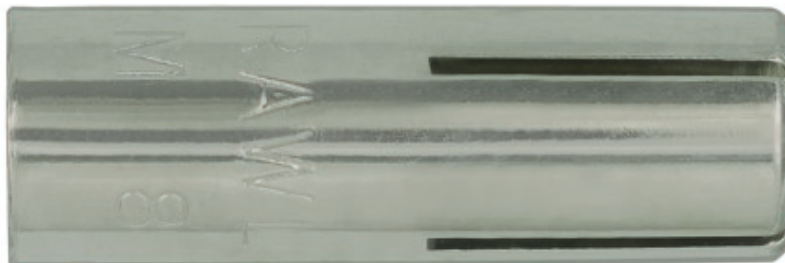


R-DCA-A4 Stainless Steel Wedge Anchor

Internally threaded stainless steel drop-in anchors for simple hammer-set installation



Approvals and Reports

- ETA-13/0584
- UKTA-22/6371



Product information

Features and benefits

- High performance in cracked and non-cracked concrete confirmed by ETA
- Product is covered with European Technical Assessment for multi-point non-structural fixings
- Product recommended for applications requiring fire resistance
- Stainless steel material for high resistance to corrosion
- Easy to install by hammer action and manual setting tool
- Slotted sleeve and internal wedge component together facilitate easy setting and expansion
- Product was tested for construction fixing

Applications

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

Base materials

Approved for use in:

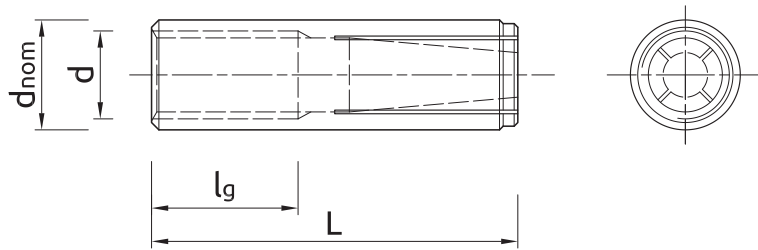
- Cracked concrete C20/25-C50/60
- Non-cracked concrete C20/25-C50/60
- Unreinforced concrete
- Reinforced concrete

Installation guide



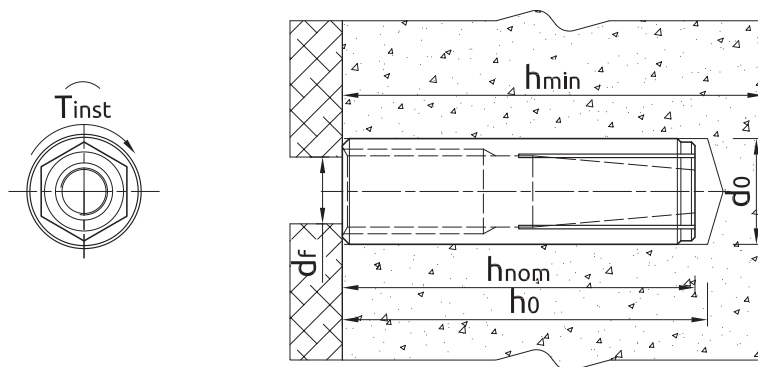
1. Drill a hole of required diameter and depth
2. Clear the hole of drilling dust and debris (using blowpump or equivalent method)
3. Insert wedge anchor, slotted end first
4. Use the setting tool to drive the internal wedge into the anchor
5. Insert bolt or stud through fixture and tighten to the recommended 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	14	9
M10	R-DCA-10-40-A4	10	12	40	19	12
M12	R-DCA-12-50-A4	12	15	50	25	14
M16	R-DCA-16-65-A4	16	20	65	28	18

Installation data



Size		M6	M8	M10	M12	M16
Thread diameter	d [mm]	6	8	10	12	16
Hole diameter in substrate	d_o [mm]	8	10	12	15	20
Installation torque	T_{inst} [Nm]	4.5	11	22	38	98
Min. hole depth in substrate	h_o [mm]	27	32	42	52	67
Min. 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

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
MEAN ULTIMATE LOAD						
TENSION AND SHEAR LOAD $F_{Rk,m}$	[kN]	-	-	-	-	-
CHARACTERISTIC LOAD						
TENSION AND SHEAR LOAD F_{Rk}	[kN]	1.00	2.00	3.00	4.50	8.00
DESIGN LOAD						
TENSION AND SHEAR LOAD F_{Rd}	[kN]	0.55	1.11	1.67	2.50	4.44
RECOMMENDED LOAD						
TENSION AND SHEAR LOAD F_{rec}	[kN]	0.39	0.79	1.19	1.79	3.17

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 AND SHEAR LOAD						
Characteristic resistance	F_{Rk} [kN]	1.00	2.01	3.20	4.59	8.27
Installation safety factor	γ_{inst} -	1.20	1.20	1.20	1.20	1.20
Spacing	s_{cr} [mm]	200.0	200.0	200.0	200.0	260.0
Edge distance	c_{cr} [mm]	150.0	150.0	150.0	150.0	195.0
SHEAR LOAD						
STEEL FAILURE; STEEL GRADE A4-70						
Characteristic resistance with lever arm	$M_{Rk,s}$ [Nm]	11.00	26.00	52.00	92.00	233.0
Partial safety factor	γ_{Ms} -	1.25	1.25	1.25	1.25	1.25

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

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

1) ETA-13/0584