



## E-LINE FITTINGS....

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

VNE offers E-Line Fittings in sizes 1" through 6" in T304 and T316L material. VNE offers 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

## LIMITED WARRANTY....

VNE Corporation products are warranted to be free from defects in material and workmanship for a period of one year from the date of shipment. Any product that proves to be defective shall be repaired or replaced at the option of VNE, providing it has been used as recommended and in strict accordance with recognized piping practices, and that has not been subject to extraordinary service, such as encountered under severe corrosive or abrasive conditions.

VNE makes no warranties, express or implied, other than those listed above.

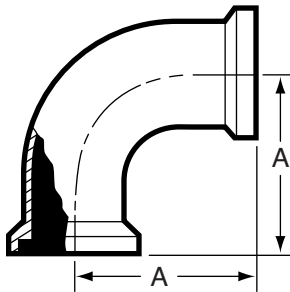
VNE shall not be liable for any consequential, indirect, incidental or contingent damages.



### E-LINE TYPE

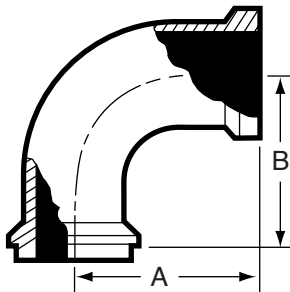
VNE	ROBERT JAMES	WAUKESHA / SPX	Bradford	Steel & O'Brien
E2CI	RJ2CZ	2CI	B2CI	HDI-2C
E2FI	RJ2FZ	2FI	B2FI	HDI-2F
E2EI	----	2EI	B2EI	HDI-2E
E2KI	RJ2KZ	2KI	B2KI	HDI-2K
E2PI	RJ2PZ	2PI	B2PI	HDI-2P
E7I	RJ7Z	7I	B7I	HDI-7
E7AI	RJ7AZ	7AI	B7AI	----
E7EI	RJ7EZ	7EI	B7EI	----
E7BI	RJ7BZ	7BI	B7BI	----
E9I	RJ9Z	9I	B9I	----
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	21F1-15I	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	

### E2CI - 90° ELBOW FEMALE X FEMALE



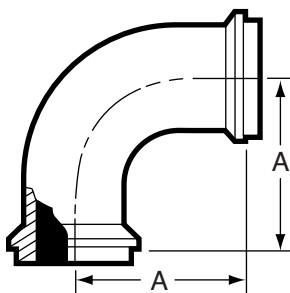
Size Tube OD	A
1	2.281
1 1/2	3.182
2	4.031
2 1/2	4.906
3	5.718
4	7.343
6	10.125

### E2FI - 90° ELBOW MALE X FEMALE



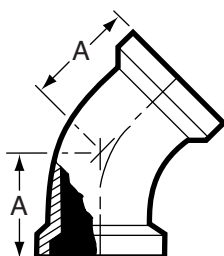
Size Tube OD	A	B
1	2.281	2.093
1 1/2	3.187	3.000
2	4.031	3.781
2 1/2	4.906	4.593
3	5.718	5.406
4	7.343	7.031
6	10.125	9.187

### E2EI - 90° ELBOW MALE X MALE



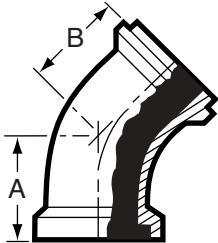
Size Tube OD	A
1	2.093
1 1/2	3.000
2	3.781
2 1/2	4.593
3	5.406
4	7.031
6	9.187

### E2KI - 45° ELBOW FEMALE X FEMALE



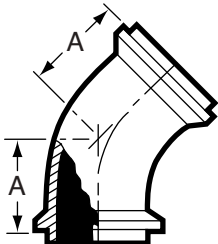
Size Tube OD	A
1	1.406
1 1/2	1.875
2	2.281
2 1/2	2.718
3	3.093
4	3.843
6	4.875

## E2PI - 45° ELBOW FEMALE X MALE



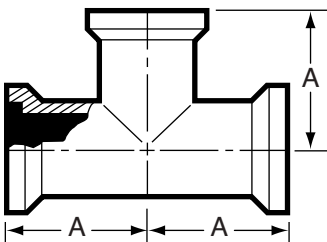
Size Tube OD	A	B
1	1.406	1.218
1 1/2	1.875	1.687
2	2.281	2.031
2 1/2	2.718	2.406
3	3.093	2.781
4	3.843	3.531
6	4.875	4.562

## E2HI - 45° ELBOW MALE X MALE



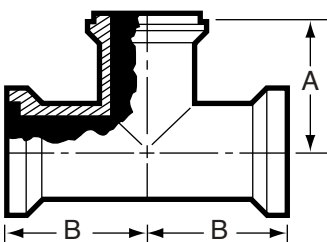
Size Tube OD	A
1	1.218
1 1/2	1.687
2	2.031
2 1/2	2.406
3	2.781
4	3.531
6	4.562

## E7I - TEE ALL ENDS FEMALE



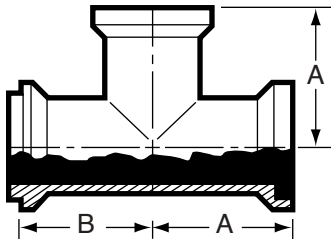
Size Tube OD	A
1	1.875
1 1/2	2.593
2	3.062
2 1/2	3.468
3	3.812
4	4.968
6	6.750

## E7AI - TEE FEMALE X FEMALE X MALE



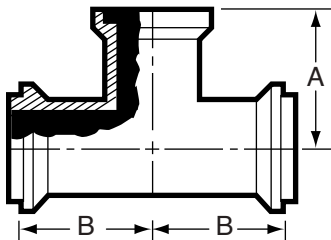
Size Tube OD	A	B
1	1.687	1.875
1 1/2	2.406	2.593
2	2.812	3.062
2 1/2	3.156	3.468
3	3.500	3.812
4	4.656	4.968
6	6.437	6.750

### E7BI - TEE MALE X FEMALE X FEMALE



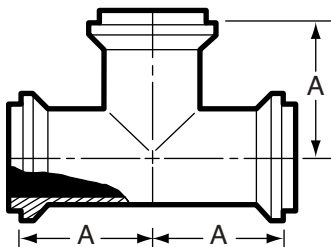
Size Tube OD	A	B
1	1.875	1.687
1 1/2	2.593	2.406
2	3.062	2.812
2 1/2	3.468	3.156
3	3.812	3.500
4	4.968	4.656
6	6.750	6.437

### E7EI - TEE MALE X MALE X FEMALE



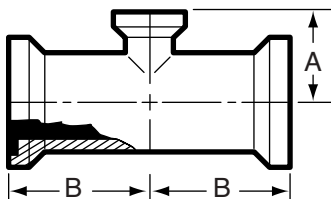
Size Tube OD	A	B
1	1.875	1.687
1 1/2	2.593	2.406
2	3.062	2.812
2 1/2	3.468	3.156
3	3.812	3.500
4	4.968	4.656
6	6.750	6.437

### E7HI - TEE ALL ENDS MALE



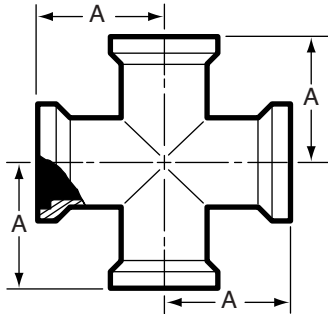
Size Tube OD	A
1	1.687
1 1/2	2.406
2	2.812
2 1/2	3.156
3	3.500
4	4.656
6	6.437

### E7RI - REDUCING TEE ALL ENDS FEMALE



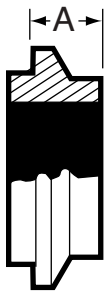
Size Tube OD	A	B
1 1/2 x 1	2.156	2.593
2 x 1	3.093	4.031
2 x 1 1/2	2.718	3.062
2 1/2 x 1 1/2	4.156	4.000
2 1/2 x 2	3.312	3.500
3 x 2	3.562	3.812
3 x 2 1/2	3.750	3.812
4 x 2	5.031	5.218
4 x 2 1/2	4.906	5.218
4 x 3	4 3/84 29/32	5.218
6 x 3	6.843	6.750
6 x 4	6.968	6.750

## E9I - CROSS ALL ENDS FEMALE



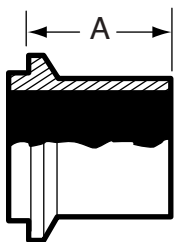
Size Tube OD	A
1	1.875
1 1/2	2.593
2	3.062
2 1/2	3.468
3	3.812
4	4.968
6	6.750

## 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



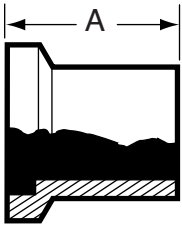
Size Tube OD	A
1	1.563
1 1/2	1.843
2	2.062
2 1/2	2.187
3	2.375
4	2.687
6	3.812

## E15WI - SHORT FEMALE WELDING FERRULE



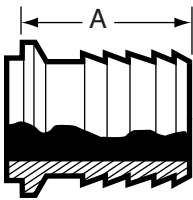
Size Tube OD	A
1	0.781
1 1/2	0.937
2	1.031
2 1/2	1.156
3	1.218
4	1.343
6	1.125
8	1.125

## E15WLI - LONG FEMALE WELDING FERRULE



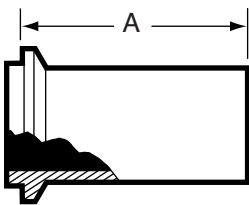
Size Tube OD	A
1	1.750
1 1/2	2.031
2	2.312
2 1/2	2.500
3	2.687
4	3
6	4

## E14HRI - MALE RUBBER HOSE ADAPTER



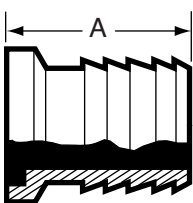
Size Tube OD	A
1	3.562
1 1/2	3.750
2	3.750
2 1/2	3.812
3	3.875
4	4.062
6	8.812

## 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

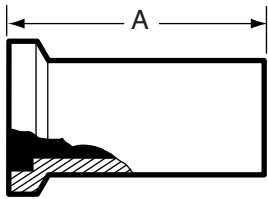
## E15HRI - FEMALE RUBBER HOSE ADAPTER



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

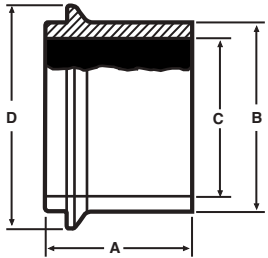


## E15HTI - FEMALE TYGON HOSE ADAPTER



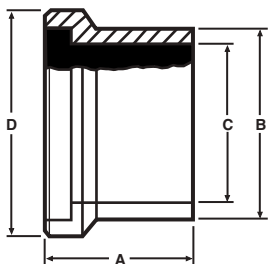
Size Tube OD	A
1	4.250
1 1/2	4.468
2	4.750
2 1/2	5.125
3	5.375
4	5.500

## E14WHI - MALE WELD FERRULE



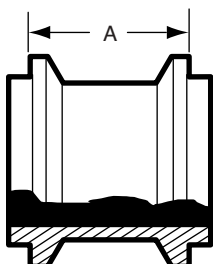
Size Tube OD	A	B	C	D
1	1.625	1.160	0.870	2.000
1 1/2	1.625	1.687	1.370	2.008
2	1.750	2.250	1.870	2.648
2 1/2	1.750	2.708	2.370	3.317
3	1.812	3.313	2.870	3.868
4	2.125	4.250	3.834	4.882

## E15WHI - FEMALE WELD FERRULE



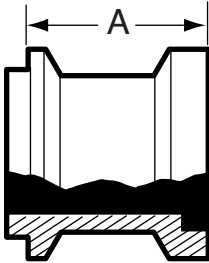
Size Tube OD	A	B	C	D
1	1.625	1.160	0.870	2.000
1 1/2	1.625	1.687	1.370	2.008
2	1.750	2.250	1.870	2.648
2 1/2	1.750	2.708	2.370	3.317
3	1.812	3.313	2.870	3.868
4	2.125	4.250	3.834	4.882

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



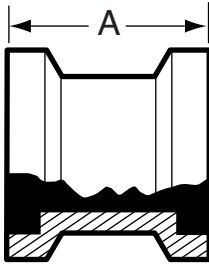
Size Tube OD	A
1	1.187
1 1/2	1.500
2	1.562
2 1/2	1.687
3	1.812
4	2.062
6	1.625

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



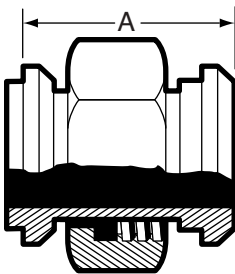
Size Tube OD	A
1	1.375
1 1/2	1.687
2	1.812
2 1/2	1.937
3	2.125
4	2.375
6	1.937

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



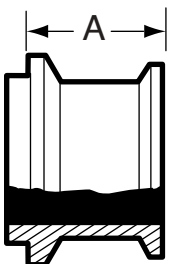
Size Tube OD	A
1	1.562
1 1/2	1.875
2	2.062
2 1/2	2.312
3	2.437
4	2.687
6	2.250

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



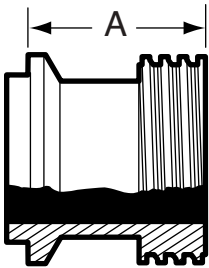
Size Tube OD	A
1	1.968
1 1/2	2.250
2	2.250
2 1/2	2.562
3	2.687
4	2.812

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



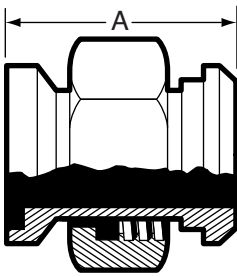
Size Tube OD	A
1	1.093
1 1/2	1.250
2	1.250
2 1/2	1.312
3	1.406
4	1.656
6	1.687

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



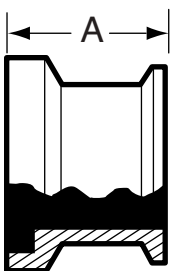
Size Tube OD	A
1	1.031
1 1/2	1.468
2	1.500
2 1/2	1.687
3	1.812
4	2.062

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



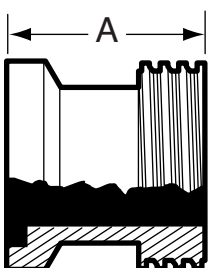
Size Tube OD	A
1	2.156
1 1/2	2.437
2	2.500
2 1/2	2.875
3	3.000
4	3.093

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



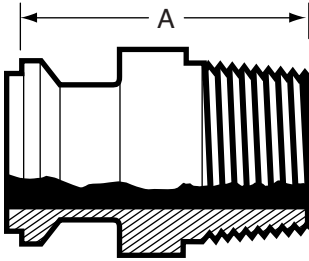
Size Tube OD	A
1	1.281
1 1/2	1.437
2	1.500
2 1/2	1.625
3	1.718
4	1.968
6	2.000

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



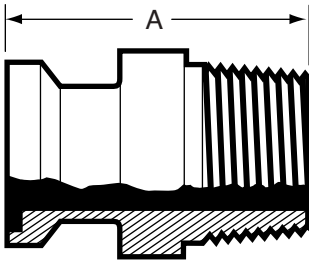
Size Tube OD	A
1	1.562
1 1/2	1.656
2	1.750
2 1/2	2.000
3	2.125
4	2.375

## E21I-14I - ADAPTER MALE X MNPT



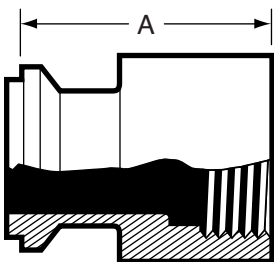
Size Tube OD	A
1	2.343
1 1/2	2.500
2	2.593
2 1/2	3.125
3	3.406
4	3.593
6	4.812

## E21I-15I - ADAPTER FEMALE X MNPT



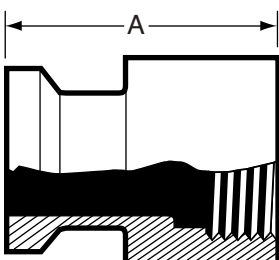
Size Tube OD	A
1	2.531
1 1/2	2.687
2	2.843
2 1/2	3.437
3	3.718
4	3.906
6	5.125

## E22I-14I - ADAPTER MALE X FNPT



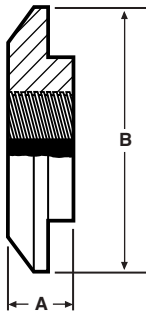
Size Tube OD	A
1	1.687
1 1/2	2.187
2	2.218
2 1/2	2.437
3	2.718
4	3.031

## 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

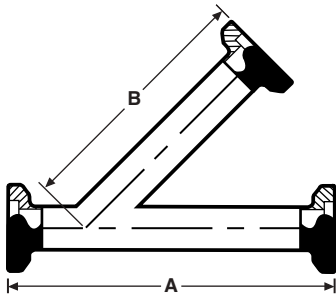
## E23BI - THERMOMETER CAP



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

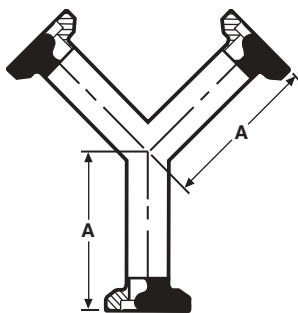
\*STD 1/2" FNPT. All others 3/4" FNPT.

## 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

## 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

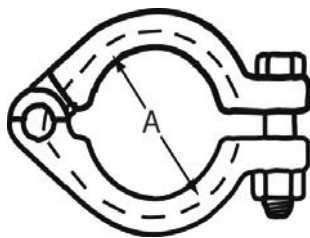
## GASKETS



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

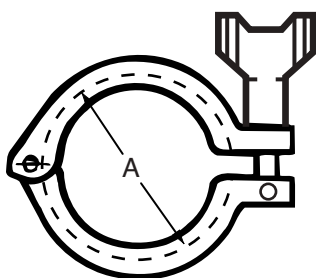
Available in 1" to 6" sizes.

## 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



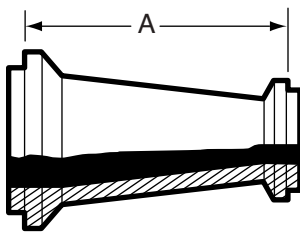
Size Tube OD	A
1	2.122
1 1/2	2.122
2	2.800
2 1/2	3.500
3	4.060
4	5.000
6	7.625

**\*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

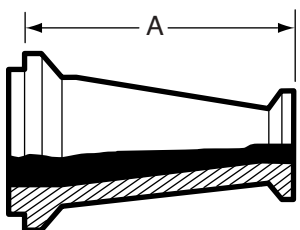
\*Service ratings are based upon hydrostatic tests using Standard Molded Buna-N gasket material with proper expansion of ferrules, joint assembly, and the absence of shock pressure. All ratings systems are dependent upon related components in the system and proper installation.

**E31I-14I - CONCENTRIC REDUCER MALE X MALE**



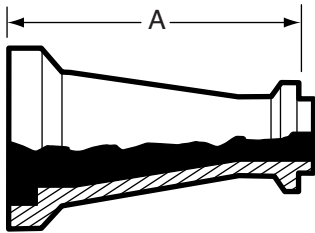
Size Tube OD	A
1 1/2 x 1	3.343
2 x 1	5.375
2 x 1 1/2	3.500
2 1/2 x 1 1/2	5.593
2 1/2 x 2	3.562
3 x 1 1/2	7.656
3 x 2	5.625
3 x 2 1/2	3.750
4 x 2	9.812
4 x 2 1/2	7.875
4 x 3	5.937
6 x 3	7.218
6 x 4	7.343

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



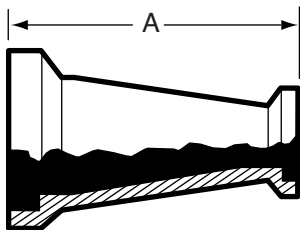
Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.562
2 x 1 1/2	3.718
2 1/2 x 1 1/2	5.781
2 1/2 x 2	4.875
3 x 1 1/2	7.843
3 x 2	5.937
3 x 2 1/2	4.062
4 x 2	10.062
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.406
6 x 4	7.875

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



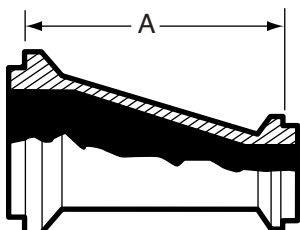
Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.625
2 x 1 1/2	3.781
2 1/2 x 1 1/2	5.906
2 1/2 x 2	3.937
3 x 1 1/2	7.968
3 x 2	6.000
3 x 2 1/2	4.062
4 x 2	10.125
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.531
6 x 4	7.656

## 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

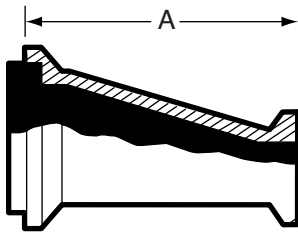
## E32I-14I - ECCENTRIC REDUCER MALE X MALE



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

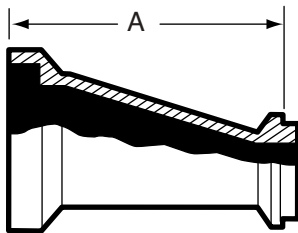


## E32I-14I-15I - ECCENTRIC REDUCER MALE X FEMALE



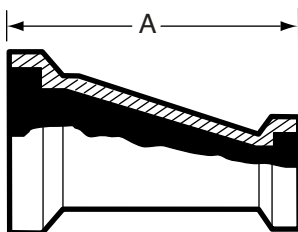
Size Tube OD	A
1 1/2 x 1	3.531
2 x 1	5.562
2 x 1 1/2	3.718
2 1/2 x 1 1/2	5.781
2 1/2 x 2	4.875
3 x 1 1/2	7.843
3 x 2	5.937
3 x 2 1/2	4.062
4 x 2	10.062
4 x 2 1/2	8.187
4 x 3	6.250
6 x 3	7.406
6 x 4	7.875

## 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

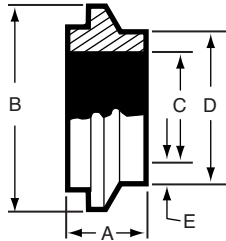
## E32I-15I - ECCENTRIC REDUCER BOTH ENDS FEMALE



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

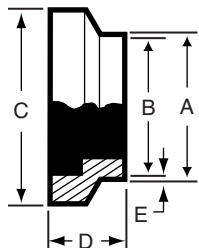
### SCHEDULE 5 - (T316L)

#### E14WI-5 - SHORT MALE WELDING FERRULE



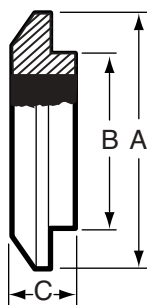
Size Pipe	A	B	C	D	E
1	0.945	2.000	1.185	1.315	0.065
1 1/2	1.024	2.648	1.770	1.900	0.065
2	1.142	3.317	2.245	2.375	0.065
2 1/2	1.220	3.868	2.709	2.875	0.083
3	1.343	4.882	3.334	3.500	0.083
4	1.343	5.882	4.334	4.500	0.083

#### E15WI-5 - SHORT FEMALE WELDING FERRULE



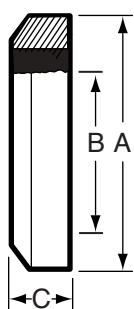
Size Pipe	A	B	C	D	E
1	1.315	1.185	2.000	0.945	0.065
1 1/2	1.900	1.770	2.648	1.024	0.065
2	2.375	2.245	3.317	1.142	0.065
2 1/2	2.875	2.709	3.868	1.220	0.083
3	3.500	3.334	4.882	1.343	0.083
4	4.500	4.334	5.882	1.343	0.083

#### 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

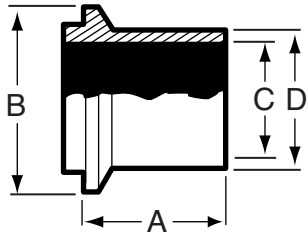
#### E16AI-15I-5 - FEMALE END CAP



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

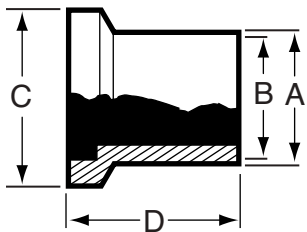
## SCHEDULE 5 - (T316L)

### E14WLI-5 - LONG MALE WELDING FERRULE



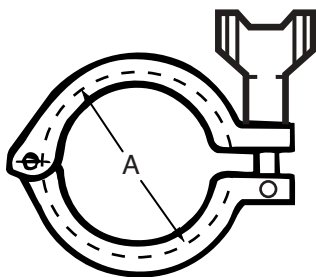
Size Pipe	A	B	C	D
1	1.562	2.000	1.185	1.315
1 1/2	1.843	2.648	1.770	1.900
2	2.062	3.317	2.245	2.375
2 1/2	1.562	3.868	2.709	2.875
3	1.562	4.882	3.334	3.500
4	1.562	5.882	4.334	4.500

### E15WLI-5 - LONG FEMALE WELDING FERRULE



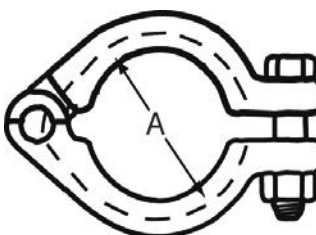
Size Pipe	A	B	C	D
1	1.315	1.185	2.000	1.750
1 1/2	1.900	1.770	2.648	2.031
2	2.375	2.245	3.317	2.312
2 1/2	2.875	2.370	3.868	2.500
3	3.500	2.870	4.882	2.687
4	4.500	3.834	5.882	3.000

### 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

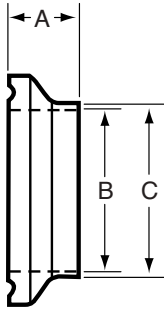
### E13IU-5 - CLAMP BOLTED - T304



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

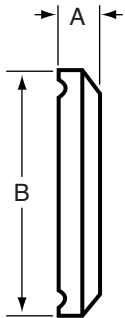
## EQ - LINE

### 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