

TT SS STAINLESS STEEL THROUGHBOLT A2-304 & A4-316

Features:

- Through fixing
- Approved for non-cracked concrete
- A2 and A4 Stainless Steel
- Fire tested class A1 reaction



Load Data

- Concrete C20/25 ($f_{ck,cube} = 25 \text{ N/mm}^2$)
- No Edge and Spacing reductions
- Minimum base material thickness
- Correct installation



Benefits:

- Quick and simple installation
- One anchor for concrete from C20/25 to C50/60

Concrete Ranges: C20/C25 according to EN 206:2013+A1:2016

Certification: ETA 25/0163 Issued 21/07/2025

Product Range

Product Code	Thread Diameter	Anchor Length	Drill Hole Diameter	Drill Hole Depth	Maximum Fixture Thickness	Fixture Clearance Hole	Tightening Torque
	d	L	d _o	h _{nom}	t _{fix}	d _f	T _{inst}
Code Followed by Either A2 or A4	mm	mm	mm	mm	mm	mm	Nm
TT06045SS	6	45	6	55	-	7	10
TT06050SS		50			-		
TT06075SS		75			20		
TT08050SS	8	50	8	65	-	10	15
TT08065SS		65			-		
TT08080SS		80			15		
TT08090SS		90			25		
TT08100SS		100			35		
TT08115SS		115			50		
TT08130SS		130			65		
TT10065SS	10	65	10	70	-	12	25
TT10075SS		75			-		
TT10090SS		90			18		
TT10105SS		105			33		
TT10120SS		120			48		
TT12080SS	12	80	12	90	-	14	65
TT12100SS		100			5		
TT12120SS		120			25		
TT12140SS		140			45		
TT12180SS		180			85		
TT16105SS	16	105	16	120	-	18	110
TT16125SS		125			5		
TT16150SS		150			30		
TT16175SS		175			55		
TT16200SS		200			80		

Installation Data

Anchor Diameter			M6	M8	M10	M12	M16
Effective Anchorage Depth	h_{eff}	[mm]	40	41	45	62	88
Spacing	$S_{cr,N}$	[mm]	40	105	120	190	260
Edge Distance	$C_{cr,N}$	[mm]	70	80	85	125	245
Edge Distance, Shear	$C_{cr,V}$	[mm]	65	90	95	170	295
Minimum Concrete Thickness	h_{min}	[mm]	100	100	100	130	180
Minimum Spacing	s_{min}	[mm]	40	45	60	70	70
Minimum Edge Distance	c_{min}	[mm]	40	45	70	85	85

For reductions in Spacing and Edge Distance refer to DesignFix for calculations

Load Data

Standard Embedment

Characteristics Resistance

Anchor Diameter (Non-Cracked concrete)			M6	M8	M10	M12	M16
N_{Rk}		[kN]	7.0	12.0	14.0	24.0	40.0
V_{Rk}		[kN]	7.0	12.0	14.8	29.2	50.7

Design Resistance

Anchor Diameter (Non-Cracked concrete)			M6	M8	M10	M12	M16
N_{Rd}		[kN]	4.6	6.6	7.7	13.3	22.2
V_{Rd}		[kN]	5.0	8.5	9.9	20.8	36.2

Recommended Resistance

Anchor Diameter (Non-Cracked concrete)			M6	M8	M10	M12	M16
N_{rec}		[kN]	3.3	4.7	5.5	9.5	15.9
V_{rec}		[kN]	3.6	6.1	7.1	14.9	25.9

Includes Partial Safety Factor $\gamma = 1.4$ in the absence of national regulations and type of loading Data is for Static and Quasi Static Loads for a single anchor

Increasing Factor

Anchor Diameter			M6	M8	M10	M12	M16
Increasing Factors for uncracked concrete	C30/37	ψ_c	1.0	1.08	1.06	1.06	1.04
	C40/50		1.0	1.32	1.23	1.23	1.15
	C50/60		1.0	1.42	1.30	1.30	1.19

Steel Limits

Anchor Diameter			M6	M8	M10	M12	M16
Characteristic Tensile Resistance	$N_{Rk,s}$	[kN]	8.8	17.9	29.3	47.6	84.6
Partial safety factor	γ_{MsN}	[-]	1.68				
Characteristic Shear Resistance	$V_{Rk,s}$	[kN]	7.0	12.0	20.0	29.2	50.7
Characteristic Bending Moment	$M_{Rk,s}^0$	[Nm]	11.0	26.0	52.0	92.0	233.0
Partial Safety Factor	γ_{MsV}	[-]	1.4				

Materials

Designation	TT SS A2-302	TT SS A4-316
Bolt	Stainless Steel A2	Stainless Steel A4
Expansion Sleeve	Stainless Steel A2	Stainless Steel A4
Washer	Stainless Steel A2	Stainless Steel A4
Hexagon Nut	Stainless Steel A2	Stainless Steel A4

INSTALLATION
