

**INFORMATION**

The HeavyDutyBolt is a zinc flake coated or stainless steel A4-70 blind fixing for use in a girder cavity or a box section.

The unique design helps to reduce the installation time.

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

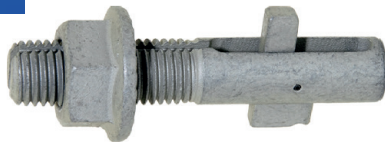
**APPLICATIONS**

- Box Sections
- Vertical Cylindrical Sections
- Hollow Profiles
- Simple Connections

**FEATURES**

- Design Values For BS 5950-1
- Design Values For EN 1993-1-8
- Fast And Secure Installation
- High Performance Property Class
- GEOMET® 500/Stainless Steel A4-70
- Reaction To Fire Class A1

**RELATED PRODUCTS**



BlindBolt

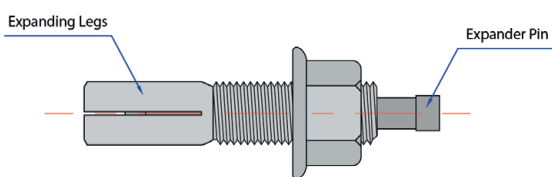


ThinWallBolt

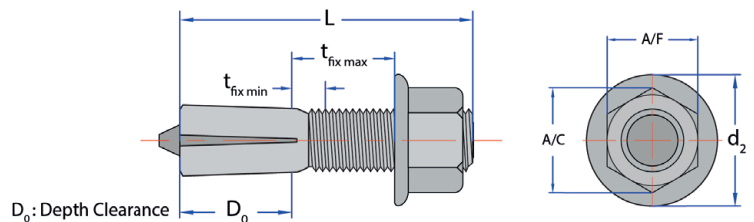
**RANGE AND LOAD DATA**

**RANGE DATA**

Part Number	Size	Length L (mm)	Hole Diameter d <sub>0</sub> (mm)	Fixture Thickness		Depth Clearance D <sub>0</sub> (mm)	Width Across Flats A/F (mm)	Width Across Corners A/C (mm)	Washer Diameter d <sub>2</sub> (mm)	Corrosion Protection Salt Spray h (hour)
				Minimum t <sub>fix, min</sub> (mm)	Maximum t <sub>fix, max</sub> (mm)					
				Geomet 500B - Property Class 8.8						
HD0845ZF	M8	45	8	7	25	10	13	15	18	GEOMET® 500B 1000Hr
HD1045ZF	M10	45	10	7	25	12	16	17	22	GEOMET® 500B 1000Hr
HD1060ZF		60		7	40					
HD1245ZF	M12	45	12	8	22	15	18	20.5	26	GEOMET® 500B 1000Hr
HD1260ZF		60		8	37					
HD1660ZF	M16	60	16	12	30	25	24	27.5	34.5	GEOMET® 500B 1000Hr
HD1675ZF		75		12	45					
HD2070ZF	M20	70	20	15	32	30	30	33	43	GEOMET® 500B 1000Hr
HD2085ZF		85		15	47					



Before Installation



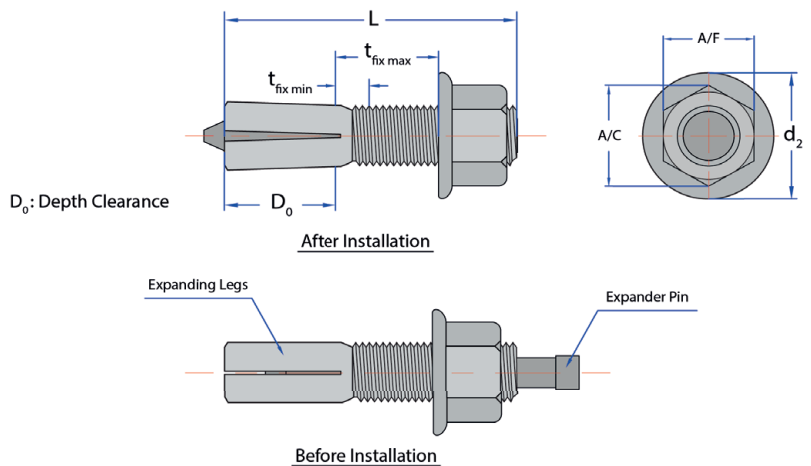
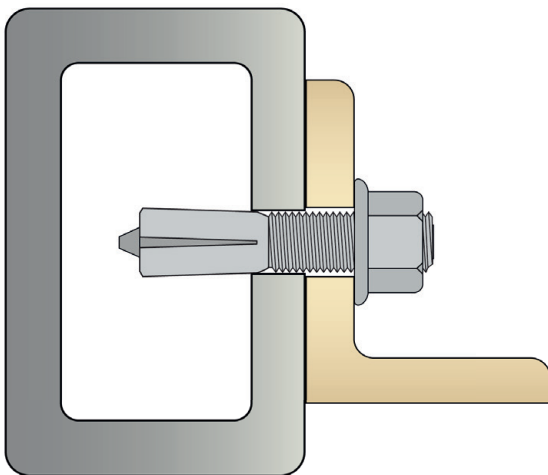
After Installation





### RANGE DATA

Part Number	Size	Length L (mm)	Hole Diameter d <sub>0</sub> (mm)	Fixture Thickness		Depth Clearance D <sub>0</sub> (mm)	Width Across Flats A/F (mm)	Width Across Corners A/C (mm)	Washer Diameter d <sub>2</sub> (mm)
				Minimum	Maximum				
				t <sub>fix, min</sub> (mm)	t <sub>fix, max</sub> (mm)				
<b>Stainless Steel A4-70</b>									
HD0845SS	M8	45	8	7	25	10	13	15	18
HD1045SS	M10	45	10	7	25	12	16	17	22
HD1060SS		60		7	40				
HD1245SS	M12	45	12	8	22	15	18	20.5	26
HD1260SS		60		8	37				
HD1660SS	M16	60	16	12	30	25	24	27.5	34.5
HD2070SS	M20	70	20	15	32	30	30	33	43



### HIGH TENSILE GEOMET® 500B - PROPERTY CLASS 8.8

Performance Data\* (Design to BS EN 1993-1-8\*\*)

Size	Tension Capacity		Single Shear Capacity		Recommended Pre-load Tightening Torque	
	F <sub>t,Rd</sub>		F <sub>v,Rd</sub>		T <sub>inst</sub>	
	kN		kN		Nm	
M8	8.5		14.1		20	
M10	25.2		22.3		35	
M12	46.4		32.3		45	
M16	57.5		60.1		95	
M20	77.5		94.1		120	

\* Designers are reminded that the strength and deformation of the support must be checked in thin plate as this may be critical.

\*\* The Above Resistances are equally appropriate for designs to BS 5950.





**STAINLESS STEEL A4-70**

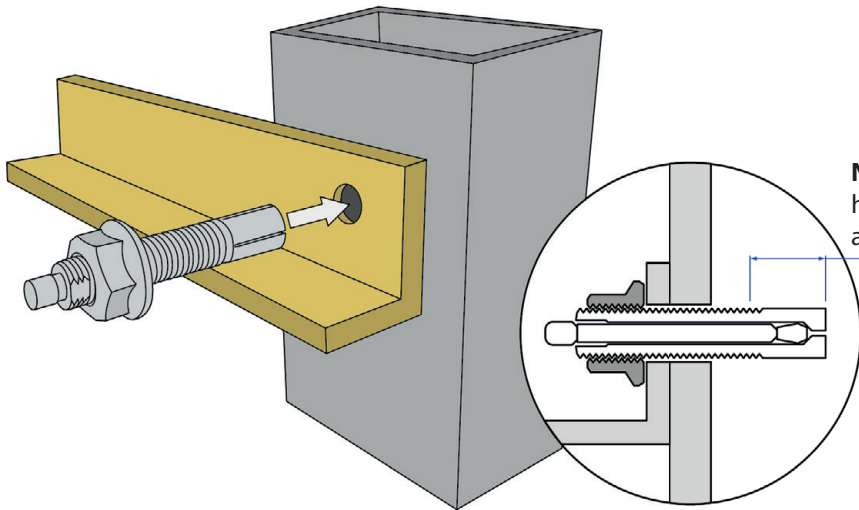
Performance Data* (Design to BS EN 1993-1-8**)			
Size	Tension Capacity	Single Shear Capacity	Recommended Pre-load Tightening Torque
	$F_{t,Rd}$ kN	$F_{v,Rd}$ kN	$T_{inst}$ Nm
M8	10.5	12.9	18
M10	20.2	20.0	24
M12	31.4	29.5	30
M16	40.1	41.5	45
M20	68.7	75.2	80

\* Designers are reminded that the strength and deformation of the support must be checked in thin plate as this may be critical.

\*\* The Above Resistances are equally appropriate for designs to BS 5950.

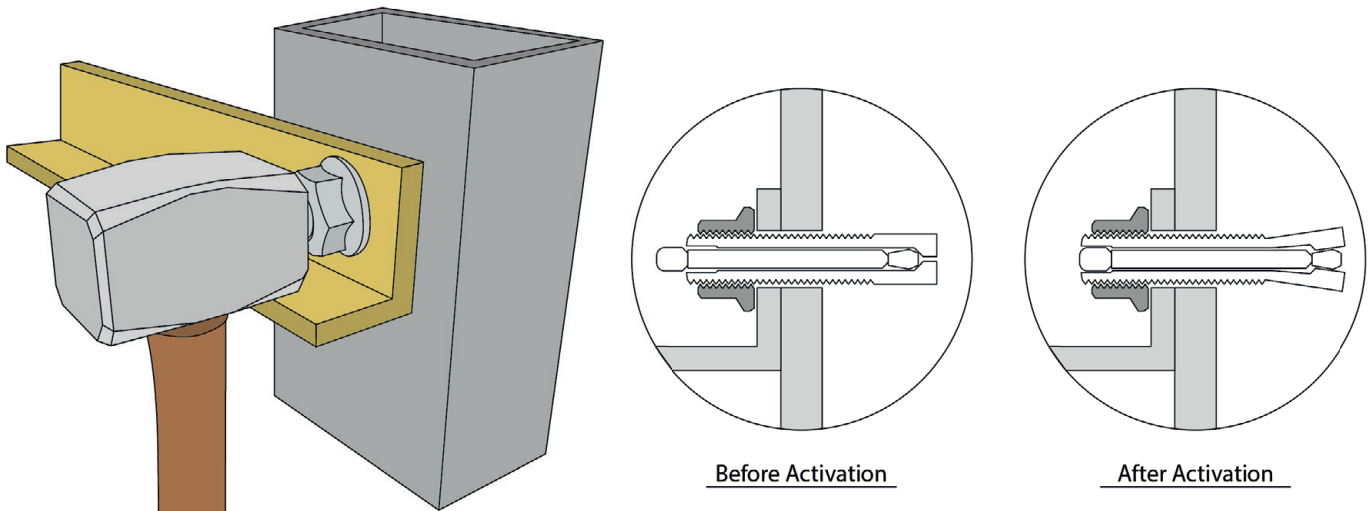
**INSTALLATION INSTRUCTIONS**

-Using the table opposite drill an appropriate fixing hole in both components to be connected, also note clamping range and depth clearance required.



**NOTE:** Ensure to insert the HD Bolt into the fixing hole to a sufficient depth to allow the bolt legs to activate fully.

-Using a suitably weighted hammer strike the activation pin at the head of the bolt until flush with the bolt head. This will force apart the anchoring legs at the base of the bolt into their locked position.



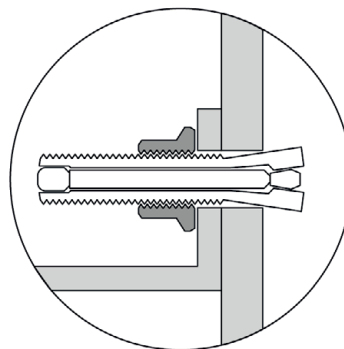
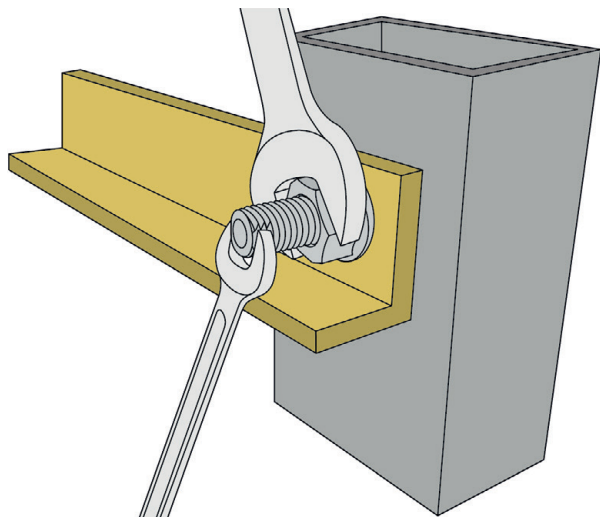
Before Activation

After Activation





-Finally, brace the HD Bolt using a suitable spanner attached to the machined flats at the head of the bolt and tighten the supplied nut to the recommended pre-load torque found below.



Final Position

RECOMMENDED PRE-LOAD TIGHTENING TORQUE

Size	High Tensile Geomet® 500b Property Class 8.8	Stainless Steel A4-70
	$T_{inst}$	$T_{inst}$
	Nm	Nm
M8	20	18
M10	35	24
M12	45	30
M16	95	45
M20	120	80

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

-HeavyDutyBolt Installation:

<https://vimeo.com/84037478>

