

Tubes And Fittings

Kinglai is your complete source for specialized fittings and tubing required in food, dairy, beverage, personal care, biotechnology and pharmaceutical process applications. Smooth, crevice-free interiors and secure, self-aligning joints are characteristic for Kinglai Fittings.

Each offers superior corrosion-resistance and unmatched service life. Kinglai fittings are designed and manufactured to ensure dimensional accuracy and structural integrity, making them easy to install. Tubing is manufactured to Kinglai's stringent specifications, making it a perfect match for the weld fittings. Choose from a wide range of tube sizes, surface finishes and connect options.

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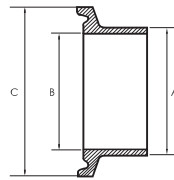


Size range of finished sanitary tubes

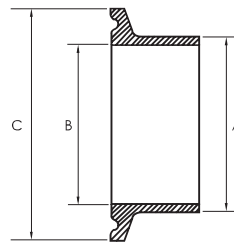
ISO			3A			DIN(DIN11850) SERIES2			DIN(DIN11850) SERIES1			DIN			ASME BPE			BS			GB		
NOM. Size	OD	T	NOM. Size	OD	T	NOM. Size	OD	T	NOM. SIZE	OD	T	NOM. SIZE	OD	T	NOM. SIZE	OD	T	NOM. SIZE	OD	T	NOM. SIZE	OD	T
						DN10	13	1.5	DN10	12	1.0	DN10	12	1.5	1/4"	6.35	0.89						
			1/2"	12.7	1.65	DN15	19	1.5	DN15	18	1.0	DN15	18	1.5	3/8"	9.53	0.89						
			3/4"	19.1	1.65	DN20	23	1.5	DN20	22	1.0	DN20	22	1.5	1/2"	12.7	1.65	1/2"	12.7	1.6	1/2"	12.7	1.5
25	25.0	1.2	1.0"	25.4	1.65	DN25	29	1.5	DN25	28	1.0	DN25	28	1.5	3/4"	19.1	1.65	3/4"	19.1	1.6	3/4"	19.1	1.5
32	31.8	1.2				DN25	29	1.5	DN25	28	1.0	DN25	28	1.5	1.0"	25.4	1.65	1.0"	25.4	1.6	1.0"	25.4	1.5
38	38.0	1.2	1.5"	38.1	1.65	DN32	35	1.5	DN32	34	1.0	DN32	34	1.5				1.25"	31.8	1.6	1.25"	31.8	1.5
															1.5"	38.1	1.65	1.5"	38.1	1.6	1.5"	38.1	1.5
						DN40	41	1.5	DN40	40	1.0	DN40	40	1.5									
51	51.0	1.2	2.0"	50.8	1.65	DN50	53	1.5	DN50	52	1.0	DN50	52	1.5	2.0"	50.8	1.65	2.0"	50.8	1.6	2.0"	50.8	1.5
63	63.5	1.6	2.5"	63.5	1.65										2.5"	63.5	1.65	2.5"	63.5	1.6	2.5"	63.5	1.5
						DN65	70	2													2.5"	63.5	2
76	76.1	1.6	3.0"	76.2	1.65										3.0"	76.2	1.65	3.0"	76.2	1.6	3.0"	76.2	1.5
						DN80	85	2													3.0"	76.2	2
																					3.5"	88.9	2
101	101.6	2	4.0"	101.6	2.11	DN100	104	2							4.0"	101.6	2.11	4.0"	101.6	2	4.0"	101.6	2
104	104.0	2				DN125	129	2													4.5"	114.3	2
129	129.0	2	6.0"	152.4	2.77	DN150	154	2							6.0"	152.4	2.77	5.0"	129	2			
204	204.0	2	8.0"	203.2	2.77	DN200	204	2										6.0"	154	2			
																		8.0"	204	2			
																		10.0"	254	2			

Standard size DT-3-2(ASME BPE)

Nominal Size.in.	Tube O.D		Tube Wall Thickness		Centerline Radius (CLR), R	
	in.	mm	in.	mm	in.	mm
1/4"	0.250	63.5	0.035	0.89	0.563	14.30
3/8"	0.375	9.53	0.035	0.89	1.125	28.58
1/2"	0.500	12.70	0.065	1.65	1.125	28.58
3/4"	0.750	19.05	0.065	1.65	1.125	28.58
1.0"	1.000	25.40	0.065	1.65	1.500	38.10
1.5"	1.500	38.10	0.065	1.65	2.250	57.15
2.0"	2.000	50.80	0.065	1.65	3.000	76.20
2.5"	2.500	63.50	0.065	1.65	3.750	92.25
3.0"	3.000	76.20	0.065	1.65	4.500	114.30
4.0"	4.000	101.60	0.083	2.11	6.000	152.40
6.0"	6.000	152.40	0.109	2.77	9.000	228.60



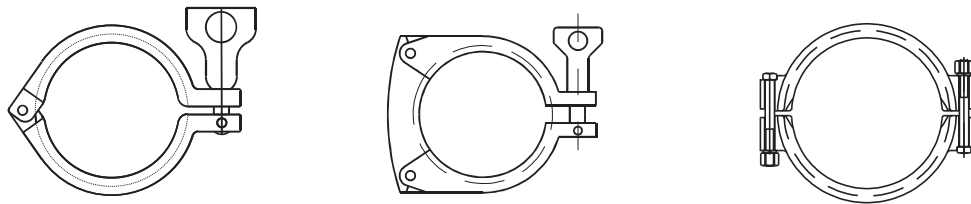
Type A



Type B

Standard size and tolerance of DT-7-1 (ASME BPE)

Size.in.	A		B		C		
	Dimension	Tolerance	Dimension	Tolerance	Dimension	Tolerance	Tolerance
Type A 1/4"	0.250	± 0.005	0.180	± 0.005	0.984	+ 0.005	- 0.005
3/8"	0.375	± 0.005	0.305	± 0.005	0.984	+ 0.005	- 0.005
1/2"	0.500	± 0.005	0.370	± 0.005	0.984	+ 0.005	- 0.005
3/4"	0.750	± 0.005	0.620	± 0.005	0.984	+ 0.005	- 0.005
Type B 1.0"	1.000	± 0.005	0.870	± 0.005	1.984	+ 0.008	- 0.005
1.5"	1.500	± 0.008	1.370	± 0.005	1.984	+ 0.008	- 0.005
2.0"	2.000	± 0.008	1.870	± 0.005	2.516	+ 0.008	- 0.008
2.5"	2.500	± 0.010	2.370	± 0.005	3.047	+ 0.008	- 0.008
3.0"	3.000	± 0.010	2.870	± 0.005	3.579	+ 0.010	- 0.010
4.0"	4.000	± 0.015	3.834	± 0.005	4.682	+ 0.015	- 0.015
6.0"	6.000	± 0.030	7.782	± 0.005	6.570	+ 0.030	- 0.030

Hygienic Clamp: Rated Internal Working Pressure


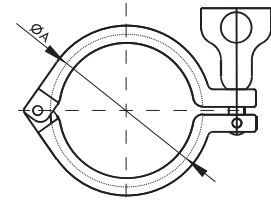
Nom. Size	13MHH Clamp				13MHH3 Clamp				13MHP Clamp			
	70°F/21°C		250°F/121°C		70°F/21°C		250°F/121°C		70°F/21°C		250°F/121°C	
	PSI	bar	PSI	bar	PSI	bar	PSI	bar	PSI	bar	PSI	bar
1/2" & 3/4"	1500	103	1200	83					1500	103	1200	83
1.0" & 1 1/2"	500	34	250	17	600	41	300	21	1500	103	1200	83
2.0"	450	31	250	17	550	38	275	19	1000	69	800	55
2 1/2"	400	28	200	14	450	31	225	16	1000	69	800	55
3.0"	350	24	150	10	350	24	160	11	1000	69	800	55
4.0"	200	14	125	9	250	17	150	10	1000	69	800	55
5.0"	175	12	100	7								
6.0"	150	10	75	5								
8.0"	100	7	50	3								
10.0"	40	3	30	2								

Material features of the union ring seal

FEATURE	EPDM	NBR	Viton	Silicone	TEFLON
Temperature Range	-48~135°C -55~275°F	-40~120°C -40~248°F	-29~204°C -20~400°F	-62~232°C -80~450°F	-40~232°C -40~450°F
Acid Resistance	Good-Excellent	Good	Good	Good	Good-Excellent
Alkali Resistance	Good-Excellent	Good	Poor-Good	Poor-Fair	Good-Excellent
Gasoline Resistance	Poor-Fair	Good-Excellent	Good-Excellent	Good	Good-Excellent
Diesel Resistance	Good	Good	Good-Excellent	Good	Good-Excellent
Abrasion Resistance	Good-Excellent	Good	Good	Good-Excellent	Good-Excellent
Compression Set	Fair	Good	Good-Excellent	Good-Excellent	Fair

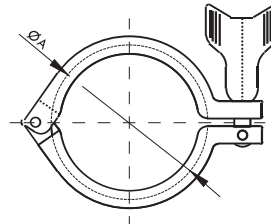
13MHH Clamp

No.	Nom.Size	A
1513016-000025	1/2"	28.6
1513016-000025	3/4"	28.6
1513016-000051	1.0"	53.9
1513016-000051	1.5"	53.9
1513016-000064	2.0"	67.4
1513016-000078	2.5"	80.9
1513016-000091	3.0"	94.4
1513016-000119	4.0"	122.4
1513016-000167	6.0"	170.4
1513016-000218	8.0"	221.2
1513016-000268	10.0"	272.0



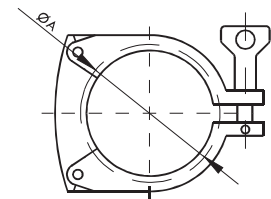
13MHH Clamp

No.	Nom.Size	A
1513001-000025	1/2"	28.6
1513001-000025	3/4"	28.6
1513001-000051	1.0"	53.9
1513001-000051	1.5"	53.9
1513001-000064	2.0"	67.4
1513001-000078	2.5"	80.9
1513001-000091	3.0"	94.4
1513001-000119	4.0"	122.4
1513001-000167	6.0"	170.4
1513001-000218	8.0"	221.2
1513001-000268	10.0"	272.0



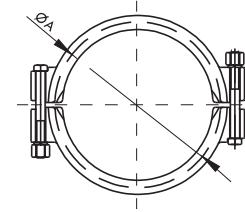
13MHH3 Clamp

No.	Nom.Size	A
1513003-000051	1.0"	53.9
1513003-000051	1.5"	53.9
1513003-000064	2.0"	67.4
1513003-000078	2.5"	80.9
1513003-000091	3.0"	94.4
1513003-000119	4.0"	122.4

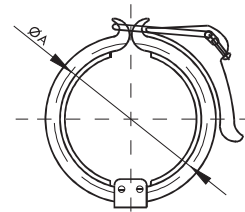


13MHP Clamp

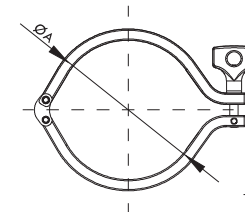
No.	Nom.Size	A
1513002-000025	1/2"	28.6
1513002-000025	3/4"	28.6
1513002-000051	1.0"	52.0
1513002-000051	1.5"	52.0
1513002-000064	2.0"	65.5
1513002-000078	2.5"	79.0
1513002-000091	3.0"	92.5
1513002-000119	4.0"	158.8
1513002-000167	6.0"	170.4


13MHL Clamp

No.	Nom.Size	A
1513004-000051	1.0"	53.9
1513004-000051	1.5"	53.9
1513004-000064	2.0"	67.4
1513004-000078	2.5"	80.9
1513004-000091	3.0"	94.4
1513004-000119	4.0"	122.4

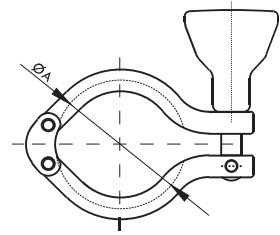

TC Clamp

No.	Nom.Size	A
1513017-000051	1.0"	53.4
1513017-000051	1.5"	53.4
1513017-000064	2.0"	66.0
1513017-000078	2.5"	81.3
1513017-000091	3.0"	94.0
1513017-000119	4.0"	122.0
1513017-000167	6.0"	171.2
1513017-000218	8.0"	222.0
1513017-000268	10.0"	274.0



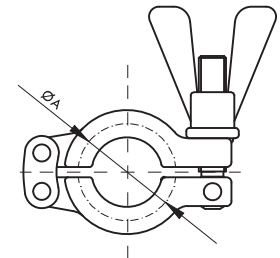
TC Clamp

No.	Nom.Size	A
1213007-000100	1.0"	53.9
1213007-000150	1.5"	53.9
1213007-000200	2.0"	67.4
1213007-000250	2.5"	80.9
1213007-000300	3.0"	94.4
1213007-000400	4.0"	122.4



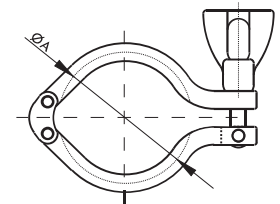
TC Clamp

No.	Nom.Size	A
1513028-000025	1/2"	28.0
1513028-000025	3/4"	28.0
1513028-000051	1.0"	53.9
1513028-000051	1.5"	53.9
1513028-000064	2.0"	67.4
1513028-000078	2.5"	80.9
1513028-000091	3.0"	94.4
1513028-000119	4.0"	122.0



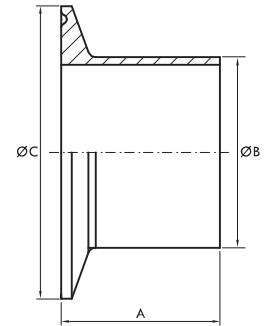
TC Clamp

No.	Nom.Size	A
1213001-000100	1.0"	53.9
1213001-000150	1.5"	53.9
1213001-000200	2.0"	67.4
1213001-000250	2.5"	80.9
1213001-000300	3.0"	94.4
1213001-000400	4.0"	122.4

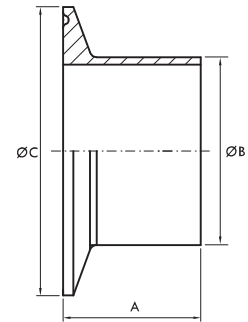


DT-4.1.4-1 Clamp Ferrule

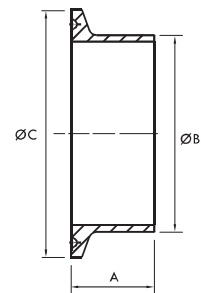
No.	Nominal Size, in.	A in. (mm)	B in. (mm)	C in. (mm)
5514004-000025	1/4"	1.750 (44.5)	0.250 (6.35)	0.984 (25.0)
5514004-000038	3/8"	1.750 (44.5)	0.375 (9.53)	0.984 (25.0)
5514004-000050	1/2"	1.750 (44.5)	0.500 (12.7)	0.984 (25.0)
5514004-000075	3/4"	1.750 (44.5)	0.750 (19.1)	0.984 (25.0)
5514004-000100	1.0"	1.750 (44.5)	1.000 (25.4)	1.984 (50.4)
5514004-000150	1.5"	1.750 (44.5)	1.500 (38.1)	1.984 (50.4)
5514004-000200	2.0"	2.250 (57.2)	2.000 (50.8)	2.516 (63.9)
5514004-000250	2.5"	2.250 (57.2)	2.500 (63.5)	3.047 (77.5)
5514004-000300	3.0"	2.250 (57.2)	3.000 (76.2)	3.579 (90.9)
5514004-000400	4.0"	2.250 (57.2)	4.000 (101.6)	4.682 (119.0)
5514004-000600	6.0"	3.000 (76.2)	6.000 (152.4)	6.570 (166.9)


DT-4.1.4-1 Clamp Ferrule

No.	Nominal Size, in.	A in. (mm)	B in. (mm)	C in. (mm)
5514003-000025	1/4"	1.130 (28.7)	0.250 (6.35)	0.984 (25.0)
5514003-000038	3/8"	1.130 (28.7)	0.375 (9.53)	0.984 (25.0)
5514003-000050	1/2"	1.130 (28.7)	0.500 (12.7)	0.984 (25.0)
5514003-000075	3/4"	1.130 (28.7)	0.750 (19.1)	0.984 (25.0)
5514003-000100	1.0"	1.130 (28.7)	1.000 (25.4)	1.984 (50.4)
5514003-000150	1.5"	1.130 (28.7)	1.500 (38.1)	1.984 (50.4)
5514003-000200	2.0"	1.130 (28.7)	2.000 (50.8)	2.516 (63.9)
5514003-000250	2.5"	1.130 (28.7)	2.500 (63.5)	3.047 (77.5)
5514003-000300	3.0"	1.130 (28.7)	3.000 (76.2)	3.579 (90.9)
5514003-000400	4.0"	1.130 (28.7)	4.000 (101.6)	4.682 (119.0)
5514003-000600	6.0"	1.500 (38.1)	6.000 (152.4)	6.570 (166.9)

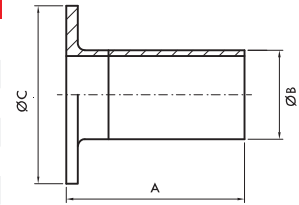

DT-4.1.4-1 Clamp Ferrule

No.	Nominal Size, in.	A in. (mm)	B in. (mm)	C in. (mm)
5514101-000050	1/2"	0.500 (12.7)	0.500 (12.7)	0.984 (25.0)
5514101-000075	3/4"	0.500 (12.7)	0.750 (19.1)	0.984 (25.0)
5514101-000100	1.0"	0.500 (12.7)	1.000 (25.4)	1.984 (50.4)
5514101-000150	1.5"	0.500 (12.7)	1.500 (38.1)	1.984 (50.4)
5514101-000200	2.0"	0.500 (12.7)	2.000 (50.8)	2.516 (63.9)
5514101-000250	2.5"	0.500 (12.7)	2.500 (63.5)	3.047 (77.5)
5514101-000300	3.0"	0.500 (12.7)	3.000 (76.2)	3.579 (90.9)
5514101-000400	4.0"	0.625 (15.9)	4.000 (101.6)	4.682 (119.0)



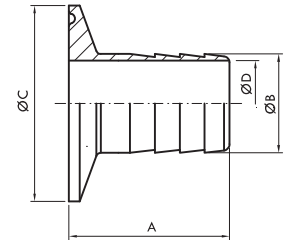
14W-AWF Stub End

No.	Nominal Size, in.	A in.(mm)	B in.(mm)	C in.(mm)
5514065-000050	1/2"	2.000 (50.8)	0.500 (12.7)	1.693 (43.0)
5514065-000075	3/4"	2.000 (50.8)	0.750 (19.1)	1.689 (42.9)
5514065-000100	1.0"	2.000 (50.8)	1.000 (25.4)	2.000 (50.8)
5514065-000150	1.5"	2.000 (50.8)	1.500 (38.1)	2.874 (73.0)
5514065-000200	2.0"	2.500 (63.5)	2.000 (50.8)	3.626 (92.1)
5514065-000250	2.5"	2.500 (63.5)	2.500 (63.5)	4.126 (104.8)
5514065-000300	3.0"	2.500 (63.5)	3.000 (76.2)	5.000 (127.0)
5514065-000400	4.0"	2.500 (63.5)	4.000 (101.6)	6.189 (157.2)
5514065-000600	6.0"	3.000 (76.2)	6.000 (152.4)	8.500 (215.9)



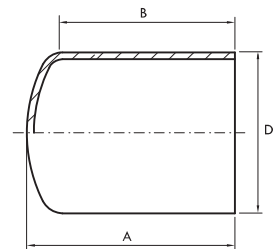
14MPHR Rubber Hose

No.	Nominal Size, in.	A in.(mm)	B in.(mm)	C in.(mm)	D in.(mm)
5514044-000050	1/2"	1.500 (38.1)	0.530 (13.5)	0.984 (25.0)	0.984 (25.0)
5514044-000075	3/4"	1.500 (38.1)	0.780 (19.8)	0.984 (25.0)	0.984 (25.0)
5514044-000100	1.0"	1.689 (42.9)	1.000 (25.4)	1.984 (50.4)	1.984 (50.4)
5514044-000150	1.5"	1.689 (42.9)	1.500 (38.1)	1.984 (50.4)	1.984 (50.4)
5514044-000200	2.0"	2.310 (58.7)	2.000 (50.4)	2.516 (63.9)	2.516 (63.9)
5514044-000250	2.5"	2.342 (59.5)	2.500 (63.5)	3.047 (77.5)	3.047 (77.5)
5514044-000300	3.0"	3.095 (78.6)	3.000 (76.2)	3.578 (90.9)	3.578 (90.9)
5514044-000400	4.0"	3.405 (86.5)	4.000 (101.6)	4.682 (119.0)	4.682 (119.0)



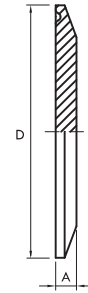
DT-4.1.5-1 Blank End Caps

No.	Nominal Size, in.	A in.(mm)	B in.(mm)	D in.(mm)
5516007-000050	1/2"	1.750 (44.5)	1.500 (38.1)	0.500 (12.7)
5516007-000075	3/4"	1.810 (46.0)	1.500 (38.1)	0.750 (19.1)
5516007-000100	1.0"	1.875 (47.6)	1.500 (38.1)	1.000 (25.4)
5516007-000150	1.5"	2.062 (52.4)	1.500 (38.1)	1.500 (38.1)
5516007-000200	2.0"	2.500 (63.5)	1.500 (38.1)	2.000 (50.8)
5516007-000250	2.5"	2.810 (71.4)	1.500 (38.1)	2.500 (63.5)
5516007-000300	3.0"	2.875 (73.0)	1.750 (44.5)	3.000 (76.2)
5516007-000400	4.0"	3.250 (82.6)	2.000 (50.8)	4.000 (101.6)
5516007-000600	6.0"	4.725 (120.7)	2.500 (63.5)	6.000 (152.4)

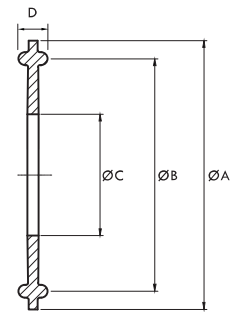


DT-4.1.5-2 Blank

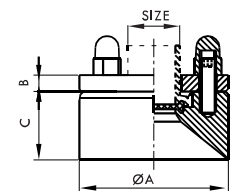
No.	Nominal Size, in.	A in. (mm)	D in. (mm)
5516001-000050	1/2"	0.187 (4.7)	0.984 (25.0)
5516001-000075	3/4"	0.187 (4.7)	0.984 (25.0)
5516001-000100	1.0"	0.187 (6.4)	1.984 (50.4)
5516001-000150	1.5"	0.250 (6.4)	1.984 (38.1)
5516001-000200	2.0"	0.250 (6.4)	2.516 (50.4)
5516001-000250	2.5"	0.250 (6.4)	3.047 (63.5)
5516001-000300	3.0"	0.250 (6.4)	3.579 (76.2)
5516001-000400	4.0"	0.312 (7.9)	4.682 (101.6)
5516001-000600	6.0"	0.437 (11.1)	6.570 (166.9)


DT-7-1 Sealing Ring

No.	Nominal Size, in.	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)
5515001-000100	1.0"	1.984 (50.4)	1.718 (43.6)	0.870 (22.1)	0.216 (5.5)
5515001-000150	1.5"	1.984 (50.4)	1.718 (43.6)	1.370 (34.8)	0.216 (5.5)
5515001-000200	2.0"	2.516 (63.9)	2.218 (56.3)	1.870 (47.5)	0.216 (5.5)
5515001-000250	2.5"	3.047 (77.4)	2.781 (70.6)	2.370 (60.2)	0.216 (5.5)
5515001-000300	3.0"	3.579 (90.9)	3.281 (83.3)	2.870 (72.9)	0.216 (5.5)
5515001-000400	4.0"	4.682 (118.9)	4.344 (110.3)	3.834 (97.4)	0.216 (5.5)

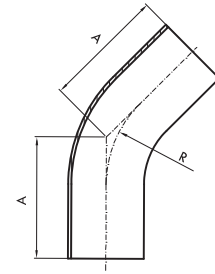

Flange

No.	Nominal Size, in.	A in. (mm)	B in. (mm)	D in. (mm)
5501K01-007500	3/4"	2.145 (54.5)	0.236 (6.0)	0.984 (25.0)
5501K01-010000	1.0"	3.326 (84.5)	0.236 (6.0)	0.984 (25.0)
5501K01-015000	1.5"	3.326 (84.5)	0.236 (6.0)	0.984 (25.0)
5501K01-020000	2.0"	3.917 (99.5)	0.236 (6.0)	0.984 (25.0)
5501K01-025000	2.5"	4.409 (112.0)	0.394 (10.0)	1.496 (38.0)
5501K01-030000	3.0"	5.157 (131.0)	0.94 (10.0)	1.496 (38.0)



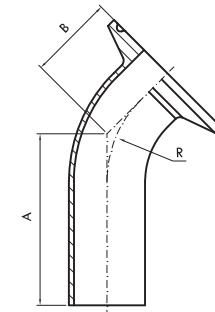
DT-4.1.1-4 Automatic Tube Weld:45°Elbow

No.	Nominal Size,in.	A in.(mm)	R in.(mm)
5506103-000050	1/2"	2.250 (57.2)	1.125 (28.6)
5506103-000075	3/4"	2.250 (57.2)	1.125 (28.6)
5506103-000100	1.0"	2.250 (57.2)	1.500 (38.1)
5506103-000150	1.5"	2.500 (63.5)	2.250 (57.2)
5506103-000200	2.0"	3.000 (76.2)	3.000 (76.2)
5506103-000250	2.5"	3.375 (85.7)	3.750 (95.3)
5506103-000300	3.0"	3.625 (92.1)	4.500 (114.3)
5506103-000400	4.0"	4.500 (114.3)	6.000 (152.4)
5506103-000600	6.0"	6.250 (158.8)	9.000 (228.6)



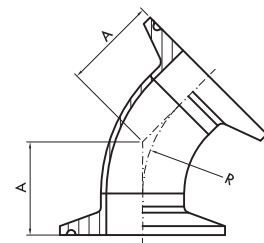
DT-4.1.1-5 Automatic Tube Weld: Clamp Joint, 45°Elbow

No.	Nominal Size,in.	A in.(mm)	B in.(mm)	R in.(mm)
5506303-000050	1/2"	2.250 (57.2)	1.000 (25.4)	1.125 (28.6)
5506303-000075	3/4"	2.250 (57.2)	1.000 (25.4)	1.125 (28.6)
5506303-000100	1.0"	2.250 (57.2)	1.125 (28.6)	1.500 (38.1)
5506303-000150	1.5"	2.500 (63.5)	1.438 (36.5)	2.250 (57.2)
5506303-000200	2.0"	3.000 (76.2)	1.750 (44.5)	3.000 (76.2)
5506303-000250	2.5 "	3.375 (85.7)	2.063 (52.4)	3.750 (95.3)
5506303-000300	3.0"	3.625 (92.1)	2.375 (60.3)	4.500 (114.3)
5506303-000400	4.0"	4.500 (114.3)	3.125 (79.4)	6.000 (152.4)
5506303-000600	6.0"	6.250 (158.8)	5.250 (133.4)	9.000 (228.6)



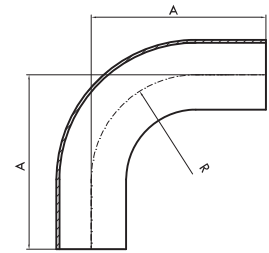
DT-4.1.1-6 Clamp Joint: 45°Clamp Elbow

No.	Nominal Size,in.	A in.(mm)	R in.(mm)
5506303-000050	1/2"	1.000 (25.4)	1.125 (28.6)
5506303-000075	3/4"	1.000 (25.4)	1.125 (28.6)
5506303-000100	1.0"	1.125 (28.6)	1.500 (38.1)
5506303-000150	1.5"	1.438 (36.5)	2.250 (57.2)
5506303-000200	2.0"	1.750 (44.5)	3.000 (76.2)
5506303-000250	2.5 "	2.063 (52.4)	3.750 (95.3)
5506303-000300	3.0"	2.375 (60.3)	4.500 (114.3)
5506303-000400	4.0"	3.125 (79.4)	6.000 (152.4)
5506303-000600	6.0"	5.250 (133.4)	9.000 (228.6)

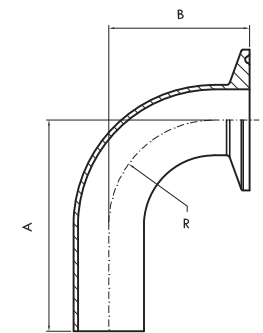


DT-4.1.1-1 Automatic Tube Weld: 90°Elbow

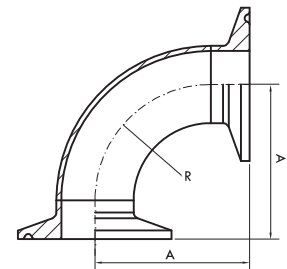
No.	Nominal Size, in.	A in.(mm)	R in.(mm)
5506102-000038	3/8"	2.625 (66.7)	1.125 (28.6)
5506102-000050	1/2"	3.000 (76.2)	1.125 (28.6)
5506102-000075	3/4"	3.000 (76.2)	1.125 (28.6)
5506102-000100	1.0"	3.000 (76.2)	1.500 (38.1)
5506102-000150	1.5"	3.750 (95.3)	2.250 (57.2)
5506102-000200	2.0"	4.750 (120.7)	3.000 (76.2)
5506102-000250	2.5"	5.500 (139.7)	3.750 (95.3)
5506102-000300	3.0"	6.250 (158.8)	4.500 (114.3)
5506102-000400	4.0"	203.2 (203.2)	6.000 (152.4)
5506102-000600	6.0"	11.500 (292.1)	9.000 (228.6)


DT-4.1.1-2 Automatic Tube Weld: Clamp Joint, 90°Elbow

No.	Nominal Size, in.	A in.(mm)	B in.(mm)	R in.(mm)
5506302-000038	3/8"	2.625 (66.7)	1.625 (41.3)	1.125 (28.6)
5506302-000050	1/2"	3.000 (76.2)	1.625 (41.3)	1.125 (28.6)
5506302-000075	3/4"	3.000 (76.2)	1.625 (41.3)	1.125 (28.6)
5506302-000100	1.0"	3.000 (76.2)	2.000 (50.8)	1.500 (38.1)
5506302-000150	1.5"	3.750 (95.3)	2.750 (69.9)	2.250 (57.2)
5506302-000200	2.0"	4.750 (120.7)	3.500 (88.9)	3.000 (76.2)
5506302-000250	2.5 "	5.500 (139.7)	4.250 (108.0)	3.750 (95.3)
5506302-000300	3.0"	6.250 (158.8)	5.000 (127.0)	4.500 (114.3)
5506302-000400	4.0"	203.2 (203.2)	6.625 (168.3)	6.000 (152.4)
5506302-000600	6.0"	11.500 (292.1)	10.500 (266.7)	9.000 (228.6)

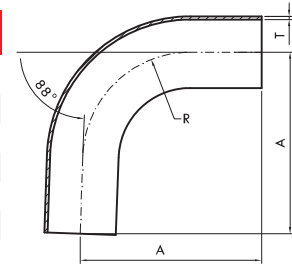

DT-4.1.1-3 Clamp Joint: 90°Elbow

No.	Nominal Size, in.	A in.(mm)	R in.(mm)
5506201-000050	1/2"	1.625 (41.3)	1.125 (28.6)
5506201-000075	3/4"	1.625 (41.3)	1.125 (28.6)
5506201-000100	1.0"	2.000 (50.8)	1.500 (38.1)
5506201-000150	1.5"	2.750 (69.9)	2.250 (57.2)
5506201-000200	2.0"	3.500 (88.9)	3.000 (76.2)
5506201-000250	2.5 "	4.250 (108.0)	3.750 (95.3)
5506201-000300	3.0"	5.000 (127.0)	4.500 (114.3)
5506201-000400	4.0"	6.625 (168.3)	6.000 (152.4)
5506201-000600	6.0"	10.500 (266.7)	9.000 (228.6)



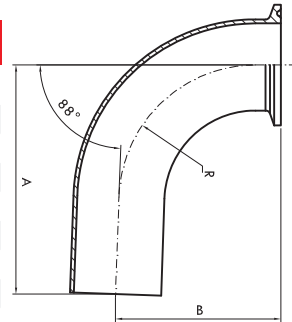
Automatic Tube Weld: 88° Elbow

No.	Nominal Size, in.	A in. (mm)	R in. (mm)
5506A01-000050	1/2"	3.078 (78.2)	1.125 (28.6)
5506A01-000075	3/4"	3.059 (77.7)	1.125 (28.6)
5506A01-000100	1.0"	3.047 (77.4)	1.125 (28.6)
5506A01-000150	1.5"	3.799 (96.5)	2.250 (57.2)
5506A01-000200	2.0"	4.803 (122.0)	3.000 (76.2)
5506A01-000250	2.5"	5.551 (141.0)	3.750 (95.3)
5506A01-000300	3.0"	6.260 (160.0)	4.500 (114.3)
5506A01-000400	4.0"	8.070 (205.0)	6.000 (152.4)



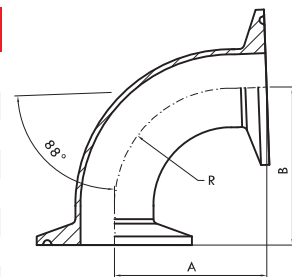
Automatic Tube Weld: Clamp Joint, 88° Elbow

No.	Nominal Size, in.	A in. (mm)	B in. (mm)	R in. (mm)
5506A21-000050	1/2"	3.031 (77.0)	1.598 (40.6)	1.125 (28.6)
5506A21-000075	3/4"	3.019 (76.7)	1.598 (40.6)	1.125 (28.6)
5506A21-000100	1.0"	3.019 (76.7)	1.949 (49.5)	1.500 (38.1)
5506A21-000150	1.5"	3.771 (95.8)	2.720 (69.1)	2.250 (57.2)
5506A21-000200	2.0"	4.803 (122.0)	3.630 (92.2)	3.000 (76.2)
5506A21-000250	2.5"	5.551 (140.0)	4.212 (107.0)	3.750 (95.3)
5506A21-000300	3.0"	6.260 (159.0)	4.960 (126.0)	4.500 (114.3)
5506A21-000400	4.0"	8.031 (204.0)	6.811 (173.0)	6.000 (152.4)



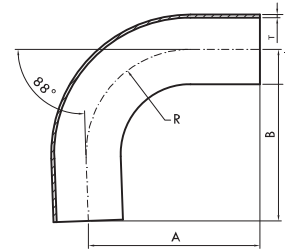
Clamp Joint: 88° Elbow

No.	Nominal Size, in.	A in. (mm)	B in. (mm)	R in. (mm)
5506A30-000050	1/2"	1.598 (40.6)	1.661 (42.2)	1.125 (28.6)
5506A30-000075	3/4"	1.578 (40.1)	1.641 (41.7)	1.125 (28.6)
5506A30-000100	1.0"	1.948 (49.5)	2.019 (51.3)	1.500 (38.1)
5506A30-000150	1.5"	2.696 (68.6)	2.791 (70.9)	2.250 (57.2)
5506A30-000200	2.0"	3.429 (87.1)	3.551 (90.2)	3.000 (76.2)
5506A30-000250	2.5"	4.173 (106.0)	4.291 (109.0)	3.750 (95.3)
5506A30-000300	3.0"	4.881 (124.0)	5.078 (129.0)	4.500 (114.3)
5506A30-000400	4.0"	4.496 (165.0)	6.732 (171.0)	6.000 (152.4)

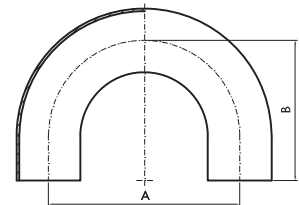


Automatic Tube Weld: 92° Elbow

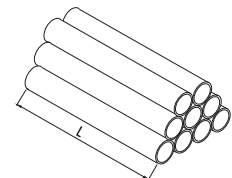
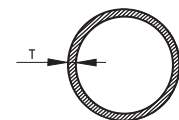
No.	Nominal Size, in.	A in. (mm)	R in. (mm)
5506B01-000050	1/2"	2.921 (74.2)	1.125 (28.6)
5506B01-000075	3/4"	3.044 (74.4)	1.125 (28.6)
5506B01-000100	1.0"	2.949 (74.9)	1.125 (38.1)
5506B01-000150	1.5"	3.700 (94.0)	2.250 (57.2)
5506B01-000200	2.0"	4.685 (119.0)	3.000 (76.2)
5506B01-000250	2.5"	5.433 (138.0)	3.750 (95.3)
5506B01-000300	3.0"	6.181 (157.0)	4.500 (114.3)
5506B01-000400	4.0"	7.913 (201.0)	6.000 (152.4)


Automatic Tube Weld: Clamp Joint, 180° Elbow

No.	Nominal Size, in.	A in. (mm)	B in. (mm)
5506107-0000050	1/2"	4.500 (114.3)	3.000 (76.2)
5506107-0000075	3/4"	4.500 (114.3)	3.000 (76.2)
5506107-0000100	1.0"	3.000 (76.2)	3.000 (76.2)
5506107-0000150	1.5"	4.500 (114.3)	4.500 (114.3)
5506107-0000200	2.0"	6.000 (152.4)	5.000 (127.0)
5506107-0000250	2.5"	7.500 (190.5)	5.750 (146.1)
5506107-0000300	3.0"	9.000 (228.6)	6.500 (165.1)
5506107-0000400	4.0"	12.000 (304.8)	8.500 (215.9)
5506107-0000600	6.0"	18.000 (457.2)	11.500 (292.1)

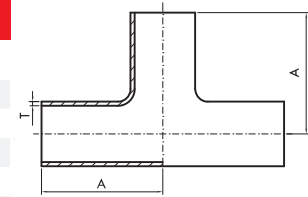

Hygienic Tubes

Nominal Size, in.	L mm	T in.	T mm
1/4"	6100.0	0.035	0.89
3/8"	6100.0	0.035	0.89
1/2"	6100.0	0.065	1.65
3/4"	6100.0	0.065	1.65
1.0"	6100.0	0.065	1.65
1.5"	6100.0	0.065	1.65
2.0"	6100.0	0.065	1.65
2.5"	6100.0	0.065	1.65
3.0"	6100.0	0.065	1.65
4.0"	6100.0	0.083	2.11
6.0"	6100.0	0.109	2.77



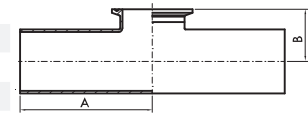
DT-4.1.2-1 Automatic Tube Weld: Straight Tee

No.	Nominal Size, in.	A in.(mm)
5503102-000025	1/4"	1.750 (44.5)
5503102-000035	3/8"	1.750 (44.5)
5503102-000050	1/2"	1.875 (47.6)
5503102-000075	3/4"	2.000 (50.8)
5503102-000100	1.0"	2.125 (54.0)
5503102-000150	1.5"	2.375 (60.3)
5503102-000200	2.0"	2.875 (73.0)
5503102-000250	2.5"	3.125 (79.4)
5503102-000300	3.0"	3.375 (85.7)
5503102-000400	4.0"	4.125 (104.8)
5503102-000600	6.0"	5.625 (142.9)



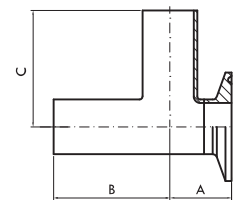
DT-4.1.2-2 Automatic Tube Weld: Clamp Joint, Straight Tee

No.	Nominal Size, in.	A in.(mm)	B in.(mm)
5503201-000050	1/2"	1.875 (47.6)	1.000 (25.4)
5503201-000075	3/4"	2.000 (50.8)	1.125 (28.6)
5503201-000100	1.0"	2.125 (54.0)	1.125 (28.6)
5503201-000150	1.5"	2.375 (60.3)	1.375 (34.9)
5503201-000200	2.0"	2.875 (73.0)	1.625 (41.3)
5503201-000250	2.5"	3.125 (79.4)	1.875 (47.6)
5503201-000300	3.0"	3.375 (85.7)	2.125 (54.0)
5503201-000400	4.0"	4.125 (104.8)	2.750 (69.9)
5503201-000600	6.0"	5.625 (142.9)	4.625 (117.5)



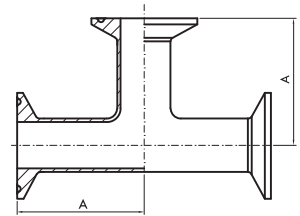
DT-4.1.2-3 Mechanical Joint: Short Outlet Run Tee

No.	Nominal Size, in.	A in.(mm)	B in.(mm)	R in.(mm)
5503202-000025	1/4"	0.875 (22.2)	1.750 (44.5)	1.750 (44.5)
5503202-000038	3/8"	0.875 (22.2)	1.750 (44.5)	1.750 (44.5)
5503202-000050	1/2"	0.875 (22.2)	1.875 (47.6)	1.875 (47.6)
5503202-000075	3/4"	1.000 (25.4)	2.000 (50.8)	2.000 (50.8)
5503202-000100	1.0"	1.125 (28.6)	2.125 (54.0)	2.125 (54.0)
5503202-000150	1.5"	1.375 (34.9)	2.375 (60.3)	2.375 (60.3)
5503202-000200	2.0"	1.625 (41.3)	2.875 (73.0)	2.875 (73.0)
5503202-000250	2.5"	1.875 (47.6)	3.125 (79.4)	3.125 (79.4)
5503202-000300	3.0"	2.125 (54.0)	3.375 (85.7)	3.375 (85.7)
5503202-000400	4.0"	2.750 (69.9)	4.125 (104.8)	4.125 (104.8)
5503202-000600	6.0"	4.625 (117.5)	5.625 (142.9)	5.625 (142.9)

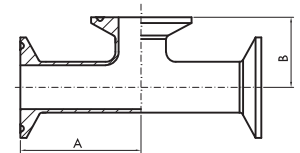


DT-4.1.2-4 Clamp Joint: Straight Tee

No.	Nominal Size, in.	A in. (mm)
5503302-000050	1/2"	2.250 (57.2)
5503302-000075	3/4"	2.375 (60.3)
5503302-000100	1.0"	2.625 (66.7)
5503302-000150	1.5"	2.875 (73.0)
5503302-000200	2.0"	3.375 (85.7)
5503302-000250	2.5"	3.625 (92.1)
5503302-000300	3.0"	3.875 (98.4)
5503302-000400	4.0"	4.750 (120.7)
5503302-000600	6.0"	7.125 (181.0)

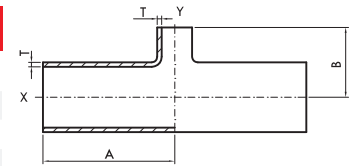

DT-4.1.2-5 Clamp Joint: Short Outlet Tee

No.	Nominal Size, in.	A in. (mm)	B in. (mm)
5503200-000050	1/2"	2.250 (57.2)	1.000 (25.4)
5503200-000075	3/4"	2.375 (60.3)	1.125 (28.6)
5503200-000100	1.0"	2.625 (66.7)	1.125 (28.6)
5503200-000150	1.5"	2.875 (73.0)	1.375 (34.9)
5503200-000200	2.0"	3.375 (85.7)	1.625 (41.3)
5503200-000250	2.5"	3.625 (92.1)	1.875 (47.6)
5503200-000300	3.0"	3.875 (98.4)	2.125 (54.0)
5503200-000400	4.0"	4.750 (120.7)	2.750 (69.9)
5503200-000600	6.0"	7.125 (181.0)	4.625 (117.5)



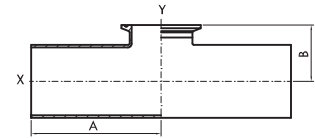
DT-4.1.2-6 Automatic Tube Weld: Reducing Tee

No.	Nominal Size, in.		A		B	
	X	Y	in.(mm)		in.(mm)	
5503102-050038	1/2"	3/8"	1.857	(47.6)	1.857	(47.6)
5503102-075025	3/4"	1/4"	2.000	(50.8)	2.000	(50.8)
5503102-075038	3/4"	3/8"	2.000	(50.8)	2.000	(50.8)
5503102-075050	3/4"	1/2"	2.000	(50.8)	2.000	(50.8)
5503102-100025	1.0"	1/4"	2.125	(54.0)	2.125	(54.0)
5503102-100038	1.0"	3/8"	2.125	(54.0)	2.125	(54.0)
5503102-100050	1.0"	1/2"	2.125	(54.0)	2.125	(54.0)
5503102-100075	1.0"	3/4"	2.125	(54.0)	2.125	(54.0)
5503102-150025	1.5"	1/4"	2.375	(60.3)	2.375	(60.3)
5503102-150050	1.5"	1/2"	2.375	(60.3)	2.375	(60.3)
5503102-150075	1.5"	3/4"	2.375	(60.3)	2.375	(60.3)
5503102-150100	1.5"	1.0"	2.375	(60.3)	2.375	(60.3)
5503102-200025	2.0"	1/4"	2.875	(73.0)	2.625	(66.7)
5503102-200038	2.0"	3/8"	2.875	(73.0)	2.625	(66.7)
5503102-200050	2.0"	1/2"	2.875	(73.0)	2.625	(66.7)
5503102-200075	2.0"	3/4"	2.875	(73.0)	2.625	(66.7)
5503102-200100	2.0"	1.0"	2.875	(73.0)	2.625	(66.7)
5503102-200150	2.0"	1.5"	2.875	(73.0)	2.625	(66.7)
5503102-250038	2.5"	3/8"	3.125	(79.4)	2.875	(73.0)
5503102-250050	2.5"	1/2"	3.125	(79.4)	2.875	(73.0)
5503102-250075	2.5"	3/4"	3.125	(79.4)	2.875	(73.0)
5503102-250100	2.5"	1.0"	3.125	(79.4)	2.875	(73.0)
5503102-250150	2.5"	1.5"	3.125	(79.4)	2.875	(73.0)
5503102-250200	2.5"	2.0"	3.125	(79.4)	2.875	(73.0)
5503102-300050	3.0"	1/2"	3.375	(85.7)	3.125	(79.4)
5503102-300075	3.0"	3/4"	3.375	(85.7)	3.125	(79.4)
5503102-300100	3.0"	1.0"	3.375	(85.7)	3.125	(79.4)
5503102-300150	3.0"	1.5"	3.375	(85.7)	3.125	(79.4)
5503102-300200	3.0"	2.0"	3.375	(85.7)	3.125	(79.4)
5503102-300250	3.0"	2.5"	3.375	(85.7)	3.125	(79.4)
5503102-400050	4.0"	1/2"	4.125	(104.8)	3.625	(92.1)
5503102-400075	4.0"	3/4"	4.125	(104.8)	3.625	(92.1)
5503102-400100	4.0"	1.0"	4.125	(104.8)	3.625	(92.1)
5503102-400150	4.0"	1.5"	4.125	(104.8)	3.625	(92.1)
5503102-400200	4.0"	2.0"	4.125	(104.8)	3.875	(98.4)
5503102-400250	4.0"	2.5"	4.125	(104.8)	3.875	(98.4)
5503102-400300	4.0"	3.0"	4.125	(104.8)	3.875	(98.4)
5503102-600075	6.0"	3/4"	5.625	(142.9)	4.875	(123.8)
5503102-600100	6.0"	1.0"	5.625	(142.9)	4.875	(123.8)
5503102-600150	6.0"	1.5"	5.625	(142.9)	4.875	(123.8)
5503102-600200	6.0"	2.0"	5.625	(142.9)	4.875	(123.8)
5503102-600250	6.0"	2.5"	5.625	(142.9)	4.875	(123.8)
5503102-600300	6.0"	3.0"	5.625	(142.9)	4.875	(123.8)
5503102-600400	6.0"	4.0"	5.625	(142.9)	5.125	(130.2)



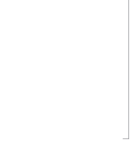
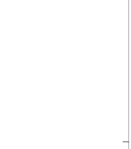
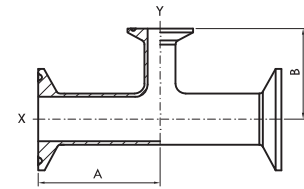
DT-4.1.2-7 Automatic Tube Weld: Shrot Outlet Clamp, Joint, Reducing Tee

No.	Nominal Size, in.		A		B	
	X	Y	in. (mm)		in. (mm)	
5503201-075050	3/4"	1/2"	2.000	(50.8)	1.000	(25.4)
5503201-100050	1.0"	1/2"	2.125	(54.0)	1.125	(28.6)
5503201-100075	1.0"	3/4"	2.125	(54.0)	1.125	(28.6)
5503201-150050	1.5"	1/2"	2.375	(60.3)	1.375	(34.9)
5503201-150075	1.5"	3/4"	2.375	(60.3)	1.375	(34.9)
5503201-150100	1.5"	1.0"	2.375	(60.3)	1.375	(34.9)
5503201-200050	2.0"	1/2"	2.875	(73.0)	1.625	(41.3)
5503201-200075	2.0"	3/4"	2.875	(73.0)	1.625	(41.3)
5503201-200100	2.0"	1.0"	2.875	(73.0)	1.625	(41.3)
5503201-200150	2.0"	1.5"	2.875	(73.0)	1.625	(41.3)
5503201-250050	2.5"	1/2"	3.125	(79.4)	1.875	(47.6)
5503201-250075	2.5"	3/4"	3.125	(79.4)	1.875	(47.6)
5503201-250100	2.5"	1.0"	3.125	(79.4)	1.875	(47.6)
5503201-250150	2.5"	1.5"	3.125	(79.4)	1.875	(47.6)
5503201-250200	2.5"	2.0"	3.125	(79.4)	1.875	(47.6)
5503201-300050	3.0"	1/2"	3.375	(85.7)	2.125	(54.0)
5503201-300075	3.0"	3/4"	3.375	(85.7)	2.125	(54.0)
5503201-300100	3.0"	1.0"	3.375	(85.7)	2.125	(54.0)
5503201-300150	3.0"	1.5"	3.375	(85.7)	2.125	(54.0)
5503201-300200	3.0"	2.0"	3.375	(85.7)	2.125	(54.0)
5503201-300250	3.0"	2.5"	3.375	(85.7)	2.125	(54.0)
5503201-400050	4.0"	1/2"	4.125	(104.8)	2.625	(66.7)
5503201-400075	4.0"	3/4"	4.125	(104.8)	2.625	(66.7)
5503201-400100	4.0"	1.0"	4.125	(104.8)	2.625	(66.7)
5503201-400150	4.0"	1.5"	4.125	(104.8)	2.625	(66.7)
5503201-400200	4.0"	2.0"	4.125	(104.8)	2.625	(66.7)
5503201-400250	4.0"	2.5"	4.125	(104.8)	2.625	(66.7)
5503201-400300	4.0"	3.0"	4.125	(104.8)	2.625	(66.7)
5503201-600050	6.0"	1/2"	5.625	(142.9)	3.625	(92.1)
5503201-600075	6.0"	3/4"	5.625	(142.9)	3.625	(92.1)
5503201-600100	6.0"	1.0"	5.625	(142.9)	3.625	(92.1)
5503201-600150	6.0"	1.5"	5.625	(142.9)	3.625	(92.1)
5503201-600200	6.0"	2.0"	5.625	(142.9)	3.625	(92.1)
5503201-600250	6.0"	2.5"	5.625	(142.9)	3.625	(92.1)
5503201-600300	6.0"	3.0"	5.625	(142.9)	3.625	(92.1)
5503201-600400	6.0"	4.0"	5.625	(142.9)	3.750	(95.3)



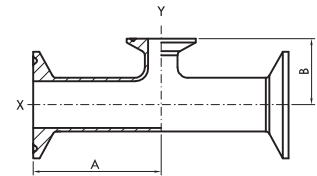
DT-4.1.2-8 Clamp Joint: Reducing Tee

No.	Nominal Size, in.		A in.(mm)	B in.(mm)
	X	Y		
5503302-050038	1/2"	3/8"	2.375 (60.3)	2.375 (60.3)
5503302-075050	3/4"	1/2"	2.500 (63.5)	2.500 (63.5)
5503302-100025	1.0"	1/4"	2.625 (66.7)	2.625 (66.7)
5503302-100050	1.0"	1/2"	2.625 (66.7)	2.625 (66.7)
5503302-100075	1.0"	3/4"	2.625 (66.7)	2.625 (66.7)
5503302-150050	1.5"	1/2"	2.875 (73.0)	2.875 (73.0)
5503302-150075	1.5"	3/4"	2.875 (73.0)	2.875 (73.0)
5503302-150100	1.5"	1.0"	2.875 (73.0)	2.875 (73.0)
5503302-200050	2.0"	1/2"	3.375 (85.7)	3.125 (79.4)
5503302-200075	2.0"	3/4"	3.375 (85.7)	3.125 (79.4)
5503302-200100	2.0"	1.0"	3.375 (85.7)	3.125 (79.4)
5503302-200150	2.0"	1.5"	3.375 (85.7)	3.125 (79.4)
5503302-250050	2.5"	1/2"	3.625 (92.1)	3.375 (85.7)
5503302-250075	2.5"	3/4"	3.625 (92.1)	3.375 (85.7)
5503302-250100	2.5"	1.0"	3.625 (92.1)	3.375 (85.7)
5503302-250150	2.5"	1.5"	3.625 (92.1)	3.375 (85.7)
5503302-250200	2.5"	2.0"	3.625 (92.1)	3.375 (85.7)
5503302-300050	3.0"	1/2"	3.875 (98.4)	3.625 (92.1)
5503302-300075	3.0"	3/4"	3.875 (98.4)	3.625 (92.1)
5503302-300100	3.0"	1.0"	3.875 (98.4)	3.625 (92.1)
5503302-300150	3.0"	1.5"	3.875 (98.4)	3.625 (92.1)
5503302-300200	3.0"	2.0"	3.875 (98.4)	3.625 (92.1)
5503302-300250	3.0"	2.5"	3.875 (98.4)	3.625 (92.1)
5503302-400050	4.0"	1/2"	4.750 (120.7)	4.125 (104.8)
5503302-400075	4.0"	3/4"	4.750 (120.7)	4.125 (104.8)
5503302-400100	4.0"	1.0"	4.750 (120.7)	4.125 (104.8)
5503302-400150	4.0"	1.5"	4.750 (120.7)	4.125 (104.8)
5503302-400200	4.0"	2.0"	4.750 (120.7)	4.375 (111.1)
5503302-400250	4.0"	2.5"	4.750 (120.7)	4.375 (111.1)
5503302-400300	4.0"	3.0"	4.750 (120.7)	4.375 (111.1)
5503302-600300	6.0"	3.0"	7.125 (181.0)	5.375 (136.5)
5503302-600400	6.0"	4.0"	7.125 (181.0)	5.750 (146.1)



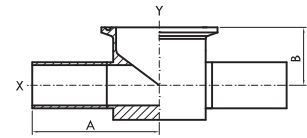
DT-4.1.2-9 Clamp Joint: Short Outlet Reducing Tee

No.	Nominal Size, in.		A		B	
	X	Y	in.(mm)		in.(mm)	
5503200-075050	3/4"	1/2"	2.500	(63.5)	1.000	(25.4)
5503200-100050	1.0"	1/2"	2.625	(66.7)	1.125	(28.6)
5503200-100075	1.0"	3/4"	2.625	(66.7)	1.125	(28.6)
5503200-150050	1.5"	1/2"	2.875	(73.0)	1.375	(34.9)
5503200-150075	1.5"	3/4"	2.875	(73.0)	1.375	(34.9)
5503200-150100	1.5"	1.0"	2.875	(73.0)	1.375	(34.9)
5503200-200050	2.0"	1/2"	3.375	(85.7)	1.625	(41.3)
5503200-200075	2.0"	3/4"	3.375	(85.7)	1.625	(41.3)
5503200-200100	2.0"	1.0"	3.375	(85.7)	1.625	(41.3)
5503200-200150	2.0"	1.5"	3.375	(85.7)	1.625	(41.3)
5503200-250050	2.5"	1/2"	3.625	(92.1)	1.875	(47.6)
5503200-250075	2.5"	3/4"	3.625	(92.1)	1.875	(47.6)
5503200-250100	2.5"	1.0"	3.625	(92.1)	1.875	(47.6)
5503200-250150	2.5"	1.5"	3.625	(92.1)	1.875	(47.6)
5503200-250200	2.5"	2.0"	3.625	(92.1)	1.875	(47.6)
5503200-300050	3.0"	1/2"	3.875	(98.4)	2.125	(54.0)
5503200-300075	3.0"	3/4"	3.875	(98.4)	2.125	(54.0)
5503200-300100	3.0"	1.0"	3.875	(98.4)	2.125	(54.0)
5503200-300150	3.0"	1.5"	3.875	(98.4)	2.125	(54.0)
5503200-300200	3.0"	2.0"	3.875	(98.4)	2.125	(54.0)
5503200-300250	3.0"	2.5"	3.875	(98.4)	2.125	(54.0)
5503200-400050	4.0"	1/2"	4.750	(120.7)	2.625	(66.7)
5503200-400075	4.0"	3/4"	4.750	(120.7)	2.625	(66.7)
5503200-400100	4.0"	1.0"	4.750	(120.7)	2.625	(66.7)
5503200-400150	4.0"	1.5"	4.750	(120.7)	2.625	(66.7)
5503200-400200	4.0"	2.0"	4.750	(120.7)	2.625	(66.7)
5503200-400250	4.0"	2.5"	4.750	(120.7)	2.625	(66.7)
5503200-400300	4.0"	3.0"	4.750	(120.7)	2.625	(66.7)
5503200-600050	6.0"	1/2"	7.125	(181.0)	3.625	(92.1)
5503200-600075	6.0"	3/4"	7.125	(181.0)	3.625	(92.1)
5503200-600100	6.0"	1.0"	7.125	(181.0)	3.625	(92.1)
5503200-600150	6.0"	1.5"	7.125	(181.0)	3.625	(92.1)
5503200-600200	6.0"	2.0"	7.125	(181.0)	3.625	(92.1)
5503200-600250	6.0"	2.5"	7.125	(181.0)	3.625	(92.1)
5503200-600300	6.0"	3.0"	7.125	(181.0)	3.625	(92.1)
5503200-600400	6.0"	4.0"	7.125	(181.0)	3.375	(95.3)



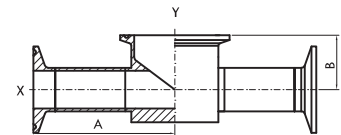
DT-4.1.2-10 Automatic Tube Weld: Instrument Tee

No.	Nominal Size, in.		A in.(mm)	B in.(mm)
	X	Y		
5503203-050150	1/2"	1.5"	2.500 (63.5)	0.875 (22.2)
5503203-075150	3/4"	1.5"	2.500 (63.5)	1.000 (25.4)
5503203-100150	1.0"	1.5"	2.750 (63.5)	1.125 (28.6)
5503203-050200	1/2"	2.0"	2.750 (69.9)	1.000 (25.4)
5503203-075200	3/4"	2.0"	2.750 (69.9)	1.125 (28.6)
5503203-100200	1.0"	2.0"	2.750 (69.9)	1.250 (31.8)
5503203-150200	1.5"	2.0"	2.750 (69.9)	1.500 (38.1)



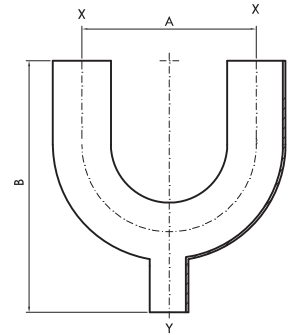
DT-4.1.2-11 Clamp Joint: Instrument Tee

No.	Nominal Size, in.		A in.(mm)	B in.(mm)
	X	Y		
5503303-050150	1/2"	1.5"	3.000 (76.2)	0.875 (22.2)
5503303-075150	3/4"	1.5"	3.000 (76.2)	1.000 (25.4)
5503303-100150	1.0"	1.5"	3.000 (76.2)	1.125 (28.6)
5503303-050200	1/2"	2.0"	3.250 (82.6)	1.000 (25.4)
5503303-075200	3/4"	2.0"	3.250 (82.6)	1.125 (28.6)
5503303-100200	1.0"	2.0"	3.250 (82.6)	1.250 (31.8)
5503303-150200	1.5"	2.0"	3.250 (82.6)	1.500 (38.1)



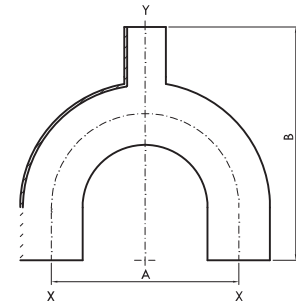
Automatic Tube Weld: 180° Reducing Tee

No.	Nominal Size, in.		A		B	
	X	Y	in. (mm)		in. (mm)	
5506113-075050	3/4"	1/2"	4.500	(114.3)	4.992	(126.8)
5506113-100050	1.0"	1/2"	3.000	(76.2)	5.125	(130.2)
5506113-100075	1.0"	3/4"	3.000	(76.2)	5.125	(130.2)
5506113-000100	1.0"	1.0"	3.000	(76.2)	5.125	(130.2)
5506113-150050	1.5"	1/2"	4.500	(114.3)	6.874	(174.6)
5506113-150075	1.5"	3/4"	4.500	(114.3)	6.874	(174.6)
5506113-150100	1.5"	1.0"	4.500	(114.3)	6.874	(174.6)
5506113-000150	1.5"	1.5"	4.500	(114.3)	6.874	(174.6)
5506113-200050	2.0"	1/2"	6.000	(152.4)	7.622	(193.6)
5506113-200075	2.0"	3/4"	6.000	(152.4)	7.622	(193.6)
5506113-200100	2.0"	1.0"	6.000	(152.4)	7.622	(193.6)
5506113-200150	2.0"	1.5"	6.000	(152.4)	7.622	(193.6)
5506113-000200	2.0"	2.0"	6.000	(152.4)	7.622	(193.6)
5506113-250050	2.5"	1/2"	7.500	(190.5)	8.625	(219.1)
5506113-250075	2.5"	3/4"	7.500	(190.5)	8.625	(219.1)
5506113-250100	2.5"	1.0"	7.500	(190.5)	8.625	(219.1)
5506113-250150	2.5"	1.5"	7.500	(190.5)	8.625	(219.1)
5506113-250200	2.5"	2.0"	7.500	(190.5)	8.625	(219.1)
5506113-000250	2.5"	2.5"	7.500	(190.5)	8.625	(219.1)
5506113-300050	3.0"	1/2"	9.000	(228.6)	9.625	(244.5)
5506113-300075	3.0"	3/4"	9.000	(228.6)	9.625	(244.5)
5506113-300100	3.0"	1.0"	9.000	(228.6)	9.625	(244.5)
5506113-300150	3.0"	1.5"	9.000	(228.6)	9.625	(244.5)
5506113-300200	3.0"	2.0"	9.000	(228.6)	9.625	(244.5)
5506113-300250	3.0"	2.5"	12.000	(304.8)	9.625	(244.5)
5506113-000300	3.0"	3.0"	12.000	(304.8)	9.625	(244.5)
5506113-400050	4.0"	1/2"	12.000	(304.8)	12.125	(308.0)
5506113-400075	4.0"	3/4"	12.000	(304.8)	12.125	(308.0)
5506113-400100	4.0"	1.0"	12.000	(304.8)	12.125	(308.0)
5506113-400150	4.0"	1.5"	12.000	(304.8)	12.381	(314.5)
5506113-400200	4.0"	2.0"	12.000	(304.8)	12.381	(314.5)
5506113-400250	4.0"	2.5"	12.000	(304.8)	12.381	(314.5)
5506113-400300	4.0"	3.0"	12.000	(304.8)	12.381	(314.5)



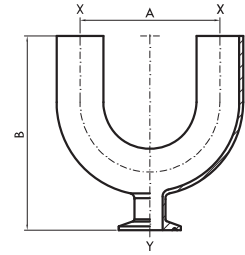
Automatic Tube Weld: 180° Reducing Tee

No.	Nominal Size, in.		A		B	
	X	Y	in.(mm)		in.(mm)	
5506109-100050	1.0"	1/2"	3.000	(76.2)	4.271	(108.5)
5506109-100075	1.0"	3/4"	3.000	(76.2)	4.271	(108.5)
5506109-000100	1.0"	1.0"	3.000	(76.2)	4.271	(108.5)
5506109-150050	1.5"	1/2"	4.500	(114.3)	6.838	(173.7)
5506109-150075	1.5"	3/4"	4.500	(114.3)	6.838	(173.7)
5506109-150100	1.5"	1.0"	4.500	(114.3)	6.854	(174.1)
5506109-000150	1.5"	1.5"	4.500	(114.3)	6.854	(174.1)
5506109-200050	2.0"	1/2"	6.000	(152.4)	8.059	(204.7)
5506109-200075	2.0"	3/4"	6.000	(152.4)	8.059	(204.7)
5506109-200100	2.0"	1.0"	6.000	(152.4)	8.130	(206.5)
5506109-200150	2.0"	1.5"	6.000	(152.4)	8.130	(206.5)
5506109-000200	2.0"	2.0"	6.000	(152.4)	8.130	(206.5)
5506109-250050	2.5"	1/2"	7.500	(190.5)	9.066	(230.3)
5506109-250075	2.5"	3/4"	7.500	(190.5)	9.066	(230.3)
5506109-250100	2.5"	1.0"	7.500	(190.5)	9.066	(232.2)
5506109-250150	2.5"	1.5"	7.500	(190.5)	9.066	(232.2)
5506109-250200	2.5"	2.0"	7.500	(190.5)	9.066	(232.2)
5506109-000250	2.5"	2.5"	7.500	(190.5)	9.066	(232.2)
5506109-300050	3.0"	1/2"	9.000	(228.6)	10.059	(255.5)
5506109-300075	3.0"	3/4"	9.000	(228.6)	10.059	(255.5)
5506109-300100	3.0"	1.0"	9.000	(228.6)	10.133	(257.4)
5506109-300150	3.0"	1.5"	9.000	(228.6)	10.133	(257.4)
5506109-300200	3.0"	2.0"	9.000	(228.6)	10.133	(257.4)
5506109-300250	3.0"	2.5"	9.000	(228.6)	10.133	(257.4)
5506109-000300	3.0"	3.0"	9.000	(228.6)	10.133	(257.4)
5506109-400050	4.0"	1/2"	12.000	(304.8)	13.059	(331.7)
5506109-400075	4.0"	3/4"	12.000	(304.8)	13.059	(331.7)
5506109-400100	4.0"	1.0"	12.000	(304.8)	13.133	(333.6)
5506109-400150	4.0"	1.5"	12.000	(304.8)	13.133	(333.6)
5506109-400200	4.0"	2.0"	12.000	(304.8)	13.133	(333.6)
5506109-400250	4.0"	2.5"	12.000	(304.8)	13.133	(333.6)
5506109-400300	4.0"	3.0"	12.000	(304.8)	13.133	(333.6)
5506109-000400	4.0"	4.0"	12.000	(304.8)	13.133	(333.6)



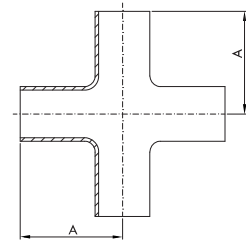
Automatic Tube Weld: Shrot Outlet Clamp, Joint, 180° Reducing Tee

No.	Nominal Size, in.		A		B	
	X	Y	in.(mm)		in.(mm)	
5506309-000075	3/4"	3/4"	4.500	(114.3)	3.897	(99.0)
5506309-100050	1.0"	1/2"	3.000	(76.2)	4.019	(102.1)
5506309-100075	1.0"	3/4"	3.000	(76.2)	4.019	(102.1)
5506309-000100	1.0"	1.0"	3.000	(76.2)	4.019	(102.1)
5506309-150050	1.5"	1/2"	4.500	(114.3)	5.838	(148.3)
5506309-150075	1.5"	3/4"	4.500	(114.3)	5.838	(148.3)
5506309-150100	1.5"	1.0"	4.500	(114.3)	5.838	(148.5)
5506309-000150	1.5"	1.5"	4.500	(114.3)	5.838	(148.5)
5506309-200050	2.0"	1/2"	6.000	(152.4)	6.559	(166.6)
5506309-200075	2.0"	3/4"	6.000	(152.4)	6.559	(166.6)
5506309-200100	2.0"	1.0"	6.000	(152.4)	6.629	(168.4)
5506309-200150	2.0"	1.5"	6.000	(152.4)	6.629	(168.4)
5506309-000200	2.0"	2.0"	6.000	(152.4)	6.629	(168.4)
5506309-250050	2.5"	1/2"	7.500	(190.5)	7.562	(192.1)
5506309-250075	2.5"	3/4"	7.500	(190.5)	7.562	(192.1)
5506309-250100	2.5"	1.0"	7.500	(190.5)	7.637	(194.0)
5506309-250150	2.5"	1.5"	7.500	(190.5)	7.637	(194.0)
5506309-250200	2.5"	2.0"	7.500	(190.5)	7.637	(194.0)
5506309-000250	2.5"	2.5"	7.500	(190.5)	7.637	(194.0)
5506309-300050	3.0"	1/2"	9.000	(228.6)	8.559	(217.4)
5506309-300075	3.0"	3/4"	9.000	(228.6)	8.559	(217.4)
5506309-300100	3.0"	1.0"	9.000	(228.6)	8.633	(219.3)
5506309-300150	3.0"	1.5"	9.000	(228.6)	8.633	(219.3)
5506309-300200	3.0"	2.0"	9.000	(228.6)	8.633	(219.3)
5506309-300250	3.5"	2.5"	9.000	(228.6)	8.633	(219.3)
5506309-000300	3.0"	3.0"	9.000	(228.6)	8.633	(219.3)
5506309-400050	4.0"	1/2"	12.000	(304.8)	11.059	(280.9)
5506309-400075	4.0"	3/4"	12.000	(304.8)	11.059	(280.9)
5506309-400100	4.0"	1.0"	12.000	(304.8)	11.133	(282.8)
5506309-400150	4.0"	1.5"	12.000	(304.8)	11.133	(282.8)
5506309-400200	4.0"	2.0"	12.000	(304.8)	11.133	(282.8)
5506309-400250	4.0"	2.5"	12.000	(304.8)	11.133	(282.8)
5506309-400300	4.0"	3.0"	12.000	(304.8)	11.133	(282.8)
5506309-400400	4.0"	4.0"	12.000	(304.8)	11.255	(285.9)



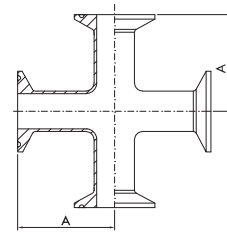
DT-4.1.2-1 Automatic Tube Weld: Straight Cross

No.	Nominal Size, in.	A in.(mm)
5504102-000050	1/2"	1.875 (47.6)
5504102-000075	3/4"	2.000 (50.8)
5504102-000100	1.0"	2.125 (54.0)
5504102-000150	1.5"	2.375 (60.3)
5504102-000200	2.0"	2.875 (73.0)
5504102-000250	2.5"	3.125 (79.4)
5504102-000300	3.0"	3.375 (85.7)
5504102-000400	4.0"	4.125 (104.8)
5504102-000600	6.0"	5.625 (142.9)



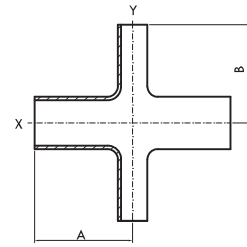
DT-4.1.2-4 Clamp Joint: Straight Cross

No.	Nominal Size, in.	A in.(mm)
5504302-000050	1/2"	2.250 (57.2)
5504302-000075	3/4"	2.375 (60.3)
5504302-000100	1.0"	2.625 (66.7)
5504302-000150	1.5"	2.875 (73.0)
5504302-000200	2.0"	3.375 (85.7)
5504302-000250	2.5"	3.625 (92.1)
5504302-000300	3.0"	3.875 (98.4)
5504302-000400	4.0"	4.750 (120.7)
5504302-000600	6.0"	7.125 (181.0)



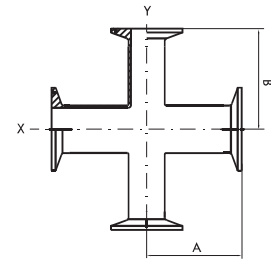
Automatic Tube Weld: Reducing Cross

No.	Nominal Size, in.		A		B	
	X	Y	in.(mm)		in.(mm)	
5504102-075050	3/4"	1/2"	2.000	(50.8)	2.000	(50.8)
5504102-100050	1.0"	1/2"	2.125	(54.0)	2.125	(54.0)
5504102-100075	1.0"	3/4"	2.125	(54.0)	2.125	(54.0)
5504102-150050	1.5"	1/2"	2.375	(60.3)	2.375	(60.3)
5504102-150075	1.5"	3/4"	2.375	(60.3)	2.375	(60.3)
5504102-150100	1.5"	1.0"	2.375	(60.3)	2.375	(60.3)
5504102-200050	2.0"	1/2"	2.875	(73.0)	2.625	(66.7)
5504102-200075	2.0"	3/4"	2.875	(73.0)	2.625	(66.7)
5504102-200100	2.0"	1.0"	2.875	(73.0)	2.625	(66.7)
5504102-200150	2.0"	1.5"	2.875	(73.0)	2.625	(66.7)
5504102-250050	2.5"	1/2"	3.125	(79.4)	2.875	(73.0)
5504102-250075	2.5"	3/4"	3.125	(79.4)	2.875	(73.0)
5504102-250100	2.5"	1.0"	3.125	(79.4)	2.875	(73.0)
5504102-250150	2.5"	1.5"	3.125	(79.4)	2.875	(73.0)
5504102-250200	2.5"	2.0"	3.125	(79.4)	2.875	(73.0)
5504102-300050	3.0"	1/2"	3.375	(85.7)	3.125	(79.4)
5504102-300075	3.0"	3/4"	3.375	(85.7)	3.125	(79.4)
5504102-300100	3.0"	1.0"	3.375	(85.7)	3.125	(79.4)
5504102-300150	3.0"	1.5"	3.375	(85.7)	3.125	(79.4)
5504102-300200	3.0"	2.0"	3.375	(85.7)	3.125	(79.4)
5504102-300250	3.0"	2.5"	3.375	(85.7)	3.125	(79.4)
5504102-400050	4.0"	1/2"	4.125	(104.8)	3.625	(92.1)
5504102-400075	4.0"	3/4"	4.125	(104.8)	3.625	(92.1)
5504102-400100	4.0"	1.0"	4.125	(104.8)	3.625	(92.1)
5504102-400150	4.0"	1.5"	4.125	(104.8)	3.625	(92.1)
5504102-400200	4.0"	2.0"	4.125	(104.8)	3.875	(98.4)
5504102-400250	4.0"	2.5"	4.125	(104.8)	3.875	(98.4)
5504102-400300	4.0"	3.0"	4.125	(104.8)	3.875	(98.4)
5504102-600300	6.0"	3.0"	5.625	(142.9)	5.125	(130.2)
5504102-600400	6.0"	4.0"	5.625	(142.9)	5.125	(130.2)



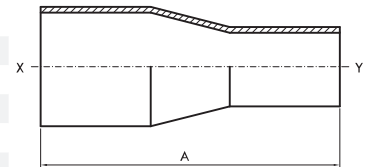
Clamp Joint: Straight Cross

No.	Nominal Size, in.		A		B	
	X	Y	in. (mm)		in. (mm)	
5504302-07550	3/4"	1/2"	2.500	(63.5)	2.500	(63.5)
5504302-01050	1.0"	1/2"	2.625	(66.7)	2.625	(66.7)
5504302-01075	1.0"	3/4"	2.625	(66.7)	2.625	(66.7)
5504302-01550	1.5"	1/2"	2.875	(73.0)	2.875	(73.0)
5504302-01575	1.5"	3/4"	2.875	(73.0)	2.875	(73.0)
5504302-01510	1.5"	1.0"	2.875	(73.0)	2.875	(73.0)
5504302-02050	2.0"	1/2"	3.375	(85.7)	3.125	(79.4)
5504302-02075	2.0"	3/4"	3.375	(85.7)	3.125	(79.4)
5504302-02010	2.0"	1.0"	3.375	(85.7)	3.125	(79.4)
5504302-02015	2.0"	1.5"	3.375	(85.7)	3.125	(79.4)
5504302-02510	2.5"	1.0"	3.625	(92.1)	3.375	(85.7)
5504302-02515	2.5"	1.5"	3.625	(92.1)	3.375	(85.7)
5504302-02520	2.5"	2.0"	3.625	(92.1)	3.375	(85.7)
5504302-03010	3.0"	1.0"	3.875	(98.4)	3.625	(92.1)
5504302-03015	3.0"	1.5"	3.875	(98.4)	3.625	(92.1)
5504302-03020	3.0"	2.0"	3.875	(98.4)	3.875	(98.4)
5504302-03025	3.0"	2.5"	3.875	(98.4)	3.875	(98.4)
5504302-04010	4.0"	1.0"	4.750	(120.7)	4.125	(104.8)
5504302-04015	4.0"	1.5"	4.750	(120.7)	4.125	(104.8)
5504302-04020	4.0"	2.0"	4.750	(120.7)	4.375	(111.1)
5504302-04025	4.0"	2.5"	4.750	(120.7)	4.375	(111.1)
5504302-04030	4.0"	3.0"	4.750	(120.7)	4.375	(111.1)
5504302-06030	6.0"	3.0"	7.125	(181.0)	5.375	(136.5)
5504302-06040	6.0"	4.0"	7.125	(181.0)	5.750	(146.1)



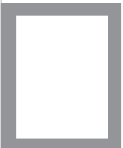
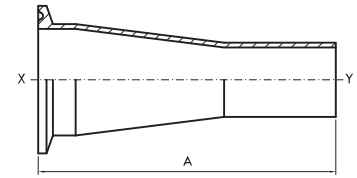
DT-4.1.3-1(a) Automatic Tube Weld: Concentric

No.	Nominal Size, in.		A in. (mm)
	X	Y	
5505004-050025	1/2"	1/4"	3.250 (82.6)
5505004-005038	1/2"	3/8"	3.250 (82.6)
5505004-075038	3/4"	3/8"	3.250 (82.6)
5505004-075050	3/4"	1/2"	4.000 (101.6)
5505004-100038	1.0"	3/8"	4.500 (114.3)
5505004-100050	1.0"	1/2"	4.500 (114.3)
5505004-100075	1.0"	3/4"	4.000 (101.6)
5505004-150038	1.5"	3/8"	6.000 (152.4)
5505004-150050	1.5"	1/2"	5.550 (139.7)
5505004-150075	1.5"	3/4"	5.000 (127.0)
5505004-150100	1.5"	1.0"	5.000 (127.0)
5505004-200050	2.0"	1/2"	7.750 (196.9)
5505004-200075	2.0"	3/4"	7.250 (184.2)
5505004-200100	2.0"	1.0"	7.250 (184.2)
5505004-200150	2.0"	1.5"	5.250 (133.4)
5505004-250050	2.5"	1/2"	9.750 (247.7)
5505004-250075	2.5"	3/4"	9.250 (235.0)
5505004-050025	2.5"	1.0"	9.250 (235.0)
5505004-250150	2.5"	1.5"	7.250 (184.2)
5505004-250200	2.5"	2.0"	5.550 (139.7)
5505004-300050	3.0"	1/2"	13.250 (336.6)
5505004-300075	3.0"	3/4"	12.250 (311.2)
5505004-300100	3.0"	1.0"	11.250 (285.8)
5505004-300150	3.0"	1.5"	9.250 (235.0)
5505004-300200	3.0"	2.0"	7.500 (190.5)
5505004-300250	3.0"	2.5"	5.550 (139.7)
5505004-400050	4.0"	1/2"	17.500 (444.5)
5505004-400075	4.0"	3/4"	16.500 (419.1)
5505004-400100	4.0"	1.0"	15.500 (393.7)
5505004-400150	4.0"	1.5"	13.500 (342.9)
5505004-400200	4.0"	2.0"	11.750 (298.5)
5505004-400250	4.0"	2.5"	9.750 (247.7)
5505004-400300	4.0"	3.0"	7.750 (196.9)
5505004-600300	6.0"	3.0"	10.000 (254.0)
5505004-600400	6.0"	4.0"	10.000 (254.0)



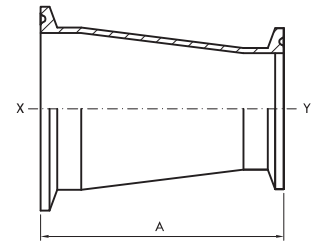
DT-4.1.3-2(a) Clamp Joint: Tube Weld Concentric

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505201-075050	3/4"	1/2"	3.000	(76.2)
5505201-100050	1.0"	1/2"	3.500	(88.9)
5505201-100075	1.0"	3/4"	3.000	(76.2)
5505201-150050	1.5"	1/2"	4.500	(114.3)
5505201-150075	1.5"	3/4"	4.000	(101.6)
5505201-150100	1.5"	1.0"	4.000	(101.6)
5505201-200050	2.0"	1/2"	6.500	(165.1)
5505201-200075	2.0"	3/4"	6.000	(152.4)
5505201-200100	2.0"	1.0"	6.000	(152.4)
5505201-200150	2.0"	1.5"	4.000	(101.6)
5505201-250100	2.5"	1.0"	8.000	(203.2)
5505201-250150	2.5"	1.5"	6.000	(152.4)
5505201-250200	2.5"	2.0"	4.248	(107.9)
5505201-300100	3.0"	1.0"	10.000	(254.0)
5505201-300150	3.0"	1.5"	8.000	(203.2)
5505201-300200	3.0"	2.0"	6.250	(158.8)
5505201-300250	3.0"	2.5"	4.250	(108.0)
5505201-400100	4.0"	1.0"	14.125	(358.8)
5505201-400150	4.0"	1.5"	12.125	(308.0)
5505201-400200	4.0"	2.0"	10.375	(263.5)
5505201-400250	4.0"	2.5"	8.375	(212.7)
5505201-400300	4.0"	3.0"	6.375	(161.9)
5505201-600300	6.0"	3.0"	9.000	(228.6)
5505201-600400	6.0"	4.0"	9.000	(228.6)



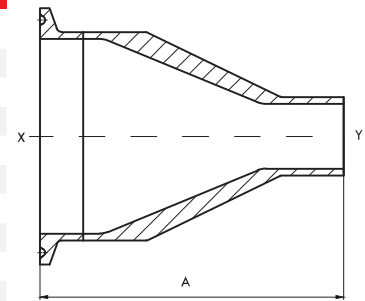
DT-4.1.3-3(a) Clamp Joint: Concentric

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505200-075050	3/4"	1/2"	2.000	(50.8)
5505200-100050	1.0"	1/2"	2.500	(63.5)
5505200-100075	1.0"	3/4"	2.000	(50.8)
5505200-150050	1.5"	1/2"	3.500	(88.9)
5505200-150075	1.5"	3/4"	3.000	(76.2)
5505200-150100	1.5"	1.0"	3.000	(76.2)
5505200-200050	2.0"	1/2"	5.500	(139.7)
5505200-200075	2.0"	3/4"	5.000	(127.0)
5505200-200100	2.0"	1.0"	5.000	(127.0)
5505200-200150	2.0"	1.5"	3.000	(76.2)
5505200-250050	2.5"	1/2"	7.500	(190.5)
5505200-250075	2.5"	3/4"	7.000	(177.8)
5505200-250100	2.5"	1.0"	7.000	(177.8)
5505200-250150	2.5"	1.5"	5.000	(127.0)
5505200-250200	2.5"	2.0"	3.000	(76.2)
5505200-300100	3.0"	1.0"	9.000	(228.6)
5505200-300150	3.0"	1.5"	7.000	(177.8)
5505200-300200	3.0"	2.0"	5.000	(127.0)
5505200-300250	3.0"	2.5"	3.000	(76.2)
5505200-400100	4.0"	1.0"	13.125	(333.4)
5505200-400150	4.0"	1.5"	11.125	(282.6)
5505200-400200	4.0"	2.0"	9.125	(231.8)
5505200-400250	4.0"	2.5"	7.125	(181.0)
5505200-400300	4.0"	3.0"	5.125	(130.2)
5505200-600300	6.0"	3.0"	7.500	(190.5)
5505200-600400	6.0"	4.0"	7.625	(193.7)



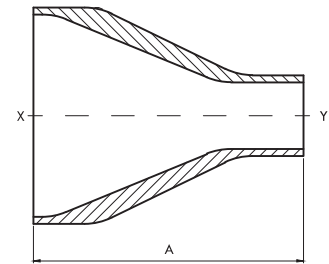
DT-4.1.3-2(b) Clamp Joint: Tube Weld Concentric

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505202-038025	3/8"	1/4"	2.125	(54.0)
5505202-050025	1/2"	1/4"	2.375	(60.3)
5505202-050038	1/2"	3/8"	2.375	(60.3)
5505202-075038	3/4"	3/8"	2.500	(63.5)
5505202-075050	3/4"	1/2"	2.625	(66.7)
5505202-100038	1.0"	3/8"	2.750	(69.9)
5505202-100050	1.0"	1/2"	3.000	(76.2)
5505202-100075	1.0"	3/4"	2.625	(66.7)
5505202-150038	1.5"	3/8"	3.500	(88.9)
5505202-150050	1.5"	1/2"	3.250	(82.6)
5505202-150075	1.5"	3/4"	3.500	(88.9)
5505202-150100	1.5"	1.0"	3.000	(76.2)
5505202-200050	2.0"	1/2"	4.105	(104.3)
5505202-200075	2.0"	3/4"	3.875	(98.4)
5505202-200100	2.0"	1.0"	3.875	(98.4)
5505202-200150	2.0"	1.5"	3.000	(76.2)
5505202-250050	2.5"	1/2"	5.378	(136.6)
5505202-250075	2.5"	3/4"	5.125	(130.2)
5505202-250100	2.5"	1.0"	5.125	(130.2)
5505202-250150	2.5"	1.5"	3.875	(98.4)
5505202-250200	2.5"	2.0"	3.000	(76.2)
5505202-300050	3.0"	1/2"	7.125	(181.0)
5505202-300075	3.0"	3/4"	6.625	(168.3)
5505202-300100	3.0"	1.0"	6.125	(155.6)
5505202-300150	3.0"	1.5"	4.750	(120.7)
5505202-300200	3.0"	2.0"	3.875	(98.4)
5505202-300250	3.0"	2.5"	3.125	(79.4)
5505202-400050	4.0"	1/2"	8.995	(228.5)
5505202-400075	4.0"	3/4"	8.750	(222.2)
5505202-400100	4.0"	1.0"	7.995	(203.1)
5505202-400150	4.0"	1.5"	6.995	(177.7)
5505202-400200	4.0"	2.0"	5.750	(146.1)
5505202-400250	4.0"	2.5"	4.875	(123.8)
5505202-400300	4.0"	3.0"	4.500	(114.3)
5505202-600300	6.0"	3.0"	8.000	(203.2)
5505202-600400	6.0"	4.0"	6.375	(161.9)



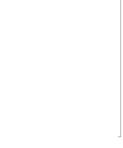
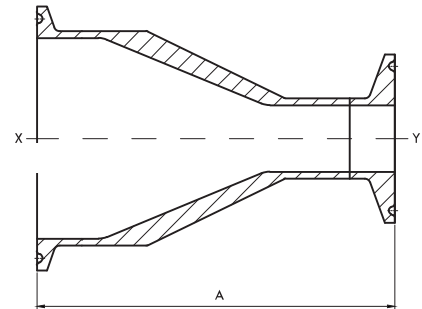
DT-4.1.3-1(b) Automatic Tube Weld: Concentric

No.	Nominal Size, in.		A in. (mm)
	X	Y	
5505005-038025	3/8"	1/4"	1.625 (41.3)
5505005-050025	1/2"	1/4"	1.875 (47.6)
5505005-050038	1/2"	3/8"	1.875 (47.6)
5505005-075038	3/4"	3/8"	2.000 (50.8)
5505005-075050	3/4"	1/2"	2.125 (54.0)
5505005-100038	1.0"	3/8"	2.250 (57.2)
5505005-100050	1.0"	1/2"	2.500 (63.5)
5505005-100075	1.0"	3/4"	2.125 (54.0)
5505005-150038	1.5"	3/8"	3.000 (76.2)
5505005-150050	1.5"	1/2"	2.750 (69.9)
5505005-150075	1.5"	3/4"	3.000 (76.2)
5505005-150100	1.5"	1.0"	2.500 (63.5)
5505005-200050	2.0"	1/2"	3.606 (91.6)
5505005-200075	2.0"	3/4"	3.375 (85.7)
5505005-200100	2.0"	1.0"	3.375 (85.7)
5505005-200150	2.0"	1.5"	2.500 (63.5)
5505005-250050	2.5"	1/2"	4.878 (123.9)
5505005-250075	2.5"	3/4"	4.625 (117.5)
5505005-250100	2.5"	1.0"	4.625 (117.5)
5505005-250150	2.5"	1.5"	3.375 (85.7)
5505005-250200	2.5"	2.0"	2.500 (63.5)
5505005-300050	3.0"	1/2"	6.625 (168.3)
5505005-300075	3.0"	3/4"	6.125 (155.6)
5505005-300100	3.0"	1.0"	5.625 (142.9)
5505005-300150	3.0"	1.5"	4.255 (108.0)
5505005-300200	3.0"	2.0"	3.375 (85.7)
5505005-300250	3.0"	2.5"	2.625 (66.7)
5505005-400050	4.0"	1/2"	8.375 (212.7)
5505005-400075	4.0"	3/4"	8.125 (206.4)
5505005-400100	4.0"	1.0"	7.375 (187.3)
5505005-400150	4.0"	1.5"	6.375 (161.9)
5505005-400200	4.0"	2.0"	5.125 (130.2)
5505005-400250	4.0"	2.5"	4.250 (108.0)
5505005-400300	4.0"	3.0"	3.875 (98.4)
5505005-600300	6.0"	3.0"	7.250 (184.2)
5505005-600400	6.0"	4.0"	5.625 (142.9)



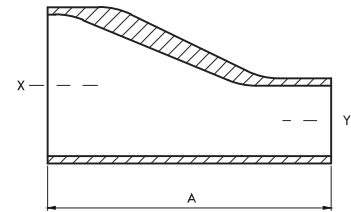
DT-4.1.3-3(b) Clamp Joint: Concentric

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505203-038025	3/8"	1/4"	1.625	(66.7)
5505203-050025	1/2"	1/4"	1.875	(73.0)
5505203-050038	1/2"	3/8"	1.875	(73.0)
5505203-075038	3/4"	3/8"	2.000	(76.2)
5505203-075050	3/4"	1/2"	2.125	(79.4)
5505203-100038	1.0"	3/8"	2.250	(82.6)
5505203-100050	1.0"	1/2"	2.500	(88.9)
5505203-100075	1.0"	3/4"	2.125	(79.4)
5505203-150038	1.5"	3/8"	3.000	(101.6)
5505203-150050	1.5"	1/2"	2.750	(95.3)
5505203-150075	1.5"	3/4"	3.000	(101.6)
5505203-150100	1.5"	1.0"	2.500	(88.9)
5505203-200050	2.0"	1/2"	3.606	(117.0)
5505203-200075	2.0"	3/4"	3.375	(111.1)
5505203-200100	2.0"	1.0"	3.375	(111.1)
5505203-200150	2.0"	1.5"	2.500	(88.9)
5505203-250050	2.5"	1/2"	4.878	(149.3)
5505203-250075	2.5"	3/4"	4.625	(142.9)
5505203-250100	2.5"	1.0"	4.625	(142.9)
5505203-250150	2.5"	1.5"	3.375	(111.1)
5505203-250200	2.5"	2.0"	2.500	(88.9)
5505203-300050	3.0"	1/2"	6.625	(193.7)
5505203-300075	3.0"	3/4"	6.125	(181.0)
5505203-300100	3.0"	1.0"	5.625	(168.3)
5505203-300150	3.0"	1.5"	4.255	(133.4)
5505203-300200	3.0"	2.0"	3.375	(111.1)
5505203-300250	3.0"	2.5"	2.625	(92.1)
5505203-400050	4.0"	1/2"	8.375	(241.2)
5505203-400075	4.0"	3/4"	8.125	(234.9)
5505203-400100	4.0"	1.0"	7.375	(215.8)
5505203-400150	4.0"	1.5"	6.375	(190.4)
5505203-400200	4.0"	2.0"	5.125	(158.8)
5505203-400250	4.0"	2.5"	4.250	(136.5)
5505203-400300	4.0"	3.0"	3.875	(127.0)
5505203-600300	6.0"	3.0"	7.250	(215.9)
5505203-600400	6.0"	4.0"	5.625	(177.8)



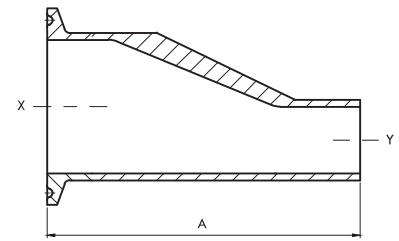
DT-4.1.3-1(b) Automatic Tube Weld: Eccentric Reducer

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505105-038025	3/8"	1/4"	1.625	(41.3)
5505105-050025	1/2"	1/4"	1.875	(47.6)
5505105-050038	1/2"	3/8"	1.875	(47.6)
5505105-075038	3/4"	3/8"	2.000	(50.8)
5505105-075050	3/4"	1/2"	2.125	(54.0)
5505105-100038	1.0"	3/8"	2.250	(57.2)
5505105-100050	1.0"	1/2"	2.500	(63.5)
5505105-100075	1.0"	3/4"	2.125	(54.0)
5505105-150038	1.5"	3/8"	3.000	(76.2)
5505105-150050	1.5"	1/2"	2.750	(69.9)
5505105-150075	1.5"	3/4"	3.000	(76.2)
5505105-150100	1.5"	1.0"	2.500	(63.5)
5505105-200050	2.0"	1/2"	3.606	(91.6)
5505105-200075	2.0"	3/4"	3.375	(85.7)
5505105-200100	2.0"	1.0"	3.375	(85.7)
5505105-200150	2.0"	1.5"	2.500	(63.5)
5505105-250050	2.5"	1/2"	4.878	(123.9)
5505105-250075	2.5"	3/4"	4.625	(117.5)
5505105-250100	2.5"	1.0"	4.625	(117.5)
5505105-250150	2.5"	1.5"	3.375	(85.7)
5505105-250200	2.5"	2.0"	2.500	(63.5)
5505105-300050	3.0"	1/2"	6.625	(168.3)
5505105-300075	3.0"	3/4"	6.125	(155.6)
5505105-300100	3.0"	1.0"	5.625	(142.9)
5505105-300150	3.0"	1.5"	4.255	(108.0)
5505105-300200	3.0"	2.0"	3.375	(85.7)
5505105-300250	3.0"	2.5"	2.625	(66.7)
5505105-400050	4.0"	1/2"	8.375	(212.7)
5505105-400075	4.0"	3/4"	8.125	(206.4)
5505105-400100	4.0"	1.0"	7.375	(187.3)
5505105-400150	4.0"	1.5"	6.375	(161.9)
5505105-400200	4.0"	2.0"	5.125	(130.2)
5505105-400250	4.0"	2.5"	4.250	(108.0)
5505105-400300	4.0"	3.0"	3.875	(98.4)
5505105-600300	6.0"	3.0"	7.250	(184.2)
5505105-600400	6.0"	4.0"	5.625	(142.9)



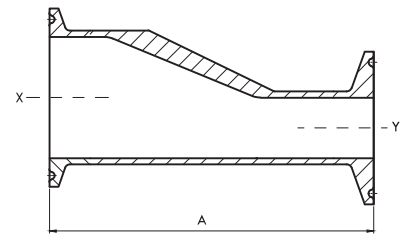
DT-4.1.3-2(b) Clamp Joint: Tube Weld Eccentric Reducer

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505302-038025	3/8"	1/4"	2.125	(54.0)
5505302-050025	1/2"	1/4"	2.375	(60.3)
5505302-050038	1/2"	3/8"	2.375	(60.3)
5505302-075038	3/4"	3/8"	2.500	(63.5)
5505302-075050	3/4"	1/2"	2.625	(66.7)
5505302-100038	1.0"	3/8"	2.750	(69.9)
5505302-100050	1.0"	1/2"	3.000	(76.2)
5505302-100075	1.0"	3/4"	2.625	(66.7)
5505302-150038	1.5"	3/8"	3.500	(88.9)
5505302-150050	1.5"	1/2"	3.250	(82.6)
5505302-150075	1.5"	3/4"	3.500	(88.9)
5505302-150100	1.5"	1.0"	3.000	(76.2)
5505302-200050	2.0"	1/2"	4.105	(104.3)
5505302-200075	2.0"	3/4"	3.875	(98.4)
5505302-200100	2.0"	1.0"	3.875	(98.4)
5505302-200150	2.0"	1.5"	3.000	(76.2)
5505302-250050	2.5"	1/2"	5.378	(136.6)
5505302-250075	2.5"	3/4"	5.125	(130.2)
5505302-250100	2.5"	1.0"	5.125	(130.2)
5505302-250150	2.5"	1.5"	3.875	(98.4)
5505302-250200	2.5"	2.0"	3.000	(76.2)
5505302-300050	3.0"	1/2"	7.125	(181.0)
5505302-300075	3.0"	3/4"	6.625	(168.3)
5505302-300100	3.0"	1.0"	6.125	(155.6)
5505302-300150	3.0"	1.5"	4.750	(120.7)
5505302-300200	3.0"	2.0"	3.875	(98.4)
5505302-300250	3.0"	2.5"	3.125	(79.4)
5505302-400050	4.0"	1/2"	8.995	(228.5)
5505302-400075	4.0"	3/4"	8.750	(222.2)
5505302-400100	4.0"	1.0"	7.995	(203.1)
5505302-400150	4.0"	1.5"	6.995	(177.7)
5505302-400200	4.0"	2.0"	5.750	(146.1)
5505302-400250	4.0"	2.5"	4.875	(123.8)
5505302-400300	4.0"	3.0"	4.500	(114.3)
5505302-600300	6.0"	3.0"	8.000	(203.2)
5505302-600400	6.0"	4.0"	6.375	(161.9)



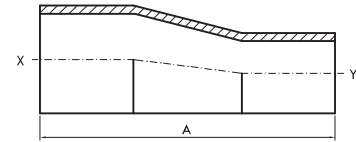
DT-4.1.3-3(b) Clamp Joint: Eccentric Reducer

No.	Nominal Size, in.		A	
	X	Y	in. (mm)	
5505303-038025	3/8"	1/4"	1.625	(66.7)
5505303-050025	1/2"	1/4"	1.875	(73.0)
5505303-050038	1/2"	3/8"	1.875	(73.0)
5505303-075038	3/4"	3/8"	2.000	(76.2)
5505303-075050	3/4"	1/2"	2.125	(79.4)
5505303-100038	1.0"	3/8"	2.250	(82.6)
5505303-100050	1.0"	1/2"	2.500	(88.9)
5505303-100075	1.0"	3/4"	2.125	(79.4)
5505303-150038	1.5"	3/8"	3.000	(101.6)
5505303-150050	1.5"	1/2"	2.750	(95.3)
5505303-150075	1.5"	3/4"	3.000	(101.6)
5505303-150100	1.5"	1.0"	2.500	(88.9)
5505303-200050	2.0"	1/2"	3.606	(117.0)
5505303-200075	2.0"	3/4"	3.375	(111.1)
5505303-200100	2.0"	1.0"	3.375	(111.1)
5505303-200150	2.0"	1.5"	2.500	(88.9)
5505303-250050	2.5"	1/2"	4.878	(149.3)
5505303-250075	2.5"	3/4"	4.625	(142.9)
5505303-250100	2.5"	1.0"	4.625	(142.9)
5505303-250150	2.5"	1.5"	3.375	(111.1)
5505303-250200	2.5"	2.0"	2.500	(88.9)
5505303-300050	3.0"	1/2"	6.625	(193.7)
5505303-300075	3.0"	3/4"	6.125	(181.0)
5505303-300100	3.0"	1.0"	5.625	(168.3)
5505303-300150	3.0"	1.5"	4.255	(133.4)
5505303-300200	3.0"	2.0"	3.375	(111.1)
5505303-300250	3.0"	2.5"	2.625	(92.1)
5505303-400050	4.0"	1/2"	8.375	(241.2)
5505303-400075	4.0"	3/4"	8.125	(234.9)
5505303-400100	4.0"	1.0"	7.375	(215.8)
5505303-400150	4.0"	1.5"	6.375	(190.4)
5505303-400200	4.0"	2.0"	5.125	(158.8)
5505303-400250	4.0"	2.5"	4.250	(136.5)
5505303-400300	4.0"	3.0"	3.875	(127.0)
5505303-600300	6.0"	3.0"	7.250	(215.9)
5505303-600400	6.0"	4.0"	5.625	(177.8)



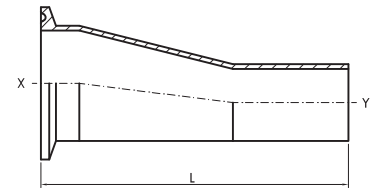
DT-4.1.3-1(a) Automatic Tube Weld: Eccentric Reducer

No.	Nominal Size, in.		A in.(mm)
	X	Y	
5505104-005038	1/2"	3/8"	3.250 (82.6)
5505104-075038	3/4"	3/8"	3.250 (82.6)
5505104-075050	3/4"	1/2"	4.000 (101.6)
5505104-100038	1.0"	3/8"	4.500 (114.3)
5505104-100050	1.0"	1/2"	4.500 (114.3)
5505104-100075	1.0"	3/4"	4.000 (101.6)
5505104-150038	1.5"	3/8"	6.000 (152.4)
5505104-150050	1.5"	1/2"	5.550 (139.7)
5505104-150075	1.5"	3/4"	5.000 (127.0)
5505104-150100	1.5"	1.0"	5.000 (127.0)
5505104-200050	2.0"	1/2"	7.750 (196.9)
5505104-200075	2.0"	3/4"	7.250 (184.2)
5505104-200100	2.0"	1.0"	7.250 (184.2)
5505104-200150	2.0"	1.5"	5.250 (133.4)
5505104-250050	2.5"	1/2"	9.750 (247.7)
5505104-250075	2.5"	3/4"	9.250 (235.0)
5505104-050025	2.5"	1.0"	9.250 (235.0)
5505104-250150	2.5"	1.5"	7.250 (184.2)
5505104-250200	2.5"	2.0"	5.550 (139.7)
5505104-300050	3.0"	1/2"	13.250 (336.6)
5505104-300075	3.0"	3/4"	12.250 (311.2)
5505104-300100	3.0"	1.0"	11.250 (285.8)
5505104-300150	3.0"	1.5"	9.250 (235.0)
5505104-300200	3.0"	2.0"	7.500 (190.5)
5505104-300250	3.0"	2.5"	5.550 (139.7)
5505104-400050	4.0"	1/2"	17.500 (444.5)
5505104-400075	4.0"	3/4"	16.500 (419.1)
5505104-400100	4.0"	1.0"	15.500 (393.7)
5505104-400150	4.0"	1.5"	13.500 (342.9)
5505104-400200	4.0"	2.0"	11.750 (298.5)
5505104-400250	4.0"	2.5"	9.750 (247.7)
5505104-400300	4.0"	3.0"	7.750 (196.9)
5505104-600300	6.0"	3.0"	10.000 (254.0)
5505104-600400	6.0"	4.0"	10.000 (254.0)



DT-4.1.3-1(a) Clamp Joint: Tube Weld Eccentric Reducer

No.	Nominal Size, in.		A in. (mm)
	X	Y	
5505301-075050	3/4"	1/2"	3.000 (76.2)
5505301-100050	1.0"	1/2"	3.500 (88.9)
5505301-100075	1.0"	3/4"	3.000 (76.2)
5505301-150050	1.5"	1/2"	4.500 (114.3)
5505301-150075	1.5"	3/4"	4.000 (101.6)
5505301-150100	1.5"	1.0"	4.000 (101.6)
5505301-200050	2.0"	1/2"	6.500 (165.1)
5505301-200075	2.0"	3/4"	6.000 (152.4)
5505301-200100	2.0"	1.0"	6.000 (152.4)
5505301-200150	2.0"	1.5"	4.000 (101.6)
5505301-250075	2.5"	3/4"	8.000 (203.2)
5505301-250100	2.5"	1.0"	8.000 (203.2)
5505301-250150	2.5"	1.5"	6.000 (152.4)
5505301-250200	2.5"	2.0"	4.250 (108.0)
5505301-300100	3.0"	1.0"	10.000 (254.0)
5505301-300150	3.0"	1.5"	8.000 (203.2)
5505301-300200	3.0"	2.0"	6.250 (158.8)
5505301-300250	3.0"	2.5"	4.250 (108.0)
5505301-400100	4.0"	1.0"	14.125 (358.8)
5505301-400150	4.0"	1.5"	12.125 (308.0)
5505301-400200	4.0"	2.0"	10.375 (263.5)
5505301-400250	4.0"	2.5"	8.375 (212.7)
5505301-400300	4.0"	3.0"	6.375 (161.9)
5505301-600300	6.0"	3.0"	8.750 (222.3)
5505301-600400	6.0"	4.0"	9.000 (228.6)



DT-4.1.3-3(a) Clamp Joint: Eccentric Reducer

No.	Nominal Size, in.		A in.(mm)
	X	Y	
5505300-075050	3/4"	1/2"	2.000 (50.8)
5505300-100050	1.0"	1/2"	2.500 (63.5)
5505300-100075	1.0"	3/4"	2.000 (50.8)
5505300-150050	1.5"	1/2"	3.500 (88.9)
5505300-150075	1.5"	3/4"	3.000 (76.2)
5505300-150100	1.5"	1.0"	3.000 (76.2)
5505300-200050	2.0"	1/2"	5.500 (139.7)
5505300-200075	2.0"	3/4"	5.000 (127.0)
5505300-200100	2.0"	1.0"	5.000 (127.0)
5505300-200150	2.0"	1.5"	3.000 (76.2)
5505300-250100	2.5"	1.0"	7.000 (177.8)
5505300-250150	2.5"	1.5"	5.000 (127.0)
5505300-250200	2.5"	2.0"	3.000 (76.2)
5505300-300100	3.0"	1.0"	9.000 (228.6)
5505300-300150	3.0"	1.5"	7.000 (177.8)
5505300-300200	3.0"	2.0"	5.000 (127.0)
5505300-300250	3.0"	2.5"	3.000 (76.2)
5505300-400100	4.0"	1.0"	13.125 (333.4)
5505300-400150	4.0"	1.5"	11.125 (282.6)
5505300-400200	4.0"	2.0"	9.125 (231.8)
5505300-400250	4.0"	2.5"	7.125 (181.0)
5505300-400300	4.0"	3.0"	5.125 (130.2)
5505300-600300	6.0"	3.0"	7.625 (193.7)
5505300-600400	6.0"	4.0"	7.625 (193.7)

