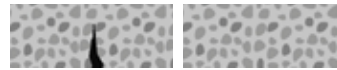


FIXANCHOR W-FAZ



Approvals and certificates



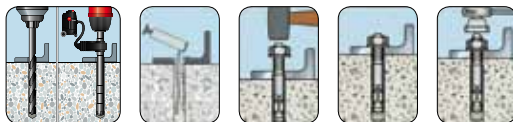
Type of installation

Pre-positioned	In-place	Stand-off
-	✓	✓

Application references



Installation



Loads

Thread size				M8		M10		M12		M16		M20		M24		M27	
Effective anchorage depth		h_{ef}	[mm]	35	46	40	60	50	70	65	85	100	115	125	125		
Non-cracked Concrete																	
Tensile	W-FAZ/S	N_{rec}	[kN]	3.6	5.7	4.3	7.6	8.3	11.9	12.3	16.7	23.4	28.9	-	32.7		
	W-FAZ/A4			3.6	5.7	4.3	7.6	8.3	11.9	12.3	16.7	23.4	-	32.7	-		
Shear	W-FAZ/S	V_{rec}	[kN]	7.0	7.0	11.5	11.5	17.1	17.1	29.5	31.4	37.1	65.1	-	91.7		
	W-FAZ/A4			7.4	7.4	11.4	11.4	17.1	17.1	29.5	31.4	43.9	-	70.6	-		
Minimum edge distance	W-FAZ/S	c_{min}	[mm]	40	50	65	50	100	75	170	80	130	100	-	180		
	W-FAZ/A4			40	50	65	60						-				
Cracked concrete																	
Tensile	W-FAZ/S	N_{rec}	[kN]	2.4	2.4	3.6	4.3	5.8	7.6	8.6	11.9	16.4	20.2	-	22.9		
	W-FAZ/A4			2.4	2.4	3.6	4.3	5.8	7.6	8.6	11.9	16.4	-	19.0	-		
Shear	W-FAZ/S	V_{rec}	[kN]	7.0	7.0	10.0	11.5	13.9	17.1	20.6	30.8	37.1	56.6	-	64.2		
	W-FAZ/A4			7.4	7.4	10.0	11.4	13.9	17.1	20.6	30.8	43.9	-	64.2	-		
Minimum edge distance	W-FAZ/S	c_{min}	[mm]	40	40	65	45	65	60	100	60	95	100	-	180		
	W-FAZ/A4			40	40	65	55						-	125	-		

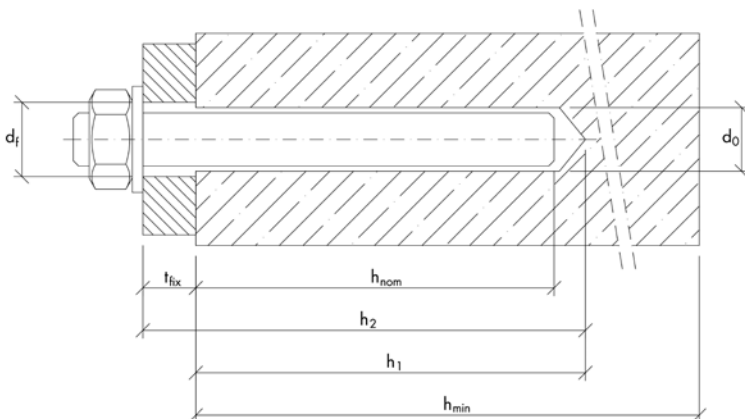
¹⁾ Loads are valid for single anchors. Normal spaced reinforcement in $\geq C20/25$. Material safety factor γ_w and safety factor for action $\gamma_t = 1.4$ are included. The material safety factor depends on the failure mode.

²⁾ Loads for anchorages close to edge and/or with small spacing have to be reduced and should be calculated based on performance data given in the ETA.

Clearance-hole in fixture	d_f	[mm]	9	12	14	18	22	26	30
Drill depth	h_1	[mm]	49	60	55	75	70	90	160
Minimum thickness of concrete member	h_{min}	[mm]	80	100	80	120	100	140	250

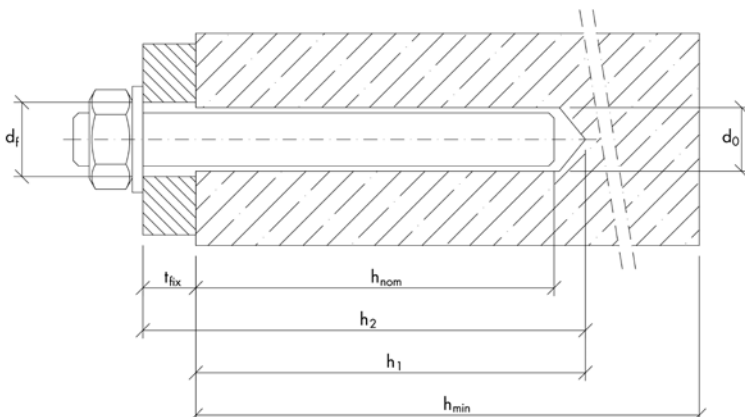
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Type	Anchor length			Art. no.				Drill hole diameter	Drill hole depth for through installation	Installation torque	Wrench Size	Approval		Thread length	P. Qty.		
	l	h _{ef,std}	h _{ef,red}	Carbon steel galvanized	Carbon steel sherardized	Stainless steel A4	High corr. resist. HCR					ETA-99/0011	Sesimic C1/C2			M x l [mm]	[qty.]
W-FAZ																	
M8	65	0	11	5928 258 011	-	5928 458 011	5928 658 011	8	60	20	20	13	✓	-	M8x22	100	
	75	10	21	5928 208 010	-	5928 408 010	5928 608 010		70				✓	C1+C2	M8x32		
	80	15	26	5928 208 015	-	5929 408 015	5928 608 015		75				✓	C1+C2	M8x37		
	95	30	41	5928 208 030	-	5930 408 030	5928 608 030		90				✓	C1+C2	M8x52		
	115	50	61	5928 208 050	-	5931 408 050	5928 608 050		110				✓	C1+C2	M8x72		
	165	100	111	5928 208 100	-	5932 408 100	-		160				✓	C1+C2	M8x122		50
M10	70	0	10	5928 251 010	-	5928 451 010	5928 651 010	10	75	25	35	17	✓	-	M10x22	50	
	80	0	20	5928 251 020	-	5928 451 020	-		75				✓	-	M10x32		
	90	10	30	5928 210 010	5928 710 010	5928 410 010	5928 610 010		85				✓	C1+C2	M10x42		
	95	15	35	5928 210 015	5928 710 015	5928 410 015	5928 610 015		90				✓	C1+C2	M10x47		
	100	20	40	5928 210 020	5928 710 020	5928 410 020	-		95				✓	C1+C2	M10x52		
	110	30	50	5928 210 030	5928 710 030	5928 210 030	5928 610 030		105				✓	C1+C2	M10x62		
	130	50	70	5928 210 050	5928 710 050	5928 410 050	5928 610 050		125				✓	C1+C2	M10x82		
	155	75	95	5928 210 075	5928 710 075	5928 410 075	-		145				✓	C1+C2	M10x107		
	180	100	120	5928 210 100	-	5928 410 100	-		175				✓	C1+C2	M10x132		
	230	150	-	0904 521 005	-	-	-		225				✓	-	M10x80		25
M12	85	0	10	5928 252 010	-	5928 452 010	5928 652 010	12	90	45	50	19	✓	-	M12x26	25	
	95	0	20	5928 252 020	-	5928 452 020	-		90				✓	-	M12x36		
	110	15	35	5928 212 015	5928 712 015	5928 412 015	5928 612 015		105				✓	C1+C2	M12x51		
	115	20	40	5928 212 020	5928 712 020	5928 412 020	5928 612 020		110				✓	C1+C2	M12x56		
	125	30	50	5928 212 030	-	5928 412 030	5928 612 030		120				✓	C1+C2	M12x66		
	145	50	70	5928 212 050	5928 712 050	5928 412 050	5928 612 050		140				✓	C1+C2	M12x86		
	160	65	85	5928 212 065	5928 712 065	5928 412 065	-		155				✓	C1+C2	M12x101		
	180	85	105	5928 212 085	5928 712 085	5928 412 085	-		175				✓	C1+C2	M12x121		
	200	105	125	5928 212 105	5928 712 105	5928 412 105	-		195				✓	C1+C2	M12x141		
	220	125	-	0904 521 217	-	0904 621 206	-		215				✓	-	M12x80		25
	240	145	-	0904 521 218	-	-	-		235				✓	-	M12x80		20
	255	160	-	0904 521 219	-	0904 621 207	-		250				✓	-	M12x80		
	275	180	-	-	-	0904 621 208	-		270				✓	-	M12x80		
	285	190	-	-	5928 712 190	0904 621 209	-		280				✓	-	M12x80		
	300	205	-	-	-	0904 621 210	-		305				✓	-	M12x80		
325	230	-	-	-	0904 621 211	-	320	✓	-	M12x80							





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	Anchor length		Fixture thickness for		Art. no.				Drill hole diameter	Drill hole depth for through installation	Installation torque	Wrench Size	Approval		Thread length	P. Qty.							
	l	h _{ef,std}	h _{ef,red}	t _{fix}	Carbon steel galvanized	Carbon steel sherardized	Stainless steel A4	High corr. resist. HCR					ETA-99/0011	Sesimic C1/C2			M x l [mm]						
M16	115	0	15		5928 256 015	-	5928 456 015	-	16	110	90	110	24	✓	-	M16x26	20						
	125	5	25		5928 216 005	-	5928 416 005	-		115				✓	C1+C2	M16x36							
	135	15	35		5928 216 015	5928 716 015	5928 416 015	-		125				✓	C1+C2	M16x56							
	145	25	45		5928 216 025	5928 716 025	5928 416 025	5928 616 025		135				✓	C1+C2	M16x66							
	170	50	70		5928 216 050	5928 716 050	5928 416 050	5928 616 050		160				✓	C1+C2	M16x91							
	200	80	100		5928 216 080	5928 716 080	5928 416 080	-		190				✓	C1+C2	M16x121							
	220	100	-		0904 521 603	5928 716 220	0904 616 100	5928 016 100		200				✓	-	M16x80	10						
	260	140	-		0904 521 604	5928 716 260	-	-		250				✓	-	M16x80							
	280	160	-		-	-	0904 616 160	-		270				✓	-	M16x80							
	300	180	-		0904 521 605	5928 716 300	0904 616 180	-		290				✓	-	M16x80							
	325	205	-		-	-	0904 616 205	-		315				✓	-	M16x80							
	340	220	-		-	-	0904 616 220	-		330				✓	-	M16x80							
	M20	165	30	-		5928 220 030	5928 720 030	5928 420 030		5928 620 030				20	155	160		200	30	✓	C1+C2	M20x50	10
		195	60	-		5928 220 060	5928 720 060	5928 420 060		-					185					✓	C1+C2	M20x70	
265		130	-		0904 522 003	-	0904 620 130	-	255	✓	-	M20x80	5										
285		150	-		0904 522 004	-	0904 620 150	-	275	✓	-	M20x80											
M24	190	30	-		0904 522 401	-	-	-	24	175	200	290	36	✓	-	M24x55	10						
	200	30	-		-	-	0904 624 030	-		185				✓	-	M24x58							
	220	60	-		0904 522 402	-	-	-		205				✓	-	M24x85							
	230	60	-		-	-	0904 624 060	-		215				✓	-	M24x88	5						
	235	75	-		0904 522 403	-	-	-		220				✓	-	M24x100							
	245	75	-		-	-	0904 624 075	-		230				✓	-	M24x103							
	260	100	-		0904 522 404	-	-	-		245				✓	-	M24x125							
M27	210	30	-		0904 522 701	-	-	-	28	190	300	-	41	✓	-	M27x62	5						
	240	60	-		0904 522 702	-	-	-		220				✓	-	M27x92							
	280	100	-		0904 522 703	-	-	-		260				✓	-	M27x132							



FIXANCHOR W-FAZ

	Anchor length		Fixture thickness for		Art. no.				Drill hole diameter	Drill hole depth for through installation	Installation torque	Wrench Size	Approval		Thread length	P. Qty.
	l	h _{ef,std}	h _{ef,red}	t _{fix}	Carbon steel	Carbon steel	Stainless steel	High corr. resist.					ETA-99/0011	Sesimic C1/C2		
Type	[mm]	[mm]	[mm]	galvanized	sherardized	A4	HCR	d ₀ [mm]	h ₂ [mm]	T _{inst} ≤ [Nm]	SW [mm]	ETA-99/0011	Sesimic C1/C2	M x l [mm]	[qty.]	
W-FAZ with big U-washer 																
M8: 24 x 2 M10: 30 x 2,5 M12: 27 x 3 M16: 50 x 3																
M8	75	10	21	5928 308 010	-	5928 508 010	-	8	70	20	20	13	✓	C1+C2	M8x32	100
	80	15	26	5928 308 015	-	5928 508 015	-	8	75				✓	C1+C2	M8x37	
	95	30	41	5928 308 030	-	5928 508 030	-	8	90				✓	C1+C2	M8x52	
	115	50	61	-	-	5928 508 050	-	8	110				✓	C1+C2	M8x72	
M10	90	10	30	5928 310 010	-	5928 510 010	-	10	85	25	35	17	✓	C1+C2	M10x42	50
	95	15	35	5928 310 015	-	5928 510 015	-		90				✓	C1+C2	M10x47	
	110	30	50	5928 310 030	-	5928 510 030	-		105				✓	C1+C2	M10x62	
	130	50	70	5928 310 050	-	5928 510 050	-		125				✓	C1+C2	M10x82	
	180	100	120	5928 310 100	-	-	-		175				✓	C1+C2	M10x132	
M12	110	15	35	5928 312 015	-	5928 512 015	-	12	105	45	50	19	✓	C1+C2	M12x51	25
	125	30	50	5928 312 030	-	5928 512 030	-		120				✓	C1+C2	M12x66	
	145	50	70	5928 312 050	-	5928 512 050	-		140				✓	C1+C2	M12x86	
	200	105	125	5928 312 105	-	-	-		195				✓	C1+C2	M12x141	
	220	125	-	0904 531 212	-	-	-	215	✓	-	M12x80	20				
	240	145	-	0904 531 213	-	-	-	235	✓	-	M12x80					
	255	160	-	0904 531 214	-	5928 112 005	-	250	✓	-	M12x80					
	285	190	-	0904 531 215	-	-	-	280	✓	-	M12x80					
M16	145	25	45	5928 316 025	-	5928 516 025	-	16	135	90	110	24	✓	C1+C2	M16x66	20
	170	50	70	5928 316 050	-	-	-		160				✓	C1+C2	M16x91	

	Anchor length		Fixture thickness for		Art. no.				Drill hole diameter	Drill hole depth for through installation	Installation torque	Wrench Size	Approval		Thread length	P. Qty.
	l	h _{ef,std}	h _{ef,red}	t _{fix}	Carbon steel	Carbon steel	Stainless steel	High corr. resist.					ETA-99/0011	Sesimic C1/C2		
Type	[mm]	[mm]	[mm]	galvanized	sherardized	A4	HCR	d ₀ [mm]	h ₂ [mm]	T _{inst} ≤ [Nm]	SW [mm]	ETA-99/0011	Sesimic C1/C2	M x l [mm]	[qty.]	
W-FAZ with big U-washer DIN EN ISO 7094 																
M12: 44 x 4 M16: 56 x 5																
M12	200	105	125	5928 362 105	-	-	-	12	195	45	-	19	✓	C1+C2	M12x80	25
	220	125	-	0904 531 222	-	-	-		215				-	-	M12x80	
	240	145	-	0904 531 223	-	-	-		235				-	-	M12x80	20
	255	160	-	0904 531 224	-	-	-		250				-	-	M12x80	
	285	190	-	0904 531 225	-	-	-		280				-	-	M12x80	
M16	220	100	-	0904 531 622	-	-	-	16	210	90	-	24	-	-	M16x80	10
	260	140	-	0904 531 623	-	-	-		250				-	-	M16x80	
	300	180	-	0904 531 624	-	-	-		290				-	-	M16x80	

