







## "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.

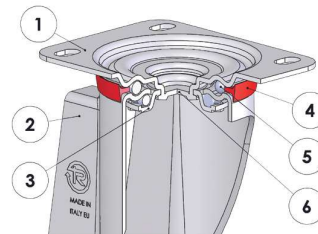
### Options available to order:

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.



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

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



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

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

### Options available to order:

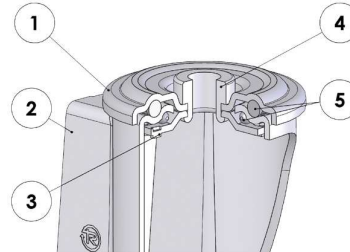


Directional lock for brackets d. 150-200 mm



Footguard for brackets NL-M-P

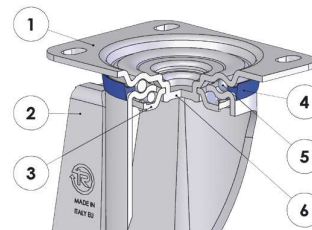
**Standard-duty brackets NL - max carrying capacity 300 daN**



- 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		kg		COD.		mm		mm		mm		mm		daN	
150	30	2,68	656424	2,96	656824	188	102	20	56	156	<b>300</b>				
150	35	2,83	656434	3,11	656834	188	102	20	56	156	<b>300</b>				
175	35	3,29	656425	3,57	656825	212	102	20	56	156	<b>300</b>				
200	45	4,77	656426	5,06	656826	236	102	20	56	156	<b>300</b>				

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



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

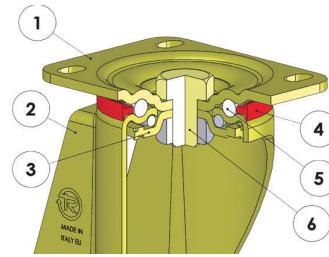
mm		kg		CODE		kg		CODE		kg		CODE		mm		mm		mm		mm		mm		daN	
150	35	3.31	657214	2.60	658214	3.78	657334	194	140x110	105x80	11	58	178	<b>490</b>											
200	45	5.31	657206	4.70	658206	5.25	657326	240	140x110	105x80	11	50	178	<b>500</b>											

Options available to order:



Footguard  
for brackets  
NL-M-P

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

Options available to order:

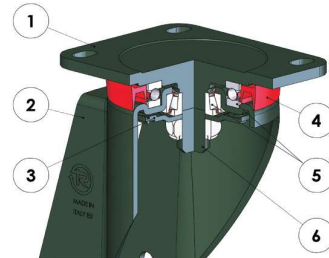


Directional lock for brackets d. 150-200 mm



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	daN	daN
150	30	4.06	657804	2.32	658804			200	135x110	105x80	11	70		<b>400</b>	<b>320</b>
150	35	4.21	657814	3.73	658814	4.78	656914	200	135x110	105x80	11	70	126	<b>490</b>	<b>390</b>
175	35	4.66	657805	4.24	658805	5.23	656915	225	135x110	105x80	11	70	126	<b>650</b>	<b>520</b>
200	45	6.14	657806	5.70	658806	6.71	656916	250	135x110	105x80	11	70	126	<b>1000</b>	<b>800</b>
250	50	11.14	657808	9.30	658808			300	175x140	140x105	14	66		<b>1200</b>	<b>960</b>



Footguard for brackets NL-M-P