



CS A105N 3000 PSI HALF COUPLING – SOCKET WELD

Half Coupling · Forged Carbon Steel · Class 3000 SW

SKU: SW-0189

BRAND: BOTHWELL

CLASS 3000

SOCKET WELD



FIG. 1 | CS A105N CLASS 3000 HALF COUPLING, SOCKET WELD

PRODUCT OVERVIEW

The SWBM CS A105N Class 3000 Socket Weld Half Coupling forms a welded branch outlet on a pipe header, tank or vessel. The plain end is welded to the parent metal and the socket end receives the branch pipe.

The all welded joint suits hydrocarbon, steam and high integrity service where a threaded tapping would not be accepted. The body is made to ASME B16.11.

Fitting type	Half coupling
Function	Forms a branch outlet on a header or vessel
Material	ASTM A105N forged steel
End connection	One socket weld, one plain end
Standard	ASME B16.11
Size range	1/8" to 4" (DN6 to DN100)

TECHNICAL SPECIFICATION

Material	ASTM A105N carbon steel	Finish	Black, oiled for transport
Manufacture	Forged and normalised	Marking	Grade, class, size and heat number
Dimensional standard	ASME B16.11	Temperature range	-29°C to +425°C
Pressure class	Class 3000	Country of origin	Taiwan
Ends	One socket weld, one plain end	Certification	EN 10204 3.1 on request
Socket bores	ASME B16.11		



PRODUCT DATA SHEET

CS A105N 3000 PSI HALF COUPLING – SOCKET WELD

Ref. SW-0189 | Rev. 01

BILL OF MATERIALS

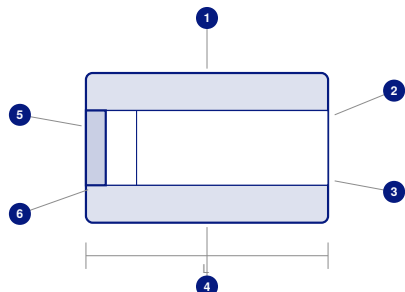


FIG. 2 | SECTIONAL ARRANGEMENT

#	FEATURE	DESCRIPTION
1	Body	ASTM A105N, forged one piece
2	Socket bore	Machined to suit the branch pipe OD
3	Plain end	Welded to the parent pipe or vessel
4	Socket shoulder	Internal stop setting the expansion gap
5	Waterway	Machined bore through the body
6	Marking	Grade, class, size and heat number

One piece forged fitting. The plain end is welded to the parent metal, so the weld procedure must suit both the fitting and the parent material.

DIMENSIONS AND WEIGHTS

SIZE	DN	THREAD / SOCKET	PIPE OD (MM)
1/8"	6	1/8" socket	10.3
1/4"	8	1/4" socket	13.7
3/8"	10	3/8" socket	17.1
1/2"	15	1/2" socket	21.3
3/4"	20	3/4" socket	26.7
1"	25	1" socket	33.4
1.1/4"	32	1.1/4" socket	42.2
1.1/2"	40	1.1/2" socket	48.3
2"	50	2" socket	60.3
2.1/2"	65	2.1/2" socket	73.0
3"	80	3" socket	88.9
4"	100	4" socket	114.3

Pipe outside diameters are to ASME B36.10M and are the sizes the socket or thread is made to suit. Body dimensions, socket depth and minimum wall are to ASME B16.11 and are issued on certified drawings against order. Masses are not published for this item.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	SW-0189
Size	1/8", 1/4", 3/8", 1/2", 3/4", 1", 1.1/4", 1.1/2", 2", 2.1/2", 3", 4"
Thread	Socket weld, no thread
Material	ASTM A105N forged carbon steel
Order example	SW-0189 / 1/2" / SW / CLASS 3000

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	To ASME B16.11
Basis of the class	A class designation, not a psi rating
Temperature range	-29°C to +425°C for A105N
Rating	Take the allowable from the design code

ASME B16.11 class designations are not cold working pressures in psi. The allowable pressure at temperature must be taken from the applicable design code for A105N. Confirm the duty with SWBM before use above 425°C or below -29°C, and for sour service.

TYPICAL APPLICATIONS

- Oil and gas gathering and process piping
- Refinery and petrochemical plant
- Steam, condensate and boiler house piping
- Instrument tappings and small bore branch connections
- Hydraulic and high pressure utility lines
- Power generation and industrial process plant

COMPLIANCE AND QUALITY

- Manufactured to ASME B16.11
- Material ASTM A105N, normalised carbon steel forging
- NPT threads to ASME B1.20.1
- Marked with grade, class, size and heat number
- Material test certificate EN 10204 3.1 on request
- Suitable for ASME B31.1 and B31.3 piping systems
- NACE MR0175 compliant material against enquiry

INSTALLATION AND OPERATION

- Cut and bevel the pipe square and clean the socket bore before assembly
- Insert the pipe fully home, then withdraw about 1.6 mm to leave the expansion gap
- Do not weld a pipe bottomed hard against the socket shoulder, the joint will crack
- Use a qualified welding procedure and a qualified welder for the material
- Preheat and post weld heat treat where the code or the wall thickness requires it
- Hydrotest the joint in line with the applicable design code

COMPANY

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