SERIES 65 AL

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

80-200 mm

92 Shore A

220-850 daN
4 km/h

170-680 daN
6 km/h

150-360 daN

-20 / +80 °C

Description

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

Centre: made of cast aluminium.

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

Uses

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

Environments of use

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

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

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

Floors

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

Force required to push or tow a wheel

	150 kg	250 kg	350 kg	450 kg	550 kg	700 kg	850 kg
80 mm	3,2	----	----	----	----	----	
100 mm	2,3	5,2	----	----	----	----	
125 mm	1,7	4,5	6,5	----	----	----	
150 mm	1,2	3,8	6	7	8	----	
160 mm	<1	3,3	5	6,5	8	11,2	
200 mm	<1	3	4,9	6	7,8	10,5	18

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

Available with brackets :

Standard-duty brackets NL
Maximum carrying capacity 300 daN - available diameters 80-200 mm
Top plate and bolt hole fittings. Available with the front brake and centralised brake.

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

Medium-heavy duty brackets P
Maximum carrying capacity 750 daN - available diameters 100-200 mm
Top plate fitting. Available with front brake and adjustable rear brake.

Heavy-duty PT brackets with hardened ball race grooves
Maximum carrying capacity 850 daN - available diameters 150-200 mm
Top plate fitting. Available with adjustable rear brake.

Extra-heavy duty brackets EP
Maximum carrying capacity 850 daN - available diameters 100-200 mm
Top plate fitting. Available with adjustable rear brake.

Options available to order:

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

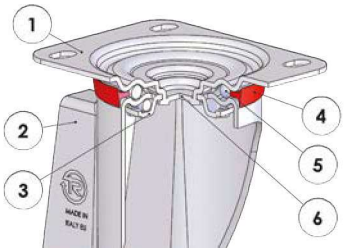
ESD polyurethane wheels, with electrical resistance <10^9 Ohm (page 314)

SERIES

65 AL "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	58	47	14	**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:

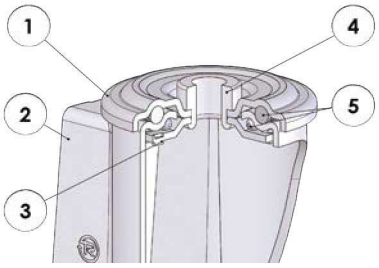
Directional lock for brackets d. 150-200 mm

Footguard for brackets NL-M-P-PT

Standard-duty brackets NL - max carrying capacity 300 daN

mm	mm	kg	COD.	mm	mm	mm	mm	mm	mm	mm	daN
160	50	2,61	654804	199	140x110	105x80	11	56	M10x1,5	65	**300**
200	50	3,96	654806	240	140x110	105x80	11	56	M10x1,5	65	**300**

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



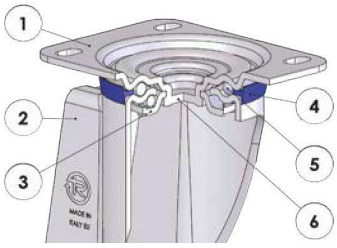
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) King pin: bushing in electrolytically galvanised steel
5) Swivel actions: double ball ring with grease lubrication
Available with total front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

SERIES

65 AL "TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

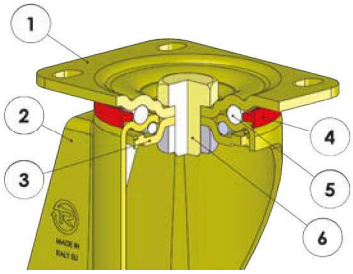
Medium-duty brackets M - max carrying capacity 500 daN



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

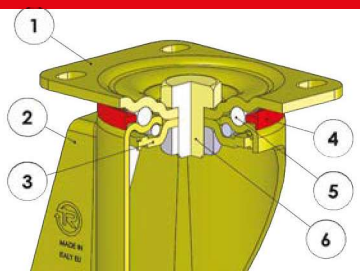
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	30	1.20	657602	0.82	658602	1.35	656602	138	100x85	80x60	9	46	123	**250**	**200**
125	35	1.39	657603	0.97	658603	1.54	656603	161	100x85	80x60	9	44	123	**350**	**280**

Options available to order:

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

Footguard for brackets NL-M-P-PT

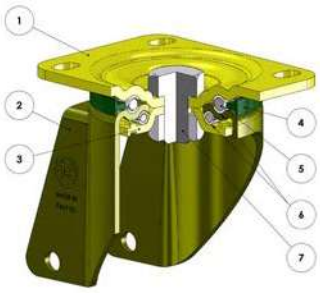
Medium-heavy duty brackets P - max carrying capacity 750 daN



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

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

Heavy-duty PT brackets with hardened ball race grooves - max carrying capacity 850 daN



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

mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
150	40	3,18	657544	2,19	658604	3,66	656674	200	140x110	105x80	11	70	126	**600**	**480**
160	50	3,52	657554	2,53	658614	4,09	656684	205	140x110	105x80	11	70	126	**800**	**640**
200	50	3,94	657546	2,48	658606	4,41	656676	250	140x110	105x80	11	70	126	**850**	**680**

Options available to order:

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

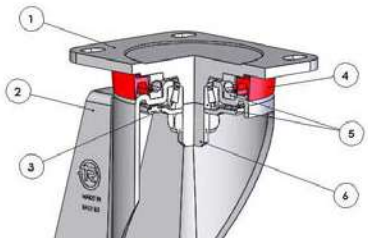
Footguard
for brackets NL-
M-P-PT

SERIES

65 AL

"TR" POLYURETHANE WHEELS WITH ALUMINIUM CENTRE

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



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

Available with adjustable total rear foot brake

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