HANLEY SOLUTIONS

TUBES | VALVES | FITTINGS | FLANGES

ASME WELD FITTINGS

90 Deg Elbow - Long Radius

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO FACE	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
½"	21.3	2.78	STD	38.10	0.08
		3.73	XS		0.10
¾"	26.7	2.87	STD	28.60	0.08
		3.91	XS		0.11
1"	33.4	3.38	STD	38.10	0.15
		4.55	XS		0.19
1 ¼"	42.2	3.56	STD	47.60	0.28
		4.85	XS		0.39
1 ½"	48.3	3.68	STD	57.10	0.40
		5.08	XS		0.50
2"	60.3	3.91	STD	76.20	0.72
		5.54	XS		1.00
2 ½"	73.0	5.16	STD	95.20	1.46
		7.01	XS		1.82
3"	88.9	5.49	STD	114.30	2.18
		7.62	XS		2.86
4"	114.3	6.02	STD	152.40	4.20
		8.56	XS		5.70
5"	114.3	6.65	STD	190.00	6.80
		9.50	XS		10.00
6"	168.3	7.11	STD	229.00	10.10
		10.97	XS		15.30
8"	219.1	8.18	STD	305.00	20.40
		12.70	XS		30.90
		6.35	SCH20		16.74
		7.04	SCH30		18.50
10"	273.9	9.27	STD	381.00	36.10
		12.7	XS		48.80
		6.35	SCH20		26.22
12"	323.9	9.52	STD	457.00	53.10
		12.7	XS		70.00
		6.35	SCH20		37.46
14"	355.6	9.52	STD	553.00	68.10
		12.70	XS		90.00
		7.92	SCH20		59.70
16"	406.4	9.52	STD	610.00	90.00
		12.70	XS		118.00
		7.92	SCH20		78.20
18"	457.0	9.52	STD	686.00	113.00
		12.70	XS		150.00
		7.92	SCH20		99.20
20"	508.0	9.52	STD	762.00	85.00
		12.70	XS		112.50
22"	558.8	9.52	STD	838.00	174.60
		12.70	XS		230.40
24"	609.6	9.52	STD	914.00	203.00
		12.70	XS		269.00
26"	660.4	9.52	STD	991.00	306.00
		12.70	XS		406.00
28"	711.2	9.52	STD	1067.00	308.00
		12.70	XS		385.00
30"	762.0	9.52	STD	1143.00	326.60
		12.70	XS		470.00
32"	812.8	9.52	STD	1219.00	386.00
		12.70	XS		502.00
36"	914.4	9.52	STD	1372.00	426.00
		12.70	XS		626.00

45 Deg Elbow - Long Radius

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO FACE	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
½"	21.30	2.78 3.73	STD XS	15.90	0.04 0.05
¾"	26.70	2.87 3.91	STD XS	11.10	0.04 0.05
1"	33.40	3.38 4.55	STD XS	22.20	0.09 0.11
1 ¼"	42.20	3.56 4.85	STD XS	25.40	0.14 0.20
1 ½"	48.30	3.68 5.08	STD XS	28.60	0.20 0.25
2"	60.30	3.91 5.54	STD XS	34.90	0.36 0.50
2 ½"	73.00	5.16 7.01	STD XS	44.40	0.73 0.91
3"	88.90	5.49 7.62	STD XS	50.80	1.10 1.45
4"	114.30	6.02 8.56	STD XS	63.50	2.10 2.90
5"	114.30	6.65 9.50	STD XS	79.40	3.40 5.00
6"	168.30	7.11 10.97	STD XS	95.20	5.10 7.70
8"	219.10	8.18 12.70 6.35 7.04	STD XS SCH20 SCH30	127.00	10.20 15.50 8.37 9.25
10"	273.90	9.27 12.7 6.35	STD XS SCH20	159.00	18.10 24.40 13.11
12"	323.90	9.52 12.7 6.35	STD XS SCH20	190.00	26.60 35.00 41.77
14"	355.60	9.52 12.70 7.92	STD XS SCH20	222.00	34.10 45.00 29.85
16"	406.40	9.52 12.70 7.92	STD XS SCH20	254.00	45.00 59.00 39.10
18"	457.00	9.52 12.70 7.92	STD XS SCH20	286.00	56.50 75.00 49.60
20"	508.00	9.52 12.70	STD XS	318.00	85.00 112.50
22"	558.80	9.52 12.70	STD XS	343.00	87.10 114.80
24"	609.60	9.52 12.70	STD XS	381.00	101.50 134.50
26"	660.40	9.52 12.70	STD XS	406.00	152.80 202.70
28"	711.20	9.52 12.70	STD XS	438.00	164.80 218.60
30"	762.00	9.52 12.70	STD XS	470.00	176.80 234.60
32"	812.80	9.52 12.70	STD XS	502.00	188.80 250.60
36"	914.40	9.52 12.70	STD XS	565.00	212.50 282.20

180 Degree Return Bend - Long Radius

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO FACE	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
½"	21.3	2.78 3.73	STD XS	47.60	0.16 0.20
¾"	26.7	2.87 3.91	STD XS	42.90	0.16 0.20
1"	33.4	3.38 4.55	STD XS	55.60	0.31 0.39
1 ¼"	42.2	3.56 4.85	STD XS	69.90	0.53 0.69
1 ½"	48.3	3.68 5.08	STD XS	82.60	0.76 1.00
2"	60.3	3.91 5.54	STD XS	106.40	1.36 1.85
2 ½"	73.0	5.16 7.01	STD XS	131.80	2.67 3.50
3"	88.9	5.49 7.62	STD XS	158.80	4.19 5.62
3 ½"	114.3	6.02 8.56	STD XS	184.20	5.90 7.98
4"	114.3	6.02 8.56	STD XS	209.60	7.94 11.00
5"	114.3	6.65 9.50	STD XS	261.90	13.50 19.00
6"	168.3	7.11 10.97	STD XS	312.70	20.90 31.30
8"	219.1	8.18 12.70	STD XS	414.30	41.90 63.50
10"	273.9	9.27 12.7	STD XS	517.50	74.40 100.20
12"	323.9	9.52 12.70	STD XS	619.10	109.30 143.80
14"	355.6	9.52 12.70	STD XS	711.20	140.20 184.60
16"	406.4	9.52 12.70	STD XS	812.80	183.70 242.20
18"	457.0	9.52 12.70	STD XS	914.40	233.10 308.00
20"	508.0	9.52 12.70	STD XS	1016.00	288.90 371.50
22"	558.8	9.52 12.70	STD XS	1117.60	349.70 462.70
24"	609.6	9.52 12.70	STD XS	1219.20	417.30 553.40
26"	660.4	9.52 12.70	STD XS	1320.80	490.30 648.60
30"	762.0	9.52 12.70	STD XS	1524.00	635.6 866.40

90 Deg Elbow - Short Radius

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO FACE	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
½"	-	-	-	-	-
¾"	27.0	2.87 3.91	STD XS	19.00	0.05 0.07
1"	33.4	3.38 4.55	STD XS	25.40	0.10 0.13
1 ¼"	42.2	3.56 4.85	STD XS	31.75	0.17 0.23
1 ½"	48.3	3.68 5.08	STD XS	38.10	0.25 0.33
2"	60.3	3.91 5.54	STD XS	50.80	0.45 0.60
2 ½"	73.0	5.16 7.01	STD XS	63.50	0.87 1.14
3"	88.9	5.49 7.62	STD XS	76.20	1.38 1.83
4"	114.3	6.02 8.56	STD XS	101.60	2.62 3.58
5"	114.3	6.65 9.50	STD XS	127.00	4.42 6.21
6"	168.3	7.11 10.97	STD XS	152.40	6.89 10.30
8"	219.1	8.18 12.70 6.35 7.04	STD XS SCH20 SCH30	203.00	13.80 20.70 11.16 12.34
10"	273.9	9.27 12.7 6.35	STD XS SCH20	254.00	18.10 24.40 17.48
12"	323.9	9.52 12.7 6.35	STD XS SCH20	305.00	26.60 35.00 41.77
14"	355.6	9.52 12.70 7.92	STD XS SCH20	355.60	34.10 45.00 39.80
16"	406.4	9.52 12.70 7.92	STD XS SCH20	406.40	45.00 59.00 52.14
18"	457.0	9.52 12.70 7.92	STD XS SCH20	457.00	56.50 75.00 66.13
20"	508.0	9.52 12.70	STD XS	508.00	85.00 112.50
22"	558.8	9.52 12.70	STD XS	559.00	117.00 154.20
24"	609.6	9.52 12.70	STD XS	609.60	138.30 183.30
26"	660.4	9.52 12.70	STD XS	660.40	163.30 216.80
28"	711.2	9.52 12.70	STD XS	711.20	206.80 258.60
30"	762.0	9.52 12.70	STD XS	762.00	217.70 287.60
32"	812.8	9.52 12.70	STD XS	812.80	236.80 342.00
36"	914.4	9.52 12.70	STD XS	914.40	313.90 414.10

180 Degree Return Bend - Short Radius

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO FACE	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
1"	33.4	3.38 4.55	STD XS	41.30	0.21 0.27
1 ¼"	42.2	3.56 4.85	STD XS	52.40	0.35 0.46
1 ½"	48.3	3.68 5.08	STD XS	61.90	0.50 0.66
2"	60.3	3.91 5.54	STD XS	81.00	0.90 1.23
2 ½"	73.0	5.16 7.01	STD XS	100.00	1.78 2.32
3"	88.9	5.49 7.62	STD XS	120.70	2.78 3.72
3 ½"	114.3	6.02 8.56	STD XS	139.70	3.90 5.31
4"	114.3	6.02 8.56	STD XS	158.80	5.26 7.30
5"	114.3	6.65 9.50	STD XS	196.90	8.94 12.60
6"	168.3	7.11 10.97	STD XS	236.50	13.90 20.70
8"	219.1	8.18 12.70	STD XS	312.70	27.90 42.00
10"	273.9	9.27 12.7	STD XS	390.50	49.40 66.70
12"	323.9	9.52 12.70	STD XS	466.70	72.60 95.30
14"	355.6	9.52 12.70	STD XS	553.40	93.00 122.90
16"	406.4	9.52 12.70	STD XS	610.00	155.10 204.60
18"	457.0	9.52 12.70	STD XS	686.00	192.30 254.00
20"	508.0	9.52 12.70	STD XS	762.00	277.60 367.40
24"	609.6	9.52 12.70	STD XS	914.00	435.40 577.00
30"	762.0	9.52 12.70	STD XS	1143.00	629.10 833.70

Equal Tees

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO END	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
½"	21.3	2.78 3.73	STD XS	25.40	0.11 0.13
¾"	26.7	2.87 3.91	STD XS	28.60	0.16 0.21
1"	33.4	3.38 4.55	STD XS	38.10	0.35 0.42
1 ¼"	42.2	3.56 4.85	STD XS	47.60	0.60 0.74
1 ½"	48.3	3.68 5.08	STD XS	57.20	0.92 1.12
2"	60.3	3.91 5.54	STD XS	63.50	1.34 1.69
2 ½"	73.0	5.16 7.01	STD XS	76.20	2.36 2.92
3"	88.9	5.49 7.62	STD XS	85.70	3.37 4.29
3 ½"	101.6	5.74 8.08	STD XS	95.30	4.47 5.72
4"	114.3	6.02 8.56	STD XS	104.80	5.72 7.44
5"	114.3	6.65 9.50	STD XS	123.80	8.98 12.00
6"	168.3	7.11 10.97	STD XS	142.80	13.33 19.10
8"	219.1	8.18 12.70 6.30	STD XS SCH20	177.80	24.40 34.70 23.00
10"	273.9	9.27 12.7 6.35	STD XS SCH20	216.00	41.40 53.50 34.70
12"	323.9	9.52 12.7 6.35	STD XS SCH20	254.00	59.90 75.70 43.40
14"	355.6	9.52 12.70 7.92	STD XS SCH20	279.00	72.10 92.10 84.00
16"	406.4	9.52 12.70 7.92	STD XS SCH20	304.80	99.30 122.90 100.00
18"	457.0	9.52 12.70 7.92	STD XS SCH20	342.90	127.90 159.20 128.00
20"	508.0	9.52 12.70 9.53	STD XS SCH20	381.00	160.60 200.50 168.00
22"	558.8	9.52 12.70 8.53	STD XS SCH20	419.00	198.20 248.60 220.00
24"	609.6	9.52 12.70 9.53	STD XS SCH20	431.90	223.60 275.30 240.00
26"	660.4	9.52 12.70 12.70	STD XS SCH20	495.30	287.60 360.20 308.00

Equal Tees

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		CENTRE TO END	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
28”	711.2	9.52 12.70 12.70	STD XS SCH20	520.70	337.00 421.00 360.20
30”	762.0	9.52 12.70 12.70	STD XS SCH20	558.80	387.80 483.10 421.00
32”	812.8	9.52 12.70 12.70	STD XS SCH20	569.90	451.00 559.00 483.10
36”	914.4	9.52 12.70 12.70	STD XS SCH20	673.10	515.30 664.10 644.10
38”	965.0	9.53 12.70	STD XS	711.20	638.00 812.00
40”	1016.0	9.53 12.70	STD XS	749.30	690.00 895.00
42”	1067.0	9.53 12.70	STD XS	762.00	795.00 1045.00
44”	1118.0	9.53 12.70	STD XS	800.00	899.00 1194.00
46”	1168.0	9.53 12.70	STD XS	818.00	1007.00 1346.00
48”	1219.0	9.53 12.70	STD XS	838.20	1113.00 1499.00

Reducing Tees

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SCH STD MM / KG		SCH XS MM / KG		SCH 20 MM / KG		CENTRE TO END RUN	CENTRE TO END BRANCH
IN	MM	WT	WEIGHT	WT	WEIGHT	WT	WEIGHT	MM	MM
3/4 x 1/2	27 x 21	2.87 x 2.77	-	3.91 x 3.73	-	-	-	29.0	29.0
1 x 1/2	33 x 21	3.38 x 2.77	0.34	4.55 x 3.73	0.45	-	-	38.0	38.0
1 x 3/4	33 x 27	3.38 x 2.87	0.34	4.55 x 3.91	0.45	-	-	38.0	38.0
1 1/4 x 1/2	42 x 21	3.56 x 2.77	0.63	4.85 x 3.73	0.85	-	-	48.0	48.0
1 1/4 x 3/4	42 x 27	3.56 x 2.87	0.63	7.85 x 3.91	0.85	-	-	48.0	48.0
1 1/4 x 1	42 x 33	3.56 x 3.38	0.63	4.85 x 4.55	0.85	-	-	48.0	48.0
1 1/2 x 1/2	48 x 21	3.68 x 2.77	0.92	5.08 x 3.73	1.27	-	-	57.0	57.0
1 1/2 x 3/4	48 x 27	3.68 x 2.87	0.92	5.08 x 3.91	1.27	-	-	57.0	57.0
1 1/2 x 1	48 x 33	3.68 x 3.38	0.92	5.08 x 4.55	1.27	-	-	57.0	57.0
1 1/2 x 1 1/4	48 x 42	3.68 x 3.56	0.92	5.08 x 4.85	1.27	-	-	57.0	57.0
2 x 3/4	60 x 27	3.91 x 2.87	1.49	5.54 x 3.91	2.15	-	-	64.0	44.0
2 x 1	60 x 33	3.91 x 3.38	1.49	5.54 x 4.55	2.15	-	-	64.0	51.0
2 x 1 1/4	60 x 42	3.91 x 3.56	1.49	5.54 x 4.85	2.15	-	-	64.0	57.0
2 x 1 1/2	60 x 48	3.91 x 3.68	1.49	5.54 x 5.08	2.15	-	-	64.0	60.0
2 1/2 x 1	73 x 33	5.16 x 3.38	2.68	7.01 x 4.55	3.00	-	-	76.0	57.0
2 1/2 x 1 1/4	73 x 42	5.16 x 3.56	2.68	7.01 x 4.85	3.00	-	-	76.0	64.0
2 1/2 x 1 1/2	73 x 48	5.16 x 3.68	2.68	7.01 x 5.08	3.00	-	-	76.0	67.0
2 1/2 x 2	73 x 60	5.16 x 3.91	2.68	7.01 x 5.54	3.00	-	-	76.0	70.0
3 x 1 1/4	89 x 42	5.49 x 3.56	3.75	7.62 x 4.85	4.29	-	-	86.0	70.0
3 x 1 1/2	89 x 48	5.49 x 3.68	3.75	7.62 x 5.08	4.29	-	-	86.0	73.0
3 x 2	89 x 60	5.49 x 3.91	3.75	7.62 x 5.54	4.29	-	-	86.0	76.0
3 x 2 1/2	89 x 73	5.49 x 5.16	3.75	7.62 x 7.01	4.29	-	-	86.0	83.0
3 1/2 x 1 1/2	102 x 48	5.74 x 3.68	5.00	8.08 x 5.08	6.15	-	-	95.0	79.0
3 1/2 x 2	102 x 60	5.74 x 3.91	5.00	8.08 x 5.54	6.15	-	-	95.0	83.0
3 1/2 x 2 1/2	102 x 73	5.74 x 5.16	5.00	8.08 x 7.01	6.15	-	-	95.0	89.0
3 1/2 x 3	102 x 89	5.74 x 5.49	5.00	8.08 x 7.62	6.15	-	-	95.0	92.0
4 x 1 1/2	114 x 48	6.02 x 3.68	6.50	8.56 x 5.08	7.65	-	-	105.0	86.0
4 x 2	114 x 60	6.02 x 3.91	6.50	8.56 x 5.54	7.65	-	-	105.0	89.0
4 x 2 1/2	114 x 73	6.02 x 5.16	6.50	8.56 x 7.01	7.65	-	-	105.0	95.0
4 x 3	114 x 89	6.02 x 5.49	6.50	8.56 x 7.62	7.65	-	-	105.0	98.0
4 x 3 1/2	114 x 102	6.02 x 5.74	6.50	8.56 x 8.08	7.65	-	-	105.0	102.0
5 x 2	141 x 60	6.55 x 3.91	10.00	9.53 x 5.54	13.50	-	-	124.0	105.0
5 x 2 1/2	141 x 73	6.56 x 5.16	10.00	9.53 x 7.01	13.50	-	-	124.0	108.0
5 x 3	141 x 89	6.56 x 5.49	10.00	9.53 x 7.62	13.50	-	-	124.0	111.0
5 x 3 1/2	141 x 102	6.56 x 5.74	10.00	9.53 x 8.08	13.50	-	-	124.0	114.0
5 x 4	141 x 114	6.56 x 6.02	10.00	9.53 x 8.56	13.50	-	-	124.0	117.0
6 x 2 1/2	168 x 73	7.11 x 5.16	14.00	10.97 x 7.01	19.30	-	-	143.0	121.0
6 x 3	168 x 89	7.11 x 5.49	14.00	10.97 x 7.62	19.30	-	-	143.0	124.0
6 x 3 1/2	168 x 102	7.11 x 5.74	14.00	10.97 x 8.08	19.30	-	-	143.0	127.0
6 x 4	168 x 114	7.11 x 6.02	14.00	10.97 x 8.56	19.30	-	-	143.0	130.0
6 x 5	168 x 141	7.11 x 6.56	14.00	10.97 x 9.53	19.30	-	-	143.0	137.0
8 x 4	219 x 114	8.18 x 6.02	27.00	12.70 x 8.56	33.00	-	-	178.00	158.0
8 x 5	219 x 141	8.18 x 6.56	27.00	12.70 x 9.53	33.00	-	-	178.00	162.0
8 x 6	219 x 168	8.18 x 7.11	27.00	12.70 x 10.97	33.00	-	-	178.00	168.0
10 x 4	273 x 114	9.27 x 6.02	39.63	12.70 x 8.56	53.53	-	-	216.00	184.0
10 x 5	273 x 141	9.27 x 6.56	39.63	12.70 x 9.53	53.53	-	-	216.00	191.0
10 x 6	273 x 168	9.27 x 7.11	39.63	12.70 x 10.97	53.53	-	-	216.00	194.0
10 x 8	273 x 219	9.27 x 8.18	39.63	12.70 x 12.70	53.53	6.35 x 6.35	33.15	216.00	203.0
12 x 5	324 x 140	9.53 x 6.56	63.00	12.70 x 9.53	74.82	-	-	254.00	216.0
12 x 6	324 x 168	9.53 x 7.11	63.00	12.70 x 10.97	74.82	-	-	254.00	219.0
12 x 8	324 x 219	9.53 x 8.18	63.00	12.70 x 12.70	74.82	6.35 x 6.35	41.20	254.00	229.0
12 x 10	324 x 273	9.53 x 9.27	63.00	12.70 x 12.70	74.82	6.35 x 6.35	43.40	254.00	241.0

Reducing Tees

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SCH STD MM / KG		SCH XS MM / KG		SCH 20 MM / KG		CENTRE TO END RUN	CENTRE TO END BRANCH
IN	MM	WT	WEIGHT	WT	WEIGHT	WT	WEIGHT	MM	MM
14 x 6	356 x 168	9.53 x 7.11	97.60	12.70 x 10.97	109.55	-	-	279.0	238.0
14 x 8	356 x 219	9.53 x 8.18	97.60	12.70 x 12.70	109.55	7.92 x 6.35	80.50	279.0	248.0
14 x 10	356 x 273	9.53 x 9.27	97.60	12.70 x 12.70	109.55	7.92 x 6.35	80.50	279.0	257.0
14 x 12	356 x 324	9.53 x 9.53	102.00	12.70 x 12.70	115.00	7.92 x 6.35	84.00	279.0	270.0
16 x 6	406 x 168	9.53 x 7.11	106.50	12.70 x 10.97	160.00	-	-	305.0	264.0
16 x 8	406 x 219	9.53 x 8.18	106.50	12.70 x 12.70	160.00	7.92 x 6.35	98.00	305.0	273.0
16 x 10	406 x 273	9.53 x 9.27	106.50	12.70 x 12.70	160.00	7.92 x 6.35	98.00	305.0	283.0
16 x 12	406 x 324	9.53 x 9.53	110.00	12.70 x 12.70	164.00	7.92 x 6.35	100.00	305.0	295.0
16 x 14	406 x 356	9.53 x 9.53	110.00	12.70 x 12.70	16.00	7.92 x 7.92	100.00	305.0	305.0
18 x 8	457 x 219	9.53 x 8.18	129.00	12.70 x 12.70	154.00	7.92 x 6.35	123.00	343.0	298.0
18 x 10	457 x 273	9.53 x 9.27	129.00	12.70 x 12.70	154.00	7.92 x 6.35	123.00	343.0	308.0
18 x 12	457 x 324	9.53 x 9.53	135.00	12.70 x 12.70	164.00	7.92 x 6.35	127.00	343.0	321.0
18 x 14	457 x 356	9.53 x 9.53	135.00	12.70 x 12.70	190.00	7.92 x 7.92	127.00	343.0	330.0
18 x 16	457 x 406	9.53 x 9.53	135.00	12.70 x 12.70	190.00	7.92 x 7.92	127.00	343.0	330.0
20 x 8	508 x 219	9.53 x 8.18	163.50	12.70 x 12.70	214.00	9.53 x 6.35	163.50	381.0	324.0
20 x 10	508 x 273	9.53 x 9.27	163.50	12.70 x 12.70	214.00	9.53 x 6.35	163.50	381.0	333.0
20 x 12	508 x 324	9.53 x 9.53	163.50	12.70 x 12.70	214.00	9.53 x 6.35	163.50	381.0	346.0
20 x 14	508 x 356	9.53 x 9.53	163.50	12.70 x 12.70	214.00	9.53 x 7.92	163.50	381.0	356.0
20 x 16	508 x 406	9.53 x 9.53	168.00	12.70 x 12.70	218.00	9.53 x 7.92	168.00	381.0	356.0
20 x 18	508 x 457	9.53 x 9.53	168.00	12.70 x 12.70	218.00	9.53 x 7.92	168.00	381.0	368.0
22 x 10	559 x 273	9.53 x 9.27	172.50	12.70 x 12.70	245.00	9.53 x 6.35	170.00	419.0	359.0
22 x 12	559 x 324	9.53 x 9.53	172.50	12.70 x 12.70	245.00	9.53 x 6.35	170.00	419.0	371.0
22 x 14	559 x 356	9.53 x 9.53	172.50	12.70 x 12.70	245.00	9.53 x 7.92	170.00	419.0	381.0
22 x 16	559 x 406	9.53 x 9.53	209.00	12.70 x 12.70	260.00	9.53 x 7.92	170.00	419.0	381.0
22 x 18	559 x 457	9.53 x 9.53	209.00	12.70 x 12.70	260.00	9.53 x 7.92	220.00	419.0	394.0
22 x 20	559 x 508	9.53 x 9.53	220.00	12.70 x 12.70	260.00	9.53 x 9.53	220.00	419.0	406.0
24 x 10	610 x 273	9.53 x 9.27	204.00	12.70 x 12.70	300.00	9.53 x 6.35	204.00	432.0	384.0
24 x 12	610 x 324	9.53 x 9.53	218.00	12.70 x 12.70	300.00	9.53 x 6.35	218.00	432.0	397.0
24 x 14	610 x 356	9.53 x 9.53	222.00	12.70 x 12.70	300.00	9.53 x 7.92	222.00	432.0	406.0
24 x 16	610 x 406	9.53 x 9.53	222.00	12.70 x 12.70	320.00	9.53 x 7.92	222.00	432.0	406.0
24 x 18	610 x 457	9.53 x 9.53	227.00	12.70 x 12.70	320.00	9.53 x 7.92	227.00	432.0	419.0
24 x 20	610 x 508	9.53 x 9.53	227.00	12.70 x 12.70	350.00	9.53 x 9.53	227.00	432.0	432.0
24 x 22	610 x 559	9.53 x 9.53	237.00	12.70 x 12.70	350.00	9.53 x 9.53	237.00	432.0	432.0
26 x 12	660 x 324	9.53 x 9.53	234.10	12.70 x 12.70	294.40	12.70 x 6.35	294.40	495.0	422.0
26 x 14	660 x 356	9.53 x 9.53	239.00	12.70 x 12.70	300.30	12.70 x 7.92	300.30	495.0	432.0
26 x 16	660 x 406	9.53 x 9.53	246.80	12.70 x 12.70	310.30	12.70 x 7.92	310.30	495.0	432.0
26 x 18	660 x 457	9.53 x 9.53	254.90	12.70 x 12.70	320.20	12.70 x 7.92	320.20	495.0	444.0
26 x 20	660 x 508	9.53 x 9.53	263.50	12.70 x 12.70	330.20	12.70 x 9.53	330.20	495.0	457.0
26 x 22	660 x 559	9.53 x 9.53	271.20	12.70 x 12.70	339.70	12.70 x 9.53	339.70	495.0	470.0
26 x 24	660 x 610	9.53 x 9.53	279.40	12.70 x 12.70	349.70	12.70 x 9.53	349.70	495.0	483.0
28 x 14	711 x 356	9.53 x 9.53	274.00	12.70 x 12.70	346.00	12.70 x 7.92	346.00	521.0	457.0
28 x 16	711 x 406	9.53 x 9.53	283.00	12.70 x 12.70	357.00	12.70 x 7.92	357.00	521.0	457.0
28 x 18	711 x 457	9.53 x 9.53	292.10	12.70 x 12.70	368.80	12.70 x 7.92	368.80	521.0	470.0
28 x 20	711 x 508	9.53 x 9.53	301.60	12.70 x 12.70	380.00	12.70 x 9.53	380.00	521.0	483.0
28 x 22	771 x 559	9.53 x 9.53	310.70	12.70 x 12.70	390.00	12.70 x 9.53	390.00	521.0	495.0
28 x 24	771 x 610	9.53 x 9.53	319.80	12.70 x 12.70	400.50	12.70 x 9.53	400.50	521.0	508.0
28 x 26	771 x 660	9.53 x 9.53	325.20	12.70 x 12.70	410.50	12.70 x 12.70	410.50	521.0	521.0

Reducing Tees

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	SCH STD MM / KG		SCH XS MM / KG		SCH 20 MM / KG		CENTRE TO END RUN	CENTRE TO END BRANCH
IN	MM	WT	WEIGHT	WT	WEIGHT	WT	WEIGHT	MM	MM
30 x 14	762 x 356	9.53 x 9.53	308.90	12.70 x 12.70	392.40	12.70 x 7.92	392.40	559.0	483.0
30 x 16	762 x 406	9.53 x 9.53	319.30	12.70 x 12.70	403.70	12.70 x 7.92	403.70	559.0	483.0
30 x 18	762 x 457	9.53 x 9.53	329.80	12.70 x 12.70	417.30	12.70 x 7.92	417.30	559.0	495.0
30 x 20	762 x 508	9.53 x 9.53	339.70	12.70 x 12.70	428.60	12.70 x 9.53	428.60	559.0	508.0
30 x 22	762 x 559	9.53 x 9.53	350.20	12.70 x 12.70	440.00	12.70 x 9.53	440.00	559.0	521.0
30 x 24	762 x 610	9.53 x 9.53	360.60	12.70 x 12.70	451.30	12.70 x 9.53	451.30	559.0	533.0
30 x 26	762 x 660	9.53 x 9.53	370.60	12.70 x 12.70	462.70	12.70 x 12.70	462.70	559.0	546.0
30 x 28	762 x 711	9.53 x 9.53	387.30	12.70 x 12.70	471.70	12.70 x 12.70	471.70	559.0	546.0
32 x 16	813 x 406	9.53 x 9.53	381.00	12.70 x 12.70	461.00	12.70 x 7.92	461.00	597.0	508.0
32 x 18	813 x 457	9.53 x 9.53	390.00	12.70 x 12.70	475.00	12.70 x 7.92	475.00	597.0	521.0
32 x 20	813 x 508	9.53 x 9.53	406.00	12.70 x 12.70	487.60	12.70 x 9.53	487.60	597.0	533.0
32 x 24	813 x 610	9.53 x 9.53	410.00	12.70 x 12.70	513.50	12.70 x 9.53	513.50	597.0	559.0
32 x 26	813 x 660	9.53 x 9.53	420.50	12.70 x 12.70	526.20	12.70 x 12.70	526.20	597.0	572.0
32 x 28	813 x 711	9.53 x 9.53	429.10	12.70 x 12.70	536.20	12.70 x 12.70	536.20	597.0	572.0
32 x 30	813 x 762	9.53 x 9.53	441.40	12.70 x 12.70	543.40	12.70 x 12.70	543.40	597.0	584.0
34 x 16	864 x 406	9.53 x 9.53	411.40	12.70 x 12.70	519.40	12.70 x 7.92	519.40	635.0	533.0
34 x 18	864 x 457	9.53 x 9.53	423.20	12.70 x 12.70	532.90	12.70 x 7.92	532.90	635.0	546.0
34 x 20	864 x 508	9.53 x 9.53	435.40	12.70 x 12.70	546.60	12.70 x 9.53	546.60	635.0	559.0
34 x 22	864 x 559	9.53 x 9.53	447.20	12.70 x 12.70	562.50	12.70 x 9.53	562.50	635.0	52.0
34 x 24	864 x 610	9.53 x 9.53	459.50	12.70 x 12.70	576.10	12.70 x 9.53	576.10	635.0	584.0
34 x 26	864 x 660	9.53 x 9.53	471.30	12.70 x 12.70	589.70	12.70 x 12.70	589.70	635.0	597.0
34 x 28	864 x 711	9.53 x 9.53	480.40	12.70 x 12.70	601.00	12.70 x 12.70	601.00	635.0	597.0
34 x 30	864 x 762	9.53 x 9.53	492.10	12.70 x 12.70	614.60	12.70 x 12.70	614.60	635.0	610.0
34 x 32	864 x 813	9.53 x 9.53	503.90	12.70 x 12.70	630.50	12.70 x 12.70	630.50	635.0	622.0
36 x 16	914 x 406	9.53 x 9.53	460.40	12.70 x 12.70	580.60	12.70 x 7.92	580.60	673.0	559.0
36 x18	914 x 457	9.53 x 9.53	473.60	12.70 x 12.70	596.50	12.70 x 7.92	596.50	673.0	572.0
36 x 20	914 x 408	9.53 x 9.53	486.30	12.70 x 12.70	610.10	12.70 x 9.53	610.10	673.0	584.0
36 x 22	914 x 559	9.53 x 9.53	499.00	12.70 x 12.70	626.00	12.70 x 9.53	626.00	673.0	597.0
36 x 24	914 x 610	9.53 x 9.53	512.10	12.70 x 12.70	641.80	12.70 x 9.53	641.80	673.0	610.0
36 x 26	914 x 660	9.53 x 9.53	525.30	12.70 x 12.70	653.20	12.70 x 12.70	653.20	673.0	622.0
36 x 28	914 x 711	9.53 x 9.53	535.70	12.70 x 12.70	669.00	12.70 x 12.70	669.00	673.0	622.0
36 x 30	914 x 762	9.53 x 9.53	547.50	12.70 x 12.70	684.90	12.70 x 12.70	684.90	673.0	635.0
36 x 32	914 x 813	9.53 x 9.53	561.10	12.70 x 12.70	698.50	12.70 x 12.70	698.50	673.0	648.0
36 x 34	914 x 864	9.53 x 9.53	573.30	12.70 x 12.70	714.40	12.70 x 12.70	714.40	673.0	660.0

Concentric & Eccentric Reducers

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NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		LENGTH	APPROX WEIGHT (KG)	
IN	MM	STD	XS	MM	STD	XS
¾ X ½	27 X 21	2.87 X 2.77	3.91 X 3.73	38.00	-	0.14
1 X ½	33 X 21	3.38 X 2.77	4.55 X 3.73	51.00	0.14	0.16
1 X ¾	33 X 27	3.38 X 2.87	4.55 X 3.91		0.14	0.17
1 ¼ X ½	42 X 21	3.56 X 2.77	4.85 X 3.73	51.00	0.19	0.22
1 ¼ X ¾	42 X 27	3.56 X 2.87	4.85 X 3.91		0.20	0.23
1 ¼ X 1	42 X 33	3.56 X 3.38	4.85 X 4.55			0.24
1 ½ X ½	48 X 21	3.68 X 2.77	5.08 X 3.73	64.00	0.20	0.28
1 ½ X ¾	48 X 27	3.68 X 2.87	5.08 X 3.91		0.22	0.27
1 ½ X 1	48 X 33	3.68 X 3.38	5.08 X 4.55		0.24	0.31
1 ½ X 1 ¼	48 X 42	3.68 X 3.56	5.08 X 4.85		0.26	0.33
2 X ¾	60 X 27	3.91 X 2.87	5.54 X 3.91	76.00	0.33	0.46
2 X 1	60 X 33	3.91 X 3.38	5.54 X 4.55		0.37	0.45
2 X 1 ¼	60 X 42	3.91 X 3.56	5.54 X 4.85		0.39	0.53
2 X 1 ½	60 X 48	3.91 X 3.68	5.54 X 5.08		0.41	0.54
2 ½ X 1	73 X 33	5.16 X 3.38	7.01 X 4.55	89.00	0.59	0.79
2 ½ X 1 ¼	73 X 42	5.16 X 3.56	7.01 X 4.85		0.67	
2 ½ X 1 ½	73 X 48	5.16 X 3.68	7.01 X 5.08		0.68	0.86
2 ½ X 2	73 X 60	5.16 X 3.91	7.01 X 5.54		0.73	0.94
3 X 1 ¼	89 X 42	5.49 X 3.56	7.62 X 4.85	89.00	0.77	1.04
3 X 1 ½	89 X 48	5.49 X 3.68	7.62 X 5.08		0.86	
3 X 2	89 X 60	5.49 X 3.91	7.62 X 5.54		0.91	1.18
3 X 2 ½	89 X 73	5.49 X 5.16	7.62 X 7.01		0.98	1.29
3 ½ X 1 ½	102 X 48	5.74 X 3.68	8.08 X 5.08	102.00	1.14	1.43
3 ½ X 2	102 X 60	5.74 X 3.91	8.08 X 5.54		1.23	1.61
3 ½ X 2 ½	102 X 73	5.74 X 5.16	8.08 X 7.01		1.34	1.75
3 ½ X 3	102 X 89	5.74 X 5.49	8.08 X 7.62		1.38	1.85
4 X 1 ½	114 X 48	6.02 X 3.68	8.56 X 5.08	102.00	1.24	1.73
4 X 2	114 X 60	6.02 X 3.91	8.56 X 5.54		1.44	1.78
4 X 2 ½	114 X 73	6.02 X 5.16	8.56 X 7.01		1.54	2.01
4 X 3	114 X 89	6.02 X 5.49	8.56 X 7.62		1.59	2.13
4 X 3 ½	114 X 102	6.02 X 5.74	8.56 X 8.08		1.64	2.21
5 X 2	141 X 60	6.55 X 3.91	9.53 X 5.54	127.00	2.29	3.00
5 X 2 ½	141 X 73	6.55 X 5.16	9.53 X 7.01		2.51	3.30
5 X 3	141 X 89	6.55 X 5.49	9.53 X 7.62		2.60	3.55
5 X 3 ½	141 X 102	6.55 X 5.74	9.53 X 8.08		2.66	3.65
5 X 4	141 X 114	6.55 X 6.02	9.53 X 8.56		2.72	3.78
6 X 2 ½	168 X 73	7.11 X 5.16	10.97 X 7.01	140.00	3.45	4.52
6 X 3	168 X 89	7.11 X 5.49	10.97 X 7.62		3.63	5.04
6 X 3 ½	168 X 102	7.11 X 5.74	10.97 X 8.08		3.69	5.27
6 X 4	168 X 114	7.11 X 6.02	10.97 X 8.56		3.72	5.45
6 X 5	168 X 141	7.11 X 6.55	10.97 X 9.53		3.93	5.72
8 X 4	219 X 114	8.18 X 6.02	12.70 X 8.56	152.00	5.95	8.44
8 X 5	219 X 141	8.18 X 6.55	12.70 X 9.53		6.08	8.85
8 X 6	219 X 168	8.18 X 7.11	12.70 X 10.97		6.31	9.26
10 X 4	273 X 114	9.27 X 6.02	12.70 X 8.56	178.00	9.58	11.50
10 X 5	273 X 141	9.27 X 6.55	12.70 X 9.53		9.90	13.00
10 X 6	273 X 168	9.27 X 7.11	12.70 X 10.97		10.10	13.50
10 X 8	273 X 219	9.27 X 8.18	12.70 X 12.70		10.50	14.20
12 X 5	324 X 141	9.53 X 6.55	12.70 X 9.53	203.00	13.80	17.70
12 X 6	324 X 168	9.53 X 7.11	12.70 X 10.97		14.10	18.40
12 X 8	324 X 219	9.53 X 8.18	12.70 X 12.70		14.60	19.08
12 X 10	324 X 273	9.53 X 9.27			15.20	19.80

Concentric & Eccentric Reducers

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NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		LENGTH	APPROX WEIGHT (KG)	
IN	MM	STD	XS	MM	STD	XS
14 X 6	356 X 168	9.53 X 7.11	12.70 X 12.70	330.00	25.30	33.70
14 X 8	356 X 219	9.53 X 8.18			26.00	34.90
14 X 10	356 X 273	9.53 X 9.27			27.40	36.10
14 X 12	356 X 324	9.53 X 9.53			28.80	37.70
16 X 6	406 X 168	9.53 X 7.11	12.70 X 12.70	356.00	21.90	42.60
16 X 8	406 X 219	9.53 X 8.18				
16 X 10	406 X 273	9.53 X 9.27			33.10	43.70
16 X 12	406 X 324	9.53 X 9.53			34.30	45.00
16 X 14	406 X 356				35.20	46.30
18 X 8	457 X 219	9.53 X 8.18	12.70 X 12.70	381.00	39.40	51.80
18 X 10	457 X 273	9.53 X 9.27				
18 X 12	457 X 324	9.53 X 9.53			40.50	53.60
18 X 14	457 X 356				41.30	54.50
18 X 16	457 X 406				42.70	55.80
20 X 8	508 X 219	9.53 X 8.18	12.70 X 12.70	508.00	60.80	79.90
20 X 10	508 X 273	9.53 X 9.27				
20 X 12	508 X 324	9.53 X 9.53				
20 X 14	508 X 356				61.30	81.30
20 X 16	508 X 406				62.60	82.60
20 X 18	508 X 457				64.50	84.40
22 X 10	559 X 273	9.53 X 9.27	12.70 X 12.70	508.00	67.20	88.50
22 X 12	559 X 324	9.53 X 9.53				
22 X 14	559 X 356					
22 X 16	559 X 406				68.50	89.90
22 X 18	559 X 457				69.90	91.70
22 X 20	559 X 508				71.30	94.00
24 X 10	610 X 273	9.53 X 9.27	12.70 X 12.70	508.00	72.60	95.80
24 X 12	610 X 324	9.53 X 9.53				
24 X 14	610 X 356					
24 X 16	610 X 406					
24 X 18	610 X 457				74.00	97.60
24 X 20	610 X 508				75.80	99.90
24 X 22	610 X 559					

Caps

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		LENGTH	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
½"	21.3	2.78 3.73	STD XS	25.40	0.03 0.04
¾"	26.7	2.87 3.91	STD XS	28.60	0.06 0.07
1"	33.4	3.38 4.55	STD XS	38.10	0.10 0.13
1 ¼"	42.2	3.56 4.85	STD XS	47.60	0.14 0.18
1 ½"	48.3	3.68 5.08	STD XS	57.20	0.17 0.22
2"	60.3	3.91 5.54	STD XS	63.50	0.23 0.30
2 ½"	73.0	5.16 7.01	STD XS	76.20	0.37 0.45
3"	88.9	5.49 7.62	STD XS	85.70	0.64 0.84
3 ½"	101.6	5.74 8.08	STD XS	95.30	0.96 1.28
4"	114.3	6.02 8.56	STD XS	104.80	1.16 1.55
5"	114.3	6.65 9.50	STD XS	123.80	1.19 2.61
6"	168.3	7.11 10.97	STD XS	142.80	2.91 4.19
8"	219.1	8.18 12.70 6.30	STD XS SCH20	177.80	5.13 7.40 4.50
10"	273.9	9.27 12.7 6.35	STD XS SCH20	216.00	9.08 11.90 6.00
12"	323.9	9.52 12.7 6.35	STD XS SCH20	254.00	13.40 17.30 10.00
14"	355.6	9.52 12.70 7.92	STD XS SCH20	279.00	16.00 20.80 14.00
16"	406.4	9.52 12.70 7.92	STD XS SCH20	304.80	20.10 26.10 18.00
18"	457.0	9.52 12.70 7.92	STD XS SCH20	342.90	25.90 33.90 22.00
20"	508.0	9.52 12.70 9.53	STD XS SCH20	381.00	32.50 42.60 32.00
22"	558.8	9.52 12.70 8.53	STD XS SCH20	419.00	39.30 52.20 39.00
24"	609.6	9.52 12.70 9.53	STD XS SCH20	431.90	46.30 60.80 46.00
26"	660.4	9.52 12.70 12.70	STD XS SCH20	495.30	50.80 65.80 66.10

Caps

ASME B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	WALL THICKNESS		LENGTH	APPROX WEIGHT
IN	MM	MM	SCHEDULE	MM	KG
28″	711.2	9.52 12.70 12.70	STD XS SCH20	520.70	56.00 75.30 74.81
30″	762.0	9.52 12.70 12.70	STD XS SCH20	558.80	56.70 79.40 82.80
32″	812.8	9.52 12.70 12.70	STD XS SCH20	569.90	65.80 93.40 93.40
36″	914.4	9.52 12.70 12.70	STD XS SCH20	673.10	79.40 107.00 96.61
38″	965.0	9.53 12.70	STD XS	711.20	86.20 124.70
40″	1016.0	9.53 12.70	STD XS	749.30	95.30 129.30
42″	1067.0	9.53 12.70	STD XS	762.00	104.00 136.00
44″	1118.0	9.53 12.70	STD XS	800.00	120.20 167.80
46″	1168.0	9.53 12.70	STD XS	818.00	136.00 186.00
48″	1219.0	9.53 12.70	STD XS	838.20	159.00 215.50

HANLEY SOLUTIONS

For inquiries, contact us.

www.hanleysolutions.co.uk
info@hanleysolutions.co.uk
01484 243013