SS316L 3000 PSI ELBOW 45°, THREADED

45° Elbow · Forged Stainless Steel ASTM A182 F316/F316L · Female NPT to ASME B16.11

BRAND: SW FLOW CONTROLS | SKU: SW-0229 | SIZE 1/8" TO 4" | CLASS 3000

FIG. 1 | SS316L 3000 PSI ELBOW 45°, THREADED

PRODUCT OVERVIEW

The SWBM SS316L 3000 PSI Threaded 45° Elbow makes a 45° change of direction in threaded piping without welding. It is forged from ASTM A182 F316/F316L stainless steel, solution annealed, and machined to ASME B16.11 Class 3000.

Both ends carry female NPT taper threads to ASME B1.20.1 within reinforced bands, for corrosion resistant service in instrument, utility and offshore lines.

Fitting type	**Elbow 45°, forged**
End connection	**Female NPT, ASME B1.20.1**
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**
Material	**ASTM A182 F316/F316L forged stainless steel**
Pressure class	**Class 3000**
End connection	**Female NPT, ASME B1.20.1**
Size range	**1/8" to 4" (DN6 to DN100)**
Thread standard	**ASME B1.20.1 (NPT)**

Heat treatment	**Solution annealed**
Marking	**MSS SP-25**
Surface finish	**Natural forged, machined ends**
Temperature range	**-196°C to +425°C**

BILL OF MATERIALS

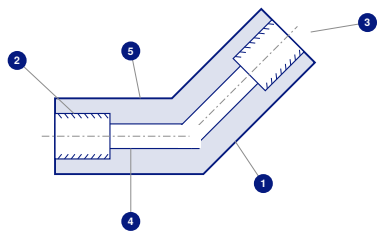

FIG. 2 | SECTIONAL ARRANGEMENT (SCHEMATIC)

#	COMPONENT	MATERIAL / DETAIL
1	Body	ASTM A182 F316/F316L, solution annealed
2	Threaded end (2 nos.)	Female NPT to ASME B1.20.1
3	Band	Reinforced band, OD H
4	Waterway bore	Through bore
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. BSPT threads can be offered against enquiry.

DIMENSIONS

SIZE	DN	THREAD	THREAD L2 (MM)	C (MM)	WALL G MIN (MM)	BAND OD H (MM)
1/8"	6	1/8" NPT	8.8	17	3.18	22
1/4"	8	1/4" NPT	11.4	19	3.30	25
3/8"	10	3/8" NPT	12.4	22	3.51	33
1/2"	15	1/2" NPT	14.9	25	4.09	38
3/4"	20	3/4" NPT	16.8	28	4.32	46
1"	25	1" NPT	19.6	33	4.98	56
1.1/4"	32	1.1/4" NPT	21.9	35	5.28	62
1.1/2"	40	1.1/2" NPT	22.7	43	5.56	75
2"	50	2" NPT	23.9	44	7.14	84
2.1/2"	65	2.1/2" NPT	30.5	52	7.65	102
3"	80	3" NPT	32.8	64	8.84	121
4"	100	4" NPT	34.6	79	11.18	152

L2 = length of useful thread to ASME B1.20.1, C = centre to end, G = minimum wall, H = outside diameter of band. 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-0229
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
Thread	NPT female to ASME B1.20.1. BSPT on enquiry
Certification	EN 10204 3.1 on request
Order example	**SW-0229 / 1" / CL3000 / NPT / 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 160 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.

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

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

INSTALLATION AND OPERATION

- Clean and inspect male and female threads before assembly
- Apply PTFE tape or an approved thread sealant to the male thread only
- Make up hand tight, then tighten with a wrench on the fitting body
- Do not over-tighten: excessive make-up can split the female end
- Use an anti-galling thread sealant, stainless threads can gall if dry
- Support the line so threaded joints do not carry bending loads

COMPANY

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