

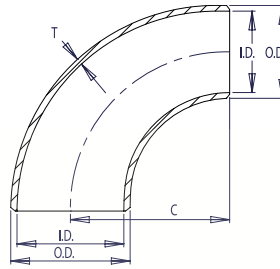


اتصالات فولادی

ISO 9001 ISO 14001 ISO 45001 ISO 29001 ISO 9001 ISO 14001 ISO 45001 ISO 29001 ISO 9001 ISO 14



90° REDUCING ELBOWS

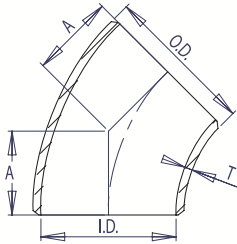


1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in millimeters.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than NPS 12 please call.
6. All weights are in kilograms and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.

Pipe Size NPS	LARGE DIAMETER			SMALL DIAMETER			Center to End C	Pipe Schedule Number	Approx. Weight in Kilograms
	Outside Diameter O.D.	Inside Diameter I.D.	Wall Thickness T	Outside Diameter O.D.	Inside Diameter I.D.	Wall Thickness T			
2 x 1 1/2	60.3	52.48	3.91	48.3	40.94	3.68	76	40	0.64
2 x 1 1/4	60.3	52.48	3.91	42.2	35.08	3.56	76	40	0.59
2 x 1	60.3	52.48	3.91	33.4	26.64	3.38	76	40	0.54
2 1/2 x 2	73.0	62.68	5.16	60.3	52.48	3.91	95	40	1.27
2 1/2 x 1 1/2	73.0	62.68	5.16	48.3	40.94	3.68	95	40	1.18
2 1/2 x 1 1/4	73.0	62.68	5.16	42.2	35.08	3.56	95	40	1.13
3 x 2 1/2	88.9	77.92	5.49	73.0	62.68	5.16	114	40	1.91
3 x 2	88.9	77.92	5.49	60.3	52.48	3.91	114	40	1.63
3 x 1 1/2	88.9	77.92	5.49	48.3	40.94	3.68	114	40	1.50
3 1/2 x 3	101.6	90.12	5.74	88.9	77.92	5.49	133	40	2.72
3 1/2 x 2 1/2	101.6	90.12	5.74	73.0	62.68	5.16	133	40	2.49
3 1/2 x 2	101.6	90.12	5.74	60.3	52.48	3.91	133	40	2.04
4 x 3 1/2	114.3	102.26	6.02	101.6	90.12	5.74	152	40	3.81
4 x 3	114.3	102.26	6.02	88.9	77.92	5.49	152	40	3.49
4 x 2 1/2	114.3	102.26	6.02	73.0	62.68	5.16	152	40	3.08
4 x 2	114.3	102.26	6.02	60.3	52.48	3.91	152	40	2.72
5 x 4	141.3	128.20	6.55	114.3	102.26	6.02	190	40	6.08
5 x 3 1/2	141.3	128.20	6.55	101.6	90.12	5.74	190	40	5.72
5 x 3	141.3	128.20	6.55	88.9	77.92	5.49	190	40	5.35
5 x 2 1/2	141.3	128.20	6.55	73.0	62.68	5.16	190	40	4.85
6 x 5	168.3	154.08	7.11	141.3	128.20	6.55	229	40	9.53
6 x 4	168.3	154.08	7.11	114.3	102.26	6.02	229	40	8.57
6 x 3 1/2	168.3	154.08	7.11	101.6	90.12	5.74	229	40	8.07
6 x 3	168.3	154.08	7.11	88.9	77.92	5.49	229	40	7.62
8 x 6	219.1	202.74	8.18	168.3	154.08	7.11	305	40	18.01
8 x 5	219.1	202.74	8.18	141.3	128.20	6.55	305	40	16.42
8 x 4	219.1	202.74	8.18	114.3	102.26	6.02	305	40	15.01
10 x 8	273.0	254.46	9.27	219.1	202.74	8.18	381	40	33.11
10 x 6	273.0	254.46	9.27	168.3	154.08	7.11	381	40	28.67
10 x 5	273.0	254.46	9.27	141.3	128.20	6.55	381	40	26.54
12 x 10	323.8	304.74	9.53	273.0	254.46	9.27	457	*	51.26
12 x 8	323.8	304.74	9.53	219.1	202.74	8.18	457	*	44.63
12 x 6	323.8	304.74	9.53	168.3	154.08	7.11	457	*	39.24

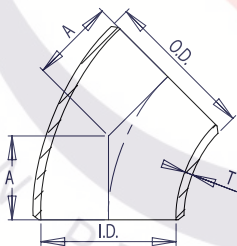
45° ELBOWS



1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in millimeters.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than NPS 48 please call.
6. All weights are in kilograms and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Kilograms
NPS	O.D.	I.D.	T	A		
1/2	21.3	15.76	2.77	16	40	0.04
3/4	26.7	20.96	2.87	19	40	0.05
1	33.4	26.64	3.38	22	40	0.10
1 1/4	42.2	35.08	3.56	25	40	0.15
1 1/2	48.3	40.94	3.68	29	40	0.20
2	60.3	52.48	3.91	35	40	0.39
2 1/2	73.0	62.68	5.16	44	40	0.77
3	88.9	77.92	5.49	51	40	1.13
3 1/2	101.6	90.12	5.74	57	40	1.54
4	114.3	102.26	6.02	64	40	2.04
5	141.3	128.20	6.55	79	40	3.40
6	168.3	154.08	7.11	95	40	5.31
8	219.1	202.74	8.18	127	40	10.57
10	273.0	254.46	9.27	159	40	18.55
12	323.8	304.74	9.53	190	*	27.85
14	355.6	336.54	9.53	222	30	35.43
16	406.4	387.34	9.53	254	30	45.81
18	457.0	437.94	9.53	286	*	58.06
20	508.0	488.94	9.53	318	20	72.12
24	610.0	590.94	9.53	381	20	104.78
30	762.0	742.94	9.53	470	*	162.39
36	914.0	894.94	9.53	565	*	234.96
42	1067.0	1047.94	9.53	660	*	320.69
48	1219.0	1199.94	9.53	759	*	453.59



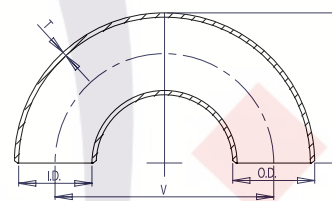
1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in millimeters.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than NPS 48 please call.
6. All weights are in kilograms and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Kilograms
NPS	O.D.	I.D.	T	A		
1/2	21.34	13.868	3.734	15.75	80	0.07
3/4	26.67	18.847	3.912	19.05	80	0.07
1	33.53	24.435	4.547	22.35	80	0.13
1 1/4	42.16	32.461	4.851	25.40	80	0.20
1 1/2	48.26	38.100	5.080	28.45	80	0.28
2	60.45	49.378	5.537	35.05	80	0.54
2 1/2	73.15	59.131	7.010	44.45	80	0.91
3	88.90	73.660	7.620	50.80	80	1.50
3 1/2	101.60	85.446	8.077	57.15	80	2.04
4	114.30	97.180	8.560	63.50	80	2.81
5	141.22	122.174	9.525	79.25	80	4.76
6	168.15	146.202	10.973	95.25	80	7.71
8	218.95	193.548	12.700	127.00	80	15.56
10	273.05	247.650	12.700	158.75	60	24.27
12	323.85	298.450	12.700	190.50	*	35.20
14	355.60	330.200	12.700	222.25	*	45.36
16	406.40	381.000	12.700	254.00	40	60.78
18	457.20	431.800	12.700	285.75	*	77.11
20	508.00	482.600	12.700	317.50	30	94.80
24	609.60	584.200	12.700	381.00	*	136.98
30	762.00	736.600	12.700	469.90	20	215.50
36	914.40	889.000	12.700	565.15	20	311.21
42	1066.80	1041.400	12.700	660.40	*	424.61
48	1219.20	1193.800	12.700	758.95	*	566.99

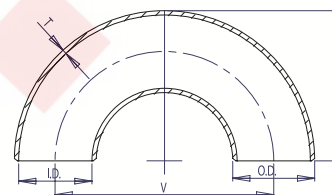
180° RETURN BENDS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Kilograms
NPS	O.D.	I.D.	T	V	W		
1/2	21.3	11.74	4.78	76	48	160	0.18
3/4	26.7	15.58	5.56	76	51	160	0.20
1	33.4	20.70	6.35	76	56	160	0.42
1 1/4	42.2	29.50	6.35	95	70	160	0.63
1 1/2	48.3	34.02	7.14	114	83	160	0.91
2	60.3	42.82	8.74	152	106	160	1.81
2 1/2	73.0	53.94	9.53	190	132	160	3.46
3	88.9	66.64	11.13	229	159	160	5.33
4	114.3	87.32	13.49	305	210	160	9.92
5	141.3	109.54	15.88	381	262	160	16.62
6	168.3	131.78	18.26	457	313	160	26.65
8	219.1	173.08	23.01	610	414	160	49.33
10	273.0	215.84	28.58	762	518	160	92.99
12	323.8	257.16	33.32	914	619	160	134.38
14	355.6	284.18	35.71	1067	711	160	176.33
16	406.4	325.42	40.49	1219	813	160	231.33
18	457.0	366.52	45.24	1372	914	160	291.43
20	508.0	407.98	50.01	1524	1016	160	360.60
24	610.0	490.92	59.54	1829	1219	160	514.82



1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in millimeters.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in kilograms and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Kilograms
NPS	O.D.	I.D.	T	V	W		
1/2	21.3	6.36	7.47	76	48	*	0.20
3/4	26.7	11.06	7.82	76	51	*	0.21
1	33.4	15.22	9.09	76	56	*	0.46
1 1/4	42.2	22.80	9.70	95	70	*	0.68
1 1/2	48.3	28.00	10.15	114	83	*	1.00
2	60.3	38.16	11.07	152	106	*	2.00
2 1/2	73.0	44.96	14.02	190	132	*	3.81
3	88.9	58.42	15.24	229	159	*	5.86
4	114.3	80.06	17.12	305	210	*	10.91
5	141.3	103.20	19.05	381	262	*	18.28
6	168.3	124.40	21.95	457	313	*	29.32
8	219.1	174.64	22.23	610	414	*	54.26
10	273.0	222.20	25.40	762	518	140	102.28
12	323.8	273.00	25.40	914	619	120	147.82

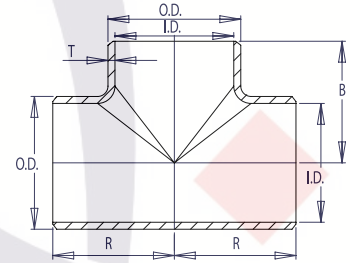


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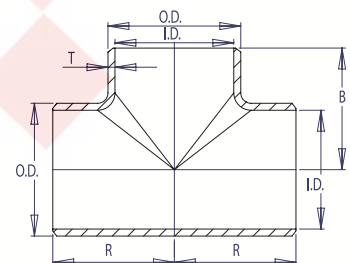
STRAIGHT TEES

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Kilograms
NPS	O.D.	I.D.	T	R	B		
1/2	21.3	15.76	2.77	25	25	40	0.16
3/4	26.7	20.96	2.87	29	29	40	0.23
1	33.4	26.64	3.38	38	38	40	0.34
1 1/4	42.2	35.08	3.56	48	48	40	0.59
1 1/2	48.3	40.94	3.68	57	57	40	0.86
2	60.3	52.48	3.91	64	64	40	1.45
2 1/2	73.0	62.68	5.16	76	76	40	2.63
3	88.9	77.92	5.49	86	86	40	3.27
3 1/2	101.6	90.12	5.74	95	95	40	4.31
4	114.3	102.26	6.02	105	105	40	5.76
5	141.3	128.20	6.55	124	124	40	9.43
6	168.3	154.08	7.11	143	143	40	15.01
8	219.1	202.74	8.18	178	178	40	25.63
10	273.0	254.46	9.27	216	216	40	41.23
12	323.8	304.74	9.53	254	254	*	61.69
14	355.6	336.54	9.53	279	279	30	73.48
16	406.4	387.34	9.53	305	305	30	93.44
18	457.0	437.94	9.53	343	343	*	123.38
20	508.0	488.94	9.53	381	381	20	158.76
24	610.0	590.94	9.53	432	432	20	230.42
30	762.0	742.94	9.53	559	559	*	378.75
36	914.0	894.94	9.53	673	673	*	586.95
42	1067.0	1047.94	9.53	762	711	*	678.12
48	1219.0	1199.94	9.53	889	838	*	1043.26

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Kilograms
NPS	O.D.	I.D.	T	R	B		
1/2	21.3	13.84	3.73	25	25	80	0.17
3/4	26.7	18.88	3.91	29	29	80	0.26
1	33.4	24.30	4.55	38	38	80	0.39
1 1/4	42.2	32.50	4.85	48	48	80	0.73
1 1/2	48.3	38.14	5.08	57	57	80	1.04
2	60.3	49.22	5.54	64	64	80	1.77
2 1/2	73.0	58.98	7.01	76	76	80	2.95
3	88.9	73.66	7.62	86	86	80	4.08
3 1/2	101.6	85.44	8.08	95	95	80	5.53
4	114.3	97.18	8.56	105	105	80	7.35
5	141.3	122.24	9.53	124	124	80	12.07
6	168.3	146.36	10.97	143	143	80	18.96
8	219.1	193.70	12.70	178	178	80	34.56
10	273.0	247.60	12.70	216	216	60	52.16
12	323.8	298.40	12.70	254	254	*	76.66
14	355.6	330.20	12.70	279	279	*	107.50
16	406.4	381.00	12.70	305	305	40	128.82
18	457.0	431.60	12.70	343	343	*	160.12
20	508.0	482.60	12.70	381	381	30	200.49
24	610.0	584.60	12.70	432	432	*	283.49
30	762.0	736.60	12.70	559	559	20	483.07
36	914.0	888.60	12.70	673	673	20	730.28
42	1067.0	1041.60	12.70	762	711	*	811.02
48	1219.0	1193.60	12.70	889	838	*	1043.26

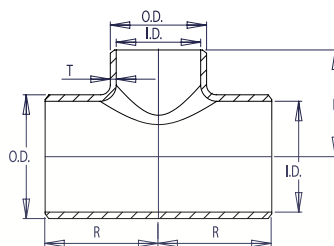


1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in millimeters.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than NPS 48 please call.
 6. All weights are in kilograms and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.



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REDUCING TEES

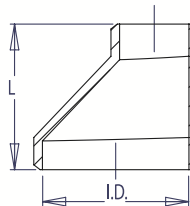
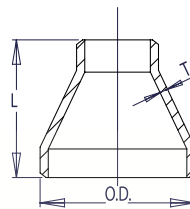


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 2. All dimensions are in millimeters.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
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 6. All weights are in kilograms and approximated or estimated.
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In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTERS

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Kilograms
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
NPS	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
3/4 x 1/2	26.7	20.96	2.87	29	21.3	15.76	2.77	29	40	0.19
1 x 3/4	33.4	26.64	3.38	38	26.7	20.96	2.87	38	40	0.37
1 x 1/2	33.4	26.64	3.38	38	21.3	15.76	2.77	38	40	0.35
1 1/4 x 1	42.2	35.08	3.56	48	33.4	26.64	3.38	48	40	0.59
1 1/4 x 3/4	42.2	35.08	3.56	48	26.7	20.96	2.87	48	40	0.59
1 1/4 x 1/2	42.2	35.08	3.56	48	21.3	15.76	2.77	48	40	0.59
1 1/2 x 1 1/4	48.3	40.94	3.68	57	42.2	35.08	3.56	57	40	0.91
1 1/2 x 1	48.3	40.94	3.68	57	33.4	26.64	3.38	57	40	0.86
1 1/2 x 3/4	48.3	40.94	3.68	57	26.7	20.96	2.87	57	40	0.82
1 1/2 x 1/2	48.3	40.94	3.68	57	21.3	15.76	2.77	57	40	0.82
2 x 1 1/2	60.3	52.48	3.91	64	48.3	40.94	3.68	60	40	1.41
2 x 1 1/4	60.3	52.48	3.91	64	42.2	35.08	3.56	57	40	1.36
2 x 1	60.3	52.48	3.91	64	33.4	26.64	3.38	51	40	1.27
2 x 3/4	60.3	52.48	3.91	64	26.7	20.96	2.87	44	40	1.13
2 1/2 x 2	73.0	62.68	5.16	76	60.3	52.48	3.91	70	40	2.45
2 1/2 x 1 1/2	73.0	62.68	5.16	76	48.3	40.94	3.68	67	40	2.31
2 1/2 x 1 1/4	73.0	62.68	5.16	76	42.2	35.08	3.56	64	40	2.18
2 1/2 x 1	73.0	62.68	5.16	76	33.4	26.64	3.38	57	40	2.09
3 x 2 1/2	88.9	77.92	5.49	86	73.0	62.68	5.16	83	40	3.27
3 x 2	88.9	77.92	5.49	86	60.3	52.48	3.91	76	40	3.18
3 x 1 1/2	88.9	77.92	5.49	86	48.3	40.94	3.68	73	40	3.08
3 x 1 1/4	88.9	77.92	5.49	86	42.2	35.08	3.56	70	40	2.99
3 x 1	88.9	77.92	5.49	86	33.4	26.64	3.38	67	40	2.95
3 1/2 x 3	101.6	90.12	5.74	95	88.9	77.92	5.49	92	40	4.45
3 1/2 x 2 1/2	101.6	90.12	5.74	95	73.0	62.68	5.16	89	40	4.26
3 1/2 x 2	101.6	90.12	5.74	95	60.3	52.48	3.91	83	40	4.17
3 1/2 x 1 1/2	101.6	90.12	5.74	95	48.3	40.94	3.68	79	40	4.04
4 x 3 1/2	114.3	102.26	6.02	105	101.6	90.12	5.74	102	40	5.40
4 x 3	114.3	102.26	6.02	105	88.9	77.92	5.49	98	40	5.26
4 x 2 1/2	114.3	102.26	6.02	105	73.0	62.68	5.16	95	40	5.17
4 x 2	114.3	102.26	6.02	105	60.3	52.48	3.91	89	40	5.08
4 x 1 1/2	114.3	102.26	6.02	105	48.3	40.94	3.68	86	40	5.08
5 x 4	141.3	128.20	6.55	124	114.3	102.26	6.02	117	40	9.30
5 x 3 1/2	141.3	128.20	6.55	124	101.6	90.12	5.74	114	40	9.07
5 x 3	141.3	128.20	6.55	124	88.9	77.92	5.49	111	40	8.80
5 x 2 1/2	141.3	128.20	6.55	124	73.0	62.68	5.16	108	40	8.62
5 x 2	141.3	128.20	6.55	124	60.3	52.48	3.91	105	40	8.53
6 x 5	168.3	154.08	7.11	143	141.3	128.20	6.55	137	40	14.51
6 x 4	168.3	154.08	7.11	143	114.3	102.26	6.02	130	40	13.83
6 x 3 1/2	168.3	154.08	7.11	143	101.6	90.12	5.74	127	40	13.61
6 x 3	168.3	154.08	7.11	143	88.9	77.92	5.49	124	40	13.61
6 x 2 1/2	168.3	154.08	7.11	143	73.0	62.68	5.16	121	40	13.47
6 x 2	168.3	154.08	7.11	143	60.3	52.48	3.91	121	40	13.15
8 x 6	219.1	202.74	8.18	178	168.3	154.08	7.11	168	40	25.63
8 x 5	219.1	202.74	8.18	178	141.3	128.20	6.55	162	40	24.49
8 x 4	219.1	202.74	8.18	178	114.3	102.26	6.02	156	40	24.13

CONCENTRIC AND ECCENTRIC REDUCERS



1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in millimeters.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than NPS 48 please call.
6. All weights are in kilograms and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.
In accordance with B16.9. Special Fittings paragraph 4.4.2.

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Kilograms
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
¾ x ½	26.7	20.96	2.87	21.3	15.76	2.77	38	40	0.10
1 x ¾	33.4	26.64	3.38	26.7	20.96	2.87	51	40	0.16
1 x ½	33.4	26.64	3.38	21.3	15.76	2.77	51	40	0.16
1 ¼ x 1	42.2	35.08	3.56	33.4	26.64	3.38	51	40	0.22
1 ¼ x ¾	42.2	35.08	3.56	26.7	20.96	2.87	51	40	0.19
1 ¼ x ½	42.2	35.08	3.56	21.3	15.76	2.77	51	40	0.19
1 ½ x 1 ¼	48.3	40.94	3.68	42.2	35.08	3.56	64	40	0.29
1 ½ x 1	48.3	40.94	3.68	33.4	26.64	3.38	64	40	0.26
1 ½ x ¾	48.3	40.94	3.68	26.7	20.96	2.87	64	40	0.25
1 ½ x ½	48.3	40.94	3.68	21.3	15.76	2.77	64	40	0.25
2 x 1 ½	60.3	52.48	3.91	48.3	40.94	3.68	76	40	0.43
2 x 1 ¼	60.3	52.48	3.91	42.2	35.08	3.56	76	40	0.40
2 x 1	60.3	52.48	3.91	33.4	26.64	3.38	76	40	0.37
2 x ¾	60.3	52.48	3.91	26.7	20.96	2.87	76	40	0.34
2 ½ x 2	73.0	62.68	5.16	60.3	52.48	3.91	89	40	0.73
2 ½ x 1 ½	73.0	62.68	5.16	48.3	40.94	3.68	89	40	0.68
2 ½ x 1 ¼	73.0	62.68	5.16	42.2	35.08	3.56	89	40	0.64
2 ½ x 1	73.0	62.68	5.16	33.4	26.64	3.38	89	40	0.59
3 x 2 ½	88.9	77.92	5.49	73.0	62.68	5.16	89	40	1.00
3 x 2	88.9	77.92	5.49	60.3	52.48	3.91	89	40	0.91
3 x 1 ½	88.9	77.92	5.49	48.3	40.94	3.68	89	40	0.86
3 x 1 ¼	88.9	77.92	5.49	42.2	35.08	3.56	89	40	0.82
3 x 1	88.9	77.92	5.49	33.4	26.64	3.38	89	40	0.77
3 ½ x 3	101.6	90.12	5.74	88.9	77.92	5.49	102	40	1.27
3 ½ x 2 ½	101.6	90.12	5.74	73.0	62.68	5.16	102	40	1.22
3 ½ x 2	101.6	90.12	5.74	60.3	52.48	3.91	102	40	1.18
3 ½ x 1 ½	101.6	90.12	5.74	48.3	40.94	3.68	102	40	1.18
3 ½ x 1 ¼	101.6	90.12	5.74	42.2	35.08	3.56	102	40	1.13
4 x 3 ½	114.3	102.26	6.02	101.6	90.12	5.74	102	40	1.59
4 x 3	114.3	102.26	6.02	88.9	77.92	5.49	102	40	1.50
4 x 2 ½	114.3	102.26	6.02	73.0	62.68	5.16	102	40	1.45
4 x 2	114.3	102.26	6.02	60.3	52.48	3.91	102	40	1.41
4 x 1 ½	114.3	102.26	6.02	48.3	40.94	3.68	102	40	1.36

CONCENTRIC AND ECCENTRIC REDUCERS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Kilograms
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
NPS	O.D.	I.D.	T	O.D.	I.D.	T	L		
4 x 1 ¼	114.3	102.26	6.02	42.16	35.052	3.556	102	40	1.36
4 x 1	114.3	102.26	6.02	33.4	26.64	3.38	102	40	1.27
5 x 4	141.3	128.20	6.55	114.3	102.26	6.02	127	40	2.49
5 x 3 ½	141.3	128.20	6.55	101.6	90.12	5.74	127	40	2.40
5 x 3	141.3	128.20	6.55	88.9	77.92	5.49	127	40	2.31
5 x 2 ½	141.3	128.20	6.55	73.0	62.68	5.16	127	40	2.18
5 x 2	141.3	128.20	6.55	60.3	52.48	3.91	127	40	2.13
6 x 5	168.3	154.08	7.11	141.3	128.20	6.55	140	40	3.45
6 x 4	168.3	154.08	7.11	114.3	102.26	6.02	140	40	3.36
6 x 3 ½	168.3	154.08	7.11	101.6	90.12	5.74	140	40	3.22
6 x 3	168.3	154.08	7.11	88.9	77.92	5.49	140	40	3.13
6 x 2 ½	168.3	154.08	7.11	73.0	62.68	5.16	140	40	2.99
6 x 2	168.3	154.08	7.11	60.3	52.48	3.91	140	40	2.95
8 x 6	219.1	202.74	8.18	168.3	154.08	7.11	152	40	5.58
8 x 5	219.1	202.74	8.18	141.3	128.20	6.55	152	40	5.22
8 x 4	219.1	202.74	8.18	114.3	102.26	6.02	152	40	4.90
8 x 3 ½	219.1	202.74	8.18	101.6	90.12	5.74	152	40	4.81
8 x 3	219.1	202.74	8.18	88.9	77.92	5.49	152	40	4.45
10 x 8	273.0	254.46	9.27	219.1	202.74	8.18	178	40	10.02
10 x 6	273.0	254.46	9.27	168.3	154.08	7.11	178	40	9.39
10 x 5	273.0	254.46	9.27	141.3	128.20	6.55	178	40	8.85
10 x 4	273.0	254.46	9.27	114.3	102.26	6.02	178	40	8.35
12 x 10	323.8	304.74	9.53	273.0	254.46	9.27	203	*	14.70
12 x 8	323.8	304.74	9.53	219.1	202.74	8.18	203	*	13.83
12 x 6	323.8	304.74	9.53	168.3	154.08	7.11	203	*	13.38
12 x 5	323.8	304.74	9.53	141.3	128.20	6.55	203	*	12.61
12 x 4	323.8	304.74	9.53	114.3	102.26	6.02	203	*	11.88
14 x 12	355.6	336.54	9.53	323.8	304.74	9.53	330	*	28.62
14 x 10	355.6	336.54	9.53	273.0	254.46	9.27	330	*	27.85
14 x 8	355.6	336.54	9.53	219.1	202.74	8.18	330	*	27.22
14 x 6	355.6	336.54	9.53	168.3	154.08	7.11	330	*	26.85
16 x 14	406.4	387.34	9.53	355.6	336.54	9.53	356	*	34.20
16 x 12	406.4	387.34	9.53	323.8	304.74	9.53	356	*	32.98
16 x 10	406.4	387.34	9.53	273.0	254.46	9.27	356	*	32.25
16 x 8	406.4	387.34	9.53	219.1	202.74	8.18	356	*	31.48
16 x 6	406.4	387.34	9.53	168.3	154.08	7.11	356	*	30.57
18 x 16	457.0	437.94	9.53	406.4	387.34	9.53	381	*	39.60
18 x 14	457.0	437.94	9.53	355.6	336.54	9.53	381	*	39.01
18 x 12	457.0	437.94	9.53	323.8	304.74	9.53	381	*	38.46
18 x 10	457.0	437.94	9.53	273.0	254.46	9.27	381	*	37.97
18 x 8	457.0	437.94	9.53	219.1	202.74	8.18	381	*	37.08
20 x 18	508.0	488.94	9.53	457.0	437.94	9.53	508	*	55.79
20 x 16	508.0	488.94	9.53	406.4	387.34	9.53	508	*	54.88
20 x 14	508.0	488.94	9.53	355.6	336.54	9.53	508	*	53.98



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