

# m2r Throughbolt, stainless steel A4/316



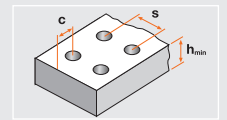
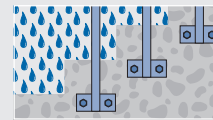
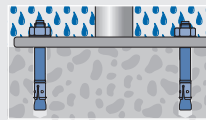
### Features

- European Technical Approval Option 7 for non-cracked concrete
- Torque controlled expansion
- Stainless steel A4/316
- Pre installation or through fixing
- Outdoor applications



### Applications

façades, cable trays, railings, steel constructions, machines, high-racks, profiles

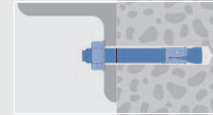
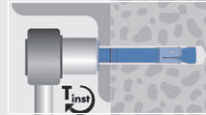
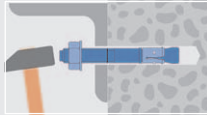
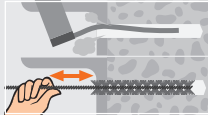
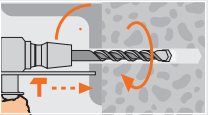


### Technical Data

	Concrete C20/25 tension load (kN)	Concrete C20/25 shear load (kN)	Bending moment (Nm)	Distance betw. anchors mm	Edge distance mm	Min. distance betw. anchors/at edge distance mm	Min. edge distance/at distance betw. anchors mm	Minimum thickness of concrete member mm	Installation torque (Nm)	Wrench size SW
				s	c	$S_{min}/c$	$C_{min}/s$	$h_{min}$	$T_{inst}$	
M6	3.6	3.9	6.4	120	60	40/70	40/80	100	6.5	10
M8	5.7	7.1	16.1	150	75	50/90	50/100	100	25	13
M10	7.6	11.2	32.2	174	87	60/115	60/120	120	35	17
M12	11.9	16.3	56.4	204	102	75/150	100/150	140	125	19
M16	14.3	30.3	142.8	240	120	100/190	130/190	160	140	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 / Only valid for setting depths according to approval / 1 kN  $\approx$  100 kg

### Installation



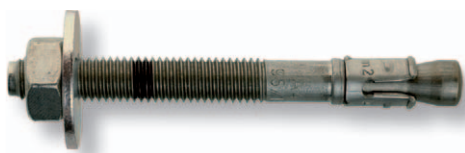
### m2r Throughbolt with washer DIN 125A, stainless steel A4/316



Article code	Plug and drill $\varnothing$ mm	Length mm	Drilling depth mm	Usable length mm	Effective anchorage depth mm	Box content	Outer carton	Quantity per pallet
	$d_{nom} = d_0$	L	$h_0$	$t_{fix}$	$h_{ef}$	FS	SK	
<sup>1)</sup> 3300605	6	50	50	5	30	100 <sup>21)</sup>	900 <sup>22)</sup>	54000
3300606	6	65	60	10	40	100 <sup>21)</sup>	900 <sup>22)</sup>	54000
<sup>1)</sup> 3300805	8	50	45	5	27	100 <sup>21)</sup>	900 <sup>22)</sup>	54000
<sup>1)</sup> 3300806	8	60	50	10	30	100 <sup>21)</sup>	900 <sup>22)</sup>	54000
3300808	8	80	65	10	50	100 <sup>41)</sup>	300 <sup>42)</sup>	18000
3300885	8	85	65	15	50	100 <sup>41)</sup>	300 <sup>42)</sup>	18000
3300809	8	95	65	25	50	100 <sup>51)</sup>	300 <sup>52)</sup>	18000
3300811	8	115	65	45	50	100 <sup>51)</sup>	300 <sup>52)</sup>	18000
<sup>1)</sup> 3301006	10	60	55	5	33	100 <sup>41)</sup>	300 <sup>42)</sup>	18000
<sup>1)</sup> 3301007	10	70	60	10	35	100 <sup>51)</sup>	300 <sup>52)</sup>	18000
3301009	10	95	80	15	58	100 <sup>51)</sup>	300 <sup>52)</sup>	18000
3301011	10	110	80	30	58	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301012	10	125	80	45	58	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301014	10	140	80	60	58	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301016	10	160	80	80	58	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301018	10	180	80	100	58	25 <sup>51)</sup>	75 <sup>52)</sup>	4500
<sup>1)</sup> 3301208	12	80	70	5	49	50 <sup>41)</sup>	150 <sup>42)</sup>	9000
3301211	12	110	90	15	68	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301212	12	125	90	30	68	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301214	12	145	90	50	68	25 <sup>41)</sup>	75 <sup>42)</sup>	4500
3301216	12	165	90	70	68	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
3301218	12	185	90	90	68	50 <sup>51)</sup>	150 <sup>52)</sup>	9000
<sup>1)</sup> 3301611	16	115	100	10	70	25 <sup>51)</sup>	75 <sup>52)</sup>	3600
3301613	16	130	110	15	80	25 <sup>51)</sup>	75 <sup>52)</sup>	3600
3301614	16	145	110	30	80	25 <sup>51)</sup>	75 <sup>52)</sup>	3600
3301616	16	160	110	45	80	25 <sup>51)</sup>	75 <sup>52)</sup>	3600
3301618	16	180	110	65	80	25 <sup>51)</sup>	75 <sup>52)</sup>	3600

M20 on request  
<sup>1)</sup> Not part of the approval

### m2r-C Throughbolt with big washer DIN 9021, stainless steel A4/316



Article code	Plug and drill $\varnothing$ mm	Length mm	Drilling depth mm	Usable length mm	Effective anchorage depth mm	Box content	Outer carton	Quantity per pallet
	$d_{nom} = d_0$	L	$h_0$	$t_{fix}$	$h_{ef}$	FS	SK	
<sup>1)</sup> 3310806	8	60	50	10	30	100 <sup>41)</sup>	300 <sup>42)</sup>	18000
<sup>1)</sup> 3310808	8	80	65	10	50	100 <sup>51)</sup>	300 <sup>52)</sup>	18000
<sup>1)</sup> 3311007	10	70	60	10	35	100 <sup>51)</sup>	300 <sup>52)</sup>	18000
<sup>1)</sup> 3311009	10	95	80	15	58	50 <sup>51)</sup>	150 <sup>52)</sup>	9000

<sup>1)</sup> Not part of the approval