

INFORMATION

The ETA Ankerbolt is a zinc plated self tapping concrete screw for use in a variety of base materials and structures subject to dry internal conditions.

The undercutting action provides a positive anchorage with no expansion forces.

The wide range of sizes gives flexibility of choosing the correct anchor according to the fixture thickness.

BASE MATERIAL

- Concrete C20/25 to C50/60
- Cracked/Non-Cracked Concrete
- Hollow Concrete Planks
- Solid Brickwork
- Concrete Block
- Natural Stone

FEATURES

- Undercutting Action
- Fast And Secure Installation
- Expansion Free
- Through Fixing
- High Performance
- Zinc Plated Min. 5µm
- Mechanical Galvanised Min. 40µm
- Reaction To Fire Class A1
- Fire Resistant Loading

APPROVALS

European Technical Assessment Option 1 Cracked Concrete



ETA-15/0040
Fire Resistance



ETA-15/0040

RELATED PRODUCTS



SDS+ Drill Bits



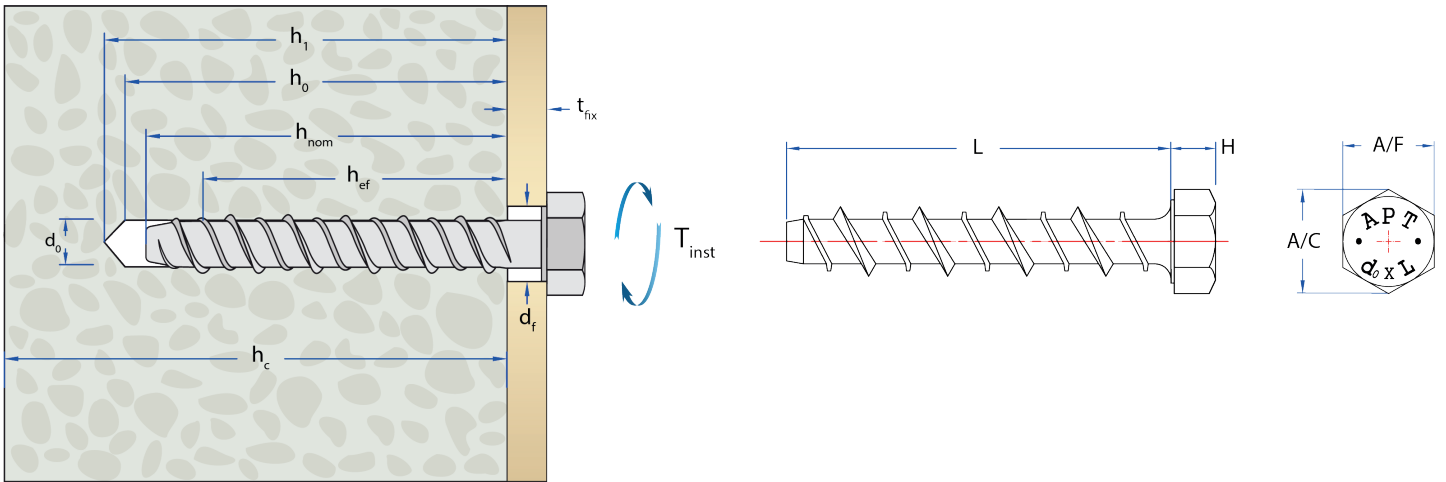
Hole Cleaning Pump

RANGE AND LOAD DATA

RANGE DATA										
Part Number	Drill Hole Diameter (d ₀)	Thread Diameter (d _{nom})	Anchor Length (L)	Fixture Clearance Hole (d _f)	Max Fixture Thickness (t _{fx})	Min Hole Depth (h ₁)	Embedment Depth (h _{nom})	Min Structure Thickness (h ₂)	Width Across Flats (A/F)	Tightening Torque (T _{inst})
	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm
JAB08/10080ETA	8	10	80	12	5	90	75	120	15	40
JAB08/10100ETA			100		25					
JAB08/10130ETA			130		55					
JAB08/10150ETA			150		75					
JAB10/12100ETA	10	12	100	14	15	100	85	125	17	60
JAB10/12130ETA			130		45					
JAB10/12150ETA			150		65					
JAB12/14100ETA	12	14	100	16	5	110	95	140	19	80
JAB12/14130ETA			130		35					
JAB12/14150ETA			150		55					
JAB12/14200ETA			200		105					
JAB14/16130ETA	14	16	130	18	20	130	110	170	24	90
JAB14/16150ETA			150		50					
JAB14/16200ETA			200		90					
JAB16/18150ETA*	16	18	150	20	30	145	120	190	27	100
JAB16/18200ETA*			200		80					

* Mechanical Galvanised minimum 40µm.





NON-CRACKED CONCRETE

Performance Data (C20/25 non-cracked concrete)

Drill Diam (d ₀)	Overall Embedment Depth (h _{nom})	Minimum Concrete Thickness (h _{min})	Characteristic Resistance		Design Resistance		Approved Resistance		Design Spacing (s)		Design Edge Distance (c)	
			Tensile (N _{Rk})	Shear (V _{Rk})	Tensile (N _{Rd})	Shear (V _{Rd})	Tensile (N _{Ra})	Shear (V _{Ra})	Tensile	Shear	Tensile	Shear
mm	mm	mm	kN	kN	kN	kN	kN	kN	mm	mm	mm	mm
8	75	120	12.0	20.5	6.6	11.3	4.7	8.0	50	170	50	130
10	85	125	16.0	49.3	8.8	27.3	6.2	19.5	60	190	60	330
12	95	140	20.0	57.8	11.1	32.1	7.9	22.9	80	210	70	360
14	110	170	35.0	70.9	19.4	39.3	13.8	28.0	230	240	130	390
16	120	190	40.0	80.5	22.2	44.7	15.8	31.9	260	260	130	420

CRACKED CONCRETE

Performance Data (C20/25 cracked concrete)

Drill Diam (d ₀)	Overall Embedment Depth (h _{nom})	Minimum Concrete Thickness (h _{min})	Characteristic Resistance		Design Resistance		Approved Resistance		Design Spacing (s)		Design Edge Distance (c)	
			Tensile (N _{Rk})	Shear (V _{Rk})	Tensile (N _{Rd})	Shear (V _{Rd})	Tensile (N _{Ra})	Shear (V _{Ra})	Tensile	Shear	Tensile	Shear
mm	mm	mm	kN	kN	kN	kN	kN	kN	mm	mm	mm	mm
8	75	120	7.5	14.6	4.1	8.1	2.9	5.7	50	170	50	130
10	85	125	12.0	35.1	6.6	19.5	4.7	13.9	70	190	60	330
12	95	140	16.0	41.2	8.8	22.8	6.2	16.2	120	210	80	360
14	110	170	20.0	50.5	11.1	28.0	7.9	20.0	140	240	90	390
16	120	190	25.0	57.4	13.8	31.8	9.8	22.7	190	260	110	420

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 (C20/25 to C50/60 cracked or non-cracked concrete)*

Drill Diam (d _v)	Overall Embedment Depth (h _{nom})	Minimum Concrete Thickness (h _{min})	Design Resistance				Approved Resistance			
			Tensile (N _{Rd,fr}) or Shear (V _{Rd,fr}) (kN)**				Tensile (N _{Ra,fr}) or Shear (V _{Ra,fr}) (kN)			
			30min (R30)	60min (R60)	90min (R90)	120min (R120)	30min (R30)	60min (R60)	90min (R90)	120min (R120)
8	75	120	0.4	0.4	0.3	0.2	0.28	0.28	0.21	0.14
10	85	125	1.1	0.9	0.7	0.6	0.78	0.64	0.50	0.42
12	95	140	2.0	1.5	1.3	1.0	1.42	1.07	0.92	0.71
14	110	170	2.8	2.1	1.8	1.4	2.00	1.50	1.28	1.00
16	120	190	3.7	2.8	2.4	1.8	2.64	2.00	1.71	1.28

* 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 $\geq 2 h_{ef}$.

**For combined loads, use Anchor Calculation Program.

SUPPLEMENTARY DATA

Influence Of Concrete Strength (Cracked/Non-cracked Concrete)

Concrete strength		C20/25	C30/37	C40/50	C50/60
Cylinder	N/mm ²	20	30	40	50
Cube	N/mm ²	25	37	50	60
Factor	M8, M10, M12	1.0	1.17	1.32	1.42
	M14, M16	1.0	1.22	1.41	1.55

Important Note:

When using concrete factors ensure that loads do not exceed Steel Design Resistance.

Steel Failure

Drill Diam (d _v)	Tensile Resistance			Shear Resistance		
	Characteristic Resistance (N _{Rk,s})	Design Resistance (N _{Rd,s})*	Approved Resistance (N _{Ra,s})	Characteristic Resistance (V _{Rk,s})	Design Resistance (V _{Rd,s})**	Approved Resistance (V _{Ra,s})
mm	kN	kN	kN	kN	kN	kN
8	44.2	31.6	22.6	28.5	19.0	13.6
10	70.1	50.1	35.8	46.4	30.9	22.1
12	101.2	72.3	51.6	57.2	38.1	27.2
14	140.0	100.0	71.4	80.4	53.6	38.3
16	183.9	131.4	93.8	84.4	56.3	40.2

* A partial safety factor (γ_{MS}) equal to 1.4 is included.

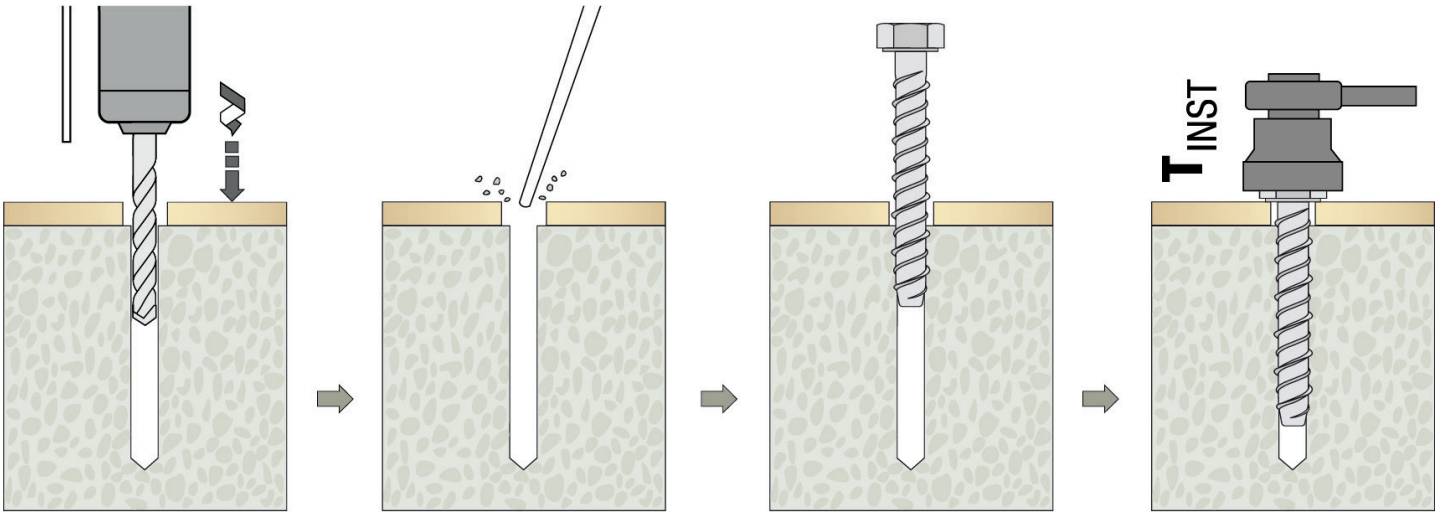
** A partial safety factor (γ_{MS}) equal to 1.5 is included.

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





INSTALLATION INSTRUCTIONS



-Position fixture and drill correct diameter hole to corresponding depth by using the rotary hammer drilling mode

-Clean hole by blowing three times to remove drilling debris and dust

-Insert anchor through fixture into concrete using electrical impact driver Bosch GD18E or Makita 6905H. Other suitable impact driver with equivalent force and performance may be used.

-Tighten with torque wrench to recommended torque

INSTALLATION INSTRUCTIONS VIDEO

To watch the video and subscribe, please click on the link or scan the QR code:

[How to install a Concrete Bolt \(Hexagon Head\)](#)



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

