

# m1tr Throughbolt, stainless steel A4/316



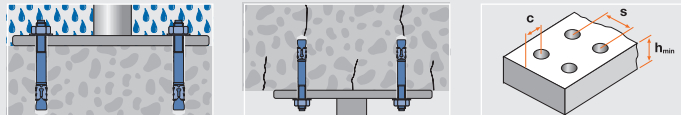
## Features

- European Technical Approval Option 1 for cracked and non-cracked concrete
- Fire resistance up to F120 is part of the approval
- The anchor may also be used under seismic influence for performance category C1 + C2
- Small edge and spacing distances
- Stainless steel A4/316
- Pre installation or through fixing
- Indoor and outdoor applications



## Applications

railings, steel constructions, profiles, machines, substructures

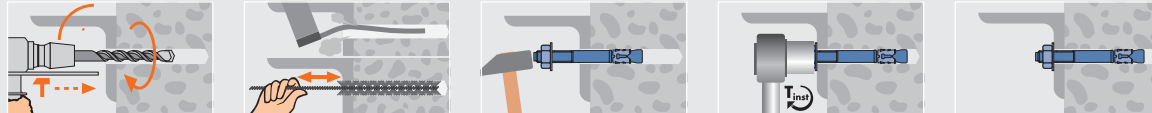


## Technical Data

	Non-cracked concrete C20/25 tension load (kN)	Cracked concrete C20/25 tension load (kN)	Concrete C20/25 shear load (kN) $c \geq 10x_{ef}$	Bending moment (Nm)	Distance betw. anchors mm $s$	Edge distance mm $c$	Min. distance betw. anchors/at edge distance mm $s_{min}/c$	Min. edge distance/at distance betw. anchors mm $c_{min}/s$	Minimum thickness of concrete member mm $h_{min}$	Installation torque (Nm) $T_{inst}$	Wrench size SW
M8	4.3	2.4	6.5	13	144	72	50/50	50/50	100	20	13
M10	7.6	4.3	10.4	27	180	90	55/70	50/110	120	40	17
M12	9.5	5.7	15.1	47	216	108	60/80	60/120	150	60	19
M16	16.7	11.9	28.0	120	258	129	70/100	70/130	170	120	24

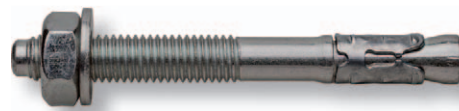
The partial safety factors of the resistances as well as a partial safety factor of the load of  $\gamma_F = 1.4$  are considered / The technical data is only valid for single fixings without consideration of edge and anchor distances / 1 kN  $\approx$  100 kg

## Installation



Article code	Plug and drill $\varnothing$ mm $d_{nom} = d_d$	Length mm $L$	Drilling depth mm $h_0$	Usable length mm $t_{fix}$	Effective anchorage depth mm $h_{ef}$	Box content $FS$	Outer carton $SK$	Quantity per pallet
3700806	8	68	70	4	48	100 31	600 22	36000
3700807	8	75	70	10	48	100 41	300 12	18000
3700809	8	90	70	25	48	100 51	300 22	18000
3700811	8	115	70	50	48	100 51	300 22	18000
3700813	8	135	70	70	48	50 41	150 12	9000
3700816	8	165	70	100	48	50 51	150 22	9000
3701009	10	90	80	10	60	100 51	300 22	18000
3701010	10	105	80	25	60	50 51	150 22	9000
3701011	10	115	80	35	60	50 51	150 22	9000
3701013	10	135	80	55	60	50 51	150 22	9000
3701015	10	155	80	75	60	50 51	150 22	9000
3701018	10	185	80	105	60	25 51	75 22	4500
3701211	12	110	100	10	72	50 51	150 22	9000
3701212	12	120	100	20	72	50 51	150 22	9000
3701214	12	145	100	45	72	25 41	75 12	4500
3701217	12	170	100	70	72	50 51	150 22	9000
3701220	12	200	100	100	72	25 51	75 22	4500
3701613	16	130	115	10	86	25 51	75 22	3600
3701615	16	150	115	30	86	25 51	75 22	3600
3701618	16	185	115	60	86	25 51	75 22	3600
3701622	16	220	115	100	86	25 51	75 22	3600

## m1tr Throughbolt with washer DIN 125A, stainless steel A4/316



Article code	Plug and drill $\varnothing$ mm $d_{nom} = d_d$	Length mm $L$	Drilling depth mm $h_0$	Usable length mm $t_{fix}$	Effective anchorage depth mm $h_{ef}$	Box content $FS$	Outer carton $SK$	Quantity per pallet
3710807	8	75	70	10	48	100 51	300 22	18000

## m1tr-C Throughbolt with big washer DIN 9021, stainless steel A4/316

