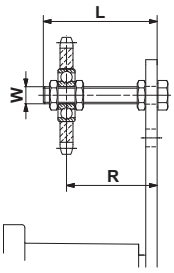
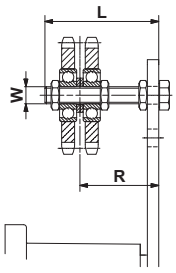
Sprocket wheel set type N

Sprocket wheel type N

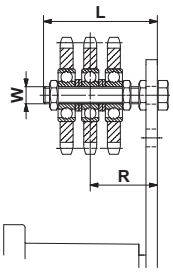
Simplex "S"



Duplex "D"



Triplex "T"

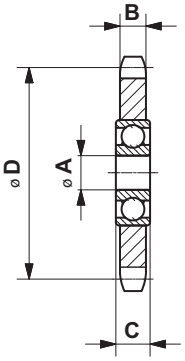


Sprocket wheel set type N

Roller chain ANSI	Roller chain DIN 8187	Type	Art. No.	Number of teeth	W	L	Torque hex nut 0.5 d [Nm]	Adjusting range track R	Size SE	Weight [kg]
Simplex "S"										
35	ISO 06 B-1	N3/8"–10 S	06 510 001	15	M10	55	20	22–43 / 23–43	15/18	0.15
40	ISO 08 B-1	N1/2"–10 S	06 510 002	15	M10	55	20	23–44	18	0.20
50	ISO 10 B-1	N5/8"–12 S	06 510 003	15	M12	80	35	27–65	27	0.35
60	ISO 12 B-1	N3/4"–12 S	06 510 004	15	M12	80	35	27–65	27	0.55
60	ISO 12 B-1	N3/4"–20 S	06 510 005	15	M20	100	165	40–80	38	0.85
80	ISO 16 B-1	N1"–20 S	06 510 006	13	M20	100	165	40–80	38	1.25
100	ISO 20 B-1	N1 1/4"–20 S	06 510 007	13	M20	100	165	40–80 / 48–80	45 / 50	2.00
120	ISO 24 B-1	N1 1/2"–20 S	06 510 008	11	M20	140	165	40–120 / 48–120	45 / 50	2.35
Duplex "D"										
35	ISO 06 B-2	N3/8"–10 D	06 520 001	15	M10	55	20	27–39 / 28–39	15/18	2.00
40	ISO 08 B-2	N1/2"–10 D	06 520 002	15	M10	55	20	30–37	18	0.35
50	ISO 10 B-2	N5/8"–12 D	06 520 003	15	M12	80	35	36–57	27	0.60
60	ISO 12 B-2	N3/4"–12 D	06 520 004	15	M12	80	35	37–56	27	1.05
60	ISO 12 B-2	N3/4"–20 D	06 520 005	15	M20	120	165	50–90	38	1.35
80	ISO 16 B-2	N1"–20 D	06 520 006	13	M20	120	165	55–84	38	2.10
100	ISO 20 B-2	N1 1/4"–20 D	06 520 007	13	M20	140	165	60–102 / 68–102	45 / 50	3.60
120	ISO 24 B-2	N1 1/2"–20 D	06 520 008	11	M20	140	165	65–97 / 73–97	45 / 50	4.25
Triplex "T"										
35	ISO 06 B-3	N3/8"–10 T	06 530 001	15	M10	70	20	33–48	18	0.25
40	ISO 08 B-3	N1/2"–12 T	06 530 002	15	M12	80	35	41–51	27	0.50
50	ISO 10 B-3	N5/8"–12 T	06 530 003	15	M12	80	35	43–50	27	0.95
50	ISO 10 B-3	N5/8"–20 T	06 530 004	15	M20	120	165	56–84	38	1.25
60	ISO 12 B-3	N3/4"–20 T	06 530 005	15	M20	120	165	59–80	38	1.50
80	ISO 16 B-3	N1"–20 T	06 530 006	13	M20	160	165	74–108	45	2.90
100	ISO 20 B-3	N1 1/4"–20 T	06 530 007	13	M20	160	165	78–105 / 86–105	45 / 50	5.20
120	ISO 24 B-3	N1 1/2"–20 T	06 530 008	11	M20	180	165	90–111 / 98–111	45 / 50	6.20

Sprocket wheel type N

Roller chain ANSI	Roller chain DIN 8187	Type	Art. No.	Number of teeth	A	B	C	D	Weight [kg]
35	ISO 06 B	N3/8"–10	06 500 001	15	10	5.3	9	45.81	0.06
40	ISO 08 B	N1/2"–10	06 500 002	15	10	7.2	9	61.08	0.15
40	ISO 08 B	N1/2"–12	06 500 003	15	12	7.2	12	61.08	0.15
50	ISO 10 B	N5/8"–12	06 500 004	15	12	9.1	12	76.36	0.27
50	ISO 10 B	N5/8"–20	06 500 005	15	20	9.1	15	76.36	0.29
60	ISO 12 B	N3/4"–12	06 500 006	15	12	11.1	12	91.63	0.47
60	ISO 12 B	N3/4"–20	06 500 007	15	20	11.1	15	91.63	0.47
80	ISO 16 B	N1"–20	06 500 008	13	20	16.1	15	106.14	0.88
100	ISO 20 B	N1 1/4"–20	06 500 009	13	20	18.5	15	132.67	1.60
120	ISO 24 B	N1 1/2"–20	06 500 010	11	20	24.1	15	135.23	1.93



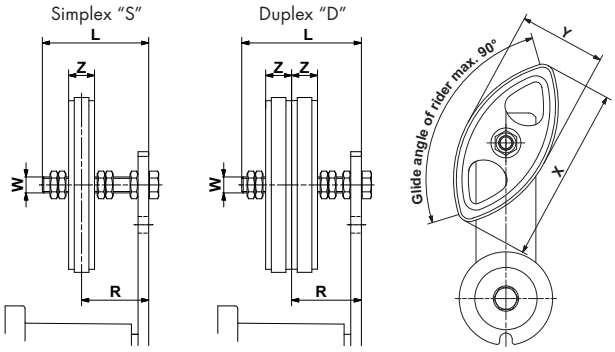
ROSTA

www.rosta.com

Chain Drives

Chain rider set type P
Chain rider type P

For an ideal positioning of the chain rider/s on the threaded rod we do recommend to position them on each side by means of two nuts, secured against each other, with some play for swivelling into working position.

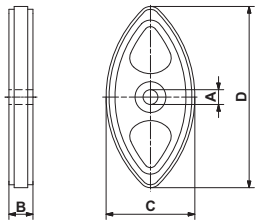


Chain rider set type P

Roller chain ANSI	Roller chain DIN 8187	Type	Art. No.	W	L	X	Y	Z	Torque hex nut 0.5d [Nm]	Adjusting range track R	Size SE	Weight [kg]
Simplex "S"												
35	ISO 06 B-1	P3/8"– 8 S	06 550 001	M8	45	74	37	10.2	11	19–34	11	0.05
40	ISO 08 B-1	P1/2"–10 S	06 550 002	M10	55	96	48	13.9	20	23–41	15/18	0.10
50	ISO 10 B-1	P5/8"–10 S	06 550 003	M10	55	126	63	16.6	20	24–39	18	0.12
60	ISO 12 B-1	P3/4"–12 S	06 550 004	M12	80	148	72	19.5	35	30–61	27	0.18
Duplex "D"												
35	ISO 06 B-2	P3/8"– 8 D	06 560 001	M8	45	74	37	10.2	11	25–30	11	0.07
40	ISO 08 B-2	P1/2"–10 D	06 560 002	M10	55	96	48	13.9	20	30–34	15/18	0.12
50	ISO 10 B-2	P5/8"–10 D	06 560 003	M10	70	126	63	16.6	20	34–46	18	0.17
60	ISO 12 B-2	P3/4"–12 D	06 560 004	M12	80	148	72	19.5	35	40–52	27	0.26

Chain rider type P

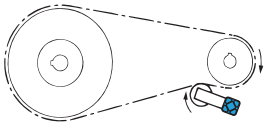
Roller chain ANSI	Roller chain DIN 8187	Type	Art. No.	A $^{+0.2}_{0}$	B	C	D	Weight [kg]
35	ISO 06 B	P3/8"	06 540 001	8	10.2	37	74	0.02
40	ISO 08 B	P1/2"	06 540 002	10	13.9	48	96	0.03
50	ISO 10 B	P5/8"	06 540 003	10	16.6	63	126	0.05
60	ISO 12 B	P3/4"	06 540 004	12	19.5	72	148	0.07



Mounting instructions for Chain Drives

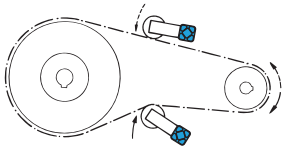
See also complementary mounting instructions on page 4.5.

Standard positioning



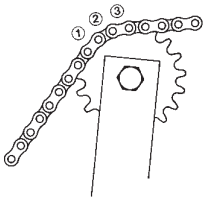
The ROSTA tensioning device should be placed on the slack-side of the chain drive, close by the smaller sprocket wheel in order to enlarge its contact-arc, therefore contact application from outer side of drive. In mounted position the tensioner-arm should stay close to parallel to the chain run, in drain direction. By extremely long chain drives it is recommendable to install several tensioners or the type "Boomerang®" in order to enlarge the slack compensation.

Reversible chain drive



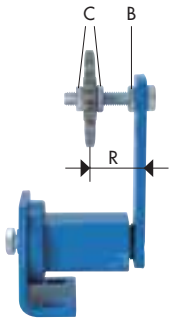
By reversible chain transmissions it is recommendable to install a tensioner on each side of the chain-strands. Due to the alternate occurring of the slack, both tensioners should only be pre-tensioned up to max. 20°, in order to retain a re-set-path of 10°, when strains are changing from slack span on working span in reversible applications.

Sprocket teeth in mesh



By the initial tensioning of the chain at least three teeth of the tensioner sprocket wheel should be in mesh with the rollers. The min. distance between sprocket wheel of the tensioner to the next sprocket wheel in the chain drive should be at least four chain-pitches.

Adjustment of chain-track

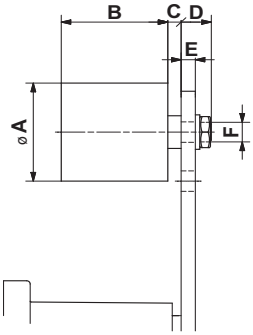


The wheel of the sprocket wheel set is adjustable according to the position of the chain drive track. The wheel is positioned between two nuts on the threaded shaft. In changing the adjustment band "R", the track of the tensioner wheel can be set according to relevant strand course. After positioning of sprocket, re-tighten the two nuts on the side. The counter-nut "B" remains always tightened.

ROSTA
www.rosta.com

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

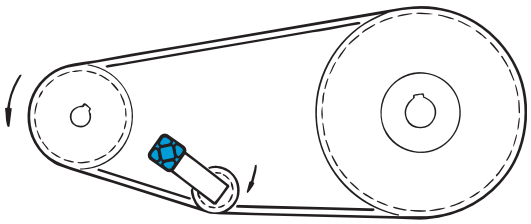
Tensioning roller light type RL (black). Designed for light-duty drives.

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

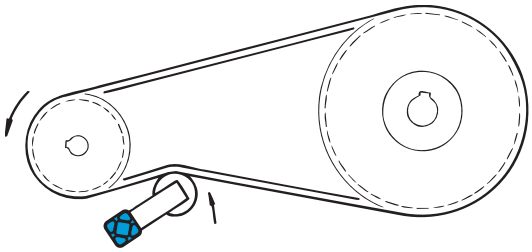
a) Modalities of tensioning

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.

b) Selection of the adequate ROSTA Tensioner size

Selection table mentioning the most conventional V-belt types.

V-belt type	Width [mm]	Height [mm]	Diam. of smaller pulley [mm]	Initial operation test-force F_I** [N]	Operational test-force F_O** [N]	Size SE* (without SE-W and SE-B)				
						1 belt	2 belts	3 belts	4 belts	5 belts
XPZ, SPZ	10	8	56–71	20	16	11	18	18	18	18
			75–90	22	18	11	18	18	18	27
			95–125	25	20	15	18	18	18	27
			≥ 125	28	22	15	18	18	27	27
XPA, SPA	13	10	80–100	28	22	15	18	18	27	27
			106–140	38	30	15	18	27	27	27
			150–200	45	36	18	18	27	27	27
			≥ 200	50	40	18	18	27	27	38
XPB, SPB	16	13	112–160	50	40	18	18	27	27	38
			170–224	62	50	18	27	27	38	38
			236–355	77	62	18	27	38	38	38
			≥ 355	81	65	18	27	38	38	38
XPC, SPC	22	18	224–250	87	70	18	27	38	38	38
			265–355	115	92	27	38	38	45	45
			≥ 375	144	115	27	38	38	45	45
Z	10	6	56–100	5–7.5		11	11	11	15	15
A	13	8	80–140	10–15		11	15	18	18	18
B	17	10	125–200	20–30		15	18	18	27	27
C	22	12	200–400	40–60		18	27	27	38	38
D	32	19	355–600	70–105		18	27	38	38	45

* General basic selection criteria:

F resulting tensioning force by a pre-tension angle of 20° (see table page 4.5)

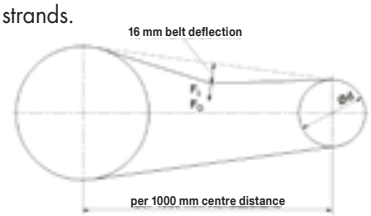
F_I initial operation test-force according guidelines of the belt manufacturer

z quantity of belts in drive

2 multiplier for the compensation of belt-slippage and/or of centrifugal force generated on belt strands.

$$F = F_I \cdot z \cdot 2$$

** required test-force for belt deflection of 16 mm per 1000 mm of centre distance.
The relevant deflection by shorter or longer centre distance has to be interpolated accordingly.



c) Control procedure for checking belt tension

Proceed according to the mentioned guidelines on page 4.5 and 4.10–4.11.

There are several instruments for checking with the adequate test-force the right tension on your frictional V-belt drive. **Don't make it with your thumb, you will make an estimation mistake and your belts will wear out prematurely!**

Optikrik-tester from **Optibelt**

Spring scale tester from **Gates**

Infrared-frequency tester

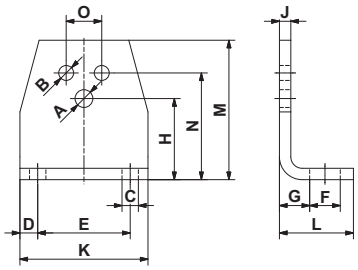
Re-tension of belts: Generally, there is no re-tension maintenance service required, however we would recommend to check the test-force after some days of running-in with the required operational test-force (see table above).

ROSTA
www.rosta.com

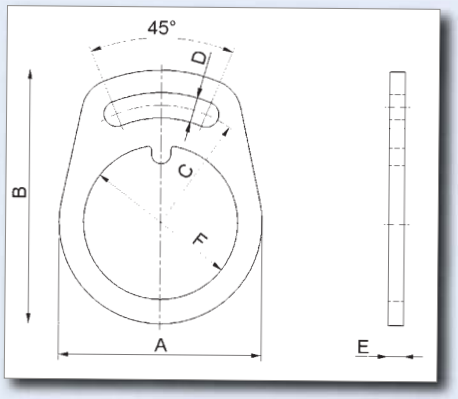
ROSTA Tensioner Devices and Accessories to meet individual customer requirements

Support bracket type WS

For the easy mounting of all standardized ROSTA Tensioners (except SE 50).



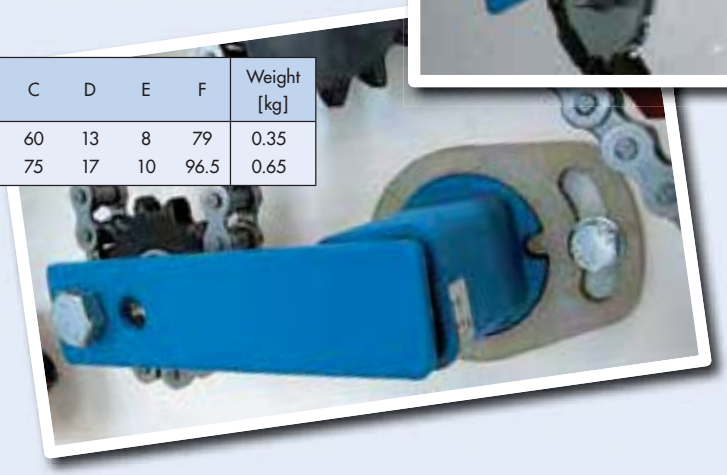
Type	Art. No.	suitable to Size SE	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Weight [kg]
WS 11	06 590 001	11	6.5	5.5	7	7.5	30	13	11.5	27	4	45	30	46	35	10	0.08
WS 15	06 590 002	15	8.5	6.5	7	7.5	40	13	13.5	34	5	55	32	58	44	12	0.15
WS 18	06 590 003	18	10.5	8.5	9.5	10	50	15.5	16.5	43	6	70	38	74	55	20	0.28
WS 27	06 590 004	27	12.5	10.5	11.5	12.5	65	21.5	21	57	8	90	52	98	75	25	0.70
WS 38	06 590 005	38	16.5	12.5	14	15	80	24	21	66	8	110	55	116	85	35	0.90
WS 45	06 590 006	45	20.5	12.5	18	20	100	30	26	80	10	140	66	140	110	40	1.80



Safety Sockets SS 27 and SS 38

By uneven surfaces and/or by paint coatings, which are giving insufficient friction locking, the positioning and further re-tensioning can be made with these standardized Safety Sockets.

Type	Art. No.	suitable to Size SE	A	B	C	D	E	F	Weight [kg]
SS 27	06 618 400	27	104	130	60	13	8	79	0.35
SS 38	06 618 394	38	128	161	75	17	10	96.5	0.65



Tensioner Devices

ROSTA

www.rosta.com