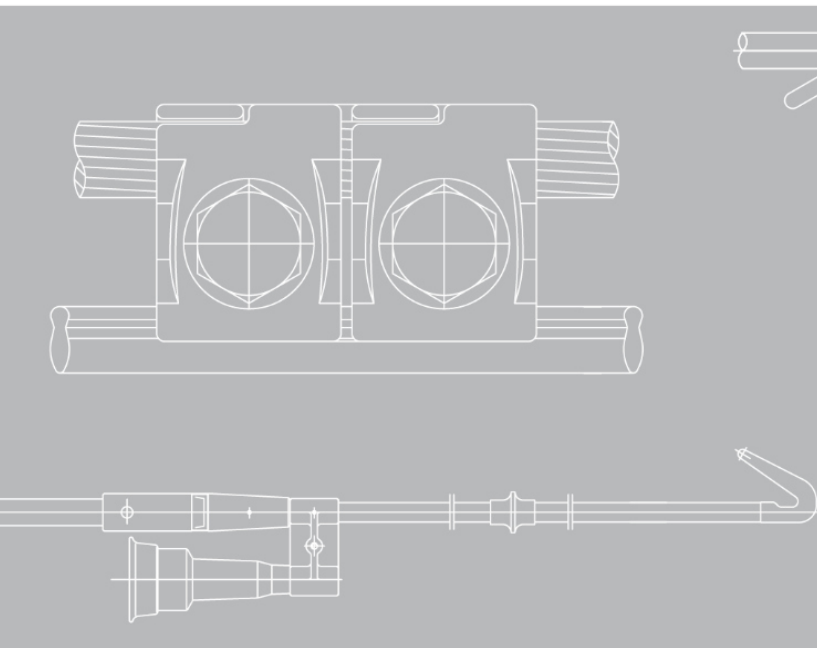


**PFISTERER**



EDITION 2020

# RAILWAY CATENARY SYSTEMS

**Solutions for Overhead Contact Lines**

# THE POWER CONNECTION

CABLE SYSTEMS | COMPONENTS | OVERHEAD LINES | RAILWAY CATENARY SYSTEMS

# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### OVERVIEW

**Tensorex C+** is an automatic tensioning system that uses the force of a spiral spring to constantly tension the railway contact wire and/or messenger wire. It therefore effectively compensates the expansion caused by fluctuating daytime and night-time temperatures as well as the change in the seasons while keeping the tension at a constant level.



#### Applications:

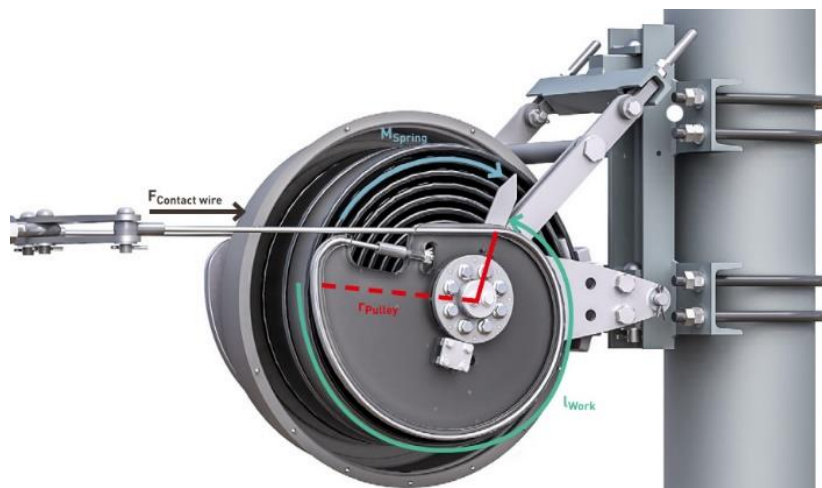
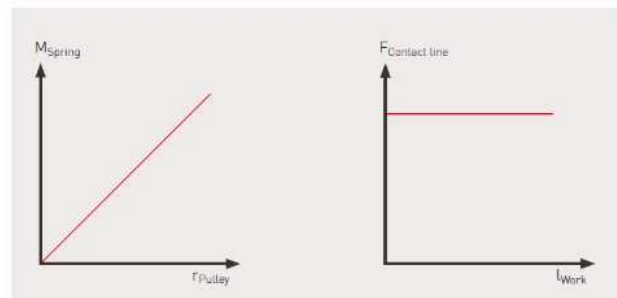
- For railways and tramways
- Best solution for portals, tunnels, noise protection walls and platforms
- Inner-city installations where low visual impact is requested

#### Advantages:

- **Highest safety**  
Designed and built for maximum safety. No falling counterweights in the event of an accident.
- **Highest reliability**  
Every TENSOREX C+ unit is tested before shipping to the customer and supplied with test certificate.
- **Lowest life cycle costs**  
Minimal installation time and costs. Little maintenance work required, only visual inspection needed.
- **Compact design**  
Easy handling and transportation.  
Esthetical solution for inner-city installations.
- **Fast installation**  
Delivered ready to install, no assembly required, no weights have to be installed.
- **No tensioning weights required**  
Vandalism resistant. Free space on the mast base - escape routes are not blocked.
- **High precision**  
Constant tightening force over the entire regulation range.  
Fast and precise response - very small traction force hysteresis.
- **Purely mechanical system**  
Requires no additional power supply and electronics.  
No influences due to temperature changes.

### HOW IT WORKS

**Tensorex C+** exerts a constant pulling force on the connected catenary wires. The tensile force is independent of the temperature-related length changes of the ropes. The one or more spiral springs are firmly connected to two pulleys (one on each side) on the same shaft. The degree of rotation of the shaft results in a variable torque, which is compensated by the variable radius of the pulleys. This produces a constant pulling force over the entire working range.



# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### PRODUCT FAMILY

**Tensorex C +** consists of seven different sizes with different numbers and sizes of springs. From the smallest 1-spring unit to the very powerful 5-spring unit with extra-long springs, the Tensorex C + range covers all application requirements for tram and rail applications.



SIZE	SPRINGS	DRAWING NUMBER	REGULATION LENGTH [mm] *)	PULL FORCE *) [kg]	WEIGHT [kg]
TRC+ 1	9,5 x 60	000700696	800 to 450	450 to 800 (4,5 to 8 kN)	90
TRC+ 2	9,5 x 60	000700697	1000 to 400	500 to 1800 (5,0 to 18 kN)	120
TRC+ 3	9,5 x 60	000700698	1100 to 450	850 to 2400 (8,5 to 24 kN)	150
TRC+ 4	9,5 x 60	000700699	1100 to 450	1350 to 3000 (13,5 to 30 kN)	180
TRC+ 4S	11 x 60	000700695	1100 to 675	1500 to 2800 (15 to 28 kN)	235
TRC+ 5S	11 x 60	000700694	1100 to 550	2000 to 4000 (20 to 40 kN)	290
TRC+ 5SL	11 x 60 XL	000700693	1100 to 650	2400 to 4000 (24 to 40 kN)	350

\*) Please note, that not all combinations of pull force and compensation length are possible due to technical limitations. Possible combinations (Tensorex C+ variants) are listed on the following pages. For more details please contact your local Pfisterer office or search in our online-catalogue for available variants. <https://catalogue.pfisterer.com>

### PRODUCT SELECTION

This information will be needed to select the right Tensorex type.

- Requested COMPENSATION or REGULATION length (between 450 mm and 1100 mm)
- Requested PULL FORCE (between 450 and 4000 kg / 4,5 and 40 kN)

The parameters above define the basic designation of the model type:

**Tensorex C+ REGULATION (in mm) / PULL FORCE (in kg)**

**Example: Tensorex C+ 750/1000 - with 750mm regulation length and 1000 kg pull force.**

### ADDITIONAL NECESSARY INFORMATION

- Contact / messenger wire tension length (from fix point to the tensioning device)
- Temperature range (Delta T)
- Medium standard temperature (to define the middle point of the regulation range)
- Interface details (Type A or type B)
- Desired variant (if a non-standard variant is needed)
- Desired accessories

# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### STANDARD VERSIONS AND VARIANTS

#### Installation set-up:

Tensorex C+ can be installed vertically or horizontally:

- The vertical installation is the standard installation method. For this installation method a large variety of fixing brackets is available.
- Horizontal installation: Turned by 90°, for example tunnel installation where the available space (headroom) is limited. There are dedicated fixing brackets available.



#### Installation interface:

- The standard installation interface is referred to as the "Type A interface". It consists of two hinge blocks, each 60 mm high, and a 19 mm connecting pin.
- As an alternative to the Type A interface, Pfisterer offers an interface version that is compatible with a widely used connection standard in railway applications and in some regions also in tram applications. This type of interface is referred to as the "Type B interface". The interface has a 24 mm connecting axis, which is mounted in two 500 mm separated L-profiles.

#### Pull force orientation:

- The standard orientation of the pull force is horizontal (between 0° and -10°).
- For special applications, for example installation on portals, it is possible to order the Tensorex C+ with a -60° or -80° pull-force orientation.

#### Enhanced corrosion protection:

- The steel parts of the Tensorex C+ in standard version is corrosion protected with HDG coating (EN 1461).
- For installation sites in harsh environments, for example installation close to the sea front, we offer on request a special 140µ HDG coating of the steel parts.

#### Spring Cover Colour:

- The standard colour is RAL 7040
- Other RAL colours are on request. Please note that the lead time will increase.

## ACCESSORIES

- Blocking pins: This optional accessory has to be ordered together with the Tensorex C+. Retrofitting is not possible.

## SPARE PARTS

- Ropes (set comprises of two ropes): The ropes connect the pulleys with the front balance. \*)
- Front balance: The front balance connects the ropes with the catenary. \*)

\*) Please supply model number and serial number when ordering.

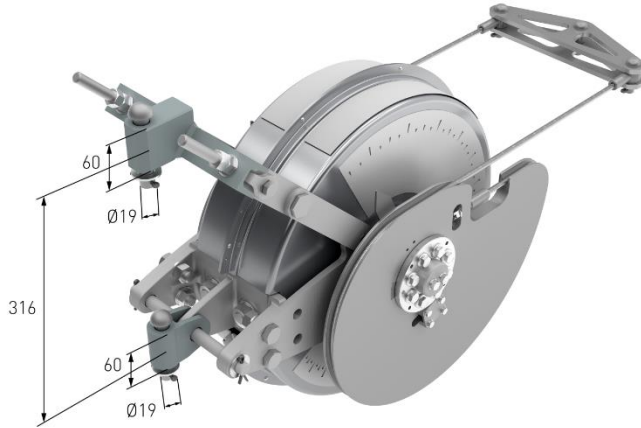
# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### INSTALLATION INTERFACE

#### Type A Interface (Standard)

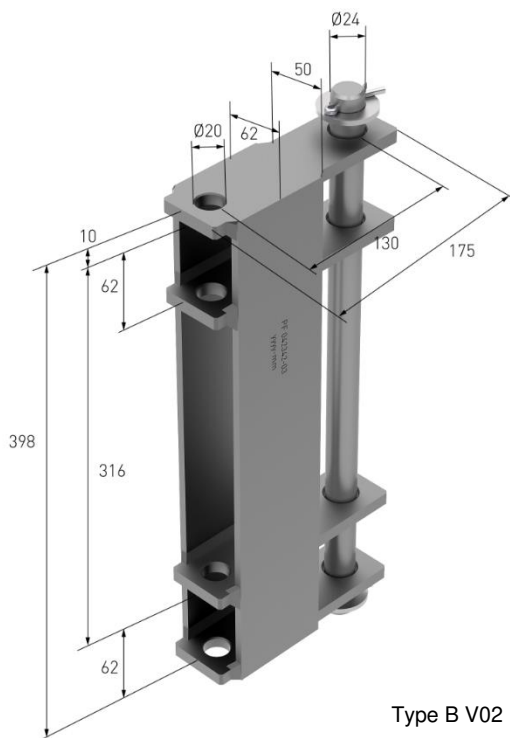
The standard interface to couple the Tensorex C+ with the fixing brackets is called "Type A Interface". The interface consists of two hinge blocks that fit into the mounting frame.



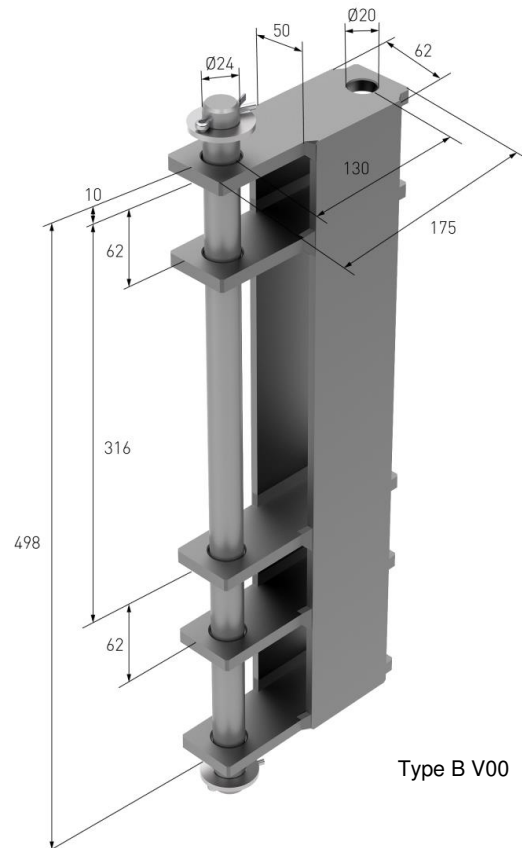
#### Type B Interface (optional)

Especially for railway applications Pfisterer designed an alternative interface which is compatible to a widely used installation standard for connecting tensioning systems to poles. Sometimes it is referred as DB-standard. This **Type B interface** has been now completely redesigned and greatly improved in handling and functionality. The new interface is called the "**New Type B Adaptor**".

The New Type B Adaptor is available in two versions, one version for the standard 500 mm DB-connection distance between the mounting profiles, the second version has been reduced in size for better handling and lower weight for non-DB-standard applications. The distance for the second version between the mounting profiles is 400 mm.



Type B V02



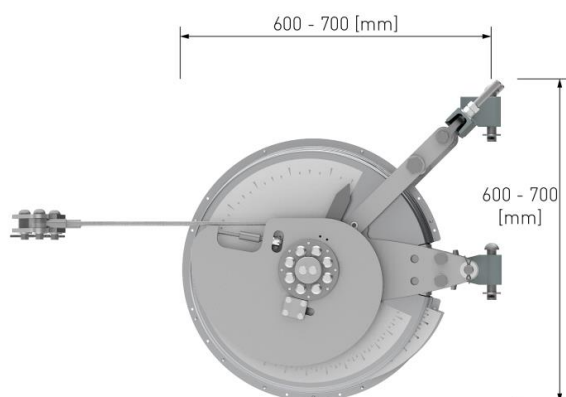
Type B V00

# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### TENSOREX 1-SPRING MODEL

Springs: 1 spring, 60x9,5mm  
 Weight: 90 kg  
 Design load: 40 kN  
 Minimum failing load: 65 kN  
 Service temperature: -40°C to +70°C  
 GA drawing No.: 000700696  
 Horizontal rotation: +/- 10°  
 Vertical inclination: + 0° / -10°  
 Front Balance Size L 270 mm



Part No.	Description	Regulation [mm]	Pull Force [kg / kN]
000 700 435	Tensorex C+ 750/450, 1S	750	450 / 4,4
000 700 669	Tensorex C+ 800/450, 1S	800	450 / 4,4
000 700 850	Tensorex C+ 750/500, 1S	750	500 / 4,9
000 700 855	Tensorex C+ 450/600, 1S	450	600 / 5,9
000 700 497	Tensorex C+ 600/600, 1S	600	600 / 5,9
000 701 096	Tensorex C+ 550/650, 1S	550	650 / 6,4
000 701 204	Tensorex C+ 500/700, 1S	500	700 / 6,9
000 700 451	Tensorex C+ 450/750, 1S	450	750 / 7,4
000 701 067	Tensorex C+ 450/800, 1S	450	800 / 7,8

#### Tensorex C+ with a 120 mm spring for special applications: \*)

Part No.	Description	Regulation [mm]	Pull Force [kg / kN]
000 701 248	Tensorex C+ 450/1000, 1S(120)	450	1000 / 9,8
000 701 249	Tensorex C+ 400/1125, 1S(120)	400	1125 / 11,0
000 701 250	Tensorex C+ 400/1100, 1S(120)	400	1100 / 10,8
000 701 251	Tensorex C+ 400/1050, 1S(120)	400	1050 / 10,3
000 701 252	Tensorex C+ 375/1200, 1S(120)	375	1200 / 11,8

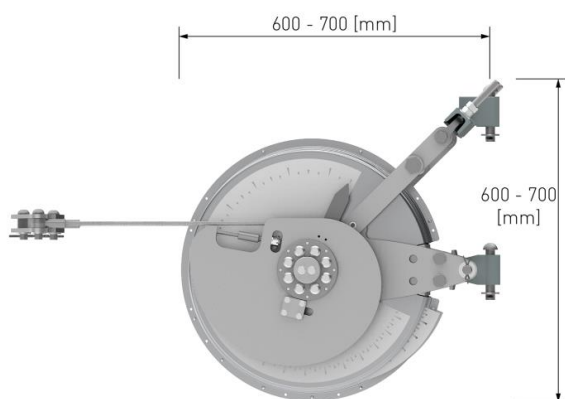
\*) Please note that this type is only available for larger projects with a minimum order size of 50 units and with a longer lead time.  
 Please contact us for details at [PfistererRail@pfisterer.com](mailto:PfistererRail@pfisterer.com).

# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### TENSOREX 2-SPRING MODEL

Springs: 2 springs, 60x9,5mm  
Weight: 120 kg  
Design load: 40 kN  
Minimum failing load: 65 kN  
Service temperature: -40°C to +70°C  
GA drawing No.: 000700697  
Horizontal rotation: +/- 10°  
Vertical inclination: + 0° / -10°  
Front Balance Size L 270 mm



Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 684	Tensorex C+ 900/500, 2S	900	500 / 4,9
000 700 498	Tensorex C+ 750/600, 2S	750	600 / 5,9
000 700 477	Tensorex C+ 1000/600, 2S	1000	600 / 5,9
000 701 095	Tensorex C+ 1000/650, 2S	1000	650 / 6,4
000 700 476	Tensorex C+ 750/750, 2S	750	750 / 7,4
000 700 666	Tensorex C+ 900/750, 2S	900	750 / 7,4
000 700 481	Tensorex C+ 1000/750, 2S	1000	750 / 7,4
000 700 496	Tensorex C+ 750/800, 2S	750	800 / 7,8
000 700 663	Tensorex C+ 900/800, 2S	900	800 / 7,8
000 700 479	Tensorex C+ 750/850, 2S	750	850 / 8,3
000 701 039	Tensorex C+ 800/850, 2S	800	850 / 8,3
000 700 480	Tensorex C+ 850/850, 2S	950	850 / 8,3
000 700 484	Tensorex C+ 750/900, 2S	750	900 / 8,8
000 700 441	Tensorex C+ 750/1000, 2S	750	1000 / 9,8
000 701 127	Tensorex C+ 735/1020, 2S	735	1020 / 10,0
000 700 668	Tensorex C+ 700/1050, 2S	700	1050 / 10,3
000 700 494	Tensorex C+ 650/1100, 2S	650	1100 / 10,8
000 700 680	Tensorex C+ 650/1125, 2S	650	1125 / 11,0
000 700 425	Tensorex C+ 450/1200, 2S	450	1200 / 11,8

Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 475	Tensorex C+ 550/1200, 2S	550	1200 / 11,8
000 700 841	Tensorex C+ 600/1200, 2S	600	1200 / 11,8
000 701 097	Tensorex C+ 450/1225, 2S	450	1225 / 12,0
000 701 086	Tensorex C+ 550/1225, 2S	550	1225 / 12,0
000 700 692	Tensorex C+ 600/1250, 2S	600	1250 / 12,3
000 700 671	Tensorex C+ 450/1320, 2S	450	1320 / 12,9
000 701 077	Tensorex C+ 450/1345, 2S	450	1345 / 13,2
000 701 194	Tensorex C+ 525/1350, 2S	525	1350 / 13,2
000 701 174	Tensorex C+ 525/1360, 2S	525	1360 / 13,3
000 700 852	Tensorex C+ 450/1380, 2S	450	1380 / 13,5
000 700 859	Tensorex C+ 450/1425, 2S	450	1425 / 14,0
000 700 892	Tensorex C+ 500/1425, 2S	500	1425 / 14,0
000 700 423	Tensorex C+ 450/1500, 2S	450	1500 / 14,7
000 701 320	Tensorex C+ 500/1500, 2S	500	1500 / 14,7
000 701 304	Tensorex C+ 450/1575, 2S	450	1575 / 15,5
000 700 868	Tensorex C+ 450/1600, 2S	450	1600 / 15,7
000 700 459	Tensorex C+ 450/1640, 2S	450	1640 / 16,1
000 700 837	Tensorex C+ 400/1800, 2S	400	1800 / 17,7

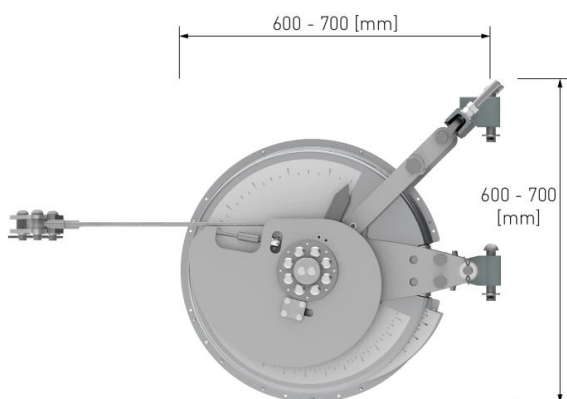


# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### TENSOREX 3-SPRING MODEL

Springs:	3 springs, 60x9,5mm
Weight:	150 kg
Design load:	40 kN
Minimum failing load:	65 kN
Service temperature:	-40°C to +70°C
GA drawing No.:	000700698
Horizontal rotation:	+/- 10°
Vertical inclination:	+ 0° / -10°
Front Balance Size L	340 mm



Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 871	Tensorex C+ 1100/750, 3S	1100	750 / 7,4
000 700 885	Tensorex C+ 1000/835, 3S	1000	835 / 8,2
000 701 038	Tensorex C+ 1000/850, 3S	1000	850 / 8,3
000 700 825	Tensorex C+ 1100/850, 3S	1100	850 / 8,3
000 700 887	Tensorex C+ 1000/875, 3S	1000	875 / 8,6
000 701 098	Tensorex C+ 900/1000, 3S	900	1000 / 9,8
000 700 482	Tensorex C+ 1000/1000, 3S	1000	1000 / 9,8
000 700 432	Tensorex C+ 1100/1000, 3S	1100	1000 / 9,8
000 700 828	Tensorex C+ 1100/1050, 3S	1100	1050 / 10,3
000 700 437	Tensorex C+ 750/1100, 3S	750	1100 / 10,8
000 700 683	Tensorex C+ 900/1100, 3S	900	1100 / 10,8
000 700 491	Tensorex C+ 1000/1100, 3S	1000	1100 / 10,8
000 700 886	Tensorex C+ 1000/1125, 3S	1000	1125 / 11,0
000 700 439	Tensorex C+ 750/1200, 3S	750	1200 / 11,8
000 700 845	Tensorex C+ 850/1200, 3S	850	1200 / 11,8
000 700 492	Tensorex C+ 900/1200, 3S	900	1200 / 11,8
000 701 027	Tensorex C+ 750/1225, 3S	750	1225 / 12,0
000 701 090	Tensorex C+ 840/1225, 3S	840	1225 / 12,0
000 700 455	Tensorex C+ 750/1250, 3S	750	1250 / 12,3
000 701 041	Tensorex C+ 850/1250, 3S	850	1250 / 12,3
000 701 074	Tensorex C+ 850/1275, 3S	850	1275 / 12,5
000 700 672	Tensorex C+ 750/1320, 3S	750	1320 / 12,9
000 700 846	Tensorex C+ 850/1320, 3S	850	1320 / 12,9
000 701 091	Tensorex C+ 840/1325, 3S	840	1325 / 13,0

Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 701 025	Tensorex C+ 750/1345, 3S	750	1345 / 13,2
000 701 092	Tensorex C+ 840/1345, 3S	840	1345 / 13,2
000 701 142	Tensorex C+ 850/1360, 3S	850	1360 / 13,3
000 700 454	Tensorex C+ 750/1375, 3S	750	1375 / 13,5
000 701 026	Tensorex C+ 750/1400, 3S	750	1400 / 13,7
000 700 493	Tensorex C+ 800/1400, 3S	800	1400 / 13,7
000 701 167	Tensorex C+ 600/1425, 3S	600	1425 / 14,0
000 700 440	Tensorex C+ 750/1425, 3S	750	1425 / 14,0
000 700 442	Tensorex C+ 750/1440, 3S	750	1440 / 14,1
000 700 433	Tensorex C+ 750/1500, 3S	750	1500 / 14,7
000 700 458	Tensorex C+ 700/1575, 3S	700	1575 / 15,5
000 700 870	Tensorex C+ 700/1600, 3S	700	1600 / 15,7
000 700 438	Tensorex C+ 650/1640, 3S	650	1640 / 16,1
000 701 044	Tensorex C+ 450/1680, 3S	450	1680 / 16,5
000 701 089	Tensorex C+ 550/1680, 3S	550	1680 / 16,5
000 700 821	Tensorex C+ 650/1700, 3S	650	1700 / 16,7
000 701 021	Tensorex C+ 600/1800, 3S	600	1800 / 17,7
000 700 424	Tensorex C+ 450/2000, 3S	450	2000 / 19,6
000 700 457	Tensorex C+ 550/2000, 3S	550	2000 / 19,6
000 700 427	Tensorex C+ 450/2100, 3S	450	2100 / 20,6
000 701 192	Tensorex C+ 500/2170, 3S	500	2170 / 21,3
000 700 490	Tensorex C+ 500/2250, 3S	500	2250 / 22,1
000 700 665	Tensorex C+ 450/2400, 3S	450	2400 / 23,5

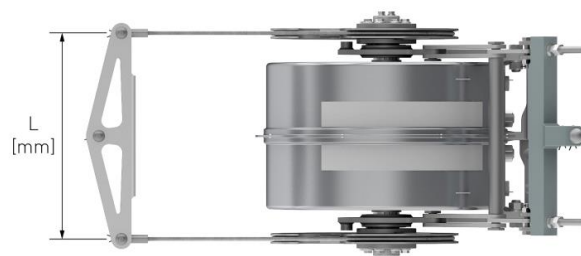
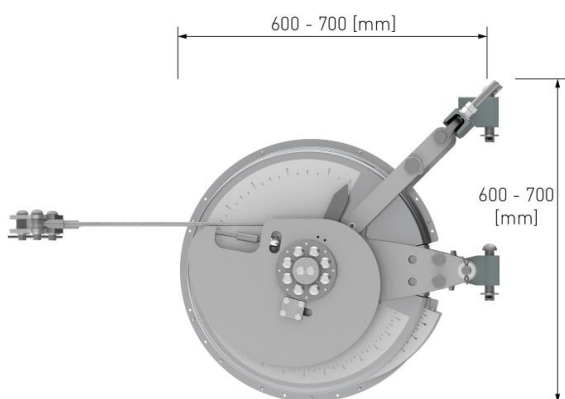


# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### TENSOREX 4-SPRING MODEL

Springs: 4 springs, 60x9,5mm  
 Weight: 180 kg  
 Design load: 40 kN  
 Minimum failing load: 65 kN  
 Service temperature: -40°C to +70°C  
 GA drawing No.: 000700699  
 Horizontal rotation: +/- 10°  
 Vertical inclination: + 0° / -10°  
 Front Balance Size L 410 mm



Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 833	Tensorex C+ 1350/1000, 4S	1350	1000 / 9,8
000 700 881	Tensorex C+ 1000/1150, 4S	1000	1150 / 11,3
000 700 691	Tensorex C+ 1000/1200, 4S	1000	1200 / 11,8
000 700 827	Tensorex C+ 1100/1200, 4S	1100	1200 / 11,8
000 700 884	Tensorex C+ 1000/1215, 4S	1000	1215 / 11,9
000 700 883	Tensorex C+ 1000/1225, 4S	1000	1225 / 12,0
000 701 203	Tensorex C+ 1100/1225, 4S	1100	1225 / 12,0
000 701 075	Tensorex C+ 1100/1275, 4S	1100	1275 / 12,5
000 700 847	Tensorex C+ 1000/1320, 4S	1000	1320 / 12,9
000 700 897	Tensorex C+ 1000/1345, 4S	1000	1345 / 13,2
000 701 193	Tensorex C+ 1100/1350, 4S	1100	1350 / 13,2
000 701 005	Tensorex C+ 1000/1360, 4S	1000	1360 / 13,3
000 700 670	Tensorex C+ 1000/1400, 4S	1000	1400 / 13,7
000 700 882	Tensorex C+ 1000/1425, 4S	1000	1425 / 14,0
000 701 058	Tensorex C+ 840/1500, 4S	840	1500 / 14,7
000 700 667	Tensorex C+ 900/1500, 4S	900	1500 / 14,7
000 700 483	Tensorex C+ 1000/1500, 4S	1000	1500 / 14,7
000 701 201	Tensorex C+ 980/1530, 4S	980	1530 / 15,0
000 701 002	Tensorex C+ 840/1600, 4S	840	1600 / 15,7
000 700 838	Tensorex C+ 900/1600, 4S	900	1600 / 15,7
000 700 436	Tensorex C+ 750/1640, 4S	750	1640 / 16,1
000 700 673	Tensorex C+ 750/1680, 4S	750	1680 / 16,5
000 701 093	Tensorex C+ 840/1680, 4S	840	1680 / 16,5
000 700 875	Tensorex C+ 750/1750, 4S	750	1750 / 17,2

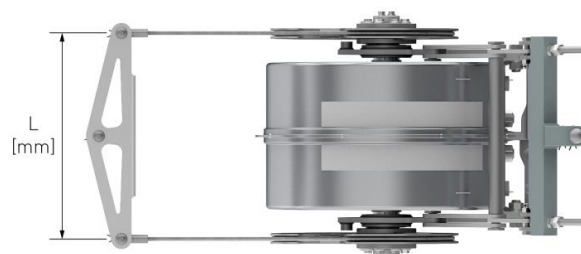
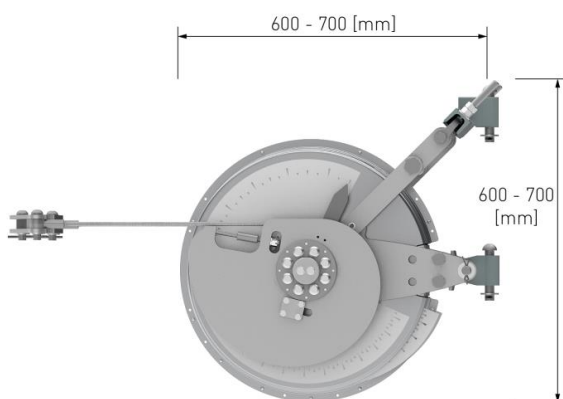
Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 876	Tensorex C+ 850/1750, 4S	850	1750 / 17,2
000 701 000	Tensorex C+ 840/1780, 4S	840	1780 / 17,5
000 700 485	Tensorex C+ 750/1800, 4S	750	1800 / 17,7
000 700 489	Tensorex C+ 840/1800, 4S	840	1800 / 17,7
000 701 129	Tensorex C+ 750/1835, 4S	750	1835 / 18,0
000 700 864	Tensorex C+ 750/1875, 4S	750	1875 / 18,4
000 701 130	Tensorex C+ 750/1900, 4S	750	1900 / 18,6
000 701 123	Tensorex C+ 750/1940, 4S	750	1940 / 19,0
000 700 434	Tensorex C+ 750/2000, 4S	750	2000 / 19,6
000 701 128	Tensorex C+ 735/2040, 4S	735	2040 / 20,0
000 700 452	Tensorex C+ 700/2100, 4S	700	2100 / 20,6
000 700 449	Tensorex C+ 650/2150, 4S	650	2150 / 21,1
000 700 450	Tensorex C+ 650/2200, 4S	650	2200 / 21,6
000 700 848	Tensorex C+ 680/2200, 4S	680	2200 / 21,6
000 700 456	Tensorex C+ 650/2250, 4S	650	2250 / 22,1
000 700 478	Tensorex C+ 600/2400, 4S	600	2400 / 23,5
000 700 690	Tensorex C+ 625/2400, 4S	625	2400 / 23,5
000 700 488	Tensorex C+ 600/2500, 4S	600	2500 / 24,5
000 701 208	Tensorex C+ 525/2700, 4S	525	2700 / 26,5
000 700 682	Tensorex C+ 550/2700, 4S	550	2700 / 26,5
000 700 453	Tensorex C+ 550/2750, 4S	550	2750 / 27,0
000 701 057	Tensorex C+ 500/2800, 4S	500	2800 / 27,5
000 700 830	Tensorex C+ 450/3000, 4S	450	3000 / 29,4

# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### TENSOREX 4S-SPRING MODEL

Springs: 4 springs, 60x11mm  
 Weight: 235 kg  
 Design load: 40 kN  
 Minimum failing load: 65 kN  
 Service temperature: -40°C to +70°C  
 GA drawing No.: 000 700 695  
 Horizontal rotation: +/- 10°  
 Vertical inclination: + 0° / -10°  
 Front Balance Size L 410 mm



Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 831	Tensorex C+ 1350/1200, 4SS	1350	1200 / 11,8
000 700 688	Tensorex C+ 1100/1500, 4SS	1100	1500 / 14,7
000 701 045	Tensorex C+ 1125/1500, 4SS	1125	1500 / 14,7
000 700 839	Tensorex C+ 1000/1600, 4SS	1000	1600 / 15,7
000 700 873	Tensorex C+ 1100/1600, 4SS	1100	1600 / 15,7
000 700 877	Tensorex C+ 1000/1650, 4SS	1000	1650 / 16,2
000 700 687	Tensorex C+ 1000/1680, 4SS	1000	1680 / 16,5
000 700 826	Tensorex C+ 1100/1700, 4SS	1100	1700 / 16,7
000 701 050	Tensorex C+ 1000/1800, 4SS	1000	1800 / 17,7
000 701 049	Tensorex C+ 1050/1800, 4SS	1050	1800 / 17,7
000 701 059	Tensorex C+ 840/1900, 4SS	840	1900 / 18,6
000 701 001	Tensorex C+ 840/1955, 4SS	840	1955 / 19,2
000 701 066	Tensorex C+ 750/2000, 4SS	750	2000 / 19,6
000 701 083	Tensorex C+ 840/2000, 4SS	840	2000 / 19,6

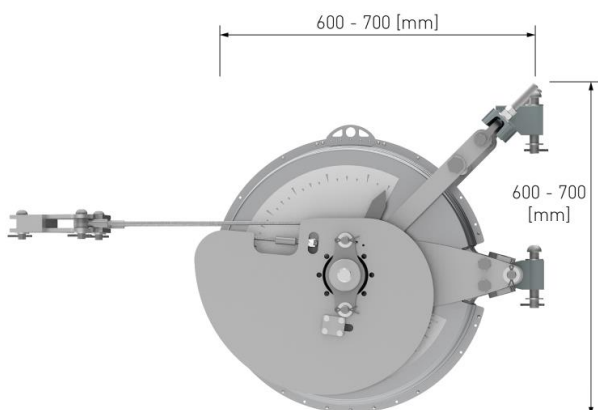
Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 689	Tensorex C+ 900/2000, 4SS	900	2000 / 19,6
000 700 822	Tensorex C+ 900/2100, 4SS	900	2100 / 20,6
000 701 195	Tensorex C+ 750/2150, 4SS	750	2150 / 21,1
000 701 196	Tensorex C+ 750/2200, 4SS	750	2200 / 21,6
000 701 082	Tensorex C+ 840/2250, 4SS	840	2250 / 22,1
000 701 131	Tensorex C+ 750/2350, 4SS	750	2350 / 23,1
000 701 144	Tensorex C+ 800/2350, 4SS	800	2350 / 23,1
000 700 659	Tensorex C+ 750/2400, 4SS	750	2400 / 23,5
000 701 133	Tensorex C+ 785/2400, 4SS	785	2400 / 23,5
000 701 048	Tensorex C+ 750/2500, 4SS	750	2500 / 24,5
000 701 132	Tensorex C+ 750/2550, 4SS	750	2550 / 25,0
000 701 036	Tensorex C+ 700/2590, 4SS	700	2590 / 25,4
000 701 062	Tensorex C+ 675/2800, 4SS	675	2800 / 27,5

# Tensorex C+ Spring Tensioning System

## TENSOREX C+

### TENSOREX 5S-SPRING MODEL

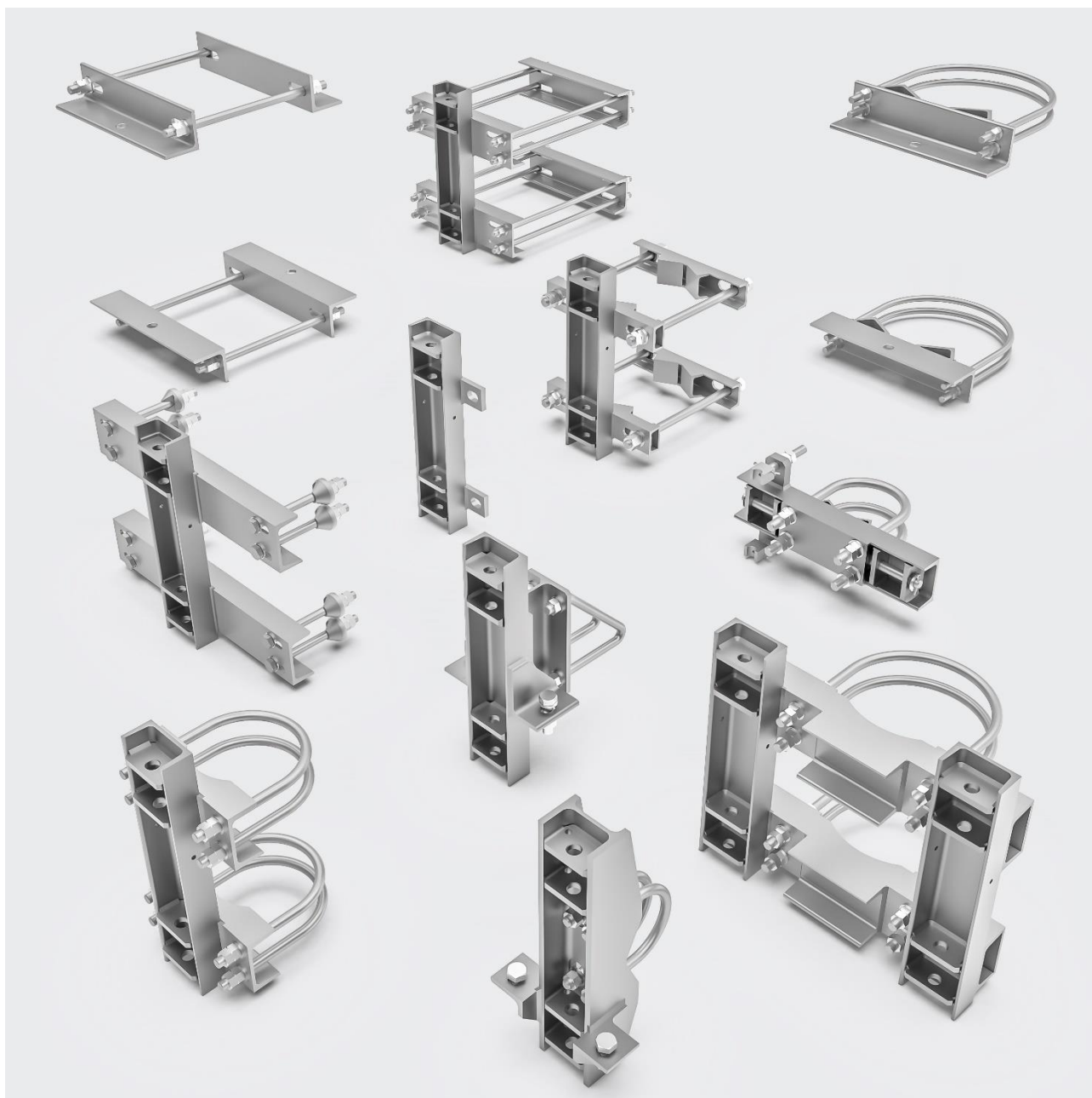
Springs:	5 springs, 60x11mm ML: 5 XL springs, 60x11mm
Weight:	290 kg (ML: 350 kg)
Design load:	40 kN
Minimum failing load:	65 kN
Service temperature:	-40°C to +70°C
GA drawing No.:	000 700 694 (ML: 000 700 693)
Horizontal rotation:	+/- 10°
Vertical inclination:	+ 0° / -10°
Front Balance Size L	482 mm



Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 700 834	Tensorex C+ 1350/1500, 5SS	1350	1500 / 14,7
000 700 832	Tensorex C+ 1350/1700, 5SS	1350	1700 / 16,7
000 700 878	Tensorex C+ 1000/1985, 5SS	1000	1985 / 19,5
000 701 032	Tensorex C+ 1000/2000, 5SS	1000	2000 / 19,6
000 700 840	Tensorex C+ 1100/2000, 5SS	1100	2000 / 19,6
000 700 880	Tensorex C+ 1000/2085, 5SS	1000	2085 / 20,5
000 700 829	Tensorex C+ 1100/2100, 5SS	1100	2100 / 20,6
000 701 020	Tensorex C+ 1050/2200, 5SS	1050	2200 / 21,6
000 700 879	Tensorex C+ 1000/2250, 5SS	1000	2250 / 22,1
000 701 006	Tensorex C+ 1000/2270, 5SS	1000	2270 / 22,3
000 701 022	Tensorex C+ 900/2400, 5SS	900	2400 / 23,5
000 700 842	Tensorex C+ 950/2400, 5SS	950	2400 / 23,5
000 701 191	Tensorex C+ 750/2500, 5SS	750	2500 / 24,5
000 701 023	Tensorex C+ 925/2500, 5SS	925	2500 / 24,5
000 701 035	Tensorex C+ 900/2590, 5SS	900	2590 / 25,4
000 700 836	Tensorex C+ 900/2600, 5SS	900	2600 / 25,5
000 701 051	Tensorex C+ 900/2640, 5SS	900	2640 / 25,9
000 701 141	Tensorex C+ 850/2720, 5SS	850	2720 / 26,7
000 700 835	Tensorex C+ 840/2800, 5SS	840	2800 / 27,5

Part No.	Description	Reg. [mm]	Pull Force [kg / kN]
000 701 176	Tensorex C+ 800/2850, 5SS	800	2850 / 28,0
000 701 122	Tensorex C+ 750/2860, 5SS	750	2860 / 28,1
000 700 824	Tensorex C+ 750/3000, 5SS	750	3000 / 29,4
000 701 134	Tensorex C+ 750/3060, 5SS	750	3060 / 30,0
000 700 819	Tensorex C+ 750/3150, 5SS	750	3150 / 30,9
000 701 004	Tensorex C+ 640/3630, 5SS	640	3630 / 35,6
000 700 899	Tensorex C+ 550/4000, 5SS	550	4000 / 39,2
000 701 157	Tensorex C+ 1100/2200, 5SS-ML	1100	2200 / 21,6
000 701 156	Tensorex C+ 1100/2400, 5SS-ML	1100	2400 / 23,5
000 701 177	Tensorex C+ 1050/2500, 5SS-ML	1050	2500 / 24,5
000 701 175	Tensorex C+ 900/2850, 5SS-ML	900	2850 / 28,0
000 701 226	Tensorex C+ 825/3150, 5SS-ML	825	3150 / 30,9
000 701 171	Tensorex C+ 800/3300, 5SS-ML	800	3300 / 32,4
000 701 125	Tensorex C+ 780/3400, 5SS-ML	780	3400 / 33,4
000 701 184	Tensorex C+ 750/3560, 5SS-ML	750	3560 / 34,9
000 701 073	Tensorex C+ 700/3750, 5SS-ML	700	3750 / 36,8
000 701 081	Tensorex C+ 650/4000, 5SS-ML	650	4000 / 39,2
000 701 140	Tensorex C+ 625/4080, 5SS-ML	625	4080 / 40,0

## Tensorex C+ Attachments



## ATTACHMENTS FOR TENSOREX C+

### Attachments Type A for Circular Masts

No.	Drawing No.	Back Fitting Type	Dimension
			(mm)
000 700 408 00000	000700408-00	A	Pole Ø 160 mm
000 700 408 00001	000700408-01	A	Pole Ø 215/219 mm
000 700 408 00002	000700408-02	A	Pole Ø 225/229 mm
000 700 408 00003	000700408-03	A	Pole Ø 168,3 mm
000 700 408 00004	000700408-04	A	Pole Ø 280 mm
000 700 408 00005	000700408-05	A	Pole Ø 193,7 mm
000 700 408 00006	000700408-06	A	Pole Ø 244,5 mm
000 700 408 00007	000700408-07	A	Pole Ø 323,9 mm
000 700 408 00008	000700408-08	A	Pole Ø 267 mm
000 700 408 00009	000700408-09	A	Pole Ø 240 mm
000 700 408 00010	000700408-10	A	Pole Ø 290 mm
000 700 408 00012	000700408-12	A	Pole Ø 273 mm
000 700 408 00013	000700408-13	A	Pole Ø 290 mm
000 700 408 00014	000700408-14	A	Pole Ø 290 mm INOX collar
000 700 408 00015	000700408-15	A	Pole Ø 280 mm INOX collar
000 700 408 00016	000700408-16	A	Pole Ø 185 mm
000 700 408 00017	000700408-17	A	Pole Ø 406,4 mm
000 700 408 00018	000700408-18	A	Pole Ø 300 mm
000 700 408 00019	000700408-19	A	Pole Ø 355,6 mm
000 700 408 00020	000700408-20	A	Pole Ø 285 mm
000 700 408 00021	000700408-21	A	Pole Ø 203 mm
000 700 408 00022	000700408-22	A	Pole Ø 254 mm
000 700 408 00023	000700408-23	A	Pole Ø 360 mm
000 700 408 00024	000700408-24	A	Pole Ø 440 mm
000 700 408 00025	000700408-25	A	Pole Ø 470 mm
000 700 408 00026	000700408-26	A	Pole Ø 457 mm
000 700 408 00027	000700408-27	A	Pole Ø 508 mm



### Attachments Type A for Walls

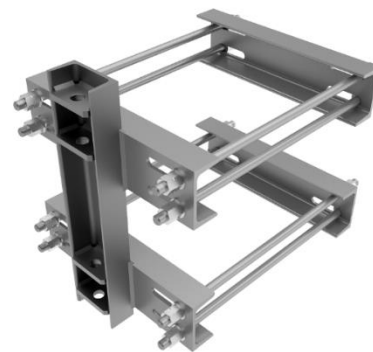
No.	Drawing No.	Back Fitting Type	Dimension
000 700 414 00000	000700414-00	A	4x M20



# Tensorex C+ Spring Tensioning System

## Attachments Type A for Rectangular and PEINER Masts

No.	Drawing No.	Back Fitting Type	Dimension W x L of threaded rods (mm)
000 700 415 00000	000700415-00	A	Pole H 200 – 310 x 360
000 700 415 00001	000700415-01	A	Pole H 200 – 310 x 310
000 700 415 00002	000700415-02	A	Pole H 200 – 310 x 220
000 700 415 00003	000700415-03	A	Pole H 200 – 310 x 255
000 700 415 00004	000700415-04	A	Pole H 200 – 310 x 90
000 700 415 00005	000700415-05	A	Pole H 200 – 310 x 240
000 700 415 00006	000700415-06	A	Pole H 200 – 310 x 580
000 700 415 00007	000700415-07	A	Pole H 320 x L of threaded rod
000 700 415 00008	000700415-08	A	Pole H 200 x 200
000 700 415 00009	000700415-09	A	Pole H 320 – 435 x 356
000 700 415 00010	000700415-10	A	Pole H 320 – 435 x 100
000 700 415 00011	000700415-11	A	Pole H 320 – 435 x 600
000 700 415 00013	000700415-13	A	Pole H 210 – 378 x 160
000 700 415 00014	000700415-14	A	Pole H 200 – 300 x 210
000 700 415 00016	000700415-16	A	Pole H 150 – 220 x 230
000 700 415 00017	000700415-17	A	Pole H 100 – 124 x 240
000 700 415 00018	000700415-18	A	Pole H 200 – 310 x 465
000 700 415 00019	000700415-19	A	Pole H 200 – 310 x 610
000 700 415 00020	000700415-20	A	Pole H 200 – 310 x 770
000 700 415 00030	000700415-30	A	Pole H 500 – 550 x 300



## Attachments Type A for 2x Tensorex C+ for parallel installation on Rectangular Masts

No.	Drawing No.	Back Fitting Type / TRC size	Dimension / TRC Distance D (mm)
000 700 461 00015	000700461-15	A / 2 springs	Pole H 240 x 240 / D = 440
000 700 461 00019	000700461-19	A / 2 springs	Pole H 306 x 300 / D = 500



## Attachments Type A for 2x Tensorex C+ for parallel installation on Circular Masts

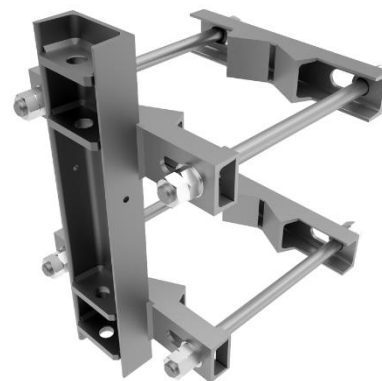
No.	Drawing No.	Back Fitting Type / TRC size	Dimension / TRC Distance D (mm)
000 700 461 00000	000700461-00	A / 2 spring	Pole Ø 215 – 219 / D = 400
000 700 461 00029	000700461-29	A / 3 spring	Pole Ø 273 / D = 540
000 700 461 00035	000700461-35	A / 2 spring	Pole Ø 406 / D = 380
000 700 461 00040	000700461-40	A / 4 spring	Pole Ø 330 - 400 / D = 630





## Attachments Type A, adjustable, for Circular Masts

No.	Drawing No.	Back Fitting Type	Dimensions / Rods
			(mm)
000 700 462 00000	000700462-00	A	Pole Ø 190 - 230 mm / 4xM16
000 700 462 00001	000700462-01	A	Pole Ø 160 - 240 mm / 8xM16
000 700 462 00002	000700462-02	A	Pole Ø 240 - 340 mm / 8xM16
000 700 462 00004	000700462-04	A	Pole Ø 115 - 230 mm / 4xM20
000 700 462 00005	000700462-05	A	Pole Ø 170 - 230 mm / 4xM20
000 700 462 00006	000700462-06	A	Pole Ø 115 - 170 mm / 4xM20
000 700 462 00007	000700462-07	A	Pole Ø 200 - 330 mm / 4xM20
000 700 462 00008	000700462-08	A	Pole Ø 240 - 340 mm / 4xM20
000 700 462 00010	000700462-10	A	Pole Ø 250 - 390 mm / 4xM20
000 700 462 00012	000700462-12	A	Pole Ø 200 - 330 mm / 4xM20



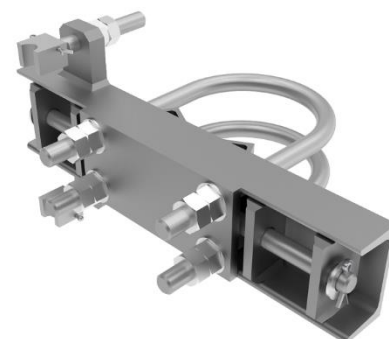
## Attachments Type A for Lattice Poles

No.	Drawing No.	Back Fitting Type	Dimension
			(mm)
000 700 463 00000	000700463-00	A	450 - 500
000 700 463 00001	000700463-01	B	280 - 410
000 700 463 00002	000700463-02	B	120 - 260
000 700 463 00003	000700463-03	B	110 - 260
000 700 463 00004	000700463-04	B	1040 - 1240
000 700 463 00005	000700463-05	B	590 - 790
000 700 463 00006	000700463-06	A	450 - 650
000 700 463 00008	000700463-08	B	208 - 304



## Attachments Type A for Horizontal Installation

No.	Drawing No.	Back Fitting Type	Dimension
			(mm)
000 700 646 00031	000700646-31	A	Pole Ø 160





# Tensorex C+ Spring Tensioning System

## Attachments Type A for BAND-IT fixing

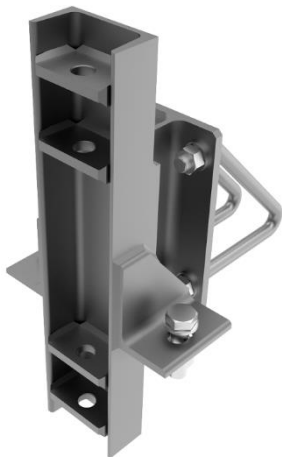
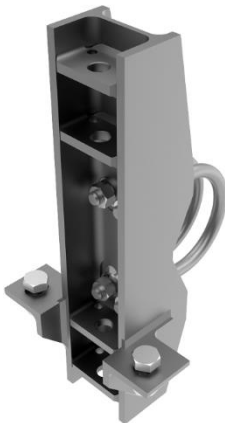
No.	Drawing No.	Back Fitting Type	Dimension
000 701 139 00000	000701139-00	A	Pole Ø 150 mm



## Attachments Type A and B for Portals and Other Applications

Please contact Pfisterer for your specific application: [PfistererRail@pfisterer.com](mailto: PfistererRail@pfisterer.com)

Examples:



## Attachments Type B for Circular Masts

No.	Drawing No.	Back Fitting Type /TRC size	Dimension / Rods (mm)
000 700 468 00001	000700468-01	B	Pole Ø 324 / 4xM16 U-bolts
000 700 468 00016	000700468-16	B	Pole Ø 203 / 4xM16 U-bolts
000 700 468 00017	000700468-17	B	Pole Ø 215 - 219 / 4xM16 U-bolts
000 700 468 00018	000700468-18	B	Pole Ø 235 / 4xM16 U-bolts
000 700 468 00019	000700468-19	B	Pole Ø 250 / 4xM16 U-bolts
000 700 468 00020	000700468-20	B	Pole Ø 255 / 4xM16 U-bolts
000 700 468 00022	000700468-22	B	Pole Ø 300 / 4xM16 U-bolts
000 700 468 00099	000700468-99	B	Pole Ø 277 / 4xM16 U-bolts



## Attachments Type B for Rectangular Masts

No.	Drawing No.	Back Fitting Type /TRC size	Dimension / Rods (mm)
000 700 468 00000	000700468-00	B	Pole H 300 - 370 x 320 / 4xM20
000 700 468 00002	000700468-02	B	Pole H 200 - 300 x 300 / 4xM20
000 700 468 00004	000700468-04	B	Pole H 100 - 240 x 240 / 4xM20
000 700 468 00005	000700468-05	B	Pole H 570 - 680 x 220 / 4xM20
000 700 468 00007	000700468-07	B	Pole H 100 - 240 x 580 / 4xM20



# Tensorex C+ Spring Tensioning System

## Attachments Type B for 2x Tensorex C+ for parallel Installation on Circular Masts

No.	Drawing No.	Back Fitting Type /TRC size	Dimension / TRC Distance D (mm)
000 700 461 00001	000700461-01	B / 2 spring	Pole Ø 193,7 / D = 540
000 700 461 00010	000700461-10	B / 2 springs	Pole Ø 240 / D = 470
000 700 461 00011	000700461-11	B / 2 springs	Pole Ø 250 / D = 470
000 700 461 00012	000700461-12	B / 2 springs	Pole Ø 215 - 219 / D = 470
000 700 461 00020	000700461-20	B / 2 spring	Pole Ø 224 / D = 540
000 700 461 00034	000700461-34	B / 3 spring	Pole Ø 406 / D = 540
000 700 461 00046	000700461-46	B / 4 spring	Pole Ø 304 / D = 540



## Attachments Type B for 2x Tensorex C+ for parallel Installation on Rectangular Masts

No.	Drawing No.	Back Fitting Type /TRC size	Dimension / TRC Distance D (mm)
000 700 461 00002	000700461-02	B / 4 springs	Pole H 300 – 340 x 320 / D = 630
000 700 461 00003	000700461-03	B / 2 springs	Pole H 290 x 290 / D = 540
000 700 461 00004	000700461-04	B / 2 springs	Pole H 340 x 320 / D = 540
000 700 461 00005	000700461-05	B / 3 springs	Pole H 280 x 280 / D = 600
000 700 461 00014	000700461-14	B / 2 springs	Pole H 360 x 360 / D = 540
000 700 461 00051	000700461-51	B / 2 springs	Pole H 340 x 355 / D = 630

