THE WORLD OF CRANE COMPONENTS



# WHEEL BLOCK SYSTEM

RB 160 - RB 500





# Karl Georg wheel blocks shoulder GIANTS

Crane system, roof construction or stadium turf; Ice cold or highly explosive; Fast or slow; Cleanroom or extremely harsh environment! Optimally graduated sizes in a modular system, compact dimensions, fast and economical, ready to install, with a load capacity up to 40,000kg. All components and interfaces are perfectly coordinated.

# **AT A GLANCE**



-30 °C TO +200 °C



**UPTO 40T** 



HIGH AVAILABILITY



SIMPLE INSTALLATION



# **ALL INDUSTRIES — LOTS OF APPLICATIONS**



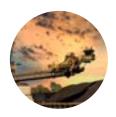
AUTOMOTIVE
Automotive engineering,
autonomous driving and
subcontracting



ENERGY SECTOR
Wind power, solar power,
hydropower, geothermal
power and biomass



Process engineering, power engineering, supply engineering and production engineering, etc.



MINING
Exploration, extraction
and movement of mineral
resources



ENTERTAINMENT Commercial roofs, stage technology, stadium turf etc.



CONVEYOR SYSTEMS Upstream/downstream, onshore/offshore production, LNG/H<sup>2</sup> transport



SMELTING WORKS Steel production, metal production and processing



CRANE
ENGINEERING
Industrial cranes, process
cranes, container handling

# **Table of Contents**

WHEEL BLOCK 160-500	4-26
General information	4-
Desgin variants	
Antifriciton bearing	
Crane wheel materials	<u> </u>
Crane wheel designs	
Drive units	10-1
Wheel loads (Load tables)	12-20
WHEEL BLOCK 160	ab 27
Primary dimensions	28
Standard designs	29
Connection options	30-3
Drive units	38-43
Horizontal roller guide	44-45
WHEEL BLOCK 200	ab 47
Primary dimensions	48
Standard designs	49
Connection options	50-55
Drive units	56-6
Horizontal roller guide	62-63
WHEEL BLOCK 250	ab 65
Primary dimensions	66
Standard designs	67
Connection options	68-75
Drive units	76-83
Horizontal roller guide	84-85
WHEEL BLOCK 250-V	ab 87
Primary dimensions	88
Standard designs	89
Connection options	90-97
Drive units	98-103
Horizontal roller guide	104-105
WHEEL BLOCK 315	ab 107
Primary dimensions	108
Standard designs	109
Connection options	110-117
Drive units	118-123
Horizontal roller guide	124-125
WHEEL BLOCK 400	ab 127
Primary dimensions	128
Standard designs	129
Connection options  Drive units	130-137
Drive units Horizontal roller guide	138-143 144
WHEEL BLOCK 500  Primary dimensions	<b>ab 145</b> 146
-	
Standard designs	147
Connection options	148-152
Drive units	154-157
	ab 159
ACCESSOIRES	ab 137
ACCESSOIRES  Coupling	159
ACCESSOIRES  Coupling  Cellular plastic buffer RB 160-500	



Reasonably priced for the original equipment manufacturer • Economical for all users

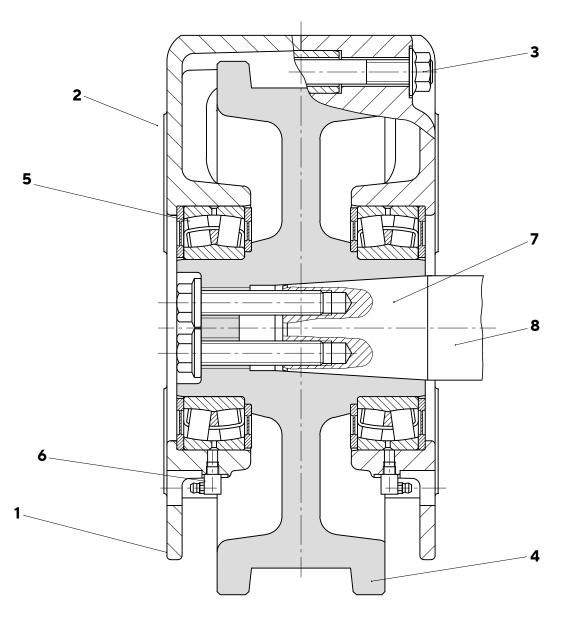
As a ready-to-install travel unit, the ATLAS wheel blocks system from Karl George is capable for multi-faceted transport requirements for conveyor-related systems in the entire field of machine construction.

The wheel blocks from Karl Georg, proven and tested as reliable and fully developed components, are not only a particularly cost-effective alternative to in-house design and production efforts in the steel or machine construction industry, but they also save the user significant maintenance and follow-up costs.

Wheel blocks from Karl Georg can be used for numerous applications.

They fit slip-on gear mechanisms from diffrent manufacturers and are reusable and thus cost and time efficient.







Reasonably priced for the original equipment manufacturer • Economical for all users

#### Decisive benefits and particular features

- 1 Wheel bodies and housing surfaces are blasted and have a red-brown undercoat (refer to Fig. on Page 3).

  Additional or diffrent colour on request. Plastic plugs protect all coupling holes (can be used for temperatures from -40 ° up to +60 °C).
  - All outside dimensions and coupling holes are compatible with comparable brands.
- 2 All over machined mounting surfaces, together with available hole fittings, offer mounting possibilities, such as top, side or pin attachment. Only a few connecting elements are required.
- 3 The wheel block body consists of two precisely machined and fitted halves screwed together by bolts (not welded). Thereby, the expendable part "crane wheel" can be quickly and economically replaced with commercially available tools. The housing made of EN-GJS-400-15 (GGG-40) is very highly resilient, as well as insusceptible to external mechanical demands and can be reused consistently.
- 4 The crane wheels, made of spheroidal graphite iron EN-GJS-700-2 (GGG -70) run smoothly and safely. By means of the self-lubricating effect of the spheroidal graphite iron, friction is reduced and correspondingly the crane wheel and track wear. For special application requirements, models are available with hardened running surfaces, made of other raw materials, with coating or with polyurethane (e.g. Vulkollan®) or polyamide (PA 12 G) binding.
- 5 The two-sided sealed spherical roller bearings are generously dimensioned and ensure a long, above-average service life with the highest wheel loads in a temperature range from -30 °C up to +90 °C.

  Variant for high-temperature up to 200 °C on request.
- The wheel blocks are supplied filled with a standard lubricant as standard. In extreme ambient conditions (dust, heat, humidity, etc.), the recessed grease nipples allow easy relubrication or connection to a central lubrication system. For special operating conditions (high temperature range, ATEX, etc.) we offer appropriate special lubricants.
- 7 Approved torque transmission from the drive shaft to the crane wheel through a taper with tensioning screw. Thus, the permanently installed and axial fixed drive shafts provide a decisive advantage over the comparable, wear-susceptible splined-shaft connector wheel blocks from other manufacturers.
  - The conical connection is especially used for transferring high torque and bending moments, as well as to absorb drive shaft loads. An additional drive motor suspension mounting is not necessary.
  - This approved tapered connection of the wheel blocks from Karl Georg is and will continue to be maintenance and wear-free. Alternative wheel/shaft combination with bore and feather key connection according to DIN 6885 or splined-shaft profile according to DIN 5480 are possible on request.
- The drive shafts made of 42CrMo4+QT will be delivered with splined-shaft profile according to DIN 5480, with feather key groove according to DIN 6885-1 or, for shrink disc attachment, adaptable for slip-on gear mechanisms from all manufacturers. Crane wheels for non-drivable wheel blocks are delivered with fully massive hubs.

  The central drive unit with couplings and connecting shaft is one variant for driving two wheel blocks with a slip on
  - The central drive unit with couplings and connecting shaft is one variant for driving two wheel blocks with a slip on gear mechanism.

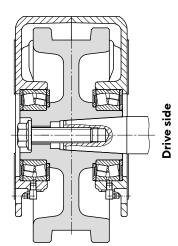
Use of the wheel blocks in potentially explosive atmospheres (Zone 1 or 21 or Zone 2 or 22) in accordance with Directive 94/9/EC ("ATEX 95") is possible under certain conditions. These versions are available on request.



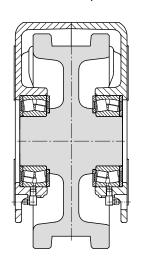
# **Design variants**

Wheel block RB 160, RB 200, RB 250, RB 250-V

RBA Wheel block driven

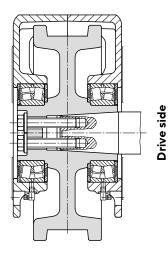


RBN Wheel block, not driven

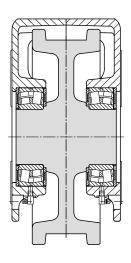


Wheel block RB 315, RB 400

RBA Wheel block, driven

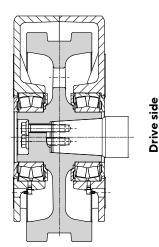


RBN Wheel block, not driven

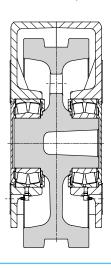


Wheel block RB 500

RBA Wheel bock, driven



RBN Wheel block, not driven





#### **Antifriction bearings**

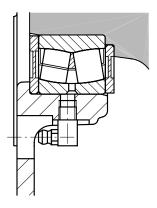
#### **Series**

Can be used for temperatures from -30 °C to +90 °C (short-term up to +120 °C), also for difficult environmental conditions (dusty operation, etc.).

Sealed by two-sided sealing discs made from POM.

The spherical roller bearings have life time lubrication.

Lubrication nipples for re-lubrication are installed as standard.



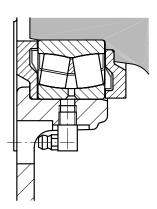
#### Special sealing

Used for extreme environmental conditions at temperatures from  $-30~^{\circ}\text{C}$  to +120  $^{\circ}\text{C}$ .

Sealing is carried out by two-sided metal seals (Nilos rings) with additional protective steel discs.

Spherical roller bearings have life time lubrication for use in temperatures up to +90 °C.

Re-lubrication required for use in temperatures up to +120 °C is provided by the standard lubrication nipple.



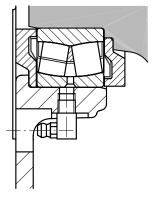
#### **Higher Temperatures**

Applicable for temperatures from -25 °C up to +200 °C under difficult environmental conditions.

Sealing is carried out by two-sided metal seals (Nilos rings) with additional protective steel discs.

The spherical roller bearings are lubricated using high temperature grease.

Required re-lubrication is carried out depending on temperature and Wheel block operating time via the standard lubrication nipples.



# Designs for special environmental conditions and temperatures of up to 200 $^{\circ}\text{C}$ on request.

#### **Bearing sizes**

Wheel block	Spherical roller bearing
RB 160	22210
RB 200	222 12
RB 250	222 13
RB 250-V	222 15
RB 315	222 18
RB 400	222 20
RB 500	222 26



# **Crane wheel materials**

Other materials on request	For special applications, Karl Georg also supplies crane wheels made of other materials, such as special steels, non-ferrous metals or special plastics.
Crane wheels with Coating of PA 12 G (polyamide)	Karl Georg wheel blocks are available in all sizes with coatings of PA 12 G. PA 12 G distinguishes itself through extremely low moisture absorption, high resistance to abrasion and very good resistance to chemicals.  The friction coefficients are comparable to spheroidal graphite iron, due to the good damping characteristics, the running noises are kept to a minimum. In comparison to the wheels made of spheroidal graphite iron, the permitted wheel loads are lower, but still higher than for running surfaces of Vulkollan®. The high thermal capacity (-40 °C to +90 °C, short-term up to 120 °C) enables universal use on steel.
Crane wheels with coating or binding of Vulkollan® (Polyurethan elastomer)	KARL GEORG wheel blocks are available in all sizes with Vulkollan® binding or coating. Vulkollan® bindings with steel ring are replaceable and available in different shore-hardness just as the wheels with Vulkollan® coating. Wheel blocks with running surfaces made of Vulkollan®, distinguish themselves particularly by high friction coefficients, whereby, high acceleration is possible. In addition, they enable travelling on concrete surfaces. Because of the good damping characteristics, the running noises are kept to a minimum. However, in comparison to the wheels made of spheroidal graphite iron, the permitted wheel loads are significantly lower. Special polyurethane is available for the best traction on very smooth and wet subsurfaces, or electrically conductible Vulkollan® for conducting electrostatic charging, for application in potentially explosive areas.
Stainless Steel	Crane wheels made from stainless steel are used everywhere where the atmosphere in the area of application is very humid, such as sewage or composting plants or, e.g. in the food industry.
Hardened Design	For use in environmental conditions that increase the wear of the crane wheel, such as contamination or slag, the running surface and inner surface of the wheel flanges are slip-free, flame hardened.  Depending on the material, hardness of up to 56 HRc is attained.
Spheroidal graphite iron EN-GJS-700-2 (GGG 70)	Designed for very high loads and wear-resistance, EN-GJS-700-2 (GGG 70), a cast iron with spheroidal graphite iron, is an ideal material for crane wheels. Due to the spheroidal graphite iron stored in the cast structure, there is a self-lubricating effect that minimizes the wear between the crane wheel and track.

## Fields of application

Application	Spheroidal graphite iron	Non- corrosive	Vulkollan	PA 12 G
for higher compression between crane wheel and track	+	+	-	-
for greater acceleration more than 0.5 m/s² and form closure	+	+	+	+
for greater acceleration more than 0.5 m/s² and frictional connection	¤	¤	+	п
on steel	+	+	+	+
on light alloys	¤	¤	+	+
on concrete or screed	-	-	+	-
at very high humidity or specific hygienic requirement	¤	+	¤	¤
in the open by snow and ice	+	+	¤	¤

<sup>+</sup> suitable

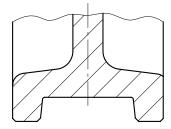


**<sup>¤</sup>** conditionally suitable

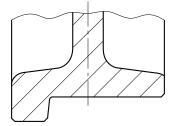
<sup>-</sup> unsuitable



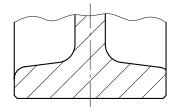
# Crane wheel designs



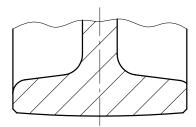
two-sided wheel flange



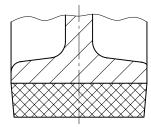
one-sided wheel flange



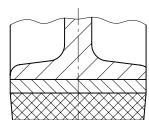
no wheel flanges with cylindrical running surface



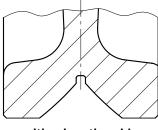
no wheel flanges with spherical running surface



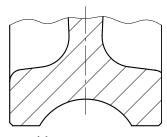
with coating of Vulkollan oder PA 12 G



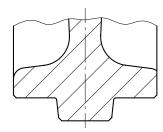
with binding of Vulkollan with steel ring



with prismatic guide

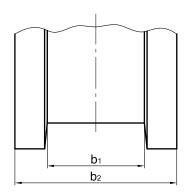


with concave groove



with middle wheel flange

# Wheel tread

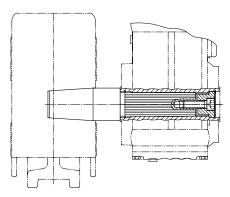


Wheel-Ø	Wheelwidth b2	wheel tread b1 for two sided wheel flange (manufactured of spherodial graphite iron wheel)					
		minimal	maximal	Standard			
160	87	20	68	47, 60, 65			
200	100	20	75	65			
250	100 110	20	75 85	65,75			
315	110 130	20 70	85 100	65 80, 90			
400	155	60	120	80, 90			
500	170	60	130	90			

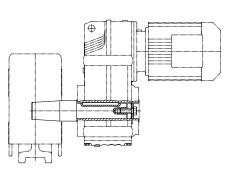
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# **SINGLE DRIVE UNIT**

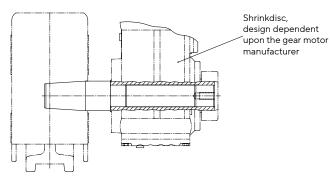
Possible variants



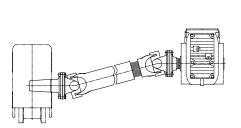
Single drive unit with splined-shaft attachment according to DIN 5480



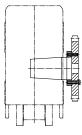
Single drive unit with feather key attachment according to DIN 6885-1



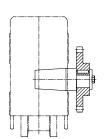
Single drive unit for shrink disc attachment



Special drive by a universal-joint shaft

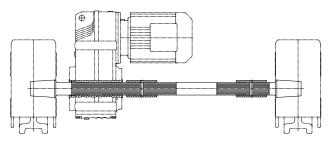


Special drive by a chain wheel

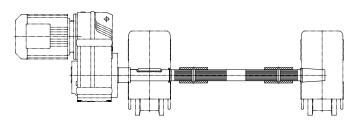


# **CENTRAL DRIVE UNIT**

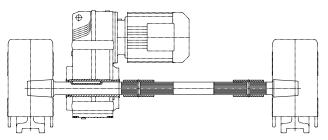
#### Possible Variants



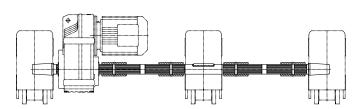
Central drive unit with splined-shaft attachment according to DIN 5480



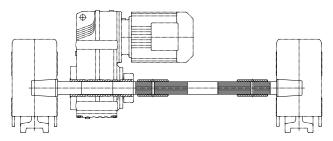
Special central drive unit with outer drive



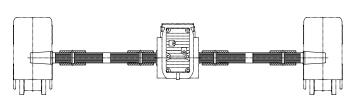
Central drive unit with feather key connection in according to DIN 6885-1



Special central drive unit with additional wheel blocks



Central drive unit for shrink disc attachment



Special central drive unit with centre drive

## WHEEL LOADS

#### Load collective and Drive mechanism groups

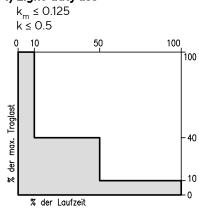
In order to determine the  $\underline{\text{permitted wheel load}} \text{ with the aid of the wheel load table, the } \underline{\text{load collective}} \text{ and } \underline{\text{drive mechanism}}$ group must be determined at first. The acceptable wheel load can be much less than the "max. wheel load".

The values given for the max. wheel load are only applicable for use under optimal conditions (e.g. low travelling speed, etc.).

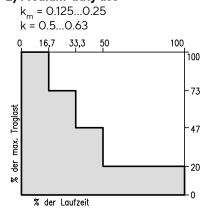
#### Load collective

The load collective indicates to what extent a wheel block is exposed to its highest loading or only lighter loading.

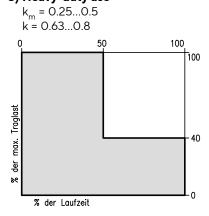
1) Light-duty use



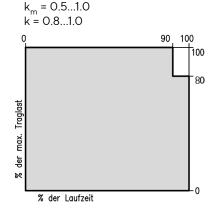
2) Medium-duty use



3) Heavy-duty use



4) Very heavy-duty use



k: cubic mean value (for calculation, refer to FEM 9.511)

km: Collective coefficient (km = k3)

# **DRIVE MECHANISM GROUPS**

With the aid of the load collective and mean daily operating time each day, related to a year, the drive mechanism group can be determined from the following table.

#### Determining the drive mechanism group from the load collective and mean daily operating time (FEM/DIN 15020))

				Mea	n daily o	perating	time in h	ours		
	Load collective	< 0.12	< 0.25	< 0.5	< 1	< 2	< 4	< 8	< 16	> 16
	Load collective				FEM op	erating ti	me class		ı	
		V 0.06	V 0.12	V 0.25	V 0.5	V1	V 2	V 3	V 4	V 5
<b>1</b> (light)	Drive mechanisms, or parts of them, that exceptionally operate at high loads but are normally only subjected to very low loads.	-	-	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m
<b>2</b> (medium)	Drive mechanisms, or parts of them, that often operate at exceptionally high loads but are normally only subjected to low loads.	-	1 Dm	1 Cm	1 Bm	1Am	2 m	3 m	4 m	5 m
<b>3</b> (heavy- duty))	Drive mechanisms, or parts of them, that frequently operate at the highest loads but are normally only subjected to medium loads.	1 Dm	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m	-
<b>4</b> (very heavy- duty)	Drive mechanisms, or parts of them, that regularly operate at the highest loads are subject to contiguous loads.	1 Cm	1 Bm	1 Am	2 m	3 m	4 m	5 m	-	-

#### Comparison of FEM designations to ISO designations

Load collectivee						Oper	ating time	class					
FEM	1	2	3	4	V 0.06	V 0.12	V 0.25	V 0.5	V1	V 2	V 3	V 4	V 5
ISO	L1	L2	L3	L4	ΤO	T1	Т2	Т3	T4	Т5	Т6	Т7	Т8

		Drive mecha	anism group

г	EM	1 Dm	1 Cm	1 Bm	1Am	2 m	3 m	4 m	5 m
1	ISO	M1	M 2	M 3	M 4	M 5	М 6	M 7	M 8



#### **ATLAS RADBLOCKSYSTEM RB 160**

Determination of wheel loads for crane wheels made of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} < Rzul$$

The following applies for trolley models and other machine construction drive systems with distributed full load:

 $R = Rmax \leq Rzul$ 

Drive mecha- nism group	Useable railhead	Drive speed							
FEM/DIN 15020	width in mm	12.5 m/min	20 m/min	40 m/min	63 m/min	80 m/min	100 m/min		
	30	4720	4450	3990	3530	3300	3020		
	40	5040	5930	5320	4700	4400	4030		
1Bm	45		6670						
	50	6800		5950	5200	4850	4530		
	55		6800						
	30	4230	3980	3570	3160	2950	2710		
	40	5640	5310	4760	4220	3940	3610		
1Am	45	6350	5980	5360	4740	4430	4060		
	50		6640						
	55	6800	6800	5950	5220	4850	4520		
	30	3780	3560	3190	2820	2640	2420		
	40	5040	4740	4250	3760	3520	3220		
2m	45	5670	5330	4780			3630		
	50	6300	5930		4220	3940			
	55	6800	5950	4820			3680		
	30	3400	3200	2870	2540	2370	2180		
	40	4530	4270	3830	3390	3170	2900		
3m	45	5100	4800						
	50			4020	3500	3260	3050		
	55	5670	4950						
	30	3020	2840	2550	2260	2110	1930		
	40	4030	3790						
4m	45	4530							
	50		4000	3250	2850	2650	2480		
	55	4600							
	30	3020	2840	2550	2260	2110	1930		
	40								
5m	45								
	50	3750	3250	2650	2310	2150	2010		
	55								



# WHEEL LOADS FOR PA 12 G / VULKOLLAN

#### **ATLAS RADBLOCKSYSTEM RB 160**

for wheel blocks with **PA 12 G**-coating

Crane wheel diameter	max. wheel load in kg
Ø190 x 82	2600
Ø200 x 82	2900

for wheel blocks with  $\pmb{VULKOLLAN}$  coating or binding up to 6 km/h

Crane wheel diameter	max. wheel load in kg
Ø180 x 82	1300
Ø200 x 75	1300
Ø200 x 82	1400



#### **ATLAS RADBLOCKSYSTEM RB 200**

Determination of wheel loads for crane wheels of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} \le Rzul$$

The following applies for trolley models and other machine construction drive systems with distributed full load:

 $R = Rmax \leq Rzul$ 

Drive mecha- nism group FEM/DIN 15020	Useable railhead width in mm	Drive speed								
		12.5 m/min	20 m/min	40 m/min	63 m/min	80 m/min	125 m/min			
	30	5260	4960	4520	4070	3820	3280			
	40	7020	6620	6030	5430	5100	4370			
1Bm	50	8770	8280	7530	6790	6370	5460			
	60	10000	9930	9040	8150	7650	6560			
	65	10000	10000	9790	8820	8290	7100			
	30	4720	4450	4050	3650	3420	2930			
	40	6290	5930	5400	4860	4570	3910			
1Am	50	7860	7420	6750	6080	5710	4890			
	60	9440	8900	8100	7300	6850	5870			
	65	10000	9640	8770	7910	7420	6360			
	30	4210	3970	3610	3260	3060	2620			
	40	5610	5300	4820	4340	4080	3490			
2m	50	7020	6620	6030	5430	5100	4370			
	60	8420	7950	7230	6520	6120	5240			
	65	9130	8610	7830	7060	6630	5680			
	30	3790	3570	3250	2930	2750	2360			
	40	5050	4770	4340	3910	3670	3140			
3m	50	6320	5960	5420	4890	4590	3930			
	60	7580	7150	6510	5860	5510	4720			
	65	8210	7750	7050	6350	5960	5110			
	30	3370	3180	2890	2600	2440	2090			
4m/5m	40	4490	4240	3850	3470	3260	2790			
	50	5610	5300	4820	4340	4080	3490			
	60	6740	6360	5780	5210	4890	4190			
	65	7300	6890	6270	5650	5300	4540			



# WHEEL LOADS FOR PA 12 G / VULKOLLAN

#### **ATLAS RADBLOCKSYSTEM RB 200**

for wheel blocks with **PA 12 G**-coating

Crane wheel diameter	max. wheel load in kg
Ø225 x 100	4000
Ø240 x 100	4300

for wheel blocks with  ${\bf VULKOLLAN}$  coating or binding up to 6 km/h

Crane wheel diameter	max. wheel load in kg
Ø225 x 100	2000
Ø240 x 100	2200



#### **ATLAS RADBLOCKSYSTEM RB 250**

Determination of wheel loads for crane wheels of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} \le Rzul$$

The following applies for trolley models and other machine construction drive systems with distributed full load:

 $R = Rmax \leq Rzul$ 

Drive mecha- nism group	Useable rail- head width in	Drive speed							
FEM/DIN 15020	mm	12.5 m/min	20 m/min	40 m/min	63 m/min	80 m/min	125 m/min	160 m/min	
	30	7810	7380	6730	6230	5870	5160	4730	
	40	10410	9840	8980	8310	7830	6880	6300	
1Bm	50		12300	11220	10390	9790	8600	7880	
	60	12800	12800	12570	10940	10200	8950	2000	
	65		12000	12570	10940	10200	6950	8280	
	30	7000	6610	6030	5580	5260	4620	4230	
	40	9330	8820	8040	7450	7020	6160	5650	
1Am	50	11660	11020	10060	9310	8770	7700	7060	
	60	12800	12000	12070	10940	10200	8950	8280	
	65	12800	12800	12570	10940	10200			
	30	6250	5900	5390	4980	4700	4120	3780	
	40	40 8330	7870	7180	6650	6260	5500	5040	
2m	50	10410	9840	8980	8310	7830	6880	6300	
	60	12500	11810	10230	8890	8310	7920	6750	
	65	12800	12600	10230	0090	6310	7920	0/50	
	30 5620	5620	5310	4850	4490	4230	3710	3400	
	40	7500 7080	6460	5980	5640	4950	4540		
3m	50	9370	8850	8080					
	60	11250	10430	8470	7350	6880	6020	5590	
	65	12000							
	30	5000	4720	4310	3990	3760	3300	3020	
	40	6660	6300	5740	5320	5010	4400	4030	
4m	50	8330	7870						
	60	0750	0.470	6870	5980	5590	4890	4530	
	65	9750	8470						
	30	5000	4720	4310	3990	3760	3300	3020	
	40	6660	6300						
5m	50			EEOO	4050	4540	2070	2400	
	60	7930	6880	5590	4850		3970	3690	
	65								



# WHEEL LOADS FOR PA 12 G / VULKOLLAN

## **ATLAS RADBLOCKSYSTEM RB 250**

for wheel blocks with **PA 12 G**-coating

Crane wheel diameter	max. wheel load in kg
Ø290 x 110	5500

for wheel blocks with  $\mbox{\bf VULKOLLAN}$  coating or binding up to 6 km/h

Crane wheel diameter	max. wheel load in kg
Ø285 x 100	2500
Ø285 x 110	2700
Ø250 x 100	2200



#### **ATLAS RADBLOCKSYSTEM RB 250-V**

Determination of wheel loads for crane wheels of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} \le Rzul$$

The following applies for trolley models and other machine construction drive systems with distributed full load:

 $R = Rmax \leq Rzul$ 

Drive mecha- nism group	Useable railhead width in mm	Drive speed								
FEM/DIN 15020		12.5 m/min	20 m/min	40 m/min	63 m/min	80 m/min	125 m/min	160 m/min		
	40	10.410	9.840	8.980	8.310	7.830	6.880	6.300		
	50	12.800	12.300	11.220	10.390	9.790	8.600	7.880		
1Bm	60	14.580	13.780	12.570	11.640	10.970	9.630	8.830		
	70	16.000	14 000	14.670	13.580	12.790	11.230	10.300		
	80		16.000	16.000	15.520	14.620	12.840	11.770		
	40	9.330	8.820	8.040	7.450	7.020	6.160	5.650		
	50	11.660	11.020	10.060	9.310	8.770	7.700	7.060		
1Am	60	13.060	12.800	12.070	10.940	10.200	8.950	8.280		
	70	15.240	14.400	13.140	12.160	11.460	10.070	9.230		
	80	16.000	16.000	15.020	13.900	13.100	11.500	10.540		
	40	8.330	7.870	7.180	6.650	6.260	5.500	5.040		
	50	10.410	9.840	8.980	8.310	7.830	6.880	6.300		
2m	60	12.500	11.810	10.230	9.310	8.770	7.920	7.060		
	70	13.610	12.860	11.730	10.860	10.240	8.990	8.240		
	80	15.550	14.700	13.410	12.410	11.700	10.270	9.410		
	40	7.500	7.080	6.460	5.980	5.640	4.950	4.540		
	50	9.370 8.8	8.850	8.080	7.350	6.880	6.020	5.590		
3m	60	11.250	10.430	9.050	8.380	7.890	6.930	6.350		
	70	12.250	11.570	10.560	9.770	9.210	8.090	7.410		
	80	14.000	13.220	12.070	11.170	10.530	9.240	8.410		
	40	6.660	6.300	5.740	5.320	5.010	4.400	4.030		
	50	8.330	7.870	6.870	6.200	5.850	5.130	4.700		
4m	60	9.750	8.820	8.040	7.450	7.020	6.160	5.650		
	70	10.880	10.290	9.390	8.690	8.190	7.190	6.590		
	80	12.440	11.750	10.730	9.930	9.310	8.140	7.530		
	40	6.660	6.300	5.590	4.960	4.680	4.110	3.760		
	50	7.930	7.350	6.700	6.200	5.850	5.130	4.700		
5m	60	9.330	8.820	8.040	7.450	7.020	6.160	5.650		
	70	10.880	10.290	0.210	0.120	7540	4.410	4140		
	80	12.440	11.460	9.310	0.120	8.120 7.560	6.610	6.140		



# WHEEL LOADS FOR PA 12 G / VULKOLLAN

## **ATLAS RADBLOCKSYSTEM RB 250-V**

for wheel blocks with **PA 12 G**-coating

Crane wheel diameter	max. wheel load in kg
Ø290 x 110	5500

for wheel blocks with  $\pmb{VULKOLLAN}$  coating or binding up to 6 km/h

Crane wheel diameter	max. wheel load in kg
Ø285 x 110	2700



#### **ATLAS RADBLOCKSYSTEM RB 315**

Determination of wheel loads for crane wheels of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} \le Rzul$$

The following applies for trolley models and other machine construction drive systems with distributed full load:

 $R = Rmax \leq Rzul$ 

Drive mechanism group FEM/DIN  Useable railhead width in		Drive speed							
15020	mm	20 m/min	40 m/min	63 m/min	80 m/min	125 m/min	160 m/min	200 m/min	
	40	12760	11680	10950	10470	9270	8670	7940	
	50	15950	14600	13690	13090	11590	10830	9930	
1Bm	60	19140	17520	16430	15710	13900	13000	11920	
	70	22000	20440	18870	17570	15350	14250	12050	
	80	22000	21630	10070	1/5/0	15550	14250	13250	
	40	11430	10460	9810	9380	8300	7760	7120	
	50	14290	13080	12270	11730	10380	9710	8900	
1Am	60	17150	15690	14720	14080	12460	11650	10680	
	70	20010	18310	17180	16420	14530	13590	12460	
	80	22000	20930	18870	17570	15350	14250	13250	
	40	10210	9340	8760	8380	7410	6930	6350	
	50	12760	11680	10950	10470	9270	8670	7940	
2m	60	15310	14010	13140	12570	11120	10400	9530	
	70	17850	16350	15330	14260	12480	11580	10820	
	80	20400	17560						
	40	9190	8410	7880	7540	6670	6240	5720	
	50	11480	10510	9860	9420	8340	7800	7150	
3m	60	13780	12610	11830	11310	10010	9360	8580	
	70	16080	14550	12/00	11810	10330	9600	8970	
	80	17910	14550	12690					
	40	8160	7470	7010	6700	5930	5540	5080	
	50	10210	9340	8760	8380	7410	6930	6350	
4m	60	12250	11210						
	70	14290	11010	10310	9600	8390	7790	7280	
	80	14550	11810						
	40	8160	7470	7010	6700	5930	5540	5080	
	50	10210	9340						
5m	60			8370	7790	6820	6320	5920	
	70	11810	9600	03/0	7790		0320	3920	
	80								



# WHEEL LOADS FOR PA 12 G / VULKOLLAN

#### **ATLAS RADBLOCKSYSTEM RB 315**

for wheel blocks with **PA 12 G**-coating

Crane wheel diameter	max. wheel load in kg
Ø350 x 130	8000

for wheel blocks with  $\pmb{VULKOLLAN}$  coating or binding up to 6 km/h

Crane wheel diameter	max. wheel load in kg
Ø350 x 130	4000
Ø355 <sup>1)</sup> x 130	4000

1) Overtwisted bandage for special applications



#### **ATLAS RADBLOCKSYSTEM RB 400**

Determination of wheel loads for crane wheels of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} < \frac{Rzul}{3}$$

The following applies for trolley models and other machine construction drive systems with distributed full load:  $R = Rmax \le Rzul$ 

Drive mecha- nism group FEM/DIN	Useable rail- head width in	Drive speed							
15020	mm	20 m/min	40 m/min	63 m/min	80 m/min	125 m/min	160 m/min	200 m/min	
1Bm	40	16660	15290	14370	13910	12530	11770	11000	
	50	20830	19110	17960	17390	15670	14710	13760	
	60	25000	22930	21560	20870	18800	17660	16510	
	70	29160	26750	25150	24350				
	80	30000	30000	26230	24400	21350	19820	18550	
	90	30000							
	40	14930	13700	12870	12460	11230	10540	9860	
	50	18660	17120	16090	15580	14040	13180	12330	
1Am	60	22400	20550	19310	18700	16850	15820	14790	
	70	26130	23970	22530	21810	19660	18460	17260	
	80	29860	27400	25750					
	90	30000	30000	26230	24400	21350	19820	18550	
	40	13330	12230	11490	11130	10030	9410	8807	
	50	16660	15290	14370	13910	12530	11770	11009	
2m	60	20000	18340	17240	16690	15040	14120	13211	
	70	23330	21400	20120	19480				
	80	26660	24410	21300	19830	17340	16100	15060	
	90	30000							
	40	12000	11000	10340	10010	9020	8470	7920	
	50	15000	13760	12930	12520	11280	10590	9900	
3m	60	18000	16510	15520	15020	13540	12710	11890	
	70	21000	19260		16420	14360	13340	12470	
	80	24000		17640					
	90	24880	20220						
	40	10660	9780	9190	8900	8020	7530	7040	
	50	13330	12230	11490	11130	10030	9410	8800	
4m	60	16000	14670	13790					
	70	18660	16420	14330	13340	11660	10830	10130	
	80								
	90	20210							
5m	40	10660	9780	9190	8900	8020	7530	7040	
	50	13330	12230	11490					
	60	16000		11640	10830	9470	8800	8230	
	70								
	80	16420	13340						
	90								
	. •								



# WHEEL LOADS FOR PA 12 G / VULKOLLAN

#### **ATLAS RADBLOCKSYSTEM RB 400**

for wheel blocks with **PA 12 G**-coating

Crane wheel diameter	max. wheel load in kg		
Ø450 x 140	11000		
Ø450 x 155	12000		

for wheel blocks with  $\pmb{VULKOLLAN}$  coating or binding up to 6 km/h

Crane wheel diameter	max. wheel load in kg		
Ø445 x 150	5800		
Ø445 x 160	6200		

Higher wheel loads and wheel loads at higher travel speed on request.

25



#### **ATLAS RADBLOCKSYSTEM RB 500**

Determination of wheel loads for crane wheels of spheroidal graphite iron **EN-GJS-700-2**. Permissible wheel loads Rm corresponding to the drive mechanism group in kg.

Rmax and Rmin for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{Rmin + 2 Rmax}{3} < \frac{Rzul}{3}$$

The following applies for trolley models and other machine construction drive systems with distributed full load:

 $R = Rmax \leq Rzul$ 

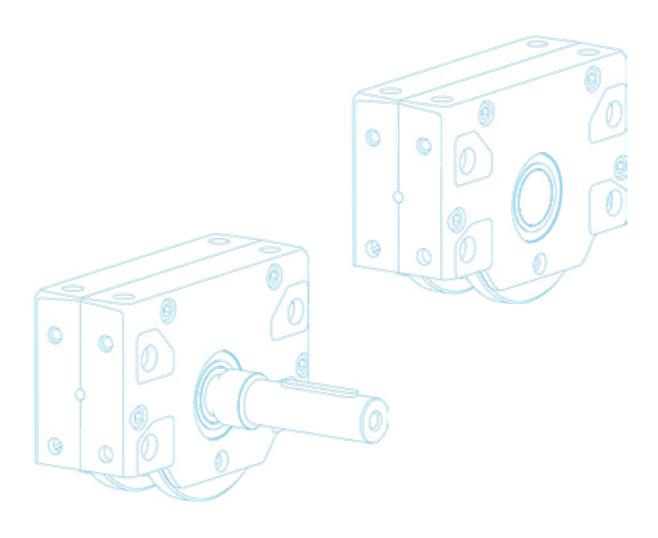
Drive mecha- nism group	Useable rail- head width in mm	Drive speed								
FEM/DIN 15020		20 m/min	40 m/min	63 m/min	80 m/min	125 m/min	160 m/min	200 m/min		
1Bm	40	18.380	17.060	16.060	15.570	14.410	13.580	12.750		
	50	22.980	21.320	20.080	19.460	18.010	16.970	15.940		
	60	27.580	25.590	24.100	23.350	21.610	20.370	19.130		
	70	32.170	29.850	28.110	27.240	25.220	23.770	22.320		
	80	36.770	34.120	32.130	31.140	28.820	27.160	25.510		
	90	40.000	38.380	36.150	35.030	32.420	30.560	28.690		
	40	16.470	15.280	14.390	13.950	12.910	12.170	11.420		
	50	20.590	19.100	17.990	17.430	16.140	15.210	14.280		
1Am	60	24.710	22.930	21.590	20.920	19.360	18.250	17.140		
	70	28.830	26.750	25.190	24.410	22.590	21.290	20.000		
	80	32.940	30.570	28.790	27.900	25.820	24.340	22.850		
	90	37.060	34.390	32.390	31.390	29.050	27.380	25.710		
	40	14.700	13.640	12.850	12.450	11.520	10.860	10.200		
	50	18.380	17.060	16.060	15.570	14.410	13.580	12.750		
2m	60	22.060	20.470	19.280	18.680	17.290	16.300	15.300		
	70	25.740	23.880	22.490	21.790	20.170	19.010	17.850		
	80	29.410	27.290	25.700	24.910	23.050	21.730	20.400		
	90	33.090	30.710	28.920	28.020	25.940	24.450	22.950		
	40	13.230	12.280	11.560	11.210	10.370	9.780	9.180		
	50	16.540	15.350	14.460	14.010	12.970	12.220	11.470		
3m	60	19.850	18.420	17.350	16.810	15.560	14.670	13.770		
	70	23.160	21.490	20.240	19.610	18.150	17.110	16.070		
	80	26.470	24.560	23.130	22.420	20.750	19.560	18.360		
	90	29.780	27.640	26.030	25.220	23.340	22.000	20.660		
4m / 5m	40	11.760	10.910	10.280	9.960	9.220	8.690	8.160		
	50	14.700	13.640	12.850	12.450	11.520	10.860	10.200		
	60	17.650	16.370	15.420	14.940	13.830	13.040	12.240		
	70	20.590	19.100	17.990	17.430	16.140	15.210	14.280		
	80	23.530	21.830	20.560	19.930	18.440	17.380	16.320		
	90	26.470	24.560	23.130	22.420	20.750	19.560	18.360		





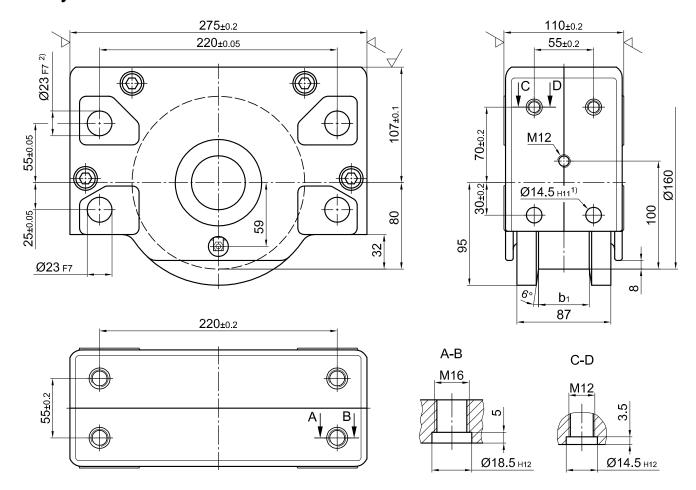
# WHEEL BLOCK SYSTEM

# **RB 160**





# **Primary dimensions**



Weight: approx. 22 kg max. wheel load: 6800 kg

- 1) Due to the use of retained nuts M12 in the holes 14.5H11, the threaded connection is attained as in section C-D
- 2) available with hole Ø30 F8

#### **Ordering examples**

#### **RBA 160×47**

Wheel block 160, driven, with internal taper, with two-sided wheel flange, design Form 1, running tread 47 mm

## **RBN 160×47**

Wheel block 160, not driven, without internal taper, with two-sided wheel flange, design Form 1, running tread 47  $\,\mathrm{mm}$ 

#### **RBA 160×67**

Wheel block 160, driven, with internal taper, with one-sided wheel flange, design Form 2, running tread 67  $\mbox{mm}$ 

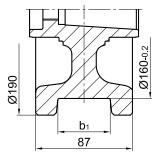
#### **RBA 160**

Wheel block 160, driven, with internal taper, with coating of PA12G, design Form  $\boldsymbol{6}$ 

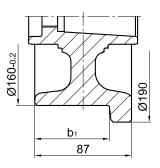
Design RBA and RBN, refer to page 5



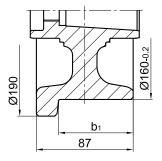
#### Standard models



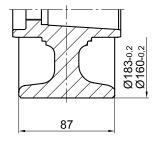
Form 1 two-sided wheel flange



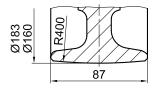
Form 2<sup>1)</sup>
one-sided wheel flange
on the drive side



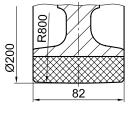
Form 3<sup>1)</sup>
one-sided wheel flange
opposite to the drive side



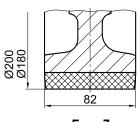
Form 4
no wheel flanges with
cylindrical runnning surface



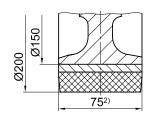
Form 5 no wheel flanges with spherical running surface



Form 6 with coating of PA 12 G

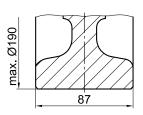


Form 7 with coating of Vulkollan

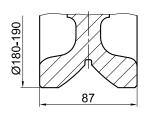


Form 8 with binding of Vulkollan

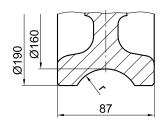
## **Special models**



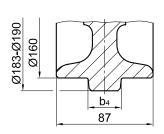
Form 9 no wheel flanges



Form 10 with prismatic guide



Form 11
with concave groove
r=1.1\* track radius
(recommended)



Form 12 with middle wheel flange

<b>Form 1</b> Running tread b1 for two-sided wheel flange			Form 2 and 3 Running tread b1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal	
20	68	47, 60	53.5	77.5	

<sup>1)</sup> Forms 2 and 3 are identical for the non-driven wheel block RBN  $\,$ 

<sup>2)</sup> Available in special design up to a wheel width of 85 mm



Connection options

# Top connection KA 160.1

Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

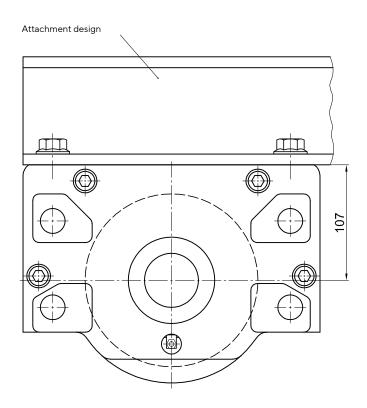
#### 1 Set KA 160.1 comprising of:

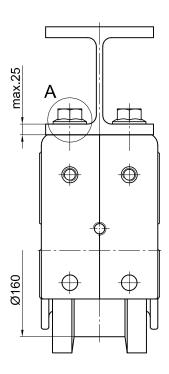
4 Locking screws M16×45 -10.9

4 Locking pins 18.5×1×14

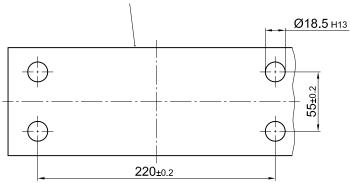
Mounting parts for larger steal plate thicknesses and/or adjustable direct connection are available on request.

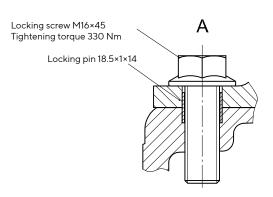
For the directional version refer to the pattern of drilling KA160.2 (Page 30).





Hole pattern attachment design for precise fitting variant







Connection options

## Top connection KA 160.2

Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes

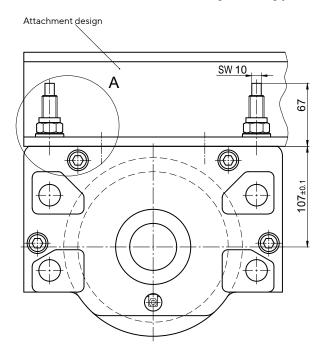
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins  $8\times24$  supplied.

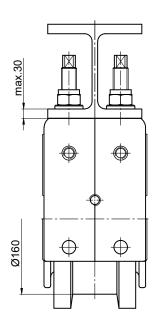
However, this must not be in the area of the attachment bolts [1)]. Alignment is not required for precisely drilled attachment holes.

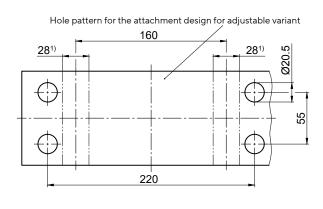
#### 1 Set KA 160.2 comprising of:

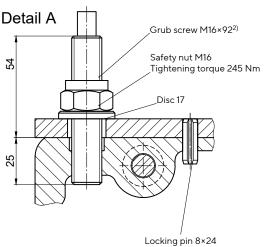
- 4 Grub screws M16×92 10.9 ZT
- 4 Safety nuts M16-10 DIN EN ISO 7042 (DIN 980)
- 4 Discs 17 DIN EN ISO 7090 (DIN 125)
- 4 Locking pins 8×24 DIN EN ISO 8752 (DIN 1481), for adjustable connection
- 4 Locking pins 18.5×1×14, for precise connection

#### Longer locking pins are available for thicker plates.









- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request



Connection options

#### Pin attachment BA 160.1

Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

Pin attachment with alignment option using adjusting washers. Alignment option by replacing the adjusting washers only in dismantled condition.

#### 1 Set BA 160.1 comprising of:

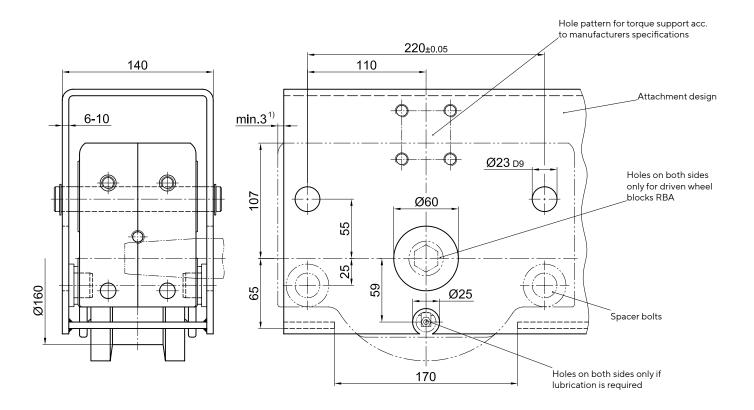
2 Bolts Ø23h8

4 Circlipse 23×1.2 DIN 471

4 Spacer bolts

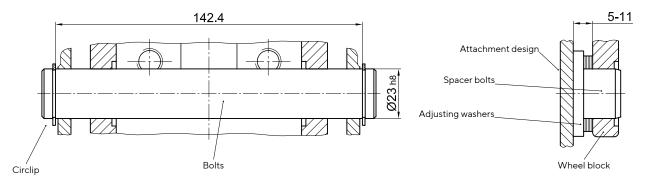
28 Adjusting washers 25×35×0.5 DIN 988

#### Pin connections are available in special design according to the customer drawing.



#### **Upper suspension mounting**

# Lower support



1) Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 160.2

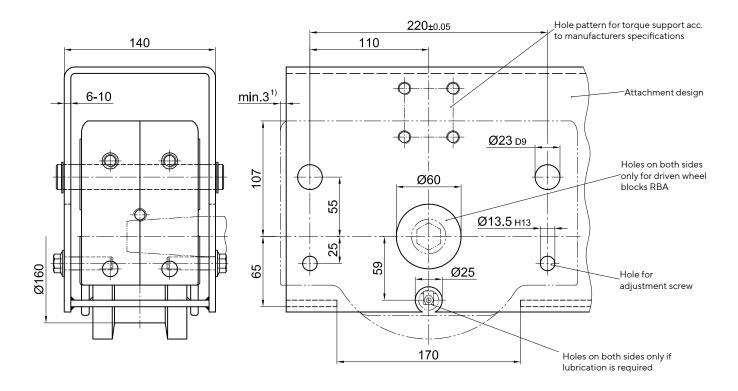
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with option to align using adjustable hexagon screws. The alignment is done in assembled and relieved mode.

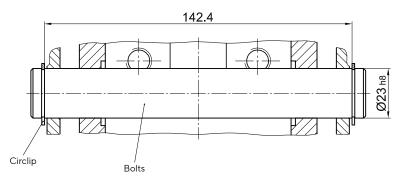
#### 1 Set BA 160.2 comprising of:

- 2 Bolts Ø23 h8
- 4 Circlipse 23×1.2 DIN 471
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M12×45 (coated)

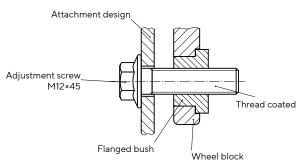
#### Pin connections are available in special design according to the customer drawing.



#### Upper suspension mounting



#### Lower support



1) Dimension must be observed only with front mounting parts



Connection options

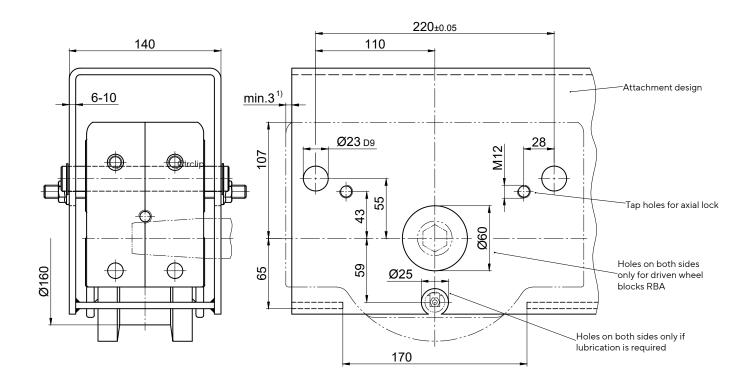
#### Pin attachment BA 160.3

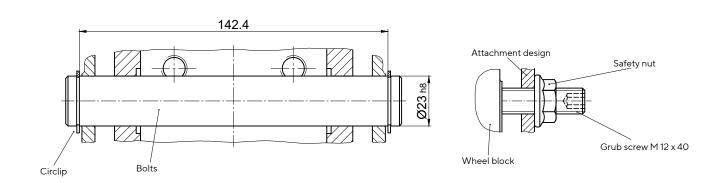
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc. Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 160.3 comprising of:

- 2 Bolts Ø23 h8
- 4 Circlipse 23×1.2 DIN 471
- 4 Grub screws with hexagon socket M12×40-45H DIN EN ISO 4026 (DIN 913)
- 4 Safety nuts M 12-10

#### Pin connections are available in special design according to the customer drawing.





<sup>1)</sup> Dimension must be observed only with front mounting parts



Connection options

#### Side connection WA 160

Lateral connection option for low construction designs

1 Set WAA 160 (Side connection on the drive side)1 Set WAN 160 (Side connection on the non-driven side)

**1 Set WA 160** (Side connection on non-driven wheel block RBN)

comprisinf of:

4 Flanged bushings Ø23 (bonded)

4 Cheese-head screws M12×60 -10.9 DIN EN ISO 4762 (DIN 912)

4 Lock washers 12

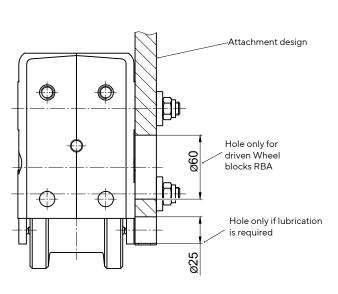
4 Safety nuts M12 -10, DIN EN ISO 7042 (DIN 980)

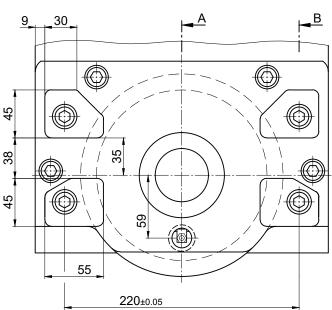
4 Discs 13 / 32×6

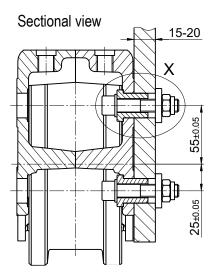
For wheel design form 6 to 8 ( $\emptyset$ 200) the side connection needs to be executed as a special design.

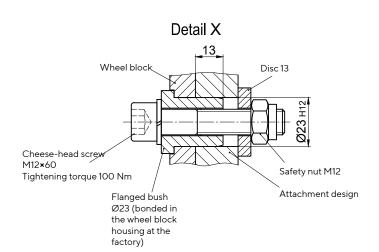
#### Attachment variant 1:

Attachment design is accessible from both sides Trough-hole Ø23 H12









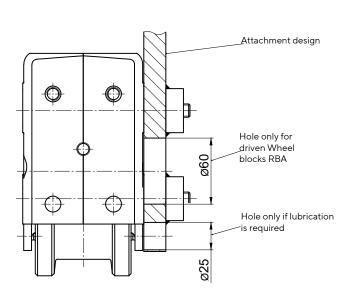
Connection options

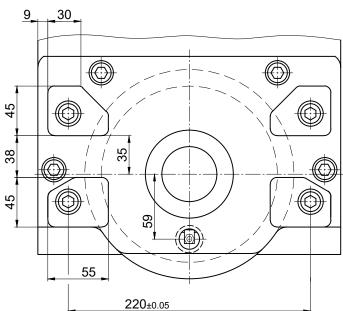
#### **Side connection WA 160**

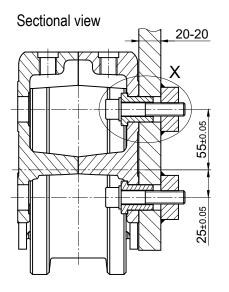
Lateral connection option for low construction designs

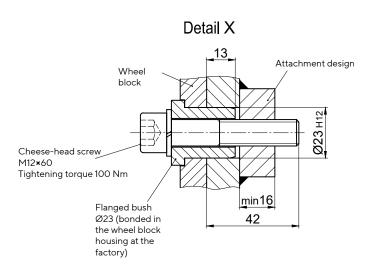
#### **Attachment variant 2:**

Attachment design (e.g. hollow profile) is not accessible from the inside Blind hole  $\varnothing$ 23 H12×15 deep with thread M12







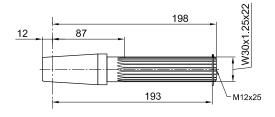


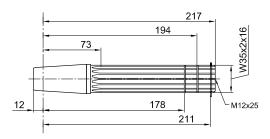


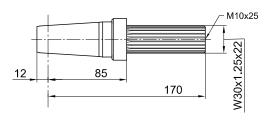
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

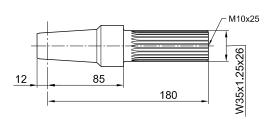
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480









Slip-on gear mechanism						
Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480				
AF 04 / AF 05	DEMAG	W30 x 1.25 x 22				
AUK 20	DEI W.G	WSGATILESALE				
AF 05 / AF 06	DEMAG	W35 v 2 v 16				
AUK 30	DEMAG	W35 x 2 x 16				
FV 37 / KV 37	SEW					
SK1282 EA	NORD	W30 x 1.25 x 22				
SPZT16	PREMIUM STEPHAN					
F.A.T 38 B						
KA.T 38	SIEMENS (FLENDER)	W35 x 1.25 x 26				
CA.T 38						

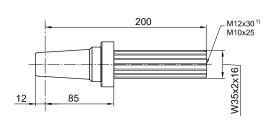


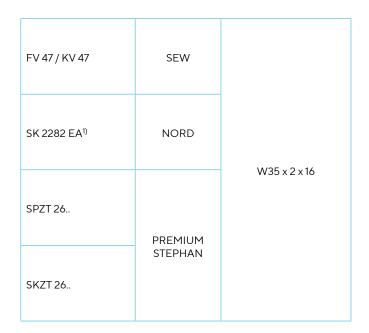
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

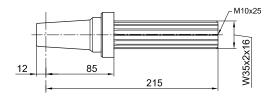
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

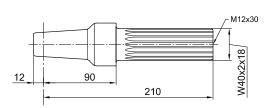
Slip-on gear mechanism						
Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480				







FV 57 / KV 57	SEW	W35 x 2 x 16



F.A.T 48 B		
KA.T 48	SIEMENS (FLENDER)	W40 x 2 x 18
CA.T 48		

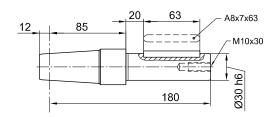


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

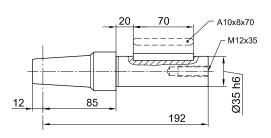
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885





FA 37 / KA 37 SA 47	SEW	
FDA 38 B FZA 38 B	SIEMENS	
KA 38 / CA 38	(FLENDER)	
O 32H O 33H K 33H C 32H	SIEMENS	Ø30
SK 0282 NBAB SK 1282 AB	NORD	
GFL 04H GKS 04H GSS 04H	LENZE	
F3A	STÖBER	



FA 47 / KA 47 SA 57	SEW	
SK 2282 AB	NORD	
FDA 48B FZA 48B KA 48 / CA 48	SIEMENS (FLENDER)	
O 42G O 43G K 43H C 42H	SIEMENS	Ø35
GFL 05H GKS 05H GSS 05H	LENZE	
K3A S2A	STÖBER	
SPZH 26 SKZH 26	PREMIUM STEPHAN	

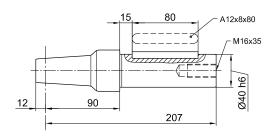


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

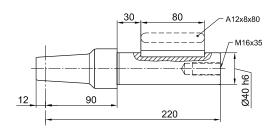
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885





FDA 48B FZA 48B KA 48 CA 48	SIEMENS (FLENDER)	
O 42H O 43H K 43G C 42G	SIEMENS	Ø40
GFL 06H GKS 06H GSS 06H	LENZE	



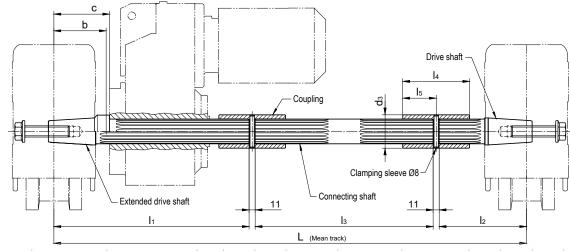
FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	
SK 3282 AB	NORD	
FDA 68B FZA 68B KA 68 CA 68	SIEMENS (FLENDER)	Ø40
O 62G O 63G K 63G C 62G	SIEMENS	
SPZH 36 SKZH 36	PREMIUM STEPHAN	



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

# **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



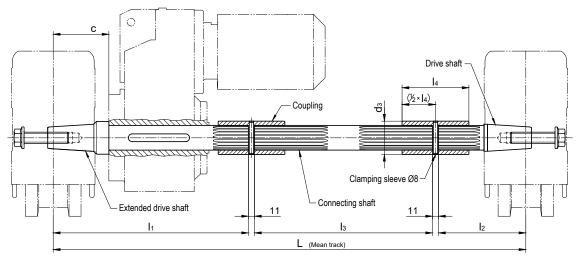
Model	Manufac- turer	Splined- shaft-profile DIN 5480	L	l1	12	13	Centre RB to gearing b	Centre RB to stop C	14	15	d3	Clam- ping sleeve DIN 1481													
AF 04 / AF 05 AUK 20	DEMAG																								
FV 37 KV 37	SEW	W30 x 1.25 x 22		258	170	Dimen- sion L	87		80	40	40	8 x 40													
SK 1282EA	NORD	7766 X 1.26 X 22		200	,,,	minus 450	G,			10	10	0 X 10													
SPZT16	PREMIUM STEPHAN																								
F.A.T 38B KA.T 38 CA.T 38	SIEMENS (FLENDER)	W35 x 1.25 x 26	provide	295	128	Dimen- sion L minus 445	73		100	50	50	8 x 50													
AF 05 AUK 30 / WUK 30	DEMAG		For ordering, please provide																						
FV 47 KV 47 FV 57 KV 57	SEW	W35 x 2 x 16	For orde	325	5 128	Dimen- sion L minus	73		100	50	50	8 x 50													
SK 2282 EA	NORD																		475						
SPZT 26 SKZT 26	PREMIUM STEPHAN																								
F.A.T 48B KA.T 48 CA.T 48	SIEMENS (FLENDER)					Dimen-																			
SK 3282 EA SK 9022.1A.EA SK 9023.1A.EA	NORD	W40 x 2 x 18		330	233	sion L minus 585		90	100	50	55	8 x 55													



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

gearboxes	Suitable for gearboxes with hollow shaft		l1	12	13	<b>c</b> gearbox stop	Feather key DIN 6885	<b>Coupling</b> Internal gearing/ d3 x I4
Inner-Ø	Length							
Ø30	<u>&lt;</u> 140	lease	285	170	Dimension L minus 477	-	A 8 x 7 x 70	N30 x 1.25 x 22 Ø40 x 80
Ø35	<u>&lt;</u> 150	rdering, please provide	295	128	Dimension L minus 445	85	A 10 x 8 x 70	N35 x 2 x 16 Ø50 x 100
Ø40	<u>&lt;</u> 180	For or	330	233	Dimension L minus 585	90	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100

#### Suitable for gearboxes of the following manufacturers:

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

Et.al. suitable type designations, refer to the single drive unit.

Drive shafts without gearbox stop and with adapted distance (c) on request.

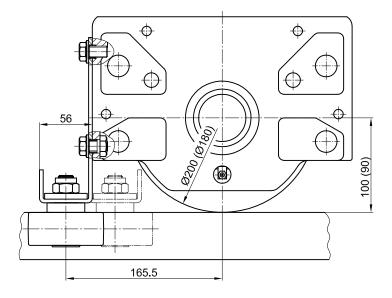


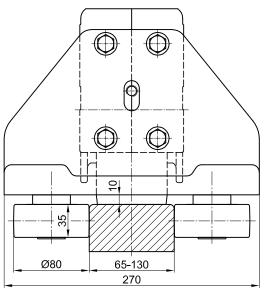
#### Horizontal roller guide for wheels of Ø200 and Ø180 with coating made of vulkollan or PA12G

Horizontal roller guide with adjustable guide rollers made of PA12G.

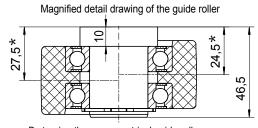
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable contiunous load: 450 kg Maximum short-term load: 700 kg



By turning the unsymmetrical guide roller, two clearances\* can be adjusted.

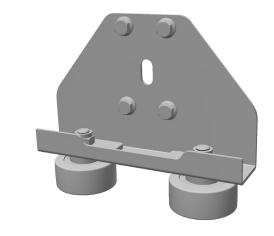
All necessary fastening elements are included in the scope of delivery.

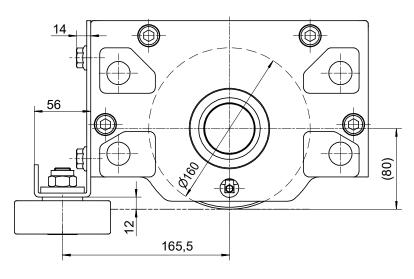
Horizontal roller guide for other rail profiles are available on request.

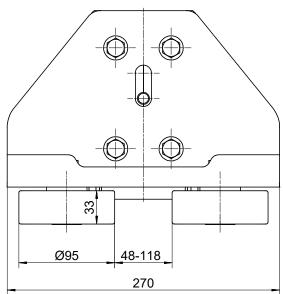
#### Horizontal roller guide for wheels of Ø160 (Form 1-5)

Horizontal roller guide with adjustable guide rollers made of C45.

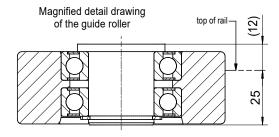
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable horizontal load: max. 700 kg



All necessary fastening elements are included in the scope of delivery.

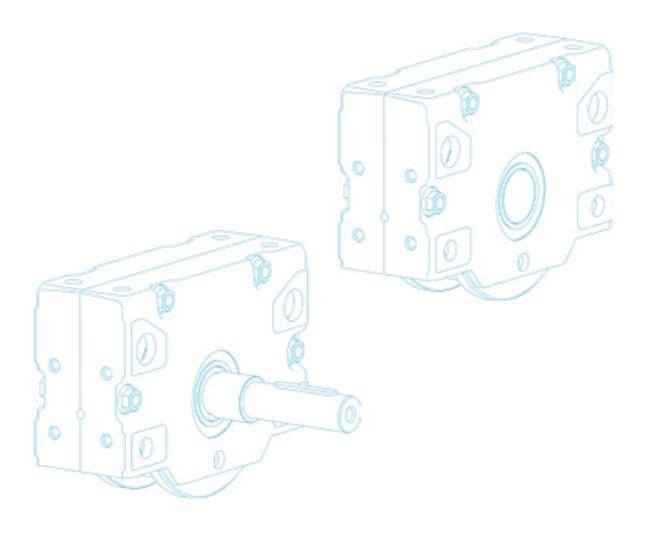
Horizontal roller guide for other rail profiles are available on request.





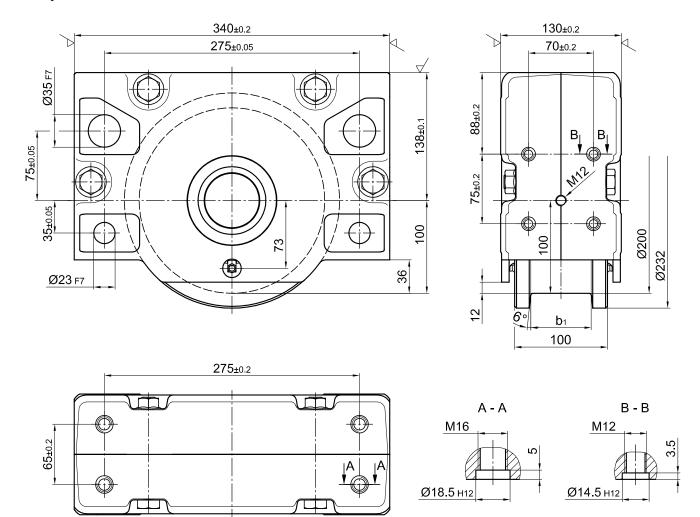
# WHEEL BLOCK SYSTEM

**RB 200** 





#### **Primary dimensions**



Weight: ca. 36 kg max. wheel load: 10 000 kg

#### Ordering examples

#### **RBA 200×60**

Wheel block 200, driven, with internal taper, with two-sided wheel flange, design Form 1, running tread 60  $\,\mathrm{mm}$ 

#### **RBN 200×60**

Wheel block 200, not driven, without internal taper, with two-sided wheel flange, design Form 1, running tread 60 mm  $\,$ 

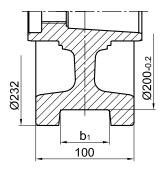
#### **RBA 200×80**

Wheel block 200, driven, with internal taper, with one-sided wheel flange, design Form 2, running tread 80  $\,\mathrm{mm}$ 

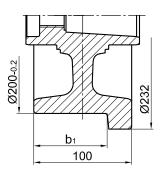
Design RBA and RBN refer to Page 5



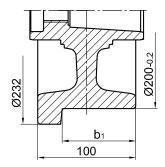
#### Standard models



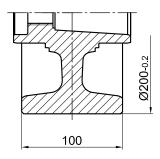
Form 1 two-sided wheel flange



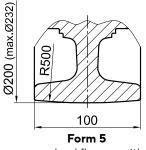
Form 21) one-sided wheel flange on the drive side

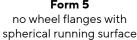


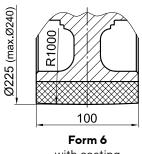
Form 31) one-sided wheel flange opposite to the drive side



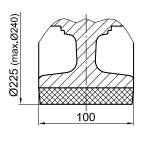
Form 4 no wheel flanges with cylindrical runnning surface



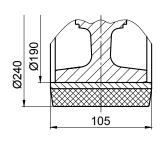




with coating of PA 12 G

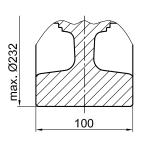


Form 7 with coating of Vulkollan

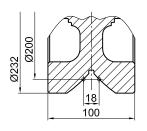


Form 8 with binding of Vulkollan

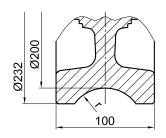
# Special models



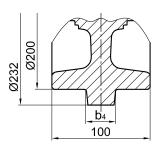
Form 9 no wheel flanges



Form 10 with prismatic guide



Form 11 with concave groove  $r = 1.1 \times track radius$ (recommended)



Form 12 with middle wheel flange

Form 1 Running tread b1 for two-sided wheel flange			Running t	Form 2 and 3 read b1 for one-sided wheel flange
minimal	maximal	Standard	minimal	maximal
20	75	65	60	87.5

<sup>1)</sup> Forms 2 and 3 are identical for the non-driven wheel block RBN



Connection options

# Top connection KA 200.1

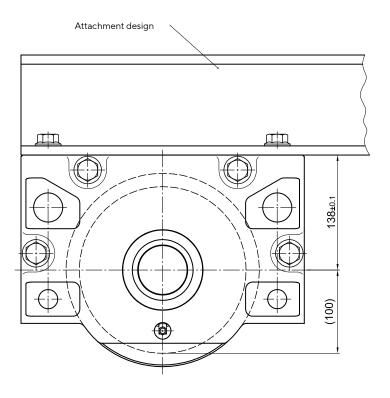
Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

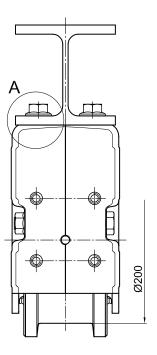
#### 1 Set KA 200.1 comprising of:

- 4 Locking screws M16×45 -10.9
- 4 Locking pins 18.5×1×14

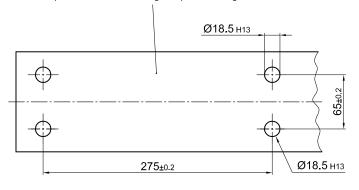
Mounting parts for larger steal plate thicknesses and/or adjustable direct connection are available on request.

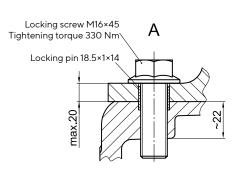
For the directional version refer to the pattern of drilling KA 200.2 (Page 48).





Hole pattern attachment design for precise fitting variant







Connection options

# **Top connection KA 200.2**

Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.)

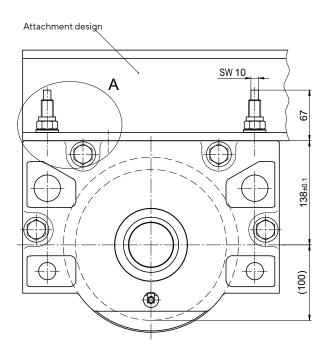
Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes

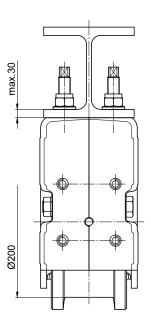
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 8×24 supplied. However, this is prohibited in the area of the attachment bolts [1)]. Alignment is not required for precisely drilled attachment holes.

#### 1 Set KA 200.2 comprising of:

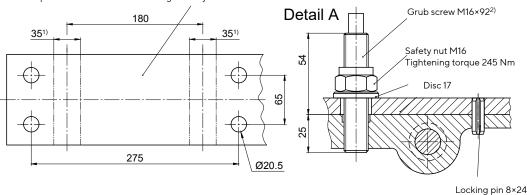
- 4 Grub screws M16×92 10.9 ZT
- 4 Safety nuts M16-10 DIN EN ISO 7042 (DIN 980)
- 4 Discs 17 DIN EN ISO 7090 (DIN 125)
- 4 Locking pins 8×24 DIN EN ISO 8752 (DIN 1481), for adjustable connection
- 4 Locking pins 18.5×1×14, for precise connection

#### Longer locking pins are available for thicker plates.









- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request



Connection options

#### Pin attachment BA 200.2

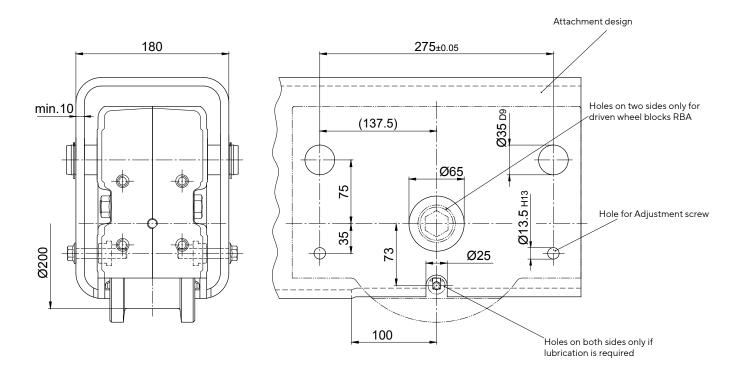
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with option to align using adjustable hexagon screws. Alignment by releasing or tightening the hexagon screws is carried out in the installed condition.

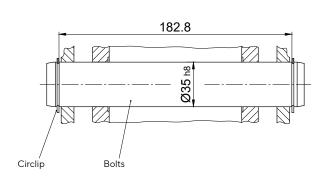
#### 1 Set BA 200.2 comprising of:

- 2 Bolts Ø35
- 4 Circlipsen 35 x 1.5 DIN 471
- 4 Flange bushings with internal thread (bonded)
- 4 Adjustment screwn M 12 x 60 (coated)

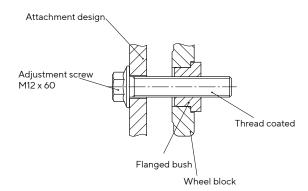
#### Pin connections are available in special design according to the customer drawing.



#### **Upper suspension mounting**



#### Lower support





Connection options

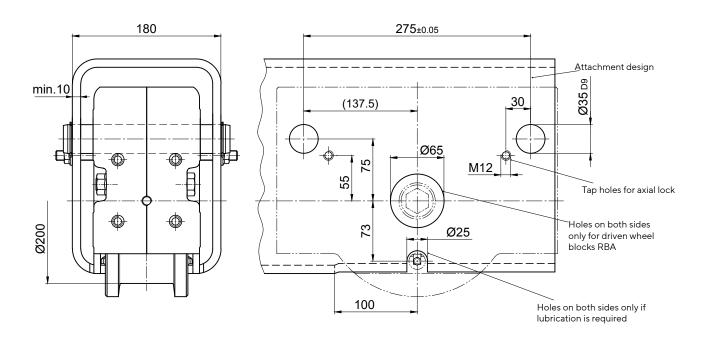
#### Pin attachment BA 200.3

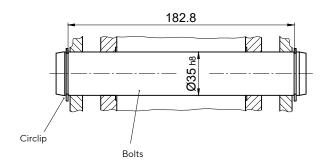
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc. Pin connection with alignment possibility by adjustable grub screws. The alignment by tightening the grub screws is done in assembly mode.

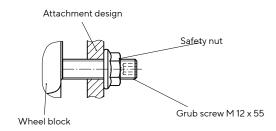
#### 1 Set BA 200.3 comprising of:

- 2 Bolts Ø35
- 4 Circlipse 35×1.5 DIN 471
- 4 Grub screws with hexagon socket M12×55-45H DIN EN ISO 4026 (DIN 913)
- 4 Safety nuts M 12-10

#### Pin connections are available in special design according to the customer drawing.









Connection options

#### **Side connection WA 200**

Lateral connection option for low construction designs

1 Set WAA 200 (Side connection on the drive side) 1 Set WAN 200 (Side connection on the non-driven side)

1 Set WA 200 (Side connection on non-driven wheel block RBN)

comprising of:

2 Flanged bushings Ø35 (bonded)

2 Locking screws M16×75 -10.9

2 Safety nuts M16 -10 DIN EN ISO 7042 (DIN 980)

2 Discs 17 / 45×8

2 Flanged bushings Ø23 (bonded)

2 Cheese-head screws M12×60 -10.9 DIN EN ISO 4762 (DIN 912)

2 Lock washers 12

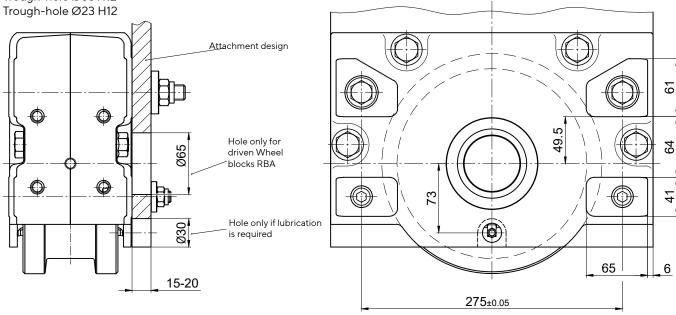
2 Safety nuts M12 -10, DIN EN ISO 7042 (DIN 980)

2 Discs 13 / 32×6

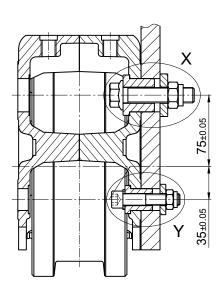
#### Attachment variant 1:

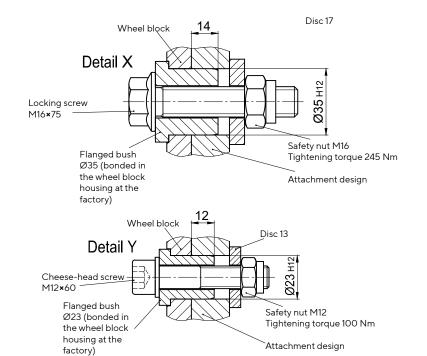
Attachment design is accessible from both sides

Trough-hole Ø35 H12



# Sectional view





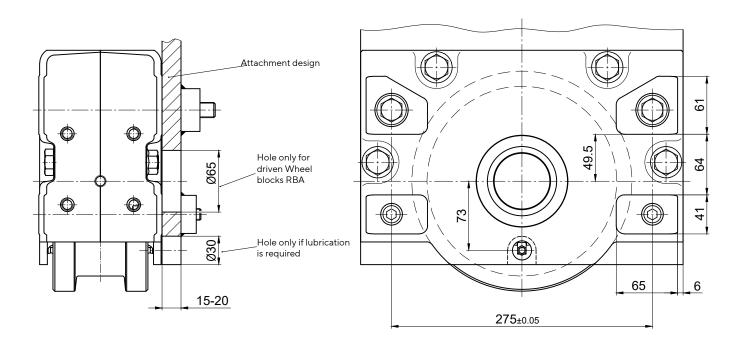
Connection options

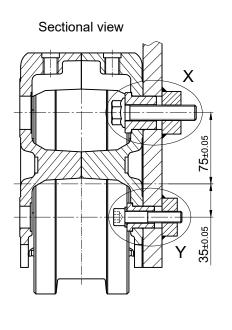
#### **Side connection WA 200**

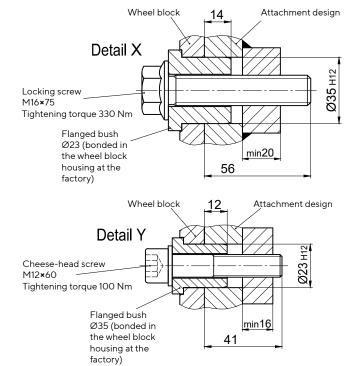
Lateral connection option for low construction designs

#### Attachment variant 2:

Attachment design (e.g. hollow profile) is not accessible from the inside Blind hole  $\varnothing 35$  H12×15 deep with thread M16 Blind hole  $\varnothing 23$  H12×15 deep with thread M12





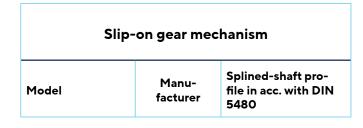


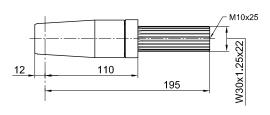


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

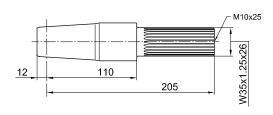
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

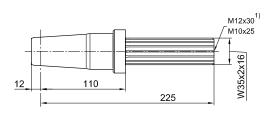




FV 37 / KV 37	SEW	
SK1282 EA	NORD	W30 x 1.25 x 22
SPZT16	PREMIUM STEPHAN	



F.A.T 38 B		
KA.T 38	SIEMENS (FLENDER)	W35 x 1.25 x 26
CA.T 38		

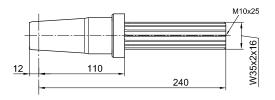


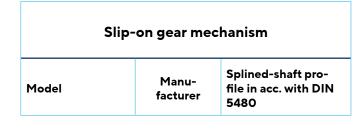
FV 47 / KV 47	SEW	
SK 2282 EA <sup>1)</sup>	NORD	W95 0 44
SPZT 26	PREMIUM	W35 x 2 x 16
SKZT 26	STEPHAN	



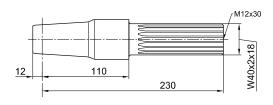
# Single drive unit

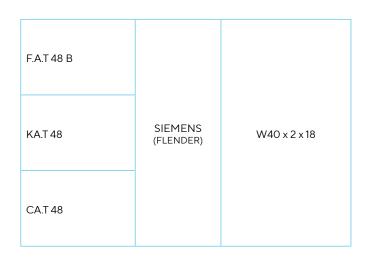
Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

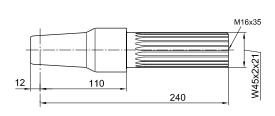










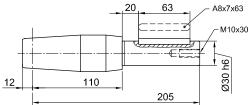


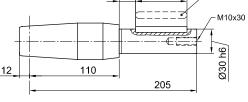
FV 67 / KV 67	SEW	W45 0 01
SPZT / SKZT 36	PREMIUM STEPHAN	W45 x 2 x 21

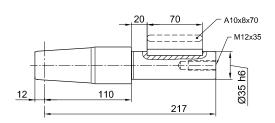


# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885







Slip-on gear mechanism						
Model	Manu- facturer	Shaft journal				

FA 37 / KA 37 SA 47	SEW	
FDA 38 B FZA 38 B	SIEMENS	
KA 38 / CA 38	(FLENDER)	
O 32H O 33H K 33H C 32H	SIEMENS	Ø30
SK 0282 NBAB SK 1282 AB	NORD	
GFL 04H GKS 04H GSS 04H	LENZE	
F3A	STÖBER	

FA 47 / KA 47 SA 57	SEW	
SK 2282 AB	NORD	
FDA 48B FZA 48B KA 48 / CA 48	SIEMENS (FLENDER)	
O 42G O 43G K 43H C 42H	SIEMENS	Ø35
GFL 05H GKS 05H GSS 05H	LENZE	
K3A S2A	STÖBER	
SPZH 26 SKZH 26	PREMIUM STEPHAN	

58

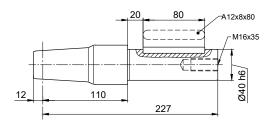


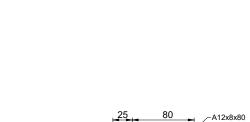
Model

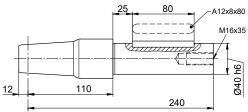
# **ATLAS WHEEL BLOCK SYSTEM RB 200**

# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885







# Slip-on gear mechanism Manufacturer Shaft journal

FDA 48B FZA 48B KA 48 CA 48	SIEMENS (FLENDER)	
O 42H O 43H K 43G C 42G	SIEMENS	Ø40
GFL 06H GKS 06H GSS 06H	LENZE	

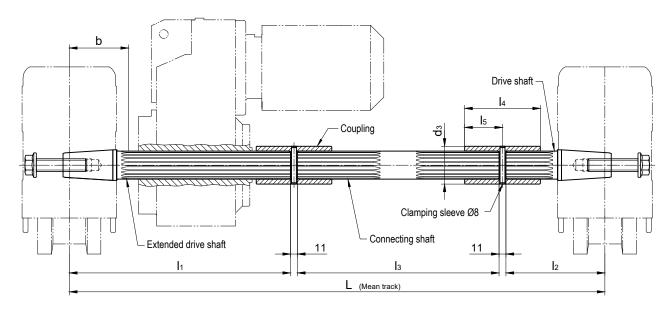
FA 57/FA 67 KA 57/KA 67 SA 67	SEW	
SK 3282 AB	NORD	
FDA 68B FZA 68B KA 68 CA 68	SIEMENS (FLENDER)	Ø40
O 62G O 63G K 63G C 62G	SIEMENS	<i>₩</i> 40
SPZH 36 SKZH 36	PREMIUM STEPHAN	
K4A	STÖBER	



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

# **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



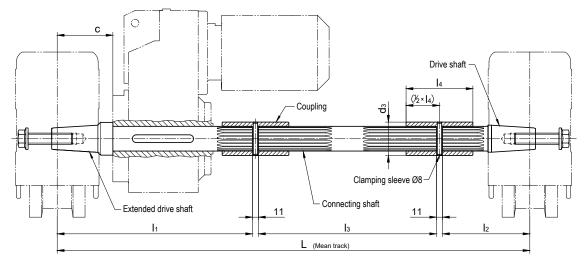
Model	Manufac- turer	Splined-shaft- profile DIN 5480	L	l1	12	13	Centre RB to gearing b	14	15	d3	Clamping sleeve DIN 1481												
AF 05 AUK 30/ WUK 30	DEMAG																						
FV 47 / KV 47 FV 57 / KV 57	SEW	W35 x 2 x 16		330	138	Dimensi- on L minus 490	90	100	50	50	8 x 50												
SK 2282 EA	NORD				1																		
SPZT 26 SKZT 26	PREMIUM STEPHAN		vide																				
F.A.T. 38B KA.T 38 CA.T 38	SIEMENS (FLENDER)	W35 x 1.25 x 26	For ordering, please provide	290	138	Dimensi- on L minus 450	90	100	50	50	8 x 50												
F.A.T 48 B KA.T 48 CA.T 48	FLENDER (SIEMENS)	W/40 v 2 v 19	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderir	or orderii	350	148	Dimensi-	90	100	F.0		8 x 55
SK 3282 EA SK 9023.1A.EA	NORD	W40 x 2 x 18		350	140	minus 520	90	100	50	55	6 X 55												
AF 06 / AF 08 AUK 40	DEMAG					5																	
FV 67 KV 67	SEW	W45 x 2 x 21		350	350	148	Dimensi- on L minus	90	120	60	60	8 x 60											
SPZT 36 SKZT 36	PREMIUM STEPHAN						520																



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

gearboxes v	ole for with hollow aft	L	<b>I</b> 1	12	13	<b>c</b> Getriebe- anschlag	Feather key DIN 6885	<b>Coupling</b> Internal gearing/ d3 x l4
Inner-Ø	Length							
Ø30	<u>&lt;</u> 150	provide	310	128	Dimension L minus 460	110	A8x7x70	N30 x 1.25 x 22 Ø40 x 80
Ø35	<u>&lt;</u> 160	please pro	330	138	Dimension L minus 490	110	A 10 x 8 x 80	N35 x 2 x 16 Ø50 x 100
Ø40	<u>&lt;</u> 180	ordering, <sub>F</sub>	350	148	Dimension L minus 520	110	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	≤ 210	Foro	410	148	Dimension L minus 580	120	A 14 x 9 x 110	N45 x 2 x 21 Ø60 x 120

#### $\underline{\hbox{Suitable for gearboxes of the following manufacturers:}}\\$

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

Et.al. suitable type designations, refer to the single drive unit.

Drive shafts  $\underline{\text{without gearbox stop}}$  and with adapted distance (c) on request.

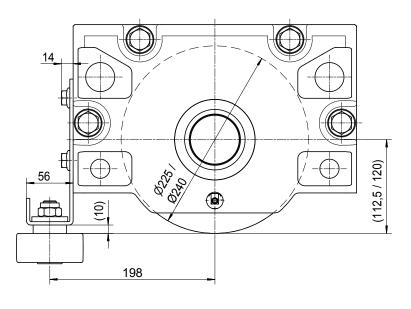


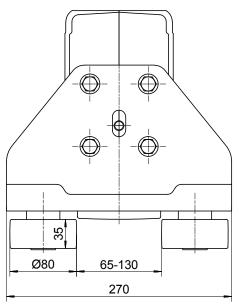
Horizontal roller guide for wheels of Ø225 and Ø240 with coating made of vulkollan or PA12G

Horizontal roller guide with adjustable guide rollers made of PA12G.

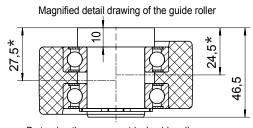
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable horizontal load: max. 480 kg



By turning the unsymmetrical guide roller, two clearances\* can be adjusted.

All necessary fastening elements are included in the scope of delivery.

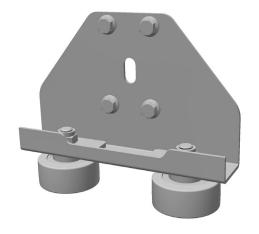
Horizontal roller guide for other rail profiles are available on request.

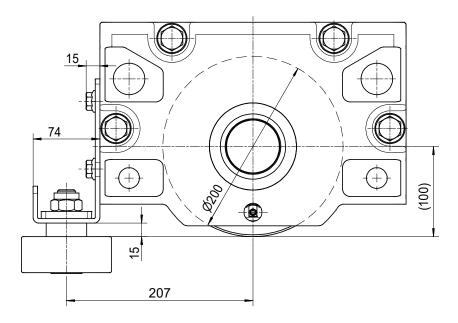


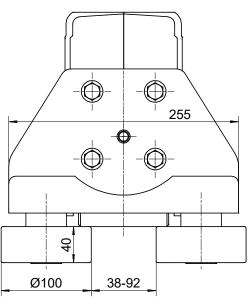
# Horizontal roller guide for wheels of Ø200 (Form 1-5)

Horizontal roller guide with adjustable guide rollers made of C45.

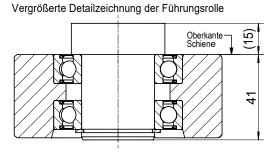
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable horizontal load: max. 850 kg



All necessary fastening elements are included in the scope of delivery.

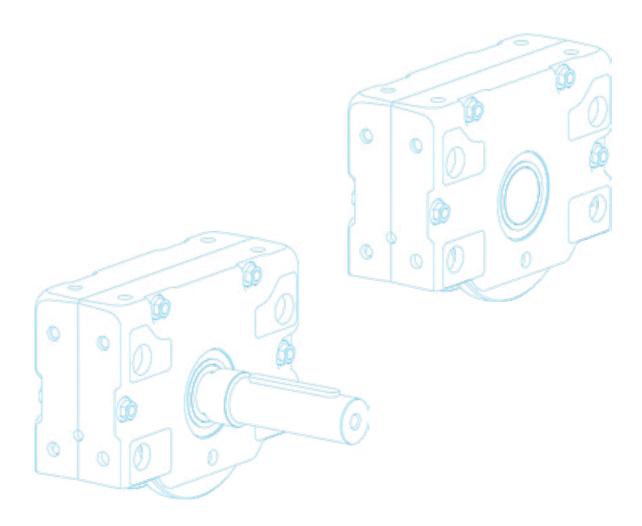
Horizontal roller guide for other rail profiles are available on request.





# WHEEL BLOCK SYSTEM

RB 250(discontinued model)\*

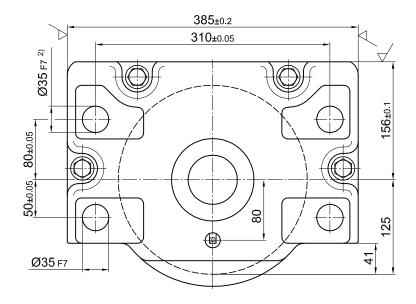


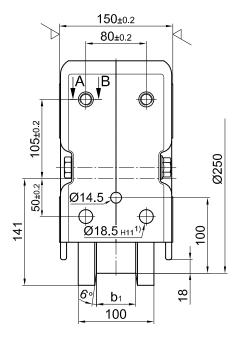
\* RB 250 is a discontinued model. Spare parts are still available.

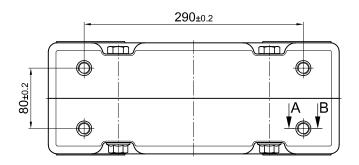
Please use RB 250-V in the future.

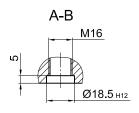


#### **Primary dimensions**









Weight: ca. 52 kg max. wheel load: 12 800 kg

- 1) Due to the use of retained nuts M16 in the holes 18.5H11, the threaded connection are attained as in section A-B
- 2) Available with hole Ø40 F8

#### **Ordering examples**

#### **RBA 250×65**

Wheel block 250, driven, with internal taper, with two-sided wheel flange, Design Form 1, running tread 65  $\,\mathrm{mm}$ 

#### **RBN 250×65**

Wheel block 250, non driven, without internal taper, with two-sided wheel flange, Design Form 1, running tread  $65\ \mathrm{mm}$ 

#### RBA 250×100

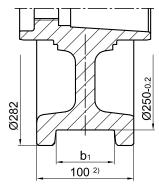
Wheel block 250, driven, with internal taper, without wheel flanges, Design Form 4

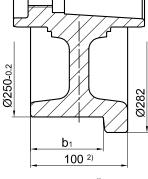
#### **RBA 250**

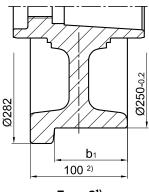
Wheel block 250, driven, with internal taper, with Vulkollan-binding, Design Form  $\ensuremath{8}$ 

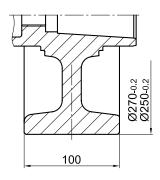
Design RBA and RBN refer to Page 5

#### Standard models







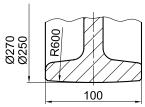


Form 1 two-sided wheel flange

Form 2<sup>1)</sup>
one-sided wheel flange
on the drive side

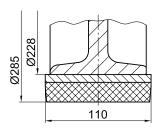
Form 31)
one-sided wheel flange
opposite to the drive side

Form 4
no wheel flanges with
cylindrical runnning surface



100 110 Form 6

100



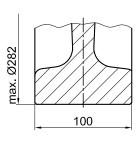
Form 5 no wheel flanges with spherical running surface

Form 6 with coating of PA 12 G

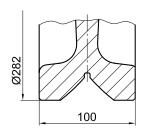
Form 7 with coating of Vulkollan

**Form 8** with binding of Vulkollan

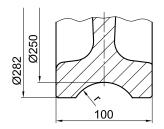
# Special models



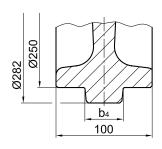




Form 10 with prismatic guide



Form 11
with concave groove
r=1.1× track radius
(recommended)



Form 12 with middle wheel flange

<b>Form 1</b> Running tread b1 for two-sided wheel flange			Form 2 und 3 Running tread b1 for one-sided wheel flange	
minimal	maximal	Standard	minimal	maximal
20	75	65,75	60	87.5

<sup>1)</sup> Forms 2 and 3 are identical for the non-driven wheel block RBN

<sup>2)</sup> Available as special design with wheel width 110 mm.



Connection options

# Top connection KA 250.1

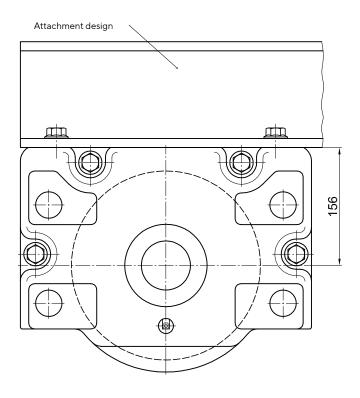
Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

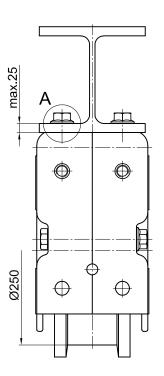
#### 1 Set KA 250.1 comprising of:

- 4 Locking screws M16×45 -10.9
- 4 Locking pins 18.5×1×14

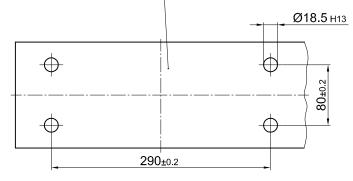
Mounting parts for larger steal plate thicknesses and/or adjustable direct connection are available on request.

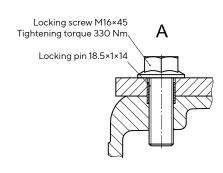
For the directional version refer to the pattern of drilling KA 250.2 (Page 64).





Hole pattern attachment design for precise fitting variant







Connection options

### Top connection KA 250.2

Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.)

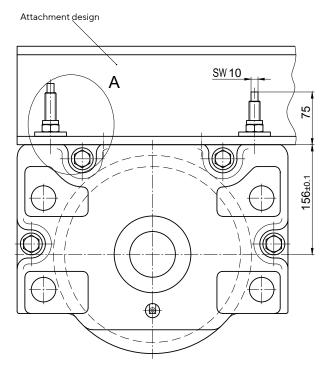
Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes.

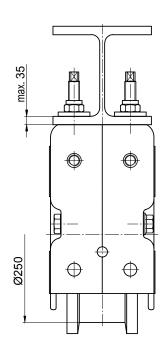
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 8×24 supplied. However, this shouldn't be done in the area of the attachment bolts [1)]. Alignment is not required for precisely drilled attachment holes.

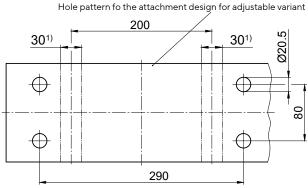
#### 1 Set KA 250.2 comprising of:

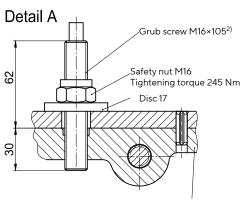
- 4 Grub screws M16×105 10.9 ZT
- 4 Safety nuts M16-10 DIN EN ISO 7042 (DIN 980)
- 4 Discs 17 DIN 6340
- 4 Locking pins 8×24 DIN EN ISO 8752 (DIN 1481), for adjustable connection
- 4 Locking pins 18.5×1×14, for precise connection

#### Longer locking pins are available for thicker plates.









Locking pin 8×24

- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request



Connection options

#### Pin attachment BA 250.1

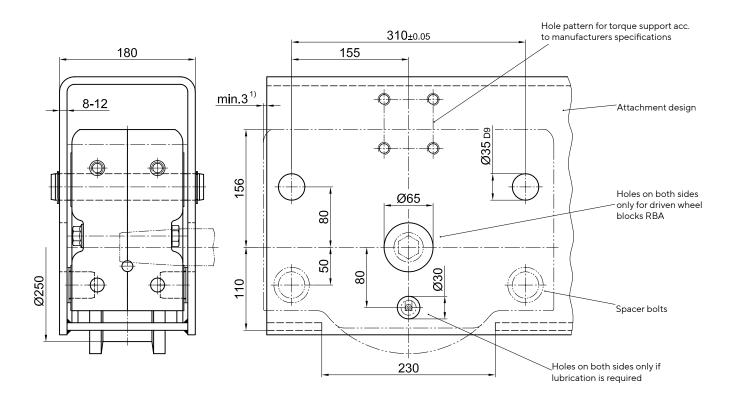
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

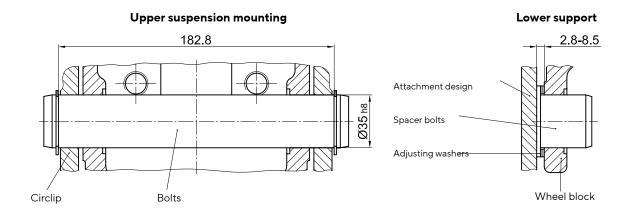
Pin attachment with alignment option using adjusting washers. Alignment option by replacing the adjusting washers only in dismantled condition.

#### 1 Set BA 250.1

- 2 Bolts Ø35h8
- 4 Circlipse 35×1.5 DIN 471
- 4 Spacer bolts
- 24 Adjusting washers 35×45×0.5 DIN 988

Pin connections are available in special design according to the customer drawing.





1) Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 250.2

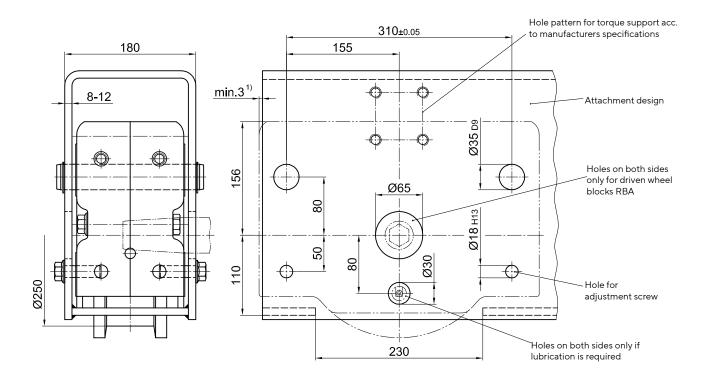
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with option to align using adjustable hexagon screws. The alignment is done in assembled and relieved mode.

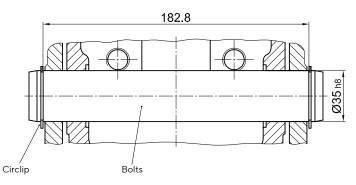
#### 1 Set BA 250.2 comprising of:

- 2 Bolts Ø35 h8
- 4 Circlipse 35×1.5 DIN 471
- 4 Flanged bushings with internal thread (bonded)
- 4 Locking screws M16×50 (coated)

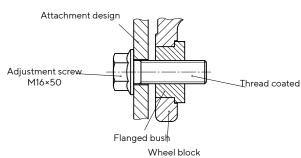
#### Pin connections are available in special design according to the customer drawing.



# **Upper suspension mounting**



#### Lower support



1) Dimension must be observed only with front mounting parts



Connection option

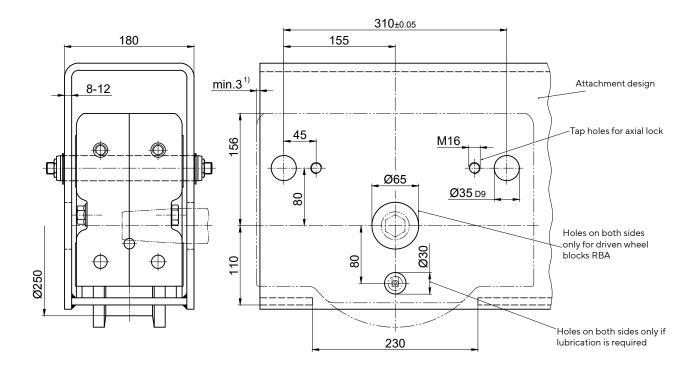
#### Pin attachment BA 250.3

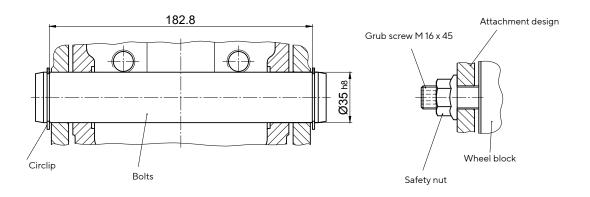
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc. Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 250.3 comprising of:

- 2 Bolts Ø35 h8
- 4 Circlipse 35×1.5 DIN 471
- 4 Grub screws with hexagon socket M 16×45-45H DIN EN ISO 4026 (DIN 913)
- 4 Safety nuts M 16-10

#### Pin connections are available in special design according to the customer drawing.





<sup>1)</sup> Dimension must be observed only with front mounting parts



Connection options

#### **Side connection WA 250**

Lateral connection option for low construction designs

1 Set WAA
1 Set WAN
1 Set WA
250 (Side connection on the non-driven side)
250 (Side connection on non-driven wheel block RBN)

comprising of:

4 Flanged bushings Ø35 (bonded)

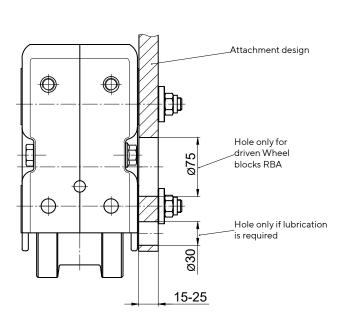
4 Locking screws M16×75 -10.9

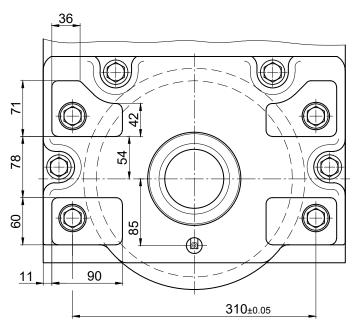
4 Safety nuts M16 -10 DIN EN ISO 7042 (DIN 980)

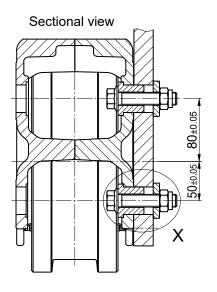
4 Discs 17 / 45×8

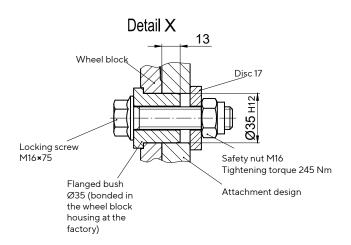
#### Attachment variant 1:

Attachment design is accessible from both sides Trough-hole Ø35 H12









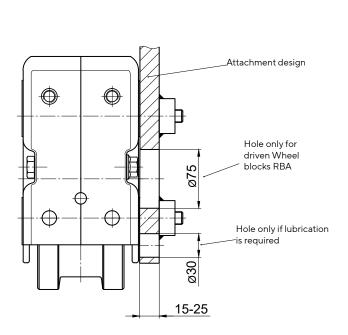
Connection options

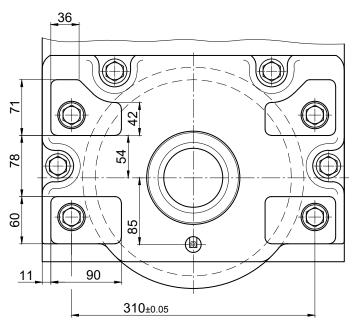
#### Side connection WA 250

Lateral connection option for low construction designs

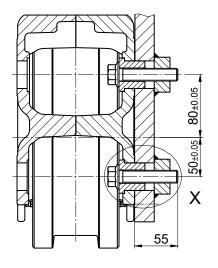
#### **Attachment variant 2:**

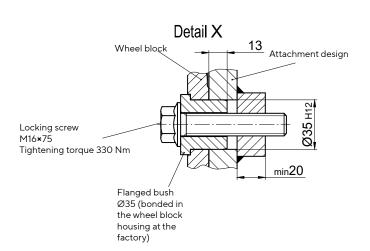
Attachment design (e.g. hollow profile) is not accessible from the inside Blind hole  $\varnothing 35\,\text{H}12\times 15$  deep with thread M16





#### Sectional view



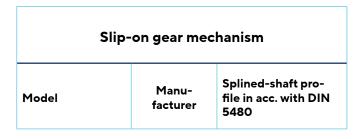


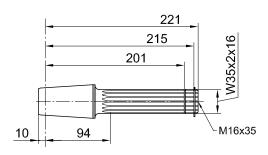


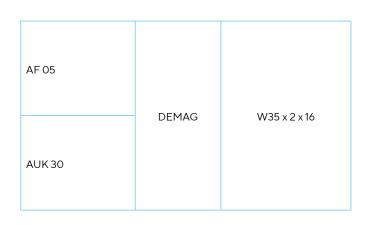
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

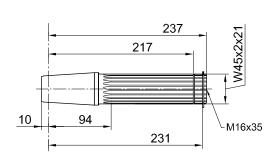
# Single drive unit

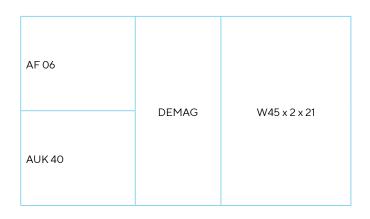
Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

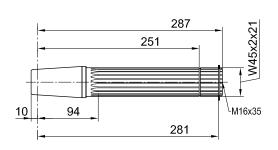


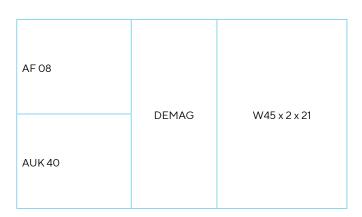












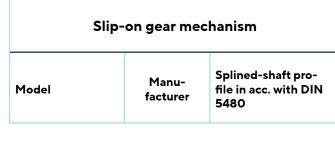
76

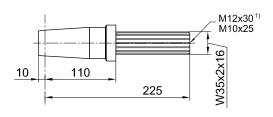


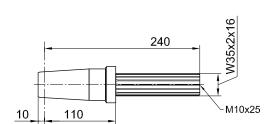
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

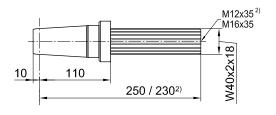






FV 47 / KV 47	SEW	
SK 2282 EA <sup>1)</sup>	NORD	W35 x 2 x 16
SPZT / SKZT 26	PREMIUM STEPHAN	





F.A.T 48B <sup>2)</sup>							
KA.T 48 <sup>2)</sup>	SIEMENS (FLENDER)						
CA.T 48 <sup>2</sup> )		W40 x 2 x 18					
SK 3282 EA	Mana						
SK 9023.1A.EA	NORD						

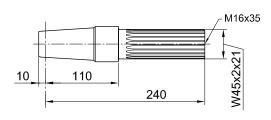


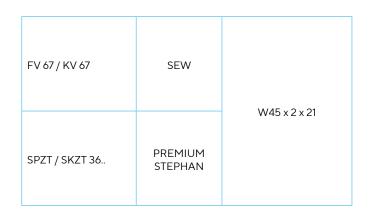
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

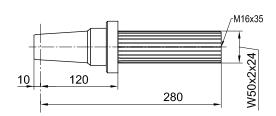
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

Slip-on gear mechanism							
Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480					







FV 77 / KV 77	SEW	
SK 4282 EA	NORD	W50 x 2 x 24
SPZT / SKZT 46	PREMIUM STEPHAN	

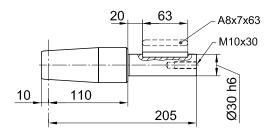


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

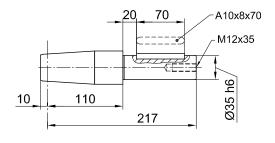
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885





FA / KA 37 SA 47	SEW	
FDA / FZA 38 B KA / CA 38	SIEMENS (FLENDER)	
O 32H O 33H K 33H C 32H	SIEMENS	Ø30
SK 0282 NBAB SK 1282 AB	NORD	
GFL 04H GKS 04H GSS 04H	LENZE	
F3A	STÖBER	



FA / KA 47 SA 57	SEW	
SK 2282 AB	NORD	
FDA / FZA 48 B KA / CA 48	SIEMENS (FLENDER	
O 42G O 43G K 43H C 42H	SIEMENS	Ø35
GFL 05H GKS 05H GSS 05H	LENZE	
K1A S2A	STÖBER	
SPZH 26 SKZH 26	PREMIUM STEPHAN	

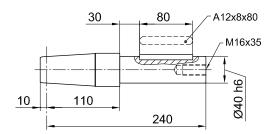


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

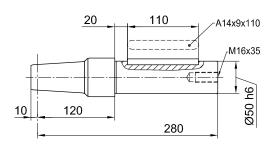
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885

Slip-on gear mechanism								
Model	Manu- facturer	Shaft journal						



FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	
SK 3282 AB	NORD	
FDA 68 B FZA 68 B KA 68 / CA 68	SIEMENS (FLENDER)	Ø40
O 62G O 63G K 63G C 62G	SIEMENS	
K4A	STÖBER	
SPZH 36 SKZH 36	PREMIUM STEPHAN	



FA 77 KA 77 SA 77	SEW	
SK 4282 AB	NORD	
FDA 88 B FZA 88 B KA 88 CA 88	SIEMENS (FLENDER)	
O 82G O 83G K 83G C 82G	SIEMENS	Ø50
GFL 07H GKS 07H GSS 07H	LENZE	
K 5A K 6A	STÖBER	
SPZH 46 SKZH 46	PREMIUM STEPHAN	

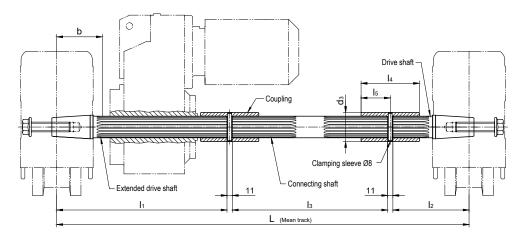
80



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



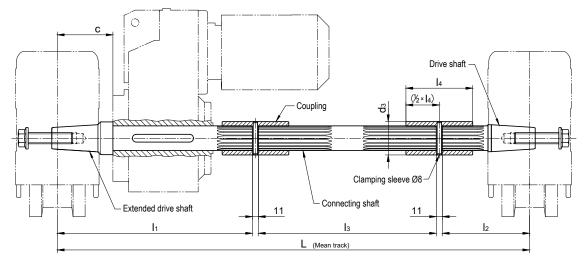
Model	Manufac- turer	Splined-shaft- profile DIN 5480	L	l1	12	13	Centre RB to gearing b	14	15	d3	Clamping sleeve DIN 1481																			
AF 05 AUK 30/ WUK 30	DEMAG																													
FV 47 / KV 47 FV 57 / KV 57	SEW	W35 x 2 x 16		350	225	Dimensi- on L	95	100	50	50	8 x 50																			
SK 2282 EA	NORD					minus 597																								
SPZT 26 SKZT 26	PREMIUM STEPHAN																													
F.A.T 48 B KA.T 48 CA.T 48	SIEMENS (FLENDER)	W40 x 2 x 18	W/40 v/ 2 v/10	M/40 v 2 v 10	W/40 v 2 v 10	W/40 v 2 v 10	W/40 v 2 v 10	W/40 v 2 v 10	W/40 v 2 v 10	W/40 2 10	W/40 2 10	W/40 v 2 v 10	W//0 v 2 v 10	W/40 v 2 v 19	W/40 2 10	W/40 v 2 v 10	W/AO 2 10	W40 v 2 v 19		350	148	Dimensi- on L	110	100	50	55	8 x 55			
SK 3282 EA SK 9023.1A.EA	NORD		For ordering, please provide	330	140	minus 520	110	100	30	33	0 X 33																			
AF 06 / AF 08 AUK 40	DEMAG	W45 x 2 x 21	W45 x 2 x 21									please			D: .															
FV 67 KV 67	SEW			rdering	351	157	Dimensi- on L minus	94	120	60	60	8 x 60																		
SPZT 36 SKZT 36	PREMIUM STEPHAN		Foro			530																								
AF 08 AUK 50	DEMAG																													
FV 77 KV 77	SEW																													
SK 4282 EA SK 9033.1A.EA	NORD	W50 x 2 x 24	W50 x 2 x 24		400	158	Dimensi- on L minus	95	120	60	65	8 x 65																		
F.A.T 68 B KA.T 68 CA.T 68	SIEMENS (FLENDER)					580																								
SPZT 46 SKZT 46	PREMIUM STEPHAN																													



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

gearboxes	Suitable for earboxes with hollow shaft		L 11 12 13		<b>c</b> Getriebe- anschlag	<b>Feather key</b> DIN 6885	<b>Coupling</b> Internal gearing/ d3 x 14	
Inner-Ø	Length							
Ø30	<u>&lt;</u> 140	provide	290	195	Dimension L minus 507	110	A 8 x 7 x 70	N30 x 1.25 x 22 Ø40 x 80
Ø35	<u>&lt;</u> 150	please pro	320	225	Dimension L minus 567	110	A 10 x 8 x 70	N35 x 2 x 16 Ø50 x 100
Ø40	<u>&lt;</u> 180	ordering, k	350	148	Dimension L minus 520	110	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	≤ 210	Foro	400	158	Dimension L minus 580	120	A 14 x 9 x 110	N50 x 2 x 24 Ø60 x 120

#### Suitable for gearboxes of the following manufacturers:

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

Et.al. suitable type designations, refer to the single drive unit.

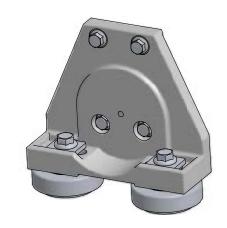
Drive shafts without gearbox stop and with adapted distance (c) on request.



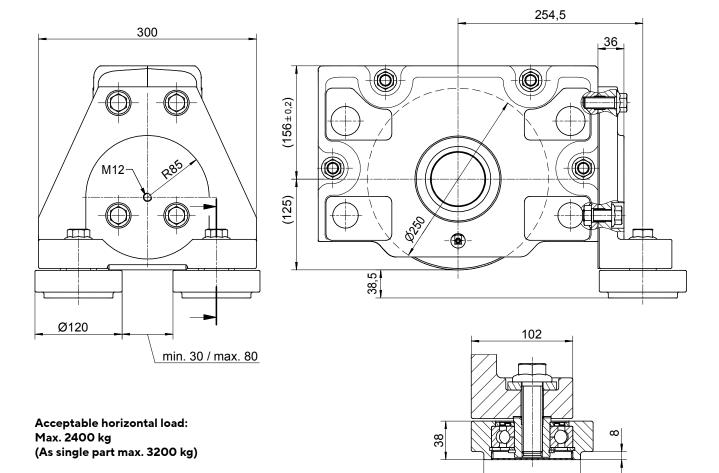
# Horizontal roller guide for wheels of Ø250 (Form 1-5)

Horizontal roller guide with adjustable guide rollers made of 42CrMo4+QT.

The installation of a cellular plastic buffer (page 144) is possible without spacer discs. Parallel operating wheel blocks without horizontal roller guide can be installed with spacer discs for length compensation (see fig.).



Ø95



All necessary fastening elements are included in the scope of delivery.

Horizontal roller guide for other rail profiles are available on request.



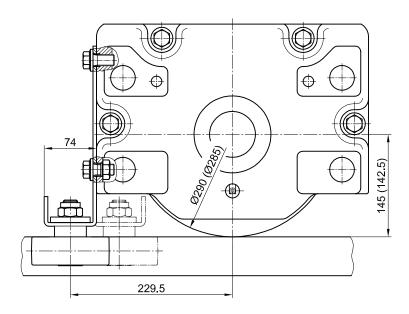


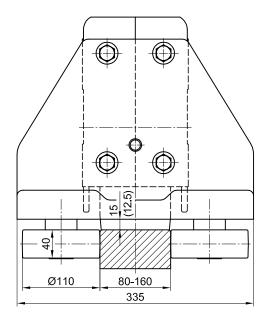
Horizontal roller guide for wheels of Ø290 and Ø285 with coating made of vulkollan or PA12G

Horizontal roller guide with adjustable guide rollers made of PA12G.

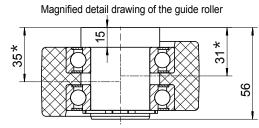
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable contiunous load: 700 kg Maximum short-term load: 1100 kg



By turning the unsymmetrical guide roller, two clearances\* can be adjusted.

All necessary fastening elements are included in the scope of delivery.

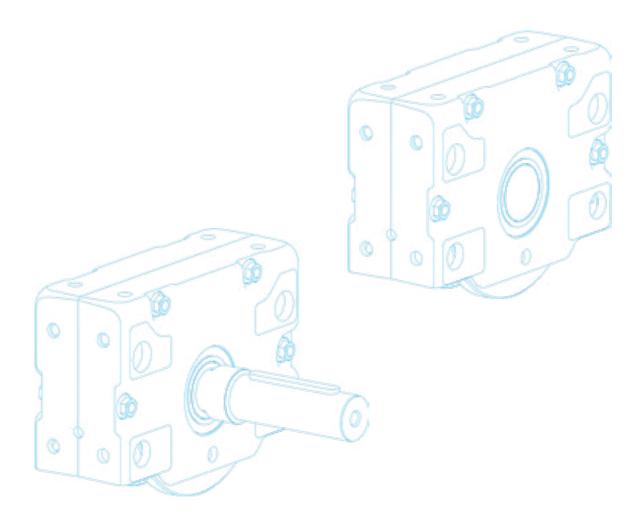
Horizontal roller guide for other rail profiles are available on request.





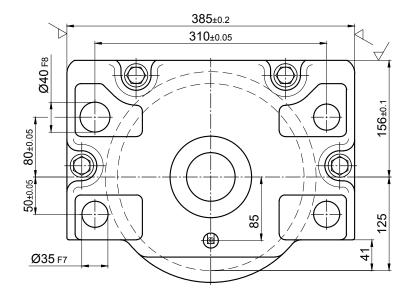
# WHEEL BLOCK SYSTEM

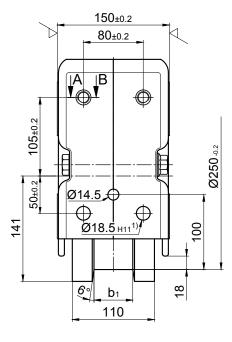
RB 250-V (reinforced design)

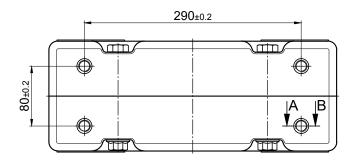


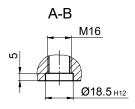


#### **Primary dimensions**









1) Due to the use of retained nuts M16 in the holes 18.5H11, the threaded connection are attained as in section A-B

Weight: ca. 57 kg max. wheel load: 16 000 kg

#### **Ordering examples**

#### **RBA 250×55**

Wheel block 250, driven, with internal taper, reinforced design, with two-sided wheel flange, Design Form 1, running tread 65 mm

#### **RBN 250×55**

Wheel block 250, non driven, without internal taper, reinforced design, with two-sided wheel flange, Design Form 1, running tread 65~mm

#### RBA 250×110

Wheel block 250, driven, with internal taper, reinforced design, no wheel flanges, Design Form 4

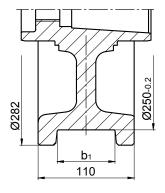
#### **RBA 250**

Wheel block 250, driven, with internal taper, reinforced design, with Vulkollan-binding, Design Form  $8\,$ 

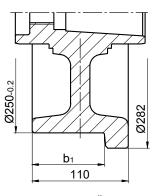
Design RBA and RBN refer to Page 5



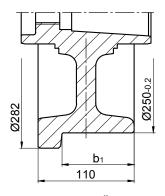
#### Standard models



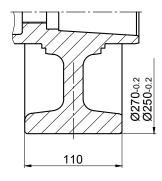
Form 1 two-sided wheel flange



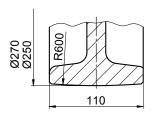
Form 2<sup>1)</sup>
one-sided wheel flange
on the drive side



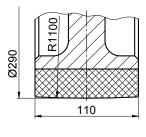
Form 31)
one-sided wheel flange
opposite to the drive side



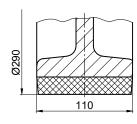
Form 4
no wheel flanges with
cylindrical runnning surface



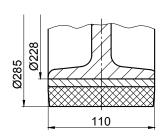
Form 5 no wheel flanges with spherical running surface



Form 6 with coating of PA 12 G

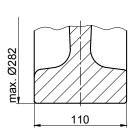


Form 7 with coating of Vulkollan

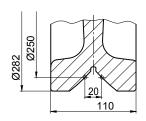


Form 8 with binding of Vulkollan

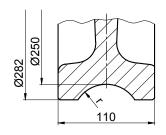
#### Special models



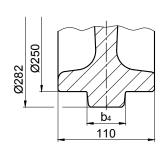
Form 9 no wheel flanges



Form 10 with prismatic guide



Form 11 with concave groove r=1.1× track radius (recommended)



Form 12 with middle wheel flange

<b>Form 1</b> Running tread b1 for two-sided wheel flange			Running tre	Form 2 und 3 ead b1 for one-sided wheel flange
minimal	maximal	Standard	minimal	maximal
20	85	65,75	60	97.5

<sup>1)</sup> Forms 2 and 3 are identical for the non-driven wheel block RBN



Connection options

# **Top connection KA 250.1**

Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc.)

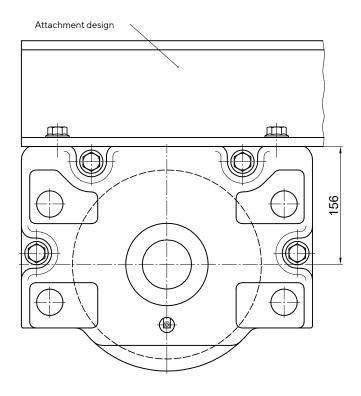
Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

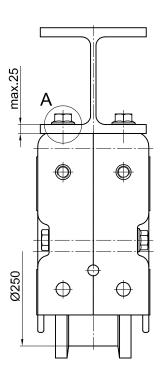
#### 1 Set KA 250.1 comprising of:

- 4 Locking screws M16×45 -10.9
- 4 Locking pins 18.5×1×14

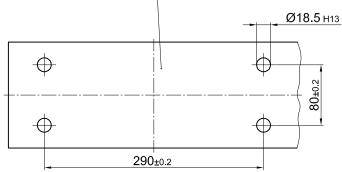
Mounting parts for larger steal plate thicknesses and/or adjustable direct connection are available on request.

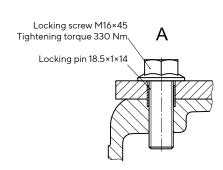
For the directional version refer to the pattern of drilling KA 250.2 (Page 86).





Hole pattern attachment design for precise fitting variant







Connection options

#### Top connection KA 250.2

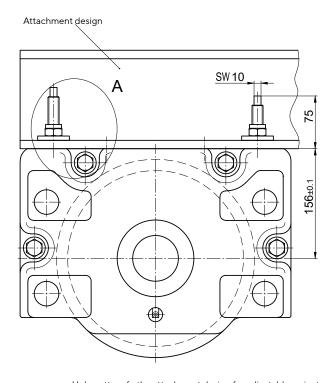
Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes.

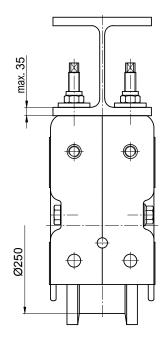
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 8×24 supplied. However, this shouldn't be done in the area of the attachment bolts [1)]. Alignment is not required for precisely drilled attachment holes.

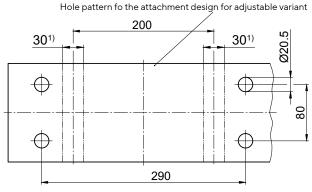
#### 1 Set KA 250.2 comprising of:

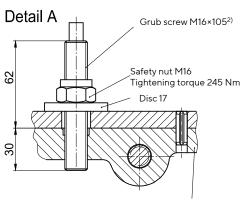
- 4 Grub screws M16×105 10.9 ZT
- 4 Safety nuts M16-10 DIN EN ISO 7042 (DIN 980)
- 4 Discs 17 DIN 6340
- 4 Locking pins 8×24 DIN EN ISO 8752 (DIN 1481), for adjustable connection
- 4 Locking pins 18.5×1×14, for precise connection

#### Longer locking pins are available for thicker plates.









Locking pin 8×24

- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request



Connection options

#### Pin attachment BA 250.1-V

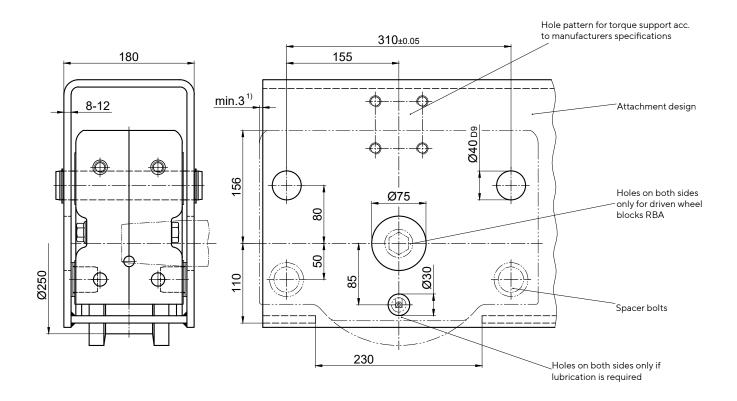
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

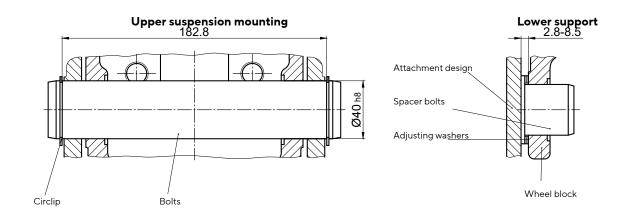
Pin attachment with alignment option using adjusting washers. Alignment option by replacing the adjusting washers only in dismantled condition.

#### 1 Set BA 250.1-V

- 2 Bolts Ø40h8 x 202
- 4 Circlipse 40×1.75 DIN 471
- 4 Spacer bolts
- 24 Adjusting washers 35×45×0.5 DIN 988

Pin connections are available in special design according to the customer drawing.





1) Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 250.2-V

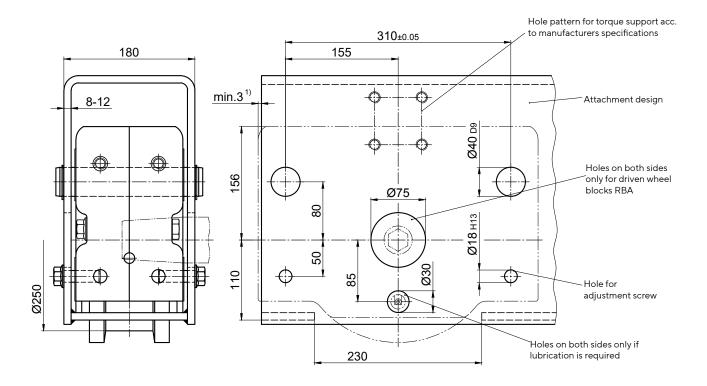
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with option to align using adjustable hexagon screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 250.2-V comprising of:

- 2 Bolts Ø40 h8 x 202
- 4 Circlipse 40×1.75 DIN 471
- 4 Flanged bushings with internal thread(bonded)
- 4 Locking screws M16×50 (coated)

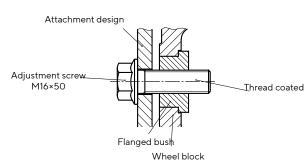
Pin connections are available in special design according to the customer drawing.



#### **Upper suspension mounting**

# 182.8 Circlip Bolts

#### Lower support



1) Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 250.3-V

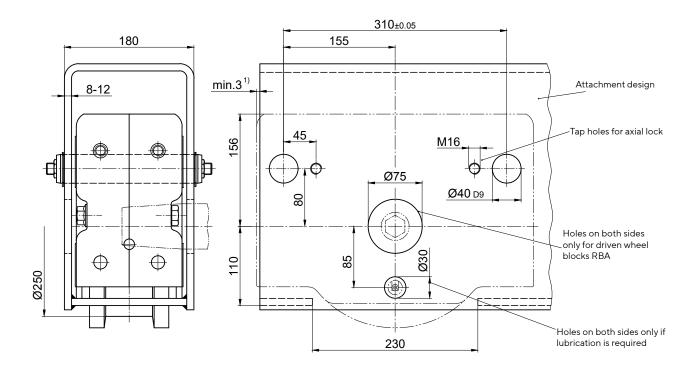
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

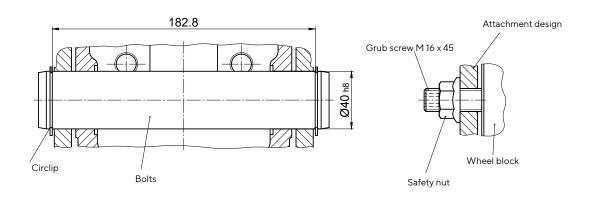
Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 250.3-V comprising of:

- 2 Bolts Ø40 h8 x 202
- 4 Circlipse 40×1.75 DIN 471
- 4 Grub screws with hexagon socket M 16×45-45H DIN EN ISO 4026 (DIN 913)
- 4 Safety nuts M 16-10

Pin connections are available in special design according to the customer drawing.





1) Dimension must be observed only with front mounting parts



Connection options

#### Side connection WA 250-V

Lateral connection option for low construction designs

1 Set WAA 250-V (Side connection on the drive side)1 Set WAN 250-V (Side connection on the non-driven side)

**1 Set WA 250-V** (Side connection on non-driven wheel block RBN)

comprising of:

2 Flanged bushings 40, bonded

2 Locking screws M 20 x 80, 12.9

2 Safety nuts M 20 DIN EN ISO 7042

2 Discs 21

2 Flanged bushings 35, bonded

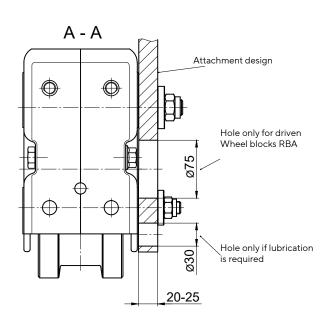
2 Locking screws M 16 x 75, 10.9 DIN EN ISO 4762

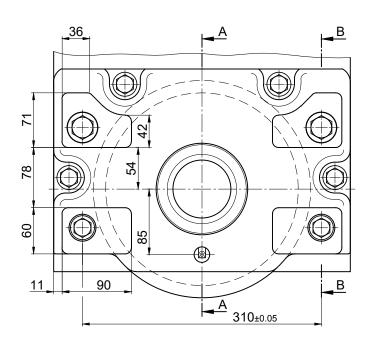
2 Safety nuts M16 DIN EN ISO 7042

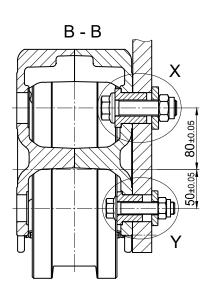
2 Discs 17

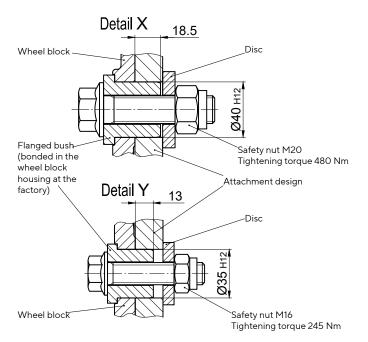
#### Attachment variant 1:

Attachment design is accessible from both sides Trough-hole Ø40 H12 and Ø35 H12









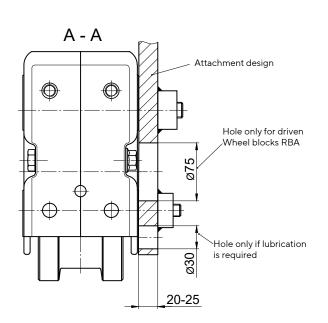
Connection options

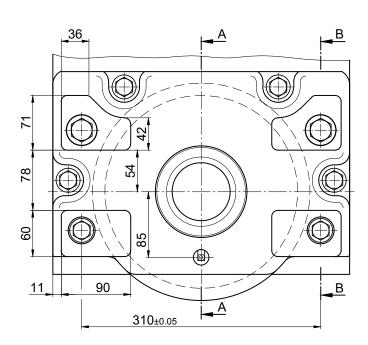
#### Side connection WA 250-V

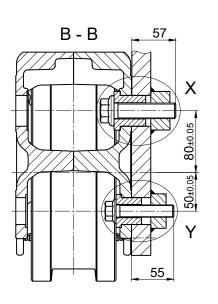
Lateral connection option for low construction designs

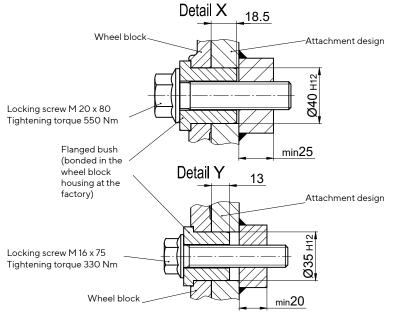
#### Attachment variant 2:

Attachment design (e.g. hollow profile) is not accessible from the inside Blind hole  $\emptyset$ 40 H12×20 deep with thread M20 and Blind hole  $\emptyset$ 35 H12×15 deep with thread M16







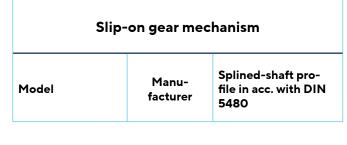


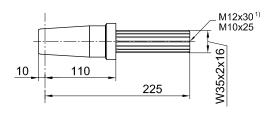


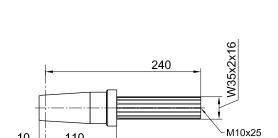
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

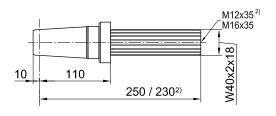






FV 47 / KV 47	SEW	
SK 2282 EA <sup>1)</sup>	NORD	W35 x 2 x 16
SPZT / SKZT 26	PREMIUM STEPHAN	





F.A.T 48B <sup>2)</sup>		
KA.T 48 <sup>2)</sup>	SIEMENS (FLENDER)	
CA.T 48 <sup>2)</sup>		W40 x 2 x 18
SK 3282 EA	NORR	
SK 9023.1A.EA	NORD	

10

110

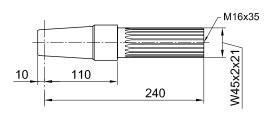


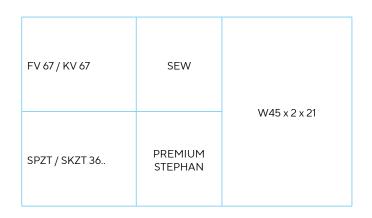
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

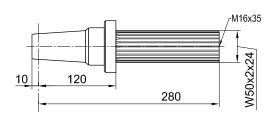
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

Slip-on gear mechanism								
Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480						







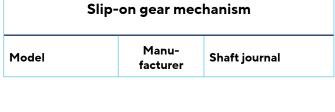
FV 77 / KV 77	SEW	
SK 4282 EA	NORD	W50 x 2 x 24
SPZT / SKZT 46	PREMIUM STEPHAN	

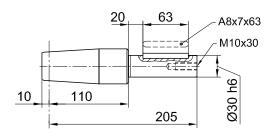


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

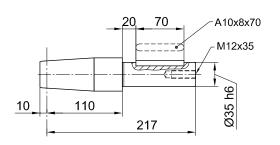
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885





FA / KA 37 SA 47	SEW	
FDA / FZA 38 B KA / CA 38	SIEMENS (FLENDER)	
O 32H O 33H K 33H C 32H	SIEMENS	Ø30
SK 0282 NBAB SK 1282 AB	NORD	233
GFL 04H GKS 04H GSS 04H	LENZE	
F3A	STÖBER	
SPZ 16H	PREMIUM STEPHAN	



FA / KA 47 SA 57	SEW	
SK 2282 AB	NORD	
FDA / FZA 48 B KA / CA 48	SIEMENS (FLENDER	
O 42G O 43G K 43H C 42H	SIEMENS	Ø35
GFL 05H GKS 05H GSS 05H	LENZE	
K1A S2A	STÖBER	
SPZH 26 SKZH 26	PREMIUM STEPHAN	

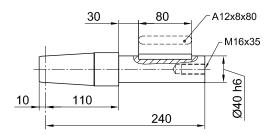


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

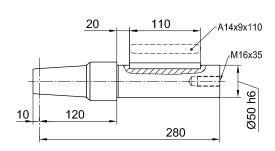
# Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885





FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	
SK 3282 AB	NORD	
FDA 68 B FZA 68 B KA 68 / CA 68	SIEMENS (FLENDER)	Ø40
O 62G O 63G K 63G C 62G	SIEMENS	
K4A	STÖBER	
SPZH 36 SKZH 36	PREMIUM STEPHAN	



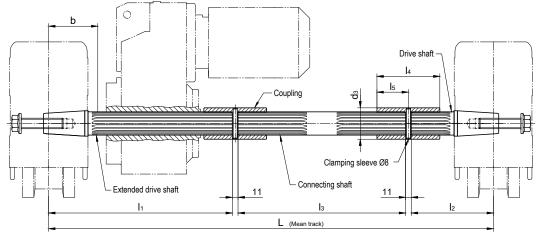
FA 77 KA 77 SA 77	SEW
SK 4282 AB	NORD
FDA 88 B FZA 88 B KA 88 CA 88	SIEMENS (FLENDER)
O 82G O 83G K 83G C 82G	SIEMENS
GFL 07H GKS 07H GSS 07H	LENZE
К 5А К 6А	STÖBER
SPZH 46 SKZH 46	PREMIUM STEPHAN



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



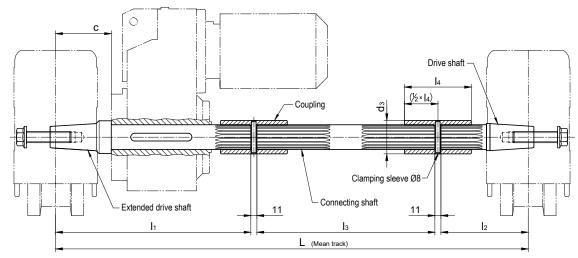
Model	Manufac- turer	Splined-shaft- profile DIN 5480	L	l1	12	13	Centre RB to gearing b	14	15	d3	Clamping sleeve DIN 1481																					
AF 05 AUK 30/ WUK 30	DEMAG																															
FV 47 / KV 47 FV 57 / KV 57	SEW	W35 x 2 x 16		350	225	Dimen- sion L	105	100	50	50	8 x 50																					
SK 2282 EA	NORD					minus 597																										
SPZT 26 SKZT 26	PREMIUM STEPHAN																															
F.A.T 48 B KA.T 48 CA.T 48	SIEMENS (FLENDER)	W40 x 2 x 18		350	148	Dimen- sion L	105	100	50	55	8 x 55																					
SK 3282 EA SK 9023.1A.EA	NORD		W40 X Z X 10	VV4O X Z X 10	VV40 A Z A 10	VV40 X Z X 10	VV40 X Z X 10	VV4U X Z X 10	VV4U X Z X 10	VV4∪ X Z X 10	W40 X Z X 10	W40 X Z X 10	VV 40 A Z A 10	W40 X Z X 10	W40 X Z X 10	VV40 X Z X 10	VV40 X Z X 10	4440 V 5 V 10	4440 V 5 V 10	**************************************	4440 V 5 V 10	*****	VV 40 X Z X 10	VV 40 X Z X 10	For ordering, please provide	350	140	minus 520	105	100	50	55
AF 06 / AF 08 AUK 40	DEMAG	W45 x 2 x 21	W45 x 2 x 21		, please			Dimensi																								
FV 67 KV 67	SEW			dering	351	157	Dimen- sion L minus	105	120	60	60	8 x 60																				
SPZT 36 SKZT 36	PREMIUM STEPHAN		For o			530																										
AF 08 AUK 50	DEMAG																															
FV 77 KV 77	SEW																															
SK 4282 EA SK 9033.1A.EA	NORD	W50 x 2 x 24		400	158	Dimen- sion L minus	110	120	60	65	8 x 65																					
F.A.T 68 B KA.T 68 CA.T 68	SIEMENS (FLENDER)					580																										
SPZT 46 SKZT 46	PREMIUM STEPHAN																															



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

Suitable for gearboxes with hollow shaft		L	l1	12	13	<b>c</b> gearbox stop	<b>Feather key</b> DIN 6885	<b>Coupling</b> Internal gearing/ d3 x I4
Inner-Ø	Length							
Ø35	<u>&lt;</u> 150	provide	330	225	Dimension L minus 577	110	A 10 x 8 x 70	N35 x 2 x 16 Ø50 x 100
Ø40	≤180	please pi	350	148	Dimension L minus 520	110	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	<u>&lt;</u> 210	ordering, p	400	158	Dimension L minus 580	120	A 14 x 9 x 110	N50 x 2 x 24 Ø60 x 120
Ø60 *	<u>&lt;</u> 240	Foror	430	158	Dimension L minus 610	120	A 18 x 11 x 125	N60 x 2 x 28 Ø75 x 125

#### Suitable for gearboxes of the following manufacturers:

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

Et.al. suitable type designations, refer to the single drive unit.

Drive shafts without gearbox stop and with adapted distance (c) on request.

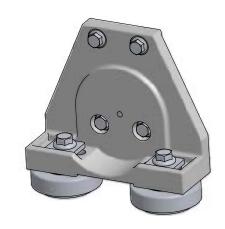
\* On request, with indication of max. drive torque..

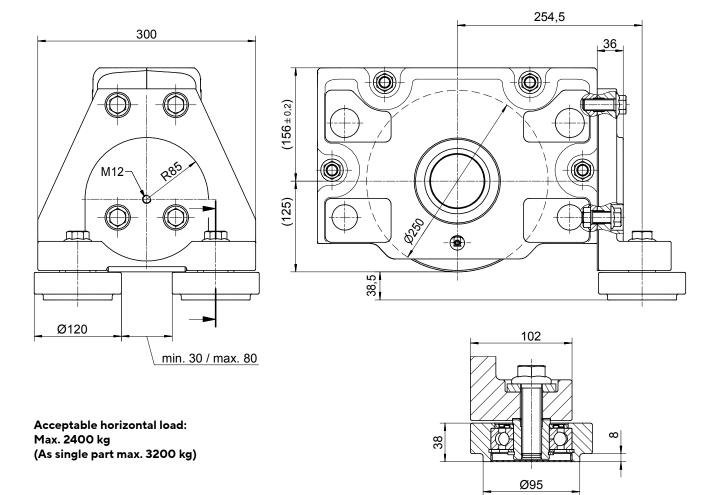


#### Horizontal roller guide for wheels of Ø250 (Form 1-5)

Horizontal roller guide with adjustable guide rollers made of 42CrMo4+QT.

The installation of a cellular plastic buffer (page 144) is possible without spacer discs. Parallel operating wheel blocks without horizontal roller guide can be installed with spacer discs for length compensation (see fig.).





All necessary fastening elements are included in the scope of delivery.

Horizontal roller guide for other rail profiles are available on request.

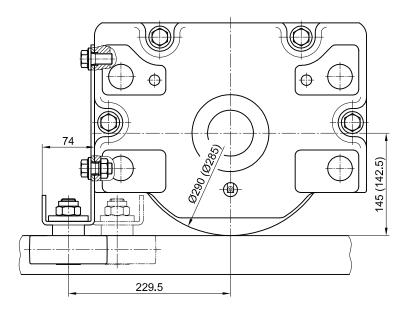


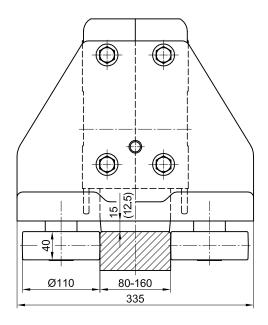
#### Horizontal roller guide for wheels of Ø290 and Ø285 with coating made of vulkollan or PA12G

Horizontal roller guide with adjustable guide rollers made of PA12G.

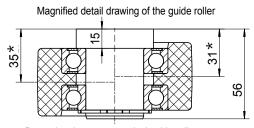
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable contiunous load: 700 kg Maximum short-term load: 1100 kg



By turning the unsymmetrical guide roller, two clearances\* can be adjusted.

All necessary fastening elements are included in the scope of delivery.

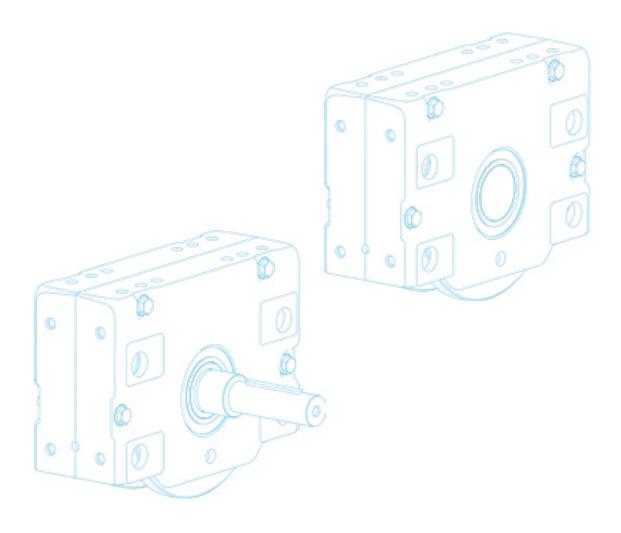
Horizontal roller guide for other rail profiles are available on request.





# WHEEL BLOCK SYSTEM

# **RB 315**

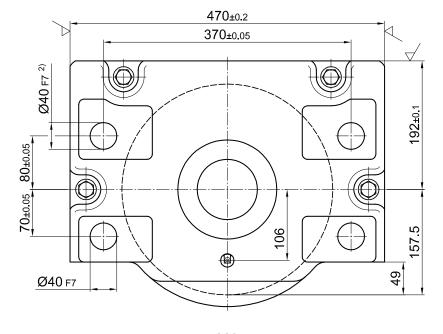


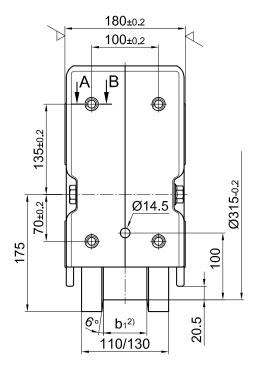
107

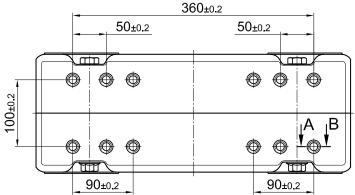


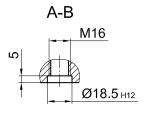
# **ATLAS WHEEL BLOCK SYSTEM RB 315**

#### **Primary dimensions**









2) Available with hole Ø50 F8

Weight: ca. 95 bzw. 100 kg max. wheel load:22 000 kg

#### **Ordering examples**

#### **RBA 315×65**

Wheel block 315, driven, with internal taper, with two-sided wheel flange, design Form 1, running tread  $65~\mathrm{mm}$ 

#### **RBN 315×65**

Wheel block 315, non-driven, without internal taper, with two-sided wheel flange design Form 1, running tread 65  $\,\mathrm{mm}$ 

#### **RBA 315×75**

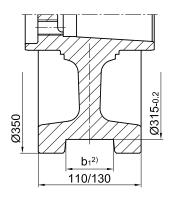
Wheel block 315, driven, with internal taper, with two-sided wheel flange, design Form 1, droove track 75 mm,  $b_2$  = 130 mm

#### **RBA 315**

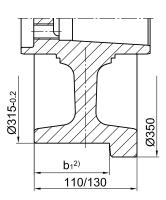
Wheel block 315, driven, with internal taper, with middle wheel flange, design Form 12

Design RBA and RBN refer to Page 5

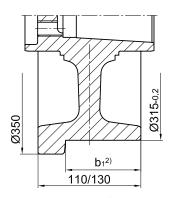
#### Standard models



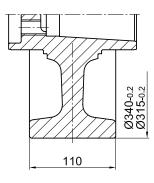
Form 1 two-sided wheel flange



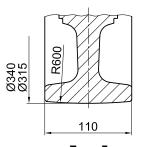
Form 2<sup>1)</sup>
one-sided wheel flange
on the drive side



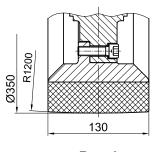
Form 3<sup>1)</sup>
one-sided wheel flange
opposite to the drive side



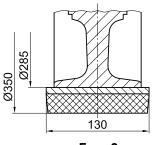
Form 4
no wheel flanges with
cylindrical runnning surface



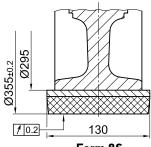
Form 5 no wheel flanges with spherical running surface



Form 6 with coating of PA 12 G

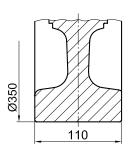


Form 8 with binding of Vulkollan, standard design

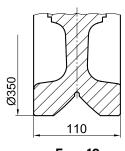


Form 8S with binding of Vulkollan, special design

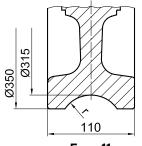
## Special models



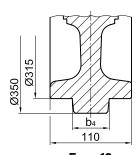
Form 9 no wheel flanges



Form 10 with prismatic guide



Form 11 with concave groove r=1.1× track radius (recommended)



Form 12 with middle wheel flange

<b>Form 1</b> Running tread b1 for two-sided wheel flange		Form 2 und 3 Running tread b1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal
30	100	65; 80	70	115

<sup>1)</sup> Forms 2 and 3 are identical for the non-driven wheel block RBN

<sup>2)</sup> At a running tread b1  $\leq$  70 and 90 (one-sided wheel flange)a wheel with a width of 110 mm will be used



Connection options

## **Top connection KA 315.1**

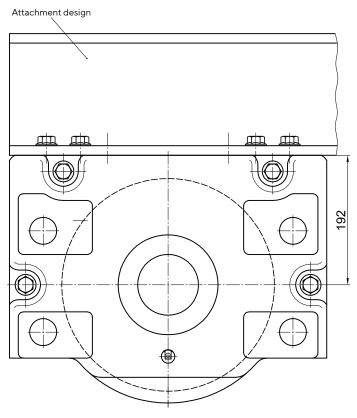
Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

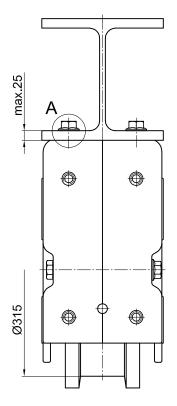
#### 1 Set KA 315.1 comprising of:

8 Locking screws M16×45-10.9 8 Locking pins 18.5×1×14

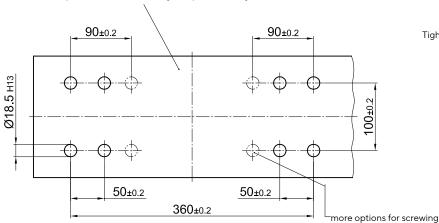
Mounting parts for larger steal plate thicknesses and/or adjustable direct connection are available on request.

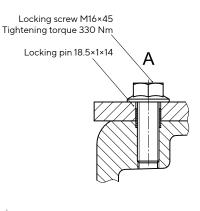
For the directional version refer to the pattern of drilling KA 315.2 (Page 106).





Hole pattern attachment design for precise fitting variant







Connection options

## **Top connection KA 315.2**

Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.)

Attachment design

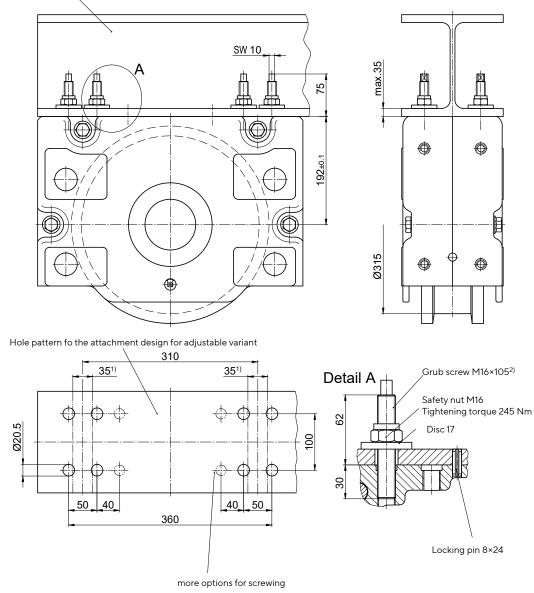
Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes

For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 8×24 supplied. However, this must not be in the area of the attachment bolts [1)]. Alignment is not required for precisely drilled attachment holes.

#### 1 Set KA 315.2 comprising of:

- 8 Grub screws M16×105 10.9 ZT
- 8 Safety nuts M16-10 DIN EN ISO 7042 (DIN 980)
- 8 Discs 17 DIN 6340
- 4 Locking pins 8×24 DIN EN ISO 8752 (DIN 1481), for adjustable connection
- 8 Locking pins 18.5×1×14, for precise connection

#### Longer locking pins are available for thicker plates.



- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request.



Connection options

#### Pin attachment BA 315.1

Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

Pin attachment with alignment option using adjusting washers. Alignment option by replacing the adjusting washers only in dismantled condition.

#### 1 Set BA 315.1 comprising of:

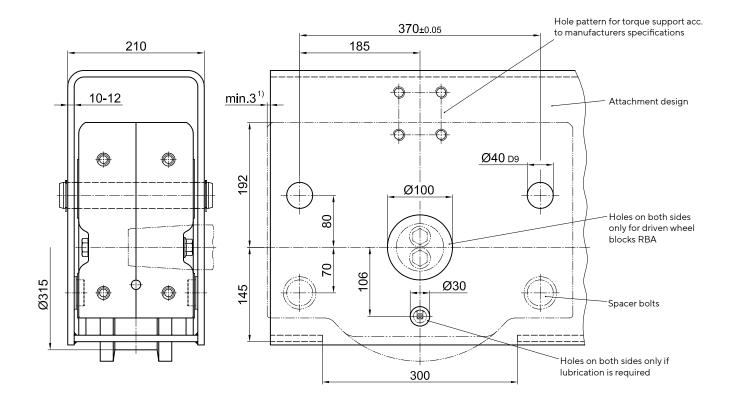
2 Bolts Ø40h8 x 235

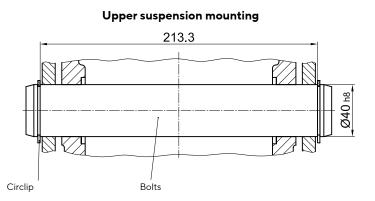
4 Circlipse 40×1.75, DIN 471

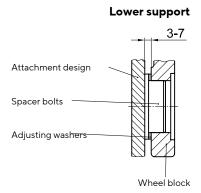
4 Spacer bolts

16 Adjusting washers 40×50×0.5, DIN 988

Pin connections are available in special design according to the customer drawing.







<sup>1)</sup> Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 315.2

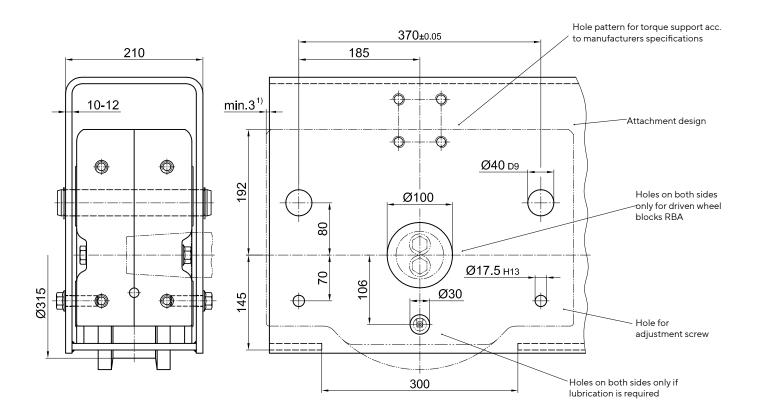
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with option to align using adjustable hexagon screws. The alignment is done in assembled and relieved mode.

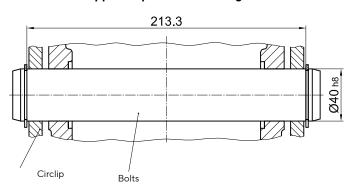
#### 1 Set BA 315.2 comprising of:

- 2 Bolts Ø40 h8 x 235
- 4 Circlipse 40×1.75, DIN 471
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M16×50 (coated)

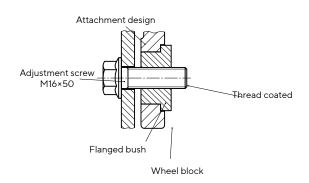
Pin connections are available in special design according to the customer drawing.



#### Upper suspension mounting



#### Lower support



1) Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 315.3

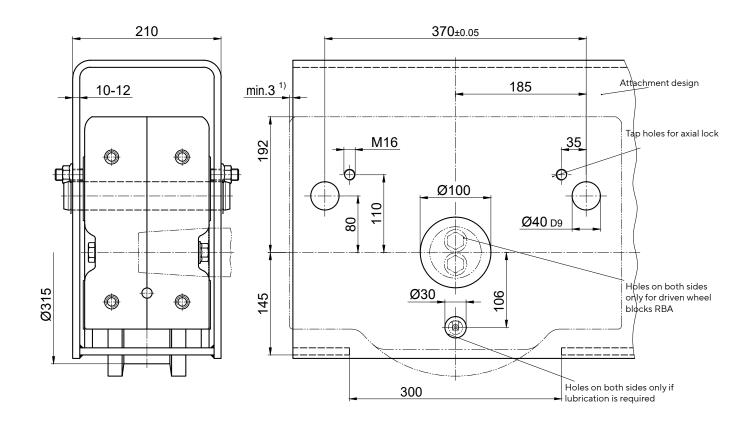
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

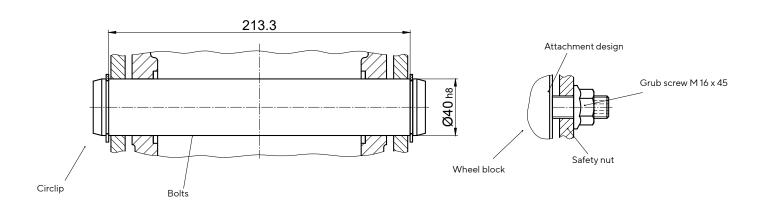
Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 315.3 comprising of:

- 2 Bolts Ø40 h8 x 235
- 4 Circlipse 40×1.75 DIN 471
- 4 Grub screws with hexagon socket M 16×45-45H DIN EN ISO 4026 (DIN 913)
- 4 Safety nuts M 16-10

Pin connections are available in special design according to the customer drawing.





1) Dimension must be observed only with front mounting parts



Connection options

#### **Side connection WA 315**

Lateral connection option for low construction designs

1 Satz WAA 315 (Side connection on the drive side)1 Satz WAN 315 (Side connection on the non-driven side)

**1 Satz WA 315** (Side connection on non-driven wheel block RBN) **comprising of:** 

4 Flanged bushings Ø40 (bonded)

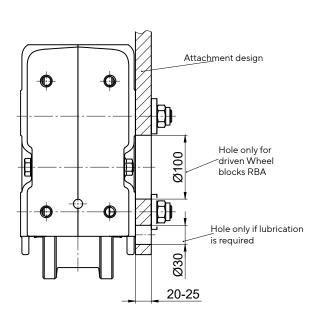
4 Locking screws M 20×80 -12.9

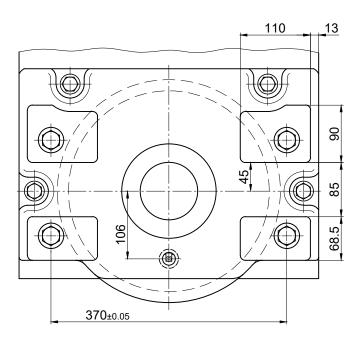
4 Safety nuts M 20-10, DIN EN ISO 7042 (DIN 980)

4 Discs 21

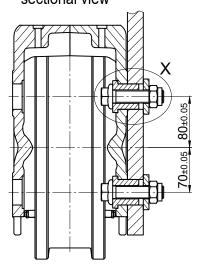
#### Attachment variant 1:

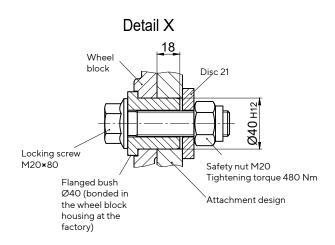
Attachment design is accessible from both sides Trough-hole  $\varnothing 40\,\text{H}12$ 





## sectional view





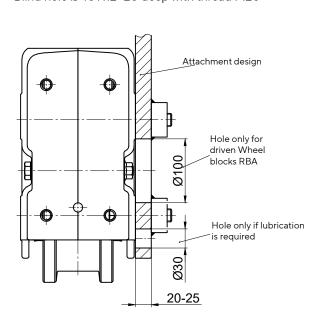
Connection options

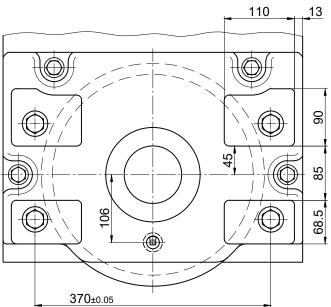
#### **Side connection WA 315**

Lateral connection option for low construction designs

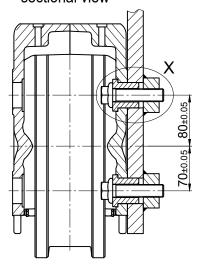
#### **Attachment variant 2:**

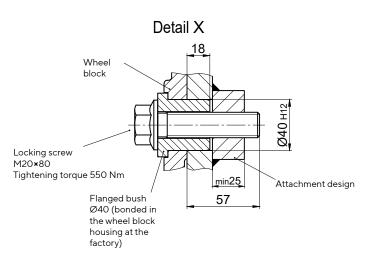
Attachment design (e.g. hollow profile) is not accessible from the inside Blind hole  $\varnothing 40\,H12\times 20$  deep with thread M20





#### sectional view







Model

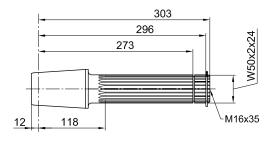
AUK 50

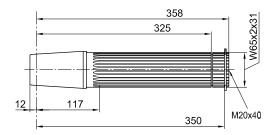
## **ATLAS WHEEL BLOCK SYSTEM RB 315**

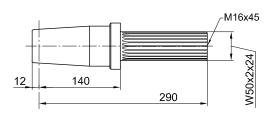
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

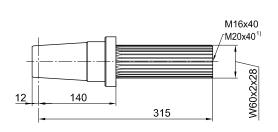
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480







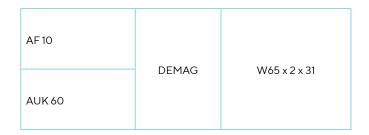


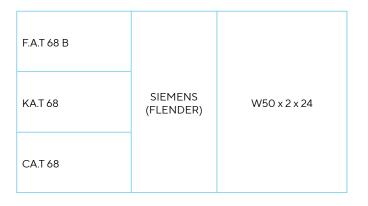
## Slip-on gear mechanism Splined-shaft pro-Manufile in acc. with DIN

5480

AF 08		
	DEMAG	W50 x 2 x 24

facturer





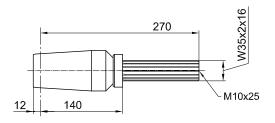
F.A.T 88 B				
KA.T 88	SIEMENS (FLENDER)			
CA.T 88		W60 x 2 x 28		
SK 5282 EA <sup>1)</sup>	NORD			

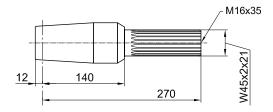


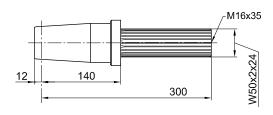
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

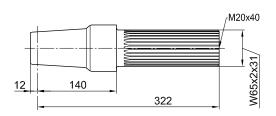
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480









## Slip-on gear mechanism

Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480
-------	-------------------	---

FV 57 / KV 57	SEW	W35 x 2 x 16	

FV 67 / KV 67	SEW	W45 0 04
SPZT /SKZT 36	PREMIUM STEPHAN	W45 x 2 x 21

FV 77 / KV 77	SEW		
SK 4282 EA	NORD	W50 x 2 x 24	
SPZT / SKZT 46	PREMIUM STEPHAN		

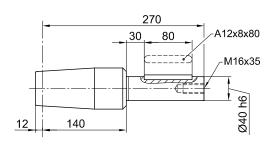
FV 87 / KV 87	SEW	W65 x 2 x 31
SPZT / SKZT 56	PREMIUM STEPHAN	W05 X Z X 31

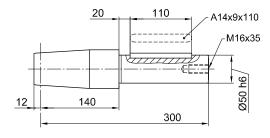


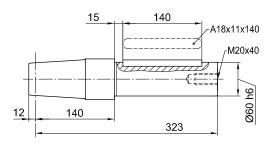
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

## Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885







## Slip-on gear mechanism

Model	Manu- facturer	Shaft journal
FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	
SK 3282 AB	NORD	
FDA / FZA 68 B KA 68 / CA 68	SIEMENS (FLENDER)	
O / C 62G O / K 63G	SIEMENS	Ø40
GFL 06H GKS 06H GSS 06H	LENZE	
K4A	STÖBER	
SPZH / SKZH 36	PREMIUM STEPHAN	

FA 77 /KA 77 SA 77	SEW	
SK 4282 AB	NORD	
FDA / FZA 88 B KA / CA 88	SIEMENS (FLENDER)	
O / C 82G O / K 83G	SIEMENS	Ø50
GFL 07H GKS 07H GSS 07H	LENZE	
K 5 / K6A	STÖBER	
SPZH / SKZH 46	PREMIUM STEPHAN	

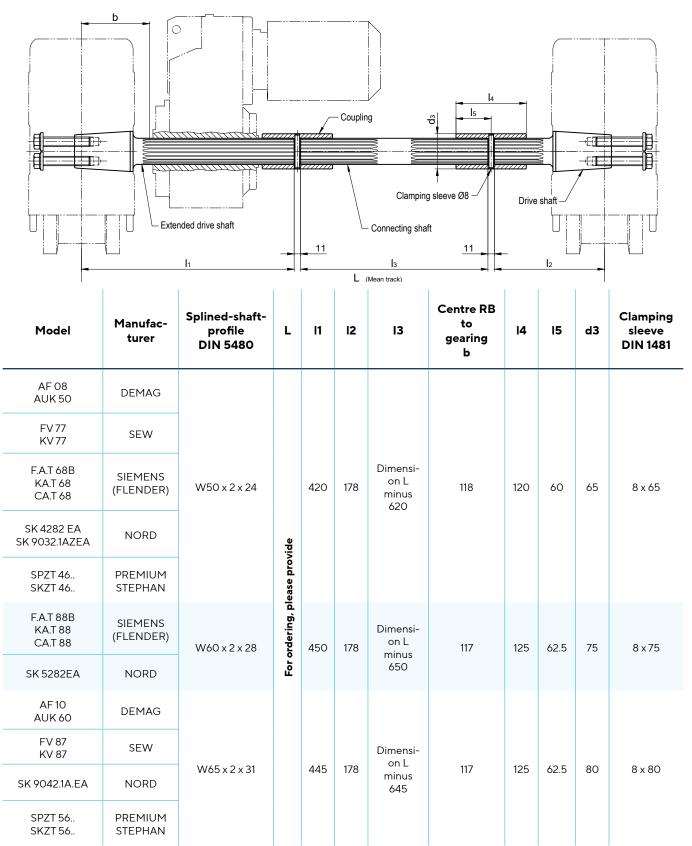
FA/KA/SA87	SEW	
SK 5282 AB	NORD	
FDA 108 B FZA 108 B KA 108	SIEMENS (FLENDER)	
O 102G O 103G K 103G	SIEMENS	Ø60
GFL / GKS 09H	LENZE	
K7A	STÖBER	
SPZH / SKZH 56	PREMIUM STEPHAN	



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)

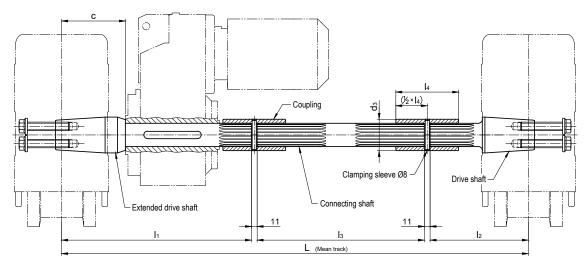




Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

Suitable for gearboxes with hollow shaft		L	11	12	13	<b>c</b> gearbox stop	<b>Feather key</b> DIN 6885	<b>Coupling</b> Internal gearing/ d3 x l4
Inner-Ø	Length					·		
Ø40	<u>&lt;</u> 185	please	385	178	Dimension L minus 585	140	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	<u>&lt;</u> 210	rdering, p provide	420	178	Dimension L minus 620	140	A 14 x 9 x 110	N50 x 2 x 24 Ø65 x 120
Ø60	<u>≤</u> 240	For or	450	178	Dimension L minus 650	140	A 18 x 11 x 110	N50 x 2 x 24 Ø65 x 120

#### Suitable for gearboxes of the following manufacturers:

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

Et.al. suitable type designations, refer to the single drive unit.

Drive shafts without gearbox stop and with adapted distance (c) on request.

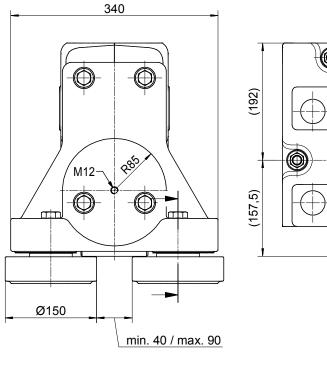


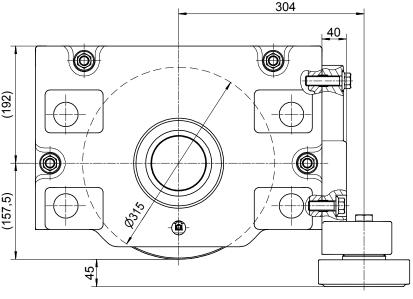
## Horizontal roller guide for wheels of Ø315 (Form 1-5)

Horizontal roller guide with adjustable guide rollers made of 42CrMo4+QT.

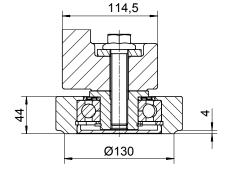
The installation of a cellular plastic buffer (page 144) is possible without spacer discs. Parallel operating wheel blocks without horizontal roller guide can be installed with spacer discs for length compensation (see fig.).







Acceptable horizontal load: Max. 3300 kg (As single part max. 4400 kg)



All necessary fastening elements are included in the scope of delivery.

Horizontal roller guide for other rail profiles are available on request.

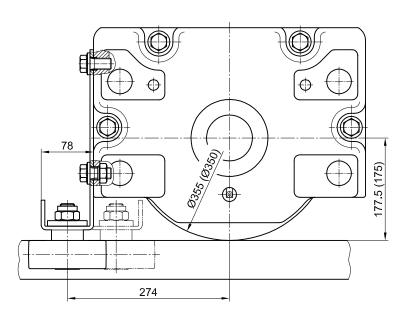


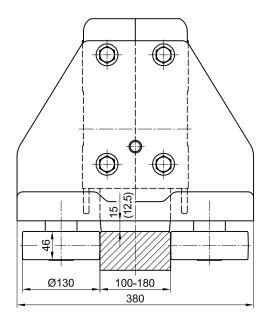
#### Horizontal roller guide for wheels of Ø355 and Ø350 with coating made of vulkollan or PA12G

Horizontal roller guide with adjustable guide rollers made of PA12G.

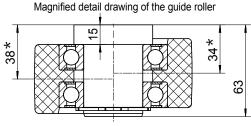
The installation of a cellular plastic buffer is possible by using an additional spacer discs.







Acceptable contiunous load: 1000 kg Maximum short-term load: 1500 kg



By turning the unsymmetrical guide roller, two clearances\* can be adjusted.

All necessary fastening elements are included in the scope of delivery.

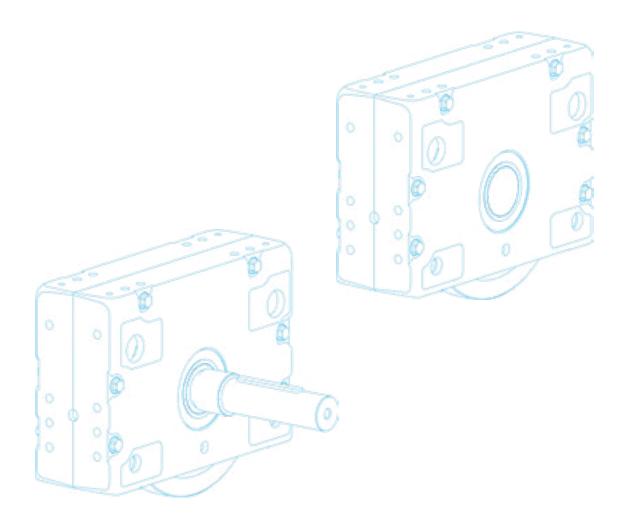
Horizontal roller guide for other rail profiles are available on request.





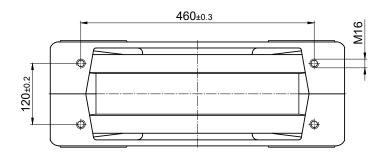
# WHEEL BLOCK SYSTEM

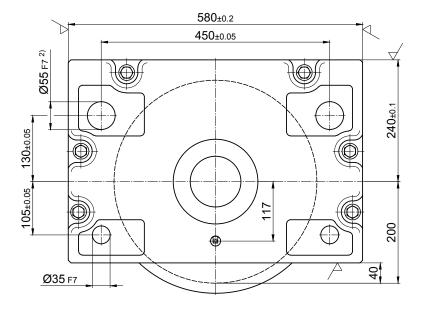
## **RB 400**

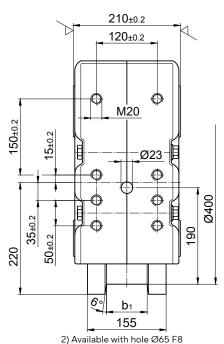


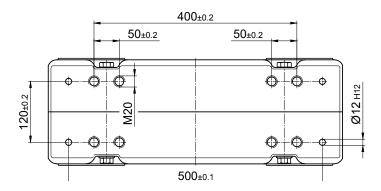


#### **Primary dimensions**









Weight: ca. 175 kg max. wheel load: 30 000 kg

#### Ordering examples

#### **RBA 400×80**

Wheel block 400, driven, with internal taper, with two-sided wheel flange, design Form 1, running tread 80 mm  $\,$ 

#### **RBN 400×80**

Wheel block 400, non- driven, without internal taper, with two-sided wheel flange, design Form 1, running tread 80 mm  $\,$ 

#### RBA 400×110

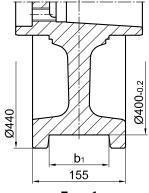
Wheel block 400, driven, with internal taper, with one-sided wheel flange design Form 2, running tread 110 mm  $\,$ 

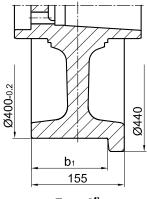
#### RBA 400×155

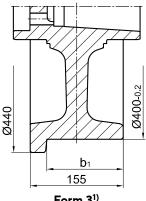
Wheel block 400, driven, with internal taper, without wheel flanges, design Form  $4\,$ 

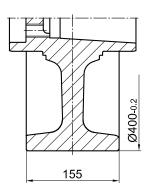
Design RBA and RBN refer to Page 5

#### Standard models







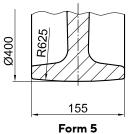


Form 1 two-sided wheel flange

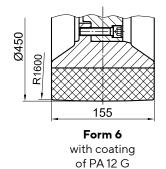
Form 2<sup>1)</sup>
one-sided wheel flange
on the drive side

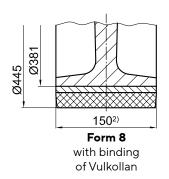
Form 3<sup>1)</sup>
one-sided wheel flange
opposite to the drive side

Form 4
no wheel flanges with
cylindrical runnning surface

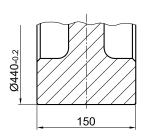


no wheel flanges with spherical running surface

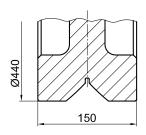




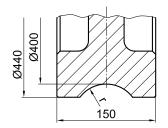
#### Special models



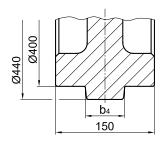
Form 9
no wheel flanges, wide
with cylindrical running surface



Form 10 with prismatic guide



Form 11
with concave groove
r=1.1× track radius
(recommended)



Form 12 with middle wheel flange

Running t	Form 1 Running tread b1 for two-sided wheel flange			Form 2 und 3 tread b1 for one-sided wheel flange
minimal	maximal	Standard	minimal	maximal
60	120	80	110	137.5

All models are available with wheel width up to 160 mm

- 1) Forms 2 and 3 are identical for the non-driven Wheel block RBN  $\,$
- 2) Available as special design with binding width 160 mm



Connection options

## Top connection KA 400.1

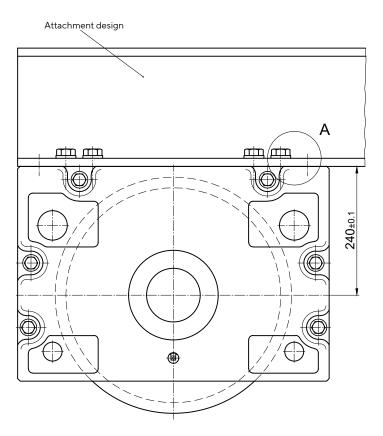
Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel block is required.

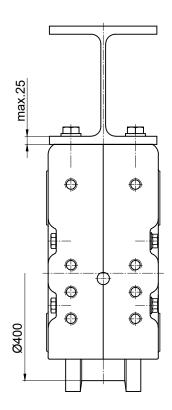
#### 1 Set KA 400.1 comprising of:

- 8 Hexagon screw with thread locking M20×55 –10.9 DIN EN ISO 4017 (DIN 933)
- 8 Discs Ø37 / 20.5×5
- 4 Locking pins 12×30 DIN EN ISO 8752 (DIN 1481)

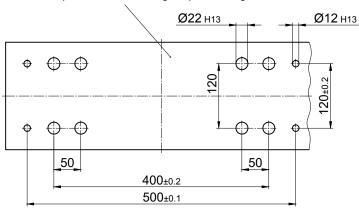
Mounting parts for larger sheet thicknesses and/or adjustable direct connection are available on request.

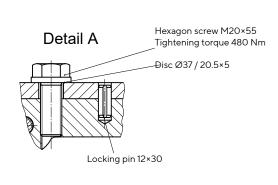
For the directional version refer to the pattern of drilling KA 400.2 (Page 126).





Hole pattern attachment design for precise fitting variant







Connection options

#### **Top connection KA 400.2**

Adjustable direkt attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes

For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 12×30 supplied. However, this should not be done in the area of the attachment bolts or the existing adjusting pin hole [1)]. Alignment is not required for precisly drilled attachment holes.

#### 1 Set KA 400.2 comprising of:

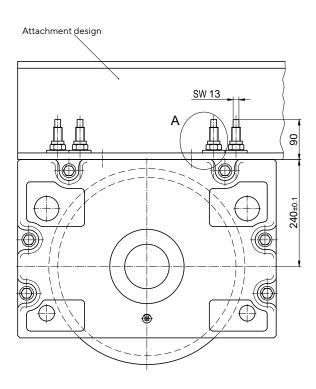
8 Grub screws M20×120 - 10.9 ZT

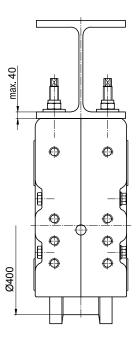
8 Safety nuts M20-10 DIN EN ISO 7042 (DIN 980)

8 Discs 21 DIN 6340

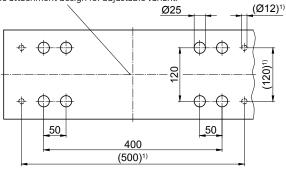
4 Locking pins 12×30 DIN EN ISO 8752 (DIN 1481)

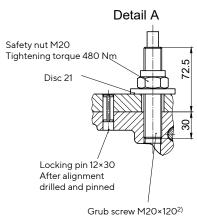
Longer locking pins are available for thicker plates.











- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request



**Connection Options** 

#### Pin attachment BA 400.1

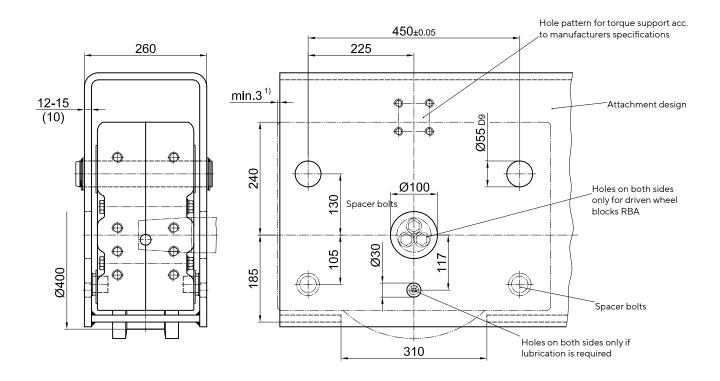
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

Pin attachment with alignment option using adjusting washers. Alignment option by replacing the adjusting washers only in dismantled condition.

#### 1 Set BA 400.1 comprising of:

- 2 Bolts Ø55h8
- 4 Circlipse 55×3 DIN 471
- 4 Supporting discs S 55×68 DIN 988
- 4 Spacer bolts
- 100 AAdjusting washers 35×45×0.5 DIN 988

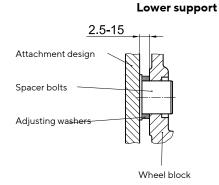
Pin connections are available in special design according to the customer drawing.



# 261.5 Ø55 r Circlip

Bolts

**Upper suspension mounting** 



1) Dimension must be observed only with front mounting parts

Supporting disc



Connection options

#### Pin attachment BA 400.2

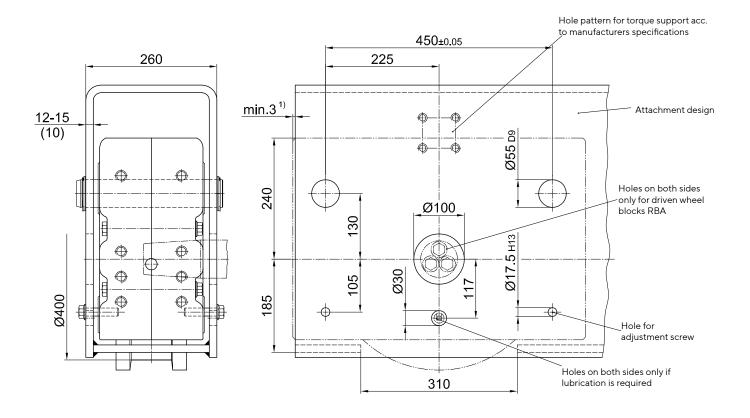
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with option to align using adjustable hexagon screws. The alignment is done in assembled and relieved mode.

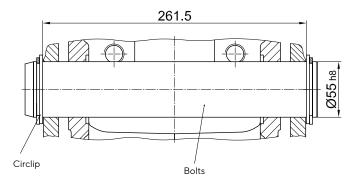
#### 1 Set BA 400.2 comprising of:

- 2 Bolts Ø55 h8
- 4 Circlipse 55×3, DIN 471
- 4 Supporting discs S 55×68 DIN 988
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M16×70 (coated)

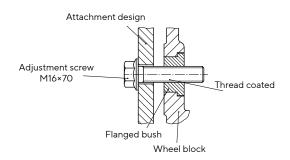
#### Pin connections are available in special design according to the customer drawing.



#### **Upper suspension mounting**



#### Lower support



<sup>1)</sup> Dimension must be observed only with front mounting parts



Connection options

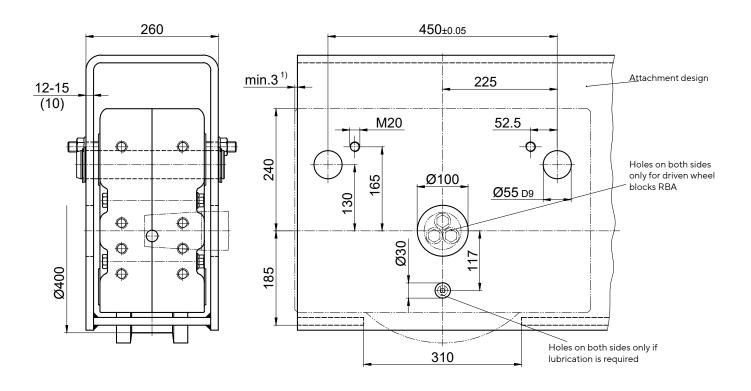
#### Pin attachment BA 400.3

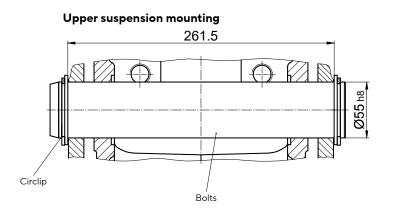
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc. Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

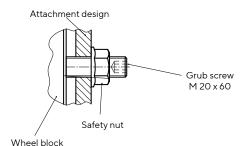
#### 1 Set BA 400.3 comprising of:

- 2 Bolts Ø55 h8
- 4 Circlipse 55×3, DIN 471
- 4 Supporting discs S 55×68 DIN 988
- 4 Grub screws with hexagon socket M 20 x 60 45H DIN 913
- 4 Safety nuts M20

Pin connections are available in special design according to the customer drawing.







Lower support

134

<sup>1)</sup> Dimension must be observed only with front mounting parts



Connection options

#### **Side connection WA 400**

Lateral connection option for low construction designs

1 Set WAA 400 (Side connection on the drive side)1 Set WAN 400 (Side connection on the non-driven side)

**1 Set WA 400** (Side connection on non-driven wheel block RBN)

comprising of:

2 Flanged bushings Ø55

2 Hexagon screwn M24×100 - 10.9 DIN EN ISO 4014 (DIN 931)

2 Safety nuts M24 - 10 DIN EN ISO 7042 (DIN 980)

2 Discs 25 / 72×13

2 Flanged bushings Ø35

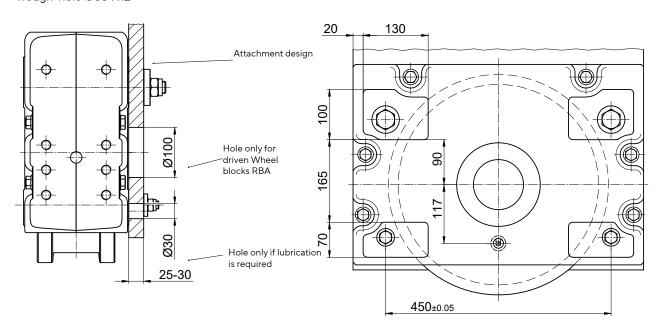
2 Hexagon screwn M16×80 -10.9 DIN EN ISO 4014 (DIN 931)

2 Safety nuts M16 -10 DIN EN ISO 7042 (DIN 980)

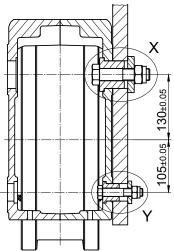
2 Discs 17 / 45×8

#### Attachment variant 1:

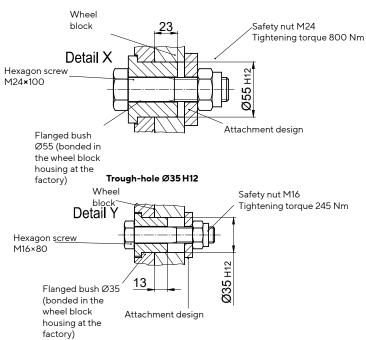
Attachment design is accessible from both sides Trough-hole Ø55 H12 Trough-hole Ø35 H12



## Sectional view



#### Trough-hole $\emptyset$ 55 H12



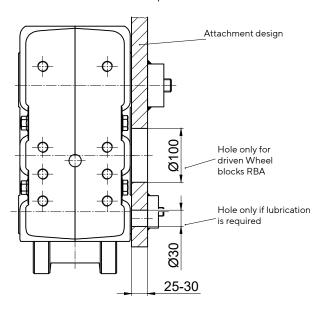
Connection options

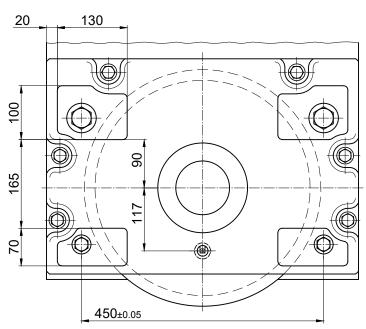
#### **Side connection WA 400**

# Lateral connection option for low construction designs

#### Attachment variant 2:

Attachment design (e.g. hollow profile) is not accessible from the inside Blind hole  $\varnothing 55\,\text{H}12\times30$  deep with thread M24 and Blind hole  $\varnothing 35\,\text{H}12\times20$  deep with thread M16





Sectional view

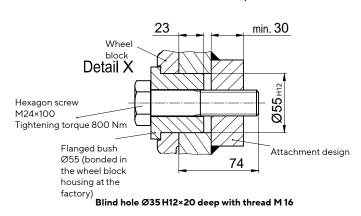
X

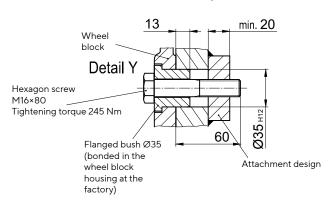
Sectional view

Y

Sectional view

Blind hole Ø55 H12×30 deep with thread M 24



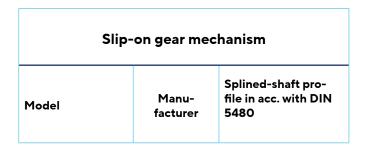


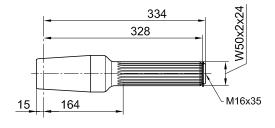


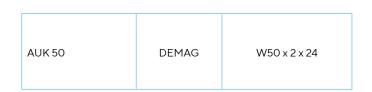
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

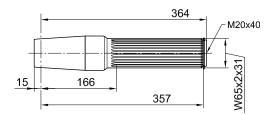
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480

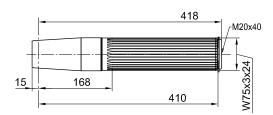




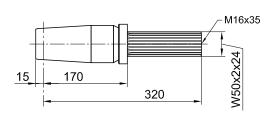








AUK70	DEMAG	W75 x 3 x 24
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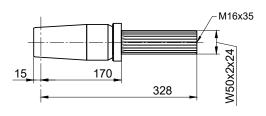
F.A.T 68B		
KA.T 68	SIEMENS (FLENDER)	
CA.T 68		W50 x 2 x 24
K5E	STÖBER	

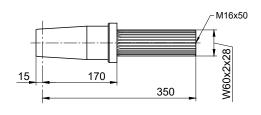


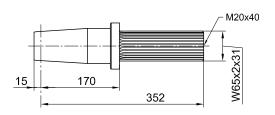
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

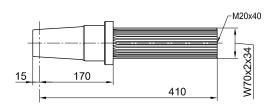
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480









# Slip-on gear mechanism

Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480
-------	-------------------	---

FV 77 / KV 77	SEW	
SK 4282 EA	NORD	W50 x 2 x 24
SPZT / SKZT 46	PREMIUM STEPHAN	

F.A.T 88B		
KA.T 88	SIEMENS (FLENDER)	
CA.T 88		W60 x 2 x 28
SK 5282 EA	NORD	

FV 87 / KV 87	SEW	W/F., 2, 21
SPZT / SKZT 56	PREMIUM STEPHAN	W65 x 2 x 31

FV 97 / KV 97	SEW	
SK 6282 EA	NORD	W70 x 2 x 34
SPZT / SKZT 66	PREMIUM STEPHAN	

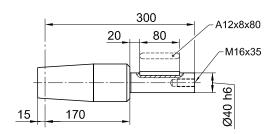


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

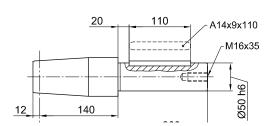
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885

Slip-on gear mechanism		
Model	Manu- facturer	Shaft journal



FA / KA 57 FA / KA / SA 67	SEW	
SK 3282 AB	NORD	
FDA/FZA 68B KA/CA68	SIEMENS (FLENDER)	Ø40
GFL 06 GKS 06 GSS 06	LENZE	<b>₩</b> 40
K4	STÖBER	
SPZH 36 SKZH 36	PREMIUM STEPHAN	



FA/KA/SA77	SEW	
SK 4282 AB	NORD	
FDA / FZA 88B KA / CA 88	SIEMENS (FLENDER)	
GFL 07 GKS 07 GSS 07	LENZE	Ø50
K5 / K6	STÖBER	
SPZH 46 SKZH 46	PREMIUM STEPHAN	

140

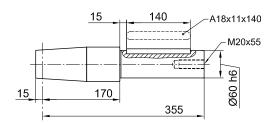


Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

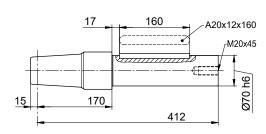
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885

Slip-on gear mechanism							
Model	Manu- facturer	Shaft journal					



FA / KA / SA 87	SEW	
SK 5282 AB	NORD	
FDA 108 B FZA 108 B KA 108	SIEMENS (FLENDER)	Q ( 2
GFL/GKS 09	LENZE	Ø60
K7	STÖBER	
SPZH 56 SKZH 56	PREMIUM STEPHAN	



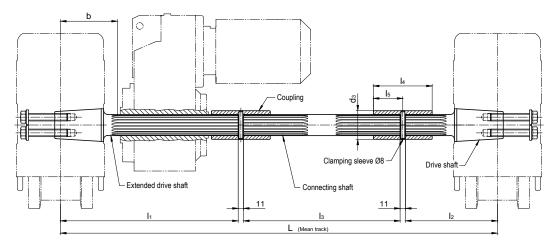
FA/KA/SA97	SEW	
SK 6282 AB	NORD	
FDA 128B FZA 128B KA 128	SIEMENS (FLENDER)	Ø70
SPZH 66 SKZH 66	PREMIUM STEPHAN	



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

## **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



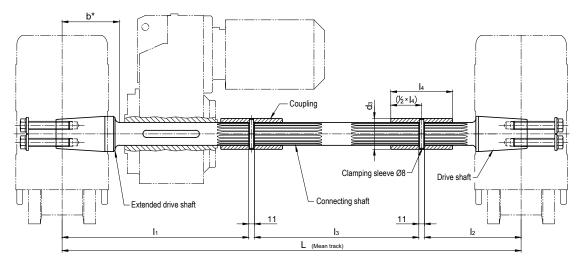
Model	Manufac- turer	Splined-shaft- profile DIN 5480	L	l1	12	13	Centre RB to gearing b	14	15	d3	Clamping sleeve DIN 1481
AF 08 AUK 50	DEMAG										
FV 77 KV 77	SEW			470	203	Dimensi- on L minus 695	130	120	60	65	8 x 65
F.A.T 68B KA.T 68 CA.T 68	SIEMENS (FLENDER)	W50 x 2 x 24									
SK 4282 EA SK 9032.1AZEA	NORD										
SPZT 46 SKZT 46	PREMIUM STEPHAN										
F.A.T 88B KA.T 88 CA.T 88	SIEMENS (FLENDER)	W60 x 2 x 28	rovide		203	Dimensi- on L minus 715	130	125	62.5	75	8 x 75
SK 5282EA	NORD		asep								
AF 10 AUK 60	DEMAG		ring, ple	490 490	203	Dimensi- on L minus 715	129	125	62.5	80	8 x 80
FV 87 KV 87	SEW	W65 x 2 x 31	or orde								
SK 9042.1AZEA	NORD	VV03 X Z X 31	Ľ								
SPZT 56 SKZT 56	PREMIUM STEPHAN										
FV 97 KV 97	SEW					Dimensi- on L minus 790	140	135	67.5	90	8 x 90
SK 6282EA SK 9052.1AZEA	NORD			555	213						
F.A.T 108B KA.T 108	SIEMENS (FLENDER)	W70 x 2 x 34									
SPZT 66 SKZT 66	PREMIUM STEPHAN										



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

Suitable for gearboxes with hollow shaft		ollow L		12	13	<b>b*</b> without gearbox	<b>Feather key</b> DIN 6885	<b>Coupling</b> Internal gearing/ d3 x l4	
Inner-Ø	Length					stop			
Ø50	≤ 275 ¹) ≤ 230 ²)	please	470	203	Dimension L minus 695	125	A 14 x 9 x 110	N50 x 2 x 24 Ø65 x 120	
Ø60	≤ 300 ¹) ≤ 255 ²)	rdering, p provide	490	203	Dimension L minus 715	126	A 18 x 11 x 140	N50 x 2 x 24 Ø65 x 120	
Ø70	≤ 350 ¹) ≤ 310 ²)	For or	555	203	Dimension L minus 780	130	A 20 x 12 x 160	N65 x 2 x 31 Ø80 x 125	

<sup>\*</sup> Drive shafts without gearbox stop!

Dimension b = Smallest possible distance from the centre of the wheel block to the hollow drive shaft

- 1) at smallest possible distance of the gearbox (b)
- 2) at distance of the gearbox = 170 mm

Drive shafts with gearbox stop on request.

#### Suitable for gearboxes of the following manufacturers:

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

<u>Et.al.</u> suitable type designations, refer to the single drive unit.

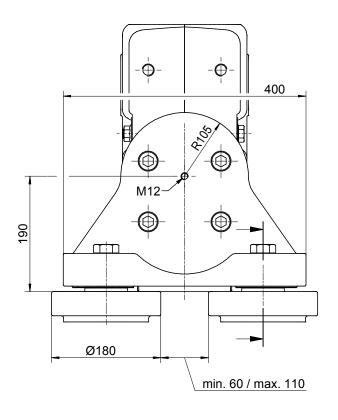


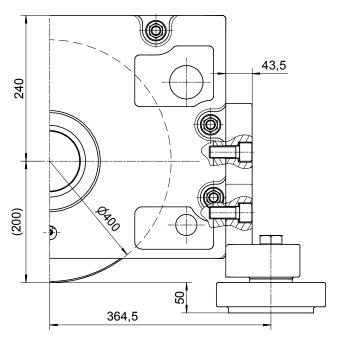
## Horizontal roller guide for wheels of Ø400 (Form 1-5)

Horizontal roller guide with adjustable guide rollers made of 42CrMo4+QT.

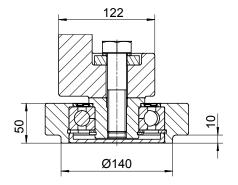
The installation of a cellular plastic buffer (page 144) is possible without spacer discs. Parallel operating wheel blocks without horizontal roller guide can be installed with spacer discs for length compensation (see fig.).







Acceptable horizontal load: Max. 4500 kg (As single part max. 6000 kg)



All necessary fastening elements are included in the scope of delivery.

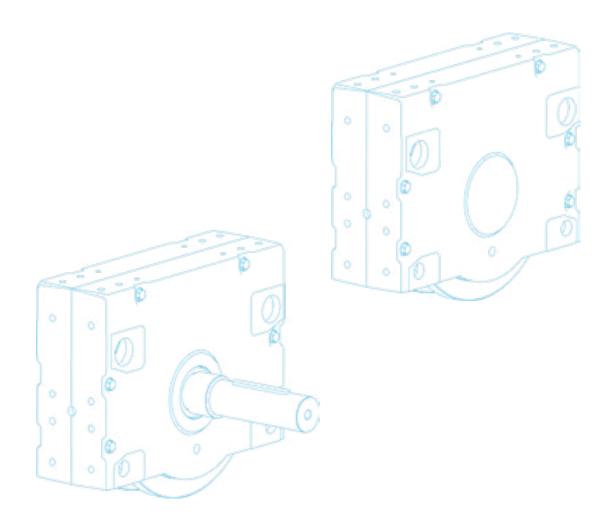
Horizontal roller guide for other rail profiles are available on request.





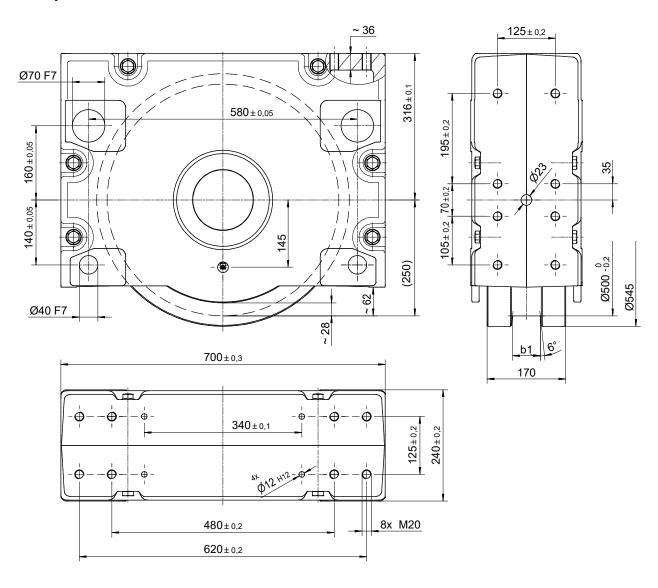
# WHEEL BLOCK SYSTEM

# **RB 500**





#### **Primary dimensions**



Weigth: ca. 310 kg max. wheel load: 40 000 kg

#### **Ordering examples**

#### **RBA 500×90**

wheel block 500, driven, with internal taper, with two-sided wheel flange, design Form 1, running tread 90 mm

#### **RBN 500×90**

Wheel block 500, non- driven, without internal taper, with two-sided wheel flange, design Form 1, running tread 90 mm  $\,$ 

#### **RBA 500×130**

Wheel block 500, driven, with internal taper, with one-sided wheel flange design Form 2, running tread 130 mm  $\,$ 

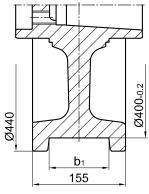
#### **RBA 500×170**

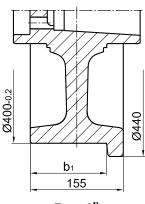
Design RBA and RBN refer to Page 5

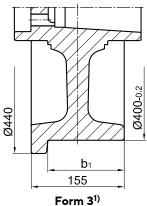
Wheel block 500, driven, with internal taper, without wheel flanges, design Form  $4\,$ 

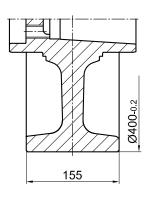


#### Standard models







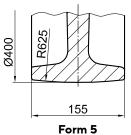


Form 1 two-sided wheel flange

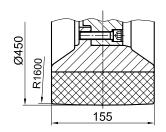
Form 2<sup>1)</sup>
one-sided wheel flange
on the drive side

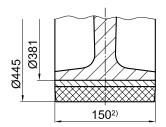
one-sided wheel flange opposite to the drive side

Form 4
no wheel flanges with
cylindrical runnning surface

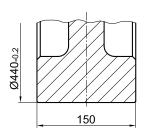


no wheel flanges with spherical running surface

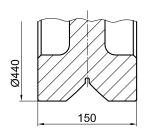




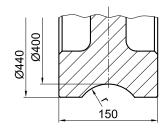
#### Special models



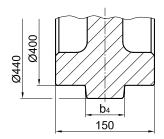
Form 9
no wheel flanges, wide
with cylindrical running surface



Form 10 with prismatic guide



Form 11
with concave groove
r=1.1× track radius
(recommended)



Form 12 with middle wheel flange

Form 1 Running tread b1 for two-sided wheel flange			Form 2 und 3 Running tread b1 for one-sided wheel flange		
minimal	inimal maximal Standard		minimal	maximal	
60	130	90	115	150	

<sup>1)</sup> Forms 2 and 3 are identical for the non-driven Wheel block RBN



Connection options

#### **Top connection KA 500.1**

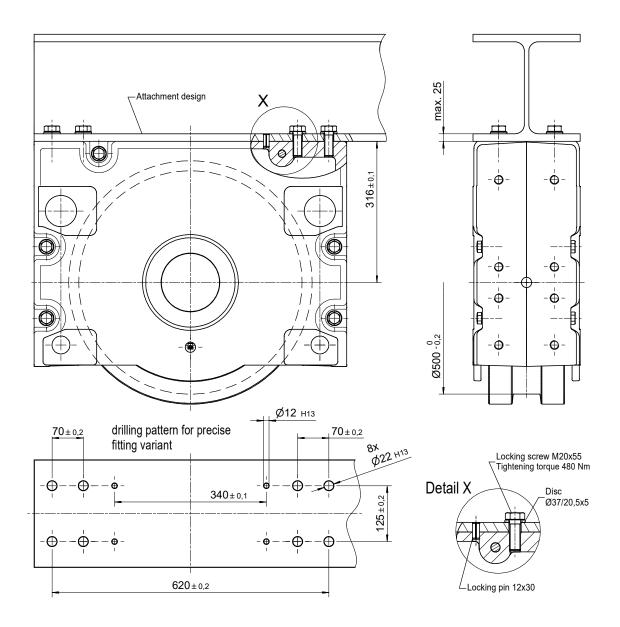
Precisely fitted direct attachment as bolted connection (welded construction, roll section, etc. Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel block is required.

#### 1 Set KA 500.1 comprising of:

- 8 Hexagon screw with thread locking M20×55 –10.9 DIN EN ISO 4017 (DIN 933)
- 8 Discs Ø37 / 20.5×5
- 4 Locking pins 12×30 DIN EN ISO 8752 (DIN 1481)

Mounting parts for larger sheet thicknesses and/or adjustable direct connection are available on request.

For the directional version refer to the pattern of drilling KA 500.2 (Page 148).



148



Connection options

#### **Top connection KA 500.2**

Adjustable direkt attachment as bolted connection (welded construction, roll section, etc.) Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes.

For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 12×30 supplied. However, this should not be done in the area of the attachment bolts or the existing adjusting pin hole [1)]. Alignment is not required for precisly drilled attachment holes.

#### 1 Set KA 500.2 comprising of:

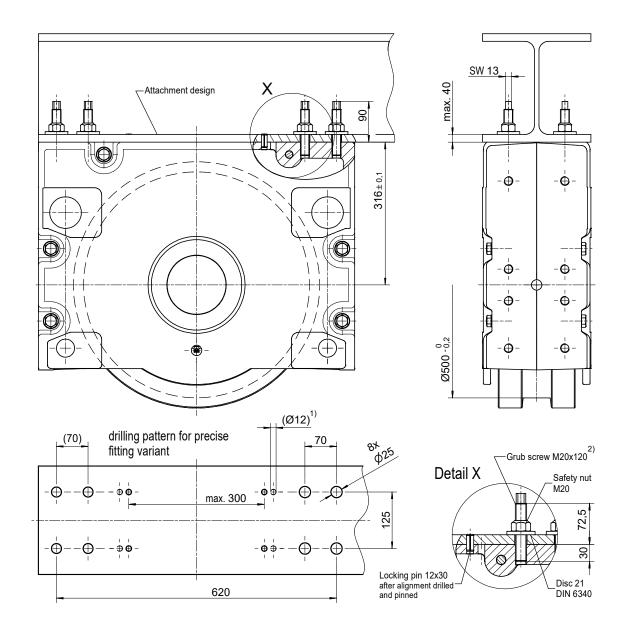
8 Grub screws M20×120 - 10.9 ZT

8 Safety nuts M20-10 DIN EN ISO 7042 (DIN 980)

8 Discs 21 DIN 6340

4 Locking pins 12×30 DIN EN ISO 8752 (DIN 1481)

#### Longer locking pins are available for thicker plates.



- 1) Pinning is not permitted in this area!
- 2) Can be factory-glued in the wheel block housing on request

149



Connection options

#### Pin attachment BA 500.2

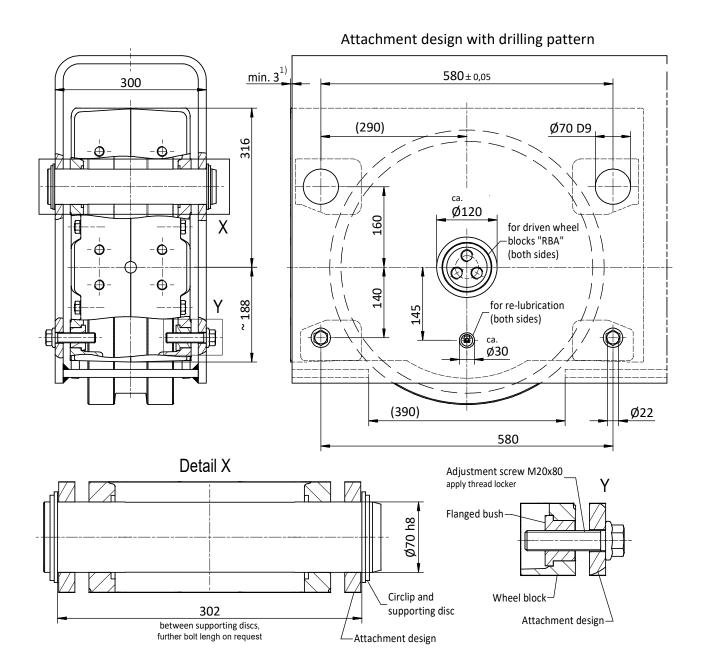
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 500.2 comprising of:

- 2 Bolts Ø70
- 4 Circlipse 70×4, DIN 471
- 4 Supporting discs S 70×90 DIN 988
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M20×80 (to be fixed with screw locking adhesive) screw locking adhesive is not included in the scope of delivery

Pin connections are available in special design according to the customer drawing.



<sup>1)</sup> Dimension must be observed only with front mounting parts



Connection options

#### Pin attachment BA 500.3

Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

Pin connection with alignment possibility by adjustable grub screws. The alignment is done in assembled and relieved mode.

#### 1 Set BA 500.3 comprising of:

- 2 Bolts Ø70
- 4 Circlipse 70×4, DIN 471
- 4 Supporting discs S 70×90 DIN 988
- 4 Threaded pins M 20 x 60 DIN 913
- 4 Safety nuts M20

Pin connections are available in special design according to the customer

## Attachment design with drilling pattern min. 3<sup>1)</sup> $580 \pm 0.05$ 300 (65)450 316 Φ (290)Ø70 D9 Ø120 Χ for driven wheel 160 blocks "RBA" $\oplus$ $\oplus$ (both sides) 188 for re-lubrication (both sides) Ø30 (390)Detail X Safety nut and grub screw Circlip and supporting disc 302 between supporting discs, Attachment design further bolt lengh on request



Connection options

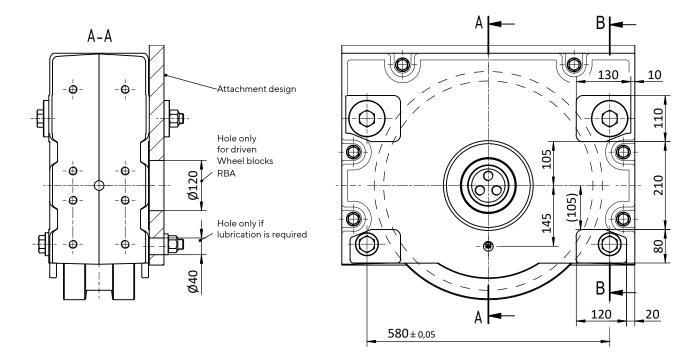
#### **Side connection WA 500**

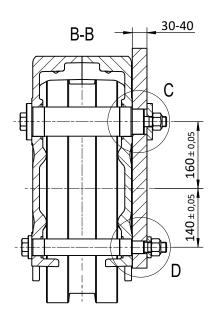
# 1 Set WA 500 comprising of:

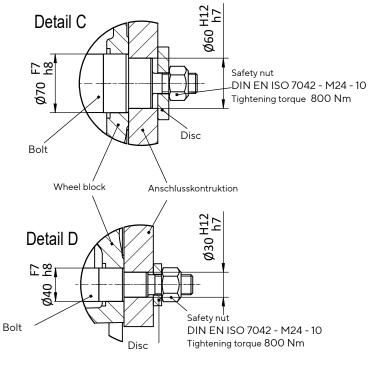
Lateral connection option for low construction designs

2 Bolts Ø70/60 2 Discs Ø25/87 2 Bolts Ø40/30 2 Discs Ø25 DIN 7349

4 Safety nuts M 24 DIN EN ISO 7042





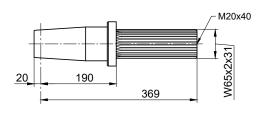


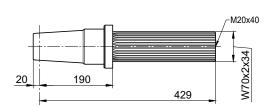


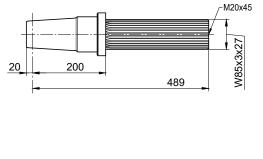
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

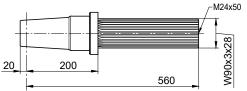
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with splined-shaft profile in accordance with DIN 5480









Slip-on gear mechanism						
Model	Manu- facturer	Splined-shaft pro- file in acc. with DIN 5480				

FV 87 / KV 87	SEW	
SPZT / SKZT 56	PREMIUM STEPHAN	W65 x 2 x 31
F.A.T / KAT 109	SIEMENS	

FV 97 / KV 97	SEW	
SK 6282 EA	NORD	W/70 0 24
SPZT / SKZT 66	PREMIUM STEPHAN	W70 x 2 x 34
F.A.T / KAT 129	SIEMENS	

FV 107 / KV 107	SEW	
SK 7282 EA	NORD	W05 2 27
SPZT / SKZT 76	PREMIUM STEPHAN	W85 x 3 x 27
F.A.T / KAT 149	SIEMENS	

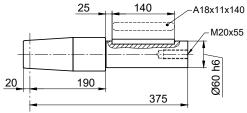
F.A.T / KAT 169	SIEMENS	W90 x 3 x 28

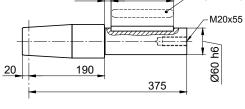


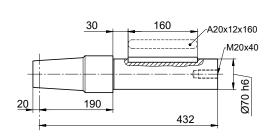
Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

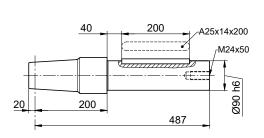
## Single drive unit

Drive shaft suitable for slip-on gear mechanism with feather key connection in accordance with DIN 6885









Slip-on gear mechanism							
Model	Manu- facturer	Shaft end					

FA/KA/SA87	SEW	
SK 5282 AB	NORD	
FDA 109 (FDA 108) FZA 109 (FZA 108) KA 109 (KA 108)	SIEMENS (FLENDER)	Q ( 2
GFL/GKS 09	LENZE	Ø60
К7	STÖBER	
SPZH 56 SKZH 56	PREMIUM STEPHAN	

FA/KA/SA97	SEW	
SK 6282 AB	NORD	0770
FDA 129 (FDA 128) FZA 129 (FZA 128) KA 129 (KA 128)	SIEMENS (FLENDER)	Ø70
SPZH 66 SKZH 66	PREMIUM STEPHAN	

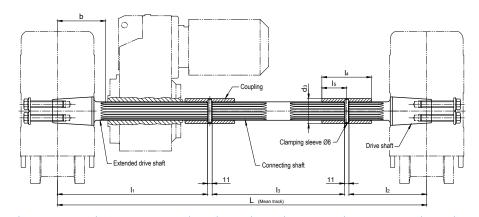
FA / KA 107	SEW	
FDA 149 (FDA 148) FZA 149 (FZA 148) KA 149 (KA 148)	SIEMENS (FLENDER)	Ø90
SPZH 77 SKZH 77	PREMIUM STEPHAN	



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### **Central drive unit**

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



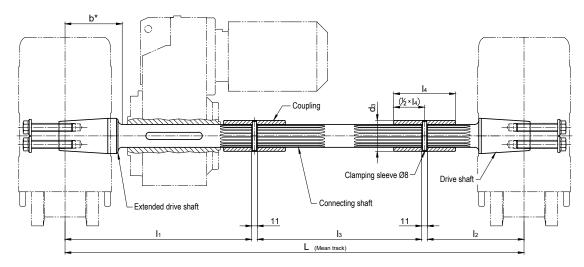
Model	Manufac- turer	Splined-shaft- profile DIN 5480	L	l1	12	13	Centre RB to gearing b	14	15	d3	Clamping sleeve DIN 1481														
AF 10 AUK 60	DEMAG																								
FV 87 KV 87	SEW																								
SK 9042.1AZEA	NORD	W65 x 2 x 31		510	218	Dimensi- on L	185	125	62.5	80	8 x 80														
SPZT 56 SKZT 56	PREMIUM STEPHAN					minus 750																			
F.AT 109 KAT 109	SIEMENS																								
FV 97 KV 97	SEW	W70 x 2 x 34																							
SK 6282EA SK 9052.1AZEA	NORD		W70 x 2 x 34	W70 x 2 x 34	W70 x 2 x 34												rovide			Dimoni					
F.A.T 108B KA.T 108	SIEMENS (FLENDER)					For ordering, please provide	580	218	Dimensi- on L minus	185	135	67.5	90	8 x 90											
SPZT 66 SKZT 66	PREMIUM STEPHAN		lering, p			820																			
F.AT 129 KAT 129	SIEMENS		For ord																						
FV 107 KV 107	SEW																								
SK 7282 EA SK 9072.1AZEA	NORD	W85 x 3 x 27	W85 x 3 x 27	W85 x 3 x 27							D: .														
F.AT 108B KA.T 108	SIEMENS					650	650 228	Dimensi- on L minus	195	160	80	110	8 x 110												
SPZT 77 SKZT 77	PRMIUM STEPHAN																			900					
F.AT 149 KAT149	SIEMENS																								
F.AT 169 KAT 169	SIEMENS	W90 x 3 x 28		710	238	L minus 970	200	170	85	115	8 x 115														



Drive shafts suitable for slip-on gear mechanisms from other manufacturers on request.

#### Central drive unit

Both wheel blocks are driven with only one gear motor (Splined-shaft profile, feather key connection and shrink disc attachment)



For gearboxes with hollow shaft and feather key connection in acc. with DIN 6885

Suitable for gearboxes with hollow shaft		L	l1	12	13	<b>b*</b> without gearbox stop	Feather key DIN 6885	<b>Coupling</b> Internal gearing/ d3 x I4
Inner-Ø	Length					-		
Ø60	≤ 280 <sup>1)</sup> ≤ 250 <sup>2)</sup>	vide	500	213	Dimension L minus 735	160	A 18 x 11 x 140	N60 x 2 x 28 Ø75 x 125
Ø70	≤ 350 <sup>1)</sup> ≤ 320 <sup>2)</sup>	please provide	600	218	Dimension L minus 840	160	A 20 x 12 x 180	N70 x 2 x 34 Ø90 x 135
Ø80	≤ 380 <sup>1)</sup> ≤ 350 <sup>2)</sup>	For ordering, p	625	228	Dimension L minus 875	160	A 22 x 14 x 180	N75 x 3 x 24 Ø95 x 145
Ø90	≤ 410 ¹) ≤ 380 ²)	Foro	650	238	Dimension L minus 910	170	A 25x 14 x 200	N90 x 3 x 28 Ø115 x 170

<sup>\*</sup> Drive shafts without gearbox stop!

Dimension b = Smallest possible distance from the centre of the wheel block to the hollow drive shaft

- 1) at smallest possible distance of the gearbox (b)
- 2) at distance of the gearbox = 190 mm

Drive shafts with gearbox stop on request.

#### Suitable for gearboxes of the following manufacturers:

Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

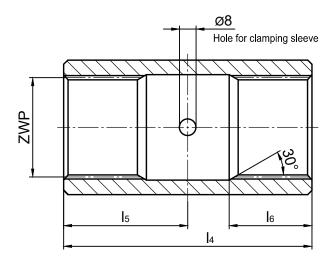
<u>Et.al.</u> suitable type designations, refer to the single drive unit.

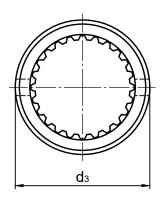
157



# Coupling for central drive units

# Hole with splined-shaft profile in accordance with DIN 5480





Splinded-shaft profile DIN 5480 (9H)	d3	14	15	wl6
N 30 x 1.25 x 22	40	80	40	27.5
N 30 x 2 x 14	40	80	40	27.5
N 35 x 1.25 x 26	50	100	50	44
N 35 x 2 x 16	50	100	50	35
N 40 x 2 x 18	55	100	50	32
N 45 x 2 x 21	60	120	60	50
N 50 x 2 x 24	65	120	60	40
N 60 x 2 x 28	75	125	62.5	47.5
N 65 x 2 x 31	80	125	62.5	50
N 70 x 2 x 34	90	135	67.5	50
N 75 x 3 x 24*	95	145	72.5	52.5
N 80 x 3 x 25*	100	150	75	55
N 85 x 3 x 27*	110	160	80	57.5
N 90 x 3 x 28*	115	170	85	60

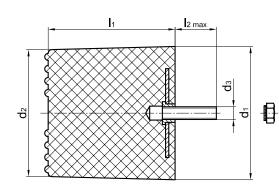
<sup>\*</sup> available on request

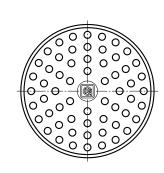


## Cellular plastic buffer for wheel block RB 160 - 400

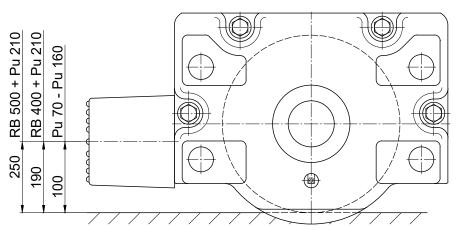
Buffer made from cellular polyurethane with large energy capacity for operating temperatures of  $-20\,^{\circ}\text{C}$  to  $+80\,^{\circ}\text{C}$ .







Holes are available on the wheel block for mounting the buffer. Attachment is by means of a grub screw in the buffer and a retained nut, which is drawn into the wheel block housing.



Nominal	d1	d2	l1	d3	12	Energy- absorp- tion	Spring- travel	Final force	Wight per unit	for wheel block
size						[kJ] <sup>2)</sup>	[mm] <sup>1)</sup>	[kN]1)	[kg]	
Pu 70	70	65	66	M 12	28	max. 0.9	46	18	0.4	RB 160 RB 200
Pu 100	100	95	100	M 12	33	max. 2.6	70	27	0.8	RB 160 RB 200 RB 250
Pu 130	130	122	120	M 12	43	max. 5.1	84	45	1.2	RB 200 RB 250 RB 315
Pu 160	160	155	150	M 12	43	max. 9.2	105	95	1.8	RB 250 RB 315
Pu 210	210	200	200	M 20	65	max. 20.0	140	120	4.1	RB 400 RB 500

<sup>1)</sup> These values apply to impact forces, which occur during crane operation (V = 120 m/min)

#### Ordering example

#### Cellular plastic buffer Pu 130

Included in the scope of delivery:

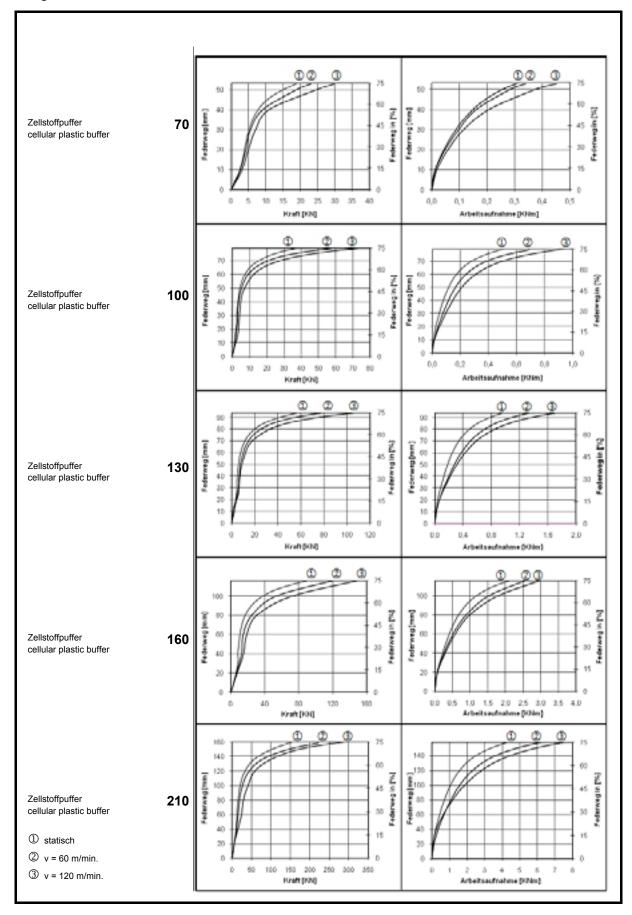
- 1 Cellular plastic buffer
- 1 Grub screw
- 1 Retained nut

<sup>2)</sup> V = 240 m/min



#### CELLULAR PLASTIC BUFFER FOR WHEEL BLOCK RB 160 - 400

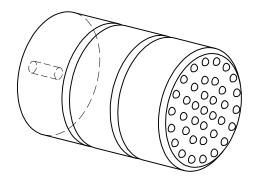
#### **Diagrams**

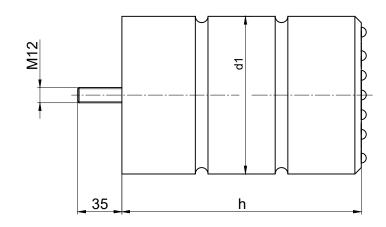


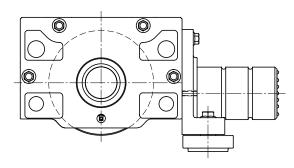


## Cellular plastic buffer for wheel block with horizontal roller guide RB 250 - 400

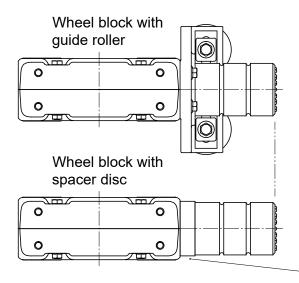
Buffer made of cell polyurethane with a large working capacity for operating temperatures of - 20 °C to +80 °C.







Nominal Energy absorp		Spring travel	Final force	Weight per unit	for wheel	
d1 x h	[kJ] <sup>1)</sup>	[mm] <sup>1)</sup>	[kN] <sup>1)</sup>	[kg]	block	
125 x 190	8.6	143	125	1.32	RB 250	
160 x 240	18	180	200	2.66	RB 315	
200 x 300	35	225	310	5.1	RB 400	



The installation of the cellular plastic buffer on the horizontal roller guide is possible without spacer discs.

Parallel operating wheel blocks without horizontal roller guide can be installed with spacer discs for length compensation (see fig.).

1) These values apply to hits, such as those occurring during crane operation

#### Odering example

#### Cellular plastic buffer 125 x 190

Included in the scope of delivery:

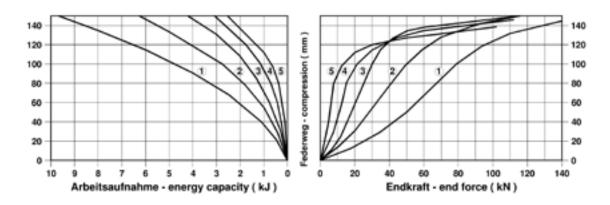
1 Cellular plastic buffer with threaded pin



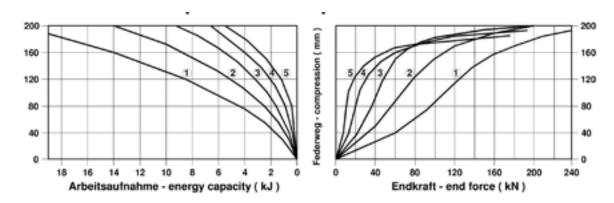
# CELLULAR PLASTIC BUFFER FOR WHEEL BLOCK WITH HORIZONTAL ROLLER GUIDE RB 250 – 400

#### **Diagrams**

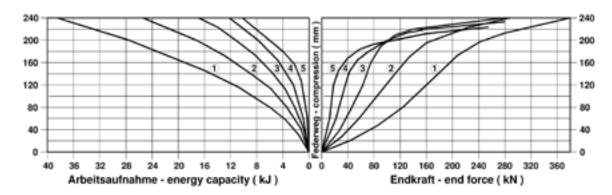
#### Cellular plastic buffer 125 x 190



#### Cellular plastic buffer 160 x 240



#### Cellular plastic buffer 200 x 300



Impact velocities

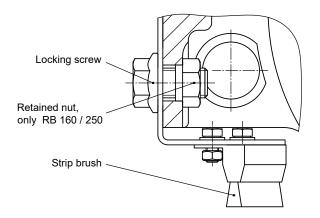
- v = 4 m/s
- v = 3 m/s
- v = 2 m/s
- v = 1 m/s
- 5 Static



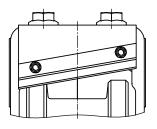
#### Rail cleaning system für Wheel block RB 160 – 400

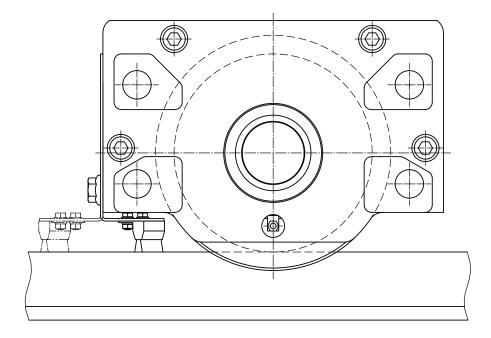
The in height-adjustable rail cleaning system is supplied mounted on the wheel block. The ledge brush, with fibres made of brass wire, is arranged at an angle to discharge dirt on the side of the rail.

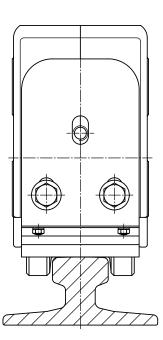
The installation of a cellular plastic buffer is possible by using additional spacer discs.









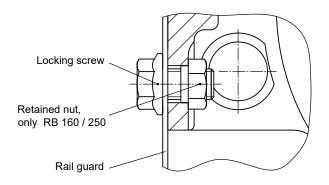


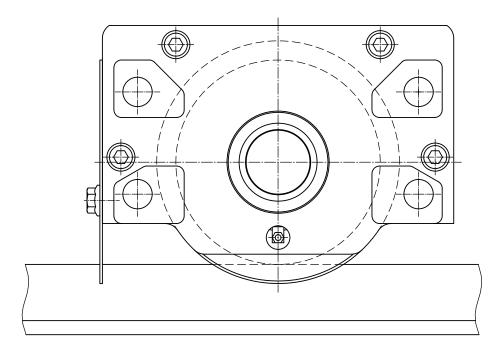


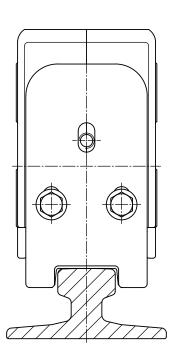
## Rail guard for wheel block RB 160 - 400

The rail guard can be machined according to Karl-Georg or customer drawings. The desired gap width must be specified when ordering.

The installation of a cellular plastic buffer is possible by using additional spacer discs.







#### THE WORLD OF CRANE COMPONENTS



## **MORE INFORMATION**

















# (B) KARLGEORG

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No claims can be derived from the information, figures and descriptions given in these operating instructions.

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