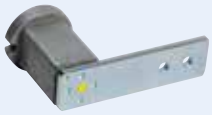
Selection table

	Identification		Characteristics		Working temperature	Details	Illustration
Standard tensioner devices	**SE**	Standard component	Steel parts ROSTA blue painted. Rubber quality Rubmix 10.	Housing and inner core made out of steel.	−40° to +80°C	Page 4.6	
	SE-G	Oil resistant	Steel parts galvanized. Rubber quality Rubmix 20. Marked with yellow dot.		−30° to +90°C	Page 4.6	
	SE-W	Heat resistant	Steel parts ROSTA blue painted. Rubber quality Rubmix 40. Marked with red dot. Tension force 40% less than SE.		−35° to +120°C max.	Page 4.6	
Additional tensioner devices	**SE-R**	Reinforced lever arm	Arm and inner core especially welded for use on combustion engines and compressors. Steel parts ROSTA blue painted. Marked with white ring.	Housing and inner core made out of steel, inserts Rubmix 10.	−40° to +80°C	Page 4.6	
	SE-I	Stainless steel	For the use in food- and pharmaceutic industries. Material: GX5CrNi19-10. Exception: SE-I 40 made out of X5CrNi18-10.			Page 4.6	
	SE-B	Boomerang®	For the tensioning of very long chain and belt drives (triple compensation). Steel parts ROSTA blue painted.			Page 4.7	
	SE-F	Front mounting device	For installations on blind-hole frames (fixation from the front only). Steel parts ROSTA blue painted. Hex socket screw quality 12.9.			Page 4.7	
	SE-FE	Front mounting device	For installations on blind-hole frames (fixation from the front only). Steel parts black painted. Hex socket screw quality 12.9. Especially designed for engine applications.	see page 4.7		Page 4.7	
Accessories chain drives	**Sprocket wheel set N** **Sprocket wheel N**		Allows accurate positioning of relevant chain track. Ball-bearings 2Z/C3, permanently lubricated.		−40° to +100°C	Page 4.8	
	Chain rider set P **Chain rider P**		For double sided use. Max. allowed chain speed 1.5 m/sec. Material: POM-H.		−40° to +100°C	Page 4.9	
Accessories belt drives	**Tensioning roller R**		Material: PA 6. Ball-bearings 2Z/C3, permanently lubricated.		−35° to +100°C	Page 4.10	
	Tensioning roller light RL		Material: PA 6. Ball-bearings 2Z/C3, permanently lubricated.		−35° to +80°C	Page 4.10	

Further information to customized elements and installation examples as from page 4.12.

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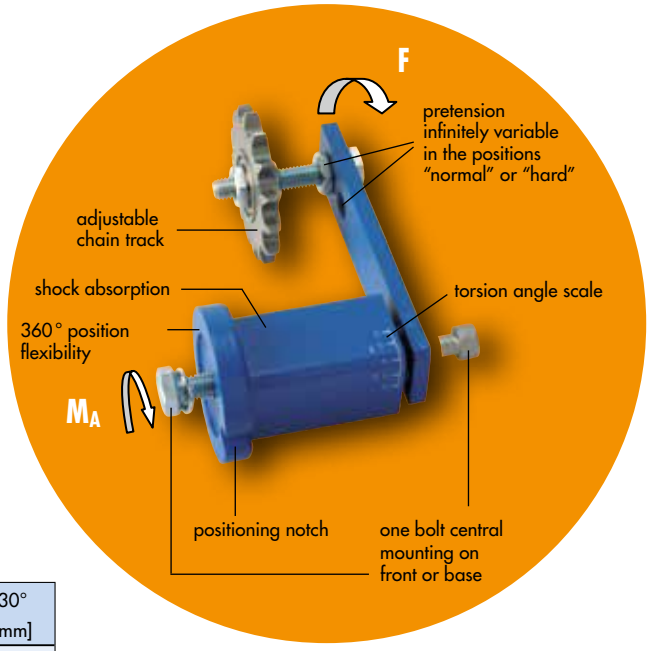
General technology

The ROSTA tensioners should be installed on a stiff, even and clean machine part by means of the central bolt. The frictional connection on flange is usually fully sufficient for final positioning. The positioning notch on flange can be used to assure the tensioner additionally on uneven and dirty surfaces by setting a roller-pin.



Tensioning force F

The tensioning force can be continuously adjusted. The max. pre-tensioning angle is +30° out of neutral position. Tensioning force table for types **SE / SE-G / SE-R / SE-F / SE-I** by using **hole-position "normal"** for sprocket-, rider- and roller fixation.

Size SE	Pre-tension ∢ 10°		Pre-tension ∢ 20°		Pre-tension ∢ 30°	
	F [N]	s [mm]	F [N]	s [mm]	F [N]	s [mm]
11	18	14	48	27	96	40
15	25	17	65	34	135	50
18	75	17	185	34	350	50
27	150	23	380	44	810	65
38	280	30	720	60	1500	88
45	520	39	1350	77	2650	113
50	740	43	2150	86	4200	125

SE-I 40: same tensioning force like SE 38.
SE-W: 40% lower tensioning force than standard versions (Rubmix 40 inserts).
SE-FE: see page 4.7
When fixing the sprockets, riders and rollers in arm-position "hard", tensioning force will increase on about 25%.

Tightening moment M_A for attachment screw

Table mentioning the tightening moment for the central screw (included in scope of delivery).

	Quality 8.8	Quality 12.9 for SE-F / SE-FE
M6	10 Nm	17 Nm
M8	25 Nm	41 Nm
M10	49 Nm	83 Nm
M12	86 Nm	145 Nm
M16	210 Nm	355 Nm
M20	410 Nm	690 Nm
M24	750 Nm	

Mounting instructions

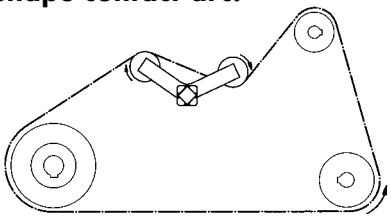
For further mounting instructions please consult the pages 4.9–4.11.

Z-configuration of sprockets or riders

If there is the need to install sprockets, riders or rollers on the outer arm-side of the tensioner, then the distance "Z" should be as little as possible to avoid a misalignment in element parallelism. Furthermore the pre-tension force should not exceed 50% of the capacity = max. pre-tension angle of ~20°.

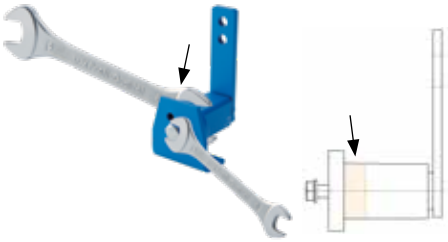
Use of SE-B Boomerang® tensioners

In very long chain and belt drives it was recommendable to install on the slack-side several tensioners, in order to compensate occurring elongation. The "Boomerang" with its bent double-arm equipped with two chain sprockets or a combination of grooved pulley and flat-roller (belt-drives) **offers a triple-compensation of chain and belt elongations, due to S-shape contact-arc.**



Tensioner mounting

Tighten the flange screw slightly. Grip the housing with flat-wrench and set needful pre-tension by rotating the housing in the required direction. Tighten the central screw according the above mentioned tightening moment M_A. **Position flat-wrench close by the flange-bottom.**



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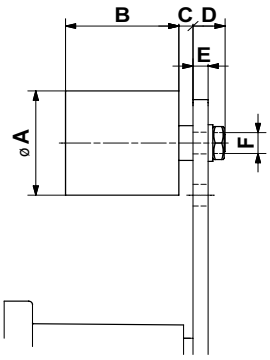
Accessories belt drives

Tensioning roller Type R and RL



Tensioning roller standard type R (blue)

Type	Art. No.	Max. speed [rpm]	Max. belt width	A	B	C	D	E max.	F	Torque hex nut [Nm]	Size SE	Weight [kg]
R 11	06 580 001	8000	30	30	35	2	14	5	M8	25	11	0.08
R 15/18	06 580 002	8000	40	40	45	6	16	7	M10	20	15/18	0.17
R 27	06 580 003	6000	55	60	60	8	17	8	M12	35	27	0.40
R 38	06 580 004	5000	85	80	90	8	25	10	M20	165	38	1.15
R 45	06 580 005	4500	130	90	135	10	27	12	M20	165	45	1.75

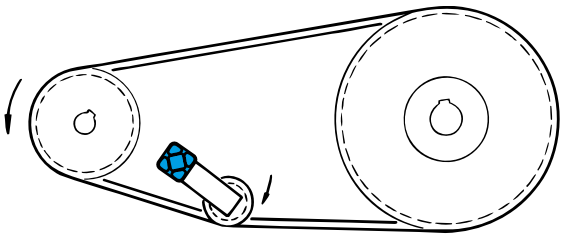
Tensioning roller light type RL (black). Designed for light-duty drives.

Type	Art. No.	Max. speed [rpm]	Max. belt width	A	B	C	D	E max.	F	Torque hex nut [Nm]	Size SE	Weight [kg]
new RL 11	06 580 901	6000	30	30	35	3	19	10	M8	25	11	0.08
new RL 15/18	06 580 902	6000	40	40	45	6	21	9	M10	49	15/18	0.17
new RL 27	06 580 903	4500	55	60	60	8	22	8	M12	86	27	0.50

Instructions for belt drives

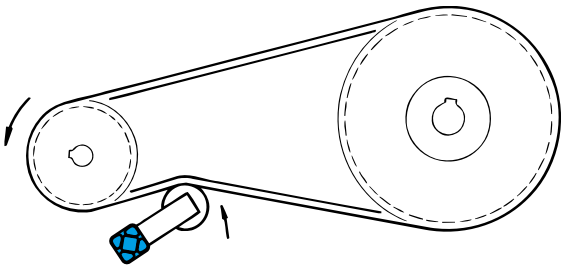
a) Modalities of tensioning

See also complementary mounting instructions on page 4.5.



Tensioning from "inside" of the belt drive with grooved pulley

- Installation in slack span of the belt drive, make sure that the belts are maintaining sufficient contact-arc on the driver- and driven-pulley.
- By extremely long centre distances between driver and driven pulley it is recommendable to use on the tensioner a deep-grooved pulley to avoid excessive slack beating.



Tensioning with flat roller on belt back

- The diameter of the flat tensioning roller should at least measure 2/3 of the diameter of the smallest pulley in the drive.
- The width of the tensioning roller should be at least 20% wider than the overall width of the belt set.
- Installation on the belt back in the slack span, make sure that the belts are maintaining sufficient contact-arc on the driver and driven pulley.