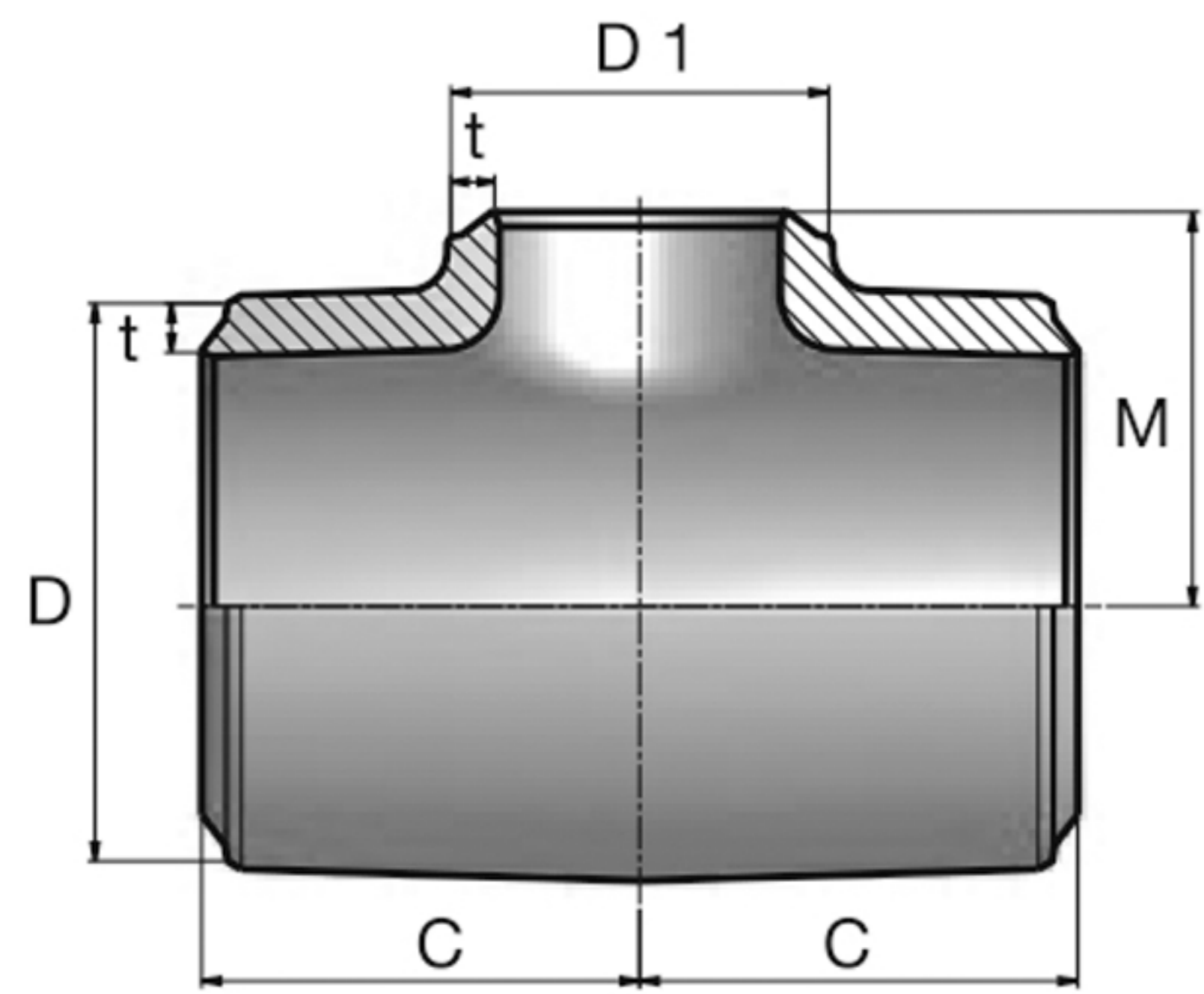


EQUAL TEES



REDUCING TEES

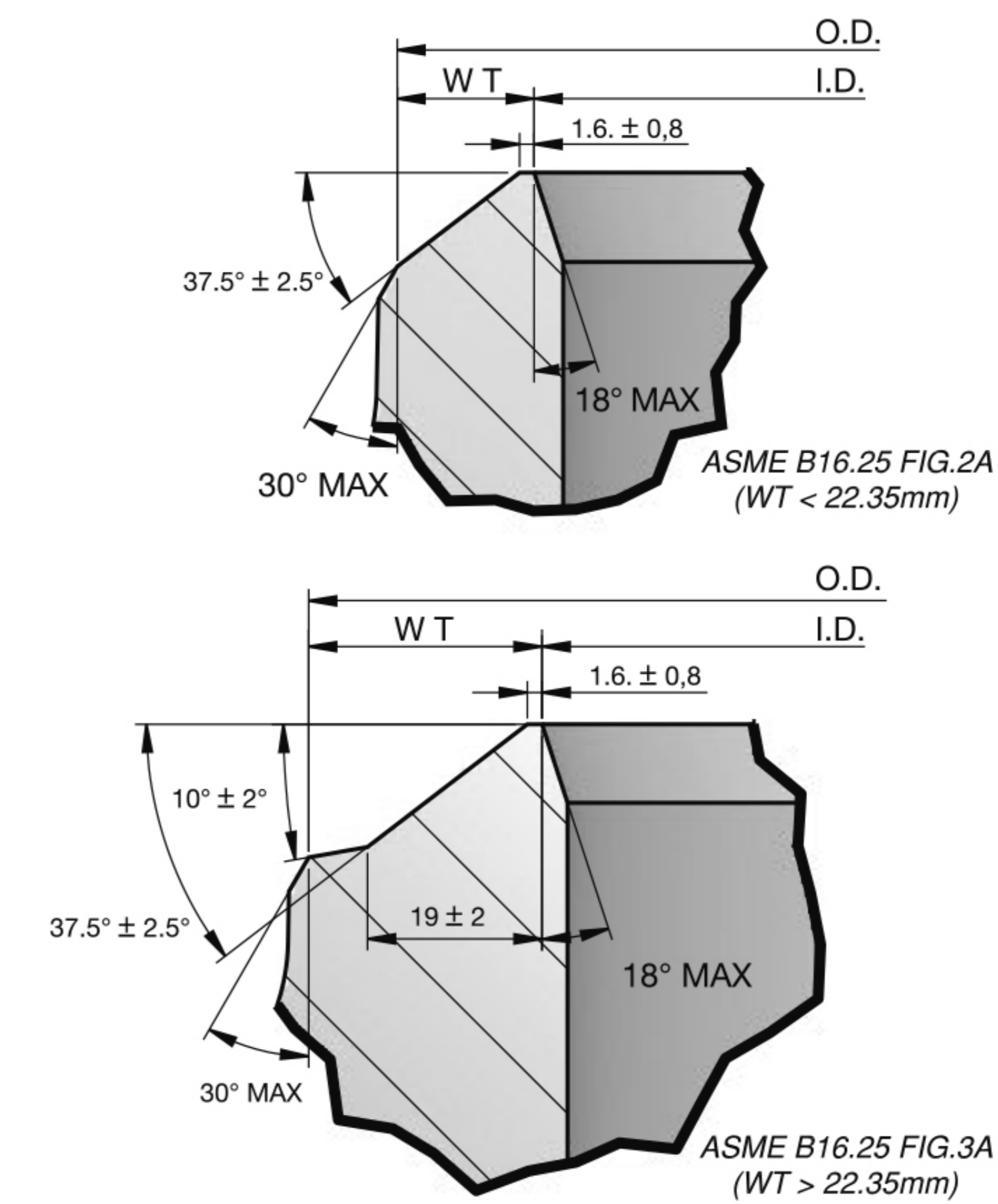
TEES					
NOMINAL PIPE SIZE	OUTSIDE DIAMETER	OUTSIDE DIAMETER	CENTER to END	CENTER to END	LENGTH
	D	D1	C	M	H
3/4" x 3/4"	27	27	29	29	38
3/4" x 1/2"	27	21	29	29	38
3/4" x 3/8"	27	17	29	29	38
1" x 1"	33	33	38	38	51
1" x 3/4"	33	27	38	38	51
1" x 1/2"	33	21	38	38	51
1 1/4" x 1 1/4"	42	42	48	48	51
1 1/4" x 1"	42	33	48	48	51
1 1/4" x 3/4"	42	27	48	48	51
1 1/4" x 1/2"	42	21	48	48	51
1 1/2" x 1 1/2"	48	48	57	57	63
1 1/2" x 1 1/4"	48	42	57	57	63
1 1/2" x 1"	48	33	57	57	63
1 1/2" x 3/4"	48	27	57	57	63
1 1/2" x 1/2"	48	21	57	57	63
2" x 2"	60	60	64	64	76
2" x 1 1/2"	60	48	64	60	76
2" x 1" 1/4"	60	42	64	57	76
2" x 1"	60	33	64	51	76
2" x 3/4"	60	27	64	44	76
2 1/2" x 2 1/2"	73	73	76	76	89
2 1/2" x 2"	73	60	76	70	89
2 1/2" x 1 1/2"	73	48	76	67	89
2 1/2" x 1 1/4"	73	42	76	64	89
2 1/2" x 1"	73	33	76	57	89
3" x 3"	89	89	86	86	89
3" x 2 1/2"	89	73	86	83	89
3" x 2"	89	60	86	76	89
3" x 1 1/2"	89	48	86	73	89
3" x 1" 1/4"	89	42	86	70	89
3 1/2" x 3 1/2"	102	102	95	95	102
3 1/2" x 3"	102	89	95	92	102
3 1/2" x 2 1/2"	102	73	95	89	102
3 1/2" x 2"	102	60	95	83	102
3 1/2" x 1 1/2"	102	48	95	79	102
4" x 4"	114	114	105	105	102
4" x 3 1/2"	114	102	105	102	102
4" x 3"	114	89	105	98	102
4" x 2 1/2"	114	73	105	95	102
4" x 2"	114	60	105	89	102
4" x 1 1/2"	114	48	105	86	102
5" x 5"	141	141	124	124	127
5" x 4"	141	114	124	117	127
5" x 3 1/2"	141	102	124	114	127
5" x 3"	141	89	124	111	127
5" x 2 1/2"	141	73	124	108	127
5" x 2"	141	60	124	105	127
6" x 6"	168	168	143	143	140
6" x 5"	168	141	143	137	140
6" x 4"	168	114	143	130	140
6" x 3 1/2"	168	102	143	127	140
6" x 3"	168	89	143	124	140
6" x 2 1/2"	168	73	143	121	140
8" x 8"	219	219	178	178	152
8" x 6"	219	168	178	168	152
8" x 5"	219	141	178	162	152
8" x 4"	219	114	178	156	152
8" x 3 1/2"	219	102	178	152	152

TEES					
NOMINAL PIPE SIZE	OUTSIDE DIAMETER	OUTSIDE DIAMETER	CENTER to END	CENTER to END	LENGTH
	D	D1	C	M	H
10" x 10"	273	273	216	216	178
10" x 8"	273	219	216	203	178
10" x 6"	273	168	216	194	178
10" x 5"	273	141	216	191	178
10" x 4"	273	114	216	184	178
12" x 12"	324	324	254	254	203
12" x 10"	324	273	254	241	203
12" x 8"	324	219	254	229	203
12" x 6"	324	168	254	219	203
12" x 5"	324	141	254	216	203
14" x 14"	356	356	279	279	330
14" x 12"	356	324	279	270	330
14" x 10"	356	273	279	257	330
14" x 8"	356	219	279	248	330
14" x 6"	356	168	279	238	330
16" x 16"	406	406	305	305	356
16" x 14"	406	356	305	305	356
16" x 12"	406	324	305	295	356
16" x 10"	406	273	305	283	356
16" x 8"	406	219	305	273	356
16" x 6"	406	168	305	264	356
18" x 18"	457	457	343	343	381
18" x 16"	457	406	343	330	381
18" x 14"	457	356	343	330	381
18" x 12"	457	324	343	321	381
18" x 10"	457	273	343	308	381
18" x 8"	457	219	343	298	381
20" x 20"	508	508	381	381	508
20" x 18"	508	457	381	368	508
20" x 16"	508	406	381	356	508
20" x 14"	508	356	381	356	508
20" x 12"	508	324	381	346	508
20" x 10"	508	273	381	333	508
20" x 8"	508	219	381	324	508
22" x 22"	559	559	419	419	508
22" x 20"	559	508	419	406	508
22" x 18"	559	457	419	394	508
22" x 16"	559	406	419	381	508
22" x 14"	559	356	419	381	508
22" x 12"	559	324	419	371	508
22" x 10"	559	273	419	359	508
24" x 24"	610	610	432	432	508
24" x 22"	610	559	432	432	508
24" x 20"	610	508	432	432	508
24" x 18"	610	457	432	419	508
24" x 16"	610	406	432	406	508
24" x 14"	610	356	432	406	508
24" x 12"	610	324	432	397	508
24" x 10"	610	273	432	384	508
26" x 26"	660	660	495	495	610
26" x 24"	660	610	495	483	610
26" x 22"	660	559	495	470	610
26" x 20"	660	508	495	457	610
26" x 18"	660	457	495	444	610

TEES					
NOMINAL PIPE SIZE	OUTSIDE DIAMETER	OUTSIDE DIAMETER	CENTER to END	CENTER to END	LENGTH
	D	D1	C	M	H
28" x 28"	711	711	521	521	610
28" x 26"	711	660	521	521	610
28" x 24"	711	610	521	508	610
28" x 22"	711	559	521	495	610
28" x 20"	711	508	521	483	610
28" x 18"	711	457	521	470	610
30" x 30"	762	762	559	559	610
30" x 28"	762	711	559	456	610
30" x 26"	762	660	559	546	610
30" x 24"	762	610	559	533	610
30" x 22"	762	559	559	521	610
30" x 20"	762	508	559	508	610
30" x 18"	762	457	559	495	610
32" x 32"	813	813	597	597	610
32" x 30"	813	762	597	584	610
32" x 28"	813	711	597	572	610
32" x 26"	813	660	597	572	610
32" x 24"	813	610	597	559	610
32" x 22"	813	559	597	546	610
32" x 20"	813	508	597	533	610
34" x 34"	864	864	635	635	610
34" x 32"	864	813	635	622	610
34" x 30"	864	762	635	610	610
34" x 28"	864	711	635	597	610
34" x 26"	864	660	635	597	610
34" x 24"	864	610	635	584	610
34" x 22"	864	559	635	572	610
34" x 20"	864	508	635	559	610
36" x 36"	914	914	673	673	610
36" x 34"	914	864	673	660	610
36" x 32"	914	813	673	648	610
36" x 30"	914	762	673	635	610
36" x 28"	914	711	673	622	610
36" x 26"	914	660	673	622	610
36" x 24"	914	610	673	610	610
36" x 22"	914	559	673	597	610
36" x 20"	914	508	673	584	610
38" x 38"	965	965	711	711	610
38" x 36"	965	914	711	711	610
38" x 34"	965	864	711	698	610
38" x 32"	965	813	711	686	610
38" x 30"	965	762	711	673	610
38" x 28"	965	711	711	648	610
38" x 26"	965	660	711	648	610
38" x 24"	965	610	711	635	610
40" x 40"	1016	1016	749	749	610
40" x 38"	1016	965	749	749	610
40" x 36"	1016	914	749	737	610
40" x 34"	1016	864	749	724	610
40" x 32"	1016	813	749	711	610
40" x 30"	1016	762	749	698	610
40" x 28"	1016	711	749	673	610
40" x 26"	1016	660	749	673	610
40" x 24"	1016	610	749	660	610

TEES					
NOMINAL PIPE SIZE	OUTSIDE DIAMETER	OUTSIDE DIAMETER	CENTER to END	CENTER to END	LENGTH
	D	D1	C	M	H
42" x 42"	1067	1067	762	711	610
42" x 40"	1067	1016	762	711	610
42" x 38"	1067	965	762	711	610
42" x 36"	1067	914	762	711	610
42" x 34"	1067	864	762	711	610
42" x 32"	1067	813	762	711	610
42" x 30"	1067	762	762	711	610
42" x 28"	1067	711	762	698	610
42" x 26"	1067	660	762	698	610
42" x 24"	1067	610	762	660	610
44" x 44"	1118	1118	813	762	610
44" x 42"	1118	1067	813	762	610
44" x 40"	1118	1016	813	749	610
44" x 38"	1118	965	813	737	610
44" x 36"	1118	914	813	724	610
44" x 34"	1118	864	813	724	610
44" x 32"	1118	813	813	711	610
44" x 30"	1118	762	813	711	610
46" x 46"	1168	1168	851	800	711
46" x 44"	1168	1118	851	800	711
46" x 42"	1168	1067	851	787	711
46" x 40"	1168	1016	851	775	711
46" x 38"	1168	965	851	762	711
46" x 36"	1168	914	851	762	711
46" x 34"	1168	864	851	749	711
46" x 32"	1168	813	851	749	711
46" x 30"	1168	762	851	737	711
48" x 48"	1219	1219	889	838	711
48" x 46"	1219	1168	889	838	711
48" x 44"	1219	1118	889	838	711
48" x 42"	1219	1067	889	813	711
48" x 40"	1219	1016	889	813	711
48" x 38"	1219	965	889	813	711
48" x 36"	1219	914	889	787	711
48" x 34"	1219	864	889	787	711
48" x 32"	1219	813	889	787	711

ASME B36.10															ASME B36.19				
NOMINAL WALL THICKNESS (mm)															NOMINAL WALL THICKNESS (mm)				
NOMINAL PIPE SIZE	OUTSIDE DIAMETER	DN	Sch.10	Sch.20	Sch.30	STD	Sch.40	Sch.60	XS	Sch.80	Sch.100	Sch.120	Sch.140	Sch.160	XXS	Sch.55	Sch.10S	Sch.40S	Sch.80S
1/2"	21,3	15				2,77	2,77		3,73	3,73				4,78	7,47	1,65	2,11	2,77	3,73
3/4"	26,7	20				2,87	2,87		3,91	3,91				5,56	7,82	1,65	2,11	2,87	3,91
1"	33,4	25				3,38	3,38		4,55	4,55				6,35	9,09	1,65	2,77	3,38	4,55
1-1/4"	42,2	32				3,56	3,56		4,85	4,85				6,35	9,7	1,65	2,77	3,56	4,85
1-1/2"	48,3	40				3,68	3,68		5,08	5,08				7,14	10,16	1,65	2,77	3,68	5,08
2"	60,3	50				3,91	3,91		5,54	5,54				8,74	11,07	1,65	2,77	3,91	5,54
2-1/2"	73	65				5,16	5,16		7,01	7,01				9,52	14,02	2,11	3,05	5,16	7,01
3"	88,9	80				5,49	5,49		7,62	7,62				11,13	15,24	2,11	3,05	5,49	7,62
3-1/2"	101,6	90				5,74	5,74		8,08	8,08						2,11	3,05	5,74	8,08
4"	114,3	100				6,02	6,02		8,56	8,56		11,13		13,49	17,12	2,11	3,05	6,02	8,56
5"	141,3	125				6,55	6,55		9,52	9,52		12,7		15,88	19,05	2,77	3,4	6,55	9,52
6"	168,3	150				7,11	7,11		10,97	10,97		14,27		18,26	21,95	2,77	3,4	7,11	10,97
8"	219,1	200		6,35	7,04	8,18	8,18	10,31	12,7	12,7	15,09	18,26	20,62	23,01	22,22	2,77	3,76	8,18	12,7
10"	273	250		6,35	7,8	9,27	9,27	12,7	12,7	15,09	18,26	21,44	25,4	28,58	25,4	3,4	4,19	9,27	12,7
12"	323,9	300		6,35	8,38	9,52	10,31	14,27	12,7	17,48	21,44	25,4	28,58	33,32	25,4	3,96	4,57	9,52	12,7
14"	355,6	350	6,35	7,92	9,52	9,52	11,13	15,09	12,7	19,05	23,83	27,79	31,75	35,71		3,96	4,78	9,52	12,7
16"	406,4	400	6,35	7,92	9,52	9,52	12,7	16,66	12,7	21,44	26,19	30,96	36,53	40,49		4,19	4,78	9,52	12,7
18"	457,2	450	6,35	7,92	11,13	9,52	14,27	19,05	12,7	23,83	29,36	34,92	39,67	45,24		4,19	4,78	9,52	12,7
20"	508	500	6,35	9,52	12,7	9,52	15,09	20,62	12,7	26,19	32,54	38,1	44,45	50,01		4,78	5,54	9,52	12,7
22"	558,8	550	6,35	9,52	12,7	9,52	15,88	22,22	12,7	28,58	34,92	41,28	47,62	53,89		4,78	5,54	9,52	12,7
24"	609,6	600	6,35	9,52	14,27	9,52	17,48	24,61	12,7	30,96	38,89	46,02	52,37	59,54		5,54	6,35	9,52	12,7
26"	660,4	650	7,92	12,7		9,52			12,7										
28"	711,2	700	7,92	12,7	15,88	9,52			12,7										
30"	762	750	7,92	12,7	15,88	9,52			12,7								7,92		
32"	812,8	800	7,92	12,7	15,88	9,52	17,48		12,7										
34"	863,6	850	7,92	12,7	15,88	9,52	17,48		12,7										
36"	914,4	900	7,92	12,7	15,88	9,52	19,05		12,7										



ANGULARITY TOLERANCES		
NOMINAL PIPE SIZE	OFF ANGLE Q	OFF PLANE P
1/2" to 4"	± 1	± 2
5" to 8"	± 2	± 4
10" to 12"	± 3	± 5
14" to 16"	± 3	± 7
18" to 24"	± 4	± 10
26" to 30"	± 5	± 10
32" to 42"	± 5	± 13
44" to 48"	± 5	± 20

TOLERANCES ASME B16.9									
NOMINAL PIPE SIZE	ALL FITTINGS			90° - 45° ELBOWS TEES	REDUCERS	CAPS	180° RETURN BENDS		
	OUTSIDE DIAMETER AT BEVEL	INSIDE DIAMETER AT BEVEL	WALL THICKNESS	CENTER TO END A - B - C - M	OVERALL LENGTH H	LENGTH E	CENTER TO CENTER O	BACK TO FACE	ALIGNMENT OF ENDS
1/2" to 2-1/2"	± 1	± 0.8	Not less than 87.5% of nominal wall thickness	± 2	± 2	± 4	± 7	± 7	± 1
3" to 3-1/2"	± 1	± 1.6		± 2	± 2	± 4	± 7	± 7	± 1
4"	+2 -1	± 1.6		± 2	± 2	± 4	± 7	± 7	± 1
5" to 6"	+3 -1	± 1.6		± 2	± 2	± 7	± 7	± 7	± 1
8"	± 2	± 1.6		± 2	± 2	± 7	± 7	± 7	± 1
10"	+4 -3	± 3.2		± 2	± 2	± 7	± 10	± 7	± 2
12" to 18"	+4 -3	± 3.2		± 3	± 3	± 7	± 10	± 7	± 2
20" to 24"	+6 -5	± 4.8		± 3	± 3	± 7	± 10	± 7	± 2
26" to 30"	+7 -5	± 4.8		± 3	± 3	± 10			
32" to 48"	+7 -5	± 4.8		± 5	± 5	± 10			

