

TECHNICAL DATA SHEET · FORGED FITTINGS

Forged Socket Weld Fittings

Elbows, tees, couplings, unions and caps, NPS ½-4, Class 3000 / 6000 / 9000.

OEM MANUFACTURER Forged socket weld fittings are used on small-bore, high-pressure piping. The pipe is inserted into a recessed socket and joined with a fillet weld, giving a leak-tight joint without the bore restriction of a threaded connection.

Specification

Product	Forged Socket Weld Fittings
Supply	OEM manufacturer — forged and machined by Teshi Group, Howrah, India
Design standard	ASME B16.11
Types	90° and 45° elbows, tees, crosses, full and half couplings, reducing couplings, caps, unions (MSS SP-83), reducer inserts (MSS SP-79)
Size range	NPS ½" to 4" (DN 6–100)
Pressure classes	Class 3000, 6000, 9000
End connection	Socket weld to ASME B16.11
Manufacturing method	Closed-die forged; machined from forgings or bar

Materials

Carbon steel	ASTM A105, ASTM A350 LF2 Cl.1
Stainless steel	ASTM A182 F304, ASTM A182 F304L, ASTM A182 F316, ASTM A182 F316L
Alloy steel	ASTM A182 F11 Cl.2, ASTM A182 F22 Cl.3

Manufacturing

- Raw material: forging-quality bar from approved mills, verified by chemical analysis and PMI.
- Forming: closed-die forging, trimming and heat treatment as required by the material specification.
- Machining: CNC machining of sockets, bores and threads; threads gauged with calibrated plug gauges.

Inspection and testing

- Chemical analysis and mechanical tests per heat.
- 100% visual and dimensional inspection against ASME B16.11; thread or socket gauging on every lot.
- Hardness test; PMI on stainless and alloy steel.
- Dye-penetrant or magnetic-particle examination and hydrostatic proof test when specified.

Marking, documentation and packing

Marking	Stamped to ASME B16.11 / MSS SP-25: manufacturer's mark, material grade, class, size and heat number.
Documentation	Mill test certificate to EN 10204 3.1 (3.2 with third-party inspection on request), dimensional inspection report, heat-treatment record where applicable, and NDT reports as specified. IBR Form III-C on request.
Packing	Rust-preventive coating on machined surfaces, plastic end / face protectors, and seaworthy wooden cases or pallets marked with PO line, size, heat number and quantity.

Typical applications

- Small-bore process, steam and hydraulic lines
- Instrument, drain and vent connections
- Branch connections on larger lines

Ordering information

- Fitting type
- Nominal size (both sizes for reducing fittings)
- Class (2000, 3000, 6000 or 9000)
- End connection: socket weld, NPT or BSPT
- Material specification and grade
- Supplementary requirements
- Quantity and delivery point

Dimension charts

ASME B16.11 socket weld fitting dimensions; Pipe schedule chart — ASME B36.10M — www.teshigroup.com/dimensional-standards/

Reference information compiled from the published standard for convenience. It does not replace the current edition of the governing standard, which takes precedence. Verify critical dimensions and properties before design, purchase or fabrication. Teshi Engineers & Sales Promoters (P) Ltd accepts no liability for errors or omissions.

Teshi Group

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