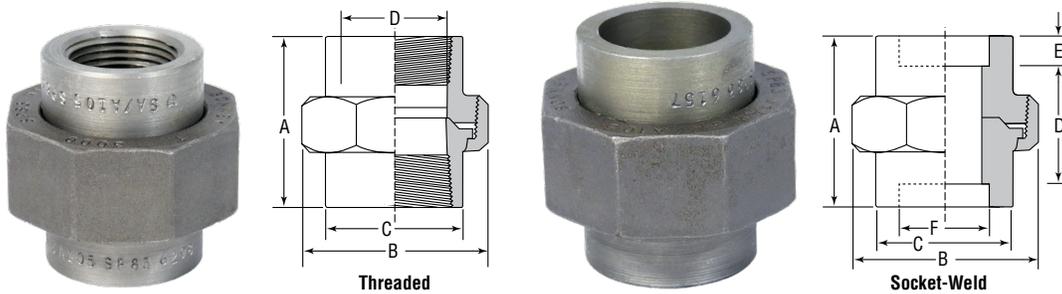


## Class 3000

### Fig. 2125 Threaded Union

### Fig. 2126 Socket-Weld Union



**Figure 2125** Threaded Union

Size		A		B		C*		D		Unit Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
1/4	8	1.63	41.4	1.48	38	.75	19.1	.380	9.65	0.30	0.14
3/8	10	1.81	46.0	1.69	43	.90	22.9	.540	13.72	0.50	0.23
1/2	15	1.93	49.0	1.94	49	1.09	27.7	.680	17.27	0.70	0.32
3/4	20	2.24	56.9	2.38	60	1.32	33.5	.850	21.59	1.20	0.54
1	25	2.44	62.0	2.78	71	1.63	41.4	1.100	27.94	1.70	0.77
1 1/4	32	2.80	71.1	3.36	85	1.99	50.5	1.400	35.56	2.50	1.13
1 1/2	40	3.01	76.5	3.36	85	2.25	57.2	1.630	41.40	3.30	1.50
2	50	3.39	86.1	4.42	112	2.76	70.1	2.060	52.33	5.30	2.40
2 1/2	65	4.03	102.4	5.23	133	3.36	85.3	2.540	64.52	8.60	3.90
3	80	4.29	109.0	6.16	156	4.03	102.4	3.050	77.47	12.70	5.76

**Figure 2126** Socket-Weld Union

Size		A		B		C*		D		E		F		Unit Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
1/4	8	1.63	41.4	1.48	38	0.86	21.8	.82	20.7	.41	10.5	0.555 0.575	14 15	0.30	0.14
3/8	10	1.81	46.0	1.69	43	1.02	25.9	.94	23.8	.41	10.5	0.690 0.710	18 18	0.50	0.23
1/2	15	1.93	49.0	1.94	49	1.23	31.2	.94	23.8	.49	12.5	0.855 0.875	22 22	0.70	0.32
3/4	20	2.24	56.9	2.38	60	1.46	37.1	1.13	28.6	.55	14.0	1.065 1.085	27 28	1.20	0.54
1	25	2.44	62.0	2.78	71	1.79	45.5	1.19	30.3	.59	15.0	1.330 1.350	34 34	1.70	0.77
1 1/4	32	2.80	71.1	3.36	85	2.16	54.9	1.44	36.6	.67	17.0	1.675 1.695	43 43	2.50	1.13
1 1/2	40	3.01	76.5	3.36	85	2.42	61.5	1.50	38.1	.69	17.5	1.915 1.935	49 49	3.30	1.50
2	50	3.39	86.1	4.42	112	2.96	75.2	1.63	41.4	.87	22.0	2.406 2.426	61 62	5.30	2.40
2 1/2	65	4.03	102.4	5.23	133	3.61	91.7	2.24	56.9	.98	25.0	2.906 2.931	74 74	8.60	3.90
3	80	4.29	109.0	6.16	156	4.30	109.2	2.31	58.7	.98	25.0	3.535 3.560	90 90	12.70	5.76

**Note:** \*C" dimension measures across octagon corners or across the diameter as applicable. The 2 1/2" NPS (65 DN) and 3" NPS (80 DN) – 3000 and 2" NPS (50 DN) – 6000 sizes have octagonal male and female ends; the other sizes are round.

PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

**Fig. 2125 Threaded Union**  
**Fig. 2126 Socket-Weld Union**



### Materials

The steel for Anvil Forged Carbon Steel Fittings consists of forging, bars, seamless pipe or tubes which conform to the requirements for melting process, chemical composition and mechanical properties of ASTM A105.

### Design Basis

ASME B16.11 – Forged fittings, socket-weld and threaded

### Dimensions

ASME B16.11, unless otherwise noted

### Threads

ASME B1.20.1 NPT Threads

### Forged Steel Fittings

In accordance with ASME standard B16.11 – “Forged Fittings, Socket-Welding and Threaded” this table shows the schedule of pipe corresponding to each class of fitting for rating purposes.

Class	Pressure Ratings	
	Schedule	
	N.P.T.	S.W.
2000	80	-
3000	160	80
6000	XXS/XXH	160

ASME B16.11 provides that the maximum allowable pressure of a fitting be computed in accordance with the applicable piping code or regulation for straight seamless pipe or for material of equivalent composition and mechanical properties to the fitting. Any corrosion or mechanical allowances and any reduction in allowable stress due to temperature or other service conditions must be applied to the pipe and fitting alike.

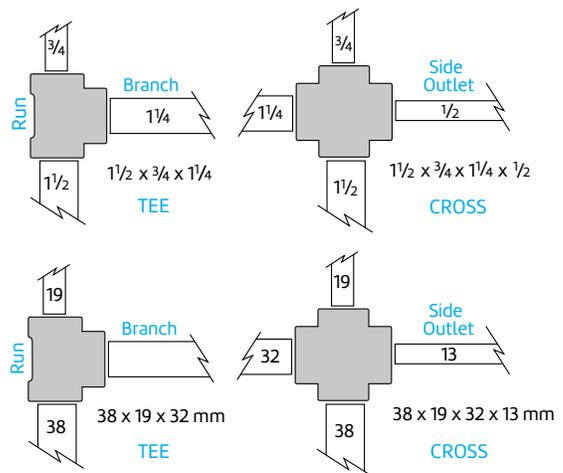
### Standards and Specifications

	Dimensions	Material	Thread	Pressure Rating
<b>Forged Steel Threaded Fittings</b>				
Class 2000, 3000, 6000	ASME B16.11	ASTM A105, ASTM A182, ASTM A350	ASME B1.20.1	ASME B16.11

### Reducing Fittings

Reducing elbows, tees and crosses are available in both threaded and socket-welding.

On reducing tees and crosses give the size of the largest run opening; then give the opposite opening. On a tee give the branch size last. On a cross give the largest side outlet third and the opposite opening last.



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**Fig. 2125 Threaded Union**  
**Fig. 2126 Socket-Weld Union**

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## General Assembly of Threaded Fittings

### 1) Inspect Both Male and Female Components Prior To Assembly

- Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
- Clean or replace components as necessary.

### 2) Application of Thread Sealant

- Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
- Thoroughly mix the thread sealant prior to application.
- Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.

### 3) Joint Makeup

- For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for ½" through 2" thread varies from 4½ turns to 5 turns.
- For 2½" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2½" through 4" thread varies from 5½ turns to 6¾ turns.