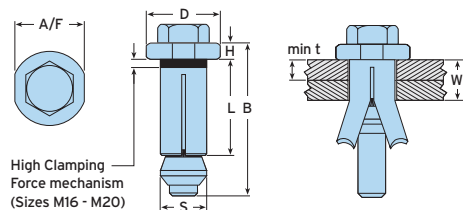


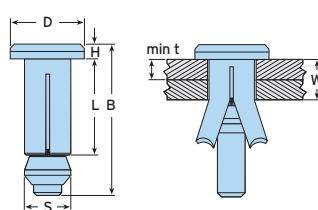
Hollo-Bolt Safe Working Loads

The Hollo-Bolt is featured in the BCSA and SCI design guide 'Joints in Steel Construction - Simple Connections', please refer to this guide for designing primary structural connections. For connections to secondary steelwork, please refer to the tables below.

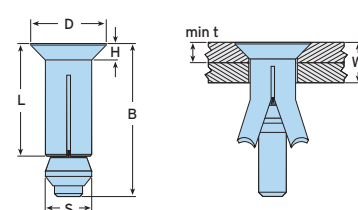
a) Hexagonal



b) Countersunk



c) Flush Fit



a) Hexagonal		b) Countersunk		Clamping Thickness W mm	Outer Ply min t mm	Sleeve		Collar			Tightening Torque Nm	Safe Working Loads (5:1 Factor of Safety)		
Product Code	Bolt Length B mm	Product Code	Bolt Length B mm			Length L mm	Outer Ø S mm	Height H mm	Ø D mm	A/F mm		Tensile kN	Single Shear kN	
	HB08-1	M8 x 50	HBCSK08-1	M8 x 50	3 - 22	-	30	13.75	5	22	19	23	4.0	5.0
	HB08-2	M8 x 70	HBCSK08-2	M8 x 70	22 - 41	-	49	13.75	5	22	19	23	4.0	5.0
	HB08-3	M8 x 90	HBCSK08-3	M8 x 90	41 - 60	-	68	13.75	5	22	19	23	4.0	5.0
	HB10-1	M10 x 55	HBCSK10-1	M10 x 50	3 - 22	-	30	17.75	6	29	24	45	8.5	10.0
	HB10-2	M10 x 70	HBCSK10-2	M10 x 70	22 - 41	-	48	17.75	6	29	24	45	8.5	10.0
	HB10-3	M10 x 90	HBCSK10-3	M10 x 90	41 - 60	-	67	17.75	6	29	24	45	8.5	10.0
	HB12-1	M12 x 60	HBCSK12-1	M12 x 55	3 - 25	-	35	19.75	7	32	30	80	10.5	15.0
	HB12-2	M12 x 80	HBCSK12-2	M12 x 80	25 - 47	-	57	19.75	7	32	30	80	10.5	15.0
	HB12-3	M12 x 100	HBCSK12-3	M12 x 100	47 - 69	-	79	19.75	7	32	30	80	10.5	15.0
High Clamping Force (HCF)	HB16-1	M16 x 75	HBCSK16-1	M16 x70	12 - 29	8	41.5	25.75	8	38	36	190	21.0	30.0
	HB16-2	M16 x 100	HBCSK16-2	M16 x 100	29 - 50	8	63	25.75	8	38	36	190	21.0	30.0
	HB16-3	M16 x 120	HBCSK16-3	M16 x 120	50 - 71	8	84	25.75	8	38	36	190	21.0	30.0
	HB20-1	M20 x 90	-	-	12 - 34	8	50	32.75	10	51	46	300	35.0	40.0
	HB20-2	M20 x 120	-	-	34 - 60	8	76	32.75	10	51	46	300	35.0	40.0
	HB20-3	M20 x 150	-	-	60 - 86	8	102	32.75	10	51	46	300	35.0	40.0



Sizes M16 and M20, known as the Hollo-Bolt (HCF), feature a High Clamping Force mechanism to produce three times more clamping force than the same sized product without the mechanism. Turn to **pages 40 and 41** to see the significance of clamping force and the superior performance of this unique product.

c) Flush Fit		Clamping Thickness W mm	Outer Ply min t mm	Sleeve		Collar			Tightening Torque Nm	Safe Working Loads (5:1 Factor of Safety)	
Product Code	Countersunk Bolt B mm			Length L mm	Outer Ø S mm	Height H mm	Ø D mm	Installation Nut A/F mm		Tensile kN	Single Shear kN
HBFF08-1	M8 x 50	10 - 27	8	35	13.75	5	24	19	23	4.0	5.0
HBFF08-2	M8 x 70	27 - 45	8	54	13.75	5	24	19	23	4.0	5.0
HBFF08-3	M8 x 90	45 - 64	8	73	13.75	5	24	19	23	4.0	5.0
HBFF10-1	M10 x 50	12 - 27	10	36	17.75	6	30	24	45	8.5	10.0
HBFF10-2	M10 x 70	27 - 45	10	54	17.75	6	30	24	45	8.5	10.0
HBFF10-3	M10 x 90	45 - 64	10	73	17.75	6	30	24	45	8.5	10.0
HBFF12-1	M12 x 55	12 - 30	10	42	19.75	7	33	30	80	10.5	15.0
HBFF12-2	M12 x 80	30 - 52	10	64	19.75	7	33	30	80	10.5	15.0
HBFF12-3	M12 x 100	52 - 74	10	86	19.75	7	33	30	80	10.5	15.0

Hollo-Bolts can be used on a wide variety of steel hollow shape sections. Safe working loads shown are based on use in S275 structural hollow section and are applicable to the Hollo-Bolt only in both tension and shear. Failure of the section, particularly on those with thin walls and a wide chord face, could occur at a lower figure and its strength should be checked by a qualified Structural Engineer.

Published by the SCI/BCSA Connections Group, 'Joints in Steel Construction - Simple Connections' provides design guidance for using Hollo-Bolt and structural steelwork connections in buildings designed using the 'Simple Method' i.e. braced frames where connections carry mainly shear and axial loads only. For more information please contact The Steel Construction Institute on +44 (0) 1344 636525 or visit www.steel-sci.com

