

## TRUTEK TTM SS – STAINLESS STEEL SEGMENT ANCHOR A4-316, ETA OPTION 7



### Usage:

- anchor intended for fastening in the range of medium loads of building structures, facades, barriers, handrails, etc., in non-cracked concrete
- non-structural multi-point fasteners in cracked concrete for sizes M6
- external fixings under corrosive conditions

### Anchor material:

TTM SS anchors are made of acid-resistant stainless steel grade 1.4401, 1.4404, 1.4571, 1.4578, 1.4362 according to PN-EN10088: 2014 or stainless acid-resistant steel with increased corrosion resistance HCR grades 1.4529 and 1.4565 according to PN-EN 10088: 2014

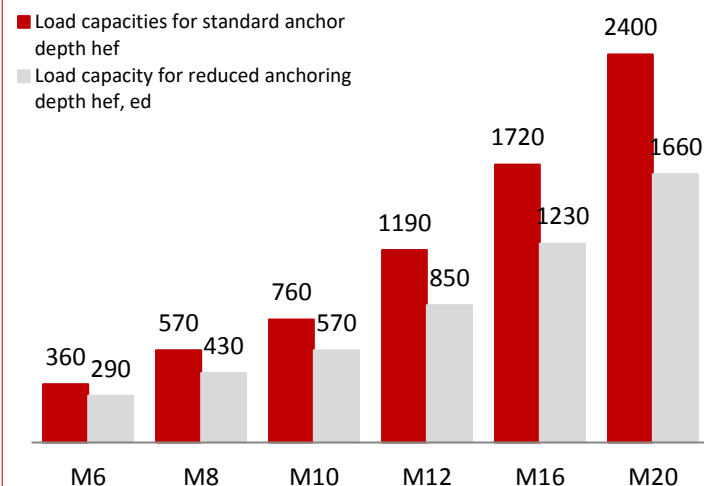
### Substrate material:

Non-cracked concrete class C20 / 25 - C50 / 60 or cracked C20 / 25-C50 / 60 for size M6

### Advantages:

- two clamping depths standard and reduced
- can be used for multi-point, non-structural fixings in non-cracked concrete for size M6
- durability and corrosion resistance
- easy and quick assembly
- FM FM approval for the installation of sprinkler systems for sizes M10-M16
- fire resistance R30-R120

### Recommended loading capacities for TTM SS anchors from non-cracked concrete min. C20 / 25 in kg



### Method of determining TTM SS anchors

Trutek Throughbolt MKT	Thread Size d[mm]	Anchor length L [mm]	Type designation
<b>TTM</b>	<b>10</b>	<b>105</b>	<b>SS</b>

### Technical parameters of TTM SS anchors

Product code	Description	Hole Diameter in base material	Min. hole depth	Effective/reduced anchor depth	Max. thickness of the fixed element	Thread length	Anchor length
		mm d <sub>o</sub>	mm h <sub>1</sub> /h <sub>1,red</sub>	mm h <sub>ef</sub> /h <sub>ef,red</sub>	mm t <sub>fix</sub> /t <sub>fix,red</sub>	Mm L <sub>thread</sub>	mm L
TTM06052SS	B 6-5/52 A4	6	55/45	40/30	-/5	M6x20	52
TTM06067SS	B 6-10-20/67 A4				10/20	M6x30	67
TTM06082SS	B 6-25-35/82 A4				25/35	M6x35	82
TTM06097SS*	B 6-40-50/97 A4				40/50	M6x35	97
TTM08060SS	B 8-4/60 A4	8	65/55	44/35	-/4	M8x25	60
TTM08075SS	B 8-10-19/75 A4				10/19	M8x40	75
TTM08080SS	B 8-15-24/80 A4				15/24	M8x45	80
TTM08085SS	B 8-20-29/85 A4				20/29	M8x50	85
TTM08095SS	B 8-30-39/95 A4				30/39	M8x60	95
TTM08110SS	B 8-45-54/110 A4				45/54	M8x75	110
TTM08120SS	B 8-55-64/120 A4				55/64	M8x85	120
TTM10085SS	B 10-10-16/85 A4	10	70/65	48/42	10/16	M10x40	85
TTM10090SS	B 10-15-21/90 A4				15/21	M10x45	90
TTM10095SS	B10-20-26/95 A4				20/26	M10x50	95
TTM10105SS	B 10-30-36/105 A4				30/36	M10x60	105
TTM10120SS	B 10-45-51/120 A4				45/51	M10x75	120
TTM10125SS	B 10-50-56/120 A4				50/56	M10x80	125
TTM10145SS	B 10-70-76/140 A4				70/76	M10x80	145
TTM10175SS*	B 10-100-106/174 A4				100/100	M10x80	175
TTM10215SS*	B 10-140-146/215 A4				140/146	M10x80	215

\* anchors available on request. HCR steel anchors available on request.

## Technical parameters of TTM SS anchors

Product Code	Description	Hole Diameter in base material	Min. hole depth	Effective/reduced anchor depth	Max. thickness of the fixed element	Thread length	Anchor length			
		mm	mm	mm	mm	Mm	mm			
		$d_o$	$h_1/h_{1,red}$	$h_{ef}/h_{ef,red}$	$t_{fix}/t_{fix,red}$	$L_{thread}$	$L$			
TTM12095SS	B 12-14/95 A4	12	90/75	65/60	-/14	M12x30	95			
TTM12105SS	B 12-10-25/105 A4				10/25	M12x50	105			
TTM12110SS	B 12-15-30/110 A4				15/30	M12x60	110			
TTM12115SS	B 12-20-35/115 A4				20/35	M12x65	115			
TTM12125SS	B 12-30-45/125 A4				30/45	M12x70	125			
TTM12145SS	B 12-50-65/145 A4				50/65	M12x80	145			
TTM12160SS	B 12-65-80/160 A4				65/80	M12x100	160			
TTM12180SS	B 12-85-100/180 A4				85/100	M12x100	180			
TTM12200SS	B 12-105-120/200 A4				105/120	M12x100	200			
TTM12240SS*	B 12-145-160/240 A4				145/160	M12x80	240			
TTM16115SS	B16-14/115 A4	16	110/95	80/64	-/14	M16x60	115			
TTM16130SS	B 16-10-26/130 A4				10/26	M16x70	130			
TTM16150SS	B 16-30-46/150 A4				30/46	M16x90	150			
TTM16180SS	B 16-60-76/180 A4				60/76	M16x110	180			
TTM16200SS	B 16-80-96/200 A4				80/96	M16x110	200			
TTM16220SS	B 16-100-116/220 A4				100/116	M16x80	220			
TTM16250SS*	B 16-130-145/250 A4				130/145	M16x80	250			
TTM16320SS*	B 16-200-216/320 A4				200/216	M16x80	320			
TTM20150SS	B 20-5-27/150 A4				20	130/110	100/78	5/27	M20x70	150
TTM20180SS	B 20-35-57/180 A4							35/57	M20x70	180
TTM20205SS	B 20-60-82/205 A4	60/82	M20x70	205						
TTM20240SS	B 20-95-117/240 A4	95/117	M20x70	240						

\* anchors available on request. Stainless steel anchors with increased corrosion resistance HCR 1.4529 available only on request

## Recommended load-bearing capacity TTM SS anchors in C20 / 25 concrete - for basic anchor depth hef

Technical Data:	M6	M8	M10	M12	M16	M20
Effective anchoring depth hef [mm]	40	44	48	65	80	100
Tensile load capacity Nrec [kN] - non-cracked concrete	3,6	5,7	7,6	11,9	17,2	24,0
Shear load capacity Vrec [kN] - non-cracked concrete	4,0	6,9	8,0	15,4	28,6	43,9
Tensile load capacity Nrec [kN] - cracked concrete	2,4	-	-	-	-	-
Shear load capacity Vrec [kN] - cracked concrete	2,4	-	-	-	-	-
Anchor spacing Scr, N [mm]	120/370*	132	144	195	240	300
Distance from the edge Ccr, N [mm]	60/185*	66	72	97,5	120	150
Tinstacking torque Tinst [Nm]	6/8*	15	25	50	100	160

\* for applications compliant with ETA-06/0155. When designing, the entire ETA-01/0013 or ETA-05/0155 should be taken into account

## Recommended load-bearing capacity TTM SS anchors in C20 / 25 concrete - for reduced anchor depth hef, red

Technical Data:	M6	M8	M10	M12	M16	M20
Reduced anchoring depth hef, red [mm]	30	35	42	50	64	78
Tensile load capacity Nrec [kN] - non-cracked concrete	2,9	4,3	5,7	8,5	12,3	16,6
Shear load capacity Vrec [kN] - non-cracked concrete	4,0	5,0	6,5	8,5	24,6	33,1
Tensile load capacity Nrec [kN] - cracked concrete	1,6	-	-	-	-	-
Shear load capacity Vrec [kN] - cracked concrete	1,6	-	-	-	-	-
Anchor spacing Scr, N [mm]	90/260*	105	126	150	192	234
Distance from the edge Ccr, N [mm]	45/130*	52,5	63	75	96	117
Tinstacking torque Tinst [Nm]	6/8*	15	30	50	100	160

\* for applications compliant with ETA-06/0155. When designing, the entire ETA-01/0013 or ETA-05/0155 should be taken into account

## Fire resistance of TTM SS anchors in C20 / 25 non-cracked concrete

Technical Data:	M6	M8	M10	M12	M16	M20
Effective anchorage depth hef / hef, red [mm]	40/30	44/35	48/42	65/50	80/64	100/78
Fire resistance for class R30 FRk, fi [kN]	1,8/0,9	2,3/1,3	2,9/2,1	6,1/3,2	6,4/4,6	9,0/6,2
Fire resistance for class R60 FRk, fi [kN]	1,4/0,9	2,3/1,3	2,9/2,1	6,1/3,2	6,4/4,6	9,0/6,2
Fire resistance for class R90 FRk, fi [kN]	0,9/0,9	2,1/1,3	2,9/2,1	4,8/3,2	6,4/4,6	9,0/6,2
Fire resistance for class R120 FRk, fi [kN]	0,7/0,7	1,0/1,0	2,2/1,6	3,9/2,5	5,2/3,7	7,2/5,0



## Installation diagram for TTM SS anchors

