

Latrolet® 45° Lateral Outlet Fittings

Integrally reinforced 45° branch connections · Butt-weld, socket-weld & threaded · NPS ¼" to 6"

PRODUCT DESCRIPTION

The Latrolet® is a forged, integrally reinforced branch outlet fitting that provides a 45° lateral branch from the run (header) pipe. Its base is contoured to the run pipe and butt-welded; the branch end is supplied butt-weld (bevelled), socket-weld or threaded to ASME B16.11.

A 45° lateral gives a smoother flow path than a 90° branch, with lower turbulence and pressure drop — used for lateral take-offs, by-passes, blow-down and drain lines.

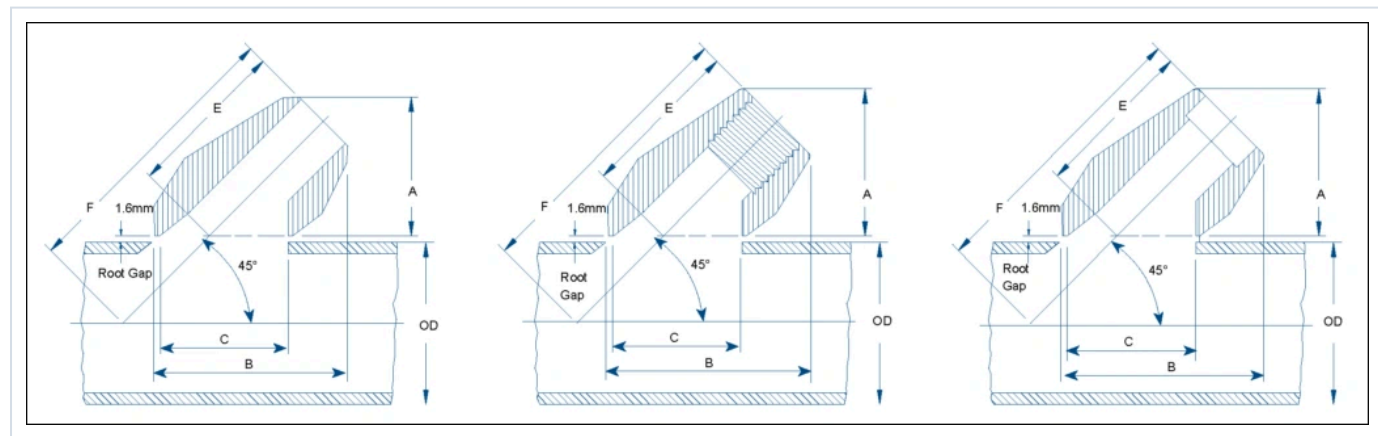
KEY FEATURES

- **Integral reinforcement** — meets branch reinforcement requirements of the piping code without pads.
- **45° branch angle** — reduced flow disturbance compared with a 90° outlet.
- **Three branch-end options** — butt-weld (STD / XS / Sch 160 / XXS), socket-weld and threaded (Class 3000 / 6000).

SPECIFICATION SUMMARY

Product	Latrolet® (Lateral Outlet) — 45° branch outlet fitting
Design standard	MSS SP-97 — Integrally Reinforced Forged Branch Outlet Fittings
Socket / thread	ASME B16.11 socket-weld; NPT thread to ASME B1.20.1
End connections	Butt-weld to run pipe; BW, SW or threaded branch at 45°
Size range	NPS ¼" – 6" (STD / XS BW); NPS ¼" – 2" (Cl. 3000 / 6000, Sch 160 / XXS)
Classes / schedules	Class 3000 Class 6000 STD / XS Sch 160 / XXS
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

DIMENSIONAL DRAWING



A Height — run-pipe surface to branch end

B Base length along the run pipe

C Hole length to be cut in run pipe

E Branch length along the 45° axis

F Base edge to root gap (1.6 mm gap)

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Dimensions — Class 3000 & 6000 · STD / XS · Sch 160 / XXS

CLASS 3000 — THREADED & SOCKET-WELD

CLASS 3000		THD & SW		8 sizes	
NPS inch	A mm	B mm	C mm	E mm	
1/4	39.69	59.53	36.51	39.69	
3/8	39.69	59.53	36.51	39.69	
1/2	39.69	59.53	36.51	39.69	
3/4	47.63	69.85	44.45	48.42	
1	55.56	82.55	53.98	55.56	
1 1/4	63.50	97.63	66.68	74.61	
1 1/2	69.85	107.16	76.99	66.68	
2	85.73	138.11	104.78	80.17	

CLASS 6000 — THREADED & SOCKET-WELD

CLASS 6000		THD & SW		8 sizes	
NPS inch	A mm	B mm	C mm	E mm	
1/4	39.69	59.53	36.51	39.69	
3/8	39.69	59.53	36.51	39.69	
1/2	47.63	69.85	44.45	48.42	
3/4	55.56	82.55	53.98	55.56	
1	63.50	92.87	66.68	62.71	
1 1/4	69.85	107.16	76.99	66.68	
1 1/2	85.73	138.11	104.78	80.17	
2	85.73	138.11	104.78	80.17	

STANDARD & XS — BUTT-WELD

SCHEDULE STD & XS		BUTT-WELD		12 sizes	
NPS inch	A mm	B mm	C mm	E mm	
1/4	33.34	53.18	36.51	39.69	
3/8	33.34	53.18	36.51	39.69	
1/2	34.93	54.77	36.51	39.69	
3/4	42.86	64.29	44.45	48.42	
1	50.01	76.20	53.98	55.56	
1 1/4	57.94	91.28	66.68	62.71	
1 1/2	62.71	100.81	76.99	66.68	
2	80.96	133.35	104.78	86.52	
2 1/2	80.17	131.76	104.78	80.17	
3	96.84	158.75	126.21	96.04	
4	120.65	198.44	163.51	115.89	
6	170.65	287.34	244.48	159.55	

SCH 160 & XXS — BUTT-WELD

SCHEDULE 160 & XXS		BUTT-WELD	7 sizes
NPS inch	A mm	B mm	C mm
1/4	39.69	58.74	36.51
3/8	39.69	58.74	36.51
1/2	46.04	69.85	44.45
3/4	53.98	82.55	53.98
1	63.50	96.84	66.68
1 1/4	69.85	107.95	76.20
1 1/2	85.73	136.53	104.78

- All dimensions in millimetres. Design per MSS SP-97; socket-weld ends per ASME B16.11, threads per ASME B1.20.1.
- Dimension E is not tabulated for Sch 160 / XXS butt-weld outlets in the catalogue — supplied on request.

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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	Socketlet	Threadolet	Elbolet	Nipolet
Sweepolet	Flanges	Forged fittings		

INSTALLATION GUIDANCE

- **Run-pipe cut-out:** cut the elongated hole (length C) in the run pipe along the pipe axis, oriented for the 45° branch direction.
- **Fit-up:** position the contoured base with a 1.6 mm root gap and confirm the 45° branch angle before tacking.
- **Run-pipe weld:** complete the full-penetration butt weld around the base.
- **Branch end:** butt-weld to the bevelled end; or for socket-weld, insert, withdraw approx. 1.5 mm and fillet weld; or for threaded, make up with sealant hand-tight plus 1½ – 3 turns.

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, end type (butt-weld / socket-weld / threaded), class or schedule, material grade, quantity and any testing or certification requirements.