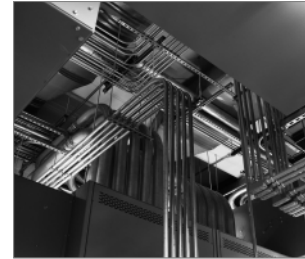
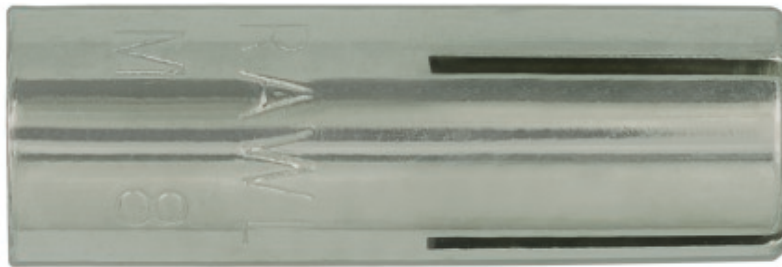


R-DCA-A4 Stainless Steel Wedge Anchor

Internally threaded stainless steel wedge anchor for simple hammer-set installation



Approvals and Reports

- ETA-13/0584



Product information

Features and benefits

- High performance in cracked and non-cracked concrete confirmed by ETA
- Product recommended for applications requiring fire resistance
- Stainless steel material for high resistance to corrosion
- Easy to install by hammer action
- Slotted sleeve and internal wedge component together facilitate easy setting and expansion

Applications

- Pipelines systems
- Ventilation systems
- Sprinkler systems
- Cable conduits and wires
- Gratings

Base materials

Approved for use in:

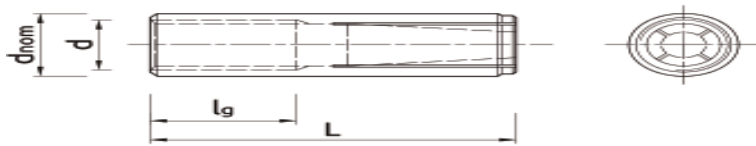
- Cracked concrete C20/25-C50/60
- Non-cracked concrete C20/25-C50/60
- Unreinforced concrete
- Reinforced concrete

Installation guide



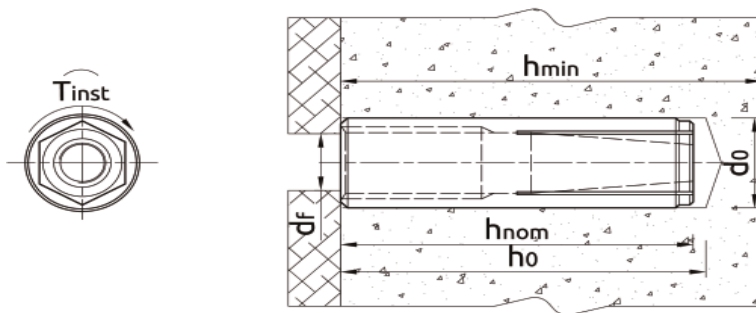
1. Drill a hole of required diameter and depth
2. Clear the hole of drilling dust and debris (using blowpump or equivalent method)
3. Insert wedge anchor, slotted end first
4. Use the setting tool to drive the internal wedge into the anchor
5. Insert bolt or stud through fixture and tighten to the recommended torque

Product information



Size	Product Code	Anchor				Fixture
		Diameter	External diameter	Length	Internal thread length	Hole diameter
		d [mm]	d_{nom} [mm]	L [mm]	l_g [mm]	d_f [mm]
M6	R-DCA-06-25-A4	6	8	25	11	7
M8	R-DCA-08-30-A4	8	10	30	13	9
M10	R-DCA-10-40-A4	10	12	40	15	12
M12	R-DCA-12-50-A4	12	15	50	20	14
M16	R-DCA-16-65-A4	16	20	65	25	18

Installation data



Size	M6	M8	M10	M12	M16	
Thread diameter	d [mm]	6	8	10	12	16
Hole diameter in substrate	d_0 [mm]	8	10	12	15	20
Installation torque	T_{inst} [Nm]	4.5	11	22	38	98
Min. hole depth in substrate	h_0 [mm]	30	32	42	53	70
Installation depth	h_{nom} [mm]	25	30	40	50	65
Min. substrate thickness	h_{min} [mm]	80	80	80	100	130
Min. spacing	s_{min} [mm]	200	200	200	200	260
Min. edge distance	c_{min} [mm]	150	150	150	150	195

Mechanical properties

Size	M6	M8	M10	M12	M16	
Nominal ultimate tensile strength - tension	f_{uk} [N/mm ²]	500	500	500	500	500
Nominal yield strength - tension	f_{yk} [N/mm ²]	210	210	210	210	210
Cross sectional area - tension	A_s [mm ²]	20.1	36.6	58	84.3	157
Elastic section modulus	W_{el} [mm ³]	21.21	50.27	98.17	169.65	402.12
Characteristic bending resistance	$M^0_{Rk,s}$ [Nm]	17.81	42.22	82.47	142.5	337.78
Design bending resistance	M [Nm]	11.88	28.15	54.98	95	225.19

Basic performance data

Performance data for single anchor without influence of edge distance and spacing

Size		M6	M8	M10	M12	M16
Effective embedment depth h_{ef}	[mm]	25.00	30.00	40.00	50.00	65.00
CHARACTERISTIC LOAD						
TENSION LOAD N_{Rk}	[kN]	1.00	2.01	3.20	4.59	8.27
SHEAR LOAD V_{Rk}	[kN]	1.00	2.01	3.20	4.59	8.27
DESIGN LOAD						
TENSION LOAD N_{Rd}	[kN]	0.48	0.96	1.52	2.19	3.94
SHEAR LOAD V_{Rd}	[kN]	0.48	0.96	1.52	2.19	3.94
RECOMMENDED LOAD						
TENSION LOAD N_{rec}	[kN]	0.34	0.68	1.09	1.56	2.81
SHEAR LOAD V_{rec}	[kN]	0.34	0.68	1.09	1.56	2.81

Design performance data

Size		M6	M8	M10	M12	M16
Effective embedment depth	h_{ef} [mm]	25.00	30.00	40.00	50.00	65.00
TENSION LOAD						
Spacing	$s_{cr,N}$ [mm]	200.00	200.00	200.00	200.00	260.00
Edge distance	$c_{cr,N}$ [mm]	150.00	150.00	150.00	150.00	195.00
TENSION AND SHEAR LOAD						
CONCRETE C20/25 - C50/60						
Characteristic resistance	F_{Rk} [kN]	1.00	2.01	3.20	4.59	8.27
Design resistance $V_{M^*} = 2.1$	F_{Rd} [kN]	0.48	0.96	1.52	2.19	3.94
SHEAR LOAD						
STEEL FAILURE						
Characteristic resistance with lever arm	$M_{Rk,s}$ [kN]	11.00	26.00	52.00	92.00	233.00
Design resistance $V_{Ms} = 1.25$	$M_{Rd,s}$ [kN]	8.80	20.80	41.60	73.60	186.40

Characteristic Resistance under fire exposure in concrete C20/25 to C50/60

Size		M8	M10	M12	M16
TENSION AND SHEAR LOAD					
Spacing	s_{cr} [mm]	120.00	160.00	200.00	260.00
Edge distance	c_{cr} [mm]	60.00	80.00	100.00	130.00
R (for EI) = 30 min					
TENSION AND SHEAR LOAD					
Characteristic resistance	F_{Rk} [kN]	0.50	0.80	1.10	2.10
R (for EI) = 60 min					
TENSION AND SHEAR LOAD					
Characteristic resistance	F_{Rk} [kN]	0.50	0.80	1.10	2.10
R (for EI) = 90 min					
TENSION AND SHEAR LOAD					
Characteristic resistance	F_{Rk} [kN]	0.50	0.80	1.10	2.10
R (for EI) = 120 min					
TENSION AND SHEAR LOAD					
Characteristic resistance	F_{Rk} [kN]	0.40	0.60	0.90	1.60

Product commercial data

Size	Product Code	Anchor		Quantity [pcs]			Weight [kg]			Bar Codes
		Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
M6	R-DCA-06-25-A4 ¹⁾	6	25	100	1000	100000	0.73	7.3	760.0	5010445776083
M8	R-DCA-08-30-A4 ¹⁾	8	30	100	1000	64000	1.27	12.7	842.8	5010445776205
M10	R-DCA-10-40-A4 ¹⁾	10	40	50	500	32000	1.18	11.8	785.2	5010445776328
M12	R-DCA-12-50-A4 ¹⁾	12	50	50	400	16000	2.4	19.2	798.0	5010445776410
M16	R-DCA-16-65-A4 ¹⁾	16	65	25	100	6000	2.8	11.3	706.8	5010445776502

¹⁾ ETA-13/0584