

Hollo-Bolt Characteristic Values

The values listed in the tables below (taken from ETA-10/0416) are to be used when designing bolted connections to Eurocode 3 only, they are **not** standard safe working loads. Download the Declaration of Performance (DoP) at www.Lindapter.com/About/CE



Hollo-Bolt Hexagonal

	Product Code	Nominal Size	Tensile $F_{t,Rk}$ kN	Shear $F_{v,Rk}$ kN	Sleeve Material Strength N/mm ²
	HB08	M8	23.1	32.9	430
	HB10	M10	39.6	54.2	430
	HB12	M12	45.8	71.0	430
HCF	HB16	M16	84.3	139.0	430
HCF	HB20	M20	124.0	211.0	390

Hollo-Bolt Hexagonal Stainless Steel

	Product Code	Nominal Size	Tensile $F_{t,Rk}$ kN	Shear $F_{v,Rk}$ kN	Sleeve Material Strength N/mm ²
	HBST08	M8	26.8	30.7	500
	HBST10	M10	46.0	51.0	500
	HBST12	M12	53.3	65.0	500
HCF	HBST16	M16	98.0	128.0	500
HCF	HBST20	M20	154.0	205.0	500

Hollo-Bolt Countersunk

	Product Code	Nominal Size	Tensile $F_{t,Rk}$ kN	Shear $F_{v,Rk}$ kN	Sleeve Material Strength N/mm ²
	HBCSK08	M8	23.1	32.9	430
	HBCSK10	M10	39.6	54.2	430
	HBCSK12	M12	45.8	71.0	430
HCF	HBCSK16	M16	84.3	139.0	430

Hollo-Bolt Countersunk Stainless Steel

	Product Code	Nominal Size	Tensile $F_{t,Rk}$ kN	Shear $F_{v,Rk}$ kN	Sleeve Material Strength N/mm ²
	HBSTCSK08	M8	26.8	30.7	500
	HBSTCSK10	M10	46.0	51.0	500
	HBSTCSK12	M12	53.3	65.0	500
HCF	HBSTCSK16	M16	98.0	128.0	500



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.

Hollo-Bolt Flush Fit

	Product Code	Nominal Size	Tensile $F_{t,Rk}$ kN	Shear $F_{v,Rk}$ kN	Sleeve Material Strength N/mm ²
	HBFF08	M8	23.1	32.9	430
	HBFF10	M10	39.6	54.2	430
	HBFF12	M12	45.8	71.0	430

Hollo-Bolt Flush Fit Stainless Steel

	Product Code	Nominal Size	Tensile $F_{t,Rk}$ kN	Shear $F_{v,Rk}$ kN	Sleeve Material Strength N/mm ²
	HBSTFF08	M8	26.8	30.7	500
	HBSTFF10	M10	46.0	51.0	500
	HBSTFF12	M12	53.3	65.0	500

Hollo-Bolt lengths 1, 2 and 3 are covered by ETA 10/0416. The characteristic values are used to determine the design resistance of the Hollo-Bolt. The design resistance is calculated by dividing the characteristic value by a partial factor γ_{m2} . The partial factor is a nationally determined parameter (eg: $\gamma_{m2} = 1.25$ in UK).

For Hollo-Bolt safe working loads with a Factor of Safety of 5:1 please refer to the tables on **page 42** of this catalogue. The characteristic values are valid for the assembly itself, in any connection detail the design resistance of the connection may be limited to a lesser value. For example, when the thickness of the connected component is small, pull out failure may occur before failure of the Hollo-Bolt. Design checks should be carried out to determine the static design resistance.

The SCI Greenbook publication 'Joints in Steel Construction: Simple Joints to Eurocode 3' contains a number of checks on the section. The characteristic values are only valid when the Hollo-Bolts are installed as per Lindapter's installation instructions. For more information please contact The Steel Construction Institute on +44 (0) 1344 636525 or visit www.steel-sci.com

