

Sockolet® Branch Outlet Fittings

Integrally reinforced socket-weld branch connections · NPS ½" to 6" · Class 3000 & 6000

PRODUCT DESCRIPTION

The Sockolet® is a forged, integrally reinforced 90° branch outlet fitting that is butt-welded to the run (header) pipe and receives the branch pipe in a socket-weld connection. It provides a full-strength, self-reinforced branch without additional reinforcing pads.

The socket end is dimensioned to ASME B16.11: the branch pipe is inserted, backed off to leave the root gap and fillet-welded — no branch bevel needed. It is the standard choice for small-bore socket-weld branches in process, oil & gas, power and utility piping.

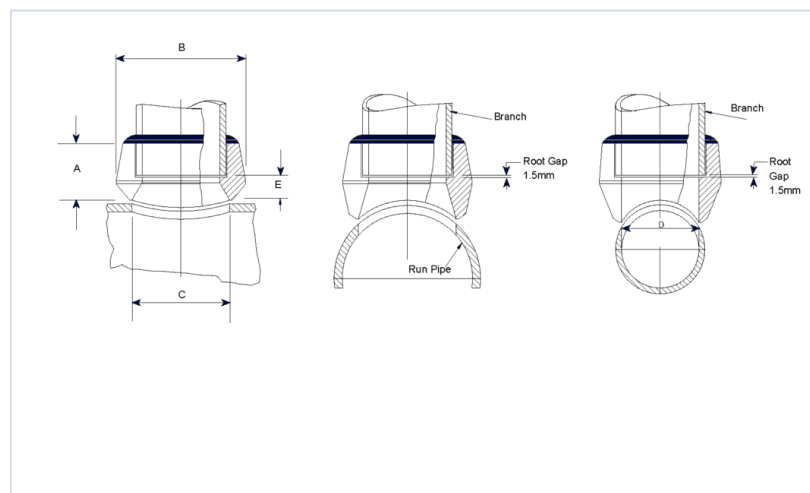
KEY FEATURES

- **Integral reinforcement** — designed to meet branch reinforcement requirements of the piping code without pads.
- **Socket-weld branch end** to ASME B16.11 — quick fit-up, no branch bevel, fillet weld only.
- **Class 3000 and 6000** pressure ratings, matching socket-weld pipe systems.
- **Reducing and size-on-size** outlets from NPS ½" to 6".

SPECIFICATION SUMMARY

Product	Sockolet® (Socket Weld Outlet) — 90° branch outlet fitting
Design standard	MSS SP-97 — Integrally Reinforced Forged Branch Outlet Fittings
Socket dimensions	ASME B16.11 — Forged Fittings, Socket-Welding and Threaded
End connections	Butt-weld to run pipe; socket-weld to branch pipe
Size range	NPS ½" – 6" (DN 6 – DN 150)
Pressure classes	Class 3000 Class 6000
Configuration	Reducing outlets (branch smaller than run) and size-on-size outlets
Materials	Carbon steel, low-temperature carbon steel, alloy steel, stainless steel, duplex and nickel alloys — as specified
Testing & certification	Material test certificate; NDT (MPI / DPT / UT) and third-party inspection on request
Marking	Manufacturer, size, class, material grade, heat number

DIMENSIONAL DRAWING



A Height — run-pipe surface to socket face

B Outside diameter of outlet base

C Hole diameter to be cut in run pipe

D Bore diameter through the outlet

E Socket depth (refer drawing)

Root gap: insert branch pipe to socket bottom, withdraw approx. **1.5 mm**, then fillet weld.

Sockolet® Branch Outlet Fittings

Dimensions — Class 3000, Class 6000 & Size-on-Size

DIMENSIONS — CLASS 3000

CLASS 3000		REDUCING OUTLETS					15 sizes
NPS inch	A mm	B mm	C mm	D mm	E mm	Weight kg	
1/8	19.05	25.40	15.88	6.83	7.14	0.05	
1/4	19.05	25.40	15.88	9.25	7.14	0.05	
3/8	20.64	31.75	19.05	12.52	11.11	0.09	
1/2	25.40	35.72	23.02	15.80	14.29	0.14	
3/4	26.99	43.66	29.37	20.93	14.29	0.16	
1	33.34	50.80	36.51	26.64	19.84	0.27	
1 1/4	33.34	65.09	44.45	35.05	19.05	0.39	
1 1/2	34.93	72.23	50.80	40.89	19.05	0.45	
2	38.10	88.11	65.09	52.50	20.64	0.73	
2 1/2	39.69	103.19	76.20	62.71	19.05	1.25	
3	44.45	122.24	93.66	77.93	23.81	1.72	
3 1/2	53.98	132.56	101.60	90.12	25.40	1.95	
4	47.63	151.61	120.65	102.26	26.99	3.29	
5	66.68	185.74	141.29	128.19	34.13	5.44	
6	69.85	219.08	169.86	154.05	35.72	6.58	

DIMENSIONS — CLASS 6000

CLASS 6000		REDUCING OUTLETS					6 sizes
NPS inch	A mm	B mm	C mm	D mm	E mm	Weight kg	
1/2	31.75	43.66	19.05	11.84	22.23	0.23	
3/4	36.51	49.61	25.40	15.60	22.23	0.36	
1	39.69	61.91	33.34	20.70	23.81	0.59	
1 1/4	41.28	69.06	38.10	29.46	20.64	0.73	
1 1/2	42.86	82.55	49.21	33.99	22.23	0.91	
2	52.39	102.39	69.85	42.90	30.16	2.34	

DIMENSIONS — SIZE-ON-SIZE, CLASS 3000

CLASS 3000		SIZE-ON-SIZE OUTLETS					12 sizes
NPS inch	A mm	B mm	C mm	D mm	E mm	Weight kg	
1/2	25.40	34.93	23.81	15.80	13.49	0.07	
3/4	26.99	41.28	30.16	20.93	11.91	0.11	
1	33.34	50.80	36.51	26.64	18.26	0.20	
1 1/4	33.34	60.33	44.45	35.05	14.29	0.29	
1 1/2	34.93	73.03	50.80	40.89	16.67	0.39	
2	38.10	88.90	65.09	52.50	23.81	0.64	
2 1/2	39.69	103.19	76.20	62.71	19.05	1.02	
3	44.45	122.24	93.66	77.93	23.81	1.70	
3 1/2	42.86	136.53	112.71	90.12	17.46	1.95	
4	47.63	153.99	120.65	102.26	26.99	2.99	
5	61.91	184.15	133.35	128.19	25.40	4.08	
6	68.26	220.66	153.99	154.05	30.16	7.03	

- All dimensions in millimetres; weights in kilograms and approximate.
- Reducing-outlet dimensions apply to outlets on run pipe larger than the branch; size-on-size outlets are for run and branch of equal nominal size.
- Socket dimensions per ASME B16.11; design per MSS SP-97.

Sockolet® Branch Outlet Fittings

Materials · Installation · Quality & Documentation

TYPICAL MATERIAL GRADES

Carbon steel	ASTM A105 / A105N
Low-temperature CS	ASTM A350 LF2 Cl.1 / Cl.2
Alloy steel	ASTM A182 F11, F22, F5, F9, F91
Stainless steel	ASTM A182 F304/304L, F316/316L, F321, F347
Duplex / super duplex	ASTM A182 F51 (S31803 / S32205), F53, F55
Nickel & copper alloys	Inconel, Monel, Hastelloy, Cu-Ni 90/10 & 70/30 — on request

Other grades, dual-certified materials and NACE MR0175 / ISO 15156 compliance available on request.

RELATED PRODUCTS

Weldolet	Thredolet	Elbolet	Latrolet	Nipolet
Sweepolet	Flanges	Forged fittings		

SOCKET-WELD INSTALLATION GUIDANCE

- **Run-pipe weld:** cut hole C in the run pipe, fit the contoured base and complete the full-penetration butt weld.
- **Branch fit-up:** insert the branch pipe to the socket bottom, then withdraw approx. 1.5 mm to leave a root gap and prevent weld cracking from thermal expansion.
- **Fillet weld:** minimum leg size $1.09 \times$ nominal pipe wall thickness (or 3.2 mm, whichever is greater) per ASME B31.3.
- **Pipe fit:** socket bore is sized for the branch pipe outside diameter to ASME B16.11 tolerances.

QUALITY & DOCUMENTATION

- Manufactured under an ISO-certified quality management system.
- Material test certificates with full heat-number traceability.
- Dimensional inspection report to MSS SP-97 / ASME B16.11.
- Optional NDT: magnetic particle, dye penetrant or ultrasonic examination.
- Third-party / customer witness inspection arranged on request.

Ordering information: specify run-pipe size & schedule, branch size, pressure class (3000 / 6000), material grade, quantity, and any additional testing or certification requirements.