



CLAMP FITTINGS....

Clamp Style Fittings are most popular for easy assembly and breakdown of process lines and equipment. We offer Clamp Fittings in T304 and T316L materials in 1/2" through 12" sizes.

Gaskets for Clamp Fittings are available in several different materials, Buna-N, EPDM, Silicone, Tef-Steel®, Teflon®, and Viton®. Lightweight and heavy-duty clamps complete the unions. Clamp Fittings meet all 3A requirements.

CLAMP FITTING SPECIFICATIONS....

Size Range: 1/2" OD through 12" OD

Materials: T304
T316L

Finish: No. 7 - ID & OD
No. 5 - OD only
No. 3 - ID only
No. 1 - unpolished

ORDERING SPECIFICATIONS....

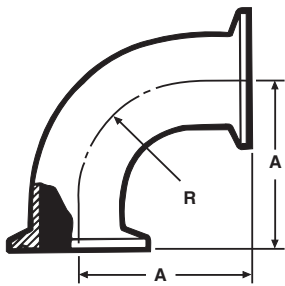
- Specify:**
- Quantity
 - Product description or Part No.
 - Size
 - Material Type
 - Polish Requirements

CLAMP TYPE

VNE	ALFA LAVAL	WAUKESHA / SPX	BRADFORD	STEEL & O'BRIEN
EG2C	2CMP	2CMP	B2CMP	2CMP
EG2C31CC	2CMP-31MP	2CMP-31MP	B2CM31MP	2CMP-31MP
EG2FPR	2FMP-14	2FMP-14	B2FMP-14	2FMP-14
EG2WU	----	2UMP	B2WVMP	2UMP
EG2FTR	2FMP-15	2FMP-15	B2FMP-15	2FMP-15
EG2K	2KMP	2KMP	B2KMP	2KMP
EG7	7MP	7MP	B7MP	7MP
EG7R	7RMP	7RMP	B7MP	7RMP
EG9	9MP	9MP	B9MP	9MP
EG13	13MHLA	----	13MHLA	----
13MHHM	13MHHM	13MHHM	13MHHM-SN	13MHHM
13MHP	13MHP	13MHP	13MHP	13MHP
EG14HT	14MPHT	14MPHT	14MPHT	14MPHT
EG14W	14MPW	14MPW	14MPW	14MPW
EG14WL	14WLMP	14WLMP	14WLMP	14WLMP
EG14AM7	L14AM7	L14AM7	14AM7	L14AM7
EG2CS	14WMP	14WMP	14WMP	14WMP
EG14RT	14MPHR	14MPHR	14MPHR	14MPHR
EG16A	16AMP	16AMP	16AMP	16AMP
EG17PR	17MP-14	17MP-14	17MP-14	17MP-14
EG17TR	17MP-15	17MP-15	17MP-15	17MP-15
EG21	21MP	21MP	21MP	21MP
EG22	22MP	22MP	22MP	22MP
EG31R	31RMP	31RMP	----	31RMP
EG31CC	31-14MP	31-14MP	B3114MP	31-14MP
EG32CC	32-14MP	32-14MP	B3214MP	32-14MP
EG31PC	31PMP	31PMP	B14C31	31PMP
EG32PC	32PMP	32PMP	B14C32	32PMP
EG31CP	31MPP	31MPP	B31-14	31MPP
EG32CP	32MPP	32MPP	B32-15	32MPP
EG31TC	31TMP	31TMP	B15-C31	31TMP
EG32TC	32TMP	32TMP	B15-C32	32TMP
EG31CT	31MPT	31MPT	BC31-15	31MPT
EG32CT	32MPT	32MPT	BC32-15	32MPT
EG40	40MPU	40MPU	40MP-U	40MPU
EG40T	40MPG	40MPG	40MP-G	40MPG
EG23B	23BMP	23BMP	B28BMP	23BMP
EG28A	28AMP	28AMP	B28AMP	28AMP
EG28B	28BMP	28BMP	B31WMP	28BMP

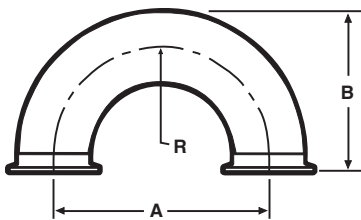
CLAMP FITTINGS

EG2C - 90° ELBOW



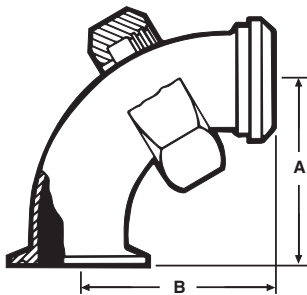
Size Tube OD	A	R
1	2.000	1.500
1 1/2	2.750	2.250
2	3.500	3.000
2 1/2	4.250	3.750
3	5.000	4.500
4	6.625	6.000
6	9.875	9.000
8	12.937	12.000

EG2WU - CLAMP 180° U-BEND



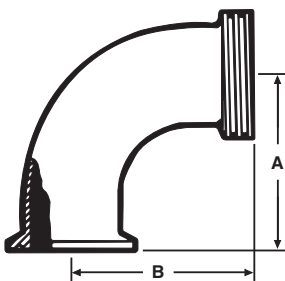
Size Tube OD	A	B	R
1/2	1.500	1.500	0.750
3/4	2.250	2.000	1.125
1	3.000	2.500	1.500
1 1/4	3.750	3.000	1.875
1 1/2	4.500	3.500	2.250
2	6.000	4.500	3.000
2 1/2	7.500	5.500	3.750
3	9.000	6.500	4.500
4	12.000	8.625	6.000
6	18.000	12.875	9.000

EG2FPR - 90° ELBOW



Size Tube OD	A	B
1	2.000	2.875
1 1/2	2.750	2.968
2	3.500	3.718
2 1/2	4.250	4.593
3	5.000	5.406
4	6.625	7.218

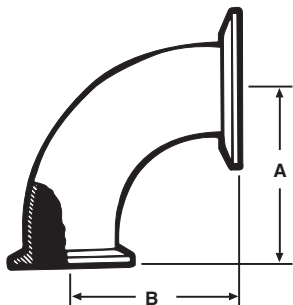
EG2FTR - 90° ELBOW



Size Tube OD	A	B
1	2.000	2.187
1 1/2	2.750	2.968
2	3.500	3.718
2 1/2	4.250	4.593
3	5.000	5.406
4	6.625	7.218

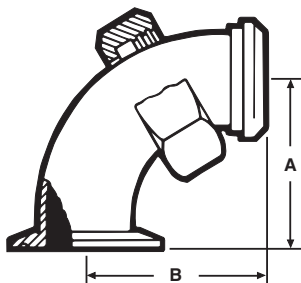
CLAMP FITTINGS

EG2C31CC - 90° REDUCING ELBOW (Non-Tapered)



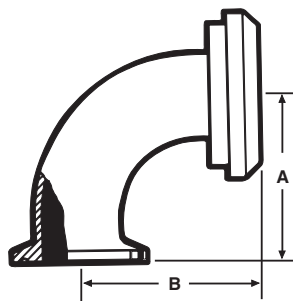
Size Tube OD	A	B
2 x 1	2.000	2.000
2 x 1 1/2	2.750	2.750
2 1/2 x 1 1/2	2.750	2.750
2 1/2 x 2	3.500	3.500
3 x 1 1/2	2.750	2.750
3 x 2	3.500	3.500
3 x 2 1/2	4.250	4.250
4 x 2 1/2	4.250	4.375
4 x 3	5.000	5.125
6 x 4	6.625	6.875

EG231-FPR 90° REDUCING ELBOW (Non-Tapered)



Size Tube OD	A	B
2 x 1	2.000	2.187
2 x 1 1/2	2.750	2.968
2 1/2 x 1 1/2	2.750	2.968
2 1/2 x 2	3.500	3.718
3 x 1 1/2	2.750	2.968
3 x 2	3.500	3.718
3 x 2 1/2	4.250	4.593
4 x 2 1/2	4.375	4.593
4 x 3	5.125	5.406

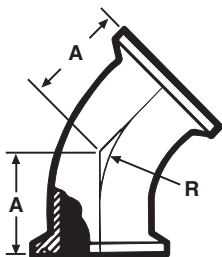
EG2C31PR - 90° REDUCING ELBOW (Non-Tapered)



Size Tube OD	A	B
2 x 1	2.000	2.250
2 x 1 1/2	2.750	3.000
2 1/2 x 1 1/2	2.750	3.031
2 1/2 x 2	3.500	3.781
3 x 1 1/2	2.750	3.593
3 x 2	3.500	3.843
3 x 2 1/2	4.250	4.593
4 x 2 1/2	4.250	4.687
4 x 3	5.000	5.437

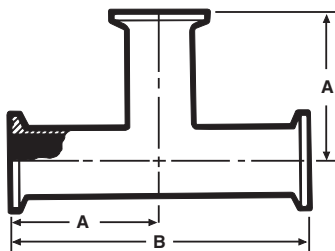
CLAMP FITTINGS

EG2K - 45° ELBOW



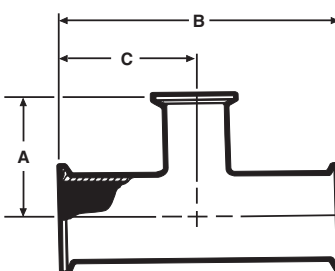
Size Tube OD	A	R
1	1.125	1.500
1 1/2	1.437	2.250
2	1.750	3.000
2 1/2	2.062	3.750
3	2.375	4.500
4	3.125	6.000
6	4.625	9.000
8	5.312	12.000

EG7 - TEE



Size Tube OD	A	B
1	2.375	4.750
1 1/2	2.750	5.500
2	3.500	7.000
2 1/2	3.500	7.000
3	3.750	7.500
4	4.500	9.000
6	6.500	13.000
8	9.937	19.875

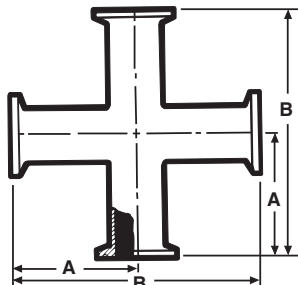
EG7R - REDUCING TEE



Size Tube OD	A	B	C
1 1/2 x 1	1.875	4.312	2.156
2 x 1	2.125	5.125	2.562
2 x 1 1/2	2.406	5.125	2.562
2 1/2 x 1 1/2	2.656	5.687	2.843
2 1/2 x 2	2.812	5.687	2.843
3 x 1 1/2	2.906	6.187	3.093
3 x 2	3.062	6.187	3.093
3 x 2 1/2	3.093	6.187	3.093
4 x 2	3.593	8.125	4.062
4 x 2 1/2	3.593	8.125	4.062
4 x 3	3.593	8.125	4.062
6 x 3	6.125	13.000	6.500
6 x 4	6.250	13.000	6.500

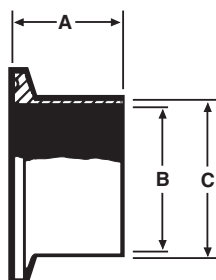
CLAMP FITTINGS

EG9 - CROSS



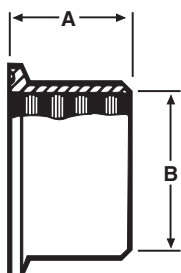
Size Tube OD	A	B
1	2.375	4.750
1 1/2	2.750	5.500
2	3.500	7.000
2 1/2	3.500	7.000
3	3.750	7.500
4	4.500	9.000
6	8.875	17.340

EG14AM7 - WELDING FERRULE



Size Tube OD	A	B	C
1/2	2.000	0.370	0.500
3/4	2.000	0.620	0.750
1	1.125	0.870	1.000
1 1/2	1.125	1.370	1.500
1 1/4	1.125	1.120	1.250
2	1.125	1.870	2.000
2 1/2	1.125	2.370	2.500
3	1.125	2.870	3.000
4	1.125	3.834	4.000
5	1.500	4.782	5.000
6	1.500	5.780	6.000
8	1.500	7.782	8.000
10	1.500	9.732	10.000
12	1.500	11.732	12.000

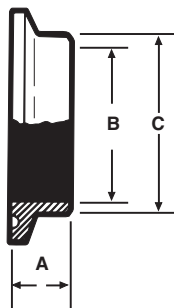
EG14R - RECESSLESS FERRULE (Expanding)



Size Tube OD	A	B
1	0.750	1.000
1 1/2	1.125	1.500
2	1.312	2.000
2 1/2	1.375	2.500
3	1.437	3.000
4	1.500	4.000

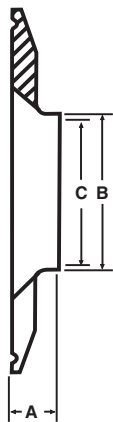
CLAMP FITTINGS

EG2CS - SHORT WELDING FERRULE



Size Tube OD	A	B
1/4	0.500	0.120
3/8	0.500	0.245
1/2	0.500	0.370
5/8	0.500	0.495
3/4	0.500	0.620
1	0.500	0.870
1 1/4	0.500	1.120
1 1/2	0.500	1.370
2	0.500	1.870
2 1/2	0.500	2.370
3	0.500	2.870
4	0.625	3.834
5	0.750	4.780
6	0.875	5.780
8	0.937	7.782
10	0.937	9.732
12	0.937	11.732

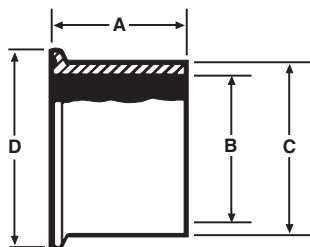
EG2CS31D - SHORT REDUCING CLAMP FERRULES



Size Tube OD	A	B	C
1 x 1/2	0.500	0.500	0.370
1 x 3/4	0.500	0.750	0.620
1 1/2 x 1	0.500	1.000	0.870
2 x 1	0.500	1.000	0.870
2 x 1 1/2	0.500	1.500	1.370
2 1/2 x 1 1/2	0.500	1.500	1.370
2 1/2 x 2	0.500	2.000	1.870
3 x 1	0.500	1.000	0.870
3 x 1 1/2	0.500	1.500	1.370
3 x 2	0.500	2.000	1.870
3 x 2 1/2	0.500	2.500	2.370
4 x 1 1/2	0.625	1.500	1.370
4 x 2	0.625	2.000	1.870
4 x 2 1/2	0.625	2.500	2.370
4 x 3	0.625	3.000	2.870
6 x 4	0.870	4.000	3.834

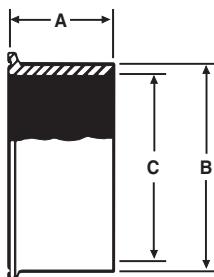
CLAMP FITTINGS

EG14W - TANK WELDING FERRULE



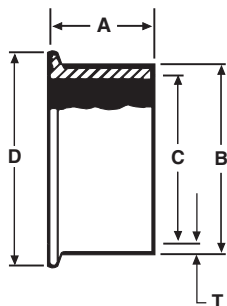
Size Tube OD	A	B	C	D
1	1.625	0.870	1.160	1.984
1 1/2	1.625	1.370	1.676	1.984
2	1.750	1.870	2.192	2.516
2 1/2	1.750	2.370	2.708	3.047
3	1.812	2.870	3.224	3.579
4	2.125	3.834	4.256	4.682
6	4.250	5.782	6.500	6.570

EG14W-C6L - ASME CODED TANK FERRULE



Size Tube OD	A	B	C
1	1.625	1.160	0.870
1 1/2	1.625	1.676	1.370
2	1.750	2.192	1.870
2 1/2	1.750	2.708	2.370
3	1.812	3.224	2.870
4	2.125	4.256	3.834
6	4.250	6.500	5.782

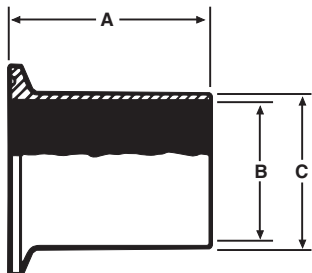
EG14WSL-C6L - ASME CODED TANK FERRULE LONG



Size Tube OD	A	B	C	D	Nom. Wall (T)
1	2.500	1.160	0.870	1.984	0.145
1 1/2	2.500	1.676	1.370	1.984	0.153
2	2.500	2.192	1.870	2.516	0.161
2 1/2	3.500	2.708	2.370	3.047	0.169
3	4.500	3.224	2.870	3.579	0.177
4	4.500	4.256	3.834	4.682	0.211
6	6.250	6.500	5.782	6.570	0.359

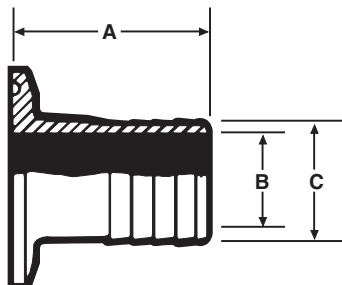
CLAMP FITTINGS

EG14WL - TANK WELDING FERRULE



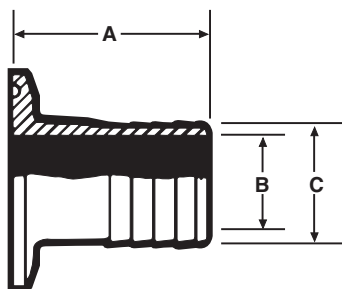
Size Tube OD	A	B	C
1	3.000	0.870	1.000
1 1/2	3.000	1.370	1.500
2	3.000	1.870	2.000
2 1/2	3.000	2.370	2.500
3	4.000	2.870	3.000
4	4.000	3.834	4.000
6	6.000	5.782	6.000
8	6.000	7.782	8.000
10	6.000	9.730	10.000
12	6.000	11.730	12.000

EG14RT - RUBBER HOSE ADAPTER



Size Tube OD	A	B	C
1/2	2.000	0.370	0.500
3/4	2.000	0.620	0.750
1	3.500	0.870	1.000
1 1/4	3.500	1.185	1.250
1 1/2	3.500	1.370	1.500
2	3.500	1.870	2.000
2 1/2	3.500	2.370	2.500
3	3.500	2.870	3.000
4	3.625	3.834	4.000
6	8.875	5.782	6.000

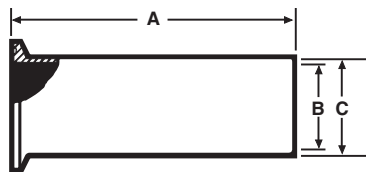
EG14RT - RUBBER HOSE ADAPTER REDUCER (T316L)



Size Tube OD	A	B	C
1 x 1/2	2.000	0.370	0.500
1 x 3/4	2.000	0.620	0.750
1 1/2 x 1 1/4	3.500	1.120	1.250
2 x 1	3.500	0.870	1.000
2 x 1 1/2	3.500	1.370	1.500
2 1/2 x 2	3.500	1.870	2.000
3 x 2	3.500	1.870	2.000
3 x 2 1/2	3.500	2.370	2.500
4 x 2 1/2	3.625	2.370	2.500
4 x 3	3.625	3.870	3.000

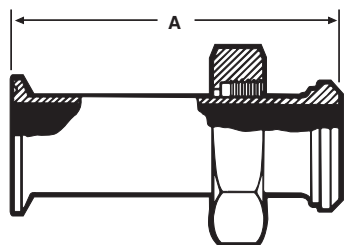
CLAMP FITTINGS

EG14HT - TYGON HOSE ADAPTER



Size Tube OD	A	B	C
1	4.500	0.870	1.000
1 1/2	4.500	1.370	1.500
2	4.500	1.870	2.000
2 1/2	4.500	2.370	2.500
3	4.500	2.870	3.000
4	4.625	3.834	4.000

EG17PR - ADAPTER



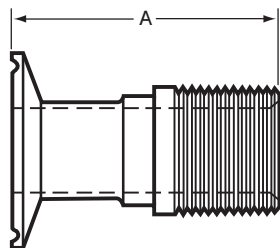
Size Tube OD	A
1	2.500
1 1/2	2.625
2	2.625
2 1/2	2.875
3	2.875
4	2.875

EG17TR - ADAPTER



Size Tube OD	A
1	1.187
1 1/2	1.187
2	1.218
2 1/2	1.343
3	1.437
4	2.125

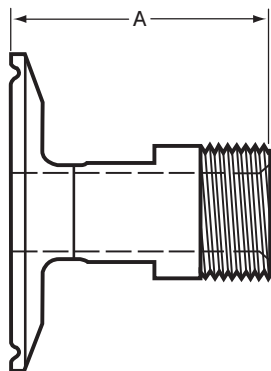
EG21 - MALE ADAPTER (N.P.T. Pipe Threads)



Size Tube OD	A
1	2.875
1 1/4	2.875
1 1/2	2.875
2	2.937
2 1/2	3.437
3	3.625
4	3.812
6	4.875

1 inch through 4 inch are supplied with wrench flats

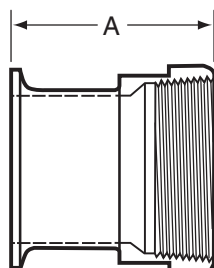
EG21-6L - MALE ADAPTER REDUCING (T316L)



Size Tube OD	A
3/4 x 1/2	See MaxPure Catalog - TEG21
1 x 1/2	2.125
1 x 3/4	2.125
1 1/2 x 1/2	2.125
1 1/2 x 3/4	2.125
1 1/2 x 1 1/4	2.250
2 x 1	2.250
2 x 1 1/4	2.250
2 x 1 1/2	2.250
2 1/2 x 1 1/2	2.250
2 1/2 x 2	2.312
3 x 1 1/2	2.250
3 x 2	2.312
3 x 2 1/2	2.812
4 x 2	2.312
4 x 2 1/2	2.812
4 x 3	3.000
6 x 4	3.062

Sanitary Clamp end dimension listed first.

EG22 - FEMALE ADAPTER (N.P.T. Pipe Threads)

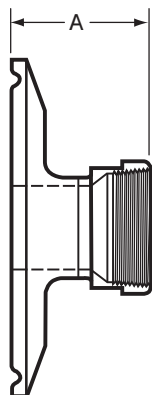


Size Tube OD	A
1	2.250
1 1/4	2.562
1 1/2	2.562
2	2.562
2 1/2	2.750
3	2.937
4	3.125

1 inch through 4 inch are supplied with wrench flats

CLAMP FITTINGS

EG22 - FEMALE ADAPTER REDUCING (T316L)



Size Tube OD	A
3/4 x 1/2	See MaxPure Catalog - TEG22
1 x 1/2	1.625
1 x 3/4	1.625
1 1/2 x 1/2	1.625
1 1/2 x 3/4	1.625
1 1/2 x 1 1/4	2.560
2 x 1	1.625
2 x 1 1/4	1.927
2 x 1 1/2	1.937
2 1/2 x 1 1/2	1.937
2 1/2 x 2	1.937
3 x 1 1/2	1.937
3 x 2	1.937
3 x 2 1/2	2.125
4 x 2	2.062
4 x 2 1/2	2.250
4 x 3	2.437

Sanitary Clamp end dimension listed first.

EG16A - SOLID END CAP



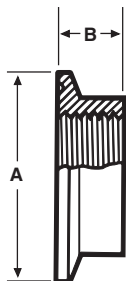
Size Tube OD	A	B
1/2 & 3/4	0.992	0.200
1 & 1 1/2	1.984	0.250
2	2.516	0.250
2 1/2	3.047	0.250
3	3.579	0.250
4	4.682	0.312
5	5.692	0.385
6	6.570	0.437
8	8.570	0.437
10	10.570	0.500
12	12.570	0.500

1 1/2" caps are used on both 1" and 1 1/2" lines.

3/4" caps are used on both 1/2" & 3/4" lines.

CLAMP FITTINGS

EG23B-6L - CLAMP THERMOMETER CAPS (T316L)



Size Tube OD	A	B
*1	1.984	0.625
1 1/2	1.984	0.625
2	2.516	0.625
2 1/2	3.047	0.625
3	3.579	0.625
4	4.682	0.625

*STD - 1/2 FNPT. All others 3/4" FNPT

Note: Other tap sizes are available.

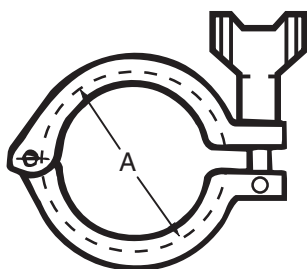
GASKETS



Gasket Materials	Part Number	Flange Type
Buna N	EG40	EG40F
EPDM	EG40E	EG40FE
Teflon	EG40T	
Viton®	EG40V	EG40FV
Silicone	EG40S	EG40FS
TEF-Steel	EG40TS	
Envelope Type		
Teflon with EPDM Filler	EG40GR	
Teflon with Viton Filler	EG40GRV	

Available in 1/2" to 12" sizes.

13MHHM - HEAVY DUTY CLAMP



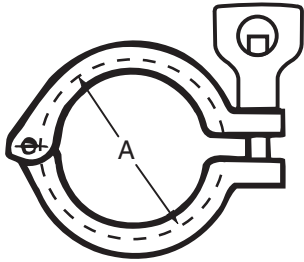
Size Tube OD	A
3/4	1.125
1 1/2	2.122
2	2.654
2 1/2	3.185
3	3.717
4	4.820
5	5.817
6	6.695
8	8.695
10	10.695
12*	12.695

Wing Nuts tightened to 25 in-lbs of torque

*12" Clamp is a two piece design using two wingnuts and no hinge.

CLAMP FITTINGS

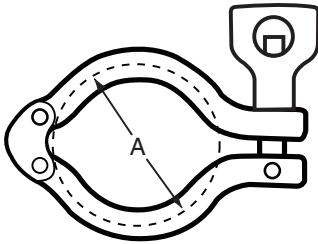
13MHHM-H - HEAVY DUTY CLAMP (Wing Nut With Hole)



Size Tube OD	A
3/4	1.125
1 & 1/2	2.122
2	2.654
2 1/2	3.185
3	3.717
4	4.820
5	5.817
6	6.695
8	8.695
10	10.695
12	12.695

Wing Nuts tightened to 25 in-lbs of torque

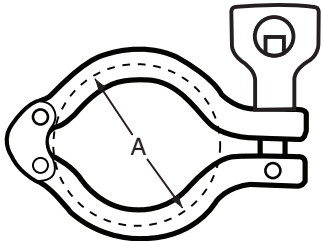
13MHHMD - DOUBLE HINGED HEAVY DUTY CLAMP



Size Tube OD	A
1 1/2	2.122
2	2.654
2 1/2	3.185
3	3.717
4	4.820

Wing Nuts tightened to 25 in-lbs of torque

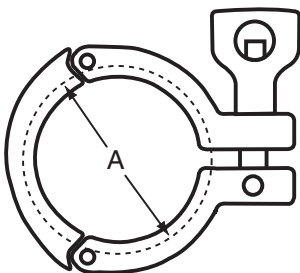
13MHHMD - H - DOUBLE HINGED HEAVY DUTY CLAMP (Wing Nut With Hole)



Size Tube OD	A
1 1/2	2.122
2	2.654
2 1/2	3.185
3	3.717
4	4.820

Wing Nuts tightened to 25 in-lbs of torque

13MHHS - THREE PIECE HEAVY DUTY CLAMP

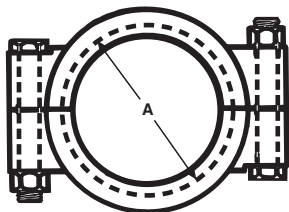


Size Tube OD	A
1 1/2	2.122
2	2.654
2 1/2	3.185
3	3.717
4	4.820

Wing Nuts tightened to 25 in-lbs of torque

CLAMP FITTINGS

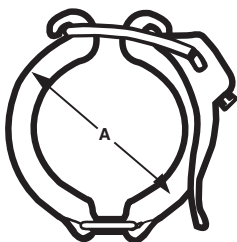
13MHP - HIGH PRESSURE CLAMP



Size Tube OD	A
3/4	1.125
1 1/2	2.046
2	2.578
2 1/2	3.110
3	3.640
4	4.744
6	6.632

13MHP Style nuts tightened to 20 ft-lbs of torque

EG13 - HINGED CLAMP - (Light Duty)



Size Tube OD	A
1 1/2	2.142
2	2.653
2 1/2	3.205
3	3.740
4	4.803

*PSI SERVICE RATINGS FOR SANITARY STAINLESS STEEL CLAMPS

Size Tube OD	13MHHM / 13MHHM - H		13MHHMD / 13MHHMD - H	
	@70°F	@250°F	@70°F	@250°F
3/4"	1500	1200		
1 1/2"	500	250	500	250
2"	450	250	450	250
2 1/2"	400	200	400	200
3"	350	150	350	150
4"	200	125	200	125
5"	175	100		
6"	150	75		
8"	100	50		
10"	40	30		
12"	30	25		

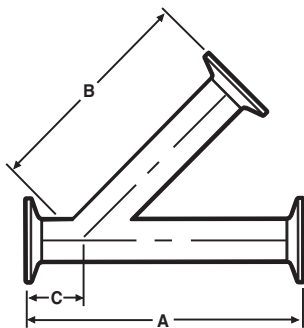
CLAMP FITTINGS

*PSI SERVICE RATINGS FOR SANITARY STAINLESS STEEL CLAMPS

Size Tube OD	13MHHS		13MHP		EG13	
	@70°F	@250°F	@70°F	@250°F	@70°F	@250°F
3/4"			1500	1200		
1 1/2"	600	300	1500	1200	150	125
2"	550	275	1000	800	150	125
2 1/2"	450	225	1000	800	150	125
3"	350	160	1000	800	150	125
4"	250	150	1000	800	150	125
5"						
6"			300	200		
8"						
10"						
12"						

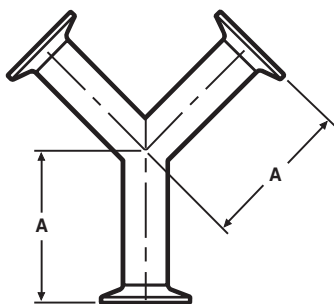
*Service ratings are based upon hydrostatic tests using Standard Molded Buna-N gasket material with proper expansion of ferules, joint assembly, and the absence of shock pressure. All ratings systems are dependent upon related components in the system and proper installation. **13MHHS Style nuts tightened to 25 in-lbs of torque / 13MHP Style nuts tightened to 20 ft-lbs of torque.**

EG28A - 45° CLAMP LATERAL



Size Tube OD	A	B	C
1	7.000	5.500	1.500
1 1/2	8.375	6.687	1.687
2	9.625	7.625	2.125
2 1/2	11.125	9.000	2.000
3	11.750	9.375	2.375
4	14.062	11.375	2.687
6	18.875	15.375	4.375

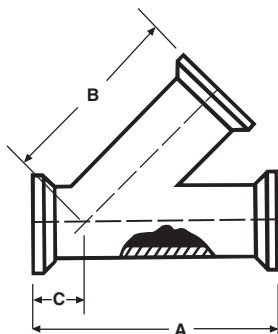
EG28B - CLAMP TRUE Y



Size Tube OD	A
1	3.500
1 1/2	3.500
2	4.500
2 1/2	5.500
3	6.500
4	8.625
6	8.875

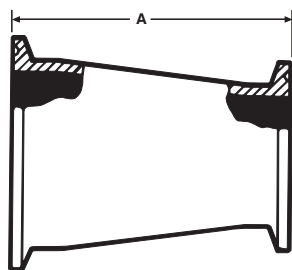
CLAMP FITTINGS

EG28RA - 45° CLAMP REDUCING LATERAL



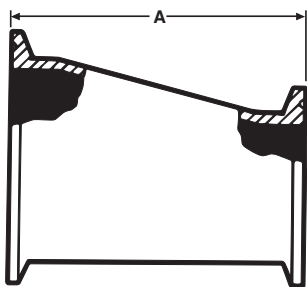
Size Tube OD	A	B	C
1 1/2 x 1	8.375	5.062	1.375
2 x 1	9.625	5.500	1.625
2 x 1 1/2	9.625	5.500	1.625
2 1/2 x 1	11.125	6.875	2.125
2 1/2 x 1 1/2	11.125	6.875	2.125
2 1/2 x 2	11.125	6.875	2.125
3 x 1	11.750	8.250	2.500
3 x 1 1/2	11.750	8.250	2.500
3 x 2	11.750	8.250	2.500
3 x 2 1/2	11.750	8.250	2.500
4 x 1	14.062	10.000	3.000
4 x 1 1/2	14.062	10.000	3.000
4 x 2	14.062	10.000	3.000
4 x 2 1/2	14.062	10.000	3.000
4 x 3	14.062	10.000	3.00

EG31CC - CONCENTRIC REDUCER



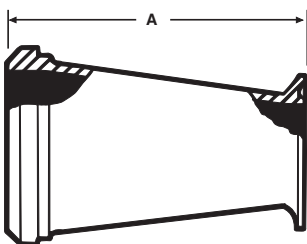
Size Tube OD	A
3/4 x 1/2	2.000
1 x 1/2	2.000
1 x 3/4	2.000
1 1/2 x 1/2	3.000
1 1/2 x 3/4	3.000
1 1/2 x 1	3.000
1 1/2 x 1 1/4	2.000
2 x 1	5.000
2 x 1 1/4	2.000
2 x 1 1/2	3.000
2 1/2 x 1	7.000
2 1/2 x 1 1/2	5.000
2 1/2 x 2	3.000
3 x 1 1/2	7.000
3 x 2	5.000
3 x 2 1/2	3.000
4 x 2	9.125
4 x 2 1/2	7.125
4 x 3	5.125
6 x 3	6.875
6 x 4	7.000

EG32CC - ECCENTRIC REDUCER



Size Tube OD	A
3/4 x 1/2	2.000
1 x 1/2	3.000
1 x 3/4	2.000
1 1/2 x 1/2	5.000
1 1/2 x 3/4	4.000
1 1/2 x 1	3.000
1 1/2 x 1 1/4	2.000
2 x 1	5.000
2 x 1 1/4	2.000
2 x 1 1/2	3.000
2 1/2 x 1	7.000
2 1/2 x 1 1/2	5.000
2 1/2 x 2	3.000
3 x 1 1/2	7.000
3 x 2	5.000
3 x 2 1/2	3.000
4 x 2	9.125
4 x 2 1/2	7.125
4 x 3	5.125
6 x 3	6.875
6 x 4	7.000

EG31PC - ADAPTER REDUCER (Concentric)

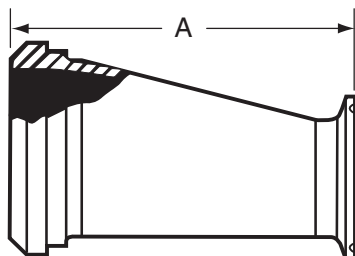


Size Tube OD	A
*1 1/2 x 1	3.187
2 x 1	5.218
2 x 1 1/2	3.218
2 1/2 x 1 1/2	5.343
2 1/2 x 2	3.343
3 x 2	5.437
3 x 2 1/2	3.437
4 x 2 1/2	7.500
4 x 3	5.500

*Hex nut furnished

CLAMP FITTINGS

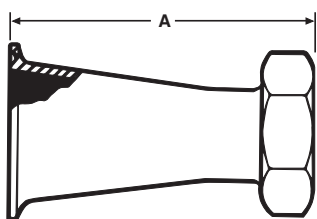
EG32PC - ADAPTER REDUCER (Eccentric)



Size Tube OD	A
*1 1/2 x 1	3.187
2 x 1	5.218
2 x 1 1/2	3.218
2 1/2 x 1 1/2	5.343
2 1/2 x 2	3.343
3 x 2	5.437
3 x 2 1/2	3.437
4 x 2 1/2	7.500
4 x 3	5.500

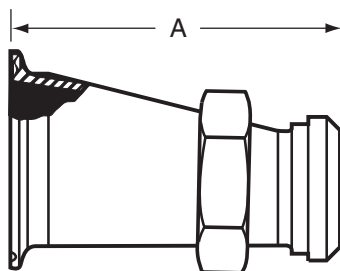
*Hex nut furnished

EG31CP - ADAPTER REDUCER (Concentric)



Size Tube OD	A
1 1/2 x 1	3.875
2 x 1	5.875
2 x 1 1/2	4.000
2 1/2 x 1 1/2	6.000
2 1/2 x 2	4.000
3 x 2	6.000
3 x 2 1/2	4.250
4 x 2 1/2	8.378
4 x 3	6.378

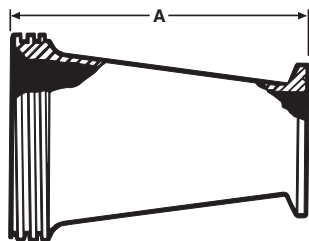
EG32CP - ADAPTER REDUCER (Eccentric)



Size Tube OD	A
1 1/2 x 1	3.875
2 x 1	5.875
2 x 1 1/2	4.000
2 1/2 x 1 1/2	6.000
2 1/2 x 2	4.000
3 x 2	6.000
3 x 2 1/2	4.250
4 x 2 1/2	8.378
4 x 3	6.378

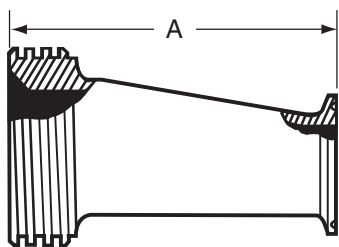
CLAMP FITTINGS

EG31TC - ADAPTER REDUCER (Concentric)



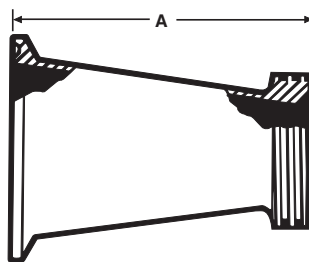
Size Tube OD	A
1 1/2 x 1	3.187
2 x 1	5.218
2 x 1 1/2	3.218
2 1/2 x 1 1/2	5.343
2 1/2 x 2	3.343
3 x 2	5.437
3 x 2 1/2	3.437
4 x 2 1/2	7.500
4 x 3	5.500

EG32TC - ADAPTER REDUCER (Eccentric)



Size Tube OD	A
1 1/2 x 1	3.187
2 x 1	5.218
2 x 1 1/2	3.218
2 1/2 x 1 1/2	5.343
2 1/2 x 2	3.343
3 x 2	5.437
3 x 2 1/2	3.437
4 x 2 1/2	7.500
4 x 3	5.500

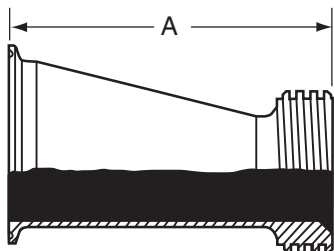
EG31CT - ADAPTER REDUCER (Concentric)



Size Tube OD	A
1 1/2 x 1	3.187
2 x 1	5.187
2 x 1 1/2	3.187
2 1/2 x 1 1/2	5.187
2 1/2 x 2	3.218
3 x 1 1/2	7.187
3 x 2	5.218
3 x 2 1/2	3.343
4 x 2	9.343
4 x 2 1/2	7.468
4 x 3	5.562

CLAMP FITTINGS

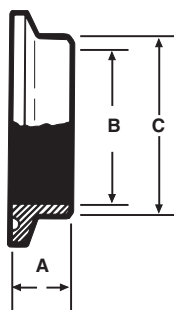
EG32CT - ADAPTER REDUCER (Eccentric)



Size Tube OD	A
1 1/2 x 1	3.187
2 x 1	5.187
2 x 1 1/2	3.187
2 1/2 x 1 1/2	5.187
2 1/2 x 2	3.218
3 x 1 1/2	7.187
3 x 2	5.218
3 x 2 1/2	3.343
4 x 2	9.343
4 x 2 1/2	7.468
4 x 3	5.562

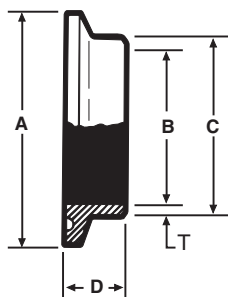
CLAMP FITTINGS SCHEDULE 5 & 10

EG2CS-5-6L - FERRULE



Size Pipe	A	B	C	Nom. Wall
1	0.500	1.185	1.315	0.065
1 1/2	0.500	1.770	1.900	0.065
2	0.500	2.245	2.375	0.065
2 1/2	0.500	2.709	2.875	0.083
3	0.500	3.334	3.500	0.083
4	0.625	4.334	4.500	0.083

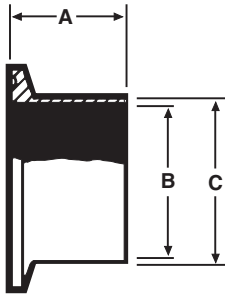
EG2CS-10-6L - FERRULE



Size Pipe	A	B	C	D	Nom. Wall
1/2	1.984	0.674	0.840	0.500	0.083
3/4	1.984	0.884	1.050	0.500	0.083
1	1.984	1.097	1.315	0.500	0.109
1 1/2	2.516	1.682	1.900	0.500	0.109
2	3.047	2.157	2.375	0.500	0.109
2 1/2	3.579	2.635	2.875	0.500	0.120
3	4.125	3.260	3.500	0.500	0.120
4	5.125	4.260	4.500	0.625	0.120

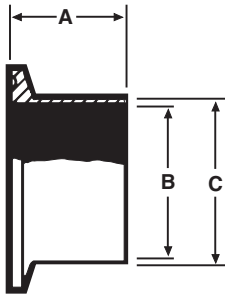
CLAMP FITTINGS SCHEDULE 5 & 10

EG14AM7-5-6L - FERRULE



Size Pipe	A	B	C	Nom. Wall
1	1.125	1.185	1.315	0.065
1 1/2	1.125	1.770	1.900	0.065
2	1.125	2.245	2.375	0.065
2 1/2	1.125	2.709	2.875	0.083
3	1.125	3.334	3.500	0.083
4	1.125	4.334	4.500	0.083

EG14AM7-10-6L - FERRULE



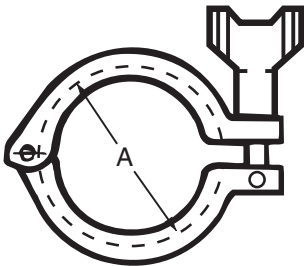
Size Pipe	A	B	C	Nom. Wall
1	1.125	1.097	1.315	0.109
1 1/2	1.125	1.682	1.900	0.109
2	1.125	2.157	2.375	0.109
2 1/2	1.125	2.635	2.875	0.120
3	1.125	3.260	3.500	0.120
4	1.125	4.260	4.500	0.120

EG16A-5-6L - CAP



Size Pipe	A	B
1	1.984	0.250
1 1/2	2.516	0.250
2	3.047	0.250
2 1/2	3.579	0.250
3	4.125	0.250
4	5.125	0.250

13MHHM-5 - CLAMP



Size Pipe	A
1	2.122
1 1/2	2.654
2	3.185
2 1/2	3.717
3	4.250
4	5.250

CLAMP FITTINGS SCHEDULE 5 & 10

*PSI SERVICE RATINGS FOR SANITARY STAINLESS STEEL CLAMPS

Pipe Size	13MHHM	
	@70°F	@250°F
1"	500	250
1 1/2"	450	250
2"	400	200
2 1/2"	350	150
3"	250	135
4"	175	100

GASKETS



Gasket Materials	Part Number
Buna N	EG40-5-SIZE
Teflon	EG40T-5-SIZE
Viton	EG40V-5-SIZE
Silicone	EG40S-5-SIZE
EPDM	EG40E-5-SIZE

Available in 1" to 4" sizes.



WELD FITTINGS....

Weld Fittings are used on permanent installations where process piping and equipment can be cleaned in place (CIP) and removal from the system is not required. Weld Fittings are offered in nominal tube sizes 1/2" through 8" in T304 and T316L materials. Uniform wall thickness for 1/2" through 3" sizes measure .065 (16 ga). In 4" size, wall thickness measures .083 (14 ga), 6" and 8" .109 (12 ga).

We offer Polished ID and OD Fittings for immediate shipment. Other polished combinations may be ordered. Our Weld Fittings meet all 3A requirements.

WELD FITTING SPECIFICATIONS....

Size Range: 1/2" OD through 8" OD

Materials: T304
T316L

Finish: No. 7 - ID & OD
No. 5 - OD only
No. 3 - ID only
No. 1 - unpolished

ORDERING SPECIFICATIONS....

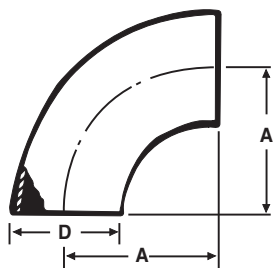
Specify:

- Quantity
- Product description or Part No.
- Size
- Material Type
- Polish Requirements

WELD FITTINGS

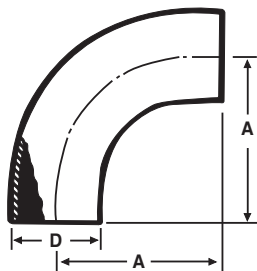
VNE	ALFA LAVAL	WAUKESHA / SPX	BRADFORD	STEEL & O'BRIEN
E2S	L2S	2CW	B2S	L2S
E2C	L2CM	2CKW	B2CM	L2CM
E2T	L2C	2TW	B2T	L2C
E2F	L2F	2FW	B2FP	L2F
E2KS	L2KS	2KW	B2KS	L2KS
E2KC	L2KM	2KKW	B2KM	L2KM
E2KT	L2K	2KT	B2K	L2K
E2KP	L2P	2KP	B2P	L2P
E2WU	L2WU	2WU	B2WUL	2WU
E7WWW	L7WWW	7W	B7WWW	7WWW
E7WWC	L7WWM	7WWK	B7WWM	7WWM
E7WWT	L7WWT	7WWT	B7WWT	----
E7WCW	L7WMW	7WKW	B7WMW	7WMW
E7WTW	L7WTW	7WTW	B7WTW	----
E7WCC	L7WMM	7WKK	B7WMM	7WMM
E7WTT	L7WTT	7WTT	B7WTT	----
E7CCW	L7MMW	7KKW	B7MMW	7MMW
E7TTW	L7TTW	7TTW	B7TTW	----
E7RWWW	L7RWWW	7WR	B7RWWW	7WR
E9WWWW	L9WWWW	9W	B9WWWW	9WWWW
E31WW	L31	31W	B31W	31W
E32WW	L32	32W	B32W	32W
E28WA	L28WA	28WA	B28WA	28WA
E28WB	L28WB	28WB	B28W	28WB
E2WK			B2WK	2WK

2WCL - 90° ELBOW SHORT TANGENT



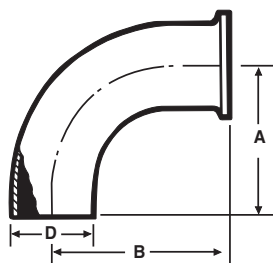
Size Tube OD	A	D	Nom. Wall
1	1.500	1.000	0.065
1 1/4	1.875	1.250	0.065
1 1/2	2.250	1.500	0.065
2	3.000	2.000	0.065
2 1/2	3.750	2.500	0.065
3	4.500	3.000	0.065
4	6.000	4.000	0.083
6	9.000	6.000	0.109
8	12.000	8.000	0.109

E2S - 90° ELBOW



Size Tube OD	A	D	Nom. Wall
1	2.062	1.000	0.065
1 1/2	2.937	1.500	0.065
2	4.062	2.000	0.065
2 1/2	5.187	2.500	0.065
3	6.312	3.000	0.065
4	8.312	4.000	0.083

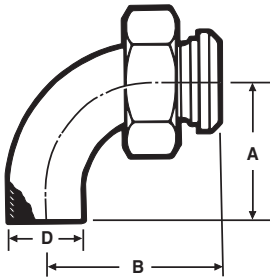
E2C - 90° ELBOW



Size Tube OD	A	B	D	Nom. Wall
1	2.062	2.562	1.000	0.065
1 1/2	2.935	3.437	1.500	0.065
2	4.062	4.562	2.000	0.065
2 1/2	5.187	5.687	2.500	0.065
3	6.312	6.812	3.000	0.065
4	8.312	8.937	4.000	0.083
6	9.000	9.875	6.000	0.109

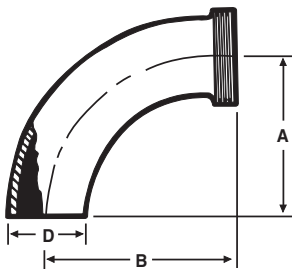
WELD FITTINGS

E2F - 90° ELBOW



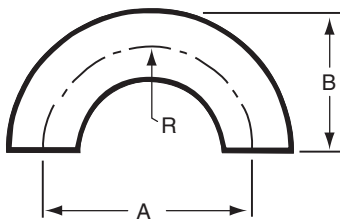
Size Tube OD	A	B	D	Nom. Wall
1	2.062	2.750	1.000	0.065
1 1/2	2.937	3.656	1.500	0.065
2	4.062	4.781	2.000	0.065
2 1/2	5.187	6.031	2.500	0.065
3	6.937	7.218	3.000	0.065
4	8.937	9.531	4.000	0.083

E2T - 90° ELBOW



Size Tube OD	A	B	D	Nom. Wall
1	2.062	2.750	1.000	0.065
1 1/2	2.937	3.656	1.500	0.065
2	4.062	4.781	2.000	0.065
2 1/2	5.187	6.031	2.500	0.065
3	6.937	7.218	3.000	0.065
4	8.937	9.531	4.000	0.083

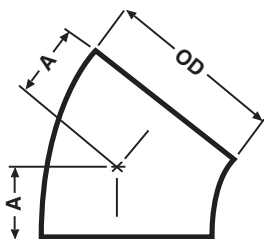
E2WU - 180° U BEND



Size Tube OD	A	B	C	R	Nom. Wall
1/2	1.500	1.000	0.500	0.750	0.065
3/4	2.250	1.500	0.750	1.125	0.065
1	3.000	2.000	1.000	1.500	0.065
1 1/4	3.750	2.500	1.250	1.875	0.065
1 1/2	4.500	3.000	1.500	2.250	0.065
2	6.000	4.000	2.000	3.000	0.065
2 1/2	7.500	5.000	2.500	3.750	0.065
3	9.000	6.000	3.000	4.500	0.065
4	12.000	8.000	4.000	6.000	0.083
6	18.000	12.000	6.000	9.000	0.109

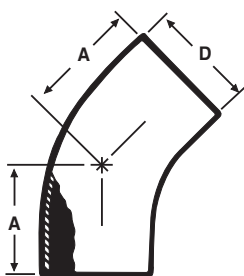
WELD FITTINGS

E2WK - 45° ELBOW SHORT TANGENT



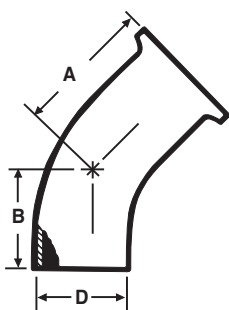
Size Tube OD	A	Nom. Wal
1	0.625	0.065
1 1/4	0.781	0.065
1 1/2	0.937	0.065
2	1.250	0.065
2 1/2	1.562	0.065
3	1.875	0.065
4	2.500	0.083
6	3.750	0.109
8	5.000	0.109

E2KS - 45° ELBOW



Size Tube OD	A	D	Nom. Wall
1	1.187	1.000	0.065
1 1/2	1.625	1.500	0.065
2	2.312	2.000	0.065
2 1/2	3.000	2.500	0.065
3	3.687	3.000	0.065
4	4.812	4.000	0.083

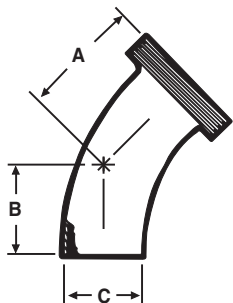
E2KC - 45° ELBOW



Size Tube OD	A	B	D	Nom. Wall
1	1.687	1.187	1.000	0.065
1 1/2	2.125	1.625	1.500	0.065
2	2.812	2.312	2.000	0.065
2 1/2	3.500	3.000	2.500	0.065
3	4.187	3.687	3.000	0.065
4	5.437	4.812	4.000	0.083
6	4.625	3.750	6.000	0.109

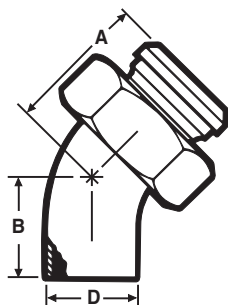
WELD FITTINGS

E2KT - 45° ELBOW



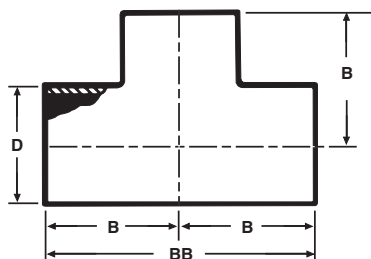
Size Tube OD	A	B	C	Nom. Wall
1	1.875	1.187	1.000	0.065
1 1/2	2.343	1.625	1.500	0.065
2	3.031	2.312	2.000	0.065
2 1/2	3.843	3.000	2.500	0.065
3	4.593	3.687	3.000	0.065
4	6.031	4.812	4.000	0.083

E2KP - 45° ELBOW



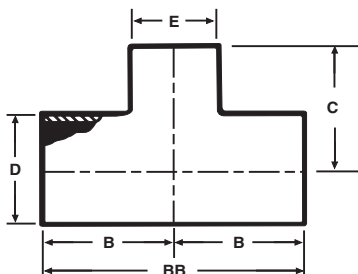
Size Tube OD	A	B	D	Nom. Wall
1	1.875	1.187	1.000	0.065
1 1/2	2.343	1.625	1.500	0.065
2	3.031	2.312	2.000	0.065
2 1/2	3.843	3.000	2.500	0.065
3	4.593	3.687	3.000	0.065
4	6.031	4.812	4.000	0.083

E7WWW - TEE



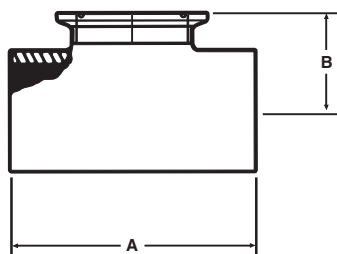
Size Tube OD	B	BB	D	Nom. Wall
1	1.125	2.250	1.000	0.065
1 1/4	2.250	3.312	1.250	0.065
1 1/2	1.656	3.312	1.500	0.065
2	2.062	4.125	2.000	0.065
2 1/2	2.343	4.687	2.500	0.065
3	2.593	5.187	3.000	0.065
4	3.437	6.875	4.000	0.083
6	5.625	11.250	6.000	0.109
8	7.000	14.000	8.000	0.109

E7RWWW - REDUCING TEE



Size Tube OD	B	BB	C	Nom. Wall
1 1/2 x 1	1.650	3.312	1.375	0.065
2 x 1	2.060	4.125	1.625	0.065
2 x 1 1/2	2.060	4.125	1.906	0.065
2 1/2 x 1	2.340	4.687	1.875	0.065
2 1/2 x 1 1/2	2.340	4.687	2.150	0.065
2 1/2 x 2	2.340	4.687	2.312	0.065
3 x 1	2.590	5.187	2.125	0.065
3 x 1 1/2	2.590	5.187	2.400	0.065
3 x 2	2.590	5.187	2.562	0.065
3 X 2 1/2	2.590	5.187	2.590	0.065
4 x 1 1/2	3.430	6.875	4.906	0.083 x 0.065
4 x 2	3.430	6.875	3.090	0.083 x 0.065
4 x 2 1/2	3.430	6.875	3.090	0.083 x 0.065
4 x 3	3.590	6.875	3.090	0.083 x 0.065
6 x 2	5.625	11.250	5.625	0.109 x 0.065
6 x 3	5.625	11.250	5.625	0.109 x 0.065
6 x 4	5.625	11.250	5.625	0.109 x 0.083

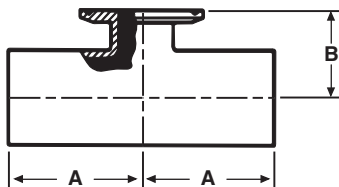
E7WWCS - SHORT CLAMP BRANCH TEE - See TE7WWCS



Size Tube OD	A	B	Nom. Wall
1	4.250	1.125	.065
1 1/2	4.750	1.375	.065
2	5.750	1.625	.065
2 1/2	6.250	1.875	.065
3	6.750	2.125	.065
4	8.250	2.750	.083
6	11.250	4.625	.109

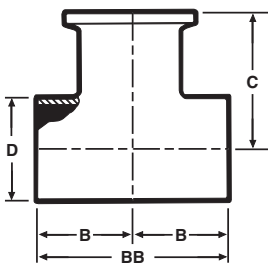
WELD FITTINGS

E7RWWCS - REDUCING SHORT CLAMP BRANCH TEE



Size Tube OD	A	B	Nom. Wall
3/4 x 1/2	2.000	1.000	0.065
1 x 1/2	2.120	1.120	0.065
1 x 3/4	2.120	1.120	0.065
1 1/2 x 1/2	2.370	1.370	0.065
1 1/2 x 3/4	2.370	1.370	0.065
1 1/2 x 1	2.370	1.370	0.065
2 x 1/2	2.870	1.620	0.065
2 x 3/4	2.870	1.620	0.065
2 x 1	2.870	1.620	0.065
2 x 1 1/2	2.870	1.620	0.065
2 1/2 x 1/2	3.120	1.870	0.065
2 1/2 x 3/4	3.120	1.870	0.065
2 1/2 x 1	3.120	1.870	0.065
2 1/2 x 1 1/2	3.120	1.870	0.065
2 1/2 x 2	3.120	1.870	0.065
3 x 1/2	3.370	2.120	0.065
3 x 3/4	3.370	2.120	0.065
3 x 1	3.370	2.120	0.065
3 x 1 1/2	3.370	2.120	0.065
3 x 2	3.370	2.120	0.065
3 x 2 1/2	3.370	2.120	0.065
4 x 1/2	4.120	2.620	0.083
4 x 3/4	4.120	2.620	0.083
4 x 1	4.120	2.620	0.083
4 x 1 1/2	4.120	2.620	0.083
4 x 2	4.120	2.620	0.083
4 x 2 1/2	4.120	2.620	0.083
4 x 3	4.120	2.620	0.083
6 x 4	5.630	3.750	0.109

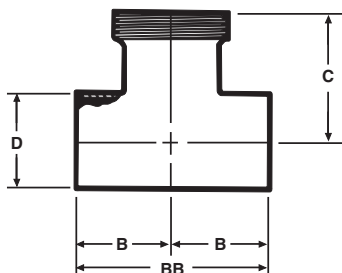
E7WWC - TEE WELD X WELD X CLAMP



Size Tube OD	B	BB	C	D	Nom. Wall
1	1.125	2.250	1.625	1.000	0.065
1 1/2	1.656	3.312	2.156	1.500	0.065
2	2.062	4.125	2.562	2.000	0.065
2 1/2	2.343	4.687	2.843	2.500	0.065
3	2.593	5.187	3.093	3.000	0.065
4	3.625	7.250	4.656	4.000	0.083
6	5.625	11.250	6.500	6.000	0.109

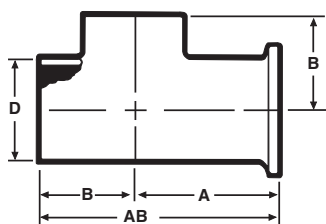
WELD FITTINGS

E7WWT - TEE WELD X WELD X THREAD



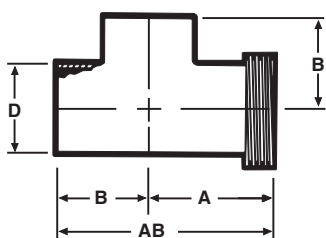
Size Tube OD	B	BB	C	D	Nom. Wall
1	1.125	2.250	1.812	1.000	0.065
1 1/2	1.656	3.312	2.375	1.500	0.065
2	2.062	4.125	2.781	2.000	0.065
2 1/2	2.343	4.687	3.187	2.500	0.065
3	2.593	5.187	3.500	3.000	0.065
4	3.625	7.250	4.656	4.000	0.083

E7WCW - TEE WELD X CLAMP X WELD



Size Tube OD	A	B	AB	D	Nom. Wall
1	1.625	1.125	2.750	1.000	0.065
1 1/2	2.156	1.656	3.812	1.500	0.065
2	2.562	2.062	4.625	2.000	0.065
2 1/2	2.843	2.343	5.187	2.500	0.065
3	3.093	2.593	5.687	3.000	0.065
4	4.250	3.625	7.875	4.000	0.083
6	6.500	5.625	12.125	6.000	0.109

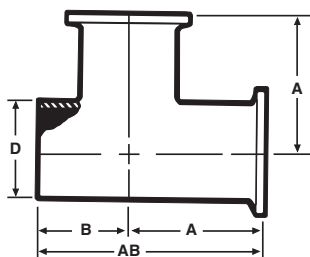
E7WTW - TEE THREADED ONE END - WELD X THREAD X WELD



Size Tube OD	A	B	AB	D	Nom. Wall
1	1.812	1.125	2.937	1.000	0.065
1 1/2	2.375	1.656	4.031	1.500	0.065
2	2.781	2.062	4.843	2.000	0.065
2 1/2	3.187	2.343	5.531	2.500	0.065
3	3.500	2.593	6.093	3.000	0.065
4	4.656	3.625	8.281	4.000	0.083

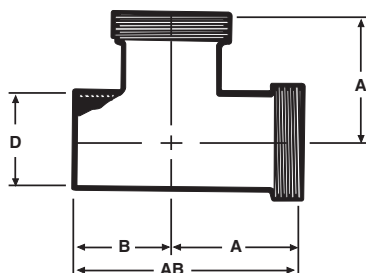
WELD FITTINGS

E7WCC - TEE WELD X CLAMP X CLAMP



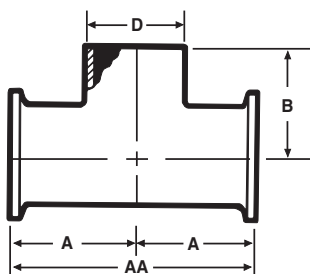
Size Tube OD	A	B	AB	D	Nom. Wall
1	1.625	1.125	2.750	1.000	0.065
1 1/2	2.156	1.656	3.812	1.500	0.065
2	2.562	2.062	4.625	2.000	0.065
2 1/2	2.843	2.343	5.187	2.500	0.065
3	3.093	2.593	5.687	3.000	0.065
4	4.250	3.625	7.875	4.000	0.083
6	6.500	5.625	12.125	6.000	0.109

E7WTT - TEE WELD X THREAD X THREAD



Size Tube OD	A	B	AB	D	Nom. Wall
1	1.812	1.125	2.937	1.000	0.065
1 1/2	2.375	1.656	4.031	1.500	0.065
2	2.781	2.062	4.843	2.000	0.065
2 1/2	3.187	2.343	5.531	2.500	0.065
3	3.500	2.593	6.093	3.000	0.065
4	4.656	3.625	8.281	4.000	0.083

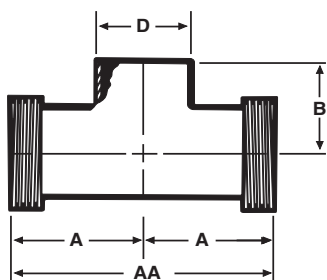
E7CCW - TEE CLAMP X CLAMP X WELD



Size Tube OD	A	AA	B	D	Nom. Wall
1	1.625	3.250	1.125	1.000	0.065
1 1/2	2.562	4.312	1.656	1.500	0.065
2	2.562	5.125	2.062	2.000	0.065
2 1/2	2.843	5.687	2.343	2.500	0.065
3	3.093	6.187	2.593	3.000	0.065
4	4.250	8.500	3.625	4.000	0.083
6	6.500	13.000	5.625	6.000	0.109

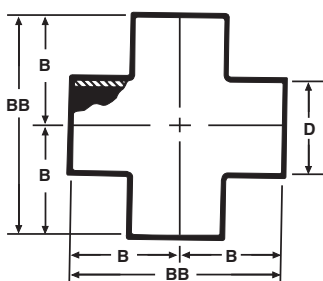
WELD FITTINGS

E7TTW - TEE THREAD X THREAD X WELD



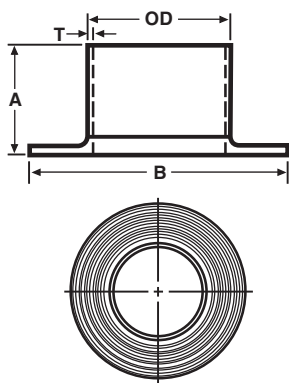
Size Tube OD	A	AA	B	D	Nom. Wall
1	1.812	3.625	1.125	1.000	0.065
1 1/2	2.375	4.750	1.656	1.500	0.065
2	2.781	5.562	2.062	2.000	0.065
2 1/2	3.187	6.375	2.343	2.500	0.065
3	3.500	7.000	2.593	3.000	0.065
4	4.656	9.312	3.625	4.000	0.083

E9WWW - CROSS



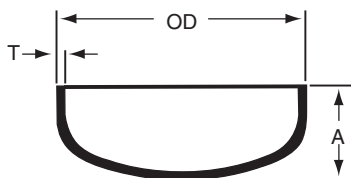
Size Tube OD	B	BB	D	Nom. Wall
1	1.125	2.250	1.000	.065
1 1/2	1.656	3.312	1.500	.065
2	2.062	4.125	2.000	.065
2 1/2	2.343	4.687	2.500	.065
3	2.593	5.187	3.000	.065
4	3.437	6.875	4.000	.083
6	5.625	11.250	6.000	.109

E14WA - TYPE A STUB END WITH GROOVES



Size Tube OD	A	B	Nom. Wall (T)
1/2	1.375	1.625	0.065
3/4	1.375	1.687	0.065
1	1.625	2.000	0.065
1 1/4	1.625	2.500	0.065
1 1/2	1.750	2.875	0.065
2	1.500	3.625	0.065
2 1/2	2.000	4.125	0.065
3	2.250	5.000	0.065
4	2.625	6.187	0.083
6	3.000	8.500	0.109

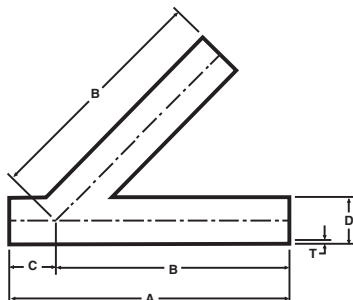
E16W - WELD CAP



Size Tube OD	A	Nom. Wall (T)
1	0.375	0.065
1 1/4	0.500	0.065
1 1/2	0.562	0.065
2	0.750	0.065
2 1/2	1.000	0.065
3	1.250	0.065
4	1.500	0.083
6	Contact us for dimensions.	

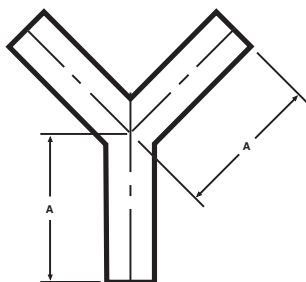
WELD FITTINGS

E28WA - 45° LATERAL



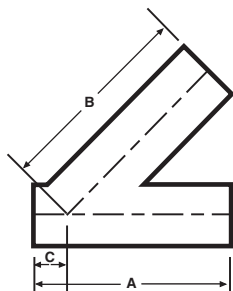
Size Tube OD	A	B	C	D	Nom. Wall (T)
1	6.000	5.000	1.000	1.000	0.065
1 1/2	7.375	6.187	1.187	1.500	0.065
2	8.625	7.125	1.500	2.000	0.065
2 1/2	10.125	8.500	1.625	2.500	0.065
3	10.750	8.875	1.875	3.000	0.065
4	12.812	10.750	2.062	4.000	0.083
6	18.000	14.500	3.500	6.000	0.109

E28WB - TRUE Y



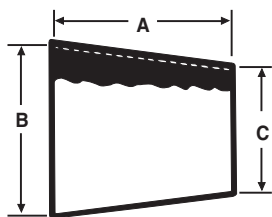
Size Tube OD	A	Nom. Wall
1	3.000	0.065
1 1/2	3.000	0.065
2	4.000	0.065
2 1/2	5.000	0.065
3	6.000	0.065
4	8.000	0.083
6	8.000	0.109

E28RWA - 45° REDUCING LATERAL



Size Tube OD	A	B	C	Nom. Wall
1 1/2 x 1	7.375	6.187	1.187	0.065
2 x 1	8.625	7.125	1.625	0.065
2 x 1 1/2	8.625	7.125	1.625	0.065
2 1/2 x 1	10.125	8.500	1.500	0.065
2 1/2 x 1 1/2	10.125	8.500	1.500	0.065
2 1/2 x 2	10.125	8.500	1.500	0.065
3 x 1	10.750	8.875	1.875	0.065
3 x 1 1/2	10.750	8.875	1.875	0.065
3 x 2	10.750	8.875	1.875	0.065
3 x 2 1/2	10.750	8.875	1.875	0.065
4 x 1	12.812	10.750	2.062	0.083 x .065
4 x 1 1/2	12.812	10.750	2.062	0.083 x .065
4 x 2	12.812	10.750	2.062	0.083 x .065
4 x 2 1/2	12.812	10.750	2.062	0.083 x .065
4 x 3	12.812	10.750	2.062	0.083 x .065

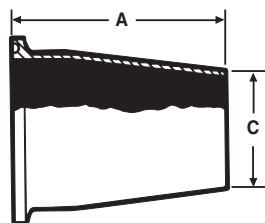
E31WW - CONCENTRIC REDUCER



Size Tube OD	A	B	C	Nom. Wall
3/4 x 1/2	*	0.750	0.500	0.065
1 x 1/2	*	1.000	0.500	0.065
1 x 3/4	*	1.000	0.750	0.065
1 1/2 x 1/2	*	1.500	0.500	0.065
1 1/2 x 3/4	*	1.500	0.750	0.065
1 1/2 x 1	2.000	1.500	1.000	0.065
1 1/2 x 1 1/4	1.000	1.500	1.250	0.065
2 x 1	4.000	2.000	1.000	0.065
2 x 1 1/4	3.000	2.000	1.250	0.065
2 x 1 1/2	2.000	2.000	1.500	0.065
2 1/2 x 1 1/2	4.000	2.500	1.500	0.065
2 1/2 x 2	2.000	2.500	2.000	0.065
3 x 1 1/2	6.000	3.000	1.500	0.065
3 x 2	4.000	3.000	2.000	0.065
3 x 2 1/2	2.000	3.000	2.500	0.065
4 x 2	8.000	4.000	2.000	0.083 x .065
4 x 2 1/2	6.000	4.000	2.500	0.083 x .065
4 x 3	4.000	4.000	3.000	0.083 x .065
6 x 2	5.500	6.000	2.000	0.109 x .065
6 x 3	5.500	6.000	3.000	0.109 x .083
6 x 4	5.500	6.000	4.000	0.109 x .083

* Contact us for dimensions.

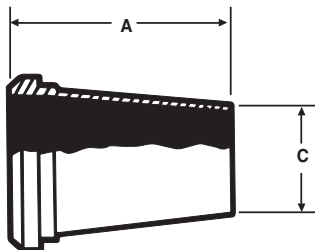
E31CW - CONCENTRIC REDUCER CLAMP X WELD



Size Tube OD	A	C	Nom. Wall
1 1/2 x 1	2.500	1.000	0.065
2 x 1 1/2	2.500	1.500	0.065
2 1/2 x 1 1/2	4.500	1.500	0.065
2 1/2 x 2	2.500	2.000	0.065
3 x 2	4.500	2.000	0.065
3 x 2 1/2	2.500	2.500	0.065
4 x 2	8.625	2.000	0.065
4 x 2 1/2	6.625	2.500	0.065
4 x 3	4.625	3.000	0.065
6 x 4	6.375	4.000	0.083

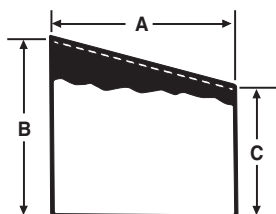
WELD FITTINGS

E31PW - CONCENTRIC REDUCER PLAIN BEVEL X WELD



Size Tube OD	A	C	Nom. Wall
1 1/2 x 1	2.687	1.000	0.065
2 x 1 1/2	2.718	1.500	0.065
2 1/2 x 1 1/2	4.843	1.500	0.065
2 1/2 x 2	2.843	2.000	0.065
3 x 2	4.937	2.000	0.065
3 x 2 1/2	2.937	2.500	0.065
4 x 2	9.000	2.000	0.065
4 x 2 1/2	7.000	2.500	0.065
4 x 3	5.000	3.000	0.065

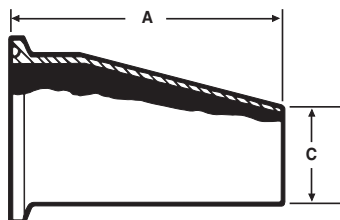
E32WW - ECCENTRIC REDUCER



Size Tube OD	A	B	C	Nom. Wall
3/4 x 1/2	*	0.750	0.500	0.065
1 x 1/2	*	1.000	0.500	0.065
1 x 3/4	*	1.000	0.750	0.065
1 1/2 x 1/2	*	1.500	0.500	0.065
1 1/2 x 3/4	*	1.500	0.750	0.065
1 1/2 x 1	2.000	1.500	1.000	0.065
1 1/2 x 1 1/4	1.000	1.500	1.250	0.065
2 x 1	4.000	2.000	1.250	0.065
2 x 1 1/4	3.000	2.000	1.250	0.065
2 x 1 1/2	2.000	2.000	1.500	0.065
2 1/2 x 1 1/2	4.000	2.500	1.500	0.065
2 1/2 x 2	2.000	2.500	2.000	0.065
3 x 2	4.000	3.000	2.000	0.065
3 x 2 1/2	2.000	3.000	2.500	0.065
4 x 2	8.000	4.000	2.000	0.083 x .065
4 x 2 1/2	6.000	4.000	2.500	0.083 x .065
4 x 3	4.000	4.000	3.000	0.083 x .065
6 x 2	5.500	6.000	2.000	0.109 x .065
6 x 3	5.500	6.000	3.000	0.109 x .083
6 x 4	5.500	6.000	4.000	0.109 x .083

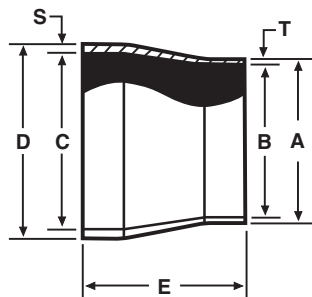
* Contact us for dimensions.

E32CW - ECCENTRIC REDUCER CLAMP X WELD



Size Tube OD	A	C	Nom. Wall
1 1/2 X 1	2.500	1.000	0.065
2 x 1 1/2	2.500	1.500	0.065
2 1/2 x 1 1/2	4.500	1.500	0.065
2 1/2 x 2	2.500	2.000	0.065
3 x 2	4.500	2.000	0.065
3 x 2 1/2	2.500	2.500	0.065
4 x 2	8.625	2.000	0.065
4 x 2 1/2	6.625	2.500	0.065
4 x 3	4.625	3.000	0.065
6 x 4	6.375	4.000	0.083

E17WW-6L - TUBE X PIPE ADAPTER



Size Tube OD	A	B	SCH5 C	SCH10 C	SCH40 C	D
1/2	0.500	0.370	0.710	0.674	0.622	0.840
3/4	0.750	0.620	0.920	0.884	0.824	1.050
1	1.000	0.870	1.185	1.097	1.049	1.315
1 1/2	1.500	1.370	1.770	1.682	1.610	1.900
2	2.000	1.870	2.245	2.157	2.067	2.375
2 1/2	2.500	2.370	2.709	2.635	2.469	2.875
3	3.000	2.870	3.334	3.260	3.068	3.500
4	4.000	3.834	4.334	4.260	4.026	4.500
6	6.000	5.782	6.407	6.357	6.065	6.625

Size Tube OD	E	T	SCH5 S	SCH10 S	SCH40 S
1/2	1.000	0.065	0.065	0.083	0.109
3/4	1.000	0.065	0.065	0.083	0.113
1	1.000	0.065	0.065	0.109	0.133
1 1/2	1.500	0.065	0.065	0.109	0.145
2	1.500	0.065	0.065	0.109	0.154
2 1/2	1.500	0.065	0.083	0.120	0.203
3	2.000	0.065	0.083	0.120	0.216
4	2.000	0.083	0.083	0.120	0.237
6	3.000	0.109	0.109	0.134	0.280



BEVEL SEAT FITTINGS....

Bevel Seat Fittings are used on process equipment and piping to ensure rigidity of the system. Bevel Seat Unions consist of a Threaded Bevel Ferrule mated with a Plain Bevel Ferrule. Both are offered in T304 and T316L material. Hex Union Nuts made of only T304 material are used to complete the union. Gaskets for Bevel Seat Unions are not required for positive shut-off. However, gaskets may be purchased upon request.

Bevel Seat Fittings meet all 3A requirements and are available in 1" through 4" sizes.

BEVEL SEAT SPECIFICATIONS....

Size Range: 1" OD through 4" OD

Materials: T304
T316L

Finish: No. 7 - ID & OD
No. 5 - OD only
No. 3 - ID only
No. 1 - unpolished

ORDERING SPECIFICATIONS....

Specify:

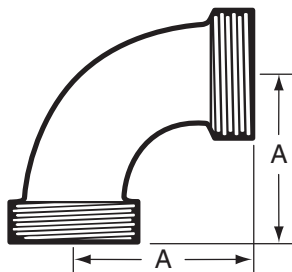
- Quantity
- Product description or Part No.
- Size
- Material Type
- Polish Requirements

BEVEL SEAT TYPE

VNE	ALFA LAVAL	WAUKESHA / SPX	BRADFORD	STEEL & O'BRIEN
2C	2C	2C	B2C	2C
2E	2E	2E	B2E	2E
2F	2F	2F	B2F	2F
2F-31	2F-31	2F-31	2F-31	2F-31
2K	2K	2K	2K	2K
2P	2P	2P	B2P	2P
7	7	7	7	7
7A	7A	7A	7A	7A
7B	7B	7B	7B	7B
9	9	9	9	9
9A	9A	9A	9A	9A
13H	13H	13H	13H	13H
14	14	14	14	14
14A	L14A7	14A	14A	14A
14AHR	14AHR	14AHR	14AHR	14AHR
14AHT	14AHT	14AHT	14AHT	14AHT
14R	14R	14R	14R	14R
14W	14W	14W	14W	14W
14-22	14-22	14-22	14-22	14-18
14WL	14WL	14WL	14WL	14WL
14-19	14-19	21F	14-19	14-19
14PR	14PRF	14RW	14PRF	14++
15	15	15	15	15
15TR	15TRF	15RW	15TRF	15++
15A	L15A7	15A	15A	15A
15AHR	15AHR	15AHR	15AHR	15AHR
15AHT	15AHT	15AHT	15AHT	15AHT
15R	15R	15R	15R	15R
15W	15W	15W	15W	15W
15WL	15WL	15WL	15WL	15WL
16A	16A	16A	16A	16A
21	21	21	21	21
23B	23B	23B	23B	23B
22	22	22	22	22
31TT	31TT	31TT	B31TT	31TT
31TP	31TP	31TP	B31TP	31TP
31-14F	31-14F	31-14F	B3114F	31-14F
31-15F	31-15F	31-15F	B3115F	31-15F
32-14F	32-14F	32-14F	B3214F	32-14F
32-15F	32-15F	32-15F		32-15F

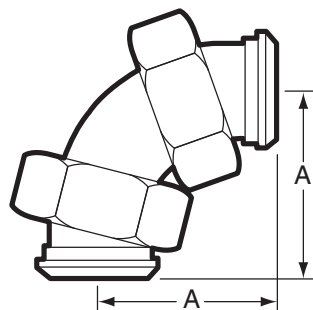
BEVEL SEAT FITTINGS

2C - 90° ELBOW THREADED



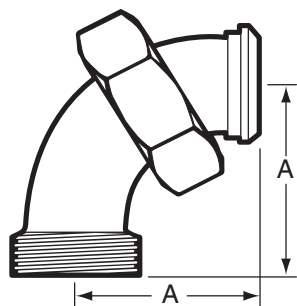
Size Tube OD	A
1	2.187
1 1/2	2.937
2	3.718
2 1/2	4.593
3	5.437
4	7.000

2E - 90° ELBOW BEVEL SEAT WITH 13H NUT



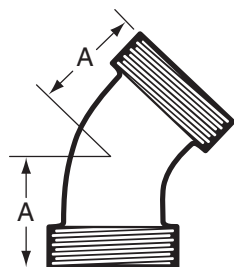
Size Tube OD	A
1	2.000
1 1/2	2.875
2	3.718
2 1/2	4.843
3	5.906
4	8.062

2F - 90° ELBOW THREADED X 13H NUT



Size Tube OD	A
1	2.000
1 1/2	2.875
2	3.718
2 1/2	4.843
3	5.906
4	8.062

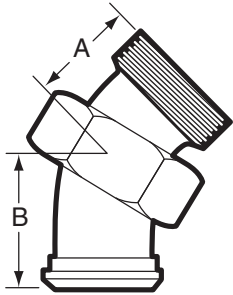
2K - 45° ELBOW THREADED



Size Tube OD	A
1	2.000
1 1/2	2.312
2	2.687
2 1/2	3.250
3	3.750
4	4.500

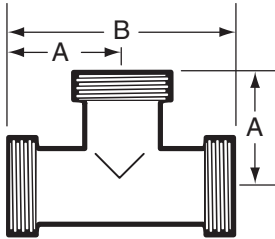
BEVEL SEAT FITTINGS

2P - 45° ELBOW 13H NUT X THREAD



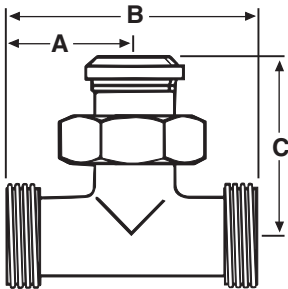
Size Tube OD	A	B
1	1.312	2.000
1 1/2	1.625	2.437
2	1.937	2.750
2 1/2	2.375	3.312
3	2.812	3.625
4	3.500	4.250

7 - TEE ALL ENDS THREADED



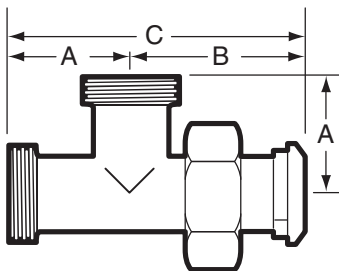
Size Tube OD	A	B
1	1.812	3.625
1 1/2	2.375	4.750
2	2.781	5.437
2 1/2	3.187	6.375
3	3.500	7.000
4	4.656	9.312

7A - TEE THREADED X THREADED X 13H NUT



Size Tube OD	A	B	C
1	1.812	3.625	2.500
1 1/2	2.375	4.750	3.125
2	2.781	5.437	3.562
2 1/2	3.187	6.375	4.062
3	3.500	7.000	4.312
4	4.656	9.312	5.375

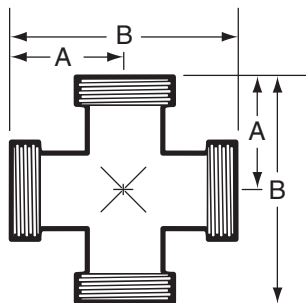
7B - TEE THREADED X 13H NUT X THREADED



Size Tube OD	A	B	C
1	1.182	2.500	4.313
1 1/2	2.375	3.125	5.500
2	2.781	3.562	6.343
2 1/2	3.187	4.062	7.250
3	3.500	4.312	7.812
4	4.656	5.375	10.031

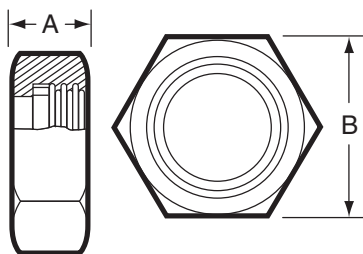
BEVEL SEAT FITTINGS

9 - CROSS THREADED



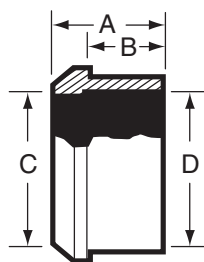
Size Tube OD	A	B
1	1.812	3.625
1 1/2	2.375	4.750
2	2.781	5.437
2 1/2	3.187	6.375
3	3.500	7.000
4	4.656	9.312

13H - HEX UNION NUT



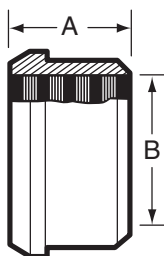
Size Tube OD	A	B
1	0.906	1.812
1 1/2	0.968	2.406
2	1.062	3.000
2 1/2	1.187	3.593
3	1.281	4.187
4	1.500	5.437

14 - PLAIN RECESSED FERRULE (T316L Material Only)



Size Tube OD	A	B	C	D
1	0.750	0.500	0.870	1.000
1 1/2	0.875	0.625	1.370	1.500
2	0.968	0.687	1.870	2.000
2 1/2	1.062	0.750	2.370	2.500
3	1.125	0.812	2.870	3.000
4	1.250	0.812	3.834	4.000

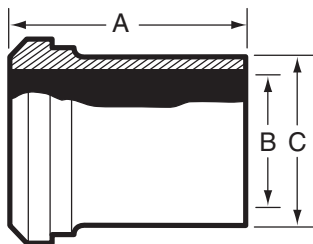
14R - PLAIN RECESSLESS FERRULE (Expanding)



Size Tube OD	A	B
1	0.750	1.000
1 1/2	1.125	1.500
2	1.312	2.000
2 1/2	1.375	2.500
3	1.437	3.000
4	1.500	4.000

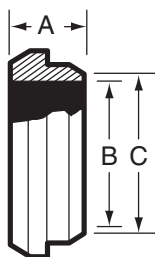
BEVEL SEAT FITTINGS

14A - PLAIN WELDING FERRULE



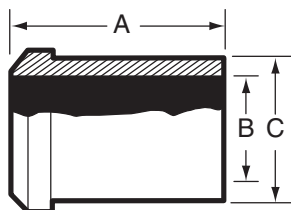
Size Tube OD	A	B	C
1	1.375	0.870	1.000
1 1/2	1.500	1.370	1.500
2	1.500	1.870	2.000
2 1/2	1.750	2.370	2.500
3	1.750	2.870	3.000
4	1.750	3.834	4.000

14PR - SHORT PLAIN WELDING FERRULE



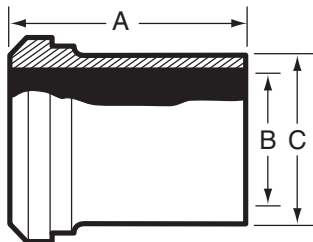
Size Tube OD	A	B	C
1	0.687	0.870	1.000
1 1/2	0.687	1.370	1.500
2	0.718	1.870	2.000
2 1/2	0.843	2.370	2.500
3	0.937	2.870	3.000
4	1.000	3.834	4.000

14W - TANK WELDING PLAIN FERRULE



Size Tube OD	A	B	C
1	2.375	0.870	1.156
1 1/2	2.531	1.370	1.671
2	2.781	1.870	2.187
2 1/2	3.062	2.370	2.703
3	3.531	2.870	3.218
4	4.312	3.834	4.250

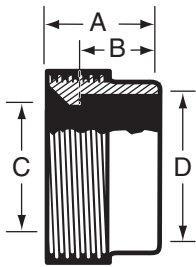
14WL - LONG PLAIN WELDING FERRULE



Size Tube OD	A	B	C
1	2.000	0.870	1.000
1 1/2	2.250	1.370	1.500
2	2.500	1.870	2.000
2 1/2	2.750	2.370	2.500
3	3.000	2.870	3.000
4	4.000	3.834	4.000

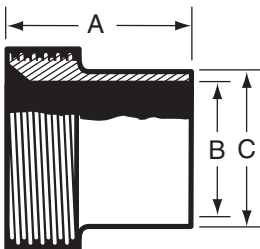
BEVEL SEAT FITTINGS

15 - THREADED RECESSED FERRULE (T316L Material Only)



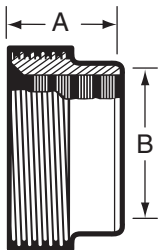
Size Tube OD	A	B	C	D
1	1.187	0.500	0.870	1.000
1 1/2	0.875	0.625	1.370	1.500
2	1.031	0.687	1.870	2.000
2 1/2	1.125	0.750	2.370	2.500
3	1.250	0.812	2.870	3.000
4	1.375	0.937	3.834	4.000

15A - THREADED WELDING FERRULE



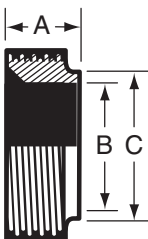
Size Tube OD	A	B	C
1	1.375	0.870	1.000
1 1/2	1.500	1.370	1.500
2	1.500	1.870	2.000
2 1/2	1.750	2.370	2.500
3	1.750	2.870	3.000
4	1.750	3.834	4.000

15R - THREADED RECESSLESS FERRULE (Expanding)



Size Tube OD	A	B
1	0.812	1.000
1 1/2	1.125	1.500
2	1.375	2.000
2 1/2	1.500	2.500
3	1.625	3.000
4	1.625	4.000

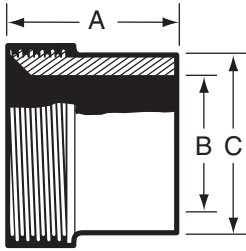
15TR - SHORT THREADED WELDING FERRULE



Size Tube OD	A	B	C
1	0.687	0.870	1.000
1 1/2	0.687	1.370	1.500
2	0.718	1.870	2.000
2 1/2	0.843	2.370	2.500
3	0.937	2.870	3.000
4	1.000	3.834	4.000

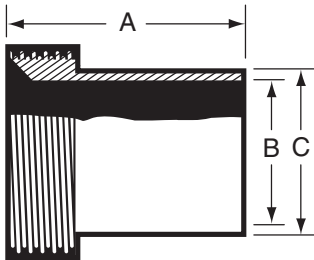
BEVEL SEAT FITTINGS

15W - TANK WELDING FERRULE



Size Tube OD	A	B	C
1	1.500	0.870	1.250
1 1/2	1.625	1.370	1.750
2	1.750	1.870	2.312
2 1/2	1.750	2.370	2.875
3	1.812	2.870	3.375
4	2.125	3.834	4.250

15WL - LONG WELDING FERRULE



Size Tube OD	A	B	C
1	2.000	0.870	1.000
1 1/2	2.250	1.370	1.500
2	2.500	1.870	2.000
2 1/2	2.750	2.370	2.500
3	3.000	2.870	3.000
4	4.000	3.834	4.000

16A - PLAIN CAP



Size Tube OD	A	B
1	1.312	0.468
1 1/2	1.843	0.562
2	2.375	0.625
2 1/2	2.906	0.656
3	3.437	0.718
4	4.500	0.812

23B - TAPPED THERMOMETER CAP

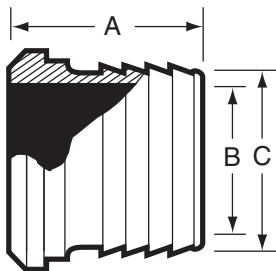


Size Tube OD	A	B
*1	1.312	0.468
1 1/2	1.843	0.562
2	2.375	0.625
2 1/2	2.906	0.656
3	3.437	0.718
4	4.500	0.812

*1" Standard 1/2" FNPT. All others 3/4".

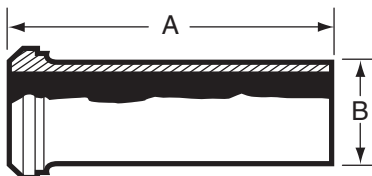
BEVEL SEAT FITTINGS

14AHR - RUBBER HOSE ADAPTER



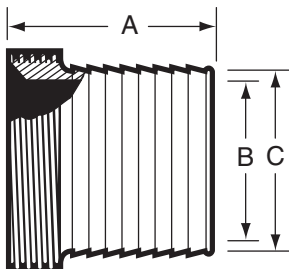
Size Tube OD	A	B	C
1	1.687	0.870	1.000
1 1/2	1.687	1.370	1.500
2	2.312	1.870	2.000
2 1/2	2.343	2.370	2.000
3	3.500	2.870	3.000
4	4.000	3.834	4.000

14AHT - TYGON HOSE ADAPTER



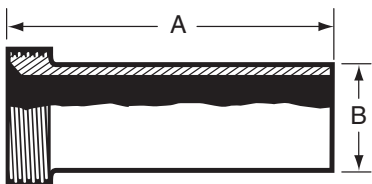
Size Tube OD	A	B
1	4.687	1.000
1 1/2	4.718	1.500
2	4.718	2.000
2 1/2	4.843	2.500
3	4.906	3.000
4	5.218	4.000

15AHR - THREADED RUBBER HOSE ADAPTER



Size Tube OD	A	B	C
1	1.687	0.870	1.000
1 1/2	1.687	1.370	1.500
2	2.312	1.870	2.000
2 1/2	2.343	2.370	2.000
3	3.500	2.870	3.000
4	4.000	3.834	4.000

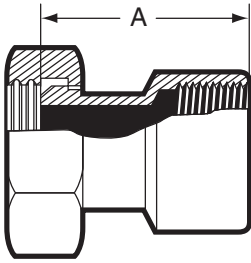
15AHT - THREADED TYGON HOSE ADAPTER



Size Tube OD	A	B
1	4.687	1.000
1 1/2	4.718	1.500
2	4.718	2.000
2 1/2	4.843	2.500
3	4.906	3.000
4	5.218	4.000

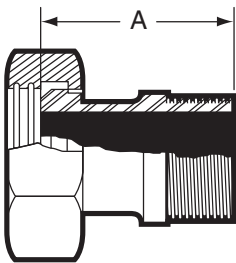
BEVEL SEAT FITTINGS

14-22 - ADAPTER 13H NUT X FNPT



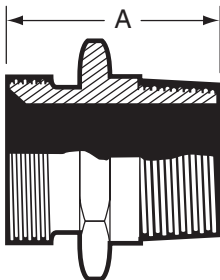
Size Tube OD	A
1	2.500
1 1/2	2.937
2	2.937
2 1/2	3.375
3	3.562
4	3.750

14-19 - ADAPTER 13H NUT X MNPT



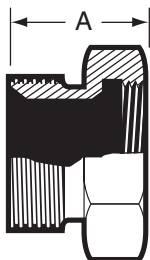
Size Tube OD	A
1	3.125
1 1/2	3.250
2	3.312
2 1/2	4.062
3	4.250
4	4.312

21 - ADAPTER ACME THREAD X MNPT



Size Tube OD	A
1	2.437
1 1/2	2.437
2	2.531
2 1/2	3.156
3	3.406
4	3.593

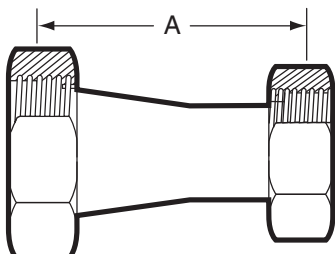
22 - ADAPTER ACME THREAD X FNPT



Size Tube OD	A
1	1.937
1 1/2	2.156
2	2.156
2 1/2	2.468
3	2.718
4	3.031

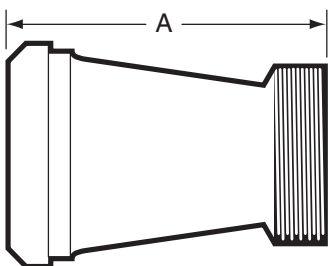
BEVEL SEAT FITTINGS

31-14F - CONCENTRIC REDUCER 13H X 13H



Size Tube OD	A
1 1/2 x 1	4.062
2 x 1	6.093
2 x 1 1/2	4.218
2 1/2 x 1 1/2	6.343
2 1/2 x 2	4.343
3 x 2	6.437
3 x 2 1/2	4.687
4 x 2 1/2	8.750
4 x 3	6.750

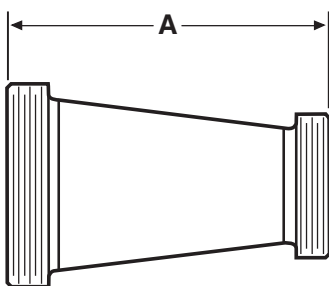
31-15F - CONCENTRIC REDUCER PLAIN BEVEL X THREAD



Size Tube OD	A
*1 1/2 x 1	3.375
2 x 1	5.406
2 x 1 1/2	3.406
2 1/2 x 1 1/2	5.531
2 1/2 x 2	3.562
3 x 2	5.656
3 x 2 1/2	3.781
4 x 2 1/2	7.843
4 x 3	5.937

*Hex Nut included.

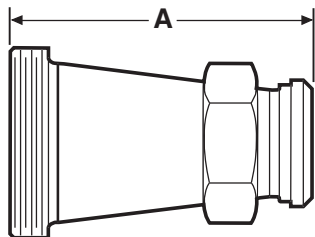
31TT - CONCENTRIC REDUCER THREAD X THREAD



Size Tube OD	A
1 1/2 x 1	3.375
2 x 1	5.406
2 x 1 1/2	3.406
2 1/2 x 1 1/2	5.531
2 1/2 x 2	3.562
3 x 2	5.656
3 x 2 1/2	3.781
4 x 2 1/2	7.843
4 x 3	5.937

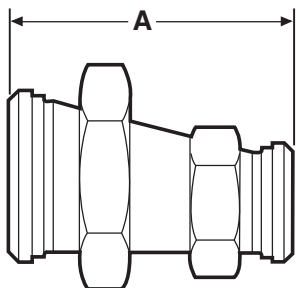
BEVEL SEAT FITTINGS

31TP - CONCENTRIC REDUCER THREAD X 13H NUT



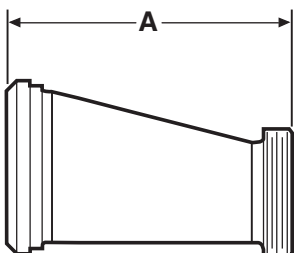
Size Tube OD	A
1 1/2 x 1	4.062
2 x 1	6.093
2 x 1 1/2	4.218
2 1/2 x 1 1/2	6.343
2 1/2 x 2	4.343
3 x 2	6.437
3 x 2 1/2	4.687
4 x 2	10.500
4 x 2 1/2	8.750
4 x 3	6.750

32-14F - ECCENTRIC REDUCER 13H NUT X 13H NUT



Size Tube OD	A
1 1/2 x 1	4.062
2 x 1	6.093
2 x 1 1/2	4.218
2 1/2 x 1 1/2	6.143
2 1/2 x 2	4.343
3 x 2	6.437
3 x 2 1/2	4.687
4 x 2	10.500
4 x 2 1/2	8.750
4 x 3	6.750

32-15F - ECCENTRIC REDUCER PLAIN BEVEL X THREAD

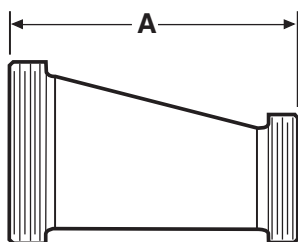


Size Tube OD	A
*1 1/2 x 1	3.375
2 x 1	5.406
2 x 1 1/2	3.406
2 1/2 x 1 1/2	5.531
2 1/2 x 2	3.562
3 x 2	5.656
3 x 2 1/2	3.781
4 x 2	9.718
4 x 2 1/2	7.843
4 x 3	5.937

*Hex Nut included.

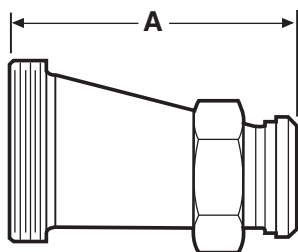
BEVEL SEAT FITTINGS

32TT - ECCENTRIC REDUCER THREAD X THREAD



Size Tube OD	A
1 1/2 x 1	3.375
2 x 1	5.406
2 x 1 1/2	3.406
2 1/2 x 1 1/2	5.531
2 1/2 x 2	3.562
3 x 2	5.656
3 x 2 1/2	3.781
4 x 2	9.718
4 x 2 1/2	7.843
4 x 3	5.937

32TP - ECCENTRIC REDUCER THREAD X 13H NUT



Size Tube OD	A
1 1/2 x 1	4.062
2 x 1	6.093
2 x 1 1/2	4.218
2 1/2 x 1 1/2	6.343
2 1/2 x 2	4.343
3 x 2	6.437
3 x 2 1/2	4.687
4 x 2	10.500
4 x 2 1/2	8.750
4 x 3	6.750



E-LINE FITTINGS....

E-Line Fittings have a male and female interface construction to ensure rigidity of your system.

We offer E-Line Fittings in sizes 1" through 6" in T304 and T316L material. We offer Polished ID and OD Fittings for immediate shipment. Other polished combinations may be ordered.

Gaskets for E-Line Fittings are available in several different materials, Buna-N, EPDM, Teflon®, Silicone, and Viton.

E-LINE FITTING SPECIFICATIONS....

Size Range: 1" OD through 6" OD

Materials: T304
T316L

Finish: No. 7 - ID & OD
No. 5 - OD only
No. 3 - ID only
No. 1 - unpolished

ORDERING SPECIFICATIONS....

Specify:

- Quantity
- Product description or Part No.
- Size
- Material Type
- Polish Requirements

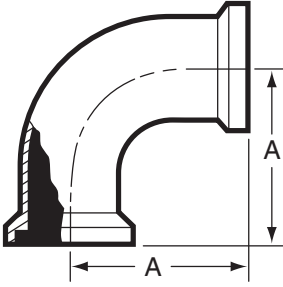
INDUSTRY CROSS-REFERENCE

E-LINE TYPE

VNE	ROBERT JAMES	WAUKESHA / SPX	Bradford	Steel & O'Brien
E2CI	RJ2CZ	2CI	B2CI	HDI-2C
E2FI	RJ2FZ	2FI	B2FI	HDI-2F
E2EI	----	2EI	B2EI	HDI-2E
E2KI	RJ2KZ	2KI	B2KI	HDI-2K
E2PI	RJ2PZ	2PI	B2PI	HDI-2P
E7I	RJ7Z	7I	B7I	HDI-7
E7AI	RJ7AZ	7AI	B7AI	----
E7EI	RJ7EZ	7EI	B7EI	----
E7BI	RJ7BZ	7BI	B7BI	----
E9I	RJ9Z	9I	B9I	----
E13IS	RJ13ZS	13IS	13ILH	HDI-13-UD
E13IU	RJ13Z	13IU	13IU	HDI-13-U
E14WI	RJ14WZ	14WI	14WI	14WH
E15WI	RJ15WZ	15WI	15WI	15WH
E14WLI	RJ14WLZ	14WLI	14WLI	14WLH
E15WLI	RJ15WLZ	15WLI	15WLI	15WLH
E14HRI	RJ14HRZ	14HRI	14HRI	----
E14HTI	RJ14HTZ	14HTI	14HTI	----
E15HRI	RJ15HRZ	15HRI	15HRI	----
E15HTI	RJ15HTZ	15HTI	15HTI	----
E17-14I-15I	RJ17-14Z-15Z	17-14I-15I	17-14I-15I	----
E17-15I-15I	RJ17-15Z-15Z	17-15I-15I	17-15I-15I	----
E17-14I-14I	RJ17-14Z-14Z	17-14I-14I	17-14I-14I	----
E17-14I-14	RJ17-14Z-14	17-14I-14	17-14I-14	----
E17-14I-14MP	RJ17-14Z-14MP	17-14I-14MP	17-14I-14MP	----
E17-14I-15	RJ17-14Z-15	17-14I-15	17-14I-15	----
E17-15I-14	RJ17-15Z-14	17-15I-14	17-15I-14	----
E17-15I-15	RJ17-15Z-15	17-15I-15L	17-15I-15	----
E17-15I-14MP	RJ17-15Z-14MP	17-15I-14MP	17-15I-MP	----
E21I-14I	RJ21-14Z	21FI-14I	21I-14I	----
E21I-15I	RJ21-15Z	21FI-15I	22I-15I	----
E22I-14I	RJ22-14Z	22FI-14I	22I-14I	----
E22I-15I	RJ22-15Z	22FI-15I	22I-15I	----
E16AI-14I	RJ16AZ-14Z	16AI-14I	16AI-14I	HDI-16A-14
E16AI-15I	RJ16AZ-15Z	16AI-15I	16AI-15I	HDI-16A-15
E31I-14I	RJ31Z-14Z	31I-14FI	31I-14I	HDI-31-14F
E31I-15I	RJ31Z-15Z	31I-15FI	31I-15I	HDI-31-15F
E31I-15I-14I	RJ31Z-15Z-14Z	----	31I-15I-14I	----
E31I-15I-15I	RJ31Z-15Z-15Z	----	31I-15I-15I	----
E32I-14I	RJ32Z-14Z	32I-14FI	32I-14I	HDI-32-14F
E32I-15I	RJ32Z-15Z	32I-15FI	32I-15I	HDI-32-15F
E14WHI	----	14WHI	14WHI	
E15WHI	----	15WHI	15WHI	

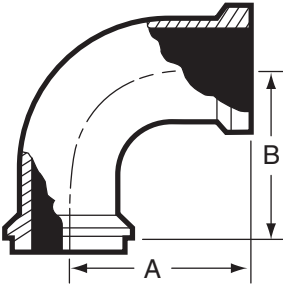
E-LINE FITTINGS

E2CI - 90° ELBOW FEMALE X FEMALE



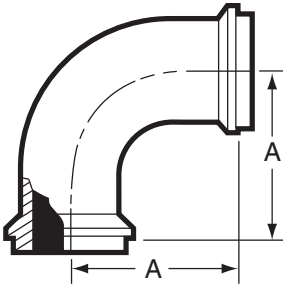
Size Tube OD	A
1	2.281
1 1/2	3.182
2	4.031
2 1/2	4.906
3	5.718
4	7.343
6	10.125

E2FI - 90° ELBOW MALE X FEMALE



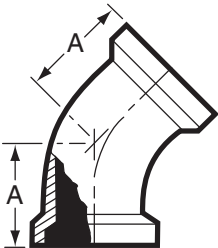
Size Tube OD	A	B
1	2.281	2.093
1 1/2	3.187	3.000
2	4.031	3.781
2 1/2	4.906	4.593
3	5.718	5.406
4	7.343	7.031
6	10.125	9.187

E2EI - 90° ELBOW MALE X MALE



Size Tube OD	A
1	2.093
1 1/2	3.000
2	3.781
2 1/2	4.593
3	5.406
4	7.031
6	9.187

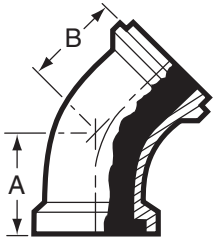
E2KI - 45° ELBOW FEMALE X FEMALE



Size Tube OD	A
1	1.406
1 1/2	1.875
2	2.281
2 1/2	2.718
3	3.093
4	3.843
6	4.875

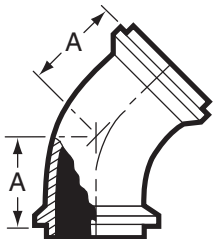
E-LINE FITTINGS

E2PI - 45° ELBOW FEMALE X MALE



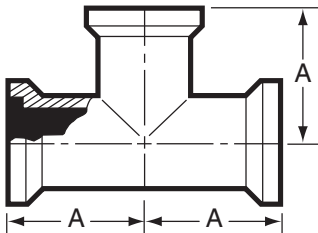
Size Tube OD	A	B
1	1.406	1.218
1 1/2	1.875	1.687
2	2.281	2.031
2 1/2	2.718	2.406
3	3.093	2.781
4	3.843	3.531
6	4.875	4.562

E2HI - 45° ELBOW MALE X MALE



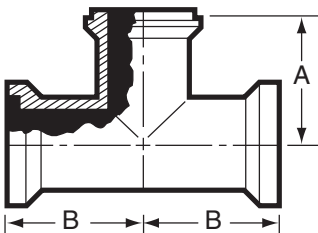
Size Tube OD	A
1	1.218
1 1/2	1.687
2	2.031
2 1/2	2.406
3	2.781
4	3.531
6	4.562

E7I - TEE ALL ENDS FEMALE



Size Tube OD	A
1	1.875
1 1/2	2.593
2	3.062
2 1/2	3.468
3	3.812
4	4.968
6	6.750

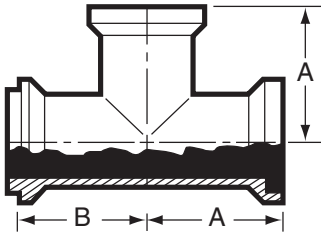
E7AI - TEE FEMALE X FEMALE X MALE



Size Tube OD	A	B
1	1.687	1.875
1 1/2	2.406	2.593
2	2.812	3.062
2 1/2	3.156	3.468
3	3.500	3.812
4	4.656	4.968
6	6.437	6.750

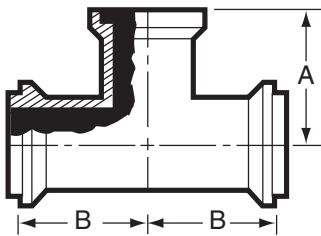
E-LINE FITTINGS

E7BI - TEE MALE X FEMALE X FEMALE



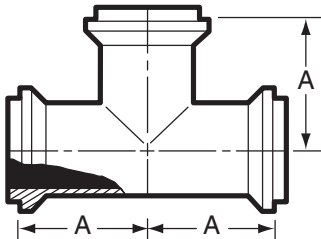
Size Tube OD	A	B
1	1.875	1.687
1 1/2	2.593	2.406
2	3.062	2.812
2 1/2	3.468	3.156
3	3.812	3.500
4	4.968	4.656
6	6.750	6.437

E7EI - TEE MALE X MALE X FEMALE



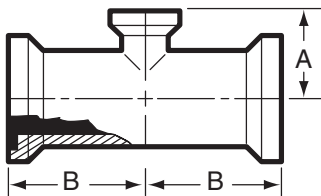
Size Tube OD	A	B
1	1.875	1.687
1 1/2	2.593	2.406
2	3.062	2.812
2 1/2	3.468	3.156
3	3.812	3.500
4	4.968	4.656
6	6.750	6.437

E7HI - TEE ALL ENDS MALE



Size Tube OD	A
1	1.687
1 1/2	2.406
2	2.812
2 1/2	3.156
3	3.500
4	4.656
6	6.437

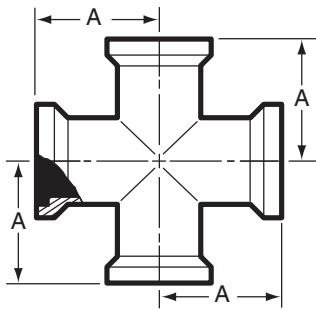
E7RI - REDUCING TEE ALL ENDS FEMALE



Size Tube OD	A	B
1 1/2 x 1	2.156	2.593
2 x 1	3.093	4.031
2 x 1 1/2	2.718	3.062
2 1/2 x 1 1/2	4.156	4.000
2 1/2 x 2	3.312	3.500
3 x 2	3.562	3.812
3 x 2 1/2	3.750	3.812
4 x 2	5.031	5.218
4 x 2 1/2	4.906	5.218
4 x 3	4.906	5.218
6 x 3	6.843	6.750
6 x 4	6.968	6.750

E-LINE FITTINGS

E9I - CROSS ALL ENDS FEMALE



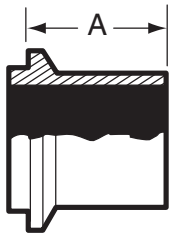
Size Tube OD	A
1	1.875
1 1/2	2.593
2	3.062
2 1/2	3.468
3	3.812
4	4.968
6	6.750

E14WI - SHORT MALE WELDING FERRULE



Size Tube OD	A
1	0.593
1 1/2	0.750
2	0.781
2 1/2	0.843
3	0.906
4	1.031
6	0.814
8	0.814

E14WLI - LONG MALE WELDING FERRULE



Size Tube OD	A
1	1.563
1 1/2	1.843
2	2.062
2 1/2	2.187
3	2.375
4	2.687
6	3.812

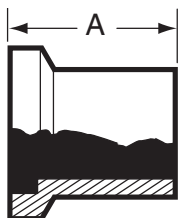
E15WI - SHORT FEMALE WELDING FERRULE



Size Tube OD	A
1	0.781
1 1/2	0.937
2	1.031
2 1/2	1.156
3	1.218
4	1.343
6	1.125
8	1.125

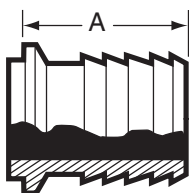
E-LINE FITTINGS

E15WLI - LONG FEMALE WELDING FERRULE



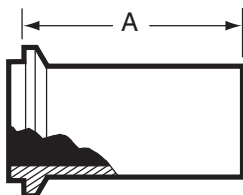
Size Tube OD	A
1	1.750
1 1/2	2.031
2	2.312
2 1/2	2.500
3	2.687
4	3
6	4

E14HRI - MALE RUBBER HOSE ADAPTER



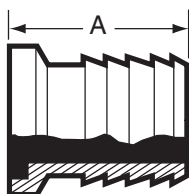
Size Tube OD	A
1	3.562
1 1/2	3.750
2	3.750
2 1/2	3.812
3	3.875
4	4.062
6	8.812

E14HTI - MALE TYGON HOSE ADAPTER



Size Tube OD	A
1	4.062
1 1/2	4.281
2	4.500
2 1/2	4.812
3	5.062
4	5.187

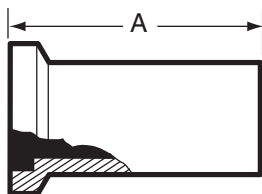
E15HRI - FEMALE RUBBER HOSE ADAPTER



Size Tube OD	A
1	3.750
1 1/2	3.937
2	4.062
2 1/2	4.125
3	4.187
4	4.375
6	9.125

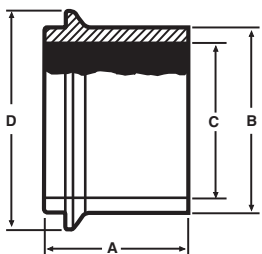
E-LINE FITTINGS

E15HTI - FEMALE TYGON HOSE ADAPTER



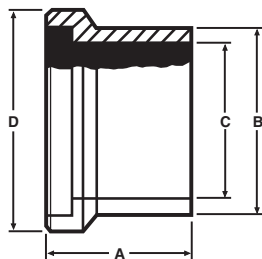
Size Tube OD	A
1	4.250
1 1/2	4.468
2	4.750
2 1/2	5.125
3	5.375
4	5.500

E14WHI - MALE WELD FERRULE



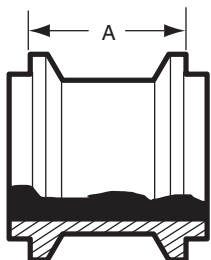
Size Tube OD	A	B	C	D
1	1.625	1.160	0.870	2.000
1 1/2	1.625	1.687	1.370	2.008
2	1.750	2.250	1.870	2.648
2 1/2	1.750	2.708	2.370	3.317
3	1.812	3.313	2.870	3.868
4	2.125	4.250	3.834	4.882

E15WHI - FEMALE WELD FERRULE



Size Tube OD	A	B	C	D
1	1.625	1.160	0.870	2.000
1 1/2	1.625	1.687	1.370	2.008
2	1.750	2.250	1.870	2.648
2 1/2	1.750	2.708	2.370	3.317
3	1.812	3.313	2.870	3.868
4	2.125	4.250	3.834	4.882

E17-14I-14I - ADAPTER BOTH ENDS MALE



Size Tube OD	A
1	1.187
1 1/2	1.500
2	1.562
2 1/2	1.687
3	1.812
4	2.062
6	1.625

E-LINE FITTINGS

E17-14I-15I - ADAPTER MALE X FEMALE



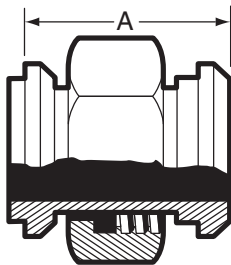
Size Tube OD	A
1	1.375
1 1/2	1.687
2	1.812
2 1/2	1.937
3	2.125
4	2.375
6	1.937

E17-15I-15I - ADAPTER BOTH ENDS FEMALE



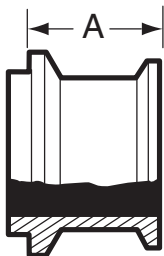
Size Tube OD	A
1	1.562
1 1/2	1.875
2	2.062
2 1/2	2.312
3	2.437
4	2.687
6	2.250

E17-14I-14-ADAPTER MALE X 13H NUT



Size Tube OD	A
1	1.968
1 1/2	2.250
2	2.250
2 1/2	2.562
3	2.687
4	2.812

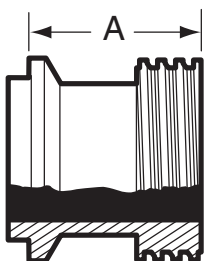
E17-14I-14MP - ADAPTER MALE X CLAMP



Size Tube OD	A
1	1.093
1 1/2	1.250
2	1.250
2 1/2	1.312
3	1.406
4	1.656
6	1.687

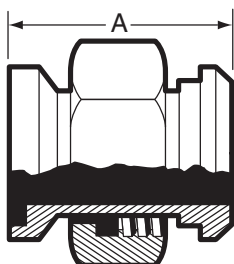
E-LINE FITTINGS

E17-14I-15 - ADAPTER MALE X ACME THREAD



Size Tube OD	A
1	1.031
1 1/2	1.468
2	1.500
2 1/2	1.687
3	1.812
4	2.062

E17-15I-14 - ADAPTER FEMALE X 13H NUT



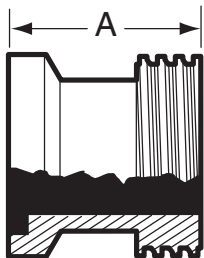
Size Tube OD	A
1	2.156
1 1/2	2.437
2	2.500
2 1/2	2.875
3	3.000
4	3.093

E17-15I-14MP - ADAPTER FEMALE X CLAMP



Size Tube OD	A
1	1.281
1 1/2	1.437
2	1.500
2 1/2	1.625
3	1.718
4	1.968
6	2.000

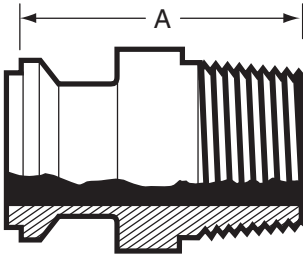
E17-15I-15 - ADAPTER FEMALE X ACME THREAD



Size Tube OD	A
1	1.562
1 1/2	1.656
2	1.750
2 1/2	2.000
3	2.125
4	2.375

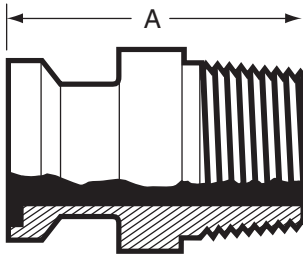
E-LINE FITTINGS

E21I-14I - ADAPTER MALE X MNPT



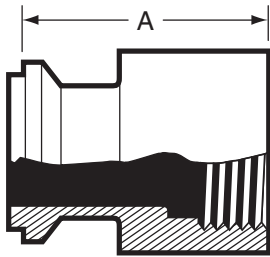
Size Tube OD	A
1	2.343
1 1/2	2.500
2	2.593
2 1/2	3.125
3	3.406
4	3.593
6	4.812

E21I-15I - ADAPTER FEMALE X MNPT



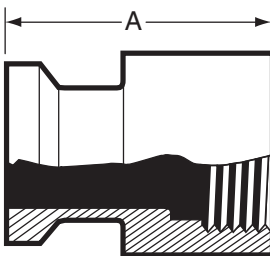
Size Tube OD	A
1	2.531
1 1/2	2.687
2	2.843
2 1/2	3.437
3	3.718
4	3.906
6	5.125

E22I-14I - ADAPTER MALE X FNPT



Size Tube OD	A
1	1.687
1 1/2	2.187
2	2.218
2 1/2	2.437
3	2.718
4	3.031

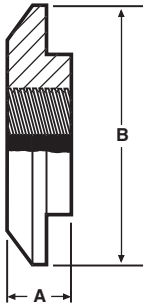
E22I-15I - ADAPTER FEMALE X FNPT



Size Tube OD	A
1	1.906
1 1/2	2.375
2	2.468
2 1/2	2.781
3	3.031
4	3.343

E-LINE FITTINGS

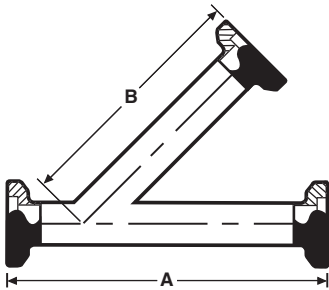
E23BI - THERMOMETER CAP



Size Tube OD	A	B
*1	0.500	2.000
1 1/2	0.500	2.000
2	0.562	2.625
2 1/2	0.750	3.312
3	0.750	3.875
4	0.750	4.875

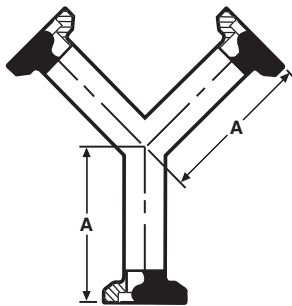
*STD 1/2" FNPT. All others 3/4" FNPT.

E28AI - LATERAL ALL ENDS FEMALE



Size Tube OD	A	B
1	7.562	5.781
1 1/2	9.250	7.125
2	10.687	8.156
2 1/2	12.437	9.656
3	13.187	10.093
4	15.500	12.093
6	19.125	15.625

E28BI - TRUE Y ALL ENDS FEMALE



Size Tube OD	A
1	3.781
1 1/2	3.937
2	5.031
2 1/2	6.156
3	7.218
4	9.343
6	9.125

E16AI-14I - MALE END CAP



Size Tube OD	A	B
1	2.000	0.500
1 1/2	2.000	0.500
2	2.625	0.562
2 1/2	3.312	0.750
3	3.875	0.750
4	4.875	0.750
6	7.500	0.875

E-LINE FITTINGS

E16AI-15I - FEMALE END CAP



Size Tube OD	A	B
1	2.000	0.500
1 1/2	2.000	0.500
2	2.625	0.687
2 1/2	3.312	0.750
3	3.875	0.750
4	4.875	0.750
6	7.500	0.750

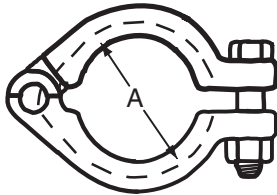
GASKETS



Gasket Materials	Part Number
Buna N	E40IH
EPDM	E40IE
Teflon	E40IT
Viton®	E40IV
Silicone	E40IS

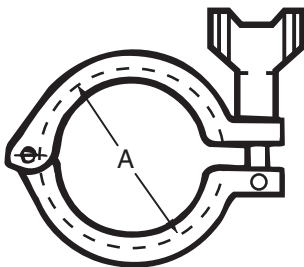
Available in 1" to 6" sizes.

E13IU - BOLTED CLAMP



Size Tube OD	A
1	2.122
1 1/2	2.122
2	2.800
2 1/2	3.500
3	4.060
4	5.000
6	7.625

E13IS - HEAVY DUTY CLAMP



Size Tube OD	A
1	2.122
1 1/2	2.122
2	2.800
2 1/2	3.500
3	4.060
4	5.000
6	7.625

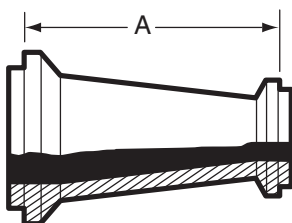
E-LINE FITTINGS

*PSI SERVICE RATINGS FOR SANITARY STAINLESS STEEL CLAMPS

Size Tube OD	E13IU		E13IS	
	@70°F	@250°F	@70°F	@250°F
1" & 1 1/2"	500	250	500	250
2"	450	250	450	250
2 1/2"	400	200	400	200
3"	350	150	350	150
4"	200	125	200	125
6"	150	75	150	75

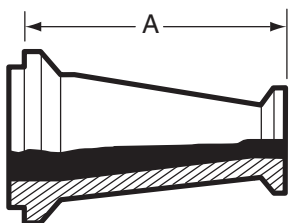
*Service ratings are based upon hydrostatic tests using Standard Molded Buna-N gasket material with proper expansion of ferules, joint assembly, and the absence of shock pressure. All ratings systems are dependent upon related components in the system and proper installation.

E31I-14I - CONCENTRIC REDUCER MALE X MALE



Size Tube OD	A
1 1/2 x 1	3.343
2 x 1	5.375
2 x 1 1/2	3.500
2 1/2 x 1 1/2	5.593
2 1/2 x 2	3.562
3 x 1 1/2	7.656
3 x 2	5.625
3 x 2 1/2	3.750
4 x 2	9.812
4 x 2 1/2	7.875
4 x 3	5.937
6 x 3	7.218
6 x 4	7.343

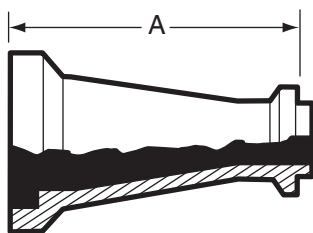
E31I-14I-15I - CONCENTRIC REDUCER MALE X FEMALE



Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.562
2 x 1 1/2	3.718
2 1/2 x 1 1/2	5.781
2 1/2 x 2	4.875
3 x 1 1/2	7.843
3 x 2	5.937
3 x 2 1/2	4.062
4 x 2	10.062
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.406
6 x 4	7.875

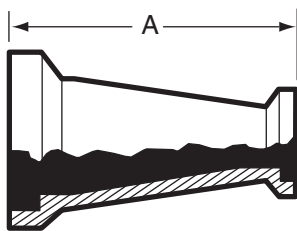
E-LINE FITTINGS

E31I-15I-14I - CONCENTRIC REDUCER FEMALE X MALE



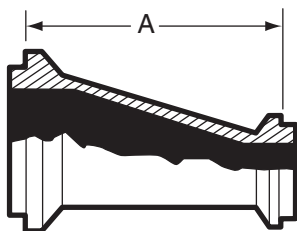
Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.625
2 x 1 1/2	3.781
2 1/2 x 1 1/2	5.906
2 1/2 x 2	3.937
3 x 1 1/2	7.968
3 x 2	6.000
3 x 2 1/2	4.062
4 x 2	10.125
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.531
6 x 4	7.656

E31I-15I - CONCENTRIC REDUCER BOTH ENDS FEMALE



Size Tube OD	A
1 1/2 x 1	3.718
2 x 1	5.812
2 x 1 1/2	3.968
2 1/2 x 1 1/2	6.093
2 1/2 x 2	4.187
3 x 1 1/2	8.156
3 x 2	6.250
3 x 2 1/2	4.375
4 x 2	10.375
4 x 2 1/2	8.500
4 x 3	6.562
6 x 3	7.843
6 x 4	7.968

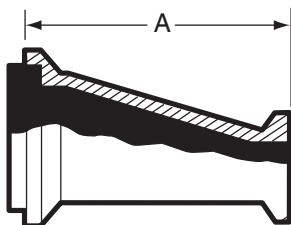
E32I-14I - ECCENTRIC REDUCER MALE X MALE



Size Tube OD	A
1 1/2 x 1	3.343
2 x 1	5.375
2 x 1 1/2	3.500
2 1/2 x 1 1/2	5.593
2 1/2 x 2	3.562
3 x 1 1/2	7.656
3 x 2	5.625
3 x 2 1/2	3.750
4 x 2	9.812
4 x 2 1/2	7.875
4 x 3	5.937
6 x 3	7.218
6 x 4	7.968

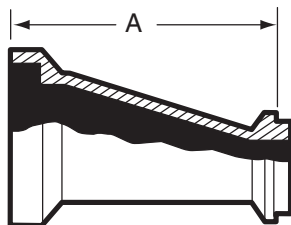
E-LINE FITTINGS

E32I-14I-15I - ECCENTRIC REDUCER MALE X FEMALE



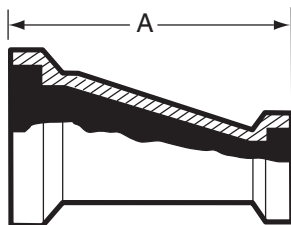
Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.562
2 x 1 1/2	3.718
2 1/2 x 1 1/2	5.781
2 1/2 x 2	4.875
3 x 1 1/2	7.843
3 x 2	5.937
3 x 2 1/2	4.062
4 x 2	10.062
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.406
6 x 4	7.875

E32I-15I-14I - ECCENTRIC REDUCER FEMALE X MALE



Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.625
2 x 1 1/2	3.781
2 1/2 x 1 1/2	5.906
2 1/2 x 2	3.937
3 x 1 1/2	7.968
3 x 2	6.000
3 x 2 1/2	4.062
4 x 2	10.125
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.531
6 x 4	7.656

E32I-15I - ECCENTRIC REDUCER BOTH ENDS FEMALE

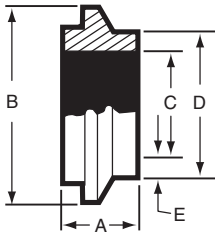


Size Tube OD	A
1 1/2 x 1	3.718
2 x 1	5.812
2 x 1 1/2	3.968
2 1/2 x 1 1/2	6.093
2 1/2 x 2	4.187
3 x 1 1/2	8.156
3 x 2	6.250
3 x 2 1/2	4.375
4 x 2	10.375
4 x 2 1/2	8.500
4 x 3	6.585
6 x 3	7.687
6 x 4	8.000

E-LINE FITTINGS

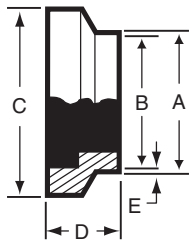
SCHEDULE 5 - (T316L)

E14WI-5 - SHORT MALE WELDING FERRULE



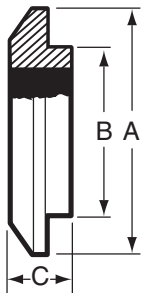
Size Pipe	A	B	C	D	E
1	0.945	2.000	1.185	1.315	0.065
1 1/2	1.024	2.648	1.770	1.900	0.065
2	1.142	3.317	2.245	2.375	0.065
2 1/2	1.220	3.868	2.709	2.875	0.083
3	1.343	4.882	3.334	3.500	0.083
4	1.343	5.882	4.334	4.500	0.083

E15WI-5 - SHORT FEMALE WELDING FERRULE



Size Pipe	A	B	C	D	E
1	1.315	1.185	2.000	0.945	0.065
1 1/2	1.900	1.770	2.648	1.024	0.065
2	2.375	2.245	3.317	1.142	0.065
2 1/2	2.875	2.709	3.868	1.220	0.083
3	3.500	3.334	4.882	1.343	0.083
4	4.500	4.334	5.882	1.343	0.083

E16AI-14I-5 - MALE END CAP



Size Pipe	A	B	C
1	2.000	1.751	0.500
1 1/2	2.648	2.244	0.585
2	3.317	2.746	0.750
2 1/2	3.868	3.307	0.750
3	4.882	4.295	0.750
4	5.882	5.295	0.750

E16AI-15I-5 - FEMALE END CAP

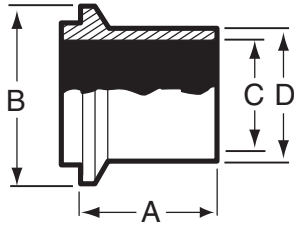


Size Pipe	A	B	C
1	2.000	1.772	0.500
1 1/2	2.684	2.264	0.687
2	3.317	2.766	0.750
2 1/2	3.868	3.327	0.750
3	4.882	4.311	0.750
4	5.882	5.311	0.750

E-LINE FITTINGS

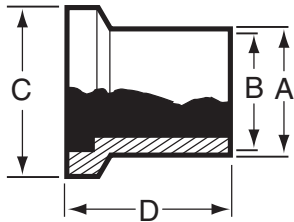
SCHEDULE 5 - (T316L)

E14WLI-5 - LONG MALE WELDING FERRULE



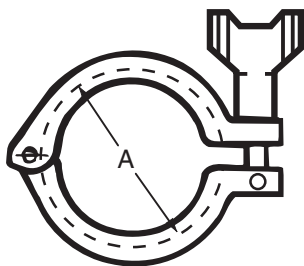
Size Pipe	A	B	C	D
1	1.562	2.000	1.185	1.315
1 1/2	1.843	2.648	1.770	1.900
2	2.062	3.317	2.245	2.375
2 1/2	1.562	3.868	2.709	2.875
3	1.562	4.882	3.334	3.500
4	1.562	5.882	4.334	4.500

E15WLI-5 - LONG FEMALE WELDING FERRULE



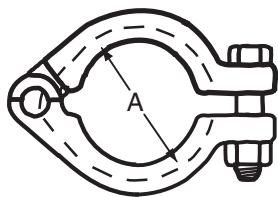
Size Pipe	A	B	C	D
1	1.315	1.185	2.000	1.750
1 1/2	1.900	1.770	2.648	2.031
2	2.375	2.245	3.317	2.312
2 1/2	2.875	2.370	3.868	2.500
3	3.500	2.870	4.882	2.687
4	4.500	3.834	5.882	3.000

E13IS-5 - HEAVY DUTY CLAMP - T304



Size Pipe	A
1	2.122
1 1/2	2.800
2	3.500
2 1/2	4.060
3	5.000
4	6.130

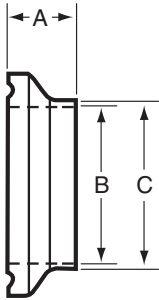
E13IU-5 - CLAMP BOLTED - T304



Size Pipe	A
1	2.122
1 1/2	2.800
2	3.500
2 1/2	4.060
3	5.000
4	6.130

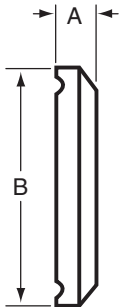
EQ - LINE

E14WQ-6L (T316L Material Only)



Size Tube OD	A	B	C
1	0.531	0.870	1.000
1 1/2	0.563	1.370	1.500
2	0.813	1.870	2.000
2 1/2	0.938	2.370	2.500
3	0.938	2.870	3.000
4	1.000	3.834	4.000

E16AQ-14Q



Size Tube OD	A	B
1	0.313	2.000
1 1/2	0.313	2.000
2	0.438	2.648
2 1/2	0.500	3.313
3	0.500	3.870
4	0.625	4.870



UNPOLISHED TUBE OD FITTINGS....

Unpolished Tube OD Weld Fittings are used in a wide variety of industrial applications where sanitary finishes are not generally required. Our tumbled finish presents a consistent uniform appearance.

Unpolished Weld Fittings are offered in nominal tube sizes 1/2" through 8" in T304 and T316L materials. Uniform wall thickness for 1/2" through 3" sizes measure .065 (16 ga). In 4" size, wall thickness measure .083 (14 ga), 6" and 8" .109 (12 ga).

TUBE OD FITTING SPECIFICATIONS....

Size Range: 1/2" OD through 8" OD

Materials: T304
T316L

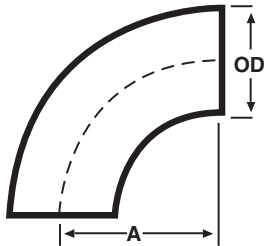
Finish: Unpolished - Tumbled

ORDERING SPECIFICATIONS....

- Specify:**
- Quantity
 - Product description or Part No.
 - Size
 - Material Type
 - Polish Requirements

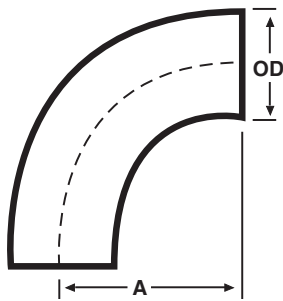
UNPOLISHED TUBE OD FITTINGS

V2WC - 90° ELBOW LESS TANGENTS



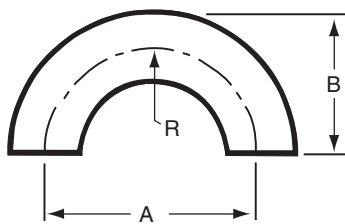
Size Tube OD	A	Nom. Wall
1/2	0.750	0.065
3/4	1.125	0.065
1	1.500	0.065
1 1/4	1.875	0.065
1 1/2	2.250	0.065
2	3.000	0.065
2 1/2	3.750	0.065
3	4.500	0.065
4	6.000	0.083
6	9.000	0.109
8	12.000	0.109

V2S - 90° ELBOW WITH TANGENTS



Size Tube OD	A	Nom. Wall
1	2.062	0.065
1 1/2	2.937	0.065
2	4.062	0.065
2 1/2	5.187	0.065
3	6.312	0.065
4	8.312	0.083

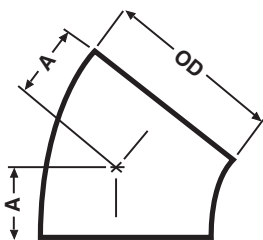
V2WU - 180° U BEND



Size Tube OD	A	B	C	R	Nom. Wall
1/2	1.500	1.000	0.500	0.750	0.065
3/4	2.250	1.500	0.750	1.125	0.065
1	3.000	2.000	1.000	1.500	0.065
1 1/4	3.750	2.500	1.250	1.875	0.065
1 1/2	4.500	3.000	1.500	2.250	0.065
2	6.000	4.000	2.000	3.000	0.065
2 1/2	7.500	5.000	2.500	3.750	0.065
3	9.000	6.000	3.000	4.500	0.065
4	12.000	8.000	4.000	6.000	0.083
6	18.000	12.000	6.000	9.000	0.109

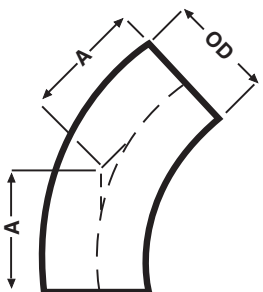
UNPOLISHED TUBE OD FITTINGS

V2WK - 45° ELBOW LESS TANGENTS



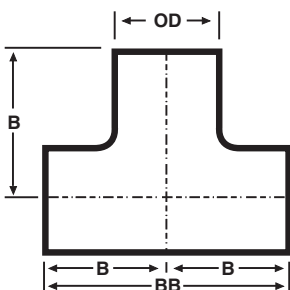
Size Tube OD	A	Nom. Wall
1/2	0.312	0.065
3/4	0.468	0.065
1	0.625	0.065
1 1/4	0.781	0.065
1 1/2	0.937	0.065
2	1.250	0.065
2 1/2	1.562	0.065
3	1.875	0.065
4	2.500	0.083
6	3.750	0.109
8	5.000	0.109

V2KS - 45° ELBOW WITH TANGENTS



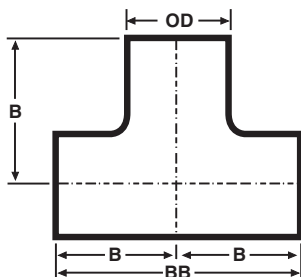
Size Tube OD	A	Nom. Wall
1	1.187	0.065
1 1/2	1.625	0.065
2	2.312	0.065
2 1/2	3.000	0.065
3	3.687	0.065
4	4.812	0.083

V7W - LONG TEE



Size Tube OD	B	BB	Nom. Wall
1/2	CONTACT		
3/4			
1	1.875	3.750	0.065
1 1/2	2.250	4.500	0.065
1 1/4	2.250	4.500	0.065
2	3.000	6.000	0.065
2 1/2	3.000	6.000	0.065
3	3.250	6.500	0.065
4	3.875	7.750	0.083
6	5.625	11.250	0.109
8	7.000	14.000	0.109

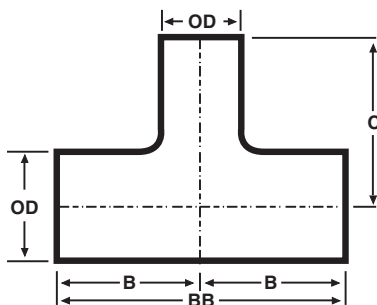
V7WW - SHORT TEE



Size Tube OD	B	BB	Nom. Wall
1	1.125	2.250	0.065
1 1/2	1.656	3.312	0.065
2	2.062	4.125	0.065
2 1/2	2.343	4.687	0.065
3	2.593	5.187	0.065
4	3.430	6.875	0.083
6	5.625	11.250	0.109
8	7.000	14.000	0.109

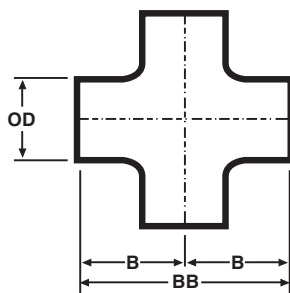
UNPOLISHED TUBE OD FITTINGS

V7WR - REDUCING TEE



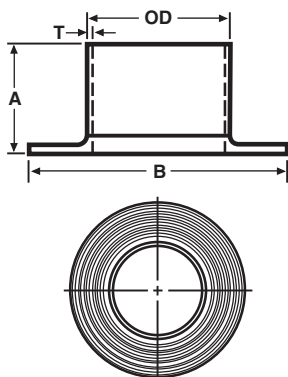
Size Tube OD	BB	C	B	Nom. Wall Run
3/4 x 1/2	Contact us for dimensions.			0.065
1 x 1/2				0.065
1 x 3/4				0.065
1 1/2 x 1/2				0.065
1 1/2 x 3/4				0.065
1 1/2 x 1	4.500	2.125	2.250	0.065
2 x 1	6.000	2.375	3.000	0.065
2 x 1 1/2	6.000	2.500	3.000	0.065
2 1/2 x 1 1/2	6.000	2.750	3.000	0.065
2 1/2 x 2	6.000	3.250	3.000	0.065
3 x 1 1/2	6.480	3.000	3.250	0.065
3 x 2	6.480	3.500	3.250	0.065
3 x 2 1/2	6.480	3.250	3.250	0.065
4 x 2	7.750	4.000	3.875	0.083
4 x 2 1/2	7.750	3.750	3.875	0.083
4 x 3	7.750	3.750	3.875	0.083
6 x 2	11.250	5.625	5.625	0.109
6 x 3	11.250	5.625	5.625	0.109
6 x 4	11.250	5.625	5.625	0.109

V9W - CROSS



Size Tube OD	B	BB	Nom. Wall
1/2	Contact us for dimensions.		0.065
3/4			0.065
1	1.875	3.750	0.065
1 1/2	2.250	4.500	0.065
1 1/4	2.250	4.500	0.065
2	3.000	6.000	0.065
2 1/2	3.000	6.000	0.065
3	3.250	6.500	0.065
4	3.875	7.750	0.083
6	5.625	11.250	0.109

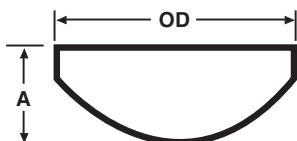
V14WA - TYPE A STUB END WITH GROOVES



Size Tube OD	A	B	Nom. Wall (T)
1/2	1.375	1.625	0.065
3/4	1.375	1.687	0.065
1	1.625	2.000	0.065
1 1/4	1.375	2.500	0.065
1 1/2	1.750	2.875	0.065
2	1.500	3.625	0.065
2 1/2	2.000	4.125	0.065
3	2.250	5.000	0.065
4	2.625	6.187	0.083
6	3.000	8.500	0.109

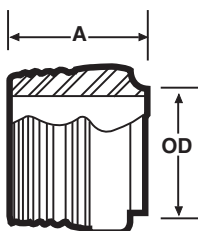
UNPOLISHED TUBE OD FITTINGS

V16W - WELD CAP



Size Tube OD	A	Nom. Wall
1/2	0.250	0.065
3/4	0.312	0.065
1	0.375	0.065
1 1/4	0.500	0.065
1 1/2	0.562	0.065
2	0.750	0.065
2 1/2	1.000	0.065
3	1.250	0.065
4	1.500	0.083
6	Contact us for dimensions.	
8		

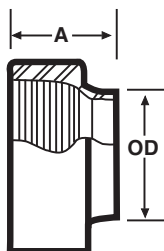
19WB / *19WBF - MALE NPT X WELD ADAPTER



Size Tube OD	A	Nom. Wall
1/2	1.625	0.065
3/4	1.625	0.065
1	1.750	0.065
1 1/4	1.750	0.065
1 1/2	1.750	0.065
2	1.812	0.065
2 1/2	2.312	0.065
3	2.500	0.065
4	2.562	0.083
6	4.000	0.109

*19WBF - 1 inch through 4 inch are supplied with wrench flats

22WB / *22WBF - FEMALE NPT X WELD ADAPTER

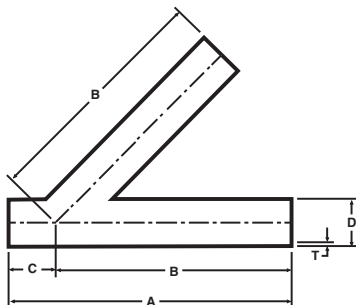


Size Tube OD	A	Nom. Wall
1/2	1.125	0.065
3/4	1.125	0.065
1	1.125	0.065
1 1/4	1.437	0.065
1 1/2	1.437	0.065
2	1.437	0.065
2 1/2	1.625	0.065
3	1.812	0.065
4	2.000	0.083

*22WBF - 1 inch through 4 inch are supplied with wrench flats

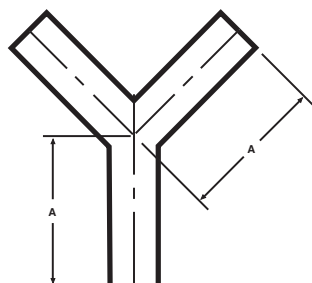
UNPOLISHED TUBE OD FITTINGS

V28WA - 45° LATERAL



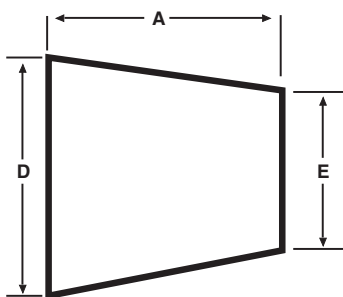
Size Tube OD	A	B	C	D	Nom. Wall (T)
1	6.000	5.000	1.000	1.000	0.065
1 1/2	7.375	6.187	1.187	1.500	0.065
2	8.625	7.125	1.500	2.000	0.065
2 1/2	10.125	8.500	1.625	2.500	0.065
3	10.750	8.875	1.875	3.000	0.065
4	12.812	10.750	2.062	4.000	0.083
6	18.000	14.500	3.500	6.000	0.109

V28WB - TRUE Y



Size Tube OD	A
1	3.000
1 1/2	3.000
2	4.000
2 1/2	5.000
3	6.000
4	8.000
6	8.000

V31W - CONCENTRIC REDUCER

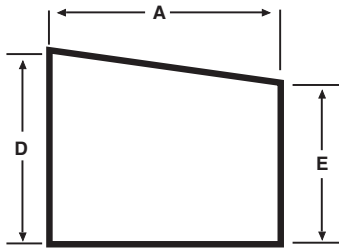


Size Tube OD D x E	A	Nom. Wall
3/4 x 1/2	*	0.065
1 x 1/2	*	0.065
1 x 3/4	*	0.065
1 1/2 x 1/2	*	0.065
1 1/2 x 3/4	*	0.065
1 1/2 x 1	2.000	0.065
1 1/2 x 1 1/4	1.000	0.065
2 x 1	4.000	0.065
2 x 1 1/4	3.000	0.065
2 x 1 1/2	2.000	0.065
2 1/2 x 1 1/2	4.000	0.065
2 1/2 x 2	2.000	0.065
3 x 1 1/2	6.000	0.065
3 x 2	4.000	0.065
3 x 2 1/2	2.000	0.065
4 x 2	8.000	0.083 x 0.065
4 x 2 1/2	6.000	0.083 x 0.065
4 x 3	4.000	0.083 x 0.065
6 x 3	5.500	0.109 x 0.083
6 x 4	5.500	0.109 x 0.083

* Contact us for dimensions.

UNPOLISHED TUBE OD FITTINGS

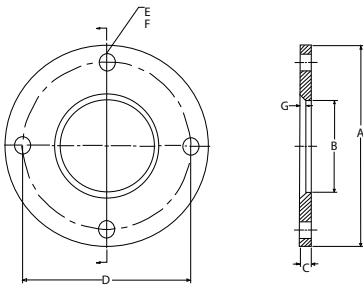
V32W - ECCENTRIC REDUCER



Size Tube OD D x E	A	Nom. Wall
3/4 x 1/2	*	0.065
1 x 1/2	*	0.065
1 x 3/4	*	0.065
1 1/2 x 1/2	*	0.065
1 1/2 x 3/4	*	0.065
1 1/2 x 1	2.000	0.065
1 1/2 x 1 1/4	1.000	0.065
2 x 1	4.000	0.065
2 x 1 1/4	3.000	0.065
2 x 1 1/2	2.000	0.065
2 1/2 x 1 1/2	4.000	0.065
2 1/2 x 2	2.000	0.065
3 x 1 1/2	6.000	0.065
3 x 2	4.000	0.065
3 x 2 1/2	2.000	0.065
4 x 2	8.000	0.083 x 0.065
4 x 2 1/2	6.000	0.083 x 0.065
4 x 3	4.000	0.083 x 0.065
6 x 3	5.500	0.109 x 0.083
6 x 4	5.500	0.109 x 0.083

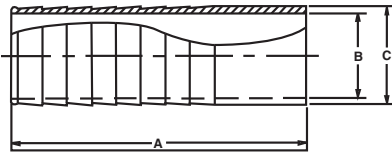
* Contact us for dimensions.

E38SL - SLIP ON FLANGE



Size Tube OD	A	B	C	D	E	F	G
1/2	3.500	0.56	0.375	2.375	0.625	4.000	0.188
3/4	3.875	0.81	0.375	2.075	0.625	4.000	0.188
1	4.025	1.06	0.375	3.125	0.625	4.000	0.188
1 1/2	5.000	1.56	0.375	3.875	0.625	4.000	0.188
2	6.000	2.06	0.4375	4.075	0.075	4.000	0.219
2 1/2	7.000	2.56	0.4375	5.500	0.075	4.000	0.219
3	7.500	3.06	0.500	6.000	0.075	4.000	0.250
4	9.000	4.06	0.500	7.500	0.075	8.000	0.250
6	11.00	6.06	0.813	9.500	0.875	8.000	0.250

V14RH - 6L B/W Rubber Hose Barb Blank #1



Size Tube OD	A	B	C
1/4	1.500	0.152	0.250
5/16	1.500	0.182	0.312
3/8	1.500	0.250	0.375
1/2	1.500	0.375	0.500
5/8	1.500	0.495	0.625
3/4	1.500	0.620	0.750
1	3.000	0.870	1.000
1 1/4	3.000	1.120	1.250
1 1/2	3.000	1.370	1.500
2	3.000	1.870	2.000
2 1/2	3.000	2.370	2.500
3	3.000	2.870	3.000

SANITARY TUBE A270

OD		WALL	LBS/FT
1/2	x	.065	.302
3/4	x	.065	.476
1	x	.065	.649
1 1/2	x	.065	.996
2	x	.065	1.343
2 1/2	x	.065	1.517
3	x	.065	2.037
4	x	.083	2.732
6	x	.083	4.120
6	x	.109	6.858
8	x	.109	10.099