



SS316L 3000 PSI COUPLING, SOCKET WELD

Full Coupling · Forged Stainless Steel ASTM A182 F316/F316L · Socket Weld Ends to ASME B16.11

BRAND: SW FLOW CONTROLS

SKU: SW-0233

SIZE 1/8" TO 4"

CLASS 3000



FIG. 1 | SS316L 3000 PSI COUPLING, SOCKET WELD

PRODUCT OVERVIEW

The SWBM SS316L 3000 PSI Socket Weld Coupling joins two plain end pipes of the same size in line. It is forged from ASTM A182 F316/F316L stainless steel, solution annealed, and machined to ASME B16.11 Class 3000.

Each end is counterbored to receive the pipe for a fillet welded joint, with a central shoulder that sets the expansion gap. It is used for straight joints and repairs in stainless small bore lines.

Fitting type	Full coupling, forged
End connection	Socket weld, ASME B16.11
Material	ASTM A182 F316/F316L forged stainless steel
Pressure class	Class 3000 (3000 lb)
Standard	ASME B16.11
Size range	1/8" to 4" (DN6 to DN100)

TECHNICAL SPECIFICATION

Design standard	ASME B16.11	Heat treatment	Solution annealed
Material	ASTM A182 F316/F316L forged stainless steel	Marking	MSS SP-25
Pressure class	Class 3000	Surface finish	Natural forged, machined ends
End connection	Socket weld, ASME B16.11	Temperature range	-196°C to +425°C
Size range	1/8" to 4" (DN6 to DN100)		
Socket dimensions	ASME B16.11		



PRODUCT DATA SHEET

SS316L 3000 PSI COUPLING, SOCKET WELD

Ref. SW-0233 | Rev. 01

BILL OF MATERIALS

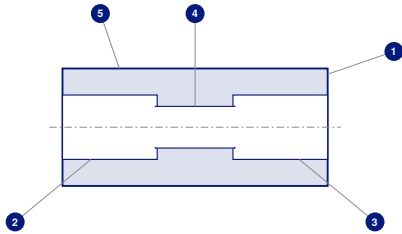


FIG. 2 | SECTIONAL ARRANGEMENT (SCHEMATIC)

#	COMPONENT	MATERIAL / DETAIL
1	Body	ASTM A182 F316/F316L, solution annealed
2	Socket end (2 nos.)	Bored to ASME B16.11, Class 3000
3	Socket shoulder	Stop for the 1.6 mm expansion gap
4	Waterway bore	Bore D, Class 3000
5	Identification marking	Die stamped to MSS SP-25

One piece closed die forging. Items 2 to 5 are integral features, listed to identify the critical dimensional and inspection points.

DIMENSIONS

SIZE	DN	SOCKET BORE B (MM)	SOCKET WALL C (MM)	BORE D (MM)	E (MM)	SOCKET DEPTH J (MM)	LENGTH L* (MM)
1/8"	6	10.8	3.20	6.9	6.5	10.5	27.5
1/4"	8	14.2	3.80	9.3	6.5	10.5	27.5
3/8"	10	17.6	4.05	12.6	6.5	10.5	27.5
1/2"	15	21.8	4.70	15.8	9.5	12.5	34.5
3/4"	20	27.2	4.90	21.0	9.5	14.0	37.5
1"	25	33.9	5.70	26.7	12.5	15.0	42.5
1.1/4"	32	42.7	6.10	35.1	12.5	17.0	46.5
1.1/2"	40	48.8	6.40	40.9	12.5	17.5	47.5
2"	50	61.2	6.95	52.5	19.0	22.0	63.0
2.1/2"	65	73.9	8.80	62.7	19.0	22.0	63.0
3"	80	89.8	9.55	78.0	19.0	22.0	63.0
4"	100	115.2	10.70	102.3	19.0	22.0	63.0

B = socket bore, C = socket wall, D = bore, E = distance between socket bottoms, J = socket depth. *L = 2J + E, calculated. Dimensions in accordance with ASME B16.11 Class 3000. Dimensions are nominal. Weights and certified drawings are issued on request.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	SW-0233
Size	1/8", 1/4", 3/8", 1/2", 3/4", 1", 1.1/4", 1.1/2", 2", 2.1/2", 3", 4"
Class	Class 3000
End connection	Socket weld to ASME B16.11
Certification	EN 10204 3.1 on request
Order example	SW-0233 / 1" / CL3000 / SW / F316L

Stock held in Dubai for fast despatch across the UAE and GCC. Contact our sales desk for pricing, availability, project quantities and certification requirements.



PRESSURE AND TEMPERATURE

Pressure class	Class 3000 to ASME B16.11
Rating basis	Equal to Sch 80 seamless pipe
Material group	ASTM A182 F316/F316L, ASME B16.5 Gr. 2.2
Temperature range	-196°C to +425°C

Class 3000 is a class designation, not a working pressure. The allowable pressure equals that of the matching pipe schedule, size and design temperature under ASME B31.3 or the governing code. Confirm duty with SWBM before use on media or temperatures outside normal service.

TYPICAL APPLICATIONS

- Chemical and petrochemical process piping
- Offshore, marine and seawater service
- Instrument, sample and analyser lines
- Food, pharmaceutical and water treatment plant
- Hydraulic and utility systems
- Corrosive and low temperature service

COMPLIANCE AND QUALITY

- Dimensions and tolerances to ASME B16.11
- Material to ASTM A182 F316/F316L, solution annealed
- Marking to MSS SP-25: maker, material, class and size
- Material test certificate EN 10204 3.1 on request
- Hydrostatic test and third party inspection on request
- Supplied under brand SW Flow Controls

INSTALLATION AND OPERATION

- Cut the pipe square and deburr before fit-up
- Insert the pipe fully, then withdraw about 1.6 mm to leave the bottoming gap before welding
- Fillet weld size and procedure to ASME B31.3 with a qualified welder
- Keep the socket and pipe free of oil, paint and scale in the weld zone
- Do not use socket weld joints where crevice corrosion is a concern
- Inspect welds visually or by MT/PT as required by the piping code

COMPANY

Sunel Wala Building Materials
Trading Co. LLC (SWBM)
Dubai, United Arab Emirates

SALES ENQUIRIES

info@swbm-fittings.com
Tel: +971 4 238 5652
Mobile / WhatsApp: +971 50 748 1772

ONLINE

www.swbm-fittings.com
Brand: SW Flow Controls

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