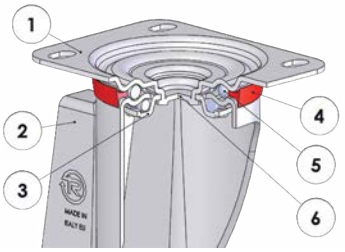


1) Plate in electrolytically galvanised printed steel plate
2) Fork in electrolytically galvanised printed steel plate
3) Ball Race Ring in electrolytically galvanised printed steel plate
4) Bracket closing king pin integrated with ball race ring
5) Swivel actions: on two ball race rings lubricated with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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN
80	25	0.46	536101	0.56	536201	109	63	12	36	120	**65**
100	30	0.55	536102	0.66	536202	127	63	12	33	120	**80**
125	37.5	0.81	536103	0.91	536203	153	63	12	29	120	**130**

BLACK RUBBER WHEELS WITH PRESSED STEEL DISCS

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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
80	25	0.69	535001	0.49	535701	0.87	535401	107	100x85	80x60	9	37	120	**65**
100	30	0.82	535002	0.62	535702	1.00	535402	128	100x85	80x60	9	35	120	**80**
125	37.5	1.18	535003	0.92	535703	1.30	535403	156	100x85	80x60	9	37	120	**130**
140	37.5	1.27	535004	1.09	535704	1.46	535404	177	100x85	80x60	9	34	120	**150**
150	40	1.40	535011	1.22	535711	1.57	535411	182	100x85	80x60	9	34	120	**170**
160B	40	1.75	535012	1.55	535712			187	100x85	80x60	9	50		**180**
160	40	2.44	535010	2.07	535710	2.69	535410	199	140x110	105x80	11	56	156	**180**
180	45	2.78	535005	2.49	535705	3.07	535405	219	140x110	105x80	11	56	156	**200**
200	50	3.25	535006	2.89	535706	3.39	535406	240	140x110	105x80	11	56	156	**230**
225	50	3.67	535007	3.18	535707	3.95	535407	263	140x110	105x80	11	56	156	**250**
250	60	6.66	534708	5.16	535708			296	200x160	160x120	14	87		**300**
280	60	7.35	534709	5.84	535709			311	200x160	160x120	14	87		**390**

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

Options available to order:

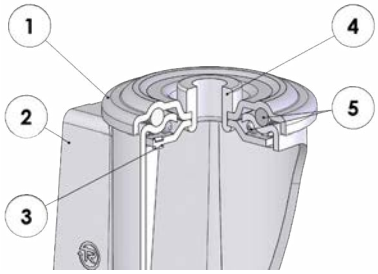
Wheel with antistatic rubber tread (roller bearing hub only)

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

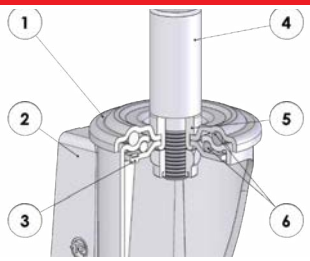
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
80	25	0.61	537701	0.78	538201	107	73	12	37	120	**65**
100	30	0.74	537702	0.94	538202	128	73	12	35	120	**80**
125	37.5	1.09	537703	1.24	538203	156	73	12	37	120	**130**
140	37.5	1.23	537704	1.38	538204	177	73	12	34	120	**150**
150	40	1.35	537711	1.49	538211	182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

Options available to order:

Wheel with tread
in anti-static rubber
(roller bearing hub only)

BLACK 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) 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	1.74	539202	2.24	538802	128	73	22	47	35	120	**80**
125	37.5	2.09	539203	2.24	538803	156	73	22	47	37	120	**130**
150	40	2.35	539211	2.49	538811	182	73	22	47	34	120	**170**
160	40	2.15	539210	2.41	538810	193	102	26	56	56	156	**180**
160	40	3.20	535520	3.50	535620	193	102	40	86	56	156	**180**
180	45	3.75	535515	3.95	535615	214	102	40	86	56	156	**200**
200	50	3.53	539206	3.66	538806	236	102	26	56	56	156	**230**
200	50	4.16	535516	4.29	535616	236	102	40	86	56	156	**230**

Technology at work

tellureRôta

SERIES 71

GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

80-200 mm

85 Shore A

70-225 daN
4 km/h

70-225 daN

-20 / +70 °C

INOX

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, co-printed in the centre of the wheel. The bearing is protected from dirt, machining residue and corrosive substances by a glass-fibre reinforced polyamide installation bushing with internal labyrinth seal

Uses

Indicated for trolleys with light-duty loads, mainly for indoor use; the grey non-marking rubber tyre makes it suitable for use on fragile floors and also in domestic/institutional environments.
Excellent rolling resistance guarantees minimum effort in manual handling.
Examples of recommended applications: luggage trolleys, tool trolleys, institutional and catering trolleys, trolleys for industrial indoor use, tubular trolleys.

Environments of use

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

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

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

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	----	----
200 mm	< 1	1.3	2.5	3.9	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

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	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.09	711101	12	39	**100**	**70**	**70**
100	30	0.12	711102	12	44	**150**	**100**	**100**
100	30	0.11	711132	12	39	**150**	**100**	**100**
125	35	0.20	711103	15	44	**180**	**120**	**120**
125	35	0.20	711133	12	39	**180**	**120**	**120**
150	35	0.27	711105	15	44	**210**	**140**	**140**
150	45	0.36	711104	20	59	**270**	**180**	**180**
200	50	0.70	711106	20	59	**330**	**225**	**225**

mm	mm	kg	CODE	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.11	713101	0.11	713201	12	39	**100**	**70**	**70**
100	30	0.14	713102	0.14	713202	12	44	**150**	**100**	**100**
125	35	0.22	713103	0.22	713203	15	44	**180**	**120**	**120**
150	35	0.30	713105	0.30	713205	15	44	**210**	**140**	**140**
150	45	0.41	713104	0.41	713204	20	59	**270**	**180**	**180**
200	50	0.74	713106	0.74	713206	20	59	**330**	**225**	**225**

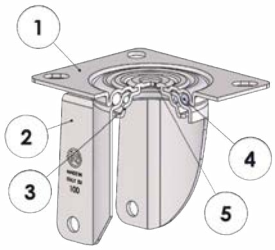
mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.14	712201	8	40	**100**	**70**	**70**
100	30	0.18	712202	8	45	**150**	**100**	**100**
125	35	0.25	712203	8	45	**180**	**120**	**120**

Options available to order:

Wheel for large commercial kitchens (conforms to Standard DIN 18867-8)

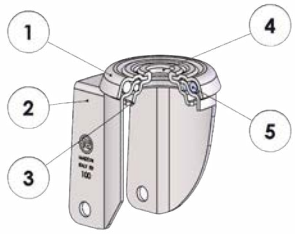
Wheel with single stainless steel ball bearing d. 80-125 mm

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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	4 km/h daN
80	30	0.43	715801	0.42	716001	0.55	716301	109	95x80	100x85	80x60	8.8	36	120	**70**
100	30	0.46	715802	0.45	716002	0.60	716302	127	95x80	100x85	80x60	8.8	33	120	**100**
125	35	0.63	715803	0.61	716003	0.74	716303	153	95x80	100x85	80x60	8.8	29	120	**120**

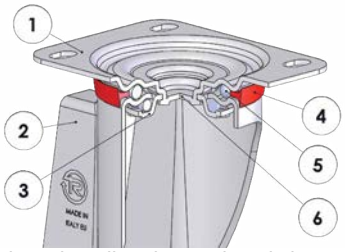


1) Plate in electrolytically galvanised printed steel plate
2) Fork in electrolytically galvanised printed steel plate
3) Ball Race Ring in electrolytically galvanised printed steel
4) Bracket closing king pin integrated with ball race ring
5) Swivel actions: on two ball race rings lubricated with grease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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN
80	30	0.38	716101	0.48	716201	109	63	12	36	120	**70**
100	30	0.41	716102	0.52	716202	127	63	12	33	120	**100**
125	30	0.57	716103	0.67	716203	153	63	12	29	120	**120**

GREY NON-MARKING THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

Standard-duty brackets NL - max carrying capacity 225 daN



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

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
80	30	0.60	714201	0.36	715701	0.79	716601	107	100x85	80x60	9	37	120	**70**
100	30	0.70	714202	0.39	715702	0.85	716602	128	100x85	80x60	9	35	120	**100**
125	35	0.86	714203	0.61	715703	1.00	716603	156	100x85	80x60	9	37	120	**120**
150	35	0.96	714204	0.76	715704	1.14	716604	182	100x85	80x60	9	34	120	**140**
150	45	1.72	714211	1.35	715711	2.00	716611	194	140x110	105x80	11	56	156	**180**
200	50	2.07	714206	1.86	715706	2.35	716606	240	140x110	105x80	11	56	156	**225**
80	30	0.61	714501	0.38	715901	0.82	716621	107	100x85	80x60	9	37	120	**70**
100	30	0.71	714502	0.39	715902	0.86	716622	128	100x85	80x60	9	35	120	**100**
125	35	0.87	714503	0.62	715903	1.03	716623	156	100x85	80x60	9	37	120	**120**
150	35	1.11	714504	0.81	715904	1.16	716624	182	100x85	80x60	9	34	120	**140**
150	45	1.87	714511	1.40	715911	2.05	716631	194	140x110	105x80	11	56	156	**180**
200	50	2.10	714506	2.02	715906	2.34	716626	240	140x110	105x80	11	56	156	**225**
80	30	0.58	714701	0.45	714801	0.75	714901	107	100x85	80x60	9	37	120	**70**
100	30	0.64	714702	0.50	714802	0.81	714902	128	100x85	80x60	9	35	120	**100**
125	35	0.81	714703	0.61	714803	0.97	714903	156	100x85	80x60	9	37	120	**120**

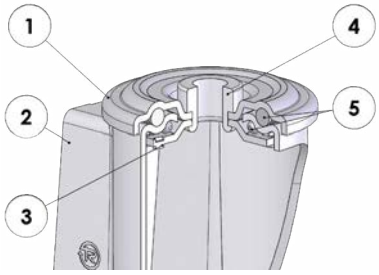
Options available to order:

Bracket with directional lock d. 80-125 mm

Directional lock for brackets d. 150-200 mm

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

Standard-duty brackets NL - max carrying capacity 225 daN



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

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
80	30	0.53	717401	0.71	716501	107	73	12	37	120	**70**
100	30	0.63	717402	0.84	716502	128	73	12	35	120	**100**
125	35	0.80	717403	0.95	716503	156	73	12	37	120	**120**
150	35	0.90	717404	1.04	716504	182	73	12	34	120	**140**
150	45	1.58	717411	1.87	716511	188	102	20	56	156	**180**
200	50	1.97	717406	2.26	716506	236	102	20	56	156	**225**
80	30	0.55	717801	0.73	716521	107	73	12	37	120	**70**
100	30	0.64	717802	0.84	716522	128	73	12	35	120	**100**
125	35	0.82	717803	0.98	716523	156	73	12	37	120	**120**
150	35	0.93	717804	1.00	716524	182	73	12	34	120	**140**
150	45	1.85	717811	1.92	716531	188	102	20	56	156	**180**
200	50	2.02	717806	2.29	716526	236	102	20	56	156	**225**
80	30	0.53	714301	0.70	715501	107	73	12	37	120	**70**
100	30	0.58	714302	0.75	715502	128	73	12	35	120	**100**
125	35	0.74	714303	0.94	715503	156	73	12	37	120	**120**

Options available to order:

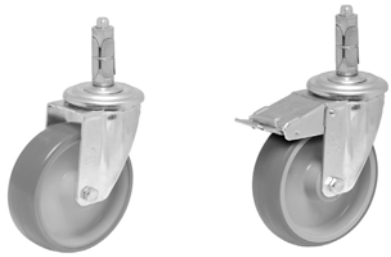
Wheel for large commercial kitchens (conforms to Standard DIN 18867-8) d. 160 and 200 mm

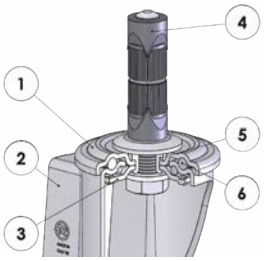
Fitting with threaded stem

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



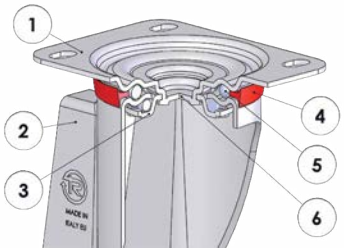


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Stem: zamak expander
5) King pin: bushing in electrolytically galvanised steel
6) Swivel actions: double ball ring with grease lubrication
Available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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.65	719201	0.83	719301	109	20	65	20-24	37	120	**70**
100	30	0.75	719202	0.96	719302	130	20	65	20-24	35	120	**100**
125	35	1.02	719203	1.07	719303	158	20	65	20-24	37	120	**120**

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

INOX

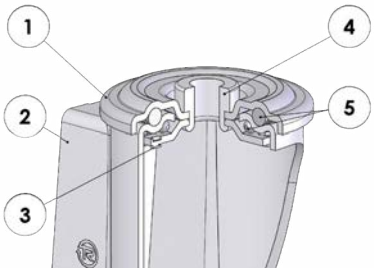


1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.59	714401	0.33	715301	0.76	716701	107	100x85	80x60	9	37	120	**70**
100	30	0.61	714402	0.36	715302	0.79	716702	128	100x85	80x60	9	35	120	**100**
125	35	0.76	714403	0.59	715303	0.90	716703	156	100x85	80x60	9	37	120	**120**
150	35	0.99	714404	0.76	715304	1.01	716704	182	100x85	80x60	9	34	120	**140**
150	45	1.63	714411	1.22	715311	1.95	716711	194	140x110	105x80	11	56	156	**180**
200	50	2.04	714406	1.59	715306	2.33	716706	240	140x110	105x80	11	56	156	**225**
80	30	0.61	714601	0.36	715601	0.79	716721	107	100x85	80x60	9	37	120	**70**
100	30	0.64	714602	0.37	715602	0.80	716722	128	100x85	80x60	9	35	120	**100**
125	35	0.78	714603	0.62	715603	0.93	716723	156	100x85	80x60	9	37	120	**120**
150	35	1.03	714604	0.81	715604	1.03	716724	182	100x85	80x60	9	34	120	**140**
150	45	1.71	714611	1.27	715611	2.00	716731	194	140x110	105x80	11	56	156	**180**
200	50	2.09	714606	1.62	715606	2.36	716726	240	140x110	105x80	11	56	156	**225**

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	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
80	30	0.53	717901	0.70	718801	107	73	12	37	120	**70**
100	30	0.57	717902	0.78	718802	128	73	12	35	120	**100**
125	35	0.74	717903	0.89	718803	156	73	12	37	120	**120**
150	35	0.95	717904	0.97	718804	182	73	12	34	120	**140**
150	45	1.46	717911	1.74	718811	188	102	20	56	156	**180**
200	50	1.99	717906	2.25	718806	236	102	20	56	156	**225**
80	30	0.56	718001	0.73	718821	107	73	12	37	120	**70**
100	30	0.58	718002	0.78	718822	128	73	12	35	120	**100**
125	35	0.77	718003	0.92	718823	156	73	12	37	120	**120**
150	35	1.00	718004	0.99	718824	182	73	12	34	120	**140**
150	45	1.51	718011	1.79	718831	188	102	20	56	156	**180**
200	50	2.02	718006	2.28	718826	236	102	20	56	156	**225**

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

SERIES 82

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	

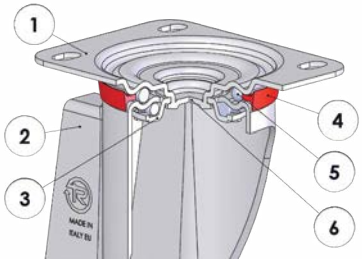
For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36.

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	4 km/h 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	4 km/h 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	4 km/h 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**

SERIES 82 AF

PUNCTURE-PROOF PNEUMATIC WHEELS WITH POLYPROPYLENE CENTRE

260 mm

Static 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	

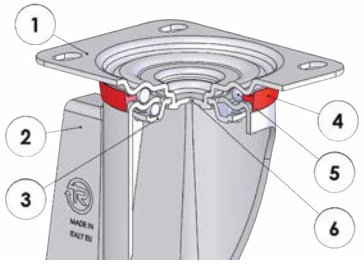
For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36

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	COD.	mm	mm	daN							
260	75	1,03	823701	20	77	**70**	**country profile**						

Standard-duty brackets NL - max carrying capacity 70 daN



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

mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN			
260	75	4,48	827601	2,98	828601	300	200x160	160x120	14	86	**70**			

INDUSTRIAL
MEDIUM DUTY LOADS

SERIES **60**

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

80-200 mm | 4 km/h 120-450 daN | 120-380 daN | 6 km/h 100-200 daN | -15 / +80 °C | INOX

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SERIES **61**

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

80-200 mm | 4 km/h 75-300 daN | 120-380 daN | 6 km/h 70-140 daN | -15 / +70 °C | INOX

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SERIES **68**

SOLID WHEELS IN POLYAMIDE 6

65-250 mm | 4 km/h 125-1200 daN | 90-450 daN | -30 / +80 °C | INOX

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SERIES **73**

WHEELS IN SIGMA ELASTIC RUBBER WITH POLYAMIDE 6 CENTRE

100-200 mm | 4 km/h 150-450 daN | 100-350 daN | -20 / +70 °C | INOX

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SERIES **73 AE**

ELASTIC RUBBER WHEELS WITH POLYAMIDE CENTRE

100-200 mm | 4 km/h 150-350 daN | 100-235 daN | -20 / +70 °C

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SERIES 60

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

80-200 mm

55 Shore D

120-750 daN
4 km/h

100-200 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. The bearing is 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.

Uses

Suitable for trolleys and machinery with medium-duty loads, also in case of continuous handling. The ball bearing model is excellent for mechanical handling or manual-mechanical handling and speed up to 6 Km/h.
Suitable for indoor and outdoor use with frequent washing and sterilisation.
Examples of recommended applications: trolleys for industrial use, tubular trolleys, trolleys for food and chemical industry, mobile scaffoldings (fitted with suitable brackets, they meet Standard UNI EN 1004:2005).

Environments of use

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

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

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

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 or damage 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
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	2	3.2	4.5	6	9	----	----
200 mm	< 1	< 1	<1	2.5	3	4	5.5	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, 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.

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)
Maximum carrying capacity 400 daN - maximum capacity according to UNI EN 1004:2005 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.

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

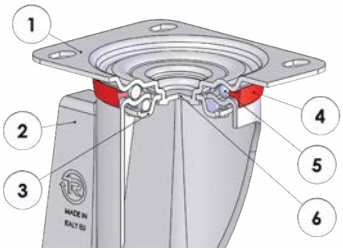
mm	mm	kg	CODE	mm	mm.	Static daN	daN	4 km/h daN
80	30	0.11	601101	12	39	**220**	**120**	**120**
100	30	0.15	601102	12	44	**300**	**170**	**170**
125	35	0.25	601103	15	44	**350**	**230**	**230**
150	35	0.38	601105	15	44	**500**	**250**	**250**
150	45	0.47	601104	20	59	**700**	**280**	**350**
200	50	0.82	601106	20	59	**750**	**380**	**450**

mm	mm	kg	CODE	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.13	603101	0.13	603201	12	39	**220**	**120**	**120**
100	30	0.16	603102	0.16	603202	12	44	**300**	**170**	**170**
125	35	0.27	603103	0.27	603203	15	44	**350**	**230**	**230**
150	35	0.40	603105	0.40	603205	15	44	**500**	**250**	**250**
150	45	0.52	603104	0.52	603204	20	59	**700**	**280**	**350**
200	50	0.87	603106	0.87	603206	20	59	**750**	**380**	**450**

mm	mm	kg	COD.	kg	COD.	mm	mm.	Static daN	daN	4 km/h daN	6 km/h daN
80	30	0,17	602201	0,17	602401	8	40	**220**	**130**	**130**	**100**
100	30	0,21	602202	0,21	602402	8	45	**300**	**200**	**200**	**160**
125	35	0,30	602203	0,30	602403	8	45	**350**	**250**	**250**	**200**
250	50	1,50	602208*			20	58	**1000**	**450**	**750**	

* = wheel with double ball bearing

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	4 km/h daN
80	30	0.62	604201	0.38	605701	0.81	606601	107	100x85	80x60	9	37	120	**120**
100	30	0.74	604202	0.43	605702	0.89	606602	128	100x85	80x60	9	35	120	**170**
125	35	0.91	604203	0.66	605703	1.05	606603	156	100x85	80x60	9	37	120	**220**
150	35	1.08	604204	0.8	605704	1.21	606604	182	100x85	80x60	9	34	120	**220**
150	45	1.83	604211	1.46	605711	2.11	606611	194	140x110	105x80	11	56	156	**300**
200	50	2.23	604206	2.01	605706	2.49	606606	240	140x110	105x80	11	56	156	**300**
80	30	0.63	604501	0.41	605901	0.84	606621	107	100x85	80x60	9	37	120	**120**
100	30	0.75	604502	0.43	605902	0.9	606622	128	100x85	80x60	9	35	120	**170**
125	35	0.92	604503	0.67	605903	1.07	606623	156	100x85	80x60	9	37	120	**220**
150	35	1.11	604504	0.82	605904	1.23	606624	182	100x85	80x60	9	34	120	**220**
150	45	1.98	604511	1.51	605911	2.16	606631	194	140x110	105x80	11	56	156	**300**
200	50	2.27	604506	2.06	605906	2.56	606626	240	140x110	105x80	11	56	156	**300**
80	30	0.60	604701	0.48	604801	0.77	604901	107	100x85	80x60	9	37	120	**130**
100	30	0.67	604702	0.53	604802	0.84	604902	128	100x85	80x60	9	35	120	**200**
125	35	0.86	604703	0.66	604803	1.02	604903	156	100x85	80x60	9	37	120	**220**

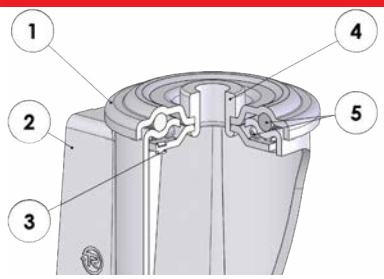
Options available to order:

Bracket
with directional
lock
d. 80-125 mm

Directional lock
for brackets
d. 150-200 mm

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

Standard-duty brackets NL - max carrying capacity 300 daN



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

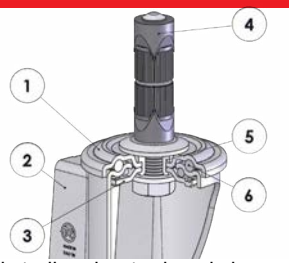
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN (4 km/h)
80	30	0.55	607701	0.73	606401	107	73	12	37	120	**120**
100	30	0.67	607702	0.88	606402	128	73	12	35	120	**170**
125	35	0.85	607703	1.00	606403	156	73	12	37	120	**220**
150	35	1.01	607704	1.14	606404	182	73	12	34	120	**220**
150	45	1.69	607711	1.98	606411	188	102	20	56	156	**300**
200	50	2.13	607706	2.41	606406	236	102	20	56	156	**300**
80	30	0.57	607801	0.75	606421	107	73	12	37	120	**120**
100	30	0.68	607802	0.88	606422	128	73	12	35	120	**170**
125	35	0.87	607803	1.02	606423	156	73	12	37	120	**220**
150	35	1.03	607804	1.16	606424	182	73	12	34	120	**220**
150	45	1.74	607811	2.03	606431	188	102	20	56	156	**300**
200	50	2.18	607806	2.46	606426	236	102	20	56	156	**300**
80	30	0.56	604301	0.72	605501	107	73	12	37	120	**130**
100	30	0.61	604302	0.78	605502	128	73	12	35	120	**200**
125	35	0.79	604303	0.96	605503	156	73	12	37	120	**220**

Options available to order:

Fastening
with threaded stem

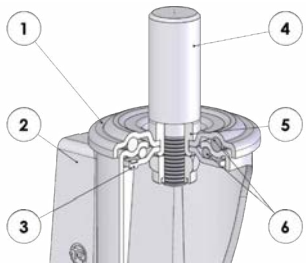
Standard-duty brackets NL - max carrying capacity 300 daN



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	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
80	30	0.67	609201	0.85	609301	109	73	20	65	20-24	37	120	**120**
100	30	0.79	609202	1.00	609302	130	73	20	65	20-24	35	120	**130**
125	35	0.97	609203	1.12	609303	158	73	20	65	20-24	37	120	**130**



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	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
100	30	1.67	606102	1.88	606202	128	73	22	47	35	120	**170**
125	35	1.85	606103	2.00	606203	156	73	22	47	37	120	**220**
150	35	2.01	606104	2.14	606204	182	73	22	47	34	120	**220**
150	45	2.69	606111	2.98	606211	188	102	26	56	56	156	**300**
200	50	3.13	606106	3.41	606206	236	102	26	56	56	156	**300**

Options available to order:

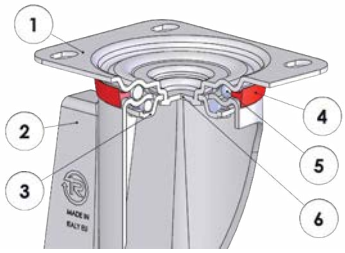
Bracket with Zamak stem fitted with wheels with roller bearings and single ball bearing
d. 80-125 mm

Connection with solid stem with dimensions that can be customised

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

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

INOX



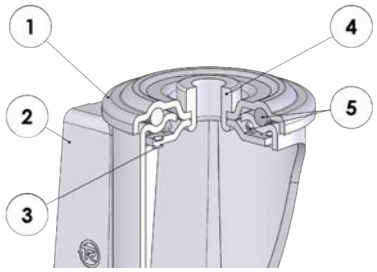
1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.61	604401	0.35	605101	0.78	606701	107	100x85	80x60	9	37	120	**120**
100	30	0.65	604402	0.40	605102	0.83	606702	128	100x85	80x60	9	35	120	**170**
125	35	0.81	604403	0.64	605103	0.95	606703	156	100x85	80x60	9	37	120	**220**
150	35	0.97	604404	0.81	605104	1.10	606704	182	100x85	80x60	9	34	120	**220**
150	45	1.77	604411	1.33	605111	2.06	606711	194	140x110	105x80	11	56	156	**300**
200	50	2.20	604406	1.74	605106	2.48	606706	240	140x110	105x80	11	56	156	**300**
80	30	0.64	604601	0.38	605601	0.81	606721	107	100x85	80x60	9	37	120	**120**
100	30	0.65	604602	0.41	605602	0.84	606722	128	100x85	80x60	9	35	120	**170**
125	35	0.83	604603	0.66	605603	0.97	606723	156	100x85	80x60	9	37	120	**220**
150	35	0.99	604604	0.83	605604	1.12	606724	182	100x85	80x60	9	34	120	**220**
150	45	1.82	604611	1.38	605611	2.03	606731	194	140x110	105x80	11	56	156	**300**
200	50	2.25	604606	1.74	605606	2.53	606726	240	140x110	105x80	11	56	156	**300**
80	30	0.60	605401	0.48	605001	0.77	606901	107	100x85	80x60	9	37	120	**130**
100	30	0.67	605402	0.53	605002	0.84	606902	128	100x85	80x60	9	35	120	**200**
125	35	0.78	605403	0.66	605003	0.95	606903	156	100x85	80x60	9	37	120	**220**

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

INOX



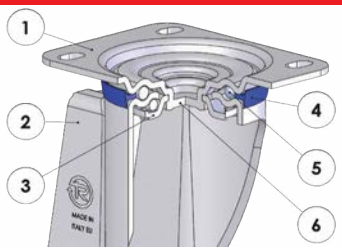
1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) King pin: bushing in stainless steel
5) Swivel actions: double ball ring with grease lubrication

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN (4 km/h)
80	30	0.55	607901	0.61	608801	107	73	12	37	120	**120**
100	30	0.61	607902	0.82	608802	128	73	12	35	120	**170**
125	35	0.79	607903	0.94	608803	156	73	12	37	120	**220**
150	35	0.90	607904	1.03	608804	182	73	12	34	120	**220**
150	45	1.57	607911	1.85	608811	188	102	20	56	156	**300**
200	50	2.14	607906	2.40	608806	236	102	20	56	156	**300**
80	30	0.58	608001	0.62	608821	107	73	12	37	120	**120**
100	30	0.62	608002	0.82	608822	128	73	12	35	120	**170**
125	35	0.81	608003	0.96	608823	156	73	12	37	120	**220**
150	35	0.92	608004	1.25	608824	182	73	12	34	120	**220**
150	45	1.62	608011	1.90	608831	188	102	20	56	156	**300**
200	50	2.19	608006	2.45	608826	236	102	20	56	156	**300**
80	30	0.56	606301	0.72	606501	107	73	12	37	120	**130**
100	30	0.61	606302	0.78	606502	128	73	12	35	120	**200**
125	35	0.73	606303	0.88	606503	156	73	12	37	120	**220**

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

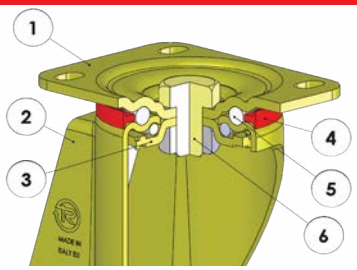
Medium-duty brackets M - max carrying capacity 450 daN



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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
150	45	2.17	604311	1.46	605711	2.64	606811	194	140x110	105x80	11	58	178	**350**
200	50	2.62	604306	2.01	605706	3.04	606806	240	140x110	105x80	11	50	178	**450**
150	45	2.32	604711	1.51	605911	2.68	606831	194	140x110	105x80	11	58	178	**350**
200	50	2.66	604706	2.06	605906	3.11	606826	240	140x110	105x80	11	50	178	**450**

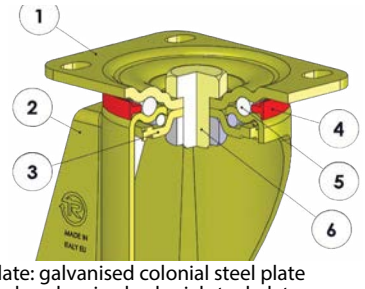
Medium-heavy duty brackets P - max carrying capacity 450 daN



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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
100	30	1.03	607102	0.54	608102	1.18	609002	138	100x85	80x60	9	46	123	**170**	
125	35	1.17	607103	0.75	608103	1.31	609003	161	100x85	80x60	9	48	123	**230**	
100	30	1.05	607302	0.55	608302	1.19	609102	138	100x85	80x60	9	46	123	**170**	
125	35	1.19	607303	0.77	608303	1.33	609103	161	100x85	80x60	9	48	123	**230**	
100	30	1.08	608202	0.67	608222	1.24	608242	138	100x85	80x60	9	46	123	**200**	**160**
125	35	1.22	608203	0.76	608223	1.36	608243	161	100x85	80x60	9	48	123	**250**	**200**

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



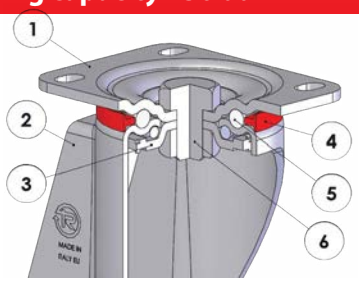
1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	45	2.81	607604	1.39	608604	3.38	609004	200	140x110	105x80	11	70	126	**350**
200	50	3.20	607606	1.83	608606	3.77	609006	250	140x110	105x80	11	70	126	**450**
150	45	2.87	607504	1.44	608504	3.44	609104	200	140x110	105x80	11	70	126	**350**
200	50	3.34	607506	1.88	608506	3.91	609106	250	140x110	105x80	11	70	126	**450**
250	50	4,40	608208	3,30	608228	5,10	608248	298	140x110	105x80	11	66	126	**750**

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	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	45	2.77	607004	1.53	607114	3.34	607214	200	140x110	105x80	11	70	126	**350**
200	50	3.24	607006	1.80	607116	3.81	607216	250	140x110	105x80	11	70	126	**450**
150	45	2.75	607314	1.53	607414	3.32	607514	200	140x110	105x80	11	70	126	**350**
200	50	3.28	607316	1.85	607416	3.85	607516	250	140x110	105x80	11	70	126	**450**

SERIES 61

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

80-200 mm

85 Shore A

75-300 daN
4 km/h

70-140 daN
6 km/h

75-300 daN

-15 / +70 °C

INOX

Description

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

Centre: polyamide 6.

Hub with plain bore which directly houses the axle.
Hub with cylindrical roller bearing in a plastic cage. Also available with stainless steel roller bearings.
Hub with double shielding ball bearing, co-printed in centre. 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. The model with ball bearing hub can also be used for mechanical handling or manual-mechanical handling and speed up to 6 km/h.
Suitable for indoor and outdoor use for frequent washing and sterilisation.
Excellent rolling resistance guarantees minimum effort in manual handling.
Examples of recommended applications: trolleys for industrial indoor use, tubular trolleys, trolleys for food and chemical industry, mobile scaffoldings (fitted with suitable brackets, they meet Standard UNI EN 1004:2005).

Environments of use

Suitable for industrial environments, also in presence of water and 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 36.

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	1.8	3	4.5	----	----
150x45 mm	< 1	1.5	2.5	3.9	----	----
200 mm	< 1	< 1	1.6	2.5	3.7	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 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. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

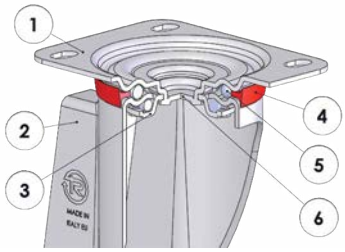
THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.11	611101	12	39	**160**	**75**	**75**
100	30	0.16	611102	12	44	**200**	**120**	**120**
125	35	0.25	611103	15	44	**350**	**180**	**180**
150	35	0.38	611105	15	44	**400**	**220**	**230**
150	45	0.39	611104	20	59	**450**	**240**	**250**
200	50	0.86	611106	20	59	**500**	**300**	**300**

mm	mm	kg	CODE	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.13	613101	0.13	613201	12	39	**160**	**75**	**75**
100	30	0.18	613102	0.18	613202	12	44	**200**	**120**	**120**
125	35	0.27	613103	0.27	613203	15	44	**350**	**180**	**180**
150	35	0.40	613105	0.40	613205	15	44	**400**	**220**	**230**
150	45	0.43	613104	0.43	613204	20	59	**450**	**240**	**250**
200	50	0.92	613106	0.92	613206	20	59	**500**	**300**	**300**

mm	mm	kg	CODE	kg	CODE	mm	mm.	Static daN	daN	4 km/h daN	6 km/h daN
80	30	0.17	612201	0.17	612401	8	40	**160**	**85**	**85**	**70**
100	30	0.21	612202	0.21	612402	8	45	**200**	**120**	**120**	**100**
125	35	0.30	612203	0.30	612403	8	45	**350**	**180**	**180**	**140**

Standard-duty brackets NL - max carrying capacity 300 daN



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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.62	614201	0.38	615701	0.81	616601	107	100x85	80x60	9	37	120	**75**
100	30	0.74	614202	0.43	615702	0.89	616602	128	100x85	80x60	9	35	120	**120**
125	35	0.91	614203	0.66	615703	1.05	616603	156	100x85	80x60	9	37	120	**180**
150	35	1.08	614204	0.80	615704	1.21	616604	182	100x85	80x60	9	34	120	**220**
150	45	1.83	614211	1.46	615711	2.11	616611	194	140x110	105x80	11	56	156	**250**
200	50	2.23	614206	1.81	615706	2.49	616606	240	140x110	105x80	11	56	156	**300**
80	30	0.63	614501	0.41	615901	0.84	616621	107	100x85	80x60	9	37	120	**75**
100	30	0.75	614502	0.43	615902	0.90	616622	128	100x85	80x60	9	35	120	**120**
125	35	0.92	614503	0.67	615903	1.07	616623	156	100x85	80x60	9	37	120	**180**
150	35	1.11	614504	0.82	615904	1.23	616624	182	100x85	80x60	9	34	120	**220**
150	45	1.98	614511	1.51	615911	2.16	616631	194	140x110	105x80	11	56	156	**250**
200	50	2.27	614506	1.86	615906	2.51	616626	240	140x110	105x80	11	56	156	**300**
80	30	0.60	614701	0.48	614801	0.77	614901	107	100x85	80x60	9	37	120	**85**
100	30	0.67	614702	0.53	614802	0.84	614902	128	100x85	80x60	9	35	120	**120**
125	35	0.82	614703	0.66	614803	1.02	614903	156	100x85	80x60	9	37	120	**180**

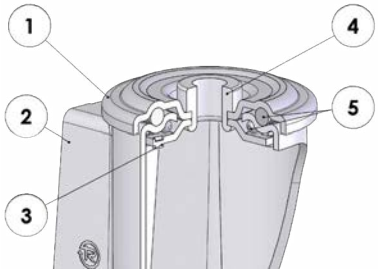
Options available to order:

Bracket
with directional
lock
d. 80-125 mm

Directional lock
for brackets
d. 150-200 mm

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

Standard-duty brackets NL - max carrying capacity 300 daN



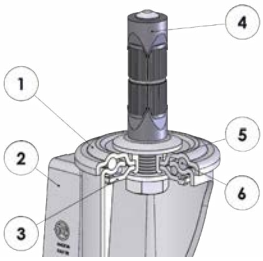
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication
Available with total front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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
80	30	0.55	617701	0.73	616401	107	73	12	37	120	**75**
100	30	0.67	617702	0.88	616402	128	73	12	35	120	**120**
125	35	0.85	617703	1.00	616403	156	73	12	37	120	**180**
150	35	1.01	617704	1.14	616404	182	73	12	34	120	**220**
150	45	1.69	617711	1.98	616411	188	102	20	56	156	**250**
200	50	2.13	617706	2.41	616406	236	102	20	56	156	**300**
80	30	0.57	617801	0.75	616421	107	73	12	37	120	**75**
100	30	0.68	617802	0.88	616422	128	73	12	35	120	**120**
125	35	0.87	617803	1.02	616423	156	73	12	37	120	**180**
150	35	1.03	617804	1.16	616424	182	73	12	34	120	**220**
150	45	1.74	617811	2.03	616431	188	102	20	56	156	**250**
200	50	2.18	617806	2.46	616426	236	102	20	56	156	**300**
80	30	0.56	614301	0.72	615501	107	73	12	37	120	**85**
100	30	0.61	614302	0.78	615502	128	73	12	35	120	**120**
125	35	0.79	614303	0.96	615503	156	73	12	37	120	**180**

Options available to order:

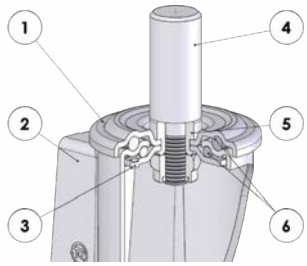
Fitting with threaded stem

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	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.67	619201	0.85	619301	109	20	65	20-24	37	120	**75**
100	30	0.79	619202	1.00	619302	130	20	65	20-24	35	120	**120**
125	35	0.97	619203	1.12	619303	158	20	65	20-24	37	120	**130**



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	1.67	616102	1.88	616202	128	73	22	47	35	120	**120**
125	35	1.85	616103	2.00	616203	156	73	22	47	37	120	**180**
150	35	2.01	616104	2.14	616204	182	73	22	47	34	120	**220**
150	45	2.69	616111	2.98	616211	188	102	26	56	56	156	**250**
200	50	3.13	616106	3.41	616206	236	102	26	56	56	156	**300**

Options available to order:

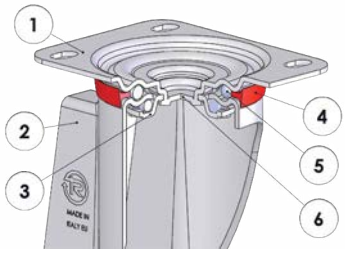
Bracket with Zamak stem fitted with wheels with roller bearings and single ball bearing
d. 80-125 mm

Fitting with solid stem with customised dimensions

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

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

INOX



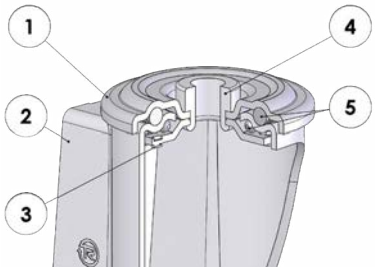
1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.61	614401	0.35	615101	0.78	616701	107	100x85	80x60	9	37	120	**75**
100	30	0.65	614402	0.40	615102	0.83	616702	128	100x85	80x60	9	35	120	**120**
125	35	0.81	614403	0.64	615103	0.95	616703	156	100x85	80x60	9	37	120	**180**
150	35	0.97	614404	0.81	615104	1.10	616704	182	100x85	80x60	9	34	120	**220**
150	45	1.77	614411	1.33	615111	1.98	616711	194	140x110	105x80	11	56	156	**250**
200	50	2.20	614406	1.71	615106	2.48	616706	240	140x110	105x80	11	56	156	**300**
80	30	0.64	614601	0.38	615601	0.81	616721	107	100x85	80x60	9	37	120	**75**
100	30	0.65	614602	0.41	615602	0.84	616722	128	100x85	80x60	9	35	120	**120**
125	35	0.83	614603	0.66	615603	0.97	616723	156	100x85	80x60	9	37	120	**180**
150	35	0.99	614604	0.83	615604	1.12	616724	182	100x85	80x60	9	34	120	**220**
150	45	1.82	614611	1.38	615611	2.03	616731	194	140x110	105x80	11	56	156	**250**
200	50	2.25	614606	1.74	615606	2.53	616726	240	140x110	105x80	11	56	156	**300**
80	30	0.60	615401	0.48	615001	0.77	616901	107	100x85	80x60	9	37	120	**85**
100	30	0.67	615402	0.53	615002	0.84	616902	128	100x85	80x60	9	35	120	**120**
125	35	0.78	615403	0.66	615003	0.95	616903	156	100x85	80x60	9	37	120	**180**

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

INOX



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

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
80	30	0.55	617901	0.72	618801	107	73	12	37	120	**75**
100	30	0.61	617902	0.82	618802	128	73	12	35	120	**120**
125	35	0.79	617903	0.94	618803	156	73	12	37	120	**180**
150	35	0.90	617904	1.03	618804	182	73	12	34	120	**220**
150	45	1.57	617911	1.85	618811	188	102	20	56	156	**250**
200	50	2.14	617906	2.40	618806	236	102	20	56	156	**300**
80	30	0.58	618001	0.75	618821	107	73	12	37	120	**75**
100	30	0.62	618002	0.82	618822	128	73	12	35	120	**120**
125	35	0.81	618003	0.96	618823	156	73	12	37	120	**180**
150	35	0.92	618004	1.05	618824	182	73	12	34	120	**220**
150	45	1.62	618011	1.90	618831	188	102	20	56	156	**250**
200	50	2.46	618006	2.45	618826	236	102	20	56	156	**300**
80	30	0.56	616301	0.72	616501	107	73	12	37	120	**85**
100	30	0.61	616302	0.78	616502	128	73	12	35	120	**120**
125	35	0.73	616303	0.88	616503	156	73	12	37	120	**180**

SERIES 68

POLYAMIDE 6 SOLID WHEELS

65-250 mm

70 Shore D

120-1200 daN
4 km/h

90-450 daN

-30 / +80 °C

INOX

Description

Polyamide 6 solid wheels 6, hardness 70 Shore D.

Hub with plain bore which directly houses the axle.
Hub with cylindrical roller bearing with plastic cage. Also available with stainless steel roller bearings.
Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding. The wheel is also available without bearings.

Uses

Intended mainly for static uses, for medium-heavy capacities.
The excellent rolling resistance ensures that minimum manual effort is needed in handling, but only on smooth floors.
Examples of recommended applications: trolleys for internal use in the food and canning industries, tannery equipment, flower trolleys, manual pallet trucks, mobile scaffoldings (fitted with adequate brackets, they meet UNI EN 1004:2005 Standards).

Environments of use

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

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

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

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	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.

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)
Maximum carrying capacity 400 daN - maximum capacity according to UNI EN 1004:2005 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)

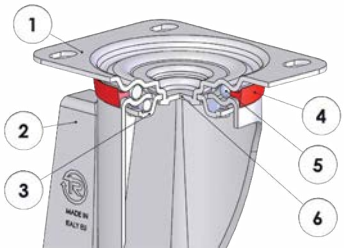
POLYAMIDE 6 SOLID WHEELS

mm	mm	kg	CODE	mm	mm.	Static daN	daN	4 km/h daN
65	30	0.06	681100	12	34	**125**	**90**	**120**
80	30	0.08	681111	12	39	**200**	**150**	**180**
100	30	0.13	681112	12	44	**350**	**175**	**300**
125	38	0.23	681103	15	44	**450**	**200**	**400**
150	45	0.34	681104	20	59	**600**	**250**	**500**
175	45	0.48	681105	20	59	**700**	**275**	**630**
200	50	0.64	681106	20	59	**800**	**315**	**730**
250	60	1.30	681108	25	88	**1300**	**450**	**1200**

mm	mm	kg	CODE	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
80	30	0.10	683111	0.10	683211	12	39	**200**	**150**	**180**
100	30	0.15	683112	0.15	683212	12	44	**350**	**175**	**300**
125	38	0.25	683103	0.25	683203	15	44	**450**	**200**	**400**
150	45	0.51	683104	0.51	683204	20	59	**600**	**250**	**500**
175	45	0.60	683105	0.60	683205	20	59	**700**	**275**	**630**
200	50	0.82	683106	0.82	683206	20	59	**800**	**315**	**730**
200	50	0.81	683116	0.81	683216	25	59	**800**	**315**	**730**
250	60	1.38	683108	1.38	683208	25	88	**1300**	**450**	**1200**

mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	Static daN	daN	4 km/h daN
200	50	0.82	683306	0.63	682106	20	60	47	14	**800**	**315**	**730**
200	50	0.81	683316	0.63	682106	25	60	47	14	**800**	**315**	**730**

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

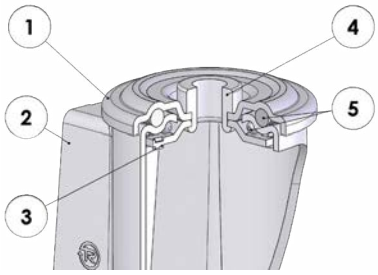
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
65	30	0.57	684500	0.37	685100			100	100x85	80x60	9	37		**120**
80	30	0.58	684501	0.39	685101	0.78	686801	107	100x85	80x60	9	37	120	**180**
100	30	0.65	684502	0.46	685102	0.85	686802	128	100x85	80x60	9	35	120	**200**
125	38	0.89	684503	0.64	685103	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)

POLYAMIDE 6 SOLID WHEELS

Standard-duty brackets NL - max carrying capacity 300 daN



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

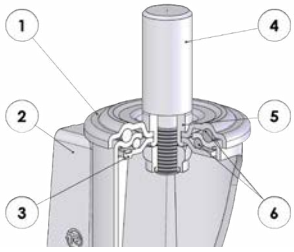
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN
65	30	0.51	687700			100	73	12	37		**120**
80	30	0.52	687701	0.70	686701	107	73	12	37	120	**180**
100	30	0.55	687702	0.80	686702	128	73	12	35	120	**200**
125	38	0.85	687703	0.99	686703	156	73	12	37	120	**220**
150	45	1.57	687704	1.86	686704	188	102	20	56	156	**300**
175	45	1.73	687705	2.02	686705	212	102	20	56	156	**300**
200	50	1.95	687706	2.24	686706	236	102	20	56	156	**300**
80	30	0.54	687901	0.73	686721	107	73	12	37	120	**180**
100	30	0.62	687902	0.83	686722	128	73	12	35	120	**200**
125	38	0.87	687903	1.02	686723	156	73	12	37	120	**220**
150	45	1.75	687904	2.03	686724	188	102	20	56	156	**300**
175	45	1.85	687905	2.14	686725	212	102	20	56	156	**300**
200	50	2.13	687906	2.42	686726	236	102	20	56	156	**300**
200	50	2.19	688006	2.48	686606	236	102	20	56	156	**300**

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	1.55	686102	1.80	687102	128	73	22	47	35	120	**200**		
125	38	1.85	686103	1.99	687103	156	73	22	47	37	120	**220**		
150	45	2.57	686104	2.86	687104	188	102	26	56	56	156	**300**		
200	50	2.95	686106	3.24	687106	236	102	26	56	56	156	**300**		

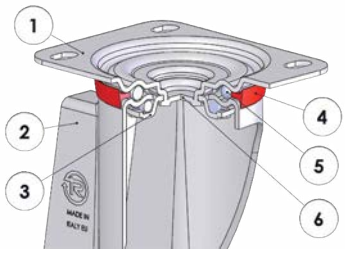
Options available to order:

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



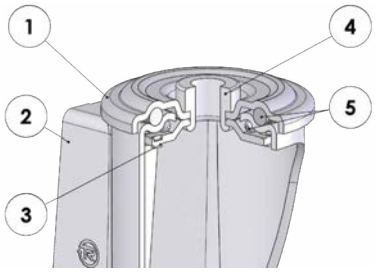
1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	30	0.55	684401	0.29	685401	0.73	689001	107	100x85	80x60	9	37	120	**180**
100	30	0.61	684402	0.36	685402	0.76	689002	128	100x85	80x60	9	35	120	**200**
125	38	0.78	684403	0.63	685403	0.95	689003	156	100x85	80x60	9	37	120	**220**
150B	45	1.03	684408	0.83	685408			182	100x85	80x60	9	50		**220**
150	45	1.65	684404	1.20	685404	1.94	689004	194	140x110	105x80	11	56	156	**300**
175	45	1.79	684405	1.35	685405	2.08	689005	217	140x110	105x80	11	56	156	**300**
200	50	2.02	684406	1.56	685406	2.30	689006	240	140x110	105x80	11	56	156	**300**
80	30	0.56	684601	0.31	685601	0.75	689101	107	100x85	80x60	9	37	120	**180**
100	30	0.64	684602	0.39	685602	0.79	689102	128	100x85	80x60	9	35	120	**200**
125	38	0.80	684603	0.65	685603	0.97	689103	156	100x85	80x60	9	37	120	**220**
150B	45	1.21	684608	1.00	685608			182	100x85	80x60	9	50		**220**
150	45	1.83	684604	1.39	685604	2.11	689104	194	140x110	105x80	11	56	156	**300**
175	45	1.91	684605	1.47	685605	2.20	689105	217	140x110	105x80	11	56	156	**300**
200	50	2.20	684606	1.75	685606	2.48	689106	240	140x110	105x80	11	56	156	**300**

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

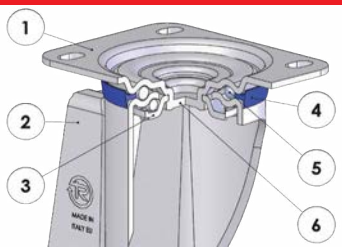
INOX



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

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

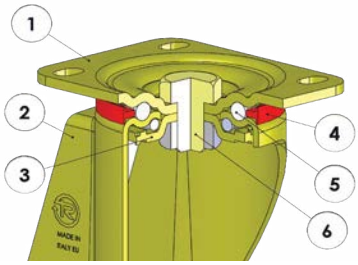
Medium-duty brackets M - max carrying capacity 500 daN



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	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**

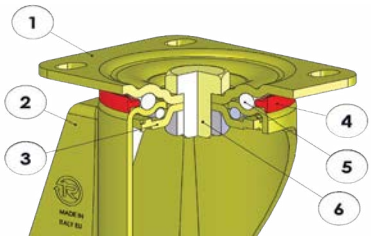
Medium-heavy duty brackets P - max carrying capacity 730 daN



1) Plate: 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	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	46	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	46	123	**350**

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



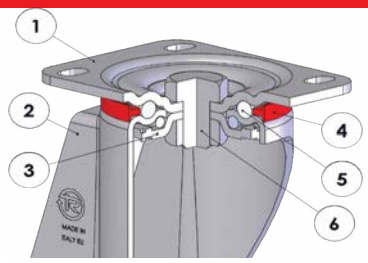
1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with adjustable total rear foot brake

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

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

INOX

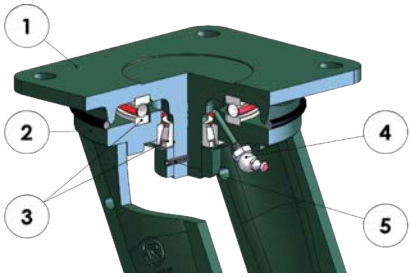


1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) Dust seal: red polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: screw and nut in stainless steel

Available with adjustable total rear foot brake

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

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	daN
250	60	7.99	688307	6.40	688407	8.87	688707	320	175x140	140x105	14	74	166	**1200**

4 km/h

Our work, our passion

tellure Rôta

SERIES 73

SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

100-200 mm

70 Shore A

150-450 daN
4 km/h

100-350 daN

-20 / +70 °C

INOX

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		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

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.

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 I
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.

Wheels with standard-duty bracket
in stainless steel NLX

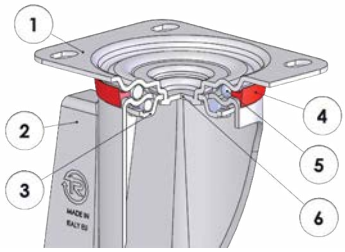
SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

mm	mm	kg	CODE	mm	mm.	Static daN	daN	4 km/h daN
100	40	0.31	731102	12	44	**200**	**100**	**150**
125	40	0.38	731103	15	44	**270**	**150**	**230**
160	50	0.83	731104	20	59	**350**	**200**	**300**
180	50	0.90	731105	20	59	**400**	**280**	**350**
200	50	1.04	731106	20	59	**510**	**350**	**450**

mm	mm	kg	CODE	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
100	40	0.36	733102			12	44	**200**	**100**	**150**
125	40	0.58	733103			20	44	**270**	**150**	**230**
160	50	1.04	733104	1.04	733204	20	59	**350**	**200**	**300**
180	50	1.10	733105	1.10	733205	20	59	**400**	**280**	**350**
200	50	1.25	733106	1.25	733206	20	59	**510**	**350**	**450**

mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	Static daN	daN	4 km/h daN
100	40	0.36	732102	0.29	734102	12	40	32	11.5	**200**	**120**	**150**
125	40	0.58	732103	0.38	734103	20	44	47	17	**270**	**200**	**230**
160	50	0.99	732104	0.79	734104	20	58	47	17	**350**	**250**	**300**
160	50	0.94	732114	0.79	734104	25	58	47	17	**350**	**250**	**300**
180	50	1.05	732105	0.85	734105	20	58	47	17	**400**	**320**	**350**
180	50	1.00	732115	0.85	734105	25	58	47	17	**400**	**320**	**350**
200	50	1.12	732106	0.92	734106	20	58	47	17	**510**	**350**	**450**
200	50	1.07	732116	0.92	734106	25	58	47	17	**510**	**350**	**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-riveted

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
100	40	0.85	735002	0.65	735102	0.97	735202	128	100x85	80x60	9	35	120	**150**
125	40	1.08	735003	0.81	735103	1.19	735203	156	100x85	80x60	9	37	120	**220**
160	50	2.11	735004	1.74	735104	2.36	735204	198	140x110	105x80	11	56	156	**300**
180	50	2.22	735005	1.81	735105	2.46	735205	219	140x110	105x80	11	56	156	**300**
200	50	2.44	735006	1.98	735106	2.69	735206	240	140x110	105x80	11	56	156	**300**
100	40	0.91	735302	0.70	735402	1.02	735502	128	100x85	80x60	9	35	120	**150**
125	40	1.23	735303	0.96	735403	1.34	735503	156	100x85	80x60	9	37	120	**220**
160	50	2.32	735304	1.89	735404	2.51	735504	198	140x110	105x80	11	56	156	**300**
180	50	2.42	735305	1.96	735405	2.61	735505	219	140x110	105x80	11	56	156	**300**
200	50	2.65	735306	2.06	735406	2.77	735506	240	140x110	105x80	11	56	156	**300**
100	40	0.91	735602	0.70	735702	1.02	735802	128	100x85	80x60	9	35	120	**150**
125	40	1.23	735603	0.96	735703	1.34	735803	156	100x85	80x60	9	37	120	**220**
160	50	2.32	735604	1.94	735704	2.56	735804	198	140x110	105x80	11	56	156	**300**
180	50	2.42	735605	2.01	735705	2.66	735805	219	140x110	105x80	11	56	156	**300**
200	50	2.65	735606	2.19	735706	2.89	735806	240	140x110	105x80	11	56	156	**300**

Options available to order:

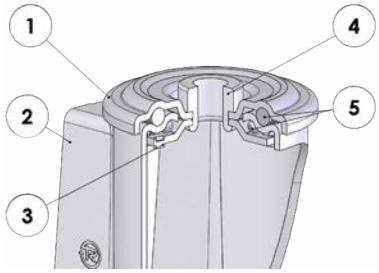
Bracket
with directional
lock
d. 80-125 mm

Directional lock
for brackets
d. 150-200 mm

Bracket
with active
centralised
brake
d. 160-200 mm

SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

Standard-duty brackets NL - max carrying capacity 300 daN



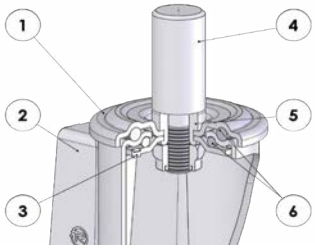
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication
Available with total front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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN (4 km/h)
100	40	0.75	737702	0.93	738202	128	73	12	35	120	**150**
125	40	0.90	737703	1.11	738203	156	73	12	37	120	**220**
160	50	1.43	737704	1.56	738204	193	102	20	56	156	**300**
180	50	2.21	737705	2.49	738205	214	102	20	56	156	**300**
200	50	2.35	737706	2.63	738206	236	102	20	56	156	**300**
100	40	0.81	737802	0.98	738302	128	73	12	35	120	**150**
125	40	1.05	737803	1.26	738303	156	73	12	37	120	**220**
160	50	1.64	737804	1.77	738304	193	102	20	56	156	**300**
180	50	2.41	737805	2.69	738305	214	102	20	56	156	**300**
200	50	2.56	737806	2.84	738306	236	102	20	56	156	**300**
100	40	0.81	735902	0.98	738402	128	73	12	35	120	**150**
125	40	1.05	735903	1.26	738403	156	73	12	37	120	**220**
160	50	1.64	735904	1.77	738404	193	102	20	56	156	**300**
180	50	2.41	735905	2.69	738405	214	102	20	56	156	**300**
200	50	2.56	735906	2.84	738406	236	102	20	56	156	**300**

Options available to order:

Bracket with Zamak stem fitted
d. 80-125 mm

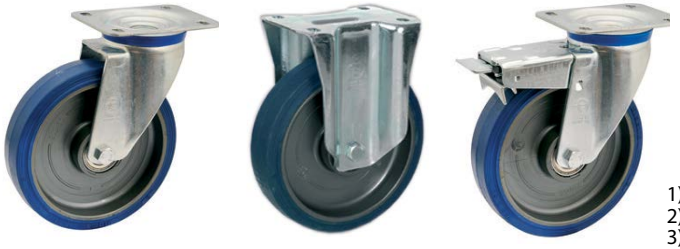
Standard-duty brackets NL - max carrying capacity 300 daN

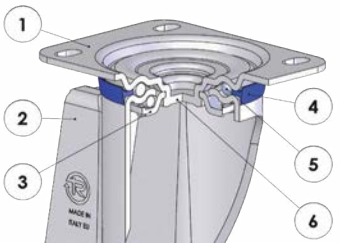


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Solid stem: galvanised steel
5) King pin: bushing in galvanised steel
6) Swivel actions: double ball ring with grease lubrication
Available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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
100	40	1.75	738702	1.93	738802	128	73	22	47	35	120	**150**
125	40	1.90	738703	2.11	738803	156	73	22	47	37	120	**220**
160	50	2.43	738704	2.56	738804	193	102	26	56	56	156	**300**
180	50	3.21	738705	3.49	738805	214	102	26	56	56	156	**300**
200	50	3.35	738706	3.63	738806	236	102	26	56	56	156	**300**

Medium-duty brackets M - max carrying capacity 450 daN



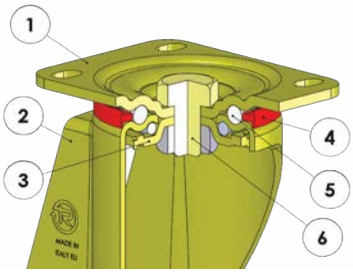


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
160	50	2.46	736904	1.74	735104	2.89	737604	199	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	199	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	199	140x110	105x80	11	58	178	**300**
200	50	2.91	739106	2.06	735706	3.32	739206	240	140x110	105x80	11	50	178	**450**

SIGMA ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

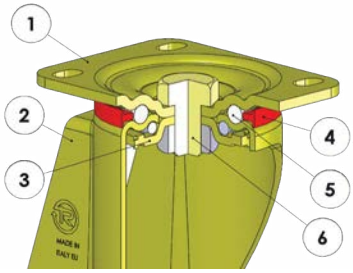
Medium-heavy duty brackets P - max carrying capacity 450 daN



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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
100	40	1.18	736002	0.69	736102	1.33	736202	138	100x85	80x60	9	46	123	**150**
125	40	1.34	736003	0.82	736103	1.48	736203	161	100x85	80x60	9	44	123	**230**
100	40	1.23	736302	0.73	736402	1.37	736502	138	100x85	80x60	9	46	123	**150**
125	40	1.49	736303	0.97	736403	1.63	736503	161	100x85	80x60	9	44	123	**230**
100	40	1.23	736602	0.73	736702	1.37	736802	138	100x85	80x60	9	46	123	**150**
125	40	1.49	736603	0.97	736703	1.63	736803	161	100x85	80x60	9	44	123	**230**



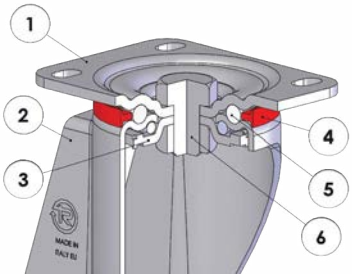
1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with adjustable total rear foot brake

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

SERIES 73AE

ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

100-200 mm

70 Shore A

150-350 kg
4 km/h

100-235 daN

-20 / +70 °C

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 36.

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.

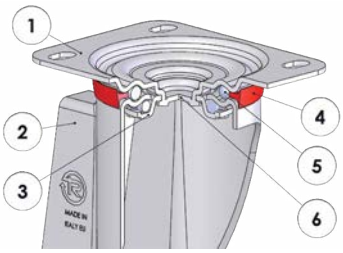
Medium-heavy duty brackets P
Maximum carrying capacity 350 daN - available diameters 100-200 mm
Top plate fitting. Available with front brake and adjustable rear brake.

ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
100	36	0.22	731102AE	12	44	**200**	**100**	**150**
125	36	0.33	731103AE	12	44	**270**	**150**	**200**
160	48	0.76	731104AE	20	59	**350**	**175**	**300**
200	48	1.06	731106AE	20	59	**510**	**235**	**350**

mm	mm	kg	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN
100	36	0.32	732102AE	12	40	32	10	**200**	**100**	**150**
125	36	0.41	732103AE	12	40	32	10	**270**	**150**	**200**
160	48	0.98	732104AE	20	55	47	14	**350**	**175**	**300**
200	48	1.28	732106AE	20	55	47	14	**510**	**235**	**350**

Standard-duty brackets NL - max carrying capacity 300 daN

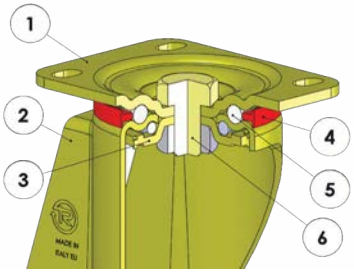


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
100	36	0.76	735002AE	0.56	735102AE	0.88	735202AE	128	100x85	80x60	9	35	120	**150**
125	36	1.03	735003AE	0.76	735103AE	1.14	735203AE	156	100x85	80x60	9	37	120	**200**
160	48	2.04	735004AE	1.67	735104AE	2.29	735204AE	198	140x110	105x80	11	56	156	**300**
200	48	2.46	735006AE	2.00	735106AE	2.71	735206AE	240	140x110	105x80	11	56	156	**300**
100	36	0.87	735602AE	0.66	735702AE	0.93	735802AE	128	100x85	80x60	9	35	120	**150**
125	36	1.06	735603AE	0.79	735703AE	1.12	735803AE	156	100x85	80x60	9	37	120	**200**
160	48	2.26	735604AE	1.88	735704AE	2.50	735804AE	198	140x110	105x80	11	56	156	**300**
200	48	2.68	735606AE	2.22	735706AE	2.93	735806AE	240	140x110	105x80	11	56	156	**300**

ELASTIC RUBBER WHEELS WITH POLYAMIDE 6 CENTRE

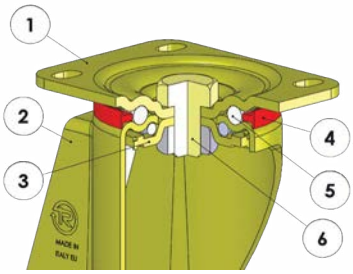
Medium-heavy duty brackets P - max carrying capacity 350 daN



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



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

Details make the difference

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INDUSTRIAL

HEAVY DUTY LOADS AND MECHANICAL HANDLING

SERIES **62AL**

"TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

100-250 mm | 4 km/h 300-800 daN | 300-600 daN | 6 km/h 300-800 daN | -20 / +70 °C

PAGE 134

SERIES **62NY**

"TR-ROLL" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

100-125 mm | 4 km/h 230-280 daN | 230-280 daN | 6 km/h 230-280 daN | -20 / +70 °C | ERGO WORKPLACE

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SERIES **64**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

80-400 mm | 4 km/h 280-3500 daN | 190-750 daN | 6 km/h 220-2800 daN | -20 / +80 °C

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SERIES **65HT**

THICK "TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

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

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SERIES **68P**

POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS

100-200 mm | 4 km/h 400-900 daN | 120-380 daN | -30 / +80 °C | INOX

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SERIES **72GH**

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

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

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SERIES
62ER

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

125-200 mm | 4 km/h 350-700 daN | 350-700 daN | 6 km/h 350-700 daN | -20 / +70 °C | ERGO WORKPLACE

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SERIES
62GH

"TR-ROLL" POLYURETHANE WHEELS WITH CAST IRON CENTRE

200-400 mm | 4 km/h 800-1700 daN | 700-900 daN | 6 km/h 800-1700 daN | -20 / +70 °C

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SERIES
63AC

VULKOLLAN® WHEELS WITH STEEL CENTRE

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

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SERIES
63GH

VULKOLLAN® WHEELS WITH CAST IRON CENTRE

80-300 mm | 4 km/h 280-2300 daN | 190-600 daN | 6 km/h 220-1800 daN | -20 / +80 °C

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SERIES
65AL

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

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

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SERIES
65GH

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

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

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SERIES
65ER

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

125-200 mm | 4 km/h 450-800 daN | 250-300 daN | 6 km/h 360-640 daN | -20 / +80 °C | ERGO WORKPLACE

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SERIES
66

"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

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

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SERIES
69

CAST IRON SOLID WHEELS

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

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SERIES
72AL

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

100-200 mm | 4 km/h 180-500 daN | 180-300 daN | 6 km/h 140-400 daN | -20 / +70 °C

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SERIES 62 AL

"TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

100-250 mm

75 Shore A

300-800 daN
4 km/h

300-800 daN
6 km/h

300-550 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.

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		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

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	2,5	4	----	----	----	----
125 mm	1,8	3,2	5	----	----	----
160 mm	1,4	2,8	3,5	4,5	5	----
180 mm	< 1	2	3,2	4,2	4,7	----
200 mm	< 1	1,5	2,8	3,7	4,3	5
250 mm	< 1	1,3	2,5	3,7	4,3	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.

Fittings with brackets

Standard-duty brackets NL
Maximum carrying capacity 300 daN - available diameters 100-125 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 750 daN - available diameters 100-250 mm
Top plate fitting. Available with front brake and 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.

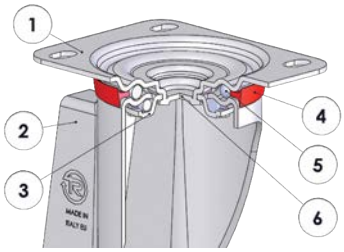
Twin electrowelded brackets EEG MHD - EEG HD
Maximum carrying capacity 1400 daN - available diameters 100-200 mm
Top plate fitting.

SERIES

62AL "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
100	40	0.48	622102	0.39	624102	15	40	32	10	**400**	**300**	**300**	**300**
125	40	0.79	622113	0.54	624113	20	40	47	14	**500**	**350**	**350**	**350**
125	40	0.81	622103	0.56	624103	20	50	47	14	**500**	**350**	**350**	**350**
160	50	1.25	622104	1.00	624104	20	58	47	14.5	**800**	**550**	**550**	**550**
160	50	1.24	622114	1.00	624104	25	58	47	14.5	**800**	**550**	**550**	**550**
180	50	1.50	622105	1.25	624105	20	60	47	14.5	**900**	**600**	**600**	**600**
200	50	1.85	622106	1.60	624106	20	60	47	14.5	**1000**	**700**	**700**	**700**
200	50	1.84	622116	1.60	624106	25	60	47	14.5	**1000**	**700**	**700**	**700**
250	50	2.40	622108	2.10	624108	20	55	52	15	**1000**	**700**	**800**	**800**

Standard-duty brackets NL - max carrying capacity 300 daN

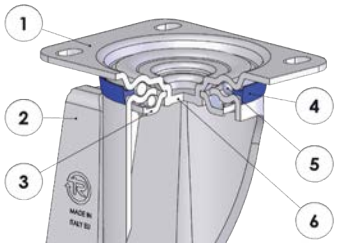


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
100	40	0.86	624402	0.83	626202	1.05	627302	128	100x85	80x60	9	37	120	**200**
125	40	1.35	624413	1.17	626213	1.51	627313	156	100x85	80x60	9	35	120	**220**
125	40	1.46	624403	1.11	626203	2.34	627303	165	140x110	105x80	11	57	156	**300**

Medium-duty brackets M - max carrying capacity 500 daN

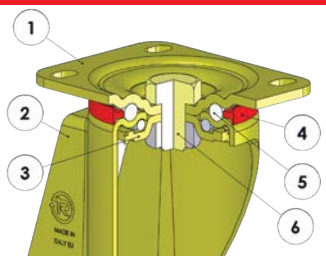


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electroplated galvanised steel
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with adjustable total front foot brake

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

Medium-heavy duty brackets P - max carrying capacity 700 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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	40	1.35	627602	0.85	628512	1.52	627202	138	100x85	80x60	9	46	123	**300**	**300**
125	40	1.70	627613	1.26	628513	1.87	627213	161	100x85	80x60	9	44	123	**350**	**350**

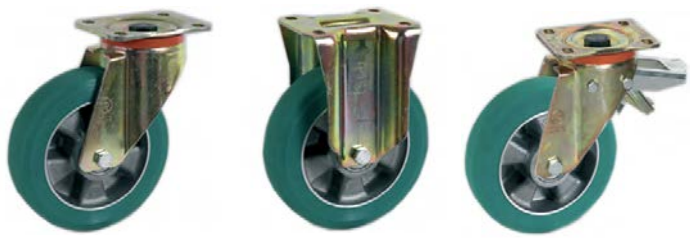
Options available to order:

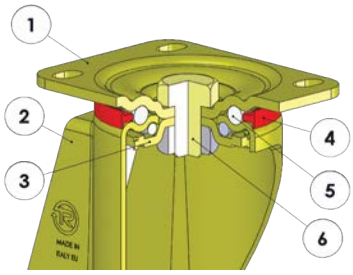
Footguard
for brackets
NL-M-P

SERIES

62AL "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

Heavy duty brackets P - max carrying capacity 750 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	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	40	2,33	627603	1,69	628503	2,86	627203	170	140x110	105x80	11	70	126	**350**	**350**
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	66	126	**750**	**750**

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

1) Plate: green galvanised forged steel
2) Fork: green 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

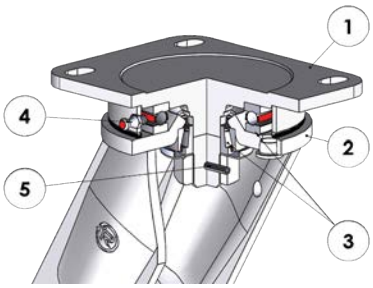
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
160	50	3.76	627824	3.35	628824	4.28	626664	205	135x110	105x80	11	70	126	**550**	**550**
200	50	4.57	627826	4.13	628826	5.14	626656	250	135x110	105x80	11	70	126	**700**	**700**

Options available to order:

Footguard for brackets NL-M-P

Directional lock for brackets P diam. 160-200 mm

Electrowelded brackets EE MHD - max carrying capacity 700 daN

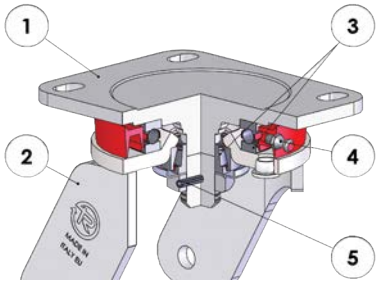


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
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 daN	6 km/h daN
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:

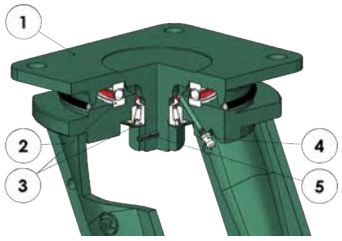
Wheels EE MHD with steering system

Directional lock for brackets EE MHD - EE HD - EED MHD: see page 326

SERIES

62AL "TR-ROLL" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

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

											4 km/h	6 km/h
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	628066	7.70	628166	280	175x140	140x105	14	65	**1400**	**1400**

Flexibility you need

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SERIES 62ER

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

125-200 mm

75 Shore A

350-700 daN
4 km/h

350-700 daN
6 km/h

350-700 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.

ERGO WORKPLACE

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/powered 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 36.

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
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

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

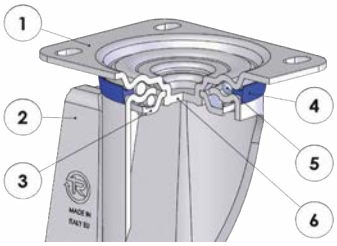
Extra-heavy duty brackets EP
Maximum carrying capacity 700 daN - available diameters 160-200 mm
Top plate fitting. Available with adjustable rear brake.

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

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

										Static		4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN
125	40	0,73	622143	0,51	624143	20	50	47	14	**500**	**350**	**350**	**350**
125	50	0,88	622153	0,65	624153	20	58	47	14	**500**	**450**	**450**	**400**
160	50	1,11	622144	0,89	624144	20	58	47	14,5	**800**	**550**	**550**	**550**
200	50	1,68	622146	1,44	624146	20	60	47	14,5	**1000**	**700**	**700**	**700**

Medium-duty brackets M - max carrying capacity 500 daN



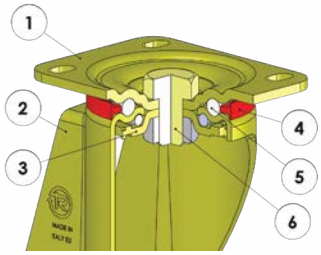
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electroplated galvanised steel
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted
Available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

														4 km/h
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**

Options available to order:

Footguard
for brackets M

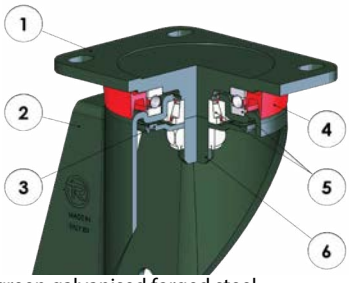
Heavy duty brackets P - max carrying capacity 700 daN



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	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	40	2,27	629003	1,63	629103	2,83	629203	170	140x110	105x80	11	70	126	**350**	**350**
125	50	2,42	629013	2,78	629113	2,95	629213	170	140x110	105x80	11	70	126	**450**	**400**
160	50	3,46	629004	2,28	629104	4,27	629204	205	140x110	105x80	11	70	126	**550**	**550**
200	50	4,14	629006	2,68	629106	4,74	629206	250	140x110	105x80	11	70	126	**700**	**700**

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



1) Plate: green galvanised forged steel
2) Fork: green 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	4 km/h daN	6 km/h 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**

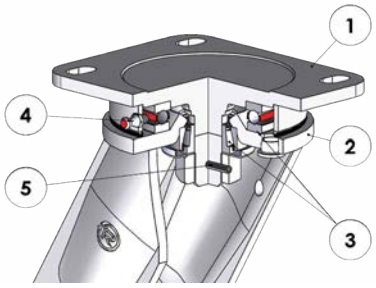
Options available to order:

Footguard
for brackets P

Directional lock
for brackets
P diam. 160-200 mm

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

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 daN	6 km/h 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 - EED MHD: see page 326

Details make the difference

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SERIES 62GH

"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 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 on request.**

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

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

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 800 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.

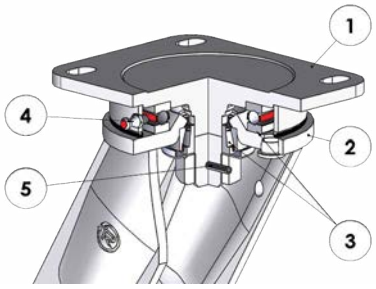
Options available to order:

Wheel with key housing

"TR-ROLL" POLYURETHANE WHEELS WITH CAST IRON CENTRE

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN		
200	50	3,40	622126	3,17	624126	20	55	47	14	**1000**	**700**	**800**	**800**		
200	80	6,63	622136	6,14	624136	25	88	62	18	**1200**	**750**	**900**	**900**		
250	80	8,50	622127	8,00	624127	25	86	62	17	**1600**	**800**	**1200**	**1200**		
300	80	11,50	622128	11,00	624128	30	86	62	17	**1900**	**850**	**1400**	**1400**		
400	100	33,50	622109	32,70	624109	40	100	80	18	**2000**	**900**	**1700**	**1700**		

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

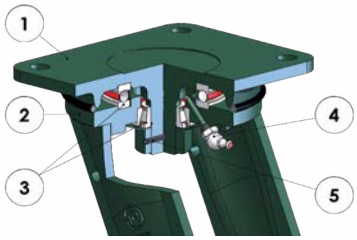
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
200	50	6,54	628316	5,56	628416	7,42	628616	252	135x110	105x80	11	70	157	**800**	**800**

Options available to order:

Wheel with key housing

Directional lock for brackets EE MHD - EE HD - EED MHD: see page 326

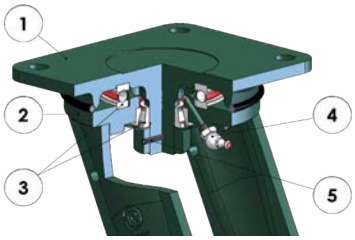
Electrowelded brackets EE HD - Max. carrying capacity 1400 daN



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	4 km/h daN	6 km/h 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**

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

mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
400	100	49,55	628729	44,85	628829	475	250x200	210x160	19	95	**1700**	**1700**

Options available to order:

Wheel with key housing

Directional lock for brackets EE MHD - EE HD - EED MHD: see page 326

SERIES 62 NY

"TR-ROLL" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

100-125 mm

75 Shore A

230-280 daN
4 km/h

230-280 daN
6 km/h

230-280 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 mm).

Centre: polyamide 6.

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

ERGO WORKPLACE

Uses

Excellent for trolleys and equipments handling medium-heavy and heavy duty loads, also suitable for continous 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 absorbtion 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 chemichal 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	■	▨	□	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

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
100 mm	< 1	1	2	----	----
125 mm	< 1	< 1	1,5	2	2,5
125 ER mm	< 1	< 1	1,5	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

Standard-duty brackets NL
Maximum carrying capacity 220 daN - available diameters 100-125 mm.
Top plate fittings. Available with front brake.

Medium-heavy duty brackets P
Maximum carrying capacity 280 daN - available diameters 100-125 mm
Top plate fitting. Available with front brake.

Options available to order:

Fitting with stainless steel NLX brackets

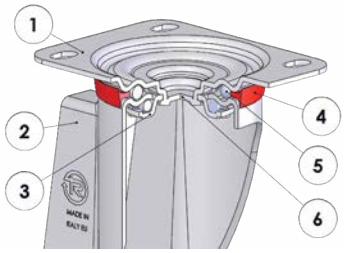
"TR-ROLL" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
100	40	0,34	622302	0,27	624302	15	40	32	9	**300**	**230**	**230**	**230**
125	40	0,45	622303	0,37	624303	15	40	32	9	**350**	**280**	**280**	**280**

Ergonomic round profile

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
125ER	40	0,40	622603	0,32	624603	15	40	32	9	**300**	**250**	**250**	**250**

Standard-duty brackets NL - max carrying capacity 220 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

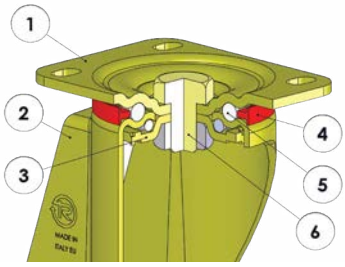
Available with total front foot brake

mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h 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**

Options available to order:

Fitting with stainless steel NLX brackets

Medium-heavy duty brackets P - max carrying capacity 280 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	4 km/h daN	6 km/h 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**

SERIES 63 AC

VULKOLLAN® WHEELS WITH FORGED STEEL CENTRE

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 36.

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.

Extra-heavy duty brackets EP
Maximum carrying capacity 1500 daN - available diameters 100-250 mm
Top plate fitting. Available with adjustable rear brake.

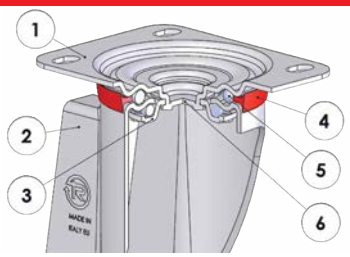
Options available to order:

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.

VULKOLLAN® WHEELS WITH FORGED STEEL CENTRE

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
100	30	0,74	632122	0,67	634122	12	30	32	10	**375**	**190**	**250**	**200**
125	40	1,38	632123	1,31	634123	12	40	32	10	**500**	**230**	**350**	**280**
150	40	1,84	632124	1,66	634124	17	40	40	12	**900**	**320**	**750**	**600**
150	40	1,76	632224	1,60	634224	20	40	42	12	**900**	**320**	**750**	**600**
175	40	2,80	632125	2,56	634125	20	40	47	14	**1200**	**340**	**850**	**680**
200	50	4,03	632126	3,79	634126	20	50	47	14	**1800**	**420**	**1100**	**880**
200	50	4,00	632226	3,72	634226	25	50	52	15	**1800**	**420**	**1100**	**880**
250	60	8,03	632128	7,75	634128	25	60	52	15	**2200**	**550**	**1500**	**1200**

Standard-duty brackets NL - max carrying capacity 300 daN



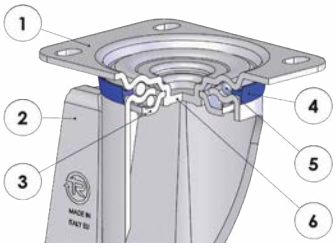
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN
100	30	1.26	637322	1.01	638222	128	100x85	80x60	9	35	**200**
125	40	2.03	637323	1.68	638223	156	100x85	80x60	9	37	**220**
150	40	2.54	637304	2.15	638214	182	100x85	80x60	9	34	**220**
150	40	3.21	637324	2.84	638224	194	140x110	105x80	11	56	**300**
175	40	4.18	637325	3.89	638225	217	140x110	105x80	11	56	**300**
200	50	5.43	637326	5.21	638226	240	140x110	105x80	11	56	**300**

Options available to order:

Footguard
for brackets
NL-M-P

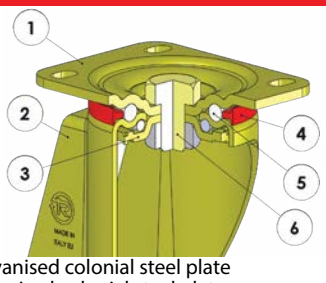
Medium-duty brackets M - max carrying capacity 500 daN



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: 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	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:

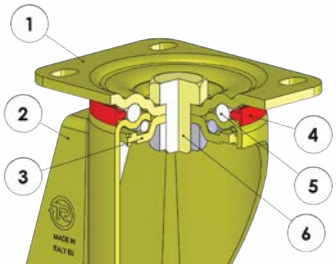
Footguard
for brackets
NL-M-P

SERIES

63 AC

VULKOLLAN® WHEELS WITH FORGED STEEL CENTRE

Heavy duty brackets P - max carrying capacity 750 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

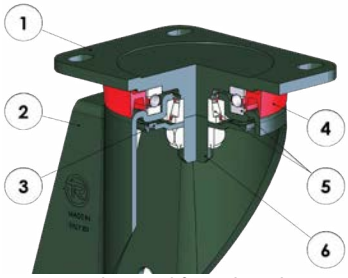
Available with total adjustable rear foot brake

														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**

Options available to order:

Footguard
for brackets
NL-M-P

Extra-heavy duty brackets EP - max carrying capacity 1500 daN



1) Plate: green galvanised forged steel
2) Fork: green 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 daN	6 km/h daN
100	30	1.85	637822	1.61	638822			140	100x85	80x60	9	46		**250**	**200**
125	40	2.56	637823	1.70	638823			164	100x85	80x60	9	48		**350**	**280**
150	40	4.46	637824	3.97	638824	5.03	636504	200	135x110	105x80	11	70	126	**750**	**600**
175	40	5.44	637825	5.02	638825	6.01	636505	225	135x110	105x80	11	70	126	**850**	**680**
200	50	6.75	637826	6.30	638826	7.32	636506	250	135x110	105x80	11	70	126	**1100**	**880**
250	60	13.58	637828	11.74	638828			300	175x140	140x105	14	66		**1500**	**1200**

SERIES 63GH

VULKOLLAN® WHEELS WITH CAST IRON CENTRE

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 36.

Floors

Suitable for tiles and cement-resin.
Not suitable if large obstacles are present.

Force required to push or tow a wheel

4 km/h	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.

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.

Options available to order:

Wheel
with
key housing

Wheel
with very thick
tyre

SERIES

63GH

VULKOLLAN® WHEELS WITH CAST IRON CENTRE

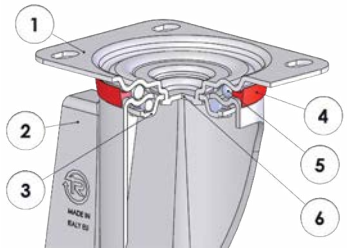
										Static		4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN
80	28	0,51	632151	0,46	634151	12	32	28	8	**370**	**190**	**280**	**220**
100	38	1,02	632152	0,91	634152	15	40	35	11	**500**	**220**	**380**	**300**
125	38	1,45	632153	1,34	634153	15	40	35	11	**600**	**240**	**450**	**360**
125	50	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**	**700**	**560**
150	50	2,48	632354	2,28	634154	25	55	47	14	**910**	**290**	**700**	**560**
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	80	7,26	632166	6,74	634166	25	86	62	17	**2000**	**450**	**1600**	**1300**
200	80	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	80	9,81	632167	9,29	634167	25	86	62	17	**2800**	**500**	**1900**	**1500**
250	80	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	80	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

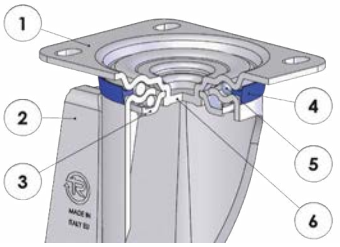
Standard-duty brackets NL - max carrying capacity 300 daN



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-riveted
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	28	0.95	634551	0.82	634651	1.11	635451	107	100x85	80x60	9	37	120	**200**
100	38	1.51	634552	1.40	634652	1.67	635452	128	100x85	80x60	9	35	120	**200**
125	38	1.97	634553	1.86	634653	2.13	635453	156	100x85	80x60	9	37	120	**220**
125	50	3.38	634563	2.89	634663	3.58	635463	165	140x110	105x80	11	57	156	**300**
150	50	3.87	634554	3.59	634654			194	140x110	105x80	11	56		**300**
160	50	3.98	634564	3.71	634664	4.23	635474	199	140x110	105x80	11	56	156	**300**
180	50	4.48	634555	4.21	634655	4.68	635465	220	140x110	105x80	11	56	156	**300**
200	50	5.16	634556	4.92	634656	5.36	635466	240	140x110	105x80	11	56	156	**300**

Medium-duty brackets M - max carrying capacity 500 daN

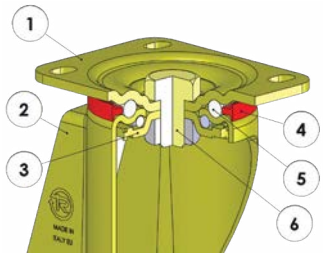


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	50	4.21	637424	3.59	634654	4.65	636724	194	140x110	105x80	11	58	178	**500**
160	50	4.33	637434	3.71	634664	4.78	636734	199	140x110	105x80	11	58	178	**500**
200	50	5.55	637426	4.92	634656	5.91	636726	240	140x110	105x80	11	50	178	**500**

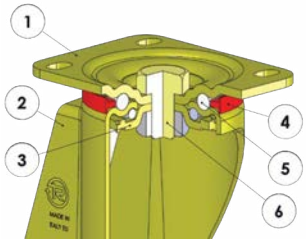
VULKOLLAN® WHEELS WITH CAST IRON CENTRE

Heavy-duty brackets P - max carrying capacity 750 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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
80	28	1.38	635851	0.96	636851			128	100x85	80x60	9	46		**280**	**220**
100	38	1.93	635852	1.52	636852	2.06	634852	138	100x85	80x60	9	46	123	**350**	**300**
125	38	2.37	635853	2.04	636853	2.50	634853	161	100x85	80x60	9	44	123	**350**	**300**



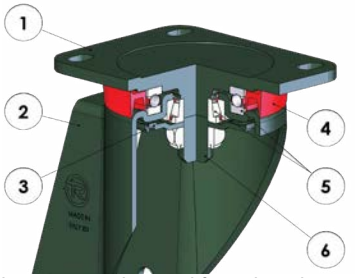
1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut
Available with total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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50	3.66	635863	2.65	636863	4.24	634863	170	140x110	105x80	11	70	126	**550**	**440**
150	50	4.81	635854	3.55	636854	5.33	634854	200	140x110	105x80	11	70	126	**700**	**560**
160	50	4.93	635864	4.08	636864	5.45	634864	205	140x110	105x80	11	70	126	**750**	**600**
180	50	5.30	635855	4.45	636855	5.90	634855	228	140x110	105x80	11	70	126	**750**	**600**
200	50	6.06	635856	5.15	636856	6.66	634856	250	140x110	105x80	11	70	126	**750**	**600**

Options available to order:

Footguard
for brackets
NL-M-P

Extra-heavy duty brackets P - max carrying capacity 1600 daN

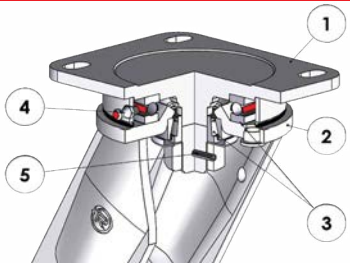


1) Plate: green galvanised forged steel
2) Fork: green galvanised forged steel
3) Lower bearing protection ring
4) Dust seal: orange polyethylene
5) Swivel actions: axial ball bearing and tapered roller bearing
6) King pin: integrated with the machine-processed plate

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
100	38	2.15	637852	1.92	638852			140	100x85	80x60	9	46		**350**	**300**
125	38	2.64	637853	2.44	638853			164	100x85	80x60	9	48		**350**	**300**
150	50	5.04	637854	4.63	638854	5.56	636654	200	135x110	105x80	11	70	126	**700**	**560**
160	50	5.16	637864	4.75	638864	5.68	636664	205	135x110	105x80	11	70	126	**750**	**560**
180	50	5.60	637855	5.20	638855	6.20	636655	228	135x110	105x80	11	70	126	**900**	**720**
200	50	6.35	637856	6.06	638856	6.95	636656	250	135x110	105x80	11	70	126	**1000**	**800**
200	80	12.30	637866	10.46	638866			275	175x140	140x105	14	66		**1600**	**1300**
250	60	13.16	637857	11.32	638857			300	175x140	140x105	14	66		**1500**	**1200**

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	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50	4.88	638303	3.90	638403	5.76	638903	182	135x110	105x80	11	51	157	**600**	**440**
150	50	5.50	638304	4.51	638404	6.38	638904	210	135x110	105x80	11	60	157	**700**	**560**
160	50	5.65	638314	4.66	638414	6.53	638914	215	135x110	105x80	11	60	157	**750**	**600**
180	50	6.14	638305	5.16	638405	7.02	638905	242	135x110	105x80	11	70	157	**900**	**720**
200	50	6.77	638306	5.79	638406	7.65	638906	252	135x110	105x80	11	70	157	**1000**	**800**

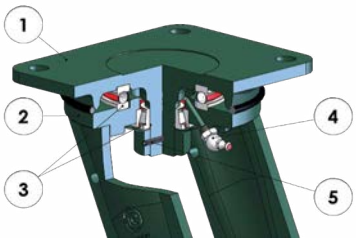
Options available to order:

Bracket
EE MHD
with helm

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

VULKOLLAN® WHEELS WITH CAST IRON CENTRE

Electrowelded brackets EE HD - max carrying capacity 2300 daN

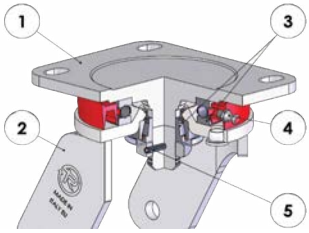


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
200	80	13.72	638316	12.18	638416	14.60	638916	275	175x140	140x105	14	65	166	**1600**	**1300**
250	60	14.82	638307	13.23	638407	15.70	638907	320	175x140	140x105	14	74	166	**1500**	**1200**
250	80	16.50	638317	14.91	638417	17.38	638917	320	175x140	140x105	14	74	166	**1600**	**1300**
250	80	17.56	638327	15.23	638427	18.44	638927	325	200x160	160x120	17	74	166	**1900**	**1500**
300	60	18.24	638308	16.62	638408	19.12	638908	360	175x140	140x105	14	81	166	**1600**	**1300**
300	60	19.30	638328	16.95	638428	20.18	638928	365	200x160	160x120	17	81	166	**1750**	**1400**
300	80	20.61	638318	18.99	638418	21.49	638918	360	175x140	140x105	14	81	166	**1600**	**1300**
300	80	21.67	638338	19.32	638438	22.55	638938	365	200x160	160x120	17	81	166	**2300**	**1800**

Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN



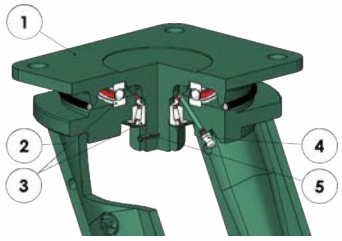
1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

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	**700**	**600**
125	38+38	5.45	638063	4.70	638163	170	135x110	105x80	11	55	**900**	**720**

Options available to order:

Directional lock for brackets EE MHD - EE HD - EED MHD: see page 326

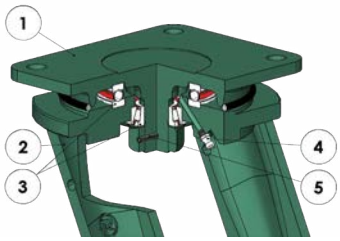
Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN



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	**1200**	**880**
150	50+50	13.10	638074	8.70	638174	223	175x140	140x105	14	50	**1400**	**1100**
160	50+50	13.40	638084	9.00	638184	228	175x140	140x105	14	50	**1500**	**1200**
200	50+50	15.90	638066	11.30	638166	280	175x140	140x105	14	65	**1600**	**1300**
200	50+50	17.55	638076	12.70	638176	285	200x160	160x120	17	65	**2000**	**1600**

Twin electrowelded brackets EEG MHD - max carrying capacity 3500 daN



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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
200	80+80	34.80	638086	25.05	638186	280	250x200	210x160	19	52	**3200**	**2500**
250	60+60	36.95	638067	27.20	638167	330	250x200	210x160	19	62	**3000**	**2400**
250	80+80	40.30	638077	30.55	638177	330	250x200	210x160	19	62	**3500**	**2800**

SERIES 64

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

80-400 mm

95 Shore A

280-3500 daN
4 km/h

220-2800 daN
6 km/h

190-750 daN

-20 / +80 °C

Description

Tyre: "TR" polyurethane, hardness 95 Shore A, excellent rolling resistance and elasticity, highly resistant to wear.

Centre: cast iron.

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

Uses

Ideal for applications with heavy duty loads, even with mechanical handling at high speeds. Combined with appropriate brackets, they guarantee excellent performance up to 16 km/h.
The excellent rolling resistance allows an easy handling of heavy loads even with wheels of small diameter.
The plain bore version, with key way or spline, is suitable for use as a drive wheel.
Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks.

Environments of use

Designed for industrial environments, even in presence of alcohols, glycols, hydrocarbons. Not recommended in areas with organic acids and mineral acids, base solutions and saturated steam.

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

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

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.

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

Options available to order:

Wheel
with
key housing

Wheel
with very thick
tyre

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

mm	mm	kg	COD.	mm	mm.	mm.	mm.	Static daN	4 km/h daN	6 km/h daN
100	40	1,50	641102	15 H7	45	55	30	**500**	**300**	**300**
125	40	1,30	641103	20 H7	60	60	30	**600**	**400**	**400**
150	40	2,90	641104	20 H7	60	70	40	**730**	**500**	**500**
150	50	3,70	641114	20 H7	60	70	40	**910**	**700**	**700**
180	50	4,40	641105	20 H7	60	70	40	**1100**	**800**	**800**
200	50	4,60	641106	20 H7	60	70	40	**1500**	**950**	**950**
200	60	6,00	641116	25 H7	60	70	40	**1700**	**1000**	**1000**
200	80	8,40	641126	40 H7	80	95	60	**2000**	**1400**	**1400**
250	50	6,60	641107	20 H7	60	75	45	**1800**	**1100**	**1100**
250	80	11,00	641117	40 H7	80	95	60	**2800**	**1600**	**1600**
250	80	10,10	641127	60 H7	80	95	60	**2800**	**1600**	**1600**
300	80	14,40	641108	50 H7	80	100	65	**3400**	**2000**	**2000**
300	100	21,20	641118	50 H7	100	120	80	**4200**	**2500**	**2500**
350	100	26,10	641109	50 H7	100	120	80	**4700**	**2800**	**2800**
400	100	31,60	641110	50 H7	100	120	80	**5000**	**3500**	**3500**

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 or 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.

Options available to order:

Wheel with key housing

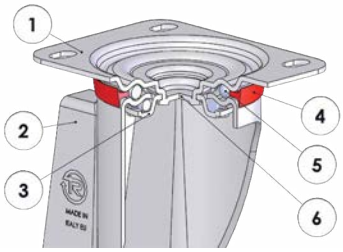
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN Static	daN	daN 4 km/h	daN 6 km/h
80	28	0,51	642151	0,46	644151	12	32	28	8	**370**	**190**	**280**	**220**
100	38	1,02	642152	0,91	644152	15	40	35	11	**500**	**220**	**380**	**300**
125	38	1,45	642153	1,34	644153	15	40	35	11	**600**	**240**	**450**	**360**
125	50	1,98	642163	1,76	644163	20	55	47	14	**800**	**270**	**550**	**440**
125	50	1,96	642363	1,76	644163	25	55	47	14	**800**	**270**	**550**	**440**
125	58	2,86	642103	2,62	644103	20	58	47	15	**800**	**250**	**600**	**480**
150	50	2,50	642154	2,28	644154	20	55	47	14	**910**	**290**	**700**	**560**
150	50	2,48	642354	2,28	644154	25	55	47	14	**910**	**290**	**700**	**560**
150	58	2,83	642104	2,59	644104	20	58	47	15	**1400**	**350**	**850**	**680**
150	78	5,69	642124	5,19	644124	25	88	62	18	**1700**	**400**	**1000**	**800**
160	50	2,65	642164	2,43	644164	20	55	47	14	**1000**	**300**	**750**	**600**
160	50	2,63	642364	2,43	644164	25	55	47	14	**1000**	**300**	**750**	**600**
180	50	3,02	642155	2,80	644155	20	55	47	14	**1100**	**350**	**900**	**720**
200	50	3,65	642156	3,43	644156	20	55	47	14	**1500**	**380**	**1000**	**800**
200	50	3,63	642356	3,43	644156	25	55	47	14	**1500**	**380**	**1000**	**800**
200	78	7,26	642166	6,74	644166	25	86	62	17	**2000**	**450**	**1600**	**1300**
200	78	7,24	642366	6,74	644166	30	86	62	17	**2000**	**450**	**1600**	**1300**
250	60	8,13	642157	7,61	644157	25	65	62	17	**2500**	**480**	**1500**	**1200**
250	60	8,10	642357	7,61	644157	30	65	62	17	**2500**	**480**	**1500**	**1200**
250	78	9,81	642167	9,81	644167	25	86	62	17	**2800**	**500**	**1900**	**1500**
250	78	9,80	642367	9,81	644167	30	86	62	17	**2800**	**500**	**1900**	**1500**
300	60	11,43	642158	10,96	644158	30	65	62	17	**3200**	**550**	**1750**	**1400**
300	78	13,80	642168	13,33	644168	30	86	62	17	**3400**	**600**	**2300**	**1800**
360	120	31,63	642139	30,50	644139	40	120	90	23	**3800**	**750**	**2800**	**2200**
400	100	28,86	642129	26,30	644129	50	120	110	28	**4500**	**750**	**2800**	**2200**

Options available to order:

Wheel
with very thick
tyre

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

Standard-duty brackets NL - max carrying capacity 300 daN

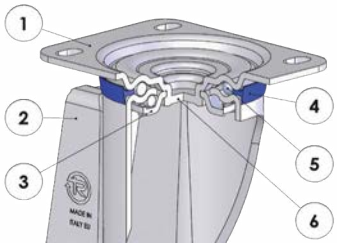


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with total front foot brake

														4 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
80	28	0.95	644551	0.82	644651	1.11	645451	107	100x85	80x60	9	37	120	**200**
100	38	1.51	644552	1.40	644652	1.67	645452	128	100x85	80x60	9	35	120	**200**
125	38	1.97	644553	1.86	644653	2.13	645453	156	100x85	80x60	9	37	120	**220**
125	50	3.38	644563	2.89	644663	3.58	645463	165	140x110	105x80	11	56	156	**300**
150	50	3.87	644554	3.59	644654	4.12	645464	194	140x110	105x80	11	56	156	**300**
160	50	3.98	644564	3.71	644664	4.23	645474	199	140x110	105x80	11	56	156	**300**
200	50	4.48	644555	4.21	644655	4.68	645465	220	140x110	105x80	11	56	156	**300**
200	50	5.16	644556	4.92	644656	5.36	645466	240	140x110	105x80	11	56	156	**300**

Medium-duty brackets M - max carrying capacity 500 daN



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

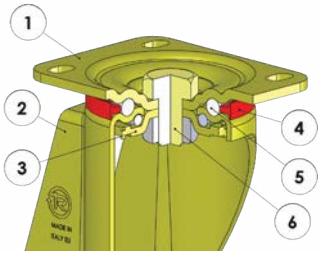
Available with adjustable total front foot brake

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

Options available to order:

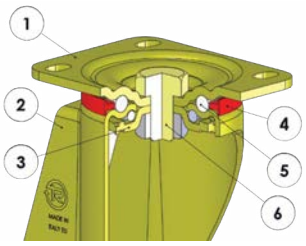
Footguard
for brackets
NL-M-P

Medium-heavy duty brackets P - max carrying capacity 750 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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
80	28	1.38	645851	0.96	646851			128	100x85	80x60	9	46	123	**280**	**220**
100	38	1.93	645852	1.52	646852	2.06	644852	131	100x85	80x60	9	46	123	**350**	**300**
125	38	2.37	645853	2.04	646853	2.50	644853	161	100x85	80x60	9	48	123	**350**	**300**



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 adjustable rear foot brake

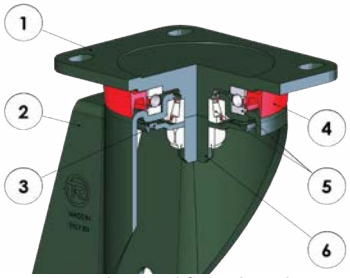
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50	3.66	645863	2.65	646863	4.24	644863	170	140x110	105x80	11	70	126	**550**	**440**
150	50	4.81	645854	3.55	646854	5.33	644854	200	140x110	105x80	11	70	126	**700**	**560**
160	50	4.93	645864	4.08	646864	5.45	644864	205	140x110	105x80	11	70	126	**750**	**600**
180	50	5.30	645855	4.45	646855	5.90	644855	228	140x110	105x80	11	70	126	**750**	**600**
200	50	6.06	645856	5.15	646856	6.66	644856	250	140x110	105x80	11	70	126	**750**	**600**

Options available to order:

Footguard
for brackets
NL-M-P

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

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

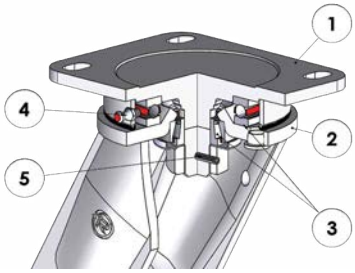


1) Plate: green galvanised forged steel
2) Fork: green galvanised forged steel
3) Lower bearing protection ring
4) Dust seal: orange polyethylene
5) Swivel actions: axial ball bearing and tapered roller bearing
6) King pin: integrated with the machine-processed plate

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h 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	**700**	**560**
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**

Electrowelded brackets EE MHD - max carrying capacity 1000 daN

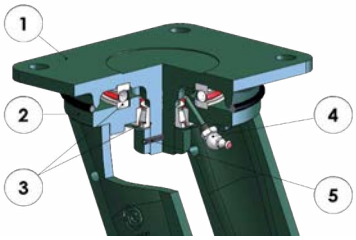


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50	4.88	648303	3.90	648403	5.76	648503	182	135x110	105x80	11	51	157	**550**	**440**
150	50	5.50	648304	4.51	648404	6.38	648504	210	135x110	105x80	11	60	157	**700**	**560**
160	50	5.65	648314	4.66	648414	6.53	648514	215	135x110	105x80	11	60	157	**750**	**600**
180	50	6.14	648305	5.16	648405	7.02	648505	242	135x110	105x80	11	70	157	**900**	**720**
200	50	6.77	648306	5.79	648406	7.65	648506	252	135x110	105x80	11	70	157	**1000**	**800**

Electrowelded brackets EE HD - max carrying capacity 2300 daN

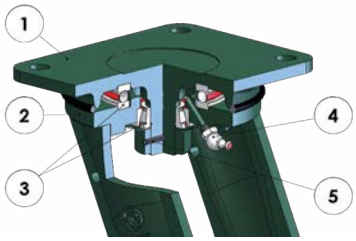


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
150	78	12.15	648315	10.61	648415	13.03	648515	218	175x140	140x105	14	50	166	**1000**	**800**
150	78	12.15	648324	10.61	648424			223	200x160	160x120	17	50		**1000**	**800**
200	78	13.72	648316	12.18	648416	14.60	648516	275	175x140	140x105	14	65	166	**1600**	**1300**
250	60	14.82	648307	13.23	648407	15.70	648507	320	175x140	140x105	14	74	166	**1500**	**1200**
250	78	16.50	648317	14.91	648417	17.38	648517	320	175x140	140x105	14	74	166	**1600**	**1300**
250	78	17.56	648327	15.23	648427	18.44	648527	325	200x160	160x120	17	74	166	**1900**	**1500**
300	60	18.24	648308	16.62	648408	19.12	648508	360	175x140	140x105	14	81	166	**1600**	**1300**
300	60	19.30	648328	16.95	648428	20.18	648528	365	200x160	160x120	17	81	166	**1750**	**1400**
300	78	20.61	648318	18.99	648418	21.49	648518	360	175x140	140x105	14	81	166	**1600**	**1300**
300	78	21.67	648338	19.32	648438	22.55	648538	365	200x160	160x120	17	81	166	**2300**	**1800**

Electrowelded bracket EE EHD - max carrying capacity 2800 daN



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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
300	100	29.80	648309	25.10	648409	384	250x200	210x160	19	78	**2500**	**2000**
400	100	44.91	648310	40.21	648410	475	250x200	210x160	19	95	**2800**	**2200**

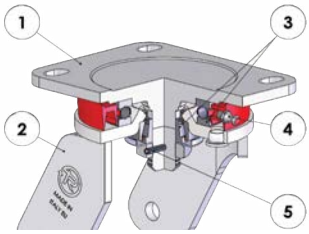
Options available to order:

Bracket EE MHD with steering system

Directional lock for brackets EE MHD - EE HD - EED MHD: see page 326

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

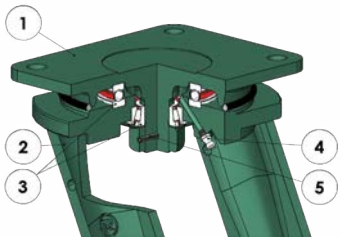
Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN



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	648062	3.75	648162	140	135x110	105x80	11	55	**700**	**600**
125	38+38	5.45	648063	4.70	648163	170	135x110	105x80	11	55	**900**	**720**

Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN



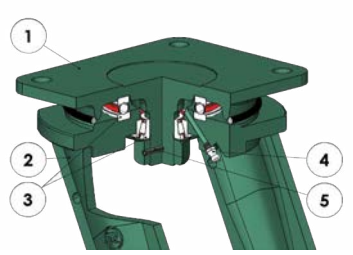
1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50+50	11.00	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	**1400**	**1100**
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**

Options available to order:

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

Twin electrowelded brackets EEG MHD - max carrying capacity 4300 daN



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

												4 km/h	6 km/h	
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**		

SERIES 65 AL

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

80-200 mm

95 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 95 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 36.

Floors

Suitable for tiles and cement-resin.
Not suitable if large obstacles are present.

Force required to push or tow a wheel

	100 kg	200 kg	350 kg	500 kg	650 kg	850 kg
80 mm	2.8	5.8	----	----	----	----
100 mm	1.7	4.5	----	----	----	----
125 mm	1.4	3	----	----	----	----
150 mm	< 1	2	6	7.6	10.7	----
160 mm	< 1	1.8	5	7.4	10.5	----
200 mm	< 1	1.4	4.8	7.2	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 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 750 daN - available diameters 100-200 mm
Top plate fitting. Available with front brake and 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.

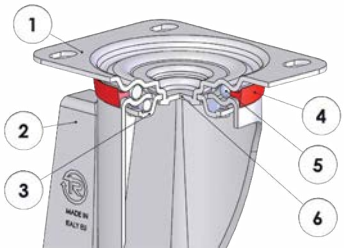
Options available to order:

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.

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
80	25	0,20	652101	0,15	654101	12	30	28	8	**280**	**150**	**220**	**170**
100	30	0,34	652102	0,25	654102	12	40	32	10	**350**	**225**	**250**	**200**
125	35	0,50	652103	0,41	654103	12	40	32	10	**500**	**280**	**400**	**320**
150	40	0,91	651104	0,66	653104	20	50	47	14	**850**	**330**	**600**	**480**
160	50	1,25	652114	0,99	654114	20	60	47	14,5	**950**	**350**	**800**	**640**
200	50	1,47	651106	1,16	653106	20	55	52	15	**1000**	**360**	**850**	**680**
200	50	1,45	651206	1,16	653106	25	55	52	15	**1000**	**360**	**850**	**680**

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

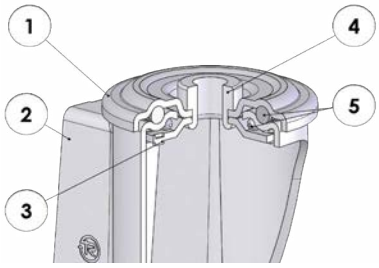
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
80	25	0.72	659301	0.52	658201	0.91	656501	107	100x85	80x60	9	37	120	**200**
100	30	0.94	659302	0.69	658202	1.08	656502	128	100x85	80x60	9	35	120	**200**
125	35	1.14	659303	0.89	658203	1.28	656503	156	100x85	80x60	9	37	120	**220**
150	40	1.66	659312	1.52	658112			182	100x85	80x60	9	50		**220**
150	40	2.34	659304	2.04	658104	2.63	656504	194	140x110	105x80	11	56	156	**300**
160	50	2.68	659514	2.38	658114	2.97	656514	198	140x110	105x80	11	56	156	**300**
200	50	3.05	659306	2.76	658106	3.25	656506	240	140x110	105x80	11	56	156	**300**

Options available to order:

Directional lock
for brackets
d. 150-200 mm

Footguard
for brackets
NL-M-P

Standard-duty brackets NL - max carrying capacity 300 daN

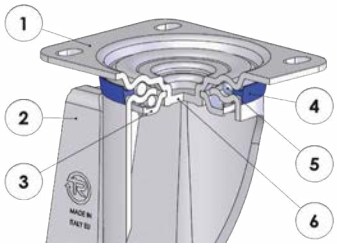


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication
Available with total front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

mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN
80	25	0,65	656401	0,78	656801	107	73	12	37	120	**200**
100	30	0,88	656402	1,02	656802	128	73	12	35	120	**200**
125	35	1,08	656403	1,23	656803	156	73	12	37	120	**220**
150	40	2,20	656404	2,49	656804	188	102	20	56	156	**300**
160	50	2,54	656414	2,96	656814	193	102	20	56	156	**300**
200	50	2,95	656406	3,24	656806	236	102	20	56	156	**300**

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

Medium-duty brackets M - max carrying capacity 500 daN

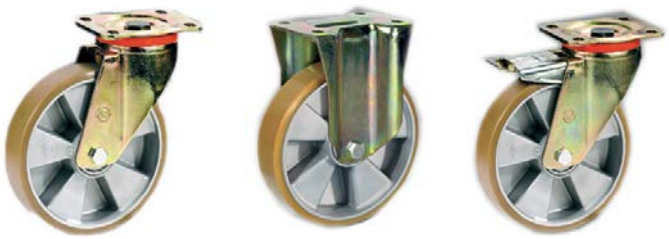


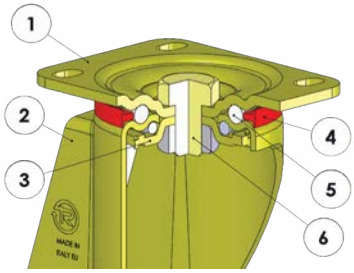
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with adjustable total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	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: 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

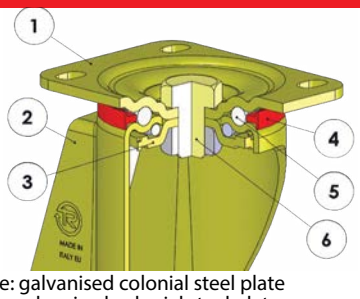
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	30	1.20	657602	0.82	658602	1.35	656602	138	100x85	80x60	9	46	123	**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:

Footguard
for brackets
NL-M-P

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

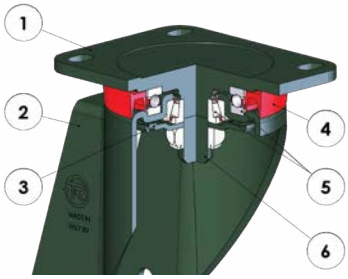


1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
150	40	3.18	657604	2.19	658604	3.75	656604	200	140x110	105x80	11	70	126	**600**	**480**
160	50	3.52	657514	2.53	658614	4.09	656614	205	140x110	105x80	11	70	126	**750**	**600**
200	50	3.94	657606	2.48	658606	4.51	656606	250	140x110	105x80	11	70	126	**750**	**600**

Extra-heavy duty brackets EP - max carrying capacity 850 daN



1) Plate: green galvanised forged steel
2) Fork: green 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 daN	6 km/h daN
100	30	1.44	657802	1.31	658802			140	100x85	80x60	9	46		**250**	**200**
125	35	1.79	657803	1.45	658803			164	100x85	80x60	9	48		**350**	**280**
150	40	3.44	657704	2.96	658704	4.01	656904	200	135x110	105x80	11	70	126	**600**	**480**
160	50	3.78	657714	3.30	658714	4.35	657014	205	135x110	105x80	11	70	126	**800**	**640**
200	50	4.19	657706	3.75	658706	4.76	656906	250	135x110	105x80	11	70	126	**850**	**680**

Options available to order:

Directional lock
for P brackets
d. 150-200 mm

Footguard
for brackets
NL-M-P

SERIES 65GH

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

150-300 mm

95 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 95 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 36.

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.

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:

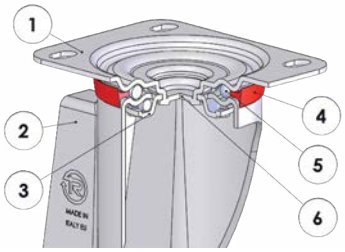
The series 65GH wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

SERIES

65GH "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
150	30	1,45	652104	0,96	654104	17	30	40	12	**700**	**280**	**400**	**320**
150	35	1,60	652224	1,36	654224	20	35	47	14	**825**	**290**	**490**	**390**
175	35	2,03	652105	1,79	654105	20	35	47	14	**900**	**350**	**650**	**520**
200	45	3,51	652106	3,27	654106	20	45	47	14	**1125**	**380**	**1000**	**800**
200	45	3,42	652206	3,14	654206	25	45	52	15	**1125**	**380**	**1000**	**800**
250	50	5,50	652208	5,31	654108	20	50	52	15	**1750**	**400**	**1200**	**960**
250	50	5,59	652108	5,31	654108	25	50	52	15	**1750**	**400**	**1200**	**960**
300	70	12,31	652109	11,85	654109	30	70	62	16	**3000**	**550**	**2200**	**1700**

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

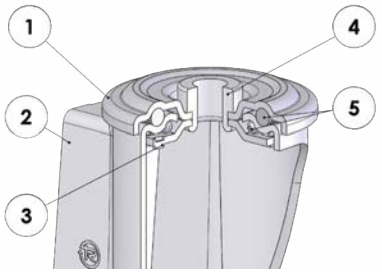
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
150	30	2.81	656204	2.45	658204	3.10	656524	192	140x110	105x80	11	56	156	**300**
150	35	2.96	656214	2.60	658214	3.25	656534	192	140x110	105x80	11	56	156	**300**
175	35	3.41	656205	3.12	658205	3.69	656525	217	140x110	105x80	11	56	156	**300**
200	45	4.92	656206	4.70	658206	4.70	656526	240	140x110	105x80	11	56	156	**300**

Options available to order:

Directional lock
for brackets
d. 150-200 mm

Footguard
for brackets
NL-M-P

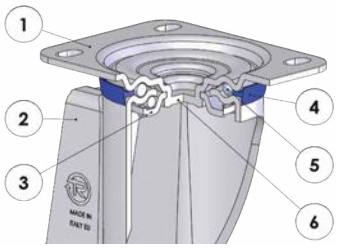
Standard-duty brackets NL - max carrying capacity 300 daN



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	4 km/h daN
150	30	2,68	656424	2,96	656824	188	102	20	56	156	**300**
150	35	2,83	656434	3,11	656834	188	102	20	56	156	**300**
175	35	3,29	656425	3,57	656825	212	102	20	56	156	**300**
200	45	4,77	656426	5,06	656826	236	102	20	56	156	**300**

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-riveted
Available with adjustable total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
150	35	3.31	657214	2.60	658214	3.78	657334	194	140x110	105x80	11	58	178	**490**
200	45	5.31	657206	4.70	658206	5.25	657326	240	140x110	105x80	11	50	178	**500**

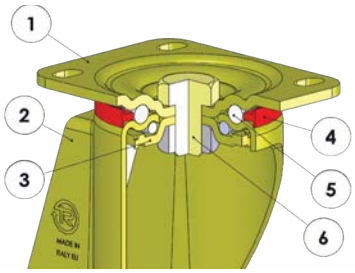
Options available to order:

Footguard
for brackets
NL-M-P

SERIES

65GH "TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

Medium-heavy duty brackets P - max carrying capacity 750 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

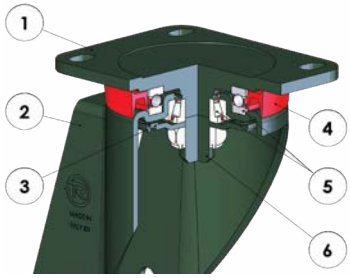
														4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
150	30	3,80	657404	2,36	658404	4,08	656624	200	140x110	105x80	11	70	126	**400**	**320**
150	35	3,95	657414	2,51	658414	4,52	656634	200	140x110	105x80	11	70	126	**490**	**390**
175	35	4,42	657405	3,00	658405	4,99	656625	225	140x110	105x80	11	70	126	**650**	**520**
200	45	5,89	657406	4,43	658406	6,46	656626	250	140x110	105x80	11	70	126	**750**	**600**
250	50	8,10	657408	7,00	658408	8,80	656628	298	140x110	105x80	11	66	126	**750**	**600**

Available versions that can be specially ordered

Directional lock for brackets d. 150-200 mm

Footguard for brackets NL-M-P

Extra-heavy duty brackets EP - max carrying capacity 1200 daN



1) Plate: green galvanised forged steel
2) Fork: green 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 daN	6 km/h daN
150	30	4.06	657804	2.32	658804			200	135x110	105x80	11	70		**400**	**320**
150	35	4.21	657814	3.73	658814	4.78	656914	200	135x110	105x80	11	70	126	**490**	**390**
175	35	4.66	657805	4.24	658805	5.23	656915	225	135x110	105x80	11	70	126	**650**	**520**
200	45	6.14	657806	5.70	658806	6.71	656916	250	135x110	105x80	11	70	126	**1000**	**800**
250	50	11.14	657808	9.30	658808			300	175x140	140x105	14	66		**1200**	**960**

SERIES 65 HT

WHEELS WITH THICK "TR" POLYURETHANE AND ALUMINIUM CENTRE

100-250 mm

95 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 95 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 36.

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

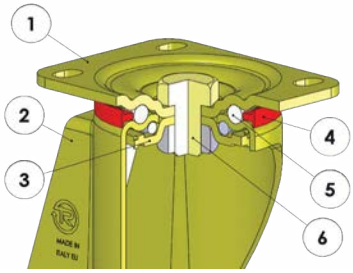
Medium-heavy duty brackets P
Maximum carrying capacity 750 daN - available diameters 100-250 mm
Top plate fitting. Available with front brake and adjustable rear brake.

Electrowelded brackets EE MHD
Maximum carrying capacity 800 daN - available diameters 100-200 mm
Top plate fitting. Available with adjustable rear brake.

WHEELS WITH THICK "TR" POLYURETHANE AND ALUMINIUM CENTRE

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN		
100	40	0.46	652302	0.38	654302	15	40	32	9	**500**	**270**	**350**	**280**		
125	40	0.76	652303	0.41	654303	20	50	47	14	**650**	**280**	**450**	**360**		
160	50	1.18	652304	0.95	654304	20	58	47	14.5	**900**	**320**	**700**	**560**		
180	50	1.44	652305	1.21	654305	20	60	47	14.5	**950**	**335**	**750**	**600**		
200	50	1.76	652306	1.52	654306	20	60	47	14.5	**1000**	**350**	**800**	**640**		
250	50	2.40	652308	2.10	654308	20	55	52	15	**1200**	**380**	**1000**	**800**		

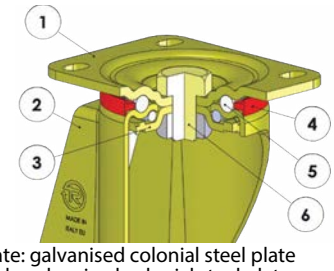
Medium-heavy duty brackets P - max carrying capacity 750 daN



1) Plate: galvanised colonial platesteel
2) Fork: galvanised colonial platesteel
3) Ball race ring: galvanised colonial platesteel
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	4 km/h daN	6 km/h daN
100	40	1.33	655302	0.83	655412	1.50	655502	138	100x85	80x60	9	46	123	**350**	**280**

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

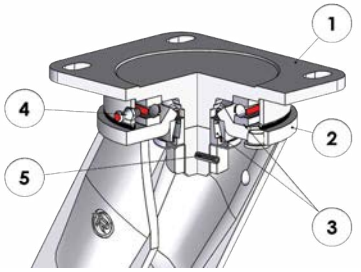


1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	40	2.30	655303	1.63	655403	2.83	655503	170	140x110	105x80	11	70	126	**450**	**360**
160	50	3.53	655310	2.04	655414	4.10	655504	205	140x110	105x80	11	70	126	**700**	**560**
180	50	3.78	655305	2.36	655415	4.35	655505	228	140x110	105x80	11	70	126	**750**	**600**
200	50	4.22	655316	2.76	655416	4.82	655506	250	140x110	105x80	11	70	126	**750**	**600**
250	50	4.84	655318	3.74	655418	5.54	655508	298	140x110	105x80	11	66	126	**750**	**600**

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	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
100	40	3.36	655602	2.38	655702	4.24	655802	170	135x110	105x80	11	51	157	**350**	**280**
125	40	3.68	655603	2.70	655703	4.56	655803	182	135x110	105x80	11	51	157	**450**	**360**
160	50	4.18	655614	3.19	655714	5.06	655814	215	135x110	105x80	11	60	157	**700**	**560**
180	50	4.56	655605	3.58	655705	5.45	655805	242	135x110	105x80	11	70	157	**750**	**600**
200	50	4.88	655606	3.90	655706	6.22	655806	252	135x110	105x80	11	70	157	**800**	**640**

Options available to order:

Directional lock for P brackets d. 150-200 mm

Directional lock for brackets EE MHD - EE HD - EED MHD: see page 326

Footguard for brackets M-P

SERIES 65 ER

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

125-200 mm

95 Shore A

450-800 daN
4 km/h

360-640 daN
6 km/h

250-300 daN

-20 / +80 °C

Description

Tyre: very thick TR-Roll polyurethane with ergonomic round profile; hardness 95 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.

ERGO WORKPLACE

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 36.

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.

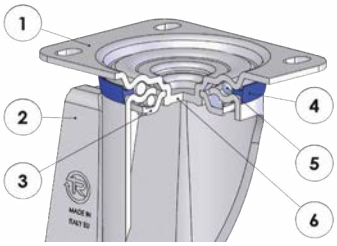
Extra-heavy duty brackets EP
Maximum carrying capacity 800 daN - available diameters 160-200 mm
Top plate fitting. Available with adjustable rear brake.

Electrowelded brackets EE MHD
Maximum carrying capacity 800 daN - available diameters 125-200 mm
Top plate fitting. Available with adjustable rear brake.

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

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
125	40	0,73	652503	0,51	654503	20	50	47	14	**650**	**250**	**450**	**360**
160	50	1,11	652504	0,89	654504	20	58	47	14,5	**900**	**280**	**700**	**560**
200	50	1,68	652506	1,44	654506	20	60	47	14,5	**1000**	**300**	**800**	**640**

Medium-duty brackets M - max carrying capacity 500 daN



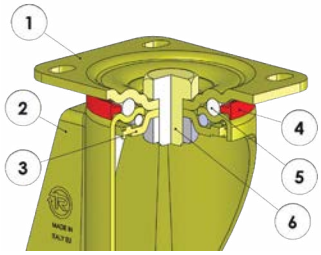
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electroplated galvanised steel
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted
Available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

mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN
160	50	2,81	655904	2,10	656004	3,28	656304	199	140x110	105x80	11	58	178	**500**
200	50	3,52	655906	2,87	656006	3,90	656306	240	140x110	105x80	11	50	178	**500**

Options available to order:

Footguard for brackets M-P

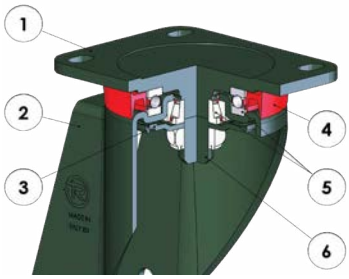
Heavy duty brackets P - max carrying capacity 750 daN



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	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	40	2,27	655913	1,63	656013	2,83	656313	170	140x110	105x80	11	70	126	**450**	**360**
160	50	3,46	655914	2,28	656014	4,27	656314	205	140x110	105x80	11	70	126	**700**	**560**
200	50	4,14	655916	2,68	656016	4,74	656316	250	140x110	105x80	11	70	126	**750**	**640**

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



1) Plate: green galvanised forged steel
2) Fork: green 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	4 km/h daN	6 km/h daN
160	50	3,62	655924	3,21	656024	4,14	656324	205	135x110	105x80	11	70	126	**700**	**560**
200	50	4,40	655926	3,96	656026	4,97	656326	250	135x110	105x80	11	70	126	**800**	**640**

Options available to order:

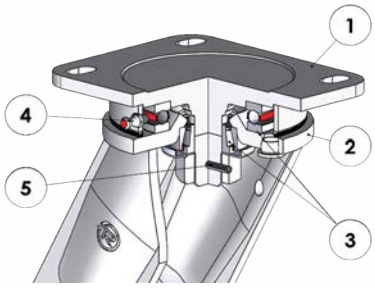
Footguard for brackets M-P

Directional lock for brackets P diam. 160-200 mm

SERIES 65ER

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

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	4 km/h daN	6 km/h daN
125	40	3,65	655933	2,67	656033	4,53	656333	182	135x110	105x80	11	51	157	**450**	**360**
160	50	4,11	655934	3,12	656034	4,99	656334	215	135x110	105x80	11	60	157	**700**	**560**
200	50	4,80	655936	3,82	656036	6,14	656336	252	135x110	105x80	11	70	157	**800**	**640**

Options available to order:

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

Technology at work

tellureRôta

SERIES 66

"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

80-250 mm

95 Shore A

150-1000 daN
4 km/h

120-480 daN
6 km/h

100-400 daN

-20 / +80 °C

INOX

Description

Tyre: "TR" polyurethane, hardness 95 Shore A, excellent rolling resistance and elasticity, highly resistant to wear.

Centre: polyamide 6.

Hub with plain bore hole which directly houses the axle.
Hub with cylindrical roller bearing with plastic cage. Also available with stainless steel roller bearings.
Hub with shielded ball bearings with interference assembly in the seats obtained by centre moulding. The wheel is also available without bearings.

Uses

Excellent for trolleys and machinery with medium/heavy-duty loads, also in presence of continuous handling.
Also suitable for mechanical or mixed manual-mechanical handling, up to 6 km/h.
Its excellent rolling resistance guarantees minimum effort by manual handling.
Examples of recommended applications: trolleys for indoor industrial handling, trolleys for the food and chemical industry, manual and electric pallet trucks, equipment for dry cleaner's, slaughterhouses, meat factories.

Environments of use

Suitable for indoor environments, also in presence of medium-harsh chemical agents, alcohol, glycol and water. They are suitable for industrial environments.
Not recommended in areas with strong organic acids and mineral acids.

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

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

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
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**

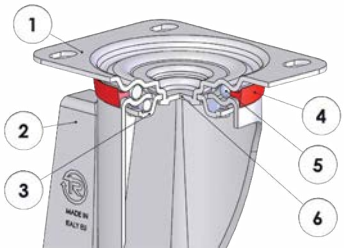
"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

mm	mm	kg	COD.	mm	mm.	Static daN	daN	4 km/h daN
80	25	0,10	661101	12	39	**225**	**100**	**150**
100	30	0,16	661102	12	44	**300**	**135**	**200**
125	30	0,25	661103	15	44	**400**	**150**	**250**
150	40	0,45	661104	20	59	**600**	**240**	**400**
175	40	0,62	661105	20	59	**680**	**270**	**470**
200	50	0,78	661106	20	59	**800**	**300**	**600**
200	50	0,75	661206	25	59	**800**	**300**	**600**
250	60	1,41	661108	25	88	**1200**	**400**	**1000**

mm	mm	kg	COD.	kg	COD.	mm	mm	Static daN	daN	4 km/h daN
80	25	0,13	663101	0,13	663201	12	39	**225**	**100**	**150**
100	30	0,19	663102	0,19	663202	12	44	**300**	**135**	**200**
125	30	0,28	663103	0,28	663203	15	44	**400**	**150**	**250**
150	40	0,54	663104	0,54	663204	20	59	**600**	**240**	**400**
175	40	0,73	663105	0,73	663205	20	59	**680**	**270**	**470**
200	50	0,89	663106	0,89	663206	20	59	**800**	**300**	**600**
200	50	0,85	663116			25	59	**800**	**300**	**600**
250	60	1,52	663108	1,52	663208	25	88	**1200**	**400**	**1000**

mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
80	25	0,15	662101	0,10	664101	12	32	28	10	**225**	**100**	**150**	**120**
100	30	0,25	662102	0,15	664102	12	40	32	11,5	**300**	**135**	**200**	**160**
125	30	0,33	662103	0,25	664103	15	40	35	13,5	**400**	**150**	**250**	**200**
175	40	0,85	662105	0,60	664105	20	55	47	14	**680**	**270**	**470**	**380**
200	50	1,07	662106	0,76	664106	20	55	52	15	**800**	**300**	**600**	**480**
200	50	1,06	662126	0,76	664106	25	55	52	15	**800**	**300**	**600**	**480**

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	4 km/h daN
80	25	0,61	664201	0,37	665701	0,80	666601	107	100x85	80x60	9	37	120	**150**
100	30	0,75	664202	0,44	665702	0,90	666602	128	100x85	80x60	9	35	120	**200**
125	30	0,91	664203	0,66	665703	1,05	666603	156	100x85	80x60	9	37	120	**220**
125PG	30	1,10	664213	0,86	665713	1,30	666643	156	140x110	105x80	11	37	120	**220**
150	40	1,81	664204	1,44	665704	2,09	666604	194	140x110	105x80	11	56	156	**300**
175	40	1,99	664205	1,70	665705	2,27	666605	217	140x110	105x80	11	56	156	**300**
200	50	2,19	664206	1,97	665706	2,45	666606	240	140x110	105x80	11	56	156	**300**
80	25	0,63	664501	0,41	665901	0,84	666621	107	100x85	80x60	9	37	120	**150**
100	30	0,78	664502	0,46	665902	0,93	666622	128	100x85	80x60	9	35	120	**200**
125	30	0,93	664503	0,68	665903	1,08	666623	156	100x85	80x60	9	37	120	**220**
125PG	30	1,13	664513	0,89	665913	1,33	666653	156	140x110	105x80	11	37	120	**220**
150	40	2,00	664504	1,53	665904	2,18	666624	194	140x110	105x80	11	56	156	**300**
175	40	2,12	664505	1,79	665905	2,38	666625	217	140x110	105x80	11	56	156	**300**
200	50	2,29	604506	2,08	665906	2,53	666626	240	140x110	105x80	11	56	156	**300**

Options available to order

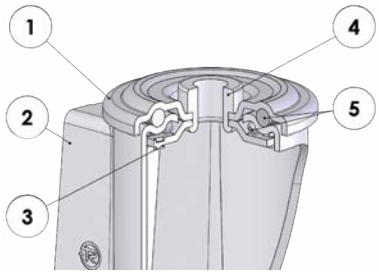
Wheel
with ball bearings
fitted with NL
bracket

Directional lock
for brackets
d. 150-200 mm

Footguard
for brackets
NL-M-P

"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

Standard-duty brackets NL - max carrying capacity 300 daN



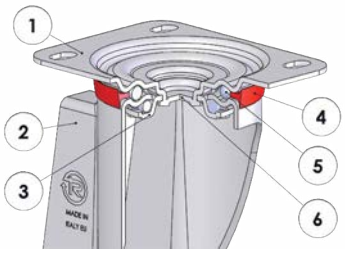
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication
Available with total front 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	**200**
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	**200**
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

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

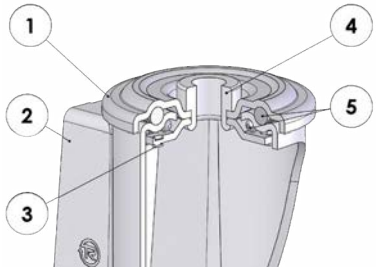
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
80	25	0.60	664401	0.34	665401	0.77	666701	107	100x85	80x60	9	37	120	**150**
100	30	0.66	664402	0.41	665402	0.84	666702	128	100x85	80x60	9	35	120	**200**
125	30	0.81	664403	0.64	665403	0.95	666703	156	100x85	80x60	9	37	120	**220**
150	40	1.75	664404	1.31	665404	2.04	666704	194	140x110	105x80	11	56	156	**300**
175	40	1.93	664405	1.49	665405	2.21	666705	215	140x110	105x80	11	56	156	**300**
200	50	2.16	664406	1.70	665406	2.44	666706	240	140x110	105x80	11	56	156	**300**
80	25	0.64	664601	0.38	665601	0.81	666721	107	100x85	80x60	9	37	120	**150**
100	30	0.68	664602	0.44	665602	0.87	666722	128	100x85	80x60	9	35	120	**200**
125	30	0.84	664603	0.67	665603	0.98	666723	156	100x85	80x60	9	37	120	**220**
150	40	1.84	664604	1.40	665604	2.13	666724	194	140x110	105x80	11	56	156	**300**
175	40	2.04	664605	1.60	665605	2.32	666725	215	140x110	105x80	11	56	156	**300**
200	50	2.27	664606	1.81	665606	2.55	666726	240	140x110	105x80	11	56	156	**300**

"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

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

INOX

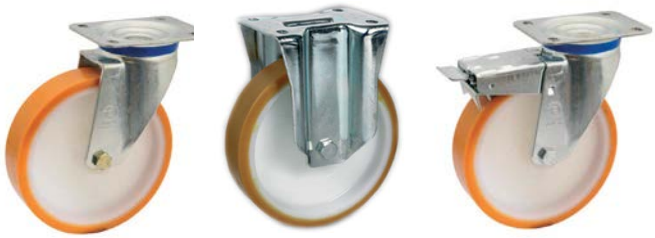


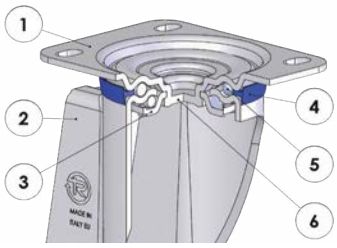
1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) King pin: bushing in stainless steel
5) Swivel actions: double ball ring with grease lubrication

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

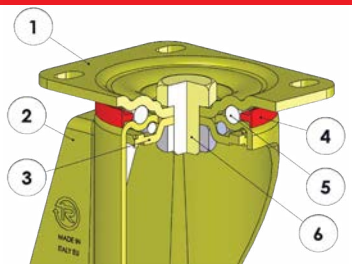
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
150	40	2.16	664304	1.44	665704	2.62	668704	194	140x110	105x80	11	58	178	**400**
200	50	2.58	664306	1.97	665706	3.00	668706	240	140x110	105x80	11	50	178	**500**
150	40	2.35	664804	1.53	665904	2.71	668904	194	140x110	105x80	11	58	178	**400**
200	50	2.68	664806	2.08	665906	3.08	668906	240	140x110	105x80	11	50	178	**500**
200	50	2.93	665306	2.32	665806	3.35	669206	240	140x110	105x80	11	50	178	**500**

Options available to order

Footguard
for brackets
NL-M-P

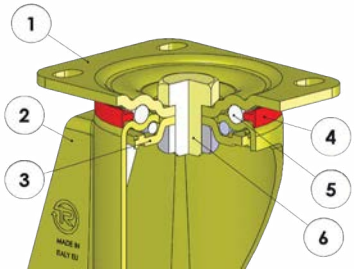
"TR" POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

Medium-heavy duty brackets P - max carrying capacity 600 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	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: 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	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

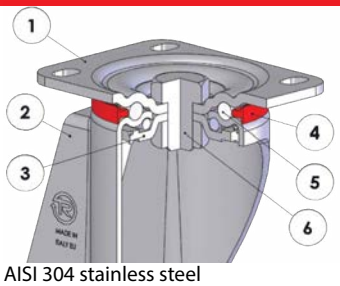
Wheel with ball bearings fitted with P bracket

Directional lock for brackets d. 150-200 mm

Footguard for brackets NL-M-P

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	daN
150	40	2.75	667004	1.36	667114	3.32	667214	200	140x110	105x80	11	70	126	**400**
175	40	2.95	667005	1.56	667115	3.52	667215	225	140x110	105x80	11	70	126	**470**
200	50	3.20	667006	1.76	667116	3.77	667216	250	140x110	105x80	11	70	126	**600**
150	40	2.77	667314	1.55	667414	3.34	667514	200	140x110	105x80	11	70	126	**400**
175	40	3.09	667315	1.69	667415	3.66	667515	225	140x110	105x80	11	70	126	**470**
200	50	3.30	667316	1.87	667416	3.87	667516	250	140x110	105x80	11	70	126	**600**

SERIES 68P

POLYAMIDE 6 SOLID WHEELS FOR HEAVY LOADS

100-200 mm

70 Shore D

400-900 daN
4 km/h

120-380 daN

-30 / +80 °C

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		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

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.

Electrowelded brackets EE MHD
Maximum carrying capacity 900 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 1800 daN - available diameters 125-200 mm
Top plate fitting.

Options available to order

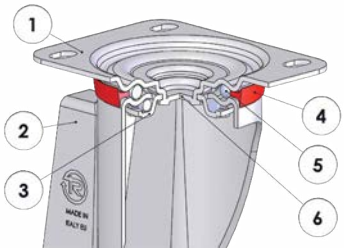
Wheel
in solid polyamide
6 for extremely
heavy loads

POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
100	35	0.26	681202	20	44	**450**	**200**	**400**
125	45	0.36	681203	20	58	**700**	**200**	**650**
150	45	0.50	681204	20	58	**800**	**300**	**750**
200	50	0.90	681206	20	58	**1000**	**400**	**900**

mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	Static daN	daN	4 km/h daN
100	35	0.33	683402	0.20	682202	15	40	35	11	**450**	**350**	**350**
125	35	0.42	683403	0.29	682203	15	40	35	11	**500**	**450**	**450**
125	45	0.61	683413	0.39	682213	20	56	47	13	**700**	**400**	**650**
125	45	0.60	683423	0.39	682213	25	56	47	13	**700**	**400**	**650**
150	45	0.74	683404	0.52	682204	20	56	47	13	**800**	**455**	**750**
150	45	0.73	683424	0.52	682204	25	56	47	13	**800**	**455**	**750**
200	50	1.10	683406	0.89	682206	20	56	47	13	**1000**	**650**	**900**
200	50	1.08	683426	0.89	682206	25	56	47	13	**1000**	**650**	**900**

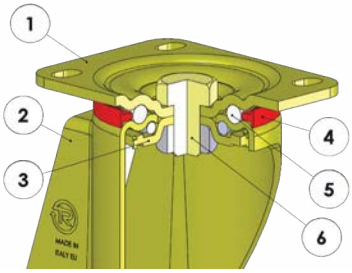
Standard-duty brackets NL - max carrying capacity 300 daN



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	156	140x110	105x80	11	57	156	**300**
125	45	1.73	684873	1.69	685173	1.95	686863	156	140x110	105x80	11	57	156	**300**

Medium-heavy duty brackets P - max carrying capacity 350 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

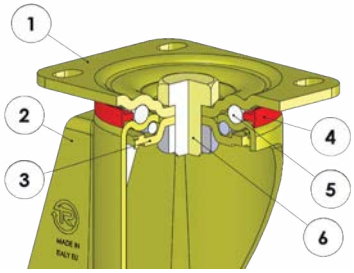
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
100	35	1.13	687522	0.74	688522	1.28	686912	138	100x85	80x60	9	46	123	**350**
100	35	1.20	684972	0.81	685372	1.35	686952	138	100x85	80x60	9	46	123	**350**
125	35	1.35	684973	0.83	685373	1.46	686953	161	100x85	80x60	9	48	123	**350**

Options available to order

Directional lock
for brackets
d. 150-200 mm

POLYAMIDE 6 SOLID WHEELS FOR HEAVY-DUTY LOADS

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



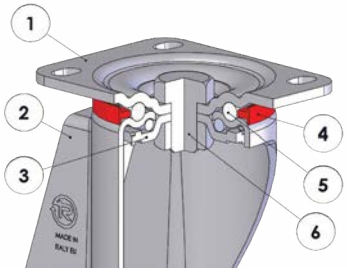
1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
125	45	2.28	687533	1.49	688533	2.83	686913	170	140x110	105x80	11	70	156	**650**
150	45	2.96	687524	1.83	688524	3.14	686914	200	140x110	105x80	11	70	156	**750**
200	50	3.37	687526	1.91	688526	3.68	686916	250	140x110	105x80	11	70	156	**750**
125	45	2.53	684993	1.74	685393	3.08	686933	170	140x110	105x80	11	70	156	**650**
150	45	3.20	684974	2.07	685374	3.77	686954	200	140x110	105x80	11	70	156	**750**
200	50	3.64	684976	2.18	685376	3.92	686956	250	140x110	105x80	11	70	156	**750**

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

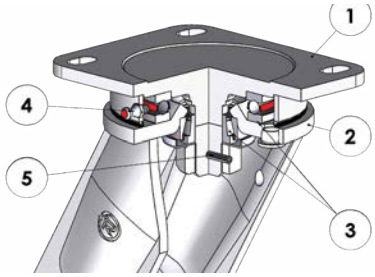
Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
125	45	2.52	687033	1.10	677133	3.07	687233	170	140x110	105x80	11	70	156	**650**
150	45	2.86	687014	1.42	687124	3.43	687224	200	140x110	105x80	11	70	156	**750**
200	50	3.32	687016	1.88	687126	3.88	687226	250	140x110	105x80	11	70	156	**750**

Options available to order

Directional lock
for brackets P
d. 150-200 mm

Electrowelded brackets EE MHD - max carrying capacity 900 daN

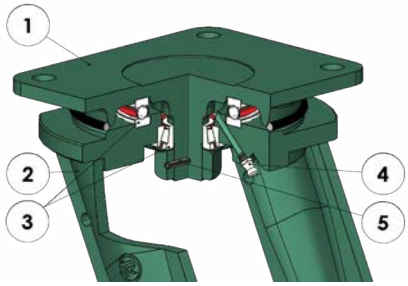


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

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

Twin electrowelded brackets EEG HD - max carrying capacity 1800 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	**1300**
150	45+45	9.62	688074	5.20	688174	223	175x140	140x105	14	50	**1500**
200	50+50	12.40	688066	7.60	688166	285	200x160	160x120	17	65	**1800**

Options available to order

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

SERIES 69

CAST IRON SOLID WHEELS

100-200

500-1400 daN
4 km/h

260-800 daN

-40 / +400 °C

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 36.

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

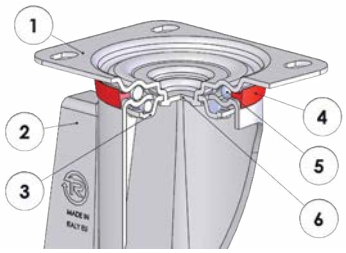
Wheel with brackets NL and P for high tempera-tures

CAST IRON SOLID WHEELS

mm	mm	kg	CODE	mm	mm	Static daN	daN	4 km/h daN
100	30	0.62	691102	15	34	**800**	**260**	**500**
100	30	0.70	691112	15	44	**800**	**260**	**500**
100	40	0.92	691202	20	44	**900**	**300**	**600**
125	40	1.09	691103	15	44	**1200**	**350**	**700**
125	40	1.12	691203	20	44	**1200**	**350**	**700**
150	45	1.81	691104	20	59	**1500**	**500**	**1200**
200	45	3.34	691106	20	59	**1900**	**600**	**1400**
200	45	3.19	691206	25	59	**1900**	**800**	**1400**

mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	Static daN	daN	4 km/h daN
100	38	1.33	692122	1.14	694102	15	40	42	13	**900**	**300**	**600**
100	38	1.28	692102	1.14	694102	20	40	42	13	**900**	**300**	**600**
125	40	1.67	692103	1.43	694103	20	43	47	15.5	**1200**	**350**	**700**
150	50	2.46	692104	2.18	694104	20	56	47	14	**1500**	**500**	**1200**
200	50	3.64	692106	3.29	694106	20	56	52	15	**1900**	**600**	**1400**
200	50	3.57	692126	3.57	694106	25	56	52	15	**1900**	**600**	**1400**

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

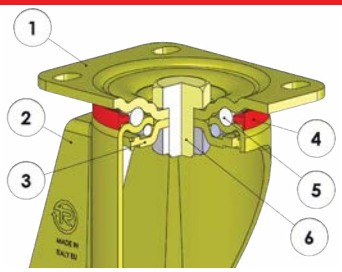
											4 km/h	
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	
100	30	1.16	694802	0.89	695702	128	100x85	80x60	9	35	**200**	
100	40	1.50	694812	1.16	695712	128	100x85	80x60	9	35	**200**	
125	40	1.73	694803	1.38	695703	156	100x85	80x60	9	37	**220**	
150	45	3.24	694804	2.87	695704	194	140x110	105x80	11	56	**300**	
100	40	1.91	694902	1.57	695802	128	100x85	80x60	9	35	**200**	
125	40	2.31	694903	1.96	695803	156	100x85	80x60	9	37	**220**	
150	50	3.89	694904	3.52	695804	194	140x110	105x80	11	56	**300**	

Options available to order

Wheel
with NL and P
brackets for high
temperatures

CAST IRON SOLID WHEELS

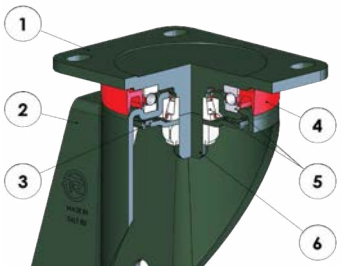
Medium-heavy duty brackets P - max carrying capacity 750 daN



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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
125	40	1.96	697603	1.46	698603	161	100x85	80x60	9	48	**350**
150	45	4.16	697504	2.73	698504	200	140x110	105x80	11	70	**750**
200	45	5.81	697506	4.35	698506	250	140x110	105x80	11	70	**750**
125	40	2.75	696203	2.05	696303	161	100x85	80x60	9	48	**350**
150	50	4.81	696204	3.38	696304	200	140x110	105x80	11	70	**750**
200	50	6.11	696206	4.65	696306	250	140x110	105x80	11	70	**750**

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



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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
150	45	4.43	697804	3.94	698804	200	135x110	105x80	11	70	**1100**
200	45	6.03	697806	5.62	698806	250	135x110	105x80	11	70	**1100**
150	50	5.08	697604	4.59	697704	200	135x110	105x80	11	70	**1100**
200	50	6.30	697606	5.92	697706	250	135x110	105x80	11	70	**1100**

SERIES 72 AL

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

100-250 mm

70 Shore A

180-500 daN
4 km/h

140-400 daN
6 km/h

180-300 daN

-20 / +70 °C

Description

Tyre: Sigma Elastic rubber, hardness 70 Shore A, excellent elasticity and good resistance to tear and wear.

Centre: made of cast aluminium.

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

Uses

The excellent elasticity guarantees an easy overcoming of obstacles, vibration damping and noise reduction during use.
Combined with appropriate brackets, they are also suitable for mechanical handling up to 6 km/h.
Good rolling resistance means less fatigue for the operator handling the equipment.
Examples of recommended applications: trolleys for indoor and outdoor industrial-handling, manual pallet trucks, heavy waste collection bins.

Environments of use

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

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

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

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.

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.

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 1000 daN - available diameters 100-200 mm
Top plate fitting.

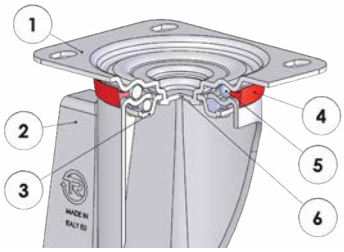
Options available to order

Wheel
with grey rubber
tyre

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

mm	mm	kg	CODE	kg	CODE	mm	mm.	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
100	40	0.44	721202	0.39	723102	15	40	32	9	**250**	**180**	**180**	**140**
125	40	0.76	721103	0.50	723003	20	40	47	14	**280**	**200**	**200**	**160**
125	40	0.78	721203	0.52	723103	20	50	47	14	**280**	**200**	**200**	**160**
125	50	0.84	721213	0.62	723113	20	59	47	14	**320**	**230**	**230**	**180**
160	50	1.22	721210	0.96	723104	20	58	47	14	**420**	**300**	**300**	**240**
160	50	1.20	721110	0.96	723104	25	58	47	14	**420**	**300**	**300**	**240**
180	50	1.47	721205	1.21	723105	20	60	47	14	**490**	**250**	**350**	**280**
200	50	2.00	721206	1.71	723106	20	60	52	17.5	**1000**	**300**	**500**	**400**
200	50	1.99	721106	1.71	723106	25	60	52	17.5	**1000**	**300**	**500**	**400**
250	50	2.30	721208	1.97	723108	20	60	52	15	**1000**	**300**	**500**	**400**

Standard-duty brackets NL - max carrying capacity 300 daN



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

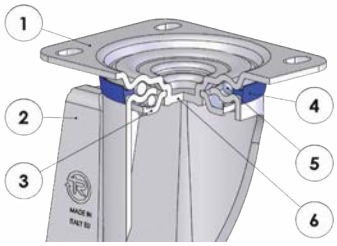
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
100	40	0.96	724402	0.71	726202	1.17	727302	128	100x85	80x60	9	37	120	**180**
125	50	1.49	724413	1.14	726213	2.37	727313	165	140x110	105x80	11	57	156	**230**
160	50	2.59	724410	2.22	726210	2.80	727310	199	140x110	105x80	11	56	156	**300**
180	50	2.85	724405	2.56	726205	3.06	727305	219	140x110	105x80	11	56	156	**300**
200	50	3.40	724306	3.18	725206	3.66	727106	240	140x110	105x80	11	56	156	**300**

Options available to order

Wheel with grey rubber tyre

Directional lock for brackets d. 150-200 mm

Medium-duty brackets M - max carrying capacity 500 daN

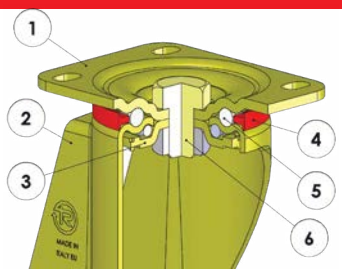


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

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**

Medium-heavy duty brackets P - max carrying capacity 500 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	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	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	126	**500**	**400**

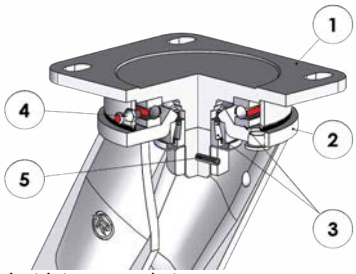
Options available to order

Wheel
with grey rubber
tyre

Directional lock
for P brackets
d. 150-200 mm

SIGMA ELASTIC RUBBER WHEELS WITH ALUMINIUM CENTRE

Electrowelded brackets EE MHD - max carrying capacity 500 daN

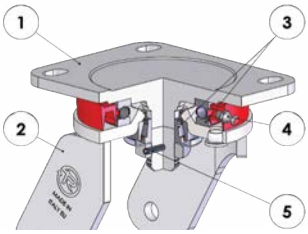


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

														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

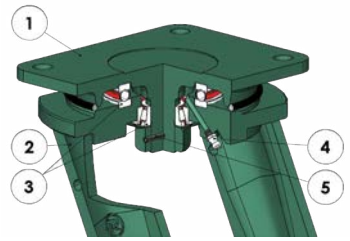
											4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN
100	40+40	3.35	728062	2.60	728162	140	135x110	105x80	11	55	**360**	**280**
125	40+40	4.10	728063	3.35	728163	170	135x110	105x80	11	55	**400**	**320**

Options available to order

Wheel
with grey rubber
tyre

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

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	4 km/h daN	6 km/h daN
160	50+50	10.60	728084	6.15	728184	228	175x140	140x105	14	50	**600**	**480**
200	50+50	12.55	728086	8.00	728186	280	175x140	140x105	14	65	**1000**	**800**

Options available to order

Wheel
with grey rubber
tyre

SERIES 72GH

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

250-1000 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 36.

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	

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.

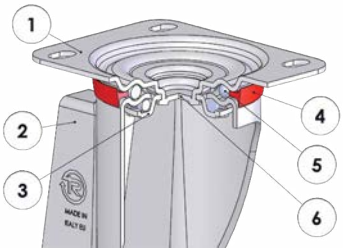
Twin electrowelded brackets EEG HD
Maximum carrying capacity 1000 daN - available diameters 150-200 mm
Top plate fitting.

SERIES 72GH

SIGMA ELASTIC RUBBER WHEELS WITH CAST IRON CENTRE

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
125	50	1.88	722103	1.64	724103	20	55	47	14	**450**	**250**	**300**	**240**
150	50	2.30	722104	2.06	724104	20	55	47	14	**600**	**275**	**400**	**320**
150	50	2.28	722124	2.06	724104	25	55	47	14	**600**	**275**	**400**	**320**
200	50	3.15	722106	2.87	724106	25	55	52	17	**1000**	**335**	**500**	**400**
200	75	5.35	722126	5.07	724126	25	85	52	17	**1200**	**400**	**700**	**560**
250	75	7.17	722108	6.67	724108	25	88	52	17.5	**1500**	**450**	**800**	**640**
300	85	8.51	722109	8.05	724109	30	90	62	16	**1800**	**500**	**950**	**760**
300	85	8.49	722129	8.05	724109	35	90	62	16	**1800**	**500**	**950**	**760**

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

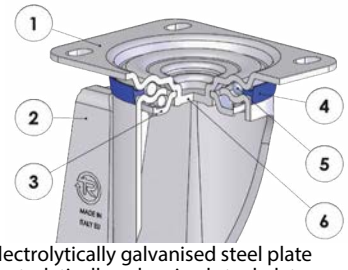
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN
125	50	3.00	724313	2.63	725213	3.22	727113	165	140x110	105x80	11	57	156	**300**
150	50	3.67	724304	3.30	725204	3.96	727124	194	140x110	105x80	11	56	156	**300**
200	50	4.56	724336	4.34	725236	4.86	727126	240	140x110	105x80	11	56	156	**300**

Options available to order

Directional lock
for brackets
d. 150-200 mm

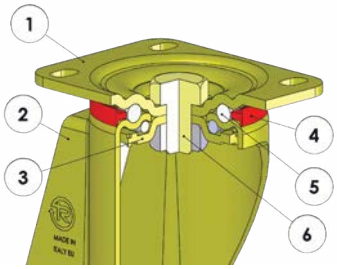
Medium-duty brackets M - max carrying capacity 500 daN



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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	50	4.02	724504	3.30	725204	4.49	727724	194	140x110	105x80	11	58	178	**400**
200	50	4.95	724536	4.34	725236	5.11	727726	240	140x110	105x80	11	50	178	**500**

Medium-heavy duty brackets P - max carrying capacity 500 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

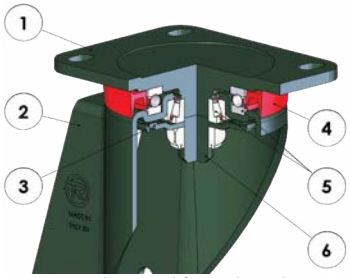
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
125	50	3.80	727513	3.24	728513			170	140x110	105x80	11	70		**300**	**240**
150	50	4.65	727504	3.42	728504	5.22	727224	200	140x110	105x80	11	70	126	**400**	**320**
200	50	5.62	727506	4.16	728506	6.19	727226	250	140x110	105x80	11	70	126	**500**	**400**

Options available to order

Directional lock
for P brackets
d. 150-200 mm

SIGMA ELASTIC RUBBER WHEELS WITH CAST IRON CENTRE

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

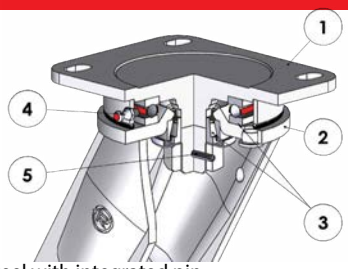


1) Plate: green galvanised forged steel
2) Fork: green galvanised forged steel
3) Lower bearing protection ring
4) Dust seal: orange polyethylene
5) Swivel actions: axial ball bearing and tapered roller bearing
6) King pin: integrated with the machine-processed plate

Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
150	50	4.92	727814	4.43	728814	5.49	727324	200	135x110	105x80	11	70	126	**400**	**320**
200	50	5.87	727816	5.43	728816	6.44	727326	250	135x110	105x80	11	70	126	**500**	**400**
200	75	10.90	727806	9.06	728806			275	175x140	140x105	14	66		**700**	**560**
250	75	12.71	727808	10.88	728808			300	175x140	140x105	14	66		**800**	**640**

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

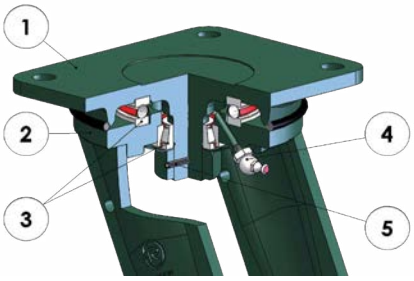
Available with adjustable total rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50	4.78	729303	3.80	729403	5.66	729603	182	135x110	105x80	11	51	157	**300**	**180**
150	50	5.30	729304	4.31	729404	6.18	729604	210	135x110	105x80	11	60	157	**400**	**320**
200	50	6.27	729306	5.29	729406	7.15	729606	252	135x110	105x80	11	70	157	**500**	**400**

Options available to order

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

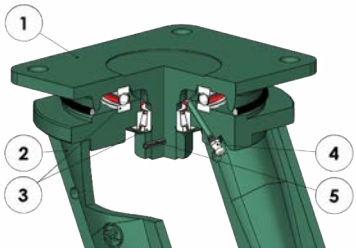
Electrowelded brackets EE HD - max carrying capacity 950 daN



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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
200	75	11.81	729316	10.27	729416	12.69	729616	275	175x140	140x105	14	65	166	**700**	**560**
250	75	13.86	729307	12.27	729407	14.74	729607	320	175x140	140x105	14	74	166	**800**	**640**
300	85	15.32	729308	13.70	729408	16.20	729608	360	175x140	140x105	14	81	166	**950**	**760**

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 daN	6 km/h daN
150	50+50	12.75	728074	8.30	728174	228	175x140	140x105	14	50	**800**	**640**
200	50+50	14.90	728066	10.35	728166	280	175x140	140x105	14	65	**1000**	**800**
200	50+50	16.55	728076	11.75	728176	285	200x160	160x120	17	65	**1000**	**800**

Options available to order

Directional lock
for brackets EE MHD
- EE HD - EED MHD:
see page 326

HIGH TEMPERATURE

SERIES **67**

SOLID THERMOSETTING RESIN WHEELS

80-200 mm | 4 km/h 150-500 daN | 125-240 daN | -20 / +300 °C | INOX

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SERIES **68FV**

POLYAMIDE 6 SOLID WHEELS CHARGED WITH GLASS FIBER

100-125 mm | 4 km/h 250-350 daN | 250-350 daN | -30 / +130 °C | INOX

PAGE 246

SERIES **72GS**

SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE

100 mm | 4 km/h 80 daN | 80 daN | -30 / +250 °C | INOX

PAGE 250

SERIES 67

THERMOSETTING RESIN SOLID WHEELS

80-200 mm

150-500 daN
4 km/h

125-240 daN

-20 / +300 °C

INOX

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.

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.
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		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

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.

THERMOSETTING RESIN SOLID WHEELS

						Static		4 km/h
mm	mm	kg	COD.	mm	mm	daN	daN	daN
80	35	0,18	672201	12	39	**250**	**125**	**150**
100	35	0,30	671102	12	44	**300**	**130**	**200**
100	35	0,29	672202	15	44	**300**	**130**	**200**
125	35	0,43	672203	15	44	**400**	**180**	**300**
150	50	0,90	672104	20	58	**500**	**190**	**300**
200	50	1,68	672106	20	58	**700**	**240**	**500**

Axle sets

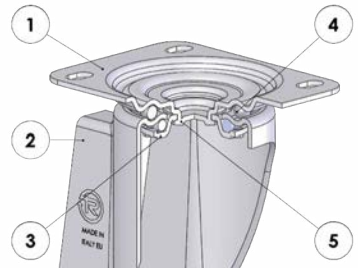
Low tickness PTFE-coated steel axle tubes.
Available for fitting with 80,100 and 125mm standard duty NL brackets.
Suitable also for heavy usages over short cycle time applications.

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.
Availabe to order for fitting with other brackets.
Suitable for medium-heavy duty loads over long cycle time applications.

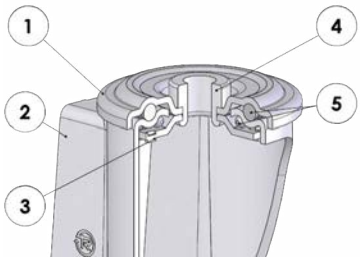
Low friction innovative PTFE bushings over a steel or stainless steel axle tube.
Available for fitting with 80 and 100mm NL and NLX brackets.
Suitable for situations of heavier duty and long cycle time applications.

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-riveted

mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	4 km/h daN	Axle set
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**	

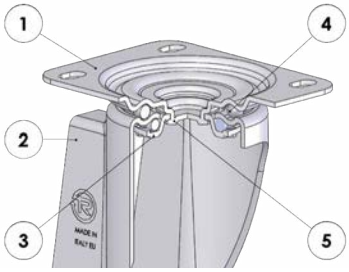


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication for high temperatures

mm	mm	kg	COD.	mm	mm	mm	mm	4 km/h daN	Axle set
80	35	0,62	676101	107	73	12	37	**150**	
100	35	0,72	676102	128	73	12	35	**200**	
125	35	1,05	676103	156	73	12	37	**220**	

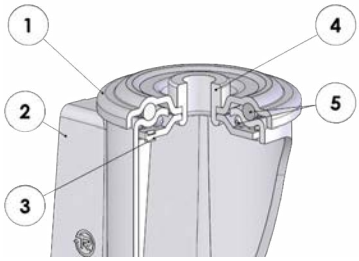
THERMOSETTING RESIN SOLID WHEELS

Standard-duty brackets NL with axle set for heavier use - 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-riveted

											4 km/h	Axle set		
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN			
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**			

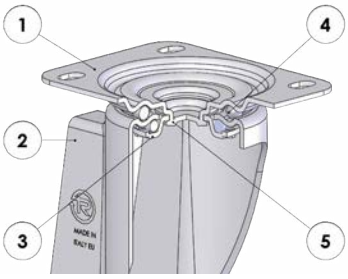


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication for high temperatures

								4 km/h	Axle set					
mm	mm	kg	COD.	mm	mm	mm	mm	daN						
80	35	0,68	677501	107	73	12	37	**150**						
100	35	0,78	677502	128	73	12	35	**200**						

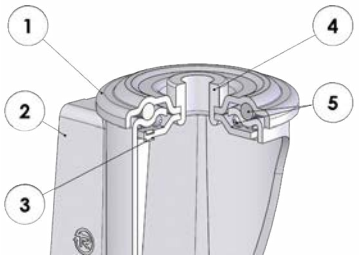
Stainless steel standard-duty brackets NLX - max carrying capacity 300 daN

INOX



1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) Swivel actions: double stainless steel ball ring with grease lubrication for high temperatures
5) King pin: integrated with the plate and cold-riveted

mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	Axle set
80	35	0,71	677701	0,40	678701	107	100x85	80x60	9	37	**150**	
100	35	0,79	677702	0,52	678702	128	100x85	80x60	9	35	**200**	
125	35	0,92	677713	0,80	678713	156	100x85	80x60	9	37	**220**	
150	50	2,21	677704	1,77	678704	194	140x110	105x80	11	56	**300**	
200	50	3,06	677706	2,60	678706	240	140x110	105x80	11	56	**300**	



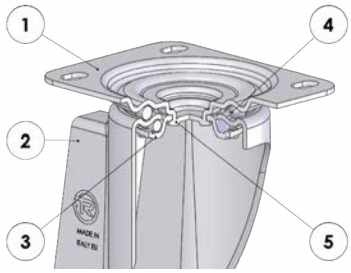
1) Plate: AISI 304 stainless steel
2) Fork: AISI 304 stainless steel
3) Ball race ring: AISI 304 stainless steel
4) King pin: bushing in stainless steel
5) Swivel actions: double stainless steel ball ring with grease lubrication for high temperatures

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

THERMOSETTING RESIN SOLID WHEELS

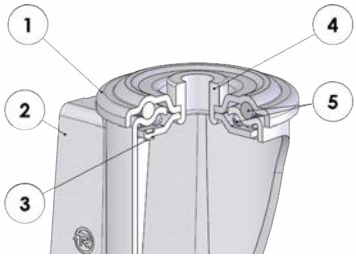
Stainless steel standard-duty brackets NLX with axle set for heavier use - max carrying capacity 300 daN

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-riveted

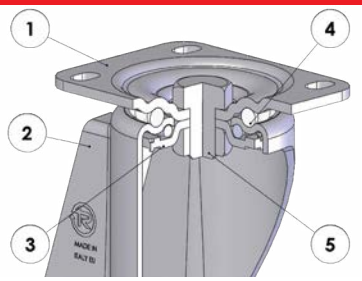
											4 km/h	Axle set
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN	
80	35	0,78	677901	0,47	678001	107	100x85	80x60	9	37	**150**	
100	35	0,86	677902	0,59	678002	128	100x85	80x60	9	35	**200**	



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

								4 km/h	Axle set
mm	mm	kg	COD.	mm	mm	mm	mm	daN	
80	35	0,69	678201	107	73	12	37	**150**	
100	35	0,79	678202	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	**300**	
200	50	4.25	677006	2.74	677106	250	140x110	105x80	11	70	**500**	

SERIES 68 FV

POLYAMIDE 6 SOLID WHEELS CHARGED WITH GLASS FIBER

100-125 mm

80 Shore D

250-350 daN
4 km/h

250-350 daN

-30 / +130 °C

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 36.

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

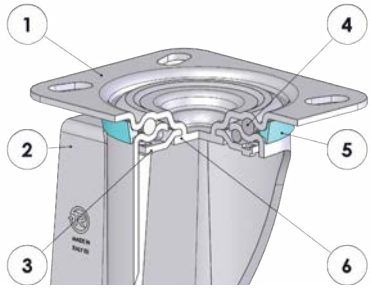
Standard-duty brackets NL
Maximum carrying capacity 220 daN - available diameters 100-125 mm
Top plate and bolt hole fittings.

Stainless steel standard-duty brackets NLX
Maximum carrying capacity 220 daN - available diameters 100-125 mm
Top plate and bolt hole fittings.

POLYAMIDE 6 SOLID WHEELS CHARGED WITH GLASS FIBER

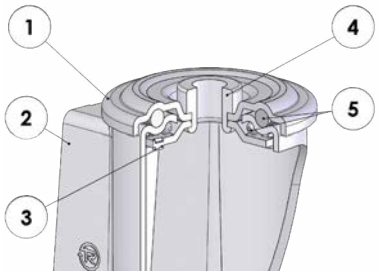
mm	mm	kg	CODE	kg	CODE	mm	mm	Static daN	daN.	4 km/h daN
100	30	0.27	683502	0.27	683602	12	45	**250**	**250**	**250**
125	30	0.33	683503	0.33	683603	12	45	**350**	**350**	**350**

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	4 km/h daN
100	30	0.74	684882	0.63	685182	128	100x85	80x60	9	35	**220**
125	30	0.83	684883	0.72	685183	156	100x85	80x60	9	37	**220**

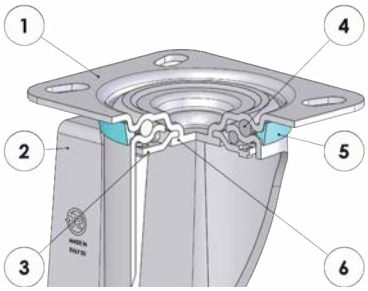


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication

mm	mm	kg	CODE	mm	mm	mm	mm	4 km/h daN
100	30	0.69	688082	128	73	12	35	**220**
125	30	0.78	688083	156	73	12	37	**220**

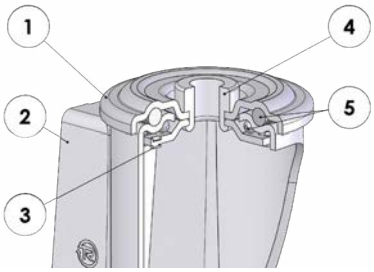
Stainless steel standard-duty brackets NLX - max carrying capacity 220 daN

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	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	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**

SERIES 72 GS

SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE

100 mm

80 Shore A

80 daN
4 km/h

80 daN

-30 / +250 °C

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		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

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

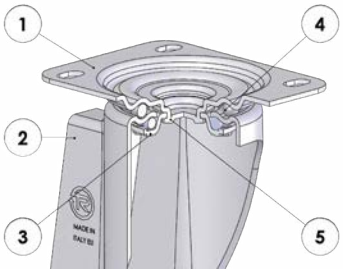
Standard-duty brackets NL
Maximum carrying capacity 80 daN - available diameters 100 mm
Top plate and bolt hole fittings. Available with front brake.

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.

SILICONE RUBBER WHEELS WITH ALUMINIUM CENTRE

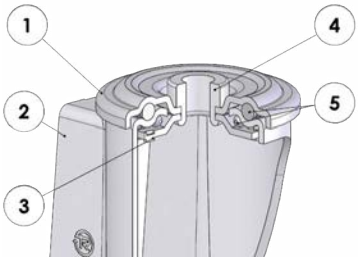
mm	mm	kg	CODE	mm	mm.	Static daN	daN	4 km/h daN	250 °C Static daN	250 °C daN	250 °C 4 km/h daN
100	40	0.43	722152	15	40	**100**	**80**	**80**	**40**	**40**	**40**

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

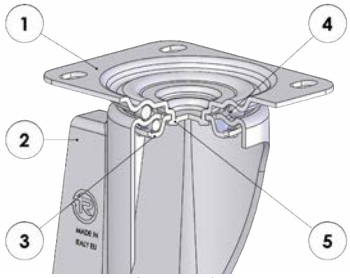
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	4 km/h daN	250 °C 4 km/h daN
100	40	0.96	724452PF	0.71	726252PF	1.17	727152PF	128	100x85	80x60	9	35	120	**80**	**40**



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	4 km/h daN	250 °C 4 km/h daN
100	40	0.86	727352PF	1.07	727452PF	128	73	12	35	120	**80**	**40**

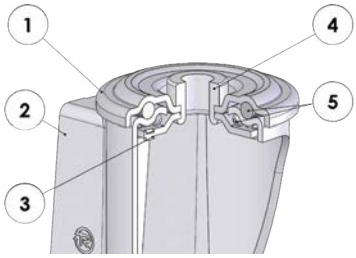
Stainless steel standard-duty brackets NLX - max carrying capacity 80 daN



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	4 km/h daN	250 °C 4 km/h 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	4 km/h daN	250 °C 4 km/h daN
100	40	0.86	727362PF	1.07	727462PF	128	73	12	35	120	**80**	**40**

PALLET TRUCK ROLLERS

SERIES **74**

VULKOLLAN® ROLLERS
WITH STEEL CENTRE

80-85 mm | 4 km/h 400-1000 daN | 180-450 daN | 6 km/h 320-800 daN | -20 / +80 °C

PAGE 256

SERIES **75**

"TR" POLYURETHANE ROLLERS
WITH STEEL CENTRE

80-85 mm | 4 km/h 400-1000 daN | 150-400 daN | 6 km/h 320-800 daN | -20 / +80 °C

PAGE 260

SERIES **76**

POLYAMIDE 6 SOLID ROLLERS

40-85 mm | 4 km/h 700-1200 daN | 335-500 daN | -30 / +80 °C

PAGE 264

SERIES **77**

"TR" POLYURETHANE ROLLERS
WITH POLYAMIDE 6 CENTRE

82-85 mm | 4 km/h 450-600 daN | 300-350 daN | 6 km/h 350-480 daN | -20 / +80 °C

PAGE 266

SERIES **78**

THERMOPLASTIC POLYURETHANE
ROLLERS WITH POLYAMIDE 6 CENTRE

82 mm | 4 km/h 450-750 daN | 390-530 daN | -15 / +80 °C

PAGE 268

SERIES **79**

"TR-ROLL" POLYURETHANE ROLLERS
WITH STEEL CENTRE

80-85 mm | 4 km/h 400-650 daN | 400-650 daN | 6 km/h 320-520 daN | -20 / +70 °C

PAGE 270

SERIES 74

VULKOLLAN® PALLET TRUCK ROLLERS WITH STEEL CENTRE

80-85 mm

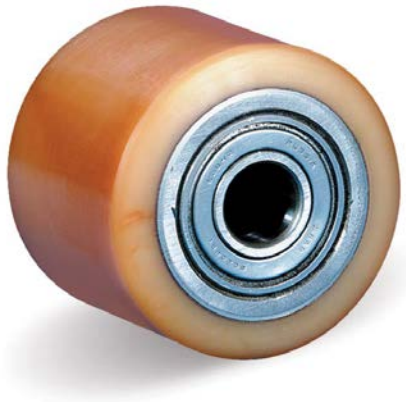
93 Shore A

400-1000 daN
4 km/h

320-800 daN
6 km/h

180-450 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 36.

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	500 kg	600 kg	800 kg	1000 kg
80x70 mm	1	2.6	5	12	16.7	----	----
80x90 mm	< 1	< 1	2.3	7.1	10.6	19.5	----
85x40 mm	1.4	5.3	10.4	----	----	----	----
85x70 mm	< 1	1.9	4	10.9	15.5	----	----
85x80 mm	< 1	1.6	3.5	9.5	13.6	24	----
85x90 mm	< 1	< 1	2.3	7.9	11.4	20.5	----
85x100 mm	< 1	< 1	2	5.8	9.3	17	27

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.

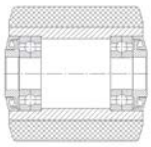
Options available to order

Rollers fitted
with electrowelded
brackets EE MHD

VULKOLLAN® PALLET TRUCK ROLLERS WITH STEEL CENTRE

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
80	70	1.07	742202	0.83	744202	20	70	47	14	**1000**	**300**	**700**	**560**
80	90	1.38	742105	1.14	744105	20	90	47	14	**1200**	**385**	**900**	**720**
85	40	0.72	742121	0.48	744121	20	40	47	14	**575**	**180**	**400**	**320**
85	70	1.13	742122	0.89	744122	20	70	47	14	**1000**	**315**	**700**	**560**
85	80	1.26	742123	1.02	744123	20	80	47	14	**1050**	**360**	**800**	**640**
85	80	1.19	742224	0.91	744224	25	80	52	15	**1050**	**360**	**800**	**640**
85	90	1.41	742125	1.17	744125	20	90	47	14	**1200**	**400**	**900**	**720**
85	100	1.54	742127	1.30	744127	20	100	47	14	**1300**	**450**	**1000**	**800**

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	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
80	65	0.98	743201	20	70	47	20.5	**930**	**280**	**650**	**520**
80	85	1.32	743202	20	90	47	20.5	**1130**	**360**	**850**	**680**
85	65	1.07	743203	20	70	47	20.5	**930**	**290**	**750**	**600**
85	75	1.20	743204	20	70	47	20.5	**980**	**335**	**750**	**600**
85	75	1.13	743224	25	80	47	20.5	**980**	**335**	**750**	**600**
85	85	1.35	743205	20	90	47	20.5	**1130**	**375**	**850**	**680**
85	95	1.48	743206	20	100	47	20.5	**1230**	**425**	**950**	**760**

Options available to order

Rollers fitted with electrowelded brackets EE MHD

Rollers with customised dimensions

TR Lab, we work for the future

tellureRôta

SERIES 75

"TR" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE

80-85 mm

95 Shore A

400-1000 daN
4 km/h

320-800 daN
6 km/h

150-400 daN

-20 / +80 °C

Description

Tyre: "TR" polyurethane, hardness 95 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 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.
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 36.

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	500 kg	600 kg	800 kg	1000 kg
80x70 mm	1.3	3	5.5	10.3	13.5	----	----
80x90 mm	1.3	2.7	4.4	8.2	10.4	15.3	----
82x70 mm	1	2.6	5.4	11.2	15.3	----	----
82x85 mm	1	2.6	5	10.5	13.9	22	----
82x90 mm	< 1	2.3	4.2	9	12.2	20	----
82x100 mm	< 1	< 1	2.3	6.7	9.8	17.8	28
85x40 mm	1.4	5.3	10.4	----	----	----	----
85x70 mm	< 1	1.9	5.2	10.9	15.5	----	----
85x80 mm	< 1	1.6	4.5	9.5	13.6	24	----
85x90 mm	< 1	< 1	3.5	7.9	11.4	20.5	----
85x100 mm	< 1	< 1	2	5.8	9.3	17	27

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.

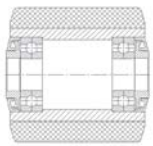
Available with brackets

Electrowelded brackets EE MHD
Maximum carrying capacity 800 daN - available diameters 80-85 mm
Top plate fitting.

"TR" POLYURETHANE PALLET TRUCK ROLLERS WITH STEEL CENTRE

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
80	70	1.06	752102	0.82	754102	20	70	47	14	**800**	**250**	**700**	**560**
80	90	1.35	752105	1.11	754105	20	90	47	14	**1000**	**335**	**900**	**720**
82	70	1.09	752132	0.85	754132	20	70	47	14	**800**	**255**	**700**	**560**
82	85	1.27	752134	1.03	754134	20	85	47	14	**900**	**300**	**800**	**640**
82	90	1.33	752135	1.09	754135	20	90	47	14	**1000**	**340**	**900**	**720**
82	100	1.45	752137	1.21	754137	20	100	47	14	**1100**	**390**	**1000**	**800**
85	40	0.72	752121	0.48	754121	20	40	47	14	**450**	**150**	**400**	**320**
85	70	1.12	752122	0.88	754122	20	70	47	14	**800**	**265**	**700**	**560**
85	80	1.25	752123	1.01	754123	20	80	47	14	**900**	**310**	**800**	**640**
85	80	1.18	752223	0.90	754223	25	80	52	15	**900**	**310**	**800**	**640**
85	90	1.39	752125	1.15	754125	20	90	47	14	**1000**	**350**	**900**	**720**
85	100	1.52	752127	1.28	754127	20	100	47	14	**1100**	**400**	**1000**	**800**

With labyrinths



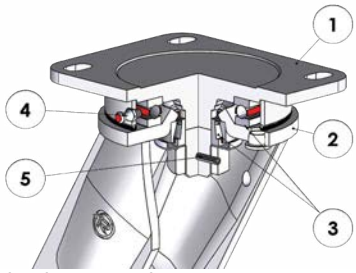
Labyrinths: protective plastic-rings, with interference assembly in front of the ball bearings. They ensure longer life, protecting them from dust and foreign bodies that may limit the roller's free rotation.

mm	mm	kg	CODE	mm	mm	mm	mm	Static daN	daN	4 km/h daN	6 km/h daN
80	65	0.97	753101	20	70	47	20.5	**750**	**230**	**650**	**520**
80	85	1.29	753102	20	90	47	20.5	**950**	**310**	**850**	**680**
82	65	1.03	753103	20	70	47	20.5	**750**	**235**	**650**	**520**
82	80	1.21	753104	20	85	47	20.5	**900**	**280**	**800**	**640**
82	85	1.27	753105	20	90	47	20.5	**950**	**320**	**850**	**680**
82	95	1.39	753106	20	100	47	20.5	**1050**	**365**	**950**	**760**
85	65	1.06	753107	20	70	47	20.5	**750**	**245**	**650**	**520**
85	75	1.19	753108	20	80	47	20.5	**850**	**285**	**750**	**600**
85	75	1.12	753223	25	80	47	20.5	**850**	**285**	**750**	**600**
85	85	1.33	753209	20	90	47	20.5	**950**	**330**	**850**	**680**
85	95	1.46	753110	20	100	47	20.5	**1050**	**375**	**950**	**760**

Options available to order

Rollers
with customised
dimensions

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

												4 km/h	6 km/h	
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN		
80	70	3.96	758301	2.98	758401	130	135x110	108x80	11	55	**700**	**560**		
85	70	4.02	758311	3.04	758411	132.5	135x110	105x80	11	55	**700**	**560**		
85	80	4.15	758321	3.17	758421	132.5	135x110	105x80	11	55	**800**	**640**		

SERIES 76

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 36.

Floors

Suitable for tiles and cement-resin.
Not recommended in presence of obstacles.
They may damage fragile flooring.

Force required to push or tow a wheel

	100 kg	200 kg	300 kg	500 kg	600 kg	800 kg	1000 kg
82x60 mm	1.2	2.6	4.5	7	8.7	----	----
82x70 mm	1.2	2.5	3.8	6.5	7.9	10.8	----
82x90 mm	< 1	1.9	2.9	5.5	6	8.4	10.8
82x100 mm	< 1	1.7	2.6	5	5.5	7.5	9.7

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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	daN (Static)	daN	daN (4 km/h)
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

SERIES 77

"TR" POLYURETHANE PALLET TRUCK ROLLERS WITH POLYAMIDE CENTRE 6

82-85 mm

95 Shore A

450-600 daN
4 km/h

360-480 daN
6 km/h

300-350 daN

-20 / +80 °C

Description

Tyre: "TR" polyurethane, hardness 95 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 36.

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.

										Static		4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	daN	daN	daN	daN
82	70	0.60	772132	0.36	774132	20	70	47	14	**550**	**300**	**450**	**360**
82	90	0.70	772135	0.46	774135	20	90	47	14	**610**	**340**	**510**	**400**
82	100	0.76	772137	0.52	774137	20	100	47	14	**700**	**380**	**600**	**480**
85	70	0.65	772122	0.41	774122	20	70	47	14	**600**	**310**	**500**	**400**
85	90	0.76	772125	0.52	774125	20	90	47	14	**700**	**350**	**600**	**480**

Options available to order

Rollers fitted with 25 mm bore ball bearings

SERIES 78

THERMOPLASTIC POLYURETHANE PALLET TRUCK ROLLERS WITH POLYAMIDE CENTRE 6

82 mm

60 Shore D

450-750 daN
4 km/h

390-530 daN

-15 / +80 °C

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		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

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.

										Static		4 km/h		
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	**450**	**390**	**450**		
82	70	0.53	782102	0.32	784102	20	70	47	14	**500**	**410**	**500**		
82	80	0.59	782103	0.38	784103	20	80	47	14	**600**	**500**	**600**		
82	90	0.64	782104	0.43	784104	20	90	47	14	**700**	**525**	**700**		
82	100	0.69	782105	0.49	784105	20	100	47	14	**750**	**530**	**750**		

Options available to order

Rollers fitted with 25 mm bore ball bearings

SERIES 79

"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 36.

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.

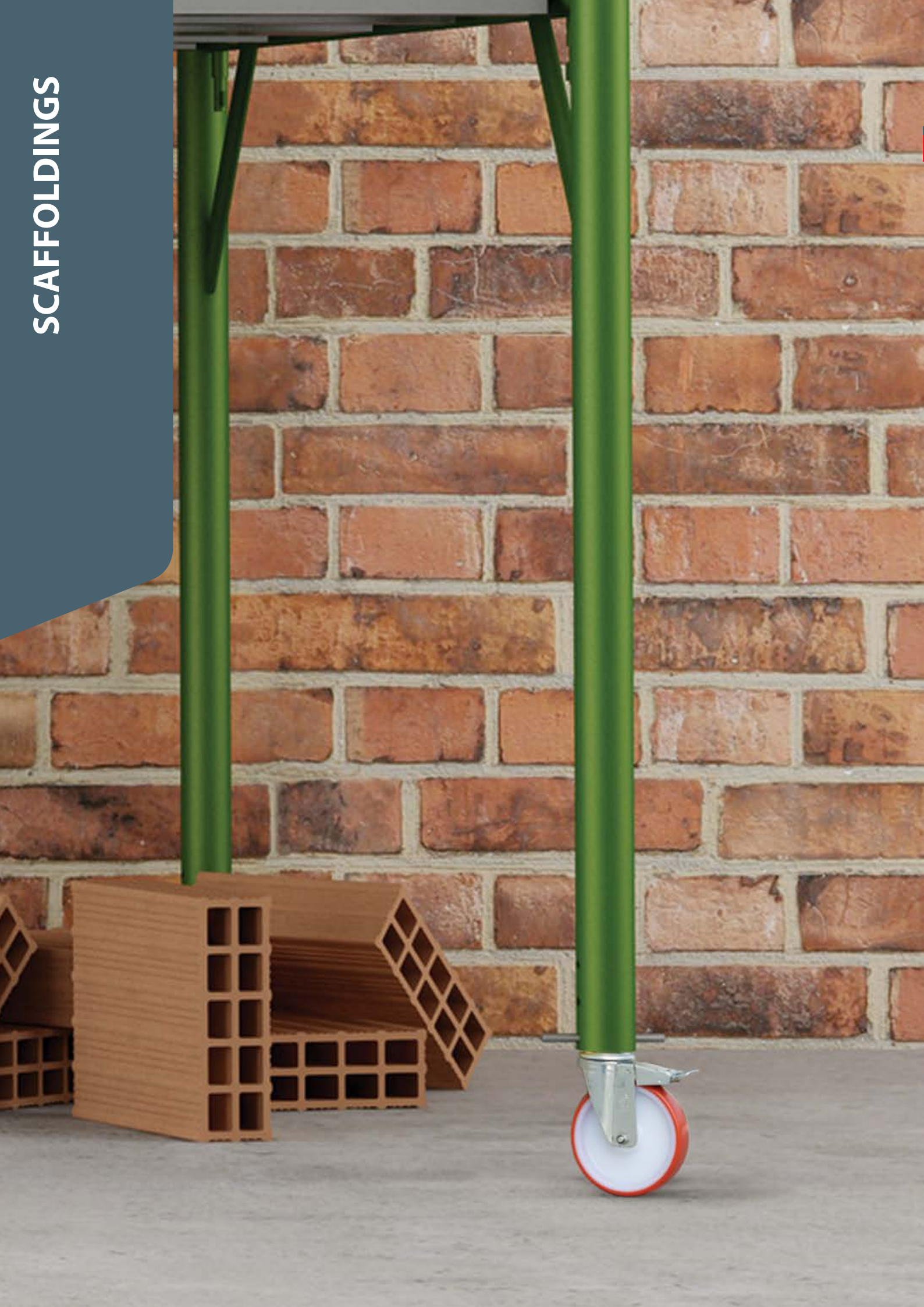
										Static		4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	daN	daN	daN	daN
80	90	1,25	792105	1,06	794105	20	90	47	14	**750**	**490**	**580**	**460**
82	60	0,87	792121	0,67	794121	20	60	47	14	**500**	**400**	**400**	**320**
82	70	0,98	792122	0,79	794122	20	70	47	14	**550**	**450**	**450**	**360**
82	90	1,21	792125	1,03	794125	20	90	47	14	**750**	**580**	**580**	**460**
82	100	1,34	792127	1,15	794127	20	100	47	14	**850**	**620**	**650**	**520**
85	70	1,04	792132	0,84	794132	20	70	47	14	**550**	**450**	**450**	**360**
85	80	1,16	792133	0,96	794133	20	80	47	14	**600**	**520**	**520**	**400**
85	90	1,28	792135	1,08	794135	20	90	47	16	**750**	**580**	**580**	**460**
85	100	1,40	792137	1,20	794137	20	100	47	14	**850**	**650**	**650**	**520**

Options available to order

Rollers fitted with 25 mm bore ball bearings

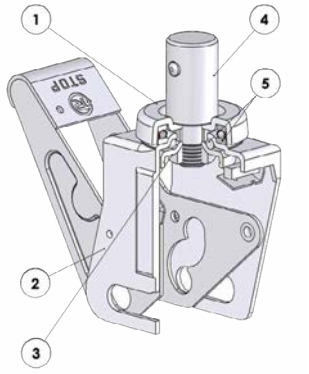
Rollers with labyrinths

SCAFFOLDINGS



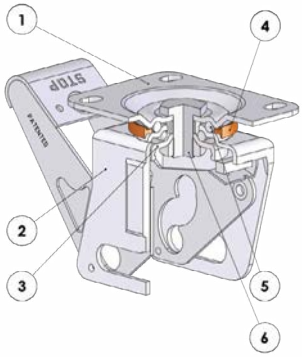
Thermoplastic polyurethane wheels with polyamide 6 centre

Wheel description on page 88-90



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								4 km/h			
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	**250**	**600**		
150	45	3.16	609554	3.58	609564	192	83	38	57	40	150	**300**	**700**		
200	50	3.86	609576	4.21	609586	243	81	38	57	40	165	**400**	**750**		



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

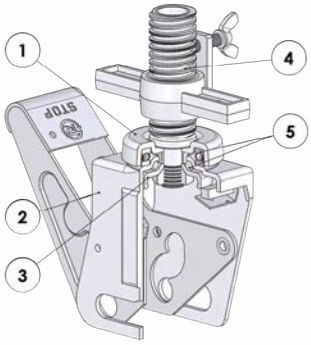
										4 km/h	EN 1004				
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	daN	daN				
150	45	3.01	609654	192	140x110	105x80	12	40	150	**300**	**700**				
200	50	3.61	609676	243	140x110	105x80	12	40	165	**400**	**750**				

EN 1004

This symbol indicates the castor carrying capacity according to UNI EN 1004:2005, 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 86-88



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

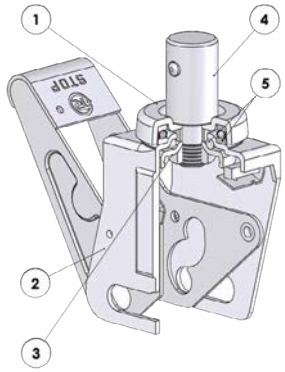
		1 PEDAL		2 PEDALS								4 km/h	EN 1004		
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN		
150	45	3.86	609704	5.37	609714	192	83	M38x6	500	40	150	**300**	**700**		
200	50	4.56	609726	5.67	609736	243	81	M38x6	500	40	165	**400**	**750**		

EN 1004

This symbol indicates the castor carrying capacity according to UNI EN 1004:2005, 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

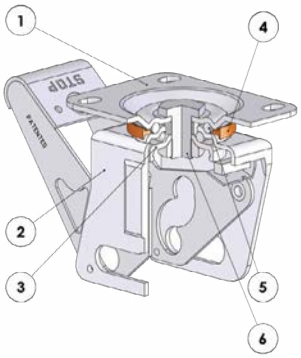
Polyamide 6 solid wheels

Wheel description on page 104-106



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								4 km/h	EN 1004
mm	mm	kg	CODE	kg	CODE	2 PEDALS mm	mm	mm	mm	mm	mm	daN	daN
125	38	1.69	689503	1.91	689513	150	89	38	57	30	130	**250**	**500**
150	45	3.06	689504	3.37	689514	192	83	38	57	40	150	**300**	**700**
200	50	3.68	689506	3.99	689516	243	81	38	57	40	165	**400**	**750**



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

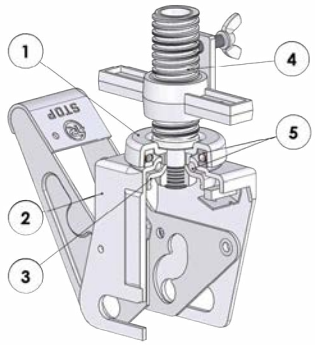
										4 km/h	EN 1004
mm	mm	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
150	45	3.76	689604	192	140x110	105x80	12	40	150	**300**	**700**
200	50	4.38	689606	243	140x110	105x80	12	40	165	**400**	**750**

EN 1004

This symbol indicates the castor carrying capacity according to UNI EN 1004:2005, 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 106-108



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	3.76	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**

EN 1004

This symbol indicates the castor carrying capacity according to UNI EN 1004:2005, 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.

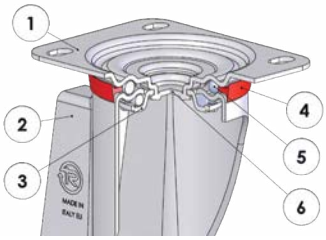
TEST REPORT ACCORDING TO UNI EN 1004:2005

The TR Lab, Test & Research laboratory of Tellure Rôta, has the necessary equipment for conformity testing on wheel and castor according to UNI EN 1004:2005, 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

Black rubber wheels with polypropylene centre

Wheel description on page 58-60



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	4 km/h daN
160	40	2.10	524410	2.38	525210	2.60	524010	199	140x110	105x80	11	56	156	**150**
200	50	2.72	524406	3.00	525206	3.22	524006	240	140x110	105x80	11	56	156	**225**

mm	mm	kg	CODE	mm	mm	mm	mm	mm	mm	mm	mm	4 km/h daN
200	50	3.45	524206	240	140x110	105x80	11	56	40	34	16.5	**225**

Options available to order

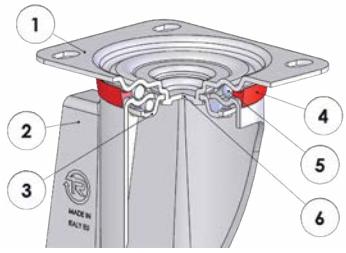
Directional lock for brackets d. 150-200 mm

Wheel with roller bearings

Wheel with grey rubber tyre

Black rubber wheels with pressed steel discs

Wheel description on page 66-68



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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
160	40	2.44	535010	2.69	535410	2.97	534010	199	140x110	105x80	11	56	156	**180**
200	50	3.25	535006	3.39	535406	3.67	534006	240	140x110	105x80	11	56	156	**230**

mm	mm	kg	CODE	mm	mm	mm	mm	mm	mm	mm	mm	daN
200	50	3.45	534806	240	140x110	105x80	11	56	40	34	16.5	**230**

Options available to order

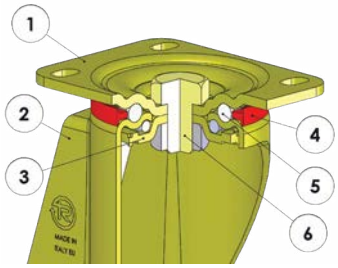
Directional lock for brackets d. 150-200 mm

Wheel with roller bearings

Wheel with grey rubber tyre

Sigma Elastic rubber wheels with aluminium centre

Wheel description on page 224-226



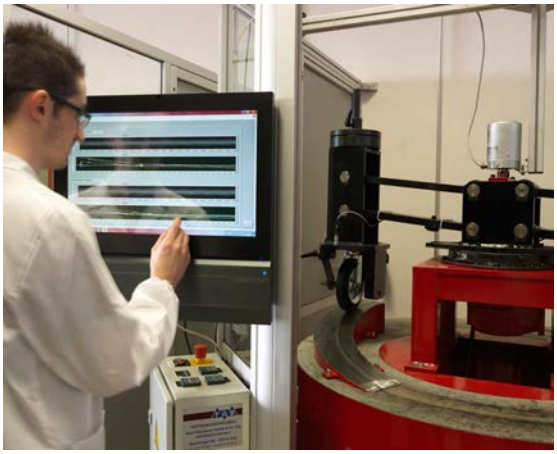
1) Plate: galvanised colonial steel plate
2) Fork: galvanised colonial steel plate
3) Ball race ring: galvanised colonial steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut
Available with adjustable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

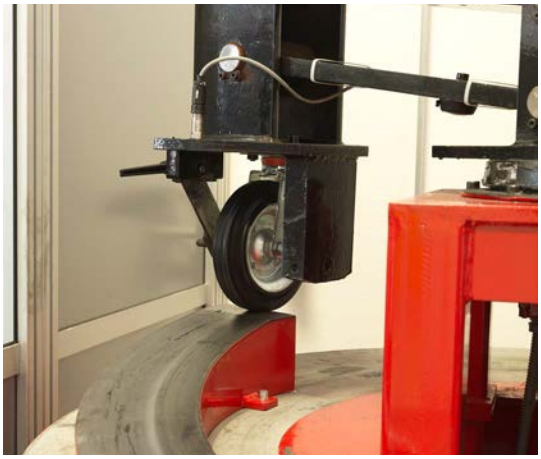
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
200	50	4.46	727516	3.00	728516	5.06	727206	250	140x110	105x80	11	56	126	**500**

4 km/h

TEST REPORT ACCORDING TO UNI EN 840-5: 2013

The TR Lab, Test & Research laboratory of Tellure Rôta has the necessary equipment for Dynamic testing on wheel and castor according to UNI EN 840-5:2013, par. 4.9.3.
The laboratory issues a test report with the results of the tests.





INSTITUTIONAL

SERIES
32
POLYAMIDE 6 WHEELS

40-60 mm | 3 km/h 30-90 daN | -5 / +40 °C

PAGE 284

SERIES
36
THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

40-60 mm | 3 km/h 40-140 daN | -5 / +40 °C

PAGE 290

SERIES
37
GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE

40-125 mm | 3 km/h 30-80 daN | -5 / +40 °C

PAGE 294

SERIES
51
THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

80-250 mm | Static 30-120 daN | -15 / +70 °C

PAGE 300

SERIES 32

POLYAMIDE 6 WHEELS

40-60 mm

30-90 daN
3 km/h

-5 / +40 °C

Description

Polyamide 6 solid wheels.

Hub with plain bore hole which directly houses the axle.

Uses

Recommended for use on catering and institutional trolleys having light carrying capacities.
Good resistance to chemical agents: not suitable on uneven flooring.
Examples of recommended applications: shop display units, trolleys for restaurants, furniture with light loads.

Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and chemical agents.

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

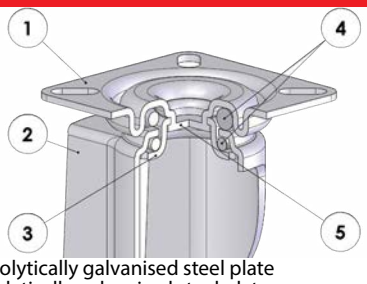
For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36.

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	3 km/h daN
40	17	0.02	321102	8	21	**30**
50	17	0.02	321104	8	22	**40**
50	22	0.03	321105	8	28	**50**
60	22	0.03	321106	8	28	**60**

Institutional brackets

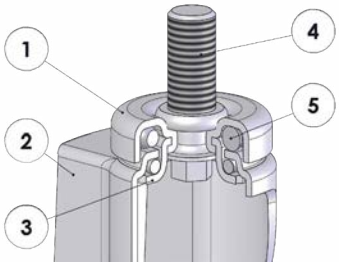


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted

mm	mm	kg	CODE	2 pc package kg	2 pc package CODE	mm	mm	mm	mm	mm	3 km/h daN
40	17	0.12	324101	0.29	324001	61	42x42	30x30	5	24	**30**
50	17	0.12	324102	0.31	324002	66	42x42	30x30	5	24	**40**
60	22	0.22	324103	0.56	324003	83	60x60	45x45	6	21	**60**

mm	mm	kg	CODE	mm	mm	mm	mm	3 km/h daN
40	17	0.10	325101	61	55x25	42	5	**30**
50	17	0.10	325102	66	55x25	42	5	**40**
60	22	0.20	325103	83	60x60	45x45	6	**60**

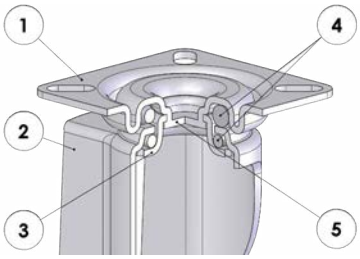
Institutional brackets



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

				2 pc package								
		kg	CODE	kg	CODE	mm	mm	mm	mm	mm	3 km/h 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	83	41	M12	24	21	**60**	

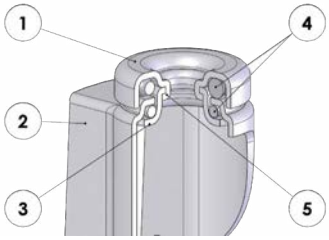
Institutional twin brackets for high carrying capacity



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-riveted
Available with total front foot brake

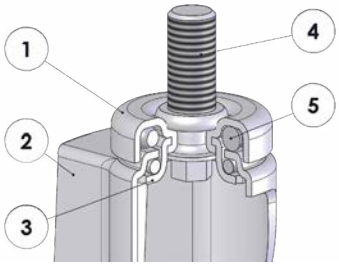
		kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	3 km/h daN
50	18+18	0.28	324302	0.33	328202	71	60x60	45x45	6	25.5	83	**90**

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

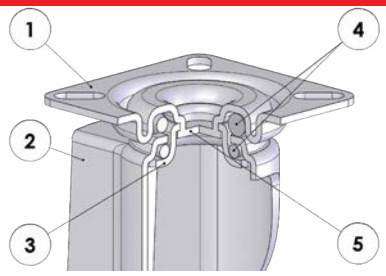
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
50	18+18	0.26	323202	0.31	327202	71	55	10	25.5	83	**90**



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

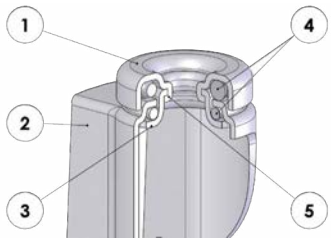
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
50	18+18	0.29	326202	0.34	329202	71	52	M10	25	25.5	83	**90**

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

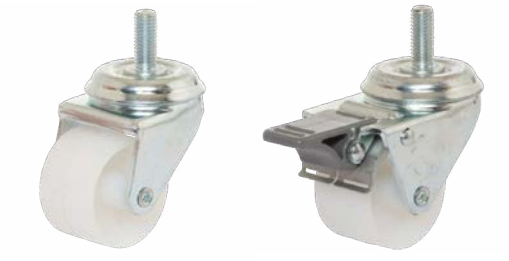
												3 km/h		
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN		
50	30	0.27	324402	0.32	328302	71	60x60	45x45	6	25.5	83	**80**		

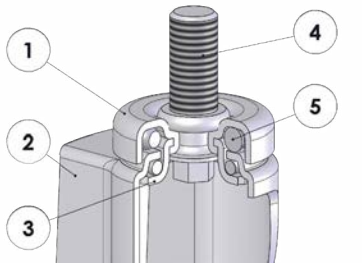


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted
Available with total front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

												3 km/h		
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN		
50	30	0.24	323302	0.29	327302	71	55	10	25.5	83	**80**			

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

												3 km/h		
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**		

SERIES 36

THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

40-60 mm

40-140 daN
3 km/h

-5 / +40 °C

Description

Tyre: thermoplastic polyurethane.

Centre: polyamide 6.

Hub with plain bore hole which directly houses the axle.

Uses

Suitable for use on different types of trolleys within the institutional sector, particularly in catering.
Good load carrying capacity in relation to small diameter wheels.
Resist well to frequent washing, making them suitable in environments where hygiene must be guaranteed.

Environments of use

Suitable for industrial and institutional environments, also in presence of humidity and chemical agents.

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

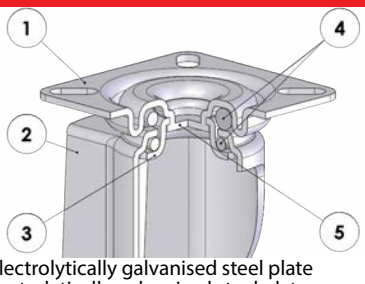
For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36.

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	3 km/h daN
40	18	0.02	361101	8	21	**40**
50	18	0.02	361102	8	22	**55**
60	25	0.06	361103	8	28	**70**

Institutional brackets



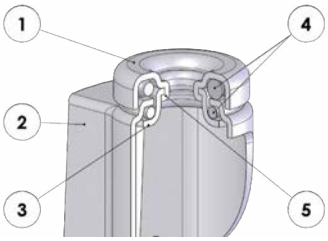
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted
Available with total front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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	3 km/h daN
40	18	0.11	364301	0.11	365101	0.13	368101	59	42x42	32x32	5	23	76	**40**
50	18	0.13	364302	0.12	365102	0.16	368102	66	55x55	40x40	6	24	76	**55**
60	25	0.24	364303	0.21	365103	0.28	368103	83	60x60	45x45	6	21	84	**70**

mm	mm	2 pc package kg	CODE	mm	mm	mm	mm	mm	3 km/h daN
40	18	0.30	324001	59	42x42	32x32	5	23	**40**
50	18	0.34	324002	66	55x55	40x40	6	24	**55**
60	25	0.56	324003	83	60x60	45x45	6	21	**70**

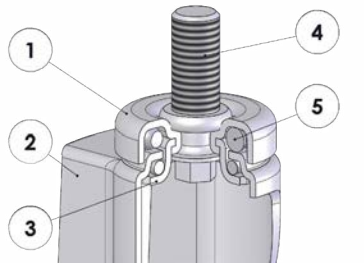
THERMOPLASTIC POLYURETHANE WHEELS WITH POLYAMIDE 6 CENTRE

Institutional brackets



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

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	3 km/h daN
40	18	0.10	363101	0.12	367101	59	35	10	23	76	**40**
50	18	0.13	363102	0.13	367102	66	35	10	24	76	**55**
60	25	0.24	363103	0.25	367103	83	42	13	21	84	**70**



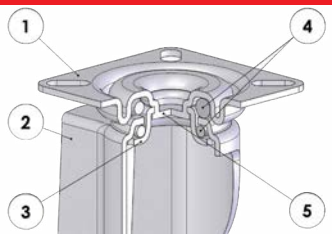
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Galvanised steel threaded stem
5) Swivel actions: double ball ring with grease lubrication
Available with total front foot brake

mm	mm	kg	CODE	kg	CODE	2 pc package kg	2 pc package CODE	mm	mm	mm	mm	mm	mm	3 km/h daN
40	18	0.12	366301	0.14	369101	0.34	366001	59	35	M10	20	23	76	**40**
50	18	0.13	366302	0.16	369102	0.38	366002	66	35	M10	20	24	76	**55**
60	25	0.24	366303	0.28	369103	0.62	366003	83	42	M12	25	21	84	**70**

Options available to order

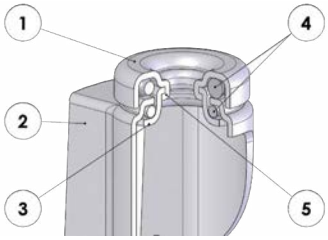
Different stem dimensions

Institutional twin brackets for high carrying capacity



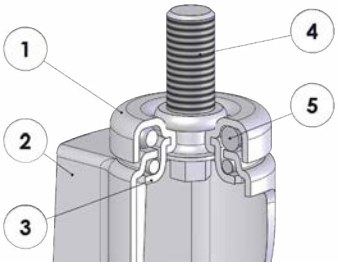
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted
Available with total front 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-riveted
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	mm	daN
50	18+18	0.31	366402	0.36	369202	71	52	M10	25	25.5	83	**140**

SERIES 37

GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE

40-125 mm

30-80 daN
3 km/h

-5 / +40 °C

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	

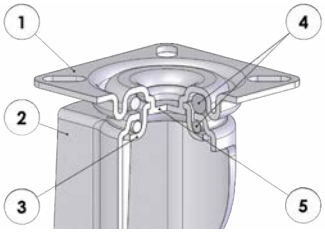
For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36.

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	3 km/h daN
40	18	0.03	371100	8	21	**30**
50	20	0.06	371101	8	22	**35**
60	24	0.10	371102	8	28	**50**
75	24	0.14	371203	8	28	**55**
80	24	0.17	371103	8	28	**55**
100	24	0.22	371104	8	28	**60**
125	30	0.46	371105	10	35	**80**

Institutional brackets

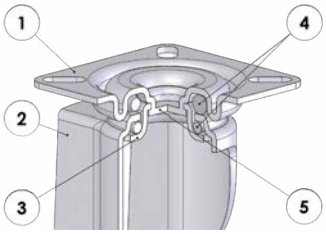


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted
Available with total front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

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	3 km/h daN
40	18	0.12	374100	0.11	375100	0.15	378100	59	42x42	31x31	5	24	78	**30**
50	18	0.20	374101	0.20	375101	0.24	378101	67	55x55	40x40	6	24	76	**35**
60	24	0.28	374102	0.26	375102	0.40	378102	83	60x60	45x45	6	21	84	**50**
75	24	0.40	374303	0.31	375303	0.48	378303	101	60x60	45x45	6	25	91	**55**
80	24	0.43	374103	0.34	375103	0.50	378103	104	60x60	45x45	6	25	91	**55**
100	24	0.48	374104	0.40	375104	0.57	378104	121	60x60	45x45	6	32	95	**55**
125	30	0.87	374105	0.80	375105	0.97	378105	152	77x67	55x45	8	40	115	**80**

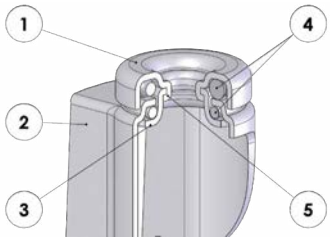
GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE

Institutional brackets



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

		2 pc package							3 km/h
mm	mm	kg	CODE	mm	mm	mm	mm	mm	daN
50	18	0.39	374001	67	55x55	40x40	6	24	**35**
60	24	0.68	374002	85	60x60	45x45	6	21	**50**

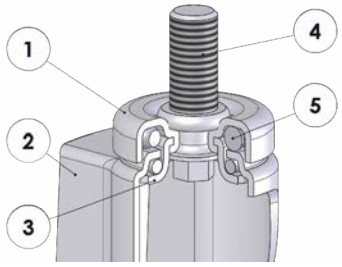


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted

Available with total front foot brake

											3 km/h
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN
40	18	0.11	373100	0.14	377100	59	35	10	24	78	**35**
50	18	0.16	373101	0.19	377101	66	35	10	24	76	**50**
60	24	0.25	373102	0.32	377102	83	41	12	21	84	**55**
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	52	12	40	115	**80**

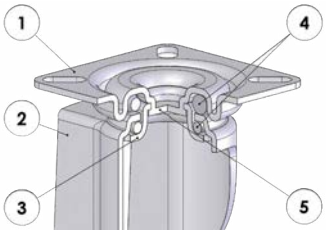
Institutional brackets



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

						2 pc package								3 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
40	18	0.13	376100	0.18	379100			59	35	M8	15	24	78	**30**
50	18	0.18	376101	0.21	379101	0.34	376001	66	35	M8	15	24	76	**35**
60	24	0.29	376102	0.36	379102	0.60	376002	83	41	M12	25	21	84	**50**
75	24	0.36	376303	0.43	379303			101	41	M12	25	25	91	**55**
80	24	0.39	376103	0.46	379103			104	41	M12	25	25	91	**55**
100	24	0.44	376104	0.53	379104			121	41	M12	25	32	95	**55**
125	30	0.79	376105	0.89	379105			149	35	M12	25	40	115	**80**

Institutional twin brackets



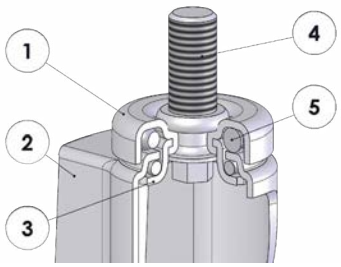
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted
Available with total front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

												3 km/h		
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN		
50	18+18	0.35	374201	0.40	378201	70	60x60	45x45	6	30	82	**60**		
75	24+24	0.64	374203	0.72	378203	100	60x60	45x45	6	33	95	**80**		

SERIES 37

GREY RUBBER WHEELS WITH POLYPROPYLENE CENTRE

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

													3 km/h	
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	**60**		
75	24+24	0.50	376203	0.68	379203	100	52	M12	25	33	95	**80**		

Quality You need

tellureRôta

SERIES 51

BLACK THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

80-250 mm

Static 30-120 daN

-5 / +40 °C

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	■	▨	□	WEAK BASES	▨	■	□
STRONG ACIDS	▨	▨	■	STRONG BASES	▨	■	□
WATER	■	▨	□	HYDROCARBONS	▨	■	□
ALCOHOL	▨	■	□	SOLVENTS	▨	▨	■

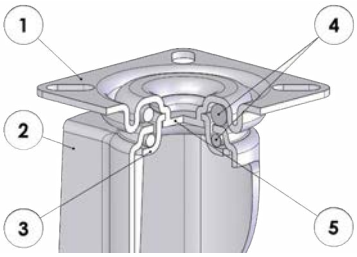
For information on the compatibility of the component wheel materials with specific aggressive chemical substances, see table at page 36.

Floors

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	**30**
100	30	0.11	511112	8	35	**35**
100	30	0.11	511122	12	35	**35**
125	35	0.18	511103	15	44	**50**
150	35	0.23	511104	15	44	**90**
175	45	0.33	511105	20	59	**100**
200	50	0.72	511106	20	59	**120**
250	50	0.89	511108	20	59	**120**

Institutional brackets

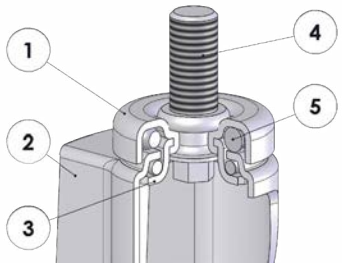


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Swivel actions: double ball ring with grease lubrication
5) King pin: integrated with the plate and cold-riveted

mm	mm	kg	CODE	mm	mm	mm	mm	mm	daN
80	26	0.43	514411	106	60x60	45x45	6	28	**30**
100	30	0.48	514412	128	60x60	45x45	6	32	**35**

BLACK THERMOPLASTIC RUBBER WHEELS WITH POLYPROPYLENE CENTRE

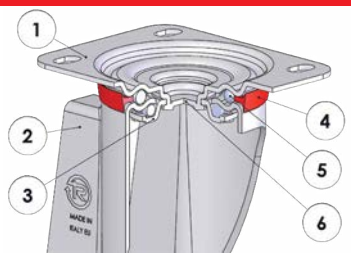
Institutional brackets



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	**30**
100	30	0.40	516802	126	41	M12	25	32	**35**

Standard-duty brackets NL - max carrying capacity 90 daN



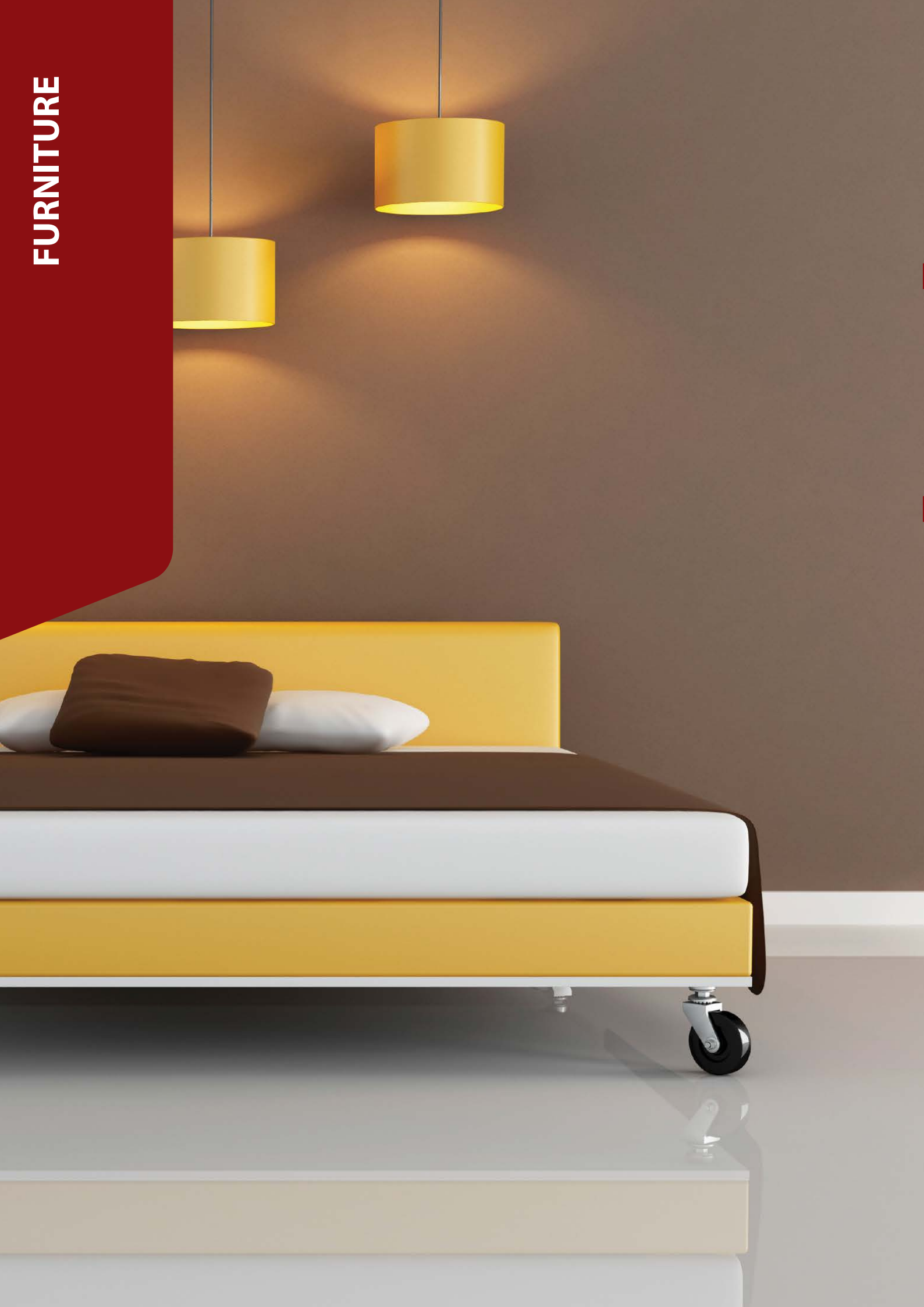
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

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	**30**
100	30	0.63	514402	0.37	515702	128	100x85	80x60	9	35	**35**
125	35	0.82	514403	0.48	515703	156	100x85	80x60	9	37	**50**
150	35	0.91	514404	0.54	515704	182	100x85	80x60	9	42	**90**

Sixty years of reliability

tellure Rôta

FURNITURE



SERIES
33
RUBBER BALL WHEELS

30-50 mm | 10-30 daN | 0 / +40 °C

PAGE 306

SERIES
34
PAIRED POLYAMIDE 6 OR POLYPRO-PYLENE WHEELS

35-100 mm | 10-40 daN | 0 / +40 °C

PAGE 308

SERIES
35
RUBBER HALF-BALL WHEELS

45-65 mm | 20-40 daN | 0 / +40 °C

PAGE 312

SERIES
39
TRANSPARENT POLYURETHANE WHEELS WITH METHACRYLATE CENTRE

50-75 mm | 20-40 daN | 0 / +40 °C

PAGE 314

SERIES 33

RUBBER BALL WHEELS

30-50 mm

10-30 daN

0 / +40 °C

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 36.

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 kg	2 pc package CODE	mm	mm	mm	mm	daN
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 kg	2 pc package CODE	mm	mm	mm	daN
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 kg	2 pc package CODE	mm	mm	mm	mm	daN
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**

SERIES 34

PAIRED POLYAMIDE 6 AND POLYPROPYLENE WHEELS

35-100 mm

10-40 daN

0 / +40 °C

Description

Paired wheels in black or grey polyamide 6.
Steel stems and plates

Paired wheels in transparent or blue poly-propylene.
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				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

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	2 pc package 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**

PAIRED POLYAMIDE 6 AND POLYPROPYLENE WHEELS

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	102	48x48	34x34	6	87	**30**
100	57	0.51	347405	0.53	342105	127	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	93	SPANNER 12	M10	15	74	**30**
75	48	0.12	342204	0.13	342304	102	SPANNER 12	M10	15	87	**30**
100	57	0.54	342205	0.57	342305	127	SPANNER 12	M10	15	115	**40**

Tansparent polypropylene wheels

mm	mm	kg	CODE	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**

SERIES 35

RUBBER SPHERICAL WHEELS

45-65 mm

20-40 daN

0 / +40 °C

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 36.

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	RH CODE	kg	LH CODE	mm	mm	mm	mm	daN
45	0.09	354101	0.09	354201	56	28x28	19x19	5	**20**
55	0.14	354102	0.14	354202	66	38x38	27x27	5	**30**
65	0.19	354103	0.19	354203	76	38x38	27x27	5	**40**

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

Package with 2 wheels and 4 fittings

mm	kg	CODE	mm	mm	mm	mm	mm	mm	mm	daN
45	0.25	350001	52	28x28	19x19	5	SPANNER 12	M8	15	**20**
55	0.35	350002	62	38x38	27x27	5	SPANNER 12	M8	15	**30**

SERIES 39

50-75 mm

20-40 daN

0 / +40 °C

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 36.

Floors

Suitable on tiles and fragile flooring; not recommended on abrasive, unpaved floors or in presence of processing residues.
Not recommended in presence of obstacles.

mm	mm	kg	CODE	mm	mm	mm	mm	mm	daN
50	20	0.14	392002	71	42x42	32x32	4.5	19	**20**
75	22	0.33	392004	103	60x60	43x43	6.5	28	**40**

mm	mm	kg	CODE	mm	mm	mm	mm	daN
50	20	0.14	392102	71	M8	15	19	**20**
75	22	0.31	392104	103	M10	25	28	**40**

Options available to order

Wheels
with thread
bracket
d. 78 mm

Wheels
with thread
bracket
d. 78 mm

SOLUTIONS WITH SPECIFIC CONDUCTIVE ELECTRICAL RESISTANCE

Plastic materials, rubbers and elastomers commonly used in the wheels and castors sector are generally isolating and therefore nonconducting.
Therefore, they do not allow the static possibly built on on the trolley or equipment to be conducted to the ground.

The built up static can potentially compromise the funcionality of sensible electrical equipment transported on the trolley and potentially trigger explosions in environments at risk.

Hence, wheels and castors made of those materials may not be fit for potentially explosive areas and for ESD sensible environments.

Tellure Rôta propose customised castor solutions with modified electrical resistance to comply with the guidelines of ESD conductive electrical resistance applications, whose specifications are shown on the following page.

Tellure Rôta do recommend to thoroughly assess the requirements of the final user and to compare them with the castor specifications in order to prevent any risk of damage.

As the electrical resistance can be altered by the conditions of the tread or by the environment, we also recommend a maintenance of the castors to inspect the electrical resistance at a regular intervals (depending on the environment of use) not to exceed a 3 months period.

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;
- *IEC 61340-5-1:2007* which includes the general guidelines for protection of electrical devices from electrostatic events.

BLACK RUBBER WHEELS WITH R<10^5 OHM

Series 53 wheel (page 66-73) with diam. 80 to 200mm and roller bearing hub fitted with rubber rings with electrical resistance below 10^5 Ohm ("conductive" according to ISO 22883:2004).

POLYAMIDE 6 WHEELS WITH R<10^5 OHM

Polyamide 6 wheel with electrical resistance below 10^5 Ohm ("conductive" according to ISO 22883:2004) are available upon request.
Please contact Tellure Rôta to define the dimensional specs. and for a customised offer.

POLYURETHANE WHEELS WITH R<10^9 OHM

Wheels with TR and TR-Roll tread (series 62AL, 62ER, 62GH, 64, 65AL, 65GH, 65HT, 65ER) are available upon request with electrical resistance <10^9 Ohm.
Please contact Tellure Rôta to define the dimensional specs. and for a customised offer.

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

SPRUNG BRACKET FOR THE AUTOMOTIVE SECTOR

POLYURETHANE WHEELS WITH INCREASED THICKNESS TO BETTER OVERCOME OBSTACLES

TRIPOD WITH ELASTIC POLYURETHANE WHEELS FOR MOVING SETS

POLYAMIDE 6 WHEEL FOR EXTRA-HEAVY LOADS

WHEEL WITH TWIN ELECTROWELDED BRACKET DIAM. 400 MM FOR HEAVY-DUTY LOADS

VULKOLLAN ® WHEEL WITH GROOVES

BRACKETS WITH CUSTOMISED STEM

DRIVE WHEEL

POLYURETHANE COATING

COATING FOR MOTORWHEELS

ACCESSORIES FOR WHEELS AND CASTORS: THREADGUARDS AND COUNTER-PLATES

Threadguards

Threadguards in galvanised steel for series 22-52

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

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 galvanised steel series 60-61-71 (models with plain bore and ball bearing)

mm	mm	POL 6 CODE	GALVANISED CODE
80	30	100501	940261
100	30	100502	940262
125	35	100503	940263
150	35	100504	
150	45	100514	
200	50	100506	

Threadguards in galvanised steel for series 63AC

mm	mm	CODE
100	30	100031
125	40	100032
150	40	100033
200	50	100035

Threadguards in galvanised steel for series 65AL

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

mm	mm	CODE
150	30	100033
150	35	100034
175	35	100035
200	45	100036

Threadguards

Threadguards in galvanised steel and stainless steel for series 66

mm	mm	GALVANISED CODE	STAINLESS CODE
80	25	100461	
100	30	100031	100231
125	30	100032	100232
150	40	100033	100234
175	40	100034	
200	50	100035	
250	60	100036	

Threadguards in galvanised steel and in stainless steel for series 68

mm	mm	GALVANISED CODE	STAINLESS CODE
80	30	100491	
100	30	100498	
125	38	100493	
150	45	100494	100234
175	45	100495	100237
200	50	100496	

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

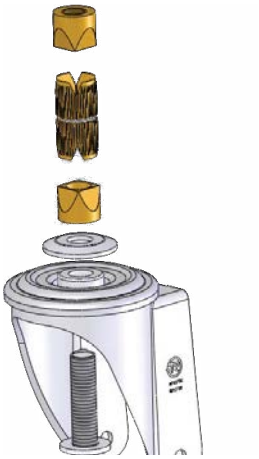
mm	mm	mm	mm	mm	CODE	CODE	CODE	CODE
80	73	12	10x1.5	25	925005	922028		
100	73	12	10x1.5	25	925005	922028		
125	73	12	12x1.75	45	925006	922112		
140/150	73	12	12x1.75	45	925006	922112		
150/160	102	20	16x2	35	925007	922108	929324	947015
175/180	102	20	16x2	35	925007	922108	929324	947015
200	102	20	16x2	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.

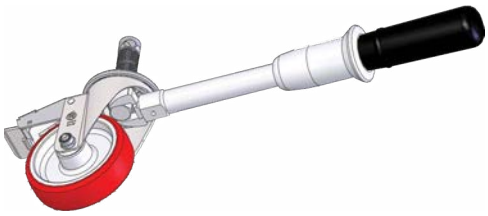
Assembly and maintenance recommendations



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.

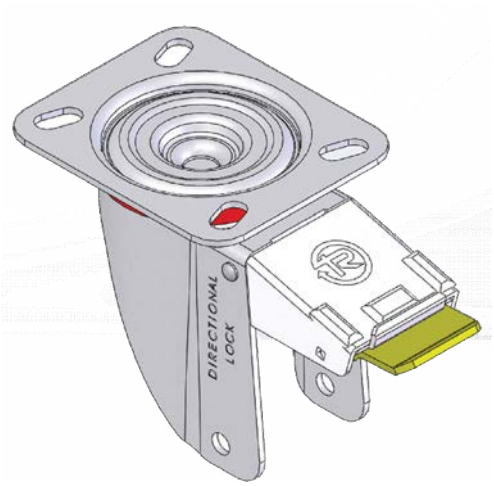


ACCESSORIES FOR WHEELS AND BRACKETS: DIRECTIONAL LOCK

Directional lock for brackets NL-P

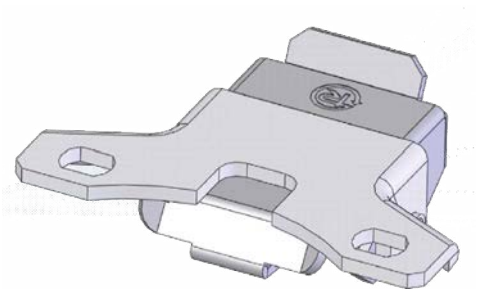
Directional lock is an accessory that can be fitted to the top plate of a swivel bracket plate by using the same fixing bolts to the trolley. When engaged, it locks the bracket rotation in a precise direction, turning it into a fixed castor. The device is used on at least two of the four swivel brackets 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 mechanical ly towed trolleys at low speed (max. 6 km/h) on good condition floors.
It offers a simple a simple engagement by self-inserting into position after pushing the front pedal.
Applicable to NL brackets diameter 80-100-125-140/150 upon request.

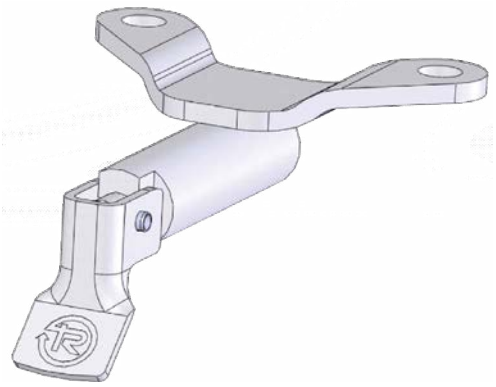
Directional lock for NL and P brackets, diam. from 150 to 200 mm



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 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 and P series swivel brackets for wheels diameters 150, 160, 175, 180 and 200 mm.
It can be used with swivel NL-P brackets with rear brake and central brake.
It cannot be combined to NL/P brackets with front foot brake.

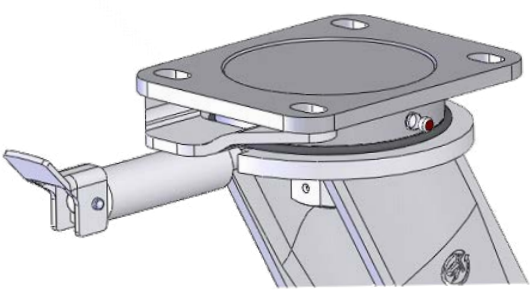
Directional lock for electrowelded brackets

Directional lock for EE MHD-EEG MHD- EE HD brackets



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).

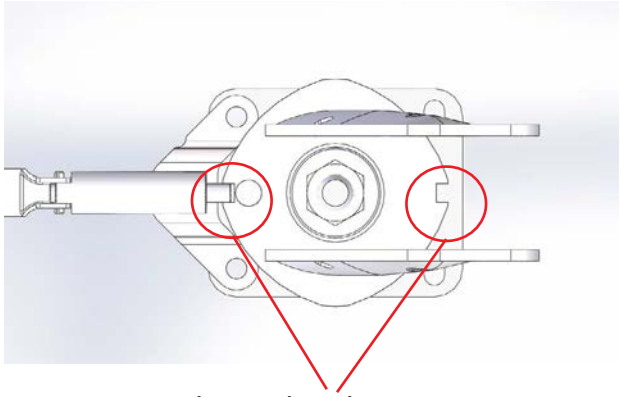
Easy to engage by self-clicking into position.



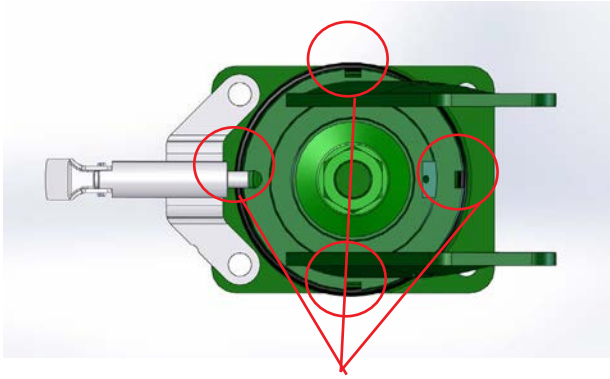
Specifications:
• it is fitted to the top plate of a castor by using the same fixing bolts which secure the castor to the trolley
• it can be fitted with EE MHD and EE HD elctrowelded brackets and to EEG MHD twin eletrowelded castors (please see the table on the following page for details)
• it can be 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

			4-6 km/h			Directional lock part number	Suffix 2x180° slots	Dir. lock to be fitted on the side of the top plate with dimension:	Suffix 4x90° slots
EE MHD	100	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
	125	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
	150	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
	160	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
	180	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
	200	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
	250	135x110	1000	Yes	Yes	**401216**	-B2	110 mm	-B4
EEG MHD	100	135x110	1000	Yes	N.a.	**401216**	-B2	110 mm	-B4
	125	135x110	1000	Yes	N.a.	**401216**	-B2	110 mm	-B4
EE HD	150	175x140	1600	Yes	No	**401217**	-D2	140 mm	-D4
	200	175x140	1600	Yes	No	**401217**	-D2	140 mm	-D4
	250	175x140	1600	Yes	No	**401217**	-D2	140 mm	-D4
	300	175x140	1600	Yes	No	**401217**	-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.

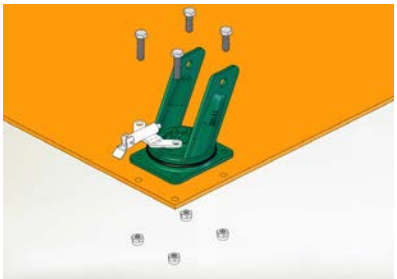
Upon request, it is possible to fit the directional lock to brackets with customised slots and to brackets with a different top plate dimension.

Directional lock for electrowelded brackets

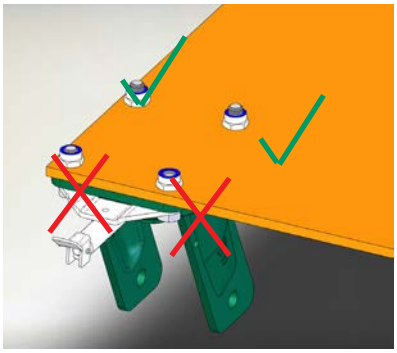
Scheme of assembly

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).

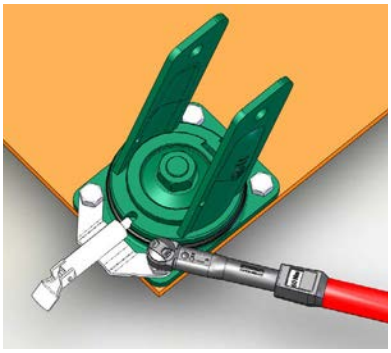
2. The directional lock and the castor have to bee positioned and subsequently fastened as per the exemplification in the adjacent picture (note: the picture shows the bracket without the wheel for handiness of the image only).



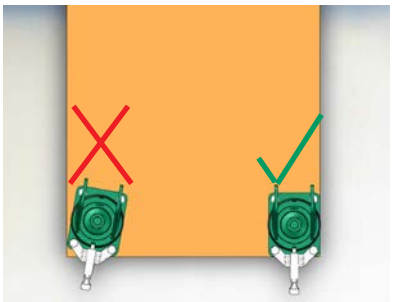
3. The bolt has to protrude through the nut by al least 3 threads.



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

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).

Wheel maximum load and carrying capacity

The carrying capacity declared by the manufacturer is the maximum value, expressed in daN, that a wheel or a bracket can be subjected to without reducing its operating efficiency.
The user must check the suitability of the carrying capacity declared by the manufacturer in relation to the load, the wheel and bracket layout on the trolley to be moved, the number of them actually in contact with the ground and any other conditions (type of surface on which the trolley moves, temperature, humidity, presence of aggressive chemical agents in the operating environment) that may affect the operating conditions of the mechanical moving parts.

Tractive force

The user must check that the force needed to move the trolley with the foreseen load is compatible with current provisions. To make it easier to choose the right wheel, and based on the force required to move the trolley, the rolling resistance value of each wheel is indicated in Tellure Rôta catalogue.

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.

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.

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.

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.

Electrical conductivity

If it is necessary to guarantee the electric conductivity from the connecting part to the tread, please contact Tellure Rôta.

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.

MAINTENANCE

The user must carry out scheduled maintenance that includes the inspections listed below at the intervals that vary according to operating conditions.

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.

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.

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).

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.

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.

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 extend, 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.

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.

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.

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.

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.

Brackets and axle components

Steel and stainless steel can be recycled as ferrous scrap.

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.

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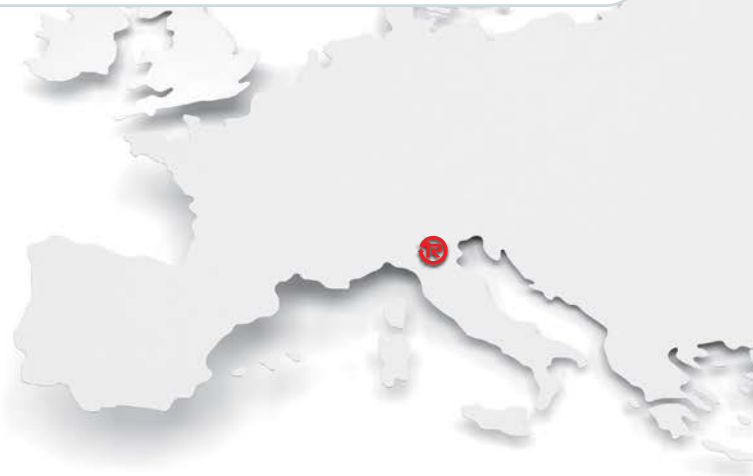

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