

SOCKET WELDING FITTINGS & THREADED FITTINGS



Available Materials

★ **Stainless Steel**

A182 F304/L, 304H
 F310, 310H
 F316/L, 316H
 F317/L
 F321/H
 F347/H
 F51
 F53
 F904L
 F44 (254SMO)

★ **Duplex & Super Duplex**

A182 F51, F53, F55, F60

★ **Nickel-base Alloy**

Alloy200, 400, K500, 600, 625, 800, 800H, 800HT, 825, alloy 20, alloy28, hastelloy C22, C276

★ **Other Grades**

Cu70Ni30(C71500, B30), Cu90Ni10(C70600, B10)

Titanium & Titanium Alloy

★ **Carbon Steel**

A105, A105N

★ **Low Temperature Steel**

A350 LF2, LF3

★ **Alloy Steel**

A182 F5, F9, F11, F12, F22, F91, F911, FR

★ **High Yield**

A694 F42, F46, F50, F52, F56, F60, F65, F70

Note:

1. Equivalent grade from EN/DIN is available for above.
2. The list above is for your reference only. The actual enquiry will consider order quantity and delivery time.
3. If didn't find your material here, you are kindly requested to make a specific enquiry to sales@kaysuns.com.

Tolerances for Socket-Welding Fittings -ASME B16.11

Nominal Pipe Size		All Fittings		45°, 90° Elbow, Tees, Crosses, 45° Laterals	Couplings	Half Couplings Reducer Inserts	Union (Including Thread)
		Socket Bore	Water Way Bore	Center To Bottom of Socket	Laying Lengths	Laying Lengths	Length Assem Nominal
DN	NPS	d1	d2	A, H	E	F	L
6-8	1/8-1/4			±0.8	±1.5	±0.8	±1.5
10-20	3/8-3/4	+0.3	±0.4	±1.5	±3.0	±1.5	±1.5
25-50	1-2			±2.0	±4.0	±2.0	±1.5
35-100	2 1/2-4	+0.4	±0.8	±2.5	±5.0	±2.5	±1.5

Tolerances for Threaded Fittings-ASME B16.11

Nominal Pipe Size		45°, 90° Elbow, Tees, Crosses	Couplings, Cap	Half Coupling, Boss
		Center To End	End To End	End To End
DN	NPS	A	E, F	E/2
6-8	1/8-1/4	±0.7	±0.7	±0.4
10-20	3/8-3/4	±1.5	±1.5	±0.8
25-50	1-2	±2.0	±2.0	±1.0
65-100	2 1/2-4	±2.5	±2.5	±1.3

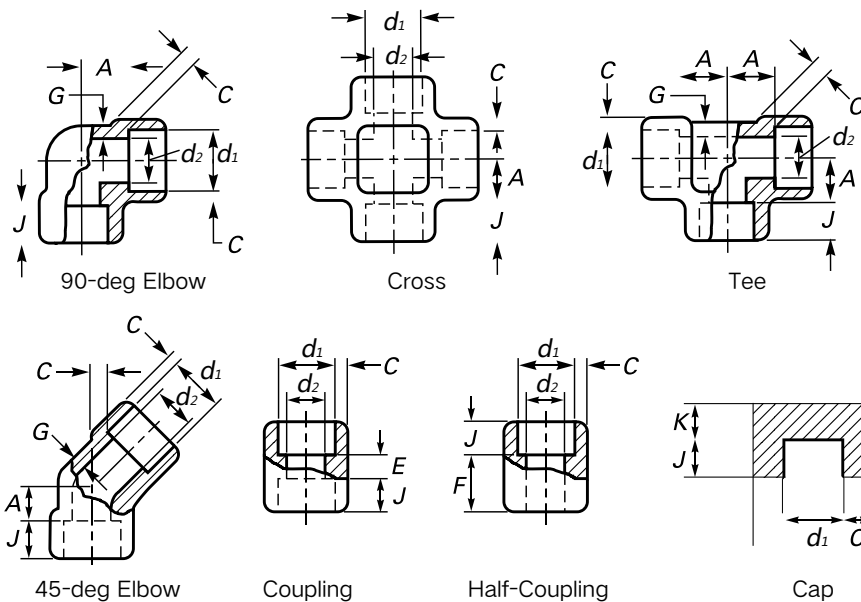
Comments:

Limiting tolerances can be slightly different between the different standards and codes.

The Correlation between Pressure Class Designation and Schedule No. of Pipe for the Threaded Fittings and Socket Welding Fittings

Code of Pressure Grade	Wall Thickness Class			
	Socket	Thread	Socket	Thread
2000	-	SCH80	-	XS
3000	SCH80	SCH160	XS	-
6000	SCH160	-	-	XXS
9000	-	-	XXS	-

Socket-Welding Fittings to ASME B16.11

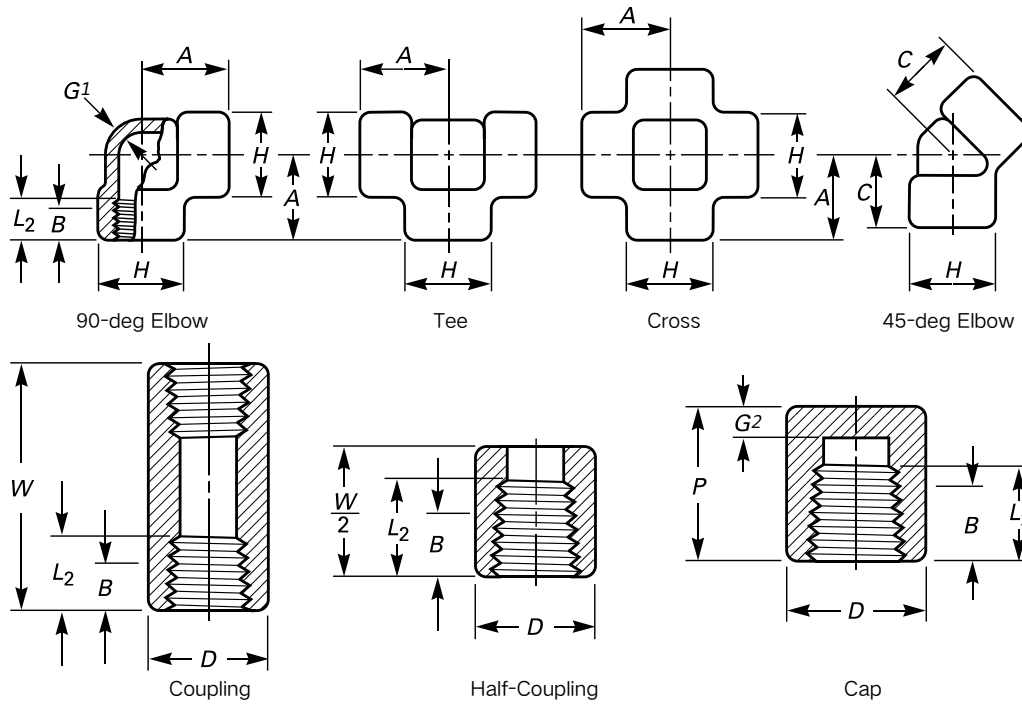


Nom. Pipe Size		Socket Bore Diameter	Socket Wall Thickness, C			Body Wall, G			Depth of Socket Min	Center to Bottom of Socket						Laying Lengths		End Wall Thickness Class Designation Min K		
										90°Elbows, Tees, and Crosses Class Designation A			45°Elbows Class Designation A			Full Couplings	Half Couplings			
DN	NPS	d1	3000 Min.	6000 Min.	9000 Min.	3000 Min.	6000 Min.	9000 Min.	J	3000	6000	9000	3000	6000	9000	E	F	3000	6000	9000
6	1/8	10.8-11.2	3.18	3.43	-	2.41	3.15	-	9.5	11	11	-	8	8	-	6.5	16	4.8	6.4	-
8	1/4	14.2-14.6	3.3	4.01	-	3.02	3.68	-	9.5	11	13.5	-	8	8	-	6.5	16	4.8	6.4	-
10	3/8	17.6-18	3.5	4.37	-	3.2	4.01	-	9.5	13.5	15.5	-	8	11	-	6.5	17.5	4.8	6.4	-
15	1/2	21.8-22.2	4.09	5.18	8.18	3.73	4.78	7.47	9.5	15.5	19	25.5	11	12.5	15.5	9.5	22.5	6.4	7.9	11.2
20	3/4	27.2-27.6	4.27	6.04	8.56	3.91	5.56	7.82	12.5	19	22.5	28.5	13	14	19	9.5	24	6.4	7.9	12.7
25	1	33.9-34.3	4.98	6.93	9.96	4.55	6.35	9.09	12.5	22.5	27	32	14	17.5	20.5	12.5	28.5	9.6	11.2	14.2
32	1 1/4	42.7-43.1	5.28	6.93	10.62	4.85	6.35	9.7	12.5	27	32	35	17.5	20.5	22.5	12.5	30	9.6	11.2	14.2
40	1 1/2	48.8-49.2	5.54	7.8	11.12	5.08	7.14	10.15	12.5	32	38	38	20.5	25.5	25.5	12.5	32	11.2	12.7	15.7
50	2	61.2-61.7	6.04	9.5	12.12	5.54	8.74	11.07	16	38	41	54	25.5	28.5	28.5	19	41	12.7	15.7	19.0
65	2 1/2	73.9-74.4	7.67	-	-	7.01	-	-	16	41	-	-	28.5	-	-	19	43	15.7	19.0	-
80	3	89.8-90.3	8.3	-	-	7.62	-	-	16	57	-	-	32	-	-	19	44.5	19.0	22.4	-
100	4	115.2-115.7	9.35	-	-	8.56	-	-	19	66.5	-	-	41	-	-	19	48	22.4	28.4	-

Note:

1. Dimensions of Socket-welding Pipe Fittings to ASME B16.11 / BS3799.
2. All dimensions are in mm. If you could not find the size, please [contact us](#).

Threaded Fittings to ASME B16.11

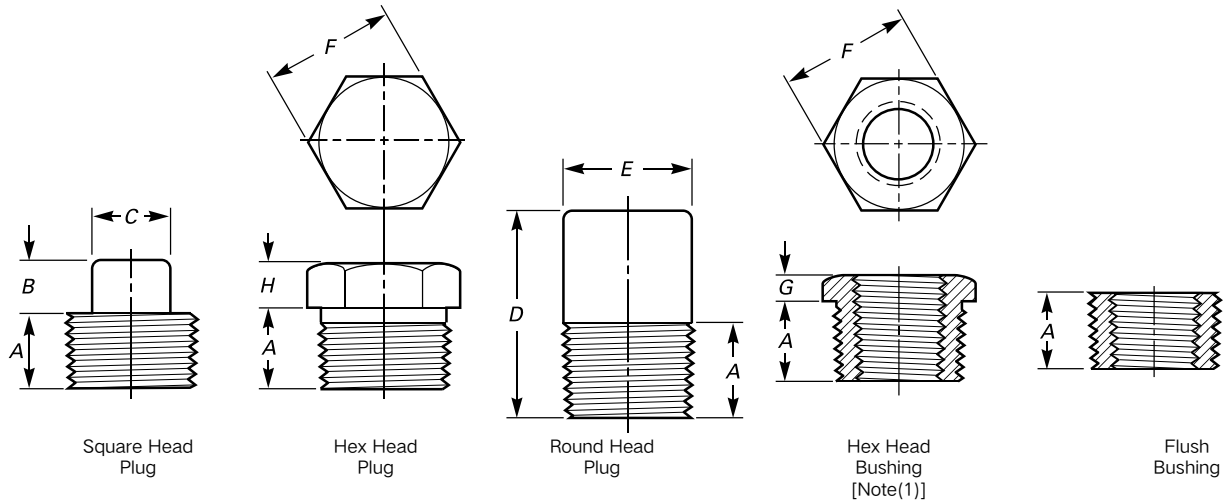


Nominal Pipe Size		90° Elbows, Tees and Crosses											Half Coupling, Coupling, Cap						Length of Thread, Min.			
		Center to End						Outer Diameter		Wall Thickness, Min.			End to End		Outside Diameter		End wall Thickness					
		90° Elbows, Tees and Crosses			45° Elbows								W		P		D				G2	
		A			C			H		G1												
DN	NPS	2000	3000	6000	2000	3000	6000	2000	3000	6000	2000	3000	6000	3000	6000	3000	6000	3000	6000	B	L2	
6	1/8	21	21	25	17	17	19	22	22	25	3.18	3.18	6.35	32	19	-	16	22	4.80	-	6.4	6.7
8	1/4	21	25	28	17	19	22	22	25	33	3.18	3.30	6.60	35	25	27	19	25	4.80	6.40	8.1	10.2
10	3/8	25	28	33	19	22	25	25	33	38	3.18	3.51	6.98	38	25	27	22	32	4.80	6.40	9.1	10.4
15	1/2	28	33	38	22	25	28	33	38	46	3.18	4.09	8.15	48	32	33	28	38	6.40	7.90	10.9	13.6
20	3/4	33	38	44	25	28	33	38	46	56	3.18	4.32	8.53	51	37	38	35	44	6.40	7.90	12.7	13.9
25	1	38	44	51	28	33	35	46	56	62	3.68	4.98	9.93	60	41	43	44	57	9.70	11.20	14.7	17.3
32	1 1/4	44	51	60	33	35	43	56	62	75	3.89	5.28	10.59	67	44	46	57	64	9.70	11.20	17.0	18.0
40	1 1/2	51	60	64	35	43	44	62	75	84	4.01	5.56	11.07	79	44	48	64	76	11.20	12.70	17.8	18.4
50	2	60	64	83	43	44	52	75	84	102	4.27	7.14	12.09	86	48	51	76	92	12.70	15.70	19.0	19.2
65	2 1/2	76	83	95	52	52	64	92	102	121	5.61	7.65	15.29	92	60	64	92	108	15.70	19.00	23.6	28.9
80	3	86	95	106	64	64	79	109	121	146	5.99	8.84	16.64	108	65	68	108	127	19.00	22.40	25.9	30.5
100	4	106	114	114	79	79	79	146	152	152	6.55	11.18	18.67	121	68	75	140	159	22.40	28.40	27.7	33.0

Note:

1. Dimensions of Threaded Pipe Fittings to ASME B16.11 /BS3799.
2. All dimensions are in mm. If you could not find the size, please [contact us](#).

Plugs and Bushings to ASME B16.11

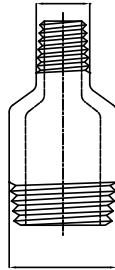


Nominal Pipe Size		Minimum Length	Square Head Plugs		Round Head Plugs		Hex Head Plugs and Bushings		
			Minimum Height	Minimum Width Flats	Nominal Head Diameter	Minimum Length	Nominal Width Flats	Nominal Hex Height	
								Bushing	Plug
DN	NPS	A	B	C	E	D	F	G	H
6	1/8	9.5	6	7.0	10	35	11.0	-	6
8	1/4	11.0	6	9.5	13	41	16.0	3	6
10	3/8	12.5	8	11.0	17	41	17.5	4	8
15	1/2	14.5	10	14.5	21	44	22.0	5	8
20	3/4	16.0	11	16.0	27	44	27.0	6	10
25	1	19.0	13	20.5	33	51	35.0	6	10
32	1 1/4	20.5	14	24.5	43	51	44.5	7	14
40	1 1/2	20.5	16	28.5	48	51	51.0	8	16
50	2	22.0	17	33.5	60	64	63.5	9	17
65	2 1/2	27.0	19	38.0	73	70	76.0	10	19
80	3	28.5	21	43.0	89	70	89.0	10	21
100	4	32.0	25	63.5	114	76	117.5	13	25

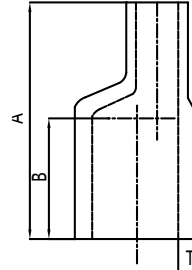
Note:

1. Dimensions for Plugs and Bushings to ASME B16.11 /BS3799.
2. All dimensions are in mm. If you could not find the size, please [contact us](#).

Dimensions of Swage Nipples (MSS SP-95/ BS 3799)



Concentric Swage Nipple(Both Ends Plain)



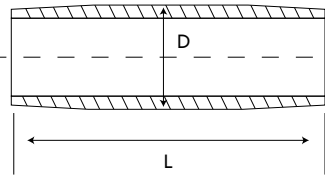
Eccentric Swaged Nipple(Both Ends Threaded)

Nominal Diameter		A	T
DN	NPS		
10×8	3/8×1/4	64	1.7
15×8	1/2×1/4	70	1.9
15×10	1/2×3/8	70	1.05
20×8	3/4×1/4	76	6.5
20×10	3/4×3/8	76	4.8
20×15	3/4×1/2	76	2.7
25×8	1×1/4	89	10.2
25×10	1×3/8	89	8.6
25×15	1×1/2	89	6.5
25×20	1×3/4	89	3.0
32×8	1.1/4×1/4	102	14.2
32×10	1.1/4×3/8	102	12.5
32×15	1.1/4×1/2	102	10.4
32×20	1.1/4×3/4	102	7.7
32×25	1.1/4×1	102	3.9
32×8	1.1/4×1/4	114	17.3
40×10	1.1/2×3/8	114	15.6
40×15	1.1/2×1/2	114	13.5
40×20	1.1/2×3/4	114	12.6
40×25	1.1/2×1	114	6.9
40×32	1.1/2×1.1/4	114	3.0
50×8	2×1/4	165	23.3
50×10	2×3/8	165	21.6
50×15	2×1/2	165	19.5
50×20	2×3/4	165	16.8
50×25	2×1	165	13.0
50×32	2×1.1/4	165	9.1
50×40	2×1.1/2	165	6.0
65×15	2.1/2×1/2	178	25.1
65×20	2.1/2×3/4	178	23.2
65×25	2.1/2×1	178	19.4
65×32	2.1/2×1.1/4	178	15.5
65×40	2.1/2×1.1/2	178	12.4
65×50	2.1/2×12	178	6.4
80×15	3×1/2	203	33.8
80×20	3×3/4	203	31.1
80×25	3×1	203	27.3
80×32	3×1.1/4	203	23.4
80×40	3×1.1/2	203	20.3
80×50	3×2	203	14.3
80×65	3×2.1/2	203	7.9
100×15	4×1/2	229	6.5
100×20	4×3/4	229	3.8
100×25	4×1	229	0.0
100×32	4×1.1/4	229	36.1
100×40	4×1.1/2	229	33.0
100×50	4×2	229	27.0
100×65	4×2.1/2	229	20.6
100×80	4×3	229	12.7

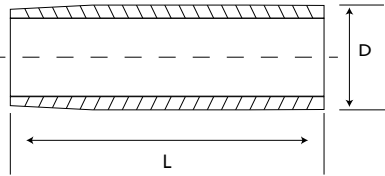
Comments:

- Swaged Nipple, Concentric Swage Nipple, Eccentric Swaged Nipple as per standard MSS SP-95 /BS3799.
- All dimensions are in mm. If you could not find the size, please [contact us](#).

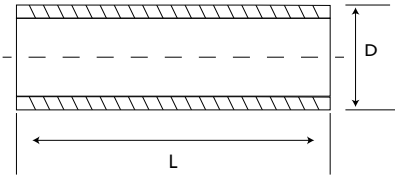
Nipples



Both Ends Threaded Nipple



One End Threaded and One End Plain



Both Ends Plain

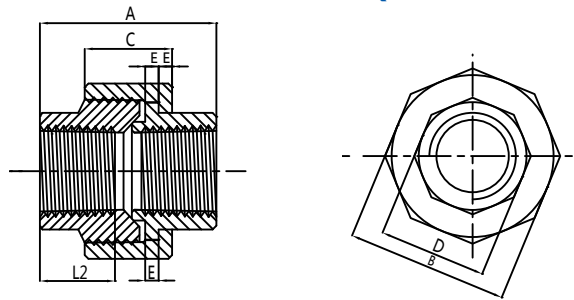
Nominal Diameter		Outside Diameter O.D.	Sch40 STD Sch80 XS	Sch160 XXS	L/mm
DN	NPS				
8	1/4	13.5	o		60 90 120 150 180
10	3/8	17.2	o		
15	1/2	21.3	o	o	
20	3/4	26.7	o	o	
25	1	33.4	o	o	
32	1.1/4	42.2	o	o	
40	1.1/2	48.3	o	o	
50	2	60.3	o	o	

Note:

- 1.Kaysuns provide every length pipe nipples and dimension to ASME B36.10/B36.19, customized length available.
- 2.All dimensions are in mm. If you could not find the size, please [contact us](#).



Dimensions of Threaded Unions(ASME B16.11 / BS3799)

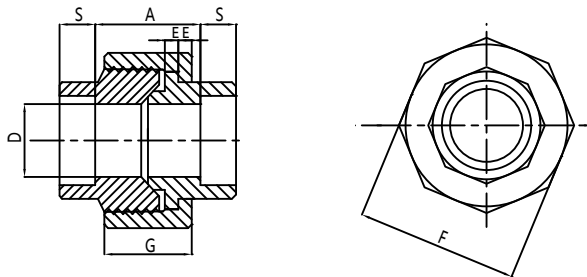


Threaded Unions

Nominal Size		3000LB					
		End To End	Width A/F Union Nut Min	Height of Union Nut Min	Width A/F of Ends Min	Thickness of Shoulder Min	Length of Thread Min
		A	B	C	D	E	L2
in	mm	mm	mm	mm	mm	mm	mm
1/8	6	40	32	16	17	3.2	6.70
1/4	8	43	32	18	19	3.2	10.21
3/8	10	48	36	19	22	3.2	10.36
1/2	15	51	43	21	30	4.0	13.56
3/4	20	57	50	24	36	4.8	13.86
1	25	64	60	25	41	4.8	17.34
1 1/4	32	70	70	29	50	5.6	17.93
1 1/2	40	79	78	30	60	5.6	18.38
2	50	89	95	37	70	6.4	19.22
2 1/2	65	118	125	48	85	9.6	28.89
3	80	121	140	51	100	12.7	30.48

Note: All dimensions are in mm. If you could not find the size, please [contact us](#).

Dimensions of Socket-Welding Unions(ASME B16.11 / BS3799)



Socket Weld Unions

NPS		3000LB							
		Depth of Socket min	Distance Between Bottom of Sockets min	Bore Diameter of Sockets min	Socket Wall Thickness min	Bore Diameter of Union	Thickness of Shoulder min	Width A/F of Nut min	Height of Nut min
		S	A	B	C	D	E	F	G
in	mm	mm	mm	mm	mm	mm	mm	mm	mm
1/8	6	10	17	10.7	3.2	6.8	3.2	32	16
1/4	8	10	17	14.1	3.3	9.2	3.2	32	18
3/8	10	10	17	17.6	3.5	12.5	3.2	36	19
1/2	15	10	18	21.8	4.1	15.5	4.0	41	21
3/4	20	13	20	27.4	4.3	21.0	4.8	50	24
1	25	13	26	34.1	5.0	26.5	4.8	60	25
1 1/4	32	13	28	42.9	5.3	35.0	5.6	70	29
1 1/2	40	13	30	49.0	5.6	40.5	5.6	78	30
2	50	16	36	61.0	6.1	52.0	6.4	95	37
2 1/2	65	16	57	73.8	7.7	62.0	9.6	125	48
3	80	16	70	89.7	8.3	78.0	12.7	140	51

Note: All dimensions are in mm. If you could not find the size, please [contact us](#).

Branch Outlet Fittings to MSS SP-97

★ **Types**

Buttweld Outlets (Weldolet), Socket Weld Outlets (Soclolet), Threaded Outlets (Threadolet), Outlets (Nipolet), 45° Lateral Outlets (Latrolet), Elbow Outlets (Elbolet), Flanged Outlets

★ **Manufacture Standards**

MSS SP-97, GB19236 etc.

★ **Materials**

A105, A350 LF2, A182 F11, F22, F5, F9, F304/304L, F316/316L, F347, 347H, F317/L, F321, duplex 2205, 2507, monel, inconel, incoloy, hastelloy etc.

★ **Rate**

SCHSTD, SCHXS, SCHXXS, 3000LBS, 6000LBS

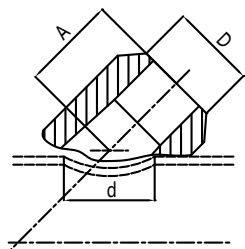
★ Specifications: Socket weld and threaded outlets are manufactured to the requirements of ASME/ ANSI B16.11 - Forged fitting, socket welding and threaded, although outlet dimensions are not specified in B16.11. Buttweld outlets are manufactured to the requirements of ASME/ANSI B16.9 - Factory-made wrought steel buttwelding fittings, although outlet dimensions are not specified in B16.9.

★ If your requested isn't found here, please make an enquiry for us immediately.

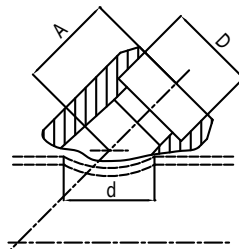
45°Lateral Outlets

Nominal Pipe Size				Height A					
Run Pipe		Branch Outlet		Butt-welding		Socket-welding		Threaded	
DN	NPS	DN	NPS	STD.XS	SCH160	3000	6000	3000	6000
20-900	3/4-36	15	1/2	45	50	45	50	45	50
25-900	1-36	20	3/4	50	58	50	58	50	58
32-900	1 1/4-36	25	1	60	70	60	70	60	70
40-900	1 1/2-36	32	1 1/4	68	76	68	76	68	76
50-900	2-36	40	1 1/2	75	83	75	83	75	83
65-900	2 1/2-36	50	2	90	98	90	98	90	98
80-900	3-36	65	2 1/2	95	105	-	-	-	-
100-900	4-36	80	3	120	130	-	-	-	-
125-900	5-36	100	4	140	150	-	-	-	-

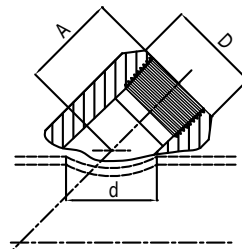
Note: All dimensions are in mm. If you could not find the size, please [contact us](#).



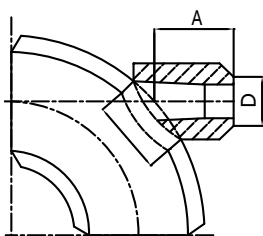
Butt-welding 45°Latrolet



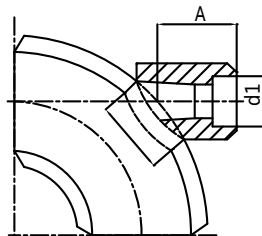
Socket-welding 45°Latrolet



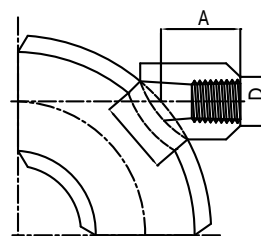
Threaded 45°Latrolet



Butt-welding Elbolet

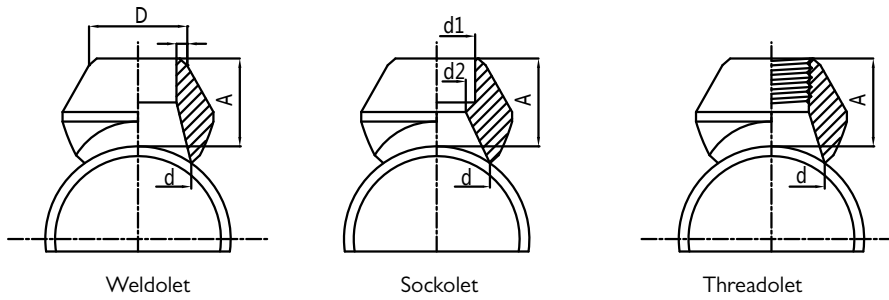


Socket-welding Elbolet



Threaded Elbolet

Branch Outlets – Weldolet – Sockolet – Thredolet



Nominal Pipe Size				Height A					
Run Pipe		Branch Outlet		Butt-welding		Socket-welding		Threaded	
DN	NPS	DN	NPS	STD.XS	SCH160	3000	6000	3000	6000
8-900	1/4-36	6	1/8	16	–	20	–	19	–
10-900	3/8-36	8	1/4	16	–	20	–	19	–
15-900	1/2-36	10	3/8	19	–	23	–	21	–
20-900	3/4-36	15	1/2	19	19	26	24	25	32
25-900	1-36	20	3/4	22	22	29	25	27	37
32-900	1 1/4-36	25	1	27	27	35	29	33	40
40-900	1 1/2-36	32	1 1/4	32	32	35	30	33	41
50-900	2-36	40	1 1/2	33	33	37	32	35	43
65-900	2 1/2-36	50	2	38	38	40	37	38	52
80-900	3-36	65	2 1/2	41	–	41	–	46	–
100-900	4-36	80	3	44	–	46	–	51	–
150-900	5-36	100	4	51	51	49	–	57	–

Note:

1. Please indicate the pipe schedule for Weldolet in your inquiry and the rates for other outlets fittings.
2. Please contact us if you need other outlets fittings of which doesn't list above.
3. All dimensions are in mm. If you could not find the size, please [contact us](#).