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 40.

Floors

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



Force required to push or tow a wheel

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

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

Available with brackets:



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



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



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



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



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



Electrowelded brackets EE MHD - EE HD
Maximum carrying capacity 2300 daN - available diameters 125-400 mm
Top plate fitting. Available with adjustable rear brake.



Twin electrowelded brackets EEG MHD - EEG HD - EEG EHD
Maximum carrying capacity 3500 daN - available diameters 100-250 mm
Top plate fitting.



Electrowelded sprung-loaded brackets EES MHD
Maximum carrying capacity 1000 daN - available diameters 160-200 mm
Top plate fitting. Available with adjustable front brake.

Options available to order:



Wheel with key housing



Wheel with very thick tyre

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**	**750**	**600**
150	50	2,48	632354	2,28	634154	25	55	47	14	**910**	**290**	**750**	**600**
160	50	2,65	632164	2,43	634164	20	55	47	14	**1000**	**300**	**750**	**600**
160	50	2,63	632364	2,43	634164	25	55	47	14	**1000**	**300**	**750**	**600**
180	50	3,02	632155	2,80	634155	20	55	47	14	**1100**	**350**	**900**	**720**
200	50	3,65	632156	3,43	634156	20	55	47	14	**1500**	**380**	**1000**	**800**
200	50	3,63	632356	3,43	634156	25	55	47	14	**1500**	**380**	**1000**	**800**
200	78	7,26	632166	6,74	634166	25	86	62	17	**2000**	**450**	**1600**	**1300**
200	78	7,24	632366	6,74	634166	30	86	62	17	**2000**	**450**	**1600**	**1300**
250	60	8,13	632157	7,61	634157	25	65	62	17	**2500**	**480**	**1500**	**1200**
250	60	8,10	632357	7,61	634157	30	65	62	17	**2500**	**480**	**1500**	**1200**
250	78	9,81	632167	9,29	634167	25	86	62	17	**2800**	**500**	**1900**	**1500**
250	78	9,80	632367	9,29	634167	30	86	62	17	**2800**	**500**	**1900**	**1500**
300	60	11,43	632158	10,96	634158	30	65	62	17	**3200**	**550**	**1750**	**1400**
300	78	13,80	632168	13,33	634168	30	86	62	17	**3400**	**600**	**2300**	**1800**

Options available to order:



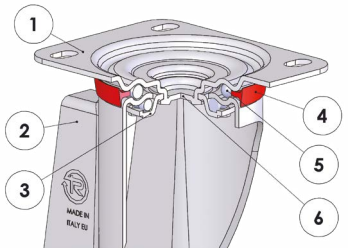
Wheel with key housing



Wheel with very thick tyre

Standard-duty brackets NL - max carrying capacity 300 daN





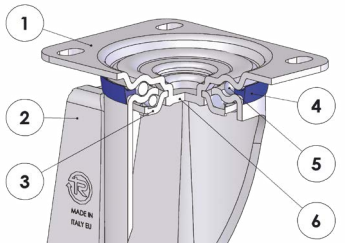
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: orange polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

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	634551	0.82	634651	1.11	635451	107	100x85	80x60	9	40	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	166	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





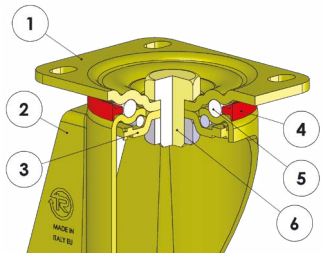
1) Plate: electrolytically galvanised steel plate
2) Fork: electrolytically galvanised steel plate
3) Ball race ring: electrolytically galvanised steel plate
4) Dust seal: blue polyethylene
5) Swivel actions: double ball ring with grease lubrication
6) King pin: integrated with the plate and cold-riveted

Available with adjustable total front foot brake

														4 km/h
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**

Heavy-duty brackets P - max carrying capacity 750 daN



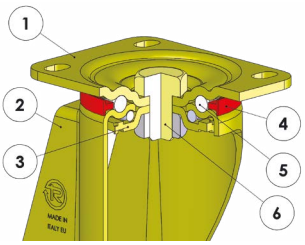


1) Plate: yellow galvanised steel plate
2) Fork: yellow galvanised steel plate
3) Ball race ring: yellow galvanised steel plate
4) Dust seal: orange polyamide
5) Swivel actions: double ball ring with grease lubrication
6) King pin: steel bolt in grade 8.8 steel and steel nut

Available with total front foot brake

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

Available with total adjustable rear foot brake

mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	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	**750**	**600**
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**

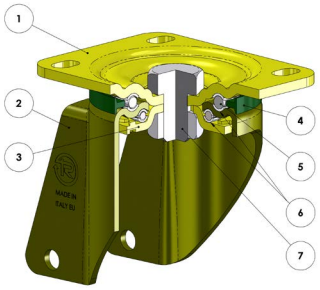
Options available to order:



Footguard for brackets NL-M-P-PT

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





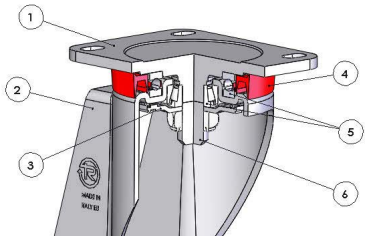
1) Plate: yellow galvanised steel plate
2) Fork: yellow galvanised steel plate
3) Ball race ring: yellow galvanised steel plate
4) Dust Seal: dark green polyamide 6
5) Swivel actions: double ball ring with grease lubrication
6) Ball race: hardened carbon steel grooves
7) King pin: steel screw, class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

Available with rear adjustable brake

		kg		kg		kg									4 km/h	6 km/h
mm	mm	kg	COD.	kg	COD.	kg	COD.	mm	mm	mm	mm	mm	mm	daN	daN
125	50	3,66	635003	2,65	636863	4,24	639903	170	140x110	105x80	11	70	126	**600**	**440**
150	50	4,81	635004	3,55	636854	5,33	639904	200	140x110	105x80	11	70	126	**750**	**600**
160	50	4,93	635014	4,08	636864	5,45	639914	205	140x110	105x80	11	70	126	**750**	**600**
180	50	5,30	635005	4,45	636855	5,90	639905	228	140x110	105x80	11	70	126	**900**	**720**
200	50	6,06	635006	5,15	636856	6,66	639906	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		kg		kg										
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
100	38	2.15	637852	1.92	638852			140	100x85	80x60	9	46		**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	**750**	**600**
160	50	5.16	637864	4.75	638864	5.68	636664	205	135x110	105x80	11	70	126	**750**	**600**
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**

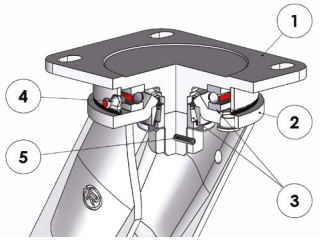
Options available to order:



Footguard for brackets
NL-M-P-PT

Electrowelded brackets EE MHD - max carrying capacity 1000 daN





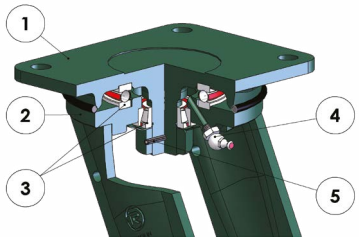
1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

Available with adjustable total rear foot brake

														4 km/h	6 km/h
mm	mm	kg	CODE	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	mm	daN	daN
125	50	4.88	638303	3.90	638403	5.76	638903	182	135x110	105x80	11	51	157	**600**	**440**
150	50	5.50	638304	4.51	638404	6.38	638904	210	135x110	105x80	11	60	157	**750**	**600**
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**

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
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**

Options available to order:



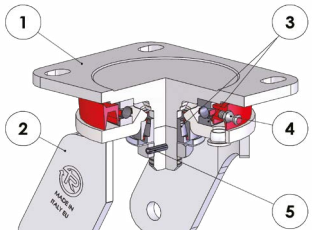
Directional lock
for brackets EE MHD
- EE HD - EED MHD - EES
MHD: see page 428



Bracket
EE MHD
with steering
system

Twin electrowelded brackets EEG MHD - max carrying capacity 900 daN



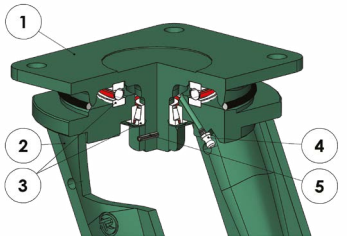


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
100	38+38	4.50	638062	3.75	638162	140	135x110	105x80	11	55	**700**	**600**
125	38+38	5.45	638063	4.70	638163	170	135x110	105x80	11	55	**900**	**720**

Twin electrowelded brackets EEG HD - max carrying capacity 2000 daN



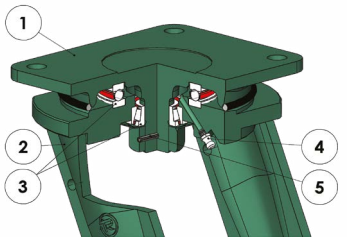


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

mm	mm	kg	CODE	kg	CODE	mm	mm	mm	mm	mm	4 km/h daN	6 km/h daN
125	50+50	11.00	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	**1500**	**1200**
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 EHD - max carrying capacity 3500 daN



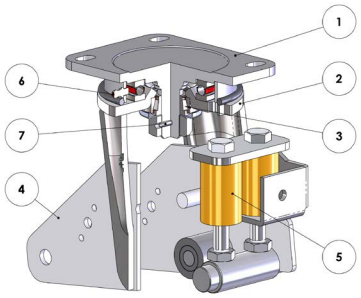


1) Plate: forged steel with integrated pin
2) Fork: deep-drawn legs electro-welded to the flange
3) Swivel actions: axial ball bearing and tapered roller bearing
4) Grease nipple
5) Anti-loosening system nut

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

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





1) Top plate: electrolytically galvanised forged steel with integrated pin.
2) Main fork: deep-drawn legs electrowelded to the flange and 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 system nut

																	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	639304	7,22	639404	9,53	639504	248	135x110	105x80	11	100	240	25	50	**400**	**750**	**600**
200	50	9,47	639306	7,82	639406	10,18	639506	268	135x110	105x80	11	100	265	25	50	**400**	**1000**	**800**

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

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

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

Options available to order:



Directional lock for brackets EE MHD - EE HD - EED MHD - EES MHD: see page 428