

STAINLESS STEEL BUTT WELD FITTINGS

Description

This specification covers Stainless Steel Butt Weld Fittings used in process piping applications as determined by Engineering as a function of what is being transported in the system, pressure ratings, temperature of material and line pressure.

Specifications

Stainless Steel Butt Weld Fittings furnished by Merit Brass Co. shall conform to manufacturing specification ASTM A403 / ASME SA403-B16.9-B16.28 (304/316). Dimensional tolerances shall conform to MSS SP-43 (Sch 10) where appropriate. Sizes above 8" may fall into ASTM A-774 / A403 CR material specifications.

- 90-Degree Elbow (SR)
- 90-Degree Elbow (LR)
- 45-Degree Elbow
- Tee
- End Cap
- Reducing Tee
- Concentric Reducer
- Eccentric Reducer
- Stub End (ANSI)
- Stub End (MSS: Type A)
- Stub End (MSS: Type B)
- Stub End (MSS: Type C)

Project Information	Approval Stamp
Project Name:	☐ Approved
Project Location:	☐ Approved As Noted
Project Contractor:	☐ Not Approved
Project Engineer:	Remarks:
Project Distributor:	
Project Rep:	
Submittal Date:	
Notes 1:	
Notes 2:	

Every precaution has been taken in preparing this submittal, however, Merit Brass Company cannot be held responsible for typographical errors or omissions. Some items not shown may be available upon request. Some items and sizes may be discontinued when stock is depleted and may require a minimum order quantity. Certain inventory limitations may apply. Please visit meritbrass.com. Contact our Sales Team for details at sales@meritbrass.com.

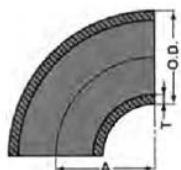
STAINLESS STEEL BUTT WELD FITTINGS

Dimensions ANSI B16.9 (S/R ANSI B16.28)

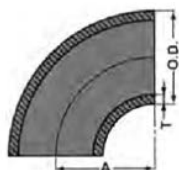
Unit: Inch/mm

Nominal Pipe Size (In)	Outside Diameter (O.D.)	Wall Thickness Schedule T				90° Elbow		45° Elbow	Tee C,M	Cap E
		5S	10S	40S	80S	L/R	S/R	L/R		
						A	A	B		
1/2"	0.84	0.065	0.083	0.109	0.147	1.5	—	0.62	1	1.00
	21.30	1.65	2.11	2.77	3.73	38.1	—	16	25.4	25.4
3/4"	1.05	0.065	0.083	0.113	0.154	1.12	—	0.75	1.125	1.00
	26.70	1.65	2.11	2.87	3.91	28.5	—	11	28.6	25.4
1"	1.315	0.065	0.109	0.133	0.179	1.5	1	0.88	1.5	1.50
	33.40	1.65	2.77	3.38	4.55	38.1	25.4	22	38.1	38
1-1/4"	1.66	0.065	0.109	0.14	0.191	1.88	1.25	1	1.88	1.5
	42.2	1.65	2.77	3.56	4.85	47.5	32	25	47.6	38
1-1/2"	1.90	0.065	0.109	0.145	0.2	2.25	1.50	1.12	2.25	1.50
	48.3	1.65	2.77	3.68	5.08	57	38	29	57.2	38
2"	2.375	0.065	0.109	0.154	0.218	3.00	2.00	1.38	2.5	1.50
	60.3	1.65	2.77	3.91	5.54	76	51	35	63.5	38
2-1/2"	2.875	0.083	0.12	0.203	0.276	3.75	2.5	1.75	3.00	1.50
	73.0	2.11	3.05	5.16	7.01	95	63.5	45	76.2	38
3"	3.50	0.083	0.12	0.216	0.3	4.50	3.00	2.00	3.38	2.00
	88.9	2.11	3.05	5.49	7.62	114.5	76	51	85.7	51
3-1/2"	4.00	0.083	0.12	0.226	0.318	5.25	3.5	2.25	3.75	2.50
	101.6	2.11	3.05	5.74	8.08	133.5	89	57	95.3	64
4"	4.50	0.083	0.12	0.237	0.337	6.00	4.00	2.50	4.12	2.50
	114.3	2.11	3.05	6.02	8.56	152.5	101.5	64	104.8	64
5"	5.563	0.109	0.134	0.258	0.375	7.50	5.00	3.12	4.88	3.00
	141.3	2.77	3.4	6.55	9.52	190.5	127	79	123.8	76
6"	6.625	0.109	0.134	0.28	0.432	9.00	6.00	3.75	5.62	3.50
	168.30	2.77	3.4	7.11	10.97	228.5	152.5	95	142.9	89
8"	8.625	0.109	0.148	0.322	0.50	12.00	8.00	5.00	7.00	4.00
	219.1	2.77	3.76	8.18	12.7	305	203	127	177.8	102
10"	10.75	0.134	0.165	0.365	0.5	15	10	6.25	8.5	5.00
	273	3.4	4.19	9.27	12.7	361	254	159	215.9	127
12"	12.75	0.156	0.18	0.375	0.500	18.00	12.00	7.50	10.00	6.00
	323.9	3.96	4.57	9.52	12.70	457	305	191	254	152

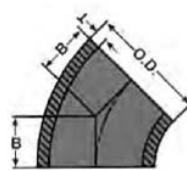
90° Elbow Long Radius



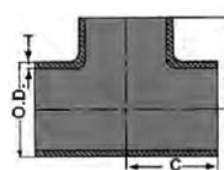
90° Elbow Short Radius



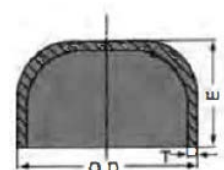
45° Elbow Long radius



Tee



Cap

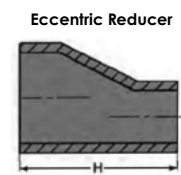
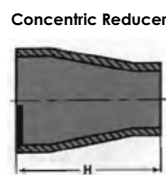
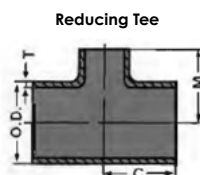


STAINLESS STEEL BUTT WELD FITTINGS

Dimensions ANSI B16.9 (S/R ANSI B16.28)

Unit: Inch/mm

Nominal Pipe Size (In)		Reducing Tee		Reducers Concentric Eccentric
		C	M	H
3/4" x 1/2"		1.125 28.6	1.125 28.6	1.500 38.1
1" x	3/4"	1.500	1.500 38.1	2.000
	1/2"	38.1	1.500 38.1	50.80
1-1/4" x	1"	1.875 47.6	1.875 47.6	2.000 50.80
	3/4"		1.875 47.6	
	1/2"		1.875 47.6	
1-1/2" x	1-1/4"	2.250 57.2	2.250 57.2	2.500 63.5
	1"		2.250 57.2	
	3/4"		2.250 57.2	
	1/2"		2.250 57.2	
			2.250 57.2	
2" x	1-1/2"	2.500 63.5	2.375 60.3	3.000 76.2
	1-1/4"		2.250	
	1"		57.2	
	3/4"		2.000	
			50.8	
2-1/2" x	2"	3.000 76.2	1.752	3.500 88.9
	1-1/2"		44.5	
	1-1/4"		2.750	
	1"		60.3	
			2.250	
3" x	2-1/2"	3.375 85.7	57.2	3.500 88.9
	2"		2.000	
	1-1/2"		50.8	
	1-1/4"		1.752	
	1"		44.5	
3-1/2" x	3"	3.752 95.3	3.250	4.000 101.6
	2-1/2"		69.9	
	2"		2.625	
	1-1/2"		66.7	
	1-1/4"		2.500	
4" x		4.126 104.8	63.5	4.000 101.6
5" x	3-1/2"		57.2	
	3"		2.250	
	2-1/2"		50.8	
	2"		1.752	
6" x	5"	5.626 142.9	3.126	5.500 139.7
	4"		79.4	
	3-1/2"		3.626	
	3"		92.1	
	2-1/2"		3.500	
8" x	6"	7.000 178	88.9	6.000 152
	5"		88.9	
	4"		88.9	
	3-1/2"		88.9	
	3"		88.9	
10" x	8"	8.500 216	88.9	7.000 178
	6"		88.9	
	5"		88.9	
	4"		88.9	
	3"		88.9	
12" x	10"	10.000 254	88.9	8.000 203
	8"		88.9	
	6"		88.9	
	5"		88.9	
	4"		88.9	

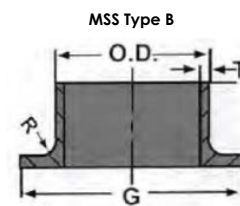
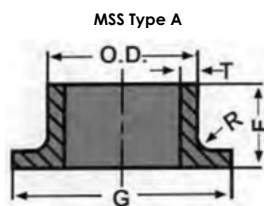
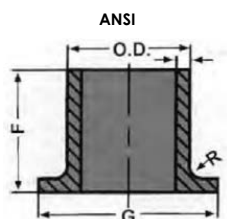


STAINLESS STEEL BUTT WELD FITTINGS

Stub Ends – Dimensions ANSI B16.9 MSS SP-43

Unit: Inch/mm

Nominal Pipe Size (In)	Outside Diameter (O.D.)	Stub End					
		G	ANSI		MSS		
			F	R	F	Type A R	Type B R
1/2"	0.84	1.38	3	0.125	2	0.125	0.031
	21.30	35	76	3	51	3	0.8
3/4"	1.05	1.69	3	0.125	2	0.125	0.031
	26.70	43	76	3	51	3	0.8
1"	1.315	2	4	0.125	2	0.125	0.031
	33.40	51	102	3	51	3	0.8
1-1/4"	1.660	2	4	0.188	2	0.187	0.031
	42.2	64	102	5	51	5	0.8
1-1/2"	1.90	2.88	4	0.25	2	0.25	0.031
	48.3	73	102	6	51	6	0.8
2"	2.375	3.62	6	0.313	2.5	0.313	0.031
	60.3	92	152	8	64	8	0.8
2-1/2"	2.875	4.12	6	0.313	2.5	0.313	0.031
	73.0	105	152	8	64	8	0.8
3"	3.50	5	6	0.375	2.5	0.375	0.031
	88.9	127	152	10	64	10	0.8
3-1/2"	4.00	5.5	6	0.375	3	0.375	0.031
	101.6	140	152	10	76	10	0.8
4"	4.50	6.19	6	0.438	3	0.438	0.063
	114.3	157	152	11	76	11	1.6
5"	5.563	7.31	8	0.438	3	0.438	0.063
	141.3	186	203	11	76	11	1.6
6"	6.625	8.5	8	0.5	3.5	0.5	0.063
	168.30	216	203	13	89	13	1.6
8"	8.625	10.625	8	0.5	4	0.5	0.063
	219.1	270	203	13	102	13	1.6
10"	10.75	12.75	10	0.5	5	0.5	0.063
	273	324	254	13	127	13	1.6
12"	12.75	15	10	0.5	6	0.5	0.063
	323.9	381	254	13	152	13	1.6

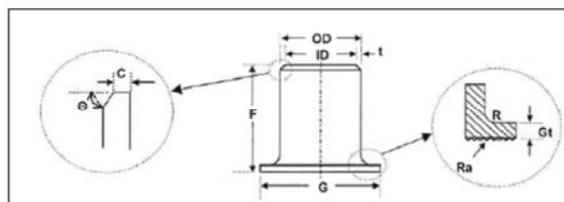


STAINLESS STEEL BUTT WELD FITTINGS

Dimensions Lap Joint Type C MSS SP-43 Schedule 10

Unit: Inch/mm

Size (In)	O.D.		I.D.		Thickness "t"		G		Gt		F		C		O		R		Ra											
	Std		Std		Std		Std		Std		Std		Std		Std															
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max										
1/2"	0.8385		0.6274		0.083		1.374		0.083		2		0.0629		1.4763		0.059		0.157		Not Required									
	0.81	0.87	0.64	0.7	0.07	0.09	1.34	1.41	0.08	0.15	1.94	2.06																		
3/4"	1.0511		0.885		0.083		1.6889		0.083		2																			
	1.02	1.08	0.85	0.91	0.07	0.09	1.66	1.72	0.08	0.15	1.94	2.06																		
1"	1.3149		1.0968		0.109		2		0.109		2																			
	1.28	1.35	1.07	1.13	0.1	0.12	1.97	2.03	0.1	0.17	1.94	2.06																		
1-1/4"	1.6614		1.4433		0.109		2.5		0.109		2																			
	1.63	1.69	1.41	1.47	0.1	0.12	2.47	2.53	0.1	0.17	1.94	2.06																		
1-1/2"	1.9015		1.6834		0.109		2.874		0.109		2																			
	1.87	1.93	1.65	1.71	0.1	0.12	2.84	2.91	0.1	0.17	1.94	2.06																		
2"	2.374		2.1559		0.109		3.6259		0.109		2.5																			
	2.34	2.42	2.13	2.2	0.1	0.12	3.59	3.66	0.1	0.17	2.44	2.56																		
2-1/2"	2.874		2.6338		0.12		4.1062		0.12		2.5																			
	2.84	2.92	2.6	2.68	0.11	0.13	4.08	4.14	0.11	0.18	2.44	2.56																		
3"	3.5		3.2598		0.12		5		0.12		2.5																			
	3.47	3.55	3.2	3.32	0.11	0.13	4.97	5.03	0.11	0.18	2.44	2.56																		
4"	4.5		4.2598		0.12		6.1889		0.12		3																			
	4.47	4.55	4.2	4.32	0.11	0.13	6.16	6.22	0.11	0.18	2.94	3.06																		
5"	5.5629		5.2952		0.1338		7.3149		0.1338		3																			
	5.53	5.62	5.23	5.36	0.12	0.15	7.28	7.35	0.12	0.19	2.94	3.06																		
6"	6.6259		6.3582		0.1338		8.5		0.1338		3.5		0.031		0.094		1.378		1.575											
	6.59	6.69	6.3	6.42	0.12	0.15	8.47	8.53	0.12	0.19	3.44	3.56																		
8"	8.6259		8.3299		0.148		10.6259		0.148		4																			
	8.59	8.72	8.27	8.39	0.13	0.17	10.6	10.7	0.13	0.2	3.91	4.09																		
10"	10.7519		10.422		0.1649		12.7519		0.1649		5																			
	10.7	10.9	10.3	10.5	0.15	0.19	12.7	12.8	0.15	0.22	4.91	5.09																		
12"	12.7519		12.3921		0.1799		15		0.1799		6																			
	12.7	12.9	12.3	12.5	0.16	0.2	15	15	0.16	0.24	5.91	6.09																		



LOCATIONS

SPARKS DISTRIBUTION CENTER
200 Vista Boulevard Suite #106
Sparks, NV 89434

LONG BEACH PIPE DEPOT
2396 E. Artesia Blvd
Long Beach, CA 90805

DALLAS DISTRIBUTION CENTER
10614 King William Drive
Dallas, TX 75220

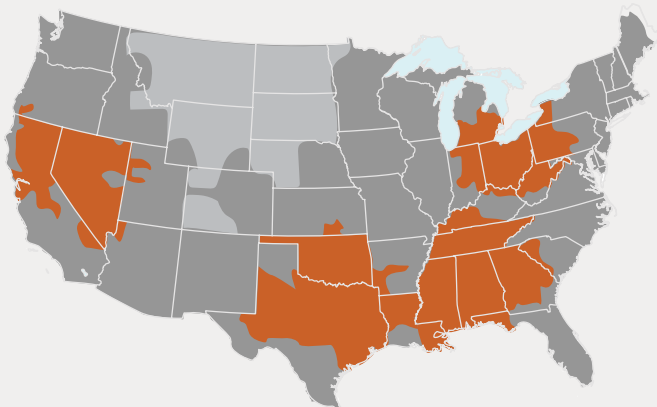
CLEVELAND HEADQUARTERS
One Merit Drive/PO Box 43127
Cleveland, OH 44143

BIRMINGHAM DISTRIBUTION CENTER
220 Oxmoor Court
Birmingham, AL 35209

HOUSTON DISTRIBUTION CENTER
4680 S. Sam Houston Pkwy W, Suite 120
Houston, TX 77053

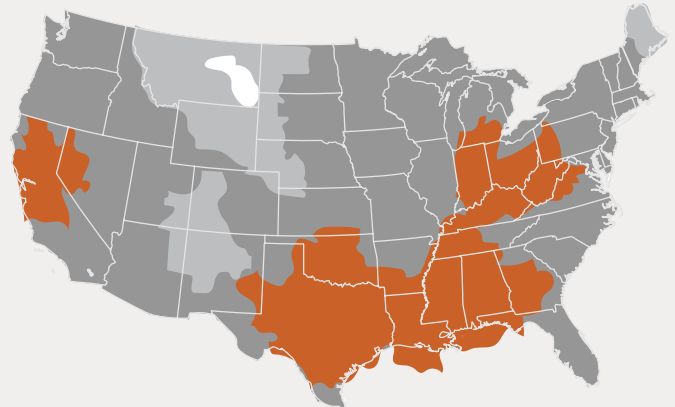
SHIPPING TIMES

UPS



1 Day 2 Days 3 Days

FedEx



1 Day 2 Days 3 Days 4 Days

*FedEx is Merit's Primary Carrier

LEARN MORE



800.726.9800

Follow us on [f](#) [X](#) [in](#) [@](#) [v](#) [p](#)

Merit Brass Headquarters Has An ISO 9001:2015 Registered Quality Management System

www.meritbrass.com
www.mbwebxpress.com
contactus@meritbrass.com