

HBS-BOLT® HEX

FOR BLIND AND HOLLOW STEEL CONNECTIONS

One-sided installation for fixing steel to hollow sections or where there is limited access. High shear capacity and large grip range make the HBS Bolt suitable for many steel connections.

APPLICATIONS

- Fixing steel to hollow steel sections
- Use with square, rectangle and circular hollow sections
- High shear and tensile capacities
- Large grip range
- One-sided installation
- Steel framework including gantries, bridges, stadiums and transmission towers

Specifications/Features	
Type	Hexagon
Size	3-Part Assembly: M8, M10, M12
	5-Part Assembly: M16, M20
Coating	Hot Dipped Galvanised
Material	Class 8.8



3-Part Assembly

MECHANICAL PROPERTIES

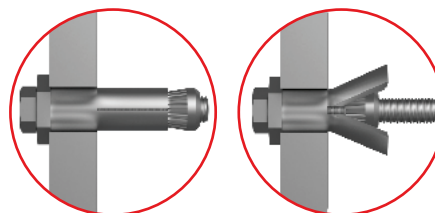
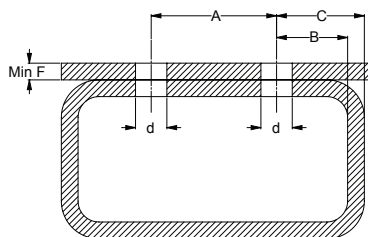
Legacy Code	Nominal Size	Characteristic Load ^a		Working Load	
		Tensile kN	Shear kN	Tensile kN	Shear kN
CFHBH8*	M8	24.3	26.1	6	7
CFHBH10*	M10	44.8	45.6	10	12
CFHBH12*	M12	51.6	58.3	13	15
CFHBH16*	M16	89.1	105.3	23	28
CFHBH20*	M20	128.9	161.4	34	43

^aCharacteristic loads are used to calculate design resistance and should not be used as working loads. The characteristic loads apply to the HBS Bolts assembly, the design resistance of the connection may be lower due to material properties of other parts of the connection.



5-Part Assembly

HOLE SIZE AND SPACING



BEFORE

AFTER



Hexagon collar for use with open end or ring spanner.

Nominal Size	Hole in Steel Work d (mm)	Hole Spacing		Edge Distance C (mm)	Min. Fixture Thickness F (mm)	Nominal Tightening Torque Nm
		A (mm)	B (mm)			
M8	14.0 – 15.0*	35	13	C > 17.5	1	25
M10	18.0 – 19.0*	40	15	C > 22.5	1	45
M12	20.0 – 21.0*	50	18	C > 25.0	1	80
M16	26.0 – 28.0	55	20	C > 32.5	8	190
M20	33.0 – 35.0	70	25	C > 33.0	8	300

*For maximum performance of the grip length up to the minimum +2.0mm, the recommended hole diameter is the minimum.

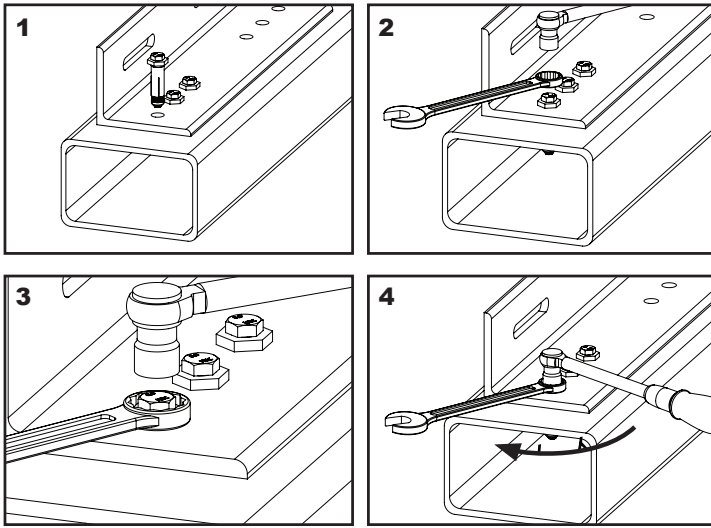
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Disclaimer: this data should be used as a guide only, for exact applications you should engage the services of a qualified engineer.

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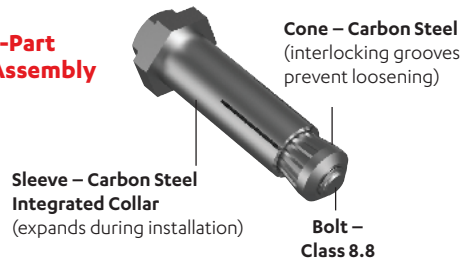
INSTALLATION



Installation Guide

1. Bring steel work together, align predrilled holes and insert HBS Bolt.
2. Prepare suitably sized open ended or ring spanner and torque wrench.
3. Place spanner over the larger hex collar and torque wrench over bolt head.
4. Holding the spanner in place tighten the bolt head to the specified tightening torque

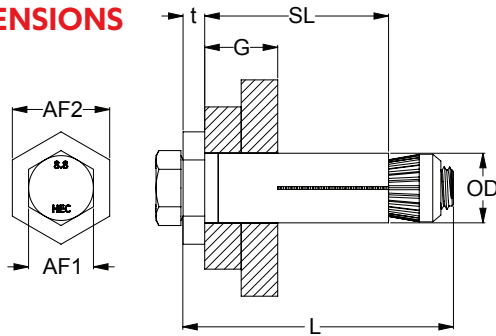
3-Part Assembly



5-Part Assembly



DIMENSIONS



3-PART ASSEMBLY

Legacy Code	P Code	Nominal Size	Bolt Length L (mm)	Grip Range G (mm)	Internal Hex Size AF1 (mm)	Sleeve		Collar		Pack QTY
						Length SL (mm)	Outer Ø OD (mm)	Across Flats AF2 (mm)	Thickness t (mm)	
CFHBH850G	P0120998	M8	50	3 - 22	13	30	13.75	20	5	50
CFHBH870G	P0120999		70	22 - 41		49				
CFHBH890G	P0121000		90	41 - 60		68				
CFHBH1055G	P0121001	M10	55	3 - 22	16	30	17.75	24	6	50
CFHBH1070G	P0121002		70	22 - 41		48				
CFHBH1090G	P0121003		90	41 - 60		67				
CFHBH1260G	P0101247	M12	60	3 - 25	18	35	19.75	30	7	25
CFHBH1280G	P0121004		80	25 - 47		57				
CFHBH12110G	P0121005		110	47 - 69		79				

5-PART ASSEMBLY

Legacy Code	P Code	Nominal Size	Bolt Length L (mm)	Grip Range G (mm)	Internal Hex Size AF1 (mm)	Sleeve		Collar		Pack QTY
						Length SL (mm)	Outer Ø OD (mm)	Across Flats AF2 (mm)	Thickness t (mm)	
CFHBH1680G	P0101264	M16	80	12 - 29	24	42	25.75	36	8	10
CFHBH16100G	P0108359		100	29 - 50		63				
CFHBH16120G	P0121007		120	50 - 71		84				
CFHBH2090G	P0101265	M20	90	12 - 34	30	50	32.75	46	10	5
CFHBH20120G	P0108360		120	34 - 60		76				
CFHBH20140G	P0121006		140	60 - 86		102				

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Information kindly provided by Hobson Engineering

