



Fittings Product Catalog

Stainless Solutions For Life



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Stainless Steel Fittings & More

VNE Corporation, located in Janesville, WI - is a leading manufacturer of stainless steel fittings, valves, and specialty related products, both for sanitary and industrial applications. VNE also offers stainless steel sanitary and industrial tubing.

VNE Corporation is dedicated to continuing the traditions that have made its parent company a success; exceptional quality, advanced manufacturing technology, great customer service, and intensive research to develop new products directly related to customer needs. Our reputation is built on these principles.

VNE serves the dairy, food processing, beverage, pharmaceutical, brewery, cosmetics, chemical, water treatment, and many other industries. All orders - large or small - receive our immediate attention and carry the quality, name, and reputation of VNE.

MaxPure, Worldwide Biopharmaceutical Fittings



Over the last decade, the Neumo Ehrenberg Group has become the leading manufacturer for worldwide Biopharmaceutical process fittings and components. With its three leading companies, NEUMO, VNE, and EGMO, the Neumo Ehrenberg Group has developed a worldwide distribution network supporting major Biopharmaceutical multinational accounts. MaxPure® was the first world-wide fitting brand to be certified by ASME-BPE.



The NEUMO Ehrenberg Group is one of the World's largest privately owned manufacturers and distributors of stainless steel products and metal cutting tools.

Founded in Germany in 1947 by the late Senator Henry Ehrenberg, the NEUMO Ehrenberg group employs more than 1,300 people worldwide.

The group is an integrated network of member companies operating in three core areas: Stainless Steel Flow Technology, Tooling, and Stainless Steel Trading.

In addition to sales, manufacturing and warehousing locations across three continents, the group is represented through a well-developed network of distributors in more than 40 countries. Worldwide, the NEUMO Ehrenberg group employs people that are dedicated to turning innovative ideas into leading products and engineering services in order to increase productivity, product quality and profitability for our customers.





CLAMP FITTINGS....

Clamp Style Fittings are most popular for easy assembly and breakdown of process lines and equipment. VNE offers 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. VNE's Clamp Fittings meet all 3A requirements.

The "LA" designated product offering is available as a cost-effective alternative to our existing line of fittings and meets the industry expectations on high quality that you have come to expect from VNE. Fittings listed as [LA] are available in both our traditional offering and LA designated offering. Example: EG2C-6L1.5 (Traditional offering on 3A clamp by clamp 316L stainless steel 90° elbow) and LA-EG2C-6L1.5 (LA alternative on 3A clamp by clamp 316L stainless steel 90° elbow). Fittings listed as [LA ONLY] are products exclusive to the LA fitting product category.

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

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.

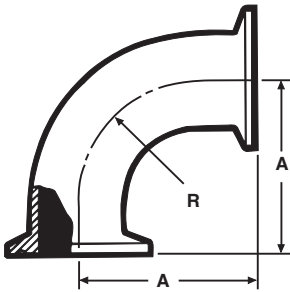
VNE shall not be liable for any consequential, indirect, incidental or contingent damages.



CLAMP TYPE

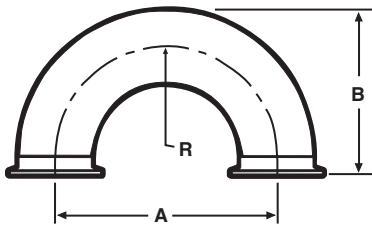
| VNE | ALFA LAVAL | WAUKESHA / SPX | BRADFORD | STEEL & O'BRIEN |
|----------|------------|----------------|-----------|-----------------|
| EG2C | 2CMP | 2CMP | B2CMP | 2CMP |
| EG2C31CC | 2CMP-31MP | 2CMP-31MP | B2CM31MP | 2CMP-31MP |
| EG2FPR | 2FMP-14 | 2FMP-14 | B2FMP-14 | 2FMP-14 |
| EG2WU | ---- | 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 |

EG2C / LA-EG2C - 90° ELBOW



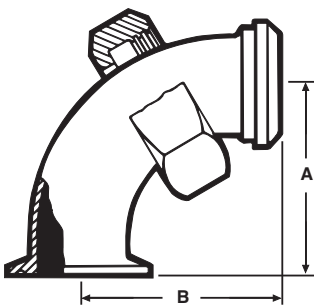
| Size Tube OD | A | R |
|-----------------|--------|--------|
| [LA] 1 | 2.000 | 1.500 |
| [LA] 1 1/2 | 2.750 | 2.250 |
| [LA] 2 | 3.500 | 3.000 |
| [LA] 2 1/2 | 4.250 | 3.750 |
| [LA] 3 | 5.000 | 4.500 |
| [LA] 4 | 6.625 | 6.000 |
| 6 | 9.875 | 9.000 |
| 8 | 12.937 | 12.000 |

EG2WU - CLAMP 180° U-BEND



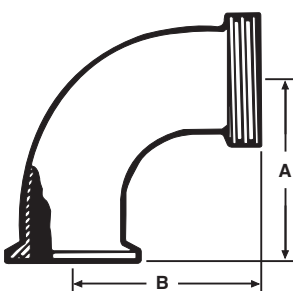
| Size Tube OD | A | B | R |
|-----------------|--------|--------|-------|
| 1/2 | 1.500 | 1.500 | 0.750 |
| 3/4 | 2.250 | 2.000 | 1.125 |
| 1 | 3.000 | 2.500 | 1.500 |
| 1 1/4 | 3.750 | 3.000 | 1.875 |
| 1 1/2 | 4.500 | 3.500 | 2.250 |
| 2 | 6.000 | 4.500 | 3.000 |
| 2 1/2 | 7.500 | 5.500 | 3.750 |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

EG2FPR - 90° ELBOW



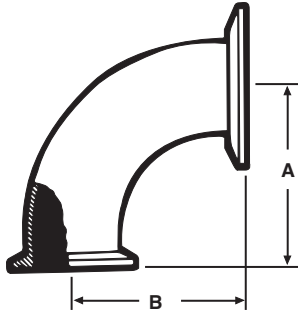
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 2.000 | 2.875 |
| 1 1/2 | 2.750 | 2.968 |
| 2 | 3.500 | 3.718 |
| 2 1/2 | 4.250 | 4.593 |
| 3 | 5.000 | 5.406 |
| 4 | 6.625 | 7.218 |

EG2FTR - 90° ELBOW



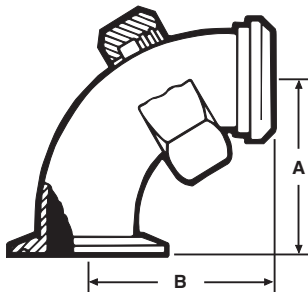
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 2.000 | 2.187 |
| 1 1/2 | 2.750 | 2.968 |
| 2 | 3.500 | 3.718 |
| 2 1/2 | 4.250 | 4.593 |
| 3 | 5.000 | 5.406 |
| 4 | 6.625 | 7.218 |

EG2C31CC - 90° REDUCING ELBOW (Non-Tapered)



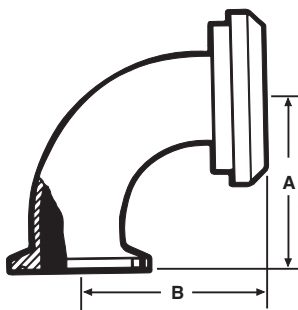
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 2 x 1 | 2.000 | 2.000 |
| 2 x 1 1/2 | 2.750 | 2.750 |
| 2 1/2 x 1 1/2 | 2.750 | 2.750 |
| 2 1/2 x 2 | 3.500 | 3.500 |
| 3 x 1 1/2 | 2.750 | 2.750 |
| 3 x 2 | 3.500 | 3.500 |
| 3 x 2 1/2 | 4.250 | 4.250 |
| 4 x 2 1/2 | 4.250 | 4.375 |
| 4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

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



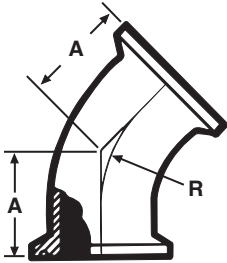
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 2 x 1 | 2.000 | 2.187 |
| 2 x 1 1/2 | 2.750 | 2.968 |
| 2 1/2 x 1 1/2 | 2.750 | 2.968 |
| 2 1/2 x 2 | 3.500 | 3.718 |
| 3 x 1 1/2 | 2.750 | 2.968 |
| 3 x 2 | 3.500 | 3.718 |
| 3 x 2 1/2 | 4.250 | 4.593 |
| 4 x 2 1/2 | 4.375 | 4.593 |
| 4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

EG2C31PR - 90° REDUCING ELBOW (Non-Tapered)



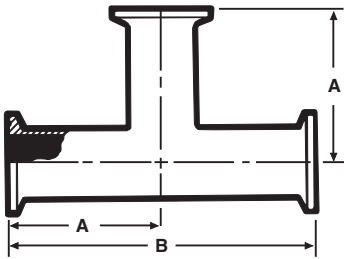
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 2 x 1 | 2.000 | 2.250 |
| 2 x 1 1/2 | 2.750 | 3.000 |
| 2 1/2 x 1 1/2 | 2.750 | 3.031 |
| 2 1/2 x 2 | 3.500 | 3.781 |
| 3 x 1 1/2 | 2.750 | 3.593 |
| 3 x 2 | 3.500 | 3.843 |
| 3 x 2 1/2 | 4.250 | 4.593 |
| 4 x 2 1/2 | 4.250 | 4.687 |
| 4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

EG2K / LA-EG2K - 45° ELBOW



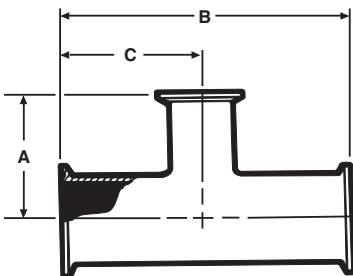
| | Size Tube OD | A | R |
|------|-----------------|-------|--------|
| [LA] | 1 | 1.125 | 1.500 |
| [LA] | 1 1/2 | 1.437 | 2.250 |
| [LA] | 2 | 1.750 | 3.000 |
| [LA] | 2 1/2 | 2.062 | 3.750 |
| [LA] | 3 | 2.375 | 4.500 |
| [LA] | 4 | 3.125 | 6.000 |
| | 6 | 4.625 | 9.000 |
| | 8 | 5.312 | 12.000 |

EG7 / LA-EG7 - TEE



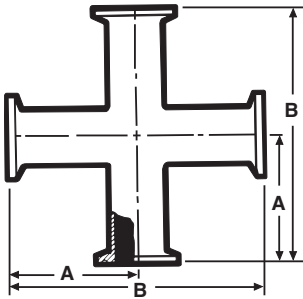
| | Size Tube OD | A | B |
|------|-----------------|-------|--------|
| [LA] | 1 | 2.375 | 4.750 |
| [LA] | 1 1/2 | 2.750 | 5.500 |
| [LA] | 2 | 3.500 | 7.000 |
| [LA] | 2 1/2 | 3.500 | 7.000 |
| [LA] | 3 | 3.750 | 7.500 |
| [LA] | 4 | 4.500 | 9.000 |
| | 6 | 6.500 | 13.000 |
| | 8 | 9.937 | 19.875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

EG7R - REDUCING TEE



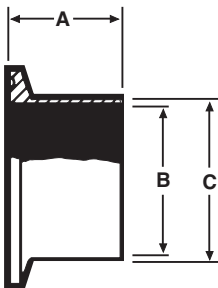
| | Size Tube OD | A | B | C |
|--|-----------------|-------|--------|-------|
| | 1 1/2 x 1 | 1.875 | 4.312 | 2.156 |
| | 2 x 1 | 2.125 | 5.125 | 2.562 |
| | 2 x 1 1/2 | 2.406 | 5.125 | 2.562 |
| | 2 1/2 x 1 1/2 | 2.656 | 5.687 | 2.843 |
| | 2 1/2 x 2 | 2.812 | 5.687 | 2.843 |
| | 3 x 1 1/2 | 2.906 | 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 |

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 |

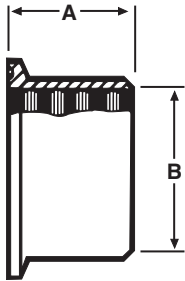
EG14AM7 / LA-EG14AM7 - LONG WELDING FERRULE



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

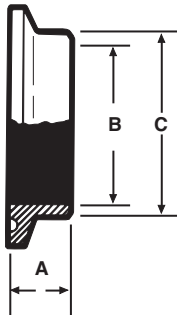
*Length changed from 2.000 to 1.125 on January 1st, 2019

EG14R - RECESSLESS FERRULE (Expanding)



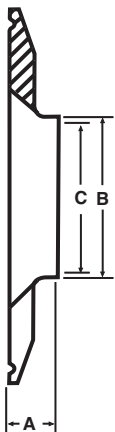
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 0.750 | 1.000 |
| 1 1/2 | 1.125 | 1.500 |
| 2 | 1.312 | 2.000 |
| 2 1/2 | 1.375 | 2.500 |
| 3 | 1.437 | 3.000 |
| 4 | 1.500 | 4.000 |

EG2CS / LA-EG2CS - SHORT WELDING FERRULE



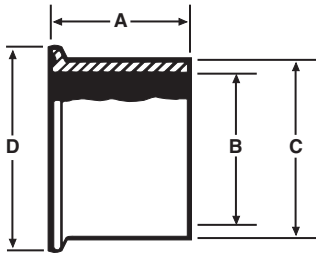
| Size Tube OD | A | B |
|-----------------|-------|--------|
| 1/4 | 0.500 | 0.120 |
| 3/8 | 0.500 | 0.245 |
| [LA] 1/2 | 0.500 | 0.370 |
| 5/8 | 0.500 | 0.495 |
| [LA] 3/4 | 0.500 | 0.620 |
| [LA] 1 | 0.500 | 0.870 |
| 1 1/4 | 0.500 | 1.120 |
| [LA] 1 1/2 | 0.500 | 1.370 |
| [LA] 2 | 0.500 | 1.870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

EG2CS31D - SHORT REDUCING CLAMP FERRULES



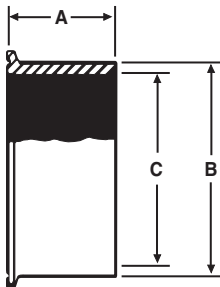
| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 x 1/2 | 0.500 | 0.500 | 0.370 |
| 1 x 3/4 | 0.500 | 0.750 | 0.620 |
| 1 1/2 x 1 | 0.500 | 1.000 | 0.870 |
| 2 x 1 | 0.500 | 1.000 | 0.870 |
| 2 x 1 1/2 | 0.500 | 1.500 | 1.370 |
| 2 1/2 x 1 1/2 | 0.500 | 1.500 | 1.370 |
| 2 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 |

EG14W - TANK WELDING FERRULE



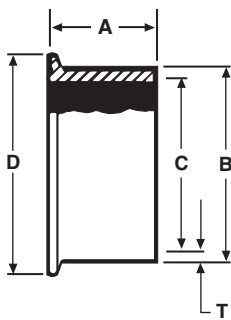
| Size Tube OD | A | B | C | D |
|-----------------|-------|-------|-------|-------|
| 1 | 1.625 | 0.870 | 1.160 | 1.984 |
| 1 1/2 | 1.625 | 1.370 | 1.676 | 1.984 |
| 2 | 1.750 | 1.870 | 2.192 | 2.516 |
| 2 1/2 | 1.750 | 2.370 | 2.708 | 3.047 |
| 3 | 1.812 | 2.870 | 3.224 | 3.579 |
| 4 | 2.125 | 3.834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

EG14W-C6L - ASME CODED TANK FERRULE



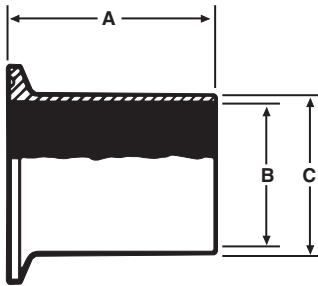
| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 1.625 | 1.160 | 0.870 |
| 1 1/2 | 1.625 | 1.676 | 1.370 |
| 2 | 1.750 | 2.192 | 1.870 |
| 2 1/2 | 1.750 | 2.708 | 2.370 |
| 3 | 1.812 | 3.224 | 2.870 |
| 4 | 2.125 | 4.256 | 3.834 |
| 6 | 4.250 | 6.500 | 5.782 |

EG14WSL-C6L - ASME CODED TANK FERRULE LONG



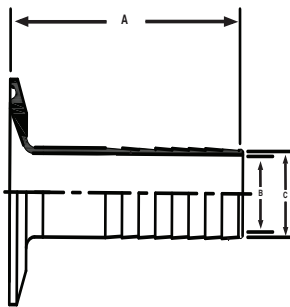
| Size Tube OD | A | B | C | D | Nom. Wall (T) |
|-----------------|-------|-------|-------|-------|------------------|
| 1 | 2.500 | 1.160 | 0.870 | 1.984 | 0.145 |
| 1 1/2 | 2.500 | 1.676 | 1.370 | 1.984 | 0.153 |
| 2 | 2.500 | 2.192 | 1.870 | 2.516 | 0.161 |
| 2 1/2 | 3.500 | 2.708 | 2.370 | 3.047 | 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 |

EG14WL - TANK WELDING FERRULE



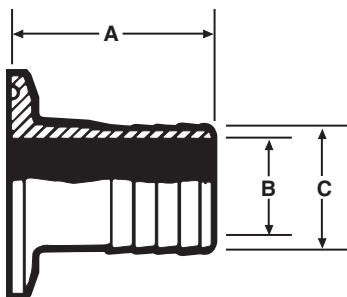
| Size Tube OD | A | B | C |
|-----------------|-------|--------|--------|
| 1 | 3.000 | 0.870 | 1.000 |
| 1 1/2 | 3.000 | 1.370 | 1.500 |
| 2 | 3.000 | 1.870 | 2.000 |
| 2 1/2 | 3.000 | 2.370 | 2.500 |
| 3 | 4.000 | 2.870 | 3.000 |
| 4 | 4.000 | 3.834 | 4.000 |
| 6 | 6.000 | 5.782 | 6.000 |
| 8 | 6.000 | 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 | 1.687 | 0.870 | 1.000 |
| 1 1/4 | Call VNE | 1.185 | 1.250 |
| 1 1/2 | 1.687 | 1.370 | 1.500 |
| 2 | 2.312 | 1.870 | 2.000 |
| 2 1/2 | 2.312 | 2.370 | 2.500 |
| 3 | 3.093 | 2.870 | 3.000 |
| 4 | 3.406 | 3.834 | 4.000 |
| 6 | 8.875 | 5.782 | 6.000 |

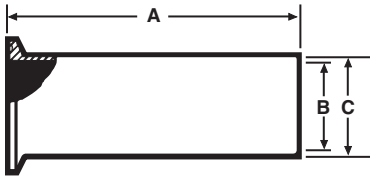
EG14RT - RUBBER HOSE ADAPTER REDUCER (T316L)



| 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 |

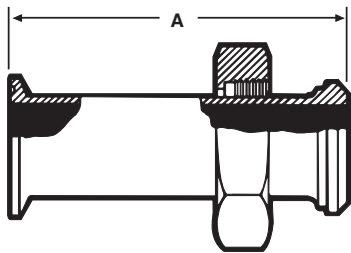
Clamp Fittings

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



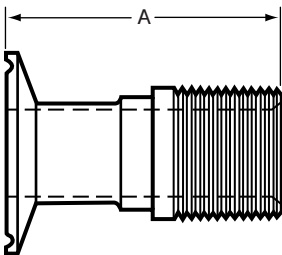
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.500 |
| 1 1/2 | 2.625 |
| 2 | 2.625 |
| 2 1/2 | 2.875 |
| 3 | 2.875 |
| 4 | 2.875 |

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 |

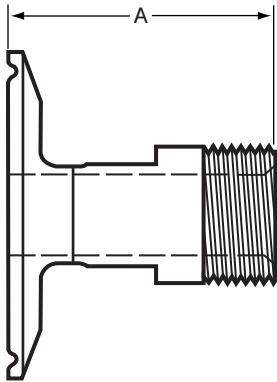
EG21 - MALE ADAPTER (N.P.T. Pipe Threads)



| 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

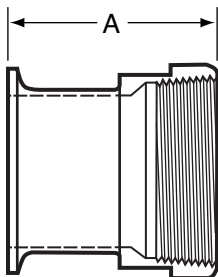
EG21-6L - MALE ADAPTER REDUCING (N.P.T. Pipe Threads) (T316L)



| 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.

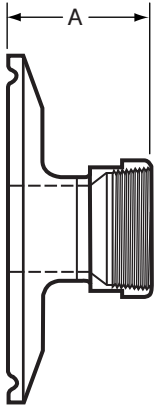
EG22 - FEMALE ADAPTER (N.P.T. Pipe Threads)



| 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

EG22 - FEMALE ADAPTER REDUCING (N.P.T. Pipe Threads) (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 / LA-EG16A - SOLID END CAP



| Size Tube OD | A | B |
|-----------------|--------|-------|
| [LA] 1/2 & 3/4 | 0.992 | 0.200 |
| [LA] 1 & 1 1/2 | 1.984 | 0.250 |
| [LA] 2 | 2.516 | 0.250 |
| [LA] 2 1/2 | 3.047 | 0.250 |
| [LA] 3 | 3.579 | 0.25 |
| [LA] 4 | 4.682 | 0.312 |
| [LA] 5 | 5.692 | 0.385 |
| [LA] 6 | 6.570 | 0.437 |
| [LA] 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.

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.

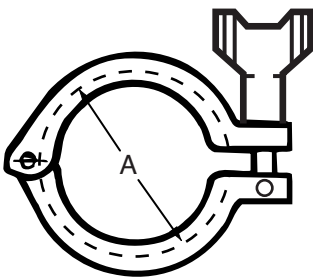
GASKETS



| 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.

13MHM - HEAVY DUTY CLAMP

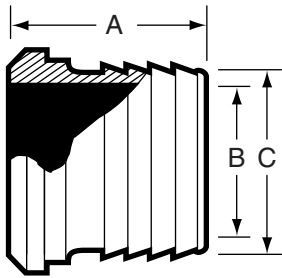


| Size Tube OD | A |
|-----------------|--------|
| 3/4 | 1.125 |
| 1 1/2 | 2.122 |
| 2 | 2.654 |
| 2 1/2 | 3.185 |
| 3 | 3.717 |
| 4 | 4.820 |
| 5 | 5.817 |
| 6 | 6.695 |
| 8 | 8.695 |
| 10 | 10.695 |
| 12* | 12.695 |

Wing Nuts tightened to 25 in-lbs of torque

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

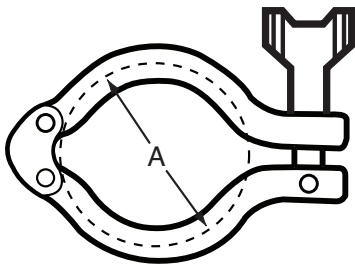
13MHMH-H - HEAVY DUTY CLAMP (Wing Nut With Hole)



| Size Tube OD | A |
|-----------------|--------|
| 3/4 | 1.125 |
| 1 & 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

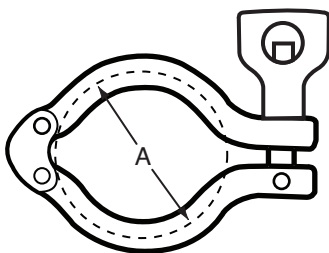
13MHMD - DOUBLE HINGED HEAVY DUTY CLAMP



| 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

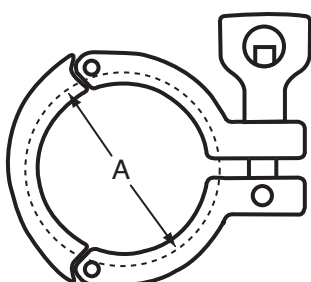
13MHMD - H - DOUBLE HINGED HEAVY DUTY CLAMP (Wing Nut With Hole)



| 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

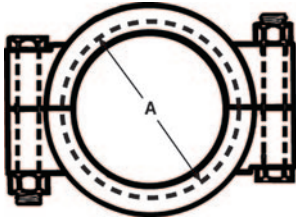
13MHHS - THREE PIECE HEAVY DUTY CLAMP



| 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

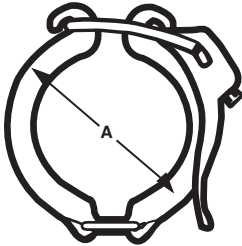
13MHP - HIGH PRESSURE CLAMP



| 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 for 1 1/2" - 6" sizes.
4 ft-lbs of torque for 3/4" size.

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 |

* Not recommended for use with Teflon gaskets

*PSI SERVICE RATINGS FOR SANITARY STAINLESS STEEL CLAMPS

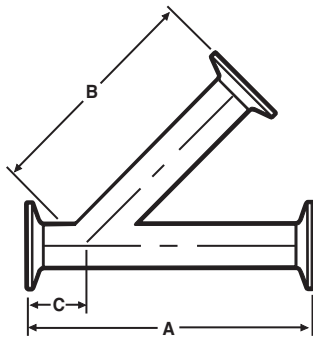
| Size Tube OD | 13MHM / 13MHM - H | | 13MHMD / 13MHMD - H | |
|-----------------|-------------------|--------|---------------------|--------|
| | @70°F | @250°F | @70°F | @250°F |
| 3/4" | 1500 | 1200 | | |
| 1 1/2" | 500 | 250 | 500 | 250 |
| 2" | 450 | 250 | 450 | 250 |
| 2 1/2" | 400 | 200 | 400 | 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 | | |

***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" | | | | | | |

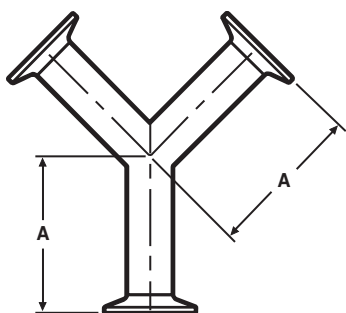
*Service ratings are based upon hydrostatic tests using Standard Molded Buna-N gasket material with proper expansion of ferules, joint assembly, and the absence of shock pressure. All ratings systems are dependent upon related components in the system and proper installation.

EG28A - 45° CLAMP LATERAL



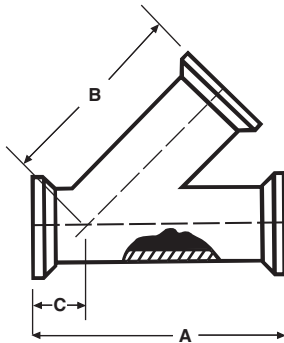
| Size Tube OD | A | B | C |
|-----------------|--------|--------|-------|
| 1 | 7.000 | 5.500 | 1.500 |
| 1 1/2 | 8.375 | 6.687 | 1.687 |
| 2 | 9.625 | 7.625 | 2.125 |
| 2 1/2 | 11.125 | 9.000 | 2.000 |
| 3 | 11.750 | 9.375 | 2.375 |
| 4 | 14.062 | 11.375 | 2.687 |
| 6 | 18.875 | 15.375 | 4.375 |

EG28B - CLAMP TRUE Y



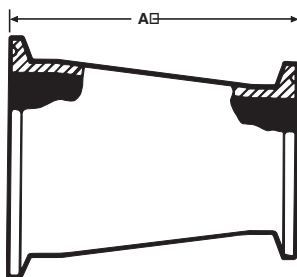
| Size Tube OD | A |
|-----------------|-------|
| 1 | 3.500 |
| 1 1/2 | 3.500 |
| 2 | 4.500 |
| 2 1/2 | 5.500 |
| 3 | 6.500 |
| 4 | 8.625 |
| 6 | 8.875 |

EG28RA - 45° CLAMP REDUCING LATERAL



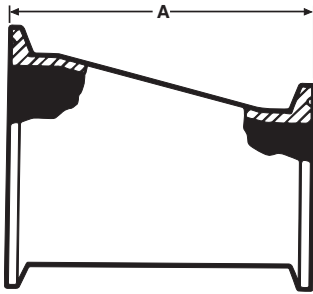
| Size Tube OD | A | B | C |
|-----------------|--------|--------|-------|
| 1 1/2 x 1 | 8.375 | 5.062 | 1.375 |
| 2 x 1 | 9.625 | 5.500 | 1.625 |
| 2 x 1 1/2 | 9.625 | 5.500 | 1.625 |
| 2 1/2 x 1 | 11.125 | 6.875 | 2.125 |
| 2 1/2 x 1 1/2 | 11.125 | 6.875 | 2.125 |
| 2 1/2 x 2 | 11.125 | 6.875 | 2.125 |
| 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 / LA-EG31CC - CONCENTRIC REDUCER



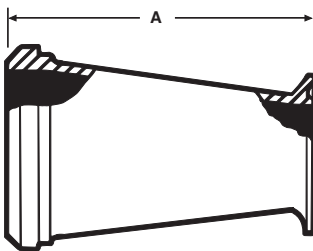
| Size Tube OD | A |
|---------------------|--------|
| [LA] 3/4 x 1/2 | 2.000 |
| [LA] 1 x 1/2 | 2.000 |
| [LA] 1 x 3/4 | 2.000 |
| [LA] 1 1/2 x 1/2 | 3.000 |
| [LA] 1 1/2 x 3/4 | 3.000 |
| [LA] 1 1/2 x 1 | 3.000 |
| 1 1/2 x 1 1/4 | 2.000 |
| [LA] 2 x 1 | 5.000 |
| 2 x 1 1/4 | 2.000 |
| [LA] 2 x 1 1/2 | 3.000 |
| [LA] 2 1/2 x 1 | 7.000 |
| [LA] 2 1/2 x 1 1/2 | 5.000 |
| [LA] 2 1/2 x 2 | 3.000 |
| [LA] 3 x 1 1/2 | 7.000 |
| [LA] 3 x 2 | 5.000 |
| [LA] 3 x 2 1/2 | 3.000 |
| [LA ONLY] 4 X 1 1/2 | 11.125 |
| [LA] 4 x 2 | 9.125 |
| [LA] 4 x 2 1/2 | 7.125 |
| [LA] 4 x 3 | 5.125 |
| 6 x 3 | 6.875 |
| 6 x 4 | 7.000 |

EG32CC / LA-EG32CC - ECCENTRIC REDUCER



| | Size Tube OD | A |
|------|-----------------|-------|
| [LA] | 3/4 x 1/2 | 2.000 |
| [LA] | 1 x 1/2 | 3.000 |
| [LA] | 1 x 3/4 | 2.000 |
| [LA] | 1 1/2 x 1/2 | 5.000 |
| [LA] | 1 1/2 x 3/4 | 4.000 |
| [LA] | 1 1/2 x 1 | 3.000 |
| | 1 1/2 x 1 1/4 | 2.000 |
| [LA] | 2 x 1 | 5.000 |
| | 2 x 1 1/4 | 2.000 |
| [LA] | 2 x 1 1/2 | 3.000 |
| [LA] | 2 1/2 x 1 | 7.000 |
| [LA] | 2 1/2 x 1 1/2 | 5.000 |
| [LA] | 2 1/2 x 2 | 3.000 |
| | 3 x 1 | 9.000 |
| [LA] | 3 x 1 1/2 | 7.000 |
| [LA] | 3 x 2 | 5.000 |
| [LA] | 3 x 2 1/2 | 3.000 |
| [LA] | 4 x 2 | 9.125 |
| [LA] | 4 x 2 1/2 | 7.125 |
| [LA] | 4 x 3 | 5.125 |
| | 6 x 3 | 6.875 |
| | 6 x 4 | 7.000 |

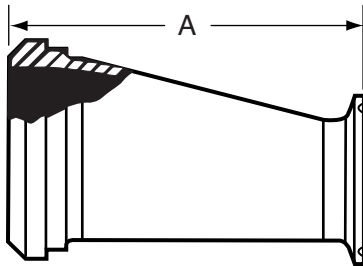
EG31PC - ADAPTER REDUCER (Concentric)



| | 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

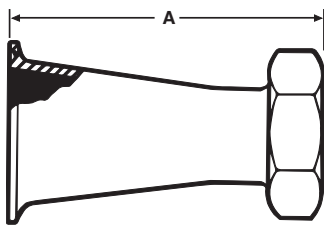
EG32PC - ADAPTER REDUCER (Eccentric)



| 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 |

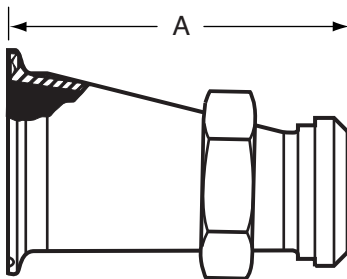
*Hex nut furnished

EG31CP - ADAPTER REDUCER (Concentric)



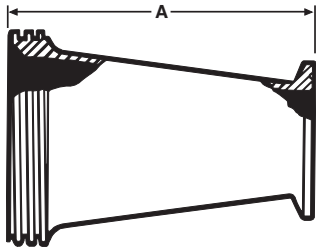
| Size Tube OD | A |
|-----------------|-------|
| 1 1/2 x 1 | 3.875 |
| 2 x 1 | 5.875 |
| 2 x 1 1/2 | 4.000 |
| 2 1/2 x 1 1/2 | 6.000 |
| 2 1/2 x 2 | 4.000 |
| 3 x 2 | 6.000 |
| 3 x 2 1/2 | 4.250 |
| 4 x 2 1/2 | 8.378 |
| 4 x 3 | 6.378 |

EG32CP - ADAPTER REDUCER (Eccentric)



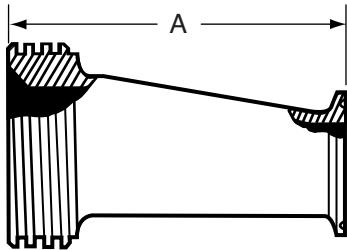
| Size Tube OD | A |
|-----------------|-------|
| 1 1/2 x 1 | 3.875 |
| 2 x 1 | 5.875 |
| 2 x 1 1/2 | 4.000 |
| 2 1/2 x 1 1/2 | 6.000 |
| 2 1/2 x 2 | 4.000 |
| 3 x 2 | 6.000 |
| 3 x 2 1/2 | 4.250 |
| 4 x 2 1/2 | 8.378 |
| 4 x 3 | 6.378 |

EG31TC - ADAPTER REDUCER (Concentric)



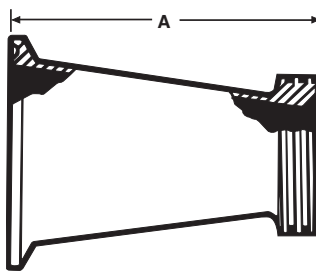
| Size Tube OD | A |
|-----------------|-------|
| 1 1/2 x 1 | 3.187 |
| 2 x 1 | 5.218 |
| 2 x 1 1/2 | 3.218 |
| 2 1/2 x 1 1/2 | 5.343 |
| 2 1/2 x 2 | 3.343 |
| 3 x 2 | 5.437 |
| 3 x 2 1/2 | 3.437 |
| 4 x 2 1/2 | 7.500 |
| 4 x 3 | 5.500 |

EG32TC - ADAPTER REDUCER (Eccentric)



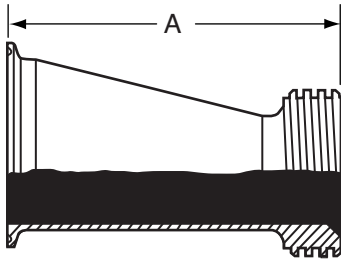
| Size Tube OD | A |
|-----------------|-------|
| 1 1/2 x 1 | 3.187 |
| 2 x 1 | 5.218 |
| 2 x 1 1/2 | 3.218 |
| 2 1/2 x 1 1/2 | 5.343 |
| 2 1/2 x 2 | 3.343 |
| 3 x 2 | 5.437 |
| 3 x 2 1/2 | 3.437 |
| 4 x 2 1/2 | 7.500 |
| 4 x 3 | 5.500 |

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 |

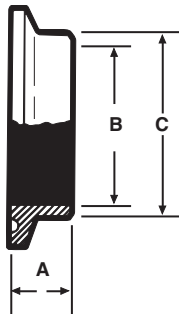
EG32CT - ADAPTER REDUCER (Eccentric)



| 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 |

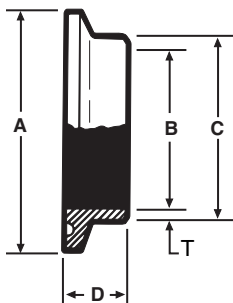
CLAMP FITTINGS SCHEDULE 5 & 10

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 |

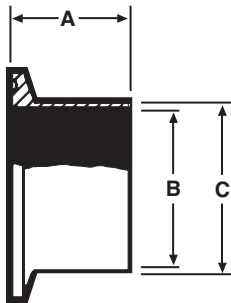
EG2CS-10-6L - FERRULE



| 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 |

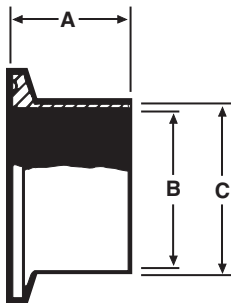
Clamp Fittings Schedule 5 & 10

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



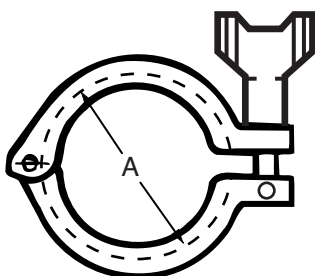
| Size Pipe | A | B | C | Nom. Wall |
|-----------|-------|-------|-------|-----------|
| 1 | 1.125 | 1.097 | 1.315 | 0.109 |
| 1 1/2 | 1.125 | 1.682 | 1.900 | 0.109 |
| 2 | 1.125 | 2.157 | 2.375 | 0.109 |
| 2 1/2 | 1.125 | 2.635 | 2.875 | 0.120 |
| 3 | 1.125 | 3.260 | 3.500 | 0.120 |
| 4 | 1.125 | 4.260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

13MHM-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 |
| 6 | 6.772 |

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).

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

The "LA" designated product offering is available as a cost-effective alternative to our existing line of fittings and meets the industry expectations on high quality that you have come to expect from VNE. Fittings listed as [LA] are available in both our traditional offering and LA designated offering. Example: E2S-6L1.5 (Traditional offering on 3A weld by weld 316L stainless steel 90° elbow with tangents) and LA-E2S-6L1.5 (LA alternative on 3A weld by weld 316L stainless steel 90° elbow with tangents). Fittings listed as [LA ONLY] are products exclusive to the LA fitting product category.

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

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.

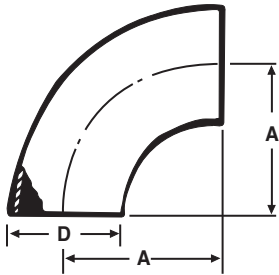
VNE shall not be liable for any consequential, indirect, incidental or contingent damages.



WELD FITTINGS

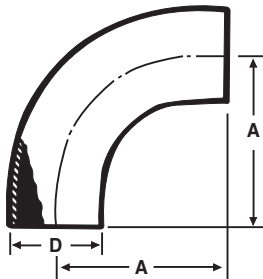
| VNE | ALFA LAVAL | WAUKESHA / SPX | BRADFORD | STEEL & O'BRIEN |
|---------|------------|----------------|----------|-----------------|
| E2S | L2S | 2CW | B2S | L2S |
| E2C | L2CM | 2CKW | B2CM | L2CM |
| E2T | L2C | 2TW | B2T | L2C |
| E2F | L2F | 2FW | B2FP | L2F |
| E2KS | L2KS | 2KW | B2KS | L2KS |
| 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 |
| E9WWWWW | L9WWWWW | 9W | B9WWWWW | 9WWWWW |
| E31WW | L31 | 31W | B31W | 31W |
| E32WW | L32 | 32W | B32W | 32W |
| E28WA | L28WA | 28WA | B28WA | 28WA |
| E28WB | L28WB | 28WB | B28W | 28WB |
| E2WK | | | B2WK | 2WK |

2WCL / LA-2WCL - 90° ELBOW SHORT TANGENT



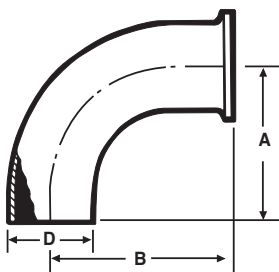
| | Size Tube OD | A | D | Nom. Wall |
|------|-----------------|--------|-------|-----------|
| [LA] | 1 | 1.500 | 1.000 | 0.065 |
| [LA] | 1 1/4 | 1.875 | 1.250 | 0.065 |
| [LA] | 1 1/2 | 2.250 | 1.500 | 0.065 |
| [LA] | 2 | 3.000 | 2.000 | 0.065 |
| [LA] | 2 1/2 | 3.750 | 2.500 | 0.065 |
| [LA] |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

E2S / LA-E2S - 90° ELBOW



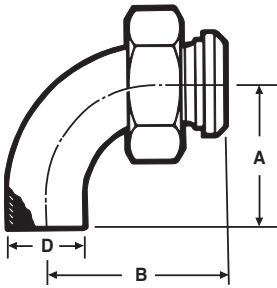
| | Size Tube OD | A | D | Nom. Wall |
|------|-----------------|-------|-------|-----------|
| [LA] | 1 | 2.062 | 1.000 | 0.065 |
| [LA] | 1 1/2 | 2.937 | 1.500 | 0.065 |
| [LA] | 2 | 4.062 | 2.000 | 0.065 |
| [LA] | 2 1/2 | 5.187 | 2.500 | 0.065 |
| [LA] | 3 | 6.312 | 3.000 | 0.065 |
| [LA] | 4 | 8.312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

E2C / LA-E2C - 90° ELBOW



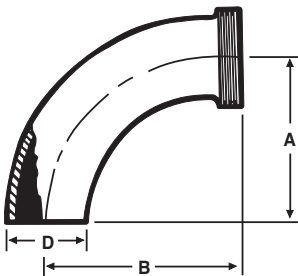
| | Size Tube OD | A | B | D | Nom. Wall |
|------|-----------------|-------|-------|-------|-----------|
| [LA] | 1 | 2.062 | 2.562 | 1.000 | 0.065 |
| [LA] | 1 1/2 | 2.935 | 3.437 | 1.500 | 0.065 |
| [LA] | 2 | 4.062 | 4.562 | 2.000 | 0.065 |
| [LA] | 2 1/2 | 5.187 | 5.687 | 2.500 | 0.065 |
| [LA]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

E2F - 90° ELBOW



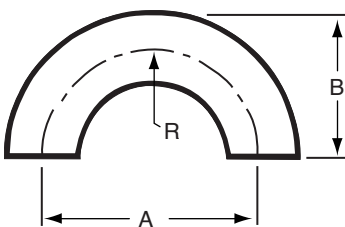
| Size Tube OD | A | B | D | Nom. Wall |
|-----------------|-------|-------|-------|-----------|
| 1 | 2.062 | 2.750 | 1.000 | 0.065 |
| 1 1/2 | 2.937 | 3.656 | 1.500 | 0.065 |
| 2 | 4.062 | 4.781 | 2.000 | 0.065 |
| 2 1/2 | 5.187 | 6.031 | 2.500 | 0.065 |
| 3 | 6.937 | 7.218 | 3.000 | 0.065 |
| 4 |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

E2T - 90° ELBOW



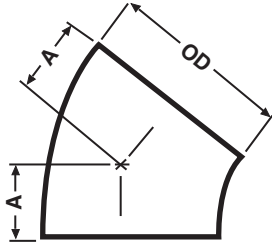
| Size Tube OD | A | B | D | Nom. Wall |
|-----------------|-------|-------|-------|-----------|
| 1 | 2.062 | 2.750 | 1.000 | 0.065 |
| 1 1/2 | 2.937 | 3.656 | 1.500 | 0.065 |
| 2 | 4.062 | 4.781 | 2.000 | 0.065 |
| 2 1/2 | 5.187 | 6.031 | 2.500 | 0.065 |
| 3 | 6.937 | 7.218 | 3.000 | 0.065 |
| 4 |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

E2WU - 180° U BEND



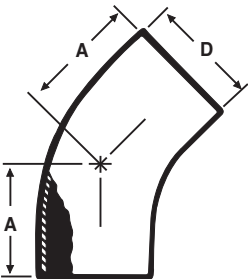
| Size Tube OD | A | B | C | R | Nom. Wall |
|-----------------|--------|--------|-------|-------|-----------|
| 1/2 | 1.500 | 1.000 | 0.500 | 0.750 | 0.065 |
| 3/4 | 2.250 | 1.500 | 0.750 | 1.125 | 0.065 |
| 1 | 3.000 | 2.000 | 1.000 | 1.500 | 0.065 |
| 1 1/4 | 3.750 | 2.500 | 1.250 | 1.875 | 0.065 |
| 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 |

E2WK / LA-E2WK - 45° ELBOW SHORT TANGENT



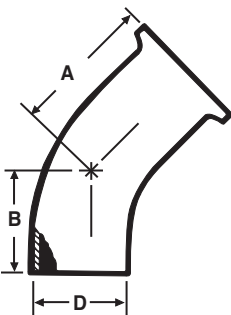
| | Size Tube OD | A | Nom. Wal |
|------|-----------------|-------|----------|
| [LA] | 1 | 0.625 | 0.065 |
| [LA] | 1 1/4 | 0.781 | 0.065 |
| [LA] | 1 1/2 | 0.937 | 0.065 |
| [LA] | 2 | 1.250 | 0.065 |
| [LA] | 2 1/2 | 1.562 | 0.065 |
| [LA] | 3 | 1.875 | 0.065 |
| [LA] | 4 | 2.500 | 0.083 |
| [LA]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

E2KS / LA-E2KS - 45° ELBOW



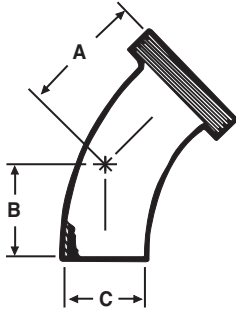
| | Size Tube OD | A | D | Nom. Wall |
|------|-----------------|-------|-------|-----------|
| [LA] | 1 | 1.187 | 1.000 | 0.065 |
| [LA] | 1 1/2 | 1.625 | 1.500 | 0.065 |
| [LA] | 2 | 2.312 | 2.000 | 0.065 |
| [LA] | 2 1/2 | 3.000 | 2.500 | 0.065 |
| [LA] | 3 | 3.687 | 3.000 | 0.065 |
| [LA] | 4 | 4.812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

E2KC - 45° ELBOW



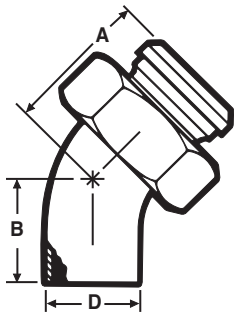
| | Size Tube OD | A | B | D | Nom. Wall |
|--|-----------------|-------|-------|-------|-----------|
| | 1 | 1.687 | 1.187 | 1.000 | 0.065 |
| | 1 1/2 | 2.125 | 1.625 | 1.500 | 0.065 |
| | 2 | 2.812 | 2.312 | 2.000 | 0.065 |
| | 2 1/2 | 3.500 | 3.000 | 2.500 | 0.065 |
| | 3 | 4.187 | 3.687 | 3.000 |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

E2KT - 45° ELBOW



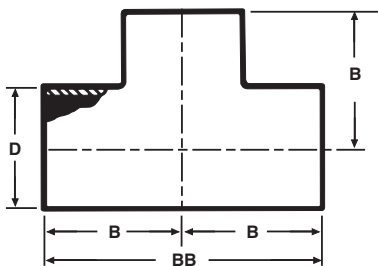
| Size Tube OD | A | B | C | Nom. Wall |
|-----------------|-------|-------|-------|-----------|
| 1 | 1.875 | 1.187 | 1.000 | 0.065 |
| 1 1/2 | 2.343 | 1.625 | 1.500 | 0.065 |
| 2 | 3.031 | 2.312 | 2.000 | 0.065 |
| 2 1/2 | 3.843 | 3.000 | 2.500 | 0.065 |
| 3 | 4.593 | 3.687 | 3.000 | 0.065 |
| 4 |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

E2KP - 45° ELBOW



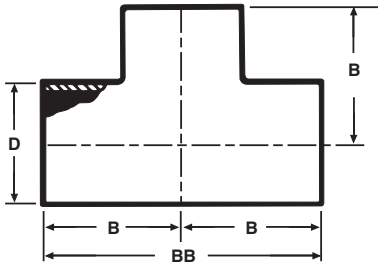
| Size Tube OD | A | B | D | Nom. Wall |
|-----------------|-------|-------|-------|-----------|
| 1 | 1.875 | 1.187 | 1.000 | 0.065 |
| 1 1/2 | 2.343 | 1.625 | 1.500 | 0.065 |
| 2 | 3.031 | 2.312 | 2.000 | 0.065 |
| 2 1/2 | 3.843 | 3.000 | 2.500 | 0.065 |
| 3 | 4.593 | 3.687 | 3.000 | 0.065 |
| 4 |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

E7WWW / LA-E7WWW - TEE



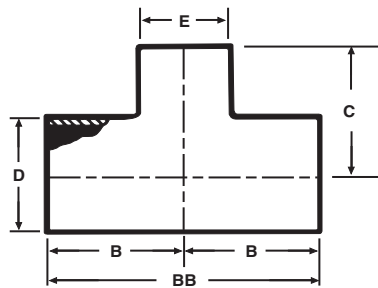
| Size Tube OD | B | BB | D | Nom. Wall |
|-----------------|-------|--------|-------|-----------|
| [LA] 1 | 1.125 | 2.250 | 1.000 | 0.065 |
| [LA] 1 1/4 | 2.250 | 3.312 | 1.250 | 0.065 |
| [LA] 1 1/2 | 1.656 | 3.312 | 1.500 | 0.065 |
| [LA] 2 | 2.062 | 4.125 | 2.000 | 0.065 |
| [LA] 2 1/2 | 2.343 | 4.687 | 2.500 | 0.065 |
| [LA] 3 | 2.593 | 5.187 | 3.000 | 0.065 |
| [LA] 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 |

LA-E7W - LONG TEE - ONLY AVAILABLE IN LA



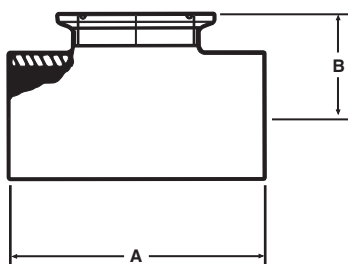
| Size Tube OD | B | BB | D | Nom. Wall |
|-----------------|-------|-------|-------|-----------|
| 1/2 | 1.875 | 3.750 | 0.500 | 0.065 |
| 3/4 | 2.000 | 4.000 | 0.750 | 0.065 |
| 1 | 1.875 | 3.750 | 1.000 | 0.065 |
| 1 1/2 | 2.250 | 4.500 | 1.500 | 0.065 |
| 2 | 3.000 | 6.000 | 2.000 | 0.065 |
| 2 1/2 | 3.000 | 6.000 | 2.500 | 0.065 |
| 3 | 3.250 | 6.500 | 3.000 | 0.065 |
| 4 | 3.875 | 7.750 | 4.000 | 0.083 |

E7RWWW / LA-E7RWWW - REDUCING TEE



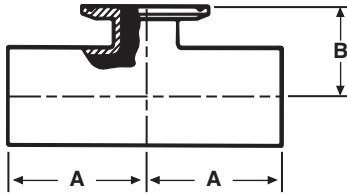
| Size Tube OD | B | BB | C | Nom. Wall |
|--------------------|-------|--------|-------|---------------|
| [LA] 1 1/2 x 1 | 1.650 | 3.312 | 1.375 | 0.065 |
| [LA] 2 x 1 | 2.060 | 4.125 | 1.625 | 0.065 |
| [LA] 2 x 1 1/2 | 2.060 | 4.125 | 1.906 | 0.065 |
| [LA] 2 1/2 x 1 | 2.340 | 4.687 | 1.875 | 0.065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



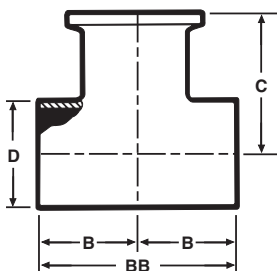
| Size Tube OD | A | B | Nom. Wall |
|-----------------|--------|-------|-----------|
| 1 | 4.250 | 1.125 | .065 |
| 1 1/2 | 4.750 | 1.375 | .065 |
| 2 | 5.750 | 1.625 | .065 |
| 2 1/2 | 6.250 | 1.875 | .065 |
| 3 | 6.750 | 2.125 | .065 |
| 4 | 8.250 | 2.750 | .083 |
| 6 | 11.250 | 4.625 | .109 |

E7RWWCS - REDUCING SHORT CLAMP BRANCH TEE



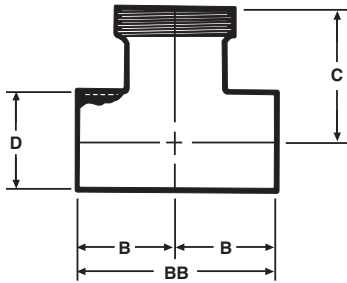
| Size Tube OD | A | B | Nom. Wall |
|-----------------|-------|-------|-----------|
| 3/4 x 1/2 | 2.000 | 1.000 | 0.065 |
| 1 x 1/2 | 2.120 | 1.120 | 0.065 |
| 1 x 3/4 | 2.120 | 1.120 | 0.065 |
| 1 1/2 x 1/2 | 2.370 | 1.370 | 0.065 |
| 1 1/2 x 3/4 | 2.370 | 1.370 | 0.065 |
| 1 1/2 x 1 | 2.370 | 1.370 | 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



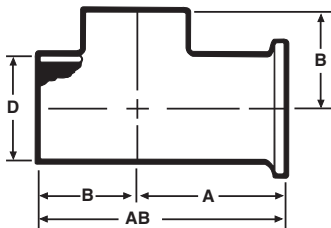
| Size Tube OD | B | BB | C | D | Nom. Wall |
|-----------------|-------|--------|-------|-------|-----------|
| 1 | 1.125 | 2.250 | 1.625 | 1.000 | 0.065 |
| 1 1/2 | 1.656 | 3.312 | 2.156 | 1.500 | 0.065 |
| 2 | 2.062 | 4.125 | 2.562 | 2.000 | 0.065 |
| 2 1/2 | 2.343 | 4.687 | 2.843 | 2.500 | 0.065 |
| 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 |

E7WWT - TEE WELD X WELD X THREAD



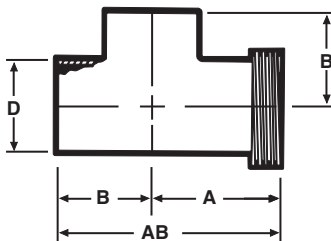
| Size Tube OD | B | BB | C | D | Nom. Wall |
|-----------------|-------|-------|-------|-------|-----------|
| 1 | 1.125 | 2.250 | 1.812 | 1.000 | 0.065 |
| 1 1/2 | 1.656 | 3.312 | 2.375 | 1.500 | 0.065 |
| 2 | 2.062 | 4.125 | 2.781 | 2.000 | 0.065 |
| 2 1/2 | 2.343 | 4.687 | 3.187 | 2.500 | 0.065 |
| 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



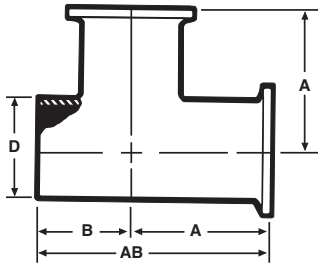
| Size Tube OD | A | B | AB | D | Nom. Wall |
|-----------------|-------|-------|--------|-------|-----------|
| 1 | 1.625 | 1.125 | 2.750 | 1.000 | 0.065 |
| 1 1/2 | 2.156 | 1.656 | 3.812 | 1.500 | 0.065 |
| 2 | 2.562 | 2.062 | 4.625 | 2.000 | 0.065 |
| 2 1/2 | 2.843 | 2.343 | 5.187 | 2.500 | 0.065 |
| 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



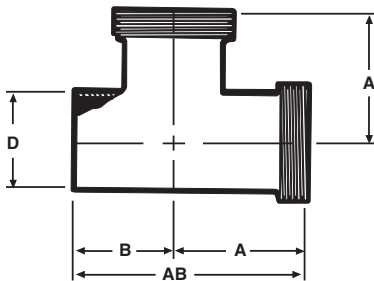
| Size Tube OD | A | B | AB | D | Nom. Wall |
|-----------------|-------|-------|-------|-------|-----------|
| 1 | 1.812 | 1.125 | 2.937 | 1.000 | 0.065 |
| 1 1/2 | 2.375 | 1.656 | 4.031 | 1.500 | 0.065 |
| 2 | 2.781 | 2.062 | 4.843 | 2.000 | 0.065 |
| 2 1/2 | 3.187 | 2.343 | 5.531 | 2.500 | 0.065 |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

E7WCC - TEE WELD X CLAMP X CLAMP



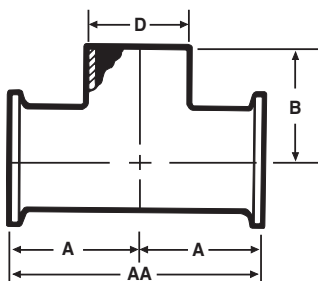
| Size Tube OD | A | B | AB | D | Nom. Wall |
|-----------------|-------|-------|--------|-------|-----------|
| 1 | 1.625 | 1.125 | 2.750 | 1.000 | 0.065 |
| 1 1/2 | 2.156 | 1.656 | 3.812 | 1.500 | 0.065 |
| 2 | 2.562 | 2.062 | 4.625 | 2.000 | 0.065 |
| 2 1/2 | 2.843 | 2.343 | 5.187 | 2.500 | 0.065 |
| 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



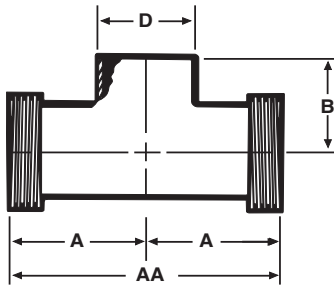
| Size Tube OD | A | B | AB | D | Nom. Wall |
|-----------------|-------|-------|-------|-------|-----------|
| 1 | 1.812 | 1.125 | 2.937 | 1.000 | 0.065 |
| 1 1/2 | 2.375 | 1.656 | 4.031 | 1.500 | 0.065 |
| 2 | 2.781 | 2.062 | 4.843 | 2.000 | 0.065 |
| 2 1/2 | 3.187 | 2.343 | 5.531 | 2.500 | 0.065 |
| 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



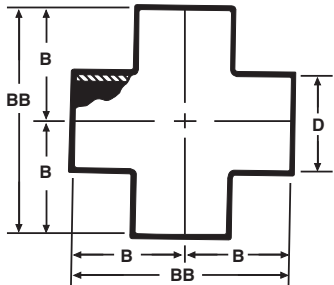
| Size Tube OD | A | AA | B | D | Nom. Wall |
|-----------------|-------|--------|-------|-------|-----------|
| 1 | 1.625 | 3.250 | 1.125 | 1.000 | 0.065 |
| 1 1/2 | 2.562 | 4.312 | 1.656 | 1.500 | 0.065 |
| 2 | 2.562 | 5.125 | 2.062 | 2.000 | 0.065 |
| 2 1/2 | 2.843 | 5.687 | 2.343 | 2.500 | 0.065 |
| 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 |

E7TTW - TEE THREAD X THREAD X WELD



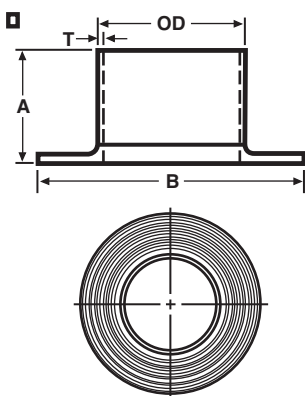
| Size Tube OD | A | AA | B | D | Nom. Wall |
|-----------------|-------|-------|-------|-------|-----------|
| 1 | 1.812 | 3.625 | 1.125 | 1.000 | 0.065 |
| 1 1/2 | 2.375 | 4.750 | 1.656 | 1.500 | 0.065 |
| 2 | 2.781 | 5.562 | 2.062 | 2.000 | 0.065 |
| 2 1/2 | 3.187 | 6.375 | 2.343 | 2.500 | 0.065 |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

E9WWW - CROSS / LA-E9WWW - CROSS



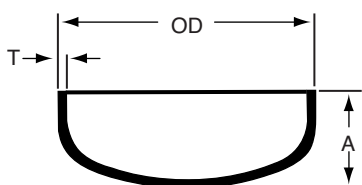
| Size Tube OD | B | BB | D | Nom. Wall |
|-----------------|-------|--------|-------|-----------|
| [LA] 1 | 1.125 | 2.250 | 1.000 | 0.065 |
| [LA] 1 1/2 | 1.656 | 3.312 | 1.500 | 0.065 |
| [LA] 2 | 2.062 | 4.125 | 2.000 | 0.065 |
| [LA] 2 1/2 | 2.343 | 4.687 | 2.500 | 0.065 |
| [LA] 3 | 2.593 | 5.187 | 3.000 | 0.065 |
| [LA] 4 | 3.437 | 6.875 | 4.000 | 0.083 |
| 6 | 5.625 | 11.250 | 6.000 | 0.109 |

E14WA - TYPE A STUB END WITH GROOVES



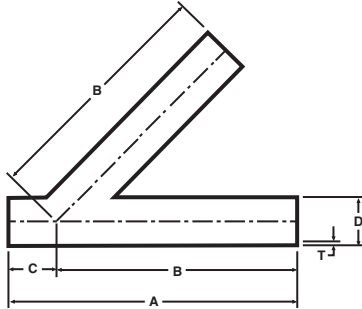
| Size Tube OD | A | B | Nom. Wall (T) |
|-----------------|-------|-------|--------------------|
| 1/2 | 1.375 | 1.625 | 0.065 |
| 3/4 | 1.375 | 1.687 | 0.065 |
| 1 | 1.625 | 2.000 | 0.065 |
| 1 1/4 | 1.625 | 2.500 | 0.065 |
| 1 1/2 | 1.750 | 2.875 | 0.065 |
| 2 | 1.500 | 3.625 | 0.065 |
| 2 1/2 | 2.000 | 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



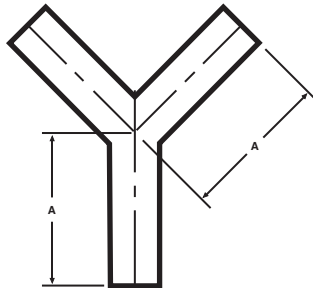
| Size Tube OD | A | Nom. Wall (T) |
|-----------------|----------------------------|-----------------|
| 1 | 0.375 | 0.065 |
| 1 1/4 | 0.500 | 0.065 |
| 1 1/2 | 0.562 | 0.065 |
| 2 | 0.750 | 0.065 |
| 2 1/2 | 1.000 | 0.065 |
| 3 | 1.250 | 0.065 |
| 4 | 1.500 | 0.083 |
| 6 | Contact VNE for dimensions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

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



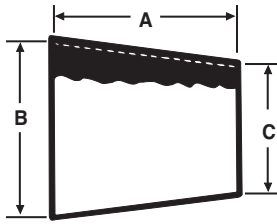
| Size Tube OD | A | Nom. Wall |
|-----------------|-------|-----------|
| 1 | 3.000 | 0.065 |
| 1 1/2 | 3.000 | 0.065 |
| 2 | 4.000 | 0.065 |
| 2 1/2 | 5.000 | 0.065 |
| 3 | 6.000 | 0.065 |
| 4 | 8.000 | 0.083 |
| 6 | 8.000 | 0.109 |

E28RWA - 45° REDUCING LATERAL



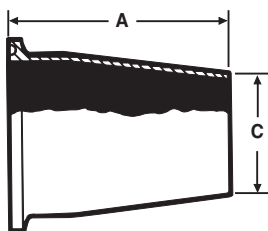
| Size Tube OD | A | B | C | Nom. Wall |
|-----------------|--------|--------|-------|--------------|
| 1 1/2 x 1 | 7.375 | 6.187 | 1.187 | 0.065 |
| 2 x 1 | 8.625 | 7.125 | 1.625 | 0.065 |
| 2 x 1 1/2 | 8.625 | 7.125 | 1.625 | 0.065 |
| 2 1/2 x 1 | 10.125 | 8.500 | 1.500 | 0.065 |
| 2 1/2 x 1 1/2 | 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 / LA-E31WW - CONCENTRIC REDUCER



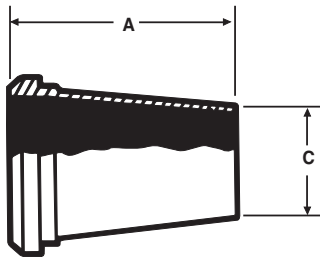
| | Size Tube OD | A | B | C | Nom. Wall |
|-----------|-------------------|--------|-------|-------|--------------|
| [LA] | 3/4 x 1/2 | * | 0.750 | 0.500 | 0.065 |
| [LA] | 1 x 1/2 | * | 1.000 | 0.500 | 0.065 |
| [LA ONLY] | 1 x 1/2 x 2.0 | 2.000 | 1.000 | 0.500 | 0.065 |
| [LA] | 1 x 3/4 | * | 1.000 | 0.750 | 0.065 |
| [LA] | 1 1/2 x 1/2 | * | 1.500 | 0.500 | 0.065 |
| [LA ONLY] | 1 1/2 x 1/2 x 2.0 | 2.000 | 1.500 | 0.500 | 0.065 |
| [LA] | 1 1/2 x 3/4 | * | 1.500 | 0.750 | 0.065 |
| [LA] | 1 1/2 x 1 | 2.000 | 1.500 | 1.000 | 0.065 |
| [LA] | 1 1/2 x 1 1/4 | 1.000 | 1.500 | 1.250 | 0.065 |
| [LA] | 2 x 1 | 4.000 | 2.000 | 1.000 | 0.065 |
| | 2 x 1 1/4 | 3.000 | 2.000 | 1.250 | 0.065 |
| [LA] | 2 x 1 1/2 | 2.000 | 2.000 | 1.500 | 0.065 |
| [LA ONLY] | 2 1/2 x 1 | 6.000 | 2.500 | 1.000 | 0.065 |
| [LA] | 2 1/2 x 1 1/2 | 4.000 | 2.500 | 1.500 | 0.065 |
| [LA] | 2 1/2 x 2 | 2.000 | 2.500 | 2.000 | 0.065 |
| [LA ONLY] | 3 x 1 | 8.000 | 3.000 | 1.000 | 0.065 |
| [LA] | 3 x 1 1/2 | 6.000 | 3.000 | 1.500 | 0.065 |
| [LA] | 3 x 2 | 4.000 | 3.000 | 2.000 | 0.065 |
| [LA] | 3 x 2 1/2 | 2.000 | 3.000 | 2.500 | 0.065 |
| [LA ONLY] | 4 x 1 | 12.000 | 4.000 | 1.000 | 0.083 x .065 |
| [LA ONLY] | 4 x 1 1/2 | 10.000 | 4.000 | 1.500 | 0.083 x .065 |
| [LA] | 4 x 2 | 8.000 | 4.000 | 2.000 | 0.083 x .065 |
| [LA] | 4 x 2 1/2 | 6.000 | 4.000 | 2.500 | 0.083 x .065 |
| [LA] | 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 |

E31CW - CONCENTRIC REDUCER CLAMP X WELD



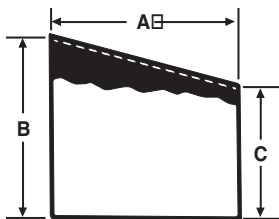
| | Size Tube OD | A | C | Nom. Wall |
|--|-----------------|-------|-------|-----------|
| | 1 1/2 x 1 | 2.500 | 1.000 | 0.065 |
| | 2 x 1 1/2 | 2.500 | 1.500 | 0.065 |
| | 2 1/2 x 1 1/2 | 4.500 | 1.500 | 0.065 |
| | 2 1/2 x 2 | 2.500 | 2.000 | 0.065 |
| | 3 x 2 | 4.500 | 2.000 | 0.065 |
| | 3 x 2 1/2 | 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 |

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 |

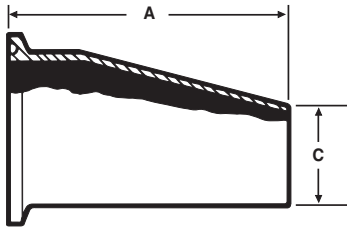
E32WW - ECCENTRIC REDUCER / LA-E32WW - ECCENTRIC REDUCER



| Size Tube OD A | B | C | Nom. Wall | |
|---------------------|--------|-------|-----------|--------------|
| [LA] 3/4 x 1/2 | * | 0.750 | 0.500 | 0.065 |
| [LA] 1 x 1/2 | * | 1.000 | 0.500 | 0.065 |
| [LA] 1 x 3/4 | * | 1.000 | 0.750 | 0.065 |
| [LA] 1 1/2 x 1/2 | * | 1.500 | 0.500 | 0.065 |
| [LA] 1 1/2 x 3/4 | * | 1.500 | 0.750 | 0.065 |
| [LA] 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 |
| [LA] 2 x 1 | 4.000 | 2.000 | 1.250 | 0.065 |
| 2 x 1 1/4 | 3.000 | 2.000 | 1.250 | 0.065 |
| [LA] 2 x 1 1/2 | 2.000 | 2.000 | 1.500 | 0.065 |
| [LA] 2 1/2 x 1 1/2 | 4.000 | 2.500 | 1.500 | 0.065 |
| [LA] 2 1/2 x 2 | 2.000 | 2.500 | 2.000 | 0.065 |
| [LA ONLY] 3 X 1 | 8.000 | 3.000 | 1.000 | 0.065 |
| [LA ONLY] 3 X 1 1/2 | 6.000 | 3.000 | 1.500 | 0.065 |
| [LA] 3 x 2 | 4.000 | 3.000 | 2.000 | 0.065 |
| [LA] 3 x 2 1/2 | 2.000 | 3.000 | 2.500 | 0.065 |
| [LA ONLY] 4 X 1 | 12.000 | 4.000 | 1.000 | 0.083 x .065 |
| [LA ONLY] 4 X 1 1/2 | 10.000 | 4.000 | 1.500 | 0.083 x .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 |

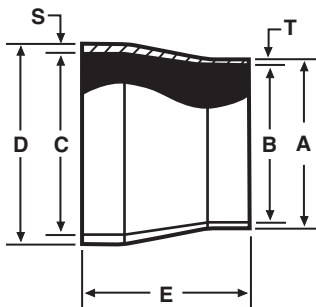
* Contact VNE for dimensions.

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 VNE's Bevel Seat Unions are not required for positive shut-off. However, gaskets may be purchased upon request.

VNE's 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

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.

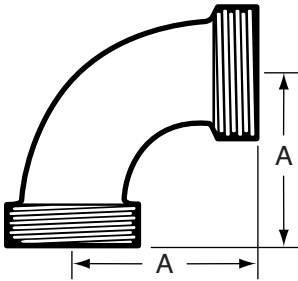


BEVEL SEAT TYPE

| 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 |

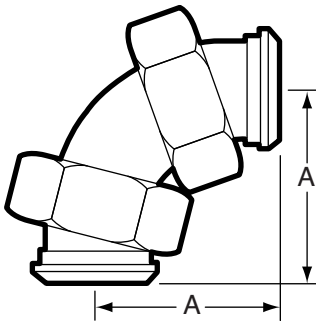
Bevel Seat Fittings

2C - 90° ELBOW THREADED



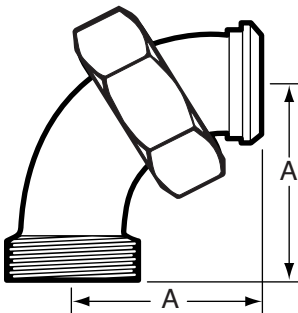
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.187 |
| 1 1/2 | 2.937 |
| 2 | 3.718 |
| 2 1/2 | 4.593 |
| 3 | 5.437 |
| 4 | 7.000 |

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



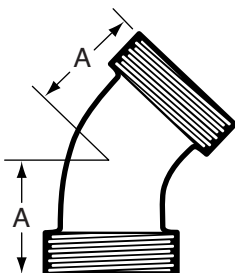
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.000 |
| 1 1/2 | 2.875 |
| 2 | 3.718 |
| 2 1/2 | 4.843 |
| 3 | 5.906 |
| 4 | 8.062 |

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 | 5.409 |
| 4 | 7.031 |

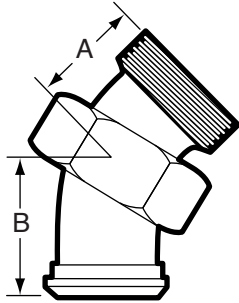
2K - 45° ELBOW THREADED



| 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 |

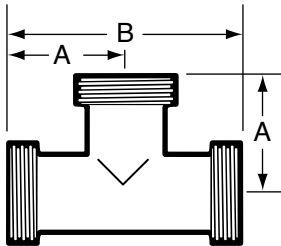
Bevel Seat Fittings

2P - 45° ELBOW 13H NUT X THREAD



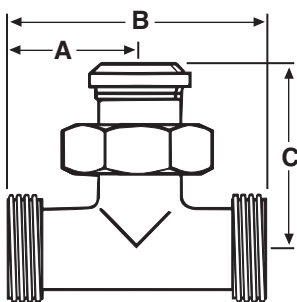
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.312 | 2.000 |
| 1 1/2 | 1.625 | 2.437 |
| 2 | 1.937 | 2.750 |
| 2 1/2 | 2.375 | 3.312 |
| 3 | 2.812 | 3.625 |
| 4 | 3.500 | 4.250 |

7 - TEE ALL ENDS THREADED



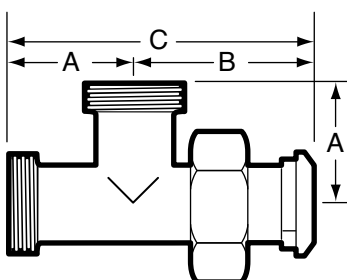
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.812 | 3.625 |
| 1 1/2 | 2.375 | 4.750 |
| 2 | 2.781 | 5.437 |
| 2 1/2 | 3.187 | 6.375 |
| 3 | 3.500 | 7.000 |
| 4 | 4.656 | 9.312 |

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 |

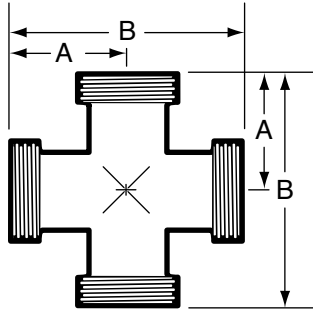
7B - TEE THREADED X 13H NUT X THREADED



| 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 |

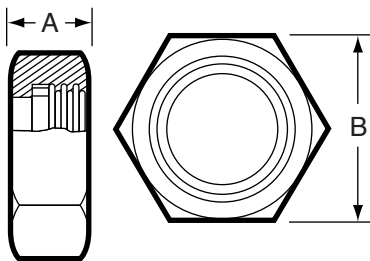
Bevel Seat Fittings

9 - CROSS THREADED



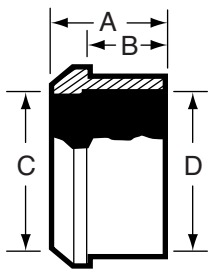
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.812 | 3.625 |
| 1 1/2 | 2.375 | 4.750 |
| 2 | 2.781 | 5.437 |
| 2 1/2 | 3.187 | 6.375 |
| 3 | 3.500 | 7.000 |
| 4 | 4.656 | 9.312 |

13H - HEX UNION NUT



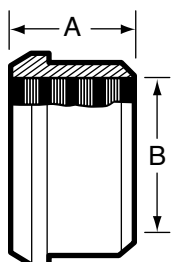
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 0.906 | 1.812 |
| 1 1/2 | 0.968 | 2.406 |
| 2 | 1.062 | 3.000 |
| 2 1/2 | 1.187 | 3.593 |
| 3 | 1.281 | 4.187 |
| 4 | 1.500 | 5.437 |

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 |

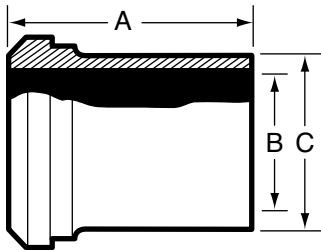
14R - PLAIN RECESSLESS FERRULE (Expanding)



| 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 |

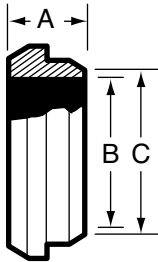
Bevel Seat Fittings

14A - PLAIN WELDING FERRULE



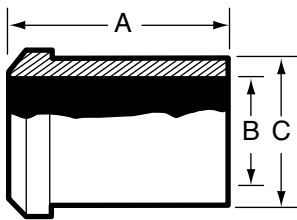
| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 1.375 | 0.870 | 1.000 |
| 1 1/2 | 1.500 | 1.370 | 1.500 |
| 2 | 1.500 | 1.870 | 2.000 |
| 2 1/2 | 1.750 | 2.370 | 2.500 |
| 3 | 1.750 | 2.870 | 3.000 |
| 4 | 1.750 | 3.834 | 4.000 |

14PR - SHORT PLAIN WELDING FERRULE



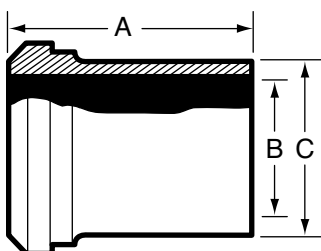
| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 0.720 | 0.870 | 1.000 |
| 1 1/2 | 0.720 | 1.370 | 1.500 |
| 2 | 0.752 | 1.870 | 2.000 |
| 2 1/2 | 0.878 | 2.370 | 2.500 |
| 3 | 0.909 | 2.870 | 3.000 |
| 4 | 1.031 | 3.834 | 4.000 |

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 |

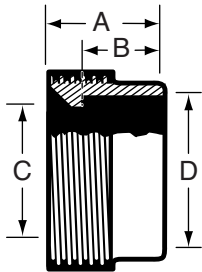
14WL - LONG PLAIN WELDING FERRULE



| 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 |

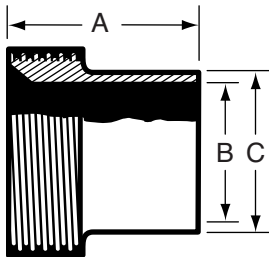
Bevel Seat Fittings

15 - THREADED RECESSED FERRULE (T316L Material Only)



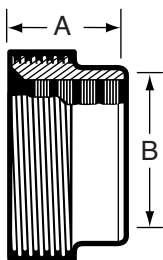
| Size Tube OD | A | B | C | D |
|-----------------|-------|-------|-------|-------|
| 1 | 1.187 | 0.500 | 0.870 | 1.000 |
| 1 1/2 | 0.875 | 0.625 | 1.370 | 1.500 |
| 2 | 1.031 | 0.687 | 1.870 | 2.000 |
| 2 1/2 | 1.125 | 0.750 | 2.370 | 2.500 |
| 3 | 1.250 | 0.812 | 2.870 | 3.000 |
| 4 | 1.375 | 0.937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

15A - THREADED WELDING FERRULE



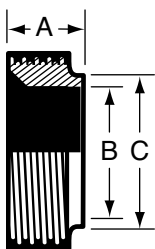
| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 1.375 | 0.870 | 1.000 |
| 1 1/2 | 1.500 | 1.370 | 1.500 |
| 2 | 1.500 | 1.870 | 2.000 |
| 2 1/2 | 1.750 | 2.370 | 2.500 |
| 3 | 1.750 | 2.870 | 3.000 |
| 4 | 1.750 | 3.834 | 4.000 |

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 |

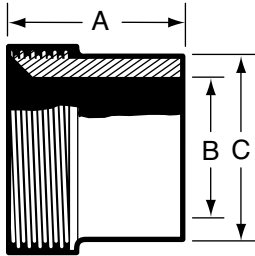
15TR - SHORT THREADED WELDING FERRULE



| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 0.720 | 0.870 | 1.000 |
| 1 1/2 | 0.720 | 1.370 | 1.500 |
| 2 | 0.752 | 1.870 | 2.000 |
| 2 1/2 | 0.874 | 2.370 | 2.500 |
| 3 | 0.909 | 2.870 | 3.000 |
| 4 | 1.031 | 3.834 | 4.000 |

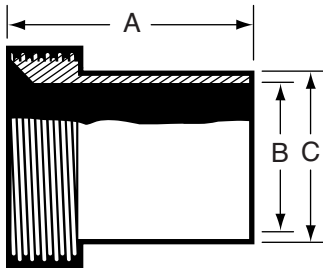
Bevel Seat Fittings

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



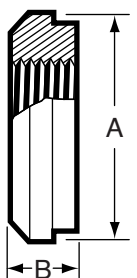
| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 2.000 | 0.870 | 1.000 |
| 1 1/2 | 2.250 | 1.370 | 1.500 |
| 2 | 2.500 | 1.870 | 2.000 |
| 2 1/2 | 2.750 | 2.370 | 2.500 |
| 3 | 3.000 | 2.870 | 3.000 |
| 4 | 4.000 | 3.834 | 4.000 |

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

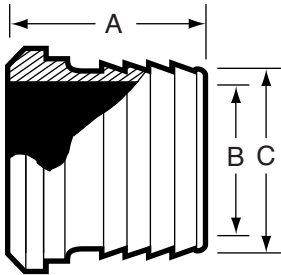


| Size Tube OD | A | B |
|-----------------|-------|-------|
| *1 | 1.312 | 0.468 |
| 1 1/2 | 1.843 | 0.562 |
| 2 | 2.375 | 0.625 |
| 2 1/2 | 2.906 | 0.656 |
| 3 | 3.437 | 0.718 |
| 4 | 4.500 | 0.812 |

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

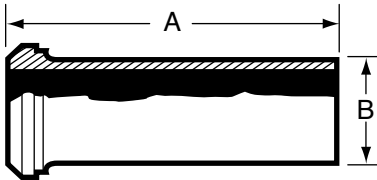
Bevel Seat Fittings

14AHR - RUBBER HOSE ADAPTER



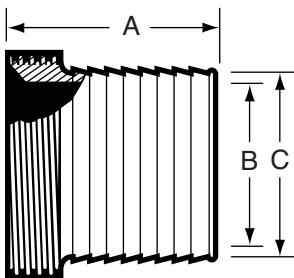
| Size Tube OD | A | B | C |
|-----------------|-------------|-------|-------|
| 1 | Contact VNE | 0.870 | 1.000 |
| 1 1/2 | Contact VNE | 1.370 | 1.500 |
| 2 | Contact VNE | 1.870 | 2.000 |
| 2 1/2 | Contact VNE | 2.370 | 2.000 |
| 3 | Contact VNE | 2.870 | 3.000 |
| 4 | Contact VNE | 3.834 | 4.000 |

14AHT - TYGON HOSE ADAPTER



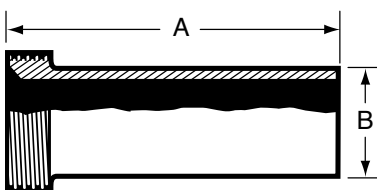
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 4.687 | 1.000 |
| 1 1/2 | 4.718 | 1.500 |
| 2 | 4.718 | 2.000 |
| 2 1/2 | 4.843 | 2.500 |
| 3 | 4.906 | 3.000 |
| 4 | 5.218 | 4.000 |

15AHR - THREADED RUBBER HOSE ADAPTER



| Size Tube OD | A | B | C |
|-----------------|-------------|-------|-------|
| 1 | Contact VNE | 0.870 | 1.000 |
| 1 1/2 | Contact VNE | 1.370 | 1.500 |
| 2 | Contact VNE | 1.870 | 2.000 |
| 2 1/2 | Contact VNE | 2.370 | 2.000 |
| 3 | Contact VNE | 2.870 | 3.000 |
| 4 | Contact VNE | 3.834 | 4.000 |

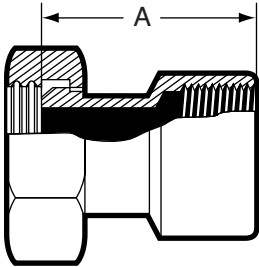
15AHT - THREADED TYGON HOSE ADAPTER



| 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 |

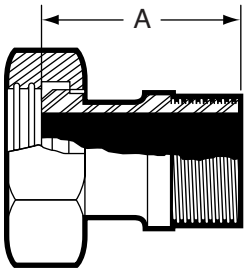
Bevel Seat Fittings

14-22 - ADAPTER 13H NUT X FNPT



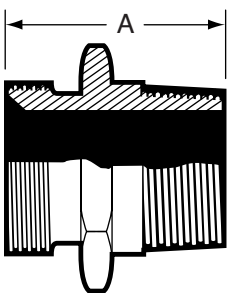
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.500 |
| 1 1/2 | 2.937 |
| 2 | 2.937 |
| 2 1/2 | 3.375 |
| 3 | 3.562 |
| 4 | 3.750 |

14-19 - ADAPTER 13H NUT X MNPT



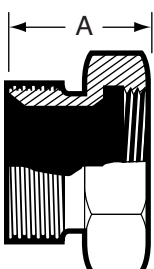
| Size Tube OD | A |
|-----------------|-------|
| 1 | 3.125 |
| 1 1/2 | 3.250 |
| 2 | 3.312 |
| 2 1/2 | 4.062 |
| 3 | 4.250 |
| 4 | 4.312 |

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 |

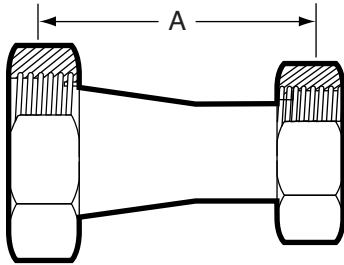
22 - ADAPTER ACME THREAD X FNPT



| 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 |

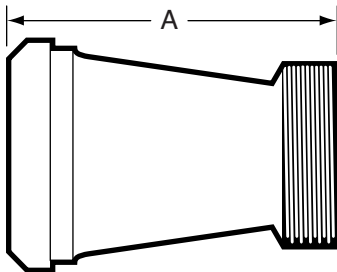
Bevel Seat Fittings

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 |

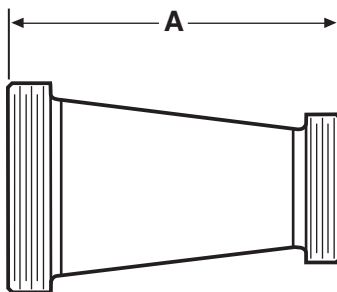
31-15F - CONCENTRIC REDUCER PLAIN BEVEL X THREAD



| 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.

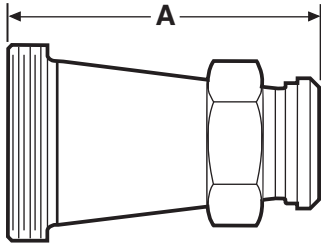
31TT - CONCENTRIC REDUCER THREAD X THREAD



| 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 |

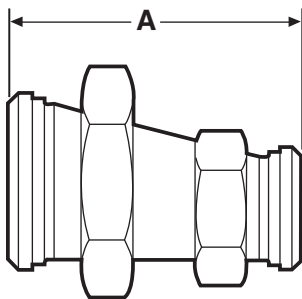
Bevel Seat Fittings

31TP - CONCENTRIC REDUCER THREAD X 13H NUT



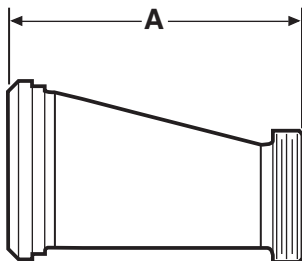
| Size Tube OD | A |
|-----------------|--------|
| 1 1/2 x 1 | 4.062 |
| 2 x 1 | 6.093 |
| 2 x 1 1/2 | 4.218 |
| 2 1/2 x 1 1/2 | 6.343 |
| 2 1/2 x 2 | 4.343 |
| 3 x 2 | 6.437 |
| 3 x 2 1/2 | 4.687 |
| 4 x 2 | 10.500 |
| 4 x 2 1/2 | 8.750 |
| 4 x 3 | 6.750 |

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

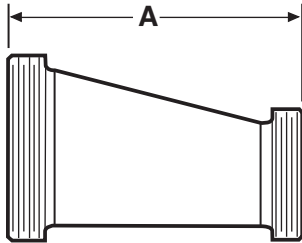


| Size Tube OD | A |
|-----------------|-------|
| *1 1/2 x 1 | 3.375 |
| 2 x 1 | 5.406 |
| 2 x 1 1/2 | 3.406 |
| 2 1/2 x 1 1/2 | 5.531 |
| 2 1/2 x 2 | 3.562 |
| 3 x 2 | 5.656 |
| 3 x 2 1/2 | 3.781 |
| 4 x 2 | 9.718 |
| 4 x 2 1/2 | 7.843 |
| 4 x 3 | 5.937 |

*Hex Nut included.

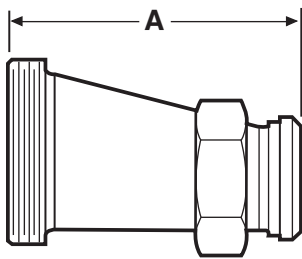
Bevel Seat Fittings

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 |

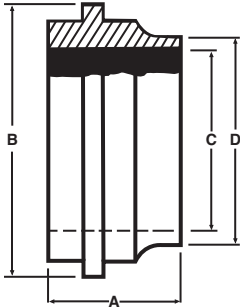
32TP - ECCENTRIC REDUCER THREAD X 13H NUT



| 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 |

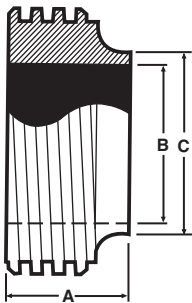
JOHN PERRY (T316L Material Only)

14PRJP - SHORT PLAIN WELDING FERRULE



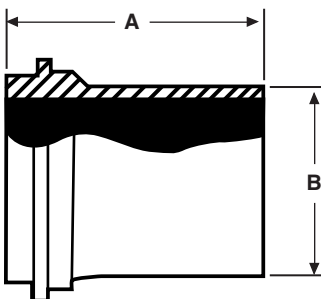
| Size Tube OD | A | B | C | D |
|-----------------|-------|-------|-------|-------|
| 1 | 0.643 | 1.316 | 0.870 | 1.000 |
| 1 1/2 | 0.643 | 1.848 | 1.370 | 1.500 |
| 2 | 0.710 | 2.380 | 1.870 | 2.000 |
| 2 1/2 | 0.807 | 2.912 | 2.370 | 2.500 |
| 3 | 0.807 | 3.444 | 2.870 | 3.000 |
| 4 | 1.009 | 4.508 | 3.834 | 4.000 |

15TRJP - SHORT THREAD WELDING FERRULE



| Size Tube OD | A | B | C |
|-----------------|-------|-------|-------|
| 1 | 0.625 | 0.870 | 1.000 |
| 1 1/2 | 0.625 | 1.370 | 1.500 |
| 2 | 0.684 | 1.870 | 2.000 |
| 2 1/2 | 0.743 | 2.370 | 2.500 |
| 3 | 0.806 | 2.870 | 3.000 |
| 4 | 0.900 | 3.834 | 4.000 |

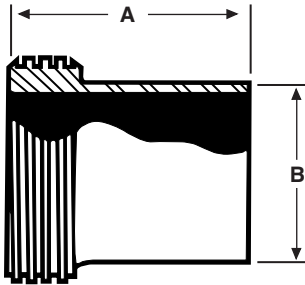
14AJP - LONG PLAIN WELDING FERRULE



| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.375 | 1.000 |
| 1 1/2 | 1.500 | 1.500 |
| 2 | 1.500 | 2.000 |
| 2 1/2 | 1.750 | 2.500 |
| 3 | 1.750 | 3.000 |
| 4 | 1.750 | 4.000 |

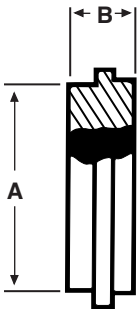
JOHN PERRY (T316L Material Only)

15AJP - LONG THREAD WELDING FERRULE



| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.375 | 1.000 |
| 1 1/2 | 1.500 | 1.500 |
| 2 | 1.500 | 2.000 |
| 2 1/2 | 1.750 | 2.500 |
| 3 | 1.750 | 3.000 |
| 4 | 1.750 | 4.000 |

16AJP - CAP



| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.125 | 0.468 |
| 1 1/2 | 1.656 | 0.500 |
| 2 | 2.187 | 0.531 |
| 2 1/2 | 2.656 | 0.594 |
| 3 | 3.187 | 0.625 |
| 4 | 4.187 | 0.625 |



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.

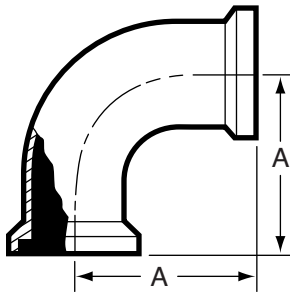
VNE shall not be liable for any consequential, indirect, incidental or contingent damages.



E-LINE TYPE

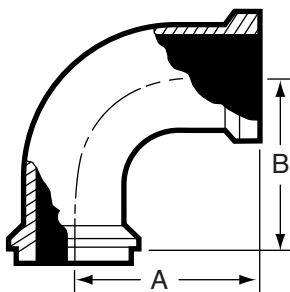
| VNE | ROBERT JAMES | WAUKESHA / SPX | Bradford | Steel & O'Brien |
|--------------|---------------|----------------|-------------|-----------------|
| E2CI | RJ2CZ | 2CI | B2CI | HDI-2C |
| E2FI | RJ2FZ | 2FI | B2FI | HDI-2F |
| E2EI | ---- | 2EI | B2EI | HDI-2E |
| E2KI | RJ2KZ | 2KI | B2KI | HDI-2K |
| 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



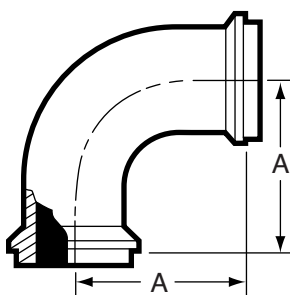
| Size Tube OD | A |
|-----------------|--------|
| 1 | 2.281 |
| 1 1/2 | 3.182 |
| 2 | 4.031 |
| 2 1/2 | 4.906 |
| 3 | 5.718 |
| 4 | 7.343 |
| 6 | 10.125 |

E2FI - 90° ELBOW MALE X FEMALE



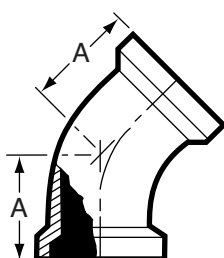
| Size Tube OD | A | B |
|-----------------|--------|-------|
| 1 | 2.281 | 2.093 |
| 1 1/2 | 3.187 | 3.000 |
| 2 | 4.031 | 3.781 |
| 2 1/2 | 4.906 | 4.593 |
| 3 | 5.718 | 5.406 |
| 4 | 7.343 | 7.031 |
| 6 | 10.125 | 9.187 |

E2EI - 90° ELBOW MALE X MALE



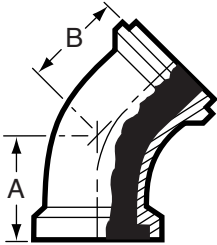
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.093 |
| 1 1/2 | 3.000 |
| 2 | 3.781 |
| 2 1/2 | 4.593 |
| 3 | 5.406 |
| 4 | 7.031 |
| 6 | 9.187 |

E2KI - 45° ELBOW FEMALE X FEMALE



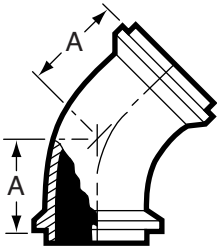
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.406 |
| 1 1/2 | 1.875 |
| 2 | 2.281 |
| 2 1/2 | 2.718 |
| 3 | 3.093 |
| 4 | 3.843 |
| 6 | 4.875 |

E2PI - 45° ELBOW FEMALE X MALE



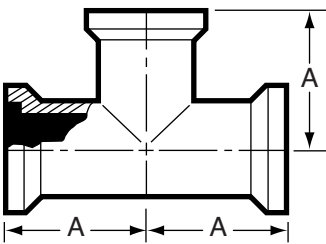
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.406 | 1.218 |
| 1 1/2 | 1.875 | 1.687 |
| 2 | 2.281 | 2.031 |
| 2 1/2 | 2.718 | 2.406 |
| 3 | 3.093 | 2.781 |
| 4 | 3.843 | 3.531 |
| 6 | 4.875 | 4.562 |

E2HI - 45° ELBOW MALE X MALE



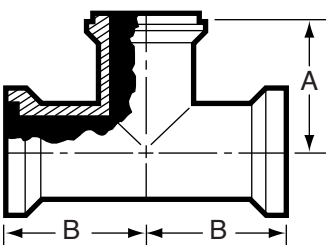
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.218 |
| 1 1/2 | 1.687 |
| 2 | 2.031 |
| 2 1/2 | 2.406 |
| 3 | 2.781 |
| 4 | 3.531 |
| 6 | 4.562 |

E7I - TEE ALL ENDS FEMALE



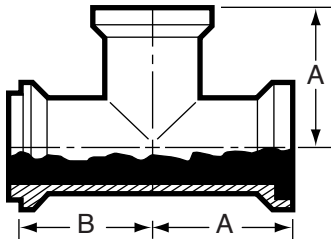
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.875 |
| 1 1/2 | 2.593 |
| 2 | 3.062 |
| 2 1/2 | 3.468 |
| 3 | 3.812 |
| 4 | 4.968 |
| 6 | 6.750 |

E7AI - TEE FEMALE X FEMALE X MALE



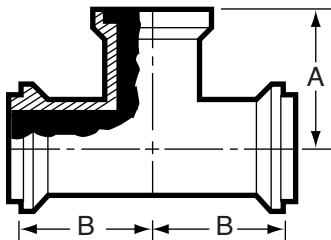
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.687 | 1.875 |
| 1 1/2 | 2.406 | 2.593 |
| 2 | 2.812 | 3.062 |
| 2 1/2 | 3.156 | 3.468 |
| 3 | 3.500 | 3.812 |
| 4 | 4.656 | 4.968 |
| 6 | 6.437 | 6.750 |

E7BI - TEE MALE X FEMALE X FEMALE



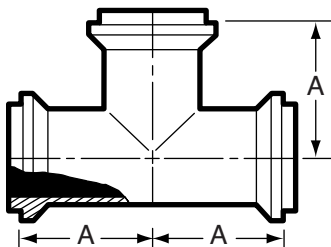
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.875 | 1.687 |
| 1 1/2 | 2.593 | 2.406 |
| 2 | 3.062 | 2.812 |
| 2 1/2 | 3.468 | 3.156 |
| 3 | 3.812 | 3.500 |
| 4 | 4.968 | 4.656 |
| 6 | 6.750 | 6.437 |

E7EI - TEE MALE X MALE X FEMALE



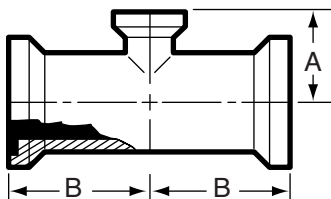
| Size Tube OD | A | B |
|-----------------|-------|-------|
| 1 | 1.875 | 1.687 |
| 1 1/2 | 2.593 | 2.406 |
| 2 | 3.062 | 2.812 |
| 2 1/2 | 3.468 | 3.156 |
| 3 | 3.812 | 3.500 |
| 4 | 4.968 | 4.656 |
| 6 | 6.750 | 6.437 |

E7HI - TEE ALL ENDS MALE



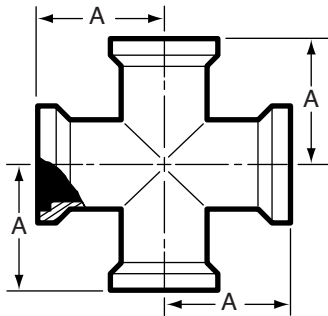
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.687 |
| 1 1/2 | 2.406 |
| 2 | 2.812 |
| 2 1/2 | 3.156 |
| 3 | 3.500 |
| 4 | 4.656 |
| 6 | 6.437 |

E7RI - REDUCING TEE ALL ENDS FEMALE



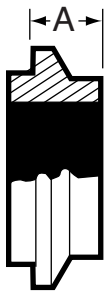
| Size Tube OD | A | B |
|-----------------|--------------|-------|
| 1 1/2 x 1 | 2.156 | 2.593 |
| 2 x 1 | 3.093 | 4.031 |
| 2 x 1 1/2 | 2.718 | 3.062 |
| 2 1/2 x 1 1/2 | 4.156 | 4.000 |
| 2 1/2 x 2 | 3.312 | 3.500 |
| 3 x 2 | 3.562 | 3.812 |
| 3 x 2 1/2 | 3.750 | 3.812 |
| 4 x 2 | 5.031 | 5.218 |
| 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



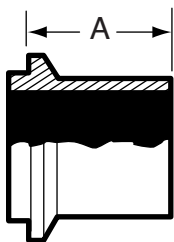
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.875 |
| 1 1/2 | 2.593 |
| 2 | 3.062 |
| 2 1/2 | 3.468 |
| 3 | 3.812 |
| 4 | 4.968 |
| 6 | 6.750 |

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



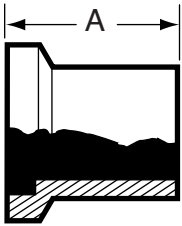
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.563 |
| 1 1/2 | 1.843 |
| 2 | 2.062 |
| 2 1/2 | 2.187 |
| 3 | 2.375 |
| 4 | 2.687 |
| 6 | 3.812 |

E15WI - SHORT FEMALE WELDING FERRULE



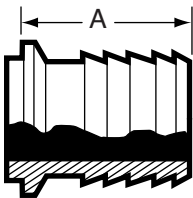
| Size Tube OD | A |
|-----------------|-------|
| 1 | 0.781 |
| 1 1/2 | 0.937 |
| 2 | 1.031 |
| 2 1/2 | 1.156 |
| 3 | 1.218 |
| 4 | 1.343 |
| 6 | 1.125 |
| 8 | 1.125 |

E15WLI - LONG FEMALE WELDING FERRULE



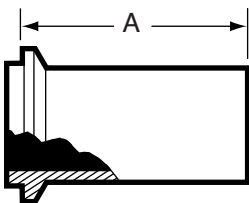
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.750 |
| 1 1/2 | 2.031 |
| 2 | 2.312 |
| 2 1/2 | 2.500 |
| 3 | 2.687 |
| 4 | 3 |
| 6 | 4 |

E14HRI - MALE RUBBER HOSE ADAPTER



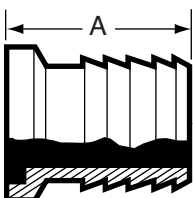
| Size Tube OD | A |
|-----------------|-------|
| 1 | 3.562 |
| 1 1/2 | 3.750 |
| 2 | 3.750 |
| 2 1/2 | 3.812 |
| 3 | 3.875 |
| 4 | 4.062 |
| 6 | 8.812 |

E14HTI - MALE TYGON HOSE ADAPTER



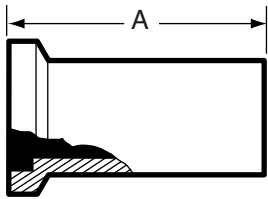
| Size Tube OD | A |
|-----------------|-------|
| 1 | 4.062 |
| 1 1/2 | 4.281 |
| 2 | 4.500 |
| 2 1/2 | 4.812 |
| 3 | 5.062 |
| 4 | 5.187 |

E15HRI - FEMALE RUBBER HOSE ADAPTER



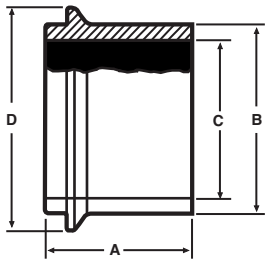
| Size Tube OD | A |
|-----------------|-------|
| 1 | 3.750 |
| 1 1/2 | 3.937 |
| 2 | 4.062 |
| 2 1/2 | 4.125 |
| 3 | 4.187 |
| 4 | 4.375 |
| 6 | 9.125 |

E15HTI - FEMALE TYGON HOSE ADAPTER



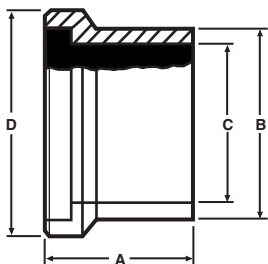
| Size Tube OD | A |
|-----------------|-------|
| 1 | 4.250 |
| 1 1/2 | 4.468 |
| 2 | 4.750 |
| 2 1/2 | 5.125 |
| 3 | 5.375 |
| 4 | 5.500 |

E14WHI - MALE WELD FERRULE



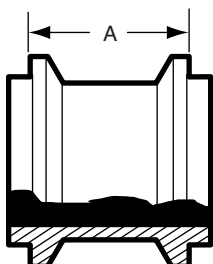
| Size Tube OD | A | B | C | D |
|-----------------|-------|-------|-------|-------|
| 1 | 1.625 | 1.160 | 0.870 | 2.000 |
| 1 1/2 | 1.625 | 1.687 | 1.370 | 2.008 |
| 2 | 1.750 | 2.250 | 1.870 | 2.648 |
| 2 1/2 | 1.750 | 2.708 | 2.370 | 3.317 |
| 3 | 1.812 | 3.313 | 2.870 | 3.868 |
| 4 | 2.125 | 4.250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

E15WHI - FEMALE WELD FERRULE



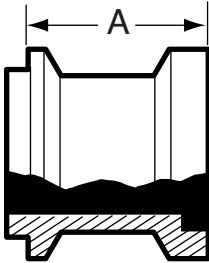
| Size Tube OD | A | B | C | D |
|-----------------|-------|-------|-------|-------|
| 1 | 1.625 | 1.160 | 0.870 | 2.000 |
| 1 1/2 | 1.625 | 1.687 | 1.370 | 2.008 |
| 2 | 1.750 | 2.250 | 1.870 | 2.648 |
| 2 1/2 | 1.750 | 2.708 | 2.370 | 3.317 |
| 3 | 1.812 | 3.313 | 2.870 | 3.868 |
| 4 | 2.125 | 4.250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

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



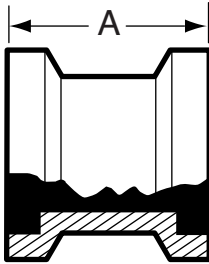
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.187 |
| 1 1/2 | 1.500 |
| 2 | 1.562 |
| 2 1/2 | 1.687 |
| 3 | 1.812 |
| 4 | 2.062 |
| 6 | 1.625 |

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



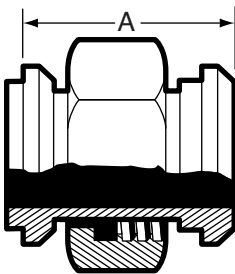
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.375 |
| 1 1/2 | 1.687 |
| 2 | 1.812 |
| 2 1/2 | 1.937 |
| 3 | 2.125 |
| 4 | 2.375 |
| 6 | 1.937 |

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



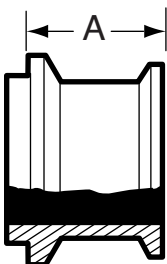
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.562 |
| 1 1/2 | 1.875 |
| 2 | 2.062 |
| 2 1/2 | 2.312 |
| 3 | 2.437 |
| 4 | 2.687 |
| 6 | 2.250 |

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



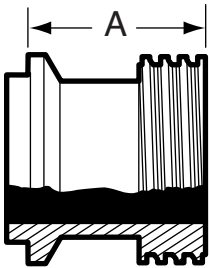
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.968 |
| 1 1/2 | 2.250 |
| 2 | 2.250 |
| 2 1/2 | 2.562 |
| 3 | 2.687 |
| 4 | 2.812 |

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



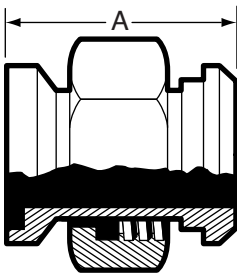
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.093 |
| 1 1/2 | 1.250 |
| 2 | 1.250 |
| 2 1/2 | 1.312 |
| 3 | 1.406 |
| 4 | 1.656 |
| 6 | 1.687 |

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



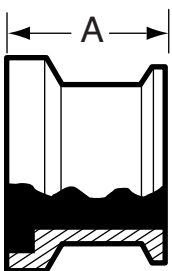
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.031 |
| 1 1/2 | 1.468 |
| 2 | 1.500 |
| 2 1/2 | 1.687 |
| 3 | 1.812 |
| 4 | 2.062 |

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



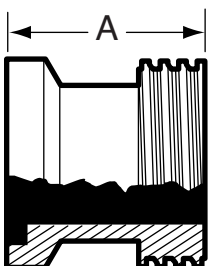
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.156 |
| 1 1/2 | 2.437 |
| 2 | 2.500 |
| 2 1/2 | 2.875 |
| 3 | 3.000 |
| 4 | 3.093 |

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



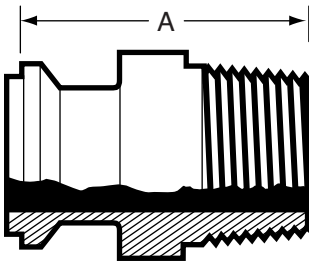
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.281 |
| 1 1/2 | 1.437 |
| 2 | 1.500 |
| 2 1/2 | 1.625 |
| 3 | 1.718 |
| 4 | 1.968 |
| 6 | 2.000 |

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



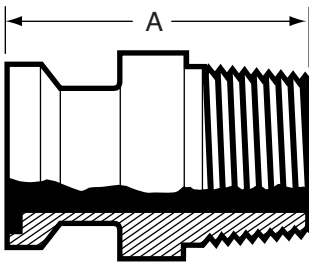
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.562 |
| 1 1/2 | 1.656 |
| 2 | 1.750 |
| 2 1/2 | 2.000 |
| 3 | 2.125 |
| 4 | 2.375 |

E21I-14I - ADAPTER MALE X MNPT



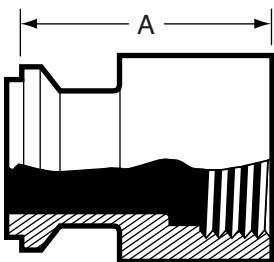
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.343 |
| 1 1/2 | 2.500 |
| 2 | 2.593 |
| 2 1/2 | 3.125 |
| 3 | 3.406 |
| 4 | 3.593 |
| 6 | 4.812 |

E21I-15I - ADAPTER FEMALE X MNPT



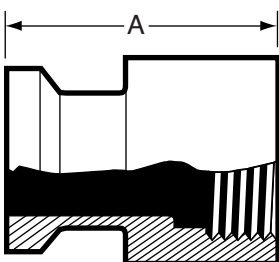
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.531 |
| 1 1/2 | 2.687 |
| 2 | 2.843 |
| 2 1/2 | 3.437 |
| 3 | 3.718 |
| 4 | 3.906 |
| 6 | 5.125 |

E22I-14I - ADAPTER MALE X FNPT



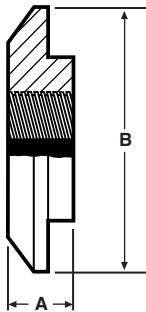
| Size Tube OD | A |
|-----------------|-------|
| 1 | 1.687 |
| 1 1/2 | 2.187 |
| 2 | 2.218 |
| 2 1/2 | 2.437 |
| 3 | 2.718 |
| 4 | 3.031 |

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 |

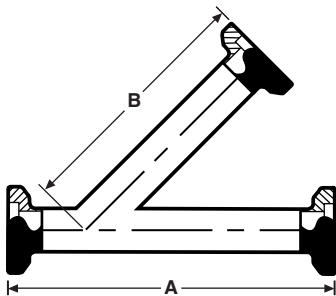
E23BI - THERMOMETER CAP



| 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 |

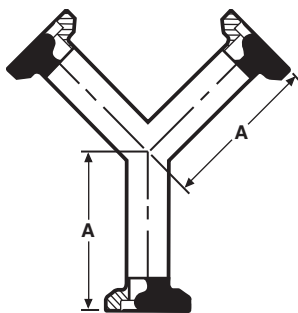
*STD 1/2" FNPT. All others 3/4" FNPT.

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 |

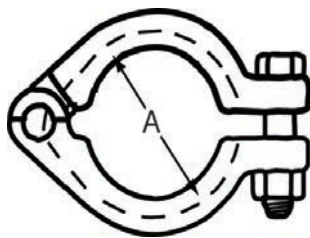
GASKETS



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

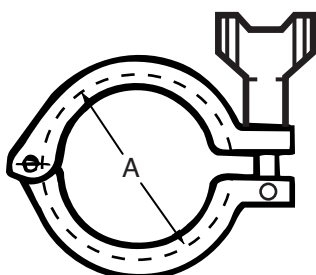
Available in 1" to 6" sizes.

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



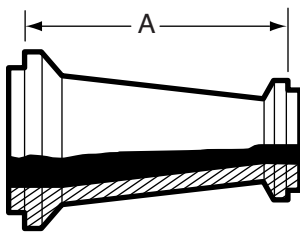
| Size Tube OD | A |
|-----------------|-------|
| 1 | 2.122 |
| 1 1/2 | 2.122 |
| 2 | 2.800 |
| 2 1/2 | 3.500 |
| 3 | 4.060 |
| 4 | 5.000 |
| 6 | 7.625 |

*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 |

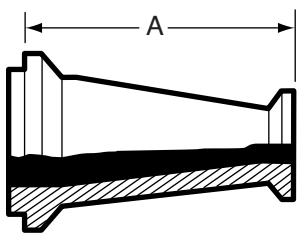
*Service ratings are based upon hydrostatic tests using Standard Molded Buna-N gasket material with proper expansion of ferrules, joint assembly, and the absence of shock pressure. All ratings systems are dependent upon related components in the system and proper installation.

E31-14I - CONCENTRIC REDUCER MALE X MALE



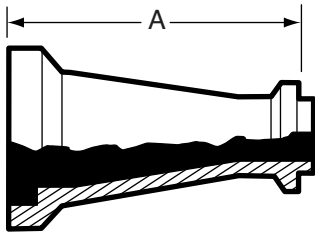
| Size Tube OD | A |
|---------------|-------|
| 1 1/2 x 1 | 3.343 |
| 2 x 1 | 5.375 |
| 2 x 1 1/2 | 3.500 |
| 2 1/2 x 1 1/2 | 5.593 |
| 2 1/2 x 2 | 3.562 |
| 3 x 1 1/2 | 7.656 |
| 3 x 2 | 5.625 |
| 3 x 2 1/2 | 3.750 |
| 4 x 2 | 9.812 |
| 4 x 2 1/2 | 7.875 |
| 4 x 3 | 5.937 |
| 6 x 3 | 7.218 |
| 6 x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

E31-14I-15I - CONCENTRIC REDUCER MALE X FEMALE



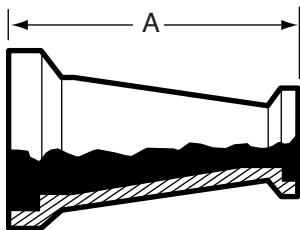
| Size Tube OD | A |
|---------------|--------|
| 1 1/2 x 1 | 3.531 |
| 2 x 1 | 5.562 |
| 2 x 1 1/2 | 3.718 |
| 2 1/2 x 1 1/2 | 5.781 |
| 2 1/2 x 2 | 4.875 |
| 3 x 1 1/2 | 7.843 |
| 3 x 2 | 5.937 |
| 3 x 2 1/2 | 4.062 |
| 4 x 2 | 10.062 |
| 4 x 2 1/2 | 8.187 |
| 4 x 3 | 6.250 |
| 6 x 3 | 7.406 |
| 6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

E311-151-14I - CONCENTRIC REDUCER FEMALE X MALE



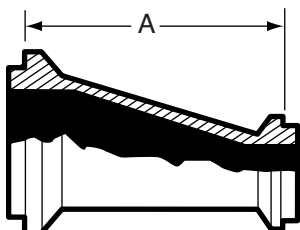
| Size Tube OD | A |
|-----------------|--------|
| 1 1/2 x 1 | 3.531 |
| 2 x 1 | 5.625 |
| 2 x 1 1/2 | 3.781 |
| 2 1/2 x 1 1/2 | 5.906 |
| 2 1/2 x 2 | 3.937 |
| 3 x 1 1/2 | 7.968 |
| 3 x 2 | 6.000 |
| 3 x 2 1/2 | 4.062 |
| 4 x 2 | 10.125 |
| 4 x 2 1/2 | 8.187 |
| 4 x 3 | 6.250 |
| 6 x 3 | 7.531 |
|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

E311-15I - CONCENTRIC REDUCER BOTH ENDS FEMALE



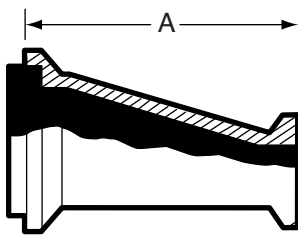
| Size Tube OD | A |
|-----------------|--------|
| 1 1/2 x 1 | 3.718 |
| 2 x 1 | 5.812 |
| 2 x 1 1/2 | 3.968 |
| 2 1/2 x 1 1/2 | 6.093 |
| 2 1/2 x 2 | 4.187 |
| 3 x 1 1/2 | 8.156 |
| 3 x 2 | 6.250 |
| 3 x 2 1/2 | 4.375 |
| 4 x 2 | 10.375 |
| 4 x 2 1/2 | 8.500 |
| 4 x 3 | 6.562 |
| 6 x 3 | 7.843 |
|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

E321-14I - ECCENTRIC REDUCER MALE X MALE



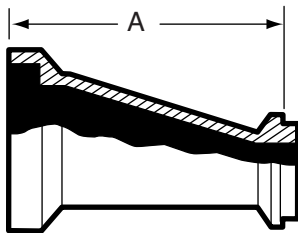
| Size Tube OD | A |
|-----------------|-------|
| 1 1/2 x 1 | 3.343 |
| 2 x 1 | 5.375 |
| 2 x 1 1/2 | 3.500 |
| 2 1/2 x 1 1/2 | 5.593 |
| 2 1/2 x 2 | 3.562 |
| 3 x 1 1/2 | 7.656 |
| 3 x 2 | 5.625 |
| 3 x 2 1/2 | 3.750 |
| 4 x 2 | 9.812 |
| 4 x 2 1/2 | 7.875 |
| 4 x 3 | 5.937 |
| 6 x 3 | 7.218 |
| 6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

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



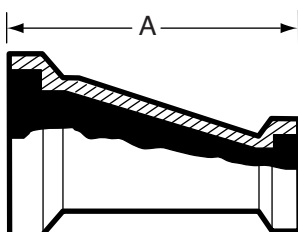
| Size Tube OD | A |
|-----------------|--------|
| 1 1/2 x 1 | 3.531 |
| 2 x 1 | 5.562 |
| 2 x 1 1/2 | 3.718 |
| 2 1/2 x 1 1/2 | 5.781 |
| 2 1/2 x 2 | 4.875 |
| 3 x 1 1/2 | 7.843 |
| 3 x 2 | 5.937 |
| 3 x 2 1/2 | 4.062 |
| 4 x 2 | 10.062 |
| 4 x 2 1/2 | 8.187 |
| 4 x 3 | 6.250 |
| 6 x 3 | 7.406 |
|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

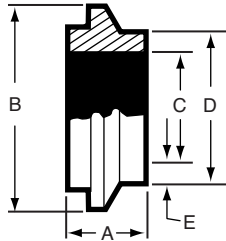
E32I-15I - ECCENTRIC REDUCER BOTH ENDS FEMALE



| 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 |

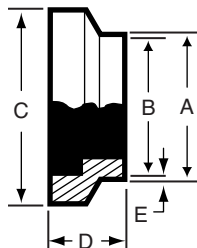
SCHEDULE 5 - (T316L)

E14WI-5 - SHORT MALE WELDING FERRULE



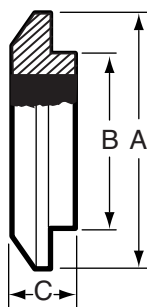
| Size Pipe | A | B | C | D | E |
|-----------|-------|-------|-------|-------|-------|
| 1 | 0.945 | 2.000 | 1.185 | 1.315 | 0.065 |
| 1 1/2 | 1.024 | 2.648 | 1.770 | 1.900 | 0.065 |
| 2 | 1.142 | 3.317 | 2.245 | 2.375 | 0.065 |
| 2 1/2 | 1.220 | 3.868 | 2.709 | 2.875 | 0.083 |
| 3 | 1.343 | 4.882 |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

E15WI-5 - SHORT FEMALE WELDING FERRULE



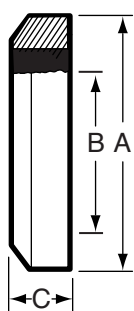
| Size Pipe | A | B | C | D | E |
|-----------|-------|-------|-------|-------|-------|
| 1 | 1.315 | 1.185 | 2.000 | 0.945 | 0.065 |
| 1 1/2 | 1.900 | 1.770 | 2.648 | 1.024 | 0.065 |
| 2 | 2.375 | 2.245 | 3.317 | 1.142 | 0.065 |
| 2 1/2 | 2.875 | 2.709 | 3.868 | 1.220 | 0.083 |
| 3 | 3.500 | 3.334 | 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 |

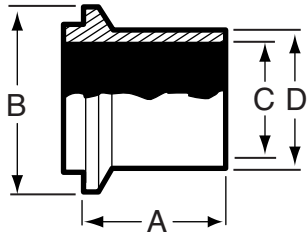
E16AI-15I-5 - FEMALE END CAP



| 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 |

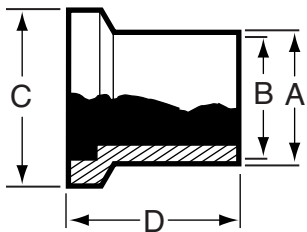
SCHEDULE 5 - (T316L)

E14WLI-5 - LONG MALE WELDING FERRULE



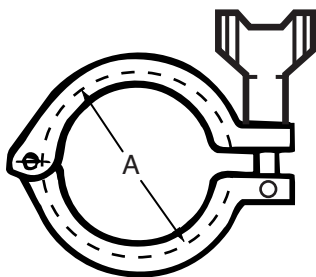
| Size Pipe | A | B | C | D |
|-----------|-------|-------|-------|-------|
| 1 | 1.562 | 2.000 | 1.185 | 1.315 |
| 1 1/2 | 1.843 | 2.648 | 1.770 | 1.900 |
| 2 | 2.062 | 3.317 | 2.245 | 2.375 |
| 2 1/2 | 1.562 | 3.868 | 2.709 | 2.875 |
| 3 | 1.562 | 4.882 | 3.334 | 3.500 |
| 4 | 1.562 | 5.882 | 4.334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

E15WLI-5 - LONG FEMALE WELDING FERRULE



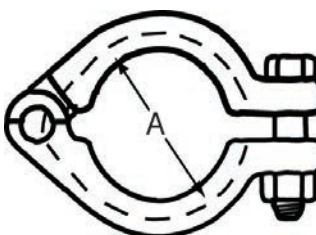
| Size Pipe | A | B | C | D |
|-----------|-------|-------|-------|-------|
| 1 | 1.315 | 1.185 | 2.000 | 1.750 |
| 1 1/2 | 1.900 | 1.770 | 2.648 | 2.031 |
| 2 | 2.375 | 2.245 | 3.317 | 2.312 |
| 2 1/2 | 2.875 | 2.370 | 3.868 | 2.500 |
| 3 | 3.500 | 2.870 | 4.882 | 2.687 |
| 4 | 4.500 | 3.834 | 5.882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

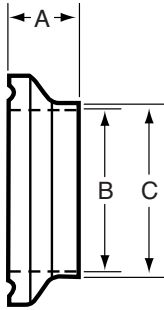
E13IU-5 - CLAMP BOLTED - T304



| 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 |

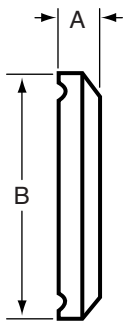
EQ - LINE

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 |



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. VNE's tumbled finish presents a consistent uniform appearance.

VNE's 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

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.

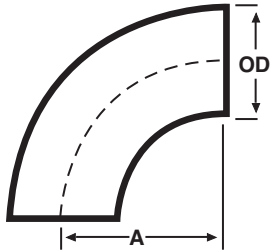
VNE makes no warranties, express or implied, other than those listed above.

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



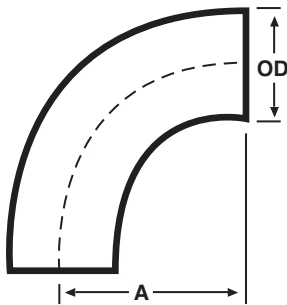
Unpolished Tube OD Fittings

V2WC - 90° ELBOW LESS TANGENTS



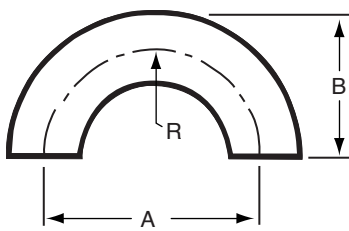
| Size Tube OD | A | Nom. Wall |
|-----------------|--------|-----------|
| 1/2 | 0.750 | 0.065 |
| 3/4 | 1.125 | 0.065 |
| 1 | 1.500 | 0.065 |
| 1 1/4 | 1.875 | 0.065 |
| 1 1/2 | 2.250 | 0.065 |
| 2 | 3.000 | 0.065 |
| 2 1/2 | 3.750 | 0.065 |
| 3 | 4.500 | 0.065 |
| 4 | 6.000 | 0.083 |
| 6 | 9.000 |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

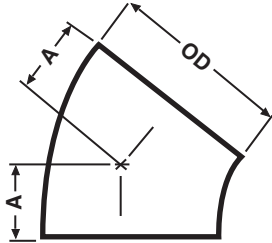
V2WU - 180° U BEND



| 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 |

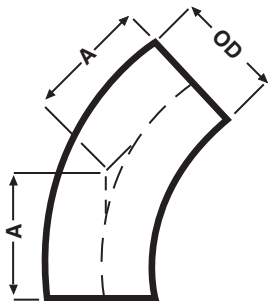
Unpolished Tube OD Fittings

V2WK - 45° ELBOW LESS TANGENTS



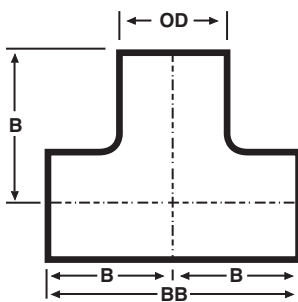
| Size Tube OD | A | Nom. Wall |
|-----------------|-------|-----------|
| 1/2 | 0.312 | 0.065 |
| 3/4 | 0.468 | 0.065 |
| 1 | 0.625 | 0.065 |
| 1 1/4 | 0.781 | 0.065 |
| 1 1/2 | 0.937 | 0.065 |
| 2 | 1.250 | 0.065 |
| 2 1/2 | 1.562 | 0.065 |
| 3 | 1.875 | 0.065 |
| 4 | 2.500 | 0.083 |
| 6 | 3.750 |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

V2KS - 45° ELBOW WITH TANGENTS



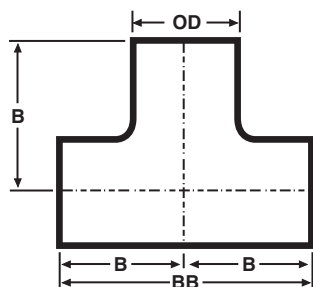
| Size Tube OD | A | Nom. Wall |
|-----------------|-------|-----------|
| 1 | 1.187 | 0.065 |
| 1 1/2 | 1.625 | 0.065 |
| 2 | 2.312 | 0.065 |
| 2 1/2 | 3.000 | 0.065 |
| 3 | 3.687 | 0.065 |
| 4 | 4.812 | 0.083 |

V7W - LONG TEE



| Size Tube OD | B | BB | Nom. Wall |
|-----------------|-------------|--------|-----------|
| 1/2 | CONTACT VNE | | |
| 3/4 | CONTACT VNE | | |
| 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 |

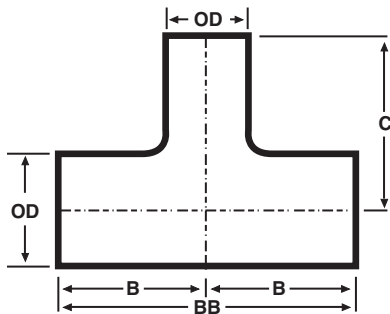
V7WWW - SHORT TEE



| 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 |

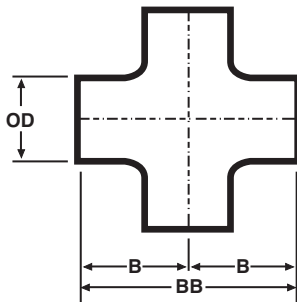
Unpolished Tube OD Fittings

V7WR - REDUCING TEE



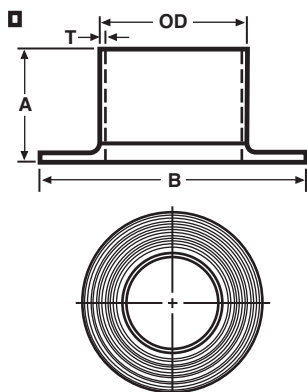
| Size Tube OD | BB | C | B | Nom. Wall Run |
|-----------------|-------------|-------|-------|---------------|
| 3/4 x 1/2 | CONTACT VNE | | | 0.065 |
| 1 x 1/2 | | | | 0.065 |
| 1 x 3/4 | | | | 0.065 |
| 1 1/2 x 1/2 | | | | 0.065 |
| 1 1/2 x 3/4 | | | | 0.065 |
| 1 1/2 x 1 | 4.500 | 2.125 | 2.250 | 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 VNE | | 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 |

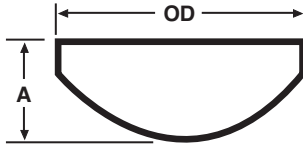
V14WA - TYPE A STUB END WITH GROOVES



| Size Tube OD | A | B | Nom. Wall (T) |
|-----------------|-------|-------|--------------------|
| 1/2 | 1.625 | 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 |

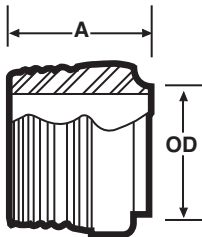
Unpolished Tube OD Fittings

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 VNE for dimensions | |
| 8 | | |

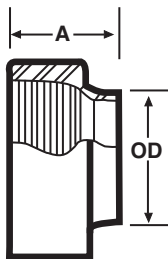
19WB / *19WBF - MALE NPT X WELD ADAPTER



| 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

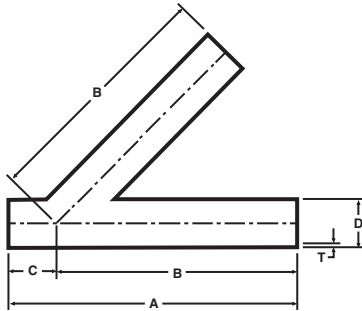


| Size Tube OD | A | Nom. Wall |
|-----------------|-------|-----------|
| 1/2 | 1.125 | 0.065 |
| 3/4 | 1.125 | 0.065 |
| 1 | 1.125 | 0.065 |
| 1 1/4 | 1.437 | 0.065 |
| 1 1/2 | 1.437 | 0.065 |
| 2 | 1.437 | 0.065 |
| 2 1/2 | 1.625 | 0.065 |
| 3 | 1.812 | 0.065 |
| 4 | 2.000 | 0.083 |

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

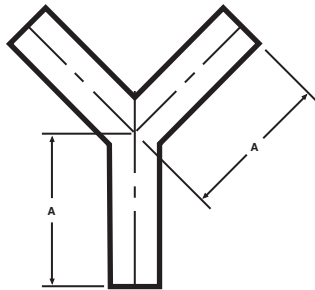
Unpolished Tube OD Fittings

V28WA - 45° LATERAL



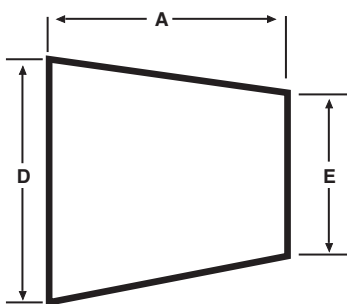
| Size Tube OD | A | B | C | D | Nom. Wall (T) |
|-----------------|--------|--------|-------|-------|--------------------|
| 1 | 6.000 | 5.000 | 1.000 | 1.000 | 0.065 |
| 1 1/2 | 7.375 | 6.187 | 1.187 | 1.500 | 0.065 |
| 2 | 8.625 | 7.125 | 1.500 | 2.000 | 0.065 |
| 2 1/2 | 10.125 | 8.500 | 1.625 | 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

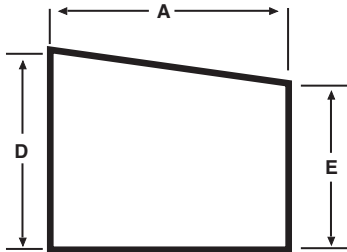


| Size Tube OD D x E | A | Nom. Wall |
|-----------------------|-------|---------------|
| 3/4 x 1/2 | * | 0.065 |
| 1 x 1/2 | * | 0.065 |
| 1 x 3/4 | * | 0.065 |
| 1 1/2 x 1/2 | * | 0.065 |
| 1 1/2 x 3/4 | * | 0.065 |
| 1 1/2 x 1 | 2.000 | 0.065 |
| 1 1/2 x 1 1/4 | 1.000 | 0.065 |
| 2 x 1 | 4.000 | 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 VNE for Exact Dimensions.

Unpolished Tube OD Fittings

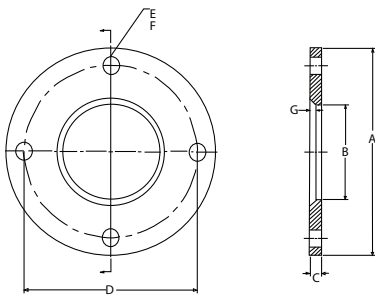
V32W - ECCENTRIC REDUCER



| 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 |

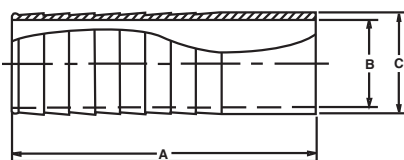
* Contact VNE for Exact Dimensions.

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 | 0.750 | 4.000 | 0.219 |
| 2 1/2 | 7.000 | 2.56 | 0.4375 | 5.500 | 0.750 | 4.000 | 0.219 |
| 3 | 7.500 | 3.06 | 0.500 | 6.000 | 0.750 | 4.000 | 0.250 |
| 4 | 9.000 | 4.06 | 0.500 | 7.500 | 0.750 | 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 |



European Din Connections....

VNE's European Din Connections are available in Inch-Size Tube O.D. Weld Neck. Now inch size tubing can be utilized on projects requiring Din Connections, where in the past metric tubing had to be purchased.

VNE stocks welding ferrules - both male (threaded) and female (plain) - along with the standard DIN nut and gasket to complete the union in T304. T316 ferrules and other metric fittings are available upon request.

EUROPEAN DIN SPECIFICATIONS....

Product: Din Connection x Din Weld Connection
Fully Metric Din Fittings

Size Range: Din 10 - Din 100

Materials: T304 & T316

Finish: #7 ID / OD Polish

ORDERING SPECIFICATIONS....

25-KURZ-NW10
(Din male threaded ferrule size 10, T304)

35-KURZ-6-NW10
(Din female plain ferrule size 10, T316)

EUROPEAN DIN SPECIFICATIONS....

Product: Din Connection X Inch Weld
Connection

Size Range: 1" - 4"

Materials: T304 & T316

Finish: #7 ID / OD Polish

ORDERING SPECIFICATIONS....

2SRW-25 X 1.0
(Din male threaded ferrule x size 1" weld con-
nection, T304)

3SRW-6-25X1.0
(Din female plain ferrule x size 1" weld con-
nection, T316)

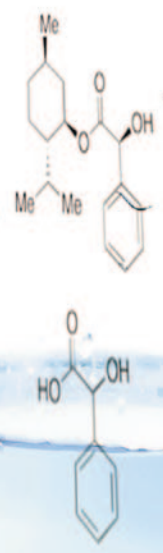
| | |
|----------------------|-----------------------|
| 1 H Hydrogen | |
| 3 Li Lithium | 4 Be Beryllium |
| 11 Na Sodium | 12 Mg Magnesium |
| 19 K Potassium | |
| 37 Rb Rubidium | 38 Sr Strontium |
| 56 Ba Barium | |
| 88 Ra Radium | |

| | | |
|-------------------------|------------------------|-----------------------|
| 24 Cr Chromium | 25 Mn Manganese | 26 Fe Iron |
| 42 Mo Molybdenum | 43 Tc Technetium | 44 Ru Ruthenium |
| 74 W Tungsten | 75 Re Rhenium | 76 Os Osmium |
| 106 Sg Seaborgium | 107 Bh Bohrium | 108 Hs Hassium |

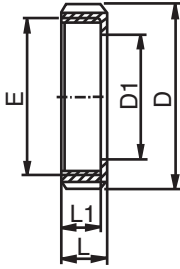
| | | |
|-----------------------|------------------------|----------------------|
| 60 Nd Neodymium | 61 Pm Promethium | 62 Sm Samarium |
|-----------------------|------------------------|----------------------|

| | |
|--------------------------|--------------------------|
| 101 Rg Roentgenium | 102 Cn Copernicium |
|--------------------------|--------------------------|

| | | | |
|---------------------|------------------------|-------------------------|-------------------------|
| 65 Tb Terbium | 66 Dy Dysprosium | 67 Ho Holmium | 68 Er Erbium |
| 96 Cm Curium | 97 Bk Berkelium | 98 Cf Californium | 99 Es Einsteinium |

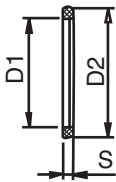


4-NUT-NW-(SIZE) (304 ONLY)



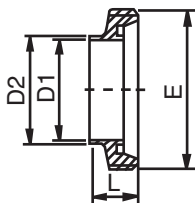
| Size (DN) | D | D1 | E | L | L1 |
|-----------|-----|------|----------------|----|----|
| 10 | 38 | 19 | Rd 28 x 1/8" | 18 | 15 |
| 15 | 44 | 25 | Rd 34 x 1/8" | 18 | 15 |
| 20 | 54 | 31 | Rd x 44 x 1/6" | 20 | 17 |
| 25 | 63 | 36 | Rd 52 x 1/6" | 21 | 18 |
| 32 | 70 | 42 | Rd 58 x 1/6" | 21 | 18 |
| 40 | 78 | 49 | Rd 65 x 1/6" | 21 | 18 |
| 50 | 92 | 62 | Rd 78 x 1/6" | 22 | 19 |
| 65 | 112 | 80 | Rd 95 x 1/6" | 25 | 21 |
| 75/3 | 120 | 86.5 | Rd 104 x 1/6" | 29 | 25 |
| 80 | 127 | 94 | Rd 110 x 1/4" | 29 | 25 |
| 100 | 148 | 115 | Rd 130 x 1/4" | 31 | 26 |
| 125 | 178 | 138 | Rd 160 x 1/4" | 35 | 30 |
| 150 | 210 | 164 | Rd 190 x 1/4" | 40 | 34 |
| 200 | 260 | 215 | Rd 240 x 1/4" | 44 | 38 |

5-RING NW (SIZE) BUNA, 5A-RING NW (SIZE) EPDM, 5B-RING NW (SIZE) SILICONE



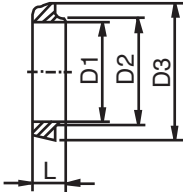
| Size (DN) | D1 | D2 | S |
|-----------|-----|-----|-----|
| 10 | 12 | 20 | 4.5 |
| 15 | 18 | 26 | 4.5 |
| 20 | 23 | 33 | 4.5 |
| 25 | 30 | 40 | 5 |
| 32 | 36 | 46 | 5 |
| 40 | 42 | 52 | 5 |
| 50 | 54 | 64 | 5 |
| 65 | 71 | 81 | 5 |
| 75/3 | 78 | 88 | 5 |
| 80 | 85 | 95 | 5 |
| 100 | 104 | 114 | 6 |
| 125 | 130 | 142 | 7 |
| 150 | 155 | 167 | 7 |

2S-KURZ-NW(SIZE) DIN MALE THREAD X DIN WELD FERRULE T304 / T316



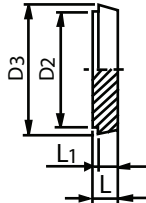
| Size (DN) | D1 | D2 | E | L |
|-----------|-----|-----|---------------|------|
| 10 | 10 | 13 | Rd 28 x 1/8" | 17 |
| 15 | 16 | 19 | Rd 34 x 1/8" | 17 |
| 20 | 20 | 23 | Rd 44 x 1/6" | 19 |
| 25 | 26 | 29 | Rd 52 x 1/6" | 22 |
| 32 | 32 | 35 | Rd 58 x 1/6" | 22 |
| 40 | 38 | 41 | Rd 65 x 1/6" | 22 |
| 50 | 50 | 53 | Rd 78 x 1/6" | 23 |
| 65 | 66 | 70 | Rd 95 x 1/6" | 25 |
| 80 | 81 | 85 | Rd 110 x 1/4" | 25 |
| 100 | 100 | 104 | Rd 130 x 1/4" | 30 |
| 125 | 125 | 129 | Rd 160 x 1/4" | 35.5 |
| 150 | 150 | 154 | Rd 190 x 1/4" | 40 |

3S-KURZ-NW(SIZE) DIN FEMALE X DIN WELD FERRULE T304 / T316



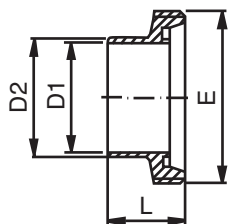
| Size (DN) | D1 | D2 | D3 | L |
|-----------|-----|-----|------|------|
| 10 | 10 | 13 | 22.5 | 13 |
| 15 | 16 | 19 | 28.5 | 13 |
| 20 | 20 | 23 | 36.5 | 13 |
| 25 | 26 | 29 | 44 | 15 |
| 32 | 32 | 35 | 50 | 15 |
| 40 | 38 | 41 | 56 | 15 |
| 50 | 50 | 53 | 68.5 | 16 |
| 65 | 66 | 70 | 86 | 17 |
| 80 | 81 | 85 | 100 | 17 |
| 100 | 100 | 104 | 121 | 20 |
| 125 | 125 | 129 | 150 | 23.5 |
| 150 | 150 | 154 | 176 | 27 |

74-CAP NW(SIZE) (304 & 316)



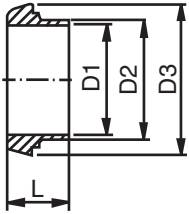
| Size (DN) | D2 | D3 | L | L1 |
|-----------|-------|------|------|-----|
| 10 | 18.8 | 22.5 | 9.5 | 3.5 |
| 15 | 24.8 | 28.5 | 9.5 | 3.5 |
| 20 | 30.8 | 36.5 | 11.5 | 3.5 |
| 25 | 35.8 | 44 | 13.5 | 3.5 |
| 32 | 41.8 | 50 | 13.5 | 3.5 |
| 40 | 48.8 | 56 | 13.5 | 3.5 |
| 50 | 61.8 | 68.5 | 14.5 | 3.5 |
| 65 | 79.8 | 86 | 16.5 | 4.5 |
| 80 | 93.8 | 100 | 16.5 | 4.5 |
| 100 | 114.8 | 121 | 20.5 | 5.5 |
| 125 | 137.8 | 150 | 22.5 | 5.5 |
| 150 | 163.8 | 176 | 24.5 | 6.5 |

2SRW (SIZE) DIN MALE THREAD X INCH WELD FERRULES T304 / T316



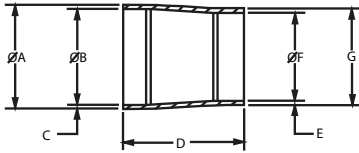
| Size (DN) | D1 | D2 | E | L |
|-----------|----------------------------|-------|---------------|----|
| 25 x 1.0 | 22.9 | 1.000 | Rd 52 x 1/6" | 29 |
| 40 x 1.5 | 35.1 | 1.500 | Rd 65 x 1/6" | 33 |
| 50 x 2.0 | 47.8 | 2.000 | Rd 78 x 1/6" | 35 |
| 65 x 2.5 | 60.5 | 2.500 | Rd 95 x 1/6" | 40 |
| 80 x 3.0 | Contact VNE for dimensions | | | |
| 100 x 4.0 | 97.6 | 4.000 | Rd 130 x 1/4" | 54 |

3SRW (SIZE) DIN FEMALE X INCH WELD FERRULES T304 / T316



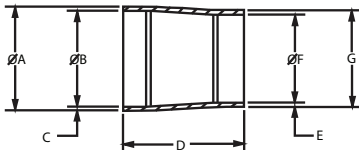
| Size (DN) | D1 | D2 | D3 | L |
|-----------|----------------------------|-------|------|----|
| 25 x 1.0 | 22.9 | 1.000 | 44 | 22 |
| 40 x 1.5 | 35.1 | 1.500 | 56 | 26 |
| 50 x 2.0 | 47.8 | 2.000 | 68.5 | 28 |
| 65 x 2.5 | 60.5 | 2.500 | 86 | 32 |
| 80 x 3.0 | Contact VNE for dimensions | | | |
| 100 x 4.0 | 97.6 | 4.000 | 121 | 44 |

E17WW6LDN (SIZE) X (SIZE) DIN 11866 / 11850 SERIES



| Size | A | B | C | D | E | F | G |
|--------------|--------|--------|--------|-------|--------|-------|-------|
| DN 4 X .25 | 0.250 | 0.180 | 0.035 | 1.000 | 1 MM | 4 MM | 6 MM |
| DN 6 X .375 | 0.375 | 0.305 | 0.035 | 1.000 | 1 MM | 6 MM | 8 MM |
| DN 8 X .375 | 10 MM | 8 MM | 1 MM | 1.000 | 0.035 | 0.305 | 0.375 |
| DN 10 X .5 | 13 MM | 10 MM | 1.5 MM | 1.000 | 0.065 | 0.370 | 0.500 |
| DN 15 X .75 | 0.750 | 0.620 | 0.065 | 1.500 | 1.5 MM | 16 MM | 19 MM |
| DN 20 X 1.0 | 1.000 | 0.870 | 0.065 | 1.500 | 1.5 MM | 20 MM | 23 MM |
| DN 25 X 1.0 | 29MM | 26 MM | 1.5 MM | 1.500 | 0.065 | 0.870 | 1.000 |
| DN 32 X 1.5 | 1.500 | 1.370 | 0.065 | 1.500 | 1.5 MM | 32 MM | 35 MM |
| DN 40 X 1.5 | 41 MM | 38 MM | 1.5 MM | 2.000 | 0.065 | 1.370 | 1.500 |
| DN 50 X 2.0 | 53 MM | 50 MM | 1.5 MM | 2.000 | 0.065 | 1.870 | 2.000 |
| DN 65 X 2.5 | 70 MM | 66 MM | 2 MM | 2.000 | 0.065 | 2.370 | 2.500 |
| DN 80 X 3.0 | 85 MM | 81 MM | 2 MM | 2.000 | 0.065 | 2.870 | 3.000 |
| DN 100 X 4.0 | 104 MM | 100 MM | 2 MM | 2.000 | 0.083 | 3.834 | 4.000 |

E17WW6LISO (SIZE) X (SIZE) ISO 1127 SERIES



| Size | A | B | C | D | E | F | G |
|-------------------|----------|----------|--------|-------|--------|---------|---------|
| ISO 8 X .5 | 13.5 MM | 10.3 MM | 1.6 MM | 1.000 | 0.065 | 0.370 | 0.500 |
| ISO 10 X .75 | 0.750 | 0.620 | 0.065 | 1.000 | 1.6 MM | 14 MM | 17.2 MM |
| ISO 15 X 1.0 | 1.000 | 0.870 | 0.065 | 1.000 | 1.6 MM | 18.1 MM | 21.3 MM |
| ISO 20 X 1.0 | 26.9 MM | 23.7 MM | 1.6 MM | 1.000 | 0.065 | 0.870 | 1.000 |
| ISO 25 X 1.5 | 1.500 | 1.370 | 0.065 | 1.500 | 1.6 MM | 29.7 MM | 33.7 MM |
| ISO 32 X 1.5 | 42.4 MM | 38.4 MM | 2 MM | 1.500 | 0.065 | 1.370 | 1.500 |
| ISO 40 X 2.0 | 2.000 | 1.870 | 0.065 | 1.500 | 2 MM | 44.3 MM | 48.3 MM |
| ISO 50 X 2.5 | 2.500 | 2.370 | 0.065 | 1.500 | 2 MM | 56.3 MM | 60.3 MM |
| ISO 65/2.0 X 3.0 | 3.000 | 2.870 | 0.065 | 2.000 | 2 MM | 72.1 MM | 76.1 MM |
| ISO 65/2.3 X 3.0 | 3.000 | 2.870 | 0.065 | 2.000 | 2.3 MM | 71.5 MM | 76.1 MM |
| ISO 80 X 3.0 | 3.000 | 2.870 | 0.065 | 2.000 | 2.3 MM | 84.3 MM | 88.9 MM |
| ISO 100/2.3 X 3.0 | 114.3 MM | 109.7 MM | 2.3 MM | 2.000 | 0.083 | 3.834 | 4.000 |
| ISO 100/2.6 X 3.0 | 114.3 MM | 109.1 MM | 2.6 MM | 2.000 | 0.083 | 3.834 | 4.000 |



Pipe Hangers....

Pipe Hangers are available in Tube OD sizes. All hangers are hexagonal shape with either rubber grommets or PVC inserts. Hangers are also available with a 3/8" coupling.

Other tube and pipe configurations are available upon request. Please contact VNE for dimensions.

PIPE HANGER SPECIFICATIONS....

Product: Tube OD Piping Hangers

Size Range: 1/2" through 6" sizes

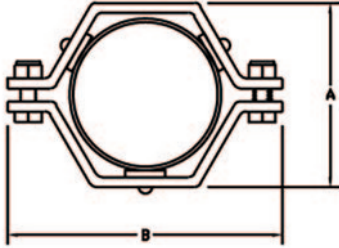
Materials: T304 - Hangers
Rubber / Viton - Grommets
PVC - Sleeve insert

ORDERING SPECIFICATIONS....

Specify:

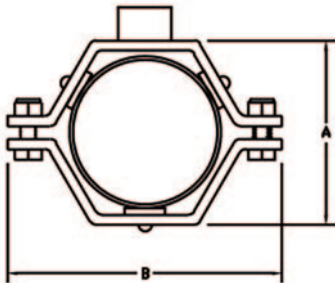
- Quantity
- Product description or Part No.
- Size
- Material Type

E24 Tube size S.S. Hex Hanger



| Size Tube OD | A | B |
|-----------------|--------|--------|
| 1/2 | 2 1/8 | 3 3/4 |
| 3/4 | 2 1/8 | 3 3/4 |
| 1 | 2 1/8 | 3 5/8 |
| 1 1/2 | 2 1/8 | 3 5/8 |
| 2 | 2 5/8 | 4 7/16 |
| 2 1/2 | 3 | 5 |
| 3 | 3 5/8 | 5 5/8 |
| 4 | 4 9/16 | 6 3/4 |
| 6 | 6 5/8 | 9 |

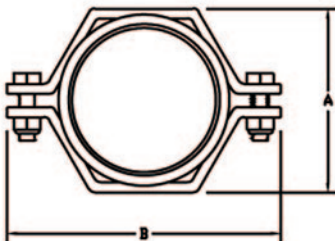
E24C Tube size S.S. Hex Hanger with 3/8" Female NPT Pipe Coupling



| Size Tube OD | A | B |
|-----------------|-------|--------|
| 1/2 | 2 1/8 | 3 5/8 |
| 3/4 | 2 1/8 | 3 5/8 |
| 1 | 2 1/8 | 3 5/8 |
| 1 1/2 | 2 1/8 | 3 5/8 |
| 2 | 2 5/8 | 4 5/16 |
| 2 1/2 | 3 1/8 | 4 7/8 |
| 3 | 3 5/8 | 5 3/8 |
| 4 | 4 3/4 | 6 9/16 |
| 6 | 6 5/8 | 9 |

* Also available with 3/8" threaded rod coupling

E24PVC Tube size Polypropylene S.S. Hex Hanger



| Size Tube OD | A | B |
|-----------------|--------|-------|
| 1/2 | 1 | 2 1/2 |
| 3/4 | 1 1/4 | 3 |
| 1 | 1 1/2 | 2 3/4 |
| 1 1/2 | 2 1/16 | 3 3/4 |
| 2 | 2 5/8 | 4 1/2 |
| 2 1/2 | 3 1/8 | 5 |
| 3 | 3 5/8 | 5 3/4 |
| 4 | 4 5/8 | 6 3/4 |
| 6 | 6 5/8 | 9 1/4 |

Modern Manufacturing Facility

We are committed to having the shortest lead times in the industry, In doing so we have expanded our manufacturing facility.



State of the art machinery

With the most precise and state of the art machinery, VNE is committed to manufacture quality speciality products in the most efficient manner possible.



Experienced People

VNE recognizes that even with our modern facility and state of the art machinery, experienced people are the most valuable asset we have to offer. Our craftsmanship provided the key to a quality product with a fast turnaround at a competitive price.

Welding

Custom fabrications utilizing ASME certified welders and qualified procedures.

Quality Specialty Products

VNE can manufacture products to your specific requirements for the Food, Dairy, Beverage, Pharmaceutical and many other industries.





BUTTERFLY VALVES

Butterfly Valves are available in Manual, Air Actuated, or Air Actuated with two Micro switches and a Solenoid Valve. Clamp or Weld ends are standard. Other connections are available upon request.

Available seat materials include Silicone, Viton®, and EPDM. Size range from 1" through 6". All products contact surfaces are available in either T304 or T316 stainless steel.



CHECK VALVES

Check valves are widely used for both sanitary and industrial applications to prevent backflow of product.

VNE's ball check valves are designed to allow full product flow during processing. Once the product flow stops the ball rolls back to seat at inlet, preventing back flow. Ball Check Valves are commonly used with liquid products.

VNE's spring check valves are designed to assist closure pressure to create a positive shutoff. They are commonly used with liquid products.

Both valves are offered with clamp and weld ends. Other connections are available upon request. Sizes range from 1/2" through 4" in T316 stainless steel. VNE's Check Valves meet 3A Sanitary requirements.

VNE's Air Blow Check Valves are designed to evacuate lines of product or CIP solution. Air Blow Check Valves are made of T316L Stainless Steel and are offered with EPDM or Viton® Elastomers.



BALL VALVES

Ball Valves are used in a wide variety of high pressure applications. Two factors make them popular. First, a full unrestricted flow that allows no product restrictions through the valve. Second, the three piece design and the removal of a minimal number of bolts allows service to be performed without the removal of the complete valve from the line.

VNE offers TWO and THREE way ball valves made of T316 (CF8M) stainless steel. Ball Valves are available in Manual, Pneumatically Actuated, and Electrically Actuated versions. We also offer a full line of control options. Limit switches, Solenoids, and Positioners can be included with your automated valve assembly. VNE Ball Valves feature PTFE seats that are easily removed. Clamp and Weld ends are standard. Other connections are available upon request. 1/2" -4" sizes are available. VNE Ball Valves meet FDA and 3A requirements.



PVA VALVES

PVA Valves are available in Manual, Air Activated, or Air Actuated with an electronic control head. Configurations can be shut off, Divert or Tank outlet. Connections consist of Clamp, Weld, Bevel Seat, and E-Line.

VNE's PVA Valves are made of T316L stainless steel which meet all 3A requirements and are offered in 1.0" through 3" sizes. Other connections available upon request.

VNE AFFILIATIONS...

VNE is an active member of numerous industry-related organizations and associations.

3-A®

VNE is a member of 3-A®, a voluntary organization committed to safeguarding public health and dairy product quality through a unique industry-regulated program of sanitary standards for equipment used in processing dairy foods.

WCMA

Wisconsin Cheese Makers Association

VNE is a member of WCMA, a nonprofit trade association dedicated to improving the business climate for dairy companies, primarily cheese and butter manufacturing and marketing companies. Their actions also extend to the companies that supply goods and services to the dairy industry.

FISA

Food Industry Suppliers Association

VNE is a member of FISA, a national association of independent distributors and major manufacturers of sanitary supplies used in the food, dairy, beverage, pharmaceutical and personal care industries.

ISPE

The International Society for Pharmaceutical Engineering

VNE is a member of ISPE, a not-for-profit volunteer Society of technical professionals, who apply their practical knowledge in the regulated healthcare manufacturing industries. ISPE is committed to advancement of the education and technical efficiency of its members through forums for the exchange of ideas and practical experience.

ASME

American Society of Mechanical Engineers

VNE is a member of ASME International, a nonprofit educational and technical organization serving worldwide membership of 125,000. Established to promote technical competency through quality programs and activities in the mechanical engineering fields.

Brewers Association

VNE is a member of the Brewers Association, a 501(c)(6) not-for-profit trade association. The association is an organization of brewers, for brewers and by brewers. More than 3,100 U.S. brewery members and 46,000 members of the American Homebrewers Association are joined by members of the allied trade, beer wholesalers, retailers, individuals, other associate members and the Brewers Association staff to make up the Brewers Association.

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