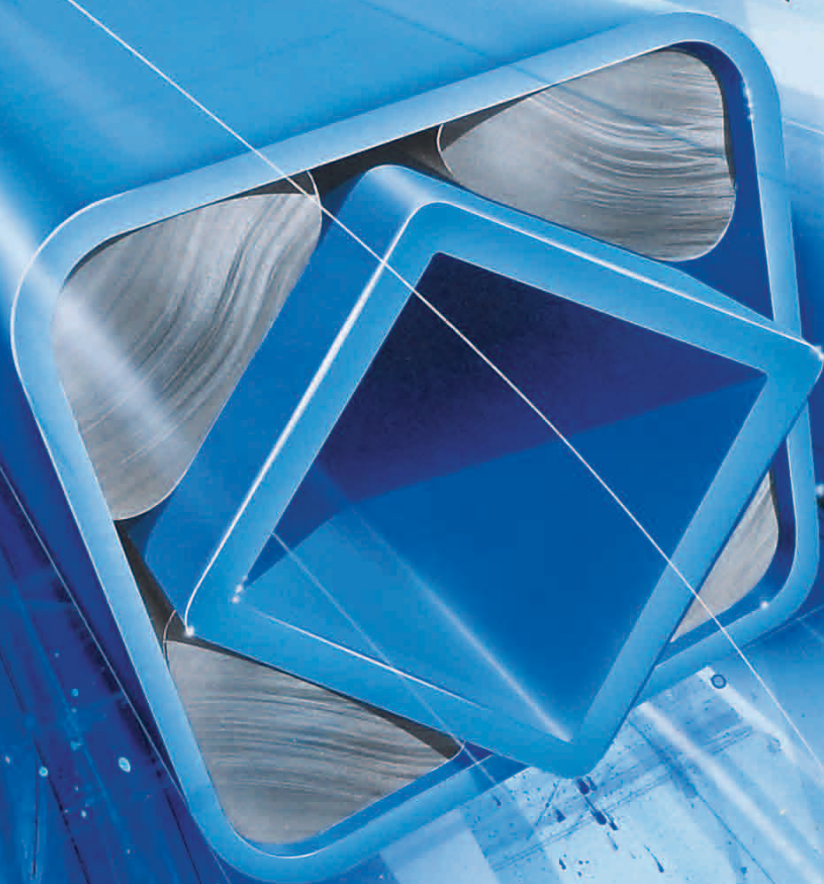


ROSTA integral parts

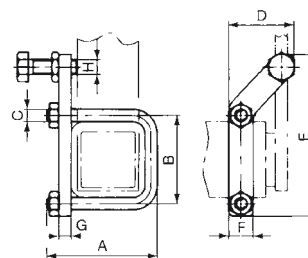
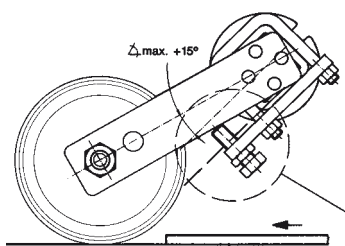
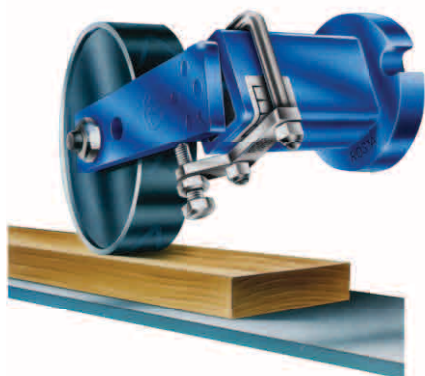
for a smooth power transmission



Manufactured by ROSTA GmbH, D-Schwelm



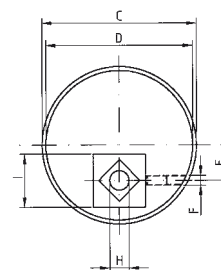
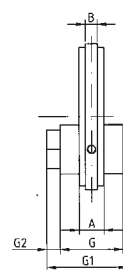
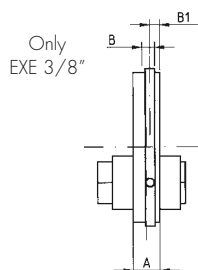
Pre-tensioning device type VS



Art.-No.	Type	A	B	C	D	E	F	G	H	weight in kg
	collar 15*	54	36	M 6						
06.600.203	VS 15/18*	59	42	M 6	32	74	15	10	M 8	0,16
06.600.204	VS 27	80	61	M 8	36	98	16	12	M 10	0,28
06.600.205	VS 38	112	79	M10	62	107	30	20	M 10	1,00
06.600.206	VS 45	124	93	M10	97	205	50	20	M 20	2,05
06.600.207	VS 50	139	102	M10	97	205	50	20	M 20	2,15

* The pre-tensioning device type VS 15/18 will be supplied with both housing-collars for tensioners SE 15 and 18. The dimensions of the collar 15 are separately specified. The pre-tensioning device allows a precise adjustment of the required pre-tensioning force on the elements type SE 15 – SE 50 by smallest possible arm deflection. It is the ideal unit for the positioning and adjustment of tensioners as suspensions of pressure- and guide-rollers in continuous milling and grinding machines; additional applications in surface polishing machines, edge wrapping machines, packaging machines, laminators and also as guiding- and alignment device in conveying machines.

Eccentric chain tensioner Typ EXE



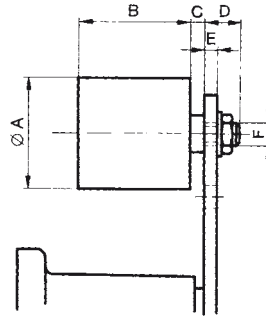
Art.-No.	Type	A	B	B1	C	D	E	F	G	G1	G2	H	I	K	weight in kg
15760001	EXE 3/8" S	13,8	5	5	80	76	18	M5	35	45	7,5	10 +0,4/+0,2	27 + 0,3/-0,1	15	0,20
15760002	EXE 1/2" S	13,8	6,6	6,9	80	76	18	M5	35	45	7,5	10 +0,4/+0,2	27 + 0,3/-0,1	15	0,20
15760003	EXE 5/8" S	8,5	-	-	100	-	23	M5	42	55	10,5	13 0/-0,2	32 + 0,1/-0,2	18	0,30
15760004	EXE 3/4" S	11	-	-	100	-	23	M5	42	55	10,5	13 0/-0,2	32 + 0,1/-0,2	18	0,35
15760005	EXE 1" S	16	-	-	135	-	29	M8	50	65	12,5	16 +0,5/+0,3	45 + 0,2/-0,1	27	0,55
15760006	EXE 1 1/4" S	18	-	-	135	-	29	M8	50	65	12,5	16 +0,5/+0,3	45 + 0,2/-0,1	27	0,65
15760007	EXE 1 1/2" S	24	-	-	135	-	29	M8	50	65	12,5	16 +0,5/+0,3	45 + 0,2/-0,1	27	0,70

This very compact chain tensioner offers the feasibility to install a tensioning device also by tight fitting conditions and/or by short axis-centres. Furthermore, this unit can also be used as elastic suspension of a chain deviation point (max. recommended chain speed for the rider is < 1 m/sec).

Type	pre-tension 10°		pre-tension 20°		pre-tension 30°	
	F (N) ca.	S (mm)	F (N) ca.	S (mm)	F (N) ca.	S (mm)
EXE 3/8" S / EXE 1/2" S	600	3,5	800	7,0	1050	10,5
EXE 5/8" S / EXE 3/4" S	1350	4,5	1650	9,0	2050	13,5
EXE 1" S / EXE 1 1/4" S / EXE 1 1/2" S	2200	6,0	3000	11,0	4400	16,0

The longest compensation path will be given when the chain runs on the most dislodged rider side of the element centre.

Tensioning roller type R-steel



Art.-No.	Tensioning roller Type R-steel	max. (min-1)	belt width	A	B	C	D	E	F	fastening torque (Nm)	for ROSTA type	weight in kg
16580001	R 11 Stahl	15000	30	30	35	2	14	5	M8	20	SE 11	0,15
16580002	R 15/18 Stahl	15000	40	40	45	6	16	7	M10	20	SE 15/18	0,34
16580003	R 27 Stahl	12000	55	60	60	8	17	8	M12	35	SE 27	1,06
16580004	R 38 Stahl	8500	85	80	90	8	25	10	M20	160	SE 38	2,84
16580005	R 45 Stahl	8500	130	90	135	10	27	12	M20	160	SE 45	5,52

The tensioning rollers made out of steel are black phosphate-treated and equipped with ball bearings fully capped on both sides.

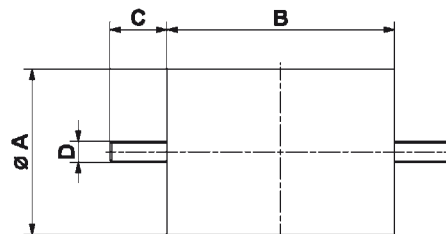
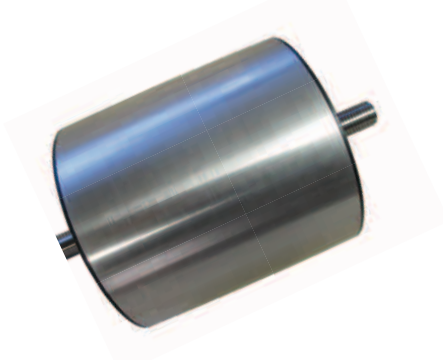
Tensioning roller type R-steel-G

Art.-No.	Tensioning roller Type R-steel-G	max. (min-1)	belt width	A	B	C	D	E	F	fastening torque (Nm)	for ROSTA type	weight in kg
16570001	R 11 Stahl-G	15000	30	30	35	2	14	5	M8	20	SE 11	0,15
16570002	R 15/18 Stahl-G	12000	40	40	45	6	16	7	M10	20	SE 15/18	0,34
16570003	R 27 Stahl-G	9500	55	60	60	8	17	8	M12	35	SE 27	1,06
16570004	R 38 Stahl-G	6500	85	80	90	8	25	10	M20	160	SE 38	2,84
16570005	R 45 Stahl-G	6500	130	90	135	10	27	12	M20	160	SE 45	5,52

The tensioning rollers made out of steel are galvanized and equipped with ball bearings fully capped on both sides (SKF).

On request further customized rollers made out of steel, light metal or plastic material are also available.

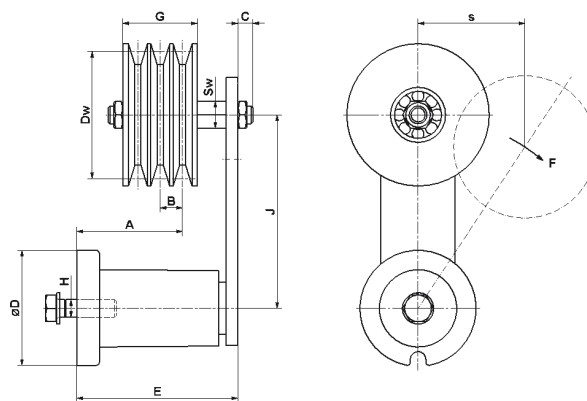
Tensioning roller type R-steel for extra wide belt drives



Art.-No.	Tensioning roller Type R-steel	max. (min-1)	belt width	A	B	C	D	fastening torque (Nm)	weight in kg
15750001	R 159/160 Stahl	9000	max. 130	159	160	55	M 20	160	5,8
15750002	R 159/220 Stahl	9000	max. 180	159	220	55	M 20	160	7,6
15750003	R 159/280 Stahl	9000	max. 230	159	280	55	M 20	160	9,6

Further rollers on request

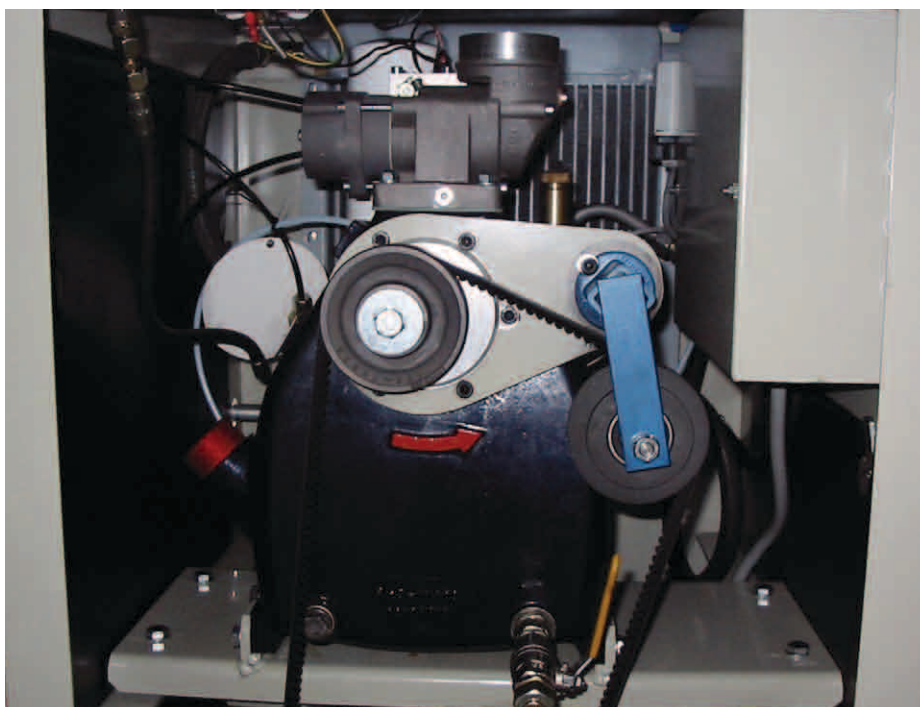
ROSTA V-belt tensioners



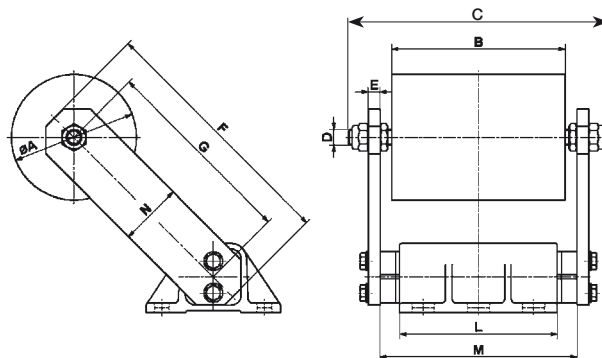
Art.-No.	Type	groove number	max speed n/min	F max. in N	s max. in mm	A	B	C	ØD	Dw	E	J	G	S _w	H	weight in kg	
09180901	KSE 18-SPZ	90 x 1	1	10000	350	50	20 - 43	12	13	58	90	79	100	16	19	M10	2.0
09180902	KSE 18-SPZ	90 x 2	2	10000	350	50	31 - 48	12	13	58	90	79	100	28	19	M10	2.3
09180903	KSE 18-SPZ	90 x 3	3	10000	350	50	31 - 37	12	13	58	90	79	100	40	19	M10	2.6
10180901	KSE 18-SPA	90 x 1	1	7400	350	50	5 - 36	15	19	58	90	79	100	20	27	M10	2.0
10180902	KSE 18-SPA	90 x 2	2	7400	350	50	20 - 42	15	19	58	90	79	100	35	27	M12	2.3
10270901	KSE 27-SPA	90 x 1	1	7400	800	65	34 - 64	15	19	78	90	108	130	20	27	M12	3.1
10270902	KSE 27-SPA	90 x 2	2	7400	800	65	49 - 70	15	19	78	90	108	130	35	27	M12	3.5
10270903	KSE 27-SPA	90 x 3	3	7400	800	65	49 - 70	15	19	78	90	108	130	50	27	M12	3.8
10271251	KSE 27-SPA	125 x 1	1	5300	800	65	33 - 63	15	19	78	125	108	130	20	27	M12	3.9
10271252	KSE 27-SPA	125 x 2	2	5300	800	65	49 - 70	15	19	78	125	108	130	35	27	M12	4.8
11271251	KSE 27-SPB	125 x 1	1	5300	800	65	35 - 65	19	19	78	125	108	130	25	27	M12	4.2
11271252	KSE 27-SPB	125 x 2	2	5300	800	65	48 - 69	19	19	78	125	108	130	44	27	M12	5.3
11381253	KSE 38-SPB	125 x 3	3	5300	1500	87.5	104 - 107	19	17	95	125	140	175	63	27	M16	7.9
11381403	KSE 38-SPB	140 x 3	3	4000	1500	87.5	104 - 107	19	17	95	140	140	175	63	27	M16	9.2

The pulleys of the ROSTA V-belt tensioners are equipped with a bolted-on shaft on the tensioner arm. The shaft is carried out with a snug fit on the pulley-bore and is locked by means of a nut with locking ring. Washers with variable thickness do allow the fine-adjustment of the V-belt track.

Furthermore, tensioner arms with welded on shafts are also available; in this case the V-belt pulley is shrink-fitted on the shaft. Accordingly, the V-belt track has to be determined by ordering this customized version; please ask for the relevant questionnaire. The V-belt pulleys are on both sides equipped with fully capped ball bearings (SKF). **On request additional V-belt pulleys are available.**



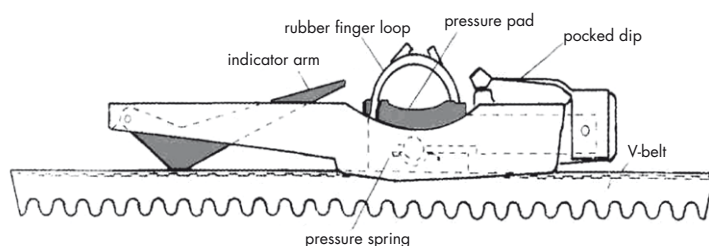
ROSTA belt tensioner type RZA for extra large belt drives



Art.-No.	Type	max. speed n/min.	max. belt width	max. tension pressure in N	A	B	C	D	E	F	G	L	M	N	weight in kg
50120160	RZA 50 x 120/160	9000	130	2800	159	160	270	M 20	15	290	250	120	190	50	15,0
50120220	RZA 50 x 120/220	9000	180	2800	159	220	330	M 20	15	290	250	120	250	50	17,0
50200220	RZA 50 x 200/220	9000	180	5200	159	220	330	M 20	15	290	250	200	250	50	19,0
50200280	RZA 50 x 200/280	9000	230	5200	159	280	390	M 20	15	290	250	200	310	50	21,0
50300280	RZA 50 x 300/280	9000	230	7800	159	280	390	M 20	15	290	250	300	310	50	20,2

For dimensions and performance data of the ROSTA element itself, please consult the General Catalogue.
Rubber suspension elements type DW-A 50 x 120, 50 x 200 also DR-A 50 x 300.

A tool for the ideal belt tension control



1. Selection the adequate measuring gauge

Select the gauge appropriate to the belt selection and construction being tensioned.

Select the right gauge:

indicator 0	range:	70 – 150 N
indicator 1	range:	175 – 650 N
indicator 2	range:	500 – 1500 N
indicator 3	range:	1500 – 3000 N

2. Preparation of the measurement

Position the gauge on one of the belt backs on the drive in the middle of the span length. Ensure that the gauge is only in contact with one of the belts, and that the indicator arm is pushed down into the gauge body. Align the gauge so that its body is parallel with the side of the belt.

3. Measuring

Push down on the pressure pad slowly and firmly with one finger (from the top or sideways through the finger loop). When a „click“ is heard and/or felt, stop immediately and remove the gauge carefully from the belt back to avoid disturbing of the indicator arm.

4. Reading

Ascertain the exact point where the top surface of the indicator arm crosses the scale (perhaps you have to pivot the gauge sideways) slightly for reading the value on the scale.

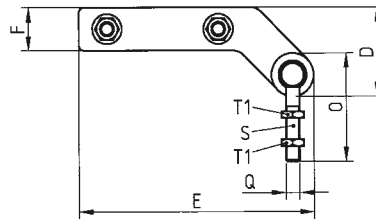
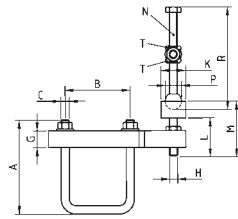
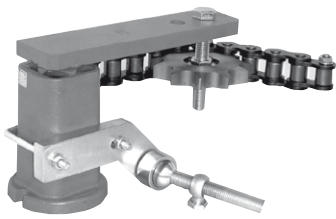
Compare this value with the tensioning guideline out of the instructions from the belt manufacturer.

Re-tension or loosen the belt tension accordingly.

Rapid pre-tensioning device type SV

Art.-No.	Type	A	B	C	D	E	F	G	H	K
06 600 305	SV 15/18	59	42	M 6	32	74	15	10	M 8	24
06 600 301	SV 27	80	61	M 8	36	98	16	12	M 10	30
06 600 302	SV 38	112	79	M 10	62	167	30	20	M 10	30
06 600 303	SV 45	124	93	M 10	97	205	50	20	M 20	50
06 600 304	SV 50	139	102	M 10	97	205	50	20	M 20	50

Art.-No.	Type	L	M	N	O	P	Q	R	S Eye bolt	weight in kg
06 600 305	SV 15/18	22	39	M 10 x 70	69	18	M 8	79	DIN444 LAM 8 x 60	0,29
06 600 301	SV 27	35	55	M 12 x 100	70	20	M 10	106	DIN444 LAM 10 x 60	0,80
06 600 302	SV 38	35	55	M 12 x 100	70	20	M 10	106	DIN444 LAM 10 x 60	1,45
06 600 303	SV 45	45	71	M 20 x 170	97	40	M 16	184	DIN444 LAM 16 x 80	3,10
06 600 304	SV 50	45	71	M 20 x 170	97	40	M 16	184	DIN444 LAM 16 x 80	3,20



The *Rapid* pre-tensioning device allows the safe, fast and precise pivoting of the ROSTA tensioners, especially for tensioners acting in all kind of belt drives. There are multiple configurations of the SV collar positioning on the four flanks of the outer tensioner housing. The threaded bolt system of the pre-tensioning mechanism offers also a full lock against housing rotation.

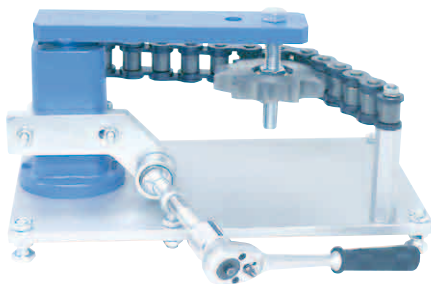
The ROSTA *Rapid* pre-tensioning device type SV allows the fast and safe pre-tensioning of the bigger SE tensioners without any expenditure of energy. This simple unit is replacing big flat wrenches with required extensions. Via a work gear spindle with a hardened ball socket the tensioner sizes up from SE 15/18 can continuously be pre-tensioned up to 30° by means of a ratchet-brace. At the same time, the clip collar around the housing functions like a locking device against a possible distort of the tensioner unit. For the installation of the SV it requires only one additional bore in the machine part for the foothold of the thread-boss. By installations in tight and problematic situations, e.g. in the motor compartment of busses or harvesters, the *Rapid* pre-tensioning device type VS is the ideal equipment for the easy and fast chain- and belt-change.

Mounting instructions for Rapid pre-tensioning device SV

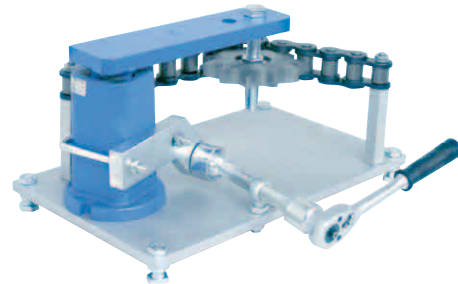
Installation:

For the thread-boss of the pre-tensioning device type SV it requires an additional bore in the machine part (see dimension on above dimensional data sheet). Also the mounting guidelines of ROSTA AG for the SE tensioners in regard of the positioning of the lever arm towards the chain- or belt-drive have to be considered. The clip collar of the pre-tensioning device should be installed as close as possible by the lower flange of the tensioner housing. Make the provisional height-positioning of the thread-boss by means of the two nuts. Continue with the pre-tensioning with the threaded control rod until the ball socket stays fully in the ball pan. Continue the pre-tensioning to the required angular degree or pressure force on the belt- or chain drive. Afterwards, tighten the central screw of the ROSTA tensioner. Tighten also the two nuts of the thread-boss. Please make sure that there is some graphite grease in the ball pan to avoid any pitting of the ball socket.

The *Rapid* pre-tensioning device type SV can also be installed mirror inverted or displaced by 90°.



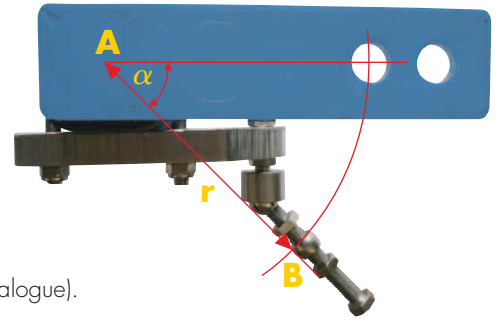
without pre-tension



pre-tensioned up to 20°

Borehole specification for Rapid pre-tensioning device SV

Pre-tensioning device	B	r	α
SV-unit SE 15/18	Ø 8,5 mm	74 mm	37°
SV-unit SE 27	Ø 10,5 mm	114 mm	52°
SV-unit SE 38	Ø 10,5 mm	149 mm	42°
SV-unit SE 45	Ø 17,0 mm	205 mm	45°
SV-unit SE 50	Ø 17,0 mm	205 mm	45°



A = fixation bore or threaded bore for tensioner type SE respectively SE-F (consult General Catalogue).

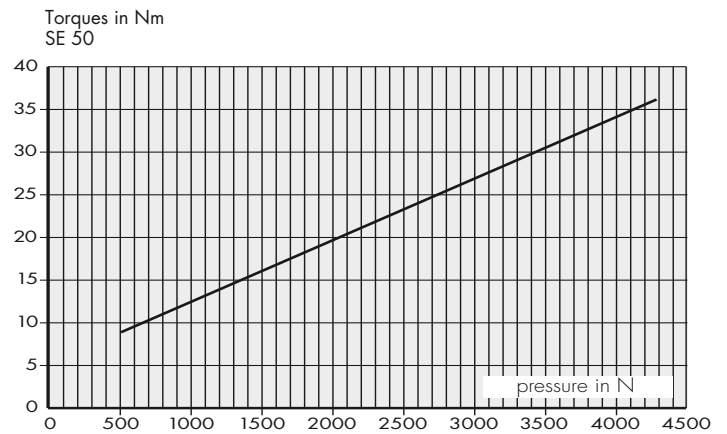
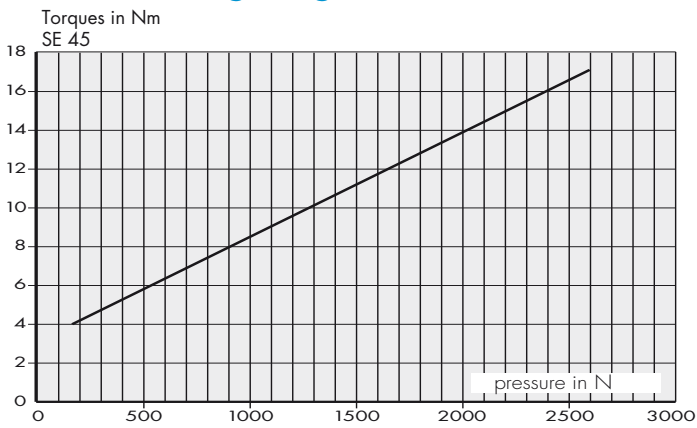
B = bore for the thread-boss

Important:

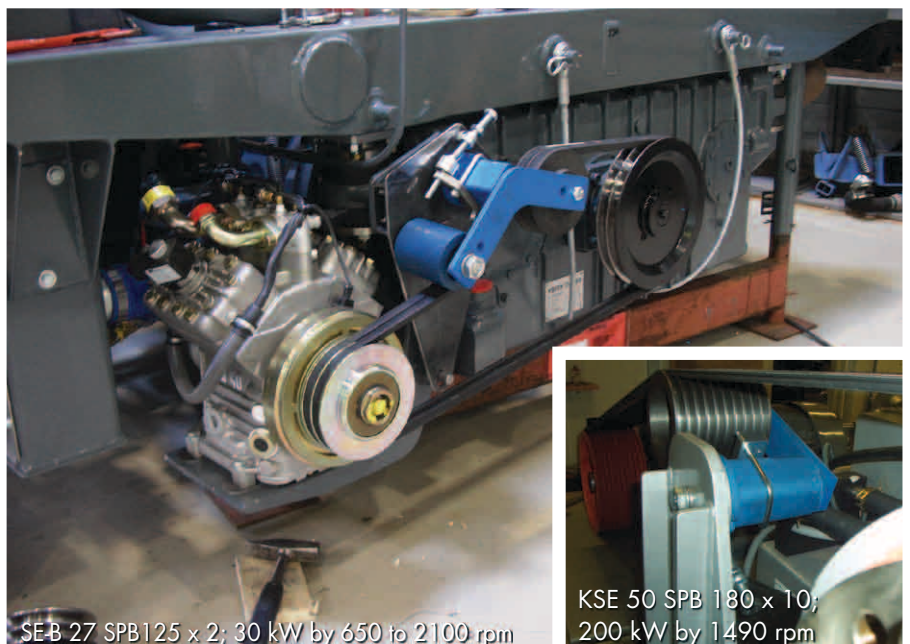
The thread of the ball pan shall be fully turned in the lever arm of the clip collar.

The following dimensions and torque indications are related to a fully turned in ball pan.

Pre-tensioning diagram:



Related to the required torque, the pre-tensioning angle of the ROSTA tensioner can easily be adapted in adjusting the Rapid device by turning the threaded control-rod to the degree of desired pressure force. The mentioned values of the tension pressure are approximate values. Further torque diagrams are available on request.



Examples of applications

