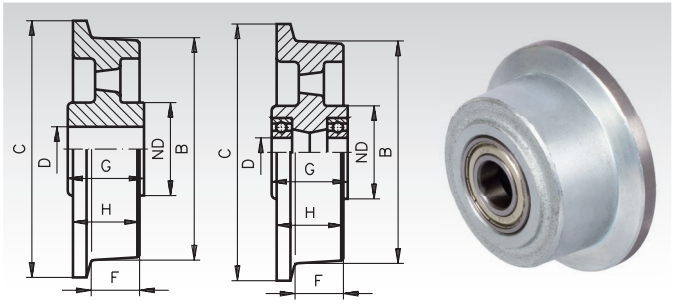
Idlers 712 AV Made from Special Cast Iron with One-Sided Flange

Flange and running surface precisely turned, running surface inclined at 3° towards the axle, wheel mounting optionally with plain or roller bearing. As standard the roller bearings are sealed with Z-plates (all dimensions and weights „ca.“).



Ordering Details: e.g.: Product No. 775 005 00, Idler 712 V as Plain Bearing, Wheel Ø 50 o.S.

Version with Plain Bearing (Dimensions in mm)

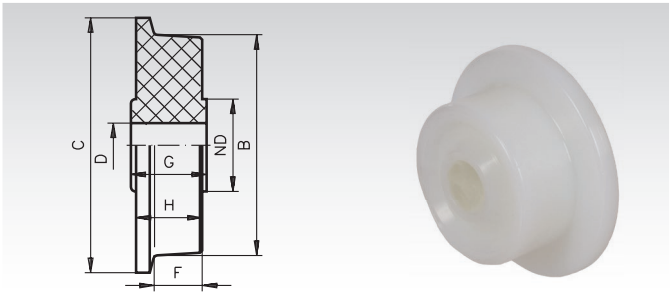
Product No.	Wheel Ø without Flange B	Wheel Ø with Flange C	Wheel Width with Flange H	Running Surface F	Hub Length symmetric G	Hub-Ø ND	Bore Ø D	Load Bearing Capacity approx. daN	Weight kg
775 005 00	50	62	32	26	-	-	$15^{+0,2}$	400	0,6
775 007 00	75	100	40	30	47	40	$20^{+0,2}$	800	1,3
775 010 00	100	125	46	36	52	45	$20^{+0,2}$	1000	2,3
775 012 00	125	145	46	36	52	45	$20^{+0,2}$	1000	2,7
775 015 00	150	175	46	36	52	45	$20^{+0,2}$	1000	3,4
775 018 00	180	210	47	36	52	60	$30^{+0,2}$	1200	4,5
775 020 00	200	230	56	38	60	60	$30^{+0,2}$	1500	7,1
775 025 00	250	300	65	50	70	90	$40^{+0,2}$	2000	13,5

Version with Ball Bearing (Dimensions in mm)

Product No.	Wheel Ø without Flange B	Wheel Ø with Flange C	Wheel Width with Flange H	Running Surface F	Hub Length symmetric G	Hub-Ø ND	Bore Ø D	Load Bearing Capacity approx. daN	Weight kg
775 207 00	75	100	40	30	47	54	20	800	1,3
775 210 00	100	125	46	36	52	62	20	1000	2,4
775 212 00	125	145	46	36	52	62	20	1000	2,8
775 215 00	150	175	46	36	52	62	20	1000	3,5
775 218 00	180	210	47	36	52	65	20	1200	4,7
775 220 00	200	230	56	38	60	90	25	1500	7,7
775 225 00	250	300	65	50	70	90	30	2000	12,8

Idlers Made from Polyamide with One-Sided Flange

This Polyamide grade has a high abrasion resistance with low friction coefficient, is self lubricating and can thus, at low speeds, easily be used as plain bearing.



Ordering Details: e.g.: Product No. 775 405 00, Idler Polyamide, Wheel Ø 50

Runner Wheels Made from Polyamide (dimensions in mm)

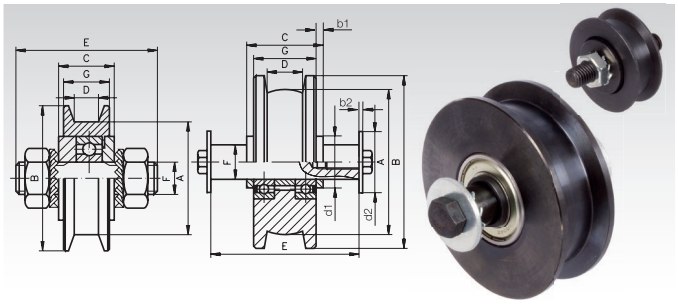
Product No.	Wheel Ø without Flange B	Wheel Ø with Flange C	Wheel Width with Flange H	Running Surface F	Hub Length symmetric G	Hub-Ø ND	Bore Ø D	Load Bearing Capacity approx. daN	Weight kg
775 405 00	50	70	30	20	30	-	16	100	0,065
775 406 00	62	80	26	18	30	35	16	100	0,090
775 409 00	87	108	32	25	32	-	16	200	0,220
775 410 00	100	120	45	32	40	50	20	280	0,360
775 411 00	107	138	34	26	35	41	18	300	0,255
775 412 00	120	150	42	30	45	80	38	380	0,585

Note Regarding Polyamide Wheels

Inside these die-cast parts are some cavities caused by production. These parts should therefore not be drilled too deep. With larger bores or when grooving the cavities might become visible. This often does not affect the functionality.

Idlers Made from Steel (C45) with Flange on Both Sides

Especially suited for heavy-duty applications, e.g. electrically controlled gates.
Precisely turned from solid material; with fully sealed precision bearings.
Product No. 776 004 00 and 776 005 00 with square running surface and single bearing, wheel body burnished.
Product No. 776 006 00 to 776 016 00 with convex running surface and double bearing.
Delivery includes all mounting material needed; axle bolt at running surface Ø 35 and 45 mm with external thread, serrated washer and hexagon nuts, other sizes with internal thread, 6 hexagon screws and washers DIN 9021.



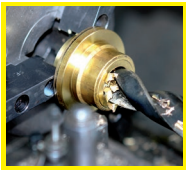
Ordering Details: e.g.: Product No. 776 004 00, Idler, St. A 35

Product No.	A mm	B mm	G mm	C mm	D mm	E mm	F mm	Wheel Load* max. kg	Weight kg	Recommended Rail**
776 004 00	35	45	17	20	10,3	50	10	160	0,18	□ 40 x 10
776 005 00	45	55	19	24	12,3	65	12	250	0,32	□ 50 x 12
776 006 00	63	75	27	33	15,3	68	15	480	0,75	□ 60 x 15
776 008 00	84	100	34	40	20,3	80	20	840	1,5	□ 60 x 20
776 010 00	100	125	40	46	25,0	96	25	960	3,35	Narrow- S 7
776 013 00	130	160	52	58	32	120	30	1360	4,6	Gauge Rail S 10
776 016 00	164	200	64	70	38	140	35	1800	8,8	DIN 5901 S 14

* The wheel loads stated are derived from the dimensions and temperatures listed in the roller bearing catalogues. For product No. 776 004 00 and 776 005 00 these values are valid at a maximum operating temperature of 90°C; for higher continuous temperatures, please inquire first.
** Not part of our stock. Please inquire at your steel supplier.

Wheel Sizes and Mounting Elements

Product No. Idler	d_1 mm	b_1 mm	d_2 mm	b_2 mm	Mounting Elements
776 004 00	-	-	-	-	Flat Nut M10 with Lock Washer
776 005 00	-	-	-	-	Flat Nut M12 with Lock Washer
776 006 00	20	3	30	2.5	Hexagon Screw M10 x 16 mm
776 008 00	26	3	37	3.0	Hexagon Screw M12 x 16 mm
776 010 00	32	3	37	3.0	Hexagon Screw M12 x 16 mm
776 013 00	38	3	50	3.0	Hexagon Screw M16 x 20 mm
776 016 00	45	3	60	4.0	Hexagon Screw M20 x 25 mm



Reworking within 24h-service possible. Custom made parts on request.

Travel-Wheel Systems RB/I

Material: Housing made from spheroidal graphite cast iron, painted gray. Travel wheel made from GG 70, with high-quality roller bearing.

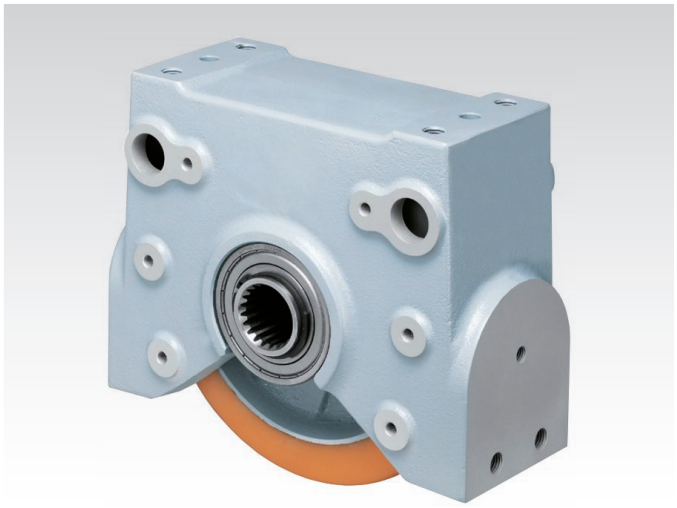
Version G: With cast iron travel wheel with two flanges, with high load capacity, to be used on rails.

Version K: With cast iron travel wheel with PUR-bandage (Polyurethane-Elastomer), for higher traction at low operating noise.

A very robust, universal, maintenance-free travel wheel system available in two sizes. It is designed for various travel applications with wheel loads up to 3.5 t and travel speeds up to 240 m/min (depending on version and load). The five connection surfaces are machined and provide for a multitude of connection variants.
4 screws for inverted mounting are supplied. The housing is painted gray (RAL 7001) and can be repainted.

The travel-wheel systems can be combined with the geared motors RBM/I to form a compact drive unit.

Temperature range: -20°C to +60°C.

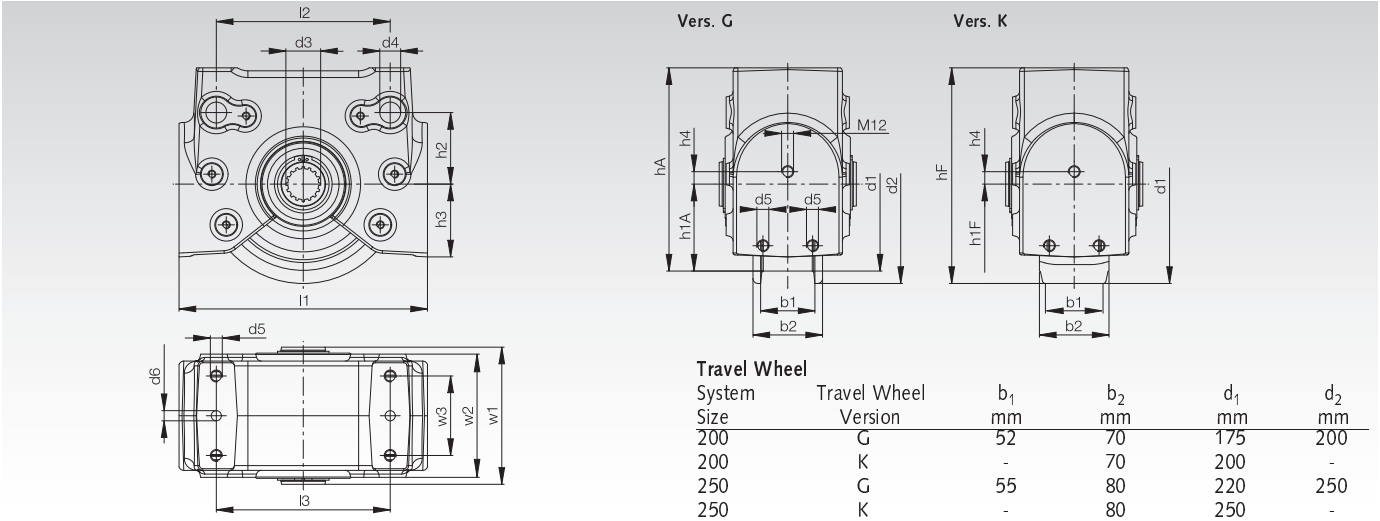


Ordering Details: e.g.: Product No., Type, Size, Version

Product No.	Size	Version	Load Bearing Capacity up to 100 m/min kg	R* at Speed 240 m/min kg	Weight kg	Matching Accessories Product No. Buffer Set	Product No. Pin Connection	Product No. Roller Guide
480 201 84	200	**G** (cast iron, flanged)	2500	1900	15,3	**480 710 84**	**480 221 84**	**480 210 44**
480 200 84	200	**K** (with bandage)	1200	700	15,1	**480 710 84**	**480 221 84**	**480 210 84**
480 301 84	250	**G** (cast iron, flanged)	3500	2500	27,6	**480 710 84**	**480 321 84**	**480 510 44**
480 300 84	250	**K** (with bandage)	1700	900	26,7	**480 710 84**	**480 321 84**	**480 310 84**

* With Hydropur tyres and stand-still times of more than two hours under load, the load bearing capacity only comes to 50% of the maximum value.

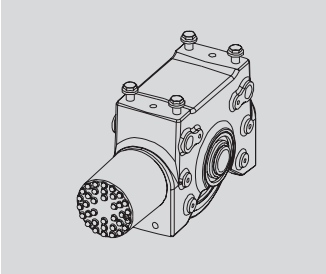
Dimensions Table Travel-Wheel Systems RB/I



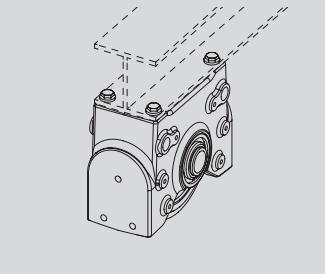
Travel Wheel

System Size	Travel Wheel Version	b_1 mm	b_2 mm	d_1 mm	d_2 mm
200	G	52	70	175	200
200	K	-	70	200	-
250	G	55	80	220	250
250	K	-	80	250	-

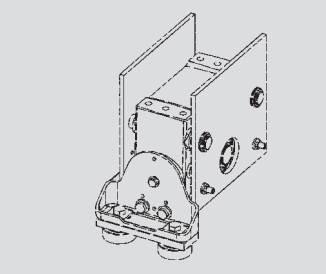
System Size	d_3 g6/H7 mm	d_4 F8 mm	d_5 mm	d_6 H13 mm	h_A mm	h_F mm	$h_{1\ Vers.\ G}$ mm	$h_{1\ Vers.\ K}$ mm	h_2 mm	h_3 mm	h_4 mm	l_1 mm	l_2/l_3 mm	w_1 mm	w_2 mm	w_3 mm
200	N35x2x16	21	M12	10,2	204,5	217	87,5	100	72	77	12,5	250	175	138	126	80
250	N45x2x21	30	M16	14	255	270	110	125	90	97	-10	306	220	156	138	85



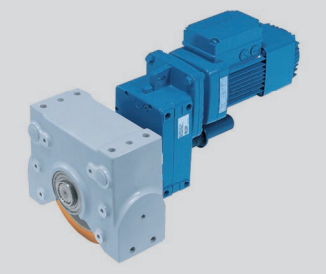
Travel wheel system with buffer set.



Travel wheel system, Inverted Mounting (screws supplied).



Mounting with bolt set, for horizontal guide-roller arrangement.



Powered travel wheel block with geared motor RBM/I.

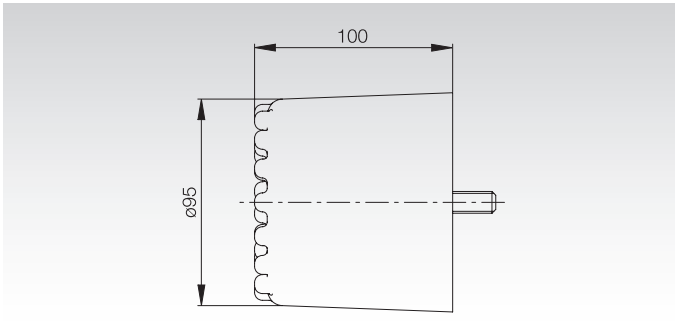
Buffer Set

Material: Polyurethane cellular foam, spacers made from plastic, black.

Consisting of: one buffer, threaded pin M12 x 55 mm, two spacers 12.5 mm (for mounting without guide roller) and one spacer 25 mm (for mounting with guide roller, using the supplied nuts M12).

The required thread has already been machined on both face ends of the travel-wheel system. The screw-on buffer fits both travel-wheel-system sizes 200 and 250.

Temperature range: -20°C to +60°C.
Weight: 0.8 kg



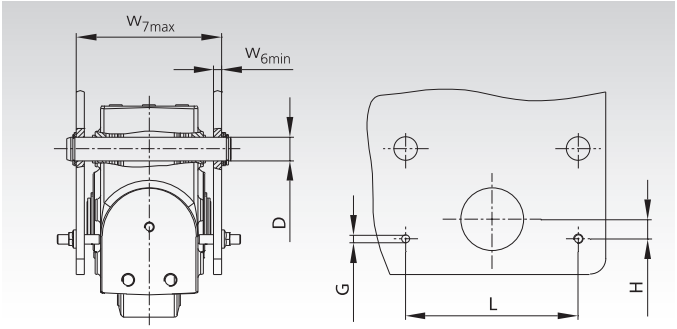
Product No. 480 710 84, Buffer Set, Matching Travel-Wheel System Size 200 and 250

Pin Connection Sets

Material: Steel

Consisting of: two pins, washers and retaining rings, threaded adjusting pins and nuts for lateral alignment and fixation.

Two sizes for **travel-wheel system size** 200 or 250. The pin connection set is used to mount the **travel-wheel system** into an existing hollow section when mounted from the side. One set required for each **travel-wheel system**.

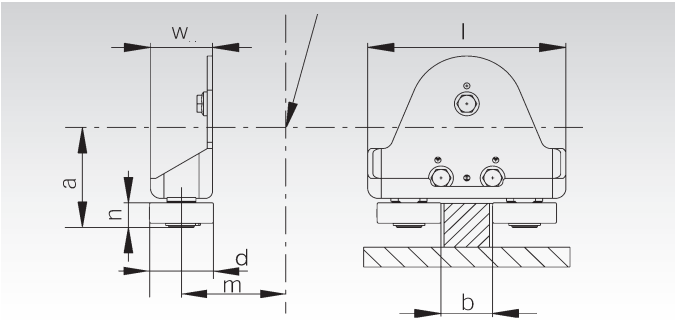


Ordering Details:e.g.: Product No., Type, Size

Product No. Pin Set	System Size	W_{6min} mm	W_{7max} mm	$D^{h8/D9}$ mm	G mm	L mm	H mm	Weight kg
480 221 84	200	8	158	21	M10	175	20	1,1
480 321 84	250	10	185	30	M12	220	25	2,6

Horizontal Guide-Roller Arrangements

Material: Base: steel plate, zinc plated.
Damping elements: Polyamide (damping elements only for **travel-wheel system** with Hydropur-tyre travel wheel)
Version G: for **travel-wheel system** with cast wheel. Without damping element.
Version K: for **travel-wheel system** with Hydropur tyre. With damping element.
Consisting of: roller bracket, bearing, damping element and mounting bolts (damping element only for version K).
Two sizes for **travel-wheel system size** 200 or 250. The horizontal guide-roller arrangement is used for low-friction guidance and to precisely achieve individual track gauge dimensions. The guide roller is e.g. recommended for flanged wheels (version G) running on narrow tracks . The guide rollers are only used on one of the rails.



Product No. Guide Roller	Travel-Wheel System Size	Version	d mm	l mm	m mm	a mm	w mm	n mm	b mm	Weight kg
480 210 44	200	G	62	192	155	110	60	25	30-70	2,3
480 210 84	200	K	52	192	155	124	60	25	62-82	2,4
480 510 44	250	G	72	230	189	137	72	29	30-80	3,6
480 310 84	250	K	72	230	189	154	72	29	64-84	3,7

Geared Motors RBM/I for travel wheel systems

Material: Housing: Aluminium, painted blue (RAL 5009).
Gears: bevel-gear system, case hardened, fatigue endurable.
Lubrication: Mineral oil.
Motor: Three-phase AC

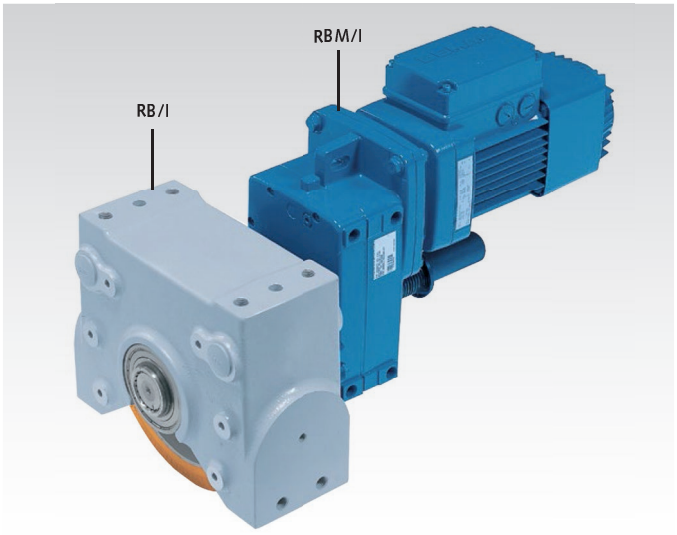
400V 50 Hz, dual speed, with brake.

Other motor and gear box versions (e.g. with frequency inverter or angular gear) on request.

Ready-to-mount dual-speed geared motors incl. adaptor flange (as torque support) to be combined with travel-wheel sets RB/I.
The mounting position can be modified in steps of 15°.

Single Wheel Drive: one geared motor RBM/I is flange-mounted onto one travel-wheel system RB/I. In carriages two opposing travel-wheel sets have to be powered.
Central Drive Set: the geared motor is flange-mounted onto the travel-wheel system. The connection with the opposing travel-wheel system is done with a central drive set (this set has to be ordered separately). The connecting shaft (output shaft) is already mounted on the geared motors (covered with protection sleeve and protection cap).

Ordering Details:e.g.: Product No., Type, Size



Travel-Wheel System RB/I has to ordered separately.

Geared Motors RBM/I for Travel-Wheel System Size 200

Product No.	Motor-Type	P* kW	Transm. i	Current* A	Weight kg	Dimensions Table
482 211 46	63A8/2	0,25	123 :1	0,95	23	1
482 212 46	71A8/2	0,34	126 :1	1,0	29	3
482 213 46	80A8/2	0,50	39,9 :1	1,4	34	2
482 214 46	90B8/2	0,80	39,4 :1	2,3	46	4
482 215 46	100A8/2	1,20	19,9 :1	3,2	54	4
482 221 46	63A8/2	0,25	135 :1	0,95	27	3
482 222 46	71A8/2	0,34	44,1 :1	1,0	25	1
482 223 46	90B8/2	0,50	45,5 :1	1,4	46	4
482 224 46	90B8/2	0,80	23 :1	2,3	46	4
482 255 46	100A8/2	1,20	23 :1	3,2	54	4

Geared Motors RBM/I for Travel-Wheel System Size 250

Product No.	Motor-Type	P* kW	Transm. i	Current* A	Weight kg	Dimensions Table
483 231 46	63A8/2	0,25	156 :1	0,95	29	5
483 232 46	71A8/2	0,34	166 :1	1,0	34	8
483 233 46	90B8/2	0,80	48,3 :1	2,3	47	7
483 234 46	100A8/2	1,20	49 :1	3,2	66	9
483 235 46	100A8/2	1,20	25,3 :1	3,2	55	7
483 241 46	63A8/2	0,25	156 :1	0,95	29	5
483 242 46	71A8/2	0,34	166 :1	1,0	34	8
483 243 46	80A8/2	0,50	55,7 :1	1,4	39	6
483 244 46	90B8/2	0,80	55,7 :1	2,3	58	9
483 245 46	100A8/2	1,20	29,2 :1	3,2	55	7

* Values at double-pole operation (high speeds).

Selection Tales for Travel-Wheel Systems

First the Travel-Wheel-System Size (200 or 250 depending on the ultimate load) and Type of Travel Wheel (cast iron flanged wheel or Hydropur-tyre wheel, depending on the operating conditions) has to be selected. The further selection is done according to the load to be moved per driving motor and according to the driving speed. the table value intersection point states the Product No. of the geared motor to be used.

Travel-Wheel System Size 200 with Cast Wheel, $R_{max.}$ = 2500 kg

Product No. matching geared motor RBM/I at speed in m/min*

Weight	12.5 (3.1)	40 (10)	80 (20)
to 5000 kg	**482 211 46****	**482 213 46****	**482 215 46**
to 6000 kg	**482 211 46****	**482 213 46****	-
to 10000 kg	**482 212 46**	**482 214 46**	-
to 11000 kg	**482 212 46**	-	-

Travel-Wheel System Size 200 with Hydropur Tyre $R_{max.}$ = 1200 kg

Product No. matching geared motor RBM/I at speed in m/min*

Weight	12.5 (3.1)	40 (10)	80 (20)
to 2000 kg	**482 221 46**	**482 222 46****	**482 224 46**
to 4000 kg	**482 221 46**	**482 223 46**	**482 225 46**
to 5000 kg	**482 221 46**	**482 223 46**	-

* Values in brackets apply to lower speeds (the motors are dual-speed).
** Central drive not possible (due to stepped shaft or dimensions of motor casing).

Travel-Wheel System Size 250 with Cast Wheel, $R_{max.}$ = 3500 kg

Product No. matching geared motor RBM/I at speed in m/min*

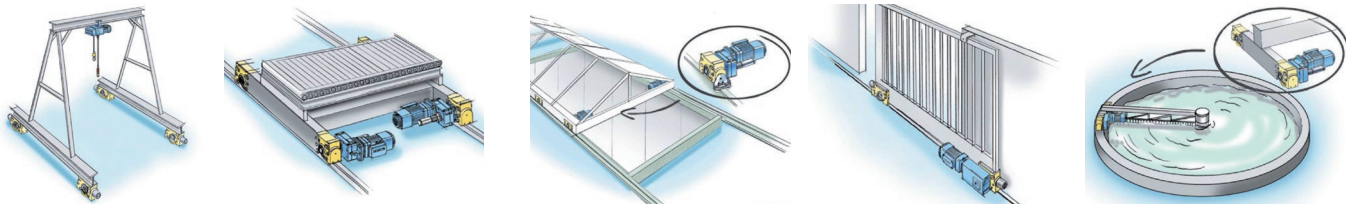
Weight	12.5 (3.1)	40 (10)	80 (20)
to 5000 kg	**483 231 46****	**483 233 46****	**483 235 46****
to 8000 kg	**483 231 46****	**483 233 46****	-
to 16000 kg	**483 232 46**	**483 234 46**	-

Travel-Wheel System Size 250 with Hydropur Tyre, $R_{max.}$ = 1700 kg

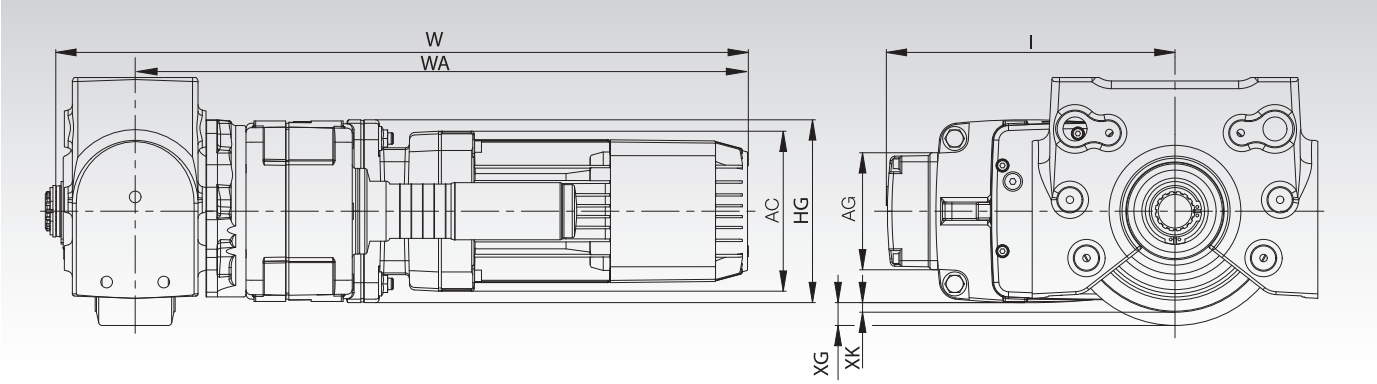
Product No. matching geared motor RBM/I at speed in m/min*

Weight	12.5 (3.1)	40 (10)	80 (20)
to 2000 kg	**483 241 46****	**483 243 46****	**483 245 46****
to 4000 kg	**483 242 46**	**483 244 46**	-

* Values in brackets apply to lower speeds (the motors are dual-speed). ** Central drive not possible.



Dimensions Table for Travel-Wheel System Drive RBM/I



Dimensions Table	Size of Travel-Wheel System	L mm	HG mm	W mm	WA mm	AC mm	AG mm	XG (Vers.G) mm	XK (Vers.K) mm
1	200	228	131	608	539	140	103	17,5	30
2	200	238	131	664	595	157	103	9	21,5
3	200	253	160	615	546	140	103	7,5	20
4	200	281	160	715	646	196	133	-10,5	2
5	250	253	160	641	563	140	103	30	45
6	250	263	160	697	619	157	103	30	45
7	250	281	160	741	663	196	133	12	27
8	250	272	190	650	572	140	103	15	30
9	250	300	190	750	672	196	133	12	27

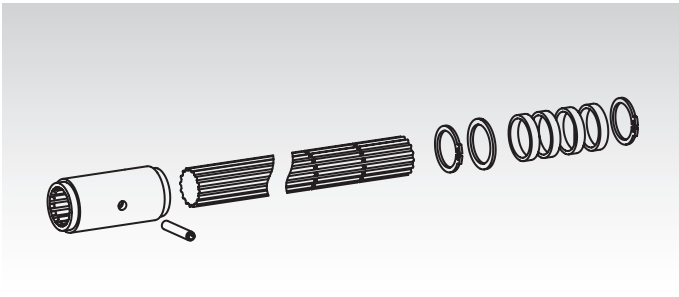
Central Drive Set

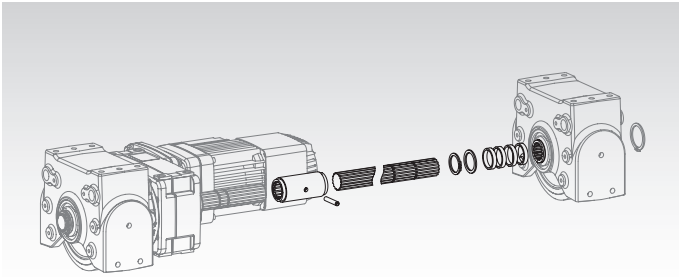
Material: Splined shaft, coupling, washers and rings made from steel, shaft protection made from plastic.

Two sizes available suiting travel-wheel system 200 and 250. Two length for gauges up to 1500 mm or up to 2900 mm.

Consisting of: Splined shaft, coupling with pin, shaft protection, washers and retaining rings.

The central-drive set serves to combine two travel-wheel sets RB/I with a geared motor RBM/I to make up a central drive. To achieve this, the shaft is shortened to the required length on the coupling side, then the shaft protection cap is taken off the geared motor and the shafts are connected using the rigid coupling. The pin serves as stop inside the coupling. The shaft is fixed in the travel-wheel system with the retaining rings.





Ordering Details: e.g.: Product No, Type, Travel-Wheel System-Size, up to distance

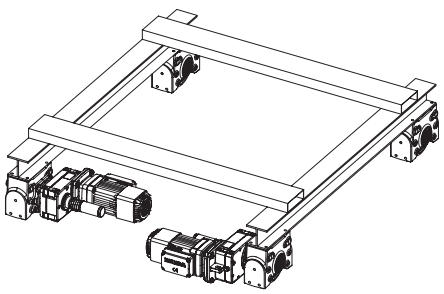
Product No.	Travel-Wheel Syst. Size	for Distance* up to mm	Shaft Ø mm	Shaft Length approx. mm	Weight kg
480 256 84	200	1500	35	1115	9
480 257 84	200	2900	35	2515	18,5
480 356 84	250	1500	45	1070	13,5
480 357 84	250	2900	45	2470	29

* The shafts are to be shortened by the customer on assembly.

Application examples for Travel-Wheel System Drives

Two Single Drives:
4 x Travel-Wheel System RB/I
2 x Geared Motor RBM/I

Optional accessories:
4 x Buffer Set
4 x Pin Connection Set
2 x Horizontal Guide Roller Arrangement



Central Drive Set:
4 x Travel-Wheel System RB/I
1 x Geared Motor RBM/I
1 x Central Drive Set

Optional accessories:
4 x Buffer Set
4 x Pin Connection Set
2 x Horizontal Guide Roller Arrangement