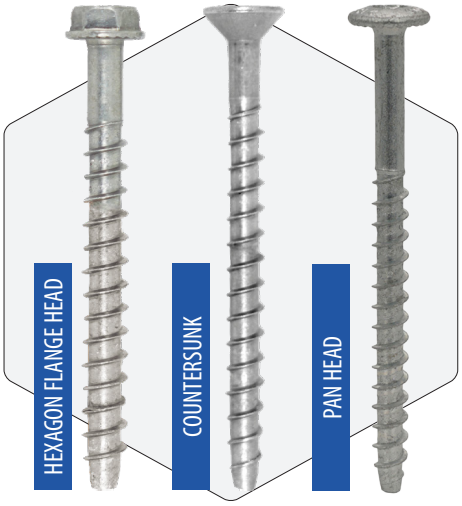
Ankerbolt A4 Stainless Steel



INFORMATION

The Ankerbolt A4 stainless steel is a self tapping anchor for use in a variety of base materials.
It is designed for multiple use for non-structural applications and It is suitable for dry internal conditions as well as the anchorages subject to external atmospheric exposure including industrial and marine environment.

The undercutting action provides a positive anchorage with no expansion forces.
The wide range of types and 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
- Stainless steel A4
- Reaction To Fire Class A1
- Fire Resistant Loadings

APPROVALS

European Technical Assessment

ETAG 001-06
ETA-20/0727

Fire Resistance
ETA-20/0727

RELATED PRODUCTS

SDS+ Drill Bits

Hole Cleaning Pump

Torx Driver Bits
(For Countersunk and Pan head)

RANGE AND LOAD DATA

RANGE DATA

Part Number	Drill Hole Diameter	Thread Diameter	Anchor Length	Thread Length	Fixture Clearance Hole	Shallow Embedment				Deep Embedment				Width Across Flats / head size	Tightening Torque
						Red. Max Fixture Thick-ness	Red. Min Hole Depth	Red. Embed-ment Depth	Red. Min Structure Thickness	Max Fixture Thickness	Min Hole Depth (h_1)	Embed-ment Depth	Min Structure Thick-ness		
	(d_0)	(d_{nom})	(L)	(L1)	(d_f)	($t_{fix,red}$)	($h_{1,red}$)	($h_{nom,red}$)	($h_{c,red}$)	(t_{fix})	(h_1)	(h_{nom})	(h_c)	(A/F) / (H)	(T_{inst})
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm
HEXAGON FLANGE HEAD															
JAB06/08050SS	6	8	50	45	9	5	55	45	90	N/A	N/A	N/A	N/A	10 / 6	-
JAB06/08075SS			75	70		30				5	80	70	110		
JAB06/08100SS			100	70		55				30					
JAB08/10060SS	8	10	60	55	11	8	65	52	100	N/A	N/A	N/A	N/A	13 / 7.5	31
JAB08/10075SS			75	65		23				N/A	N/A	N/A	N/A		
JAB08/10100SS			100	85		48				15	95	85	125		
JAB10/12075SS	10	12	75	75	13	5	80	70	125	N/A	N/A	N/A	N/A	17 / 9.5	-
JAB10/12100SS			100	100		25	85	75		N/A	N/A	N/A	N/A		
JAB10/12135SS			135	100		60				35	110	100	140		
JAB10/12150SS			150	100		75				50	110	100	140		
JAB12/14100SS	12	14	100	75	15	25	85	75	125	N/A	N/A	N/A	N/A	19 / 11	-

Technical Data Sheet

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Re03 May 2025

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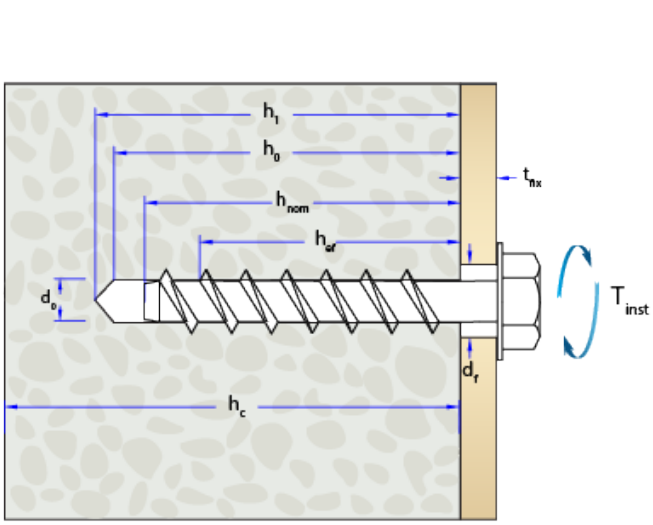
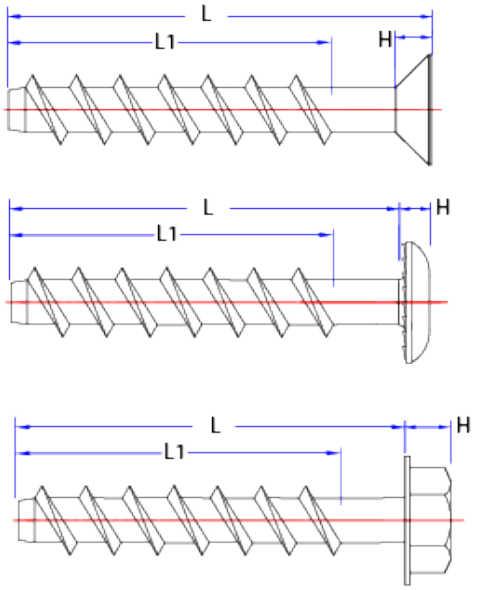
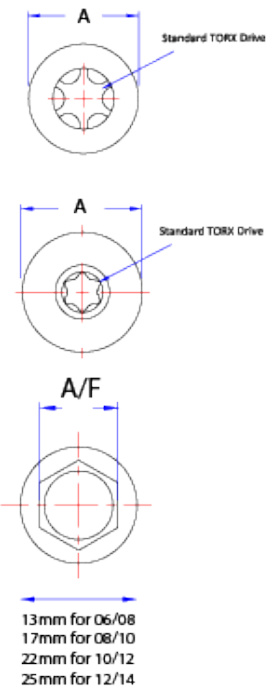
RANGE DATA																
Part Number	Drill Hole Dia.	Thread Dia.	Anchor Length	Thread Length	Fixture Clear-ance Hole	Shallow Embedment				Deep Embedment				Head diameter/ Head Size	Driver Size	Tight-ening Torque
						Red. Max Fixture Thickness	Red. Min Hole Depth	Red. Embed-ment Depth	Red. Min Structure Thickness	Max Fixture Thickness	Min Hole Depth	Embed-ment Depth	Min Structure Thickness			
	(d_0)	(d_{nom})	(L)	(L1)	(d_f)	($t_{fix,red}$)	($h_{1,red}$)	($h_{nom,red}$)	($h_{c,red}$)	(t_{fix})	(h_1)	(h_{nom})	(h_c)	(A/ H)	-	(T_{inst})
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	-	Nm
COUNTERSUNK																
JAB06/08050CSSS	6	8	50	Full	9	5	55	45	90	N/A	N/A	N/A	N/A	15.5 / 6	T40	-
JAB06/08075CSSS			75	55		20	65	55	100	N/A	N/A	N/A	N/A			
JAB06/08100CSSS			100	70		45				30	80	70	110			
JAB08/10050CSSS	8	10	50	Full	11	5	55	45	90	N/A	N/A	N/A	N/A	18 / 7	T45	-
JAB08/10060CSSS			60	Full		15	55			N/A	N/A	N/A	N/A			
JAB08/10075CSSS			75	65		20	65	55	100	N/A	N/A	N/A	N/A			
JAB08/10100CSSS			100	85		45				15	95	85	125			
PAN HEAD																
JAB06/08050PHSS	6	8	50	45	9	5	55	45	90	N/A	N/A	N/A	N/A	16.5/ 3.5	T40	-
JAB06/08075PHSS			75	55		30				N/A	N/A	N/A	N/A			
JAB06/08100PHSS			100	70		55				30	80	70	110			







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SHALLOW EMBEDMENT

Performance Data (Cracked and uncrakced C20/25 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
HEXAGON FLANGE HEAD												
6	45	90	1.8	5.1	1.2	3.4	0.8	2.4	70	70	45	45
8	***52***	***100***	***2.0***	***5.8***	***1.3***	***3.8***	***0.9***	***2.7***	***75***	***75***	***50***	***50***
10	75	125	6.5	11.6	4.3	7.7	3.0	5.5	115	115	80	80
12	75	125	8.6	10.9	5.7	7.2	4.0	5.1	120	120	85	85
COUNTERSUNK												
6	45	90	1.6	6.1	1.0	4.8	0.7	3.4	80	80	55	55
8	45	90	1.7	3.8	1.1	3.0	0.7	2.1	95	95	65	65
PAN HEAD												
6	45	90	1.6	6.1	1.0	4.8	0.7	3.4	80	80	55	55

* The ***Bold-Italic*** figures are included in ETA.

DEEP EMBEDMENT

Performance Data (Cracked and uncrakced C20/25 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
HEXAGON FLANGE HEAD												
6	***70***	***110***	***5.0***	***9.0***	***3.3***	***7.2***	***2.3***	***5.1***	***130***	***130***	***90***	***90***
8	85	125	5.0	16.5	2.3	13.2	1.6	9.4	160	160	105	105
10	100	140	7.0	22.7	4.6	15.1	3.2	10.7	180	180	120	120
COUNTERSUNK												
6	***70***	***110***	***3.5***	***6.1***	***2.3***	***4.8***	***1.6***	***3.4***	***130***	***130***	***90***	***90***
8	85	125	4.5	11.2	2.1	8.9	1.5	6.3	160	160	105	105
PAN HEAD												
6	***70***	***110***	***2.5***	***6.1***	***1.6***	***4.8***	***1.1***	***3.4***	***130***	***130***	***90***	***90***

* The ***Bold-Italic*** figures are included in ETA.

For variations in structure thickness, reduced spacing and edge calculations download the free **A**nchor **C**alculation **P**rogram from **www.jcpfixings.co.uk**

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SUPPLEMENTARY DATA

Influence Of Concrete Strength					
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		1.0	1.20	1.37	1.51

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

Steel Failure						
Drill Diam (d_0)	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
HEXAGON FLANGE HEAD						
6	18.1	12.1	8.6	9.0	7.2	5.1
8	33.0	22.0	15.7	13.2	10.6	7.5
10	53.7	35.8	25.6	26.8	21.4	15.3
12	78.1	52.1	37.2	39.0	31.2	22.3
COUNTERSUNK						
6	12.2	8.1	5.8	6.1	4.9	3.5
8	33.0	22.0	15.7	11.2	8.9	6.3
PAN HEAD						
6	12.2	8.1	5.8	6.1	4.9	3.5

* A partial safety factor (γ_{MS}) equal to 1.5 is included.
** A partial safety factor (γ_{MS}) equal to 1.25 is included.

FIRE RESISTANCE DATA

Fire Resistance Data											
Drill Diam (d_0)	Overall Embedment Depth (h_{nom})	Design Resistance**				Approved Resistance				Spacing ($s_{cr,fi}$)	Edge Distance ($c_{cr,fi}$)
		Tensile ($N_{Rd,fi}$) or Shear ($V_{Rd,fi}$) (kN)				Tensile ($N_{Ra,fi}$) or Shear ($V_{Ra,fi}$) (kN)					
mm	mm	30min (R30)	60min (R60)	90min (R90)	120min (R120)	30min (R30)	60min (R60)	90min (R90)	120min (R120)	mm	mm
6	70	0.23	0.20	0.16	0.11	0.16	0.14	0.11	0.07	180	90
8	52	0.80	0.70	0.50	0.40	0.57	0.50	0.35	0.28	90	45
10	100	1.70	1.30	1.00	0.90	1.21	0.92	0.71	0.64	240	120
12	120	2.90	2.40	2.00	1.60	2.07	1.71	1.42	1.14	300	150

* 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 $c_{min} \geq 300$ mm.

** Steel failure

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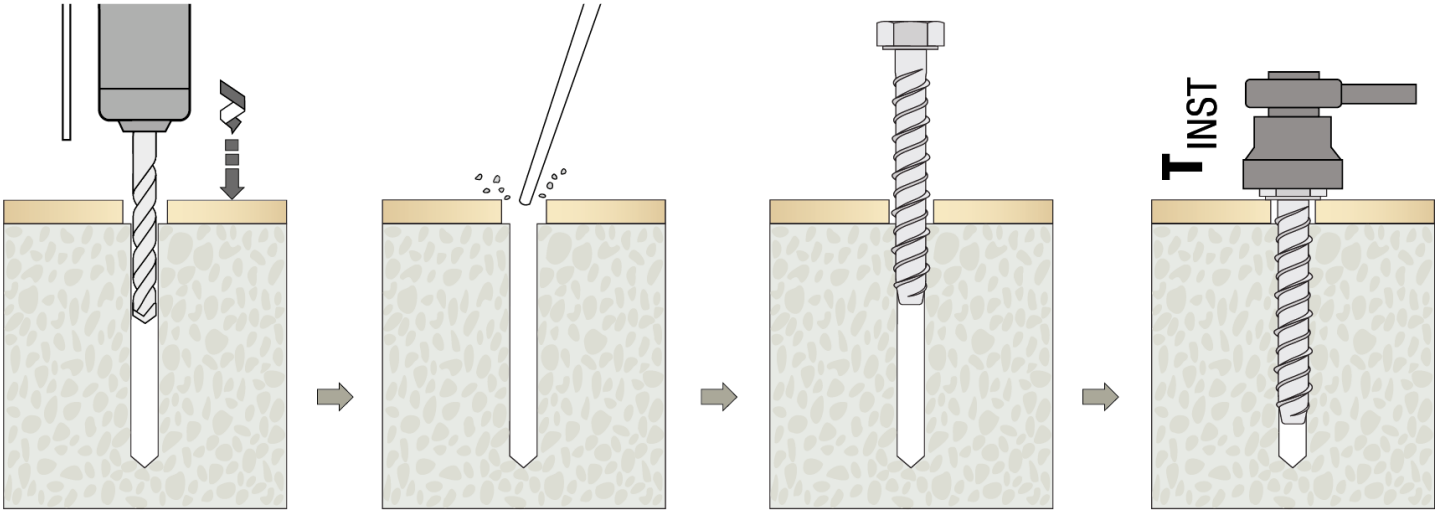
INSTALLATION INSTRUCTIONS



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

-Clean hole by blowing to remove drilling debris and dust

-Insert anchor through fixture into concrete using suitable impact wrench (maximum power setting according to the table below)

-Finish by tightening with torque wrench to recommended torque and Control of complete setting by having the screw head fully in contact with the fixture part

Machine setting	
Drill Diam (d_0)	Max. power output ($T_{max} \leq$)
mm	Nm
HEXAGON FLANGE HEAD	
6	120
8	120
10	185
12	185
COUNTERSUNK	
6	80
8	120
PANE HEAD	
6	80

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) - JCP Fixings https://www.youtube.com/watch?v=FcyEAJE8ybc

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