bigHead SM1-B20 stainless steel stud product range

Technical Data Sheet

SM1-B20 M4	SM1-B20 M5	SM1-B20 M6	SM1-B20 M8
			

Description

bigHead fastener with an externally threaded stud fixing welded to a Ø 20 mm circular perforated Head. Suitable for embedding and surface bonding applications requiring the following:

- Embedment into materials with overall or localised section thickness of around 3 mm or greater
- Surface bonding onto or through components, with minimal standoff/ clearance height

Key features

As-rolled thread end-form

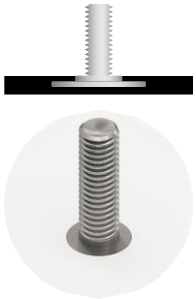
Shoulder diameter to suit ISO 273 clearance holes

Perforated head design

Minimised thickness/ stand-off height

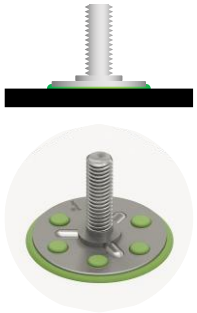
Stainless steel construction, self colour finish

Intended usage

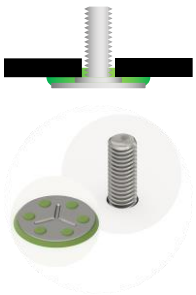


Embedding, flush stud

Embedding, inset stud



Surface bonding, blind stud



Surface bonding, through stud

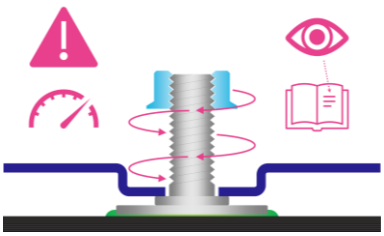
Alternative configurations may be possible using this product.

Please contact bigHead for further advice.

Fastening functionality

Provides an externally threaded connection point for assembling threaded nuts and similar secondary fasteners onto.

Torque tightening & preload during assembly: these products require specific consideration, please see torque & preload guidance section.



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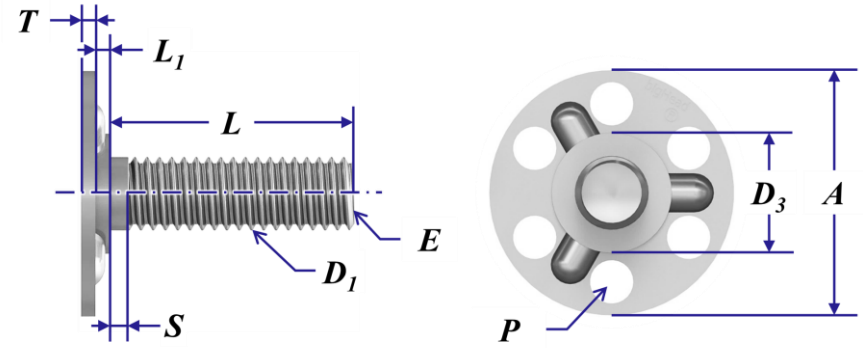
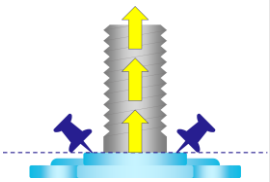
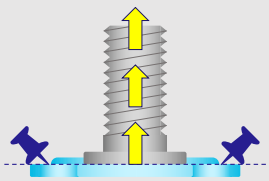
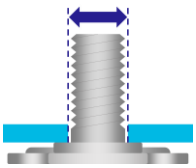
Nominal dimensions (mm)



Product code	D1	D3 (Ø)	A (Ø)	L	L1	T	S	Typical min. weight (g)
SM1 B20 M4	M4 x 0.70	8.3	20	Nominal thread length value	1.2	1.2	1.0	4
SM1 B20 M5	M5 x 0.80	9.8	20		1.2	1.2	1.2	5
SM1 B20 M6	M6 x 1.00	9.8	20		1.2	1.2	1.5	6
SM1 B20 M8	M8 x 1.25	11.8	20		1.5	1.2	1.9	9

Common to all:
Thread class: 6g post finish
E - ISO 4753 “RL” as rolled end-form
P - 6 perforation holes, equally spaced circular array

Design & application guidance

Thread size	Tightening torque			Loadability (Fixing)	Loadability (Weld)	Clearance holes
	Max. tightening torque (Nm)			Max. tensile load (kN)	Max. tensile load (kN)	Max. recommended hole size (mm)
	Friction coefficient:					
	0.1	0.2	0.3			
M4	0.9	1.3	1.7	4.3	4.2	4.5
M5	1.7	2.7	3.3	6.9	5.6	5.5
M6	2.9	4.6	5.7	9.6	5.3	6.6
M8	7.0	11.1	13.8	15.9	4.7	9.0
	Based on VDI 2230, 90% utilisation of yield strength. Valid only for fixing load condition. *Applicability depends on the assembly system friction coefficient, which may vary according to the secondary fastener(s) specification.* *For guidance only, determination of correct assembly parameters may require specialist expertise.* *Always conduct suitable torque/ preload calculation and appropriate validation for the intended assembly design.*			Fixing load limit (FLL):  *To avoid failure of the bigHead fastener, do not exceed stated loadability limits during in-service mechanical loading or assembly preloading.*	Weld load limit (WLL):  *bigHead is not liable for failures arising from excessive tensile loading or assembly preloading of their products.*	*ISO 273 “medium” clearance hole basis.* 

Please contact bigHead for further guidance if you are unsure about these topics.

Disclaimer

The information within this document is for guidance purposes only and does not constitute a guarantee or warranty of any kind.

bigHead cannot accept liability for performance arising from use of these products.

Always perform appropriate testing and evaluation to determine application suitability.

Illustrations and diagrams are for illustrative purposes only and may differ from actual products.

Further information & contact details

For further information about these products, or for technical support inquiries, please contact us:

www.bighead.co.uk/the-techub/

TecH@bighead.co.uk

+44 (0)1202 583 696

bigHead Bonding Fasteners Ltd
Unit 1, Black Moor Business Park
36A Black Moor Road
Ebblake Industrial Estate
Verwood
Dorset
United Kingdom
BH31 6BB