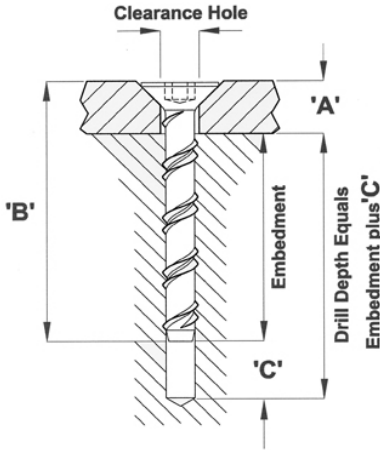


# Tamperproof - Hexagon Drive Countersunk (HSA) 10mm

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**PLEASE NOTE**

From time to time, materials and specifications are changed to improve performance, please check for the latest information.

For additional technical data please call the Sales Desk:

**01702 206 962 / 01702 207 909**

## HSA 10mm Options

Screwbolt Diameter	Head Diameter	Allen Key Size	Clearance Hole Diameter	Max Fixing Thickness 'A'	Thread Length 'B'	Clearance Depth 'C'	Box Quantity	Order code:
10mm	25mm	8mm	12mm	15mm	60mm	20mm	50	HSA 10 / 060
10mm	25mm	8mm	12mm	30mm	75mm	20mm	50	HSA 10 / 075
10mm	25mm	8mm	12mm	50mm	100mm	20mm	50	HSA 10 / 100
10mm	Plug For converting HSA & DSA Screwbolts into Tamperproof Anchors						50	PL / 10

Drill Bit Diameter	Concrete and Brick	10.0mm
	Soft Materials	9.0mm

## HSA Ultimate & Safe Load Characteristics based on 3:1 Ratio

Material	Embedment Depth (mm)	Tensile Load kN.		Shear Load kN.		Maximum Torque Nm. **	
		Ultimate	Safe	Ultimate	Safe		
Concrete	60 N/mm <sup>2</sup>	50	29.00	9.67	-	-	-
	60 N/mm <sup>2</sup>	75	48.00	16.00	46.00	15.33	-
Concrete	30 N/mm <sup>2</sup>	50	18.80	6.27	-	-	-
	30 N/mm <sup>2</sup>	75	33.40	11.13	46.00	15.33	-
Engr. Brick	100 N/mm <sup>2</sup>	45	20.00	6.67	-	-	-
Semi.Engr.	70 N/mm <sup>2</sup>	45	14.20	4.73	-	-	-
Fletton	20 N/mm <sup>2</sup>	45	11.60	3.87	-	-	-
Butterly	20 N/mm <sup>2</sup>	45	3.90	1.30	-	-	-
Hemelite	3.5 N/mm <sup>2</sup>	75	10.60	3.53	-	-	5
Lignacite	3.5 N/mm <sup>2</sup>	75	9.00	3.00	-	-	5
Topcrete	7.0 N/mm <sup>2</sup>	75	14.00	4.67	-	-	12

\*\*With softer materials, care should be taken not to exceed the maximum recommended torque, as this may result in the de-grading of the matrix.

## HSA 10mm Technical Data

Material	Boron Steel BS3111/9/2.1.A
Finish	Mechanical Zinc as standard, or Zinc & Yellow passivated
Other finishes	Other platings & finishes are available to special order subject to quantity
Tensile strength	800N/mm <sup>2</sup> Case hardened
Other sizes	Other lengths of all diameters are available to special order subject to quantity
Embedment concrete and brick	Minimum recommended is 4.5 x bolt diameter
Soft block	Minimum recommended is 75mm
Edge distance	For Edge distances between 5 dia. and 10 dia. see reduction factors

## HSA 10mm Countersunk Head Dimensions

Screwbolt Size	Head Diameter - D		Head depth - E nom.	Hex socket size - F		Hex socket depth - G		Radius - R nom.
	min.	max.		min.	max.	min.	max.	
10mm	23.67	26.87	8.4	8.03	8.2	4.34	-	3

All dimensions in millimetres (mm)

