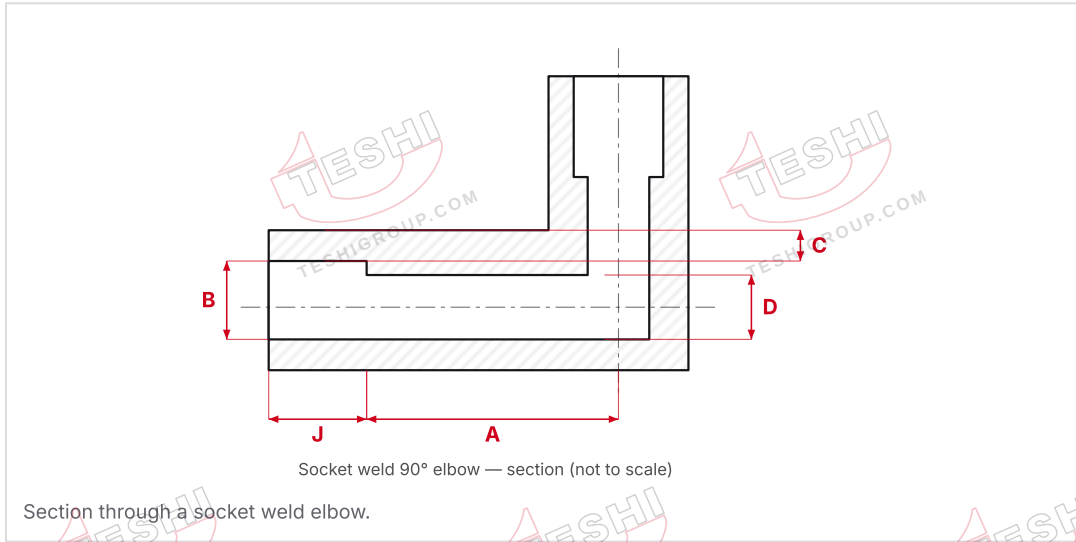


DIMENSIONAL STANDARD · ASME B16.11

ASME B16.11 Socket Weld Fitting Dimensions

Socket weld elbow, tee, cross, coupling and cap dimensions, Class 3000, 6000 and 9000.

Dimensions of **ASME B16.11 forged socket weld fittings** in millimetres for 90° and 45° elbows, tees, crosses, couplings, half couplings and caps in Class 3000, 6000 and 9000, from NPS 1/8" to 4".



- B** Socket bore diameter (mid-point of the maximum and minimum limits)
- J** Minimum socket depth
- A** Centre to bottom of socket
- C** Minimum socket wall thickness
- D** Bore diameter of fitting (mid-point of limits)
- E** Laying length of a full coupling
- F** Laying length of a half coupling
- K** Minimum end wall thickness of a cap

Socket weld elbows, tees and crosses (mm)

NPS in	DN	B Socket bore	J Socket depth	A 90° 3000	A 90° 6000	A 90° 9000	A 45° 3000	A 45° 6000	A 45° 9000	C min 3000	C min 6000	C min 9000	D 3000	D 6000	D 9000
1/8"	6	11.00	9.5	11	11	—	8	8	—	3.18	3.43	—	6.85	4.00	—
1/4"	8	14.40	9.5	11	13.5	—	8	8	—	3.30	4.01	—	9.25	6.35	—
3/8"	10	17.80	9.5	13.5	15.5	—	8	11	—	3.50	4.37	—	12.55	9.15	—
1/2"	15	22.00	9.5	15.5	19	25.5	11	12.5	15.5	4.09	5.18	8.18	15.80	11.75	6.40
3/4"	20	27.40	12.5	19	22.5	28.5	13	14	19	4.27	6.04	8.56	20.95	15.55	11.05
1"	25	34.10	12.5	22.5	27	32	14	17.5	20.5	4.98	6.93	9.96	26.65	20.70	15.20
1 1/4"	32	42.90	12.5	27	32	35	17.5	20.5	22.5	5.28	6.93	10.62	35.05	29.45	22.75

NPS in	DN	B Socket bore	J Socket depth	A 90° 3000	A 90° 6000	A 90° 9000	A 45° 3000	A 45° 6000	A 45° 9000	C min 3000	C min 6000	C min 9000	D 3000	D 6000	D 9000
1½"	40	49.00	12.5	32	38	38	20.5	25.5	25.5	5.54	7.80	11.12	40.85	33.95	27.95
2"	50	61.45	16.0	38	41	54	25.5	28.5	28.5	6.04	9.50	12.12	52.50	42.85	38.15
2½"	65	74.15	16.0	41	—	—	28.5	—	—	7.67	—	—	62.70	—	—
3"	80	90.05	16.0	57	—	—	32	—	—	8.30	—	—	77.90	—	—
4"	100	115.45	19.0	66.5	—	—	41	—	—	9.35	—	—	102.25	—	—

Socket weld couplings, half couplings and caps (mm)

NPS in	DN	E Full coupling	F Half coupling	K Cap, 3000	K Cap, 6000	K Cap, 9000
⅛"	6	6.5	16	4.8	6.4	—
¼"	8	6.5	16	4.8	6.4	—
⅜"	10	6.5	17.5	4.8	6.4	—
½"	15	9.5	22.5	6.4	7.9	11.2
¾"	20	9.5	24	6.4	7.9	12.7
1"	25	12.5	28.5	9.6	11.2	14.2
1¼"	32	12.5	30	9.6	11.2	14.2
1½"	40	12.5	32	11.2	12.7	15.7
2"	50	19.0	41	12.7	15.7	19.0
2½"	65	19.0	43	15.7	19.0	—
3"	80	19.0	44.5	19.0	22.4	—
4"	100	19.0	48	22.4	28.4	—

Fitting class and matching pipe schedule

Type	Class	Pipe schedule
Threaded	2000	Sch 80 (XS)
Threaded	3000	Sch 160
Threaded	6000	XXS
Socket-welding	3000	Sch 80 (XS)
Socket-welding	6000	Sch 160

Type	Class	Pipe schedule
Socket-welding	9000	XXS

Notes

- Dimensions are in millimetres unless stated otherwise.
- Socket bore B and fitting bore D are shown as the mid-point of the maximum and minimum limits in the standard.
- A dash means the standard does not list that size in that class.
- A gap of approximately 1.6 mm is left between the pipe end and the bottom of the socket before welding.

Reference information compiled from the published standard for convenience. It does not replace the current edition of the governing standard, which takes precedence. Verify critical dimensions and properties before design, purchase or fabrication. Teshi Engineers & Sales Promoters (P) Ltd accepts no liability for errors or omissions.

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