

SMD Shear Studs

Application

Headed shear studs can either be directly welded to the steel beam or, using the required machinery, can be through deck welded to the steel beam flange after the decking has been installed. These shear studs are primarily designed to transmit the horizontal shear force between the concrete and beam connection and are commonly used in the design and construction of composite beams.

Specification

All shear studs consist of mild steel and are manufactured in accordance with the requirements of BS EN ISO 13918:2008. Please see Shear Stud Dimensions table below for design dimensions, all manufacture tolerances as outlined in the British Standard.

Yield Strength - 350N/mm² (minimum)
Tensile Strength - 450N/mm² (minimum)
Elongation - 15% (minimum)

The material/QA test certificates for a particular shear stud batch can be provided upon request.

Ferrules

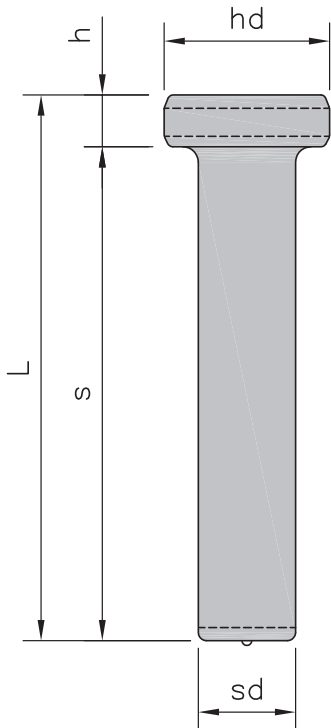
Ferrules are manufactured in accordance with the requirements of BS EN ISO 13918:2008. For exact specification and dimensional properties of ferrules refer Table 18 of British Standard, form reference UF 19.

As standard SMD shear studs are supplied with ferrules for through deck welding. When shear studs are required for welding direct to steel, different ferrules are required - these are also available from SMD and specific reference should be made to this requirement at point of order.

Packaging

Shear studs are delivered to site in metal barrels approx. 630mm high x 365mm diameter. Depending on the required quantities, these barrels are then packaged on wooden pallets, 6 barrels per pallet.

Quantity per barrel	19mm x 105mm - 700 No. 19mm x 130mm - 600 No.	Weight per barrel	19 x 105mm - 185kg 19 x 130mm - 190kg
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Shear Stud Dimensions (stocked in UK)						
Stud Reference	L	LAW*	s	h	sd	hd
SMD19105	105	95	95	10	19	32
SMD19130	130	120	120	10	19	32

Please Note - The L dimension indicates the stud length prior to welding. The after weld height of shear studs welded direct to steel will be approx. L-5mm. When through deck welding the length after welding will be approx. L-10mm (see figures for LAW in table above).

* The figures for length after weld (LAW) are applicable for through deck welded studs only.

