

# Datasheet Galvanised Ankerbolt

ENGLISH

HEXAGON FLANGE HEAD



HEXAGON HEAD



## Features

The Ankerbolt is a self tapping anchor for use in a variety of base materials.

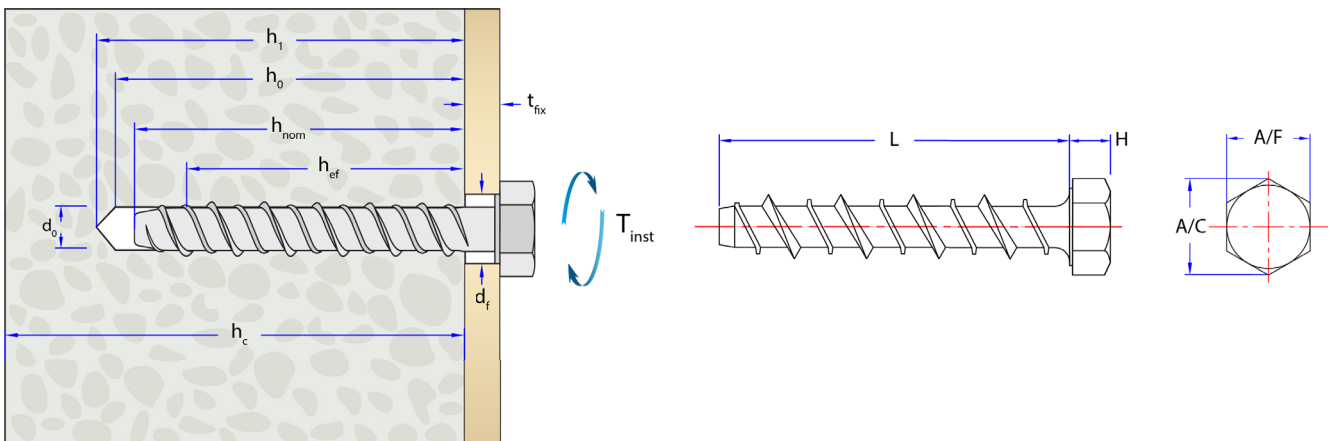
The undercutting action provides a positive anchorage with no expansion forces.

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

- Undercutting Action
- Fast And Secure Installation
- Expansion Free
- Through Fixing
- High Performance
- Mechanical Galvanised minimum 40µm

## Range Data

RANGE DATA													
RS Stock No	Drill Hole Diameter ( $d_o$ )	Thread Diameter ( $d_{nom}$ )	Anchor Length (L)	Fixture Clearance Hole ( $d_f$ )	Shallow Embedment			Deep Embedment			Min Structure Thickness ( $h_c$ )	Width Across Flats (A/F)	Tightening Torque ( $T_{inst}$ )
					Max Fixture Thickness ( $t_{fx}$ )	Min Hole Depth ( $h_i$ )	Embedment Depth ( $h_{nom}$ )	Max Fixture Thickness ( $t_{fx}$ )	Min Hole Depth ( $h_i$ )	Embedment Depth ( $h_{nom}$ )			
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm
HEXAGON FLANGE HEAD													
1776889	6	8	50	10	20	40	30	5	55	45	100	10	25
1776888			75		45			30					
HEXAGON HEAD													
1776886	8	10	60	12	20	55	40	N/A	75	60	120	15	40
1776885			100		60			40					
1776884	10	12	100	14	50	70	50	25	95	75	125	17	60
1776883			150		100			75					
1776882	12	14	100	16	40	85	60	10	115	90	140	19	80





# Datasheet

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## NON-CRACKED CONCRETE - SHALLOW EMBEDMENT

Performance Data (C20/25 non-cracked concrete)												
Drill Diam (d <sub>o</sub> )	Overall Embedment Depth (h <sub>nom</sub> )	Minimum Concrete Thickness (h <sub>min</sub> )	Characteristic Resistance		Design Resistance		Approved Resistance		Design Spacing (s)		Design Edge Distance (c)	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ra</sub> )	Shear (V <sub>Ra</sub> )	Tensile	Shear	Tensile	Shear
mm	mm	mm	kN	kN	kN	kN	kN	kN	mm	mm	mm	mm
6	30	100	3.9	3.8	2.1	2.5	1.5	1.7	60	60	40	40
8	40	100	6.3	6.3	3.4	4.2	2.4	3.0	70	80	50	50
10	50	100	9.3	9.1	5.0	6.0	3.5	4.2	100	100	60	70
12	60	100	12.5	12.7	6.9	8.4	4.9	6.0	120	120	70	90

## NON-CRACKED CONCRETE - DEEP EMBEDMENT

Performance Data (C20/25 non-cracked concrete)												
Drill Diam (d <sub>o</sub> )	Overall Embedment Depth (h <sub>nom</sub> )	Minimum Concrete Thickness (h <sub>min</sub> )	Characteristic Resistance		Design Resistance		Approved Resistance		Design Spacing (s)		Design Edge Distance (c)	
			Tensile (N <sub>Rk</sub> )	Shear (V <sub>Rk</sub> )	Tensile (N <sub>Rd</sub> )	Shear (V <sub>Rd</sub> )	Tensile (N <sub>Ra</sub> )	Shear (V <sub>Ra</sub> )	Tensile	Shear	Tensile	Shear
mm	mm	mm	kN	kN	kN	kN	kN	kN	mm	mm	mm	mm
6	45	100	7.5	8.7	4.1	5.6	2.9	4.0	70	90	40	70
8	60	120	10.0	13.7	5.5	9.1	3.9	6.5	70	130	50	90
10	75	125	15.0	20.0	8.3	13.1	5.9	9.3	90	160	60	120
12	90	140	19.0	40.5	10.5	32.3	7.5	23.0	90	160	70	300

## SUPPLEMENTARY DATA

Influence Of Concrete Strength (Non-cracked Concrete)					
Concrete strength		C20/25	C30/37	C40/50	C50/60
Cylinder	N/mm <sup>2</sup>	20	30	40	50
Cube	N/mm <sup>2</sup>	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.

# Datasheet

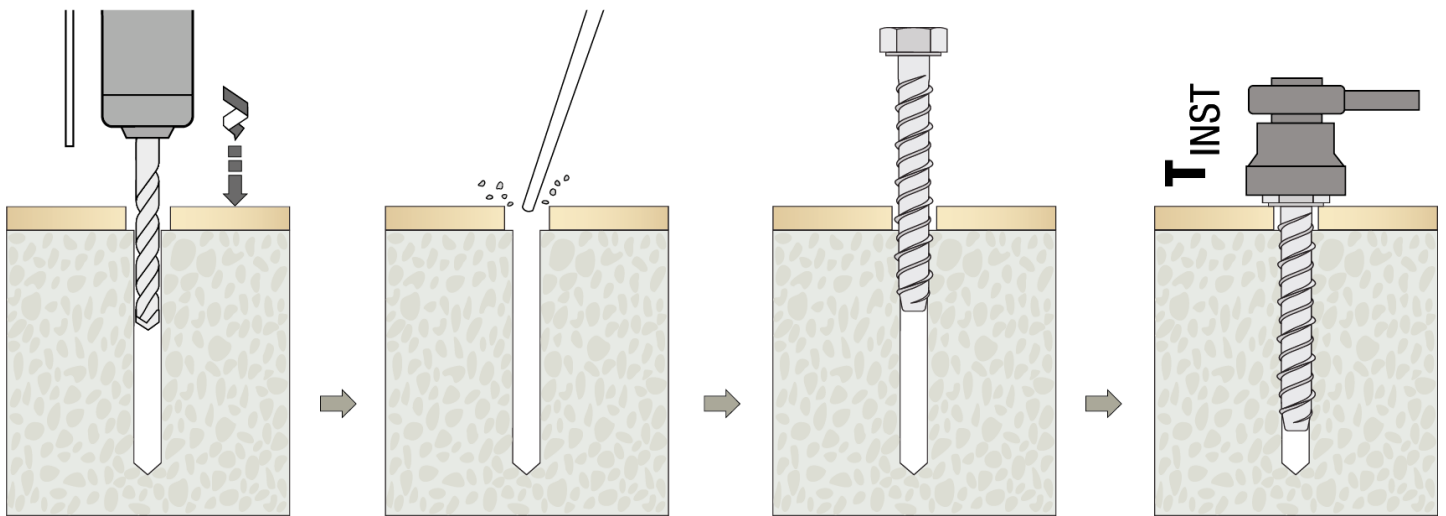
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Steel Failure						
Thread Diam (d <sub>nom</sub> )	Tensile Resistance			Shear Resistance		
	Characteristic Resistance (N <sub>Rk,s</sub> )	Design Resistance (N <sub>Rd,s</sub> )*	Approved Resist- ance (N <sub>Ra,s</sub> )	Characteristic Resistance (V <sub>Rk,s</sub> )	Design Resistance (V <sub>Rd,s</sub> )**	Approved Resist- ance (V <sub>Ra,s</sub> )
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

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

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

## Installation Instructions



-Position fixture and drill correct diameter hole to corresponding depth

-Clean hole by blowing to remove drilling debris and dust

-Insert anchor through fixture into concrete using suitable impact wrench

-Tighten with torque wrench to recommended torque