

TRUTEK TS - sleeve anchor version with nut

Usage:

- fixing handrails and barriers
- fastening shelves, steel profiles and installations
- fixing facade profiles
- fastening wooden slats and wood-based panels

Advantages:

- full pressure of the element attached to the ground
- the attachment can be dismantled
- The special shape of the holes in the sleeve presses the material fastened to the ground and prevents the anchor from turning in the ground



Anchor material:

The sleeves of the TS expansion bolts and threaded bolts are made of carbon steel in the mechanical properties class 5.8 according to PN-EN ISO 898-1: 2013 and are covered with a layer of zinc not less than 5µm thick according to PN-EN ISO 4042: 2001 / Ap: 2004

Substrate Material:

Non-cracked concrete, minimum class C20 / 25; full brick min. 7.5

Marking method for anchors TS		
Product Ref	Thread Size d [mm]	Anchor length L [mm]
TS	06	060

Technical parameters of anchors TS

Product Code	Thread size	Hole Dia in the ground	Min. hole depth	Effective reduced anchorage depth	Min. substrate thickness	Max. thickness of attached element	Min. hole dia in the element to be attached	Anchor length
	d [mm]	d _o [mm]	h ₁ [mm]	h _{ef} /h _{ef,red} [mm]	h _{min} [mm]	t _{fix} [mm]	d _i [mm]	L [mm]
TS06026	4,5	6	40/30*	35/25*	100	1	7	26
TS06040						5/15*		40
TS06060						25/35*		60
TS08040	6	8	45/40*	40/35*	100	10*	9	40
TS08065						25/35*		65
TS08090						50/60*		90
TS10040	8	10	50/40*	45/35*	100	5*	12	40
TS10050						5/15*		50
TS10075						30/40*		75
TS10100						55/65*		100
TS10125						80/90*		125
TS12060	10	12	60	55	100	5	14	60
TS12075						20		75
TS12100						45		100
TS12125						65		125
TS16065	12	16	65	60	130	5	18	65
TS16110						50		110
TS16145						85		145
TS20080	16	20	70	65	130	15	22	80
TS20115						50		115
TS20160						95		160

* values for reduced anchoring depth

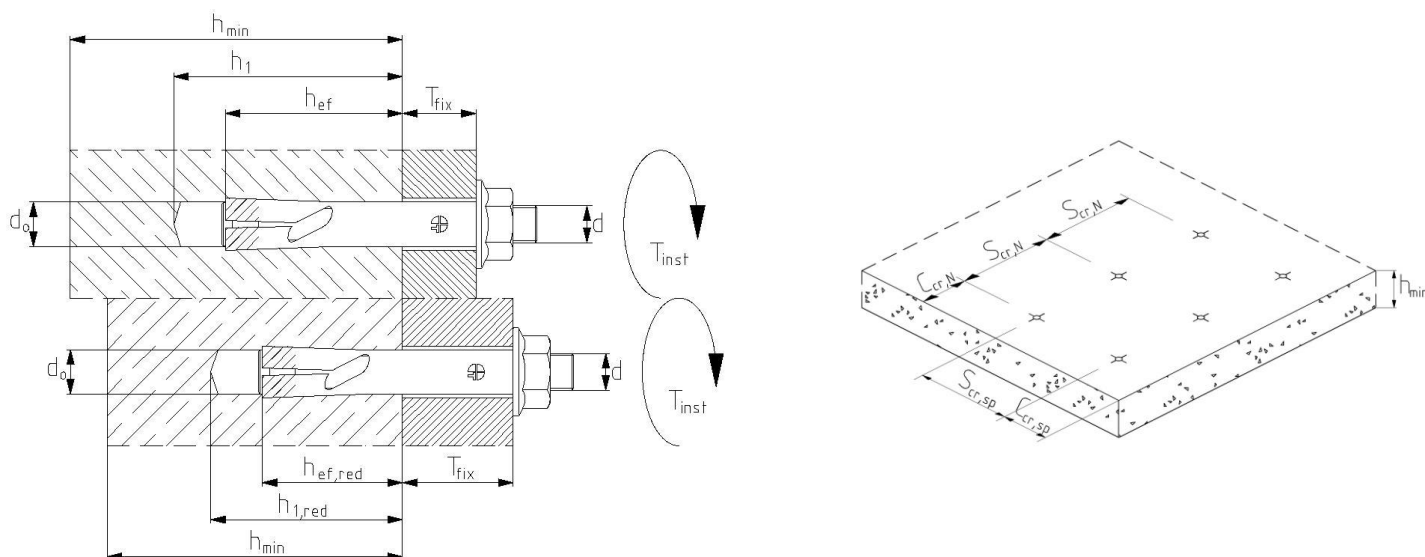
Design accuracy of TS anchors - for basic anchoring depth h_{ef}

Connector designation	TS 6	TS 8	TS 10	TS 12	TS 16	TS 20
Effective anchoring depth h _{ef} [mm]	35	40	45	55	60	65
Load-bearing capacity in concrete C20/25 N _{Rd} [kN]	2,3	4,6	8,6	10,0	14,3	17,0
Shear load capacity in concrete C20/25 V _{Rd} [kN]	4,8	9,4	17,3	20,3	28,8	34,2
Load bearing capacity in brick Kl. 7.5 N _{Rd} [kN]	1,6	2,0	2,9	-	-	-
Shear load capacity in brick Kl. 7.5 V _{Rd} [kN]	3,8	4,7	6,9	-	-	-
Anchor spacing S _{cr,N} [mm]	105	120	135	165	180	195
Distance from the edge C _{cr,N} [mm]	55	60	70	85	90	100
Tightening torque T _{inst} [Nm]	5	10	25	50	75	150

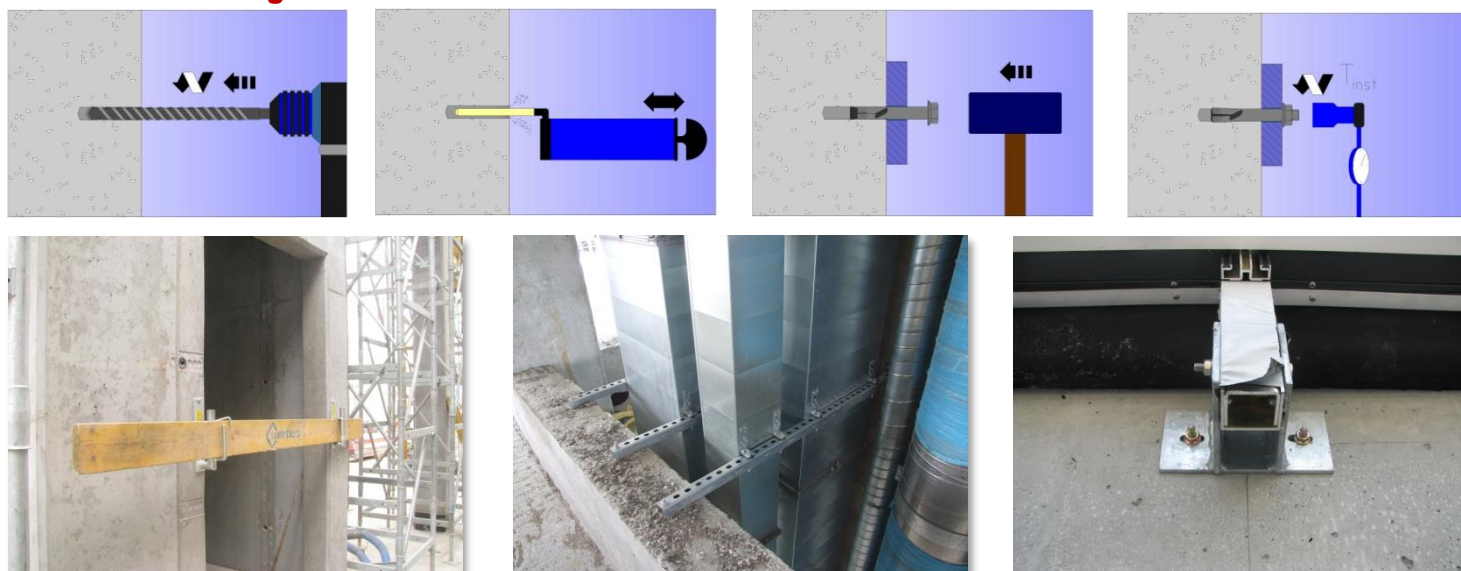
Design resistance of TS anchors - for reduced anchoring depth $h_{ef,red}$

Connector designation	TS 6	TS 8	TS 10	TS 12	TS 16	TS 20
Anchored depth h_{ef} [mm]	25	35	35	-	-	-
Load-bearing capacity in concrete C20/25 N_{Rd} [kN]	1,4	3,7	5,9	-	-	-
Shear load capacity in concrete C20/25 V_{Rd} [kN]	2,9	7,6	12,0	-	-	-
Load bearing capacity in brick kl. 7.5 N_{Rd} [kN]	0,9	1,7	2,0	-	-	-
Shear load capacity in brick kl. 7.5 V_{Rd} [kN]	2,2	4,0	4,6	-	-	-
Anchor spacing $S_{cr,N}$ [mm]	75	105	105	-	-	-
Distance from the edge $C_{cr,N}$ [mm]	40	55	55	-	-	-
Tightening torque T_{inst} [Nm]	5	10	25	-	-	-

Installation diagram of anchors TS



Installation diagram of anchors TS



TRUTEK TS H - sleeve anchor version with bolt

Usage:

- fixing handrails and barriers
- fastening shelves, steel profiles and installations
- fixing facade profiles
- fastening wooden slats and wood-based panels

Advantages:

- full pressure of the element attached to the ground
- the attachment can be dismantled
- the special shape of the holes in the sleeve presses the material fastened to the ground and prevents the anchor from turning in the ground



Anchor material:

The sleeves of the TS expansion bolts and threaded bolts are made of carbon steel in the mechanical properties class 5.8 according to PN-EN ISO 898-1: 2013 and are covered with a layer of zinc not less than 5µm thick according to PN-EN ISO 4042: 2001 / Ap: 2004

Substrate material:

Non-cracked concrete, minimum class C20 / 25; full brick min. 7.5

Marking method for anchors TS H

Trutek Sleeve	Thread Size d [mm]	Anchor length L [mm]	Anchor version
TS	08	045	H – Bolt version

Technical parameters of anchors TS H

Product Code	Thread size	Hole Dia in the ground	Min. hole depth	Effective anchorage depth	Min. substrate thickness	Max. thickness of attached element	Min. Hole dia in the element being attached	Anchor length
	d [mm]	d _o [mm]	h ₁ [mm]	h _{ef} [mm]	h _{min} [mm]	t _{fix} [mm]	d _f [mm]	L [mm]
TS08045H	6	8	45	40	100	5	9	45
TS08070H						30		70
TS08090H						50		90
TS10055H	8	10	50	45	100	10	12	55
TS10080H						35		80
TS10100H						55		100
TS12065H	10	12	60	55	100	10	14	65
TS12080H			65	60		20		80
TS12100H						40		100
TS16075H	12	16	65	60	130	15	18	75
TS16110H			70	65		45		110

Design load capacity of TS H anchors - for basic and reduced * anchoring depth

Connector designation	TS08H	TS10H	TS12H	TS16H
Effective and reduced anchoring depth h _{ef} /h _{ef,red} [mm]	40	45	55*/60	60*/65
Load-bearing capacity in concrete C20/25 N _{Rd} [kN]	3,1	7,2	8,3*/9,0	9,3*/10,2
Shear load capacity in concrete C20/25 V _{Rd} [kN]	6,2	14,6	16,7*/18,2	18,9*/20,6
Load bearing capacity in brick Kl. 7.5 N _{Rd} [kN]	1,5	1,9	2,8	-
Shear load capacity in brick Kl. 7.5 V _{Rd} [kN]	3,4	4,5	6,6	-
Anchor spacing S _{cr,N} [mm]	120	135	165*/180	180*/195
Distance from the edge C _{cr,N} [mm]	60	70	85*/90	90*/100
Tightening torque T _{inst} [Nm]	10	25	50	75

* values for reduced anchorage depth h_{ef,red}

TRUTEK TS SS - stainless steel sleeve anchor with nut

Usage:

- fixing handrails and barriers
- fastening shelves, steel profiles and installations
- fixing facade profiles
- fastening wooden slats and wood-based panels

Advantages:

- full pressure of the element attached to the ground
- the attachment can be dismantled
- the special shape of the holes in the sleeve presses the material fixed to the ground and prevents the anchor from turning in the ground



Anchor material:

The sleeves of the TS SS expansion bolts and threaded studs are made of A4-70 stainless steel. PN-EN ISO 3506-1: 2000.

Substrate material:

Non-cracked concrete, minimum class C20 / 25; full brick min. 7.5

Marking method for anchors TS SS			
Trutek Sleeve	Thread Size d [mm]	Anchor length L [mm]	Anchor material
TS	06	060	SS – Stainless steel

Technical parameters of anchors TS SS

Product Code	Thread size	Hole Dia in the ground	Min. hole depth	Effective anchorage depth	Min. substrate thickness	Max. thickness of attached element	Min. Hole dia in the element being attached	Anchor length
	d [mm]	d ₀ [mm]	h ₁ [mm]	h _{ef} [mm]	h _{min} [mm]	t _{fix} [mm]	d _f [mm]	L [mm]
TS06060SS	4,5	6	40	35	80	25	5	60
TS08040SS	6	8	40	35	100	5	7	40
TS08065SS			45	40		25		65
TS10050SS	8	10	50	45	100	5	9	50
TS10075SS						30		75
TS10100SS						55		100
TS12060SS	10	12	60	55	100	5	12	60
TS12075SS						20		75
TS12100SS						45		100

Design resistance of TS SS anchors - for basic and reduced anchoring depth

Connector designation	TS06SS	TS08SS	TS10SS	TS12SS
Effective and reduced anchoring depth h _{ef} /h _{ef,red} [mm]	35	35*/45	45	55
Load-bearing capacity in concrete C20/25 N _{Rd} [kN]	2,5	2,5*/4,9	7,4	11,0
Shear load capacity in concrete C20/25 V _{Rd} [kN]	5,1	5,0*/10,0	14,9	22,2
Load bearing capacity in brick Kl. 7.5 N _{Rd} [kN]	1,9	1,9*/2,4	2,9	-
Shear load capacity in brick Kl. 7.5 V _{Rd} [kN]	4,5	4,5*/5,6	6,9	-
Anchor spacing S _{cr,N} [mm]	105	105*/135	135	165
Distance from the edge C _{cr,N} [mm]	55	55*/60	70	85
Tightening torque T _{inst} [Nm]	7	10	30	50

* values for reduced anchorage depth h_{ef,red}



TRUTEK TS - sleeve anchor version with Hook & Eye

USAGE:

- anchor designed for fixing light electrical installations, lighting, and information boards

Advantages:

- the option of removing the anchor from the ground
- quick and easy assembly
- holes in the sleeve prevent the anchor from turning in the ground



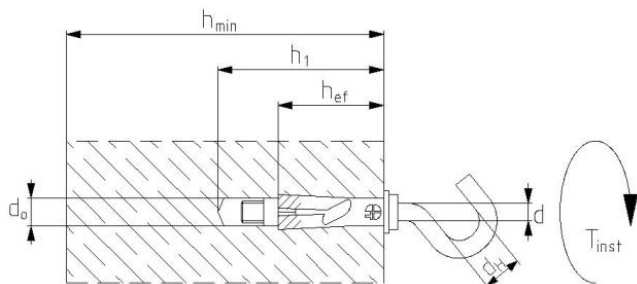
Anchor material:

The sleeves of the TS expansion bolts and threaded bolts are made of carbon steel in the mechanical properties class 5.8 according to PN-EN ISO 898-1: 2013 and are covered with a layer of zinc not less than 5µm thick according to PN-EN ISO 4042: 2001 / Ap: 2004

Substrate material:

Non-cracked concrete, minimum class C20 / 25; full brick min. 7.5

Marking method for anchors TS K i TS X			
Product Ref	Thread size d [mm]	Anchor length L [mm]	Anchor version
TS	08	045	K – version with open hook
TS	08	045	X – version with closed hook



Technical parameters of anchors TS K i TS X

Product Code	Thread size	Hole Dia in the ground	Min. hole depth	Effective anchorage depth	Min. substrate thickness	Anchor length	Diameter of Hook/Eye
	d [mm]	d ₀ [mm]	h ₁ [mm]	h _{ef} [mm]	h _{min} [mm]	L [mm]	d _{H/O} [mm]
TS08045K	6	8	45	40	100	45	11
TS08045X	6	8	45	40	100	45	11

Design load capacity for TS K and TS X anchors - for basic anchoring depth h_{ef}

Connector designation	TS08045K	TS08045X
Effective anchoring depth h _{ef} [mm]	40	40
Load-bearing capacity in concrete C20/25 N _{Rd} [kN]	0,7	0,9
Shear load capacity in concrete C20/25 V _{Rd} [kN]	1,4	1,9
Load bearing capacity in brick Kl. 7.5 N _{Rd} [kN]	0,6	0,8
Shear load capacity in brick Kl. 7.5 V _{Rd} [kN]	1,4	1,9
Anchor spacing S _{cr,N} [mm]	120	120
Distance from the edge C _{cr,N} [mm]	60	60
Tightening torque T _{inst} [Nm]	10	10

