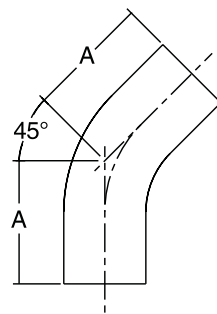


2S - 90° Tube Bend*

Size		A	
in	mm	in	mm
1	25.4	3	76.2
1½	38.1	3¾	95.3
2	50.8	4¾	120.7
2½	63.5	5½	139.7
3	76.2	6¼	158.8
4	101.6	8	203.2

Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)



2KS - 45° Tube Bend

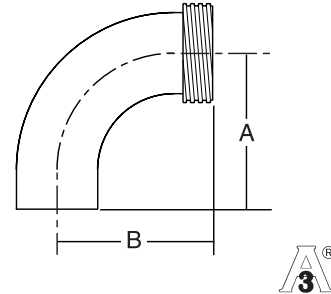
Size		A	
in	mm	in	mm
1	25.4	2¼	57.2
1½	38.1	2½	63.5
2	50.8	3	76.2
2½	63.5	3¾	85.7
3	76.2	3⅝	92.1
4	101.6	4½	114.3

Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)



L2C - Threaded One End

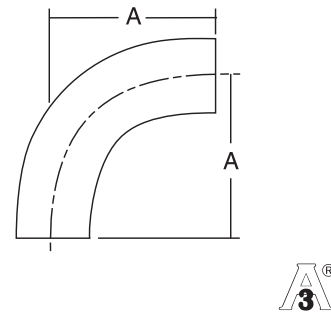
Size		A		B	
in	mm	in	mm	in	mm
1	25.4	2 ¹ / ₁₆	52.4	2 ³ / ₄	69.9
1½	38.1	2 ¹⁵ / ₁₆	74.6	3 ²¹ / ₃₂	92.9
2	50.8	4 ¹ / ₁₆	103.2	4 ²⁵ / ₃₂	121.4
2½	63.5	5 ³ / ₁₆	131.8	6 ¹ / ₃₂	153.2
3	76.2	6 ⁵ / ₁₆	160.3	7 ⁷ / ₃₂	183.4
4	101.6	8 ⁵ / ₁₆	211.1	9 ¹⁷ / ₃₂	242.1



Material Option: 304 (Finish Number 7)

L2S - 90° Tube Bend

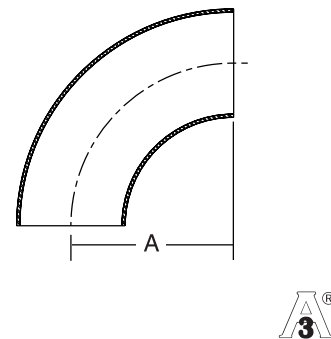
Size		A	
in	mm	in	mm
1	25.4	2 ¹ / ₁₆	52.4
1½	38.1	2 ¹⁵ / ₁₆	74.6
2	50.8	4 ¹ / ₁₆	103.2
2½	63.5	5 ³ / ₁₆	131.8
3	76.2	6 ⁵ / ₁₆	160.3
4	101.6	8 ⁵ / ₁₆	211.1



Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)

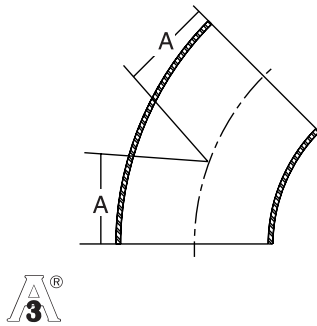
2WCL - 90° Elbow, Long Radius

Size		A	
in	mm	in	mm
1	25.4	1½	38.1
1½	38.1	2¼	57.2
2	50.8	3	76.2
2½	63.5	3¾	95.3
3	76.2	4½	114.3
4	101.6	6	152.4



Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, & 7)

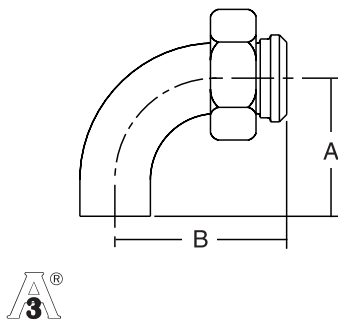
2WK - 45° Elbow, Long Radius



Size		A	
in	mm	in	mm
1	25.4	$\frac{5}{8}$	15.9
1½	38.1	$\frac{15}{16}$	23.8
2	50.8	$\frac{1}{4}$	31.8
2½	63.5	$\frac{19}{16}$	39.7
3	76.2	$\frac{17}{8}$	47.6
4	101.6	$2\frac{1}{2}$	63.5

Material Option: 316L (Finish Numbers 1, & 7)

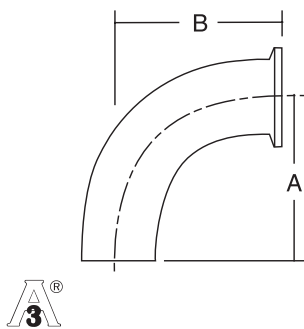
L2F - 90° Sweep Elbow



Size		A		B	
in	mm	in	mm	in	mm
1	25.4	$2\frac{1}{16}$	52.4	$2\frac{3}{4}$	69.9
1½	38.1	$2\frac{15}{16}$	74.6	$3\frac{21}{32}$	92.9
2	50.8	$4\frac{1}{16}$	103.2	$4\frac{25}{32}$	121.4
2½	63.5	$5\frac{3}{16}$	131.8	$6\frac{1}{32}$	153.2
3	76.2	$6\frac{5}{16}$	160.3	$7\frac{7}{32}$	183.4
4	101.6	$8\frac{5}{16}$	211.1	$9\frac{17}{32}$	242.1

Material Option: 304 (Finish Number 7)

L2CM - Tri-Clamp One End



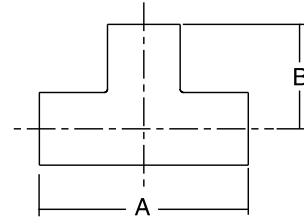
Size		A		B	
in	mm	in	mm	in	mm
1	25.4	$2\frac{1}{16}$	52.4	$2\frac{9}{16}$	65.1
1½	38.1	$2\frac{15}{16}$	74.6	$3\frac{7}{16}$	87.3
2	50.8	$4\frac{1}{16}$	103.2	$4\frac{9}{16}$	115.9
2½	63.5	$5\frac{3}{16}$	131.8	$5\frac{11}{16}$	144.5
3	76.2	$6\frac{5}{16}$	160.3	$6\frac{13}{16}$	173.0
4	101.6	$8\frac{5}{16}$	211.1	$8\frac{15}{16}$	227.0

Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)



7WWW - Straight Tee

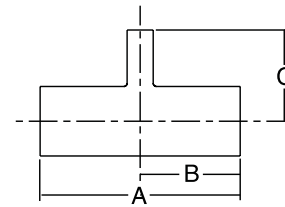
Size		A		B	
in	mm	in	mm	in	mm
1	25.4	4¼	108.0	2⅝	54.0
1½	38.1	4¾	120.7	2¾	60.3
2	50.8	5¾	146.1	2⅞	73.0
2½	63.5	6¼	158.8	3⅝	79.4
3	76.2	6¾	171.5	3⅞	85.7
4	101.6	8¼	209.6	4⅞	104.8



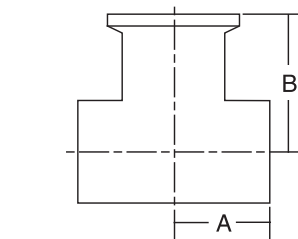
Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)

7RWWW - Reducing Tee

Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
1½ x 1	38.1 x 25.4	4¾	120.7	2¾	60.3	2¾	60.3
2 x 1	50.8 x 25.4	5¾	146.1	2⅞	73.0	2⅝	66.7
2 x 1½	50.8 x 38.1	5¾	146.1	2⅞	73.0	2⅝	66.7
2½ x 1	63.5 x 25.4	6¼	158.8	3⅝	79.4	2⅞	73.0
2½ x 1½	63.5 x 38.1	6¼	158.8	3⅝	79.4	2⅞	73.0
2½ x 2	63.5 x 50.8	6¼	158.8	3⅝	79.4	2⅞	73.0
3 x 1	76.2 x 25.4	6¾	171.5	3⅞	85.7	3⅝	79.4
3 x 1½	76.2 x 38.1	6¾	171.5	3⅞	85.7	3⅝	79.4
3 x 2	76.2 x 50.8	6¾	171.5	3⅞	85.7	3⅝	79.4
3 x 2½	76.2 x 63.5	6¾	171.5	3⅞	85.7	3⅝	79.4
4 x 1	101.6 x 25.4	8¼	209.6	4⅞	104.8	3⅞	92.1
4 x 1½	101.6 x 38.1	8¼	209.6	4⅞	104.8	3⅞	92.1
4 x 2	101.6 x 50.8	8¼	209.6	4⅞	104.8	3⅞	98.4
4 x 2½	101.6 x 63.5	8¼	209.6	4⅞	104.8	3⅞	98.4
4 x 3	101.6 x 76.2	8¼	209.6	4⅞	104.8	3⅞	98.4



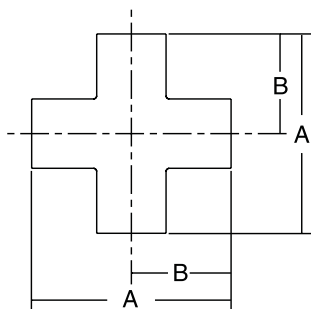
Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)



7WWM - Reducing Tee

Size		A		B	
in	mm	in	mm	in	mm
1	25.4	2 $\frac{1}{8}$	54.0	2 $\frac{5}{8}$	66.7
1 $\frac{1}{2}$	38.1	2 $\frac{3}{8}$	60.3	2 $\frac{7}{8}$	73.0
2	50.8	2 $\frac{7}{8}$	73.0	3 $\frac{3}{8}$	85.7
2 $\frac{1}{2}$	63.5	3 $\frac{1}{8}$	79.4	3 $\frac{5}{8}$	92.1
3	76.2	3 $\frac{3}{8}$	85.7	3 $\frac{7}{8}$	98.4
4	101.6	4 $\frac{1}{8}$	104.8	4 $\frac{3}{4}$	120.7

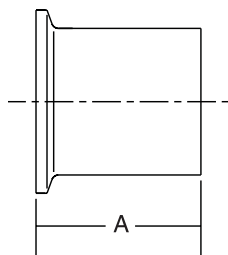
Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)



9WWWW - Cross

Size		A		B	
in	mm	in	mm	in	mm
1	25.4	4 $\frac{1}{4}$	108.0	2 $\frac{1}{8}$	54.0
1 $\frac{1}{2}$	38.1	4 $\frac{3}{4}$	120.7	2 $\frac{3}{8}$	60.3
2	50.8	5 $\frac{3}{4}$	146.1	2 $\frac{7}{8}$	73.0
2 $\frac{1}{2}$	63.5	6 $\frac{1}{4}$	158.8	3 $\frac{1}{8}$	79.4
3	76.2	6 $\frac{3}{4}$	171.5	3 $\frac{3}{8}$	85.7
4	101.6	8 $\frac{1}{4}$	209.6	4 $\frac{1}{8}$	104.8

Material Options: 304 (Finish Numbers 1, & 7), 316L (Finish Numbers 1, 3, & 7)



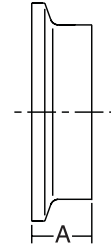
S14AM - Tri-Weld Ferrule

Size		A	
in	mm	in	mm
1	25.4	1 $\frac{3}{4}$	44.5
1 $\frac{1}{2}$	38.1	1 $\frac{3}{4}$	44.5
2	50.8	2 $\frac{1}{4}$	57.2
2 $\frac{1}{2}$	63.5	2 $\frac{1}{4}$	57.2
3	76.2	2 $\frac{1}{4}$	57.2
4	101.6	2 $\frac{1}{4}$	57.2

Material Option: 316L (Finish Number 7)

**14WMPS - Short Welding
Ferrule**

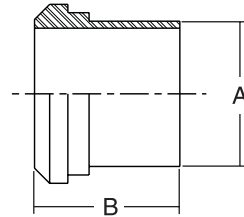
Size		A	
in	mm	in	mm
1	25.4	½	12.7
1½	38.1	½	12.7
2	50.8	½	12.7
2½	63.5	½	12.7
3	76.2	½	12.7
4	101.6	⅝	15.9



Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

L14A - Bevel Seat Ferrule

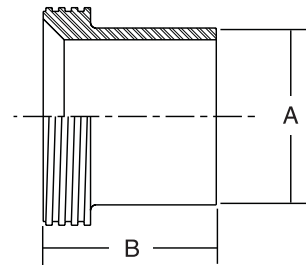
Size		A		B	
in	mm	in	mm	in	mm
1	25.4	1	25.4	1⅝	34.9
1½	38.1	1½	38.1	1½	38.1
2	50.8	2	50.8	1½	38.1
2½	63.5	2½	63.5	1¾	44.5
3	76.2	3	76.2	1¾	44.5
4	101.6	4	101.6	1¾	44.5



Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

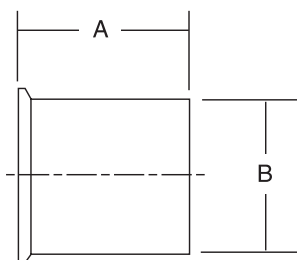
L15A - Threaded One End

Size		A		B	
in	mm	in	mm	in	mm
1	25.4	1	25.4	1⅝	34.9
1½	38.1	1½	38.1	1½	38.1
2	50.8	2	50.8	1½	38.1
2½	63.5	2½	63.5	1¾	44.5
3	76.2	3	76.2	1¾	44.5
4	101.6	4	101.6	1¾	44.5



Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

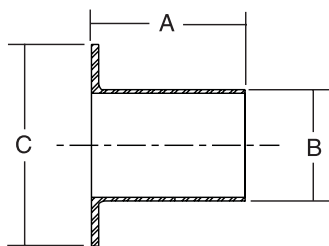
L14AM - Ferrule



Size		A		B	
in	mm	in	mm	in	mm
1	25.4	1 $\frac{1}{8}$	28.6	1	25.4
1 $\frac{1}{2}$	38.1	1 $\frac{1}{8}$	28.6	1 $\frac{1}{2}$	38.1
2	50.8	1 $\frac{1}{8}$	28.6	2	50.8
2 $\frac{1}{2}$	63.5	1 $\frac{1}{8}$	28.6	2 $\frac{1}{2}$	63.5
3	76.2	1 $\frac{1}{8}$	28.6	3	76.2
4	101.6	1 $\frac{1}{8}$	28.6	4	101.6

Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

14VB - Lap Joint Stub End



Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
1	25.4	1 $\frac{5}{8}$	41.3	1	25.4	2	50.8
1 $\frac{1}{2}$	38.1	1 $\frac{3}{4}$	44.5	1 $\frac{1}{2}$	38.1	2 $\frac{7}{8}$	73.0
2	50.8	1 $\frac{1}{2}$	38.1	2	50.8	3 $\frac{5}{8}$	92.1
2 $\frac{1}{2}$	63.5	2	50.8	2 $\frac{1}{2}$	63.5	4 $\frac{1}{8}$	104.8
3	76.2	2 $\frac{1}{4}$	57.2	3	76.2	5	127.0
4	101.6	2 $\frac{5}{8}$	66.7	4	101.6	6 $\frac{1}{16}$	157.2

Material Options: 304 (Finish Number 1), 316L (Finish Number 1)

Note: For use with 38SL flanges.

38SL - Flange (Non 3A)



Size		A		B	
in	mm	in	mm	in	mm
1	25.4	4 $\frac{1}{4}$	108.0	$\frac{3}{8}$	9.5
1 $\frac{1}{2}$	38.1	5	127.0	$\frac{3}{8}$	9.5
2	50.8	6	152.4	$\frac{7}{16}$	11.1
2 $\frac{1}{2}$	63.5	7	177.8	$\frac{7}{16}$	11.1
3	76.2	7 $\frac{1}{2}$	190.5	$\frac{1}{2}$	12.7
4	101.6	9	228.6	$\frac{1}{2}$	12.7

Size		No. of Bolts	Bolt Circle Diameter		Bolt Hole Size	
in	mm		in	mm	in	mm
1	25.4	4	3 $\frac{3}{8}$	79.4	$\frac{5}{8}$	15.9
1 $\frac{1}{2}$	38.1	4	3 $\frac{7}{8}$	98.4	$\frac{5}{8}$	15.9
2	50.8	4	4 $\frac{3}{4}$	120.7	$\frac{3}{4}$	19.0
2 $\frac{1}{2}$	63.5	4	5 $\frac{1}{2}$	139.7	$\frac{3}{4}$	19.0
3	76.2	4	6	152.4	$\frac{3}{4}$	19.0
4	101.6	8	7 $\frac{1}{2}$	190.5	$\frac{3}{4}$	19.0

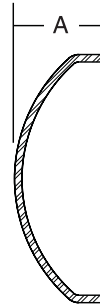
Material Options: 304 Stainless Steel, Carbon Steel

Note: For use with 14VB lap joint stub end.



16W - Cap, Non 3A

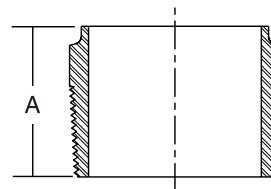
Size		A	
in	mm	in	mm
1	25.4	$\frac{3}{8}$	9.5
1½	38.1	$\frac{9}{16}$	14.3
2	50.8	$\frac{3}{4}$	19.0
2½	63.5	1	25.4
3	76.2	1¼	31.8
4	101.6	1½	38.1



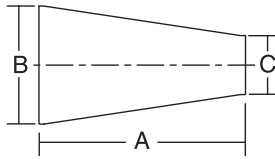
Material Options: 304 (Finish Number 1), 316L (Finish Number 1)

19WB - Adapter, Non 3A

Size		A	
in	mm	in	mm
1	25.4	1¾	19.0
1½	38.1	1¾	19.0
2	50.8	1 $\frac{13}{16}$	46.0
2½	63.5	2 $\frac{5}{16}$	58.7
3	76.2	2½	63.5
4	101.6	2 $\frac{9}{16}$	65.1



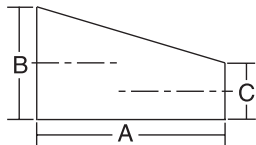
Material Options: 304, 316L (Finish Number 1)



L31 - Concentric Reducer

Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
1½ x 1	38.1 x 25.4	2	50.8	1½	38.1	1	25.4
2 x 1	50.8 x 25.4	4	101.6	2	50.8	1	25.4
2 x 1½	50.8 x 38.1	2	50.8	2	50.8	1½	38.1
2½ x 1½	63.5 x 38.1	4	101.6	2½	63.5	1½	38.1
2½ x 2	63.5 x 50.8	2	50.8	2½	63.5	2	50.8
3 x 2	76.2 x 50.8	4	101.6	3	76.2	2	50.8
3 x 2½	76.2 x 63.5	2	50.8	3	76.2	2½	63.5
4 x 2	101.6 x 50.8	8	203.2	4	101.6	2	50.8
4 x 2½	101.6 x 63.5	6	152.4	4	101.6	2½	63.5
4 x 3	101.6 x 76.2	4	101.6	4	101.6	3	76.2

Material Options: 316L (Finish Numbers 1 & 7)



L32 - Eccentric Reducer

Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
1½ x 1	38.1 x 25.4	2	50.8	1½	38.1	1	25.4
2 x 1	50.8 x 25.4	4	101.6	2	50.8	1	25.4
2 x 1½	50.8 x 38.1	2	50.8	2	50.8	1½	38.1
2½ x 1½	63.5 x 38.1	4	101.6	2½	63.5	1½	38.1
2½ x 2	63.5 x 50.8	2	50.8	2½	63.5	2	50.8
3 x 2	76.2 x 50.8	4	101.6	3	76.2	2	50.8
3 x 2½	76.2 x 63.5	2	50.8	3	76.2	2½	63.5
4 x 2	101.6 x 50.8	8	203.2	4	101.6	2	50.8
4 x 2½	101.6 x 63.5	6	152.4	4	101.6	2½	63.5
4 x 3	101.6 x 76.2	4	101.6	4	101.6	3	76.2

Material Options: 316L (Finish Numbers 1 & 7)