

DROP-IN ANCHOR W-ED



Approvals and certificates



uncracked
concrete



cracked
concrete



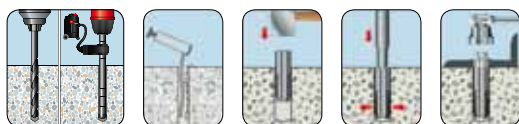
Type of installation

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

Application references



Installation



Loads

Thread size			M6x30	M8x30	M8x40	M10x30	M10x40	M12x50/80	M16x65/80	M20x80	
Effective anchorage depth		h_{ef}	[mm]	30	30	40	30	40	50	65	80
Non-cracked Concrete											
Tension	W-ED/S	N_{rec}	[kN]	3.2	3.2	3.6	3.2	4.9	6.9	10.2	14.0
	W-ED/A4; /HCR		[kN]	3.8	3.8	4.3	-	5.9	8.3	12.3	16.8
Shear	W-ED/S	V_{rec}	[kN]	2.9	3.2	3.9	3.2	4.1	10.4	18.0	27.9
	W-ED/A4; /HCR		[kN]	3.2	4.9	4.9	-	6.1	11.5	19.2	30.4

¹⁾ Loads are valid for single anchors. Normal spaced reinforcement in $\geq C20/25$. Material safety factor γ_w and safety factor for action $\gamma_L = 1.4$ 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	W-ED/S; /A4; /HCR	d_f	[mm]	7	9	9	12	12	14	18	22	
Drill depth	W-ED/S	h_0	[mm]	30	30	40	30	40	50	80	65	80
Min. thickness of concrete member	W-ED/A4; /HCR	h_{min}	[mm]	100	100	100	120	120	130	160	200	
	W-ED/S						-	130	140		250	
Min. edge distance	W-ED/S	c_{min}	[mm]	95	95	95	115	135	165	200	260	
	W-ED/A4; /HCR			80			-					

DROP-IN ANCHOR W-ED

Type	Anchor length		Art. no.		Drill hole diameter	Drill hole depth	Installation torque	Minimum screw-in depth	Maximum screw-in depth	Approval		P. Qty.
	l [mm]	lip [mm]	Carbon steel galvanized	Stainless steel A4	d ₀ [mm]	h ₀ [mm]	T _{inst} ≤ [Nm]	L _{sd min} [mm]	L _{th} [mm]	ETA-02/0044	ETA-05/0120	
M5	25	-	0904 5	-	8.0	25	3	6	10	-	-	100
M6	30	-	0904 010 06	0904 030 06		30	4	7	13	✓	✓	
M8	30	-	0904 010 08	0904 030 08	10.0	30	8	9	13	✓	✓	50
	40	-	0904 010 081	0904 030 081		40	8	9	20	✓	✓	
M10	40	-	0904 010 10	0904 030 10	12.0	40	15	11	15	✓	✓	25
M12	50	-	0904 010 12	0904 030 12	15.0	50	35	13	18	✓	✓	
M16	65	-	0904 010 16	0904 030 16	20.0	65	60	18	23	✓	✓	25
M20	80	-	0904 010 20	0904 030 20	25.0	80	120	22	34	✓	✓	
M6	25	✓	0904 040 006	-	8.0	25	4	6	12	-	✓	100
M8	25	✓	0904 040 008	-	10.0	25	8	8	13	-	✓	
	30	✓	0904 040 08	-		30		9	20	✓	✓	
	40	✓	0904 040 081	-		40		10	12	✓	✓	
M10	25	✓	0904 040 100	-	12.0	25	15	10	12	-	✓	50
	30	✓	0904 040 101	-		30		11	15	✓	✓	
	40	✓	0904 040 10	-		40		12	12	-	✓	
M12	25	✓	0940 040 120	-	15.0	25	35	12	12	-	✓	25
	50	✓	0940 040 12	-		50		13	18	✓	✓	

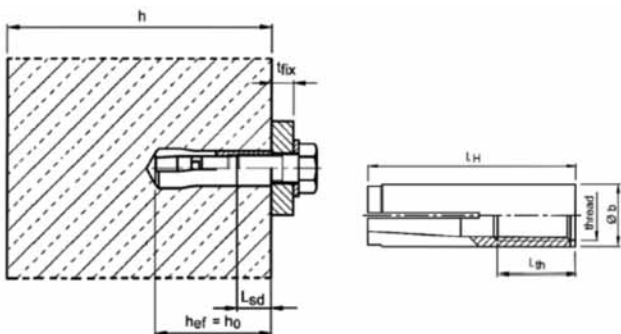
Loads when used for fixing a redundant non-structural system

Thread size				M6		M8			M10			M12		M16		
Effective anchorage depth				h _{ef}	[mm]	25	30	25	30	40	25	30	40	25	50	65
Solid Concrete Slabs																
Load in any direction	C12/15 - C16/20	S/A4	F _{rec}	[kN]	1.2	-	1.2	-	-	1.7	-	-	1.7	-	-	
	C20/25 - C50/60				1.7	1.2	1.9	1.7	2.0	2.1	2.0	2.0	2.1	2.4	6.3	
Precast Pre-stressed Hollow Core Slabs																
Load in any direction	C30/37 - C50/60	S/A4	F _{rec}	[kN]	1.7	-	1.9	-	-	2.1	-	-	2.1	-	-	

¹⁾ Loads are valid for anchors in indeterminate non-structural applications. Material safety factor γ_m and safety factor for action γ₁ = 1.4 are included.

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]	7		9			12			14		18	
Drill depth		h ₀	[mm]	25	30	25	30	40	25	30	40	25	50	65	
Minimum thickness of concrete member		h _{min}	[mm]	80	100	80	100	100	80	120	120	80	130	160	
Minimum edge distance		S/A4	c _{min}	[mm]	60	95/80	100	95	95	100	115/-	135	130	165	200
Minimum edge distance, precast			c _{min}	[mm]	150	-	150	-	-	150	-	-	150	-	-



ACCESSORIES FOR DROP-IN ANCHOR W-ED

Marking/expander tool

with hand guard (visual installation check)



For Drop-in anchor	Art.no.	P.Qty.
M6 x 25	0904 022 060	1
M6 x 30	0904 022 06	
M8 x 25	0904 022 080	
M8 x 30	0904 022 08	
M8 x 40	0904 022 081	
M10 x 25	0904 022 100	
M10 x 30	0904 022 101	
M10 x 40	0904 022 10	
M12 x 25	0904 022 120	
M12 x 50	0904 022 12	
M16 x 65	0904 022 16	
M20 x 80	0904 022 20	

Machine expander tool

(no visual installation check)



For Drop-in anchor	Art.no.	P.Qty.
M8 x 30	0904 023 08	1
M10 x 40	0904 023 10	
M12 x 50	0904 023 12	

Stop drill bit

with clip-on expander tool



For Drop-in anchor	Art.no.	P.Qty.
M6 x 25	0904 024 060	1
M6 x 30	0904 024 06	
M8 x 25	0904 024 080	
M8 x 30	0904 024 08	
M8 x 40	0904 024 081	
M10 x 25	0904 024 100	
M10 x 30	0904 024 101	
M10 x 40	0904 024 10	

Expander tool

(no visual installation check)



For Drop-in anchor	Art.no.	P.Qty.
M5 x 25 ¹⁾	0904 05	1
M6 x 30	0904 020 06	
M8 x 30	0904 020 08	
M8 x 40	0904 020 081	
M10 x 30	0904 020 101	
M10 x 40	0904 020 10	
M12 x 50	0904 020 12	
M16 x 65	0904 020 16	
M20 x 80	0904 020 20	

¹⁾ ohne Zulassung

Stop drill bit



For Drop-in anchor	Art.no.	P.Qty.
M6 x 25	0904 025 060	1
M6 x 30	0904 025 06	
M8 x 25	0904 025 080	
M8 x 30	0904 025 08	
M8 x 40	0904 025 081	
M10 x 25	0904 025 100	
M10 x 30	0904 025 101	
M10 x 40	0904 025 10	
M12 x 25	0904 025 120	
M12 x 50	0904 025 12	