



CS A105N 3000 PSI SOCKOLET

Socket Weld Branch Outlet · Forged Carbon Steel ASTM A105N · MSS SP-97

BRAND: BOTHWELL	SKU: SW-0207	OUTLET 1/8" TO 4"	CLASS 3000
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FIG. 1 | CS A105N 3000 PSI SOCKOLET

PRODUCT OVERVIEW

The Bothwell CS A105N 3000 PSI Sockolet is an integrally reinforced branch outlet fitting that provides a socket weld branch from a larger run pipe. It is forged from ASTM A105N carbon steel, normalized, and made to the design and dimensions of MSS SP-97 Class 3000.

The contoured base is welded to the run pipe and the outlet socket, bored to ASME B16.11, receives the branch pipe for a fillet welded joint. The integral reinforcement removes the need for a reinforcing pad and keeps stress concentration at the branch low.

Fitting type	Branch outlet (olet), forged
Outlet connection	Socket weld, ASME B16.11
Run connection	Butt weld, contoured base
Material	ASTM A105N forged carbon steel
Pressure class	Class 3000 (3000 lb)
Outlet size range	1/8" to 4" (DN6 to DN100)

TECHNICAL SPECIFICATION

Design standard	MSS SP-97	Heat treatment	Normalized (A105N)
Material	ASTM A105N forged carbon steel	Marking	MSS SP-25
Pressure class	Class 3000	Surface finish	Natural forged, machined ends
End connection	SW outlet, BW base to run	Temperature range	-29°C to +425°C
Size range	1/8" to 4" (DN6 to DN100)	Country of origin	Taiwan
Socket dimensions	ASME B16.11		



PRODUCT DATA SHEET

CS A105N 3000 PSI SOCKOLET

Ref. SW-0207 | Rev. 01

BILL OF MATERIALS

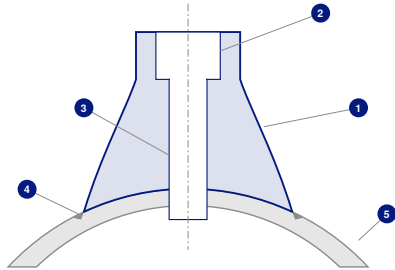


FIG. 2 | SECTIONAL ARRANGEMENT (SCHEMATIC)

#	COMPONENT	MATERIAL / DETAIL
1	Body	ASTM A105N forged carbon steel, normalized
2	Outlet socket	Bored to ASME B16.11 Class 3000
3	Waterway bore	Bore D to MSS SP-97
4	Contoured base and weld bevel	Profiled to suit the run pipe OD
5	Run pipe (by others)	Not supplied, shown for reference

One piece forging. Items 2 to 4 are integral features. The base is contoured for a specific run pipe size, so the run size must be stated on order.

DIMENSIONS

OUTLET	DN	BASE OPENING C (MM)	SOCKET BORE D (MM)	TOP OD F (MM)	SOCKET DEPTH J (MM)	E (MM)
1/8"	6	13.7	10.8	22.0	10.5	8.5
1/4"	8	13.7	14.2	22.0	10.5	8.5
3/8"	10	19.1	17.6	25.9	10.5	10.5
1/2"	15	21.3	21.8	31.4	12.5	12.5
3/4"	20	26.7	27.2	37.1	14.0	13.0
1"	25	33.4	33.9	45.5	15.0	18.0
1.1/4"	32	42.2	42.7	57.0	17.0	16.0
1.1/2"	40	48.3	48.8	64.0	17.5	17.5
2"	50	60.3	61.2	76.0	22.0	16.0
2.1/2"	65	73.2	73.9	92.0	22.0	24.0
3"	80	88.9	89.8	109.2	22.0	29.0
4"	100	114.3	115.2	140.0	28.0	29.0

Reducing type (outlet smaller than run). C = opening at base, D = socket bore, F = outside diameter at top, J = socket depth, E = socket bottom to base. Dimensions from the Bothwell manufacturer catalogue, Class 3000, design to MSS SP-97, sockets to ASME B16.11. Outlets 4" and smaller fit a range of run sizes and are marked accordingly. Size on size, weights and certified drawings are issued on request.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	SW-0207
Outlet size	1/8", 1/4", 3/8", 1/2", 3/4", 1", 1.1/4", 1.1/2", 2", 2.1/2", 3", 4"
Run pipe size	State run NPS, base is contoured to suit
Class	Class 3000
Certification	EN 10204 3.1 on request
Order example	SW-0207 / 1" x 6" / CL3000 / SW / A105N

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



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PRESSURE AND TEMPERATURE

Pressure class	Class 3000 to MSS SP-97
Rating basis	Equal to Sch 80 seamless pipe
Material group	ASTM A105N, ASME B16.5 Gr. 1.1
Temperature range	-29°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

- Branch take-offs from process and utility headers
- Instrument, pressure and temperature connections
- Vent and drain points on larger lines
- Oil and gas, petrochemical and refinery piping
- Steam and condensate distribution headers
- Marine and offshore piping systems

COMPLIANCE AND QUALITY

- Design and dimensions to MSS SP-97
- Material to ASTM A105N, normalized
- Base contoured to the specified run pipe size
- Marking to MSS SP-25: maker, material, class and size
- Material test certificate EN 10204 3.1 on request
- Third party inspection on request

INSTALLATION AND OPERATION

- Mark the branch centre and cut the run pipe hole to the olet bore, then deburr
- Set the olet on the run with a root gap of about 1.6 mm using spacers
- Full penetration weld the base to the run pipe to ASME B31.3 with a qualified procedure
- Insert the branch pipe into the socket, withdraw about 1.6 mm, then fillet weld
- Keep the weld zone free of oil, paint and scale
- Inspect welds to the requirements of 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: Bothwell

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