SERIES 64

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

80-400 mm

92 Shore A

150-3500 daN
4 km/h

120-3500 daN
6 km/h

150-750 daN

-20 / +80 °C

Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent rolling resistance and elasticity, highly resistant to wear.

Centre: cast iron.

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

Uses

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

Environments of use

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

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

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

Floors

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

Force required to push or tow a wheel

	150 kg	300 kg	450 kg	600 kg	1000 kg	1500 kg	2000 kg	2800 kg
80 mm	4,5	11	----	----	----	----	----	----
100 mm	3,8	7,7	----	----	----	----	----	----
125x38 mm	3,5	7	11,5	----	----	----	----	----
125x50 mm	3,3	6,5	11	----	----	----	----	----
125x60 mm	3,3	6,5	11	14	----	----	----	----
150x50 mm	2,5	5,2	8,6	12,6	----	----	----	----
150x60 mm	2	4	8	11	----	----	----	----
150x80 mm	1,8	3,5	6	10,5	18	----	----	----
160x50 mm	2,3	5	8,3	12	----	----	----	----
180x50 mm	2	4,1	6,8	9,7	----	----	----	----
200x50 mm	1,7	3,8	6	8,5	16	----	----	----
200x80 mm	1,3	3,5	5,0	6,7	11,5	17	----	----
250x60 mm	1	3	4,7	6,3	10,9	16	----	----
250x80 mm	< 1	2,5	4,5	6	10,3	15,5	----	----
300x60 mm	< 1	2	4	5,5	9,6	15	----	----
300x80 mm	< 1	1,5	3,5	5	8,6	13	16	----
400x100 mm	< 1	< 1	2	3,2	6,8	11	13	21

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

Available with brackets:

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

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

Medium-heavy duty brackets P
Maximum carrying capacity 750 daN - available diameters 80-200 mm
Top plate fitting. Available with front brake and adjustable rear brake.

Heavy-duty PT brackets with hardened ball race grooves
Maximum carrying capacity 900 daN - available diameters 125-200 mm
Top plate fitting. Available with adjustable rear brake.

Extra-heavy duty brackets EP
Maximum carrying capacity 1600 daN - available diameters 100-250 mm
Top plate fitting. Available with adjustable rear brake.

Electrowelded brackets EE MHD - EE HD - EE EHD.
Maximum carrying capacity 2800 daN - available diameters 125-400 mm
Top plate fitting. Available with adjustable rear brake.

Twin electrowelded brackets EEG MHD - EEG HD - EEG EHD
Maximum carrying capacity 4300 daN - available diameters 100-300 mm
Top plate fitting

Electrowelded sprung-loaded brackets EES MHD
Maximum carrying capacity 1000 daN - available diameters 160-250 mm
Top plate fitting. Available with adjustable front brake.

SERIES **64**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

These wheels can also be used as drive wheels: the wheel hub is manufactured so that it can easily be reworked to achieve a spline or key housing The carrying capacity given is valid for movements at a maximum speed of 6 km/h also if used as a drive wheel on mainly straight routes.
To use as a steering drive wheel or at speeds higher than 6 km/h it is advisable to contact Tellure Rôta to assess any reduction of the maximum applicable loads that may be necessary. To prevent the polyurethane tyre from deteriorating, any reworking on the wheel must be done keeping the temperature under 80°C (which is recommended as the maximum limit during normal use of the product).

								Static	4 km/h	6 km/h
mm	mm	kg	COD.	mm	mm.	mm.	mm.	daN	daN	daN
100	40	1,50	641102	15 H7	45	55	30	**500**	**400**	**300**
100	40	1,45	641112	20 H7	45	55	30	**500**	**400**	**300**
100	40	1,39	641122	25 H7	45	55	30	**500**	**400**	**300**
125	40	2,10	641103	20 H7	60	60	30	**600**	**450**	**360**
125	40	2,07	641143	25 H7	60	60	30	**600**	**450**	**360**
125	50	2,36	641113	20 H7	60	60	30	**700**	**550**	**440**
125	50	2,28	641123	25 H7	60	60	30	**700**	**550**	**440**
125	50	2,19	641133	30 H7	60	60	30	**700**	**550**	**440**
150	40	3.00	641104	20 H7	60	70	40	**730**	**550**	**440**
150	50	3,27	641114	20 H7	60	70	40	**910**	**700**	**560**
150	50	3,13	641154	25 H7	60	70	40	**910**	**700**	**560**
150	50	3,04	641164	30 H7	60	70	40	**910**	**700**	**560**
150	50	2,93	641174	35 H7	60	70	40	**910**	**700**	**560**
160	50	3,35	641124	20 H7	60	70	40	**910**	**700**	**560**
160	50	3,27	641134	25 H7	60	70	40	**910**	**700**	**560**
160	50	3,18	641144	30 H7	60	70	40	**910**	**700**	**560**
180	50	4,30	641105	20 H7	60	70	40	**1100**	**800**	**650**
180	50	4,26	641115	25 H7	60	70	40	**1100**	**800**	**650**
180	50	4,17	641125	30 H7	60	70	40	**1100**	**800**	**650**
180	50	4,05	641135	35 H7	60	70	40	**1100**	**800**	**650**
200	50	4,86	641106	20 H7	60	70	40	**1500**	**950**	**750**
200	50	4,72	641156	25 H7	60	70	40	**1500**	**950**	**750**
200	50	4,63	641166	30 H7	60	70	40	**1500**	**950**	**750**
200	50	4,52	641176	35 H7	60	70	40	**1500**	**950**	**750**
200	50	4,39	641186	40 H7	60	70	40	**1500**	**950**	**750**
200	60	5,20	641116	25 H7	60	70	40	**1700**	**1100**	**900**
200	80	8,51	641136	35 H7	80	95	60	**2000**	**1400**	**1150**
250	50	7,74	641107	20 H7	60	75	45	**1800**	**1100**	**900**
250	50	7,63	641007	25 H7	60	75	45	**1800**	**1100**	**900**
250	50	7,54	641017	30 H7	60	75	45	**1800**	**1100**	**900**
250	50	7,43	641027	35 H7	60	75	45	**1800**	**1100**	**900**
250	50	7,30	641037	40 H7	60	75	45	**1800**	**1100**	**900**
250	80	11,52	641117	40 H7	80	95	60	**2800**	**1600**	**1300**
250	80	11,09	641177	50 H7	80	95	60	**2800**	**1600**	**1300**
250	80	10,46	641127	60 H7	80	95	60	**2800**	**1600**	**1300**
300	80	14,88	641128	40 H7	80	100	65	**3400**	**2100**	**1700**
300	80	14,40	641108	50 H7	80	100	65	**3400**	**2100**	**1700**
300	100	23,80	641138	40 H7	100	120	80	**4200**	**2500**	**2000**
300	100	23,29	641118	50 H7	100	120	80	**4200**	**2500**	**2000**
300	100	22,67	641148	60 H7	100	120	80	**4200**	**2500**	**2000**
350	100	30,88	641109	50 H7	100	120	80	**4700**	**2800**	**2250**
400	100	35,58	641110	50 H7	100	120	80	**5000**	**3500**	**2800**

								Static	4 km/h	6 km/h			
mm	mm	kg	COD.	mm	mm.	mm.	mm.	daN	daN	daN			
100	40	1,50	641202	15 H7	45	5x5	17,3	**500**	**400**	**300**			
125	40	2,10	641203	20 H7	60	6x6	22,8	**600**	**450**	**360**			
150	40	2,90	641204	20 H7	60	6x6	22,8	**730**	**550**	**440**			
150	50	3,70	641214	20 H7	60	6x6	22,8	**910**	**700**	**560**			
180	50	4,40	641205	20 H7	60	6x6	22,8	**1100**	**800**	**650**			
200	50	4,60	641206	20 H7	60	6x6	22,8	**1500**	**950**	**750**			
200	60	6,00	641216	25 H7	60	8x7	28,3	**1700**	**1100**	**900**			
200	80	8,40	641226	40 H7	80	12x8	43,3	**2000**	**1400**	**1150**			
250	50	6,60	641207	20 H7	60	6x6	22,8	**1800**	**1100**	**900**			
250	80	11,00	641217	40 H7	80	12x8	43,3	**2800**	**1600**	**1300**			
250	80	10,10	641227	60 H7	80	18x11	64,4	**2800**	**1600**	**1300**			
300	80	14,40	641208	50 H7	80	14x9	53,8	**3400**	**2100**	**1700**			
300	100	21,20	641218	50 H7	100	14x9	53,8	**4200**	**2500**	**2000**			
350	100	26,10	641209	50 H7	100	14x9	53,8	**4700**	**2800**	**2250**			
400	100	31,60	641210	50 H7	100	14x9	53,8	**5000**	**3500**	**2800**			

The standard reference used by Tellure Rôta for the construction of the key housing is UNI EN 6604-69; therefore, the tolerance on the width of the key housing is JS9.
Tellure Rôta is at your disposal to customise the product, modifying the bore with a groove for a key housing of different dimensions or a groove for a tongue according to the specifications of the Italian (UNI 6604 and UNI 6607) and European (DIN 6885) regulations in force. The maximum applicable diameter for each wheel, guaranteeing the carrying capacity values, is given in the product dimensions column

SERIES **64**

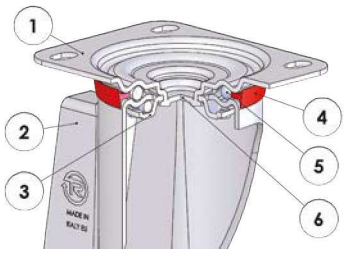
"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

										Static		4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	mm	mm.	mm	mm	daN	daN	daN	daN
80	20	0,36	642181	0,34	644181	12	18	32	14	**200**	**150**	**150**	**120**
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**	**750**	**600**
150	50	2,48	642354	2,28	644154	25	55	47	14	**910**	**290**	**750**	**600**
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	50	7,00	642147	6,92	644147	20	55	52	15	**1750**	**400**	**1200**	**960**
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**
300	100	22,75	642178	22,46	644178	45	100	85	19	**3400**	**600**	**2500**	**2000**
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

Standard-duty brackets NL - max carrying capacity 300 daN

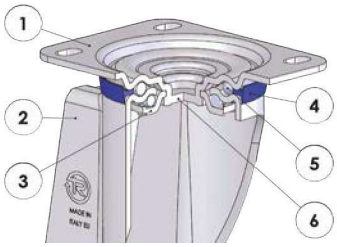


1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

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	166	140x110	105x80	11	56	156	**300**
150	50	3.87	644554	3.59	644654	4.12	645464	194	140x110	105x80	11	56	156	**300**
160	50	3.98	644564	3.71	644664	4.23	645474	199	140x110	105x80	11	56	156	**300**
180	50	4.48	644555	4.21	644655	4.68	645465	220	140x110	105x80	11	56	156	**300**
200	50	5.16	644556	4.92	644656	5.36	645466	240	140x110	105x80	11	56	156	**300**

Medium-duty brackets M - max carrying capacity 500 daN



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

Available with adjustable total front foot brake

															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**

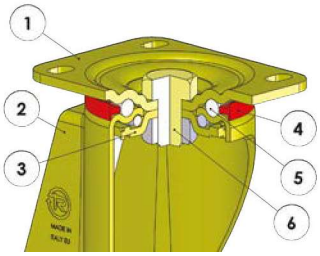
Options available to order:

Footguard
for brackets NL-
M-P-PT

SERIES **64**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

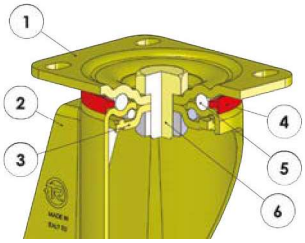
Medium-heavy duty brackets P - max carrying capacity 750 daN



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

Available with total front foot brake

		kg		kg		kg										4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	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	138	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: yellow galvanised steel plate
2) Fork: yellow galvanised steel plate
3) Ball race ring: yellow galvanised steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

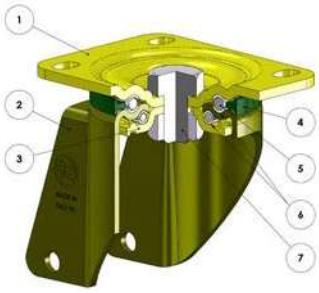
Available with total adjustable rear foot brake

		kg		kg		kg										4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
125	50	3.66	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	**750**	**600**
160	50	4.93	645864	4.08	646864	5.45	644864	205	140x110	105x80	11	70	126	**750**	**600**
180	50	5.30	645855	4.45	646855	5.90	644855	228	140x110	105x80	11	70	126	**750**	**600**
200	50	6.06	645856	5.15	646856	6.66	644856	250	140x110	105x80	11	70	126	**750**	**600**

Options available to order:

Footguard
for brackets NL-
M-P-PT

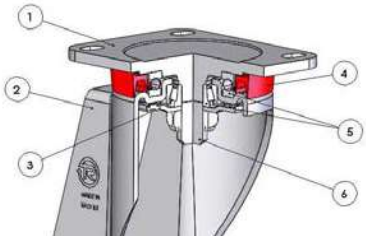
Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 900 daN



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

		kg	COD.	kg	COD.	kg	COD.							4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
125	50	3,66	645003	2,65	646863	4,24	649903	170	140x110	105x80	11	70	126	**550**	**440**
150	50	4,67	645004	3,55	646854	5,33	649904	200	140x110	105x80	11	70	126	**750**	**600**
160	50	4,93	645014	4,08	646864	5,45	649914	205	140x110	105x80	11	70	126	**750**	**600**
180	50	5,30	645005	4,45	646855	5,90	649905	228	140x110	105x80	11	70	126	**900**	**720**
200	50	6,06	645006	5,15	646856	6,66	649906	250	140x110	105x80	11	70	126	**900**	**800**

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



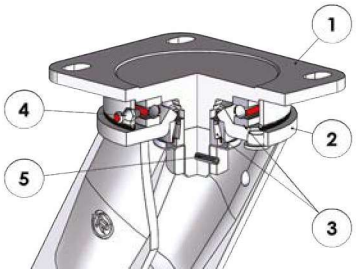
1) Plate: white galvanised forged steel
2) Fork: white galvanised forged steel
3) Lower bearing protection ring
4) Dust seal: orange polyethylene
5) Swivel actions: axial ball bearing and tapered roller bearing
6) King pin: integrated with the machine-processed plate
Available with adjustable total rear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

														4 km/h	6 km/h
		kg	CODE	kg	CODE	kg	CODE								
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	38	2.15	647852	1.92	648852			140	100x85	80x60	9	46		**350**	**300**
125	38	2.64	647853	2.44	648853			164	100x85	80x60	9	48		**350**	**300**
125	50	4.61	647863	4.16	648863			188	135x110	105x80	11	70		**550**	**440**
150	50	5.04	647854	4.63	648854	5.56	646654	200	135x110	105x80	11	70	126	**750**	**600**
150	58	5.44	647824	4.96	648824			200	135x110	105x80	11	70		**850**	**680**
160	50	5.16	647864	4.75	648864	5.68	646664	205	135x110	105x80	11	70	126	**750**	**600**
180	50	5.60	647855	5.20	648855	6.20	646655	228	135x110	105x80	11	70	126	**900**	**720**
200	50	6.35	647856	6.06	648856	6.95	646656	250	135x110	105x80	11	70	126	**1000**	**800**
200	78	12.30	647866	10.46	648866			275	175x140	140x105	14	66		**1600**	**1300**
250	60	13.16	647857	11.32	648857			300	175x140	140x105	14	66		**1500**	**1200**

SERIES **64**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

Electrowelded brackets EE MHD - max carrying capacity 1000 daN

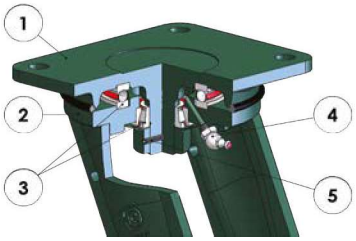


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

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

Electrowelded brackets EE HD - max carrying capacity 2300 daN

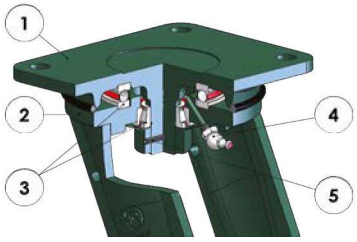


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

															4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
150	78	12.15	648315	10.61	648415	13.03	648515	218	175x140	140x105	14	50	166	**1000**	**800**
150	78	12.15	648324	10.61	648424			223	200x160	160x120	17	50		**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**

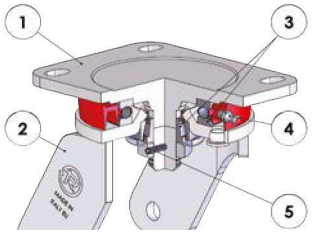
Electrowelded bracket EE EHD - max carrying capacity 2800 daN



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

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

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

											4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN
100	38+38	4.50	648062	3.75	648162	140	135x110	105x80	11	55	**700**	**600**
125	38+38	5.45	648063	4.70	648163	170	135x110	105x80	11	55	**900**	**720**

Options available to order:

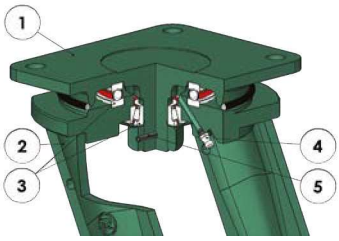
Directional lock
for brackets EE MHD
- EE HD - EEG MHD - EES
MHD: see page 420

Bracket
EE MHD
with steering
system

SERIES **64**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

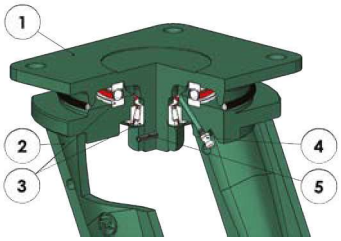
Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN



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

											4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	daN	daN
125	50+50	11.00	648072	7.70	648172	210	175x140	140x105	14	50	**1100**	**880**
150	50+50	13.10	648074	8.70	648174	223	175x140	140x105	14	50	**1500**	**1200**
160	50+50	13.40	648084	9.00	648184	228	175x140	140x105	14	50	**1500**	**1200**
200	50+50	15.90	648066	11.30	648166	280	175x140	140x105	14	65	**1600**	**1300**
200	50+50	17.55	648076	12.70	648176	285	200x160	160x120	17	65	**2000**	**1600**

Twin electrowelded brackets EEG EHD - max carrying capacity 4300 daN



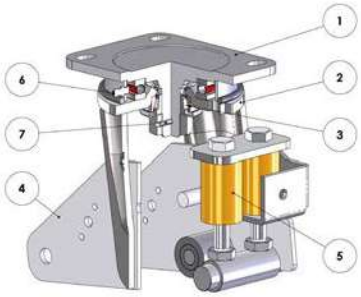
1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

											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**

Options available to order:

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

Electrowelded sprung-loaded brackets EES HD - max carrying capacity 1000 daN - damping up to 400 daN



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

																			4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	mm	daN	daN	daN	daN
160	50	8,47	649304	7,22	649404	9,53	649504	248	135x110	105x80	11	100	240	25	50	**400**	**750**	**600**
200	50	9,47	649306	7,82	649406	10,18	649506	268	135x110	105x80	11	100	265	25	50	**400**	**1000**	**800**
250	50	11,85	649308	10,64	649408	13,09	649508	316	135x110	105x80	11	110	315	25	50	**400**	**1000**	**960**

Spring travel (mm): maximum difference in the total height of the group wheel + support depending on the spring tension

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

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

Options available to order:

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

SERIES 65GH

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

150-300 mm

92 Shore A

400-2200 daN
4 km/h

320-1700 daN
6 km/h

280-550 daN

-20 / +80 °C

Description

Tyre: "TR" polyurethane, hardness 92 Shore A, excellent rolling resistance and elasticity features, highly resistant to wear and tear.

Centre: cast iron.

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

Uses

Suitable for applications with medium/heavy-duty loads, also with mechanical handling, with speed up to 6 km/h.
The excellent rolling resistance allows a manually handling of heavy loads.
Examples of recommended applications: trolleys for indoor industrial handling, AGV trolleys, containers, electrical pallet trucks, tilt trucks.

Environments of use

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

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

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

Floors

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

Force required to push or tow a wheel

	100 kg	300 kg	500 kg	700 kg	1000 kg	2000 kg
150x30 mm	1.4	5.7	----	----	----	----
150x35 mm	1.9	5	----	----	----	----
175 mm	1	3.9	11.6	----	----	----
200 mm	< 1	2.2	6	10.4	19	----
250 mm	< 1	2	5.8	8.4	14.8	----
300 mm	< 1	1.7	4.5	7	10	19.3

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

Combination with brackets

Standard-duty brackets NL
Maximum carrying capacity 300 daN - available diameters 150-200 mm
Top plate and bolt hole fittings. Available with front brake.

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

Medium-heavy duty brackets P
Maximum carrying capacity 750 daN - available diameters 150-250 mm
Top plate fitting. Available with front brake and adjustable rear brake.

Heavy-duty PT brackets with hardened ball race grooves
Maximum carrying capacity 900 daN - available diameters 150-200 mm
Top plate fitting. Available with adjustable rear brake.

Extra-heavy duty brackets EP
Maximum carrying capacity 1200 daN - available diameters 150-250 mm
Top plate fitting. Available with adjustable rear brake.

Options available to order:

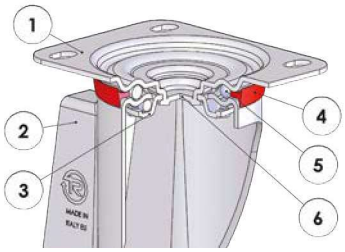
The series 65GH wheels are also available with assembled thread guards. To order them add the "PF" suffix to the product code. To order loose thread guards see the Accessories section.

SERIES **65GH**

"TR" POLYURETHANE 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
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

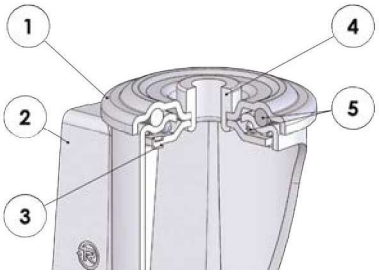
															4 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN
150	30	2.81	656204	2.45	658204	3.10	656524	192	140x110	105x80	11	56	156	**300**
150	35	2.96	656214	2.60	658214	3.25	656534	192	140x110	105x80	11	56	156	**300**
175	35	3.41	656205	3.12	658205	3.69	656525	217	140x110	105x80	11	56	156	**300**
200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

Standard-duty brackets NL - max carrying capacity 300 daN

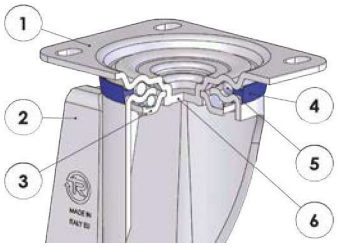


1) Plate: electrolytically galvanised steel sheet
2) Fork: electrolytically galvanised steel sheet
3) Ball race ring: electrolytically galvanised steel sheet
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication

Available with total front foot brake

		kg	COD.	kg	COD.						4 km/h
mm	mm	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	daN
150	30	2,68	656424	2,96	656824	188	102	20	56	156	**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

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

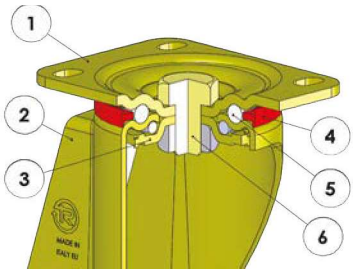
Options available to order:

Footguard for brackets NL-M-P-PT

SERIES **65GH**

"TR" POLYURETHANE WHEELS WITH CAST IRON CENTRE

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

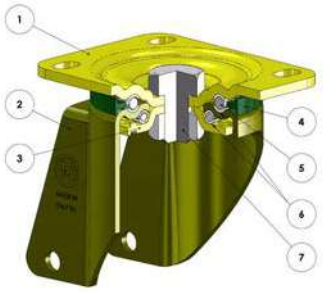


1) Plate: yellow galvanised steel plate
2) Fork: yellow galvanised steel plate
3) Ball race ring: yellow galvanised steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with adjustable total rear foot brake

		kg		kg		kg								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	173	**750**	**600**

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



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

Available with rear adjustable brake

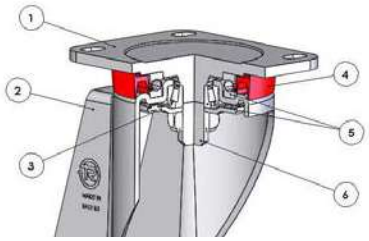
		kg		kg		kg								4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
150	35	3,95	657444	2,51	658414	4,52	658314	200	140x110	105x80	11	70	126	**490**	**390**
175	35	4,42	657435	3,00	658405	4,99	658305	225	140x110	105x80	11	70	126	**650**	**520**
200	45	5,89	657436	4,43	658406	6,20	658306	250	140x110	105x80	11	70	126	**900**	**800**

Options available to order:

Directional lock for brackets d. 150-200 mm

Footguard for brackets NL-M-P-PT

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



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

Available with adjustable total rear foot brake

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