

Forged Fittings

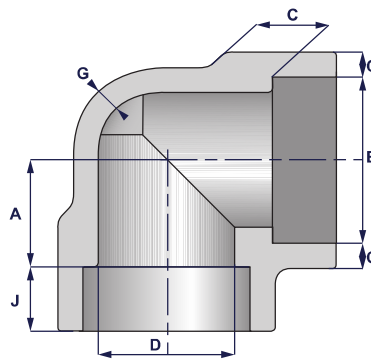
BS3799, ASME B16.11, MSS SP-97 & MSS SP-83



ASHBY SCOTT

PIPE SYSTEMS

Socket Weld Elbows - 90 Degree



3000 lbs

SIZE	B		D		C		G	J	A		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances, ±		
1/8"	10.8	11.2	6.1	7.6	3.18	3.18	2.41	9.5	11.0	1.0	0.125
1/4"	14.2	14.6	8.5	10.0	3.30	3.78	3.02	9.5	11.0	1.0	0.125
3/8"	17.6	18.0	11.8	13.3	3.50	4.01	3.20	9.5	13.5	1.5	0.145
1/2"	21.8	22.2	15.0	16.6	4.09	4.67	3.73	9.5	15.5	1.5	0.275
3/4"	27.2	27.6	20.2	21.7	4.27	4.90	3.91	12.5	19.0	1.5	0.375
1"	33.9	34.3	25.9	27.4	4.98	5.69	4.55	12.5	22.5	2.0	0.550
1 1/4"	42.7	43.1	34.3	35.8	5.28	6.07	4.85	12.5	27.0	2.0	0.780
1 1/2"	48.8	49.2	40.1	41.6	5.54	6.35	5.08	12.5	32.0	2.0	1.050
2"	61.2	61.7	51.7	53.3	6.04	6.93	5.54	16.0	38.0	2.0	1.500
2 1/2"	73.9	74.4	61.2	64.2	7.67	8.76	7.01	16.0	41.0	2.5	3.000
3"	89.8	90.3	76.4	79.4	8.30	9.52	7.62	16.0	57.0	2.5	5.000
4"	115.2	115.7	100.7	103.8	9.35	10.69	8.56	19.0	66.5	2.5	9.000

6000 lbs

SIZE	B		D		C		G	J	A		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances, ±		
1/8"	10.8	11.2	3.2	4.8	3.43	3.96	3.15	9.5	11.0	1.0	0.140
1/4"	14.2	14.6	5.6	7.1	4.01	4.60	3.68	9.5	13.5	1.0	0.175
3/8"	17.6	18.0	8.4	9.9	4.37	5.03	4.01	9.5	15.5	1.5	0.350
1/2"	21.8	22.2	11.0	12.5	5.18	5.97	4.78	9.5	19.0	1.5	0.400
3/4"	27.2	27.6	14.8	16.3	6.04	6.96	5.56	12.5	22.5	1.5	0.650
1"	33.9	34.3	19.9	21.5	6.93	7.92	6.35	12.5	27.0	2.0	0.950
1 1/4"	42.7	43.1	28.7	30.2	6.93	7.92	6.35	12.5	32.0	2.0	1.350
1 1/2"	48.8	49.2	33.2	34.7	7.80	8.92	7.14	12.5	38.0	2.0	2.100
2"	61.2	61.7	42.1	43.6	9.50	10.92	8.74	16.0	41.0	2.0	3.100

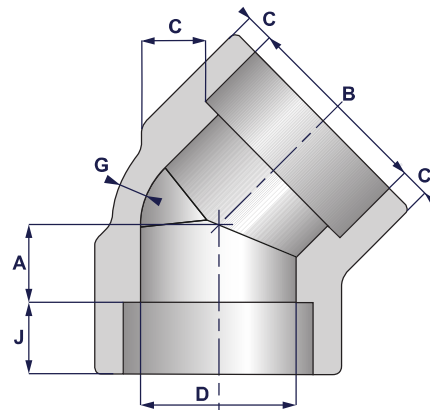
9000 lbs

SIZE	B		D		C		G	J	A		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances, ±		
1/2"	21.8	22.2	5.6	7.2	8.18	9.35	7.47	9.5	25.5	1.5	0.780
3/4"	27.2	27.6	10.3	11.8	8.56	9.78	7.82	12.5	28.5	1.5	1.150
1"	33.9	34.3	14.4	16.0	9.96	11.38	9.09	12.5	32.0	2.0	1.700
1 1/4"	42.7	43.1	22.0	23.5	10.62	12.14	9.70	12.5	35.0	2.0	2.400
1 1/2"	48.8	49.2	27.2	28.7	11.12	12.70	10.15	12.5	38.0	2.0	2.800
2"	61.2	61.7	37.4	38.9	12.12	13.84	11.07	16.0	54.0	2.0	6.250

Notes:

- Dimensions are in MM
- Weights are approximate

Socket Weld Elbows - 45 Degree



3000 lbs

SIZE	B		D		C		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances†		
1/8"	10.8	11.2	6.1	7.6	3.18	3.18	2.41	9.5	8.0	1.0	0.100
1/4"	14.2	14.6	8.5	10.0	3.30	3.78	3.02	9.5	8.0	1.0	0.100
3/8"	17.6	18.0	11.8	13.3	3.50	4.01	3.20	9.5	8.0	1.5	0.120
1/2"	21.8	22.2	15.0	16.6	4.09	4.67	3.73	9.5	11.0	1.5	0.240
3/4"	27.2	27.6	20.2	21.7	4.27	4.90	3.91	12.5	13.0	1.5	0.330
1"	33.9	34.3	25.9	27.4	4.98	5.69	4.55	12.5	14.0	2.0	0.460
1 1/4"	42.7	43.1	34.3	35.8	5.28	6.07	4.85	12.5	17.5	2.0	0.660
1 1/2"	48.8	49.2	40.1	41.6	5.54	6.35	5.08	12.5	20.5	2.0	1.890
2"	61.2	61.7	51.7	53.3	6.04	6.93	5.54	16.0	25.5	2.0	1.250
2 1/2"	73.9	74.4	61.2	64.2	7.67	8.76	7.01	16.0	28.5	2.5	2.650
3"	89.8	90.3	76.4	79.4	8.30	9.52	7.62	16.0	32.0	2.5	4.000
4"	115.2	115.7	100.7	103.8	9.35	10.69	8.56	19.0	41.0	2.5	8.000

6000 lbs

SIZE	B		D		C		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances†		
1/8"	10.8	11.2	3.2	4.8	3.43	3.96	3.15	9.5	8.0	1.0	0.120
1/4"	14.2	14.6	5.6	7.1	4.01	4.60	3.68	9.5	8.0	1.0	0.150
3/8"	17.6	18.0	8.4	9.9	4.37	5.03	4.01	9.5	11.0	1.5	0.290
1/2"	21.8	22.2	11.0	12.5	5.18	5.97	4.78	9.5	12.5	1.5	0.320
3/4"	27.2	27.6	14.8	16.3	6.04	6.96	5.56	12.5	14.0	1.5	0.540
1"	33.9	34.3	19.9	21.5	6.93	7.92	6.35	12.5	17.5	2.0	0.770
1 1/4"	42.7	43.1	28.7	30.2	6.93	7.92	6.35	12.5	20.5	2.0	1.100
1 1/2"	48.8	49.2	33.2	34.7	7.80	7.80	8.92	12.5	25.5	2.0	1.700
2"	61.2	61.7	42.1	43.6	9.50	9.50	10.92	16.0	28.5	2.0	2.700

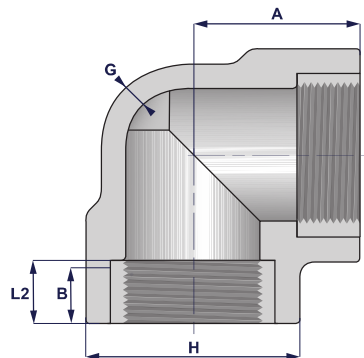
9000 lbs

SIZE	B		D		C		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances†		
1/2"	21.8	22.2	5.6	7.2	8.18	9.35	7.47	9.5	15.5	1.5	0.640
3/4"	27.2	27.6	10.3	11.8	8.56	9.78	7.82	12.5	19.0	1.5	0.930
1"	33.9	34.3	14.4	16.0	9.96	11.38	9.09	12.5	20.5	2.0	1.400
1 1/4"	42.7	43.1	22.0	23.5	10.62	12.14	9.70	12.5	22.5	2.0	1.800
1 1/2"	48.8	49.2	27.2	28.7	11.12	12.70	10.15	12.5	25.5	2.0	2.350
2"	61.2	61.7	37.4	38.9	12.12	13.84	11.07	16.0	28.5	2.0	4.400

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Elbows - 90 Degree



2000 lbs

SIZE	A	H	G		
				min. Wall Thickness	Weight Kilos/Each
1/8"	21	22	3.18		0.125
1/4"	21	22	3.18		0.125
3/8"	25	25	3.18		0.145
1/2"	28	33	3.18		0.285
3/4"	33	38	3.18		0.375
1"	38	46	3.68		0.550
1 1/4"	44	56	3.89		0.760
1 1/2"	51	62	4.01		1.000
2"	60	75	4.27		1.500
2 1/2"	76	92	5.61		3.650
3"	86	109	5.99		5.700
4"	106	146	6.55		11.500

3000 lbs

SIZE	A	H	G		
				min. Wall Thickness	Weight Kilos/Each
1/8"	21	22	3.18		0.140
1/4"	25	25	3.30		0.175
3/8"	28	33	3.51		0.325
1/2"	33	38	4.09		0.465
3/4"	38	46	4.32		0.700
1"	44	56	4.98		1.080
1 1/4"	51	62	5.28		1.300
1 1/2"	60	75	5.56		2.360
2"	64	84	7.14		2.600
2 1/2"	83	102	7.65		5.700
3"	95	121	8.84		8.000
4"	114	152	11.18		15.500

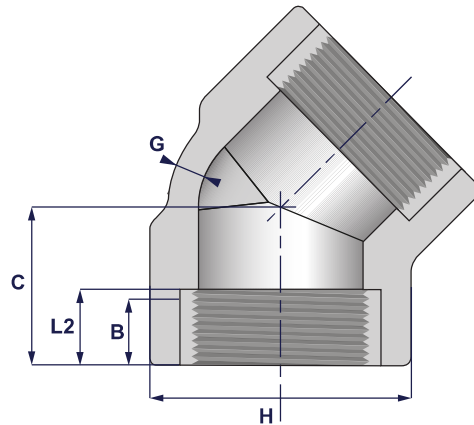
6000 lbs

SIZE	A	H	G			DIMENSIONS COMMON TO ALL CLASSES			TOLERANCES COMMON TO ALL CLASSES		
				min. Wall Thickness	Weight Kilos/Each	SIZE	B	L2	SIZE	H	A
1/8"	25	25	6.35		0.195	1/8"	6.4	6.7	1/8"	-0 +4	-0 +3
1/4"	28	33	6.60		0.360	1/4"	8.1	10.2	1/4"	-0 +4	-0 +3
3/8"	33	38	6.98		0.510	3/8"	9.1	10.4	3/8"	-0 +4	-0 +3
1/2"	38	46	8.15		0.820	1/2"	10.9	13.6	1/2"	-0 +4	-0 +3
3/4"	44	56	8.53		1.250	3/4"	12.7	13.9	3/4"	-0 +4	-0 +3
1"	51	62	9.93		1.650	1"	14.7	17.3	1"	-0 +4	-0 +3
1 1/4"	60	75	10.59		2.750	1 1/4"	17.0	18.0	1 1/4"	-0 +4	-0 +3
1 1/2"	64	84	11.07		3.550	1 1/2"	17.8	18.4	1 1/2"	-0 +4	-0 +3
2"	83	102	12.09		7.100	2"	19.0	19.2	2"	-0 +4	-0 +3
2 1/2"	95	121	15.29		11.000	2 1/2"	23.6	28.9	2 1/2"	-0 +4	-0 +3
3"	106	146	16.64		17.500	3"	25.9	30.5	3"	-0 +4	-0 +3
4"	114	152	18.67		16.500	4"	27.7	33.0	4"	-0 +4	-0 +3

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Elbows - 45 Degree



2000 lbs

SIZE	C	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	17	22	3.18	0.105
1/4"	17	22	3.18	0.105
3/8"	19	25	3.18	0.130
1/2"	22	33	3.18	0.250
3/4"	25	38	3.18	0.310
1"	28	46	3.68	0.440
1 1/4"	33	56	3.89	0.670
1 1/2"	35	62	4.01	0.930
2"	43	75	4.27	1.210
2 1/2"	52	92	5.61	3.100
3"	64	109	5.99	5.200
4"	79	146	6.55	10.500

3000 lbs

SIZE	C	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	17	22	3.18	0.120
1/4"	19	25	3.30	0.150
3/8"	22	33	3.51	0.280
1/2"	25	38	4.09	0.380
3/4"	28	46	4.32	0.560
1"	33	56	4.98	0.910
1 1/4"	35	62	5.28	1.150
1 1/2"	43	75	5.56	1.850
2"	44	84	7.14	2.100
2 1/2"	52	102	7.65	4.850
3"	64	121	8.84	6.650
4"	79	152	11.18	12.500

6000 lbs

SIZE	C	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	19	25	6.35	0.165
1/4"	22	33	6.60	0.310
3/8"	25	38	6.98	0.420
1/2"	28	46	8.15	0.650
3/4"	33	56	8.53	1.050
1"	35	62	9.93	1.410
1 1/4"	43	75	10.59	2.150
1 1/2"	44	84	11.07	2.750
2"	52	102	12.09	6.150
2 1/2"	64	121	15.29	8.600
3"	79	146	16.64	15.000
4"	79	152	18.67	13.000

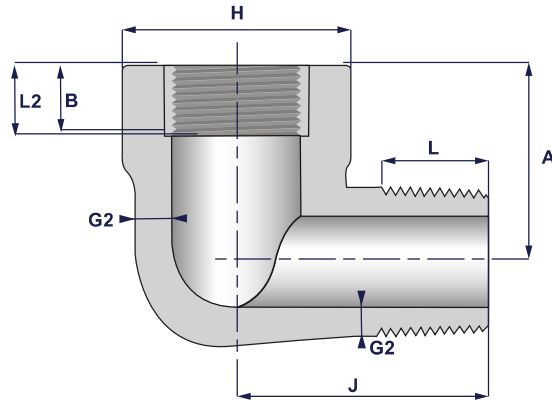
DIMENSIONS COMMON TO ALL CLASSES TOLERANCES COMMON TO ALL CLASSES

SIZE	B	L2	SIZE	H	C
	<i>min.</i>	<i>min.</i>			
1/8"	6.4	6.7	1/8"	-0 +4	-0 +3
1/4"	8.1	10.2	1/4"	-0 +4	-0 +3
3/8"	9.1	10.4	3/8"	-0 +4	-0 +3
1/2"	10.9	13.6	1/2"	-0 +4	-0 +3
3/4"	12.7	13.9	3/4"	-0 +4	-0 +3
1"	14.7	17.3	1"	-0 +4	-0 +3
1 1/4"	17.0	18.0	1 1/4"	-0 +4	-0 +3
1 1/2"	17.8	18.4	1 1/2"	-0 +4	-0 +3
2"	19.0	19.2	2"	-0 +4	-0 +3
2 1/2"	23.6	28.9	2 1/2"	-0 +4	-0 +3
3"	25.9	30.5	3"	-0 +4	-0 +3
4"	27.7	33.0	4"	-0 +4	-0 +3

Notes:

- Dimensions are in MM
- Weights are approximate

M/F Elbows



3000 lbs

SIZE	A	J	H	G ₁ Min.	G ₂ Min.	B Min.	L2 Min.	L Min.	Weight Kilos/Each
1/8"	19	25	19	3.18	2.74	6.4	6.7	10	0.100
1/4"	22	32	25	3.30	3.22	8.1	10.2	11	0.130
3/8"	25	38	32	3.51	3.50	9.1	10.4	13	0.215
1/2"	28	41	38	4.09	4.16	10.9	13.6	14	0.330
3/4"	35	48	44	4.32	4.88	12.7	13.9	16	0.540
1"	44	57	51	4.98	5.56	14.7	17.3	19	0.970
1 1/4"	51	66	62	5.28	5.56	17.0	18.0	21	1.100
1 1/2"	54	71	70	5.56	6.25	17.8	18.4	21	1.940
2"	64	84	84	7.14	7.64	19.0	19.2	22	2.340

6000 lbs

SIZE	A	J	H	G ₁ Min.	G ₂ Min.	B Min.	L2 Min.	L Min.	Weight Kilos/Each
1/8"	22	32	25	5.08	4.22	6.4	6.7	10	0.130
1/4"	25	38	32	5.66	5.28	8.1	10.2	11	0.210
3/8"	28	41	38	6.98	5.59	9.1	10.4	13	0.330
1/2"	35	48	44	8.15	6.53	10.9	13.6	14	0.540
3/4"	44	57	51	8.53	6.86	12.7	13.9	16	0.970
1"	51	66	62	9.93	7.95	14.7	17.3	19	1.100
1 1/4"	54	71	70	10.59	8.48	17.0	18.0	21	1.940
1 1/2"	64	84	84	11.07	8.89	17.8	18.4	21	2.340
2"	83	105	102	12.09	9.70	19.0	19.2	22	5.000

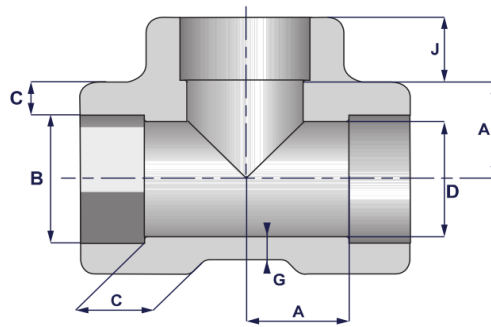
Notes:

- Dimensions are in MM
- Weights are approximate

TOLERANCES COMMON TO ALL CLASSES

DN SIZE	H	C
1/8"	-0 +4	-0 +3
1/4"	-0 +4	-0 +3
3/8"	-0 +4	-0 +3
1/2"	-0 +4	-0 +3
3/4"	-0 +4	-0 +3
1"	-0 +4	-0 +3
1 1/4"	-0 +4	-0 +3
1 1/2"	-0 +4	-0 +3
2"	-0 +4	-0 +3
2 1/2"	-0 +4	-0 +3
3"	-0 +4	-0 +3
4"	-0 +4	-0 +3

Socket Weld Tees



3000 lbs

SIZE	B		D		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Min.	Tolerances,±		
1/8"	10.8	11.2	6.1	7.6	2.41	9.5	11.0	1.0	0.165
1/4"	14.2	14.6	8.5	10.0	3.02	9.5	11.0	1.0	0.165
3/8"	17.6	18.0	11.8	13.3	3.20	9.5	13.5	1.5	0.190
1/2"	21.8	22.2	15.0	16.6	3.73	9.5	15.5	1.5	0.360
3/4"	27.2	27.6	20.2	21.7	3.91	12.5	19.0	1.5	0.490
1"	33.9	34.3	25.9	27.4	4.55	12.5	22.5	2.0	0.715
1 1/4"	42.7	43.1	34.3	35.8	4.85	12.5	27.0	2.0	1.010
1 1/2"	48.8	49.2	40.1	41.6	5.08	12.5	32.0	2.0	1.365
2"	61.2	61.7	51.7	53.3	5.54	16.0	38.0	2.0	1.950
2 1/2"	73.9	74.4	61.2	64.2	7.01	16.0	41.0	2.5	3.900
3"	89.8	90.3	76.4	79.4	7.62	16.0	57.0	2.5	6.300
4"	115.2	115.7	100.7	103.8	8.56	19.0	66.5	2.5	10.400

6000 lbs

SIZE	B		D		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Min.	Tolerances,±		
1/8"	10.8	11.2	3.2	4.8	3.15	9.5	11.0	1.0	0.180
1/4"	14.2	14.6	5.6	7.1	3.68	9.5	13.5	1.0	0.230
3/8"	17.6	18.0	8.4	9.9	4.01	9.5	15.5	1.5	0.450
1/2"	21.8	22.2	11.0	12.5	4.78	9.5	19.0	1.5	0.520
3/4"	27.2	27.6	14.8	16.3	5.56	12.5	22.5	1.5	0.850
1"	33.9	34.3	19.9	21.5	6.35	12.5	27.0	2.0	1.250
1 1/4"	42.7	43.1	28.7	30.2	6.35	12.5	32.0	2.0	1.750
1 1/2"	48.8	49.2	33.2	34.7	7.14	12.5	38.0	2.0	2.750
2"	61.2	61.7	42.1	43.6	8.74	16.0	41.0	2.0	4.000

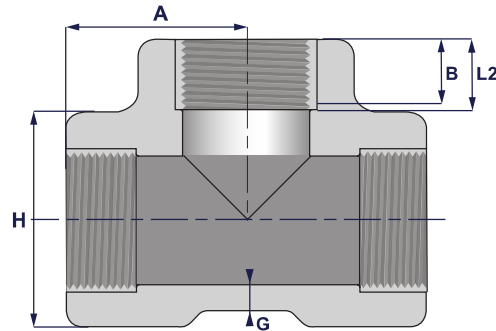
9000 lbs

SIZE	B		D		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Min.	Tolerances,±		
1/2"	21.8	22.2	5.6	7.2	7.47	9.5	25.5	1.5	1.010
3/4"	27.2	27.6	10.3	11.8	7.82	12.5	28.5	1.5	1.500
1"	33.9	34.3	14.4	16.0	9.09	12.5	32.0	2.0	2.250
1 1/4"	42.7	43.1	22.0	23.5	9.70	12.5	35.0	2.0	3.150
1 1/2"	48.8	49.2	27.2	28.7	10.15	12.5	38.0	2.0	3.650
2"	61.2	61.7	37.4	38.9	11.07	16.0	54.0	2.0	8.200

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Tees



2000 lbs

SIZE	A	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	21	22	3.18	0.165
1/4"	21	22	3.18	0.165
3/8"	25	25	3.18	0.190
1/2"	28	33	3.18	0.370
3/4"	33	38	3.18	0.490
1"	38	46	3.68	0.715
1 1/4"	44	56	3.89	0.990
1 1/2"	51	62	4.01	1.300
2"	60	75	4.27	1.950
2 1/2"	76	92	5.61	4.750
3"	86	109	5.99	7.400
4"	106	146	6.55	15.000

3000 lbs

SIZE	A	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	21	22	3.18	0.180
1/4"	25	25	3.30	0.230
3/8"	28	33	3.51	0.420
1/2"	33	38	4.09	0.600
3/4"	38	46	4.32	0.910
1"	44	56	4.98	1.400
1 1/4"	51	62	5.28	1.690
1 1/2"	60	75	5.56	3.050
2"	64	84	7.14	3.400
2 1/2"	83	102	7.65	7.400
3"	95	121	8.84	10.400
4"	114	152	11.18	20.000

6000 lbs

SIZE	A	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	25	25	6.35	0.255
1/4"	28	33	6.60	0.470
3/8"	33	38	6.98	0.665
1/2"	38	46	8.15	1.070
3/4"	44	56	8.53	1.625
1"	51	62	9.93	2.150
1 1/4"	60	75	10.59	3.600
1 1/2"	64	84	11.07	4.600
2"	83	102	12.09	9.250
2 1/2"	95	121	15.29	14.500
3"	106	146	16.64	23.000
4"	114	152	18.67	21.500

DIMENSIONS COMMON TO ALL CLASSES

SIZE	B	L2
	<i>min.</i>	<i>min.</i>
1/8"	6.4	6.7
1/4"	8.1	10.2
3/8"	9.1	10.4
1/2"	10.9	13.6
3/4"	12.7	13.9
1"	14.7	17.3
1 1/4"	17.0	18.0
1 1/2"	17.8	18.4
2"	19.0	19.2
2 1/2"	23.6	28.9
3"	25.9	30.5
4"	27.7	33.0

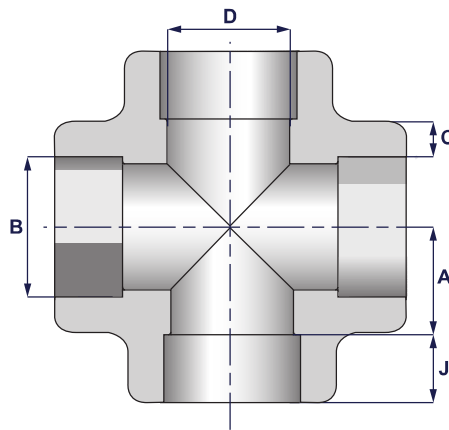
TOLERANCES COMMON TO ALL CLASSES

SIZE	H	C
1/8"	-0 +4	-0 +3
1/4"	-0 +4	-0 +3
3/8"	-0 +4	-0 +3
1/2"	-0 +4	-0 +3
3/4"	-0 +4	-0 +3
1"	-0 +4	-0 +3
1 1/4"	-0 +4	-0 +3
1 1/2"	-0 +4	-0 +3
2"	-0 +4	-0 +3
2 1/2"	-0 +4	-0 +3
3"	-0 +4	-0 +3
4"	-0 +4	-0 +3

Notes:

- Dimensions are in MM
- Weights are approximate

Socket Weld Crosses



3000 lbs

SIZE	B		D		C		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances, ±		
1/8"	10.8	11.2	6.1	7.6	3.18	3.18	2.41	9.5	11.0	1.0	0.205
1/4"	14.2	14.6	8.5	10.0	3.30	3.78	3.02	9.5	11.0	1.0	0.205
3/8"	17.6	18.0	11.8	13.3	3.50	4.01	3.20	9.5	13.5	1.5	0.235
1/2"	21.8	22.2	15.0	16.6	4.09	4.67	3.73	9.5	15.5	1.5	0.450
3/4"	27.2	27.6	20.2	21.7	4.27	4.90	3.91	12.5	19.0	1.5	0.610
1"	33.9	34.3	25.9	27.4	4.98	5.69	4.55	12.5	22.5	2.0	0.900
1 1/4"	42.7	43.1	34.3	35.8	5.28	6.07	4.85	12.5	27.0	2.0	1.270
1 1/2"	48.8	49.2	40.1	41.6	5.54	6.35	5.08	12.5	32.0	2.0	1.700
2"	61.2	61.7	51.7	53.3	6.04	6.93	5.54	16.0	38.0	2.0	2.450
2 1/2"	73.9	74.4	61.2	64.2	7.67	8.76	7.01	16.0	41.0	2.5	4.900
3"	89.8	90.3	76.4	79.4	8.30	9.52	7.62	16.0	57.0	2.5	8.150
4"	115.2	115.7	100.7	103.8	9.35	10.69	8.56	19.0	66.5	2.5	13.000

6000 lbs

SIZE	B		D		C		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances, ±		
1/8"	10.8	11.2	3.2	4.8	3.43	3.96	3.15	9.5	11.0	1.0	0.230
1/4"	14.2	14.6	5.6	7.1	4.01	4.60	3.68	9.5	13.5	1.0	0.285
3/8"	17.6	18.0	8.4	9.9	4.37	5.03	4.01	9.5	15.5	1.5	0.570
1/2"	21.8	22.2	11.0	12.5	5.18	5.97	4.78	9.5	19.0	1.5	0.650
3/4"	27.2	27.6	14.8	16.3	6.04	6.96	5.56	12.5	22.5	1.5	1.060
1"	33.9	34.3	19.9	21.5	6.93	7.92	6.35	12.5	27.0	2.0	1.550
1 1/4"	42.7	43.1	28.7	30.2	6.93	7.92	6.35	12.5	32.0	2.0	2.200
1 1/2"	48.8	49.2	33.2	34.7	7.80	7.80	7.14	12.5	38.0	2.0	2.420
2"	61.2	61.7	42.1	43.6	9.50	9.50	8.74	16.0	41.0	2.0	5.050

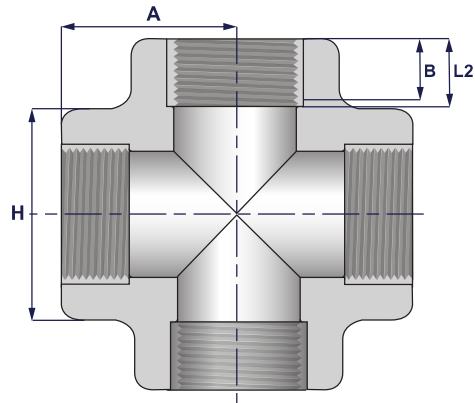
9000 lbs

SIZE	B		D		C		G	J	A	A	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Min.	Tolerances, ±		
1/2"	21.8	22.2	11.0	12.5	8.18	9.35	4.78	9.5	19.0	1.5	1.270
3/4"	27.2	27.6	14.8	16.3	8.56	9.78	5.56	12.5	22.5	1.5	1.875
1"	33.9	34.3	19.9	21.5	9.96	11.38	6.35	12.5	27.0	2.0	2.770
1 1/4"	42.7	43.1	28.7	30.2	10.62	12.14	6.35	12.5	32.0	2.0	3.950
1 1/2"	48.8	49.2	33.2	34.7	11.12	12.70	7.14	12.5	38.0	2.0	4.560
2"	61.2	61.7	42.1	43.6	12.12	13.84	8.74	16.0	41.0	2.0	10.000

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Crosses



2000 lbs

SIZE	A	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	21	22	3.18	0.205
1/4"	21	22	3.18	0.205
3/8"	25	25	3.18	0.235
1/2"	28	33	3.18	0.465
3/4"	33	38	3.18	0.610
1"	38	46	3.68	0.900
1 1/4"	44	56	3.89	1.240
1 1/2"	51	62	4.01	1.630
2"	60	75	4.27	2.450
2 1/2"	76	92	5.61	6.000
3"	86	109	5.99	9.300
4"	106	146	6.55	19.000

3000 lbs

SIZE	A	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	21	22	3.18	0.230
1/4"	25	25	3.30	0.285
3/8"	28	33	3.51	0.530
1/2"	33	38	4.09	0.760
3/4"	38	46	4.32	1.140
1"	44	56	4.98	1.760
1 1/4"	51	62	5.28	2.100
1 1/2"	60	75	5.56	3.850
2"	64	84	7.14	4.240
2 1/2"	83	102	7.65	9.300
3"	95	121	8.84	13.000
4"	114	152	11.18	25.000

6000 lbs

SIZE	A	H	G	Weight Kilos/Each
	<i>min. Wall Thickness</i>			
1/8"	25	25	6.35	0.320
1/4"	28	33	6.60	0.590
3/8"	33	38	6.98	0.830
1/2"	38	46	8.15	1.350
3/4"	44	56	8.53	2.040
1"	51	62	9.93	2.700
1 1/4"	60	75	10.59	4.500
1 1/2"	64	84	11.07	5.800
2"	83	102	12.09	11.600
2 1/2"	95	121	15.29	18.000
3"	106	146	16.64	28.500
4"	114	152	18.67	27.000

DIMENSIONS COMMON TO ALL CLASSES

TOLERANCES COMMON TO ALL CLASSES

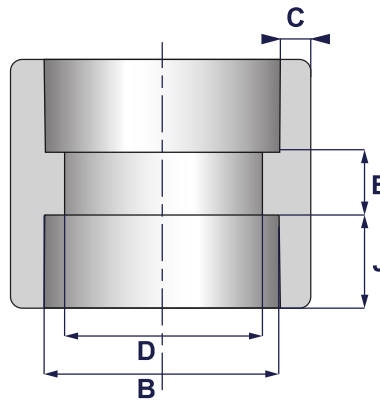
SIZE	B	L2
	<i>min.</i>	<i>min.</i>
1/8"	6.4	6.7
1/4"	8.1	10.2
3/8"	9.1	10.4
1/2"	10.9	13.6
3/4"	12.7	13.9
1"	14.7	17.3
1 1/4"	17.0	18.0
1 1/2"	17.8	18.4
2"	19.0	19.2
2 1/2"	23.6	28.9
3"	25.9	30.5
4"	27.7	33.0

SIZE	H	C
1/8"	-0 +4	-0 +3
1/4"	-0 +4	-0 +3
3/8"	-0 +4	-0 +3
1/2"	-0 +4	-0 +3
3/4"	-0 +4	-0 +3
1"	-0 +4	-0 +3
1 1/4"	-0 +4	-0 +3
1 1/2"	-0 +4	-0 +3
2"	-0 +4	-0 +3
2 1/2"	-0 +4	-0 +3
3"	-0 +4	-0 +3
4"	-0 +4	-0 +3

Notes:

- Dimensions are in MM
- Weights are approximate

Socket Weld Full Couplings



3000 lbs

SIZE	B		D		C		J	E	E		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.			Tolerances†		
1/8"	10.8	11.2	6.1	7.6	3.18	3.18	9.5	6.5	1.5	0.055	
1/4"	14.2	14.6	8.5	10.0	3.30	3.78	9.5	6.5	1.5	0.060	
3/8"	17.6	18.0	11.8	13.3	3.50	4.01	9.5	6.5	3.0	0.085	
1/2"	21.8	22.2	15.0	16.6	4.09	4.67	9.5	9.5	3.0	0.150	
3/4"	27.2	27.6	20.2	21.7	4.27	4.90	12.5	9.5	3.0	0.210	
1"	33.9	34.3	25.9	27.4	4.98	5.69	12.5	12.5	4.0	0.350	
1 1/4"	42.7	43.1	34.3	35.8	5.28	6.07	12.5	12.5	4.0	0.475	
1 1/2"	48.8	49.2	40.1	41.6	5.54	6.35	12.5	12.5	4.0	0.620	
2"	61.2	61.7	51.7	53.3	6.04	6.93	16.0	19.0	4.0	1.050	
2 1/2"	73.9	74.4	61.2	64.2	7.67	8.76	16.0	19.0	5.0	1.650	
3"	89.8	90.3	76.4	79.4	8.30	9.52	16.0	19.0	5.0	2.200	
4"	115.2	115.7	100.7	103.8	9.35	10.69	19.0	19.0	5.0	3.400	

6000 lbs

SIZE	B		D		C		J	E	E		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.			Tolerances†		
1/8"	10.8	11.2	3.2	4.8	3.43	3.96	9.5	6.5	1.5	0.060	
1/4"	14.2	14.6	5.6	7.1	4.01	4.60	9.5	6.5	1.5	0.075	
3/8"	17.6	18.0	8.4	9.9	4.37	5.03	9.5	6.5	3.0	0.110	
1/2"	21.8	22.2	11.0	12.5	5.18	5.97	9.5	9.5	3.0	0.200	
3/4"	27.2	27.6	14.8	16.3	6.04	6.96	12.5	9.5	3.0	0.310	
1"	33.9	34.3	19.9	21.5	6.93	7.92	12.5	12.5	4.0	0.500	
1 1/4"	42.7	43.1	28.7	30.2	6.93	7.92	12.5	12.5	4.0	0.660	
1 1/2"	48.8	49.2	33.2	34.7	7.80	8.92	12.5	12.5	4.0	0.890	
2"	61.2	61.7	42.1	43.6	9.50	10.92	16.0	19.0	4.0	1.700	

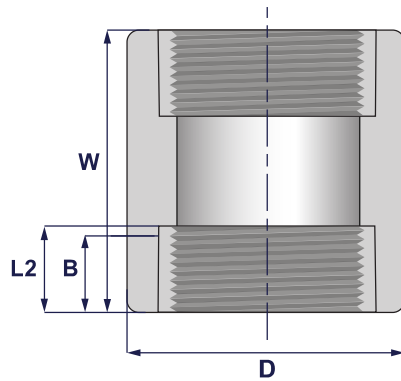
9000 lbs

SIZE	B		D		C		J	E	E		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.			Tolerances†		
1/2"	21.8	22.2	5.6	7.2	8.18	9.35	9.5	9.5	3.0	0.335	
3/4"	27.2	27.6	10.3	11.8	8.56	9.78	12.5	9.5	3.0	0.440	
1"	33.9	34.3	14.4	16.0	9.96	11.38	12.5	12.5	4.0	0.750	
1 1/4"	42.7	43.1	22.0	23.5	0.62	12.14	12.5	12.5	4.0	1.040	
1 1/2"	48.8	49.2	27.2	28.7	1.12	12.70	12.5	12.5	4.0	1.300	
2"	61.2	61.7	37.4	38.9	2.12	13.84	16.00	19.0	4.0	2.200	

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Full Couplings



3000 lbs

SIZE	W	D	B min.	L2 min.	Weight Kilos/Each
1/8"	32	16	6.4	6.7	0.060
1/4"	35	19	8.1	10.2	0.070
3/8"	38	22	9.1	10.4	0.080
1/2"	48	28	10.9	13.6	0.170
3/4"	51	35	12.7	13.9	0.230
1"	60	44	14.7	17.3	0.460
1 1/4"	67	57	17.0	18.0	0.800
1 1/2"	79	64	17.8	18.4	1.110
2"	86	76	19.0	19.2	1.500
2 1/2"	92	92	23.6	28.9	2.300
3"	108	108	25.9	30.5	3.500
4"	121	140	27.7	33.0	6.000

TOLERANCES COMMON TO ALL CLASSES

SIZE	D	W
1/8"	-0 +4	-0 +3
1/4"	-0 +4	-0 +3
3/8"	-0 +4	-0 +3
1/2"	-0 +4	-0 +3
3/4"	-0 +4	-0 +3
1"	-0 +4	-0 +3
1 1/4"	-0 +4	-0 +3
1 1/2"	-0 +4	-0 +3
2"	-0 +4	-0 +3
2 1/2"	-0 +4	-0 +3
3"	-0 +4	-0 +3
4"	-0 +4	-0 +3

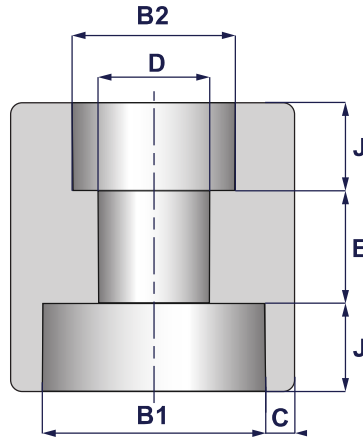
6000 lbs

SIZE	W	D	B min.	L2 min.	Weight Kilos/Each
1/8"	32	22	6.4	6.7	0.100
1/4"	35	25	8.1	10.2	0.120
3/8"	38	32	9.1	10.4	0.210
1/2"	48	38	10.9	13.6	0.350
3/4"	51	44	12.7	13.9	0.490
1"	60	57	14.7	17.3	1.080
1 1/4"	67	64	17.0	18.0	1.160
1 1/2"	79	76	17.8	18.4	1.960
2"	86	92	19.0	19.2	2.940
2 1/2"	92	108	23.6	28.9	4.200
3"	108	127	25.9	30.5	6.300
4"	121	159	27.7	33.0	10.400

Notes:

- Dimensions are in MM
- Weights are approximate

Reducing Full Coupling (Socket Weld)



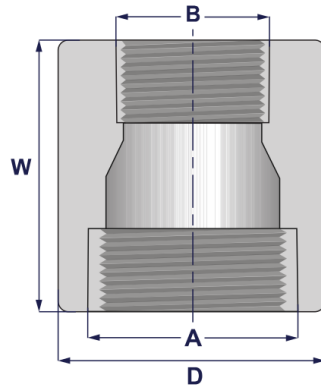
3000 lbs

SIZE	B1		B2		D		C		J	E	E	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Avg.	Min.		Tolerances†	
1/4" x 1/8"	14.2	14.6	10.8	11.2	6.1	7.6	3.30	3.78	9.5	6.5	1.5	0.072
3/8" x 1/4"	17.6	18.0	10.8	11.2	6.1	7.6	3.50	4.01	9.5	6.5	1.5	0.102
	17.6	18.0	14.2	14.6	8.5	10.0	3.50	4.01	9.5	6.5	3.0	0.102
1/2" x 1/4"	21.8	22.2	14.2	14.6	8.5	10.0	4.09	4.67	9.5	9.5	3.0	0.180
	21.8	22.2	17.6	18.0	11.8	13.3	4.09	4.67	9.5	9.5	3.0	0.180
3/4" x 3/8"	27.2	27.6	17.6	18.0	11.8	13.3	4.27	4.90	12.5	9.5	3.0	0.252
	27.2	27.6	21.8	22.2	15.0	16.6	4.27	4.90	12.5	9.5	3.0	0.252
1" x 1/2"	33.9	34.3	21.8	22.2	15.0	16.6	4.98	5.69	12.5	12.5	4.0	0.420
	33.9	34.3	27.2	27.6	20.2	21.7	4.98	5.69	12.5	12.5	4.0	0.420
1 1/4" x 3/4"	42.7	43.1	21.8	22.2	15.0	16.6	5.28	6.07	12.5	12.5	4.0	0.570
	42.7	43.1	27.2	27.6	20.2	21.7	5.28	6.07	12.5	12.5	4.0	0.570
	42.7	43.1	33.9	34.3	25.9	27.4	5.28	6.07	12.5	12.5	4.0	0.570
1 1/2" x 3/4"	48.8	49.2	21.8	22.2	15.0	16.6	5.54	6.35	12.5	12.5	4.0	0.744
	48.8	49.2	27.2	27.6	20.2	21.7	5.54	6.35	12.5	12.5	4.0	0.744
	48.8	49.2	33.9	34.3	25.9	27.4	5.54	6.35	12.5	12.5	4.0	0.744
	48.8	49.2	42.7	43.1	34.3	35.8	5.54	6.35	12.5	12.5	4.0	0.744
2" x 3/4"	61.2	61.7	21.8	22.2	15.0	16.6	6.04	6.93	16.0	19.0	4.0	1.260
	61.2	61.7	27.2	27.6	20.2	21.7	6.04	6.93	16.0	19.0	4.0	1.260
	61.2	61.7	33.9	34.3	25.9	27.4	6.04	6.93	16.0	19.0	4.0	1.260
	61.2	61.7	42.7	43.1	34.3	35.8	6.04	6.93	16.0	19.0	4.0	1.260
	61.2	61.7	48.8	49.2	40.1	41.6	6.04	6.93	16.0	19.0	4.0	1.260
2 1/2" x 3/4"	73.9	74.4	21.8	22.2	15.0	16.6	7.67	8.76	16.0	19.0	5.0	1.980
	73.9	74.4	27.2	27.6	20.2	21.7	7.67	8.76	16.0	19.0	5.0	1.980
	73.9	74.4	33.9	34.3	25.9	27.4	7.67	8.76	16.0	19.0	5.0	1.980
	73.9	74.4	42.7	43.1	34.3	35.8	7.67	8.76	16.0	19.0	5.0	1.980
	73.9	74.4	48.8	49.2	40.1	41.6	7.67	8.76	16.0	19.0	5.0	1.980
	73.9	74.4	61.2	61.7	51.7	53.3	7.67	8.76	16.0	19.0	5.0	1.980
3" x 1/2"	89.8	90.3	21.8	22.2	15.0	16.6	8.30	9.52	16.0	19.0	5.0	2.640
	89.8	90.3	27.2	27.6	20.2	21.7	8.30	9.52	16.0	19.0	5.0	2.640
	89.8	90.3	33.9	34.3	25.9	27.4	8.30	9.52	16.0	19.0	5.0	2.640
	89.8	90.3	42.7	43.1	34.3	35.8	8.30	9.52	16.0	19.0	5.0	2.640
	89.8	90.3	48.8	49.2	40.1	41.6	8.30	9.52	16.0	19.0	5.0	2.640
	89.8	90.3	61.2	61.7	51.7	53.3	8.30	9.52	16.0	19.0	5.0	2.640
	89.8	90.3	73.9	74.4	61.2	64.2	8.30	9.52	16.0	19.0	5.0	2.640
4" x 1/2"	115.2	115.7	21.8	22.2	15.0	16.6	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	27.2	27.6	20.2	21.7	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	33.9	34.3	25.9	27.4	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	42.7	43.1	34.3	35.8	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	48.8	49.2	40.1	41.6	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	61.2	61.7	51.7	53.3	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	73.9	74.4	61.2	64.2	9.35	10.69	19.0	19.0	5.0	4.148
	115.2	115.7	89.8	90.3	76.4	79.4	9.35	10.69	19.0	19.0	5.0	4.148

Notes:

- Dimensions are in MM
- Weights are approximate

Reducing Full Couplings (Threaded)



3000 lbs

SIZE		W	D	Weight Kilos/Each
A	B			
1/4"	1/8"	35	19	0.084
3/8"	1/8"	38	22	0.096
3/8"	1/4"	38	22	0.096
1/2"	1/4"	48	28	0.204
1/2"	3/8"	48	28	0.204
3/4"	3/8"	51	35	0.276
3/4"	1/2"	51	35	0.276
1"	1/2"	60	44	0.552
1"	3/4"	60	44	0.552
1 1/4"	1/2"	67	57	0.960
1 1/4"	3/4"	67	57	0.960
1 1/4"	1"	67	57	0.960
1 1/2"	1/2"	79	64	1.332
1 1/2"	3/4"	79	64	1.332
1 1/2"	1"	79	64	1.332
1 1/2"	1 1/4"	79	64	1.332
2"	1/2"	86	76	1.800
2"	3/4"	86	76	1.800
2"	1"	86	76	1.800
2"	1 1/4"	86	76	1.800
2"	1 1/2"	86	76	1.800
2 1/2"	1/2"	92	92	2.760
2 1/2"	3/4"	92	92	2.760
2 1/2"	1"	92	92	2.760
2 1/2"	1 1/4"	92	92	2.760
2 1/2"	1 1/2"	92	92	2.760
2 1/2"	2"	92	92	2.760
3"	1/2"	108	108	4.200
3"	3/4"	108	108	4.200
3"	1"	108	108	4.200
3"	1 1/4"	108	108	4.200
3"	1 1/2"	108	108	4.200
3"	2"	108	108	4.200
3"	2 1/2"	108	108	4.200
4"	1/2"	121	140	7.200
4"	3/4"	121	140	7.200
4"	1"	121	140	7.200
4"	1 1/4"	121	140	7.200
4"	1 1/2"	121	140	7.200
4"	2"	121	140	7.200
4"	2 1/2"	121	140	7.200
4"	3"	121	140	7.200

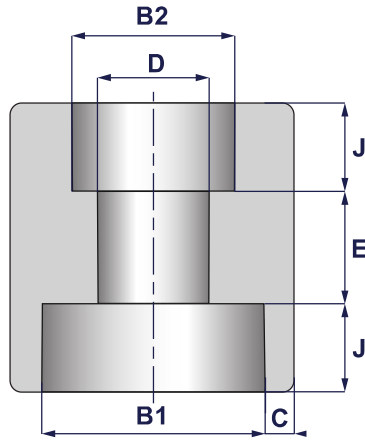
6000 lbs

SIZE		W	D	Weight Kilos/Each
A	B			
1/4"	1/8"	35	25	0.144
3/8"	1/8"	38	32	0.252
3/8"	1/4"	38	32	0.252
1/2"	1/4"	48	38	0.420
1/2"	3/8"	48	38	0.420
3/4"	3/8"	51	44	0.588
3/4"	1/2"	51	44	0.588
1"	1/2"	60	57	1.296
1"	3/4"	60	57	1.296
1 1/4"	1/2"	67	64	1.392
1 1/4"	3/4"	67	64	1.392
1 1/4"	1"	67	64	1.392
1 1/2"	1/2"	79	76	2.352
1 1/2"	3/4"	79	76	2.352
1 1/2"	1"	79	76	2.352
1 1/2"	1 1/4"	79	76	2.352
2"	1/2"	86	92	3.528
2"	3/4"	86	92	3.528
2"	1"	86	92	3.528
2"	1 1/4"	86	92	3.528
2"	1 1/2"	86	92	3.528
2 1/2"	1/2"	92	108	5.400
2 1/2"	3/4"	92	108	5.400
2 1/2"	1"	92	108	5.400
2 1/2"	1 1/4"	92	108	5.400
2 1/2"	1 1/2"	92	108	5.400
2 1/2"	2"	92	108	5.400
3"	1/2"	108	127	7.560
3"	3/4"	108	127	7.560
3"	1"	108	127	7.560
3"	1 1/4"	108	127	7.560
3"	1 1/2"	108	127	7.560
3"	2"	108	127	7.560
3"	2 1/2"	108	127	7.560
4"	1/2"	121	159	12.480
4"	3/4"	121	159	12.480
4"	1"	121	159	12.480
4"	1 1/4"	121	159	12.480
4"	1 1/2"	121	159	12.480
4"	2"	121	159	12.480
4"	2 1/2"	121	159	12.480
4"	3"	121	159	12.480

Notes:

- Dimensions are in MM
- Weights are approximate

Reducing Coupling (Socket Weld)



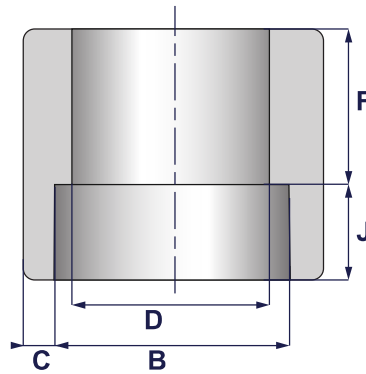
6000 lbs

SIZE	B1		B2		D		C		J	E	E	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Tolerances*		
1/4" x 1/8"	14.2	14.6	10.8	11.2	3.2	4.8	4.01	4.60	9.5	6.5	1.5	0.090
3/8" x 1/4"	17.6	18.0	10.8	11.2	3.2	4.8	4.37	5.03	9.5	6.5	3.0	0.132
	17.6	18.0	14.2	14.6	5.6	7.1	4.37	5.03	9.5	6.5	3.0	0.132
1/2" x 1/4"	21.8	22.2	14.2	14.6	5.6	7.1	5.18	5.97	9.5	9.5	3.0	0.240
	21.8	22.2	17.6	18.0	8.4	9.9	5.18	5.97	9.5	9.5	3.0	0.240
3/4" x 3/8"	27.2	27.6	17.6	18.0	8.4	9.9	6.04	6.96	12.5	9.5	3.0	0.372
	27.2	27.6	21.8	22.2	11.0	12.5	6.04	6.96	12.5	9.5	3.0	0.372
1" x 1/2"	33.9	34.3	21.8	22.2	11.0	12.5	6.93	7.92	12.5	12.5	4.0	0.600
	33.9	34.3	27.2	27.6	14.8	16.3	6.93	7.92	12.5	12.5	4.0	0.600
1 1/4" x 1/2"	42.7	43.1	21.8	22.2	11.0	12.5	6.93	7.92	12.5	12.5	4.0	0.792
	42.7	43.1	27.2	27.6	14.8	16.3	6.93	7.92	12.5	12.5	4.0	0.792
	42.7	43.1	33.9	34.3	19.9	21.5	6.93	7.92	12.5	12.5	4.0	0.792
1 1/2" x 3/4"	48.8	49.2	21.8	22.2	11.0	12.5	7.80	8.92	12.5	12.5	4.0	1.068
	48.8	49.2	27.2	27.6	14.8	16.3	7.80	8.92	12.5	12.5	4.0	1.068
	48.8	49.2	33.9	34.3	19.9	21.5	7.80	8.92	12.5	12.5	4.0	1.068
1 1/2" x 1"	48.8	49.2	42.7	43.1	28.7	30.2	7.80	8.92	12.5	12.5	4.0	1.068
	48.8	49.2	42.7	43.1	28.7	30.2	7.80	8.92	12.5	12.5	4.0	1.068
	48.8	49.2	42.7	43.1	28.7	30.2	7.80	8.92	12.5	12.5	4.0	1.068
2" x 1/2"	61.2	61.7	21.8	22.2	11.0	12.5	9.50	10.92	16.0	19.0	4.0	2.040
	61.2	61.7	27.2	27.6	14.8	16.3	9.50	10.92	16.0	19.0	4.0	2.040
	61.2	61.7	33.9	34.3	19.9	21.5	9.50	10.92	16.0	19.0	4.0	2.040
	61.2	61.7	42.7	43.1	28.7	30.2	9.50	10.92	16.0	19.0	4.0	2.040
	61.2	61.7	48.8	49.2	33.2	34.7	9.50	10.92	16.0	19.0	4.0	2.040

Notes:

- Dimensions are in MM
- Weights are approximate

Socket Weld Half-Couplings



3000 lbs

SIZE	B		D		C		J	F	F	Tolerances †	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.					
1/8"	10.8	11.2	6.1	7.6	3.18	3.18	9.5	16.0	1.5	0.060	
1/4"	14.2	14.6	8.5	10.0	3.30	3.78	9.5	16.0	1.5	0.070	
3/8"	17.6	18.0	11.8	13.3	3.50	4.01	9.5	17.5	3.0	0.100	
1/2"	21.8	22.2	15.0	16.6	4.09	4.67	9.5	22.5	3.0	0.170	
3/4"	27.2	27.6	20.2	21.7	4.27	4.90	12.5	24.0	3.0	0.240	
1"	33.9	34.3	25.9	27.4	4.98	5.69	12.5	28.5	4.0	0.400	
1 1/4"	42.7	43.1	34.3	35.8	5.28	6.07	12.5	30.0	4.0	0.545	
1 1/2"	48.8	49.2	40.1	41.6	5.54	6.35	12.5	32.0	4.0	0.710	
2"	61.2	61.7	51.7	53.3	6.04	6.93	16.0	41.0	4.0	1.200	
2 1/2"	73.9	74.4	61.2	64.2	7.67	8.76	16.0	43.0	5.0	1.900	
3"	89.8	90.3	76.4	79.4	8.30	9.52	16.0	44.5	5.0	2.550	
4"	115.2	115.7	100.7	103.8	9.35	10.69	19.0	48.0	5.0	3.950	

6000 lbs

SIZE	B		D		C		J	F	F	Tolerances †	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.					
1/8"	10.8	11.2	3.2	4.8	3.43	3.96	9.5	16.0	1.5	0.070	
1/4"	14.2	14.6	5.6	7.1	4.01	4.60	9.5	16.0	1.5	0.090	
3/8"	17.6	18.0	8.4	9.9	4.37	5.03	9.5	17.5	3.0	0.130	
1/2"	21.8	22.2	11.0	12.5	5.18	5.97	9.5	22.5	3.0	0.230	
3/4"	27.2	27.6	14.8	16.3	6.04	6.96	12.5	24.0	3.0	0.360	
1"	33.9	34.3	19.9	21.5	6.93	7.92	12.5	28.5	4.0	0.580	
1 1/4"	42.7	43.1	28.7	30.2	6.93	7.92	12.5	30.0	4.0	0.770	
1 1/2"	48.8	49.2	33.2	34.7	7.80	8.92	12.5	32.0	4.0	1.050	
2"	61.2	61.7	42.1	43.6	9.50	10.92	16.0	41.0	4.0	2.000	

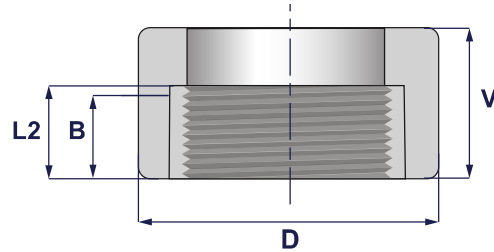
9000 lbs

SIZE	B		D		C		J	F	F	Tolerances †	Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.					
1/2"	21.8	22.2	5.6	7.2	8.18	9.35	9.5	22.5	3.0	0.375	
3/4"	27.2	27.6	10.3	11.8	8.56	9.78	12.5	24.0	3.0	0.500	
1"	33.9	34.3	14.4	16.0	9.96	11.38	12.5	28.5	4.0	0.850	
1 1/4"	42.7	43.1	22.0	23.5	10.62	12.14	12.5	30.0	4.0	1.190	
1 1/2"	48.8	49.2	27.2	28.7	11.12	12.70	12.5	32.0	4.0	1.500	
2"	61.2	61.7	37.4	38.9	12.12	13.84	16.0	41.0	4.0	2.540	

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Half-Couplings



3000 lbs

SIZE	V	D	B Min.	L2 Min.	Weight Kilos/Each
1/8"	16	16	6.4	6.7	0.030
1/4"	17.5	19	8.1	10.2	0.035
3/8"	19	22	9.1	10.4	0.040
1/2"	24	28	10.9	13.6	0.085
3/4"	25.5	35	12.7	13.9	0.115
1"	30	44	14.7	17.3	0.230
1 1/4"	33.5	57	17.0	18.0	0.400
1 1/2"	39.5	64	17.8	18.4	0.555
2"	43	76	19.0	19.2	0.750
2 1/2"	46	92	23.6	28.9	1.150
3"	54	108	25.9	30.5	1.750
4"	60.5	140	27.7	33.0	3.000

6000 lbs

SIZE	V	D	B Min.	L2 Min.	Weight Kilos/Each
1/8"	16	22	6.4	6.7	0.050
1/4"	17.5	25	8.1	10.2	0.060
3/8"	19	28	9.1	10.4	0.105
1/2"	24	38	10.9	13.6	0.175
3/4"	25.5	44	12.7	13.9	0.245
1"	30	57	14.7	17.3	0.540
1 1/4"	33.5	64	17.0	18.0	0.580
1 1/2"	39.5	76	17.8	18.4	0.980
2"	43	92	19.0	19.2	1.470
2 1/2"	46	108	23.6	28.9	2.100
3"	54	127	25.9	30.5	3.150
4"	60.5	159	27.7	33.0	5.200

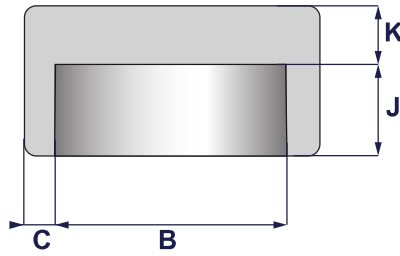
TOLERANCES COMMON TO ALL CLASSES

SIZE	D	V
1/8"	-0 +4	-0 +3
1/4"	-0 +4	-0 +3
3/8"	-0 +4	-0 +3
1/2"	-0 +4	-0 +3
3/4"	-0 +4	-0 +3
1"	-0 +4	-0 +3
1 1/4"	-0 +4	-0 +3
1 1/2"	-0 +4	-0 +3
2"	-0 +4	-0 +3
2 1/2"	-0 +4	-0 +3
3"	-0 +4	-0 +3
4"	-0 +4	-0 +3

Notes:

- Dimensions are in MM
- Weights are approximate

Socket Weld Cap



3000 lbs

SIZE	B		C		J	K	Weight Kilos/Each
	Min.	Max.	Min.	Avg.	Min.	Min.	
1/8"	10.8	11.2	3.18	3.18	9.5	4.8	0.035
1/4"	14.2	14.6	3.30	3.78	9.5	4.8	0.050
3/8"	17.6	18.0	3.50	4.01	9.5	4.8	0.070
1/2"	21.8	22.2	4.09	4.67	9.5	6.4	0.110
3/4"	27.2	27.6	4.27	4.90	12.5	6.4	0.175
1"	33.9	34.3	4.98	5.69	12.5	9.6	0.260
1 1/4"	42.7	43.1	5.28	6.07	12.5	9.6	0.435
1 1/2"	48.8	49.2	5.54	6.35	12.5	11.2	0.580
2"	61.2	61.7	6.04	6.93	16.0	12.7	1.000
2 1/2"	73.9	74.4	7.67	8.76	16.0	15.7	1.700
3"	89.8	90.3	8.30	9.52	16.0	19.0	2.600
4"	115.2	115.7	9.35	10.69	19.0	22.4	4.200

6000 lbs

SIZE	B		C		J	K	Weight Kilos/Each
	Min.	Max.	Min.	Avg.	Min.	Min.	
1/8"	10.8	11.2	3.43	3.96	9.5	6.4	0.070
1/4"	14.2	14.6	4.01	4.60	9.5	6.4	0.090
3/8"	17.6	18.0	4.37	5.03	9.5	6.4	0.130
1/2"	21.8	22.2	5.18	5.97	9.5	7.9	0.155
3/4"	27.2	27.6	6.04	6.96	12.5	7.9	0.260
1"	33.9	34.3	6.93	7.92	12.5	11.2	0.400
1 1/4"	42.7	43.1	6.93	7.92	12.5	11.2	0.630
1 1/2"	48.8	49.2	7.80	8.92	12.5	12.7	0.860
2"	61.2	61.7	9.50	10.92	16.0	15.7	1.600

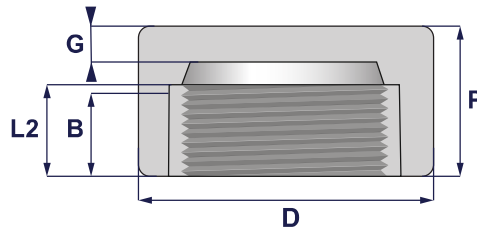
9000 lbs

SIZE	B		C		J	K	Weight Kilos/Each
	Min.	Max.	Min.	Avg.	Min.	Min.	
1/2"	21.8	22.2	8.18	9.35	9.5	11.2	0.375
3/4"	27.2	27.6	8.56	9.78	12.5	12.7	0.500
1"	33.9	34.3	9.96	11.38	12.5	14.2	0.850
1 1/4"	42.7	43.1	10.62	12.14	12.5	14.2	1.190
1 1/2"	48.8	49.2	11.12	12.70	12.5	15.7	1.500
2"	61.2	61.7	12.12	13.84	16.0	19.0	2.540

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Caps



3000 lbs

SIZE	P	D	B Min.	L2 Min.	G	Peso Kg./Cad. Weight Kilos/Each
1/8"	19	16	6.4	6.7	4.8	0.030
1/4"	25	19	8.1	10.2	4.8	0.045
3/8"	25	22	9.1	10.4	4.8	0.060
1/2"	32	28	10.9	13.6	6.4	0.130
3/4"	37	35	12.7	13.9	6.4	0.200
1"	41	44	14.7	17.3	9.7	0.350
1 1/4"	44	57	17.0	18.0	9.7	0.640
1 1/2"	44	64	17.8	18.4	11.2	0.770
2"	48	76	19.0	19.2	12.7	1.128
2 1/2"	60	92	23.6	28.9	15.7	2.000
3"	65	108	25.9	30.5	19.0	3.000
4"	68	140	27.7	33.0	22.4	5.500

6000 lbs

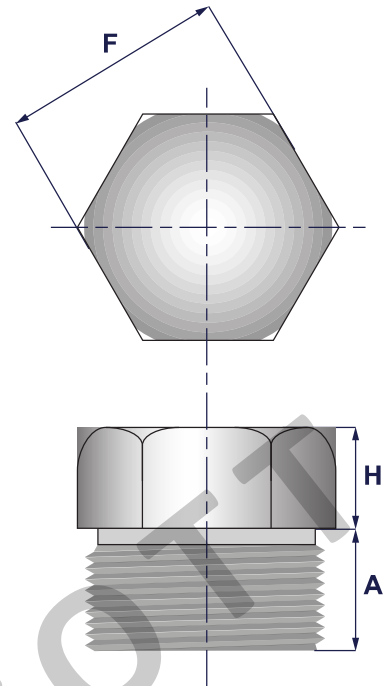
SIZE	P	D	B Min.	L2 Min.	G	Peso Kg./Cad. Weight Kilos/Each
1/8"	22	22	6.4	6.7	6.4	0.055
1/4"	27	25	8.1	10.2	6.4	0.100
3/8"	27	32	9.1	10.4	6.4	0.160
1/2"	33	38	10.9	13.6	7.9	0.265
3/4"	38	44	12.7	13.9	7.9	0.410
1"	43	57	14.7	17.3	11.2	0.740
1 1/4"	46	64	17.0	18.0	11.2	0.920
1 1/2"	48	76	17.8	18.4	12.7	1.380
2"	51	92	19.0	19.2	15.7	2.100
2 1/2"	64	108	23.6	28.9	19.0	3.500
3"	68	127	25.9	30.5	22.4	5.000
4"	75	159	27.7	33.0	28.4	8.600

Notes:

- Dimensions are in MM
- Weights are approximate

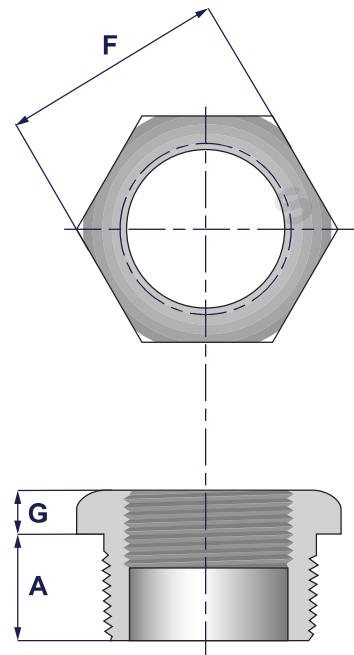
Threaded Plugs

SIZE	A	H	F	Weight Kilos/Each
	Min.	Min.		
1/4"	11	6	16.00	0.025
3/8"	13	8	19.00	0.045
1/2"	14	8	22.00	0.070
3/4"	16	10	27.00	0.125
1"	19	10	35.00	0.220
1 1/4"	21	14	46.00	0.410
1 1/2"	21	16	51.00	0.570
2"	22	18	63.50	0.900
2 1/2"	27	19	76.00	1.600
3"	28	21	90.00	2.500
4"	32	25	118.00	5.000



Threaded Hex Bush

SIZE	A	G	F	Weight Kilos/Each
	Min.			
1/4"	11	3	16.00	0.020
3/8"	13	4	19.00	0.025
1/2"	14	5	22.00	0.040
3/4"	16	6	27.00	0.070
1"	19	6	35.00	0.115
1 1/4"	21	7	46.00	0.230
1 1/2"	21	8	51.00	0.250
2"	22	9	63.50	0.500
2 1/2"	27	10	76.00	0.750
3"	28	10	90.00	1.150
4"	32	13	118.00	2.500

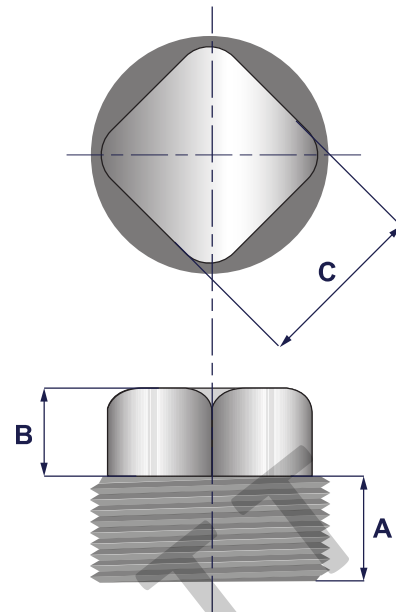


Notes:

- Dimensions are in MM
- Weights are approximate

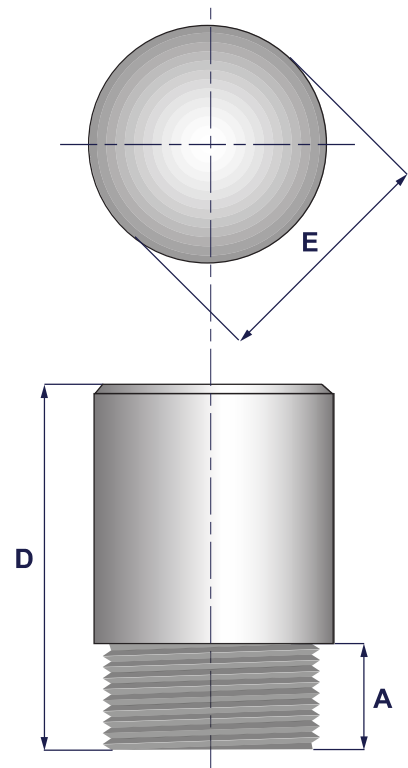
Threaded Square Plugs

SIZE	A	B	C	Weight Kilos/Each
	Min.	Min.	Min.	
1/8"	10	6	7.15	0.015
1/4"	11	6	9.55	0.020
3/8"	13	8	11.11	0.035
1/2"	14	10	14.29	0.055
3/4"	16	11	15.88	0.090
1"	19	13	20.64	0.170
1 1/4"	21	14	23.81	0.290
1 1/2"	21	16	28.58	0.390
2"	22	18	33.27	0.600
2 1/2"	27	19	38.10	1.100
3"	28	21	42.86	1.700
4"	32	25	63.50	3.500



Threaded Round Plugs

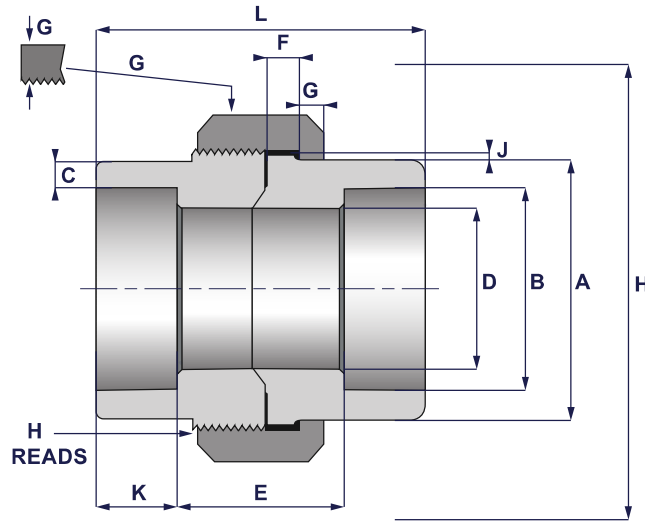
SIZE	A	D	E	Weight Kilos/Each
	Min.	Min.	Min.	
1/8"	10	35	10	0.025
1/4"	11	41	14	0.050
3/8"	13	41	18	0.075
1/2"	14	44	22	0.125
3/4"	16	44	28	0.200
1"	19	51	35	0.350
1 1/4"	21	51	45	0.555
1 1/2"	21	51	50	0.725
2"	22	64	60	1.420
2 1/2"	27	70	75	2.250
3"	28	70	89	3.400
4"	32	76	115	6.100



Notes:

- Dimensions are in MM
- Weights are approximate

Socket Weld Unions



3000 lbs

SIZE	A		B		C		D		E		F		G		H		J		K		L		N		Weight Kilos/Each
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Max.	Min.	Max.	Min.	Max.	Threads per inch.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
1/8"	21.8	10.6	11.2	3.18	3.18	6.07	7.590	19.05	22.35	3.17	3.17	16	1.24	9.650	41.4	50.8	0.170								
1/4"	21.8	14.0	14.6	3.30	3.78	8.48	10.00	19.05	22.35	3.17	3.17	16	1.24	9.650	41.4	50.8	0.170								
3/8"	25.9	17.5	18.0	3.50	4.01	11.70	13.28	20.57	26.92	3.42	3.42	14	1.37	9.650	45.9	55.9	0.250								
1/2"	31.2	21.7	22.2	4.08	4.67	15.03	16.56	20.57	26.92	3.68	3.68	14	1.49	9.650	49.0	58.4	0.330								
3/4"	37.0	27.0	27.6	4.26	4.90	20.16	21.69	25.40	31.75	4.06	4.06	11	1.67	12.70	56.9	66.0	0.430								
1"	45.4	33.8	34.3	4.97	5.69	25.88	27.41	26.16	34.29	4.57	4.44	11	1.85	12.70	61.9	78.8	0.670								
1 1/4"	54.8	42.5	43.0	5.28	6.07	34.29	35.81	32.51	40.64	5.33	5.20	10	2.13	12.70	71.1	93.9	1.150								
1 1/2"	61.4	48.6	49.2	5.53	6.35	40.13	41.66	34.04	42.16	5.84	5.58	10	2.31	12.70	76.5	111.7	1.550								
2"	75.2	61.1	61.6	6.04	6.93	51.74	53.26	37.34	45.47	6.60	6.35	10	2.69	15.75	86.1	132.0	2.300								
2 1/2"	91.6	73.8	74.4	7.67	8.76	61.19	64.24	52.07	61.72	7.49	7.11	8	3.07	15.75	102.4	149.8	5.100								
3"	109.2	89.8	90.4	8.30	9.52	76.40	79.45	53.59	63.75	8.25	8.00	8	3.53	15.75	109.0	175.2	6.900								

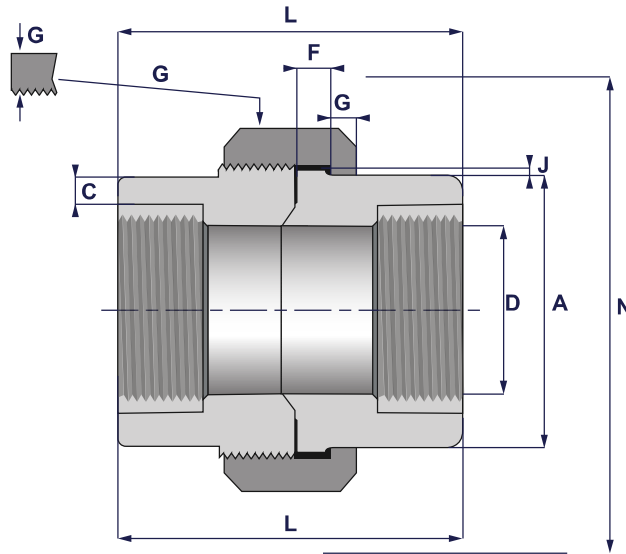
6000 lbs

SIZE	A		B		C		D		E		F		G		H		J		K		L		N		Weight Kilos/Each	
	Min.	Max.	Min.	Max.	Min.	Avg.	Min.	Max.	Min.	Max.	Min.	Max.	Threads per inch.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.			
1/8"	21.8	10.6	11.2	3.42	3.96	3.20	4.80	19.05	22.35	3.17	3.17	16	1.24	9.650	41.4	50.8	0.340									
1/4"	25.9	14.0	14.6	4.01	4.60	5.58	7.11	20.57	26.92	3.42	3.42	14	1.37	9.650	45.9	55.9	0.340									
3/8"	31.2	17.5	18.0	4.36	5.03	8.35	9.88	20.57	26.92	3.68	3.68	14	1.49	9.650	49.0	58.4	0.460									
1/2"	37.0	21.7	22.2	5.18	5.97	11.2	12.55	25.40	31.75	4.06	4.06	11	1.67	12.70	56.9	66.0	0.850									
3/4"	45.4	27.0	27.6	6.04	6.96	14.78	16.31	26.16	34.29	4.57	4.44	11	1.85	12.70	61.9	78.8	1.150									
1"	54.8	33.8	34.3	6.93	7.92	19.94	21.46	32.51	40.64	5.33	5.20	10	2.13	12.70	71.1	93.9	1.900									
1 1/4"	61.4	42.5	43.0	6.93	7.92	28.70	30.23	34.04	42.16	5.84	5.58	10	2.31	12.70	76.4	111.7	2.450									
1 1/2"	75.2	48.6	49.2	7.79	8.92	33.22	34.75	37.34	45.47	6.60	6.35	10	2.69	15.75	86.1	132.0	3.230									
2"	91.6	61.1	61.6	9.49	10.92	42.09	43.61	52.07	61.72	7.49	7.11	8	3.07	15.75	102.3	149.8	5.500									
2 1/2"	109.2	73.8	74.4	10.3	13.00	53.21	54.74	53.59	63.75	8.25	8.00	8	3.53	15.75	109.0	175.2	8.400									

Notes:

- Dimensions are in MM
- Weights are approximate

Threaded Unions



3000 lbs

SIZE	A	C	D		F	G	H	J	L	N	Weight Kilos/Each
	Min.	Min.	Min.	Max.	Min.	Min.	Threads per inch.	Min.			
1/8"	14.73	2.41	6.42	8.43	3.17	3.17	16	1.25	41.40	50.8	0.165
1/4"	19.05	3.02	9.45	11.13	3.17	3.17	16	1.25	41.40	50.8	0.165
3/8"	22.86	3.20	13.51	14.27	3.42	3.42	14	1.37	45.98	55.9	0.240
1/2"	27.69	3.73	17.06	17.86	3.68	3.68	14	1.49	49.02	58.4	0.340
3/4"	33.53	3.91	21.39	23.01	4.06	4.06	11	1.67	56.90	66.0	0.430
1"	41.40	4.54	27.74	28.99	4.57	4.44	11	1.85	61.98	78.8	0.660
1 1/4"	50.55	4.85	35.36	37.69	5.33	5.20	10	2.13	71.12	93.9	1.100
1 1/2"	57.15	5.08	41.20	43.54	5.84	5.58	10	2.31	76.45	111.7	1.550
2"	70.10	5.53	52.12	55.58	6.60	6.35	10	2.69	86.11	132.0	2.250
2 1/2"	85.34	7.01	64.31	66.27	7.49	7.11	8	3.07	102.36	149.8	4.700
3"	102.36	7.62	77.27	82.55	8.25	8.00	8	3.53	108.97	175.2	6.400

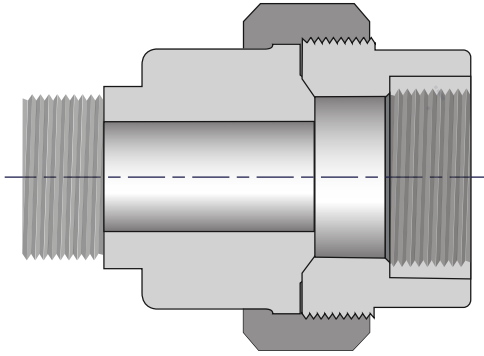
6000 lbs

SIZE	A	C	D		F	G	H	J	L	N	Weight Kilos/Each
	Min.	Min.	Min.	Max.	Min.	Min.	Threads per inch.	Min.			
1/8"	1.651	3.15	3.20	8.43	3.17	3.17	16	1.25	41.4	50.8	0.350
1/4"	2.108	3.68	5.59	11.13	3.42	3.42	14	1.37	45.9	50.8	0.350
3/8"	2.515	4.01	8.36	14.27	3.68	3.68	14	1.49	49.0	55.9	0.470
1/2"	3.099	4.78	11.02	17.86	4.06	4.06	11	1.67	56.8	58.4	0.880
3/4"	3.785	5.56	14.78	23.01	4.57	4.44	11	1.85	61.9	66.0	1.150
1"	4.623	6.35	19.94	28.98	5.33	5.20	10	2.13	71.1	78.8	2.000
1 1/4"	5.486	6.35	28.70	37.69	5.84	5.58	10	2.31	76.4	93.9	2.500
1 1/2"	6.248	7.14	33.22	43.54	6.60	6.35	10	2.69	86.1	111.7	3.250
2"	7.772	8.74	44.09	55.58	7.49	7.11	8	3.07	102.3	132.0	5.350
2 1/2"	9.220	9.53	53.21	66.27	8.25	8.00	8	3.53	108.9	149.8	8.400
3"	11.125	11.13	65.89	82.55	10.19	10.19	8	4.06	190.5	175.2	13.250

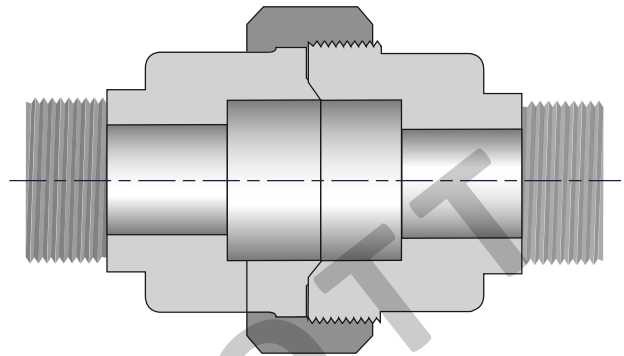
Notes:

- Dimensions are in MM
- Weights are approximate

M/F Union (Threaded)



M/M Union (Threaded)



- Notes:**
- Dimensions are in MM
 - Weights are approximate

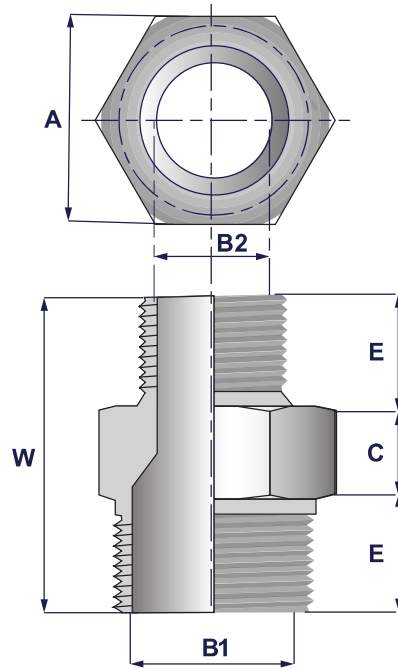
3000 lbs

SIZE	Weight Kilos/Each	
	M/M	F/M
1/4"	0.205	0.185
3/8"	0.290	0.265
1/2"	0.440	0.390
3/4"	0.590	0.510
1"	0.900	0.780
1 1/4"	1.420	1.260
1 1/2"	1.990	1.770
2"	2.950	2.600

6000 lbs

SIZE	Weight Kilos/Each	
	M/M	F/M
1/4"	0.390	0.370
3/8"	0.520	0.495
1/2"	0.980	0.930
3/4"	1.310	1.230
1"	2.240	2.120
1 1/4"	2.820	2.660
1 1/2"	3.690	3.470
2"	6.050	5.700

Reducing Hex Nipples (Threaded)



SIZE A B	3000 lbs		6000 lbs		A	W	C	E	3000 lbs	6000 lbs
	B1	B2	B1	B2	Min.	Min.	Min.	Min.	Weight Kilos/Each	Weight Kilos/Each
3/8" x 1/4"	11	8	8	6	19	40	8	16	0.045	0.050
1/2" x 3/8"	14	8	11	6	22	48	8	20	0.060	0.075
	14	11	11	8	22	48	8	20	0.060	0.080
3/4" x 1/2"	19	11	13	8	27	52	10	21	0.090	0.125
	19	14	13	11	27	52	10	21	0.100	0.145
1" x 3/4"	24	14	17	11	35	60	10	25	0.160	0.230
	24	19	17	13	35	60	10	25	0.165	0.250
1 1/4" x 1"	32	14	22	11	46	66	14	26	0.265	0.370
	32	19	22	13	46	66	14	26	0.270	0.385
	32	24	22	17	46	66	14	26	0.285	0.420
1 1/2" x 1 1/4"	38	14	30	11	50	68	16	26	0.335	0.545
	38	19	30	13	50	68	16	26	0.340	0.540
	38	24	30	17	50	68	16	26	0.350	0.480
	38	32	30	22	50	68	16	26	0.350	0.460
2" x 1 1/2"	49	14	39	11	62	71	17	27	0.510	0.700
	49	19	39	13	62	71	17	27	0.515	0.720
	49	24	39	17	62	71	17	27	0.525	0.760
	49	32	39	22	62	71	17	27	0.525	0.800
	49	38	39	30	62	71	17	27	0.525	0.810
2 1/2" x 2"	59	24	45	17	76	99	19	40	0.950	1.400
	59	32	45	22	76	99	19	40	0.950	1.350
	59	38	45	30	76	99	19	40	0.950	1.350
	59	49	45	39	76	99	19	40	0.950	1.400
3" x 2 1/2"	73.5	24	58.5	17	90	104	20	42	1.500	2.150
	73.5	32	58.5	22	90	104	20	42	1.500	2.150
	73.5	38	58.5	30	90	104	20	42	1.500	2.150
	73.5	49	58.5	39	90	104	20	42	1.500	2.200
	73.5	59	58.5	45	90	104	20	42	1.500	2.400
4" x 3"	97	24	80	17	118	114	22	46	2.400	3.900
	97	32	80	22	118	114	22	46	2.400	3.900
	97	38	80	30	118	114	22	46	2.400	3.900
	97	49	80	39	118	114	22	46	2.400	3.900
	97	59	80	45	118	114	22	46	2.400	3.900
	97	73.5	80	58.5	118	114	22	46	2.400	3.900
	97	73.5	80	58.5	118	114	22	46	2.400	3.900

Notes:

- Dimensions are in MM
- Weights are approximate

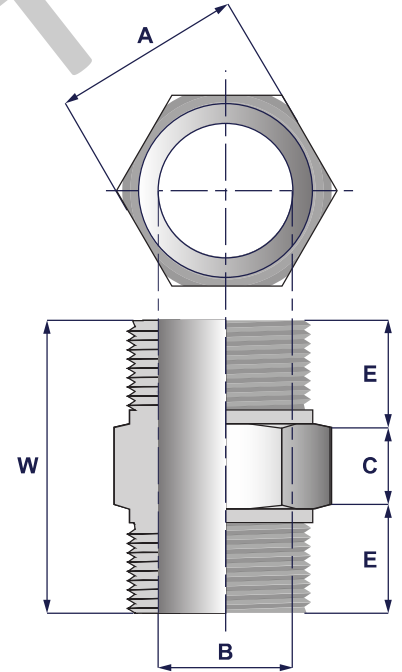
Threaded Hex Nipples

3000 lbs

SIZE	B	A	W	C	E	Weight Kilos/Each
		Min.	Min.	Min.		
1/4"	8	16	36	6	15	0.030
3/8"	11	19	40	8	16	0.045
1/2"	14	22	48	8	20	0.070
3/4"	19	27	52	10	21	0.105
1"	24	35	60	10	25	0.180
1 1/4"	32	46	66	14	26	0.290
1 1/2"	38	50	68	16	26	0.355
2"	49	62	71	17	27	0.530
2 1/2"	59	76	99	19	40	1.050
3"	73.5	90	104	20	42	1.650
4"	97	118	114	22	46	2.550

6000 lbs

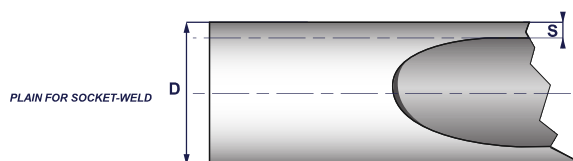
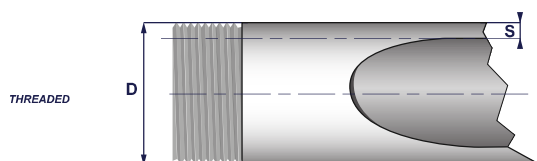
SIZE	B	A	W	C	E	Weight Kilos/Each
		Min.	Min.	Min.	Min.	
1/4"	6	16	36	6	15	0.035
3/8"	8	19	40	8	16	0.055
1/2"	11	22	48	8	20	0.100
3/4"	13	27	52	10	21	0.160
1"	17	35	60	10	25	0.280
1 1/4"	22	46	66	14	26	0.450
1 1/2"	30	50	68	16	26	0.560
2"	39	62	71	17	27	0.870
2 1/2"	45	76	99	19	40	1.630
3"	58.5	90	104	20	42	2.600
4"	80	118	114	22	46	4.200



Notes:

- Dimensions are in MM
- Weights are approximate

Pipe Nipples



SIZE	D		S		S		S		S	
	Tolerances		Schedule STD - 40 - 40 S		Schedule XS - 80 - 80 S		Schedule 160		Schedule XXS	
	mm	Kg/m	mm	Kg/m	mm	Kg/m	mm	Kg/m	mm	Kg/m
1/4"	13.7	± 0.4	2.24	0.63	3.02	0.80	3.68	-	6.05	-
3/8"	17.1	± 0.4	2.31	0.84	3.20	1.10	4.01	-	6.40	-
1/2"	21.3	± 0.4	2.77	1.27	3.73	1.62	4.78	1.95	7.47	2.55
3/4"	26.7	± 0.4	2.87	1.69	3.91	2.20	5.56	2.90	7.82	3.64
1"	33.4	± 0.4	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
1 1/4"	42.2	± 0.4	3.56	3.39	4.85	4.47	6.35	5.61	9.70	7.77
1 1/2"	48.3	± 0.4	3.68	4.05	5.08	5.41	7.14	7.25	10.15	9.56
2"	60.3	± 0.8	3.91	5.44	5.54	7.48	8.74	11.11	11.07	13.44
2 1/2"	73.0	± 0.8	5.16	8.63	7.01	11.41	9.52	14.92	14.02	20.39
3"	88.9	± 0.8	5.49	11.29	7.62	15.27	11.13	21.35	15.24	27.68
4"	114.3	± 0.8	6.02	16.07	8.56	22.32	13.49	33.54	17.12	41.03

S
TOLERANCES COMMON TO ALL SCHEDULES
± 12.5 %
± 12.5 %
Permitted variations in wall thickness

SIZE	L = 50 mm				L = 76 mm				L = 100 mm				L = 150 mm			
	sch. 40 Kg	sch. 80 Kg	sch. 160 Kg	XXS Kg	sch. 40 Kg	sch. 80 Kg	sch. 160 Kg	XXS Kg	sch. 40 Kg	sch. 80 Kg	sch. 160 Kg	XXS Kg	sch. 40 Kg	sch. 80 Kg	sch. 160 Kg	XXS Kg
1/4"	0.032	0.040	-	-	0.048	0.061	-	-	0.063	0.080	-	-	0.095	0.121	-	-
3/8"	0.042	0.055	-	-	0.064	0.084	-	-	0.084	0.110	-	-	0.127	0.167	-	-
1/2"	0.064	0.081	0.098	0.128	0.097	0.123	0.148	0.194	0.127	0.162	0.195	0.255	0.192	0.245	0.295	0.386
3/4"	0.085	0.110	0.145	0.182	0.129	0.167	0.221	0.277	0.169	0.220	0.290	0.364	0.256	0.333	0.439	0.552
1"	0.125	0.162	0.212	0.273	0.190	0.246	0.322	0.414	0.250	0.324	0.424	0.545	0.379	0.491	0.642	0.826
1 1/4"	0.170	0.224	0.281	0.389	0.258	0.340	0.427	0.591	0.339	0.447	0.561	0.777	0.514	0.677	0.850	1.177
1 1/2"	0.203	0.271	0.363	0.478	0.308	0.411	0.551	0.727	0.405	0.541	0.725	0.956	0.614	0.820	1.098	1.448
2"	0.272	0.374	0.556	0.672	0.414	0.569	0.845	1.022	0.544	0.748	1.111	1.344	0.824	1.133	1.683	2.036
2 1/2"	0.432	0.571	0.746	1.020	0.656	0.868	1.135	1.551	0.863	1.141	1.492	2.039	1.308	1.729	2.261	3.089
3"	0.565	0.764	1.068	1.384	0.859	1.161	1.624	2.105	1.129	1.527	2.135	2.768	1.711	2.314	3.235	4.194
3 1/2"	0.678	0.932	-	-	1.032	1.417	-	-	1.357	1.863	-	-	2.056	2.823	-	-
4"	0.804	1.116	1.677	2.052	1.222	1.697	2.551	3.120	1.607	2.232	3.354	4.103	2.435	3.382	5.082	6.217

Notes:

- Dimensions are in MM
- Weights are approximate