

INFORMATION

Deformation controlled zinc plated (5µm)/stainless steel A4 anchor suitable for multiple use for non-structural applications in concrete.

The specific design gives flexibility of using the anchor for applications with the embedment depths greater than 30mm in solid concrete.

Internal thread suitable for bolts or threaded studs.

BASE MATERIAL

- Solid Cracked Concrete C20/25 To C50/60
- Solid Non-Cracked Concrete C20/25 To C50/60

FEATURES

- Deformation-controlled Expansion
- Fast And Secure Installation
- Reaction To Fire Class A1
- Fire Resistant Loading
- Permanent Socket To Allow Removal And Replacement Of Fixture
- Use Conditions: Check The ETA

APPROVALS

European Technical Assessment
ETAG 001-06



ETA-18/0213

Fire Resistance



ETA-18/0213

RELATED PRODUCTS



SDS+ Drill Bits



Hole Cleaning Pump

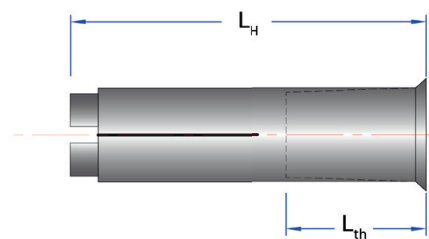
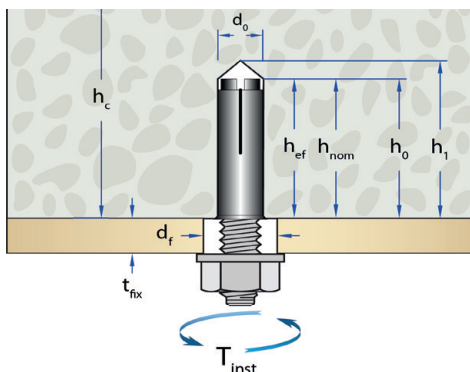


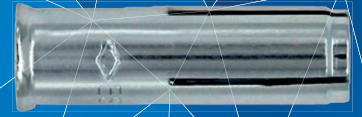
Drop In Anchor Setting Punch

RANGE AND LOAD DATA

RANGE DATA FOR ANCHORAGE DEPTH $h_{ef} \geq 30$ mm

Part Number	Drill Hole Diameter (d_0)	Depth of Drill Hole (h_0)	Anchor Length (L_H)	Internal Threaded Length (L_{th})	Fixture Clearance Hole (d_f)	Minimum Member Thickness (h_{min})	Minimum Spacing (s_{min})	Minimum Edge Distance (c_{min})	Tightening Torque (T_{inst})
	mm	mm	mm	mm	mm	mm	mm	mm	Nm
ADB Drop In (Zinc Plated 5µm)									
ADBM08	10	30	30	13	9	100	60	95	8
ADBM10	12	40	40	15	12	120	100	135	15
ADBM12	15	50	50	18	14	130	120	165	35
ADBM16	20	65	65	23	18	160	150	200	60
DSS Drop In (Stainless Steel A4)									
DSSM06	8	30	30	13	7	100	50	80	4
DSSM08	10	30	30	13	9	100	60	95	8
DSSM10	12	40	40	15	12	130	100	135	15
DSSM12	15	50	50	18	14	140	120	165	35
DSSM16	20	65	65	23	18	160	150	200	60





SOLID CONCRETE SLABS

Performance Data For Anchorage Depth ($h_{ef} \geq 30\text{mm}$)

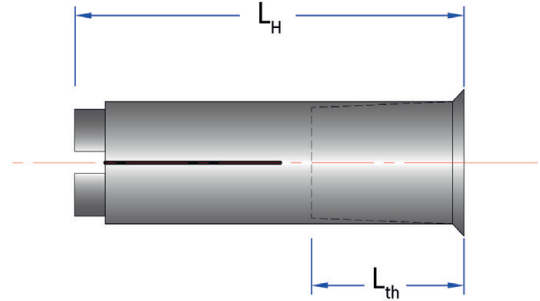
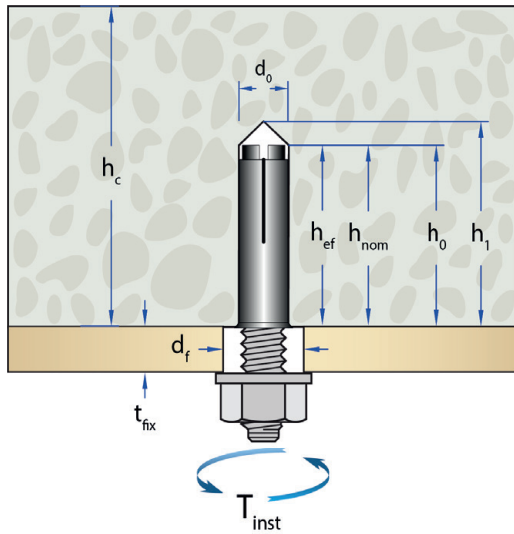
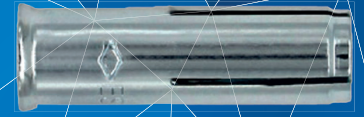
Thread Diam (d_{nom})	Overall Embedment Depth ($h_{nom} = h_{ef}$)	Minimum Concrete Thickness (h_{min})	Characteristic Resistance		Design Resistance		Approved Resistance		Design Spacing (s)	Design Edge Distance (c)
			Load* (F_{Rk})	Bending Moment**	Load (F_{Rd})	Bending Moment	Load (F_{Ra})	Bending Moment		
			C20/25 to C50/60	($M_{Rk,s}^0$)	C20/25 to C50/60	($M_{Rd,s}^0$)	C20/25 to C50/60	($M_{Ra,s}^0$)		
mm	mm	mm	kN	Nm	kN	Nm	kN	Nm	mm	mm
Zinc Plated Steel Grade 4.6 ($\gamma_{MS}=1.67$)										
8	30	100	5.0	15.0	2.3	9.0	1.7	6.4	180	90
10	40	120	6.0	30.0	2.8	18.0	2.0	12.8	170	85
12	50	130	6.0	52.0	3.3	31.1	2.4	22.2	170	85
16	65	160	16.0	133.0	8.9	79.6	6.3	56.9	400	200
Zinc Plated Steel Grade 4.8 ($\gamma_{MS}=1.25$)										
8	30	100	5.0	15.0	2.3	12.0	1.7	8.6	180	90
10	40	120	6.0	30.0	2.8	24.0	2.0	17.1	170	85
12	50	130	6.0	52.0	3.3	41.6	2.4	29.7	170	85
16	65	160	16.0	133.0	8.9	106.4	6.3	76.0	400	200
Zinc Plated Steel Grade 5.6 ($\gamma_{MS}=1.67$)										
8	30	100	5.0	19.0	2.3	11.4	1.7	8.1	180	90
10	40	120	6.0	37.0	2.8	22.2	2.0	15.8	170	85
12	50	130	6.0	65.0	3.3	38.9	2.4	27.8	170	85
16	65	160	16.0	166.0	8.9	99.4	6.3	71.0	400	200
Zinc Plated Steel Grade 5.8 ($\gamma_{MS}=1.25$)										
8	30	100	5.0	19.0	2.3	15.2	1.7	10.9	180	90
10	40	120	6.0	37.0	2.8	29.6	2.0	21.1	170	85
12	50	130	6.0	65.0	3.3	52.0	2.4	37.1	170	85
16	65	160	16.0	166.0	8.9	132.8	6.3	94.9	400	200
Zinc Plated Steel Grade 8.8 ($\gamma_{MS}=1.25$)										
8	30	100	5.0	30.0	2.3	24.0	1.7	17.1	180	90
10	40	120	6.0	60.0	2.8	48.0	2.0	34.3	170	85
12	50	130	6.0	105.0	3.3	84.0	2.4	60.0	170	85
16	65	160	16.0	266.0	8.9	212.8	6.3	152.0	400	200
Stainless Steel Grade A4-316 Class 70 ($\gamma_{MS}=1.25$)										
6	30	100	3.0	11.0	1.7	7.1	1.2	5.0	130	65
8	30	100	5.0	26.0	2.3	16.7	1.7	11.9	180	90
10	40	120	6.0	52.0	2.8	33.3	2.0	23.8	170	85
12	50	130	6.0	92.0	3.3	59.0	2.4	42.1	170	85
16	65	160	16.0	233.0	8.9	149.4	6.3	106.7	400	200

* Load in any direction.

** Shear load with lever arm.

For variations in structure thickness, reduced spacing and edge calculations download the free **Anchor Calculation Program** from www.jcpfixings.co.uk





FIRE RESISTANCE DATA

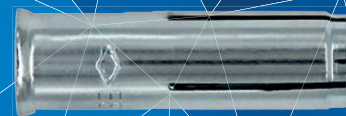


Fire Resistance Data (For Anchorage Size $h_{ef} \geq 30$ mm in Solid Concrete Slabs C20/25 to C50/60)*

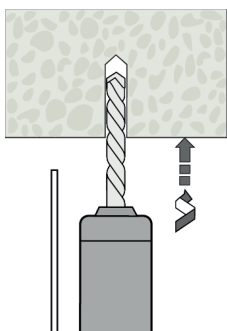
Thread Diam (d_{nom})	Overall Embedment Depth (h_{nom})	Design Resistance				Approved Resistance				Spacing ($s_{c,fr}$)	Edge Distance ($c_{c,fr}$)
		Tensile ($N_{Ra,fr}$) or Shear ($V_{Ra,fr}$) (kN)				Tensile ($N_{Ra,fr}$) or Shear ($V_{Ra,fr}$) (kN)					
mm	mm	30min (R30)	60min (R60)	90min (R90)	120min (R120)	30min (R30)	60min (R60)	90min (R90)	120min (R120)	mm	mm
Zinc Plated Steel Grade 4.6											
8	30	0.6	0.6	0.6	0.5	0.4	0.4	0.4	0.4	180	90
10	40	0.9	0.8	0.6	0.5	0.6	0.6	0.4	0.4	170	85
12	50	1.5	1.3	1.1	0.8	1.1	0.9	0.8	0.6	200	100
16	65	3.1	2.4	2.0	1.6	2.2	1.7	1.4	1.1	400	200
Zinc Plated Steel Grade 4.8											
8	30	0.9	0.9	0.6	0.5	0.6	0.6	0.4	0.4	180	90
10	40	1.5	1.5	1.1	0.9	1.1	1.1	0.8	0.6	170	85
12	50	1.5	1.5	1.5	1.2	1.1	1.1	1.1	0.9	200	100
16	65	4.0	4.0	3.0	2.4	2.9	2.9	2.1	1.7	400	200
Zinc Plated Steel Grade ≥ 5.6											
8	30	0.9	0.9	0.9	0.5	0.6	0.6	0.6	0.4	180	90
10	40	1.5	1.5	1.5	1.0	1.1	1.1	1.1	0.7	170	85
12	50	1.5	1.5	1.5	1.2	1.1	1.1	1.1	0.9	200	100
16	65	4.0	4.0	3.7	2.4	2.9	2.9	2.6	1.7	400	200
Stainless Steel Grade A4-316 Class 70											
6	30	0.8	0.8	0.4	0.3	0.6	0.6	0.3	0.2	130	65
8	30	0.9	0.9	0.9	0.5	0.6	0.6	0.6	0.4	180	90
10	40	1.5	1.5	1.5	1.0	1.1	1.1	1.1	0.7	170	85
12	50	1.5	1.5	1.5	1.2	1.1	1.1	1.1	0.9	200	100
16	65	4.0	4.0	3.7	2.4	2.9	2.9	2.6	1.7	400	200

* The determination covers anchors with a fire attack from one side only. If the fire attack is from more than one side, the design method may be taken only, if the edge distance of the anchor is $c \geq 300$ mm and $\geq 2 h_{ef}$.

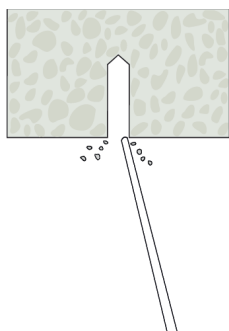




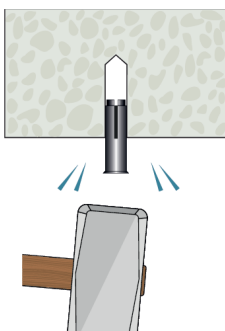
INSTALLATION INSTRUCTIONS



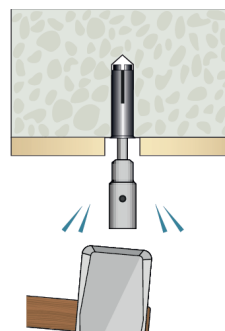
-Drill correct diameter hole to corresponding depth



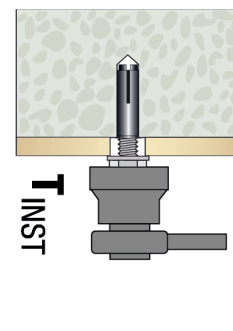
-Clean hole by blowing to remove drilling debris and dust



-Insert anchor through concrete using suitable hammer



-Hammer wedge home using correct setting punch



-Tighten with torque wrench to recommended torque

