

WHEEL BLOCKS

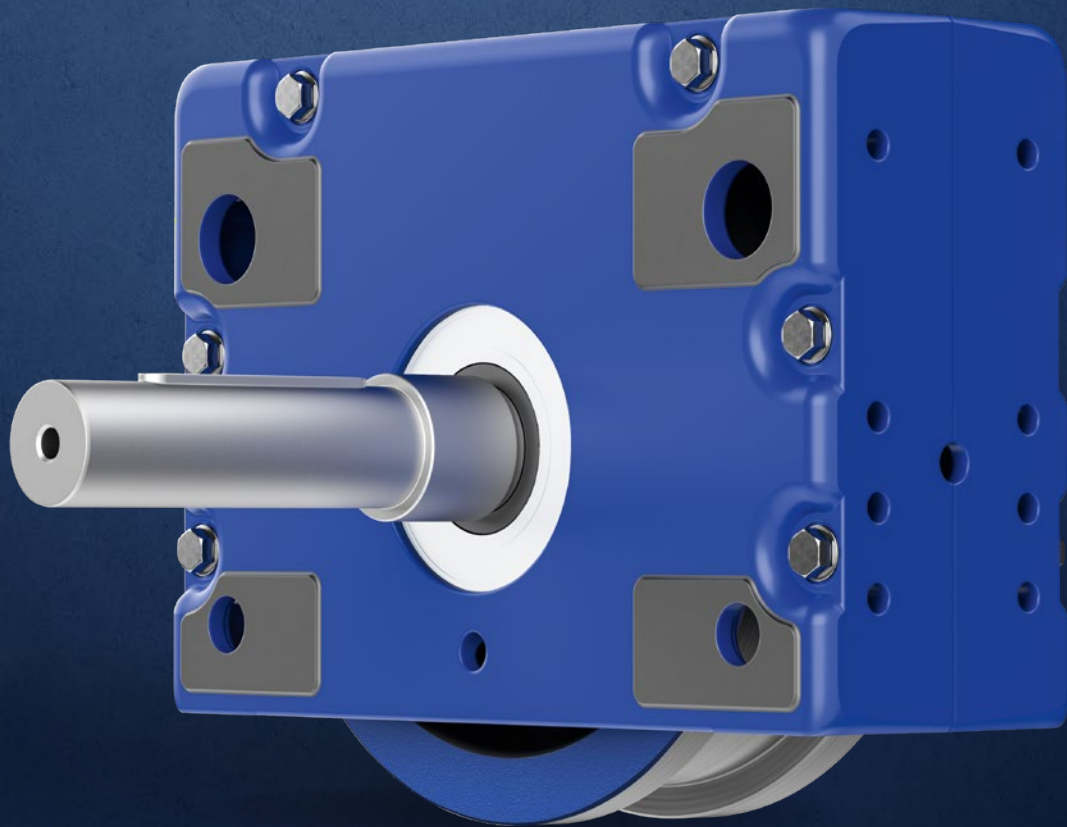


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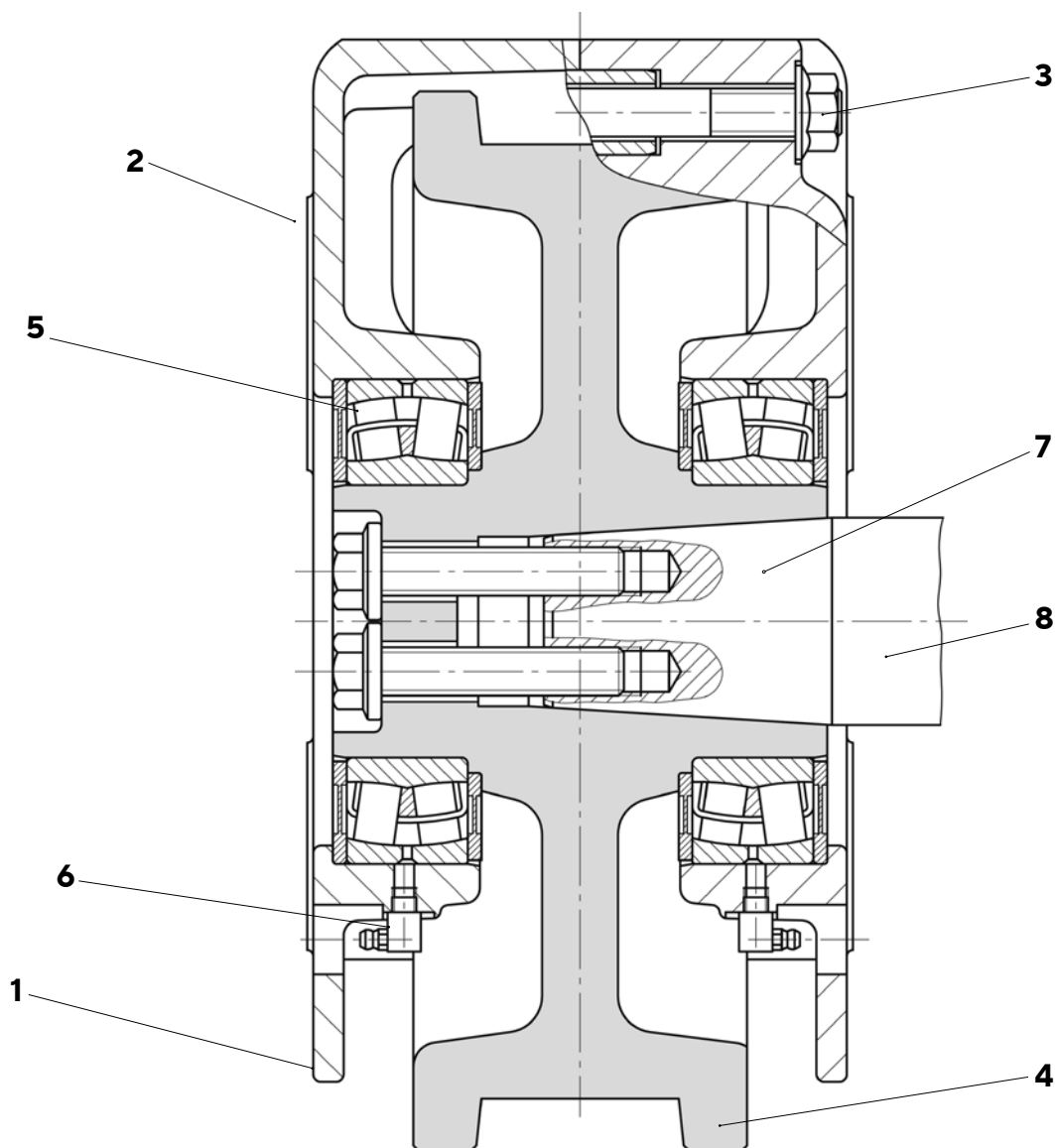
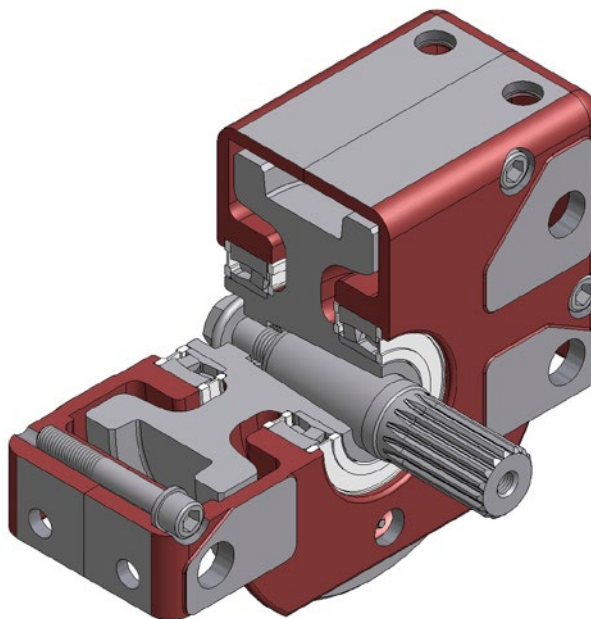
WHEEL BLOCK RB 160 – 500

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

As a ready-to-install travel unit, the wheel blocks from Karl Georg are 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 different manufacturers and are reusable and thus cost and time efficient.



Wheel block RB 160 – 500

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 different 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 unsusceptible 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.
- 6 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.
- 8 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 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.

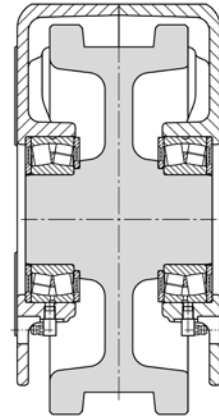
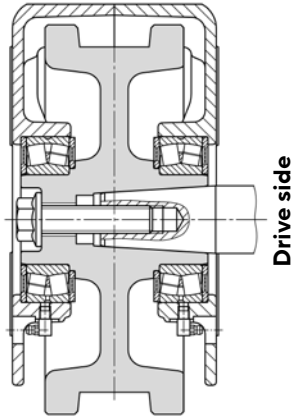
Wheel block RB 160 – 500

Design variants

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

RBA Wheel block driven

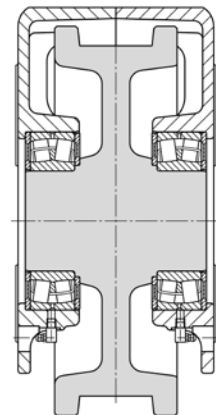
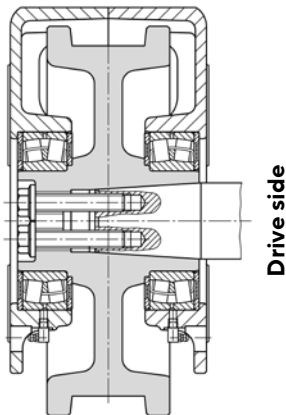
RBN Wheel block, not driven



Wheel block RB 315, RB 400

RBA Wheel block, driven

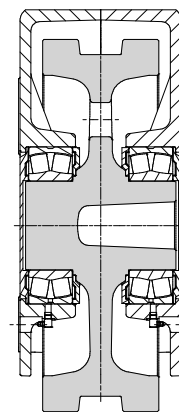
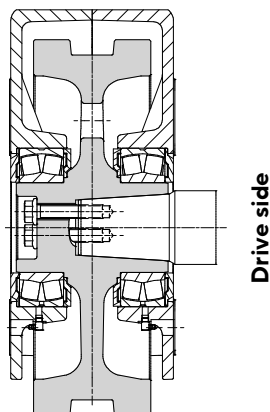
RBN Wheel block, not driven



Wheel block RB 500

RBA Wheel block, driven

RBN Wheel block, not driven

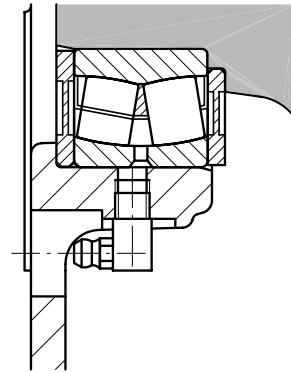


Wheel block RB 160 – 500

Antifriction bearings

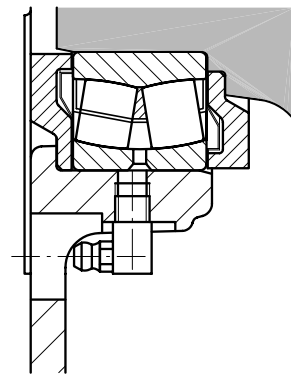
Series

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.



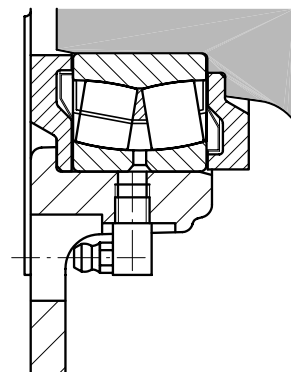
Special sealing

Used for extreme environmental conditions at temperatures from -30 °C to +120 °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 °C on request.

Bearing sizes

Wheel block	Spherical roller bearing
RB 160	222 10
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

WHEEL BLOCK RB 160 – 500

Crane wheel materials

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.
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.
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.
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 sub-surfaces, or electrically conductible Vulkollan® for conducting electrostatic charging, for application in potentially explosive areas.
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.
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.

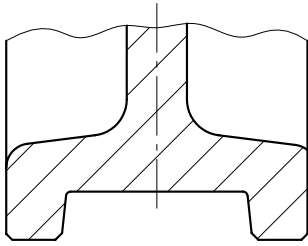
Fields of application

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/s ² and form closure	+	+	+	+
for greater acceleration more than 0.5 m/s ² and frictional connection	▣	▣	+	▣
on steel	+	+	+	+
on light alloys	▣	▣	+	+
on concrete or screed	-	-	+	-
at very high humidity or specific hygienic requirement	▣	+	▣	▣
in the open by snow and ice	+	+	▣	▣

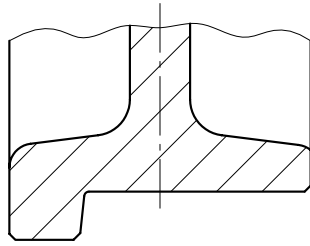
+ suitable ▣ conditionally suitable - unsuitable

WHEEL BLOCK RB 160-500

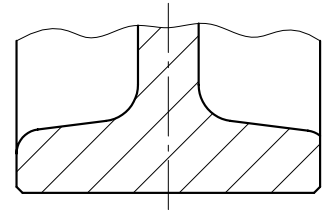
Crane wheel designs



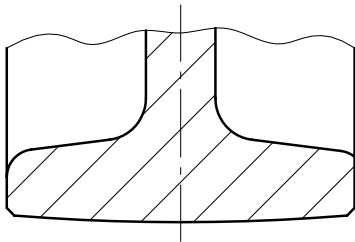
two-sided wheel flange



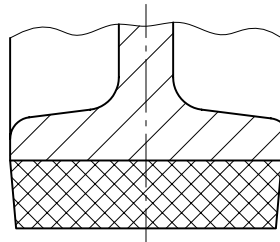
one-sided wheel flange



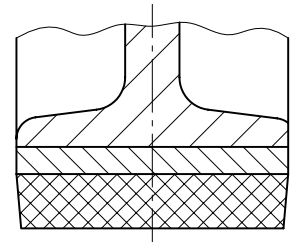
no wheel flanges
with cylindrical running surface



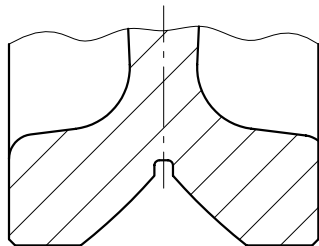
no wheel flanges
with spherical running surface



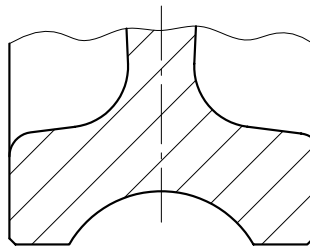
with coating
of Vulkollan oder PA 12 G



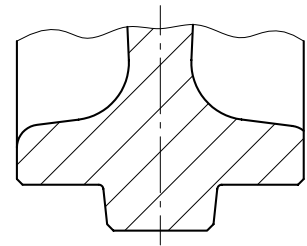
with binding
of Vulkollan with steel ring



with prismatic guide

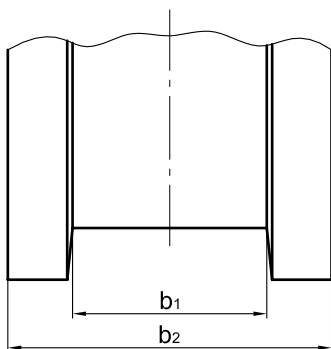


with concave groove



with middle wheel flange

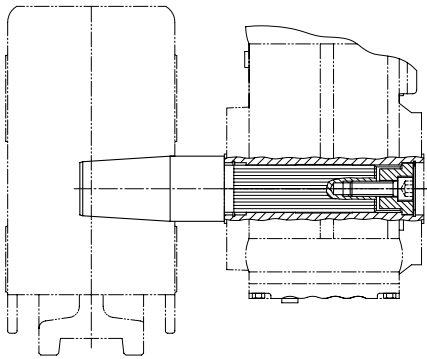
Wheel tread



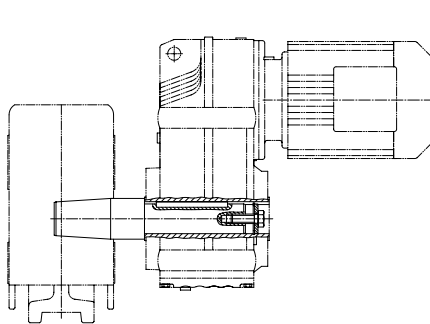
Wheel-Ø	Wheelwidth b_2	wheel tread b_1 für two sided wheel flange (manufactured of spheroidal graphite iron wheel))		
		minimal	maximal	Standard
160	87	20	68	47, 60, 65
200	100	20	75	65
250	100 110	20	75 85	65, 75
315	110 130	20 70	85 100	65 80, 90
400	155	60	120	80, 90
500	170	60	130	90

SINGLE DRIVE UNIT

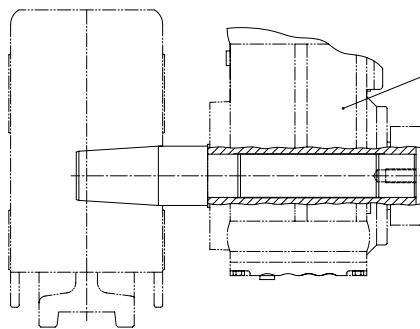
Possible variants



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

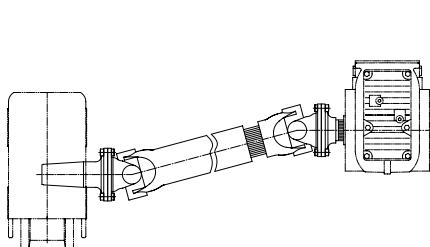


Single drive unit with feather key attachment according to DIN 6885-1

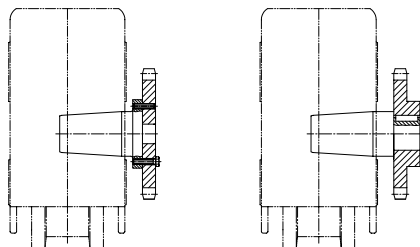


Shrinkdisc,
design dependent
upon the gear motor
manufacturer

Single drive unit for shrink disc attachment



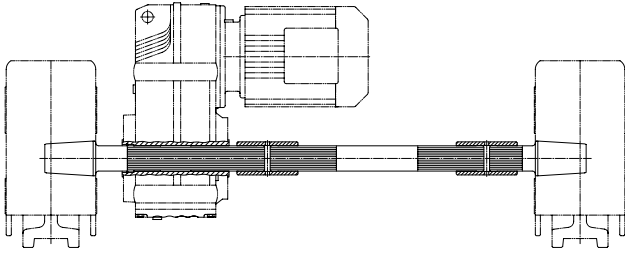
Special drive by a universal-joint shaft



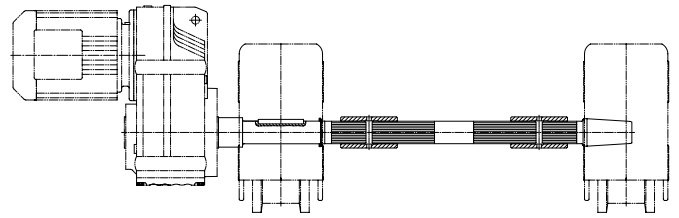
Special drive by a chain wheel

CENTRAL DRIVE UNIT

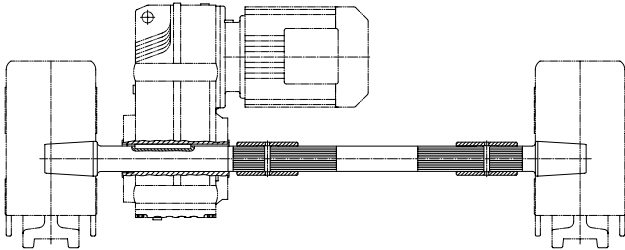
Possible Variants



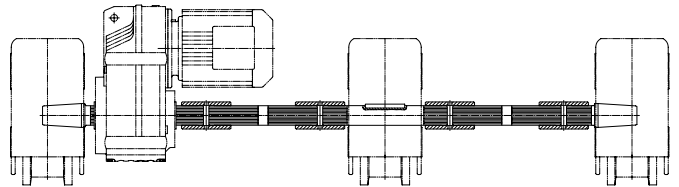
Central drive unit with splined-shaft attachment according to DIN 5480



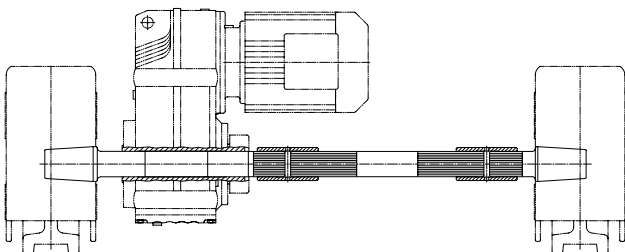
Special central drive unit with outer drive



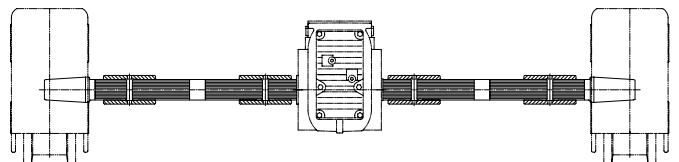
Central drive unit with feather key connection in accordance with DIN 6885-1



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 permitted wheel load with the aid of the wheel load table, the load collective and 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.).

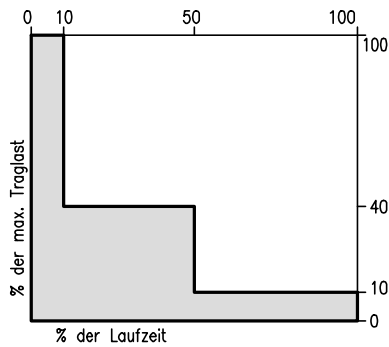
Load collective

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

1) Light-duty use

$$k_m \leq 0.125$$

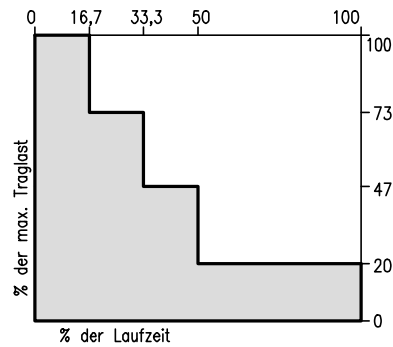
$$k \leq 0.5$$



2) Medium-duty use

$$k_m = 0.125 \dots 0.25$$

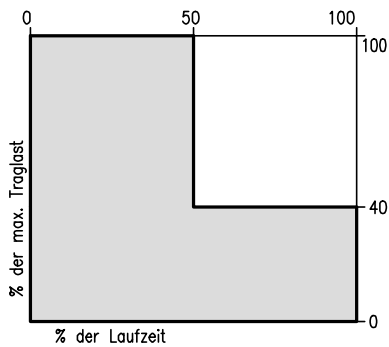
$$k = 0.5 \dots 0.63$$



3) Heavy-duty use

$$k_m = 0.25 \dots 0.5$$

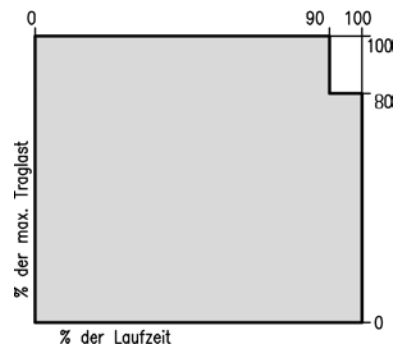
$$k = 0.63 \dots 0.8$$



4) Very heavy-duty use

$$k_m = 0.5 \dots 1.0$$

$$k = 0.8 \dots 1.0$$



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

km: Collective coefficient ($km = k^3$)

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)

Load collective		Mean daily operating time in hours								
		< 0.12	< 0.25	< 0.5	< 1	< 2	< 4	< 8	< 16	> 16
		FEM operating time class								
		V 0.06	V 0.12	V 0.25	V 0.5	V 1	V 2	V 3	V 4	V 5
1 (light)	Drive mechanisms, or parts of them, that exceptionally operate at high loads but are normally only subjected to very low loads.	-	-	1Dm	1Cm	1Bm	1Am	2 m	3 m	4 m
2 (medium)	Drive mechanisms, or parts of them, that often operate at exceptionally high loads but are normally only subjected to low loads.	-	1Dm	1Cm	1Bm	1Am	2 m	3 m	4 m	5 m
3 (heavy-duty))	Drive mechanisms, or parts of them, that frequently operate at the highest loads but are normally only subjected to medium loads.	1Dm	1Cm	1Bm	1Am	2 m	3 m	4 m	5 m	-
4 (very heavy-duty)	Drive mechanisms, or parts of them, that regularly operate at the highest loads are subject to contiguous loads.	1Cm	1Bm	1Am	2 m	3 m	4 m	5 m	-	-

Comparison of FEM designations to ISO designations

	Load collective				Operating time class								
FEM	1	2	3	4	V 0.06	V 0.12	V 0.25	V 0.5	V 1	V 2	V 3	V 4	V 5
ISO	L1	L2	L3	L4	T 0	T 1	T 2	T 3	T 4	T 5	T 6	T 7	T 8

	Drive mechanism group							
FEM	1Dm	1Cm	1Bm	1Am	2 m	3 m	4 m	5 m
ISO	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8

WHEEL LOADS FOR EN-GJS-700-2

Wheel block RB 160

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

R_{max} and R_{min} for the crane must be determined from the different trolley operating positions.
For such alternating wheel loads under full load the following applies:

$$R = \frac{R_{min} + 2 R_{max}}{3} < R_{zul}$$

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

$$R = R_{max} \leq R_{zul}$$

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

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

WHEEL LOADS FOR PA 12 G / VULKOLLAN

Wheel block 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 **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

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

WHEEL LOADS FOR EN-GJS-700-2

Wheel block RB 200

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

R_{max} and R_{min} for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{R_{min} + 2 R_{max}}{3} < R_{zul}$$

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

$$R = R_{max} \leq R_{zul}$$

Drive mechanism 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
1Bm	30	5260	4960	4520	4070	3820	3280
	40	7020	6620	6030	5430	5100	4370
	50	8770	8280	7530	6790	6370	5460
	60	10000	9930	9040	8150	7650	6560
	65		10000	9790	8820	8290	7100
1Am	30	4720	4450	4050	3650	3420	2930
	40	6290	5930	5400	4860	4570	3910
	50	7860	7420	6750	6080	5710	4890
	60	9440	8900	8100	7300	6850	5870
	65	10000	9640	8770	7910	7420	6360
2m	30	4210	3970	3610	3260	3060	2620
	40	5610	5300	4820	4340	4080	3490
	50	7020	6620	6030	5430	5100	4370
	60	8420	7950	7230	6520	6120	5240
	65	9130	8610	7830	7060	6630	5680
3m	30	3790	3570	3250	2930	2750	2360
	40	5050	4770	4340	3910	3670	3140
	50	6320	5960	5420	4890	4590	3930
	60	7580	7150	6510	5860	5510	4720
	65	8210	7750	7050	6350	5960	5110
4m/5m	30	3370	3180	2890	2600	2440	2090
	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

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

WHEEL LOADS FOR PA 12 G / VULKOLLAN

Wheel block 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 **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

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

WHEEL LOADS FOR EN-GJS-700-2

Wheel block RB 250

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

R_{max} and R_{min} for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{R_{min} + 2 R_{max}}{3} < R_{zul}$$

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

$$R = R_{max} \leq R_{zul}$$

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

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

WHEEL LOADS FOR PA 12 G / VULKOLLAN

Wheel block 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 **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

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

WHEEL LOADS FOR EN-GJS-700-2

Wheel block RB 250-V

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

R_{max} and R_{min} for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{R_{min} + 2 R_{max}}{3} < R_{zul}$$

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

$$R = R_{max} \leq R_{zul}$$

Drive mechanism 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	160 m/min
1Bm	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
	60	14.580	13.780	12.570	11.640	10.970	9.630	8.830
	70	16.000	16.000	14.670	13.580	12.790	11.230	10.300
	80			16.000	15.520	14.620	12.840	11.770
1Am	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
	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
2m	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
	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
3m	40	7.500	7.080	6.460	5.980	5.640	4.950	4.540
	50	9.370	8.850	8.080	7.350	6.880	6.020	5.590
	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
4m	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
	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
5m	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
	60	9.330	8.820	8.040	7.450	7.020	6.160	5.650
	70	10.880	10.290	9.310	8.120	7.560	6.610	6.140
	80	12.440	11.460					

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

WHEEL LOADS FOR PA 12 G / VULKOLLAN

Wheel block 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 **VULKOLLAN** coating or binding
up to 6 km/h

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

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

WHEEL LOADS FOR EN-GJS-700-2

Wheel block RB 315

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

R_{max} and R_{min} for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{R_{min} + 2 R_{max}}{3} < R_{zul}$$

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

$$R = R_{max} \leq R_{zul}$$

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

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

WHEEL LOADS FOR PA 12 G / VULKOLLAN

Wheel block 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 **VULKOLLAN** coating or binding
up to 6 km/h

Crane wheel diameter	max. wheel load in kg
Ø350 x 130	4000
Ø355¹⁾ x 130	4000

1) Overtwisted bandage for special applications

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

WHEEL LOADS FOR EN-GJS-700-2

Wheel block 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:

$$R = \frac{R_{min} + 2 R_{max}}{3} \leq R_{zul}$$

The following applies for trolley models and other machine construction drive systems with distributed full load:
 $R = R_{max} \leq R_{zul}$

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

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

WHEEL LOADS FOR PA 12 G / VULKOLLAN

Wheel block 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 **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.

WHEEL LOADS FOR EN-GJS-700-2

Wheel block RB 500

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

R_{max} and R_{min} for the crane must be determined from the different trolley operating positions. For such alternating wheel loads under full load the following applies:

$$R = \frac{R_{min} + 2 R_{max}}{3} \leq R_{zul}$$

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

$$R = R_{max} \leq R_{zul}$$

Drive mechanism group FEM/DIN 15020	Useable rail-head width in mm	Drive speed						
		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
1Am	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
	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
2m	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
	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
3m	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
	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

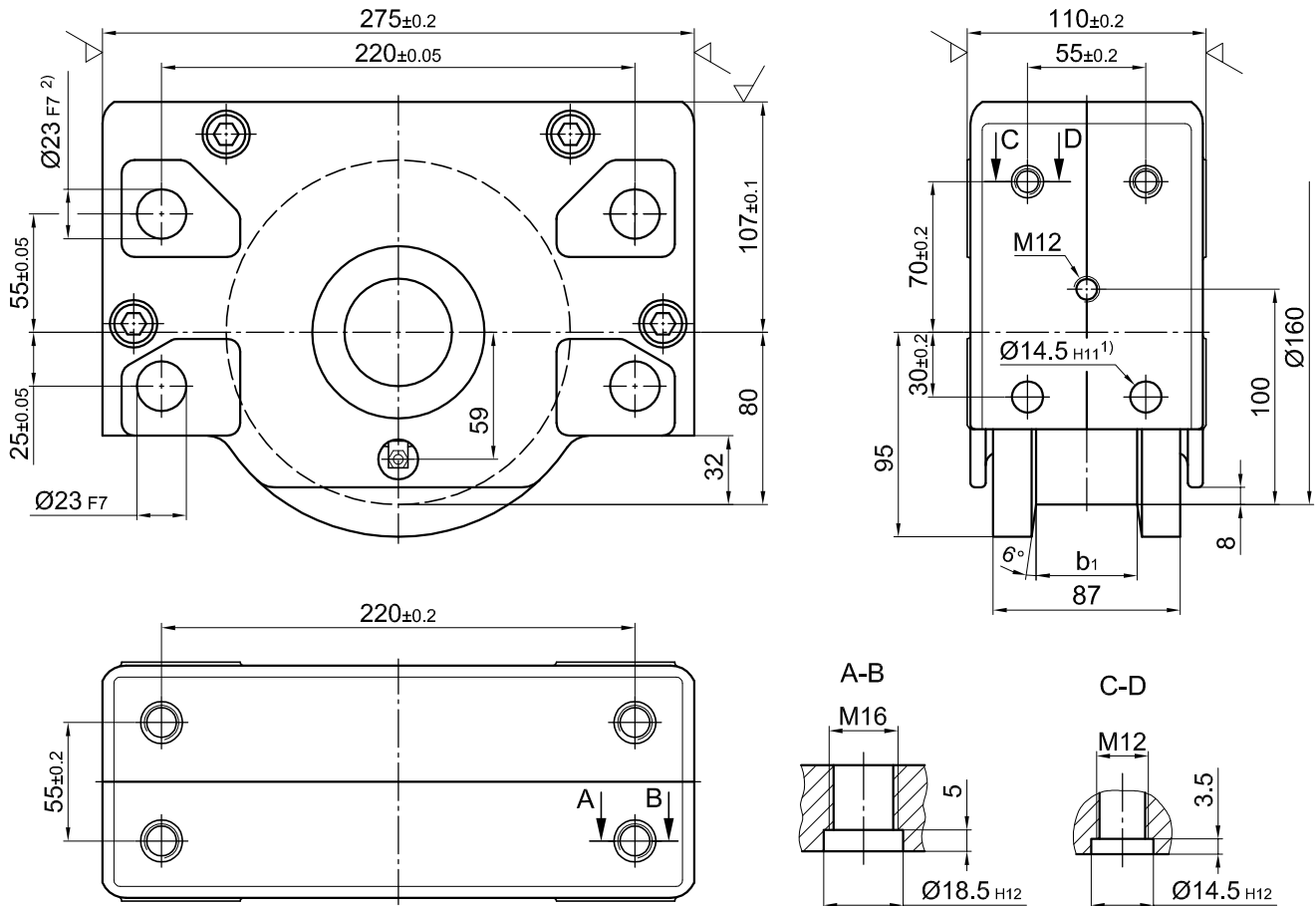
Higher wheel loads and wheel loads at higher travel speed on request.

Wheel block

RB 160

WHEEL BLOCK RB 160

Primary dimensions



1) Due to the use of retained nuts M12 in the holes 14.5 H_{11} , the threaded connection is attained as in section C-D

2) available with hole $\text{Ø}30 \text{ F8}$

Weight: approx. 22 kg
max. wheel load: 6 800 kg

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 mm

RBA 160×67

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

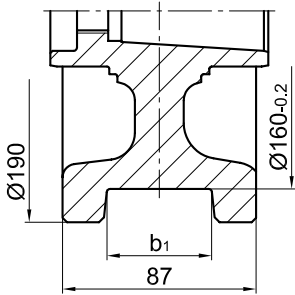
RBA 160

Wheel block 160, driven, with internal taper, with coating of PA12G, design Form 6

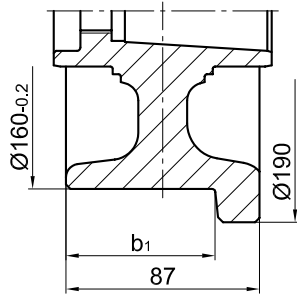
Design RBA and RBN, refer to page 5

WHEEL BLOCK RB 160

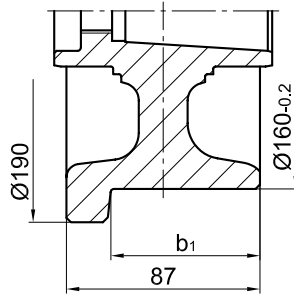
Standard models



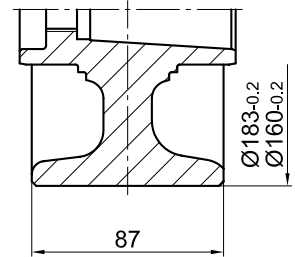
Form 1
two-sided wheel flange



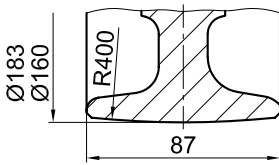
Form 2¹⁾
one-sided wheel flange
on the drive side



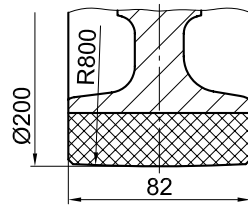
Form 3¹⁾
one-sided wheel flange
opposite to the drive side



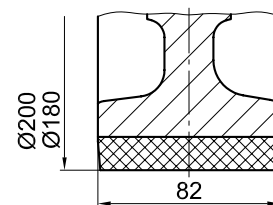
Form 4
no wheel flanges with
cylindrical running surface



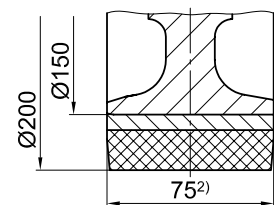
Form 5
no wheel flanges with
spherical running surface



Form 6
with coating
of PA 12 G

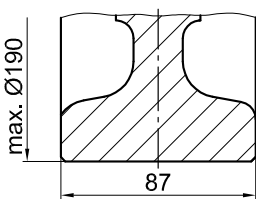


Form 7
with coating
of Vulkollan

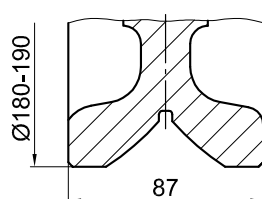


Form 8
with binding
of Vulkollan

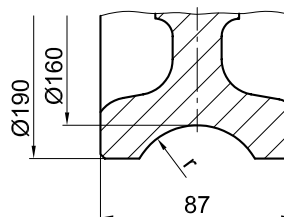
Special models



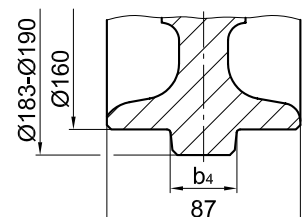
Form 9
no wheel flanges



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1		Form 2 and 3		
Running tread b_1 for two-sided wheel flange		Running tread b_1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal
20	68	47, 60	53.5	77.5

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

2) Available in special design up to a wheel width of 85 mm

WHEEL BLOCK RB 160

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.

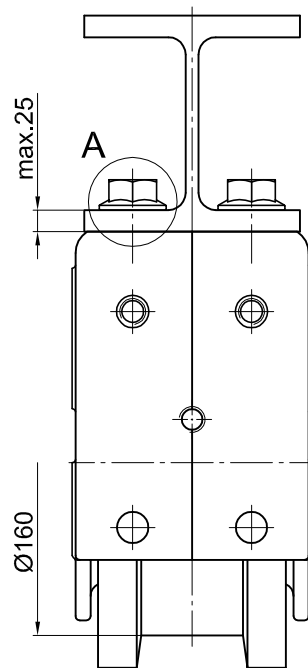
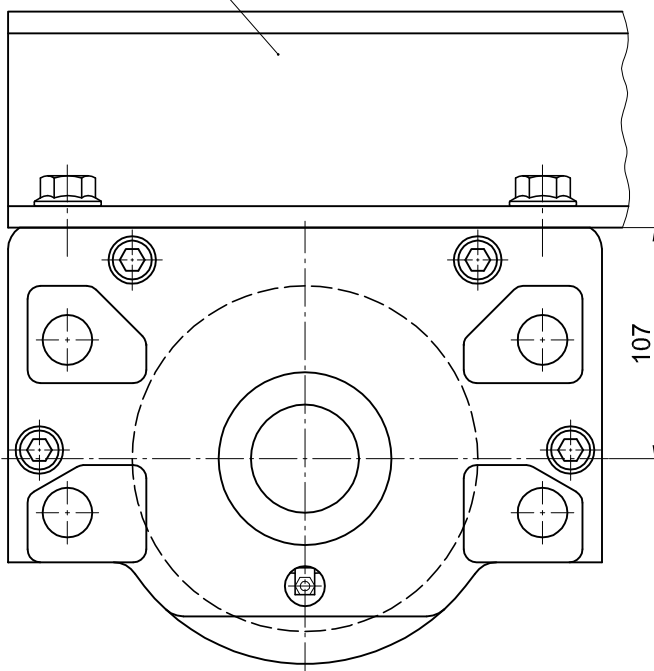
1 Set KA 160.1 comprising of:

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

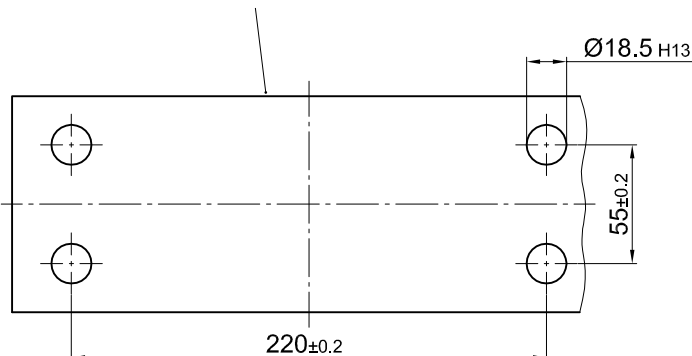
Mounting parts for larger steel plate thicknesses and/or adjustable direct connection are available on request.

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

Attachment design

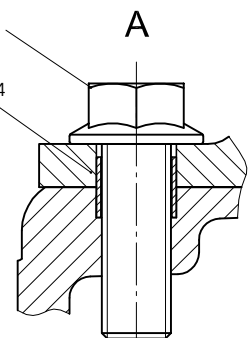


Hole pattern attachment design for precise fitting variant



Locking screw M16×45
Tightening torque 330 Nm

Locking pin 18.5×1×14



WHEEL BLOCK RB 160

Connection options

Top connection KA 160.2

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

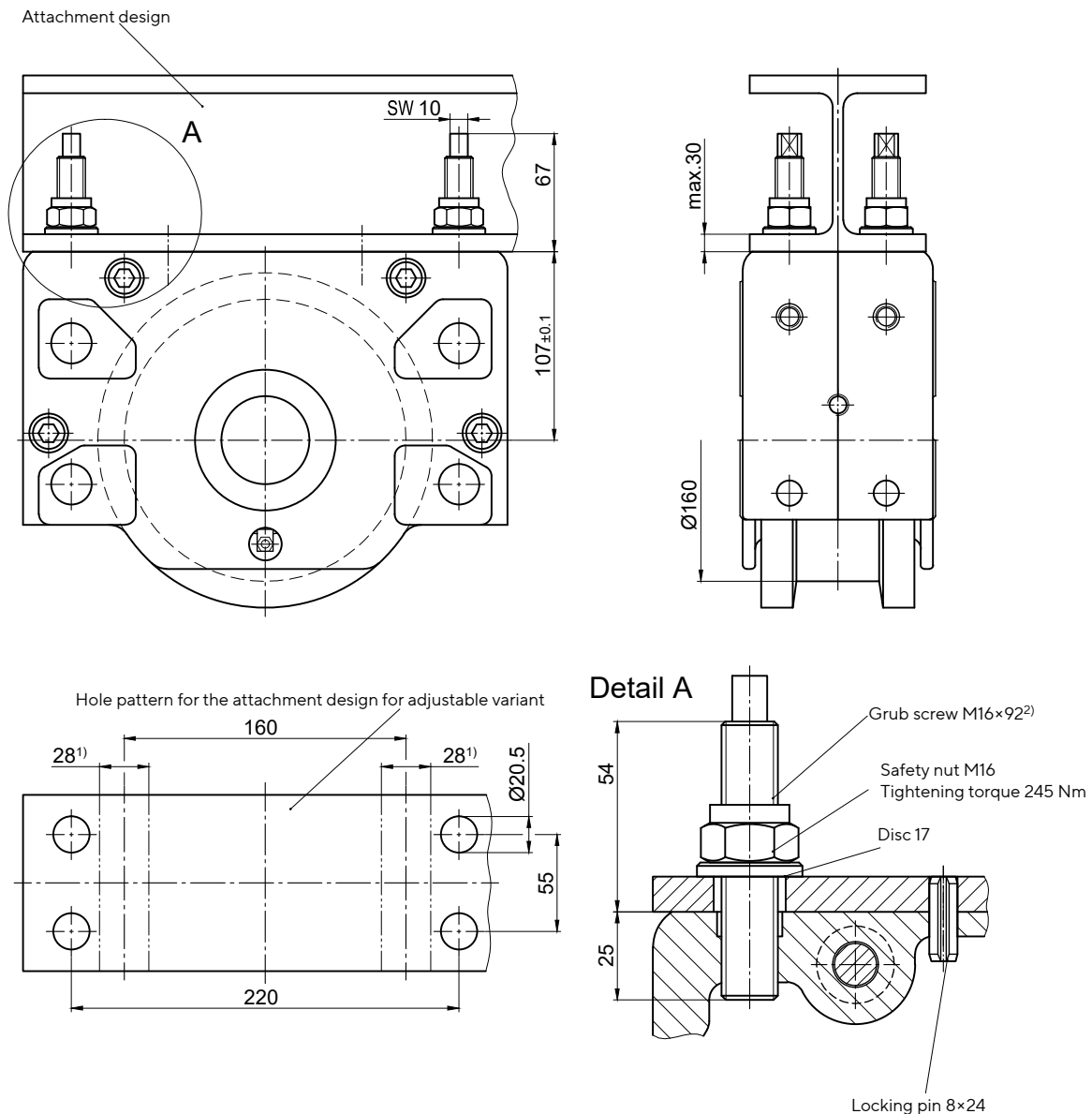
Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 8×24 supplied.

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 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

WHEEL BLOCK RB 160

Connection options

Pin attachment BA 160.1

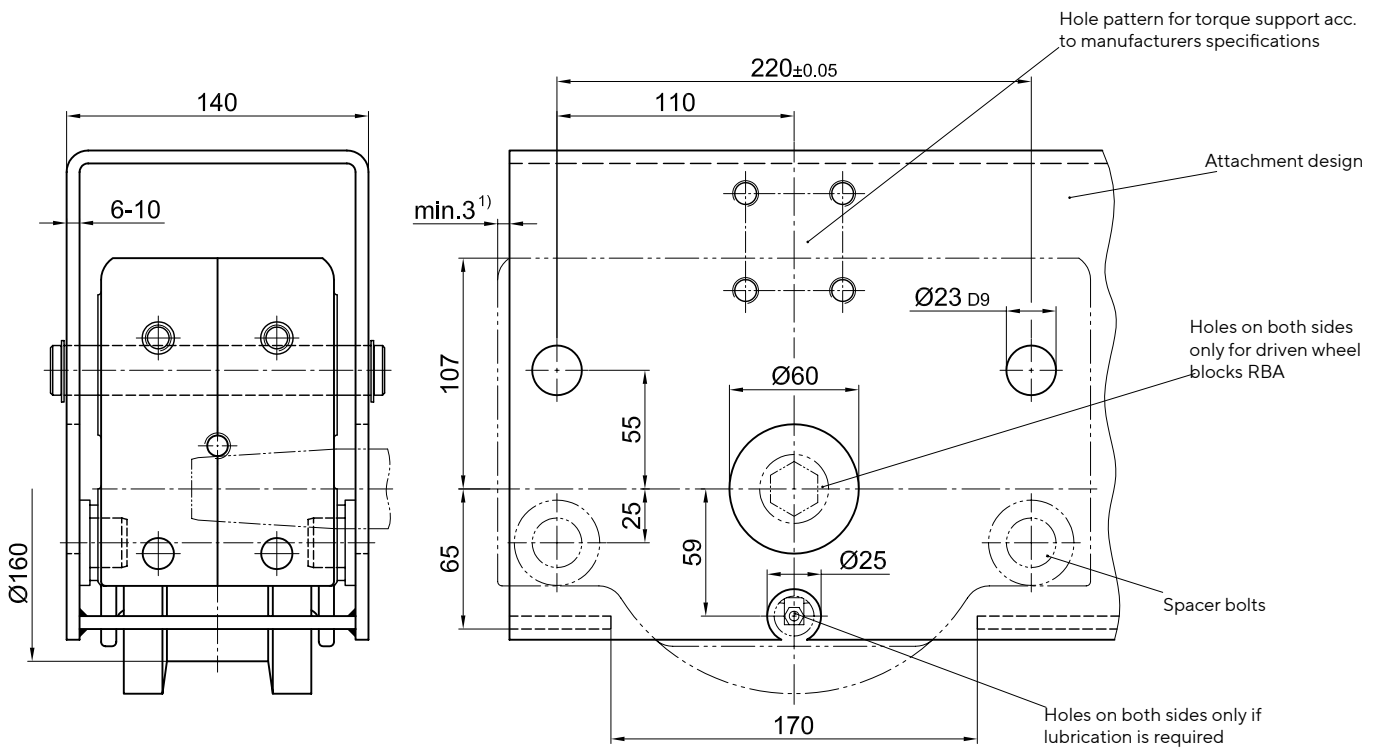
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

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

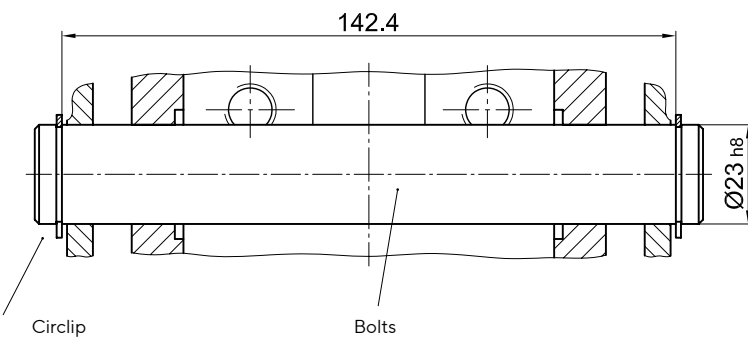
1 Set BA 160.1 comprising of:

- 2 Bolts $\text{\O}23\text{h}8$
- 4 Circlipse 23×1.2 DIN 471
- 4 Spacer bolts
- 28 Adjusting washers $25\times 35\times 0.5$ DIN 988

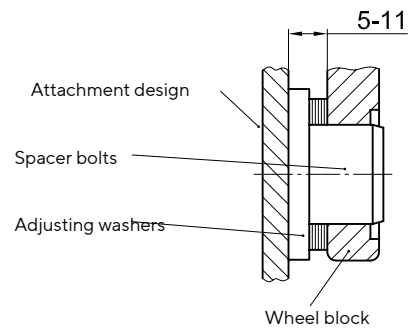
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 160

Connection options

Pin attachment BA 160.2

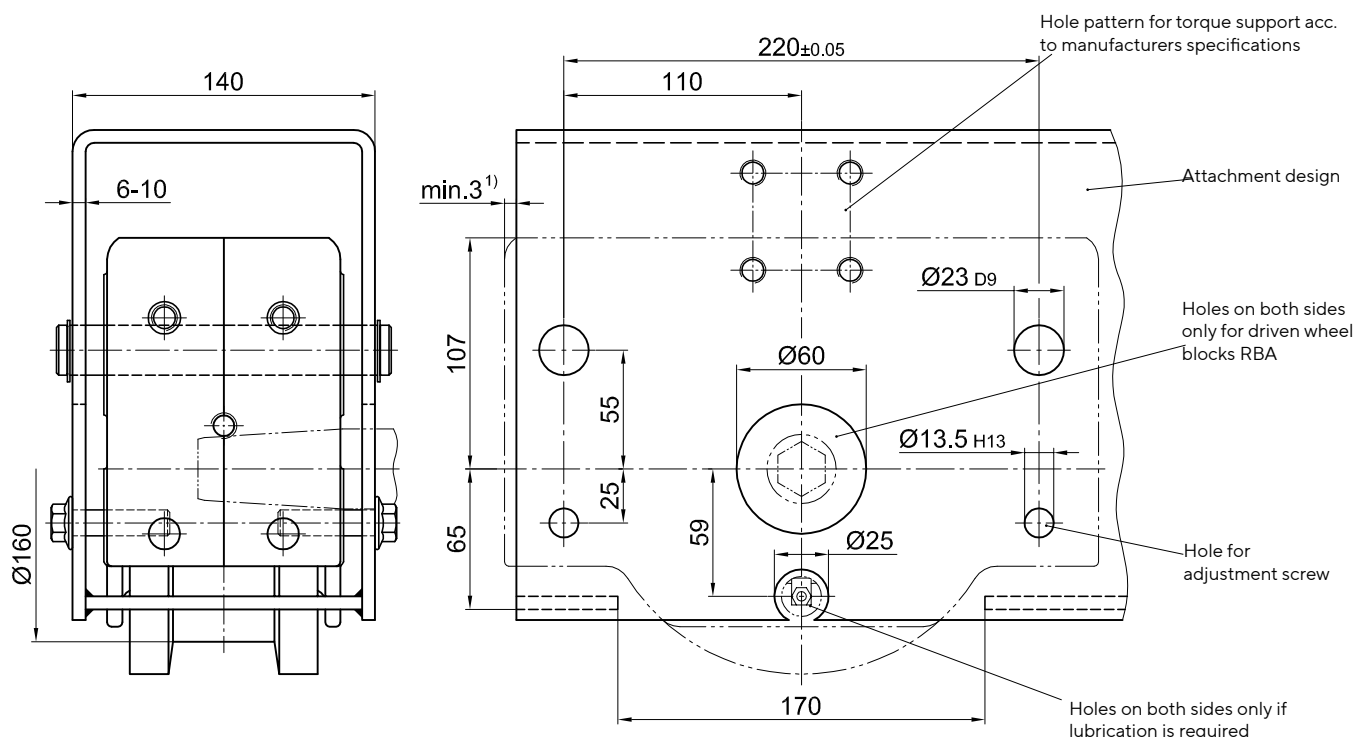
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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

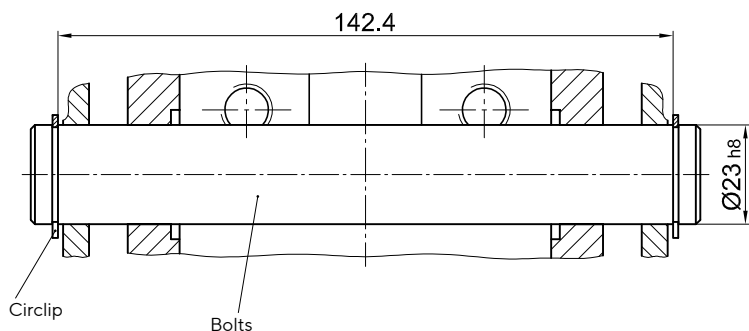
1 Set BA 160.2 comprising of:

- 2 Bolts $\varnothing 23$ h8
- 4 Circlipse 23x1.2 DIN 471
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M12x45 (coated)

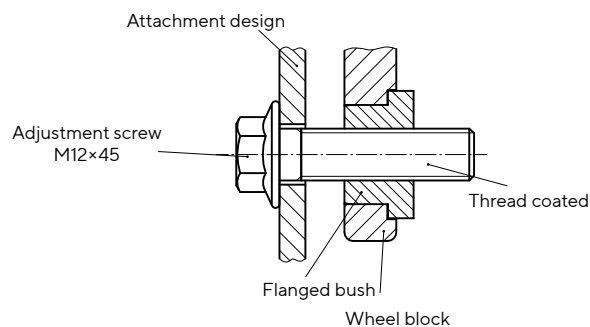
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 160

Connection options

Pin attachment BA 160.3

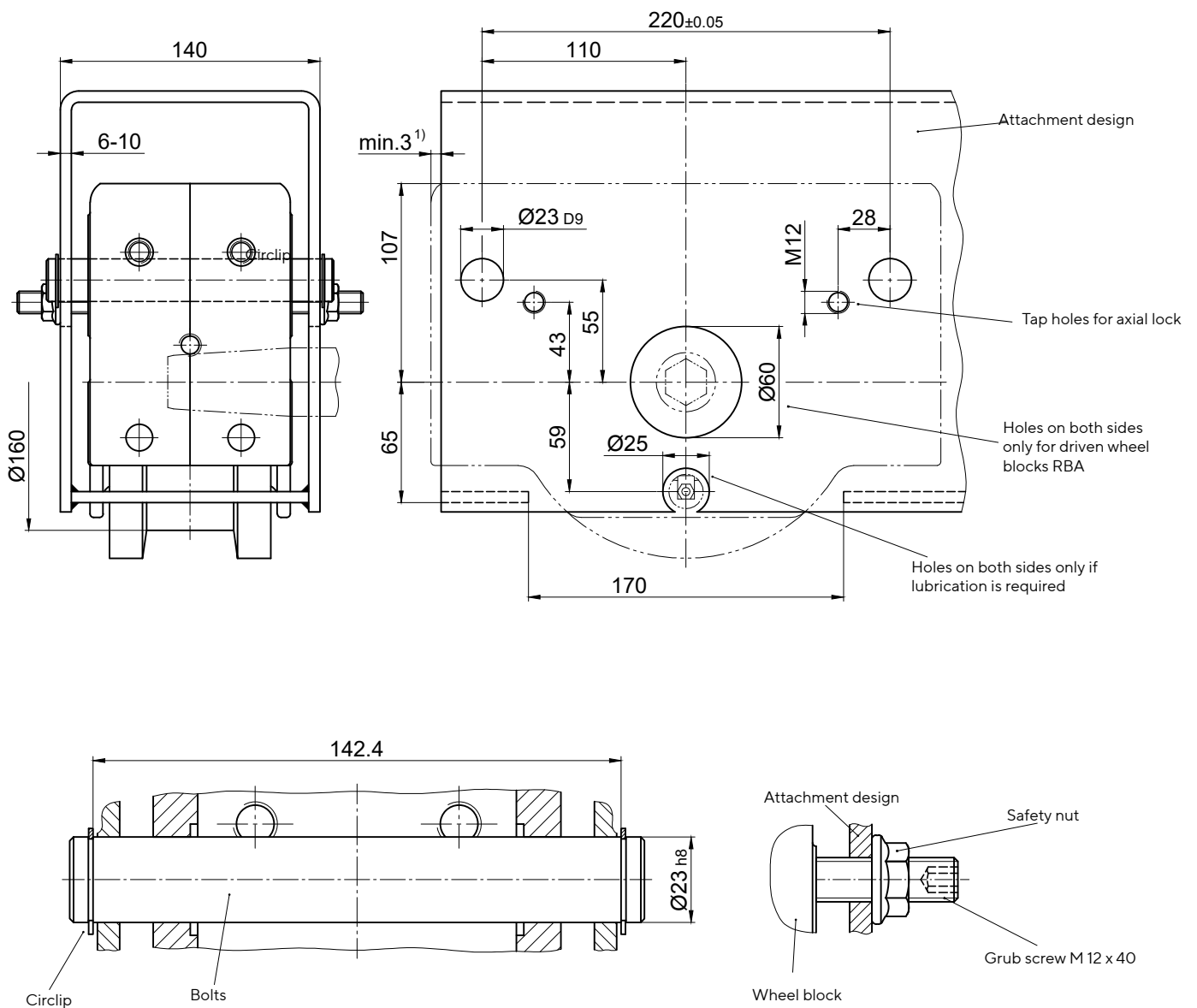
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

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 $\text{Ø}23$ h8
- 4 Circlipse 23×1.2 DIN 471
- 4 Grub screws with hexagon socket M 12×40 -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.



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 160

Connection options

Side connection WA 160

Lateral connection option for low construction designs

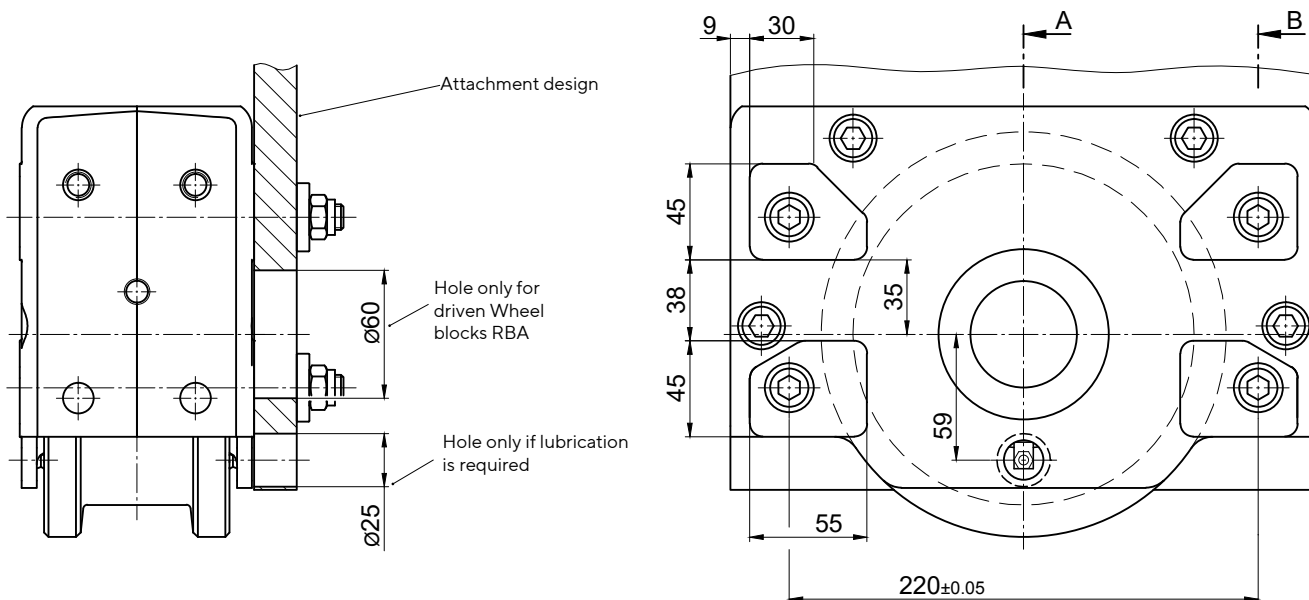
- 1 Set WAA 160 (Side connection on the drive side)
 - 1 Set WAN 160 (Side connection on the non-driven side)
 - 1 Set WA 160 (Side connection on non-driven wheel block RBN)
- comprising of:

- 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

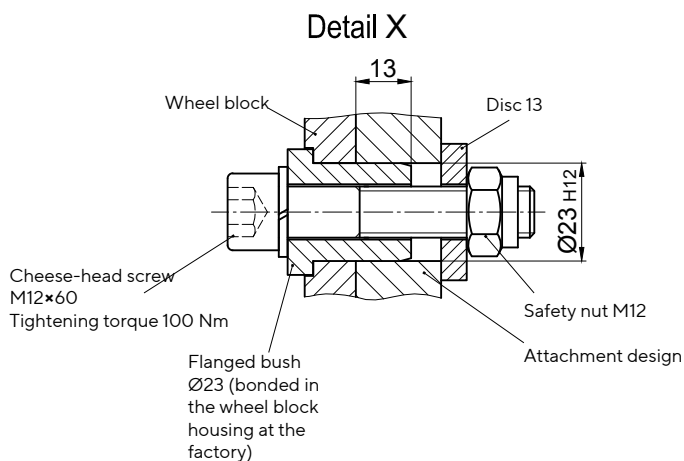
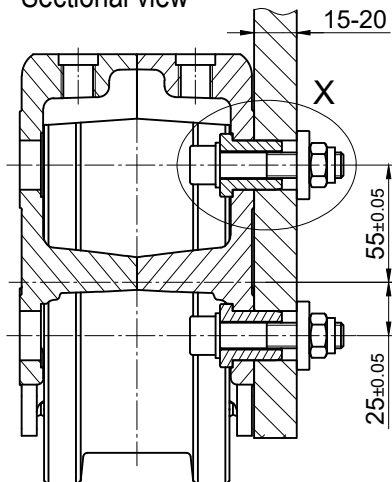
For wheel design form 6 to 8 (Ø200) the side connection needs to be executed as a special design.

Attachment variant 1:

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



Sectional view



WHEEL BLOCK RB 160

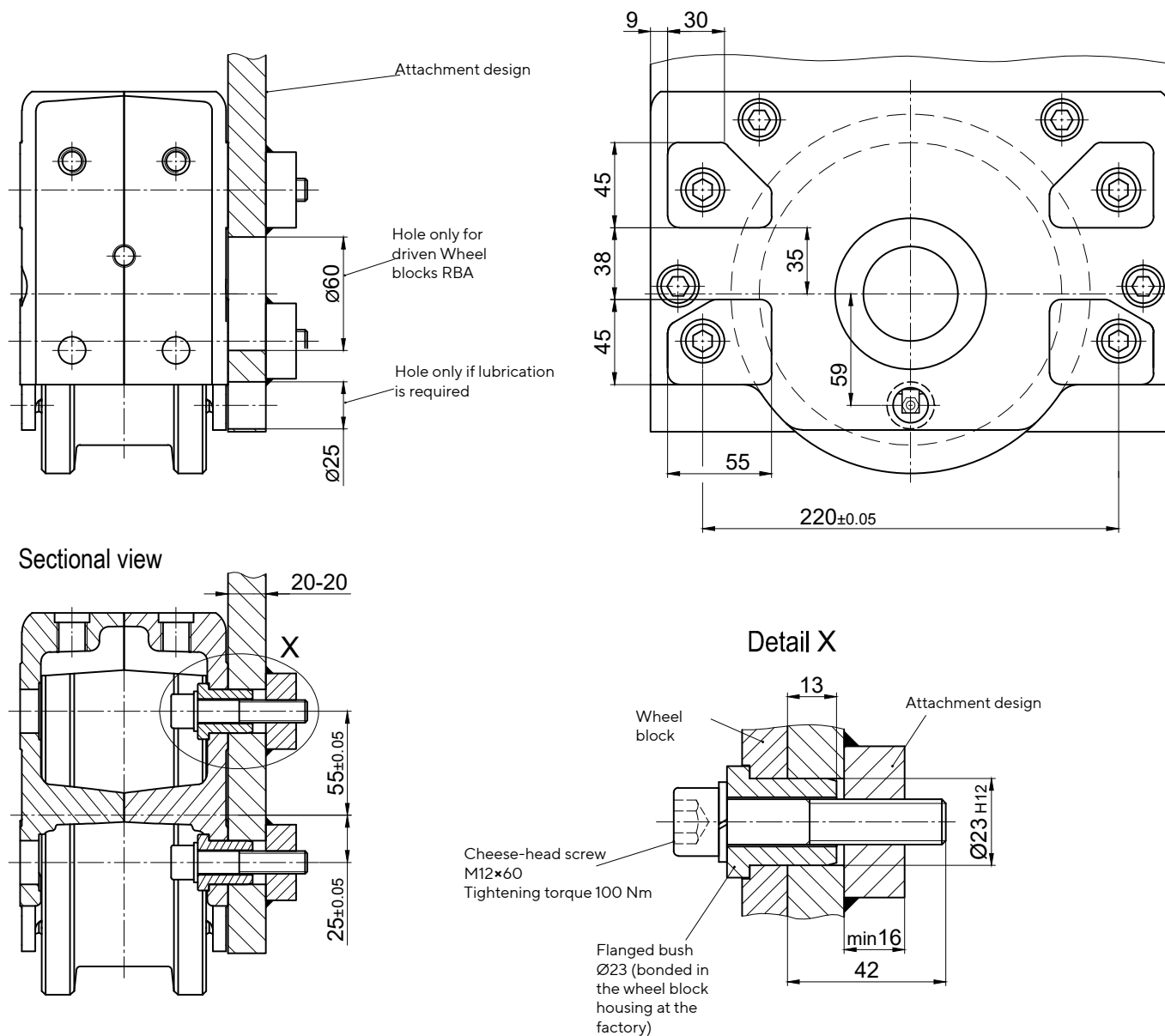
Connection options

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

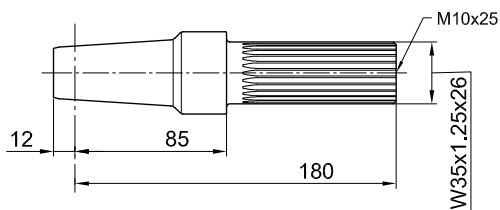
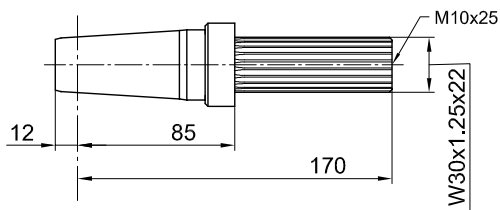
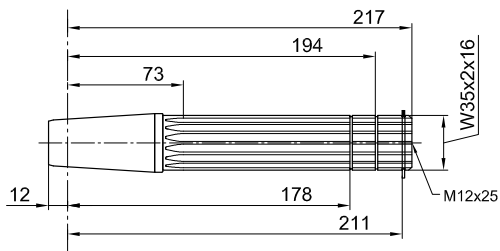
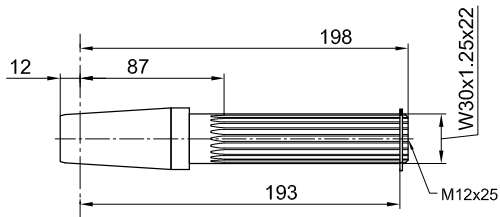


WHEEL BLOCK RB 160

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



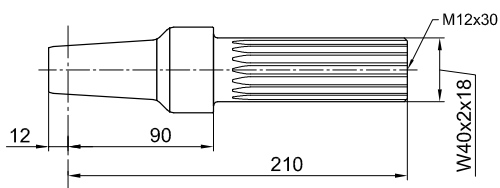
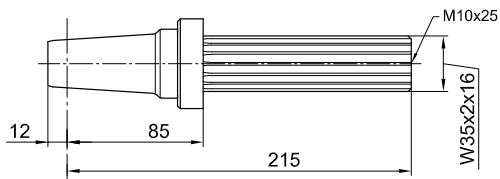
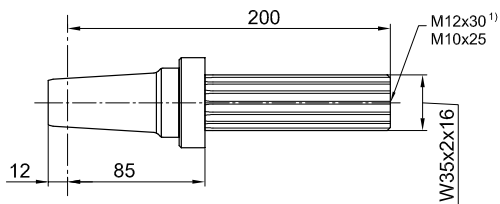
Slip-on gear mechanism		
Model	Manufacturer	Splined-shaft profile in acc. with DIN 5480
AF 04 / AF 05	DEMAG	W30 x 1.25 x 22
AUK 20		
AF 05 / AF 06	DEMAG	W35 x 2 x 16
AUK 30		
FV 37 / KV 37	SEW	W30 x 1.25 x 22
SK1282 EA	NORD	
SPZT 16	PREMIUM STEPHAN	
F.A.T 38 B	SIEMENS (FLENDER)	W35 x 1.25 x 26
KAT 38		
CAT 38		

Wheel block RB 160

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

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

FV 57 / KV 57	SEW	W35 x 2 x 16
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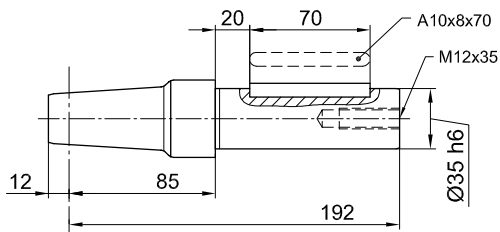
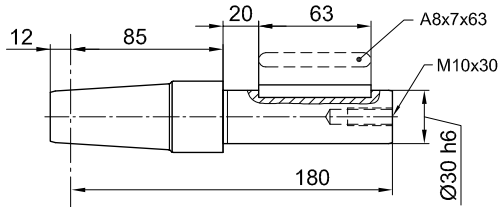
F.A.T 48 B	SIEMENS (FLENDER)	W40 x 2 x 18
KAT 48		
CAT 48		

WHEEL BLOCK RB 160

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	Manufacturer	Shaft journal

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

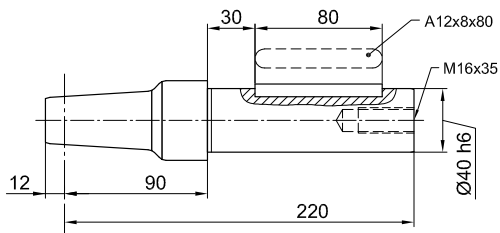
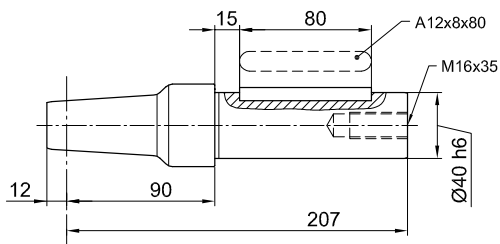
FA 47 / KA 47 SA 57	SEW	Ø35
SK 2282 AB	NORD	
FDA 48B FZA 48B KA 48 / CA 48	SIEMENS (FLENDER)	
O 42..G O 43..G K 43..H C 42..H	SIEMENS	
GFL 05..H GKS 05..H GSS 05..H	LENZE	
K3..A S2..A	STÖBER	
SPZH 26.. SKZH 26..	PREMIUM STEPHAN	

WHEEL BLOCK RB 160

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	Manufacturer	Shaft journal

FDA 48B FZA 48B KA 48 CA 48	SIEMENS (FLENDER)	$\text{Ø}40$
O 42..H O 43..H K 43..G C 42..G	SIEMENS	
GFL 06..H GKS 06..H GSS 06..H	LENZE	

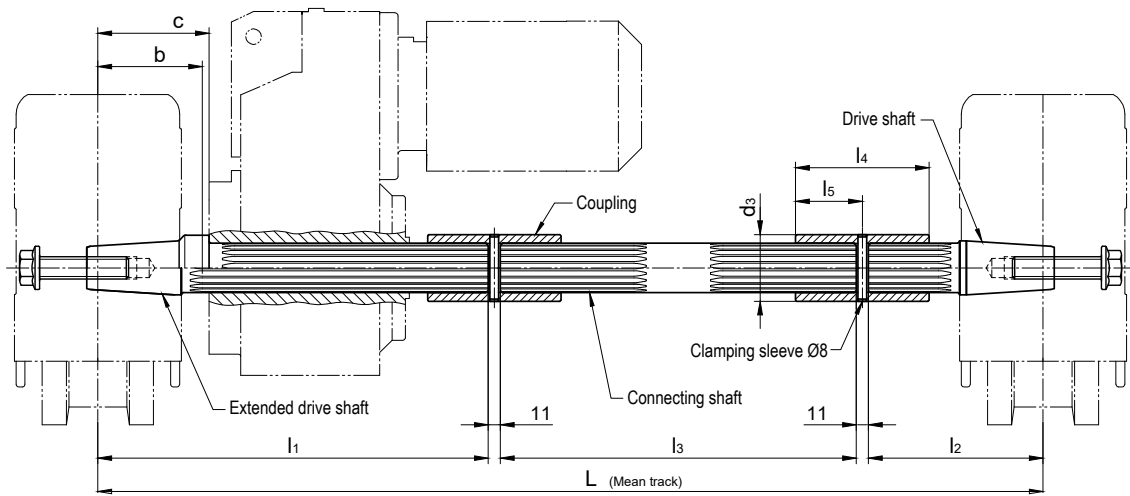
FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	$\text{Ø}40$
SK 3282 AB	NORD	
FDA 68B FZA 68B KA 68 CA 68	SIEMENS (FLENDER)	
O 62..G O 63..G K 63..G C 62..G	SIEMENS	
SPZH 36.. SKZH 36..	PREMIUM STEPHAN	

WHEEL BLOCK RB 160

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)



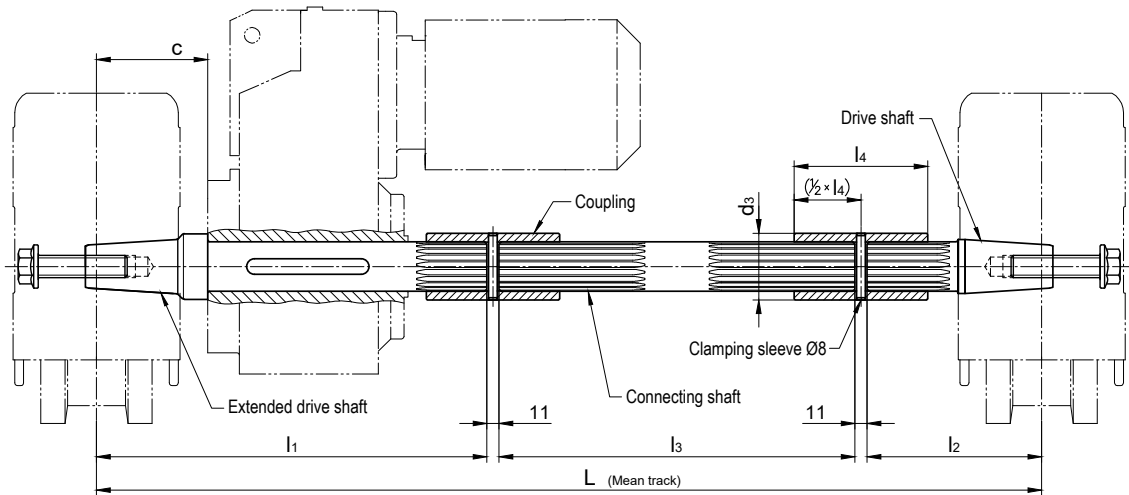
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	Centre RB to stop C	l4	l5	d3	Clamping sleeve DIN 1481
AF 04 / AF 05 AUK 20	DEMAG	W30 x 1.25 x 22	For ordering, please provide	258	170	Dimension L minus 450	87		80	40	40	8 x 40
FV 37 KV 37	SEW											
SK 1282EA	NORD											
SPZT 16..	PREMIUM STEPHAN											
F.A.T 38B K.A.T 38 C.A.T 38	SIEMENS (FLENDER)	W35 x 1.25 x 26		295	128	Dimension L minus 445	73		100	50	50	8 x 50
AF 05 AUK 30 / WUK 30	DEMAG	W35 x 2 x 16		325	128	Dimension L minus 475	73		100	50	50	8 x 50
FV 47 KV 47 FV 57 KV 57	SEW											
SK 2282 EA	NORD											
SPZT 26.. SKZT 26..	PREMIUM STEPHAN											
F.A.T 48B K.A.T 48 C.A.T 48	SIEMENS (FLENDER)	W40 x 2 x 18		330	233	Dimension L minus 585		90	100	50	55	8 x 55
SK 3282 EA SK 9022.1A.EA SK 9023.1A.EA	NORD											

WHEEL BLOCK RB 160

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	l ₁	l ₂	l ₃	c gearbox stop	Feather key DIN 6885	Coupling Internal gearing/ d ₃ x l ₄
Inner-Ø	Length							
Ø30	≤ 140	For ordering, please provide	285	170	Dimension L minus 477	-	A 8 x 7 x 70	N30 x 1.25 x 22 Ø40 x 80
Ø35	≤ 150		295	128	Dimension L minus 445	85	A 10 x 8 x 70	N35 x 2 x 16 Ø50 x 100
Ø40	≤ 180		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.

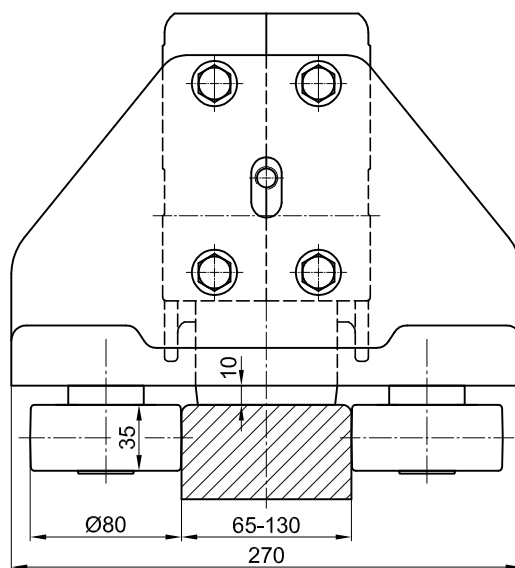
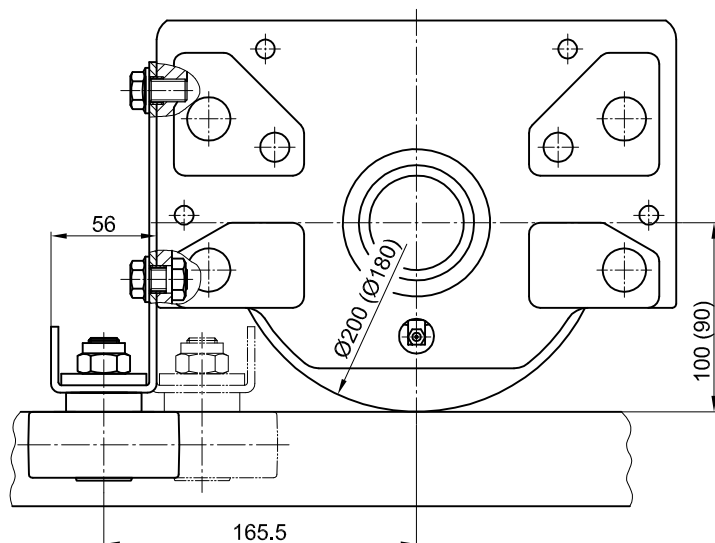
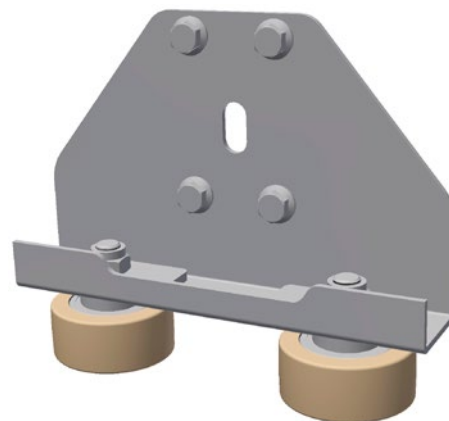
Drive shafts without gearbox stop and with adapted distance (c) on request.

WHEEL BLOCK RB 160

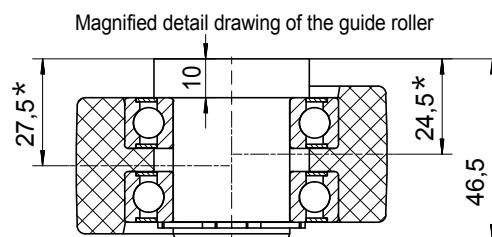
Horizontal roller guide for wheels of Ø200 and Ø180 with coating made of vulkollan or PA12G

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 continuous 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.

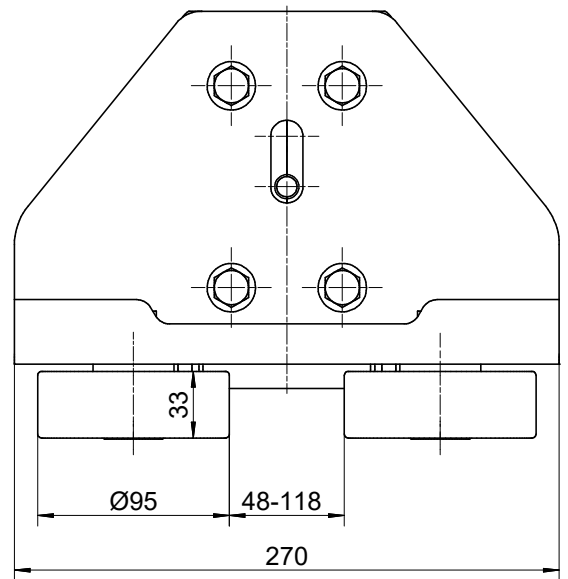
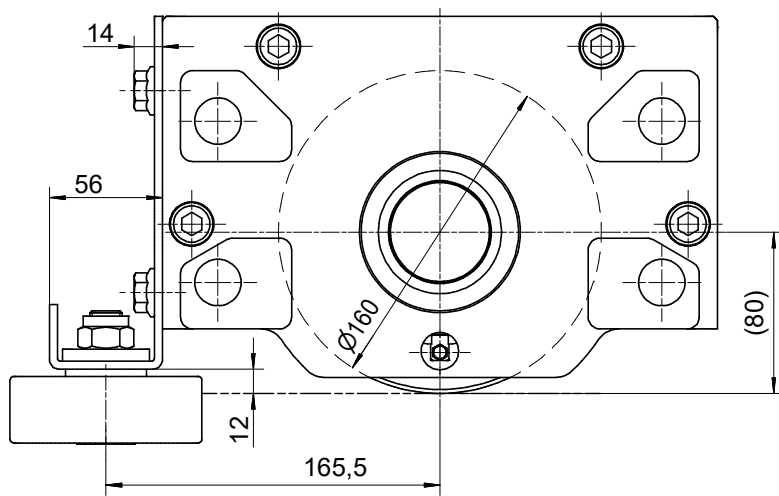
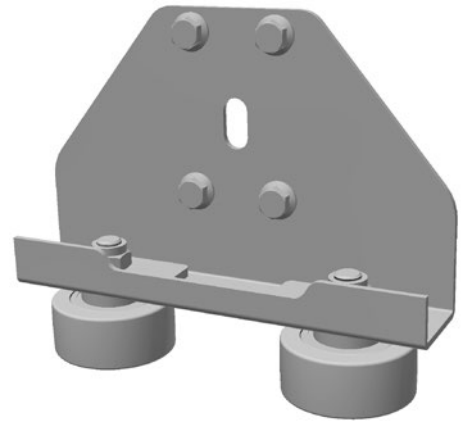
Horizontal roller guide for other rail profiles are available on request.

WHEEL BLOCK RB 160

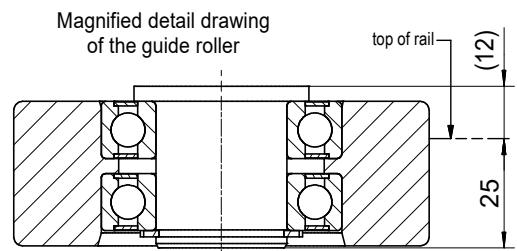
Horizontal roller guide for wheels of $\varnothing 160$ (Form 1-5)

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

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.

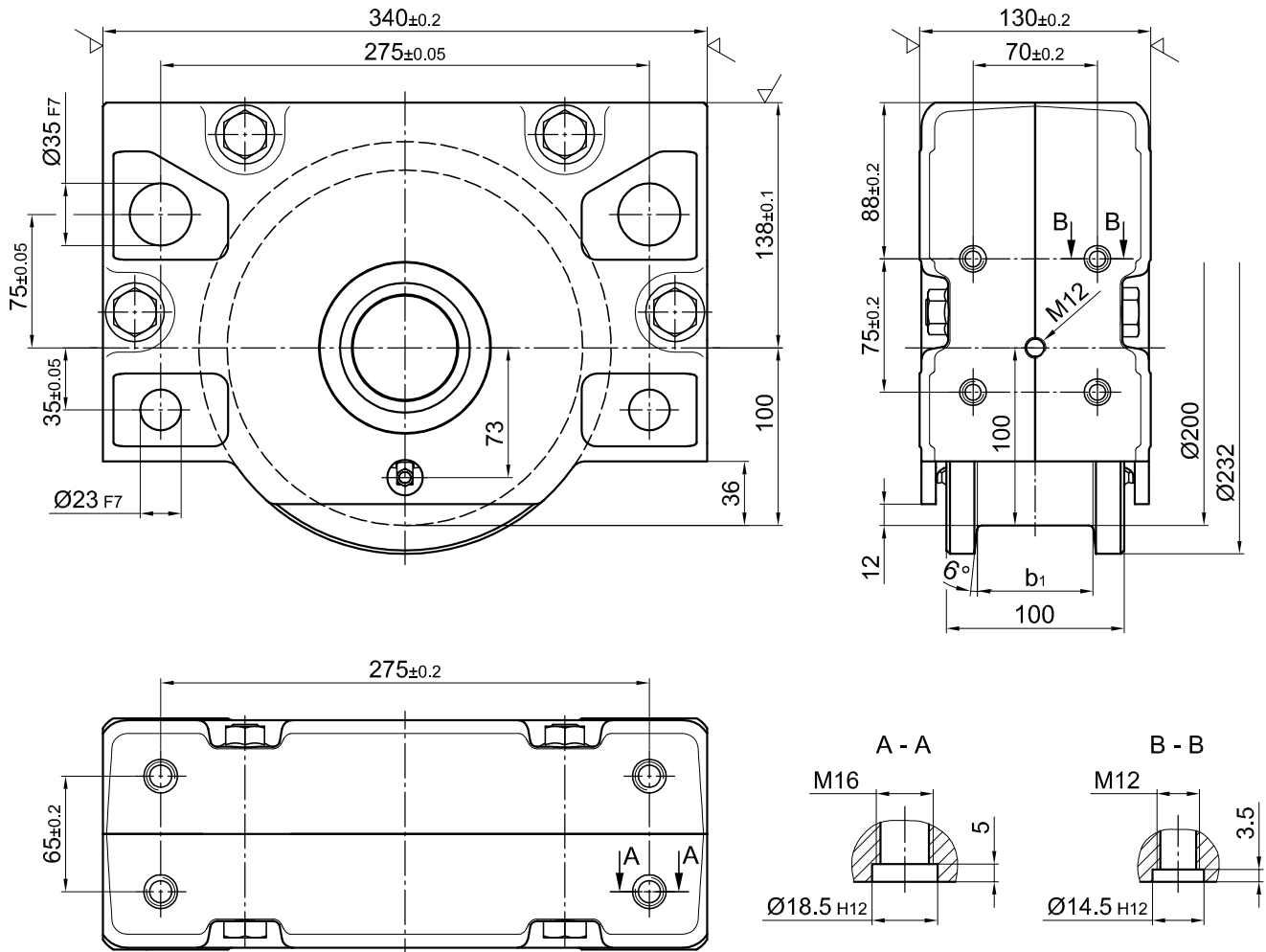
Horizontal roller guide for other rail profiles are available on request.

Wheel block

RB 200

WHEEL BLOCK 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 mm

RBN 200×60

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

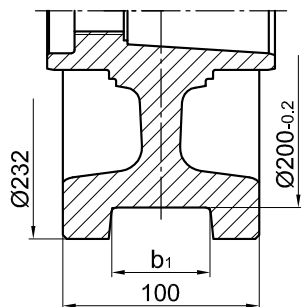
RBA 200×80

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

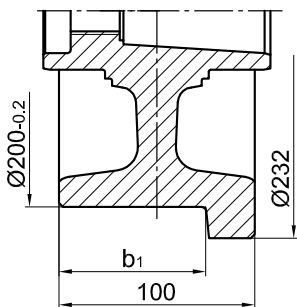
Design RBA and RBN refer to Page 5

WHEEL BLOCK RB 200

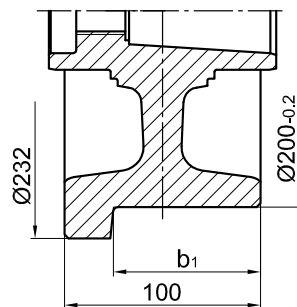
Standard models



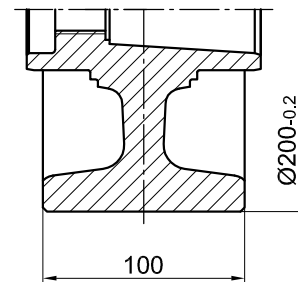
Form 1
two-sided wheel flange



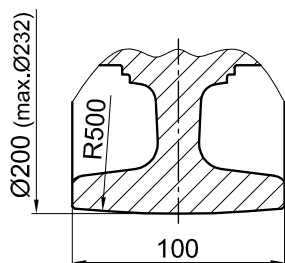
Form 2¹⁾
one-sided wheel flange
on the drive side



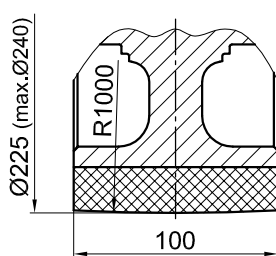
Form 3¹⁾
one-sided wheel flange
opposite to the drive side



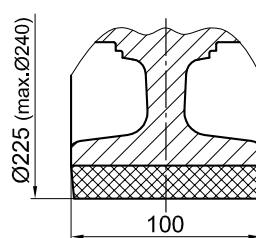
Form 4
no wheel flanges with
cylindrical running surface



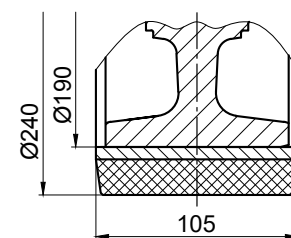
Form 5
no wheel flanges with
spherical running surface



Form 6
with coating
of PA 12 G

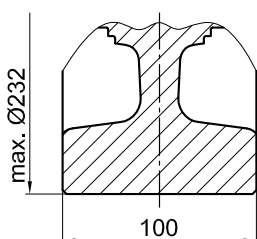


Form 7
with coating
of Vulkollan

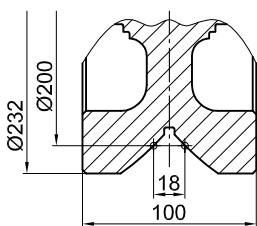


Form 8
with binding
of Vulkollan

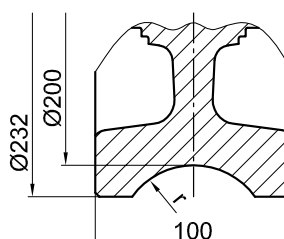
Special models



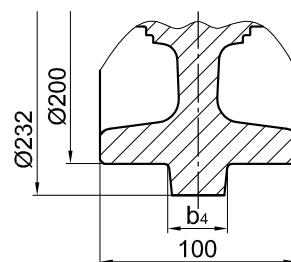
Form 9
no wheel flanges



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1			Form 2 and 3	
Running tread b_1 for two-sided wheel flange			Running tread b_1 for one-sided wheel flange	
minimal	maximal	Standard	minimal	maximal
20	75	65	60	87.5

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

WHEEL BLOCK RB 200

Connection options

Top connection KA 200.1

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

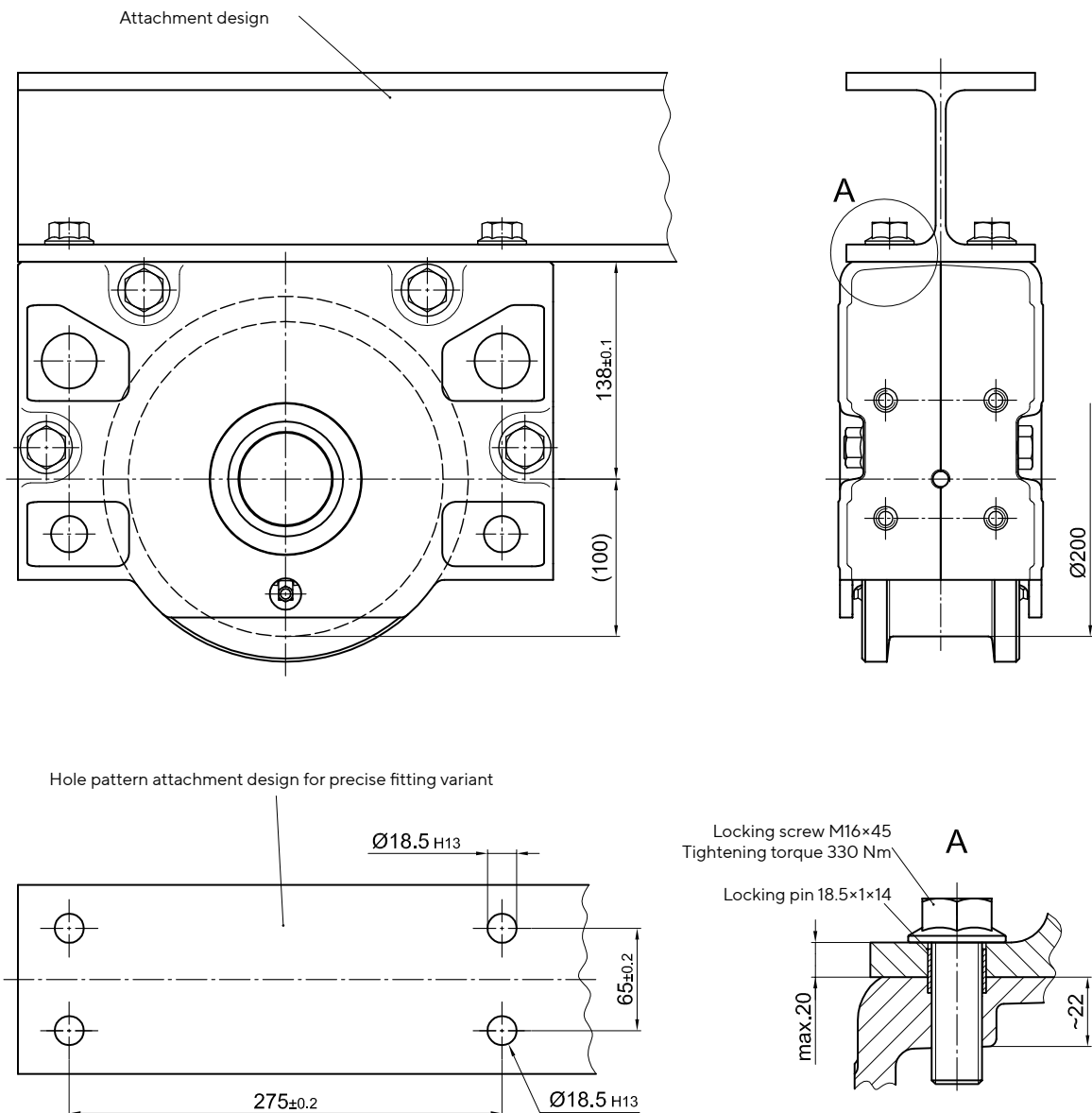
Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

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 steel 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).



WHEEL BLOCK RB 200

Connection options

Top connection KA 200.2

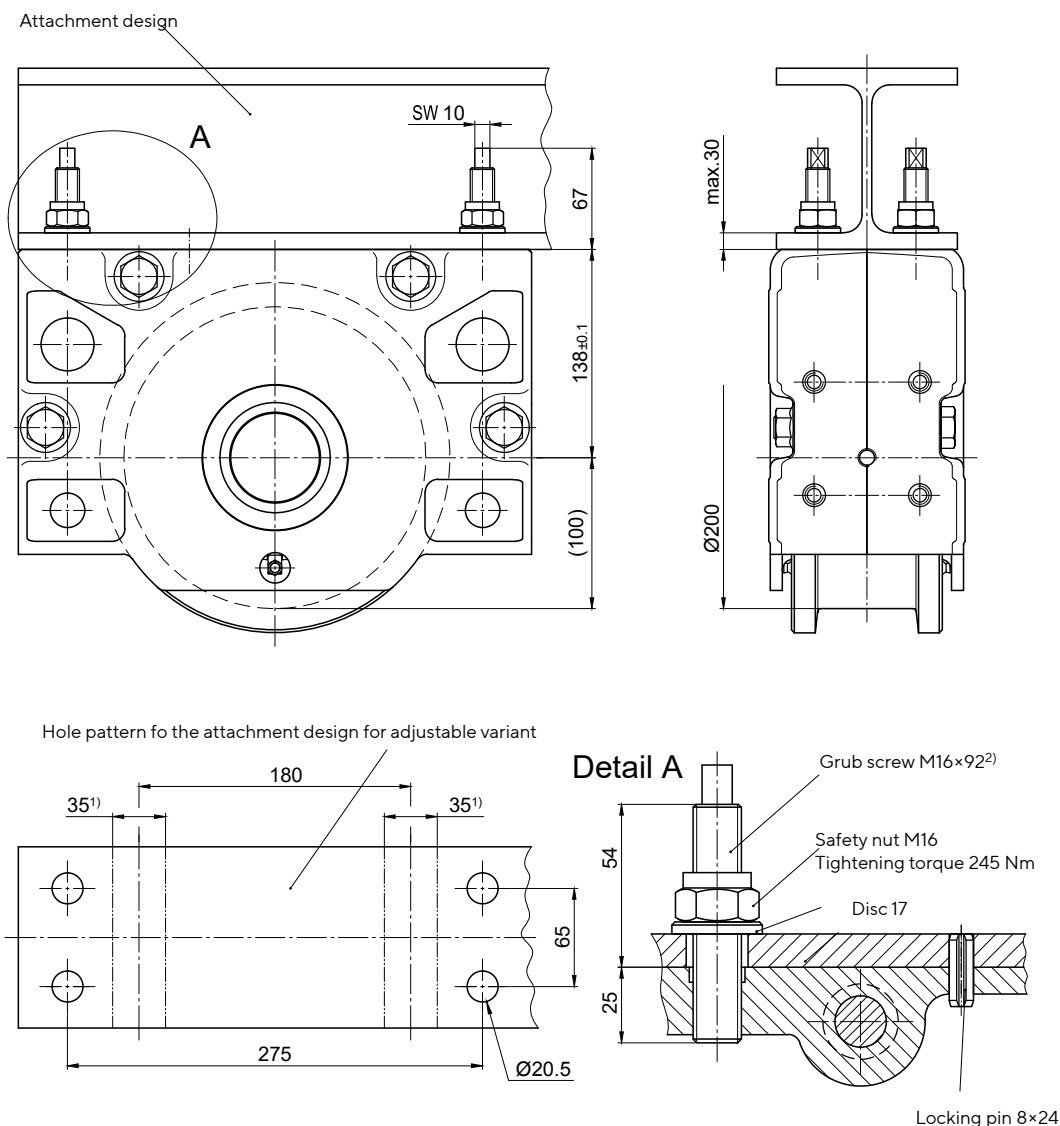
Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.)

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

WHEEL BLOCK RB 200

Connection options

Pin attachment BA 200.2

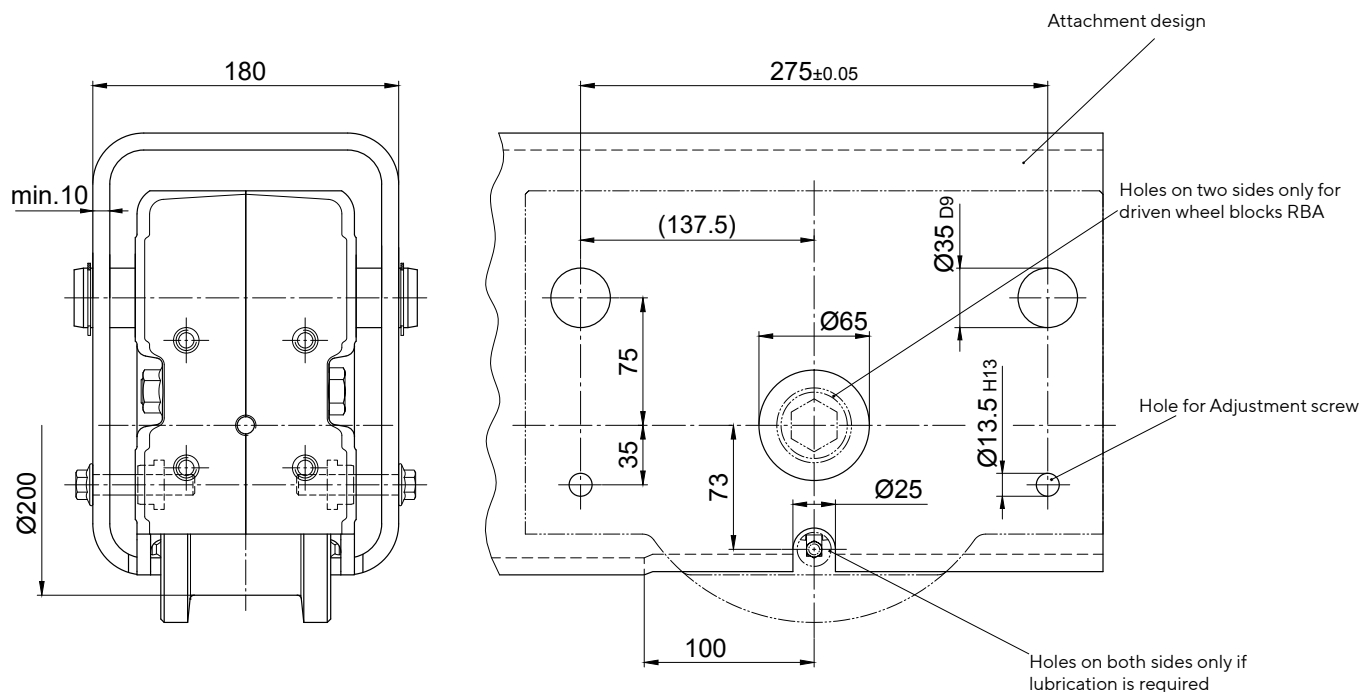
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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.

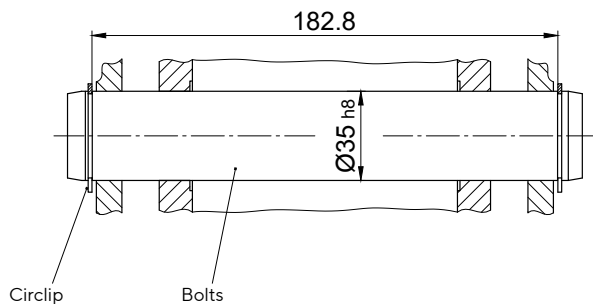
1 Set BA 200.2 comprising of:

- 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)

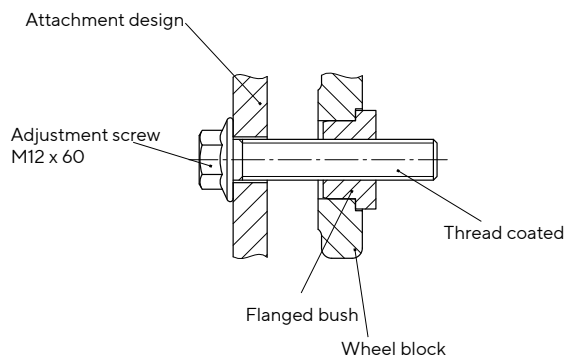
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



WHEEL BLOCK RB 200

Connection options

Pin attachment BA 200.3

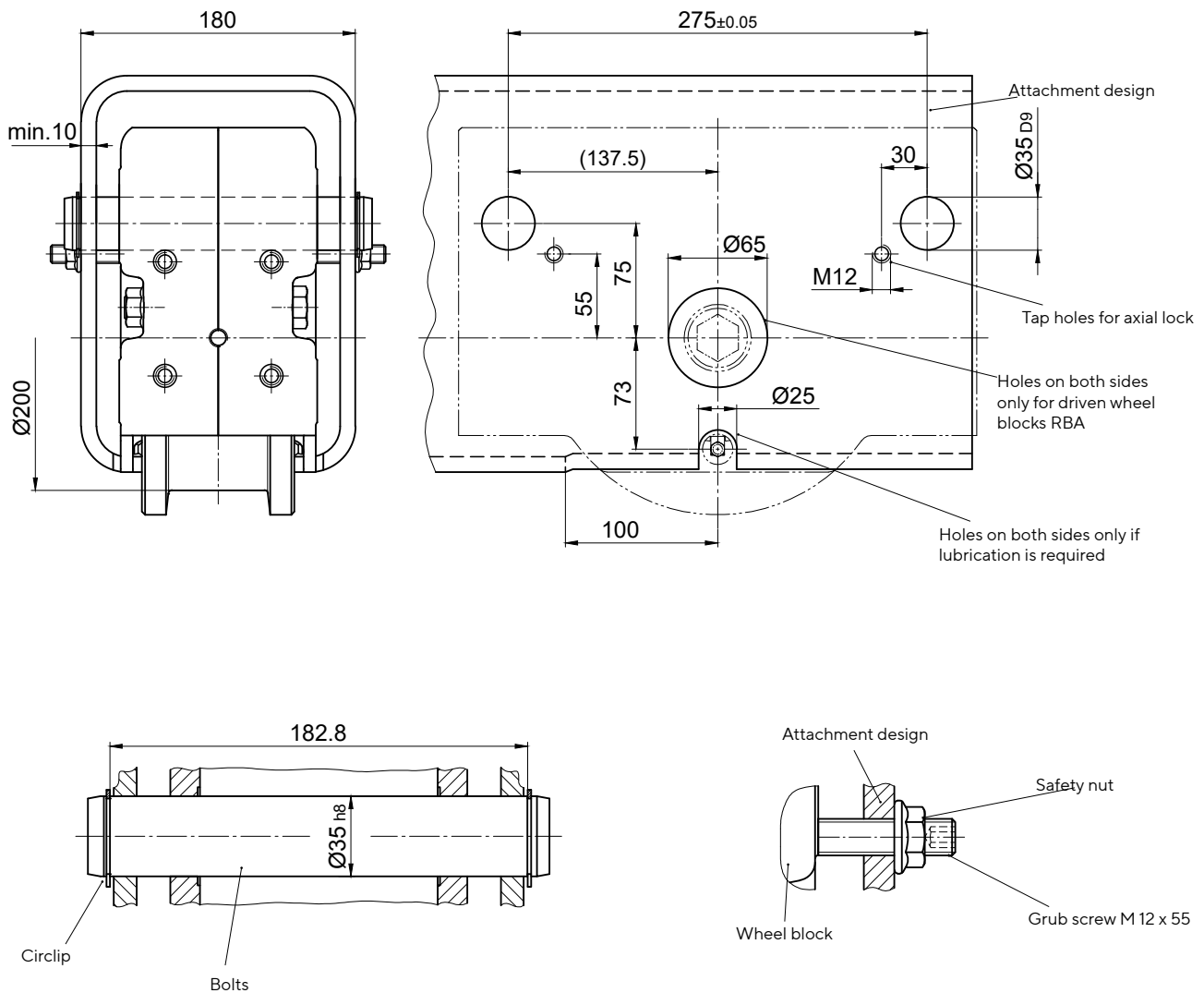
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

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 M 12×55-45H DIN EN ISO 4026 (DIN 913)
- 4 Safety nuts M 12-10

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



Wheel block RB 200

Connection options

Side connection WA 200

Lateral connection option for low construction designs

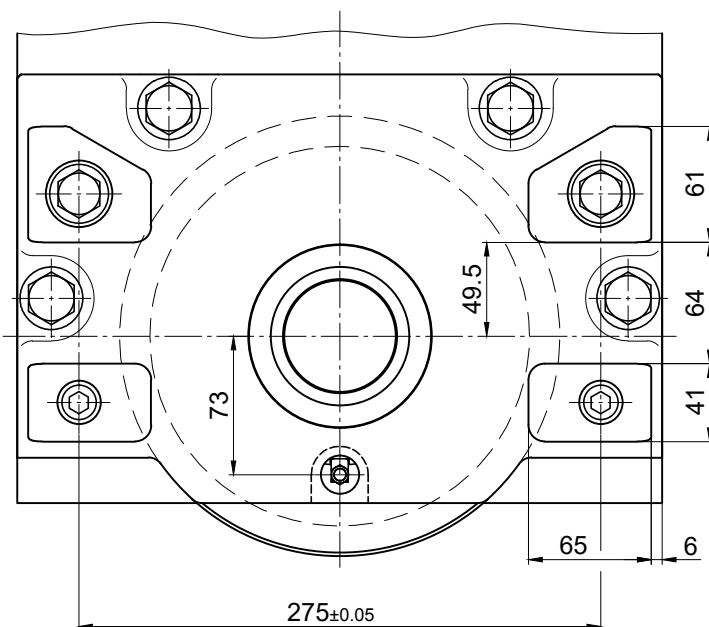
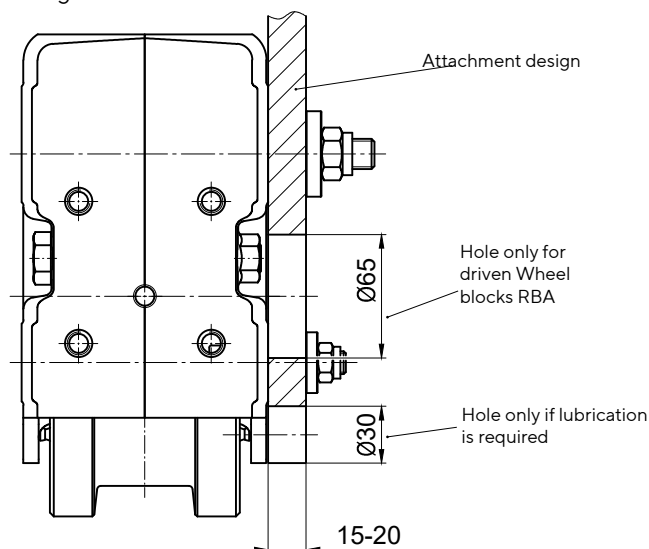
- 1 Set WAA 200** (Side connection on the drive side)
 - 1 Set WAN 200** (Side connection on the non-driven side)
 - 1 Set WA 200** (Side connection on non-driven wheel block RBN)
- comprising of:**

- 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

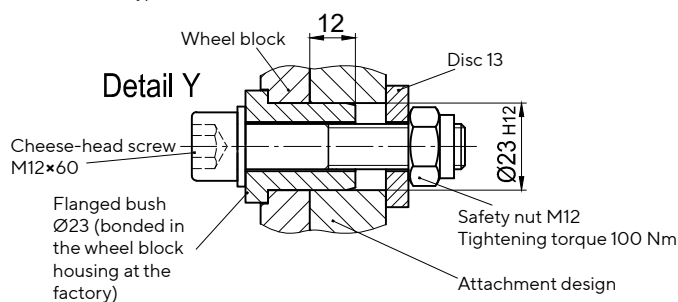
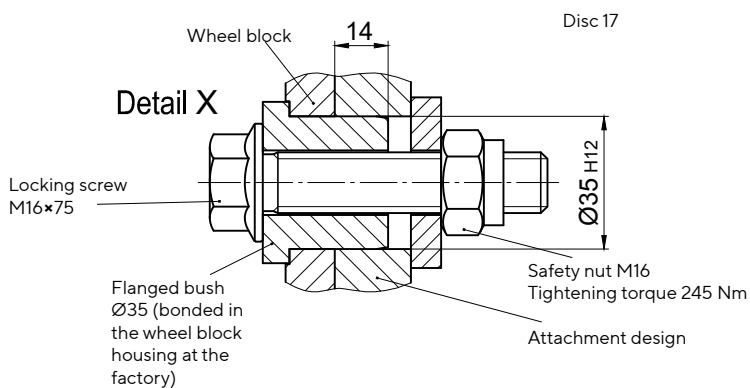
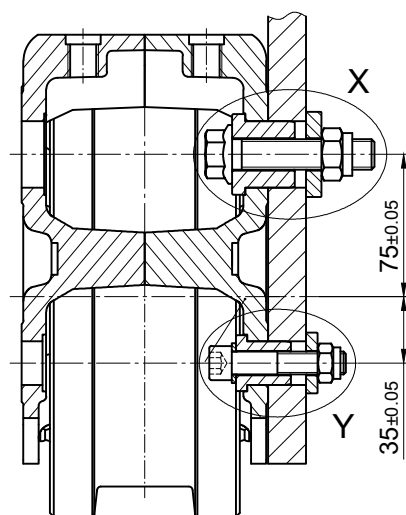
- 2 Flanged bushings Ø23 (bonded)
- 2 Cheese-head screws M12×60 -10.9 DIN EN ISO 4762 (DIN 912)
- 2 Lock washers 12
- 2 Safety nuts M12 -10, DIN EN ISO 7042 (DIN 980)
- 2 Discs 13 / 32×6

Attachment variant 1:

Attachment design is accessible from both sides
Trough-hole Ø35 H12
Trough-hole Ø23 H12



Sectional view



WHEEL BLOCK RB 200

Connection options

Side connection WA 200

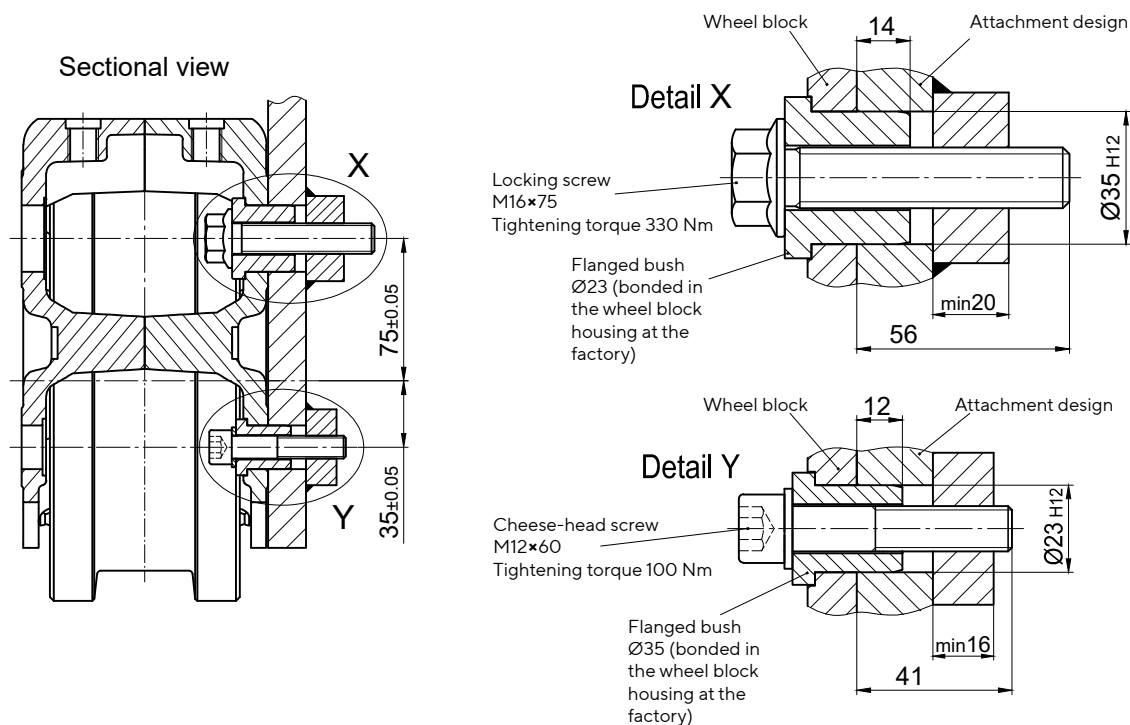
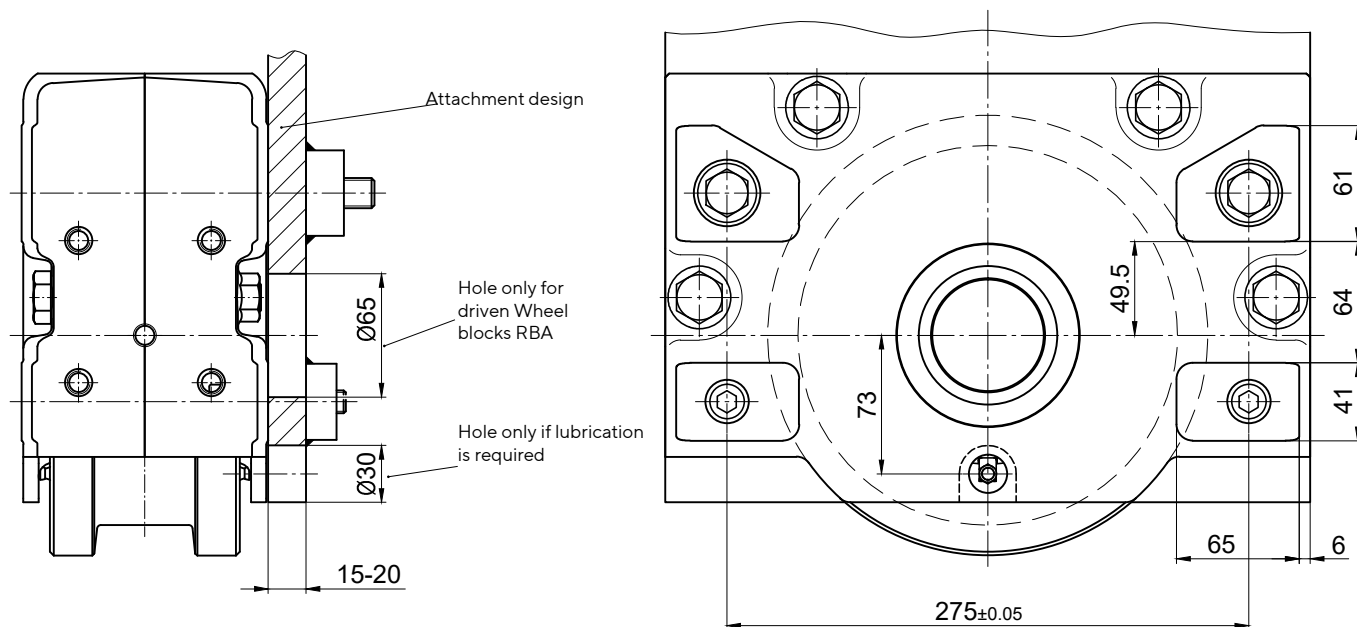
Lateral connection option for low construction designs

Attachment variant 2:

Attachment design (e.g. hollow profile) is not accessible from the inside

Blind hole $\varnothing 35$ H12 \times 15 deep with thread M16

Blind hole $\varnothing 23$ H12 \times 15 deep with thread M12

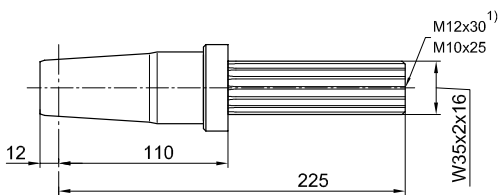
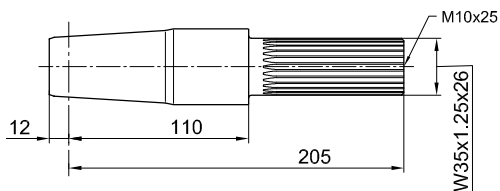
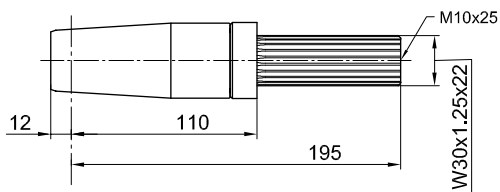


WHEEL BLOCK RB 200

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

FV 37 / KV 37	SEW	W30 x 1.25 x 22
SK 1282 EA	NORD	
SPZT 16	PREMIUM STEPHAN	

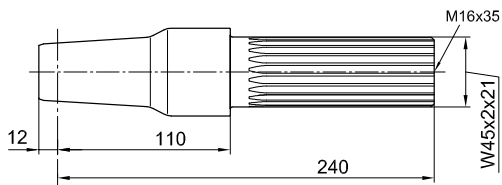
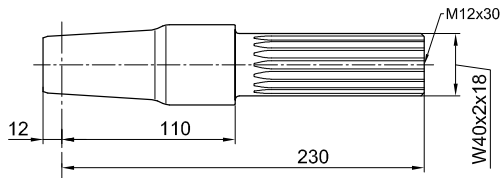
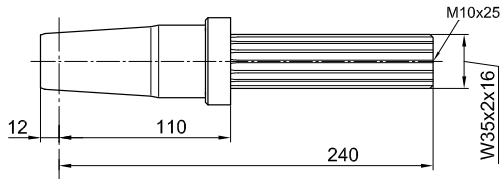
F.A.T 38 B	SIEMENS (FLENDER)	W35 x 1.25 x 26
K.A.T 38		
C.A.T 38		

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

WHEEL BLOCK RB 200

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

FV 57 / KV 57	SEW	W35 x 2 x 16
---------------	-----	--------------

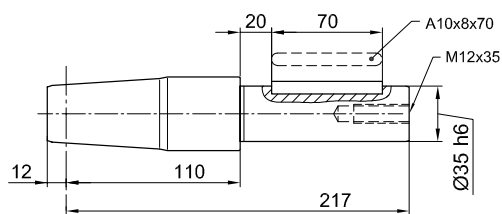
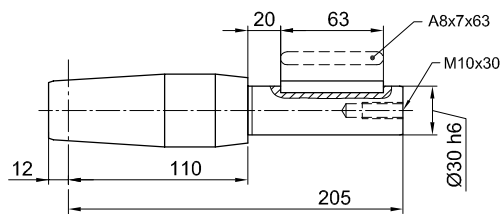
F.A.T 48 B	SIEMENS (FLENDER)	W40 x 2 x 18
K.A.T 48		
C.A.T 48		

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

Wheel block 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		
Model	Manufacturer	Shaft journal

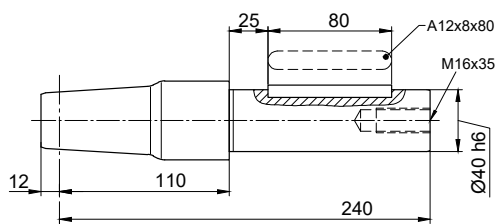
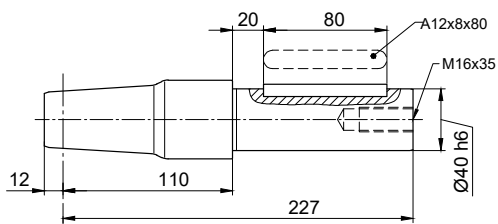
FA 37 / KA 37 SA 47	SEW	Ø30
FDA 38 B FZA 38 B	SIEMENS (FLENDER)	
KA 38 / CA 38		
O 32..H O 33..H K 33..H C 32..H	SIEMENS	
SK 0282 NBAB SK 1282 AB	NORD	
GFL 04..H GKS 04..H GSS 04..H	LENZE	
F3A	STÖBER	

FA 47 / KA 47 SA 57	SEW	Ø35
SK 2282 AB	NORD	
FDA 48B FZA 48B KA 48 / CA 48	SIEMENS (FLENDER)	
O 42..G O 43..G K 43..H C 42..H	SIEMENS	
GFL 05..H GKS 05..H GSS 05..H	LENZE	
K3..A S2..A	STÖBER	
SPZH 26.. SKZH 26..	PREMIUM STEPHAN	

Wheel block 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		
Model	Manufacturer	Shaft journal

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

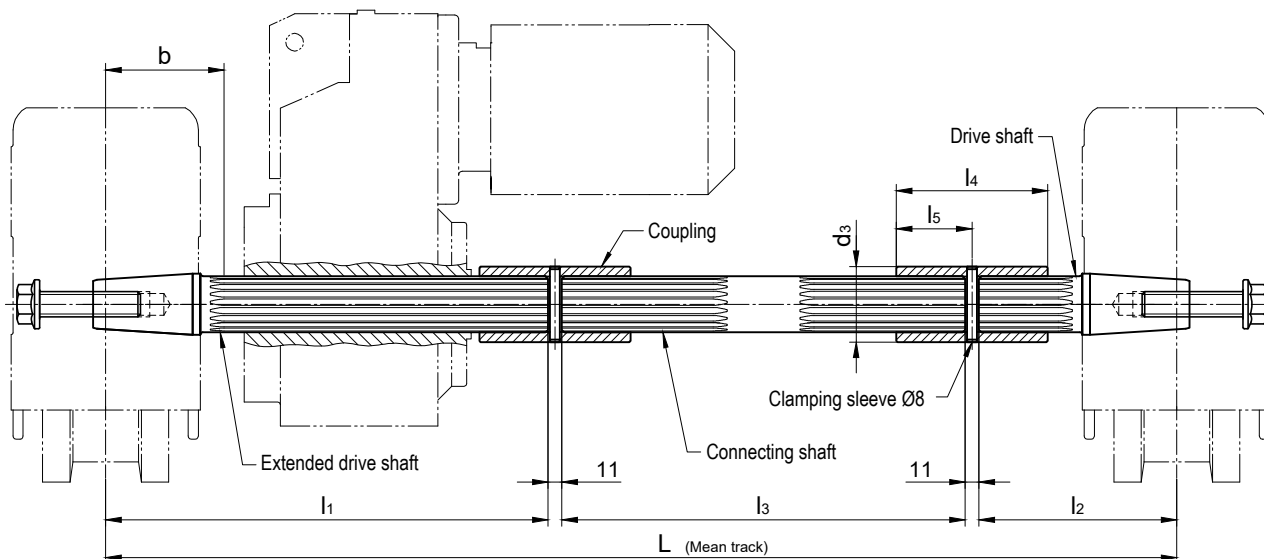
FA 57/FA 67 KA 57/KA 67 SA 67	SEW	Ø40
SK 3282 AB	NORD	
FDA 68B FZA 68B KA 68 CA 68	SIEMENS (FLENDER)	
O 62..G O 63..G K 63..G C 62..G	SIEMENS	
SPZH 36.. SKZH 36..	PREMIUM STEPHAN	
K4..A	STÖBER	

WHEEL BLOCK RB 200

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)



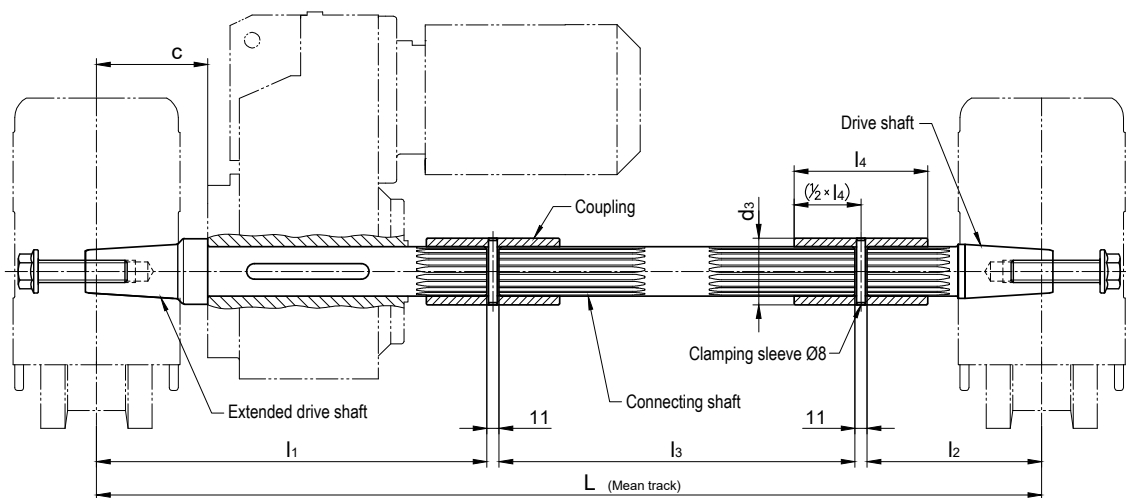
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	l4	l5	d3	Clamping sleeve DIN 1481
AF 05 AUK 30/ WUK 30	DEMAG	W35 x 2 x 16	For ordering, please provide	330	138	Dimensi- on L minus 490	90	100	50	50	8 x 50
FV 47 / KV 47 FV 57 / KV 57	SEW										
SK 2282 EA	NORD										
SPZT 26.. SKZT 26..	PREMIUM STEPHAN	W35 x 1.25 x 26		290	138	Dimensi- on L minus 450	90	100	50	50	8 x 50
F.A.T. 38B K.A.T 38 C.A.T 38	SIEMENS (FLENDER)										
F.A.T 48 B K.A.T 48 C.A.T 48	FLENDER (SIEMENS)										
SK 3282 EA SK 9023.1A.EA	NORD	W40 x 2 x 18		350	148	Dimensi- on L minus 520	90	100	50	55	8 x 55
AF 06 / AF 08 AUK 40	DEMAG	W45 x 2 x 21		350	148	Dimensi- on L minus 520	90	120	60	60	8 x 60
FV 67 KV 67	SEW										
SPZT 36.. SKZT 36..	PREMIUM STEPHAN										

WHEEL BLOCK RB 200

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	l2	l3	c Getriebe- anschlag	Feather key DIN 6885	Coupling Internal gearing/ d3 x l4
Inner- \varnothing	Length							
$\varnothing 30$	≤ 150	For ordering, please provide	310	128	Dimension L minus 460	110	A 8 x 7 x 70	N30 x 1.25 x 22 $\varnothing 40 \times 80$
$\varnothing 35$	≤ 160		330	138	Dimension L minus 490	110	A 10 x 8 x 80	N35 x 2 x 16 $\varnothing 50 \times 100$
$\varnothing 40$	≤ 180		350	148	Dimension L minus 520	110	A 12 x 8 x 100	N40 x 2 x 18 $\varnothing 55 \times 100$
$\varnothing 50$	≤ 210		410	148	Dimension L minus 580	120	A 14 x 9 x 110	N45 x 2 x 21 $\varnothing 60 \times 120$

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.

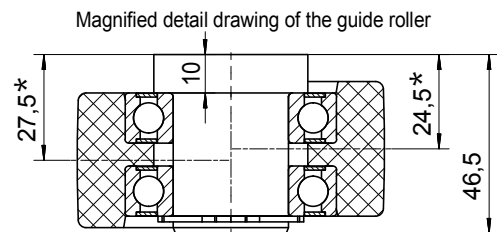
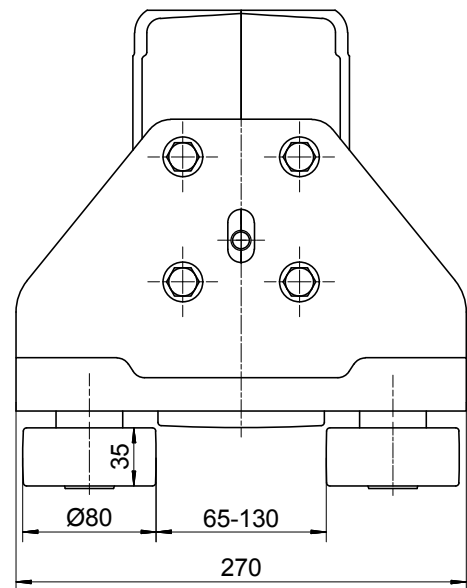
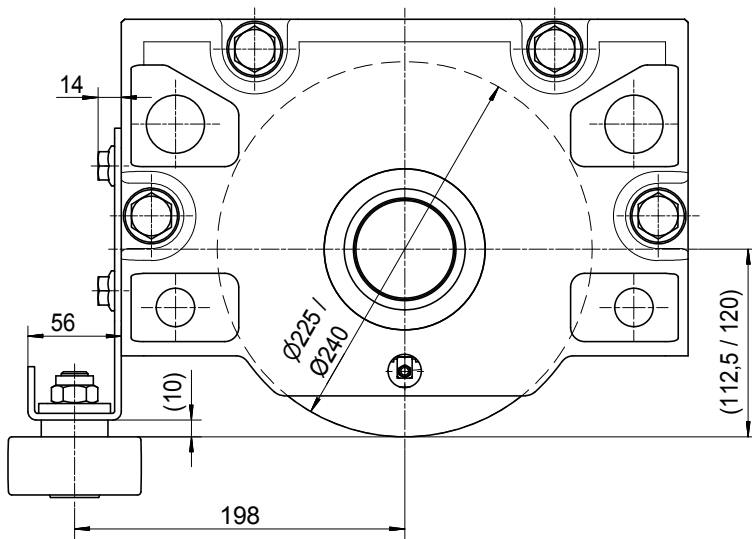
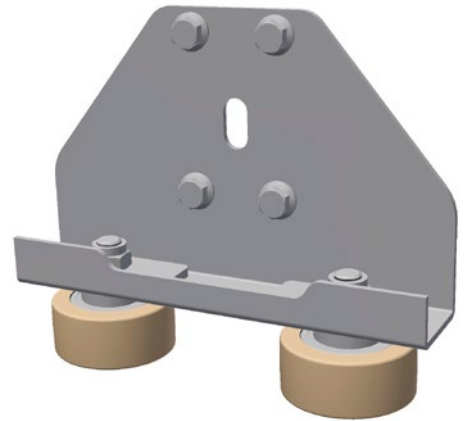
Drive shafts without gearbox stop and with adapted distance (c) on request.

WHEEL BLOCK RB 200

Horizontal roller guide for wheels of $\varnothing 225$ and $\varnothing 240$ 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.



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

Acceptable horizontal load: max. 480 kg

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

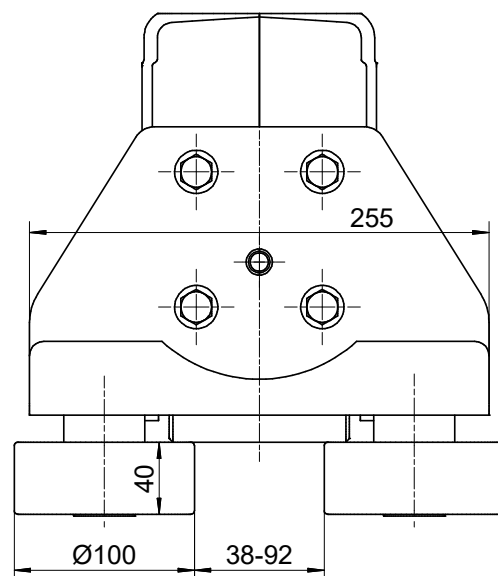
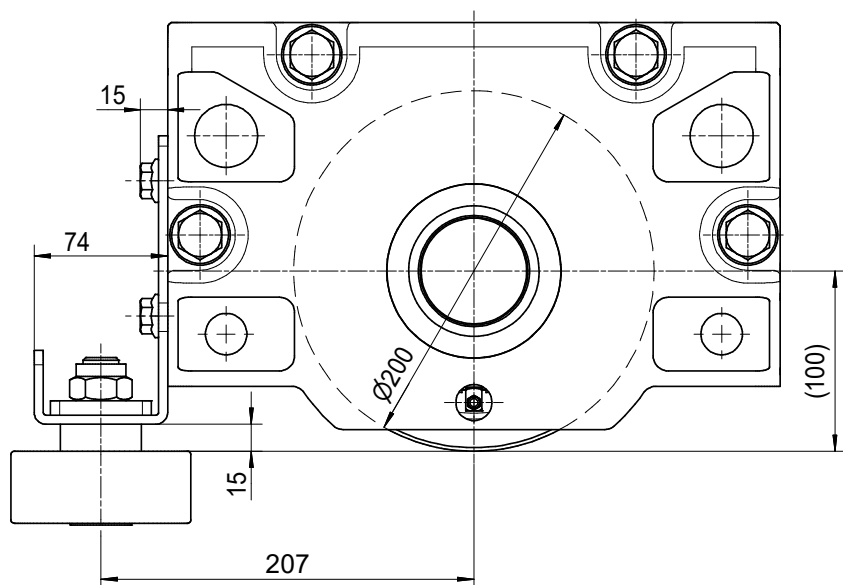
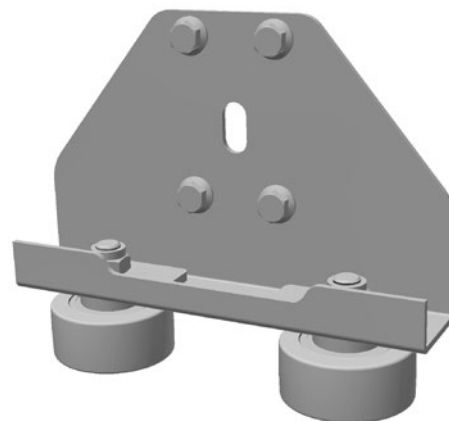
Horizontal roller guide for other rail profiles are available on request.

RADBLOCK RB 200

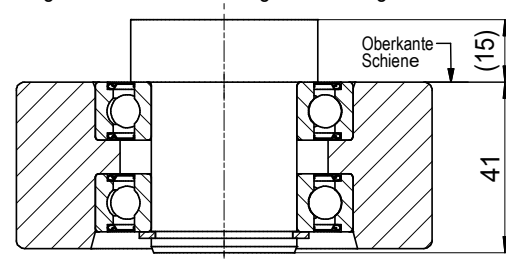
Horizontal roller guide for wheels of Ø200 (Form 1-5)

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

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



Vergrößerte Detailzeichnung der Führungsrolle



Acceptable horizontal load: max. 850 kg

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

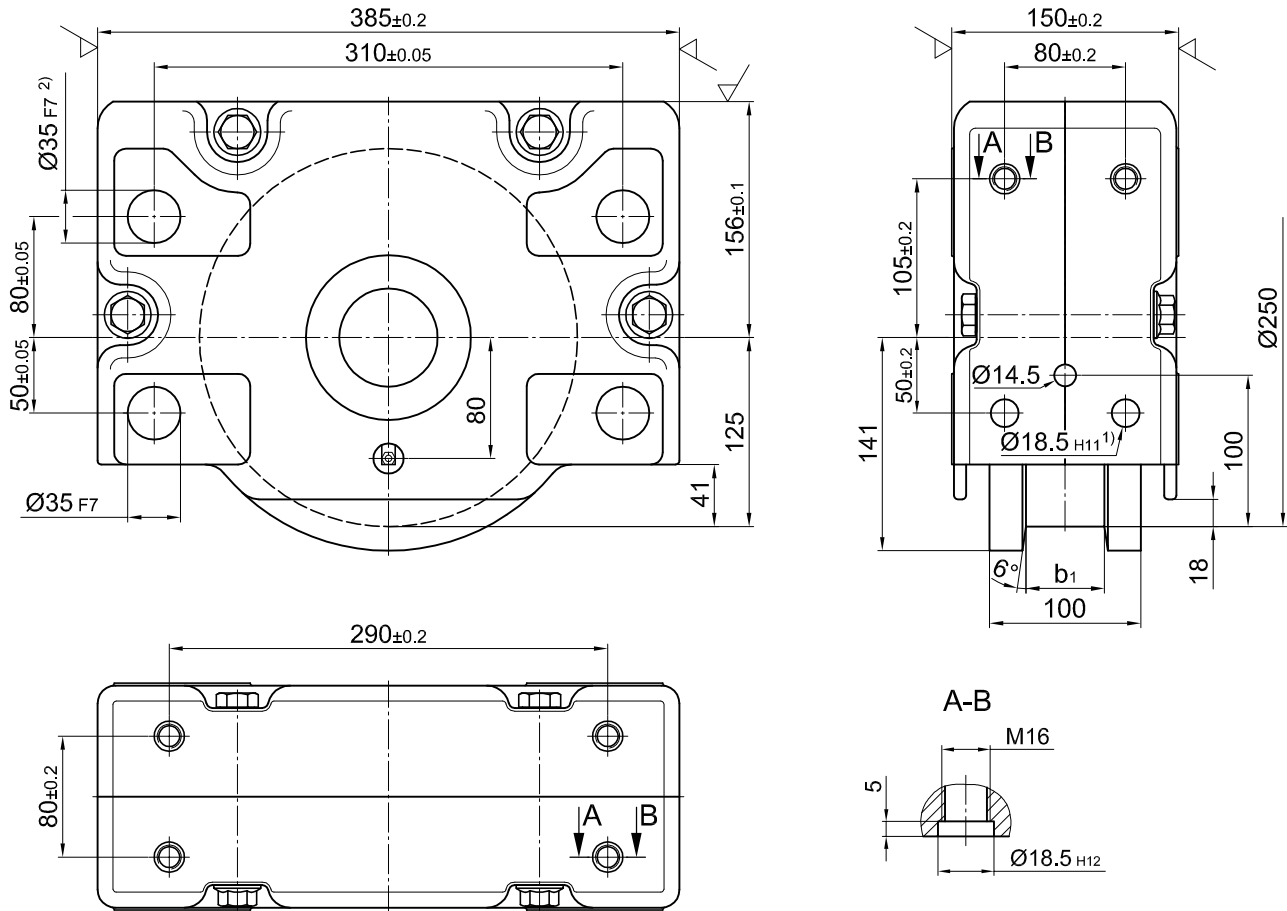
Horizontal roller guide for other rail profiles are available on request.

Wheel block

RB 250

WHEEL BLOCK RB 250

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

2) Available with hole $\text{Ø}40$ F8

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

Ordering examples

RBA 250×65

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

RBN 250×65

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

RBA 250×100

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

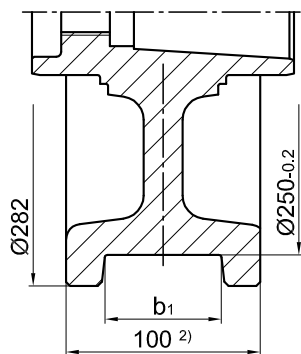
RBA 250

Wheel block 250, driven, with internal taper, with Vulkollan-binding, Design Form 8

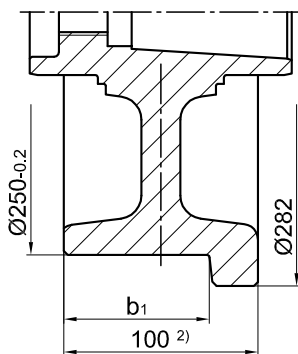
Design RBA and RBN refer to Page 5

WHEEL BLOCK RB 250

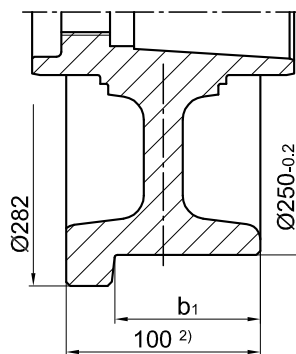
Standard models



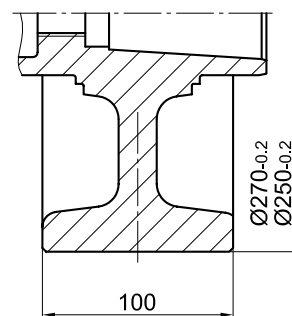
Form 1
two-sided wheel flange



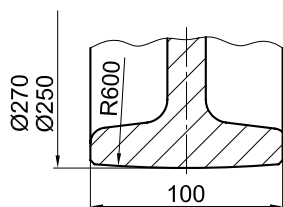
Form 2¹⁾
one-sided wheel flange
on the drive side



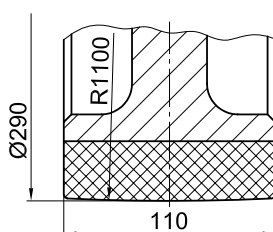
Form 3¹⁾
one-sided wheel flange
opposite to the drive side



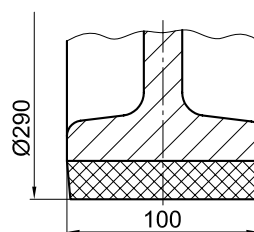
Form 4
no wheel flanges with
cylindrical running surface



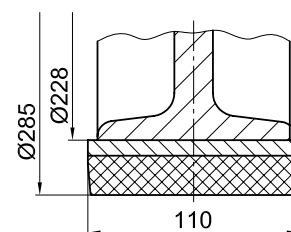
Form 5
no wheel flanges with
spherical running surface



Form 6
with coating
of PA 12 G

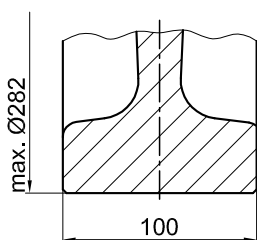


Form 7
with coating
of Vulkollan

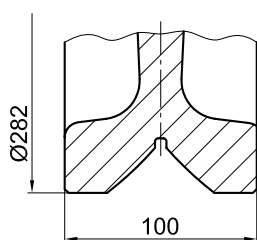


Form 8
with binding
of Vulkollan

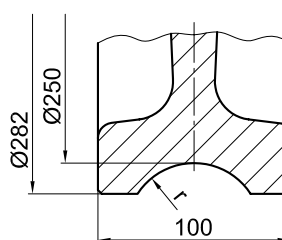
Special models



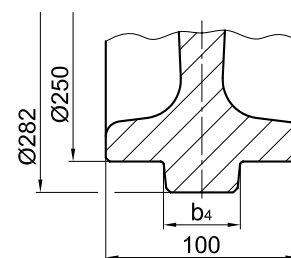
Form 9
no wheel flanges



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1		Form 2 und 3		
Running tread b_1 for two-sided wheel flange		Running tread b_1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal
20	75	65, 75	60	87.5

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

2) Available as special design with wheel width 110 mm.

WHEEL BLOCK RB 250

Connection options

Top connection KA 250.1

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

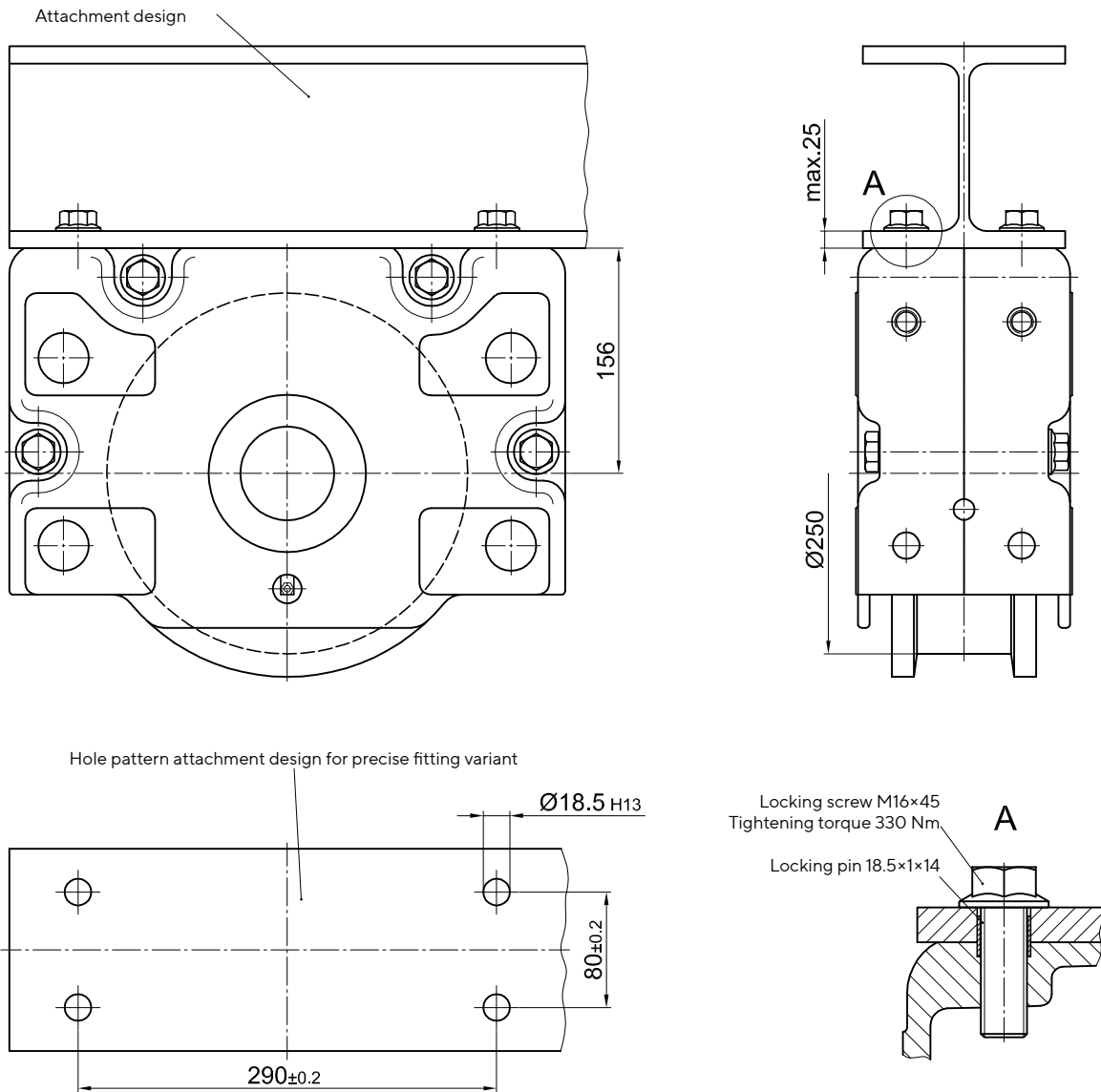
Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel blocks is required.

1 Set KA 250.1 comprising of:

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

Mounting parts for larger steel 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).



WHEEL BLOCK RB 250

Connection options

Top connection KA 250.2

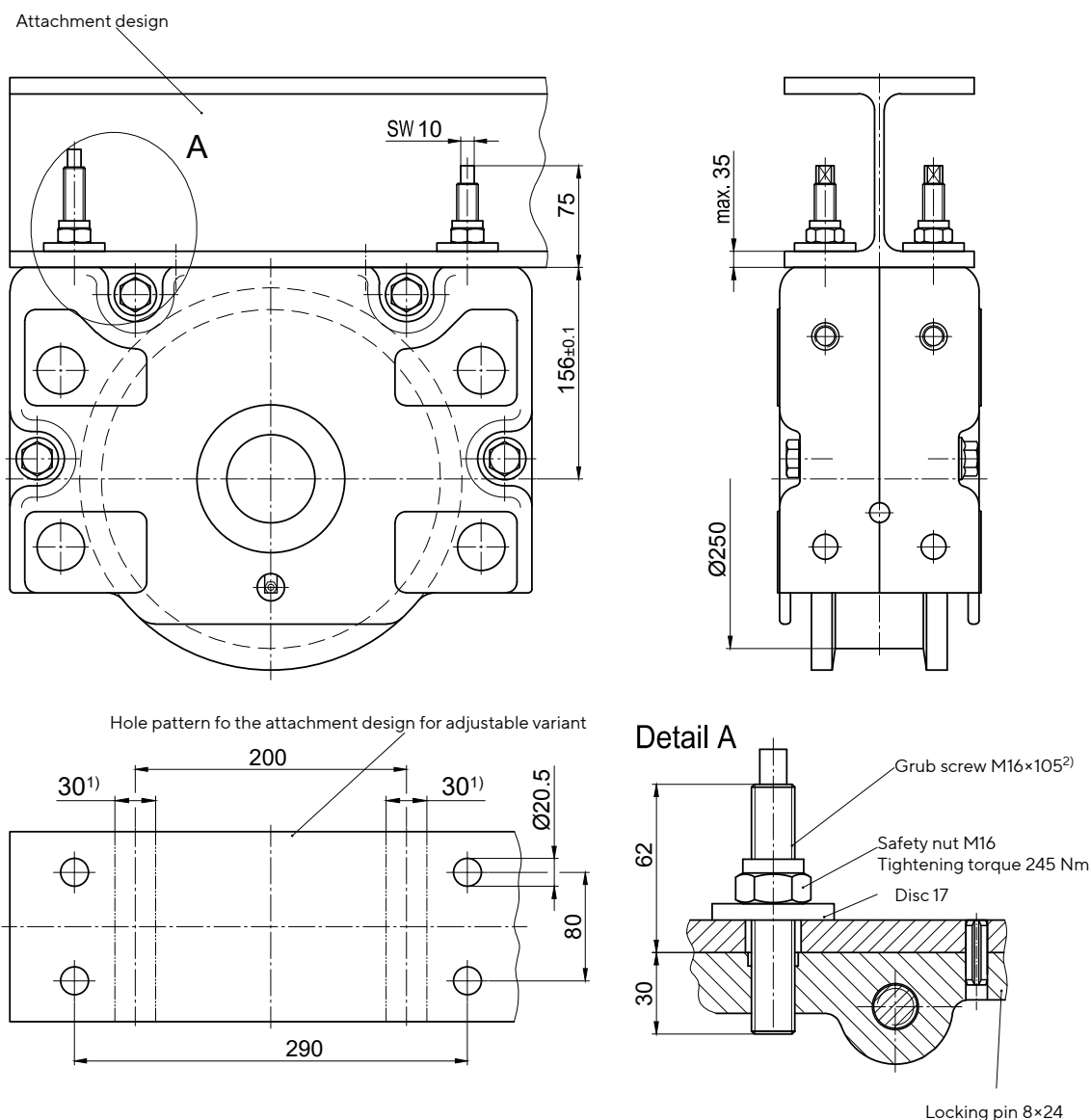
Precisely fitted or adjustable direct attachment as bolted connection (welded construction, roll section, etc.)

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.



1) Pinning is not permitted in this area !

2) Can be factory-glued in the wheel block housing on request

WHEEL BLOCK RB 250

Connection options

Pin attachment BA 250.1

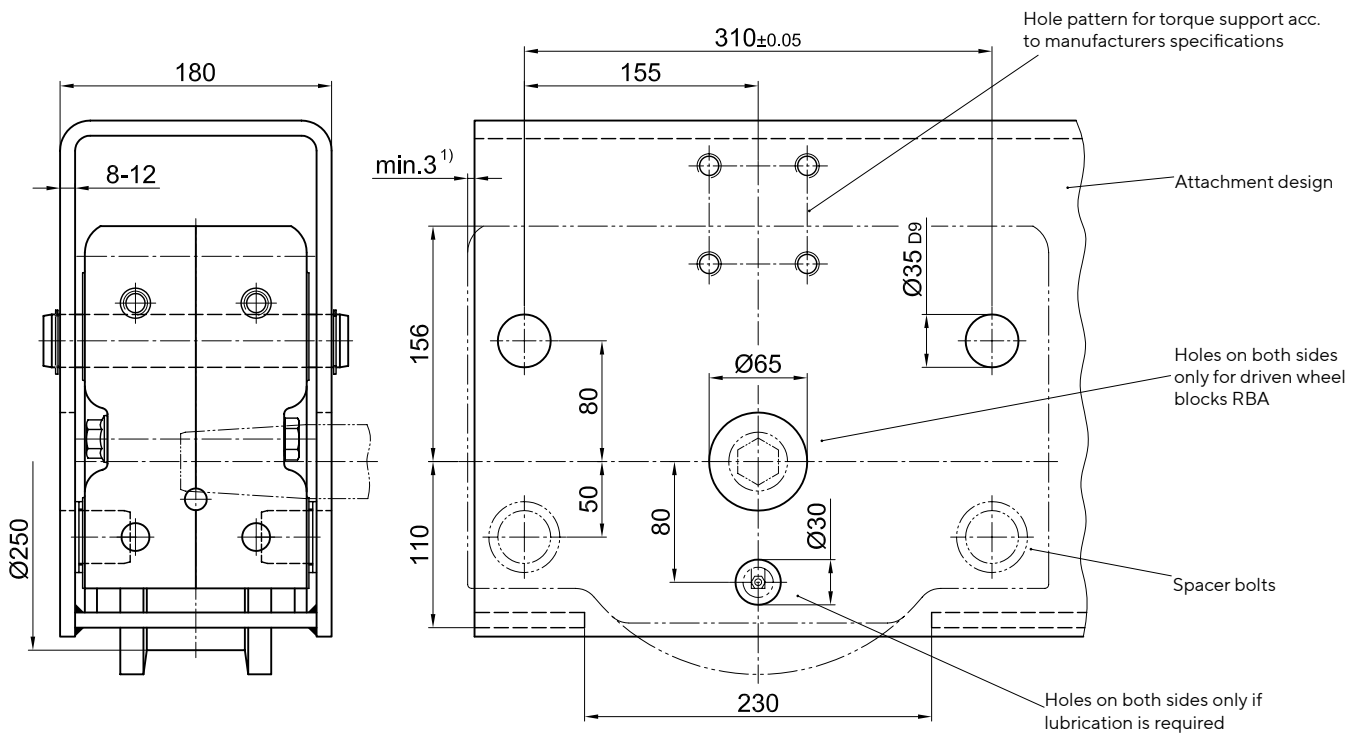
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

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

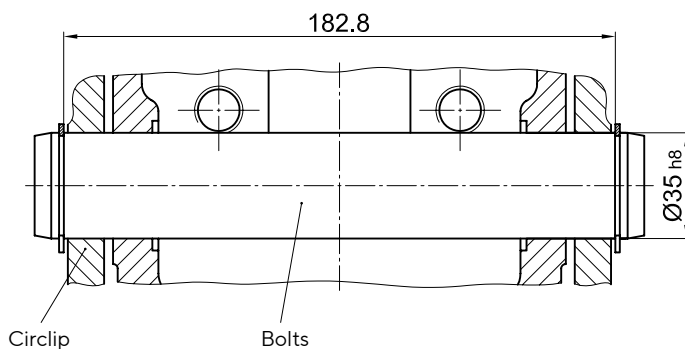
1 Set BA 250.1

- 2 Bolts $\text{Ø}35\text{h}8$
- 4 Circlipse 35x1.5 DIN 471
- 4 Spacer bolts
- 24 Adjusting washers 35x45x0.5 DIN 988

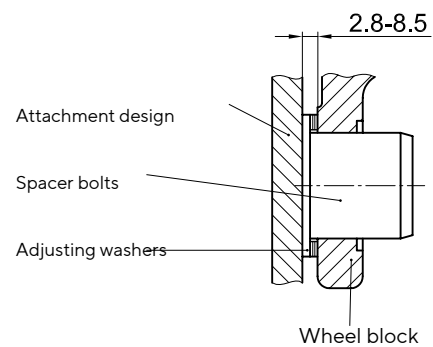
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 250

Connection options

Pin attachment BA 250.2

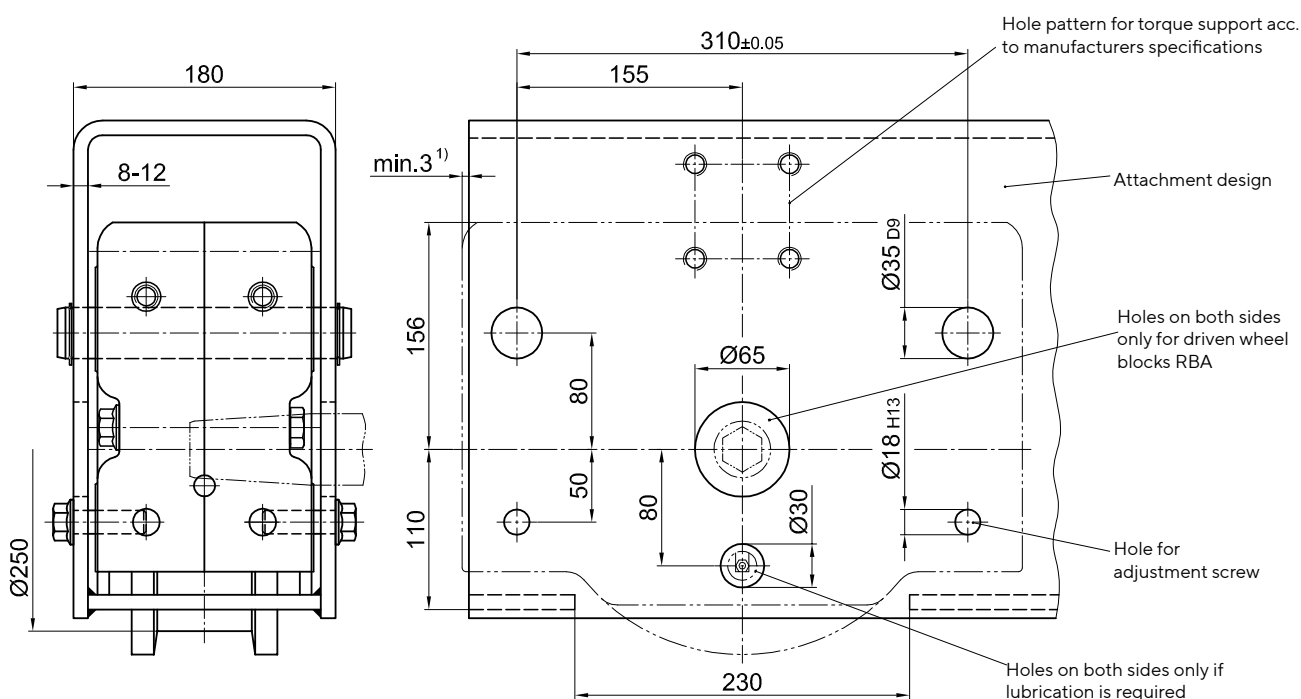
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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

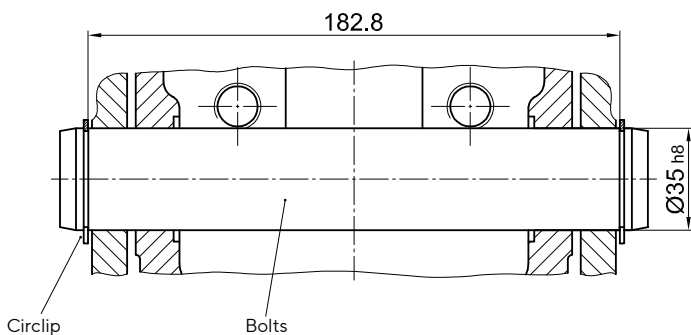
1 Set BA 250.2 comprising of:

- 2 Bolts $\varnothing 35$ h8
- 4 Circlipse 35x1.5 DIN 471
- 4 Flanged bushings with internal thread (bonded)
- 4 Locking screws M16x50 (coated)

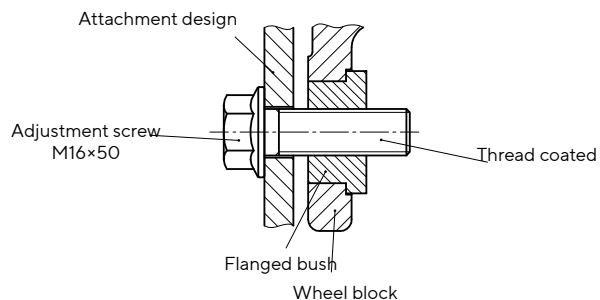
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 250

Connection option

Pin attachment BA 250.3

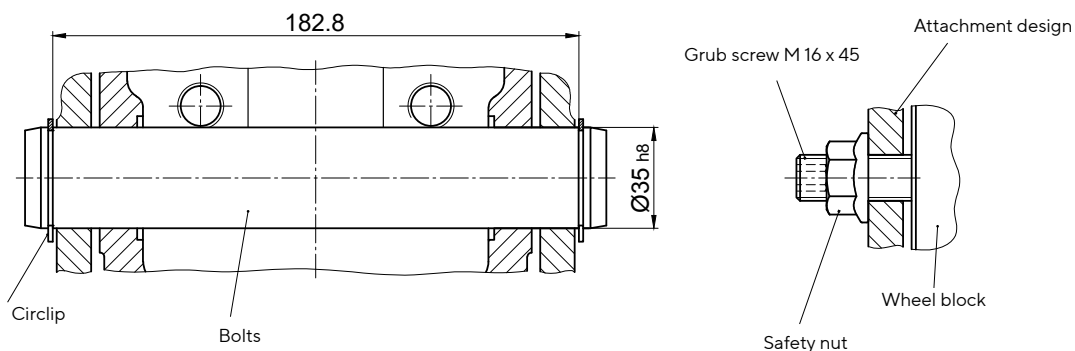
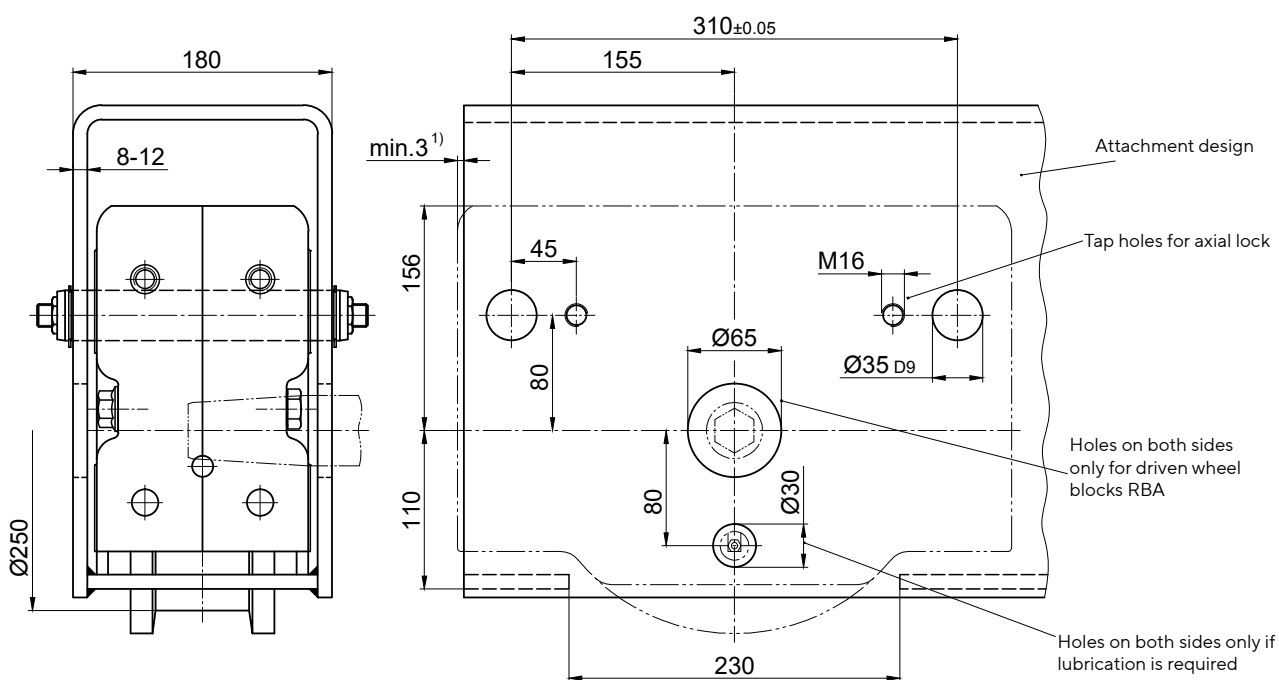
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

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 $\text{Ø}35$ h8
- 4 Circlipse 35x1.5 DIN 471
- 4 Grub screws with hexagon socket M 16x45-45H 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

WHEEL BLOCK RB 250

Connection options

Side connection WA 250

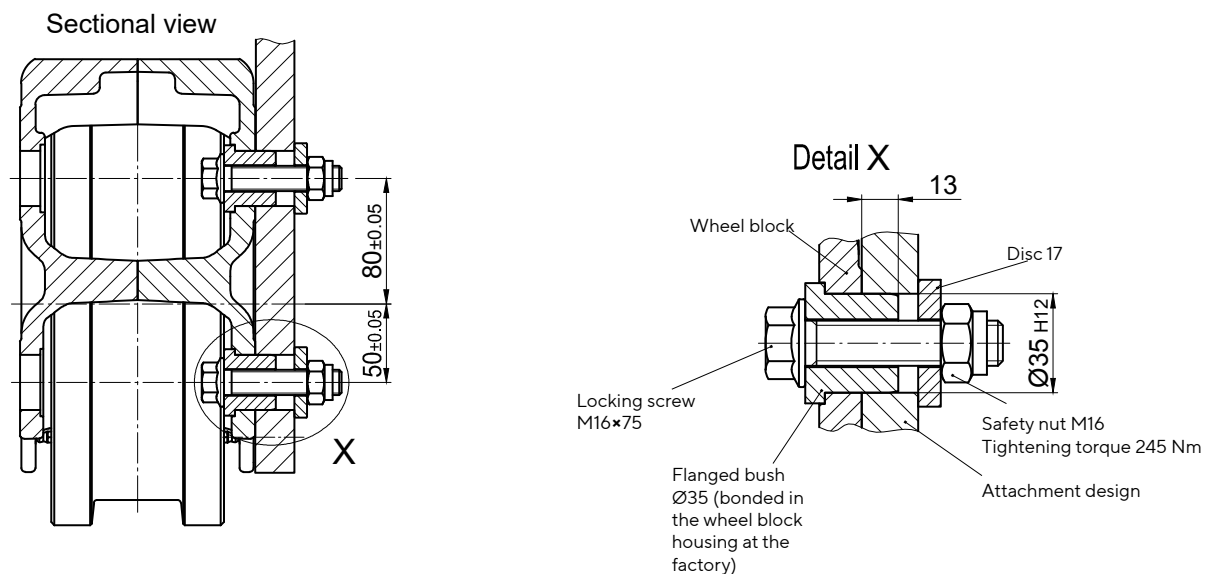
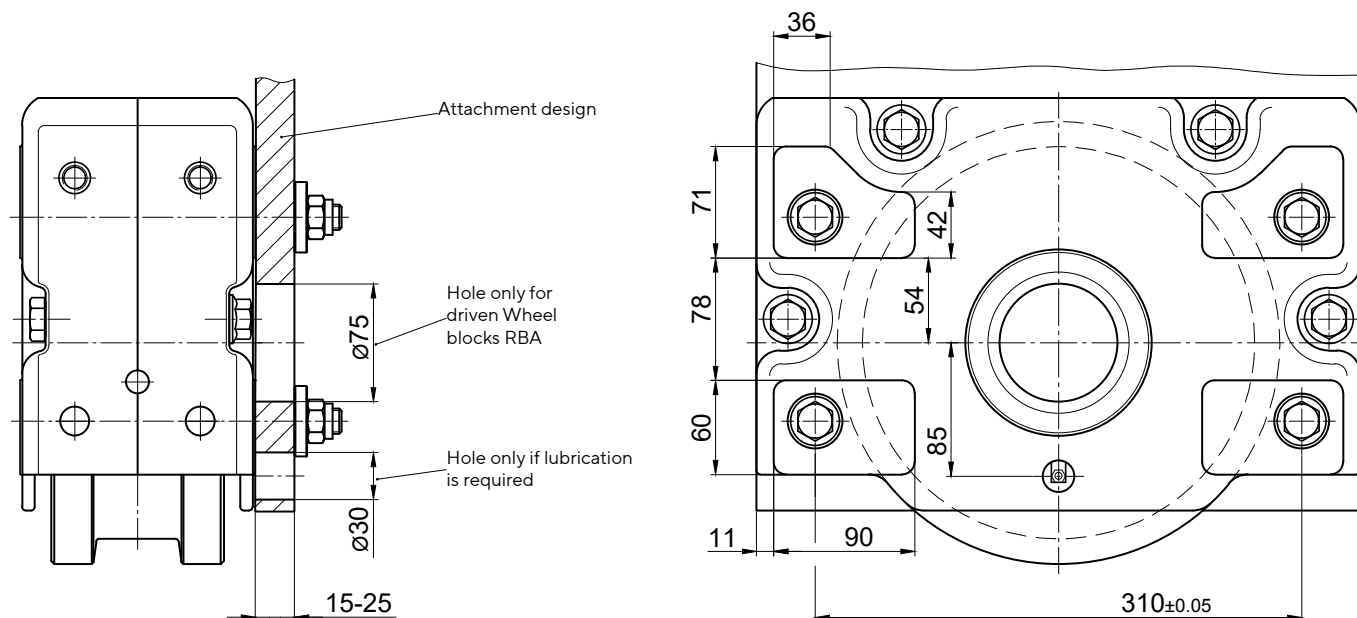
Lateral connection option for low construction designs

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



RADBLOCK RB 250

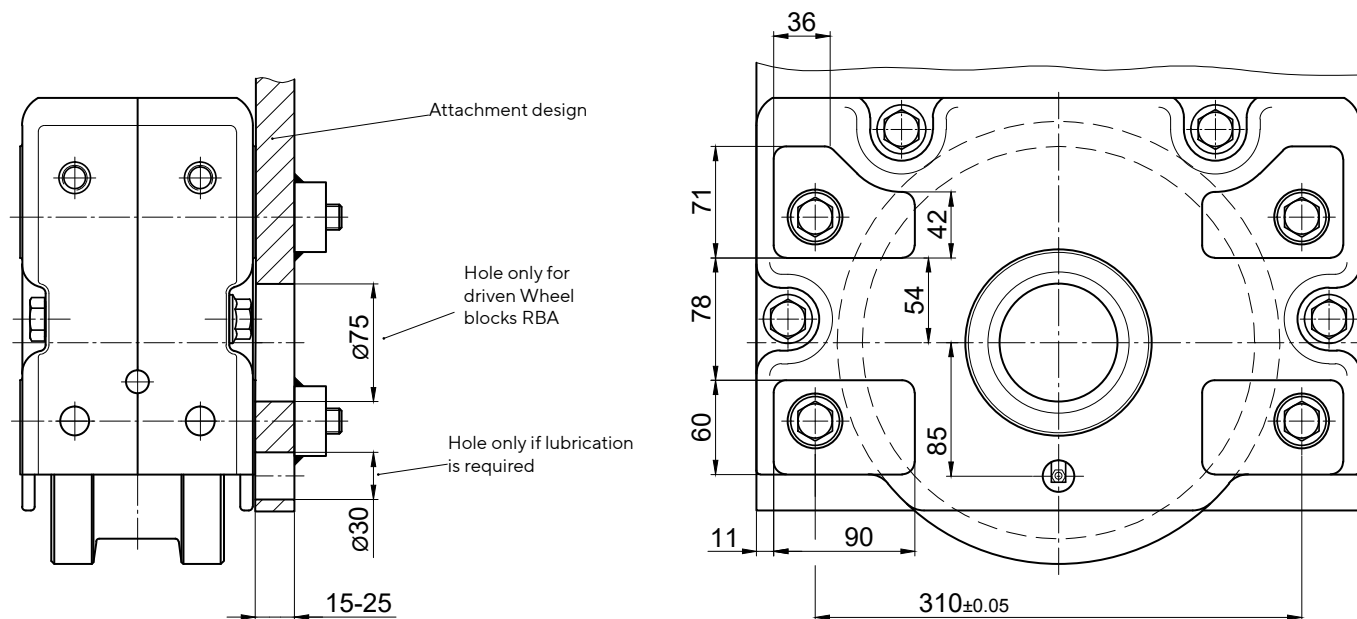
Connection options

Side connection WA 250

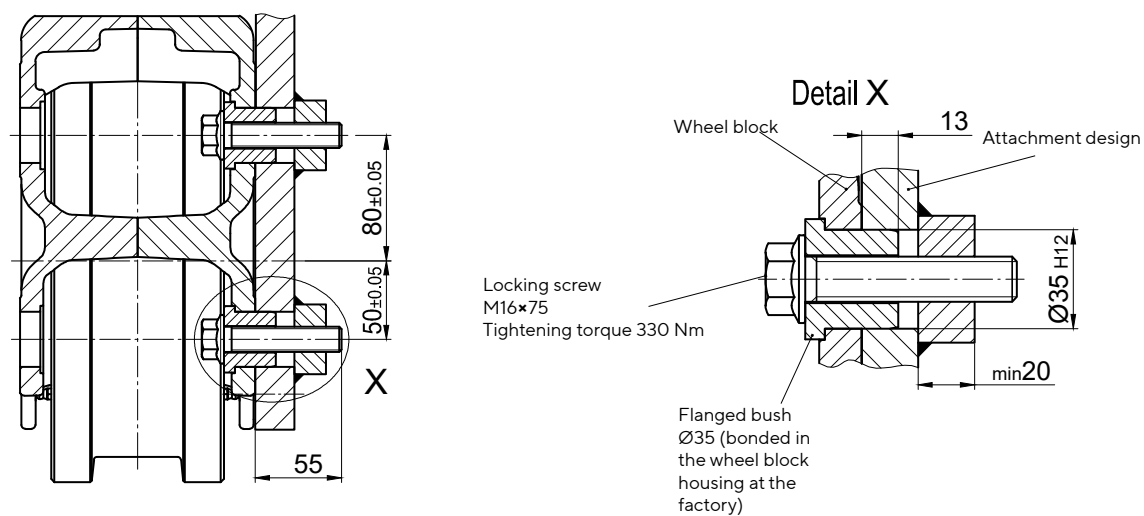
Lateral connection option for low construction designs

Attachment variant 2:

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



Sectional view

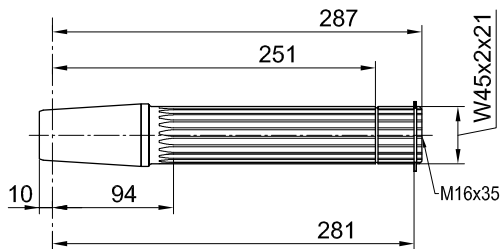
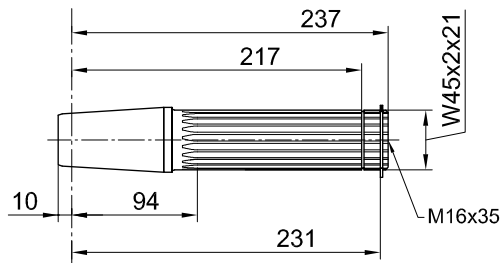
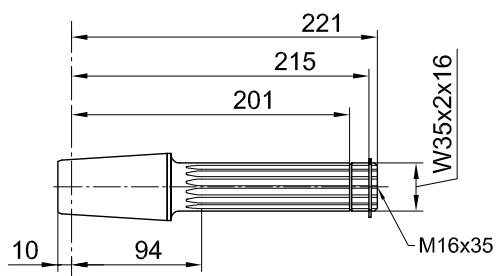


WHEEL BLOCK RB 250

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

AF 05	DEMAG	W35 x 2 x 16
AUK 30		

AF 06	DEMAG	W45 x 2 x 21
AUK 40		

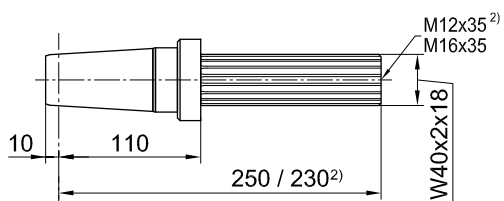
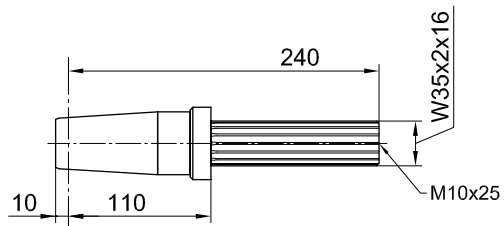
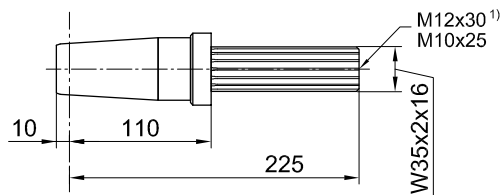
AF 08	DEMAG	W45 x 2 x 21
AUK 40		

WHEEL BLOCK RB 250

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

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

FV 57 / KV 57	SEW	W35 x 2 x 16
---------------	-----	--------------

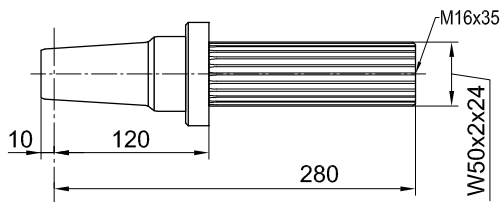
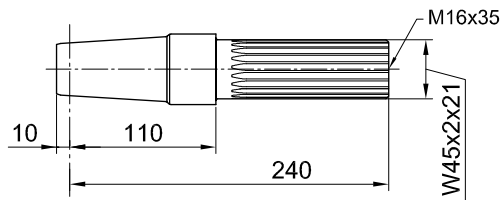
F.A.T 48B ²⁾	SIEMENS (FLENDER)	W40 x 2 x 18
K.A.T 48 ²⁾		
C.A.T 48 ²⁾		
SK 3282 EA	NORD	
SK 9023.1A.EA		

WHEEL BLOCK RB 250

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

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

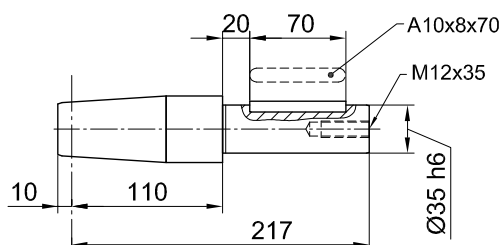
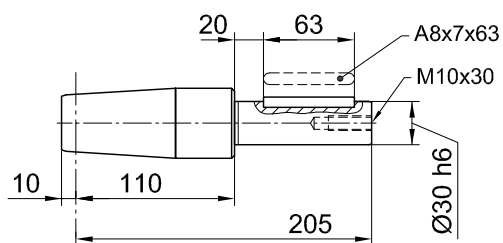
FV 77 / KV 77	SEW	W50 x 2 x 24
SK 4282 EA	NORD	
SPZT / SKZT 46..	PREMIUM STEPHAN	

WHEEL BLOCK RB 250

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	Manufacturer	Shaft journal
-------	--------------	---------------

FA / KA 37 SA 47	SEW	Ø30
FDA / FZA 38 B KA / CA 38	SIEMENS (FLENDER)	
O 32..H O 33..H K 33..H C 32..H	SIEMENS	
SK 0282 NBAB SK 1282 AB	NORD	
GFL 04..H GKS 04..H GSS 04..H	LENZE	
F 3..A	STÖBER	

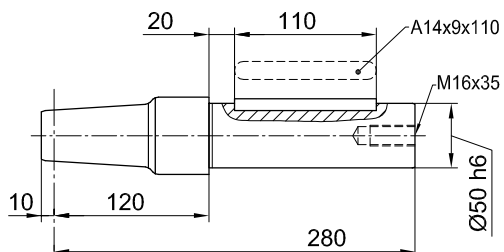
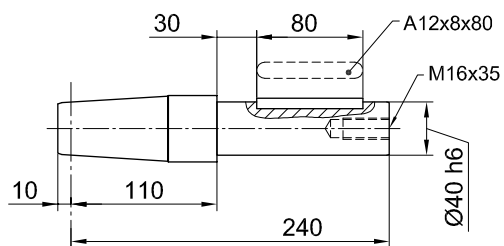
FA / KA 47 SA 57	SEW	Ø35
SK 2282 AB	NORD	
FDA / FZA 48 B KA / CA 48	SIEMENS (FLENDER)	
O 42..G O 43..G K 43..H C 42..H	SIEMENS	
GFL 05..H GKS 05..H GSS 05..H	LENZE	
K1.A S2..A	STÖBER	
SPZH 26.. SKZH 26..	PREMIUM STEPHAN	

WHEEL BLOCK RB 250

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	Manufacturer	Shaft journal
-------	--------------	---------------

FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	Ø40
SK 3282 AB	NORD	
FDA 68 B FZA 68 B KA 68 / CA 68	SIEMENS (FLENDER)	
O 62..G O 63..G K 63..G C 62..G	SIEMENS	
K4..A	STÖBER	
SPZH 36.. SKZH 36..	PREMIUM STEPHAN	

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

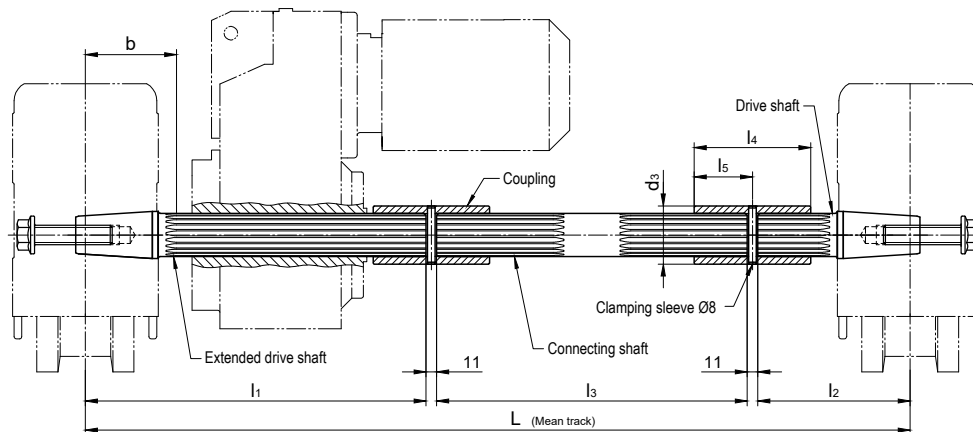
WHEEL BLOCK RB 250

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)



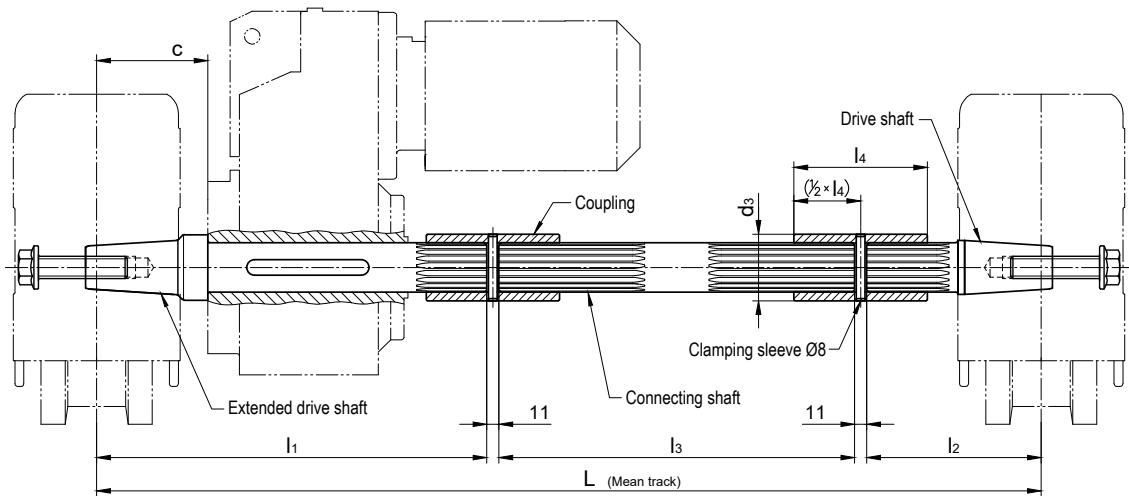
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	l4	l5	d3	Clamping sleeve DIN 1481
AF 05 AUK 30/ WUK 30	DEMAG	W35 x 2 x 16	For ordering, please provide	350	225	Dimensi- on L minus 597	95	100	50	50	8 x 50
FV 47 / KV 47 FV 57 / KV 57	SEW										
SK 2282 EA	NORD										
SPZT 26.. SKZT 26..	PREMIUM STEPHAN	W40 x 2 x 18		350	148	Dimensi- on L minus 520	110	100	50	55	8 x 55
F.A.T 48 B K.A.T 48 C.A.T 48	SIEMENS (FLENDER)										
SK 3282 EA SK 9023.1A.EA	NORD										
AF 06 / AF 08 AUK 40	DEMAG	W45 x 2 x 21		351	157	Dimensi- on L minus 530	94	120	60	60	8 x 60
FV 67 KV 67	SEW										
SPZT 36.. SKZT 36..	PREMIUM STEPHAN										
AF 08 AUK 50	DEMAG	W50 x 2 x 24		400	158	Dimensi- on L minus 580	95	120	60	65	8 x 65
FV 77 KV 77	SEW										
SK 4282 EA SK 9033.1A.EA	NORD										
F.A.T 68 B K.A.T 68 C.A.T 68	SIEMENS (FLENDER)										
SPZT 46.. SKZT 46..	PREMIUM STEPHAN										

WHEEL BLOCK RB 250

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	l2	l3	c Getriebe- anschlag	Feather key DIN 6885	Coupling Internal gearing/ d3 x l4
Inner-Ø	Length							
Ø30	≤ 140	For ordering, please provide	290	195	Dimension L minus 507	110	A 8 x 7 x 70	N30 x 1.25 x 22 Ø40 x 80
Ø35	≤ 150		320	225	Dimension L minus 567	110	A 10 x 8 x 70	N35 x 2 x 16 Ø50 x 100
Ø40	≤ 180		350	148	Dimension L minus 520	110	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	≤ 210		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.

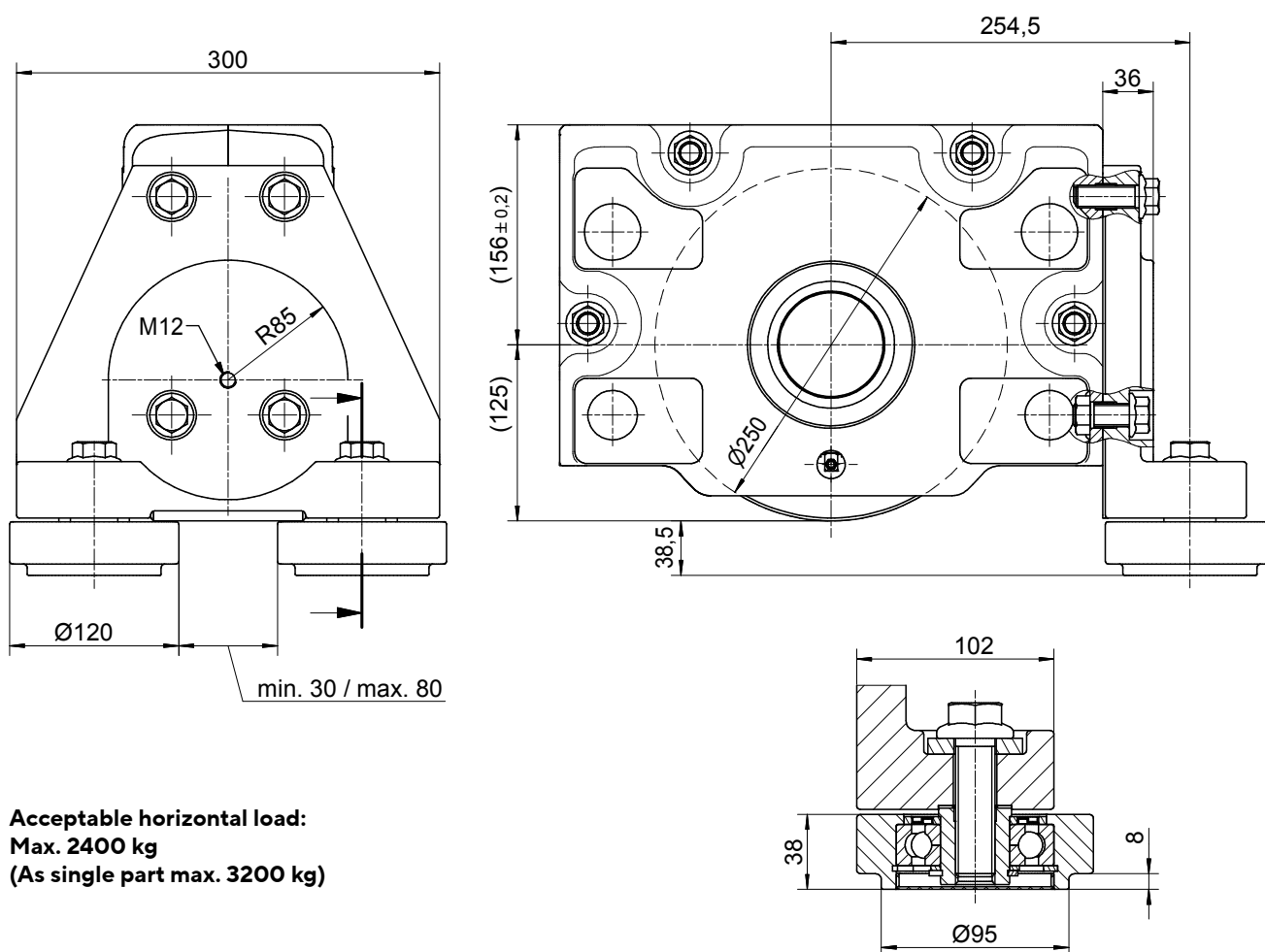
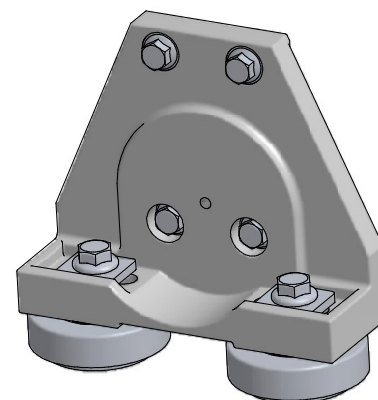
Drive shafts without gearbox stop and with adapted distance (c) on request.

WHEEL BLOCK RB 250

Horizontal roller guide for wheels of $\varnothing 250$ (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. 2400 kg
 (As single part max. 3200 kg)

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

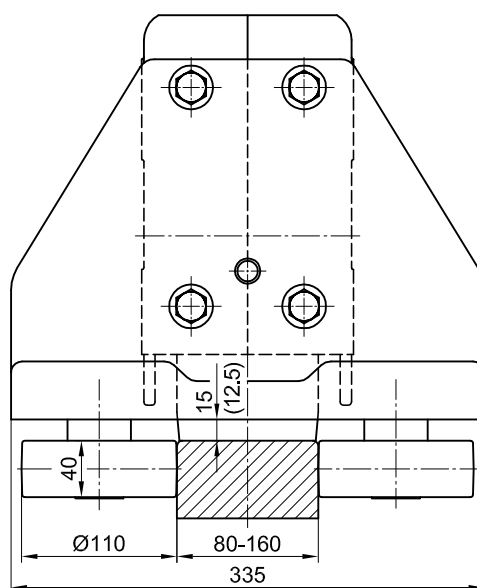
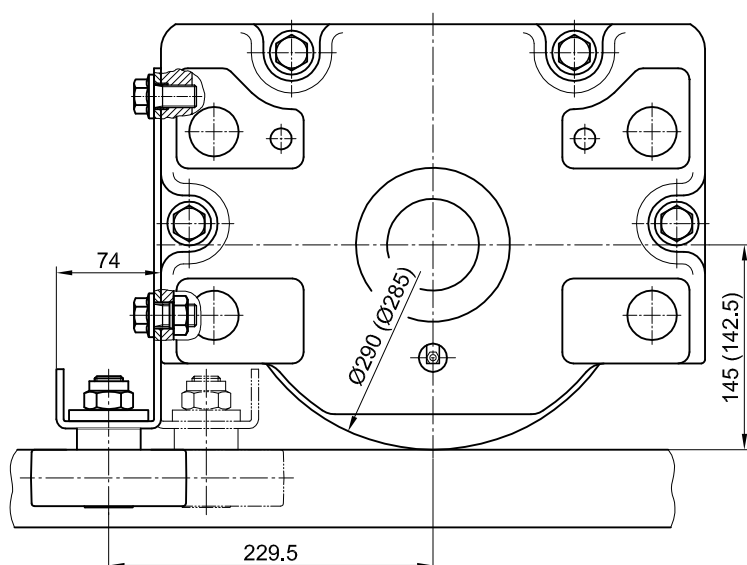
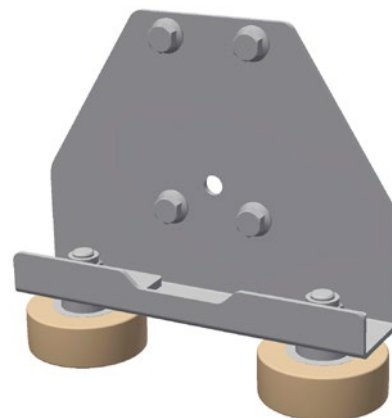
Horizontal roller guide for other rail profiles are available on request.

WHEEL BLOCK RB 250

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

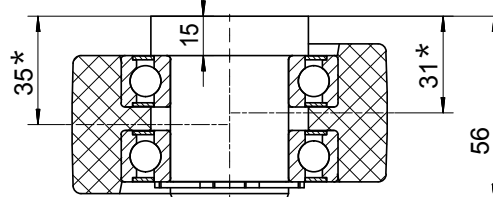
Horizontal roller guide with adjustable guide rollers made of PA12G.

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



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

Magnified detail drawing of the guide roller



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.



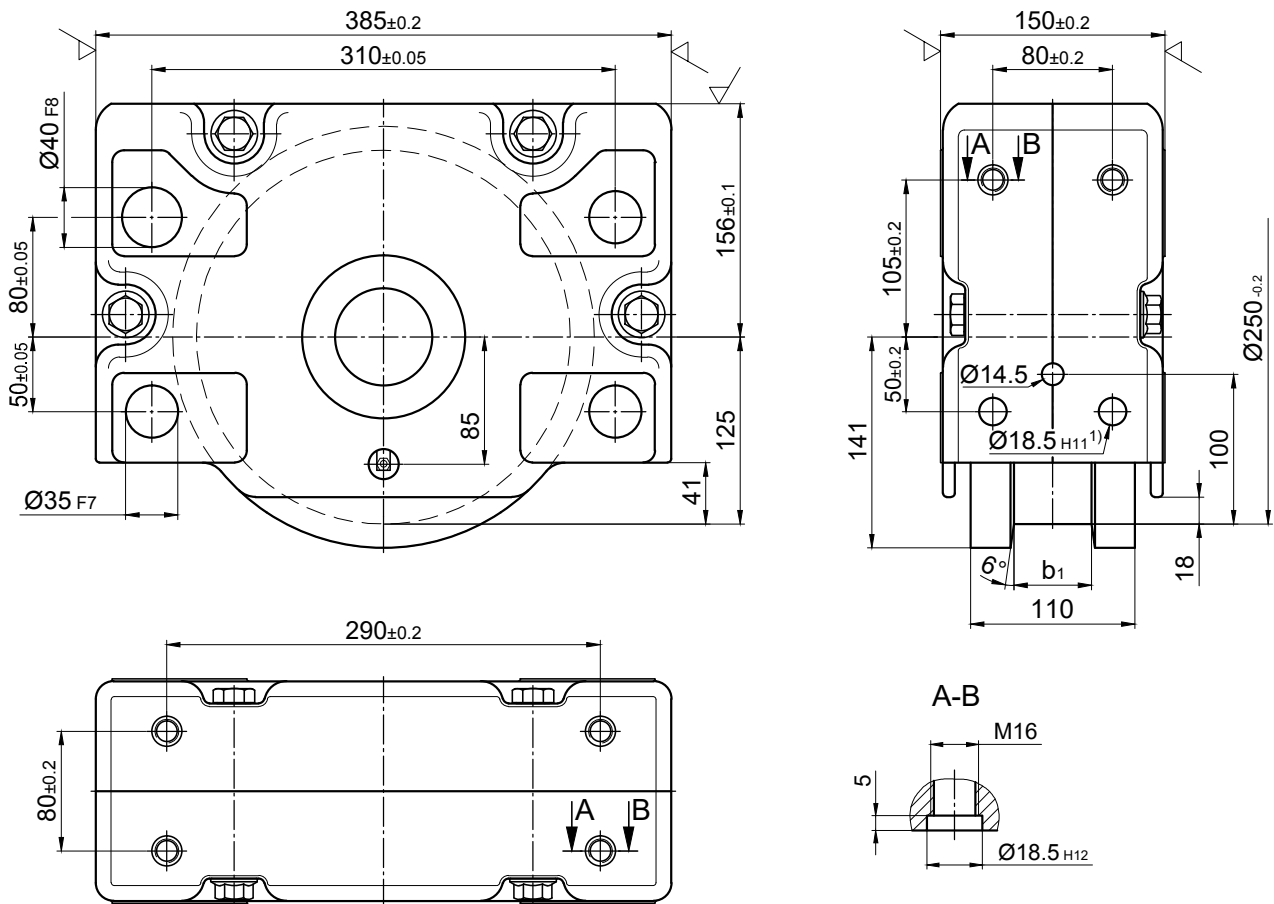
Wheel block

RB 250-V

reinforced design

WHEEL BLOCK RB 250-V

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

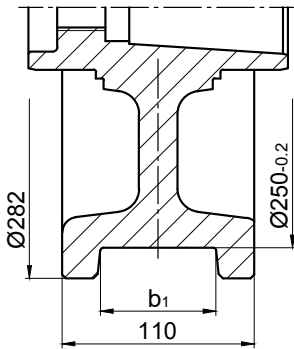
RBA 250

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

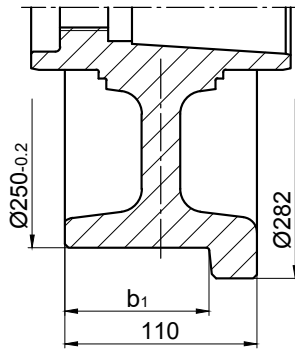
Design RBA and RBN refer to Page 5

WHEEL BLOCK RB 250-V

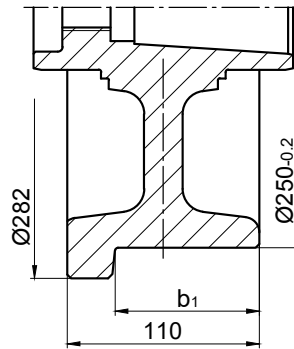
Standard models



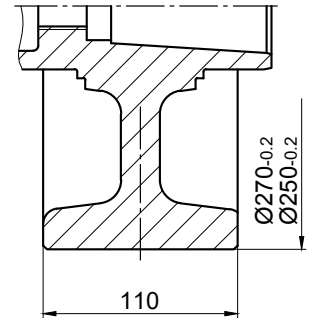
Form 1
two-sided wheel flange



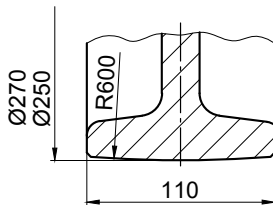
Form 2¹⁾
one-sided wheel flange
on the drive side



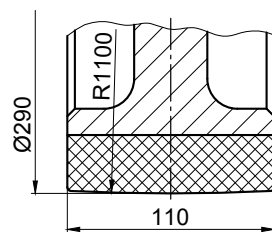
Form 3¹⁾
one-sided wheel flange
opposite to the drive side



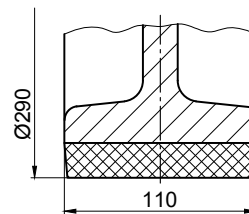
Form 4
no wheel flanges with
cylindrical running surface



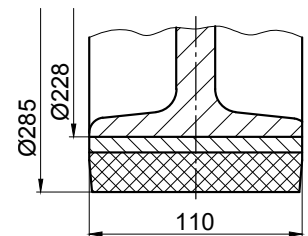
Form 5
no wheel flanges with
spherical running surface



Form 6
with coating
of PA 12 G

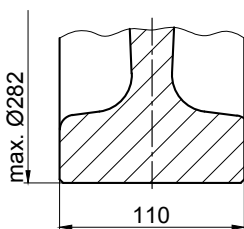


Form 7
with coating
of Vulkollan

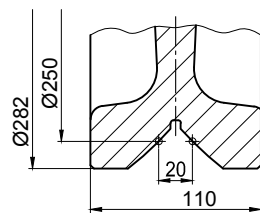


Form 8
with binding
of Vulkollan

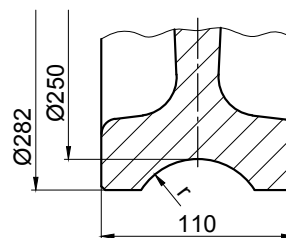
Special models



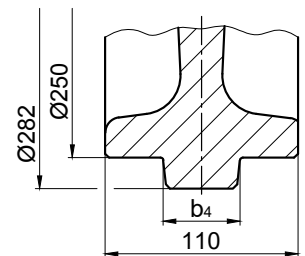
Form 9
no wheel flanges



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1		Form 2 und 3		
Running tread b_1 for two-sided wheel flange		Running tread b_1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal
20	85	65,75	60	97,5

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

WHEEL BLOCK RB 250-V

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.

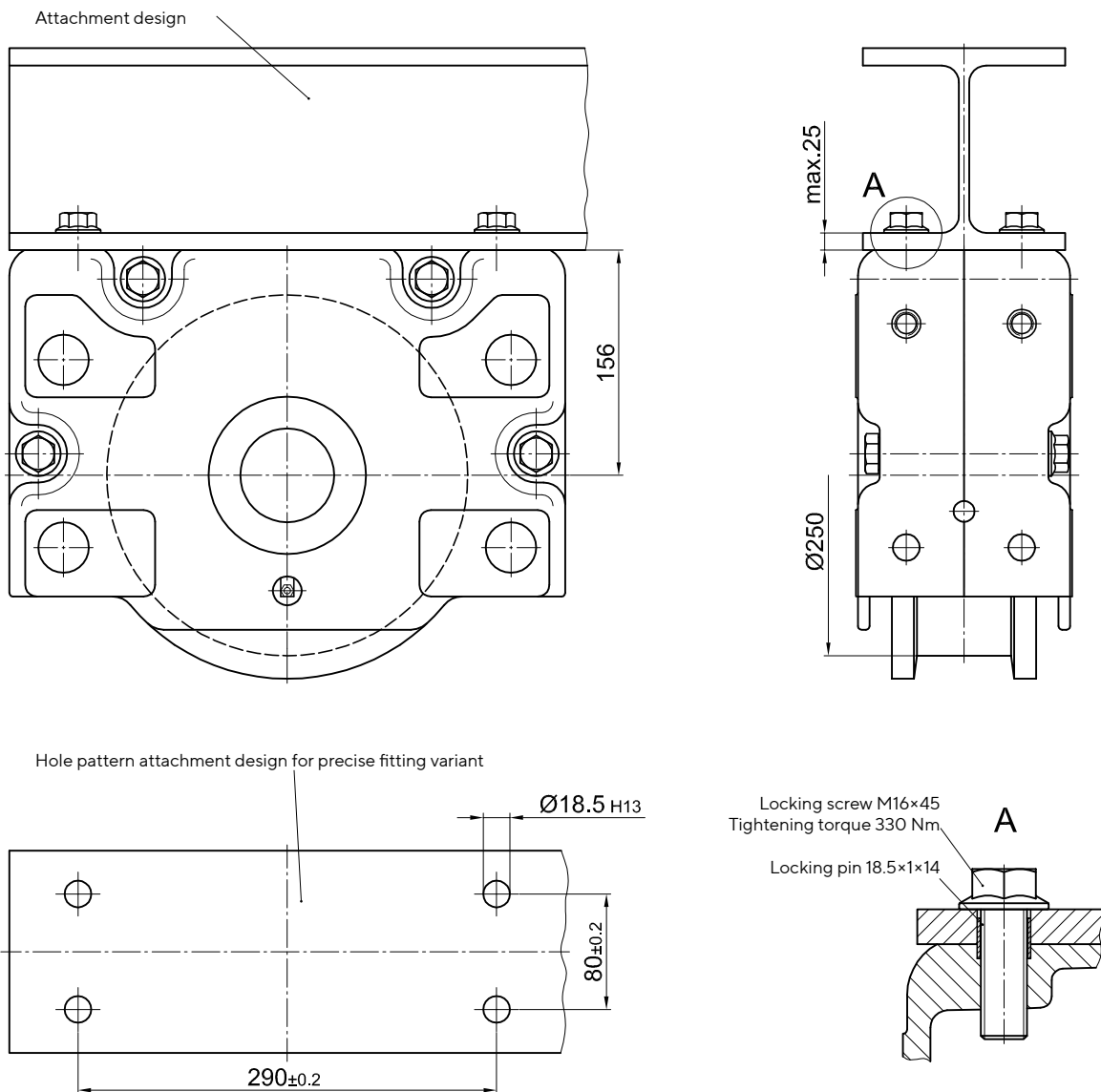
1 Set KA 250.1 comprising of:

4 Locking screws M16×45 -10.9

4 Locking pins 18.5×1×14

Mounting parts for larger steel 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).



WHEEL BLOCK RB 250-V

Connection options

Top connection KA 250.2

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

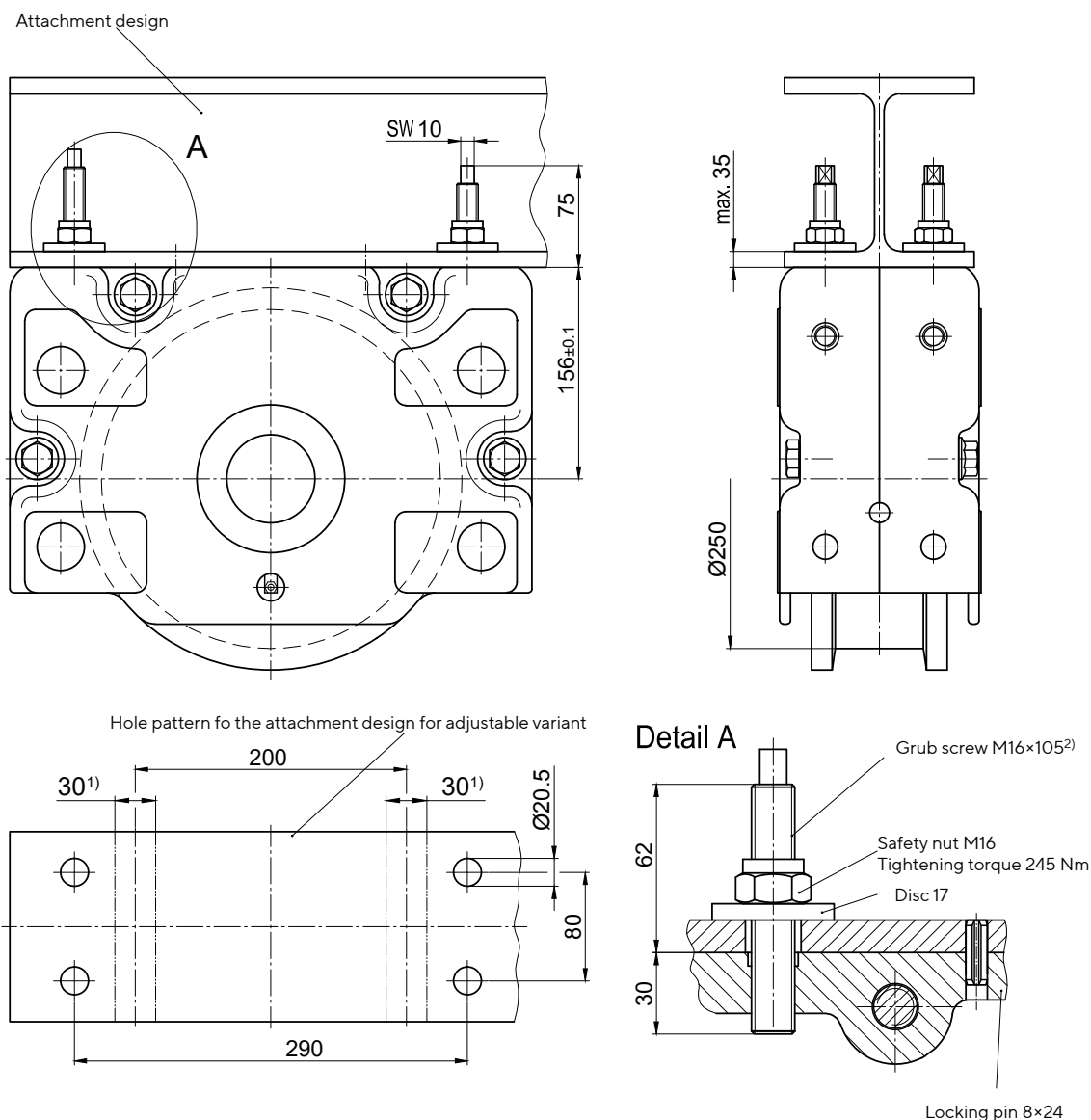
Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes.

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.



1) Pinning is not permitted in this area !

2) Can be factory-glued in the wheel block housing on request

WHEEL BLOCK RB 250-V

Connection options

Pin attachment BA 250.1-V

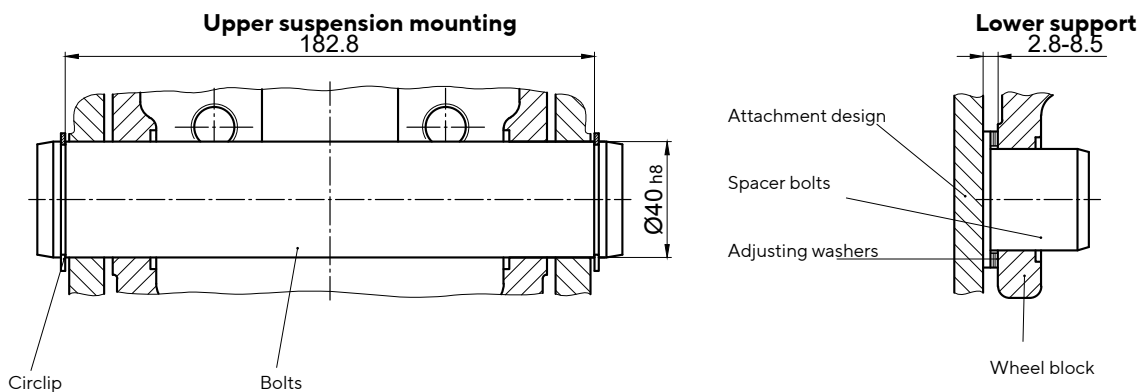
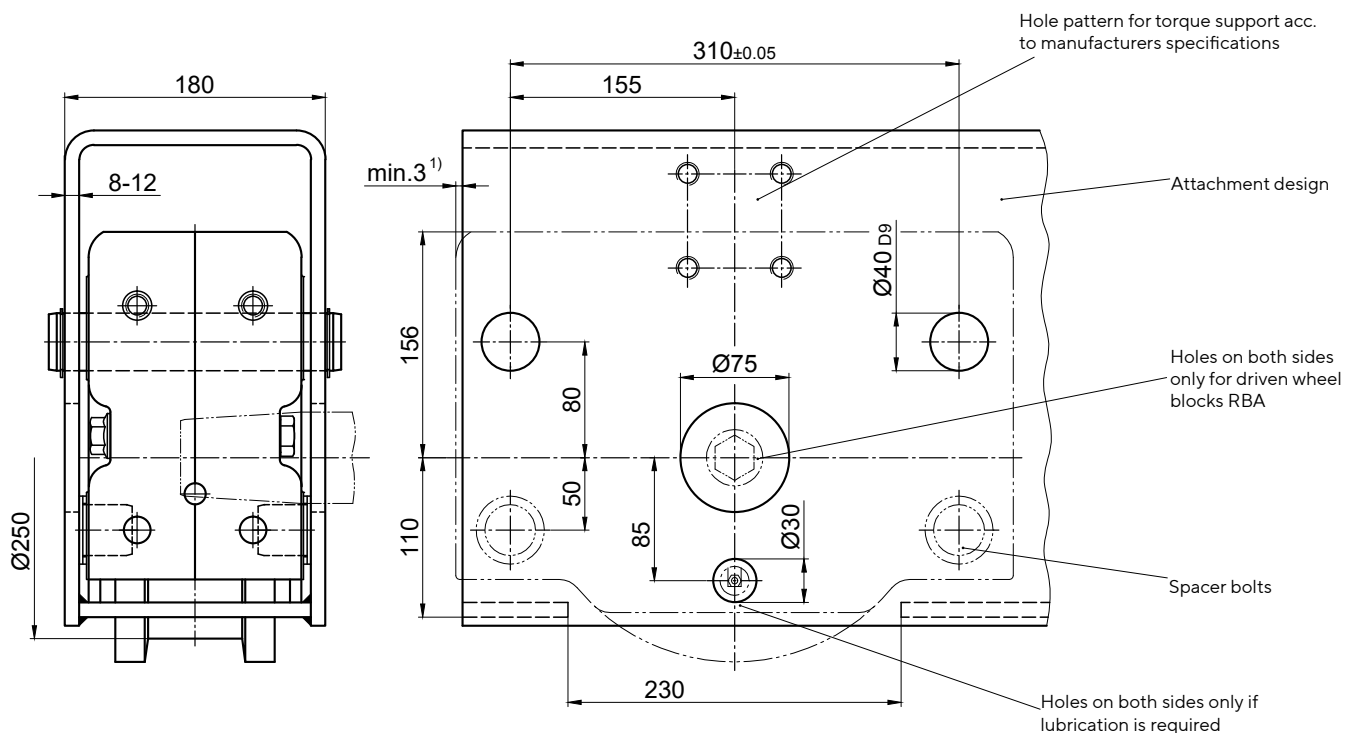
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

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 $\text{Ø}40\text{h}8 \times 202$
- 4 Circlipse 40×1.75 DIN 471
- 4 Spacer bolts
- 24 Adjusting washers $35 \times 45 \times 0.5$ DIN 988

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



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 250-V

Connection options

Pin attachment BA 250.2-V

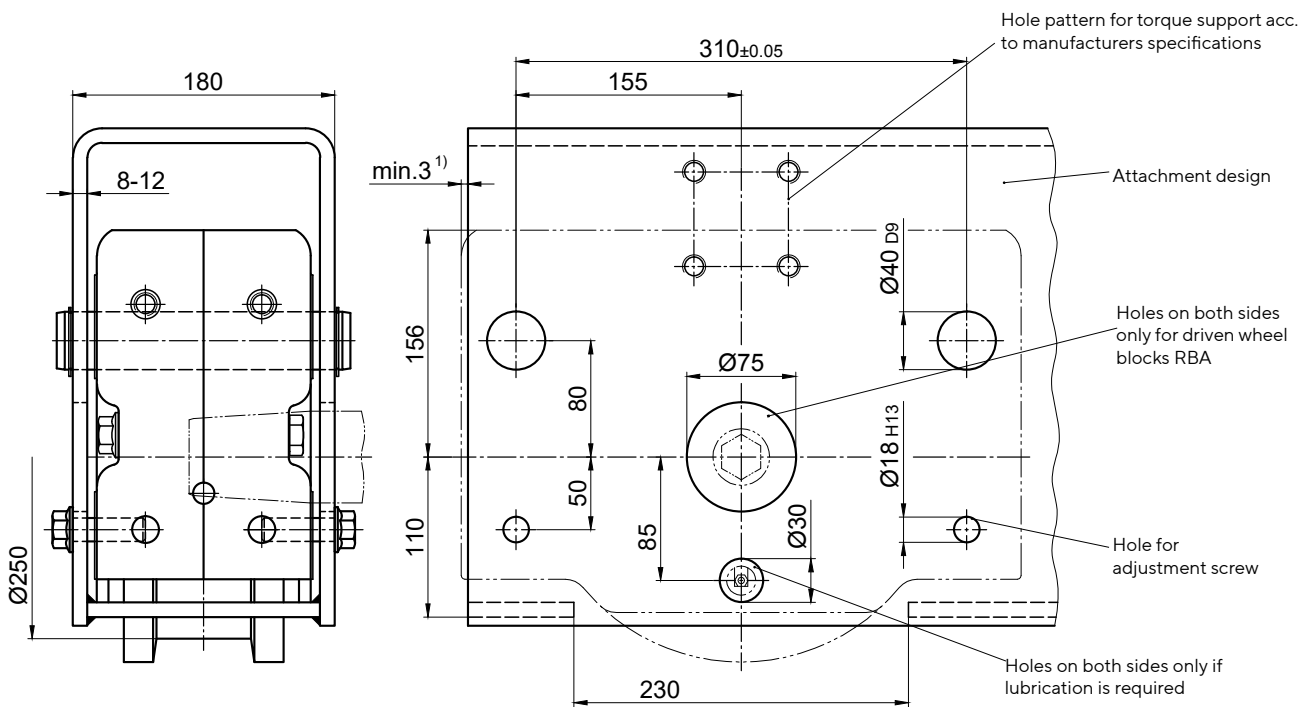
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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

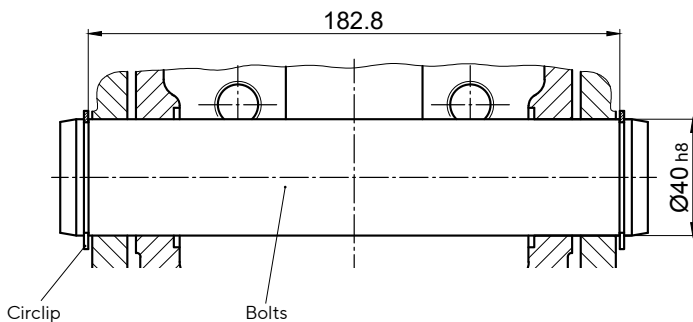
1 Set BA 250.2-V comprising of:

- 2 Bolts $\varnothing 40$ h8 x 202
- 4 Circlipse 40x1.75 DIN 471
- 4 Flanged bushings with internal thread(bonded)
- 4 Locking screws M16x50 (coated)

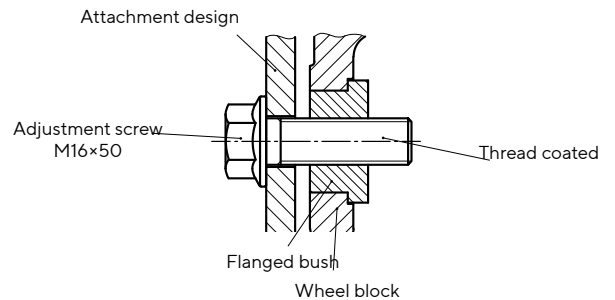
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 250-V

Connection options

Pin attachment BA 250.3-V

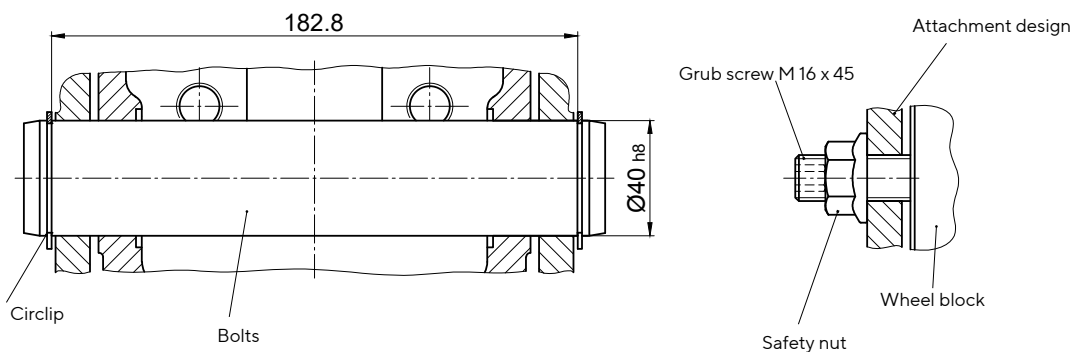
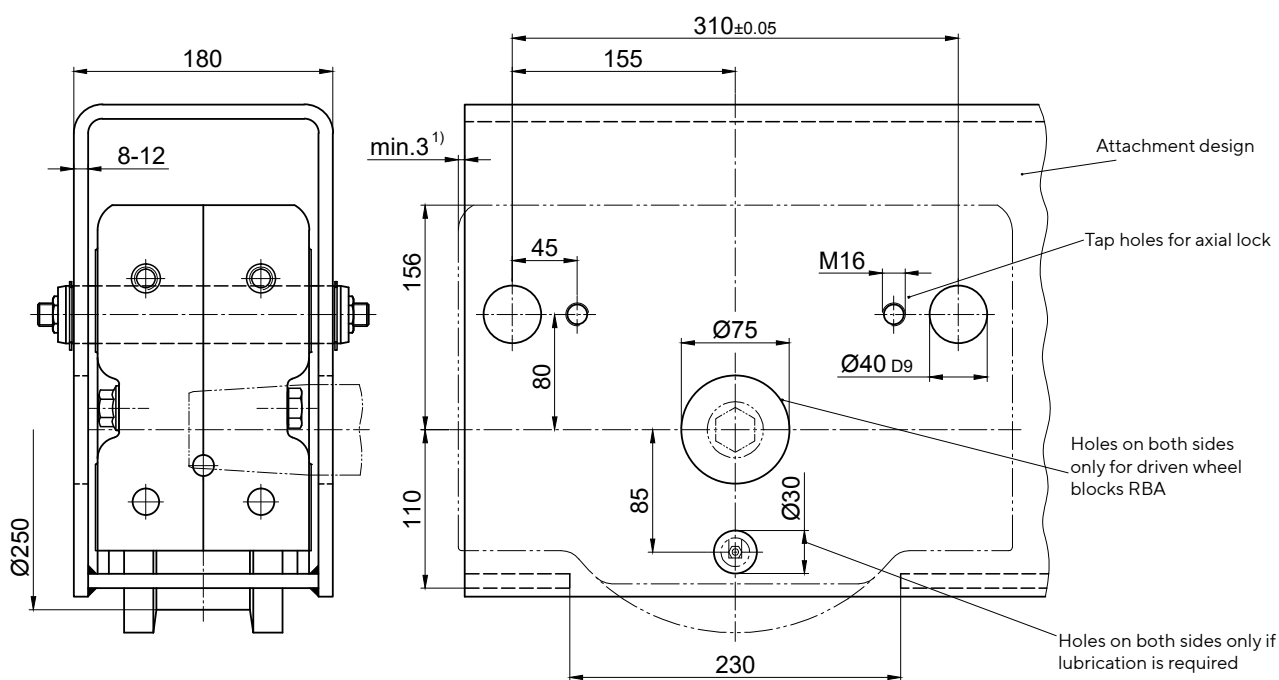
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

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 $\text{Ø}40$ h8 x 202
- 4 Circlipse 40x1.75 DIN 471
- 4 Grub screws with hexagon socket M 16x45-45H 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

WHEEL BLOCK RB 250-V

Connection options

Side connection WA 250-V

Lateral connection option for low construction designs

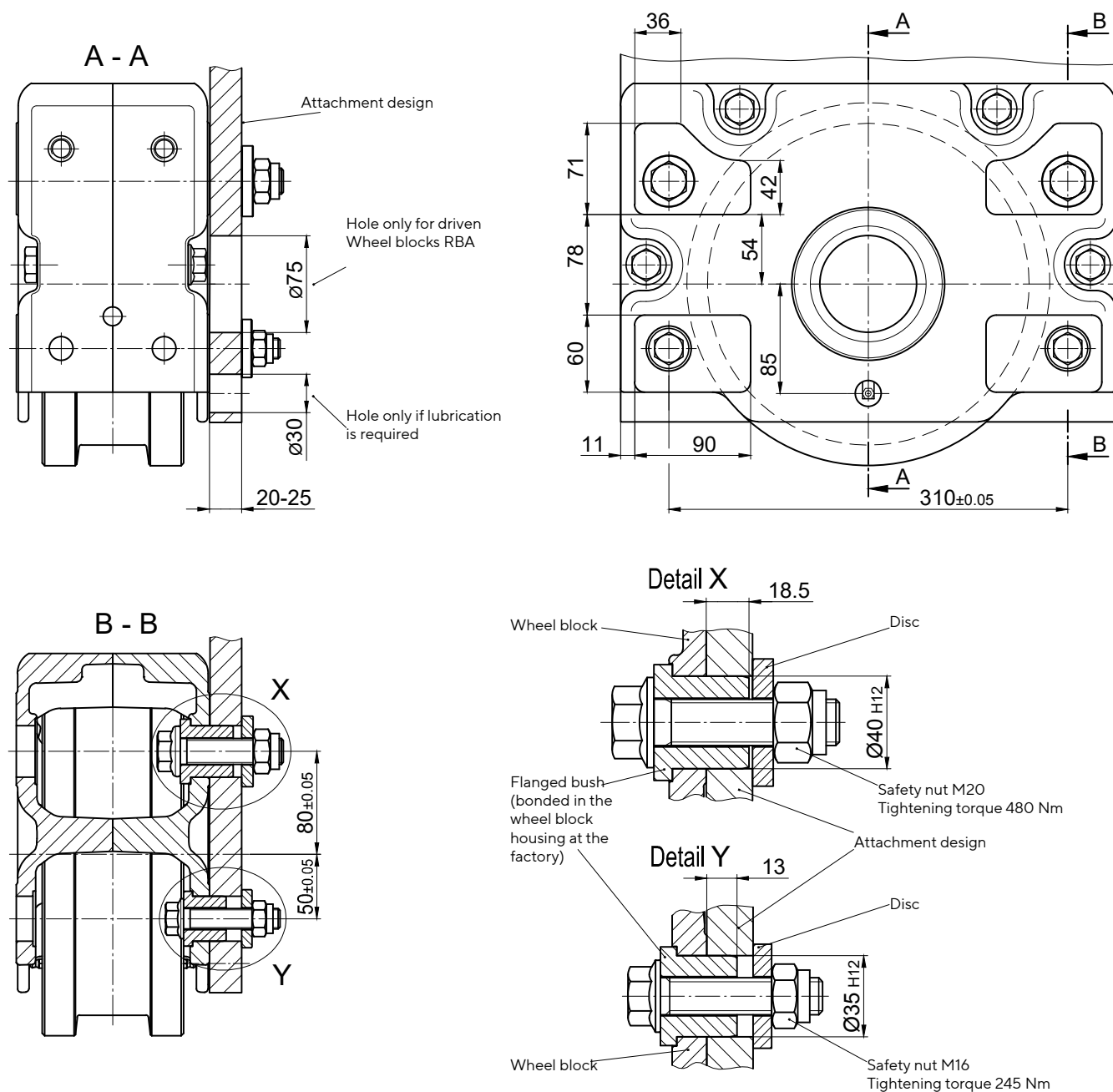
- 1 Set WAA 250-V (Side connection on the drive side)
- 1 Set WAN 250-V (Side connection on the non-driven side)
- 1 Set WA 250-V (Side connection on non-driven wheel block RBN) comprising of:

- 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 $\varnothing 40$ H12 and $\varnothing 35$ H12



WHEEL BLOCK RB 250-V

Connection options

Side connection WA 250-V

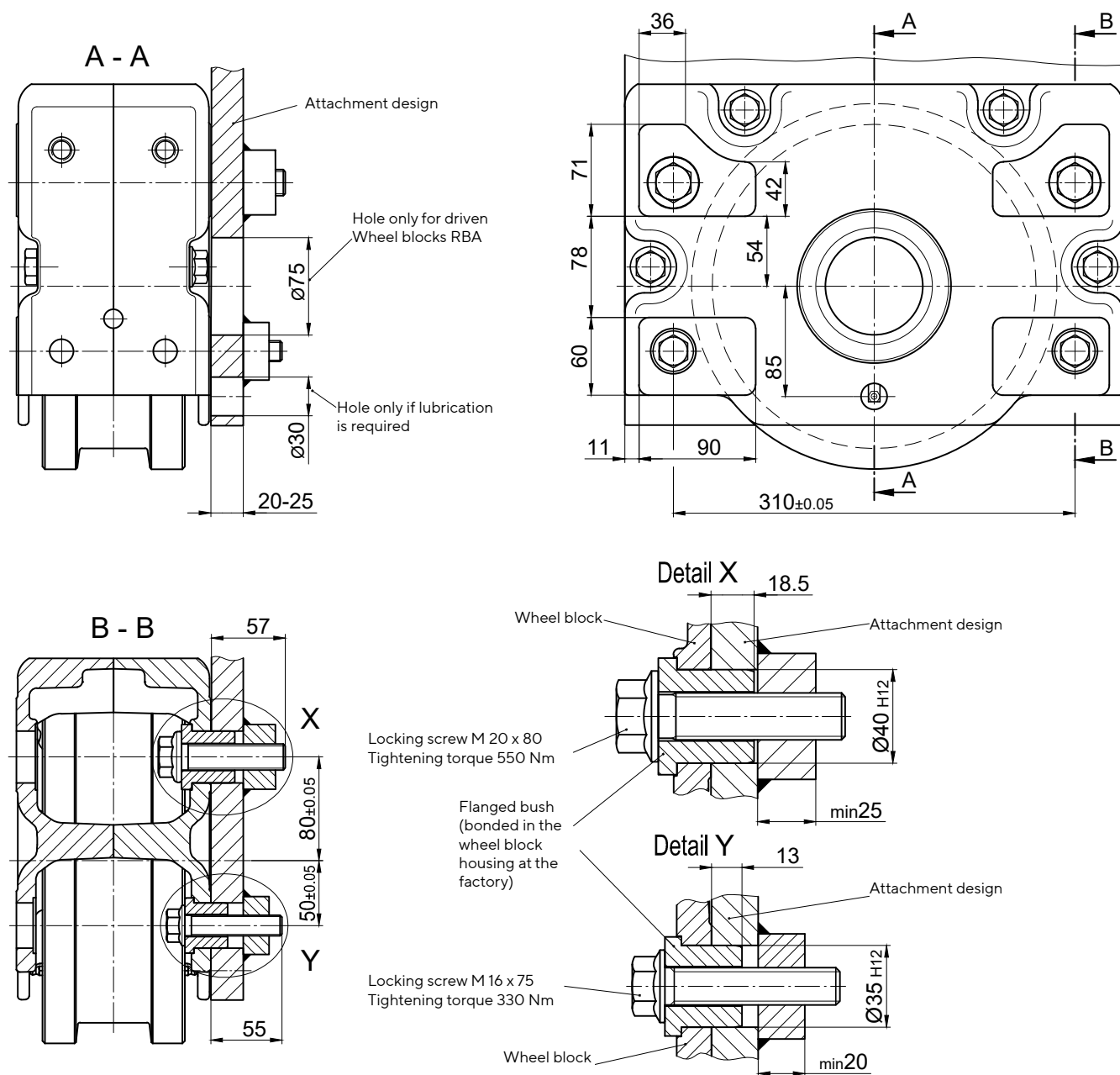
Lateral connection option for low construction designs

Attachment variant 2:

Attachment design (e.g. hollow profile) is not accessible from the inside

Blind hole $\varnothing 40$ H12x20 deep with thread M20 and

Blind hole $\varnothing 35$ H12x15 deep with thread M16

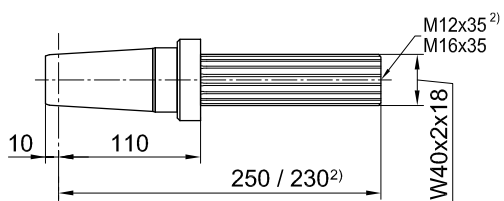
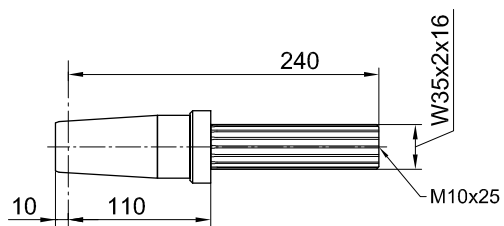
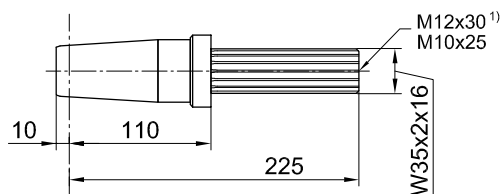


WHEEL BLOCK RB 250-V

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

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

FV 57 / KV 57	SEW	W35 x 2 x 16
---------------	-----	--------------

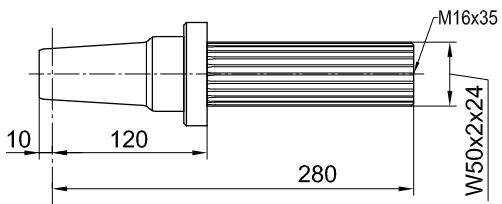
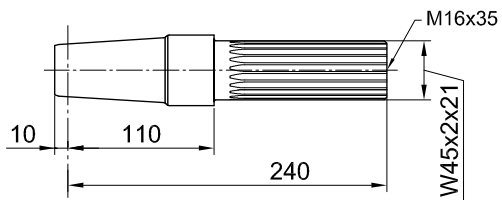
F.A.T 48B ²⁾	SIEMENS (FLENDER)	W40 x 2 x 18
K.A.T 48 ²⁾		
C.A.T 48 ²⁾		
SK 3282 EA	NORD	
SK 9023.1A.EA		

WHEEL BLOCK RB 250-V

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

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

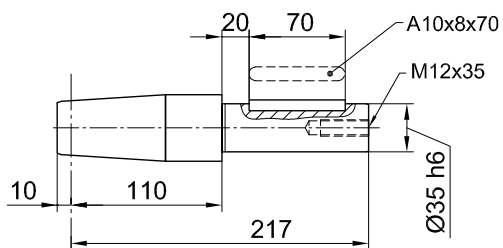
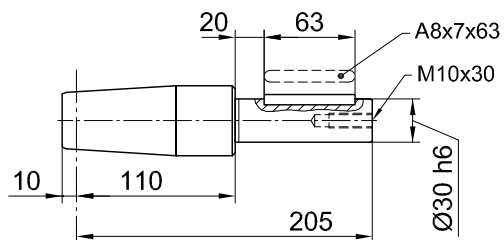
FV 77 / KV 77	SEW	W50 x 2 x 24
SK 4282 EA	NORD	
SPZT / SKZT 46..	PREMIUM STEPHAN	

WHEEL BLOCK RB 250-V

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	Manufacturer	Shaft journal
-------	--------------	---------------

FA / KA 37 SA 47	SEW	Ø30
FDA / FZA 38 B KA / CA 38	SIEMENS (FLENDER)	
O 32..H O 33..H K 33..H C 32..H	SIEMENS	
SK 0282 NBAB SK 1282 AB	NORD	
GFL 04..H GKS 04..H GSS 04..H	LENZE	
F 3..A	STÖBER	
SPZ 16H	PREMIUM STEPHAN	

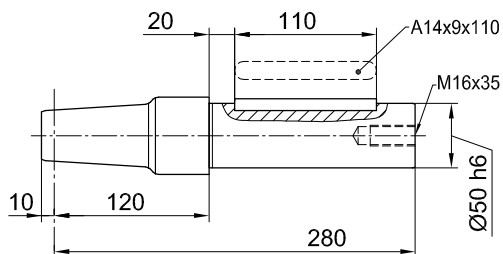
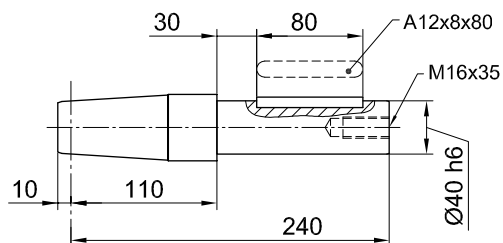
FA / KA 47 SA 57	SEW	Ø35
SK 2282 AB	NORD	
FDA / FZA 48 B KA / CA 48	SIEMENS (FLENDER)	
O 42..G O 43..G K 43..H C 42..H	SIEMENS	
GFL 05..H GKS 05..H GSS 05..H	LENZE	
K1.A S2..A	STÖBER	
SPZH 26.. SKZH 26..	PREMIUM STEPHAN	

WHEEL BLOCK RB 250-V

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	Manufacturer	Shaft journal

FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	Ø40
SK 3282 AB	NORD	
FDA 68 B FZA 68 B KA 68 / CA 68	SIEMENS (FLENDER)	
O 62..G O 63..G K 63..G C 62..G	SIEMENS	
K4..A	STÖBER	
SPZH 36.. SKZH 36..	PREMIUM STEPHAN	

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

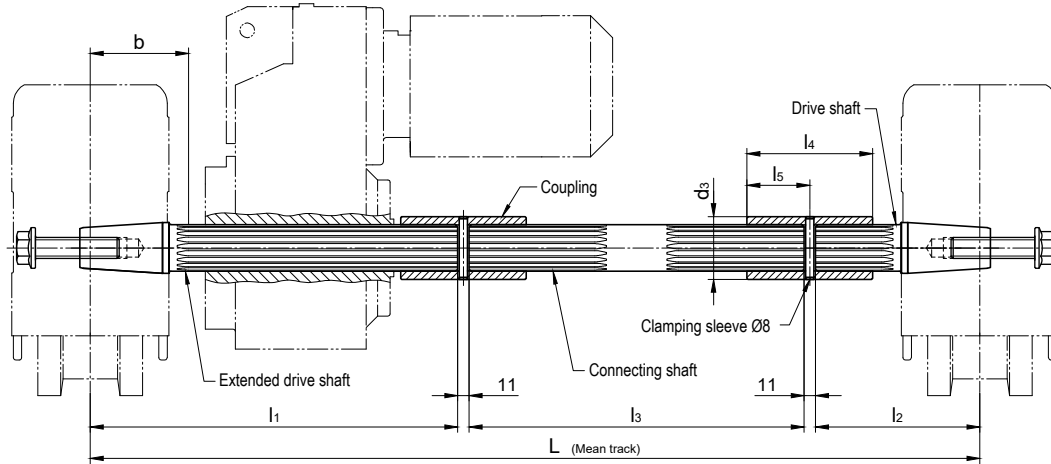
WHEEL BLOCK RB 250-V

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)



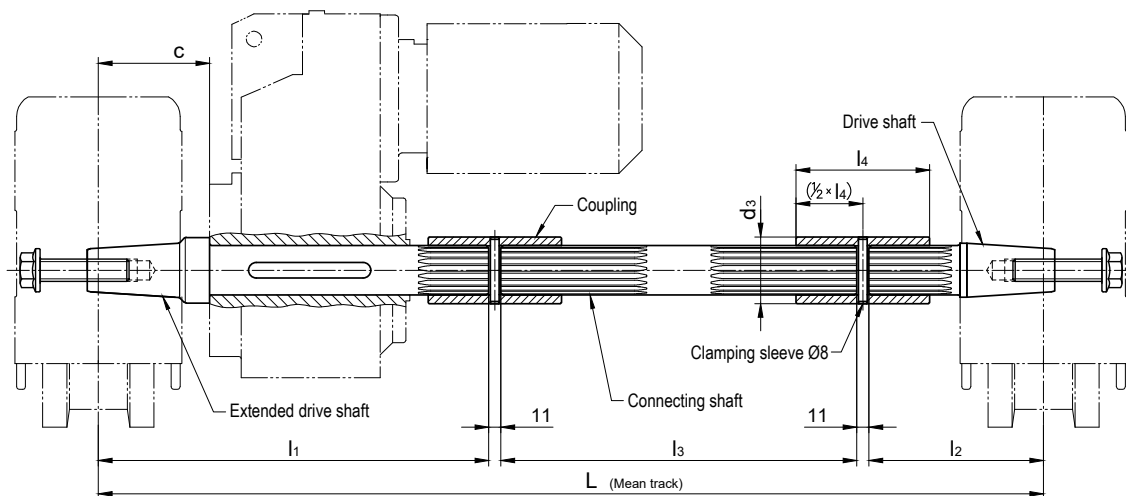
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	l4	l5	d3	Clamping sleeve DIN 1481
AF 05 AUK 30/ WUK 30	DEMAG	W35 x 2 x 16	For ordering, please provide	350	225	Dimension L minus 597	105	100	50	50	8 x 50
FV 47 / KV 47 FV 57 / KV 57	SEW										
SK 2282 EA	NORD										
SPZT 26.. SKZT 26..	PREMIUM STEPHAN										
F.A.T 48 B K.A.T 48 C.A.T 48	SIEMENS (FLENDER)	W40 x 2 x 18		350	148	Dimension L minus 520	105	100	50	55	8 x 55
SK 3282 EA SK 9023.1A.EA	NORD										
AF 06 / AF 08 AUK 40	DEMAG	W45 x 2 x 21		351	157	Dimension L minus 530	105	120	60	60	8 x 60
FV 67 KV 67	SEW										
SPZT 36.. SKZT 36..	PREMIUM STEPHAN										
AF 08 AUK 50	DEMAG	W50 x 2 x 24		400	158	Dimension L minus 580	110	120	60	65	8 x 65
FV 77 KV 77	SEW										
SK 4282 EA SK 9033.1A.EA	NORD										
F.A.T 68 B K.A.T 68 C.A.T 68	SIEMENS (FLENDER)										
SPZT 46.. SKZT 46..	PREMIUM STEPHAN										

WHEEL BLOCK RB 250-V

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	l2	l3	c gearbox stop	Feather key DIN 6885	Coupling Internal gearing/ d3 x l4
Inner-Ø	Length							
Ø35	≤ 150	For ordering, please provide	330	225	Dimension L minus 577	110	A 10 x 8 x 70	N35 x 2 x 16 Ø50 x 100
Ø40	≤ 180		350	148	Dimension L minus 520	110	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	≤ 210		400	158	Dimension L minus 580	120	A 14 x 9 x 110	N50 x 2 x 24 Ø60 x 120
Ø60 *	≤ 240		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.

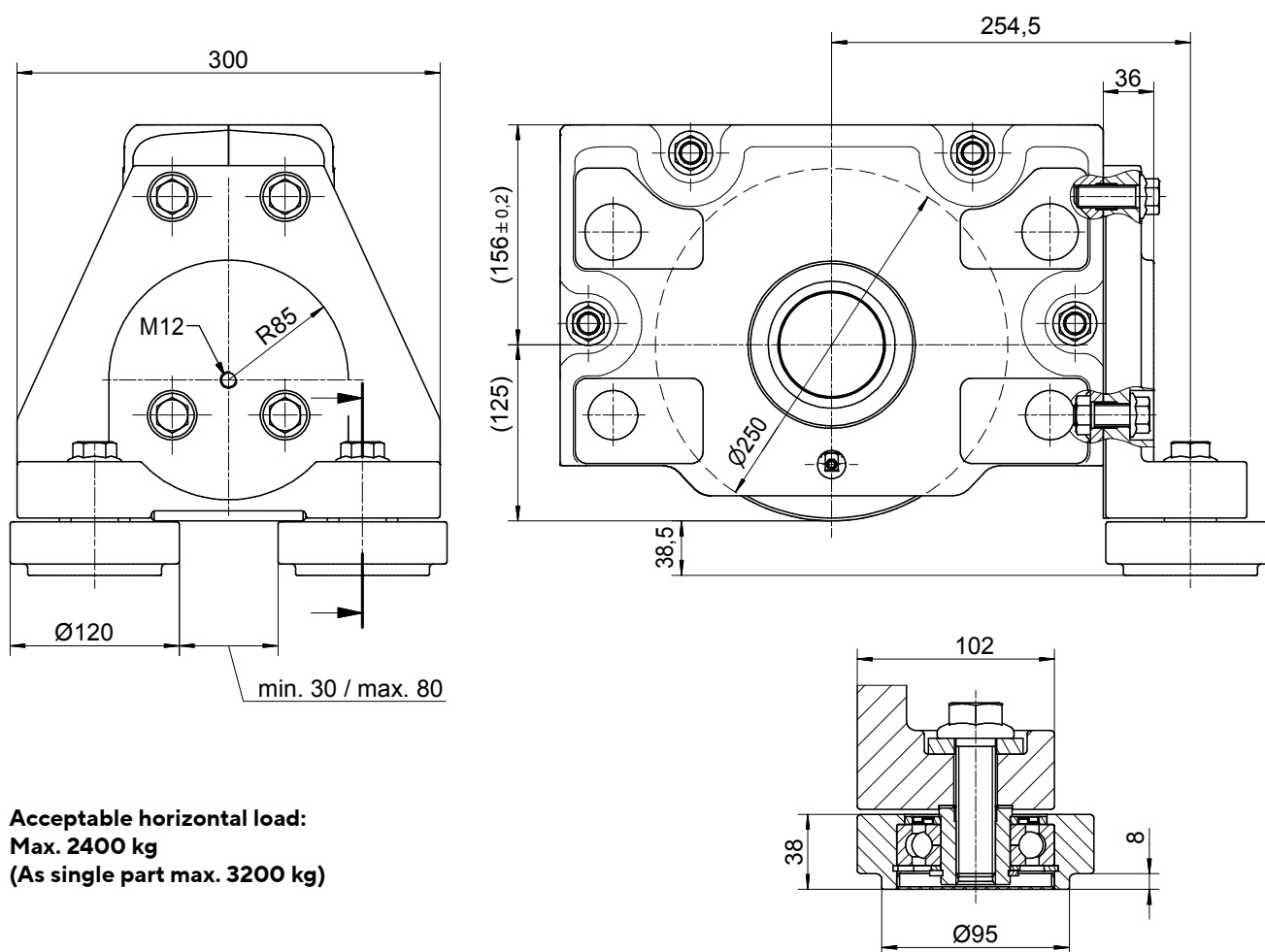
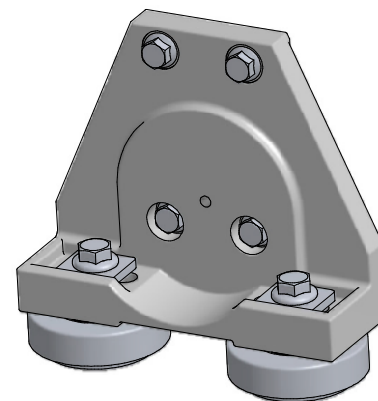
* On request, with indication of max. drive torque..

WHEEL BLOCK RB 250-V

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.).



Acceptable horizontal load:
Max. 2400 kg
(As single part max. 3200 kg)

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

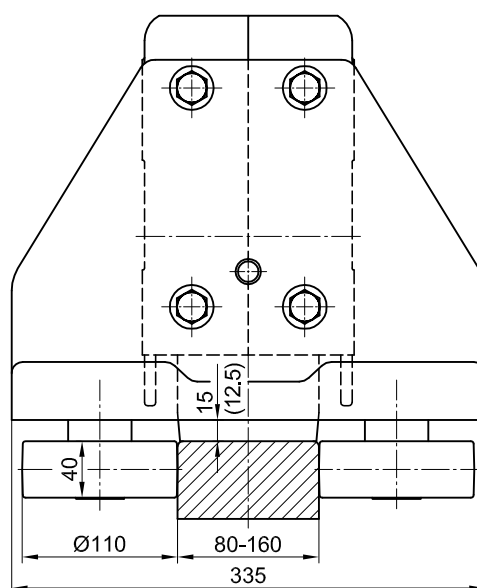
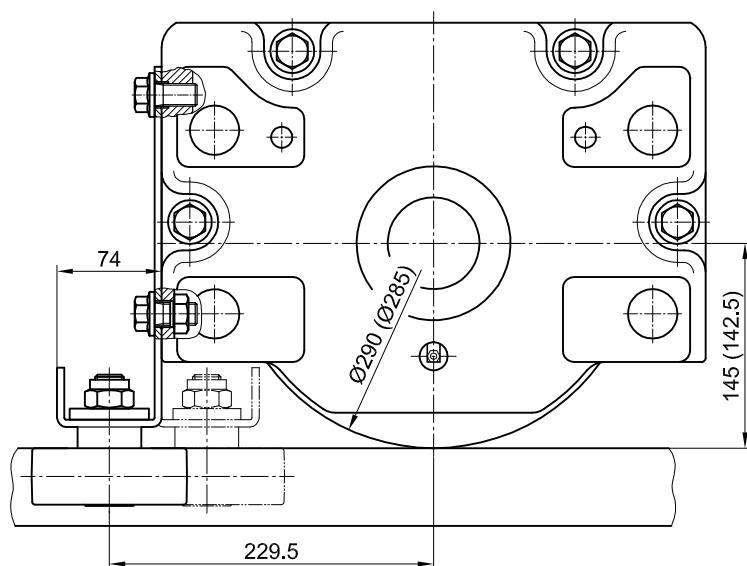
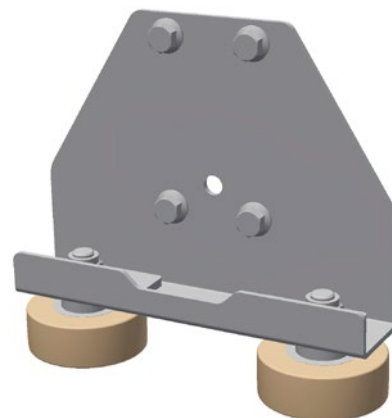
Horizontal roller guide for other rail profiles are available on request.

WHEEL BLOCK RB 250-V

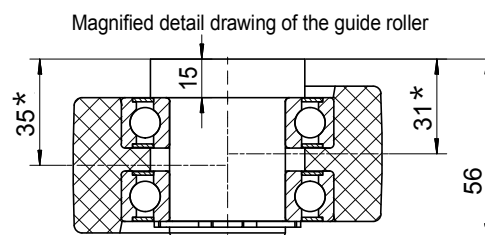
Horizontal roller guide for wheels of Ø290 and Ø285 with coating made of vulkollan or PA12G

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 continuous 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.

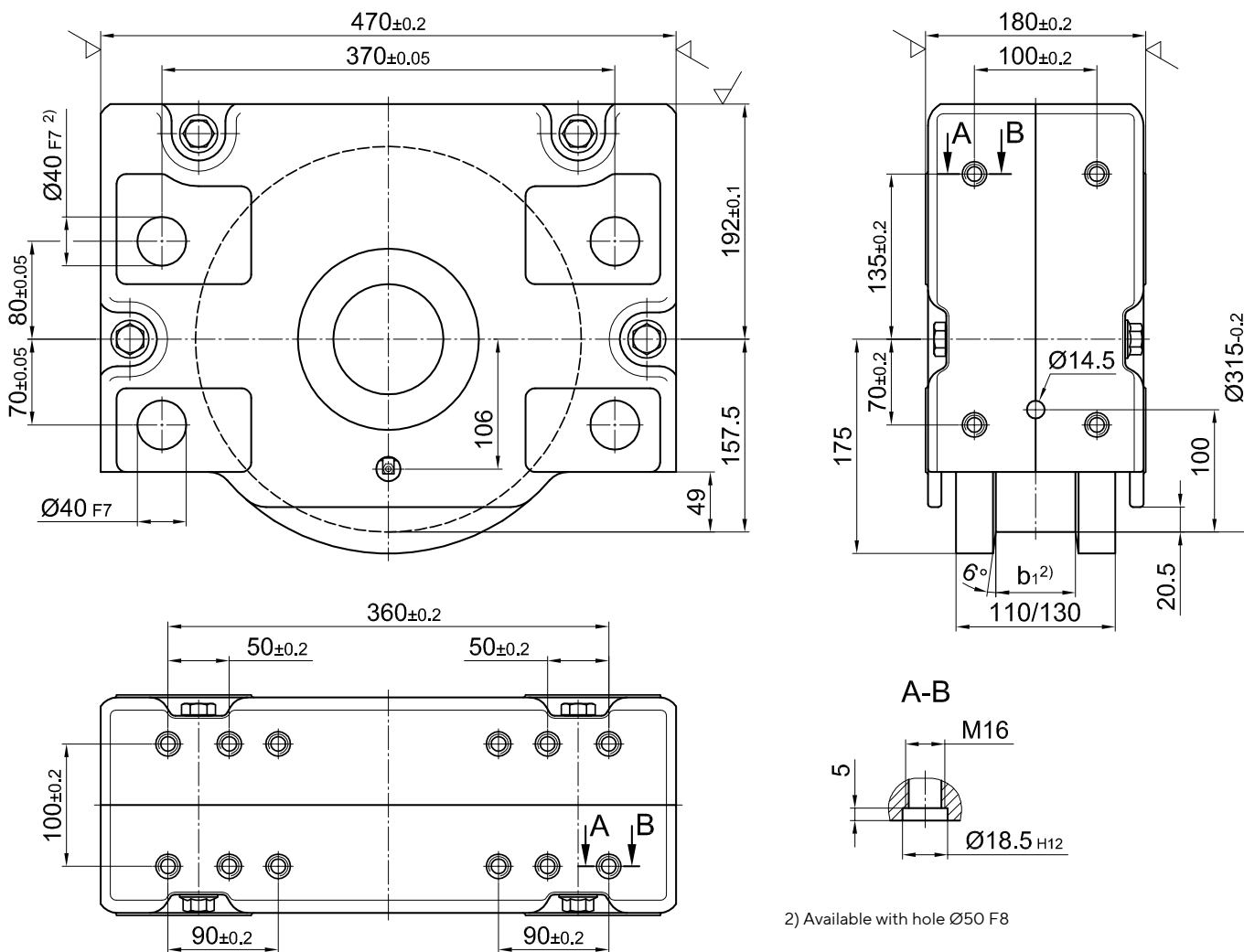
Horizontal roller guide for other rail profiles are available on request.

Wheel block

RB 315

WHEEL BLOCK RB 315

Primary dimensions



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 mm

RBN 315×65

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

RBA 315×75

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

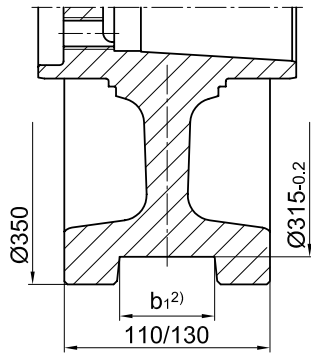
RBA 315

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

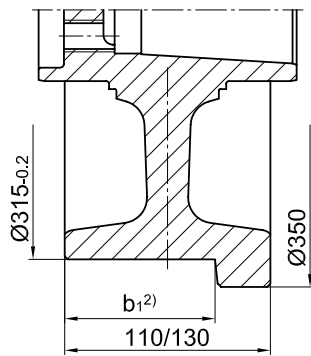
Design RBA and RBN refer to Page 5

WHEEL BLOCK RB 315

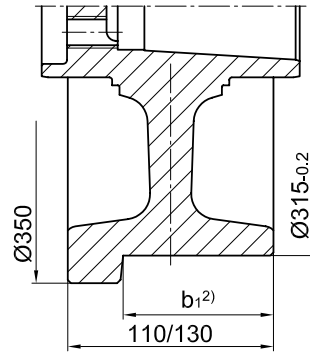
Standard models



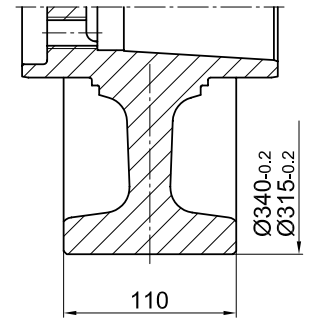
Form 1
two-sided wheel flange



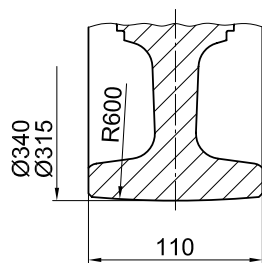
Form 2¹⁾
one-sided wheel flange
on the drive side



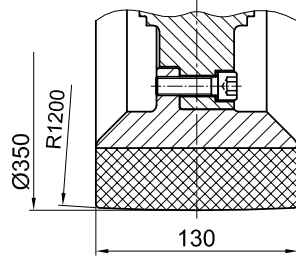
Form 3¹⁾
one-sided wheel flange
opposite to the drive side



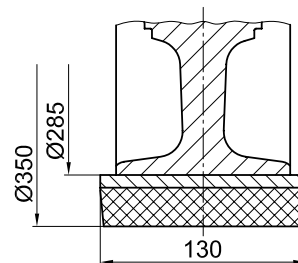
Form 4
no wheel flanges with
cylindrical running surface



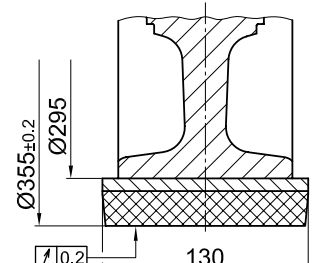
Form 5
no wheel flanges with
spherical running surface



Form 6
with coating
of PA 12 G

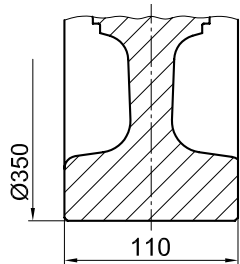


Form 8
with binding
of Vulkollan,
standard design

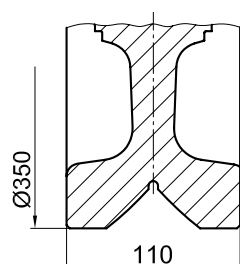


Form 8S
with binding
of Vulkollan,
special design

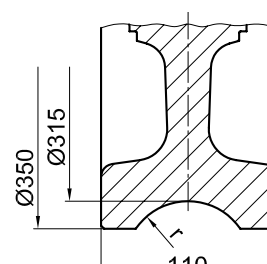
Special models



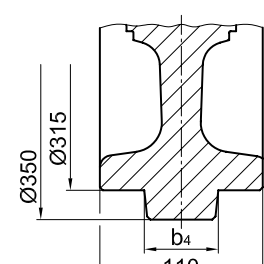
Form 9
no wheel flanges



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1		Form 2 und 3		
Running tread b_1 for two-sided wheel flange		Running tread b_1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal
30	100	65; 80	70	115

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

2) At a running tread $b_1 \leq 70$ and 90 (one-sided wheel flange) a wheel with a width of 110 mm will be used

WHEEL BLOCK RB 315

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.

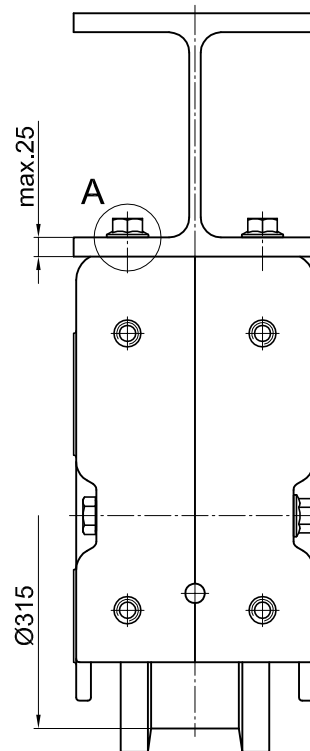
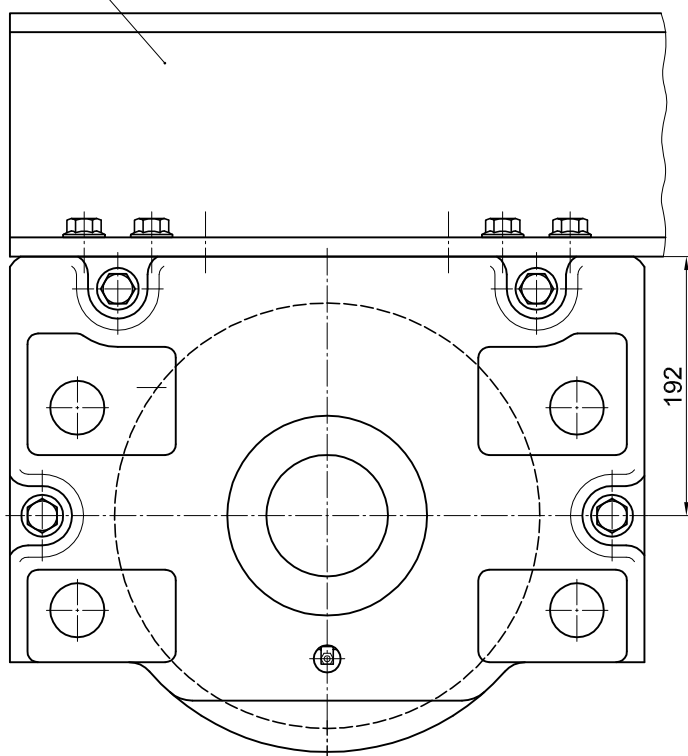
1 Set KA 315.1 comprising of:

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

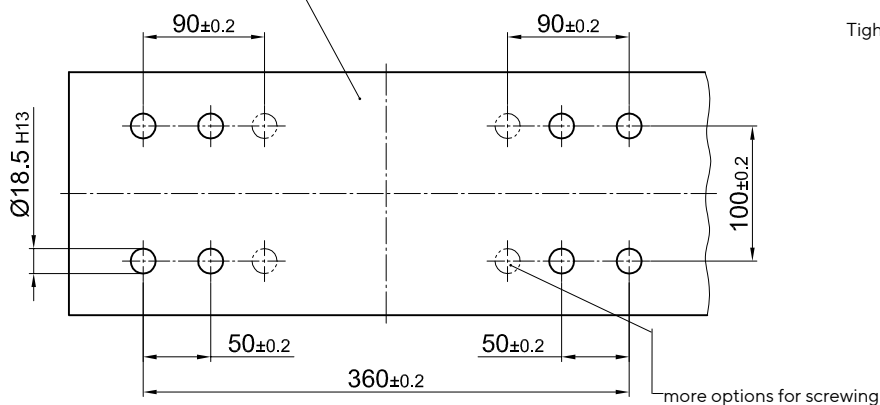
Mounting parts for larger steel plate thicknesses and/or adjustable direct connection are available on request.

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

Attachment design

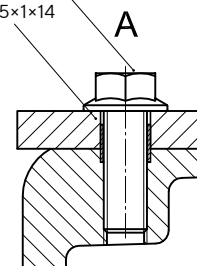


Hole pattern attachment design for precise fitting variant



Locking screw M16×45
Tightening torque 330 Nm

Locking pin 18.5×1×14



WHEEL BLOCK RB 315

Connection options

Top connection KA 315.2

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

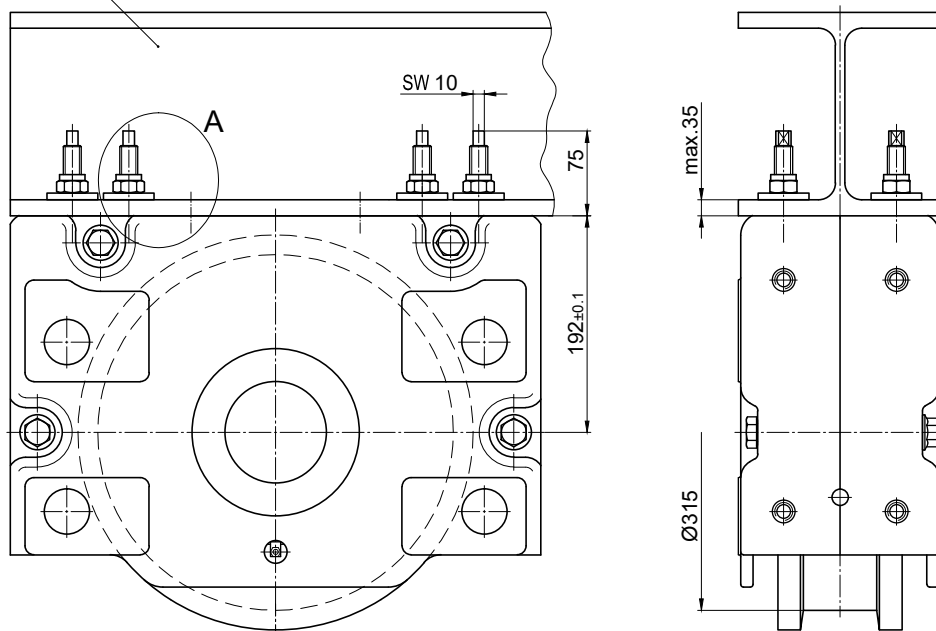
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 8×24 supplied. However, this must not be in the area of the attachment bolts [1]). Alignment is not required for precisely drilled attachment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

1 Set KA 315.2 comprising of:

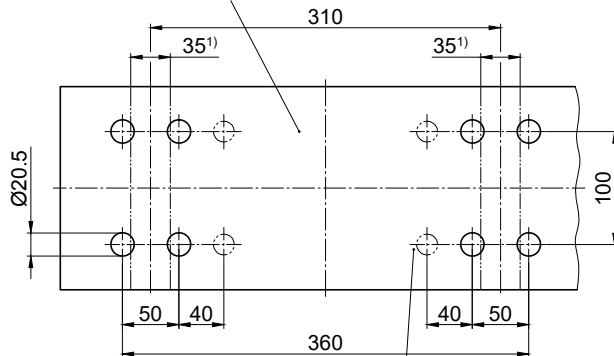
- 8 Grub screws M16×105 - 10.9 ZT
- 8 Safety nuts M16-10 DIN EN ISO 7042 (DIN 980)
- 8 Discs 17 DIN 6340
- 4 Locking pins 8×24 DIN EN ISO 8752 (DIN 1481), for adjustable connection
- 8 Locking pins 18.5×1×14, for precise connection

Longer locking pins are available for thicker plates.

Attachment design

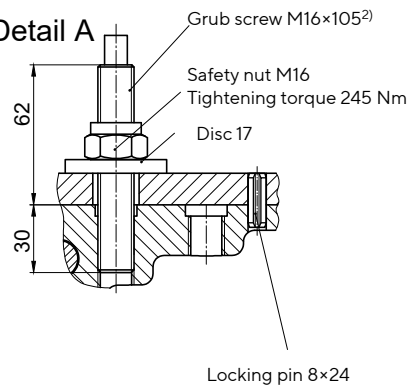


Hole pattern for the attachment design for adjustable variant



more options for screwing

Detail A



1) Pinning is not permitted in this area !

2) Can be factory-glued in the wheel block housing on request.

WHEEL BLOCK RB 315

Connection options

Pin attachment BA 315.1

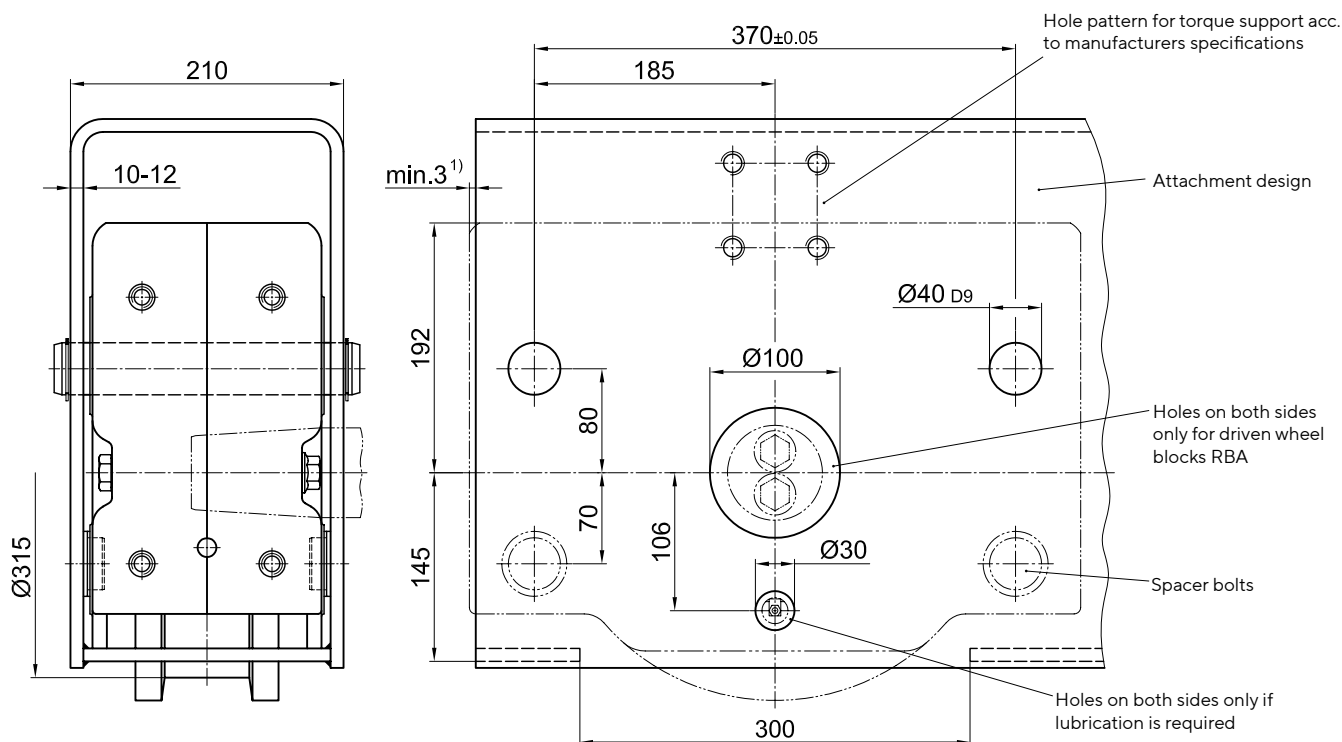
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

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

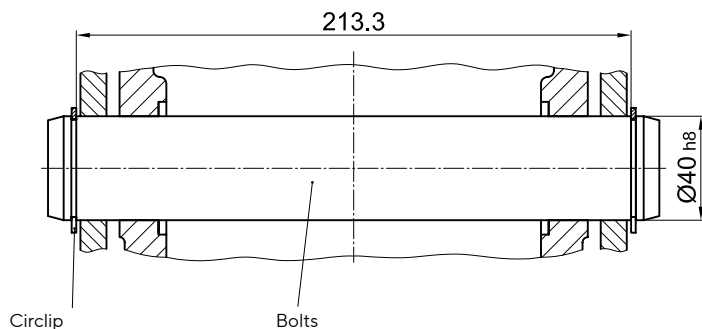
1 Set BA 315.1 comprising of:

- 2 Bolts $\text{Ø}40\text{h}8 \times 235$
- 4 Circlipse 40×1.75 , DIN 471
- 4 Spacer bolts
- 16 Adjusting washers $40 \times 50 \times 0.5$, DIN 988

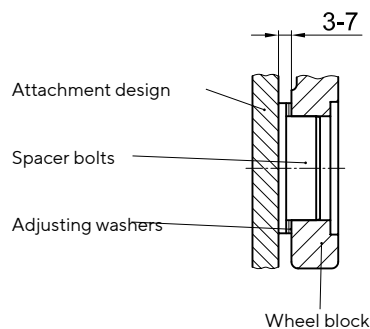
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 315

Connection options

Pin attachment BA 315.2

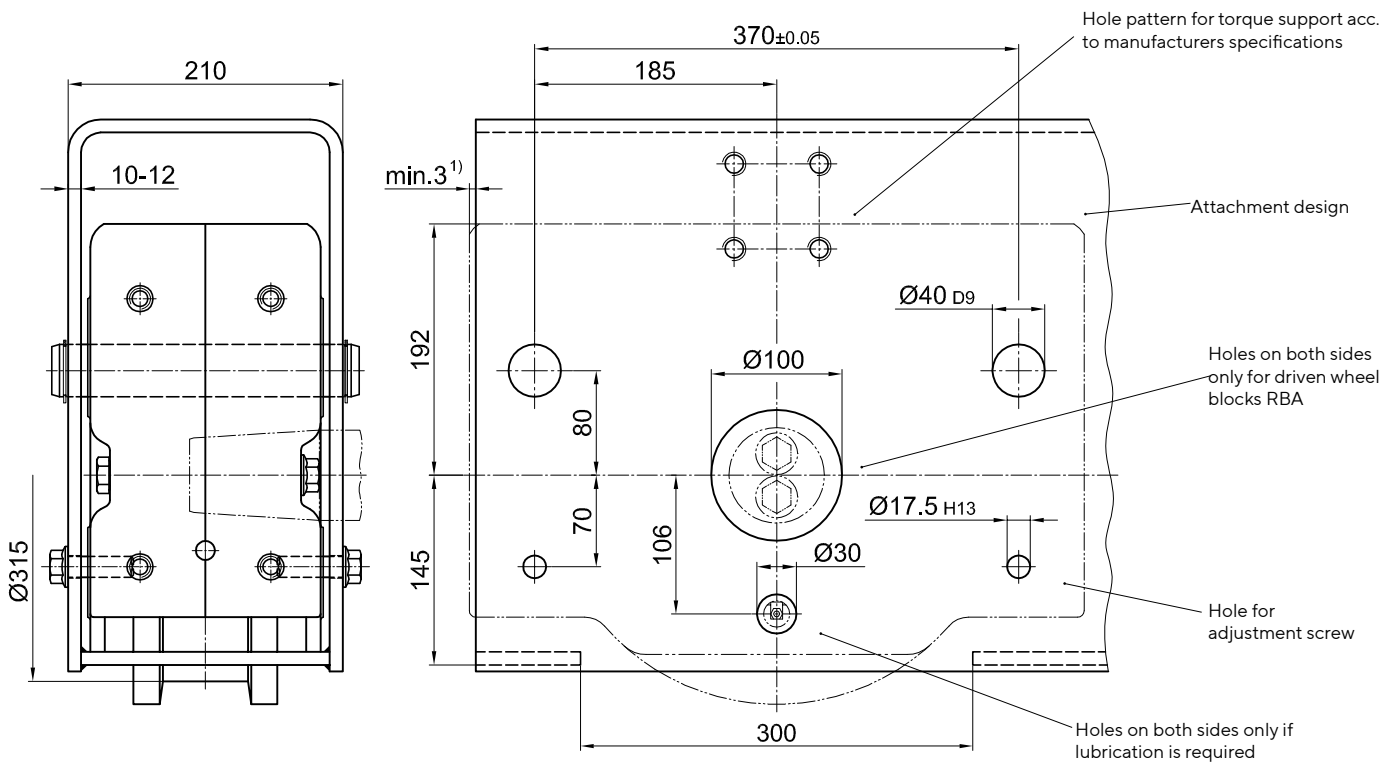
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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

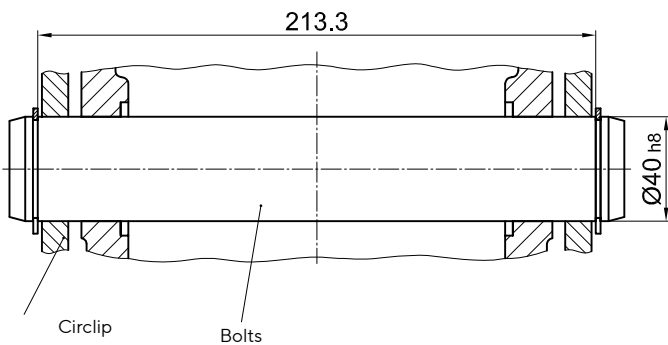
1 Set BA 315.2 comprising of:

- 2 Bolts $\varnothing 40$ h8 x 235
- 4 Circlipse 40x1.75, DIN 471
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M16x50 (coated)

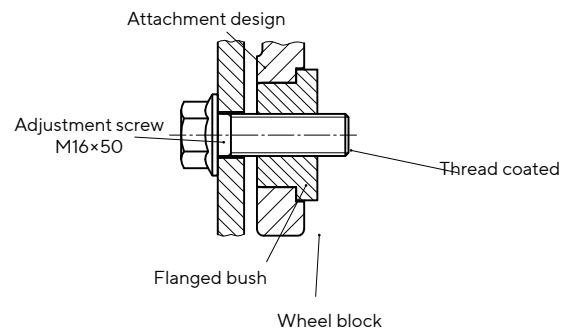
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 315

Connection options

Pin attachment BA 315.3

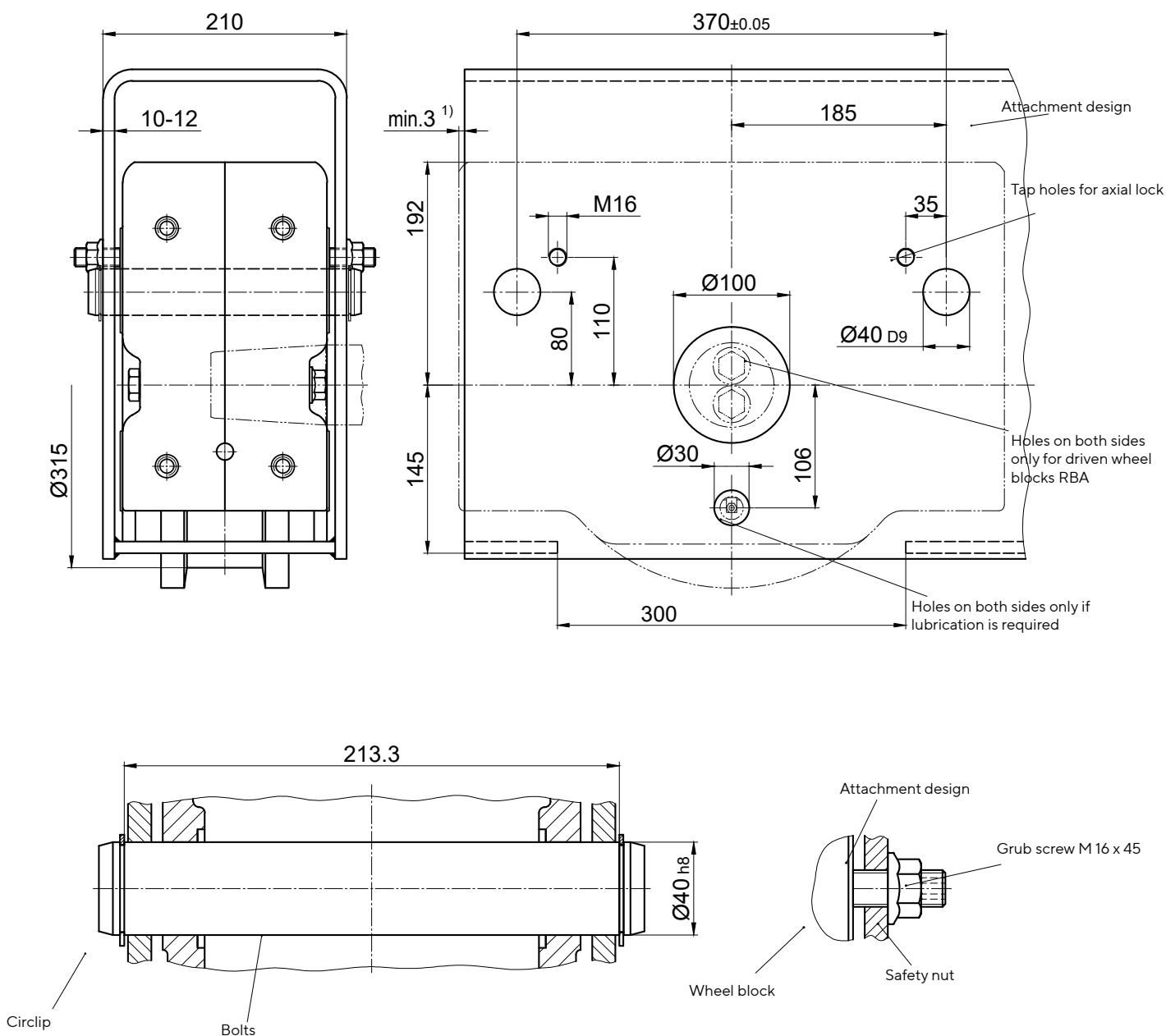
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

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 $\text{Ø}40$ h8 x 235
- 4 Circlipse 40x1.75 DIN 471
- 4 Grub screws with hexagon socket M 16x45-45H 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

WHEEL BLOCK RB 315

Connection options

Side connection WA 315

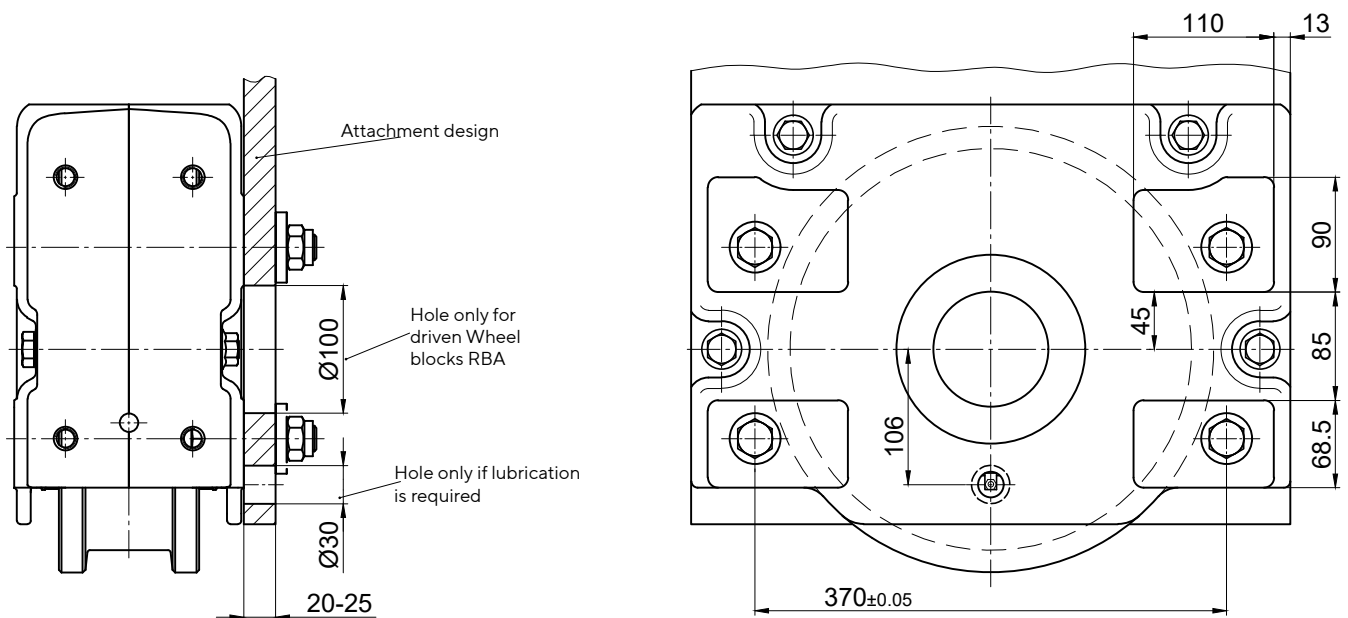
Lateral connection option for low construction designs

- 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:

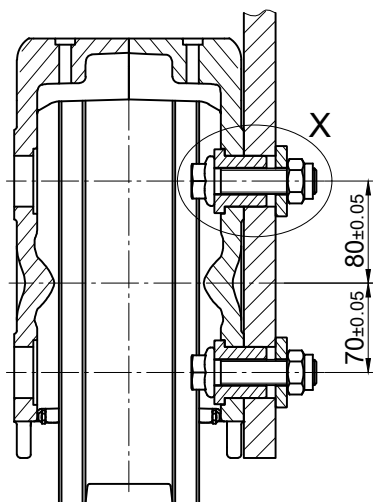
- 4 Flanged bushings Ø40 (bonded)
- 4 Locking screws M 20×80 -12.9
- 4 Safety nuts M 20-10, DIN EN ISO 7042 (DIN 980)
- 4 Discs 21

Attachment variant 1:

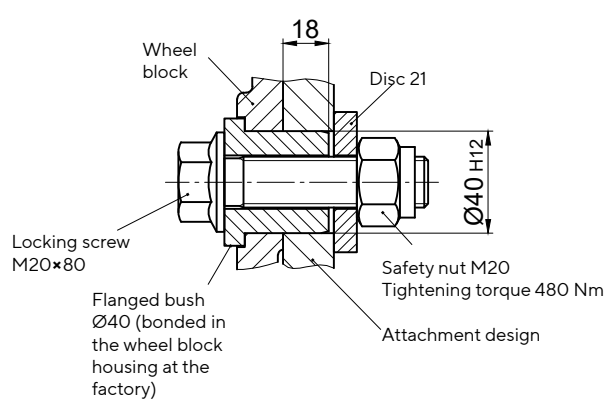
Attachment design is accessible from both sides
Trough-hole Ø40 H12



sectional view



Detail X



WHEEL BLOCK RB 315

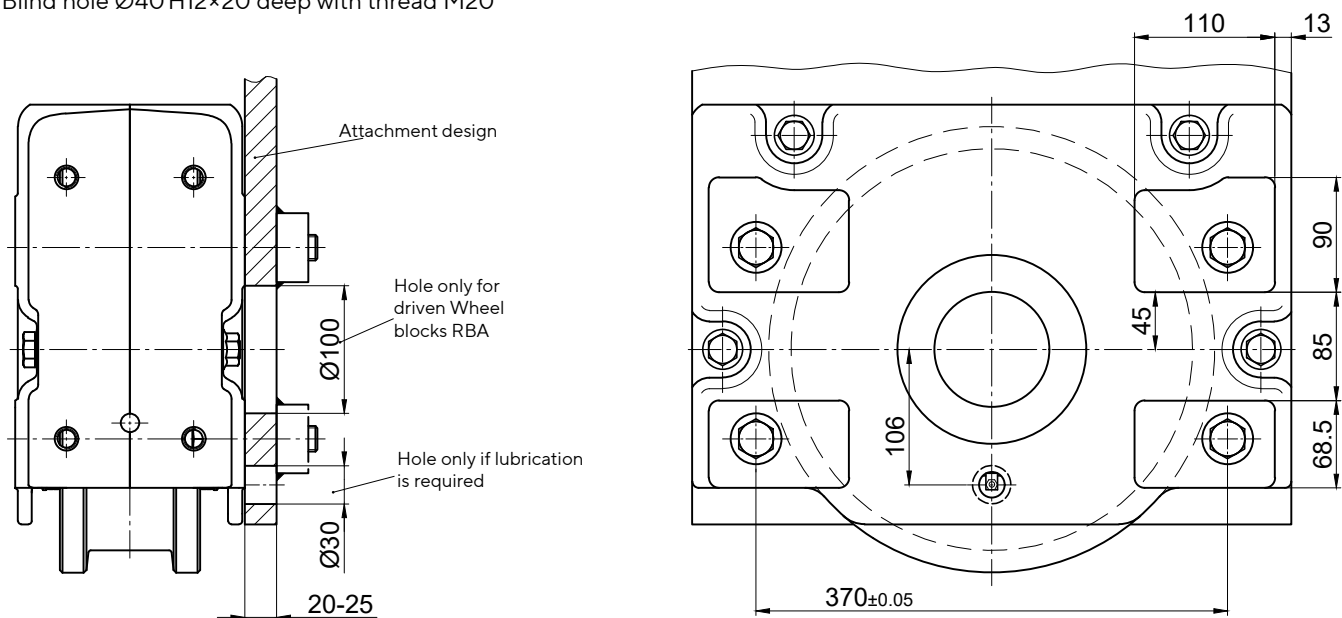
Connection options

Side connection WA 315

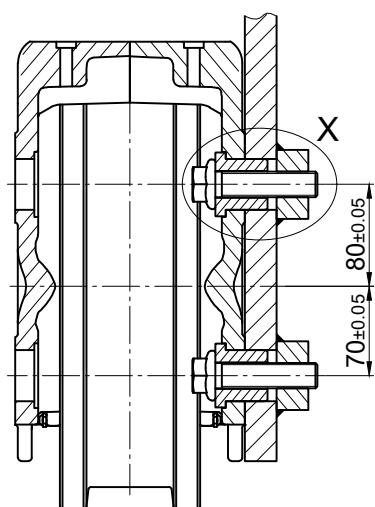
Lateral connection option for low construction designs

Attachment variant 2:

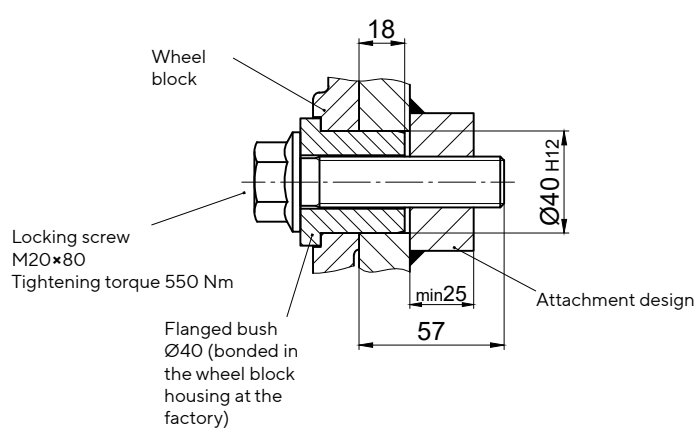
Attachment design (e.g. hollow profile) is not accessible from the inside
Blind hole $\text{Ø}40 \text{ H12} \times 20$ deep with thread M20



sectional view



Detail X

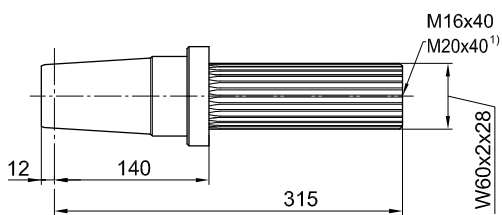
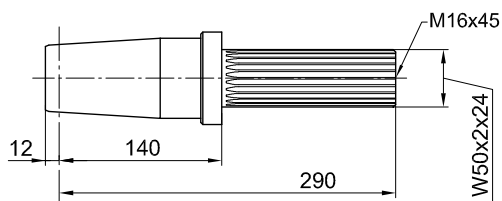
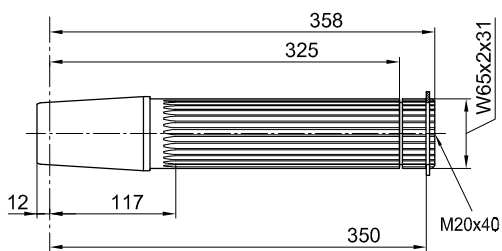
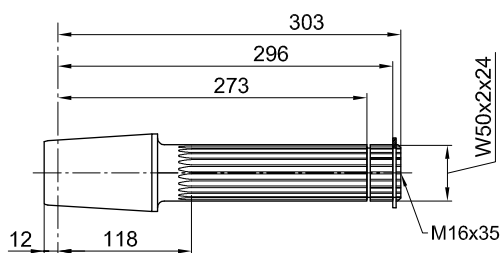


WHEEL BLOCK RB 315

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		
Model	Manufacturer	Splined-shaft profile in acc. with DIN 5480

AF 08	DEMAG	W50 x 2 x 24
AUK 50		

AF 10	DEMAG	W65 x 2 x 31
AUK 60		

F.A.T 68 B	SIEMENS (FLENDER)	W50 x 2 x 24
KAT 68		
CAT 68		

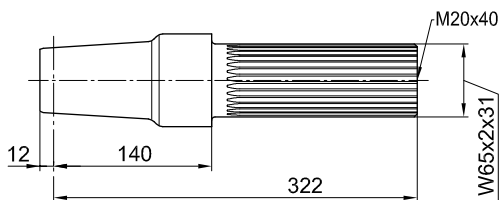
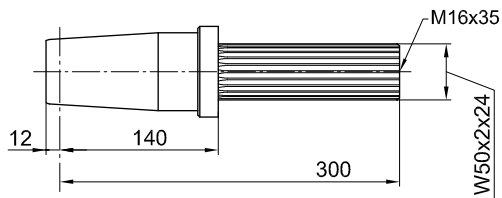
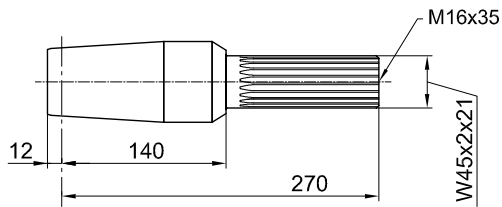
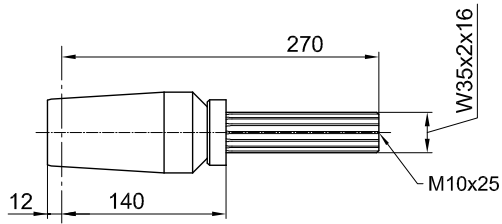
F.A.T 88 B	SIEMENS (FLENDER)	W60 x 2 x 28
KAT 88		
CAT 88		
SK 5282 EA ¹⁾	NORD	

WHEEL BLOCK 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		
Model	Manufacturer	Splined-shaft profile in acc. with DIN 5480

FV 57 / KV 57	SEW	W35 x 2 x 16
---------------	-----	--------------

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

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

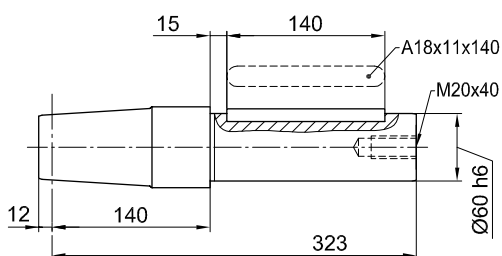
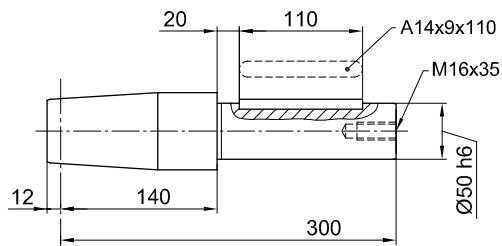
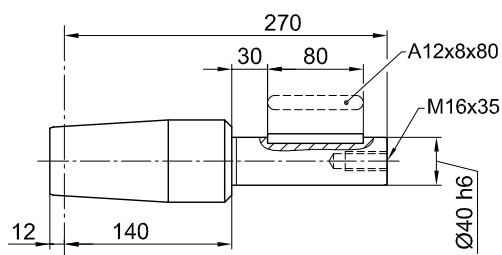
FV 87 / KV 87	SEW	W65 x 2 x 31
SPZT / SKZT 56..	PREMIUM STEPHAN	

WHEEL BLOCK 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 feather key connection in accordance with DIN 6885



Slip-on gear mechanism		
Model	Manufacturer	Shaft journal

FA 57 / KA 57 FA 67 / KA 67 SA 67	SEW	Ø40
SK 3282 AB	NORD	
FDA / FZA 68 B KA 68 / CA 68	SIEMENS (FLENDER)	
O / C 62..G O / K 63..G	SIEMENS	
GFL 06..H GKS 06..H GSS 06..H	LENZE	
K4..A	STÖBER	
SPZH / SKZH 36..	PREMIUM STEPHAN	

FA 77 / KA 77 SA 77	SEW	Ø50
SK 4282 AB	NORD	
FDA / FZA 88 B KA / CA 88	SIEMENS (FLENDER)	
O / C 82..G O / K 83..G	SIEMENS	
GFL 07..H GKS 07..H GSS 07..H	LENZE	
K 5 / K6..A	STÖBER	
SPZH / SKZH 46..	PREMIUM STEPHAN	

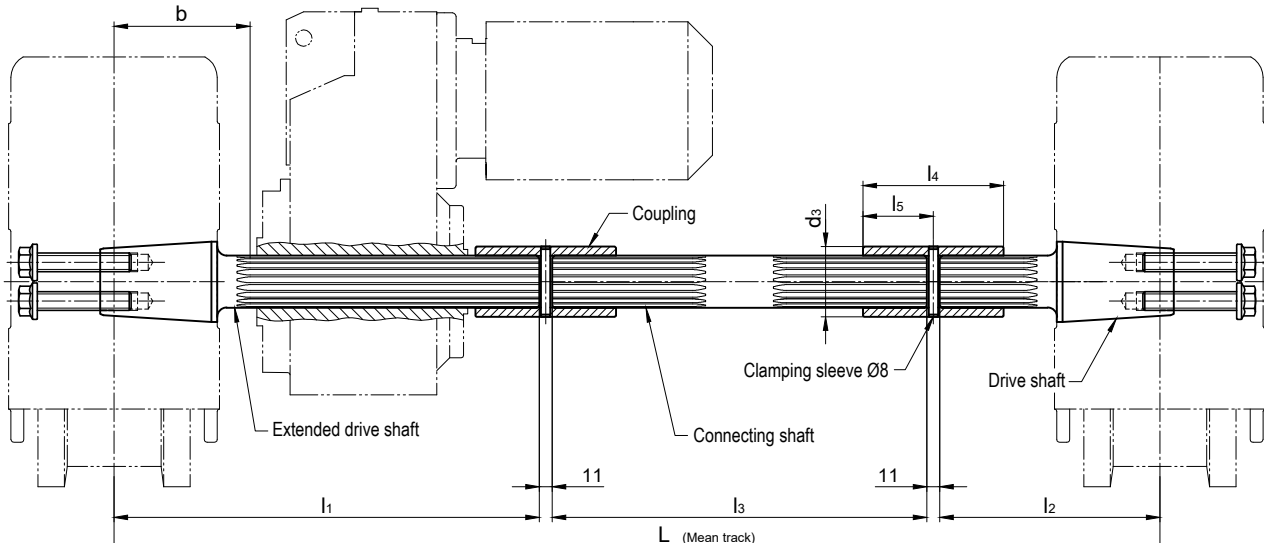
FA / KA / SA 87	SEW	Ø60
SK 5282 AB	NORD	
FDA 108 B FZA 108 B KA 108	SIEMENS (FLENDER)	
O 102..G O 103..G K 103..G	SIEMENS	
GFL / GKS 09..H	LENZE	
K7..A	STÖBER	
SPZH / SKZH 56..	PREMIUM STEPHAN	

WHEEL BLOCK RB 315

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)



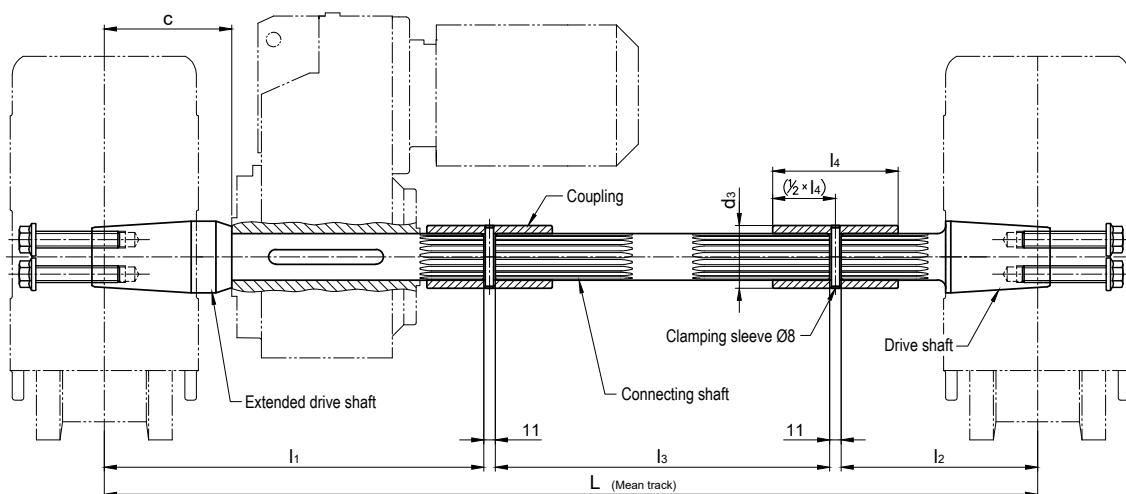
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	l4	l5	d3	Clamping sleeve DIN 1481
AF 08 AUK 50	DEMAG	W50 x 2 x 24	For ordering, please provide	420	178	Dimensi- on L minus 620	118	120	60	65	8 x 65
FV 77 KV 77	SEW										
F.A.T 68B K.A.T 68 C.A.T 68	SIEMENS (FLENDER)										
SK 4282 EA SK 9032.1AZEA	NORD										
SPZT 46.. SKZT 46..	PREMIUM STEPHAN										
F.A.T 88B K.A.T 88 C.A.T 88	SIEMENS (FLENDER)	W60 x 2 x 28		450	178	Dimensi- on L minus 650	117	125	62.5	75	8 x 75
SK 5282EA	NORD										
AF 10 AUK 60	DEMAG	W65 x 2 x 31		445	178	Dimensi- on L minus 645	117	125	62.5	80	8 x 80
FV 87 KV 87	SEW										
SK 9042.1A.EA	NORD										
SPZT 56.. SKZT 56..	PREMIUM STEPHAN										

WHEEL BLOCK RB 315

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	l2	l3	c gearbox stop	Feather key DIN 6885	Coupling Internal gearing/ d3 x l4
Inner-Ø	Length							
Ø40	≤ 185	For ordering, please provide	385	178	Dimension L minus 585	140	A 12 x 8 x 100	N40 x 2 x 18 Ø55 x 100
Ø50	≤ 210		420	178	Dimension L minus 620	140	A 14 x 9 x 110	N50 x 2 x 24 Ø65 x 120
Ø60	≤ 240		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.

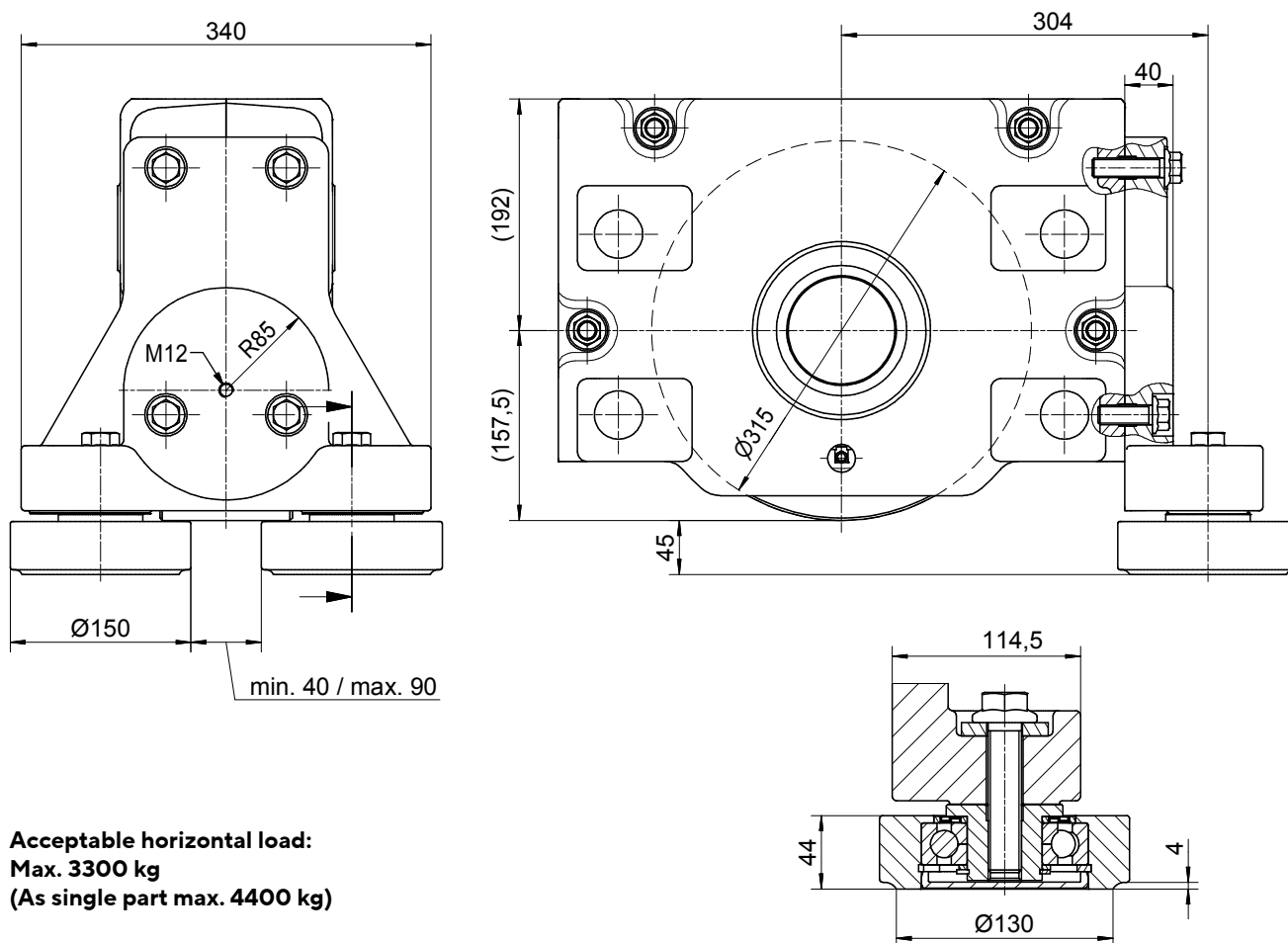
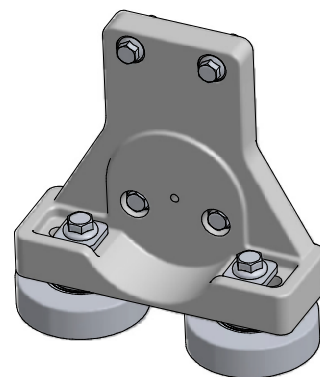
Drive shafts without gearbox stop and with adapted distance (c) on request.

RADBLOCK RB 315

Horizontal roller guide for wheels of $\varnothing 315$ (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.

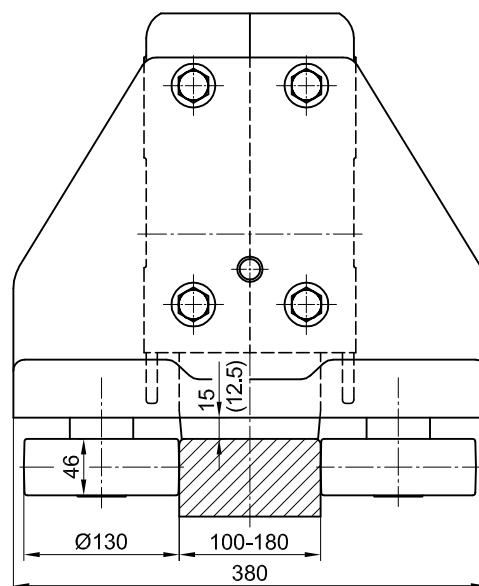
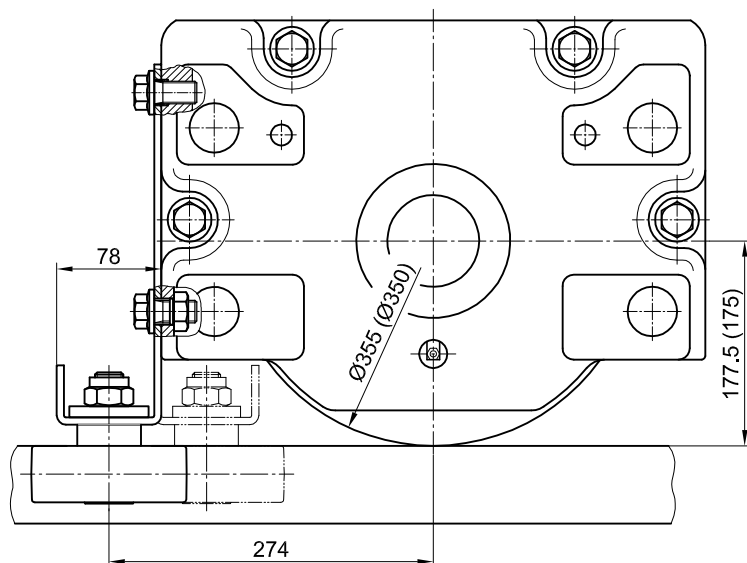
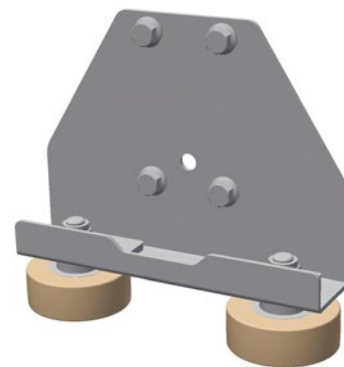
Horizontal roller guide for other rail profiles are available on request.

WHEEL BLOCK RB 315

Horizontal roller guide for wheels of $\varnothing 355$ and $\varnothing 350$ with coating made of vulkollan or PA12G

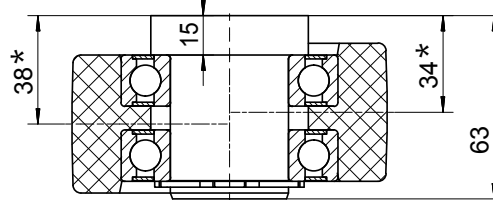
Horizontal roller guide with adjustable guide rollers made of PA12G.

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



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

Magnified detail drawing of the guide roller



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

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

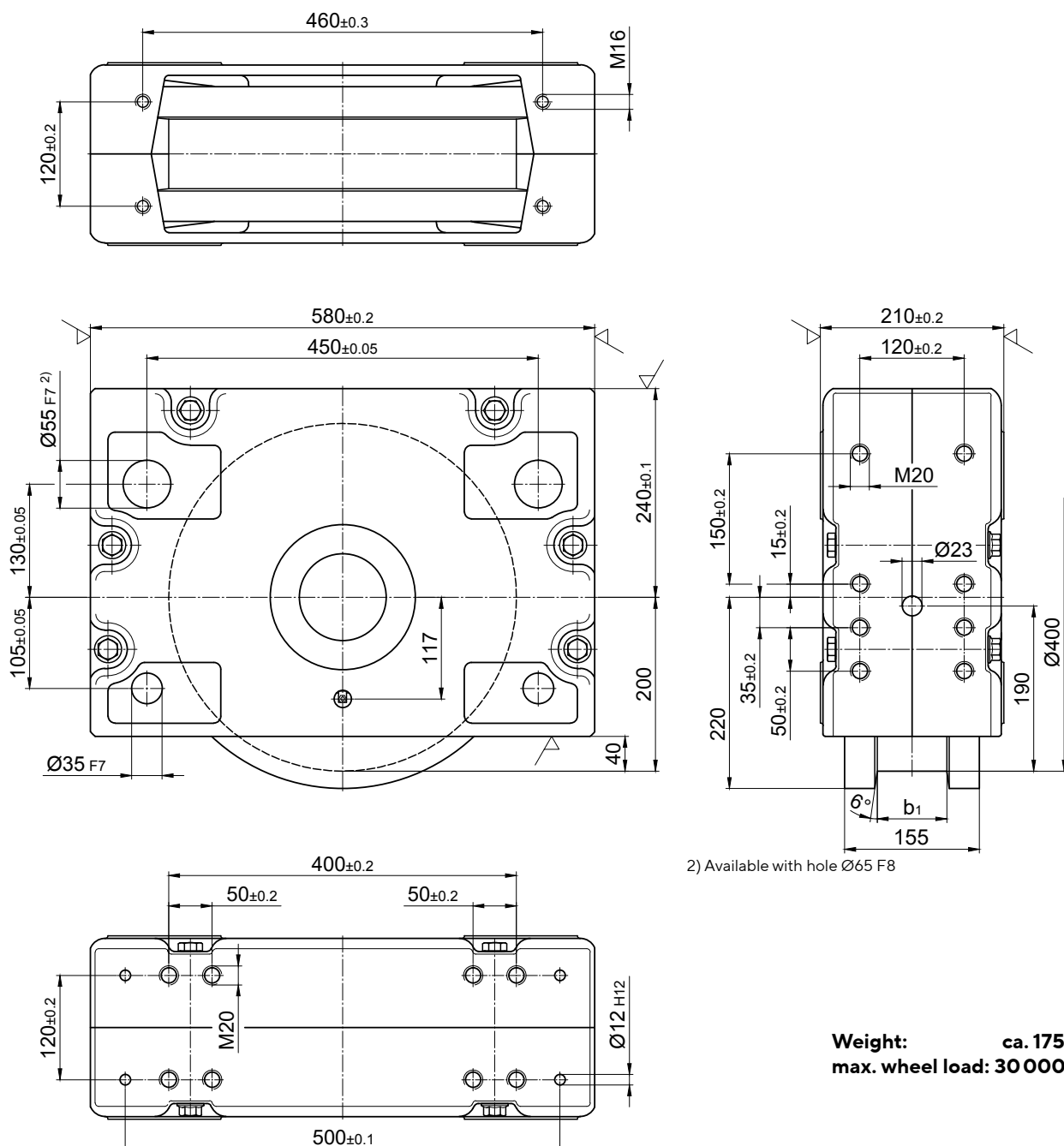
Horizontal roller guide for other rail profiles are available on request.

Wheel block

RB 400

WHEEL BLOCK 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

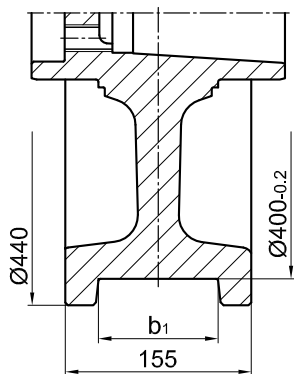
RBA 400×155

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

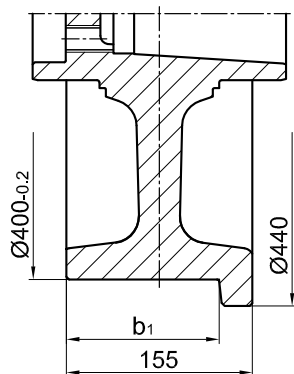
Design RBA and RBN refer to Page 5

WHEEL BLOCK RB 400

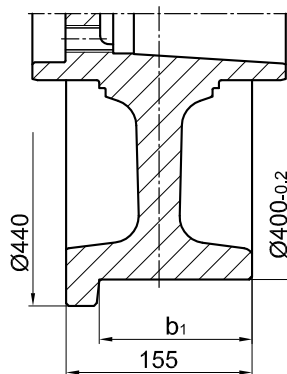
Standard models



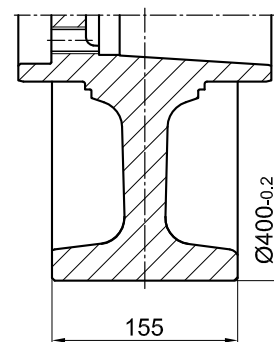
Form 1
two-sided wheel flange



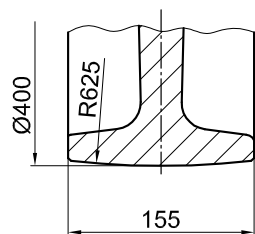
Form 2¹⁾
one-sided wheel flange
on the drive side



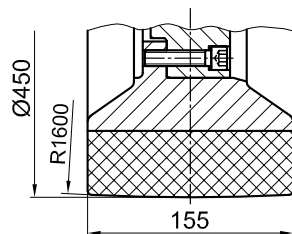
Form 3¹⁾
one-sided wheel flange
opposite to the drive side



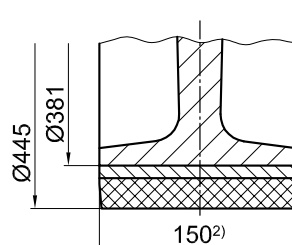
Form 4
no wheel flanges with
cylindrical running surface



Form 5
no wheel flanges with
spherical running surface

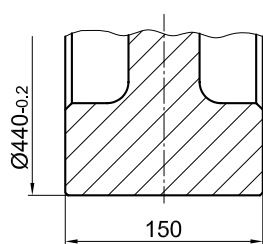


Form 6
with coating
of PA 12 G

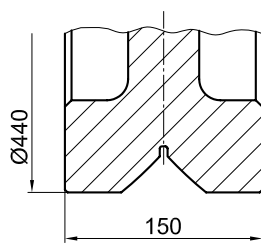


Form 8
with binding
of Vulkollan

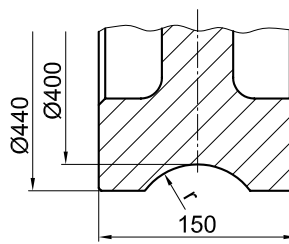
Special models



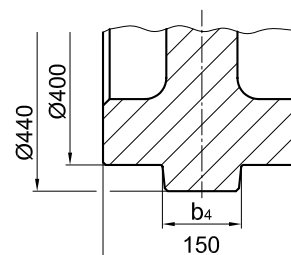
Form 9
no wheel flanges, wide
with cylindrical running surface



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1		Form 2 und 3		
Running tread b_1 for two-sided wheel flange		Running tread b_1 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

WHEEL BLOCK RB 400

Connection options

Top connection KA 400.1

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

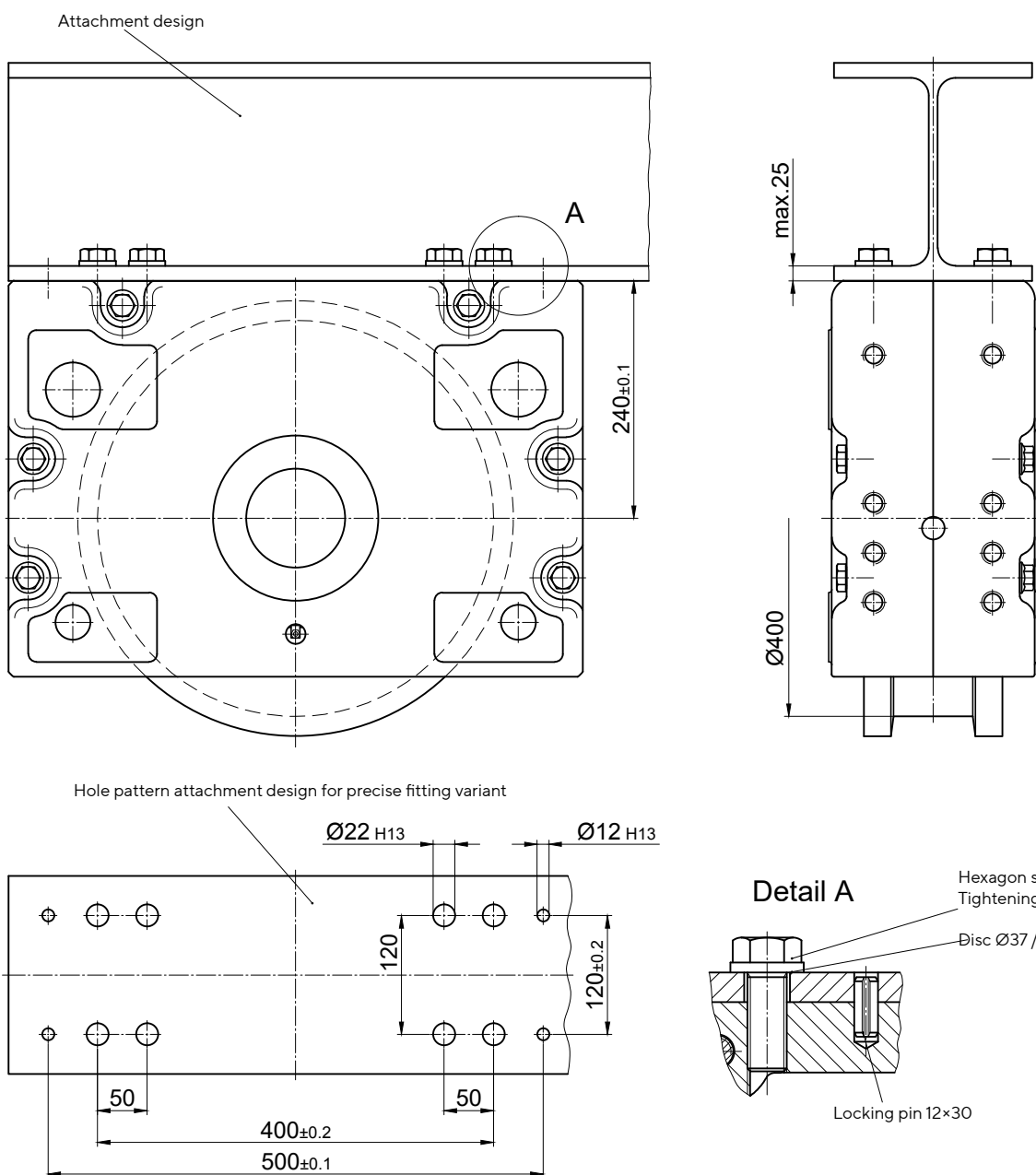
Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel block is required.

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).



WHEEL BLOCK RB 400

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

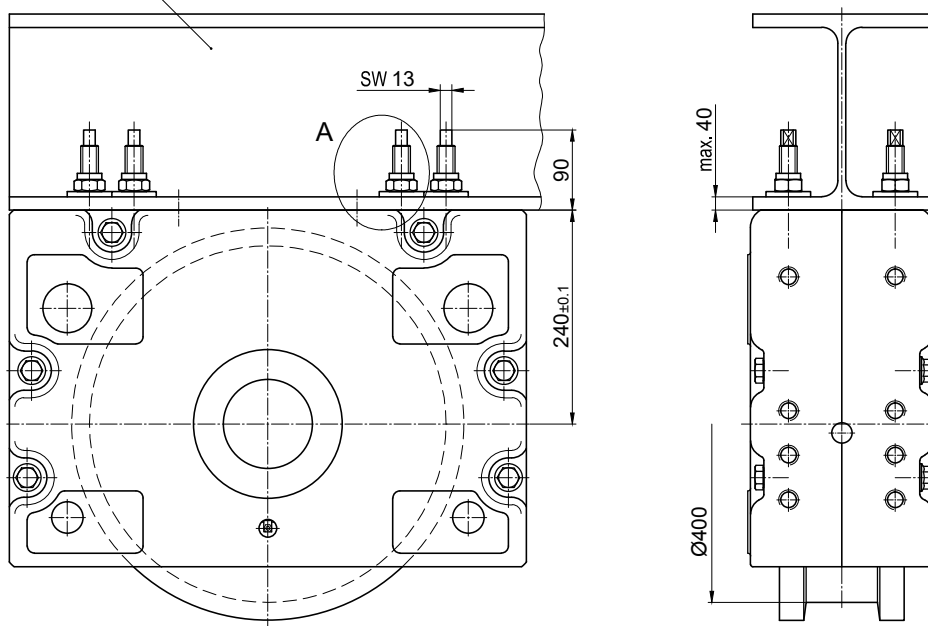
For larger drilled attachment holes, the wheel block must be aligned. Subsequently, the wheel block is attached by bolts and should be drilled with the locking pins 12×30 supplied. However, this should not be done in the area of the attachment bolts or the existing adjusting pin hole [1]. Alignment is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

1 Set KA 400.2 comprising of:

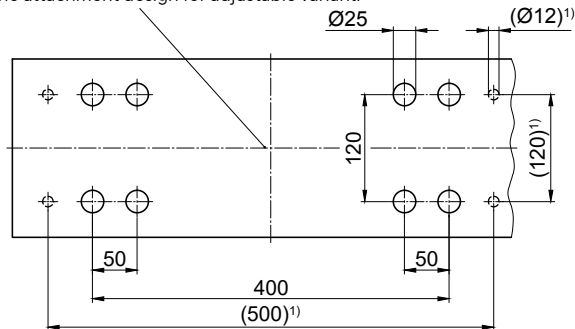
- 8 Grub screws M20×120 - 10.9 ZT
- 8 Safety nuts M20-10 DIN EN ISO 7042 (DIN 980)
- 8 Discs 21 DIN 6340
- 4 Locking pins 12×30 DIN EN ISO 8752 (DIN 1481)

Longer locking pins are available for thicker plates.

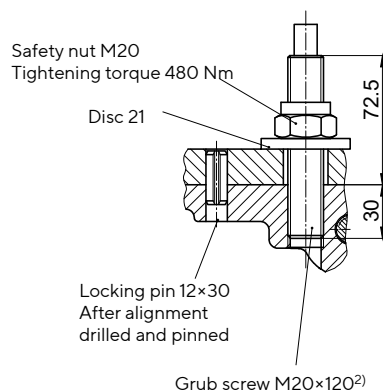
Attachment design



Hole pattern for the attachment design for adjustable variant.



Detail A



1) Pinning is not permitted in this area !

2) Can be factory-glued in the wheel block housing on request

WHEEL BLOCK RB 400

Connection Options

Pin attachment BA 400.1

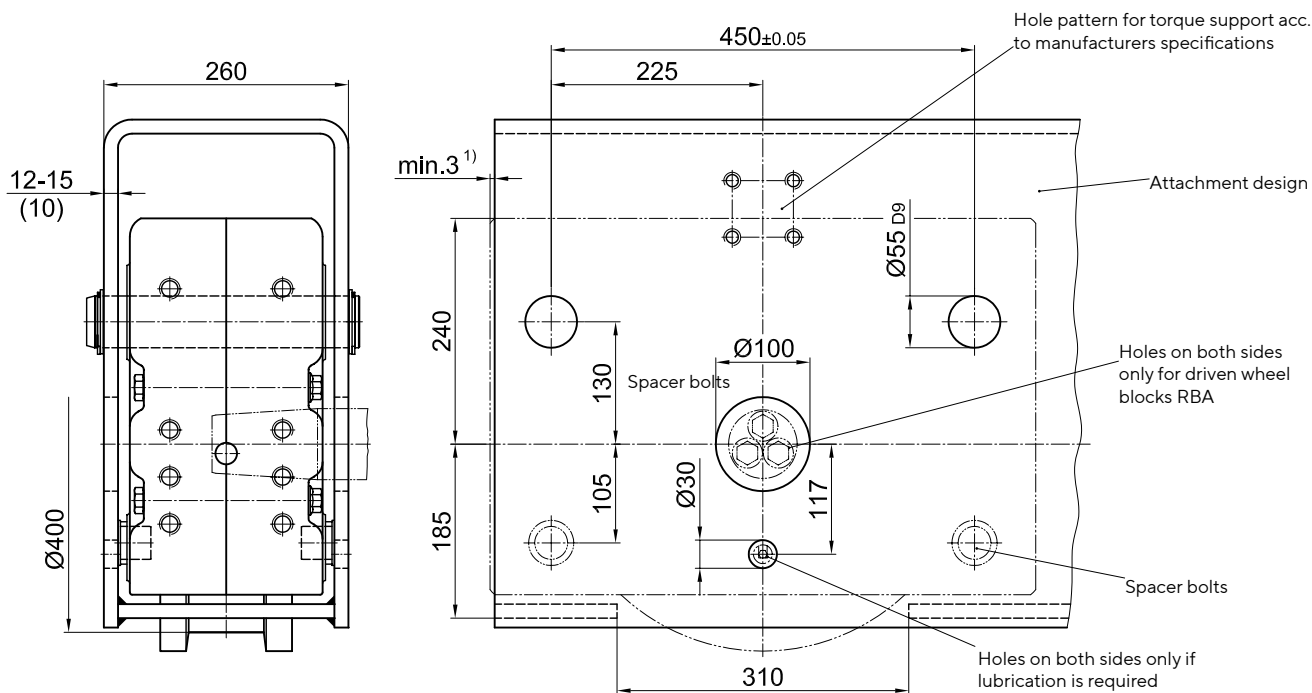
Pin attachment is adapted to the installation in hollow profiles, floating levers, etc. by means of adjusting washers.

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

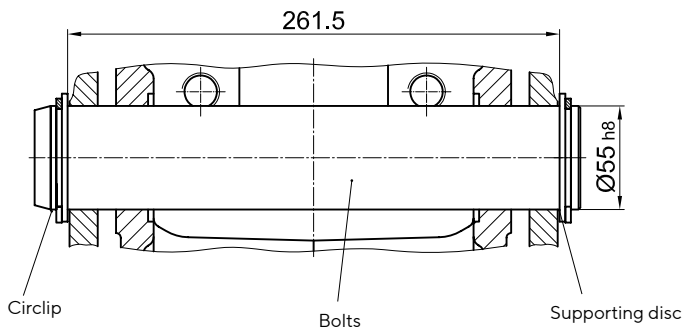
1 Set BA 400.1 comprising of:

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

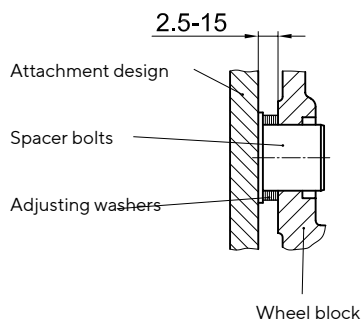
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 400

Connection options

Pin attachment BA 400.2

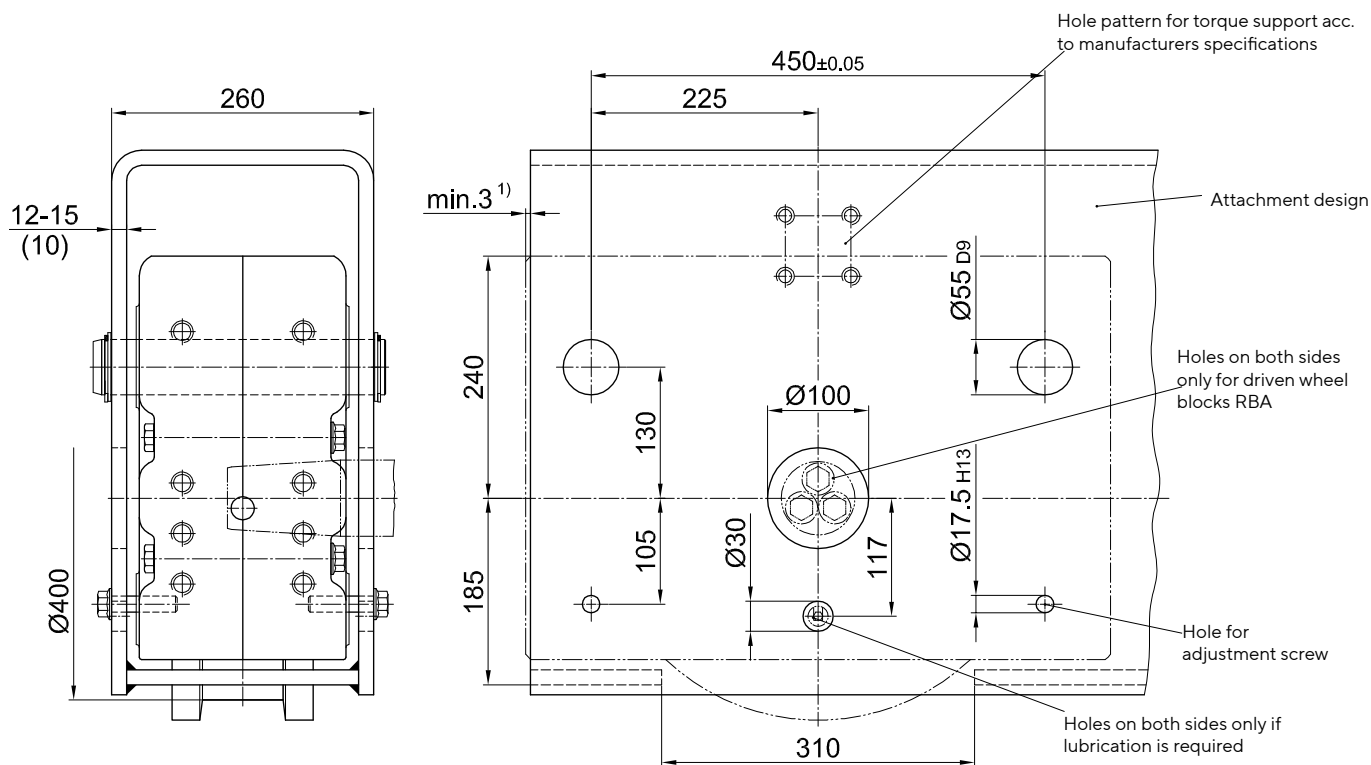
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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

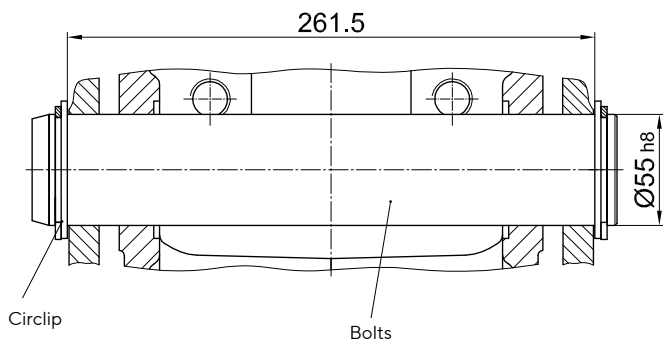
1 Set BA 400.2 comprising of:

- 2 Bolts $\text{Ø}55$ 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 \times 70 (coated)

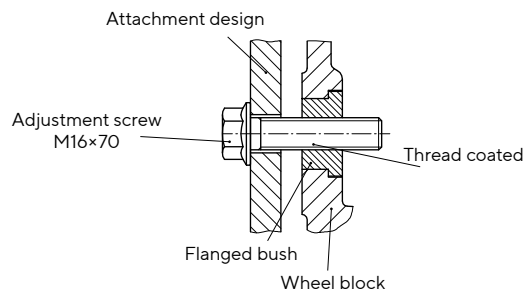
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

RADBLOCK RB 400

Connection options

Pin attachment BA 400.3

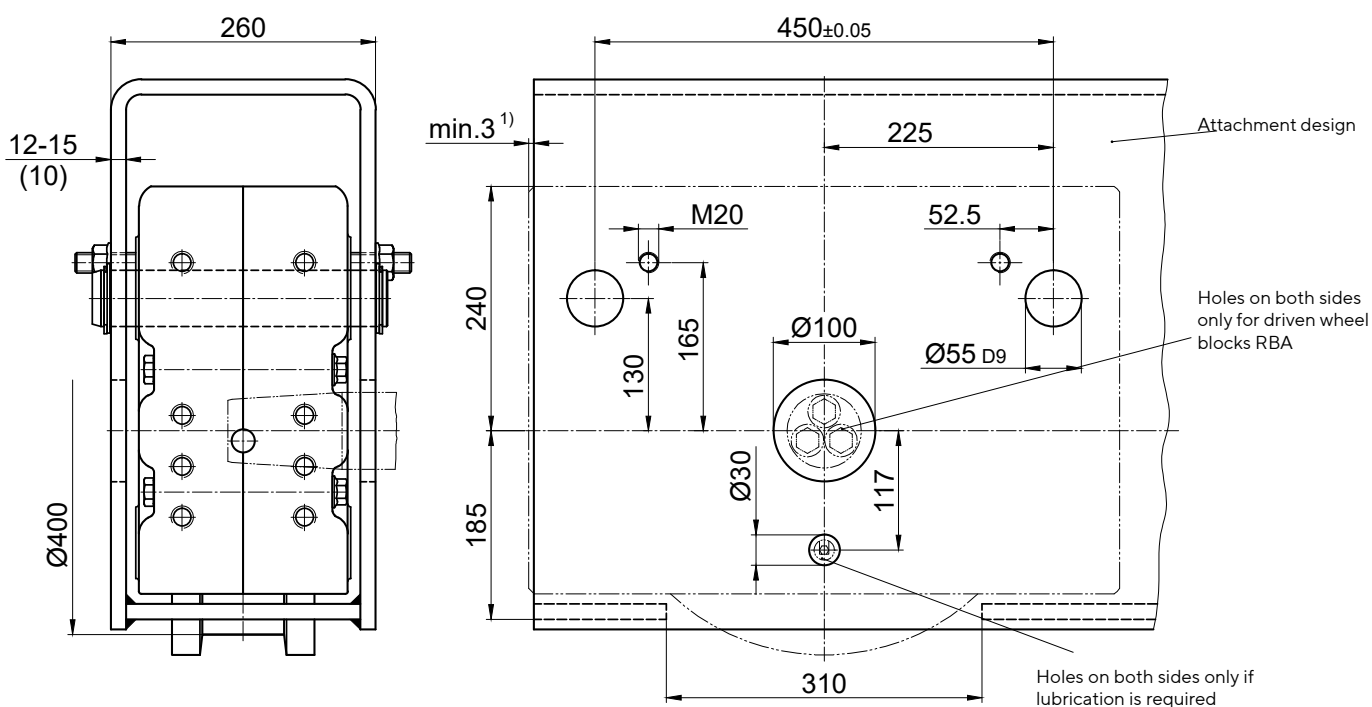
Pin connection adjustable by grub screws for installation in hollow profiles, swingarms, etc.

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

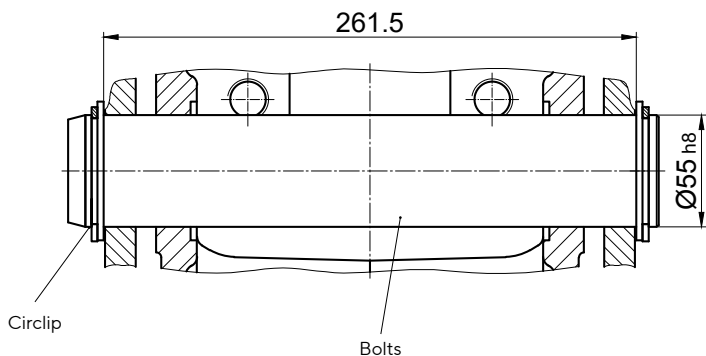
1 Set BA 400.3 comprising of:

- 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

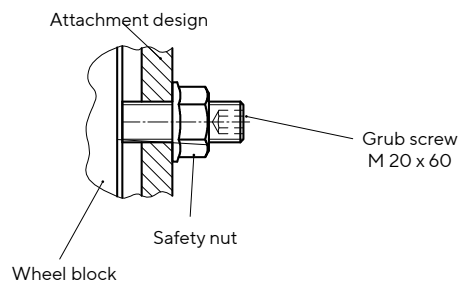
Pin connections are available in special design according to the customer drawing.



Upper suspension mounting



Lower support



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 400

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:

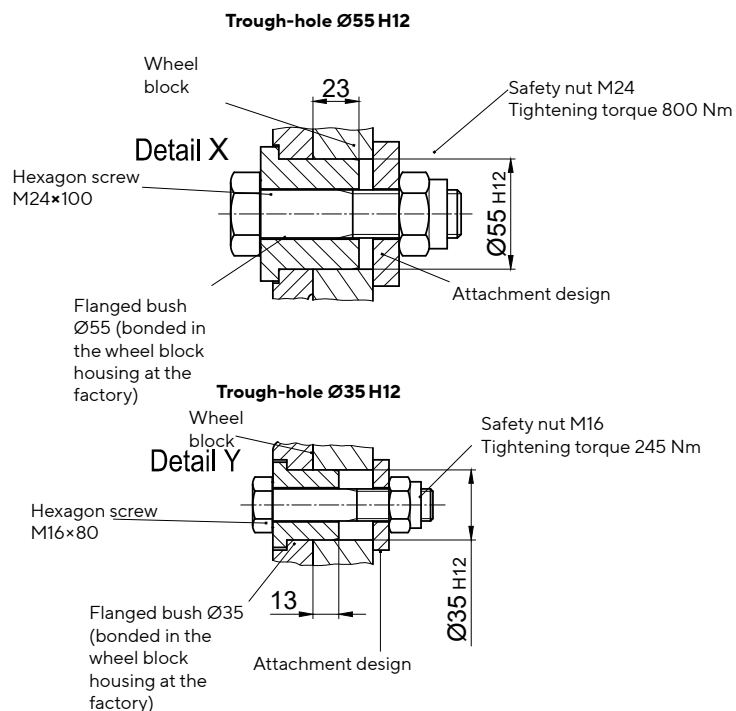
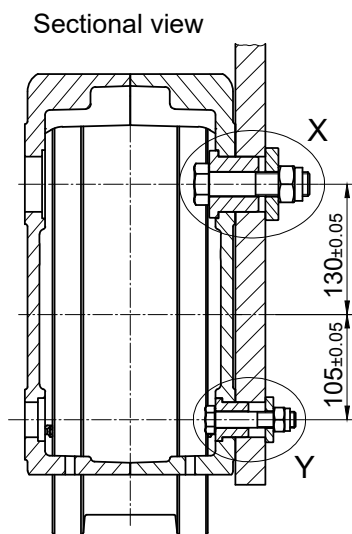
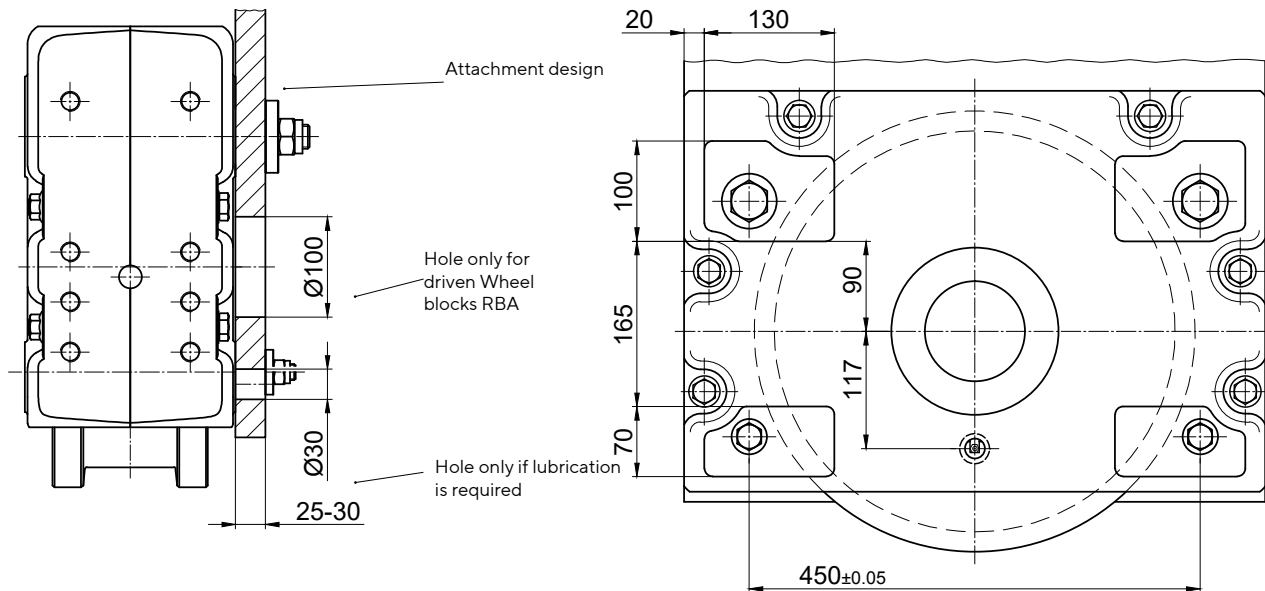
- 2 Flanged bushings Ø55
- 2 Hexagon screw M24×100 - 10.9 DIN EN ISO 4014 (DIN 931)
- 2 Safety nuts M24 - 10 DIN EN ISO 7042 (DIN 980)
- 2 Discs 25 / 72×13
- 2 Flanged bushings Ø35
- 2 Hexagon screw M16×80 - 10.9 DIN EN ISO 4014 (DIN 931)
- 2 Safety nuts M16 - 10 DIN EN ISO 7042 (DIN 980)
- 2 Discs 17 / 45×8

Attachment variant 1:

Attachment design is accessible from both sides

Trough-hole Ø55 H12

Trough-hole Ø35 H12



WHEEL BLOCK RB 400

Connection options

Side connection WA 400

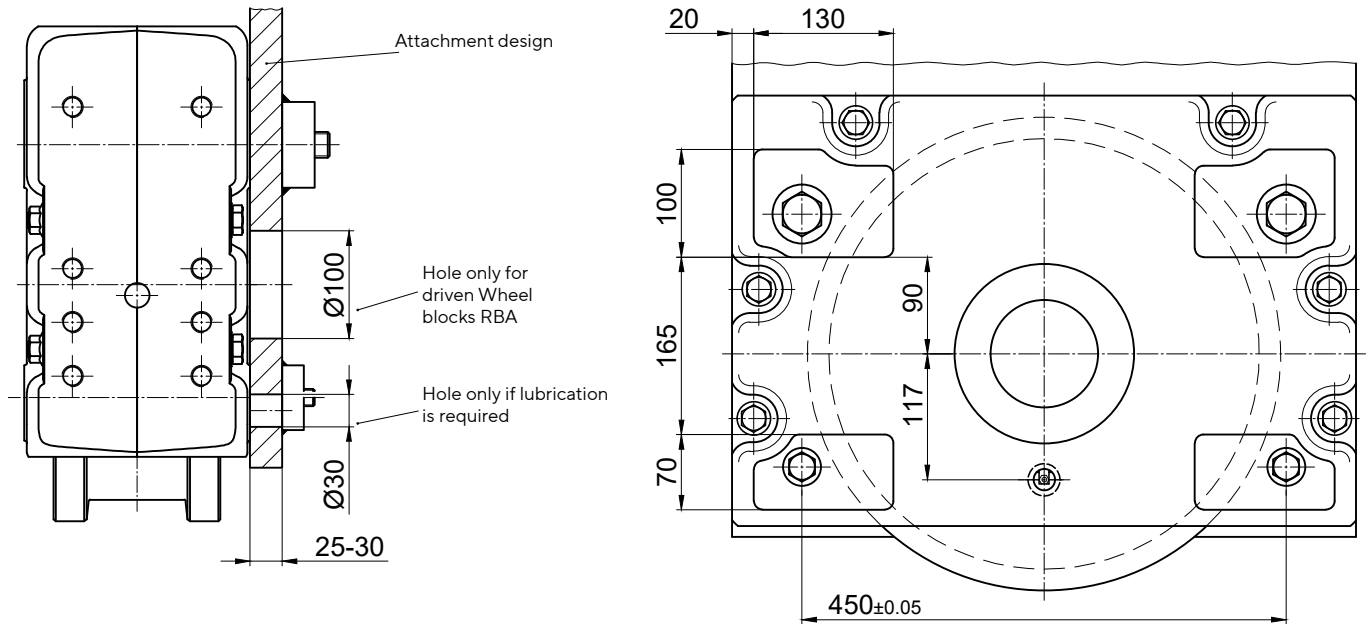
Lateral connection option for low construction designs

Attachment variant 2:

Attachment design (e.g. hollow profile) is not accessible from the inside

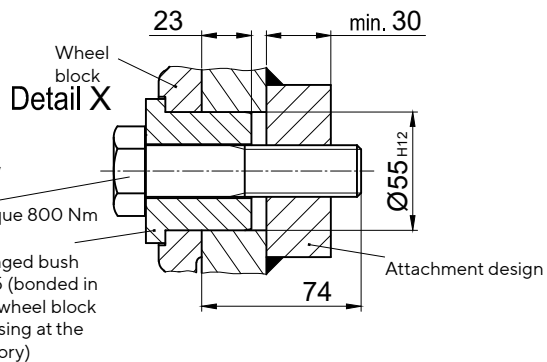
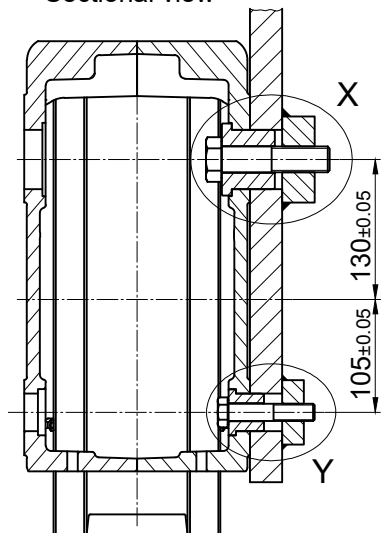
Blind hole $\varnothing 55$ H12×30 deep with thread M24 and

Blind hole $\varnothing 35$ H12×20 deep with thread M16

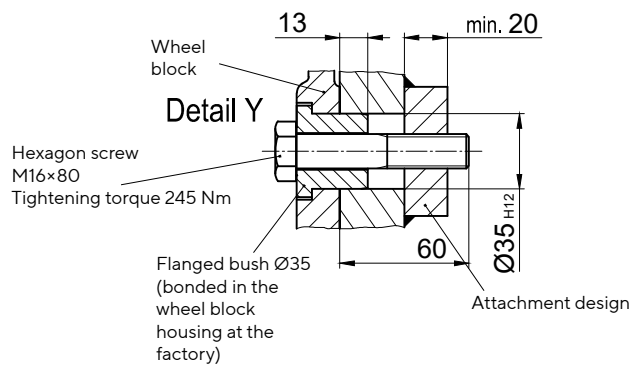


Blind hole $\varnothing 55$ H12×30 deep with thread M 24

Sectional view



Blind hole $\varnothing 35$ H12×20 deep with thread M 16

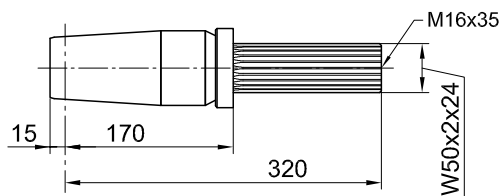
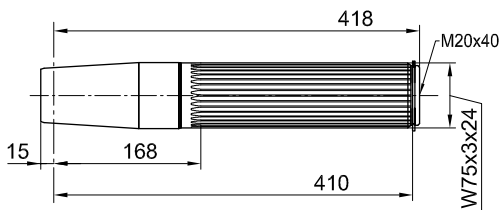
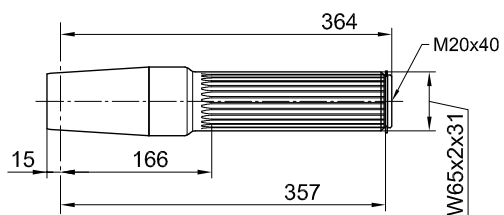
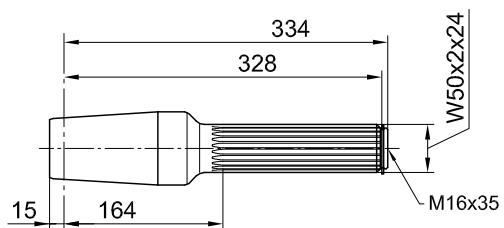


WHEEL BLOCK RB 400

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

AUK 50	DEMAG	W50 x 2 x 24
--------	-------	--------------

AUK 60	DEMAG	W65 x 2 x 31
--------	-------	--------------

AUK 70	DEMAG	W75 x 3 x 24
--------	-------	--------------

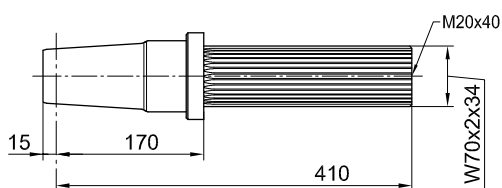
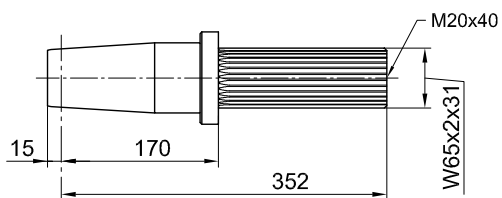
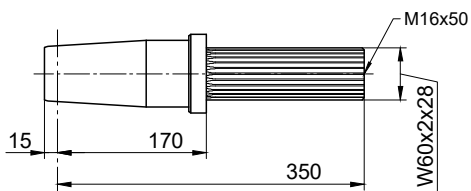
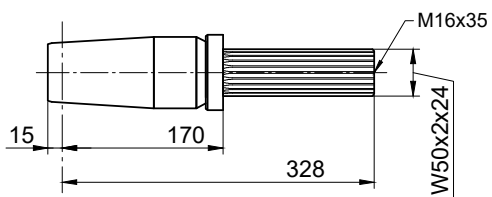
F.A.T 68B	SIEMENS (FLENDER)	W50 x 2 x 24
K.A.T 68		
C.A.T 68		
K5..E	STÖBER	

WHEEL BLOCK RB 400

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480
-------	--------------	---

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

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

FV 87 / KV 87	SEW	W65 x 2 x 31
SPZT / SKZT 56..	PREMIUM STEPHAN	

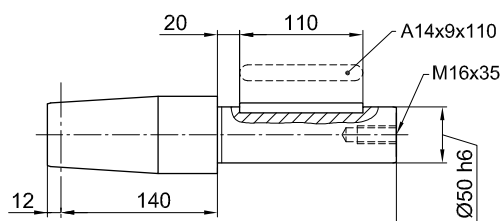
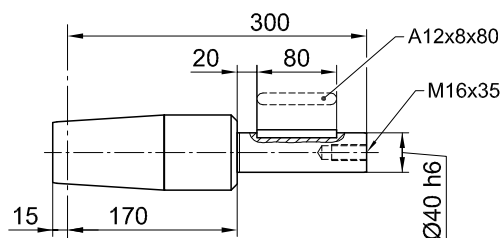
FV 97 / KV 97	SEW	W70 x 2 x 34
SK 6282 EA	NORD	
SPZT / SKZT 66..	PREMIUM STEPHAN	

WHEEL BLOCK RB 400

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	Manufacturer	Shaft journal
-------	--------------	---------------

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

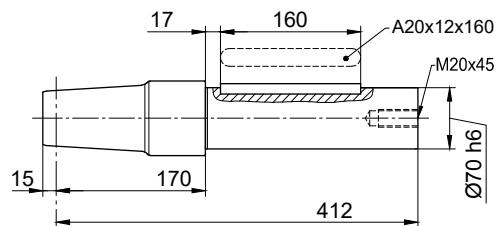
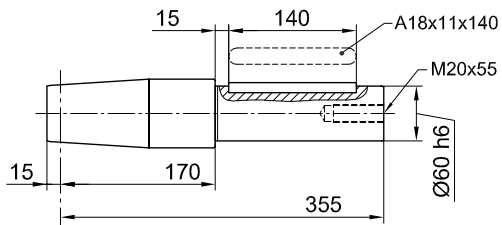
FA / KA / SA77	SEW	Ø50
SK 4282 AB	NORD	
FDA / FZA 88B KA / CA 88	SIEMENS (FLENDER)	
GFL 07 GKS 07 GSS 07	LENZE	
K5 / K6	STÖBER	
SPZH 46.. SKZH 46..	PREMIUM STEPHAN	

WHEEL BLOCK RB 400

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	Manufacturer	Shaft journal
-------	--------------	---------------

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

FA / KA / SA 97	SEW	Ø70
SK 6282 AB	NORD	
FDA 128B FZA 128B KA 128	SIEMENS (FLENDER)	
SPZH 66.. SKZH 66..	PREMIUM STEPHAN	

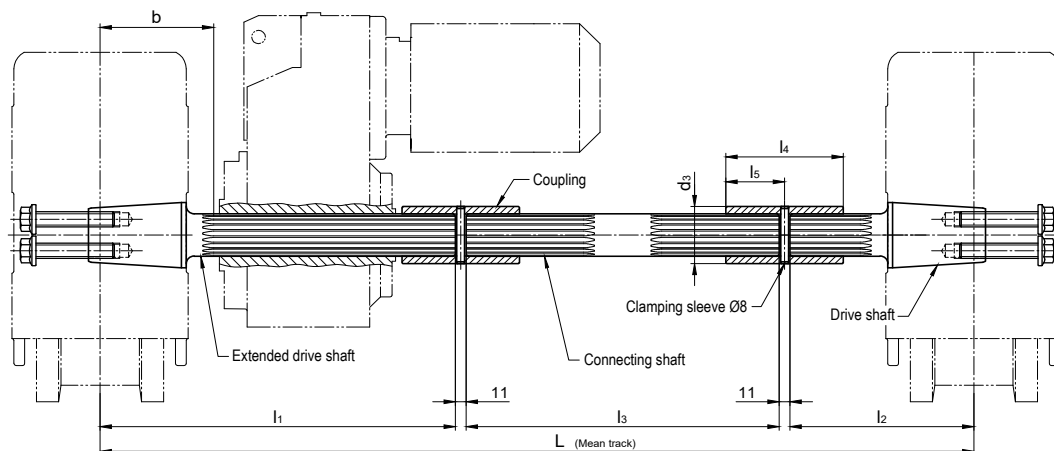
WHEEL BLOCK RB 400

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)



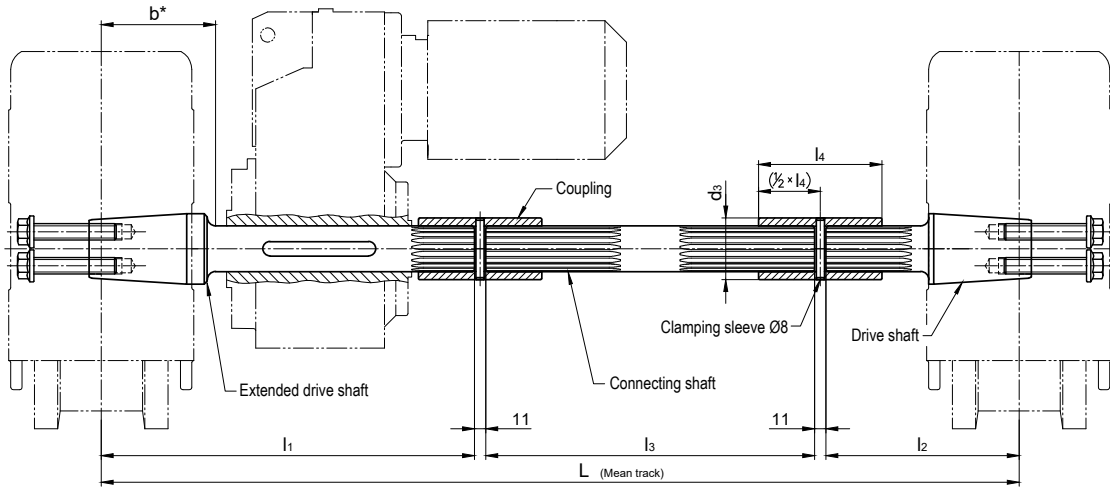
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	l4	l5	d3	Clamping sleeve DIN 1481
AF 08 AUK 50	DEMAG	W50 x 2 x 24	For ordering, please provide	470	203	Dimensi- on L minus 695	130	120	60	65	8 x 65
FV 77 KV 77	SEW										
F.A.T 68B K.A.T 68 C.A.T 68	SIEMENS (FLENDER)										
SK 4282 EA SK 9032.1AZE A	NORD										
SPZT 46.. SKZT 46..	PREMIUM STEPHAN										
F.A.T 88B K.A.T 88 C.A.T 88	SIEMENS (FLENDER)	W60 x 2 x 28		490	203	Dimensi- on L minus 715	130	125	62.5	75	8 x 75
SK 5282EA	NORD	W65 x 2 x 31		490	203	Dimensi- on L minus 715	129	125	62.5	80	8 x 80
AF 10 AUK 60	DEMAG										
FV 87 KV 87	SEW										
SK 9042.1AZE A	NORD										
SPZT 56.. SKZT 56..	PREMIUM STEPHAN										
FV 97 KV 97	SEW	W70 x 2 x 34		555	213	Dimensi- on L minus 790	140	135	67.5	90	8 x 90
SK 6282EA SK 9052.1AZE A	NORD										
F.A.T 108B K.A.T 108	SIEMENS (FLENDER)										
SPZT 66.. SKZT 66..	PREMIUM STEPHAN										

WHEEL BLOCK RB 400

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	I1	I2	I3	b* without gearbox stop	Feather key DIN 6885	Coupling Internal gearing/ d3 x 14
Inner-Ø	Length							
Ø50	≤ 275 ¹⁾ ≤ 230 ²⁾	For ordering, please provide	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⁾		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⁾		555	203	Dimension L minus 780	130	A 20 x 12 x 160	N65 x 2 x 31 Ø80 x 125

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

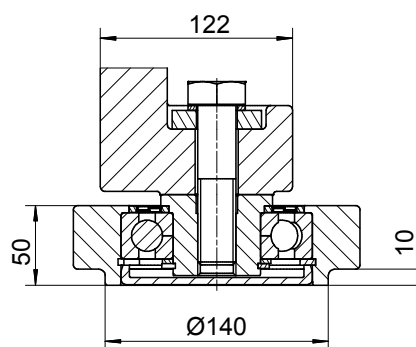
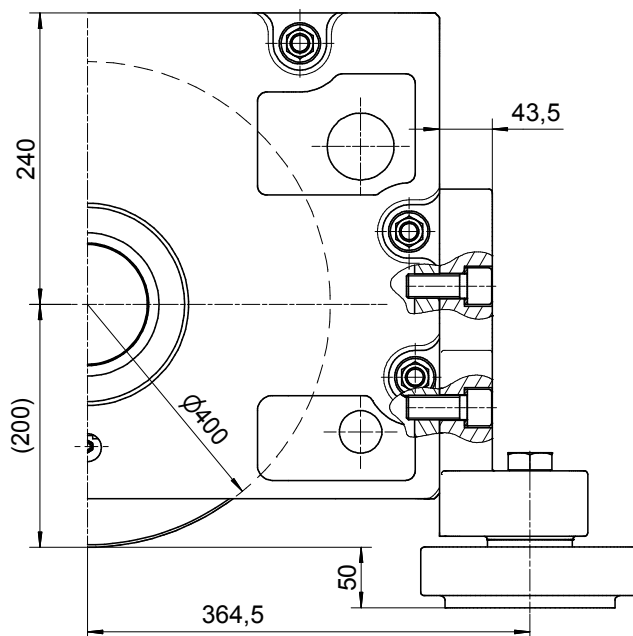
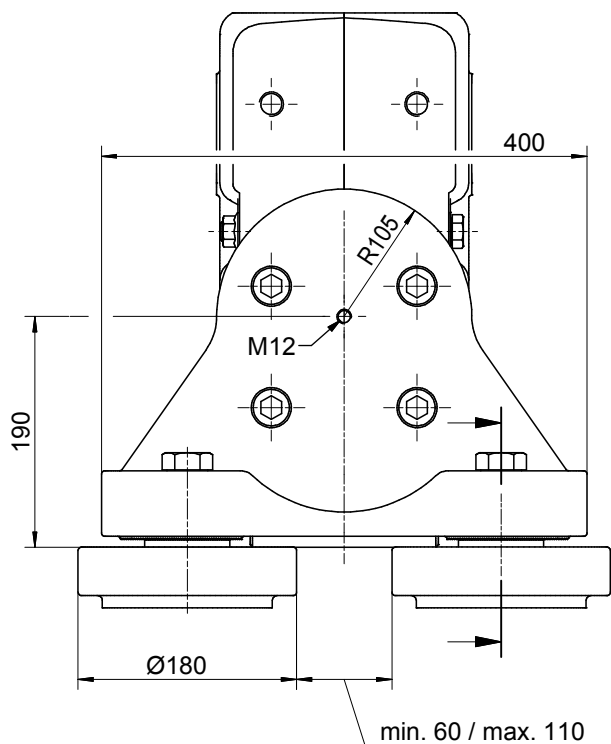
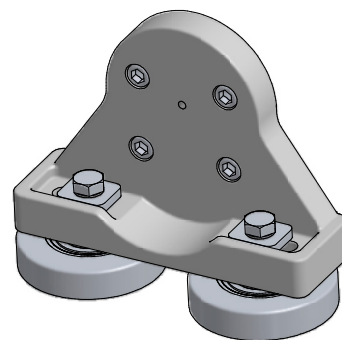
Et.al. suitable type designations, refer to the single drive unit.

WHEEL BLOCK RB 400

Horizontal roller guide for wheels of $\varnothing 400$ (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.

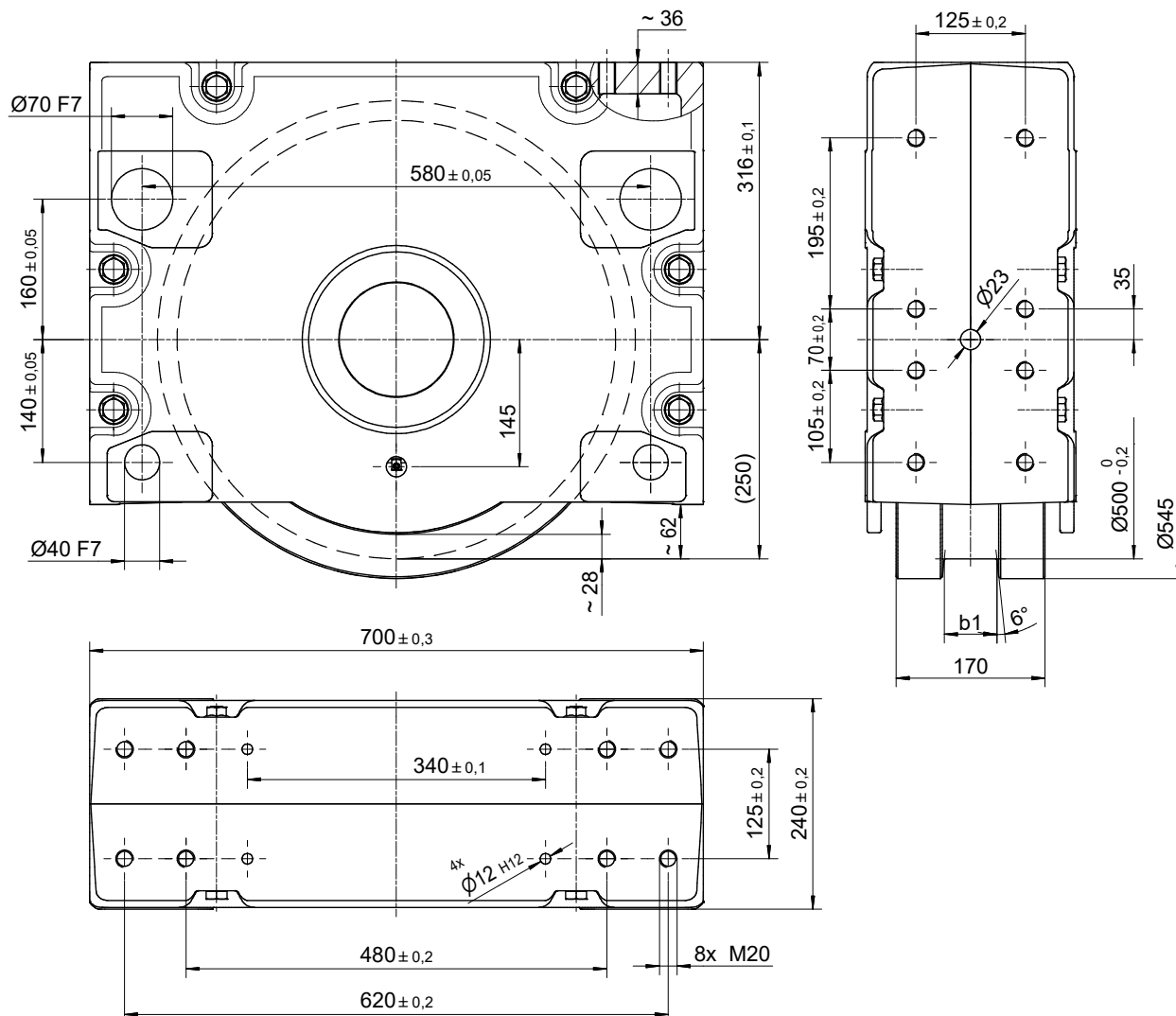
Horizontal roller guide for other rail profiles are available on request.

Wheel block

RB 500

WHEEL BLOCK RB 500

Primary dimensions



Weight: 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

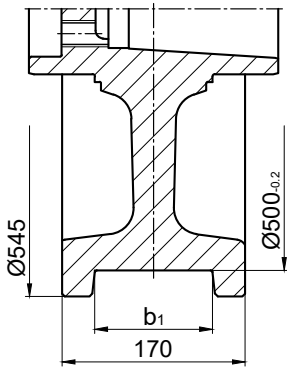
RBA 500×170

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

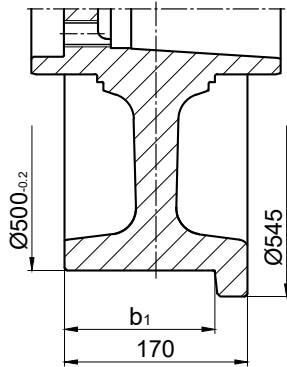
Design RBA and RBN refer to Page 5

WHEEL BLOCK RB 500

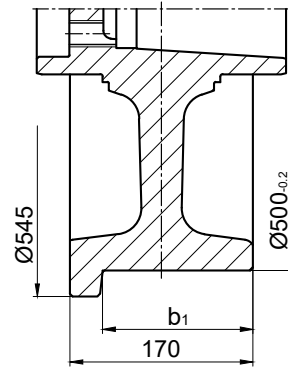
Standard models



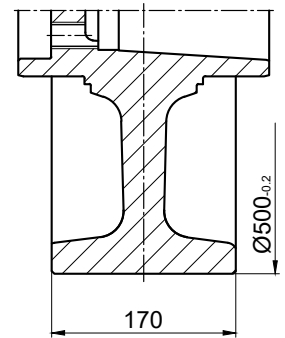
Form 1
two-sided wheel flange



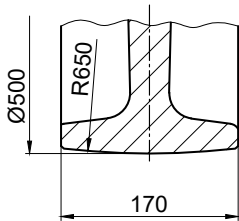
Form 2¹⁾
one-sided wheel flange
on the drive side



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

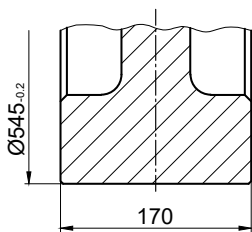


Form 4
no wheel flanges with
cylindrical running surface

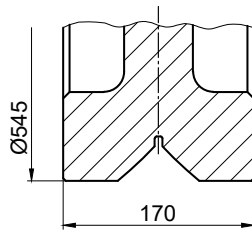


Form 5
no wheel flanges with
spherical running surface

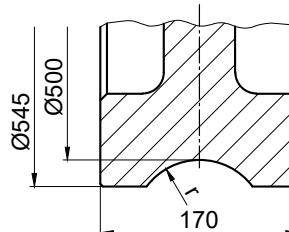
Special models



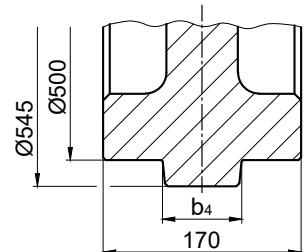
Form 9
no wheel flanges, wide
with cylindrical running surface



Form 10
with prismatic guide



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



Form 12
with middle wheel flange

Form 1		Form 2 und 3		
Running tread b_1 for two-sided wheel flange		Running tread b_1 for one-sided wheel flange		
minimal	maximal	Standard	minimal	maximal
60	130	90	115	150

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

WHEEL BLOCK RB 500

Connection options

Top connection KA 500.1

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

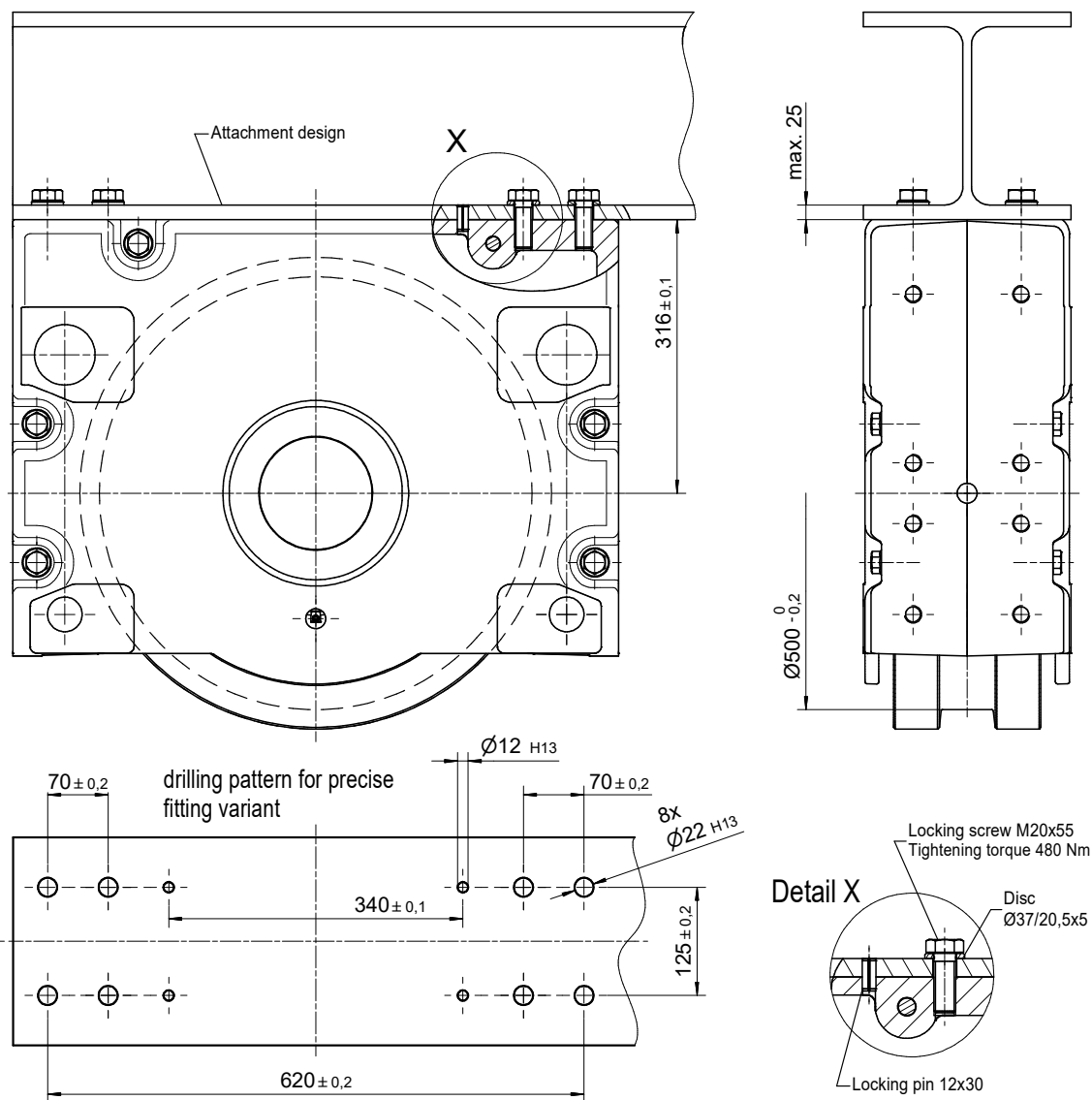
Top connection using locking screws for installation in accurately drilled connecting constructions. No adjustment of the wheel block is required.

1 Set KA 500.1 comprising of:

- 8 Hexagon screw with thread locking M20x55 –10.9
DIN EN ISO 4017 (DIN 933)
- 8 Discs Ø37 / 20.5x5
- 4 Locking pins 12x30 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).



WHEEL BLOCK RB 500

Connection options

Top connection KA 500.2

Adjustable direkt attachment as bolted connection (welded construction, roll section, etc.)

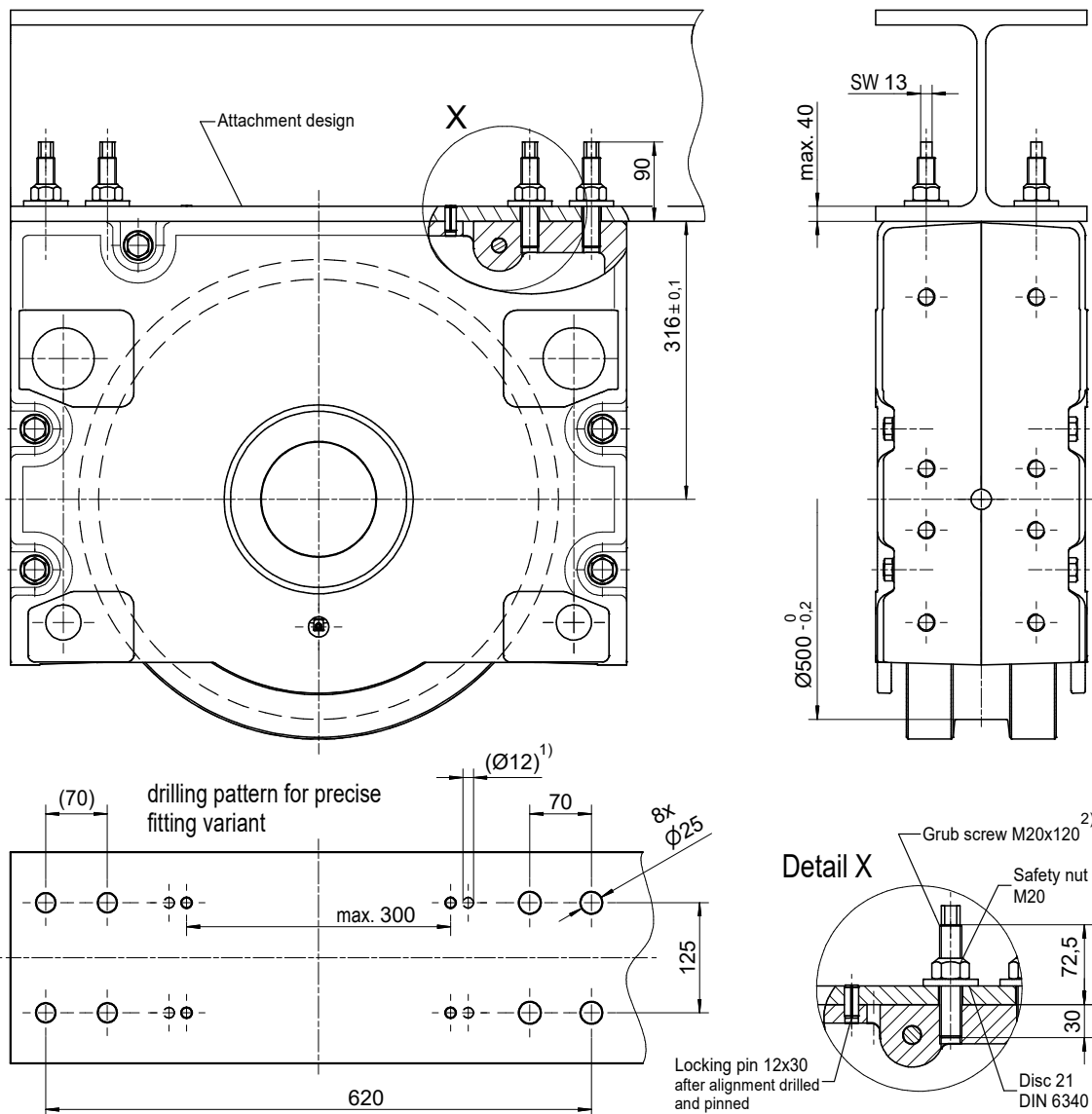
Top connection using locking pins for installation in attachment design with precisely or larger drilled attachment holes.

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 12x30 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 precisely drilled attachment holes.

1 Set KA 500.2 comprising of:

- 8 Grub screws M20x120 - 10.9 ZT
- 8 Safety nuts M20-10 DIN EN ISO 7042 (DIN 980)
- 8 Discs 21 DIN 6340
- 4 Locking pins 12x30 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

WHEEL BLOCK RB 500

Connection options

Pin attachment BA 500.2

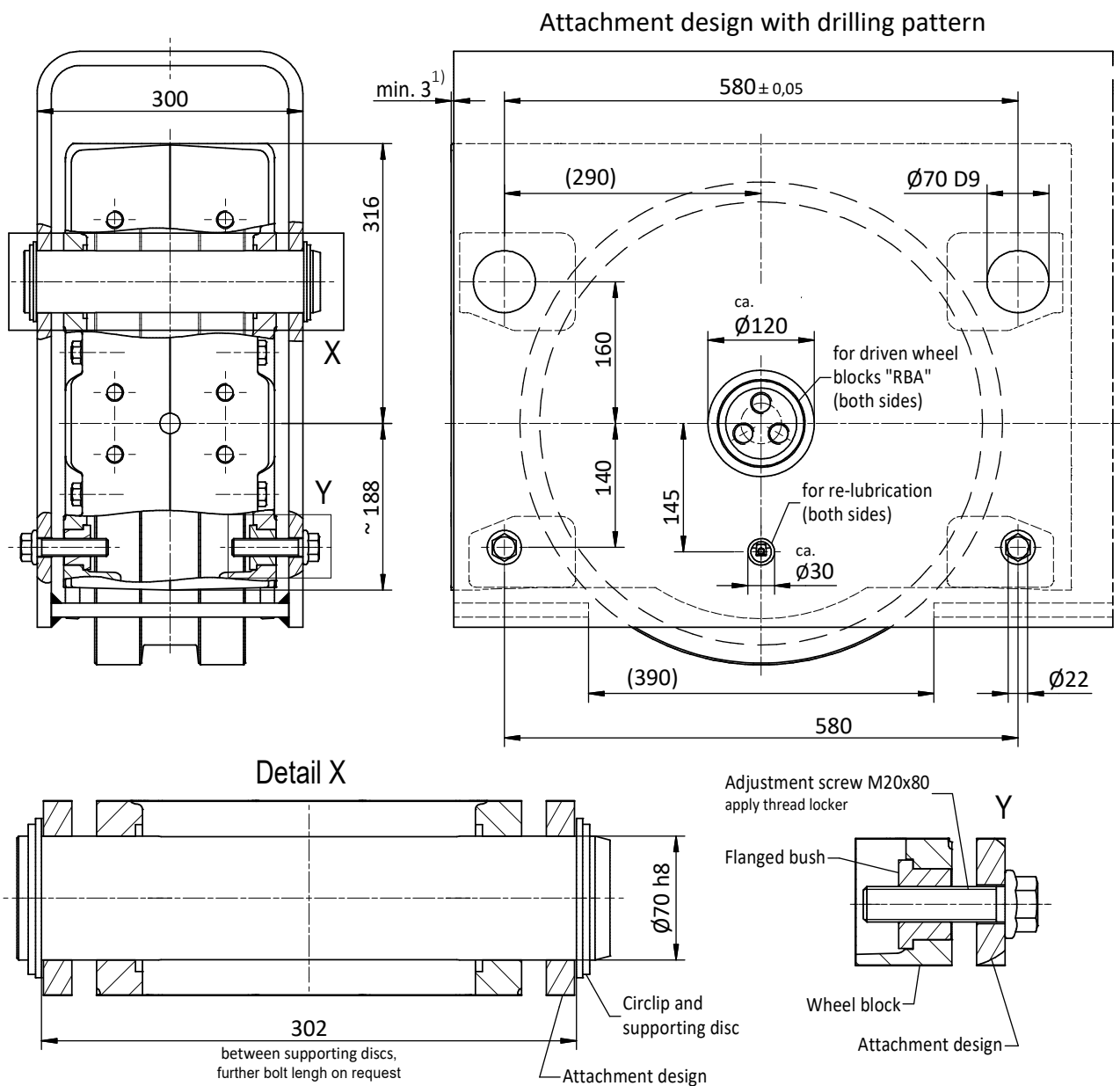
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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 $\varnothing 70$
- 4 Circlipse 70x4, DIN 471
- 4 Supporting discs S 70x90 DIN 988
- 4 Flange bushings with internal thread (bonded)
- 4 Locking screws M20x80 (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.



1) Dimension must be observed only with front mounting parts

WHEEL BLOCK RB 500

Connection options

Pin attachment BA 500.3

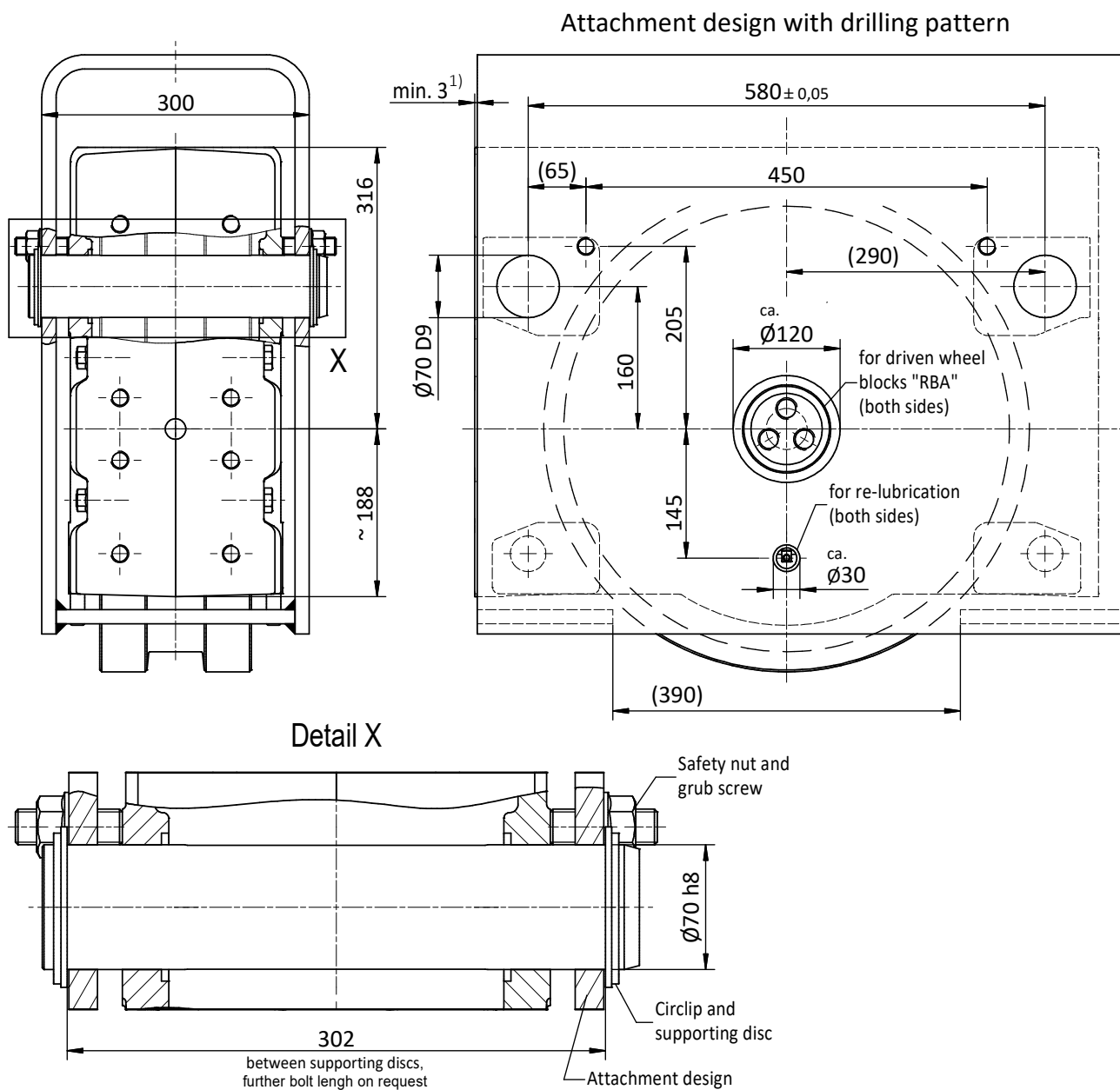
Adjustable pin attachment for installation in hollow profiles, floating levers, etc.

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 $\varnothing 70$
- 4 Circlipse 70x4, DIN 471
- 4 Supporting discs S 70x90 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



WHEEL BLOCKS RB 500

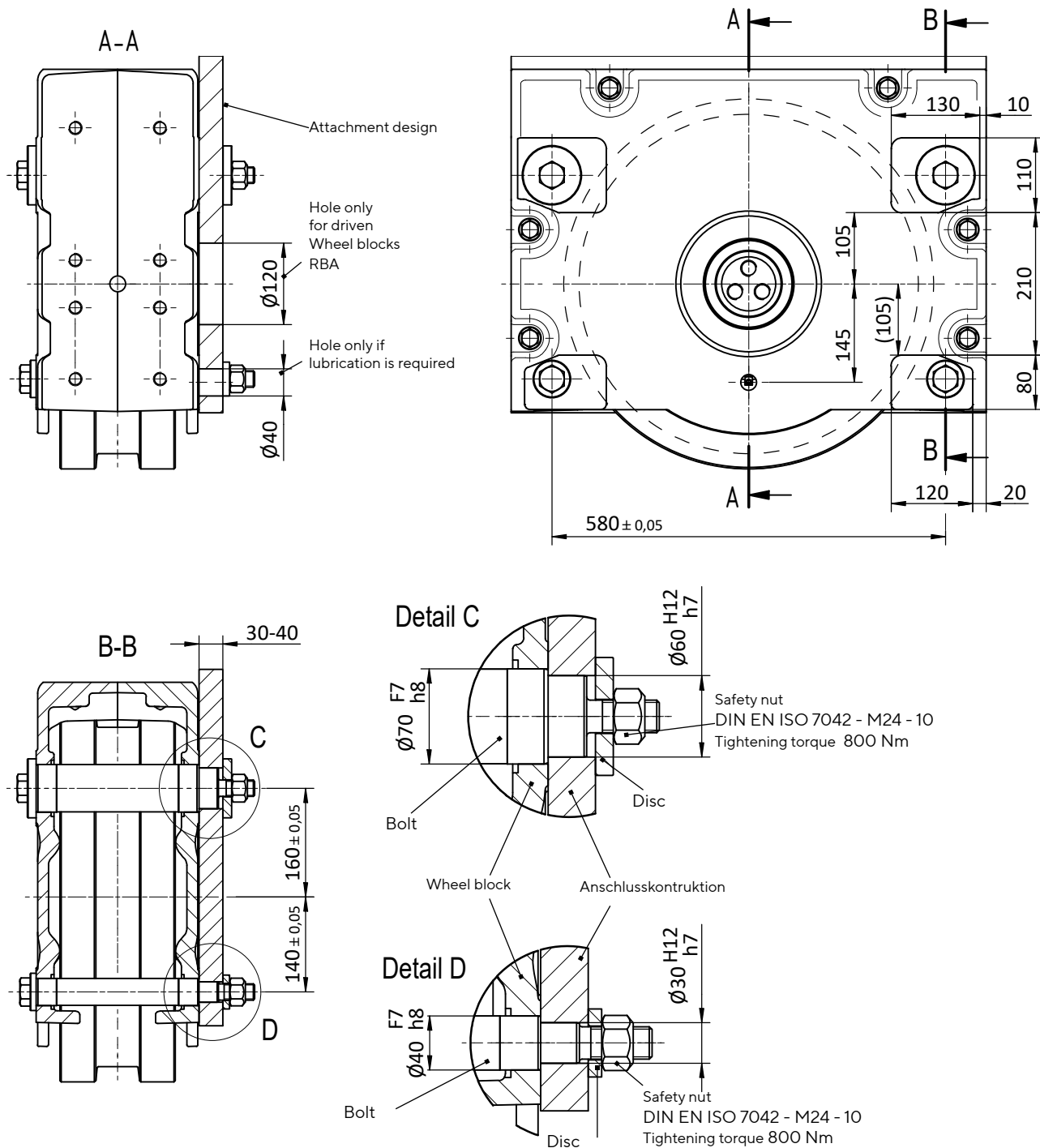
Connection options

Side connection WA 500

Lateral connection option for low construction designs

1 Set WA 500 comprising of:

- 2 Bolts $\varnothing 70/60$
- 2 Discs $\varnothing 25/87$
- 2 Bolts $\varnothing 40/30$
- 2 Discs $\varnothing 25$ DIN 7349
- 4 Safety nuts M 24 DIN EN ISO 7042

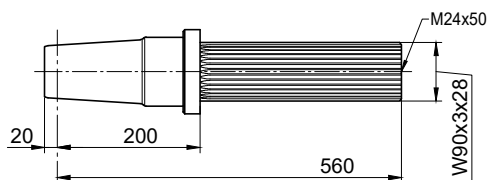
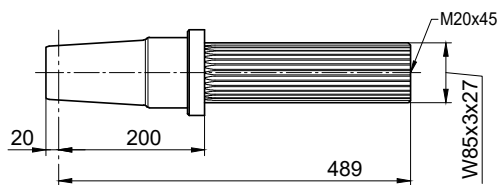
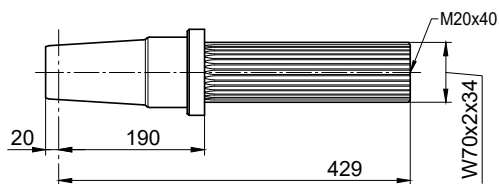
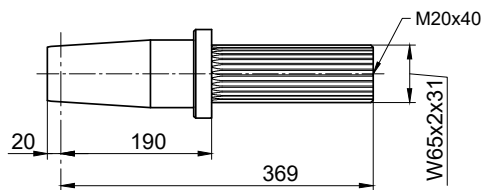


WHEEL BLOCK RB 500

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	Manufacturer	Splined-shaft profile in acc. with DIN 5480

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

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

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

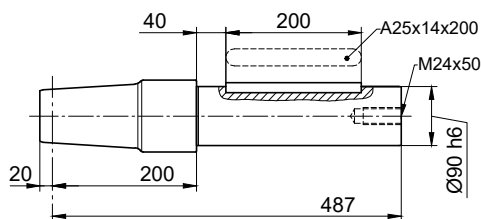
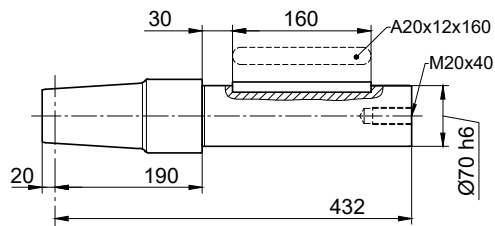
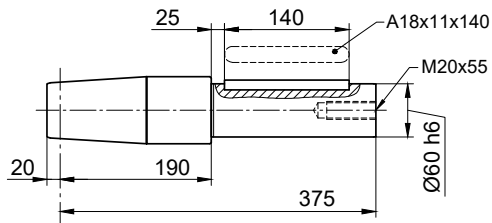
F.A.T / KAT 169	SIEMENS	W90 x 3 x 28
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WHEEL BLOCK RB 500

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	Manufacturer	Shaft end
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FA / KA / SA 87	SEW	Ø60
SK 5282 AB	NORD	
FDA 109 (FDA 108) FZA 109 (FZA 108) KA 109 (KA 108)	SIEMENS (FLENDER)	
GFL / GKS 09	LENZE	
K 7	STÖBER	
SPZH 56.. SKZH 56..	PREMIUM STEPHAN	

FA / KA / SA 97	SEW	Ø70
SK 6282 AB	NORD	
FDA 129 (FDA 128) FZA 129 (FZA 128) KA 129 (KA 128)	SIEMENS (FLENDER)	
SPZH 66.. SKZH 66..	PREMIUM STEPHAN	

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

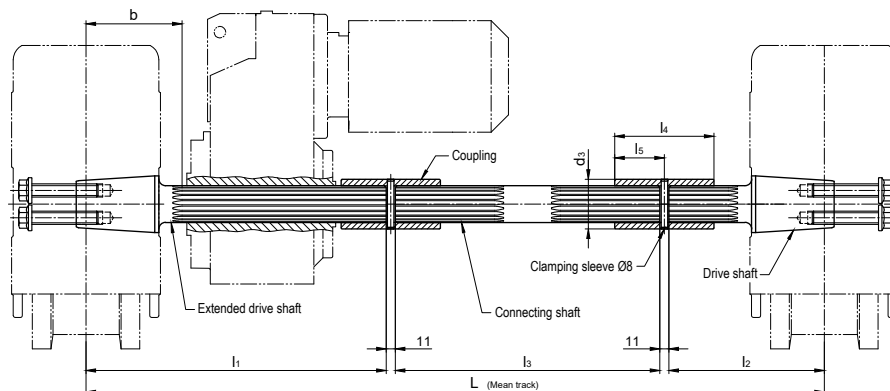
WHEEL BLOCK RB 500

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)



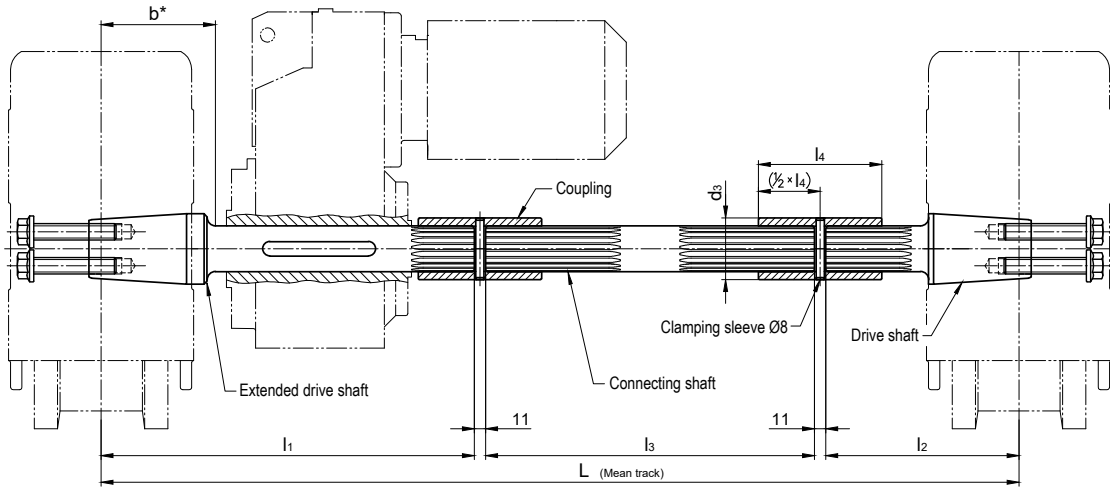
Model	Manufacturer	Splined-shaft-profile DIN 5480	L	l1	l2	l3	Centre RB to gearing b	l4	l5	d3	Clamping sleeve DIN 1481
AF 10 AUK 60	DEMAG	W65 x 2 x 31	For ordering, please provide	510	218	Dimensi- on L minus 750	185	125	62.5	80	8 x 80
FV 87 KV 87	SEW										
SK 9042.1AZE	NORD										
SPZT 56.. SKZT 56..	PREMIUM STEPHAN										
F.AT 109 KAT 109	SIEMENS										
FV 97 KV 97	SEW	W70 x 2 x 34		580	218	Dimensi- on L minus 820	185	135	67.5	90	8 x 90
SK 6282EA SK 9052.1AZE	NORD										
F.AT 108B KAT 108	SIEMENS (FLENDER)										
SPZT 66.. SKZT 66..	PREMIUM STEPHAN										
F.AT 129 KAT 129	SIEMENS										
FV 107 KV 107	SEW	W85 x 3 x 27		650	228	Dimensi- on L minus 900	195	160	80	110	8 x 110
SK 7282 EA SK 9072.1AZE	NORD										
F.AT 108B KAT 108	SIEMENS										
SPZT 77.. SKZT 77..	PRMIUM STEPHAN										
F.AT 149 KAT 149	SIEMENS										
F.AT 169 KAT 169	SIEMENS	W90 x 3 x 28	710	238	L minus 970	200	170	85	115	8 x 115	

WHEEL BLOCK RB 500

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	I1	I2	I3	b* without gearbox stop	Feather key DIN 6885	Coupling Internal gearing/ d3 x 14
Inner-Ø	Length							
Ø60	≤ 280 ¹⁾ ≤ 250 ²⁾	For ordering, please provide	500	213	Dimension L minus 735	160	A 18 x 11 x 140	N60 x 2 x 28 Ø75 x 125
Ø70	≤ 350 ¹⁾ ≤ 320 ²⁾		600	218	Dimension L minus 840	160	A 20 x 12 x 180	N70 x 2 x 34 Ø90 x 135
Ø80	≤ 380 ¹⁾ ≤ 350 ²⁾		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⁾		650	238	Dimension L minus 910	170	A 25 x 14 x 200	N90 x 3 x 28 Ø115 x 170

* 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:

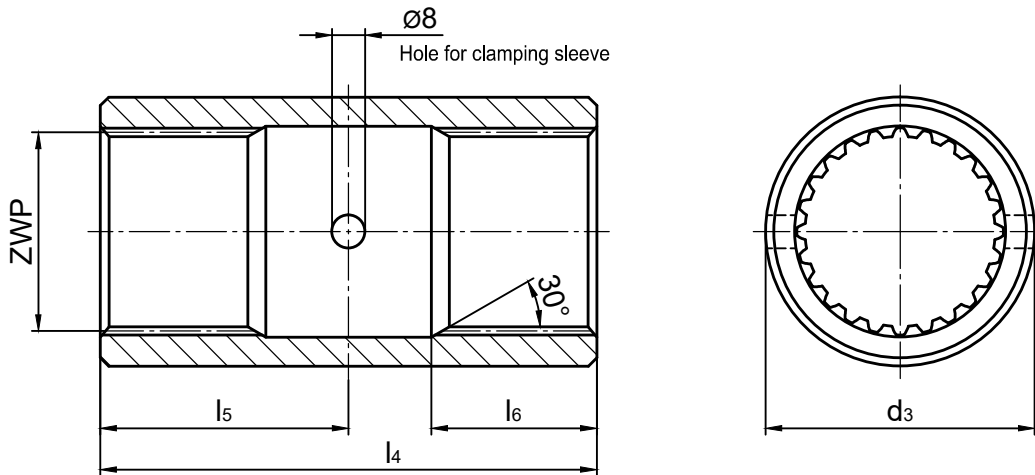
Siemens Motox (Flender), Bauer (Danfoss), KEB, Lenze, Nord, PREMIUM STEPHAN, SEW, Siemens, Stöber, Demag

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

ACCESSOIRES

Coupling for central drive units

Hole with splined-shaft profile in accordance with DIN 5480



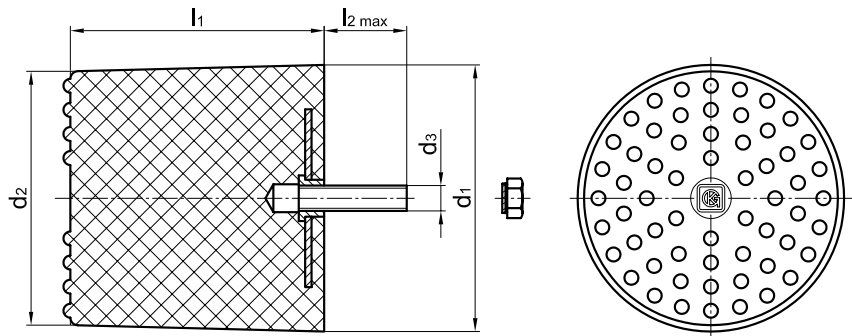
Splined-shaft profile DIN 5480 (9H)	d ₃	l ₄	l ₅	l ₆
N 30 x 1.25 x 22	40	80	40	27.5
N 30 x 2 x 14	40	80	40	27.5
N 35 x 1.25 x 26	50	100	50	44
N 35 x 2 x 16	50	100	50	35
N 40 x 2 x 18	55	100	50	32
N 45 x 2 x 21	60	120	60	50
N 50 x 2 x 24	65	120	60	40
N 60 x 2 x 28	75	125	62.5	47.5
N 65 x 2 x 31	80	125	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

* available on request

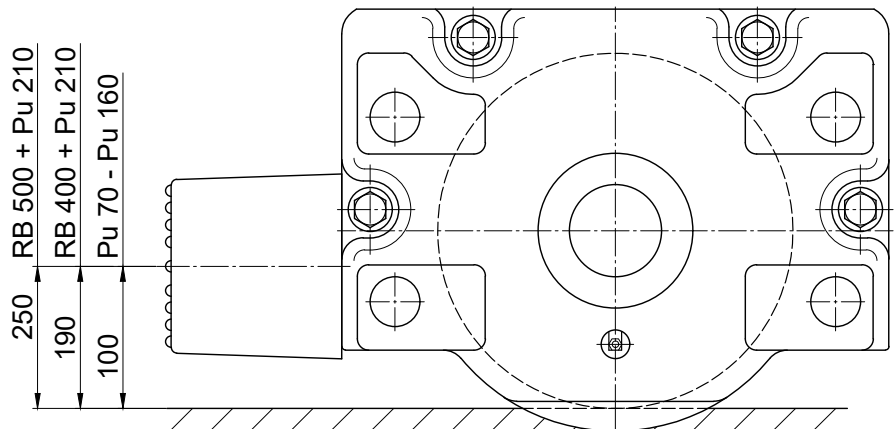
ACCESSOIRES

Cellular plastic buffer for wheel block RB 160 – 400

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



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 size	d_1	d_2	l_1	d_3	l_2	Energy-absorption [kJ] ²⁾	Spring-travel [mm] ¹⁾	Final force [kN] ¹⁾	Wight per unit [kg]	for wheel block
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

1) These values apply to impact forces, which occur during crane operation ($V = 120\text{ m/min}$)

2) $V = 240\text{ m/min}$

Ordering example

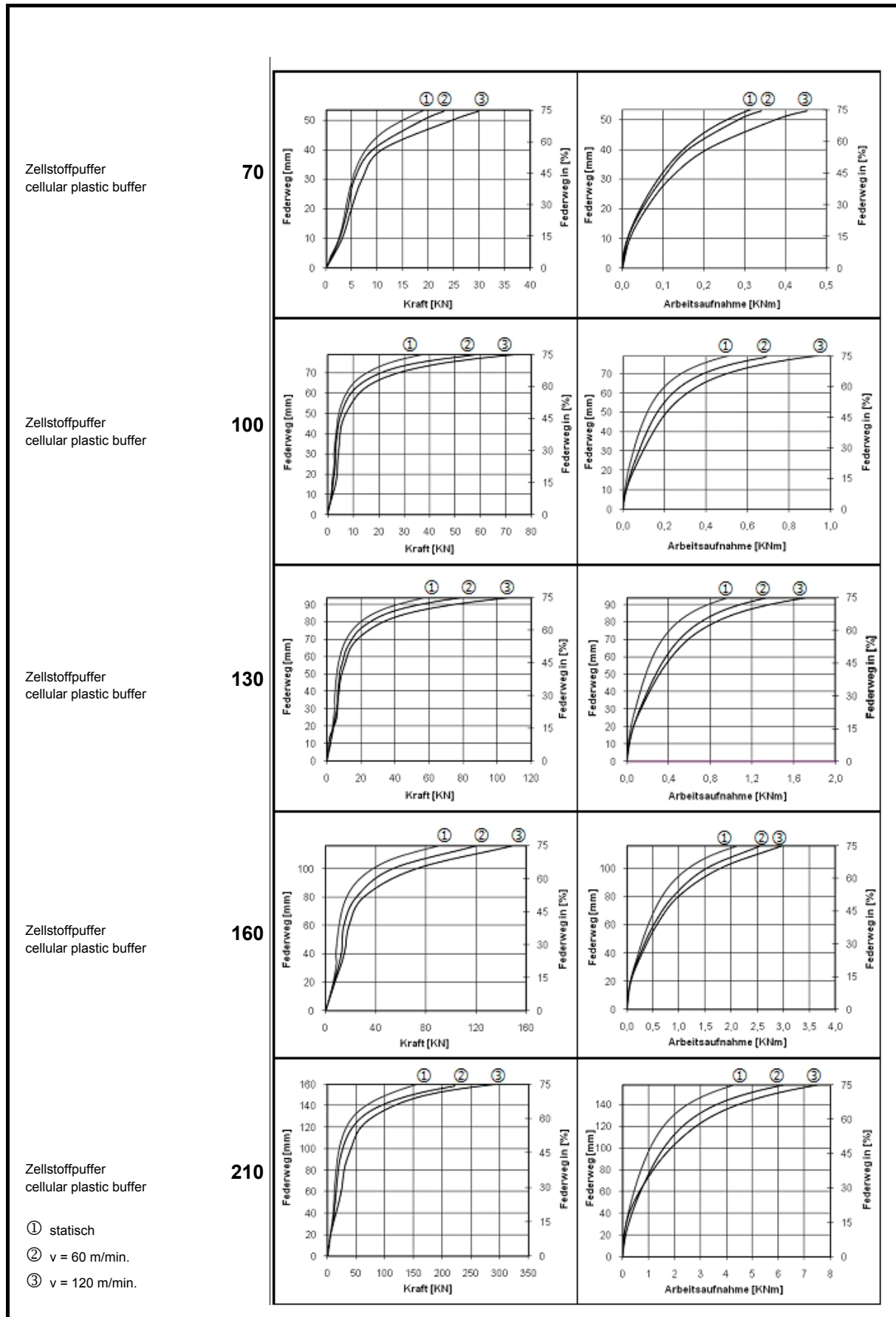
Cellular plastic buffer Pu 130

Included in the scope of delivery:

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

CELLULAR PLASTIC BUFFER FOR WHEEL BLOCK RB 160 – 400

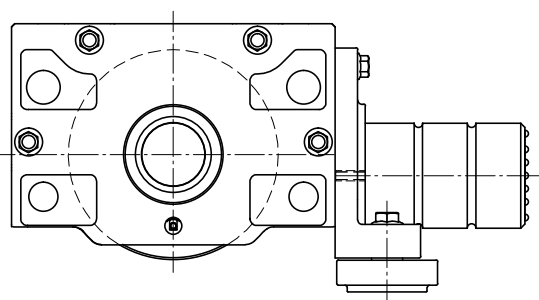
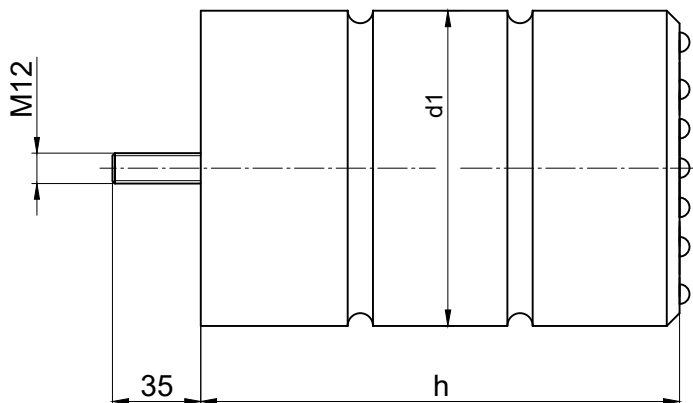
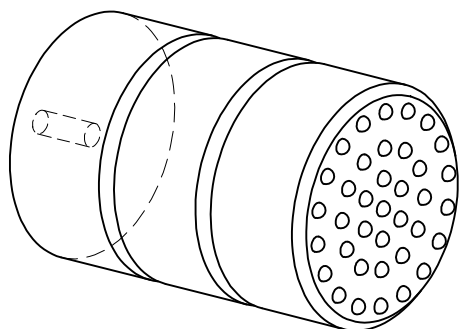
Diagrams



ACCESSOIRES

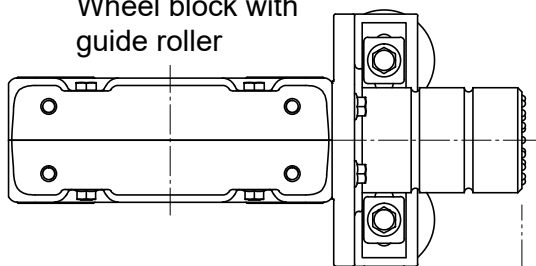
Cellular plastic buffer for wheel block with horizontal roller guide RB 250 – 400

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

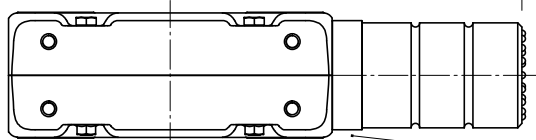


Nominal size d1 x h	Energy-absorption [kJ] ¹⁾	Spring travel [mm] ¹⁾	Final force [kN] ¹⁾	Weight per unit [kg]	for wheel block
125 x 190	8.6	143	125	1.32	RB 250
160 x 240	18	180	200	2.66	RB 315
200 x 300	35	225	310	5.1	RB 400

Wheel block with
guide roller



Wheel block with
spacer disc



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

Ordering example

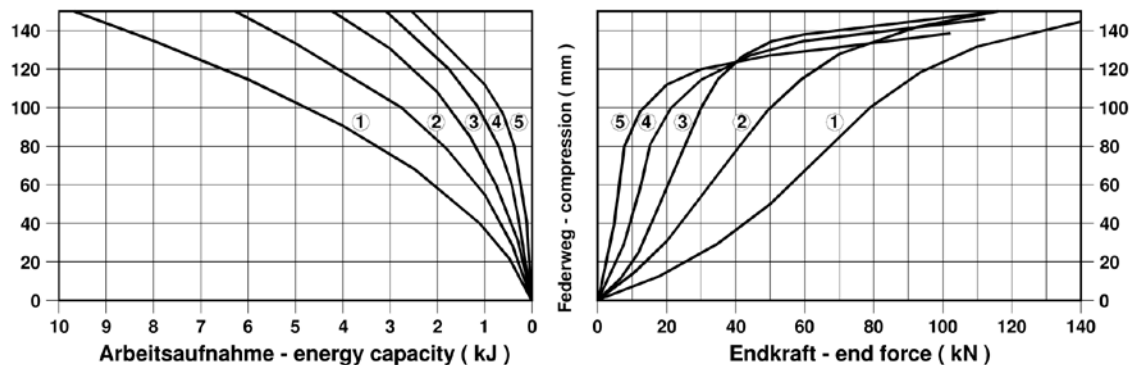
Cellular plastic buffer 125 x 190

Included in the scope of delivery:
1 Cellular plastic buffer with threaded pin

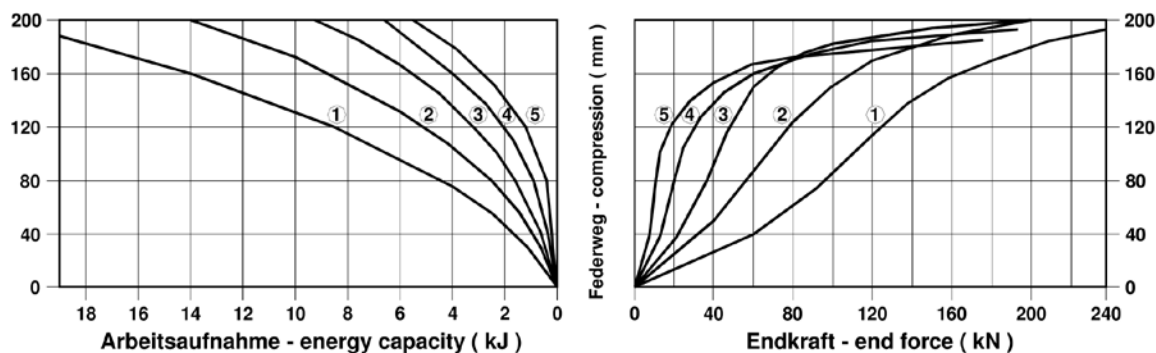
CELLULAR PLASTIC BUFFER FOR WHEEL BLOCK WITH HORIZONTAL ROLLER GUIDE RB 250 – 400

Diagrams

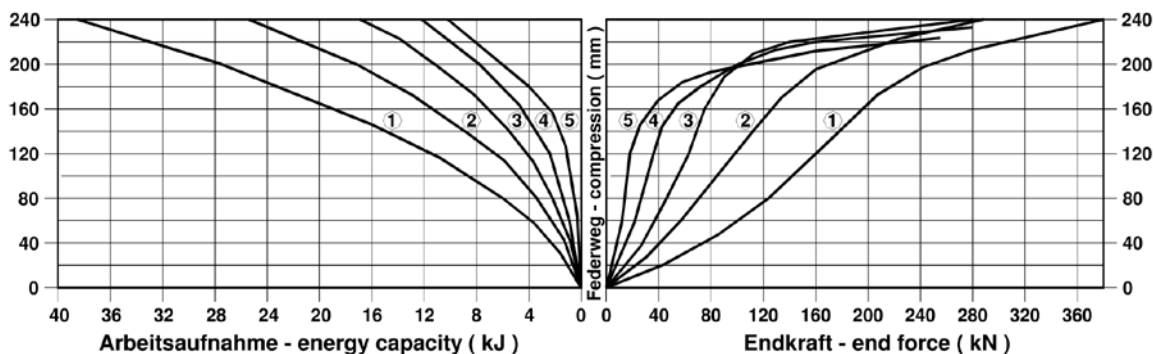
Cellular plastic buffer 125 x 190



Cellular plastic buffer 160 x 240



Cellular plastic buffer 200 x 300



Aufprallgeschwindigkeiten

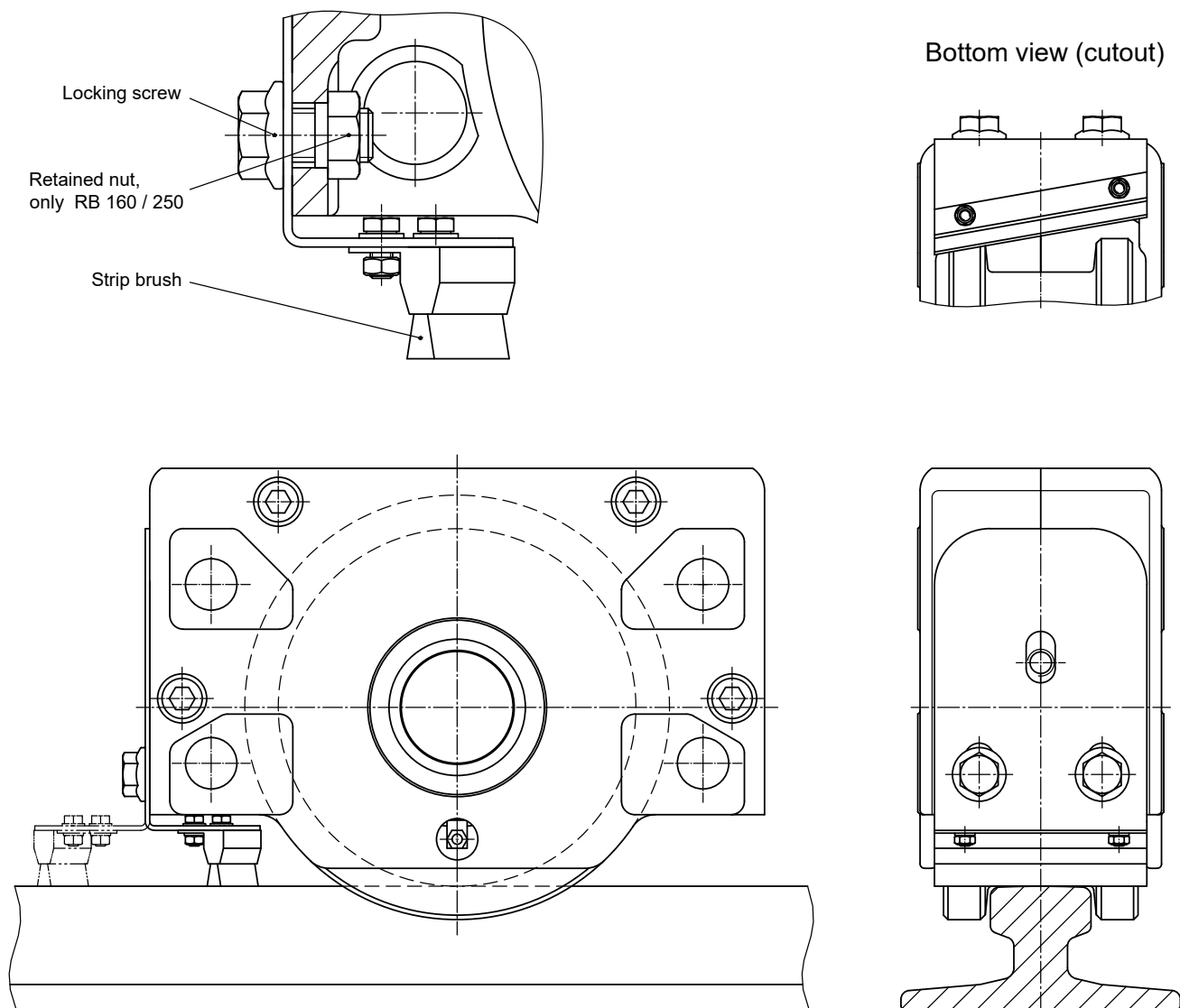
- ① v = 4 m/s
- ② v = 3 m/s
- ③ v = 2 m/s
- ④ v = 1 m/s
- ⑤ statisch

ACCESSOIRES

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.

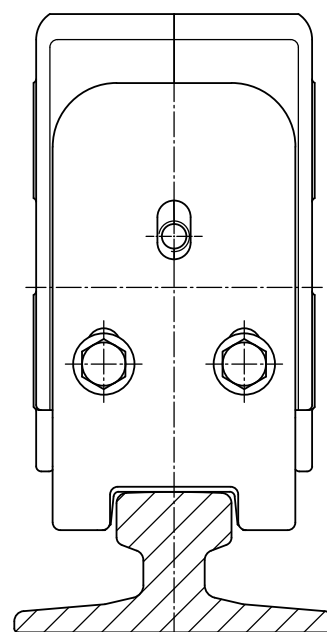
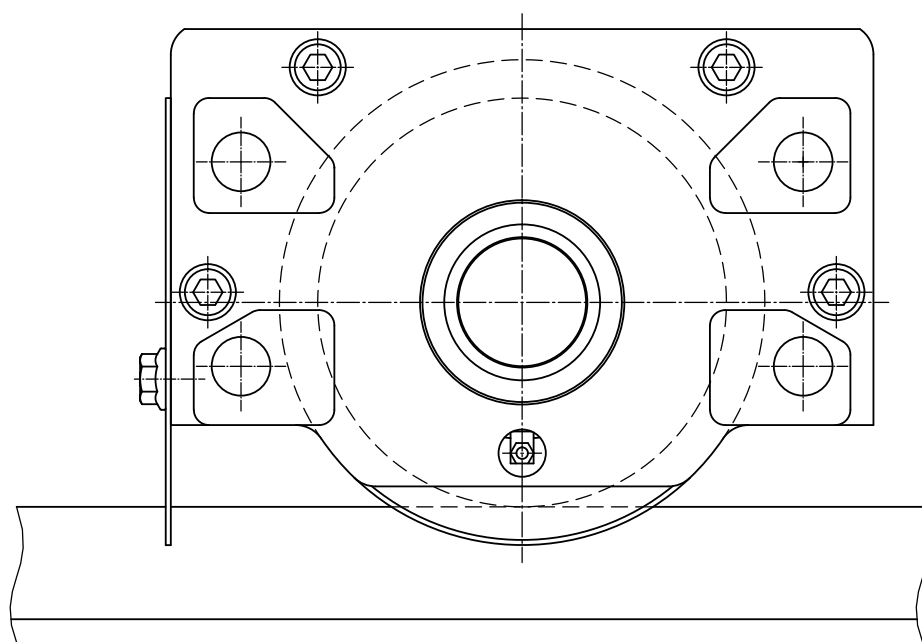
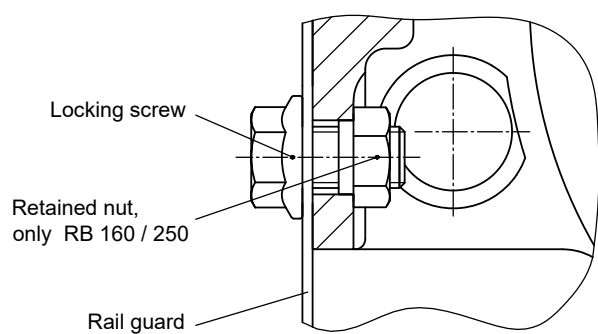


ACCESSOIRES

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.



KARL GEORG

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