

Wedge Anchor B A4 / B HCR

Stainless steel A4/316 and Stainless steel 1.4529



Description

The Wedge Anchor B A4 (ETA, Option 7) is the stainless steel version of Wedge Anchor B. It offers excellent load bearing capacities, close anchor spacing and edge distances. The ETA for Wedge Anchor B with stainless steel expansion clip has been expanded to include reduced embedment depths in all diameters.

Applications

Indoor and outdoor medium to heavy duty applications: Suspended ceilings (M6-M10), metal constructions, channels, brackets, supports, cladding systems, hand rails, cable trays, ducts.

Range of loading: 2,9 kN - 43,9 kN

Range of concrete quality: C20/25 - C50/60



A4



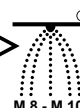
M6



M6 - M10



approved
M10 - M16



Fire
Resistance
M8 - M10



Wedge Anchor B A4



→ Stainless steel A4/316

→ ETA approval for cracked and non-cracked concrete

Description	Ref. No.	Drill hole Ø mm	Drill hole- depth mm	Setting- depth mm	Fixture thickness t _{fix} mm	An- chor- length mm	Thread	Packg. content pcs.	Weight per pkg. kg			
		h ₁	h _{1,red} ⁽²⁾	h _{nom}	h _{nom,red} ⁽²⁾	t _{fix}	t _{fix,red} ⁽²⁾	l				
B 6-5/40 A4 ¹⁾	01005501	6	-	35	-	30	-	5	40	M6x16	100	1,12
B 6-5/52 A4	01006501	6	-	45	-	39	-	5	52	M6x20	100	1,62
B 6-10-20/67 A4	01010501	6	55	45	49	39	10	20	67	M6x30	100	2,07
B 6-25-35/82 A4	01015501	6	55	45	49	39	25	35	82	M6x35	100	2,35
B 6-40-50/97 A4	01025501	6	55	45	49	39	40	50	97	M6x35	100	2,32
B 8-5/50 A4 ¹⁾	01105501	8	-	45	-	35	-	5	50	M8x22	100	2,74
B 8-4/60 A4	01110501	8	-	55	-	47	-	4	60	M8x25	100	3,44
B 8-10-19/75 A4	01115501	8	65	55	56	47	10	19	75	M8x40	100	3,55
B 8-15-24/80 A4	01120501	8	65	55	56	47	15	24	80	M8x45	100	3,84
B 8-20-29/85 A4	01125501	8	65	55	56	47	20	29	85	M8x50	100	4,00
B 8-30-39/95 A4	01135501	8	65	55	56	47	30	39	95	M8x60	100	4,19
B 8-45-54/110 A4	01145501	8	65	55	56	47	45	54	110	M8x75	100	4,78
B 8-55-64/120 A4 ¹⁾	01150501	8	65	55	56	47	55	64	120	M8x85	100	5,09
B 10-10/60 A4 ¹⁾	01205501	10	-	50	-	40	-	10	60	M10x25	50	2,31
B 10-10-16/85 A4	01210501	10	70	65	62	56	10	16	85	M10x40	50	3,00
B 10-15-21/90 A4	01215501	10	70	65	62	56	15	21	90	M10x45	50	3,06
B 10-20-26/95 A4	01220501	10	70	65	62	56	20	26	95	M10x50	50	3,26
B 10-30-36/105 A4	01225501	10	70	65	62	56	30	36	105	M10x60	50	3,47
B 10-45-51/120 A4	01230501	10	70	65	62	56	45	51	120	M10x75	50	4,00
B 10-50-56/125 A4	01235501	10	70	65	62	56	50	56	125	M10x80	50	4,21
B 10-70-76/145 A4	01240501	10	70	65	62	56	70	76	145	M10x80	50	4,84
B 10-100-106/175 A4	01245501	10	70	65	62	56	100	106	175	M10x80	50	5,70
B 10-140-146/215 A4	01250501	10	70	65	62	56	140	146	215	M10x80	25	3,79
B 12-5/75 A4 ¹⁾	01305501	12	-	65	-	55	-	5	75	M12x30	25	2,10
B 12-14/95 A4	01310501	12	-	75	-	66	-	14	95	M12x50	25	2,50
B 12-10-25/105 A4	01312501	12	90	75	81	66	10	25	105	M12x60	25	2,62
B 12-15-30/110 A4	01315501	12	90	75	81	66	15	30	110	M12x65	25	2,84
B 12-20-35/115 A4	01320501	12	90	75	81	66	20	35	115	M12x70	25	3,11
B 12-30-45/125 A4	01325501	12	90	75	81	66	30	45	125	M12x80	25	3,48
B 12-50-65/145 A4	01330501	12	90	75	81	66	50	65	145	M12x100	25	3,82
B 12-65-80/160 A4	01335501	12	90	75	81	66	65	80	160	M12x100	25	4,21
B 12-85-100/180 A4	01340501	12	90	75	81	66	85	100	180	M12x80	25	4,64
B 12-105-120/200 A4	01345501	12	90	75	81	66	105	120	200	M12x80	25	5,10
B 12-125-140/220 A4	01350501	12	90	75	81	66	125	140	220	M12x80	20	4,48
B 12-145-160/240 A4	01355501	12	90	75	81	66	145	160	240	M12x80	20	4,75

Description	Ref. No.	Drill hole Ø mm	Drill hole- depth mm	Setting- depth mm	Fixture thickness t _{fix} mm	An- chor- length mm	Thread	Packg. content pcs.	Wght. per pkg. kg			
		h ₁	h _{1,red} ⁽²⁾	h _{nom}	h _{nom,red} ⁽²⁾	t _{fix}	t _{fix,red} ⁽²⁾	l				
B 16-5/90 A4 ¹⁾	01505501	16	-	75	-	65	-	5	90	M16x35	20	3,36
B 16-14/115 A4	01510501	16	-	95	-	83	-	14	115	M16x60	20	4,14
B 16-10-26/130 A4	01512501	16	110	95	99	83	10	26	130	M16x70	20	5,04
B 16-30-46/150 A4	01515501	16	110	95	99	83	30	46	150	M16x90	20	6,01
B 16-60-76/180 A4	01520501	16	110	95	99	83	60	76	180	M16x110	10	3,45
B 16-80-96/200 A4	01525501	16	110	95	99	83	80	96	200	M16x110	10	3,77
B 16-100-116/220 A4	01530501	16	110	95	99	83	100	116	220	M16x80	10	4,25
B 16-130-146/250 A4	01535501	16	110	95	99	83	130	146	250	M16x80	10	4,91
B 16-200-216/320 A4	01545501	16	110	95	99	83	200	216	320	M16x80	10	5,34
B 20-5-27/150 A4	01605501	20	130	110	121	99	5	27	150	M20x70	10	4,06
B 20-35-57/180 A4	01610501	20	130	110	121	99	35	57	180	M20x70	10	4,96
B 20-60-82/205 A4	01612501	20	130	110	121	99	60	82	205	M20x70	10	5,55
B 20-95-117/240 A4	01615501	20	130	110	121	99	95	117	240	M20x70	10	6,50

¹⁾ Not part of approval.

²⁾ Reduced anchorage depth (observe reduced loads).

Wedge Anchor B HCR



→ High corrosion resistant steel 1.4529 (HCR)

→ Approved for suspended ceilings

Description	Ref. No.	Drill hole Ø mm	Drill hole- depth mm	Setting- depth mm	Fixture thickness t _{fix} mm	An- chor- length mm	Thread	Packg. content pcs.	Weight per pkg. kg			
		h ₁	h _{1,red} ¹⁾	h _{nom}	h _{nom,red} ¹⁾	t _{fix}	t _{fix,red} ¹⁾	l				
B 6-0-10/57 HCR	01007651	6	55	45	49	39	0	10	57	M6x20	100	1,45
B 6-10-20/67 HCR	01010651	6	55	45	49	39	10	20	67	M6x20	100	1,62
B 6-25-35/82 HCR	01015651	6	55	45	49	39	25	35	82	M6x20	100	2,07
B 6-40-50/97 HCR	01025651	6	55	45	49	39	40	50	97	M6x20	100	2,35

¹⁾ Reduced anchorage depth (observe reduced loads).

Other length on demand.



Extract from Permissible Service Conditions of ETA-05/0018, ETA-06/0155, ETA-06/0156 und Z-21.1-1598.
Approved loads for single anchor without influence of spacing and edge distance.
Total safety factor as per ETAG 001 included (γ_M and γ_F).

Loads and performance data		Wedge Anchor BA4 / HCR	M 6	M 8	M 10	M 12	M 16	M 20
Effective anchorage depth	h_{ef} [mm]		40	44	48	65	80	100
Reduced anchorage depth	$h_{ef,red}$ [mm]		30 ¹⁾	35 ¹⁾	42	50	64	78
non-cracked concrete								
Mean ultimate loads, tension	C25/30 N_{um} [kN]		11,0	12,4	17,5	22,6	39,7	53,1
Mean ultimate loads, shear	C25/30 V_{um} [kN]		9,7	19,5	31,9	42,6	76,9	110,4
cracked concrete (multiple use only)								
Approved loads (any direction)	C20/25 to C50/60 appr. F [kN]		2,4	0,8	-	-	-	-
non-cracked concrete								
Approved loads, tension	C20/25 appr. N [kN]		3,6	5,7	7,6	11,6	17,9	24,0
	C25/30 appr. N [kN]		3,9	6,3	8,4	13,1	18,9	26,4
	C30/37 appr. N [kN]		4,4	7,0	9,3	14,5	21,0	29,3
	C40/50 appr. N [kN]		4,8	8,1	10,7	16,8	24,2	33,8
	C50/60 appr. N [kN]		4,8	8,6	11,8	18,5	26,6	37,2
Approved loads, shear	C20/25 appr. V [kN]		4,0	6,9	8,0	15,4	28,6	43,9
	\geq C25/30 appr. V [kN]		4,0	6,9	8,8	15,4	28,6	43,9
Approved bending moments	appr. M [Nm]		5,7	13,7	28,0	48,6	113,7	231,6
Spacing and edge distance								
Effective anchorage depth	h_{ef} [mm]		40	44	48	65	80	100
Characteristic spacing	$s_{cr,N}$ [mm]		120/370 ²⁾	132	144	195	240	300
Characteristic edge distance	$c_{cr,N}$ [mm]		60/185 ²⁾	66	72	97,5	120	150
cracked concrete (multiple use only)								
Minimum spacing	s_{min} [mm]		50	200	200	-	-	-
Minimum edge distance	c_{min} [mm]		50	100	100	-	-	-
Minimum thickness of concrete slab	h_{min} [mm]		80	150	200	-	-	-
non-cracked concrete								
Minimum spacing	s_{min} / c [mm]		35/40	35/40	35/65	60/60	45/70	55/65
Minimum edge distance	c_{min} / s [mm]		35/60	40/35	45/110	60/60	55/80	65/55
Minimum thickness of concrete slab	h_{min} [mm]		100	80	100	80	100	130
Installation parameters								
Drill hole diameter	d_o [mm]		6	8	10	12	16	20
Diameter of clearance hole in the fixture	d_f [mm]		7	9	12	14	18	22
Depth of drill hole	h_1 [mm]		55	65	70	90	110	130
Installation torque	T_{inst} [Nm]		6/8 ^{2,3)}	15	25/30 ³⁾	50	100	160
Width across nut	SW [mm]		10	13	17	19	24	30

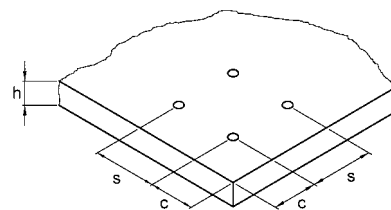
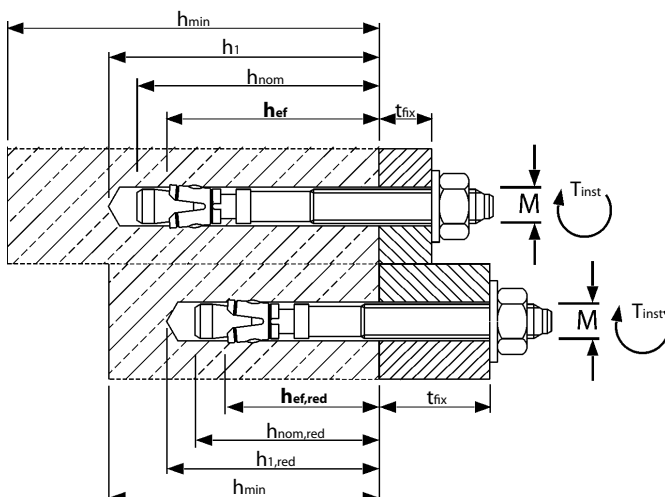
¹⁾ Application limited to statically indeterminated systems.

²⁾ For applications according to ETA-05/0018. / For applications according to ETA-06/0155 or ETA-06/0156.

³⁾ For applications according to ETA-05/0018. / For applications according to Z-21.1-1598.

Z-21.1-1598: DIBt approval for suspended ceilings (sizes M 6, M 8 and M 10).

For anchor designing, an easy to operate CD-ROM is available on request or can be downloaded at www.mkt-duebel.de.



Installation

