



**NUTECH OVERSEAS**

Trusted Manufacturer for Critical Onshore & Offshore Projects

**Premium TC Fittings –  
Hygienic, Reliable & Durable**



## Pharma Fittings

📦 Ready Stock | 📍 PAN India Delivery |  
🌐 Global Exports



## Contact Us

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🌐 [www.nutechoverseas.in](http://www.nutechoverseas.in)

✉ Send your enquiry today!



## INTRODUCTION

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Nutech Overseas is a manufacturer of stainless-steel process equipment, including sanitary fittings, BPE fittings, tubing and valves for industries with strict hygienic and high-purity standards. Nutech Overseas is also an ISO-certified custom stainless steel manufacturer. Our experienced team of engineers, machinists, welders and polishers specialize in finding the best solutions for our customers.

Nutech Overseas specializes in quick turn around, custom fittings and very competitive pricing.

We're simplifying sanitary from coast to coast!

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Nutech overseas is your source for stainless-steel process equipment, including sanitary fittings, BPE fittings, tubing and valves for industries with strict hygienic and high-purity standards.

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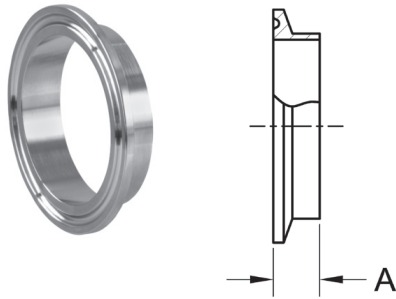
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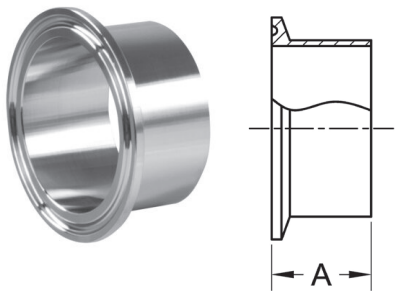
## TRI-CLAMP FITTINGS

Nutech overseas stocks a broad assortment of 304 and 316L stainless steel sanitary fittings in a wide variety of shapes, configurations and sizes from 1/2" through 12". We supply sanitary ferrules, clamps, weld, bevel seat, I-Line, Q-Line, European and other sanitary pipe fittings and gaskets.



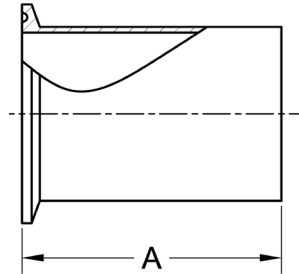
**14WMP - WELD FERRULE, SHORT**


| PART NUMBER   | SIZE          | A     |
|---------------|---------------|-------|
| 14WMP-.50x.25 | 1/4 (.035 WT) | .500  |
| 14WMP.50x.375 | 3/8 (.049 WT) | .500  |
| 14WMP-.50     | 1/2           | .500  |
| 14WMP-.75     | 3/4           | .500  |
| 14WMP-1-A     | 1 (TYPE A)    | .500  |
| 14WMP-1       | 1             | .500  |
| 14WMP-1.5     | 1-1/2         | .500  |
| 14WMP-2       | 2             | .500  |
| 14WMP-2.5     | 2-1/2         | .500  |
| 14WMP-3       | 3             | .500  |
| 14WMP-4       | 4             | .625  |
| 14WMP-5       | 5             | .750  |
| 14WMP-6       | 6             | .750  |
| 14WMP-8       | 8             | .875  |
| 14WMP-10      | 10            | .875  |
| 14WMP-12      | 12            | 1.000 |

**L14AM7 - WELD FERRULE, MEDIUM**


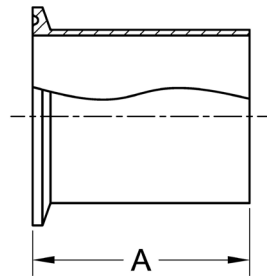
| PART NUMBER     | SIZE          | A     |
|-----------------|---------------|-------|
| L14AM7-.50x.25  | 1/4 (.035 WT) | 1.125 |
| L14AM7-.50x.375 | 3/8 (.049 WT) | 1.125 |
| L14AM7-.50      | 1/2           | 1.125 |
| L14AM7-.75      | 3/4           | 1.125 |
| L14AM7-1-A      | 1 (TYPE A)    | 1.125 |
| L14AM7-1        | 1             | 1.125 |
| L14AM7-1.5      | 1-1/2         | 1.125 |
| L14AM7-2        | 2             | 1.125 |
| L14AM7-2.5      | 2-1/2         | 1.125 |
| L14AM7-3        | 3             | 1.125 |
| L14AM7-4        | 4             | 1.125 |
| L14AM7-5X1.5    | 5             | 1.500 |
| L14AM7-6        | 6             | 1.500 |
| L14AM7-8        | 8             | 1.500 |
| L14AM7-10       | 10            | 1.500 |
| L14AM7-12       | 12            | 1.500 |

### 14WLMP - TANK WELDING SPUD (LIGHT)



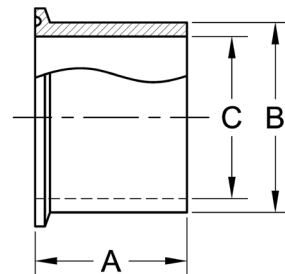
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WLMP-.50  | 1/2   | 3.000 |
| 14WLMP-.75  | 3/4   | 3.000 |
| 14WLMP-1    | 1     | 3.000 |
| 14WLMP-1.5  | 1-1/2 | 3.000 |
| 14WLMP-2    | 2     | 3.000 |
| 14WLMP-2.5  | 2-1/2 | 3.000 |
| 14WLMP-3    | 3     | 4.000 |
| 14WLMP-4    | 4     | 4.000 |
| 14WLMP-6    | 6     | 6.000 |
| 14WLMP-8    | 8     | 6.000 |
| 14WLMP-10   | 10    | 6.000 |
| 14WLMP-12   | 12    | 6.000 |

### TL14AM7 - WELD FERRULE



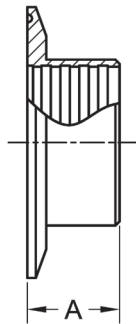
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| TL14AM7-.50 | 1/2   | 2.000 |
| TL14AM7-.75 | 3/4   | 2.000 |
| TL14AM7-1   | 1     | 2.000 |
| TL14AM7-1.5 | 1-1/2 | 2.000 |
| TL14AM7-2   | 2     | 2.500 |
| TL14AM7-2.5 | 2-1/2 | 2.500 |
| TL14AM7-3   | 3     | 2.500 |
| TL14AM7-4   | 4     | 2.500 |

### 14MPW - TANK WELDING SPUD (HEAVY)

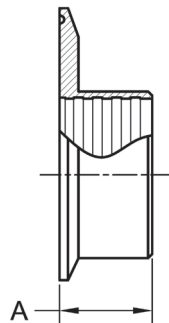


| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 14MPW-.50   | 1/2   | 2.000 | .626  | .370  |
| 14MPW-.75   | 3/4   | 2.000 | .875  | .625  |
| 14MPW-1     | 1     | 1.625 | 1.160 | .870  |
| 14MPW-1.5   | 1-1/2 | 1.625 | 1.676 | 1.370 |
| 14MPW-2     | 2     | 1.750 | 2.192 | 1.870 |
| 14MPW-2.5   | 2-1/2 | 1.750 | 2.708 | 2.370 |
| 14MPW-3     | 3     | 1.813 | 3.224 | 2.870 |
| 14MPW-4     | 4     | 2.125 | 4.256 | 3.834 |
| 14MPW-6     | 6     | 2.500 | 6.192 | 5.758 |
| 14MPW-8     | 8     | 2.500 | 8.192 | 7.758 |

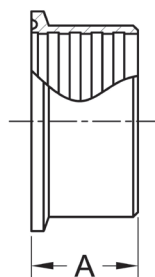
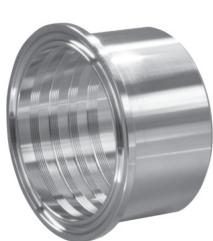
NOTE: FOR MORE HEAVY WALL FERRULE OPTIONS, SEE ASME FERRULES ON PG. 10.

**31RMP - REDUCING CONCENTRIC ROLL-ON FERRULE**

| PART NUMBER   | SIZE          | A     |
|---------------|---------------|-------|
| 31RMP-1.5X1   | 1-1/2 X 1     | .750  |
| 31RMP-2X1     | 2 X 1         | .750  |
| 31RMP-2X1.5   | 2 X 1-1/2     | 1.125 |
| 31RMP-2.5X1.5 | 2-1/2 X 1-1/2 | 1.313 |
| 31RMP-2.5X2   | 2-1/2 X 2     | 1.313 |
| 31RMP-3X2     | 3 X 2         | 1.313 |
| 31RMP-3X2.5   | 3 X 2-1/2     | 1.375 |
| 31RMP-4X2.5   | 4 X 2-1/2     | 1.375 |
| 31RMP-4X3     | 4 X 3         | 1.438 |

**32RMP - REDUCING ECCENTRIC ROLL-ON FERRULE**

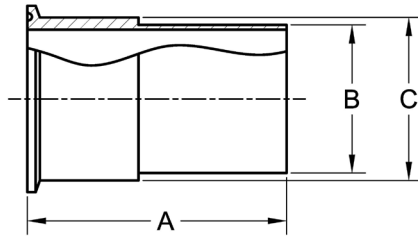
| PART NUMBER | SIZE      | A     |
|-------------|-----------|-------|
| 32RMP-1.5X1 | 1-1/2 X 1 | .750  |
| 32RMP-2X1   | 2 X 1     | .750  |
| 32RMP-2X1.5 | 2 X 1-1/2 | 1.125 |
| 32RMP-3X1.5 | 3 X 1-1/2 | 1.313 |
| 32RMP-3X2   | 3 X 2     | 1.313 |
| 32RMP-3X2.5 | 3 X 2-1/2 | 1.375 |
| 32RMP-4X2.5 | 4 X 2-1/2 | 1.375 |
| 32RMP-4X3   | 4 X 3     | 1.438 |

**14RMP - ROLL-ON FERRULE**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14RMP-1     | 1     | .750  |
| 14RMP-1.5   | 1-1/2 | 1.125 |
| 14RMP-2     | 2     | 1.313 |
| 14RMP-2.5   | 2-1/2 | 1.375 |
| 14RMP-3     | 3     | 1.438 |
| 14RMP-4     | 4     | 1.500 |
| 14RMP-6     | 6     | 2.000 |



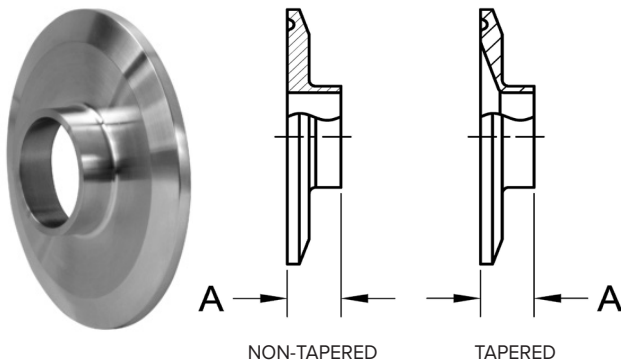
### FLOWVERTER FERRULE



| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| LAB01000    | 1     | 3.500 | 1.000 | 1.200 |
| LAB01500    | 1-1/2 | 3.500 | 1.500 | 1.700 |
| LAB02000    | 2     | 3.500 | 2.000 | 2.200 |
| LAB02500    | 2-1/2 | 3.500 | 2.500 | 2.700 |
| LAB03000    | 3     | 3.500 | 3.000 | 3.200 |
| LAB04000    | 4     | 3.500 | 4.000 | 4.200 |

NOTE: AVAILABLE IN OTHER END CONNECTIONS & LENGTHS

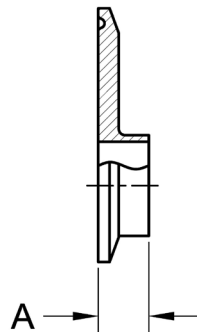
### 31WMP - REDUCING FERRULE



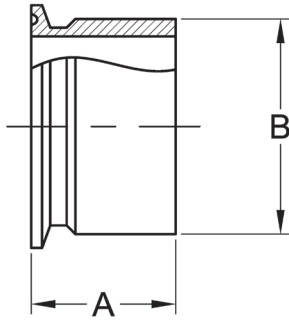
| PART NUMBER   | SIZE        | A    |
|---------------|-------------|------|
| 31WMP-.75X.50 | 3/4 X 1/2   | .500 |
| 31WMP-1X.50   | 1 X 1/2     | .500 |
| 31WMP-1X.75   | 1 X 3/4     | .500 |
| 31WMP-1.5X.50 | 1-1/2 X 1/2 | .500 |
| 31WMP-1.5X.75 | 1-1/2 X 3/4 | .625 |
| 31WMP-1.5X1   | 1-1/2 X 1   | .500 |
| 31WMP-2X1     | 2 X 1       | .500 |
| 31WMP-2X1.5   | 2 X 1-1/2   | .500 |
| 31WMP-2.5X2   | 2-1/2 X 2   | .500 |
| 31WMP-3X2     | 3 X 2       | .500 |
| 31WMP-4X3     | 4 X 3       | .625 |

NOTE: AVAILABLE IN TAPERED AND NON-TAPERED STYLES  
(PART NUMBERS SHOWN ARE TAPERED STYLE)

### 32WMP - ECCENTRIC REDUCING FERRULE



| PART NUMBER   | SIZE          | A    |
|---------------|---------------|------|
| 32WMP-1X.75   | 1 X 3/4       | .500 |
| 32WMP-1.5X.50 | 1-1/2 X 1/2   | .500 |
| 32WMP-1.5X1   | 1-1/2 X 1     | .500 |
| 32WMP-2X.75   | 2 X 3/4       | .750 |
| 32WMP-2X1     | 2 X 1         | .500 |
| 32WMP-2X1.5   | 2 X 1-1/2     | .500 |
| 32WMP-2.5X1.5 | 2-1/2 X 1-1/2 | .500 |
| 32WMP-3X1     | 3 X 1         | .500 |
| 32WMP-3X2     | 3 X 2         | .500 |
| 32WMP-3X2.5   | 4 X 1-1/2     | .625 |
| 32WMP-4X3     | 4 X 3         | .625 |

**14ASME - ASME WELDING FERRULE**

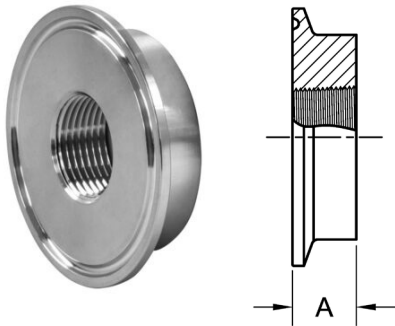
NOTE: FERRULES ARE MADE FROM ASME CERTIFIED MATERIAL

| PART NUMBER     | SIZE  | A     | B     |
|-----------------|-------|-------|-------|
| 14ASME-.50X2.5  | 1/2   | 2.500 | .592  |
| 14ASME-.75X2.5  | 3/4   | 2.500 | .846  |
| 14ASME-1X2.5    | 1     | 2.500 | 1.190 |
| 14ASME-1X6      | 1     | 6.000 | 1.190 |
| 14ASME-1.5X1.25 | 1-1/2 | 1.250 | 1.690 |
| 14ASME-1.5X2    | 1-1/2 | 2.000 | 1.690 |
| 14ASME-1.5X3    | 1-1/2 | 3.000 | 1.690 |
| 14ASME-1.5X6    | 1-1/2 | 6.000 | 1.690 |
| 14ASME-2X1.25   | 2     | 1.250 | 2.230 |
| 14ASME-2X2.25   | 2     | 2.250 | 2.230 |
| 14ASME-2X3.25   | 2     | 3.250 | 2.230 |
| 14ASME-2X6      | 2     | 6.000 | 2.230 |
| 14ASME-2.5X3.5  | 2-1/2 | 3.500 | 2.780 |
| 14ASME-2.5X6    | 2-1/2 | 6.000 | 2.780 |
| 14ASME-3X1.25   | 3     | 1.250 | 3.310 |
| 14ASME-3X2.75   | 3     | 2.750 | 3.310 |
| 14ASME-3X3.75   | 3     | 3.750 | 3.310 |
| 14ASME-3X6      | 3     | 6.000 | 3.310 |
| 14ASME-4X1.25   | 4     | 1.250 | 4.350 |
| 14ASME-4X3      | 4     | 3.000 | 4.350 |
| 14ASME-4X4      | 4     | 4.000 | 4.350 |
| 14ASME-4X6      | 4     | 6.000 | 4.350 |
| 14ASME-6X1.75   | 6     | 1.750 | 6.462 |
| 14ASME-6X6      | 6     | 6.000 | 6.462 |

ALSO AVAILABLE IN 8", 10" AND 12" SIZES  
 OTHER LENGTHS AVAILABLE UPON REQUEST



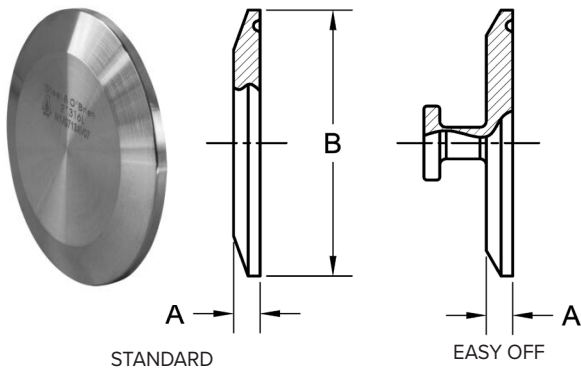
## 23BMP - THERMOMETER CAP



NOTE: SIZES ARE LISTED CLAMP SIZE X NPT SIZE

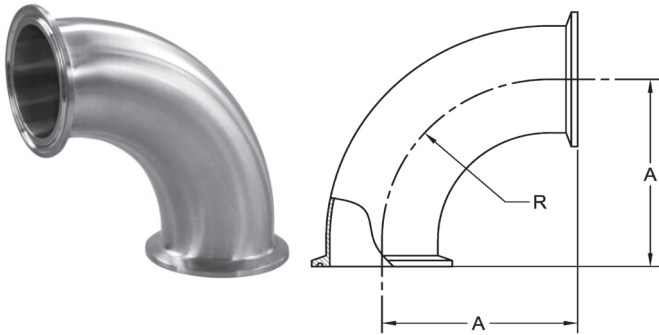
| PART NUMBER    | SIZE            | A    |
|----------------|-----------------|------|
| 23BMP-.50X.125 | 1/2 & 3/4 X 1/8 | .500 |
| 23BMP-.50X.25  | 1/2 & 3/4 X 1/4 | .500 |
| 23BMP-.50X.375 | 1/2 & 3/4 X 3/8 | .500 |
| 23BMP-1X.25    | 1 & 1-1/2 X 1/4 | .625 |
| 23BMP-1X.375   | 1 & 1-1/2 X 3/8 | .625 |
| 23BMP-1X.50    | 1 & 1-1/2 X 1/2 | .625 |
| 23BMP-1.5X.75  | 1 & 1-1/2 X 3/4 | .625 |
| 23BMP-1.5X1    | 1 & 1-1/2 X 1   | .625 |
| 23BMP-2X.50    | 2 X 1/2         | .625 |
| 23BMP-2X.75    | 2 X 3/4         | .625 |
| 23BMP-2X1      | 2 X 1           | .625 |
| 23BMP-2X1.5    | 2 X 1-1/2       | .625 |
| 23BMP-2.5X.50  | 2-1/2 X 1/2     | .625 |
| 23BMP-2.5X.75  | 2-1/2 X 3/4     | .625 |
| 23BMP-2.5X1    | 2-1/2 X 1       | .625 |
| 23BMP-2.5X1.5  | 2-1/2 X 1-1/2   | .625 |
| 23BMP-3X.50    | 3 X 1/2         | .625 |
| 23BMP-3X.75    | 3 X 3/4         | .625 |
| 23BMP-3X1      | 3 X 1           | .625 |
| 23BMP-3X1.5    | 3 X 1-1/2       | .625 |
| 23BMP-3X2      | 3 X 2           | .625 |
| 23BMP-4X.50    | 4 X 1/2         | .625 |
| 23BMP-4X.75    | 4 X 3/4         | .625 |
| 23BMP-4X1      | 4 X 1           | .625 |
| 23BMP-4X1.5    | 4 X 1-1/2       | .625 |
| 23BMP-4X2      | 4 X 2           | .625 |

## 16AMP - SOLID END CAP

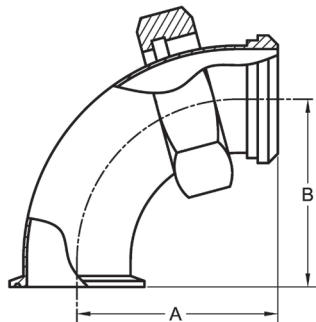


NOTE: END CAPS AVAILABLE IN STANDARD OR EASY OFF STYLE.  
STANDARD CAPS ALSO AVAILABLE IN ACRYLIC AND LEXAN.

| PART NUMBER | SIZE       | A    | B      |
|-------------|------------|------|--------|
| 16AMP-.50   | 1/2 & 3/4  | .188 | .984   |
| 16AMP-1-A   | 1 (TYPE A) | .250 | 1.339  |
| 16AMP-1     | 1 & 1-1/2  | .250 | 1.984  |
| 16AMP-2     | 2          | .250 | 2.516  |
| 16AMP-2.5   | 2-1/2      | .250 | 3.047  |
| 16AMP-3     | 3          | .250 | 3.579  |
| 16AMP-4     | 4          | .312 | 4.682  |
| 16AMP-5     | 5          | .375 | 5.687  |
| 16AMP-6     | 6          | .438 | 6.570  |
| 16AMP-8     | 8          | .480 | 8.570  |
| 16AMP-10    | 10         | .480 | 10.570 |
| 16AMP-12    | 12         | .480 | 12.570 |

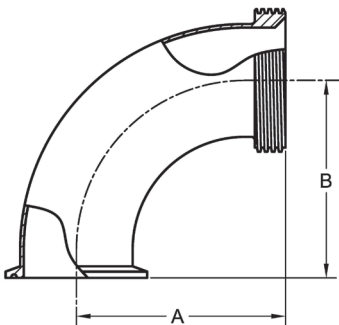
**2CMP - 90 DEGREE ELBOW, CLAMP ENDS**


| PART NUMBER | SIZE  | A      | R      |
|-------------|-------|--------|--------|
| 2CMP-.50    | 1/2   | 1.250  | .750   |
| 2CMP-.50L   | 1/2   | 1.625  | 1.125  |
| 2CMP-.75    | 3/4   | 1.625  | 1.125  |
| 2CMP-1      | 1     | 2.000  | 1.500  |
| 2CMP-1.5    | 1-1/2 | 2.750  | 2.250  |
| 2CMP-2      | 2     | 3.500  | 3.000  |
| 2CMP-2.5    | 2-1/2 | 4.250  | 3.750  |
| 2CMP-3      | 3     | 5.000  | 4.500  |
| 2CMP-4      | 4     | 6.625  | 6.000  |
| 2CMP-6      | 6     | 9.750  | 9.000  |
| 2CMP-8      | 8     | 12.875 | 12.000 |
| 2CMP-10     | 10    | 15.875 | 15.000 |
| 2CMP-12     | 12    | 19.000 | 18.000 |

**2FMP-14 - 90 DEGREE ELBOW, CLAMP X PLAIN BEVEL SEAT**


| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 2FMP-14-1   | 1     | 2.188 | 2.000 |
| 2FMP-14-1.5 | 1-1/2 | 2.969 | 2.750 |
| 2FMP-14-2   | 2     | 3.723 | 3.500 |
| 2FMP-14-2.5 | 2-1/2 | 4.594 | 4.250 |
| 2FMP-14-3   | 3     | 5.406 | 5.000 |
| 2FMP-14-4   | 4     | 7.000 | 6.625 |

NOTE: HEX NUT INCLUDED

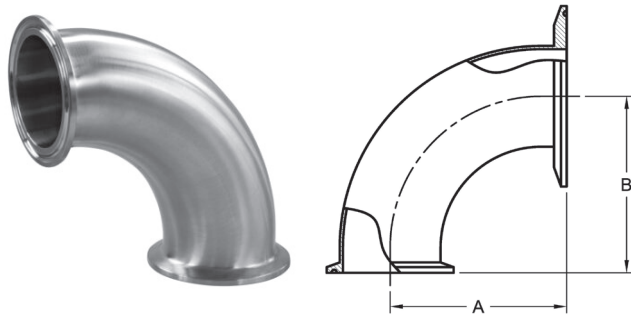
**2FMP-15 - 90 DEGREE ELBOW, CLAMP X THREADED BEVEL SEAT**


| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 2FMP-15-1   | 1     | 2.188 | 2.000 |
| 2FMP-15-1.5 | 1-1/2 | 2.969 | 2.750 |
| 2FMP-15-2   | 2     | 3.750 | 3.500 |
| 2FMP-15-2.5 | 2-1/2 | 4.594 | 4.250 |
| 2FMP-15-3   | 3     | 5.438 | 5.000 |
| 2FMP-15-4   | 4     | 7.219 | 6.625 |



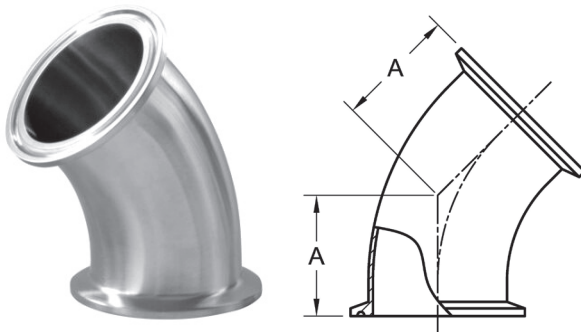


### 2CMP-31MP - 90 DEGREE REDUCING ELBOW, CLAMP ENDS



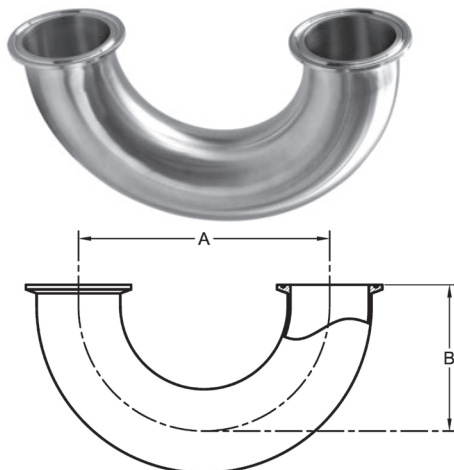
| PART NUMBER       | SIZE          | A     | B     |
|-------------------|---------------|-------|-------|
| 2CMP-31MP-1.5X1   | 1-1/2 X 1     | 2.000 | 2.000 |
| 2CMP-31MP-2X1     | 2 X 1         | 2.000 | 2.000 |
| 2CMP-31MP-2X1.5   | 2 X 1-1/2     | 2.750 | 2.750 |
| 2CMP-31MP-2.5X1.5 | 2-1/2 X 1-1/2 | 2.750 | 2.750 |
| 2CMP-31MP-2.5X2   | 2-1/2 X 2     | 3.500 | 3.500 |
| 2CMP-31MP-3X1.5   | 3 X 1-1/2     | 2.750 | 2.750 |
| 2CMP-31MP-3X2     | 3 X 2         | 3.500 | 3.500 |
| 2CMP-31MP-3X2.5   | 3 X 2-1/2     | 4.250 | 4.250 |
| 2CMP-31MP-4X2.5   | 4 X 2-1/2     | 4.375 | 4.250 |
| 2CMP-31MP-4X3     | 4 X 3         | 5.125 | 5.000 |

### 2KMP - 45 DEGREE ELBOW, CLAMP ENDS

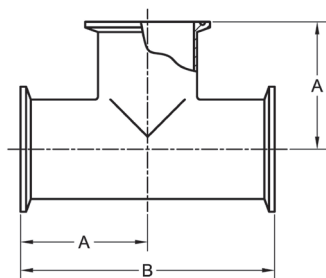


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 2KMP-.50    | 1/2   | .966  |
| 2KMP-.75    | 3/4   | .966  |
| 2KMP-1      | 1     | 1.125 |
| 2KMP-1.5    | 1-1/2 | 1.437 |
| 2KMP-2      | 2     | 1.750 |
| 2KMP-2.5    | 2-1/2 | 2.063 |
| 2KMP-3      | 3     | 2.375 |
| 2KMP-4      | 4     | 3.125 |
| 2KMP-6      | 6     | 4.500 |
| 2KMP-8      | 8     | 5.846 |
| 2KMP-10     | 10    | 7.088 |

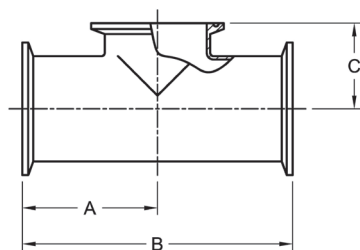
### 2UMP - 180 DEGREE RETURN BEND, CLAMP ENDS



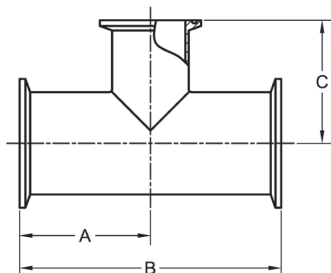
| PART NUMBER | SIZE  | A      | B     |
|-------------|-------|--------|-------|
| 2UMP-.50    | 1/2   | 1.500  | 1.250 |
| 2UMP-.75    | 3/4   | 2.250  | 1.625 |
| 2UMP-1      | 1     | 3.000  | 2.000 |
| 2UMP-1.5    | 1-1/2 | 4.500  | 2.750 |
| 2UMP-2      | 2     | 6.000  | 3.500 |
| 2UMP-2.5    | 2-1/2 | 7.500  | 4.250 |
| 2UMP-3      | 3     | 9.000  | 5.000 |
| 2UMP-4      | 4     | 12.000 | 6.625 |
| 2UMP-6      | 6     | 18.000 | 9.750 |

**7MP - TEE, CLAMP ENDS**

| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 7MP-.50     | 1/2   | 1.250 | 2.500  |
| 7MP-.75     | 3/4   | 2.375 | 4.750  |
| 7MP-1       | 1     | 2.375 | 4.750  |
| 7MP-1.5     | 1-1/2 | 2.750 | 5.500  |
| 7MP-2       | 2     | 3.500 | 7.000  |
| 7MP-2.5     | 2-1/2 | 3.500 | 7.000  |
| 7MP-3       | 3     | 3.750 | 7.500  |
| 7MP-4       | 4     | 4.500 | 9.000  |
| 7MP-6       | 6     | 6.375 | 12.750 |
| 7MP-8       | 8     | 7.875 | 15.750 |

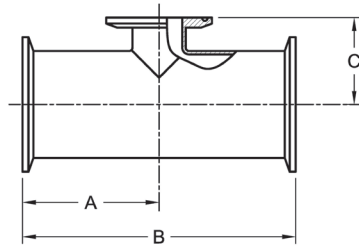
**7MPS - SHORT OUTLET TEE, CLAMP ENDS**

| PART NUMBER | SIZE  | A     | B      | C     |
|-------------|-------|-------|--------|-------|
| 7MPS-1      | 1     | 2.375 | 4.750  | 1.125 |
| 7MPS-1.5    | 1-1/2 | 2.750 | 5.500  | 1.375 |
| 7MPS-2      | 2     | 3.500 | 7.000  | 1.625 |
| 7MPS-2.5    | 2-1/2 | 3.500 | 7.000  | 1.875 |
| 7MPS-3      | 3     | 3.750 | 7.500  | 2.125 |
| 7MPS-4      | 4     | 4.500 | 9.000  | 2.750 |
| 7MPS-6      | 6     | 6.375 | 12.750 | 3.875 |
| 7 MPS-8     | 8     | 7.875 | 15.750 | 5.125 |

**7RMP - REDUCING TEE, CLAMP ENDS**

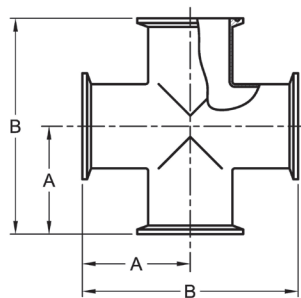
| PART NUMBER  | SIZE          | A     | B      | C     |
|--------------|---------------|-------|--------|-------|
| 7RMP-1.5X.75 | 1-1/2 X 3/4   | 2.875 | 5.750  | 2.875 |
| 7RMP-1.5X1   | 1-1/2 X 1     | 2.156 | 4.312  | 1.875 |
| 7RMP-2X1     | 2 X 1         | 2.562 | 5.125  | 2.125 |
| 7RMP-2X1.5   | 2 X 1-1/2     | 2.562 | 5.125  | 2.406 |
| 7RMP-2.5X1   | 2-1/2 X 1     | 2.844 | 5.688  | 2.375 |
| 7RMP-2.5X1.5 | 2-1/2 X 1-1/2 | 2.844 | 5.688  | 2.656 |
| 7RMP-2.5X2   | 2-1/2 X 2     | 2.844 | 5.688  | 2.812 |
| 7RMP-3X1     | 3 X 1         | 3.094 | 6.188  | 2.625 |
| 7RMP-3X1.5   | 3 X 1-1/2     | 3.094 | 6.188  | 2.906 |
| 7RMP-3X2     | 3 X 2         | 3.094 | 6.188  | 3.063 |
| 7RMP-3X2.5   | 3 X 2-1/2     | 3.094 | 6.188  | 3.094 |
| 7RMP-4X1.5   | 4 X 1-1/2     | 4.063 | 8.125  | 3.406 |
| 7RMP-4X2     | 4 X 2         | 4.063 | 8.125  | 3.562 |
| 7RMP-4X2.5   | 4 X 2-1/2     | 4.063 | 8.125  | 3.594 |
| 7RMP-4X3     | 4 X 3         | 4.063 | 8.125  | 3.594 |
| 7RMP-6X3     | 6 X 3         | 6.375 | 12.750 | 6.000 |
| 7RMP-6X4     | 6 X 4         | 6.375 | 12.750 | 5.500 |

**7RMPS - SHORT OUTLET REDUCING TEE, CLAMP ENDS**



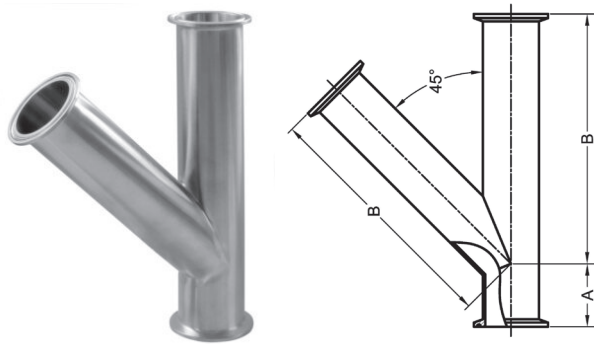
| PART NUMBER   | SIZE          | A     | B      | C     |
|---------------|---------------|-------|--------|-------|
| 7RMPS-1.5X.75 | 1-1/2 X 3/4   | 2.875 | 5.750  | 1.375 |
| 7RMPS-1.5X1   | 1-1/2 X 1     | 2.156 | 4.312  | 1.375 |
| 7RMPS-2X1     | 2 X 1         | 2.563 | 5.125  | 1.625 |
| 7RMPS-2X1.5   | 2 X 1-1/2     | 2.563 | 5.125  | 1.625 |
| 7RMPS-2.5X1   | 2-1/2 X 1     | 2.844 | 5.688  | 1.875 |
| 7RMPS-2.5X1.5 | 2-1/2 X 1-1/2 | 2.844 | 5.688  | 1.875 |
| 7RMPS-2.5X2   | 2-1/2 X 2     | 2.844 | 5.688  | 1.875 |
| 7RMPS-3X1     | 3 X 1         | 3.094 | 6.188  | 2.125 |
| 7RMPS-3X1.5   | 3 X 1-1/2     | 3.094 | 6.188  | 2.125 |
| 7RMPS-3X2     | 3 X 2         | 3.094 | 6.188  | 2.125 |
| 7RMPS-3X2.5   | 3 X 2-1/2     | 3.094 | 6.188  | 2.125 |
| 7RMPS-4X1.5   | 4 X 1-1/2     | 4.063 | 8.125  | 2.625 |
| 7RMPS-4X2     | 4 X 2         | 4.063 | 8.125  | 2.625 |
| 7RMPS-4X2.5   | 4 X 2-1/2     | 4.063 | 8.125  | 2.625 |
| 7RMPS-4X3     | 4 X 3         | 4.063 | 8.125  | 2.625 |
| 7RMPS-6X3     | 6 X 3         | 5.750 | 11.500 | 3.625 |
| 7RMPS-6X4     | 6 X 4         | 6.375 | 12.750 | 3.750 |

**9MP - CROSS, CLAMP ENDS**



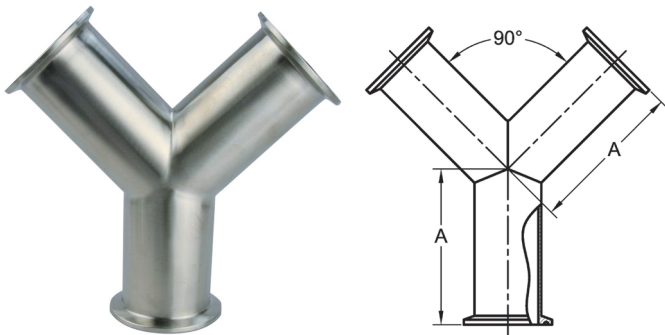
| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 9MP-.50     | 1/2   | 2.250 | 4.500  |
| 9MP-.75     | 3/4   | 2.375 | 4.750  |
| 9MP-1       | 1     | 2.375 | 4.750  |
| 9MP-1.5     | 1-1/2 | 2.750 | 5.500  |
| 9MP-2       | 2     | 3.500 | 7.000  |
| 9MP-2.5     | 2-1/2 | 3.500 | 7.000  |
| 9MP-3       | 3     | 3.750 | 7.500  |
| 9MP-4       | 4     | 4.500 | 9.000  |
| 9MP-6       | 6     | 6.375 | 12.750 |

### 28AMP - LATERAL WYE, CLAMP ENDS



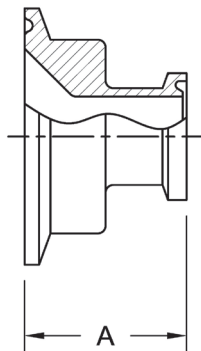
| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 28AMP-.50   | 1/2   | 1.500 | 5.500  |
| 28AMP-.75   | 3/4   | 1.500 | 5.500  |
| 28AMP-1     | 1     | 1.500 | 5.500  |
| 28AMP-1.5   | 1-1/2 | 1.687 | 6.688  |
| 28AMP-2     | 2     | 2.125 | 7.625  |
| 28AMP-2.5   | 2-1/2 | 2.000 | 9.000  |
| 28AMP-3     | 3     | 2.375 | 9.375  |
| 28AMP-4     | 4     | 2.687 | 11.375 |
| 28AMP-6     | 6     | 4.375 | 13.250 |
| 28AMP-8     | 8     | 5.375 | 18.375 |

### 28BMP - TRUE WYE, CLAMP ENDS



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 28BMP-.50   | 1/2   | 2.500 |
| 28BMP-.75   | 3/4   | 2.500 |
| 28BMP-1     | 1     | 3.500 |
| 28BMP-1.5   | 1-1/2 | 3.500 |
| 28BMP-2     | 2     | 4.500 |
| 28BMP-2.5   | 2-1/2 | 5.500 |
| 28BMP-3     | 3     | 6.500 |
| 28BMP-4     | 4     | 8.625 |
| 28BMP-6     | 6     | 8.750 |

### 31-14MP - SHORT CONICAL INSTRUMENT REDUCER, CLAMP ENDS

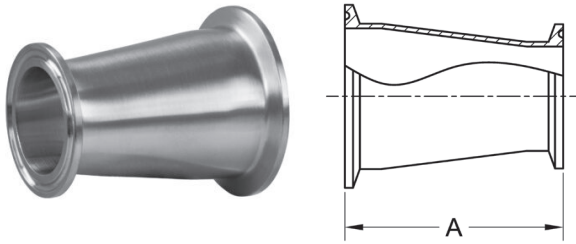


| PART NUMBER          | LARGE SIZE | SMALL SIZE | A     |
|----------------------|------------|------------|-------|
| 31-14MP-1X.50X1.25   | 1          | 1/2        | 1.250 |
| 31-14MP-1X.75X1.25   | 1          | 3/4        | 1.250 |
| 31-14MP-1.5X.50X1.25 | 1-1/2      | 1/2        | 1.250 |
| 31-14MP-1.5X.75X1.25 | 1-1/2      | 1          | 1.250 |
| 31-14MP-2X.50X1.25   | 2          | 1/2        | 1.250 |
| 31-14MP-2X.75X1.25   | 2          | 3/4        | 1.250 |
| 31-14MP-2X1X1.25     | 2          | 1          | 1.250 |

OTHERS SIZES AND LENGTHS AVAILABLE



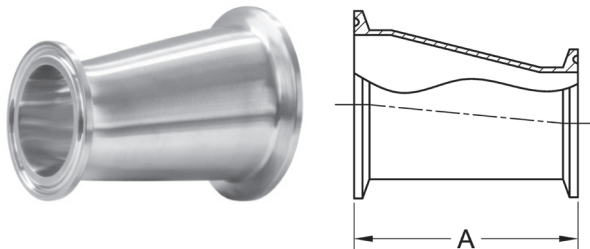
### 31-14MP - CONCENTRIC REDUCER, CLAMP ENDS



| PART NUMBER     | SIZE          | A     |
|-----------------|---------------|-------|
| 31-14MP-.75X.50 | 3/4 X 1/2     | 2.000 |
| 31-14MP-1X.50   | 1 X 1/2       | 3.000 |
| 31-14MP-1X.75   | 1 X 3/4       | 2.000 |
| 31-14MP-1.5X.50 | 1-1/2 X 1/2   | 5.000 |
| 31-14MP-1.5X.75 | 1-1/2 X 3/4   | 4.000 |
| 31-14MP-1.5X1   | 1-1/2 X 1     | 3.000 |
| 31-14MP-2X1     | 2 X 1         | 5.000 |
| 31-14MP-2X1.5   | 2 X 1-1/2     | 3.000 |
| 31-14MP-2.5X1.5 | 2-1/2 X 1-1/2 | 5.000 |
| 31-14MP-2.5X2   | 2-1/2 X 2     | 3.000 |
| 31-14MP-3X1.5   | 3 X 1-1/2     | 7.000 |
| 31-14MP-3X2     | 3 X 2         | 5.000 |
| 31-14MP-3X2.5   | 3 X 2-1/2     | 3.000 |
| 31-14MP-4X2     | 4 X 2         | 9.125 |
| 31-14MP-4X2.5   | 4 X 2-1/2     | 7.125 |
| 31-14MP-4X3     | 4 X 3         | 5.125 |
| 31-14MP-6X3     | 6 X 3         | 6.750 |
| 31-14MP-6X4     | 6 X 4         | 6.875 |

OTHER SIZES AVAILABLE UPON REQUEST

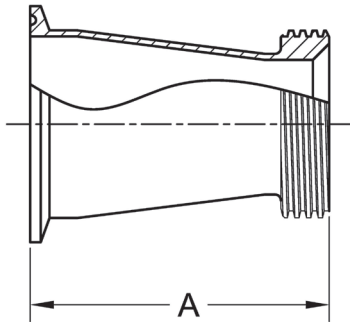
### 32-14MP - ECCENTRIC REDUCER, CLAMP ENDS



| PART NUMBER     | SIZE          | A     |
|-----------------|---------------|-------|
| 32-14MP-.75X.50 | 3/4 X 1/2     | 2.000 |
| 32-14MP-1X.50   | 1 X 1/2       | 2.500 |
| 32-14MP-1X.75   | 1 X 3/4       | 2.000 |
| 32-14MP-1.5X1   | 1-1/2 X 1     | 3.000 |
| 32-14MP-2X1     | 2 X 1         | 5.000 |
| 32-14MP-2X1.5   | 2 X 1-1/2     | 3.000 |
| 32-14MP-2.5X1.5 | 2-1/2 X 1-1/2 | 5.000 |
| 32-14MP-2.5X2   | 2-1/2 X 2     | 3.000 |
| 32-14MP-3X1.5   | 3 X 1-1/2     | 7.000 |
| 32-14MP-3X2     | 3 X 2         | 5.000 |
| 32-14MP-3X2.5   | 3 X 2-1/2     | 3.000 |
| 32-14MP-4X2     | 4 X 2         | 9.125 |
| 32-14MP-4X2.5   | 4 X 2-1/2     | 7.125 |
| 32-14MP-4X3     | 4 X 3         | 5.125 |
| 32-14MP-6X3     | 6 X 3         | 6.750 |
| 32-14MP-6X4     | 6 X 4         | 6.875 |

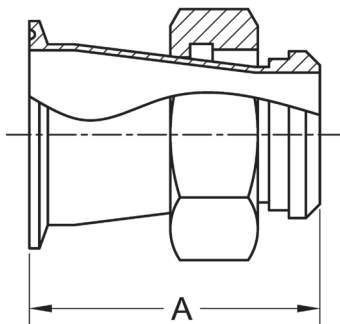
OTHER SIZES AVAILABLE UPON REQUEST

**31MPT - CONCENTRIC REDUCER, CLAMP X THREADED BEVEL SEAT**



| PART NUMBER   | SIZE          | A     |
|---------------|---------------|-------|
| 31MPT-1.5X1   | 1-1/2 X 1     | 3.188 |
| 31MPT-2X1     | 2 X 1         | 5.188 |
| 31MPT-2X1.5   | 2 X 1-1/2     | 3.188 |
| 31MPT-2.5X1.5 | 2-1/2 X 1-1/2 | 5.219 |
| 31MPT-2.5X2   | 2-1/2 X 2     | 3.219 |
| 31MPT-3X2     | 3 X 2         | 5.406 |
| 31MPT-3X2.5   | 3 X 2-1/2     | 3.406 |
| 31MPT-4X2.5   | 4 X 2-1/2     | 7.719 |
| 31MPT-4X3     | 4 X 3         | 5.719 |

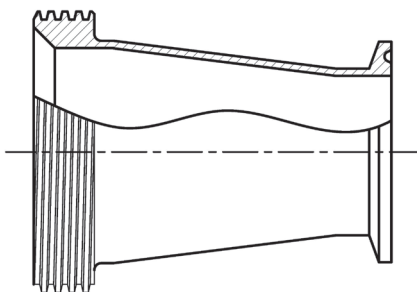
**31MPP - CONCENTRIC REDUCER, CLAMP X PLAIN BEVEL SEAT**



NOTE: HEX NUT INCLUDED

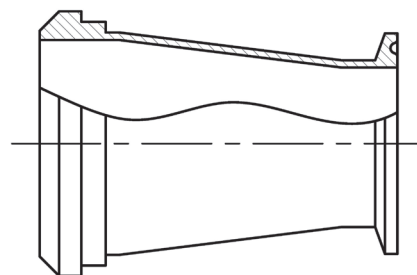
| PART NUMBER   | SIZE          | A     |
|---------------|---------------|-------|
| 31MPP-1.5X1   | 1-1/2 X 1     | 3.875 |
| 31MPP-2X1     | 2 X 1         | 5.875 |
| 31MPP-2X1.5   | 2 X 1-1/2     | 4.000 |
| 31MPP-2.5X1.5 | 2-1/2 X 1-1/2 | 6.000 |
| 31MPP-2.5X2   | 2-1/2 X 2     | 4.000 |
| 31MPP-3X2     | 3 X 2         | 6.000 |
| 31MPP-3X2.5   | 3 X 2-1/2     | 4.250 |
| 31MPP-4X2.5   | 4 X 2-1/2     | 8.375 |
| 31MPP-4X3     | 4 X 3         | 6.375 |

**OTHER CLAMP REDUCERS AVAILABLE FROM STEEL & O'BRIEN**



**31TMP (CONCENTRIC)**

**32TMP (ECCENTRIC)**

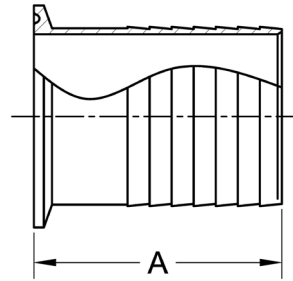


**31PMP (CONCENTRIC)**

**32PMP (ECCENTRIC)**



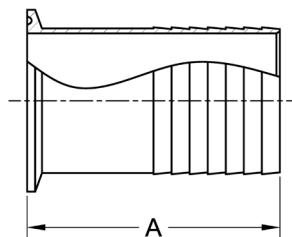
### 14MPHR - RUBBER HOSE ADAPTER



| PART NUMBER     | SIZE        | A     | PART NUMBER     | SIZE          | A     |
|-----------------|-------------|-------|-----------------|---------------|-------|
| 14MPHR-.50X.125 | 1/2 X 1/8   | 1.250 | 14MPHR-1.5X.50  | 1-1/2 X 1/2   | 1.500 |
| 14MPHR-.50X.25  | 1/2 X 1/4   | 1.500 | 14MPHR-1.5X.75  | 1-1/2 X 3/4   | 1.500 |
| 14MPHR-.50X.375 | 1/2 X 3/8   | 1.500 | 14MPHR-1.5X1    | 1-1/2 X 1     | 1.687 |
| 14MPHR-.50      | 1/2 X 1/2   | 1.500 | 14MPHR-1.5X1.25 | 1-1/2 X 1-1/4 | 1.687 |
| 14MPHR-.50X.75  | 1/2 X 3/4   | 1.500 | 14MPHR-1.5      | 1-1/2 X 1-1/2 | 1.687 |
| 14MPHR-.75X.125 | 3/4 X 1/8   | 1.250 | 14MPHR-2X.50    | 2 X 1/2       | 1.812 |
| 14MPHR-.75X.25  | 3/4 X 1/4   | 1.500 | 14MPHR-2X.75    | 2 X 3/4       | 1.812 |
| 14MPHR-.75X.375 | 3/4 X 3/8   | 1.500 | 14MPHR-2X1      | 2 X 1         | 2.312 |
| 14MPHR-.75X.50  | 3/4 X 1/2   | 1.500 | 14MPHR-2X1.5    | 2 X 1-1/2     | 2.312 |
| 14MPHR-.75      | 3/4 X 3/4   | 1.500 | 14MPHR-2        | 2 X 2         | 2.312 |
| 14MPHR-1X.375   | 1 X 3/8     | 1.500 | 14MPHR-2.5X1.5  | 2-1/2 X 1-1/2 | 2.312 |
| 14MPHR-1X.50    | 1 X 1/2     | 1.500 | 14MPHR-2.5X2    | 2-1/2 X 2     | 2.312 |
| 14MPHR-1X.75    | 1 X 3/4     | 1.500 | 14MPHR-2.5      | 2-1/2 X 2-1/2 | 2.343 |
| 14MPHR-1        | 1 X 1       | 1.687 | 14MPHR-3X2      | 3 X 2         | 3.109 |
| 14MPHR-1.5X.25  | 1-1/2 X 1/4 | 1.500 | 14MPHR-3        | 3 X 3         | 3.093 |
| 14MPHR-1.5X.375 | 1-1/2 X 3/8 | 1.500 | 14MPHR-4        | 4 X 4         | 3.406 |

NOTE: SIZES ARE LISTED CLAMP SIZE X HOSE BARB  
OTHER LENGTHS AND SIZES AVAILABLE UPON REQUEST.

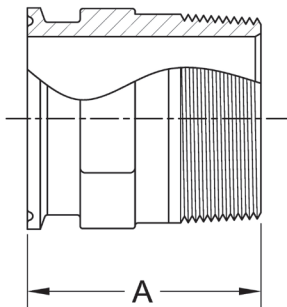
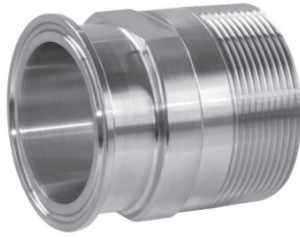
### 14MPHRL - BREWERY STYLE RUBBER HOSE ADAPTER



| PART NUMBER     | SIZE  | A     |
|-----------------|-------|-------|
| 14MPHRL-1X3.5   | 1     | 3.500 |
| 14MPHRL-1.5X3.5 | 1-1/2 | 3.500 |
| 14MPHRL-2X4.5   | 2     | 4.500 |
| 14MPHRL-2.5X4.5 | 2-1/2 | 4.500 |
| 14MPHRL-3X4.5   | 3     | 4.500 |
| 14MPHRL-4X6.25  | 4     | 6.250 |



## 21MP - ADAPTER, CLAMP X MALE NPT



NOTE: SIZES ARE LISTED CLAMP SIZE X NPT

PART NUMBERS DENOTED WITH AN ASTERISK (\*)  
ARE SUPPLIED WITH A HEX OR WRENCH FLATS

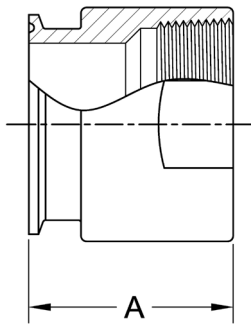
HEX SHAPE PROVIDED ON OTHER SIZES UPON REQUEST

| PART NUMBER    | SIZE          | A     |
|----------------|---------------|-------|
| 21MP-.50X.125  | 1/2 X 1/8     | 2.000 |
| 21MP-.50X.25   | 1/2 X 1/4     | 2.000 |
| 21MP-.50X.375  | 1/2 X 3/8     | 2.000 |
| 21MP-.50       | 1/2 X 1/2     | 2.000 |
| 21MP-.50X.75   | 1/2 X 3/4     | 2.000 |
| 21MP-.50X1*    | 1/2 X 1       | 2.250 |
| 21MP-.75X.125  | 3/4 X 1/8     | 2.000 |
| 21MP-.75X.25   | 3/4 X 1/4     | 2.000 |
| 21MP-.75X.375  | 3/4 X 3/8     | 2.000 |
| 21MP-.75X.50   | 3/4 X 1/2     | 2.000 |
| 21MP-.75       | 3/4 X 3/4     | 2.000 |
| 21MP-.75X1*    | 3/4 X 1       | 2.250 |
| 21MP-1X.50*    | 1 X 1/2       | 2.187 |
| 21MP-1X.75*    | 1 X 3/4       | 2.187 |
| 21MP-1*        | 1 X 1         | 2.250 |
| 21MP-1.5X.50*  | 1-1/2 X 1/2   | 2.187 |
| 21MP-1.5X.75*  | 1-1/2 X 3/4   | 2.187 |
| 21MP-1.5X1*    | 1-1/2 X 1     | 2.313 |
| 21MP-1.5X1.25* | 1-1/2 X 1-1/4 | 2.438 |
| 21MP-1.5*      | 1-1/2 X 1-1/2 | 2.438 |
| 21MP-2X1*      | 2 X 1         | 2.469 |
| 21MP-2X1.25*   | 2 X 1-1/4     | 2.469 |
| 21MP-2X1.5*    | 2 X 1-1/2     | 2.469 |
| 21MP-2*        | 2 X 2         | 2.656 |
| 21MP-2.5X1     | 2-1/2 X 1     | 2.781 |
| 21MP-2.5X1.5   | 2-1/2 X 1-1/2 | 2.781 |
| 21MP-2.5X2     | 2-1/2 X 2     | 2.781 |
| 21MP-2.5       | 2-1/2 X 2-1/2 | 3.281 |
| 21MP-3X1       | 3 X 1         | 2.875 |
| 21MP-3X1.5     | 3 X 1-1/2     | 3.000 |
| 21MP-3X2       | 3 X 2         | 3.000 |
| 21MP-3X2.5     | 3 X 2-1/2     | 3.500 |
| 21MP-3         | 3 X 3         | 3.500 |
| 21MP-4X1.5     | 4 X 1-1/2     | 3.813 |
| 21MP-4X2       | 4 X 2         | 3.813 |
| 21MP-4X2.5     | 4 X 2-1/2     | 3.813 |
| 21MP-4X3       | 4 X 3         | 3.813 |
| 21MP-4         | 4 X 4         | 3.813 |
| 21MP-6         | 6 X 6         | 4.500 |





## 22MP - ADAPTER, CLAMP X FEMALE NPT



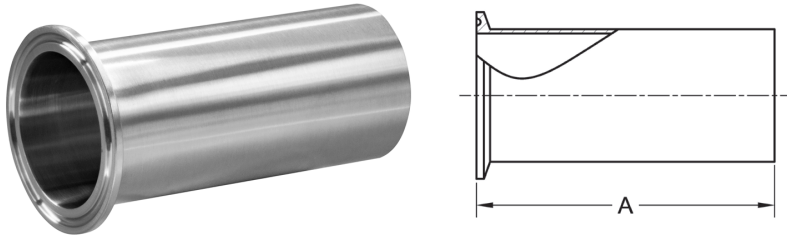
NOTE: SIZES ARE LISTED CLAMP SIZE X NPT

PART NUMBERS DENOTED WITH AN ASTERISK (\*)  
ARE SUPPLIED WITH A HEX OR WRENCH FLATS

HEX SHAPE PROVIDED ON OTHER SIZES UPON REQUEST

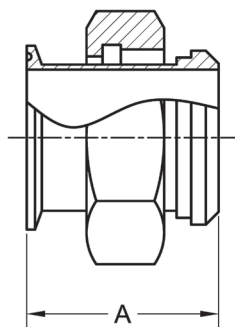
| PART NUMBER    | SIZE          | A     |
|----------------|---------------|-------|
| 22MP-.50X.125  | 1/2 X 1/8     | 1.250 |
| 22MP-.50X.25   | 1/2 X 1/4     | 1.500 |
| 22MP-.50X.375  | 1/2 X 3/8     | 1.500 |
| 22MP-.50       | 1/2 X 1/2     | 1.500 |
| 22MP-.50X.75   | 1/2 X 3/4     | 1.625 |
| 22MP-.50X1     | 1/2 X 1       | 1.625 |
| 22MP-.75X.125  | 3/4 X 1/8     | 1.250 |
| 22MP-.75X.25   | 3/4 X 1/4     | 1.500 |
| 22MP-.75X.375  | 3/4 X 3/8     | 1.500 |
| 22MP-.75X.50   | 3/4 X 1/2     | 1.500 |
| 22MP-.75       | 3/4 X 3/4     | 1.625 |
| 22MP-.75X1*    | 3/4 X 1       | 1.625 |
| 22MP-1X.50*    | 1 X 1/2       | 1.625 |
| 22MP-1X.75*    | 1 X 3/4       | 1.625 |
| 22MP-1*        | 1 X 1         | 1.625 |
| 22MP-1.5X.50*  | 1-1/2 X 1/2   | 1.625 |
| 22MP-1.5X.75*  | 1-1/2 X 3/4   | 1.625 |
| 22MP-1.5X1*    | 1-1/2 X 1     | 1.625 |
| 22MP-1.5X1.25* | 1-1/2 X 1-1/4 | 2.250 |
| 22MP-1.5*      | 1-1/2 X 1-1/2 | 2.250 |
| 22MP-2X1*      | 2 X 1         | 1.687 |
| 22MP-2X1.25*   | 2 X 1-1/4     | 1.687 |
| 22MP-2X1.5*    | 2 X 1-1/2     | 1.687 |
| 22MP-2*        | 2 X 2         | 2.343 |
| 22MP-2.5X1     | 2-1/2 X 1     | 1.313 |
| 22MP-2.5X1.5   | 2-1/2 X 1-1/2 | 1.656 |
| 22MP-2.5X2     | 2-1/2 X 2     | 1.719 |
| 22MP-2.5       | 2-1/2 X 2-1/2 | 2.094 |
| 22MP-3X1       | 3 X 1         | 2.187 |
| 22MP-3X1.5     | 3 X 1-1/2     | 2.187 |
| 22MP-3X2       | 3 X 2         | 2.187 |
| 22MP-3X2.5     | 3 X 2-1/2     | 2.187 |
| 22MP-3         | 3 X 3         | 2.187 |
| 22MP-4X1.5     | 4 X 1-1/2     | 2.187 |
| 22MP-4X2       | 4 X 2         | 2.187 |
| 22MP-4X2.5     | 4 X 2-1/2     | 2.187 |
| 22MP-4X3       | 4 X 3         | 2.187 |
| 22MP-4         | 4 X 4         | 2.625 |
| 22MP-6         | 6 X 6         | 3.250 |

### 14MPHT - TYGON HOSE ADAPTER



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14MPHT-.50  | 1/2   | 4.500 |
| 14MPHT-.75  | 3/4   | 4.500 |
| 14MPHT-1    | 1     | 4.500 |
| 14MPHT-1.5  | 1-1/2 | 4.500 |
| 14MPHT-2    | 2     | 4.500 |
| 14MPHT-2.5  | 2-1/2 | 4.500 |
| 14MPHT-3    | 3     | 4.500 |
| 14MPHT-4    | 4     | 4.625 |
| 14MPHT-6    | 6     | 4.750 |

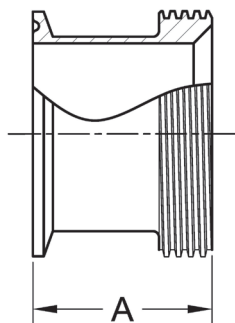
### 17MP-14 - ADAPTER, CLAMP X PLAIN BEVEL SEAT



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 17MP-14-1   | 1     | 2.500 |
| 17MP-14-1.5 | 1-1/2 | 2.625 |
| 17MP-14-2   | 2     | 2.625 |
| 17MP-14-2.5 | 2-1/2 | 2.875 |
| 17MP-14-3   | 3     | 2.875 |
| 17MP-14-4   | 4     | 2.875 |

NOTE: HEX NUT INCLUDED

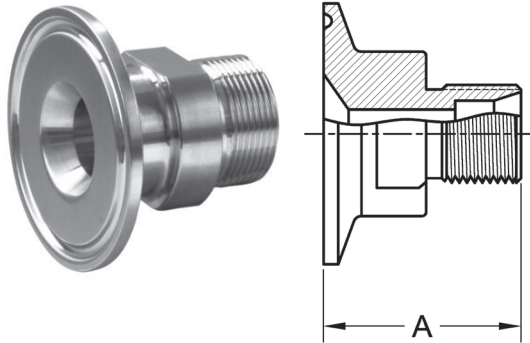
### 17MP-15 - ADAPTER, CLAMP X THREADED BEVEL SEAT



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 17MP-15-1   | 1     | 1.813 |
| 17MP-15-1.5 | 1-1/2 | 1.844 |
| 17MP-15-2   | 2     | 1.875 |
| 17MP-15-2.5 | 2-1/2 | 1.969 |
| 17MP-15-3   | 3     | 2.062 |
| 17MP-15-4   | 4     | 2.344 |



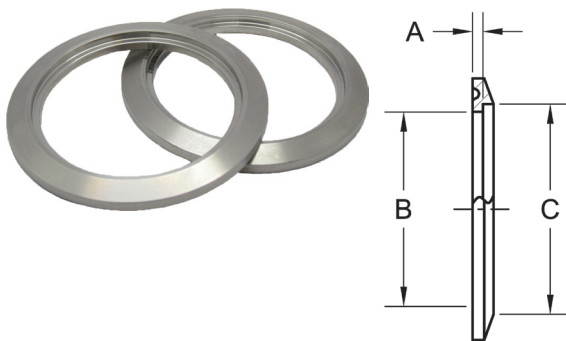
### 31-14C - CLAMP X TUBE COMPRESSION



| PART NUMBER    | TC SIZE | TUBE SIZE | A     |
|----------------|---------|-----------|-------|
| 31-14-.50X.25  | 1/2     | 1/4       | 1.170 |
| 31-14-.50X.375 | 1/2     | 3/8       | 1.590 |
| 31-14-.50      | 1/2     | 1/2       | 1.715 |
| 31-14-1        | 1       | 1         | 1.500 |
| 31-14-1.5X.25  | 1-1/2   | 1/4       | 1.250 |
| 31-14-1.5X.50  | 1-1/2   | 1/2       | 1.500 |

OTHERS SIZES AND LENGTHS AVAILABLE  
NUT AND BACK FERRULES AVAILABLE UPON REQUEST

### 16AAS - CLAMP FLUSH FERRULE



| PART NUMBER | SIZE  | A    | B     | C     |
|-------------|-------|------|-------|-------|
| 16AAS-1     | 1     | .188 | .870  | 1.010 |
| 16AAS-1.5   | 1-1/2 | .100 | 1.370 | 1.510 |
| 16AAS-2     | 2     | .100 | 1.870 | 2.010 |
| 16AAS-2.5   | 2-1/2 | .124 | 2.370 | 2.510 |
| 16AAS-3     | 3     | .100 | 2.870 | 3.010 |
| 16AAS-4     | 4     | .100 | 3.834 | 4.010 |
| 16AAS-6     | 6     | .220 | 5.782 | 6.010 |

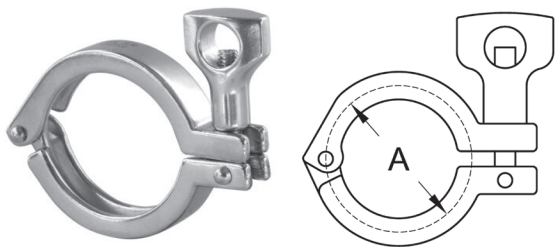
SLIP ONTO SANITARY TUBING AND WELD, NO NEED TO BUTT-WELD  
EASY WELDING FOR NON-SANITARY APPLICATIONS

### 13WNTT - .50-12 CLAMP WING NUT TIGHTENING TOOL



The wing nut tightening tool fits most clamp wing nuts for all sizes. This tool eases in the tightening and loosening of clamp wing nuts, while protecting the user from hot wing nuts.

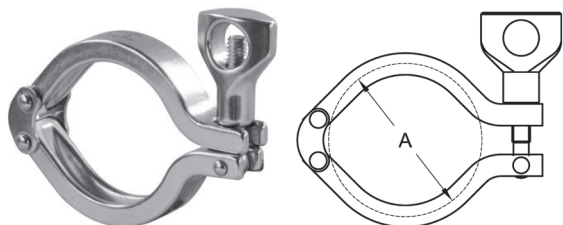
### 13MHM - SINGLE PIN CLAMP



| PART NUMBER | SIZE      | A      | PSI RATING @ 70°F | PSI RATING @ 250°F |
|-------------|-----------|--------|-------------------|--------------------|
| 13MHM-.50   | 1/2 & 3/4 | 1.125  | 1500              | 1200               |
| 13MHM-1     | 1 & 1-1/2 | 2.122  | 500               | 300                |
| 13MHM-2     | 2         | 2.654  | 450               | 300                |
| 13MHM-2.5   | 2-1/2     | 3.185  | 400               | 200                |
| 13MHM-3     | 3         | 3.717  | 350               | 195                |
| 13MHM-4     | 4         | 4.820  | 300               | 150                |
| 13MHM-5     | 5         | 5.625  | 150               | 75                 |
| 13MHM-6     | 6         | 6.695  | 150               | 75                 |
| 13MHM-8     | 8         | 8.695  | 100               | 50                 |
| 13MHM-10    | 10        | 10.695 | 75                | 40                 |
| 13MHM-12    | 12        | 12.695 | 50                | 25                 |

NOTE: ALSO AVAILABLE WITH ROCKET WING NUT  
 AVAILABLE IN 304 OR 316 MATERIAL  
 PRESSURE RATINGS ARE MAXIMUM WORKING PRESSURE ONLY  
 PRESSURE RATINGS PERTAIN TO THE CLAMP "UNION"

### 13MHM-DP - DOUBLE PIN CLAMP

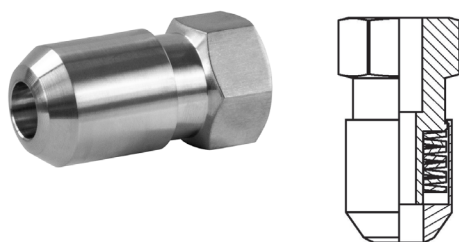


AVAILABLE IN 304 MATERIAL  
 ONLY

| PART NUMBER  | SIZE      | A      | PSI RATING @ 70°F | PSI RATING @ 250°F |
|--------------|-----------|--------|-------------------|--------------------|
| 13MHM-DP-.50 | 1/2 & 3/4 | 1.125  | 1500              | 1200               |
| 13MHM-DP-1   | 1 & 1-1/2 | 2.122  | 500               | 300                |
| 13MHM-DP-2   | 2         | 2.654  | 450               | 300                |
| 13MHM-DP-2.5 | 2-1/2     | 3.185  | 400               | 200                |
| 13MHM-DP-3   | 3         | 3.717  | 350               | 195                |
| 13MHM-DP-4   | 4         | 4.820  | 300               | 150                |
| 13MHM-DP-6   | 6         | 6.695  | 150               | 75                 |
| 13MHM-DP-8   | 8         | 8.695  | 100               | 50                 |
| 13MHM-DP-10  | 10        | 10.695 | 75                | 40                 |

NOTE: ROCKET WING NUTS ALSO AVAILABLE  
 PRESSURE RATINGS ARE MAXIMUM WORKING PRESSURE ONLY  
 PRESSURE RATINGS PERTAIN TO THE CLAMP "UNION"

### 13WNLL - LIVE LOADED CLAMP NUT

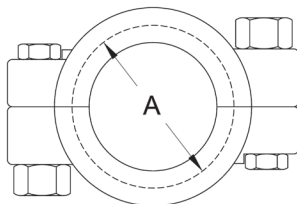


The live loaded clamp nut maintains a constant tightening force on clamped unions. This is helpful in keeping the seal of a clamped union, especially one with teflon gaskets. The "Live Loaded" nut fits on standard clamps and can be retrofitted on existing clamps.

The assembly consists of a two-piece outer housing with springs contained inside, once the nut is tightened to 50 inch/pounds on the clamp, the springs are compressed.



### 13MHP - HIGH PRESSURE CLAMP

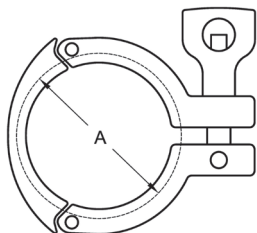


AVAILABLE IN 304 AND 316  
MATERIAL

| PART NUMBER | SIZE      | A      | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|--------|----------------------|-----------------------|
| 13MHP-.50   | 1/2 & 3/4 | 1.125  | 1500                 | 1200                  |
| 13MHP-1     | 1 & 1-1/2 | 2.046  | 1000                 | 800                   |
| 13MHP-2     | 2         | 2.596  | 1000                 | 800                   |
| 13MHP-2.5   | 2-1/2     | 3.127  | 1000                 | 800                   |
| 13MHP-3     | 3         | 3.659  | 1000                 | 800                   |
| 13MHP-4     | 4         | 4.762  | 800                  | 600                   |
| 13MHP-5     | 5         | 5.762  | 300                  | 200                   |
| 13MHP-6     | 6         | 6.695  | 300                  | 200                   |
| 13MHP-8     | 8         | 8.695  | 250                  | 150                   |
| 13MHP-10    | 10        | 10.695 | 200                  | 125                   |
| 13MHP-12    | 12        | 12.695 | 150                  | 100                   |

NOTE: PRESSURE RATINGS ARE MAXIMUM WORKING PRESSURE ONLY  
PRESSURE RATINGS PERTAIN TO THE CLAMP "UNION"  
SUPPLIED WITH BRASS HEX NUTS

### 13MHHS - THREE SEGMENT CLAMP

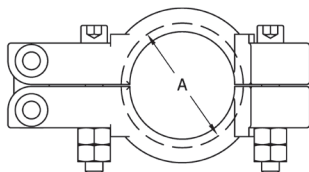
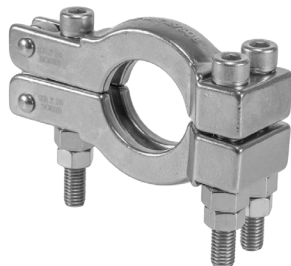


AVAILABLE IN 304 MATERIAL  
ONLY

| PART NUMBER | SIZE      | A     | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|-------|----------------------|-----------------------|
| 13MHHS-1    | 1 & 1-1/2 | 2.122 | 600                  | 300                   |
| 13MHHS-2    | 2         | 2.654 | 550                  | 275                   |
| 13MHHS-2.5  | 2-1/2     | 3.185 | 450                  | 225                   |
| 13MHHS-3    | 3         | 3.717 | 350                  | 175                   |
| 13MHHS-4    | 4         | 4.820 | 300                  | 150                   |

NOTE: ROCKET WING NUTS ALSO AVAILABLE  
PRESSURE RATINGS ARE MAXIMUM WORKING PRESSURE ONLY  
PRESSURE RATINGS PERTAIN TO THE CLAMP "UNION"

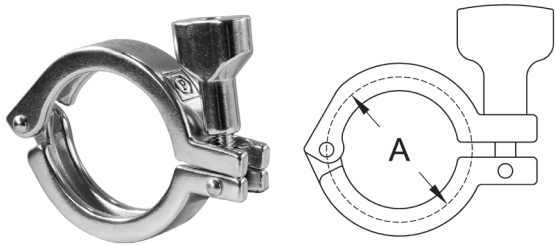
### 13ASME - ASME DOUBLE BOLT CLAMP



AVAILABLE IN 316 MATERIAL ONLY

| PART NUMBER | SIZE      | A      | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|--------|----------------------|-----------------------|
| 13ASME-1    | 1 & 1-1/2 | 2.046  | 1485                 | 1337                  |
| 13ASME-2    | 2         | 2.578  | 1370                 | 1233                  |
| 13AMSE-3    | 3         | 3.640  | 1000                 | 900                   |
| 13ASME-4    | 4         | 4.744  | 874                  | 787                   |
| 13ASME-6    | 6         | 6.632  | 415                  | 374                   |
| 13ASME-8    | 8         | 8.632  | 299                  | 269                   |
| 13ASME-10   | 10        | 10.632 | 161                  | 145                   |
| 13ASME-12   | 12        | 12.632 | 102                  | 92                    |

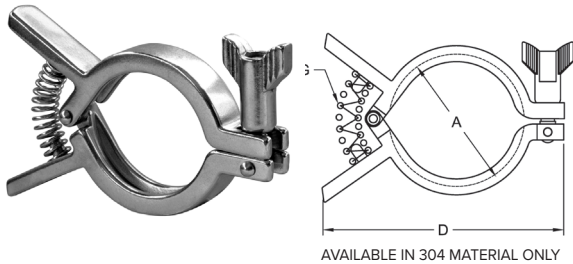
NOTE: TO MEET THE PSI RATINGS ABOVE THE FERRULE (HUB) USED  
SHALL BE DESIGNED IN ACCORDANCE WITH ASME SECTION 8 DIVISION 1  
MANDATORY APPENDIX 24  
STANDARD FERRULES AND FULL FACE GASKET CAN BE USED  
HOWEVER PERFORMANCE MAY NOT MEET THE ABOVE RATINGS

**P13MHHM - PURITY CLAMP**

AVAILABLE IN 304 MATERIAL ONLY

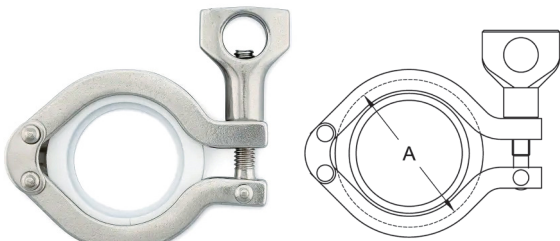
| PART NUMBER | SIZE      | A     | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|-------|----------------------|-----------------------|
| P13MHHM-.50 | 1/2 & 3/4 | 1.125 | 1500                 | 1200                  |
| P13MHHM-1   | 1 & 1-1/2 | 2.122 | 500                  | 300                   |
| P13MHHM-2   | 2         | 2.654 | 450                  | 300                   |
| P13MHHM-2.5 | 2-1/2     | 3.185 | 400                  | 200                   |
| P13MHHM-3   | 3         | 3.717 | 350                  | 195                   |
| P13MHHM-4   | 4         | 4.820 | 300                  | 150                   |

TRUE SPHERICAL DESIGN  
 LOBE WING NUT  
 POLISHED

**13MHHMQ - SQUEEZE CLAMP**

AVAILABLE IN 304 MATERIAL ONLY

| PART NUMBER | SIZE      | A     | D     | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|-------|-------|----------------------|-----------------------|
| 13MHHMQ-.50 | 1/2 & 3/4 | 1.125 | 3.625 | 1500                 | 1200                  |
| 13MHHMQ-1   | 1 & 1-1/2 | 2.122 | 4.625 | 500                  | 300                   |
| 13MHHMQ-2   | 2         | 2.654 | 5.000 | 450                  | 300                   |
| 13MHHMQ-2.5 | 2-1/2     | 3.185 | 6.000 | 400                  | 200                   |
| 13MHHMQ-3   | 3         | 3.717 | 7.000 | 350                  | 195                   |
| 13MHHMQ-4   | 4         | 4.820 | 8.000 | 300                  | 150                   |

**A12MPS - SWIVEL JOINT CLAMP ASSEMBLY**

AVAILABLE IN 304 MATERIAL ONLY

| PART NUMBER | SIZE      | A     | PSI RATING<br>@ 70°F |
|-------------|-----------|-------|----------------------|
| A12MPS-1    | 1 & 1-1/2 | 2.122 | 50                   |
| A12MPS-2    | 2         | 2.654 | 50                   |
| A12MPS-2.5  | 2-1/2     | 3.185 | 50                   |
| A12MPS-3    | 3         | 3.717 | 50                   |
| A12MPS-4    | 4         | 4.820 | 50                   |

NOTE: "A" DIMENSION DOES NOT INCLUDE TEFLON COLLAR  
 ASSEMBLY INCLUDES PTFE COLLAR AND PTFE/EPDM ENVELOPE GASKET

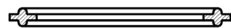
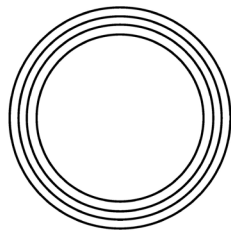


## CLAMP GASKET PERFORMANCE CHART

| PROPERTY                    | BUNA-N       | EPDM                     | PTFE               | FKM/SFY           | SILICONE            |
|-----------------------------|--------------|--------------------------|--------------------|-------------------|---------------------|
| TENSILE STRENGTH            | GOOD         | GOOD - EXCELLENT         | EXCELLENT          | EXCELLENT         | GOOD                |
| ELECTRICAL PROPERTIES       | POOR         | EXCELLENT                | EXCELLENT          | GOOD              | EXCELLENT           |
| WEATHER RESISTANCE          | GOOD         | EXCELLENT                | EXCELLENT          | EXCELLENT         | EXCELLENT           |
| OZONE RESISTANCE            | POOR         | EXCELLENT                | EXCELLENT          | EXCELLENT         | EXCELLENT           |
| HEAT RESISTANCE             | GOOD (250°F) | EXCELLENT (300°F)        | EXCELLENT (500°F)  | EXCELLENT (400°F) | EXCELLENT (450°F)   |
| COLD RESISTANCE             | GOOD (-30°F) | GOOD - EXCELLENT (-20°F) | EXCELLENT (-100°F) | GOOD (-30°F)      | EXCELLENT (-40°F)   |
| STEAM RESISTANCE            | EXCELLENT    | EXCELLENT                | EXCELLENT          | EXCELLENT         | GOOD                |
| TEAR RESISTANCE             | GOOD         | GOOD                     | EXCELLENT          | GOOD              | GOOD                |
| ABRASION RESISTANCE         | GOOD         | GOOD                     | EXCELLENT          | GOOD              | GOOD                |
| ACID RESISTANCE             | POOR - GOOD  | GOOD - EXCELLENT         | EXCELLENT          | GOOD              | GOOD                |
| PETROLEUM OIL               | EXCELLENT    | POOR                     | EXCELLENT          | EXCELLENT         | POOR - GOOD         |
| FLAME RESISTANCE            | POOR         | POOR                     | EXCELLENT          | GOOD              | POOR                |
| VEGETABLE OIL               | EXCELLENT    | GOOD                     | EXCELLENT          | EXCELLENT         | GOOD (INTERMITTENT) |
| USP CLASS VI                | NO           | YES                      | YES                | YES               | YES                 |
| ANIMAL OILS & FATS          | EXCELLENT    | POOR                     | EXCELLENT          | EXCELLENT         | GOOD                |
| ALCOHOL, GLYCOLS            | EXCELLENT    | EXCELLENT                | EXCELLENT          | GOOD              | EXCELLENT           |
| SOAPS, BLEACHES, DETERGENTS | POOR         | EXCELLENT                | EXCELLENT          | GOOD              | POOR                |

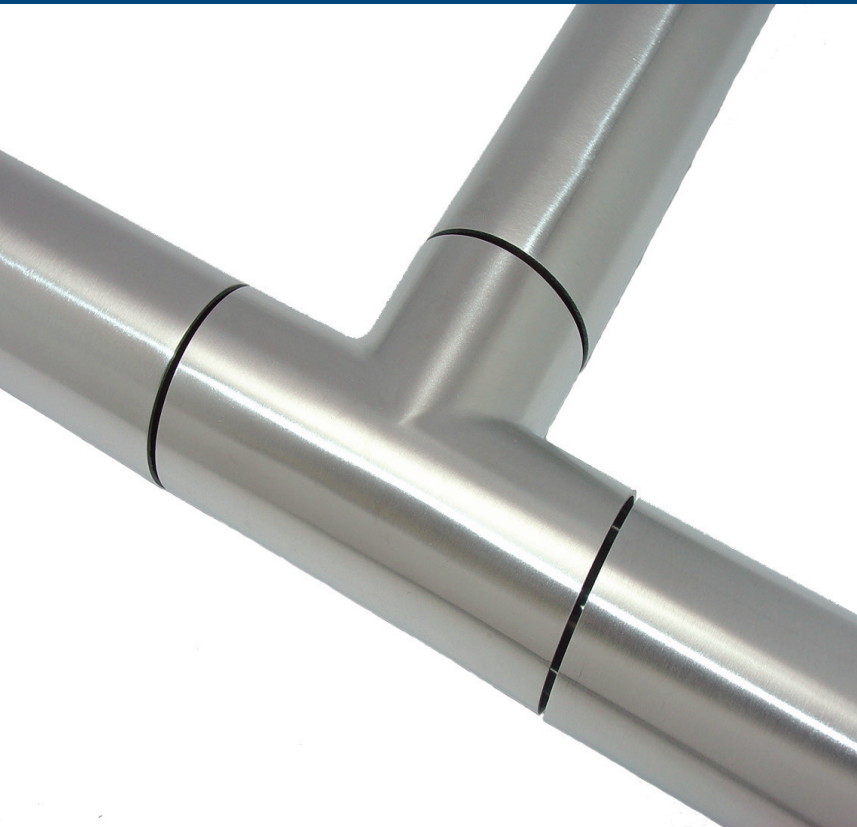
THE ABOVE CHART IS INTENDED AS A GUIDELINE, ACUTAL PERFORMANCE MAY VARY WITH EACH APPLICATION.

## 40MP - CLAMP GASKET



AVAILABLE IN THE FOLLOWING MATERIALS:  
BUNA-N, EPDM, TEFLON, VITON, SILICONE  
TUF-STEEL & STAINLESS  
OTHER MATERIALS AVAILABLE UPON REQUEST

| PART NUMBER | SIZE  |
|-------------|-------|
| 40MP-.50    | 1/2   |
| 40MP-.75    | 3/4   |
| 40MP-1      | 1     |
| 40MP-1.5    | 1-1/2 |
| 40MP-2      | 2     |
| 40MP-2.5    | 2-1/2 |
| 40MP-3      | 3     |
| 40MP-4      | 4     |
| 40MP-5      | 5     |
| 40MP-6      | 6     |
| 40MP-8      | 8     |
| 40MP-10     | 10    |
| 40MP-12     | 12    |

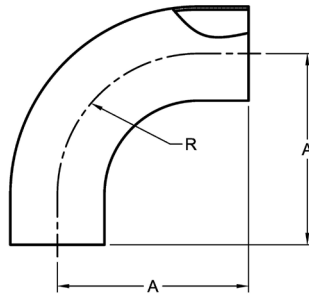


## WELD FITTINGS

Nutech overseas is your ultimate resource for sanitary butt weld fittings. We maintain an extensive inventory of these fittings, including reducers, flanges, adaptors, elbows and caps. We stock products available in 304 and 316L stainless steel, with sizes ranging up to 12" in diameter. These stainless-steel sanitary fittings are welded to connect to tubing or other fittings for a permanent and flush connection.

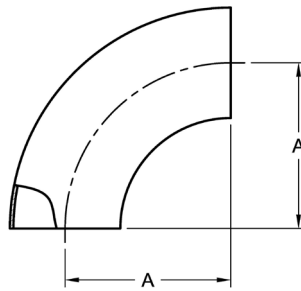


**L2S - 90 DEGREE ELBOW, TANGENT WELD ENDS**



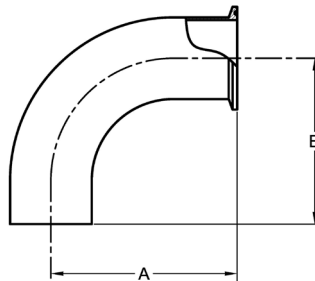
| PART NUMBER | SIZE  | A      | R      |
|-------------|-------|--------|--------|
| L2S-.50     | 1/2   | 3.000  | .750   |
| L2S-.50L    | 1/2   | 3.000  | 1.125  |
| L2S-.75     | 3/4   | 3.000  | 1.125  |
| L2S-1       | 1     | 2.062  | 1.500  |
| L2S-1.5     | 1-1/2 | 2.937  | 2.250  |
| L2S-2       | 2     | 4.062  | 3.000  |
| L2S-2.5     | 2-1/2 | 5.187  | 3.750  |
| L2S-3       | 3     | 6.312  | 4.500  |
| L2S-4       | 4     | 8.312  | 6.000  |
| L2S-6       | 6     | 11.000 | 9.000  |
| L2S-8       | 8     | 15.000 | 12.000 |

**2WCL - 90 DEGREE ELBOW, WELD ENDS**



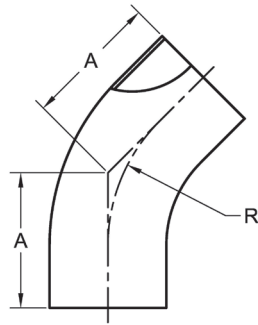
| PART NUMBER | SIZE  | A      |
|-------------|-------|--------|
| 2WCL-.50    | 1/2   | .750   |
| 2WCL-.50L   | 1/2   | 1.125  |
| 2WCL-.75    | 3/4   | 1.125  |
| 2WCL-1      | 1     | 1.500  |
| 2WCL-1.5    | 1-1/2 | 2.250  |
| 2WCL-2      | 2     | 3.000  |
| 2WCL-2.5    | 2-1/2 | 3.750  |
| 2WCL-3      | 3     | 4.500  |
| 2WCL-4      | 4     | 6.000  |
| 2WCL-6      | 6     | 9.000  |
| 2WCL-8      | 8     | 12.000 |
| 2WCL-10     | 10    | 15.000 |
| 2WCL-12     | 12    | 18.000 |

**L2CM - 90 DEGREE ELBOW, WELD X CLAMP**



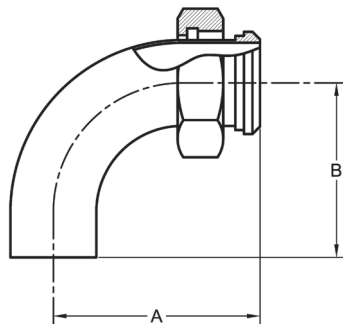
| PART NUMBER | SIZE  | A      | B      |
|-------------|-------|--------|--------|
| L2CM-1      | 1     | 2.563  | 2.063  |
| L2CM-1.5    | 1-1/2 | 3.438  | 2.938  |
| L2CM-2      | 2     | 4.563  | 4.063  |
| L2CM-2.5    | 2-1/2 | 5.688  | 5.188  |
| L2CM-3      | 3     | 6.813  | 6.313  |
| L2CM-4      | 4     | 8.938  | 8.313  |
| L2CM-6      | 6     | 11.750 | 11.000 |
| L2CM-8      | 8     | 15.875 | 15.000 |
| L2CM-10     | 10    | 18.875 | 18.000 |
| L2CM-12     | 12    | 22.000 | 21.000 |

**L2KS - 45 DEGREE ELBOW, TANGENT WELD ENDS**



| PART NUMBER | SIZE  | A     | R      |
|-------------|-------|-------|--------|
| L2KS-.50    | 1/2   | 2.250 | .750   |
| L2KS-.50L   | 1/2   | 2.250 | 1.125  |
| L2KS-.75    | 3/4   | 2.250 | 1.125  |
| L2KS-1      | 1     | 1.188 | 1.500  |
| L2KS-1.5    | 1-1/2 | 1.625 | 2.250  |
| L2KS-2      | 2     | 2.312 | 3.000  |
| L2KS-2.5    | 2-1/2 | 3.000 | 3.750  |
| L2KS-3      | 3     | 3.688 | 4.500  |
| L2KS-4      | 4     | 4.812 | 6.000  |
| L2KS-6      | 6     | 7.500 | 9.000  |
| L2KS-8      | 8     | 7.971 | 12.000 |

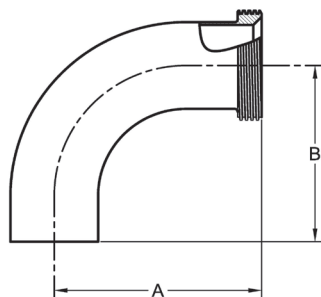
**L2F - 90 DEGREE ELBOW, WELD X PLAIN BEVEL SEAT**



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| L2F-1       | 1     | 2.749 | 2.062 |
| L2F-1.5     | 1-1/2 | 3.656 | 2.937 |
| L2F-2       | 2     | 4.785 | 4.062 |
| L2F-2.5     | 2-1/2 | 6.031 | 5.187 |
| L2F-3       | 3     | 7.218 | 6.312 |
| L2F-4       | 4     | 9.312 | 8.312 |

NOTE: HEX NUT INCLUDED

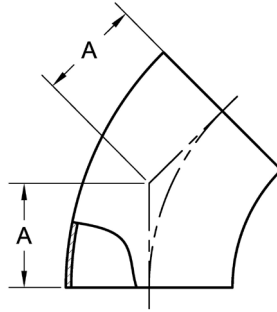
**L2C - 90 DEGREE ELBOW, WELD X THREADED BEVEL SEAT**



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| L2C-1       | 1     | 2.750 | 2.062 |
| L2C-1.5     | 1-1/2 | 3.656 | 2.937 |
| L2C-2       | 2     | 4.812 | 4.062 |
| L2C-2.5     | 2-1/2 | 6.031 | 5.187 |
| L2C-3       | 3     | 7.245 | 6.312 |
| L2C-4       | 4     | 9.531 | 8.312 |

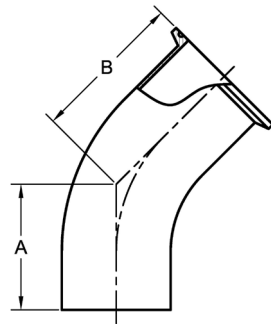


### 2WK - 45 DEGREE ELBOW, WELD ENDS



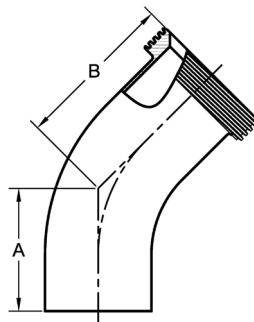
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 2WK-.50     | 1/2   | .313  |
| 2WK-.50L    | 1/2   | .466  |
| 2WK-.75     | 3/4   | .466  |
| 2WK-1       | 1     | .625  |
| 2WK-1.5     | 1-1/2 | .937  |
| 2WK-2       | 2     | 1.250 |
| 2WK-2.5     | 2-1/2 | 1.562 |
| 2WK-3       | 3     | 1.875 |
| 2WK-4       | 4     | 2.500 |
| 2WK-6       | 6     | 3.750 |
| 2WK-8       | 8     | 5.000 |
| 2WK-10      | 10    | 6.250 |
| 2WK-12      | 12    | 7.500 |

### L2KM - 45 DEGREE ELBOW, WELD X CLAMP



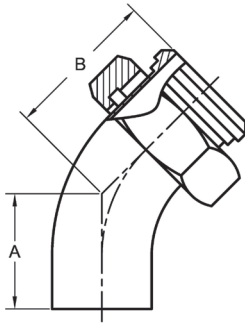
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| L2KM-1      | 1     | 1.188 | 1.688 |
| L2KM-1.5    | 1-1/2 | 1.625 | 2.125 |
| L2KM-2      | 2     | 2.312 | 2.812 |
| L2KM-2.5    | 2-1/2 | 3.000 | 3.500 |
| L2KM-3      | 3     | 3.688 | 4.188 |
| L2KM-4      | 4     | 4.812 | 5.437 |
| L2KM-6      | 6     | 3.750 | 4.625 |

### L2K - 45 DEGREE ELBOW, WELD X THREADED BEVEL SEAT



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| L2K-1       | 1     | 1.188 | 1.907 |
| L2K-1.5     | 1-1/2 | 1.625 | 2.344 |
| L2K-2       | 2     | 2.312 | 3.031 |
| L2K-2.5     | 2-1/2 | 3.000 | 3.719 |
| L2K-3       | 3     | 3.688 | 4.406 |
| L2K-4       | 4     | 4.812 | 5.531 |

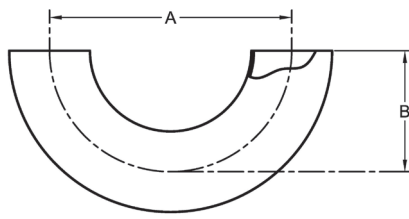
**L2P - 45 DEGREE ELBOW, WELD X PLAIN BEVEL SEAT**



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| L2P-1       | 1     | 1.188 | 1.875 |
| L2P-1.5     | 1-1/2 | 1.625 | 2.344 |
| L2P-2       | 2     | 2.312 | 3.035 |
| L2P-2.5     | 2-1/2 | 3.000 | 3.844 |
| L2P-3       | 3     | 3.688 | 4.594 |
| L2P-4       | 4     | 4.812 | 5.812 |

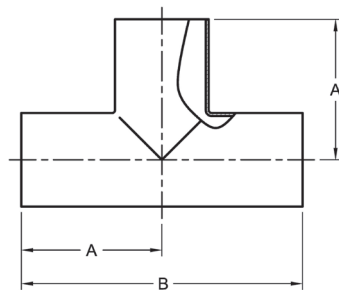
NOTE: HEX NUT INCLUDED

**2WU - 180 DEGREE RETURN BEND, WELD ENDS**



| PART NUMBER | SIZE  | A      | B     |
|-------------|-------|--------|-------|
| 2WU-1       | 1     | 3.000  | 1.500 |
| 2WU-1.5     | 1-1/2 | 4.500  | 2.250 |
| 2WU-2       | 2     | 6.000  | 3.000 |
| 2WU-2.5     | 2-1/2 | 7.500  | 3.750 |
| 2WU-3       | 3     | 9.000  | 4.500 |
| 2WU-4       | 4     | 12.000 | 6.000 |
| 2WU-6       | 6     | 18.000 | 9.000 |

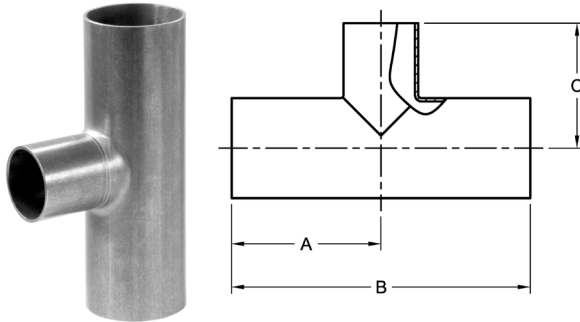
**7W - TEE, WELD ENDS (LONG)**



| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 7W-.50      | 1/2   | 1.875 | 3.750  |
| 7W-.75      | 3/4   | 1.875 | 3.750  |
| 7W-1        | 1     | 1.875 | 3.750  |
| 7W-1.5      | 1-1/2 | 2.250 | 4.500  |
| 7W-2        | 2     | 3.000 | 6.000  |
| 7W-2.5      | 2-1/2 | 3.000 | 6.000  |
| 7W-3        | 3     | 3.250 | 6.500  |
| 7W-4        | 4     | 3.875 | 7.750  |
| 7W-6        | 6     | 5.030 | 10.038 |

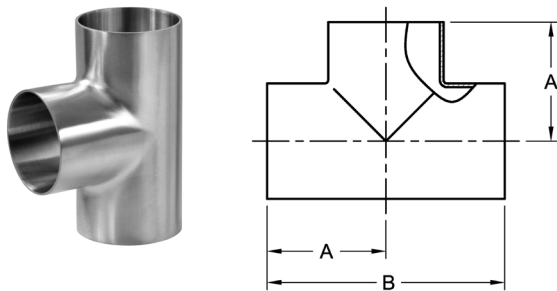


### 7RW - REDUCING TEE, WELD ENDS (LONG)



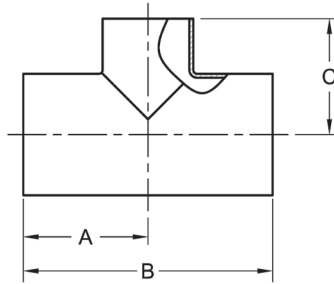
| PART NUMBER | SIZE          | A     | B     | C     |
|-------------|---------------|-------|-------|-------|
| 7RW-1X.50   | 1 X 1/2       | 2.125 | 4.250 | 2.125 |
| 7RW-1X.75   | 1 X 3/4       | 2.125 | 4.250 | 2.125 |
| 7RW-1.5X.50 | 1-1/2 X 1/2   | 2.375 | 4.750 | 2.375 |
| 7RW-1.5X.75 | 1-1/2 X 3/4   | 2.375 | 4.750 | 2.375 |
| 7RW-1.5X1   | 1-1/2 X 1     | 2.250 | 4.500 | 2.125 |
| 7RW-2X.50   | 2 X 1/2       | 2.875 | 5.750 | 2.625 |
| 7RW-2X.75   | 2 X 3/4       | 3.000 | 6.000 | 2.375 |
| 7RW-2X1     | 2 X 1         | 3.000 | 6.000 | 2.375 |
| 7RW-2X1.5   | 2 X 1-1/2     | 3.000 | 6.000 | 2.500 |
| 7RW-2.5X1   | 2-1/2 X 1     | 3.000 | 6.000 | 2.625 |
| 7RW-2.5X1.5 | 2-1/2 X 1-1/2 | 3.000 | 6.000 | 2.750 |
| 7RW-2.5X2   | 2-1/2 X 2     | 3.000 | 6.000 | 3.250 |
| 7RW-3X1     | 3 X 1         | 3.250 | 6.000 | 2.875 |
| 7RW-3X1.5   | 3 X 1-1/2     | 3.250 | 6.500 | 3.000 |
| 7RW-3X2     | 3 X 2         | 3.250 | 6.500 | 3.500 |
| 7RW-3X2.5   | 3 X 2-1/2     | 3.250 | 6.500 | 3.250 |
| 7RW-4X1     | 4 X 1         | 3.875 | 7.750 | 3.625 |
| 7RW-4X1.5   | 4 X 1-1/2     | 3.875 | 7.750 | 3.625 |
| 7RW-4X2     | 4 X 2         | 3.875 | 7.750 | 4.000 |
| 7RW-4X2.5   | 4 X 2-1/2     | 3.875 | 7.750 | 3.750 |
| 7RW-4X3     | 4 X 3         | 3.875 | 7.750 | 3.750 |

### 7WWW - TEE, WELD ENDS (SHORT)



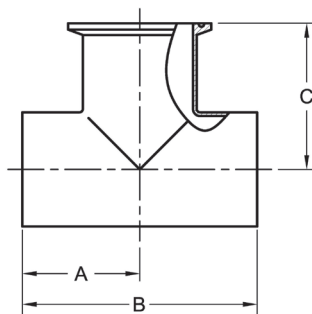
| PART NUMBER | SIZE  | A      | B      |
|-------------|-------|--------|--------|
| 7WWW-.50    | 1/2   | 1.125  | 2.250  |
| 7WWW-.75    | 3/4   | 1.125  | 2.250  |
| 7WWW-1      | 1     | 1.125  | 2.250  |
| 7WWW-1.5    | 1-1/2 | 1.656  | 3.312  |
| 7WWW-2      | 2     | 2.063  | 4.125  |
| 7WWW-2.5    | 2-1/2 | 2.344  | 4.688  |
| 7WWW-3      | 3     | 2.594  | 5.188  |
| 7WWW-4      | 4     | 3.438  | 6.875  |
| 7WWW-6      | 6     | 5.625  | 11.250 |
| 7WWW-8      | 8     | 7.000  | 14.000 |
| 7WWW-10     | 10    | 8.500  | 17.000 |
| 7WWW-12     | 12    | 10.000 | 20.000 |

**7RWWW - REDUCING TEE, WELD ENDS (SHORT)**



| PART NUMBER   | SIZE          | A     | B      | C     |
|---------------|---------------|-------|--------|-------|
| 7RWWW-1.5X1   | 1-1/2 X 1     | 1.656 | 3.312  | 1.375 |
| 7RWWW-2X1     | 2 X 1         | 2.062 | 4.125  | 1.625 |
| 7RWWW-2X1.5   | 2 X 1-1/2     | 2.062 | 4.125  | 1.905 |
| 7RWWW-2.5X1   | 2-1/2 X 1     | 2.344 | 4.688  | 1.875 |
| 7RWWW-2.5X1.5 | 2-1/2 X 1-1/2 | 2.344 | 4.688  | 2.156 |
| 7RWWW-2.5X2   | 2-1/2 X 2     | 2.344 | 4.688  | 2.312 |
| 7RWWW-3X1     | 3 X 1         | 2.594 | 5.188  | 2.125 |
| 7RWWW-3X1.5   | 3 X 1-1/2     | 2.594 | 5.188  | 2.406 |
| 7RWWW-3X2     | 3 X 2         | 2.594 | 5.188  | 2.562 |
| 7RWWW-3X2.5   | 3 X 2-1/2     | 2.594 | 5.188  | 2.594 |
| 7RWWW-4X1     | 4 X 1         | 3.438 | 6.875  | 2.625 |
| 7RWWW-4X1.5   | 4 X 1-1/2     | 3.438 | 6.875  | 2.906 |
| 7RWWW-4X2     | 4 X 2         | 3.438 | 6.875  | 3.062 |
| 7RWWW-4X2.5   | 4 X 2-1/2     | 3.438 | 6.875  | 3.094 |
| 7RWWW-4X3     | 4 X 3         | 3.438 | 6.875  | 3.094 |
| 7RWWW-6X3     | 6 X 3         | 5.625 | 11.250 | 4.875 |
| 7RWWW-6X4     | 6 X 4         | 5.625 | 11.250 | 5.125 |
| 7RWWW-8X4     | 8 X 4         | 7.000 | 14.000 | 6.125 |
| 7RWWW-8X6     | 8 X 6         | 7.000 | 14.000 | 6.625 |

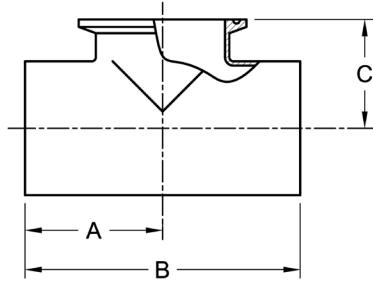
**7WWM - TEE, WELD X WELD X CLAMP OUTLET**



| PART NUMBER | SIZE  | A     | B      | C     |
|-------------|-------|-------|--------|-------|
| 7WWM-.75    | 3/4   | 1.875 | 3.750  | 2.375 |
| 7WWM-1      | 1     | 1.125 | 2.250  | 1.625 |
| 7WWM-1.5    | 1-1/2 | 1.656 | 3.312  | 2.156 |
| 7WWM-2      | 2     | 2.063 | 4.125  | 2.563 |
| 7WWM-2.5    | 2-1/2 | 2.344 | 4.688  | 2.844 |
| 7WWM-3      | 3     | 2.594 | 5.188  | 3.094 |
| 7WWM-4      | 4     | 3.438 | 6.875  | 4.063 |
| 7WWM-6      | 6     | 5.625 | 11.250 | 6.375 |

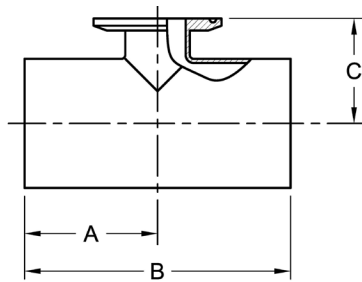


### 7WWMS - TEE, WELD X WELD X SHORT CLAMP OUTLET



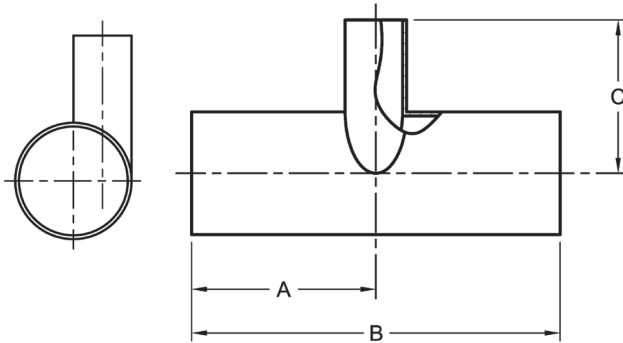
| PART NUMBER | SIZE  | A     | B      | C     |
|-------------|-------|-------|--------|-------|
| 7WWMS-1     | 1     | 1.125 | 2.250  | 1.125 |
| 7WWMS-1.5   | 1-1/2 | 1.656 | 3.312  | 1.375 |
| 7WWMS-2     | 2     | 2.063 | 4.125  | 1.625 |
| 7WWMS-2.5   | 2-1/2 | 2.344 | 4.688  | 1.875 |
| 7WWMS-3     | 3     | 2.594 | 5.188  | 2.125 |
| 7WWMS-4     | 4     | 3.438 | 6.876  | 2.750 |
| 7WWMS-6     | 6     | 5.625 | 11.250 | 4.500 |
| 7WWMS-8     | 8     | 7.000 | 14.000 | 5.125 |

### 7RWWMS - REDUCING TEE, WELD X WELD X SHORT CLAMP OUTLET



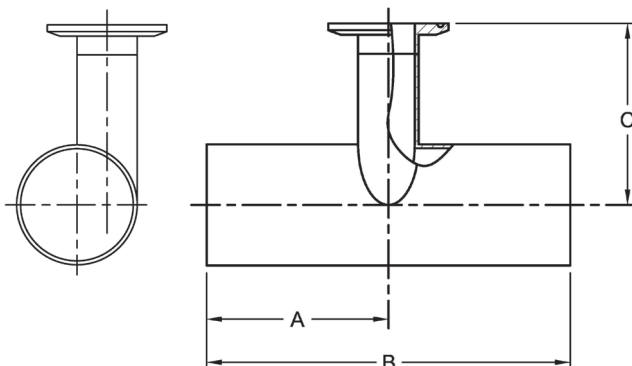
| PART NUMBER    | SIZE          | A     | B      | C     |
|----------------|---------------|-------|--------|-------|
| 7RWWMS-1.5X1   | 1-1/2 X 1     | 1.656 | 3.312  | 1.375 |
| 7RWWMS-2X1     | 2 X 1         | 2.062 | 4.125  | 1.625 |
| 7RWWMS-2X1.5   | 2 X 1-1/2     | 2.062 | 4.125  | 1.625 |
| 7RWWMS-2.5X1   | 2-1/2 X 1     | 2.344 | 4.688  | 1.875 |
| 7RWWMS-2.5X1.5 | 2-1/2 X 1-1/2 | 2.344 | 4.688  | 1.875 |
| 7RWWMS-2.5X2   | 2-1/2 X 2     | 2.344 | 4.688  | 1.875 |
| 7RWWMS-3X1     | 3 X 1         | 2.594 | 5.188  | 2.125 |
| 7RWWMS-3X1.5   | 3 X 1-1/2     | 2.594 | 5.188  | 2.125 |
| 7RWWMS-3X2     | 3 X 2         | 2.594 | 5.188  | 2.125 |
| 7RWWMS-3X2.5   | 3 X 2-1/2     | 2.594 | 5.188  | 2.125 |
| 7RWWMS-4X1     | 4 X 1         | 3.438 | 6.875  | 2.625 |
| 7RWWMS-4X1.5   | 4 X 1-1/2     | 3.438 | 6.875  | 2.625 |
| 7RWWMS-4X2     | 4 X 2         | 3.438 | 6.875  | 2.625 |
| 7RWWMS-4X2.5   | 4 X 2-1/2     | 3.438 | 6.875  | 2.625 |
| 7RWWMS-4X3     | 4 X 3         | 3.438 | 6.875  | 2.625 |
| 7RWWMS-6X3     | 6 X 3         | 5.625 | 11.250 | 3.625 |
| 7RWWMS-6X4     | 6 X 4         | 5.625 | 11.250 | 3.750 |

**7ERWWW - TANGENTIAL REDUCING TEE, WELD ENDS**



| PART NUMBER    | SIZE          | A     | B     | C     |
|----------------|---------------|-------|-------|-------|
| 7ERWWW-1.5X1   | 1-1/2 X 1     | 1.656 | 3.312 | 1.375 |
| 7ERWWW-2X1     | 2 X 1         | 2.062 | 4.125 | 1.625 |
| 7ERWWW-2X1.5   | 2 X 1-1/2     | 2.062 | 4.125 | 1.905 |
| 7ERWWW-2.5X1   | 2-1/2 X 1     | 2.344 | 4.688 | 1.875 |
| 7ERWWW-2.5X1.5 | 2-1/2 X 1 1/2 | 2.344 | 4.688 | 2.156 |
| 7ERWWW-2.5X2   | 2-1/2 X 2     | 2.344 | 4.688 | 2.312 |
| 7ERWWW-3X1     | 3 X 1         | 2.594 | 5.188 | 2.125 |
| 7ERWWW-3X1.5   | 3 X 1-1/2     | 2.594 | 5.188 | 2.406 |
| 7ERWWW-3X2     | 3 X 2         | 2.594 | 5.188 | 2.562 |
| 7ERWWW-3X2.5   | 3 X 2-1/2     | 2.594 | 5.188 | 2.594 |
| 7ERWWW-4X1     | 4 X 1         | 3.438 | 6.875 | 2.625 |
| 7ERWWW-4X1.5   | 4 X 1-1/2     | 3.438 | 6.875 | 2.906 |
| 7ERWWW-4X2     | 4 X 2         | 3.438 | 6.875 | 3.062 |
| 7ERWWW-4X2.5   | 4 X 2-1/2     | 3.438 | 6.875 | 3.094 |
| 7ERWWW-4X3     | 4 X 3         | 3.438 | 6.875 | 3.094 |

**7ERWWK - TANGENTIAL REDUCING TEE, WELD X WELD X CLAMP OUTLET**

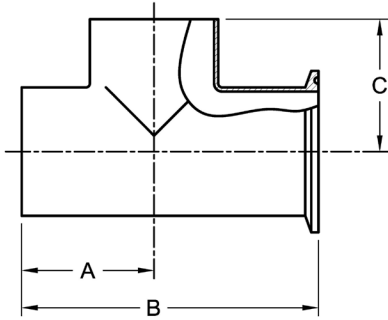


| PART NUMBER    | SIZE          | A     | B     | C     |
|----------------|---------------|-------|-------|-------|
| 7ERWWK-1.5X1   | 1-1/2 X 1     | 1.656 | 3.312 | 1.875 |
| 7ERWWK-2X1     | 2 X 1         | 2.062 | 4.125 | 2.125 |
| 7ERWWK-2X1.5   | 2 X 1-1/2     | 2.062 | 4.125 | 2.406 |
| 7ERWWK-2.5X1   | 2-1/2 X 1     | 2.344 | 4.688 | 2.375 |
| 7ERWWK-2.5X1.5 | 2-1/2 X 1 1/2 | 2.344 | 4.688 | 2.656 |
| 7ERWWK-2.5X2   | 2-1/2 X 2     | 2.344 | 4.688 | 2.812 |
| 7ERWWK-3X1     | 3 X 1         | 2.594 | 5.188 | 2.625 |
| 7ERWWK-3X1.5   | 3 X 1-1/2     | 2.594 | 5.188 | 2.906 |
| 7ERWWK-3X2     | 3 X 2         | 2.594 | 5.188 | 3.062 |
| 7ERWWK-3X2.5   | 3 X 2-1/2     | 2.594 | 5.188 | 3.094 |
| 7ERWWK-4X1     | 4 X 1         | 3.438 | 6.875 | 3.125 |
| 7ERWWK-4X1.5   | 4 X 1-1/2     | 3.438 | 6.875 | 3.406 |
| 7ERWWK-4X2     | 4 X 2         | 3.438 | 6.875 | 3.562 |
| 7ERWWK-4X2.5   | 4 X 2-1/2     | 3.438 | 6.875 | 3.594 |
| 7ERWWK-4X3     | 4 X 3         | 3.438 | 6.875 | 3.594 |



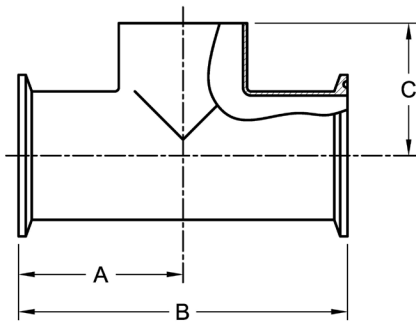


### 7WMW - TEE, WELD X CLAMP X WELD OUTLET



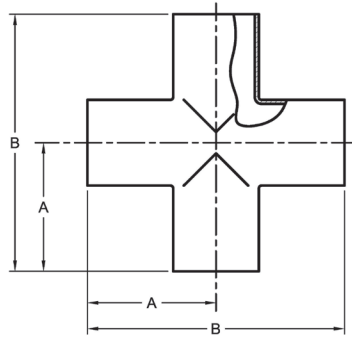
| PART NUMBER | SIZE  | A     | B      | C     |
|-------------|-------|-------|--------|-------|
| 7WMW-1      | 1     | 1.125 | 2.750  | 1.125 |
| 7WMW-1.5    | 1-1/2 | 1.656 | 3.812  | 1.656 |
| 7WMW-2      | 2     | 2.063 | 4.625  | 2.063 |
| 7WMW-2.5    | 2-1/2 | 2.344 | 5.188  | 2.344 |
| 7WMW-3      | 3     | 2.594 | 5.688  | 2.594 |
| 7WMW-4      | 4     | 3.438 | 7.500  | 3.438 |
| 7WMW-6      | 6     | 5.625 | 12.000 | 5.625 |
| 7WMW-8      | 8     | 7.000 | 14.875 | 7.000 |

### 7MMW - TEE, CLAMP X CLAMP X WELD OUTLET



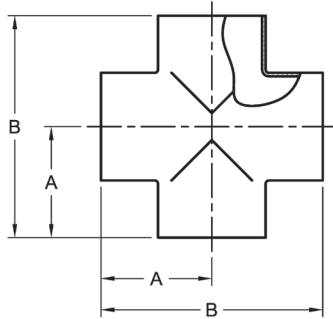
| PART NUMBER | SIZE  | A     | B      | C     |
|-------------|-------|-------|--------|-------|
| 7MMW-1      | 1     | 1.625 | 3.250  | 1.125 |
| 7MMW-1.5    | 1-1/2 | 2.156 | 4.312  | 1.656 |
| 7MMW-2      | 2     | 2.563 | 5.125  | 2.063 |
| 7MMW-2.5    | 2-1/2 | 2.844 | 5.688  | 2.344 |
| 7MMW-3      | 3     | 3.094 | 6.188  | 2.594 |
| 7MMW-4      | 4     | 4.063 | 8.125  | 3.438 |
| 7MMW-6      | 6     | 6.375 | 12.750 | 5.625 |
| 7MMW-8      | 8     | 7.875 | 15.750 | 7.000 |

**9W - CROSS, WELD ENDS (LONG)**



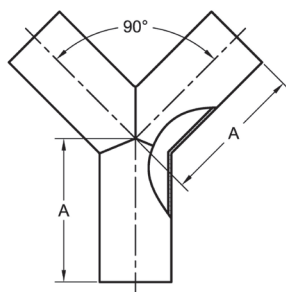
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 9W-.50      | 1/2   | 1.875 | 3.750 |
| 9W-.75      | 3/4   | 1.875 | 3.750 |
| 9W-1        | 1     | 1.875 | 3.750 |
| 9W-1.5      | 1-1/2 | 2.250 | 4.500 |
| 9W-2        | 2     | 3.000 | 6.000 |
| 9W-2.5      | 2-1/2 | 3.000 | 6.000 |
| 9W-3        | 3     | 3.250 | 6.500 |
| 9W-4        | 4     | 3.875 | 7.750 |

**9WWWW - CROSS, WELD ENDS (SHORT)**



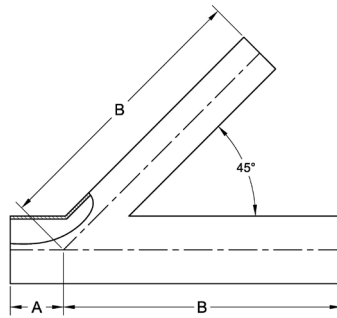
| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 9WWWW-.50   | 1/2   | .750  | 1.500  |
| 9WWWW-.75   | 3/4   | 1.125 | 2.250  |
| 9WWWW-1     | 1     | 1.125 | 2.250  |
| 9WWWW-1.5   | 1-1/2 | 1.656 | 3.312  |
| 9WWWW-2     | 2     | 2.063 | 4.125  |
| 9WWWW-2.5   | 2-1/2 | 2.344 | 4.688  |
| 9WWWW-3     | 3     | 2.594 | 5.188  |
| 9WWWW-4     | 4     | 3.438 | 6.875  |
| 9WWWW-6     | 6     | 5.625 | 11.250 |

**28WB - TRUE WYE, WELD ENDS**



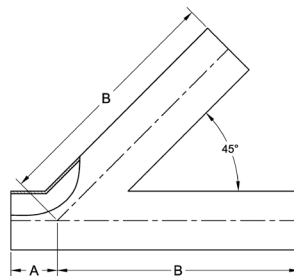
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 28WB-.50    | 1/2   | 2.000 |
| 28WB-.75    | 3/4   | 2.000 |
| 28WB-1      | 1     | 3.000 |
| 28WB-1.5    | 1-1/2 | 3.000 |
| 28WB-2      | 2     | 4.000 |
| 28WB-2.5    | 2-1/2 | 5.000 |
| 28WB-3      | 3     | 6.000 |
| 28WB-4      | 4     | 8.000 |
| 28WB-6      | 6     | 8.000 |
| 28WB-8      | 8     | 9.000 |

## 28WAR - REDUCING LATERAL WYE, WELD ENDS

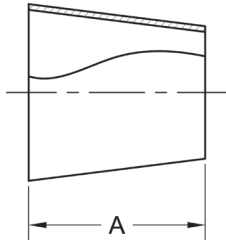


| PART NUMBER   | SIZE          | A     | B      |
|---------------|---------------|-------|--------|
| 28WAR-1X.50   | 1 X 1/2       | 1.000 | 5.000  |
| 28WAR-1X.75   | 1 X 3/4       | 1.000 | 5.000  |
| 28WAR-1.5X.50 | 1-1/2 X 1/2   | 1.188 | 6.188  |
| 28WAR-1.5X.75 | 1-1/2 X 3/4   | 1.188 | 6.188  |
| 28WAR-1.5X1   | 1-1/2 X 1     | 1.188 | 6.188  |
| 28WAR-2X.50   | 2 X 1/2       | 1.625 | 7.125  |
| 28WAR-2X.75   | 2 X 3/4       | 1.625 | 7.125  |
| 28WAR-2X1     | 2 X 1         | 1.625 | 7.125  |
| 28WAR-2X1.5   | 2 X 1-1/2     | 1.625 | 7.125  |
| 28WAR-2.5X.50 | 2-1/2 X 1/2   | 1.500 | 8.500  |
| 28WAR-2.5X.75 | 2-1/2 X 3/4   | 1.500 | 8.500  |
| 28WAR-2.5X1   | 2-1/2 X 1     | 1.500 | 8.500  |
| 28WAR-2.5X1.5 | 2-1/2 X 1-1/2 | 1.500 | 8.500  |
| 28WAR-2.5X2   | 2-1/2 X 2     | 1.625 | 8.500  |
| 28WAR-3X.50   | 3 X 1/2       | 1.875 | 8.875  |
| 28WAR-3X.75   | 3 X 3/4       | 1.875 | 8.875  |
| 28WAR-3X1     | 3 X 1         | 1.875 | 8.875  |
| 28WAR-3X1.5   | 3 X 1-1/2     | 1.875 | 8.875  |
| 28WAR-3X2     | 3 X 2         | 1.875 | 8.875  |
| 28WAR-3X2.5   | 3 X 2-1/2     | 1.875 | 8.875  |
| 28WAR-4X.50   | 4 X 1/2       | 2.063 | 10.750 |
| 28WAR-4X.75   | 4 X 3/4       | 2.063 | 10.750 |
| 28WAR-4X1     | 4 X 1         | 2.063 | 10.750 |
| 28WAR-4X1.5   | 4 X 1-1/2     | 2.063 | 10.750 |
| 28WAR-4X2     | 4 X 2         | 2.063 | 10.750 |
| 28WAR-4X2.5   | 4 X 2-1/2     | 2.063 | 10.750 |
| 28WAR-4X3     | 4 X 3         | 2.063 | 10.750 |

## 28WA - LATERAL WYE, WELD ENDS

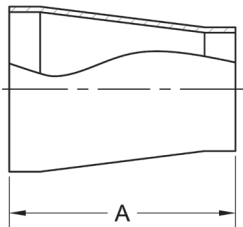


| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 28WA-.50    | 1/2   | 1.000 | 5.000  |
| 28WA-.75    | 3/4   | 1.000 | 5.000  |
| 28WA-1      | 1     | 1.000 | 5.000  |
| 28WA-1.5    | 1-1/2 | 1.188 | 6.188  |
| 28WA-2      | 2     | 1.625 | 7.125  |
| 28WA-2.5    | 2-1/2 | 1.500 | 8.500  |
| 28WA-3      | 3     | 1.875 | 8.875  |
| 28WA-4      | 4     | 2.063 | 10.750 |
| 28WA-6      | 6     | 3.500 | 14.500 |
| 28WA-8      | 8     | 4.500 | 17.500 |

**31W - CONCENTRIC REDUCER, WELD ENDS**

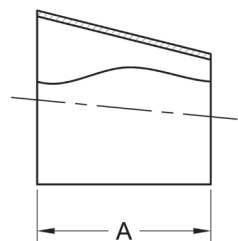
| PART NUMBER  | SIZE          | A     |
|--------------|---------------|-------|
| 31W-.50X.25  | 1/2 X 1/4     | .750  |
| 31W-.50X.375 | 1/2 X 3/8     | 1.000 |
| 31W-.75X.50  | 3/4 X 1/2     | 1.000 |
| 31W-1X.50    | 1 X 1/2       | 2.000 |
| 31W-1X.75    | 1 X 3/4       | 1.000 |
| 31W-1.5X.50  | 1-1/2 X 1/2   | 4.000 |
| 31W-1.5X.75  | 1-1/2 X 3/4   | 3.000 |
| 31W-1.5X1    | 1-1/2 X 1     | 2.000 |
| 31W-2X1      | 2 X 1         | 4.000 |
| 31W-2X1.5    | 2 X 1-1/2     | 2.000 |
| 31W-2.5X1.5  | 2-1/2 X 1-1/2 | 4.000 |

| PART NUMBER | SIZE      | A     |
|-------------|-----------|-------|
| 31W-2.5X2   | 2-1/2 X 2 | 2.000 |
| 31W-3X1.5   | 3 X 1-1/2 | 6.000 |
| 31W-3X2     | 3 X 2     | 4.000 |
| 31W-3X2.5   | 3 X 2-1/2 | 2.000 |
| 31W-4X2     | 4 X 2     | 8.000 |
| 31W-4X3     | 4 X 3     | 4.000 |
| 31W-6X3     | 6 X 3     | 5.500 |
| 31W-6X4     | 6 X 4     | 5.500 |
| 31W-8X4     | 8 X 4     | 6.000 |
| 31W-8X6     | 8 X 6     | 6.000 |

**31WT - CONCENTRIC REDUCER, TANGENT WELD ENDS**

| PART NUMBER  | SIZE          | A     |
|--------------|---------------|-------|
| 31WT-1X.50   | 1 X 1/2       | 2.375 |
| 31WT-1X.75   | 1 X 3/4       | 2.375 |
| 31WT-1.5X1   | 1-1/2 X 1     | 2.375 |
| 31WT-2X1     | 2 X 1         | 2.375 |
| 31WT-2X1.5   | 2 X 1-1/2     | 2.375 |
| 31WT-2.5X1.5 | 2-1/2 X 1-1/2 | 2.375 |
| 31WT-2.5X2   | 2-1/2 X 2     | 2.375 |

| PART NUMBER | SIZE      | A     |
|-------------|-----------|-------|
| 31WT-3X1.5  | 3 X 1-1/2 | 3.625 |
| 31WT-3X2    | 3 X 2     | 3.625 |
| 31WT-3X2.5  | 3 X 2-1/2 | 3.625 |
| 31WT-4X2    | 4 X 2     | 3.625 |
| 31WT-4X2.5  | 4 X 2-1/2 | 3.625 |
| 31WT-4X3    | 4 X 3     | 3.625 |

**32W - ECCENTRIC REDUCER, WELD ENDS**

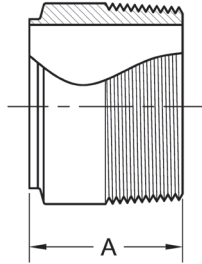
| PART NUMBER  | SIZE          | A     |
|--------------|---------------|-------|
| 32W-.75X.50  | 3/4 X 1/2     | 1.000 |
| 32W-1X.50    | 1 X 1/2       | 1.500 |
| 32W-1X.75    | 1 X 3/4       | 1.000 |
| 32W-1.5X.50  | 1-1/2 X 1/2   | 2.500 |
| 32W-1.5X.75  | 1-1/2 X 3/4   | 2.000 |
| 32W-1.5X1*   | 1-1/2 X 1     | 2.000 |
| 32W-2X1*     | 2 X 1         | 4.000 |
| 32W-2X1.5*   | 2 X 1-1/2     | 2.000 |
| 32W-2.5X1.5* | 2-1/2 X 1-1/2 | 4.000 |

| PART NUMBER | SIZE      | A     |
|-------------|-----------|-------|
| 32W-2.5X2*  | 2-1/2 X 2 | 2.000 |
| 32W-3X2*    | 3 X 2     | 4.000 |
| 32W-3X2.5*  | 3 X 2-1/2 | 2.000 |
| 32W-4X2*    | 4 X 2     | 8.000 |
| 32W-4X3*    | 4 X 3     | 4.000 |
| 32W-6X3*    | 6 X 3     | 5.500 |
| 32W-6X4*    | 6 X 4     | 5.500 |
| 32W-8X4*    | 8 X 4     | 6.000 |
| 32W-8X6*    | 8 X 6     | 6.000 |

NOTE: PARTS DENOTED WITH AN ASTERISK (\*) ARE AVAILABLE IN MILL FINISH OR POLISHED ID/OD. ALL OTHERS ARE POLISHED ID/OD ONLY.



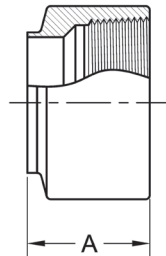
**19WB - ADAPTER, WELD X MALE NPT**



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 19WB-.25    | 1/4   | 1.000 |
| 19WB-.375   | 3/8   | 1.500 |
| 19WB-.50    | 1/2   | 1.625 |
| 19WB-.75    | 3/4   | 1.625 |
| 19WB-1      | 1     | 1.750 |
| 19WB-1.5    | 1-1/2 | 1.750 |
| 19WB-2      | 2     | 1.812 |
| 19WB-2.5    | 2-1/2 | 2.312 |
| 19WB-3      | 3     | 2.500 |
| 19WB-4      | 4     | 2.562 |
| 19WB-6      | 6     | 3.000 |
| 19WB-8      | 8     | 2.875 |

REDUCING SIZES AVAILABLE UPON REQUEST

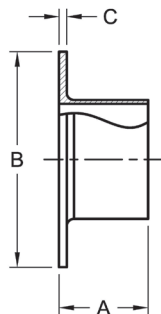
**22WB - ADAPTER, WELD X FEMALE NPT**



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 22WB-.25    | 1/4   | 1.125 |
| 22WB-.375   | 3/8   | 1.125 |
| 22WB-.50    | 1/2   | 1.250 |
| 22WB-.75    | 3/4   | 1.625 |
| 22WB-1      | 1     | 1.750 |
| 22WB-1.5    | 1-1/2 | 1.750 |
| 22WB-2      | 2     | 1.812 |
| 22WB-2.5    | 2-1/2 | 2.250 |
| 22WB-3      | 3     | 2.500 |
| 22WB-4      | 4     | 2.562 |
| 22WB-6      | 6     | 3.250 |

REDUCING SIZES AVAILABLE UPON REQUEST

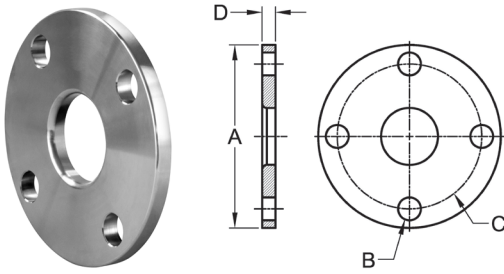
**14VB - STUB END**



| PART NUMBER | SIZE  | A     | B      | C    |
|-------------|-------|-------|--------|------|
| 14VB-.50    | 1/2   | 2.000 | 1.500  | .130 |
| 14VB-.75    | 3/4   | 2.000 | 1.500  | .130 |
| 14VB-1      | 1     | 1.625 | 2.000  | .130 |
| 14VB-1.5    | 1-1/2 | 1.750 | 2.875  | .130 |
| 14VB-2      | 2     | 1.500 | 3.625  | .130 |
| 14VB-2.5    | 2-1/2 | 2.000 | 4.125  | .130 |
| 14VB-3      | 3     | 2.250 | 5.000  | .166 |
| 14VB-4      | 4     | 2.625 | 6.187  | .166 |
| 14VB-6      | 6     | 3.000 | 8.500  | .218 |
| 14VB-8      | 8     | 3.000 | 10.625 | .218 |
| 14VB-10     | 10    | 4.000 | 12.750 | .268 |
| 14VB-12     | 12    | 2.000 | 13.875 | .100 |

NOTE: FACE OF STUB END IS SERRATED. AVAILABLE IN POLISHED AND UNPOLISHED

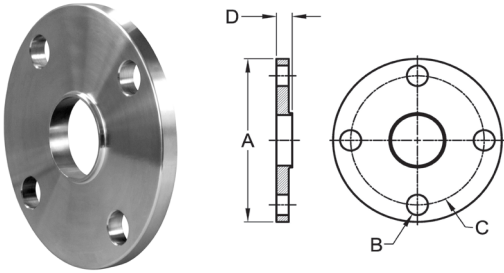
### 38SL - SLIP-ON FLANGE



FLANGE GASKET KIT AVAILABLE  
FLANGES ARE FLAT FACE LIGHT DUTY  
4" AND UP HAVE 8 - BOLT HOLES (150LB. BOLT HOLE PATTERN ALL SIZES)

| PART NUMBER | SIZE  | A      | B     | C      | D    |
|-------------|-------|--------|-------|--------|------|
| 38SL-.50    | 1/2   | 3.500  | .625  | 2.375  | .375 |
| 38SL-.75    | 3/4   | 3.875  | .625  | 2.750  | .375 |
| 38SL-1      | 1     | 4.250  | .625  | 3.125  | .375 |
| 38SL-1.5    | 1-1/2 | 5.000  | .625  | 3.875  | .375 |
| 38SL-2      | 2     | 6.000  | .750  | 4.750  | .438 |
| 38SL-2.5    | 2-1/2 | 7.000  | .750  | 5.500  | .438 |
| 38SL-3      | 3     | 7.500  | .750  | 6.000  | .500 |
| 38SL-4      | 4     | 9.000  | .750  | 7.500  | .500 |
| 38SL-6      | 6     | 11.000 | .875  | 9.500  | .563 |
| 38SL-8      | 8     | 13.500 | .875  | 11.750 | .563 |
| 38SL-10     | 10    | 16.000 | 1.000 | 14.250 | .688 |
| 38SL-12     | 12    | 19.000 | 1.000 | 17.000 | .688 |

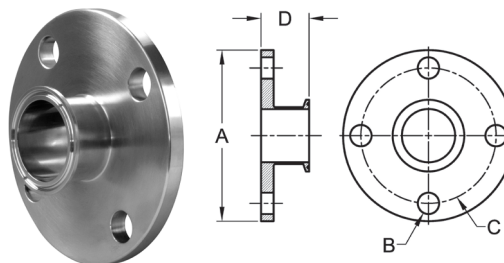
### 38W - WELD NECK FLANGE (LIGHT DUTY)



FLANGE GASKET KIT AVAILABLE  
FLANGES ARE FLAT FACE LIGHT DUTY  
4" AND UP HAVE 8 - BOLT HOLES (150LB. BOLT HOLE PATTERN ALL SIZES)

| PART NUMBER | SIZE  | A      | B     | C      | D    |
|-------------|-------|--------|-------|--------|------|
| 38W-.50     | 1/2   | 3.500  | .625  | 2.375  | .500 |
| 38W-.75     | 3/4   | 3.875  | .625  | 2.750  | .500 |
| 38W-1       | 1     | 4.250  | .625  | 3.125  | .500 |
| 38W-1.5     | 1-1/2 | 5.000  | .625  | 3.875  | .500 |
| 38W-2       | 2     | 6.000  | .750  | 4.750  | .563 |
| 38W-2.5     | 2-1/2 | 7.000  | .750  | 5.500  | .563 |
| 38W-3       | 3     | 7.500  | .750  | 6.000  | .625 |
| 38W-4       | 4     | 9.000  | .750  | 7.500  | .625 |
| 38W-6       | 6     | 11.000 | .875  | 9.500  | .688 |
| 38W-8       | 8     | 13.500 | .875  | 11.750 | .688 |
| 38W-10      | 10    | 16.000 | 1.000 | 14.250 | .813 |
| 38W-12      | 12    | 19.000 | 1.000 | 17.000 | .813 |

### 38MP - FLANGE ADAPTER

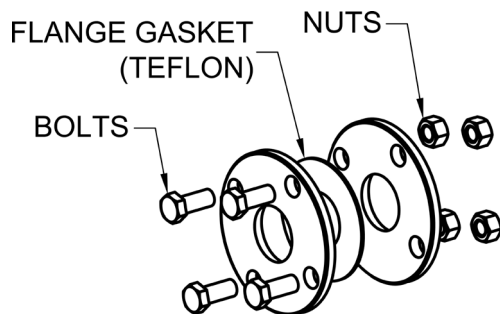


FLANGE GASKET KIT AVAILABLE  
FLANGES ARE FLAT FACE LIGHT DUTY  
4" AND UP HAVE 8 - BOLT HOLES (150LB. BOLT HOLE PATTERN ALL SIZES)

| PART NUMBER | SIZE  | A      | B    | C      | D     |
|-------------|-------|--------|------|--------|-------|
| 38MP-.50    | 1/2   | 3.500  | .625 | 2.375  | 1.625 |
| 38MP-.75    | 3/4   | 3.875  | .625 | 2.750  | 1.625 |
| 38MP-1      | 1     | 4.250  | .625 | 3.125  | 1.625 |
| 38MP-1.5    | 1-1/2 | 5.000  | .625 | 3.875  | 1.625 |
| 38MP-2      | 2     | 6.000  | .750 | 4.750  | 1.688 |
| 38MP-2.5    | 2-1/2 | 7.000  | .750 | 5.500  | 1.688 |
| 38MP-3      | 3     | 7.500  | .750 | 6.000  | 1.750 |
| 38MP-4      | 4     | 9.000  | .750 | 7.500  | 1.750 |
| 38MP-6      | 6     | 11.000 | .875 | 9.500  | 2.188 |
| 38MP-8      | 8     | 13.500 | .875 | 11.750 | 2.193 |



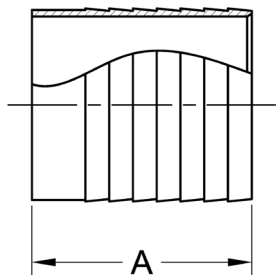
### 40RFK - FLANGE GASKET KIT



NOTE: KIT CONSISTS OF BOLTS, NUTS AND TEFLON RING STYLE FLANGE GASKET (OTHER GASKET MATERIALS AVAILABLE)

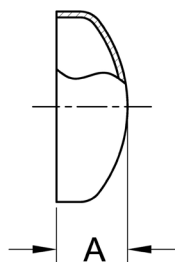
| PART NUMBER   | SIZE  |
|---------------|-------|
| 40RFK-.50-KIT | 1/2   |
| 40RFK-.75-KIT | 3/4   |
| 40RFK-1-KIT   | 1     |
| 40RFK-1.5-KIT | 1-1/2 |
| 40RFK-2-KIT   | 2     |
| 40RFK-2.5-KIT | 2-1/2 |
| 40RFK-3-KIT   | 3     |
| 40RFK-4-KIT   | 4     |
| 40RFK-6-KIT   | 6     |
| 40RFK-8-KIT   | 8     |
| 40RFK-10-KIT  | 10    |
| 40RFK-12-KIT  | 12    |

### 14WHR - HOSE BARB



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WHR-.50   | 1/2   | 1.500 |
| 14WHR-.75   | 3/4   | 1.500 |
| 14WHR-1     | 1     | 1.688 |
| 14WHR-1.5   | 1-1/2 | 1.688 |
| 14WHR-2     | 2     | 2.312 |
| 14WHR-2.5   | 2-1/2 | 2.000 |
| 14WHR-3     | 3     | 3.093 |
| 14WHR-4     | 4     | 3.406 |
| 14WHR-6     | 6     | 4.000 |
| 14WHR-8     | 8     | 2.000 |

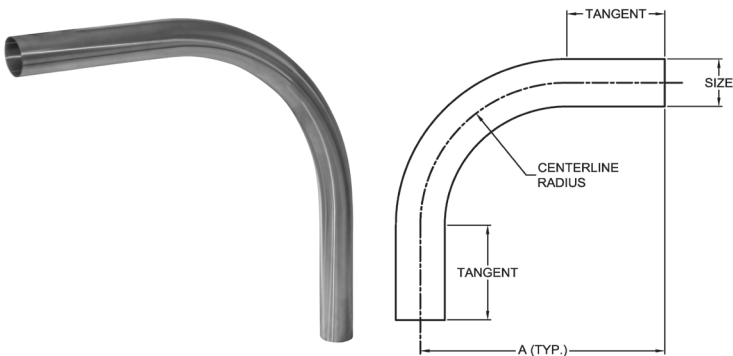
### 16W - WELD CAP



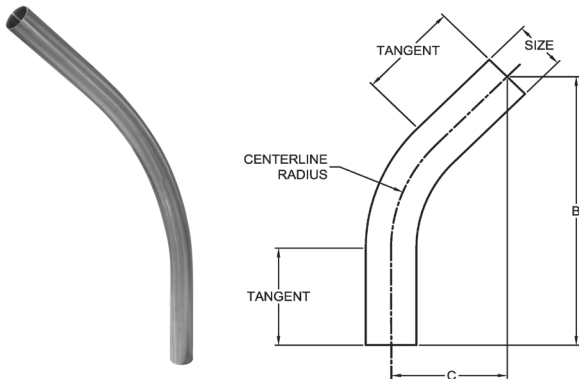
AVAILABLE POLISHED ID/OD  
AVAILABLE WITH CENTER HOLE UPON REQUEST

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 16W-.50     | 1/2   | .250  |
| 16W-.75     | 3/4   | .312  |
| 16W-1       | 1     | .375  |
| 16W-1.5     | 1-1/2 | .562  |
| 16W-2       | 2     | .750  |
| 16W-2.5     | 2-1/2 | 1.000 |
| 16W-3       | 3     | 1.250 |
| 16W-4       | 4     | 1.500 |
| 16W-6       | 6     | 2.000 |
| 16W-8       | 8     | 2.888 |
| 16W-10      | 10    | 3.395 |
| 16W-12      | 12    | 3.815 |

2SXL - 90 DEGREE ELBOW, SWEEP



2KXL - 45 DEGREE ELBOW, SWEEP

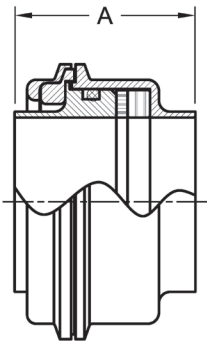


| SIZE      | CENTERLINE RADIUS | A      | B      | C      | TANGENT |
|-----------|-------------------|--------|--------|--------|---------|
| 1-1/2 - 4 | 12.000            | 20.000 | 22.142 | 9.172  | 8.000   |
| 1-1/2 - 4 | 18.000            | 26.000 | 26.388 | 10.929 | 8.000   |
| 1-1/2 - 6 | 24.000            | 32.000 | 30.627 | 12.686 | 8.000   |
| 1-1/2 - 6 | 36.000            | 44.000 | 39.113 | 16.201 | 8.000   |
| 1-1/2 - 6 | 48.000            | 56.000 | 47.598 | 19.716 | 8.000   |

CENTERLINE RADIUS IS A MINIMUM ONLY, OTHER RADII ARE AVAILABLE UPON REQUEST  
8.000 LONG TANGENT IS STANDARD, OTHER LENGTHS ARE AVAILABLE UPON REQUEST

STANDARD 316 MATERIAL  
POLISHED TO 32 RA I.D. AND O.D.  
VARIOUS END CONNECTIONS AVAILABLE UPON REQUEST

SWIVEL JOINT ASSEMBLY



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| MDA01500    | 1-1/2 | 2.031 |
| MDA02000    | 2     | 2.011 |
| MDA03000    | 3     | 2.000 |
| MDA04000    | 4     | 2.650 |

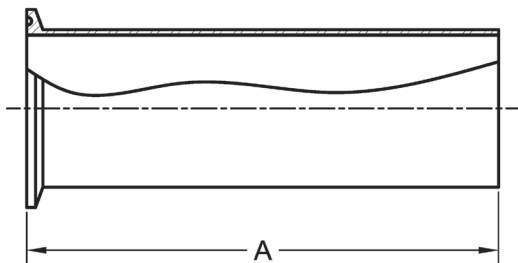
CONNECTING CLAMP NOT SHOWN  
ABILITY TO ROTATE ELBOW OR JUMPER CONNECTIONS  
WITHOUT CLAMP DISASSEMBLY





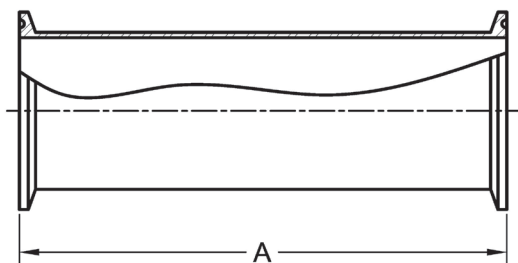
## SPOOL ASSEMBLIES

Sanitary spools are fabricated lengths of stainless steel tubing available in a variety of end connections. Nutech overseas offers a broad selection of stainless steel sanitary spools including a wide selection of tri-clamp spools in numerous sizes. These fit a range of applications — including brewing operations, dairies, food and beverage manufacturing facilities, and biotech and pharmaceutical lines.


**X17EMW - WELD X CLAMP**


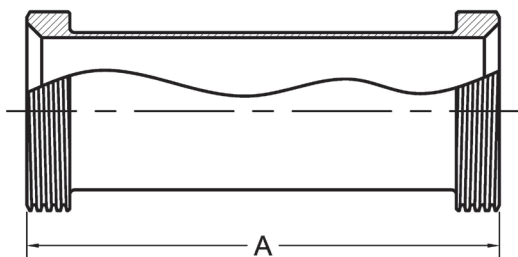
| SIZE  | A (Minimum Length) |
|-------|--------------------|
| 1/2   | .500               |
| 3/4   | .500               |
| 1     | .500               |
| 1-1/2 | .500               |
| 2     | .500               |
| 2-1/2 | .500               |
| 3     | .500               |
| 4     | .625               |
| 6     | .750               |

MAXIMUM LENGTH UP TO APPROX. 20 FEET

**X17EMP - CLAMP X CLAMP**


| SIZE  | A (Minimum Length) |
|-------|--------------------|
| 1/2   | 1.125              |
| 3/4   | 1.125              |
| 1     | 1.125              |
| 1-1/2 | 1.125              |
| 2     | 1.125              |
| 2-1/2 | 1.125              |
| 3     | 1.125              |
| 4     | 1.250              |
| 6     | 1.500              |

MAXIMUM LENGTH UP TO APPROX. 20 FEET

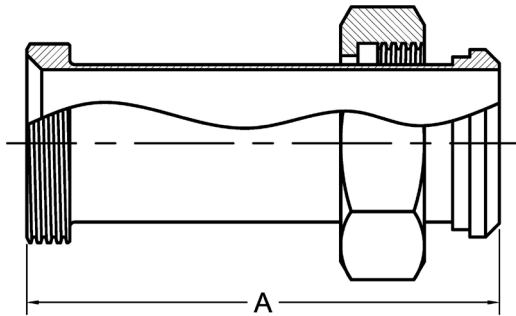
**17C - ACME THREAD X ACME THREAD**


| SIZE  | A (Minimum Length) |
|-------|--------------------|
| 1     | 1.375              |
| 1-1/2 | 1.438              |
| 2     | 1.438              |
| 2-1/2 | 1.688              |
| 3     | 1.813              |
| 4     | 2.438              |

MAXIMUM LENGTH UP TO APPROX. 20 FEET



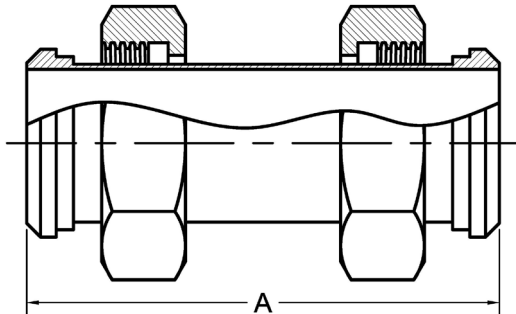
**17D - ACME THREAD X BEVEL SEAT**



| SIZE  | A (Minimum Length) |
|-------|--------------------|
| 1     | 2.875              |
| 1-1/2 | 3.125              |
| 2     | 3.375              |
| 2-1/2 | 3.750              |
| 3     | 3.875              |
| 4     | 4.625              |

MAXIMUM LENGTH UP TO APPROX. 20 FEET

**17E - BEVEL SEAT X BEVEL SEAT**



| SIZE  | A (Minimum Length) |
|-------|--------------------|
| 1     | 2.875              |
| 1-1/2 | 3.125              |
| 2     | 3.375              |
| 2-1/2 | 3.750              |
| 3     | 3.875              |
| 4     | 4.625              |

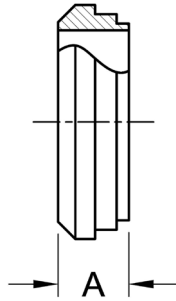
MAXIMUM LENGTH UP TO APPROX. 20 FEET



## BEVEL SEAT FITTINGS

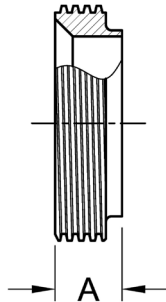
There's no better place to turn for a wide range of bevel seat sanitary fittings than Steel & O'Brien. We stock a large selection of high-quality bevel seat components including ferrules, caps, reducers, elbows and more. These stainless-steel products come in a variety of sizes and threading options to fit virtually any application.

**14PRF - SHORT WELD FERRULE, PLAIN**



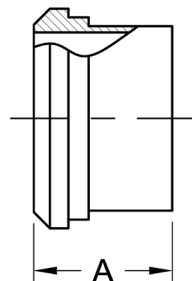
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14PRF-1     | 1     | .687  |
| 14PRF-1.5   | 1-1/2 | .719  |
| 14PRF-2     | 2     | .723  |
| 14PRF-2.5   | 2-1/2 | .844  |
| 14PRF-3     | 3     | .906  |
| 14PRF-4     | 4     | 1.000 |

**15TRF - SHORT WELD FERRULE, THREADED**

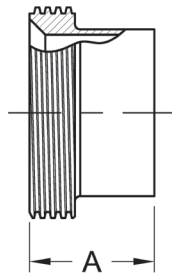


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15TRF-1     | 1     | .688  |
| 15TRF-1.5   | 1-1/2 | .719  |
| 15TRF-2     | 2     | .750  |
| 15TRF-2.5   | 2-1/2 | .844  |
| 15TRF-3     | 3     | .938  |
| 15TRF-4     | 4     | 1.219 |

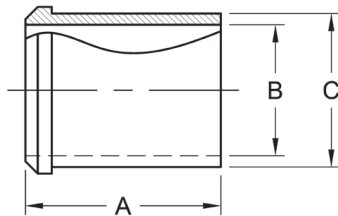
**L14A7 - TUBE FERRULE, PLAIN**



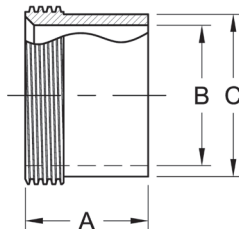
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| L14A7-1     | 1     | 1.375 |
| L14A7-1.5   | 1-1/2 | 1.500 |
| L14A7-2     | 2     | 1.500 |
| L14A7-2.5   | 2-1/2 | 1.750 |
| L14A7-3     | 3     | 1.750 |
| L14A7-4     | 4     | 1.750 |

**L15A7 - TUBE FERRULE, THREADED**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| L15A7-1     | 1     | 1.375 |
| L15A7-1.5   | 1-1/2 | 1.500 |
| L15A7-2     | 2     | 1.500 |
| L15A7-2.5   | 2-1/2 | 1.750 |
| L15A7-3     | 3     | 1.750 |
| L15A7-4     | 4     | 1.750 |

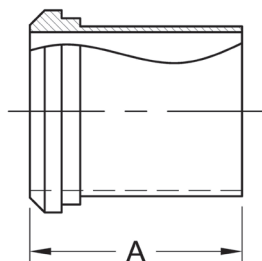
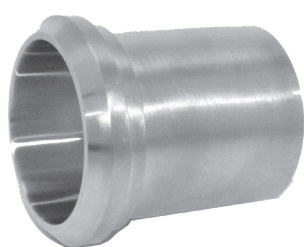
**14W - TANK SPUD (HEAVY), PLAIN**

| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 14W-1       | 1     | 2.375 | .870  | 1.156 |
| 14W-1.5     | 1-1/2 | 2.531 | 1.370 | 1.672 |
| 14W-2       | 2     | 2.781 | 1.870 | 2.187 |
| 14W-2.5     | 2-1/2 | 3.062 | 2.370 | 2.703 |
| 14W-3       | 3     | 3.531 | 2.870 | 3.218 |
| 14W-4       | 4     | 4.312 | 3.834 | 4.247 |

**15W - TANK SPUD (HEAVY), THREADED**

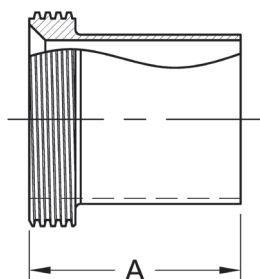
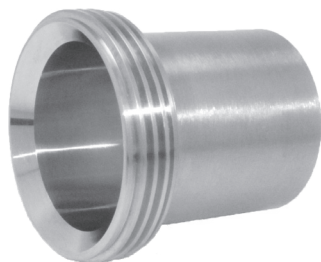
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 15W-1       | 1     | 1.500 | .870  | 1.250 |
| 15W-1.5     | 1-1/2 | 1.625 | 1.370 | 1.750 |
| 15W-2       | 2     | 1.750 | 1.870 | 2.312 |
| 15W-2.5     | 2-1/2 | 1.750 | 2.370 | 2.875 |
| 15W-3       | 3     | 1.812 | 2.870 | 3.375 |
| 15W-4       | 4     | 2.125 | 3.834 | 4.250 |

### 14WL - TANK SPUD (LIGHT), PLAIN



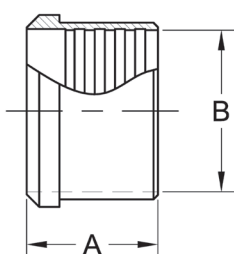
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WL-1      | 1     | 2.000 |
| 14WL-1.5    | 1-1/2 | 2.250 |
| 14WL-2      | 2     | 2.500 |
| 14WL-2.5    | 2-1/2 | 2.750 |
| 14WL-3      | 3     | 3.000 |
| 14WL-4      | 4     | 4.000 |

### 15WL - TANK SPUD (LIGHT), THREADED



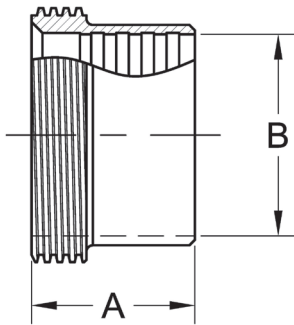
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15WL-1      | 1     | 2.000 |
| 15WL-1.5    | 1-1/2 | 2.250 |
| 15WL-2      | 2     | 2.500 |
| 15WL-2.5    | 2-1/2 | 2.750 |
| 15WL-3      | 3     | 3.000 |
| 15WL-4      | 4     | 4.000 |

### 14R - ROLL-ON FERRULE, PLAIN



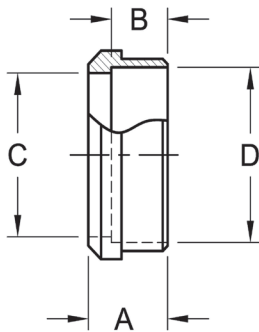
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 14R-1       | 1     | .750  | 1.000 |
| 14R-1.5     | 1-1/2 | 1.125 | 1.500 |
| 14R-2       | 2     | 1.313 | 2.000 |
| 14R-2.5     | 2-1/2 | 1.375 | 2.500 |
| 14R-3       | 3     | 1.438 | 3.000 |
| 14R-4       | 4     | 1.500 | 4.000 |

### 15R - ROLL-ON FERRULE, THREADED



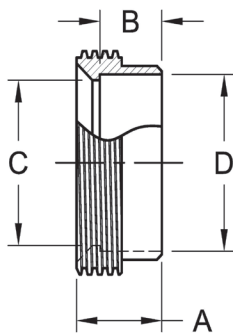
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 15R-1       | 1     | .813  | 1.007 |
| 15R-1.5     | 1-1/2 | 1.625 | 1.507 |
| 15R-2       | 2     | 1.375 | 2.007 |
| 15R-2.5     | 2-1/2 | 1.500 | 2.507 |
| 15R-3       | 3     | 1.625 | 3.007 |
| 15R-4       | 4     | 1.625 | 4.007 |

### 14 - RECESSED FERRULE, PLAIN



| PART NUMBER | SIZE  | A     | B    | C     | D     |
|-------------|-------|-------|------|-------|-------|
| 14-1        | 1     | .750  | .500 | .870  | 1.000 |
| 14-1.5      | 1-1/2 | .875  | .625 | 1.370 | 1.500 |
| 14-2        | 2     | .969  | .688 | 1.870 | 2.000 |
| 14-2.5      | 2-1/2 | .938  | .750 | 2.370 | 2.500 |
| 14-3        | 3     | 1.125 | .813 | 2.870 | 3.000 |
| 14-4        | 4     | 1.250 | .938 | 3.834 | 4.000 |

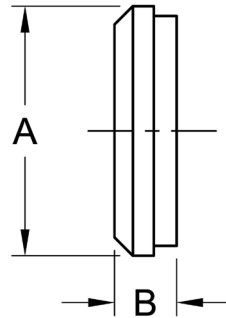
### 15 - RECESSED FERRULE, THREADED



| PART NUMBER | SIZE  | A     | B    | C     | D     |
|-------------|-------|-------|------|-------|-------|
| 15-1        | 1     | .812  | .500 | .870  | 1.000 |
| 15-1.5      | 1-1/2 | .875  | .625 | 1.370 | 1.500 |
| 15-2        | 2     | 1.031 | .688 | 1.870 | 2.000 |
| 15-2.5      | 2-1/2 | 1.125 | .750 | 2.370 | 2.500 |
| 15-3        | 3     | 1.250 | .813 | 2.870 | 3.000 |
| 15-4        | 4     | 1.375 | .938 | 3.834 | 4.000 |

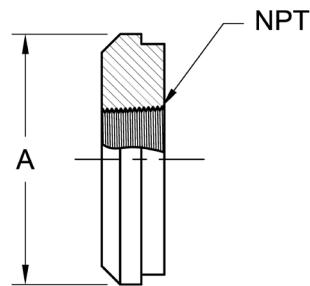


### 16A - SOLID END CAP



| PART NUMBER | SIZE  | A     | B    |
|-------------|-------|-------|------|
| 16A-1       | 1     | 1.316 | .468 |
| 16A-1.5     | 1-1/2 | 1.848 | .563 |
| 16A-2       | 2     | 2.380 | .625 |
| 16A-2.5     | 2-1/2 | 2.912 | .656 |
| 16A-3       | 3     | 3.444 | .718 |
| 16A-4       | 4     | 4.508 | .812 |

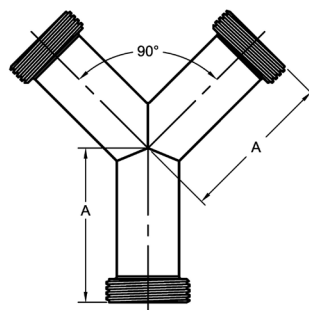
### 23B - THERMOMETER CAP



| PART NUMBER | SIZE        | A     |
|-------------|-------------|-------|
| 23B-1       | 1 X 1/2     | 1.316 |
| 23B-1.5     | 1-1/2 X 3/4 | 1.848 |
| 23B-2       | 2 X 3/4     | 2.380 |
| 23B-2.5     | 2-1/2 X 3/4 | 2.912 |
| 23B-3       | 3 X 3/4     | 3.444 |
| 23B-4       | 4 X 3/4     | 4.508 |

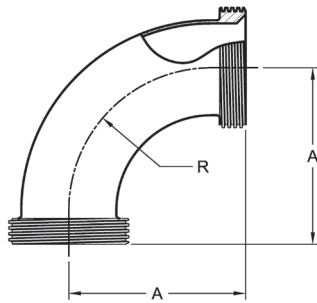
NOTE: SIZES ARE LISTED BEVEL SEAT SIZE X NPT SIZE

### 28B - TRUE WYE, THREADED ENDS



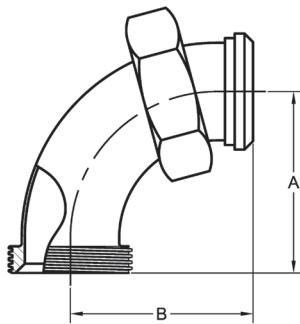
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 28B-1       | 1     | 3.688 |
| 28B-1.5     | 1-1/2 | 3.718 |
| 28B-2       | 2     | 4.750 |
| 28B-2.5     | 2-1/2 | 5.844 |
| 28B-3       | 3     | 6.933 |
| 28B-4       | 4     | 9.219 |

### 2C - 90 DEGREE ELBOW, THREADED ENDS



| PART NUMBER | SIZE  | A     | R     |
|-------------|-------|-------|-------|
| 2C-1        | 1     | 2.188 | 1.500 |
| 2C-1.5      | 1-1/2 | 2.969 | 2.250 |
| 2C-2        | 2     | 3.750 | 3.000 |
| 2C-2.5      | 2-1/2 | 4.594 | 3.750 |
| 2C-3        | 3     | 5.433 | 4.500 |
| 2C-4        | 4     | 7.219 | 6.000 |

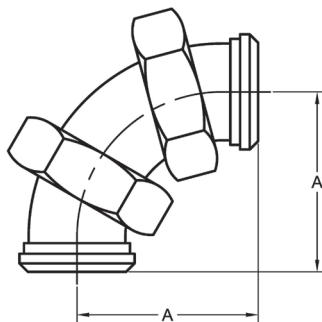
### 2F - 90 DEGREE ELBOW, THREADED X PLAIN ENDS



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 2F-1        | 1     | 2.218 | 2.188 |
| 2F-1.5      | 1-1/2 | 2.969 | 2.969 |
| 2F-2        | 2     | 3.750 | 3.723 |
| 2F-2.5      | 2-1/2 | 4.594 | 4.594 |
| 2F-3        | 3     | 5.433 | 5.406 |
| 2F-4        | 4     | 7.219 | 7.000 |

NOTE: HEX NUT INCLUDED

### 2E - 90 DEGREE ELBOW, PLAIN ENDS

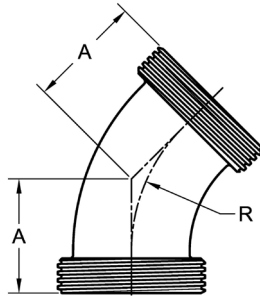


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 2E-1        | 1     | 2.188 |
| 2E-1.5      | 1-1/2 | 2.969 |
| 2E-2        | 2     | 3.723 |
| 2E-2.5      | 2-1/2 | 4.594 |
| 2E-3        | 3     | 5.406 |
| 2E-4        | 4     | 7.000 |

NOTE: HEX NUTS INCLUDED

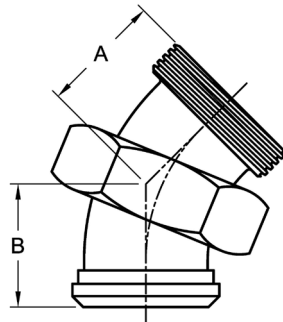


### 2K - 45 DEGREE ELBOW, THREADED ENDS



| PART NUMBER | SIZE  | A     | R     |
|-------------|-------|-------|-------|
| 2K-1        | 1     | 1.313 | 1.500 |
| 2K-1.5      | 1-1/2 | 1.655 | 2.250 |
| 2K-2        | 2     | 2.000 | 3.000 |
| 2K-2.5      | 2-1/2 | 2.406 | 3.750 |
| 2K-3        | 3     | 2.808 | 4.500 |
| 2K-4        | 4     | 3.719 | 6.000 |

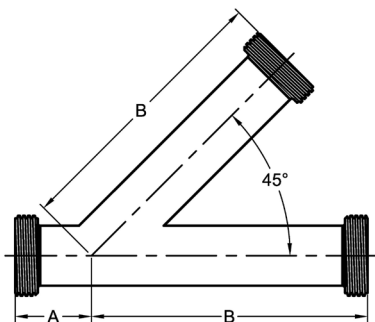
### 2P - 45 DEGREE ELBOW, THREADED X PLAIN ENDS



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 2P-1        | 1     | 1.313 | 1.313 |
| 2P-1.5      | 1-1/2 | 1.655 | 1.655 |
| 2P-2        | 2     | 2.000 | 2.000 |
| 2P-2.5      | 2-1/2 | 2.406 | 2.406 |
| 2P-3        | 3     | 2.808 | 2.781 |
| 2P-4        | 4     | 3.719 | 3.500 |

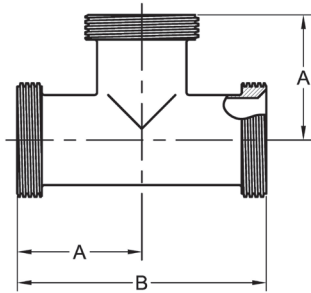
NOTE: HEX NUT INCLUDED

### 28A - LATERAL WYE, THREADED ENDS



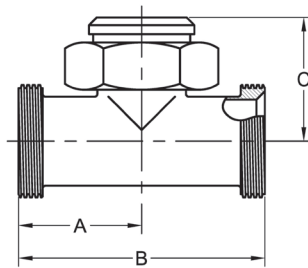
| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 28A-1       | 1     | 1.688 | 5.688  |
| 28A-1.5     | 1-1/2 | 1.908 | 6.906  |
| 28A-2       | 2     | 2.370 | 7.875  |
| 28A-2.5     | 2-1/2 | 2.375 | 9.344  |
| 28A-3       | 3     | 2.808 | 9.808  |
| 28A-4       | 4     | 3.282 | 12.006 |

## 7 - TEE, THREADED ENDS



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 7-1         | 1     | 1.813 | 3.626 |
| 7-1.5       | 1-1/2 | 2.375 | 4.750 |
| 7-2         | 2     | 2.813 | 5.626 |
| 7-2.5       | 2-1/2 | 3.188 | 6.376 |
| 7-3         | 3     | 3.527 | 7.054 |
| 7-4         | 4     | 4.657 | 9.314 |

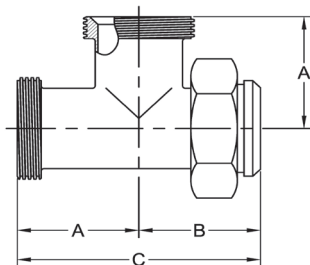
## 7A - TEE, THREADED X THREADED X PLAIN OUTLET



| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 7A-1        | 1     | 1.813 | 3.626 | 1.812 |
| 7A-1.5      | 1-1/2 | 2.375 | 4.750 | 2.375 |
| 7A-2        | 2     | 2.813 | 5.626 | 2.786 |
| 7A-2.5      | 2-1/2 | 3.188 | 6.376 | 3.188 |
| 7A-3        | 3     | 3.532 | 7.064 | 3.500 |
| 7A-4        | 4     | 4.657 | 9.314 | 4.438 |

NOTE: HEX NUT INCLUDED

## 7B - TEE, THREADED X PLAIN X THREADED OUTLET

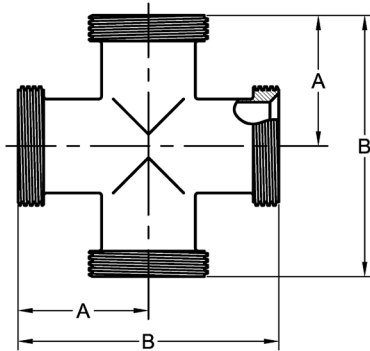


| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 7B-1        | 1     | 1.813 | 2.500 | 4.313 |
| 7B-1.5      | 1-1/2 | 2.375 | 3.125 | 5.500 |
| 7B-2        | 2     | 2.813 | 4.688 | 7.500 |
| 7B-2.5      | 2-1/2 | 3.188 | 6.062 | 9.250 |
| 7B-3        | 3     | 3.532 | 4.344 | 7.876 |
| 7B-4        | 4     | 4.657 | 5.188 | 9.845 |

NOTE: HEX NUT INCLUDED

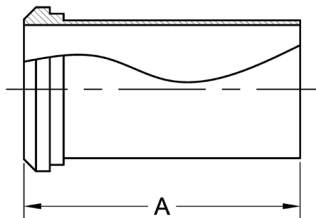


### 9 - CROSS, THREADED ENDS



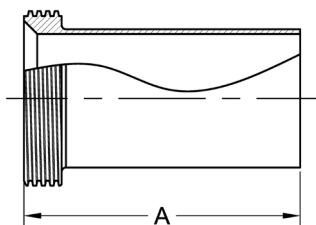
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 9-1         | 1     | 1.813 | 3.626 |
| 9-1.5       | 1-1/2 | 2.375 | 4.750 |
| 9-2         | 2     | 2.813 | 5.626 |
| 9-2.5       | 2-1/2 | 3.188 | 6.376 |
| 9-3         | 3     | 3.527 | 7.054 |
| 9-4         | 4     | 4.657 | 9.314 |

### 14AHT - TYGON HOSE ADAPTER, PLAIN

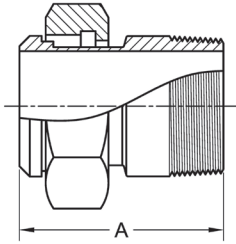


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14AHT-1     | 1     | 4.688 |
| 14AHT-1.5   | 1-1/2 | 4.719 |
| 14AHT-2     | 2     | 4.719 |
| 14AHT-2.5   | 2-1/2 | 4.843 |
| 14AHT-3     | 3     | 4.906 |
| 14AHT-4     | 4     | 5.219 |

### 15AHT - TYGON HOSE ADAPTER, THREADED

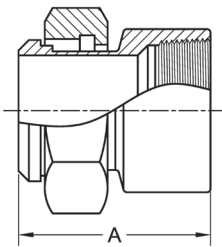


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15AHT-1     | 1     | 4.688 |
| 15AHT-1.5   | 1-1/2 | 4.719 |
| 15AHT-2     | 2     | 4.719 |
| 15AHT-2.5   | 2-1/2 | 4.844 |
| 15AHT-3     | 3     | 4.906 |
| 15AHT-4     | 4     | 5.272 |

**14-19 - ADAPTER, PLAIN X MALE NPT**

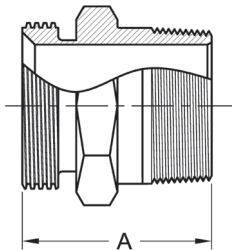
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14-19-1     | 1     | 3.125 |
| 14-19-1.5   | 1-1/2 | 3.250 |
| 14-19-2     | 2     | 3.312 |
| 14-19-2.5   | 2-1/2 | 4.062 |
| 14-19-3     | 3     | 4.250 |
| 14-19-4     | 4     | 4.312 |

NOTE: HEX NUT INCLUDED

**14-18 - ADAPTER, PLAIN X FEMALE NPT**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14-18-1     | 1     | 3.125 |
| 14-18-1.5   | 1-1/2 | 3.250 |
| 14-18-2     | 2     | 3.312 |
| 14-18-2.5   | 2-1/2 | 4.000 |
| 14-18-3     | 3     | 4.250 |
| 14-18-4     | 4     | 4.312 |

NOTE: HEX NUT INCLUDED

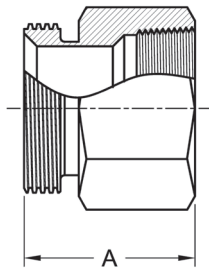
**21 - ADAPTER, ACME THREAD X MALE NPT**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 21-1        | 1     | 2.250 |
| 21-1.5      | 1-1/2 | 2.437 |
| 21-2        | 2     | 2.562 |
| 21-2.5      | 2-1/2 | 3.281 |
| 21-3        | 3     | 3.500 |
| 21-4        | 4     | 3.813 |

NOTE: REDUCING SIZES ALSO AVAILABLE  
AVAILABLE WITH WRENCH FLATS OR HEX



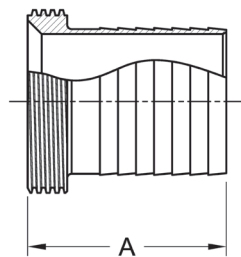
## 22 - ADAPTER, ACME THREAD X FEMALE NPT



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 22-1        | 1     | 1.625 |
| 22-1.5      | 1-1/2 | 2.250 |
| 22-2        | 2     | 2.562 |
| 22-2.5      | 2-1/2 | 2.875 |
| 22-3        | 3     | 2.469 |
| 22-4        | 4     | 3.125 |

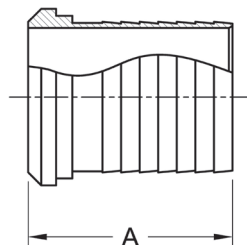
NOTE: REDUCING SIZES ALSO AVAILABLE  
AVAILABLE WITH WRENCH FLATS OR HEX

## 15AHR - ADAPTER, ACME THREAD X RUBBER HOSE



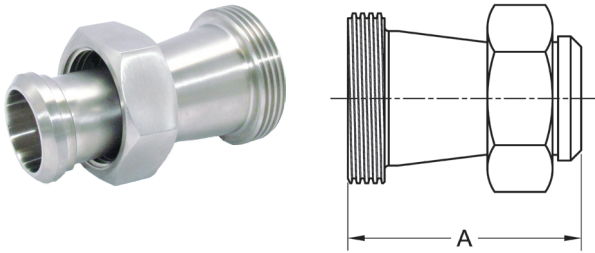
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15AHR-1     | 1     | 2.375 |
| 15AHR-1.5   | 1-1/2 | 1.687 |
| 15AHR-2     | 2     | 3.062 |
| 15AHR-2.5   | 2-1/2 | 2.844 |
| 15AHR-3     | 3     | 4.031 |
| 15AHR-4     | 4     | 4.625 |

## 14AHR - ADAPTER, BEVEL SEAT X RUBBER HOSE



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14AHR-1     | 1     | 2.375 |
| 14AHR-1.5   | 1-1/2 | 2.406 |
| 14AHR-2     | 2     | 3.035 |
| 14AHR-2.5   | 2-1/2 | 2.844 |
| 14AHR-3     | 3     | 3.500 |
| 14AHR-4     | 4     | 4.411 |

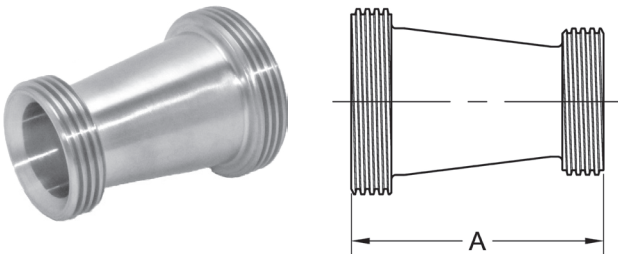
### 31TP - CONCENTRIC REDUCER, THREADED X PLAIN ENDS



| PART NUMBER | SIZE      | A     |
|-------------|-----------|-------|
| 31TP-1.5X1  | 1-1/2 X 1 | 3.406 |
| 31TP-2X1.5  | 2 X 1-1/2 | 3.468 |
| 31TP-2.5X2  | 2-1/2 X 2 | 3.567 |
| 31TP-3X2    | 3 X 2     | 5.656 |
| 31TP-3X2.5  | 3 X 2-1/2 | 3.782 |
| 31TP-4X3    | 4 X 3     | 6.125 |

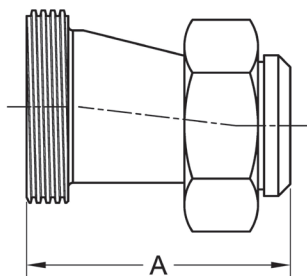
NOTE: HEX NUT INCLUDED

### 31TT - CONCENTRIC REDUCER, THREADED ENDS

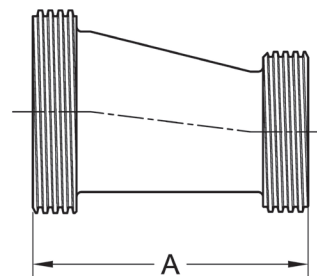


| PART NUMBER | SIZE      | A     |
|-------------|-----------|-------|
| 31TT-1.5X1  | 1-1/2 X 1 | 3.407 |
| 31TT-2X1.5  | 2 X 1-1/2 | 3.468 |
| 31TT-2.5X2  | 2-1/2 X 2 | 3.594 |
| 31TT-3X2    | 3 X 2     | 5.683 |
| 31TT-3X2.5  | 3 X 2-1/2 | 3.777 |
| 31TT-4X3    | 4 X 3     | 6.152 |

### BEVEL SEAT REDUCERS



**32TP (ECCENTRIC)**

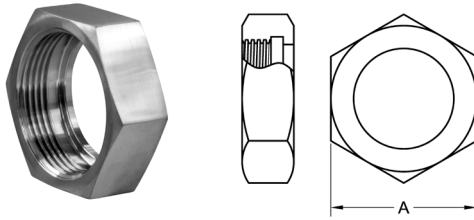


**32TT (ECCENTRIC)**





### 13H - HEX UNION NUT



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 13H-1       | 1     | 1.812 |
| 13H-1.5     | 1-1/2 | 2.406 |
| 13H-2       | 2     | 3.000 |
| 13H-2.5     | 2-1/2 | 3.594 |
| 13H-3       | 3     | 4.188 |
| 13H-4       | 4     | 5.438 |

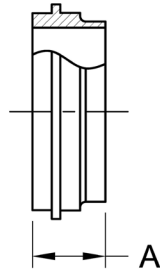
NOTE: AVAILABLE IN 304 & 316 GRADES



## JOHN PERRY FITTINGS

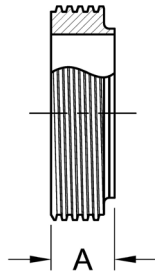
Nutech overseas has a wide selection of John Perry fittings designed specifically for the dairy and beverage markets. These are notable for their flat-faced ferrules, which enable them to work with a metal-to-metal seat. However, they can be used with a gasket to provide additional security for creating a tight seal. Our range of John Perry pipe fittings are engineered and manufactured to provide a completely leak-free connection between elements.

### 14PRFJP - SHORT WELD FERRULE, PLAIN



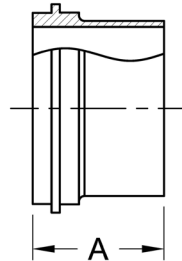
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14PRFJP-1   | 1     | .688  |
| 14PRFJP-1.5 | 1-1/2 | .719  |
| 14PRFJP-2   | 2     | .719  |
| 14PRFJP-2.5 | 2-1/2 | .844  |
| 14PRFJP-3   | 3     | .906  |
| 14PRFJP-4   | 4     | 1.218 |

### 15TRFJP - SHORT WELD FERRULE, THREADED



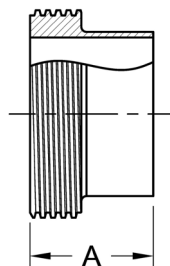
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15TRFJP-1   | 1     | .688  |
| 15TRFJP-1.5 | 1-1/2 | .719  |
| 15TRFJP-2   | 2     | .750  |
| 15TRFJP-2.5 | 2-1/2 | .844  |
| 15TRFJP-3   | 3     | .938  |
| 15TRFJP-4   | 4     | 1.218 |

### L14AJP - LONG WELD FERRULE, PLAIN



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| L14AJP-1    | 1     | 1.375 |
| L14AJP-1.5  | 1-1/2 | 1.500 |
| L14AJP-2    | 2     | 1.500 |
| L14AJP-2.5  | 2-1/2 | 1.750 |
| L14AJP-3    | 3     | 1.750 |
| L14AJP-4    | 4     | 1.750 |

### L15AJP - LONG WELD FERRULE, THREADED

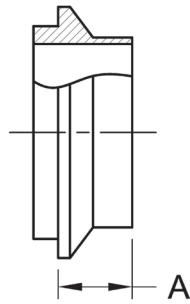


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| L15AJP-1    | 1     | 1.375 |
| L15AJP-1.5  | 1-1/2 | 1.500 |
| L15AJP-2    | 2     | 1.500 |
| L15AJP-2.5  | 2-1/2 | 1.750 |
| L15AJP-3    | 3     | 1.750 |
| L15AJP-4    | 4     | 1.750 |

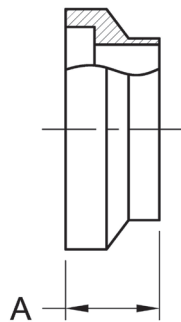


## I-LINE FITTINGS

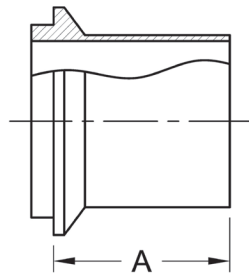
Nutech overseas stocks a broad assortment of 304 and 316L stainless steel I-Line sanitary fittings in a wide variety of shapes, configurations and sizes. Typically used to join runs of tubing, they are most commonly found in the food and beverage, dairy and pharmaceutical industries. These fittings are made of the highest-quality materials so they perform consistently for your sanitary applications.


**14WI - SHORT WELD FERRULE, MALE**


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WI-1      | 1     | .589  |
| 14WI-1.5    | 1-1/2 | .746  |
| 14WI-2      | 2     | .780  |
| 14WI-2.5    | 2-1/2 | .850  |
| 14WI-3      | 3     | .912  |
| 14WI-4      | 4     | 1.037 |
| 14WI-6      | 6     | .818  |
| 14WI-8      | 8     | .818  |

**15WI - SHORT WELD FERRULE, FEMALE**


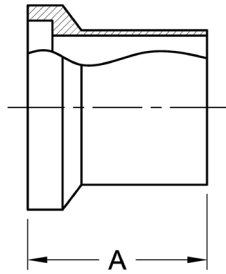
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15WI-1      | 1     | .786  |
| 15WI-1.5    | 1-1/2 | .942  |
| 15WI-2      | 2     | 1.036 |
| 15WI-2.5    | 2-1/2 | 1.161 |
| 15WI-3      | 3     | 1.223 |
| 15WI-4      | 4     | 1.348 |
| 15WI-6      | 6     | 1.130 |
| 15WI-8      | 8     | 1.130 |

**14WLI - LONG WELD FERRULE, MALE**


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WLI-1     | 1     | 1.562 |
| 14WLI-1.5   | 1-1/2 | 1.843 |
| 14WLI-2     | 2     | 2.062 |
| 14WLI-2.5   | 2-1/2 | 2.500 |
| 14WLI-3     | 3     | 2.375 |
| 14WLI-4     | 4     | 2.688 |
| 14WLI-6     | 6     | 3.813 |
| 14WLI-8     | 8     | 3.813 |

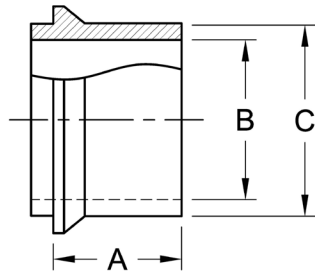


### 15WLI - LONG WELD FERRULE, FEMALE



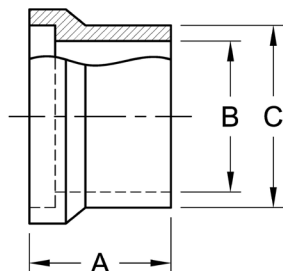
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15WLI-1     | 1     | 1.750 |
| 15WLI-1.5   | 1-1/2 | 2.031 |
| 15WLI-2     | 2     | 2.312 |
| 15WLI-2.5   | 2-1/2 | 2.500 |
| 15WLI-3     | 3     | 2.688 |
| 15WLI-4     | 4     | 3.000 |
| 15WLI-6     | 6     | 3.000 |
| 15WLI-8     | 8     | 4.000 |

### 14WHI - TANK WELD FERRULE, MALE



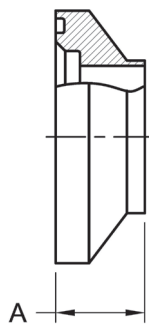
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 14WHI-1     | 1     | 1.312 | .870  | 1.250 |
| 14WHI-1.5   | 1-1/2 | 1.437 | 1.370 | 1.688 |
| 14WHI-2     | 2     | 1.500 | 1.870 | 2.250 |
| 14WHI-2.5   | 2-1/2 | 1.437 | 2.370 | 2.750 |
| 14WHI-3     | 3     | 1.500 | 2.870 | 3.313 |
| 14WHI-4     | 4     | 1.812 | 3.834 | 4.250 |
| 14WHI-6     | 6     | 1.812 | 5.782 | 6.500 |
| 14WHI-8     | 8     | 2.813 | 7.787 | 8.875 |

### 15WHI - TANK WELD FERRULE, FEMALE



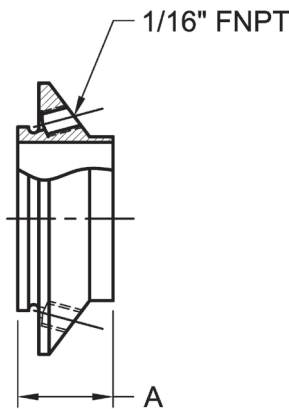
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 15WHI-1     | 1     | 1.500 | .870  | 1.250 |
| 15WHI-1.5   | 1-1/2 | 1.625 | 1.370 | 1.688 |
| 15WHI-2     | 2     | 1.750 | 1.870 | 2.250 |
| 15WHI-2.5   | 2-1/2 | 1.750 | 2.370 | 2.750 |
| 15WHI-3     | 3     | 1.812 | 2.870 | 3.313 |
| 15WHI-4     | 4     | 2.125 | 3.834 | 4.250 |
| 15WHI-6     | 6     | 2.000 | 5.782 | 6.500 |

15WNI - ASEPTIC, FEMALE



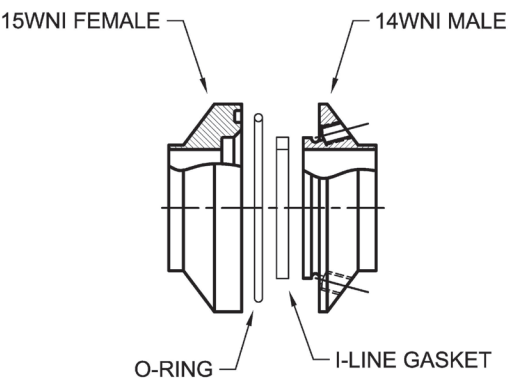
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 15WNI-1     | 1     | .942  |
| 15WNI-1.5   | 1-1/2 | 1.036 |
| 15WNI-2     | 2     | 1.161 |
| 15WNI-2.5   | 2-1/2 | 1.223 |
| 15WNI-3     | 3     | 1.348 |
| 15WNI-4     | 4     | 1.348 |

14WNI - ASEPTIC, MALE



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WNI-1     | 1     | .942  |
| 14WNI-1.5   | 1-1/2 | 1.036 |
| 14WNI-2     | 2     | 1.161 |
| 14WNI-2.5   | 2-1/2 | 1.223 |
| 14WNI-3     | 3     | 1.348 |
| 14WNI-4     | 4     | 1.348 |

ASEPTIC UNION

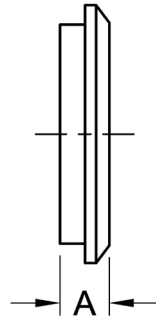


| PART NUMBER | SIZE  |
|-------------|-------|
| 29WNI-1     | 1     |
| 29WNI-1.5   | 1-1/2 |
| 29WNI-2     | 2     |
| 29WNI-2.5   | 2-1/2 |
| 29WNI-3     | 3     |
| 29WNI-4     | 4     |

CLAMP NOT SHOWN FOR CLARITY



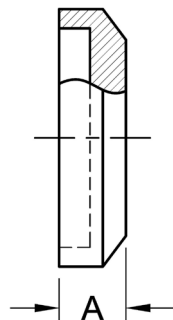
### 16AI-14I - SOLID END CAP, MALE



| PART NUMBER  | SIZE  | A    |
|--------------|-------|------|
| 16AI-14I-1   | 1     | .505 |
| 16AI-14I-1.5 | 1-1/2 | .505 |
| 16AI-14I-2   | 2     | .505 |
| 16AI-14I-2.5 | 2-1/2 | .692 |
| 16AI-14I-3   | 3     | .692 |
| 16AI-14I-4   | 4     | .755 |
| 16AI-14I-6   | 6     | .755 |
| 16AI-14I-8   | 8     | .755 |

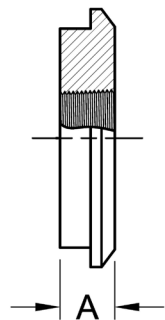
NOTE: AVAILABLE IN ACRYLIC AND LEXAN

### 16AI-15I - SOLID END CAP, FEMALE



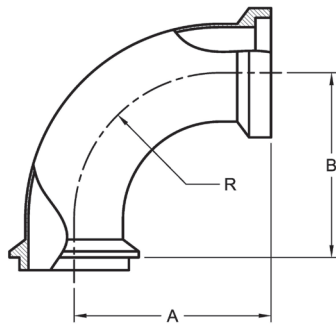
| PART NUMBER  | SIZE  | A    |
|--------------|-------|------|
| 16AI-15I-1   | 1     | .500 |
| 16AI-15I-1.5 | 1-1/2 | .500 |
| 16AI-15I-2   | 2     | .687 |
| 16AI-15I-2.5 | 2-1/2 | .687 |
| 16AI-15I-3   | 3     | .687 |
| 16AI-15I-4   | 4     | .750 |
| 16AI-15I-6   | 6     | .750 |
| 16AI-15I-8   | 8     | .750 |

### 23BI - THERMOMETER CAP, MALE

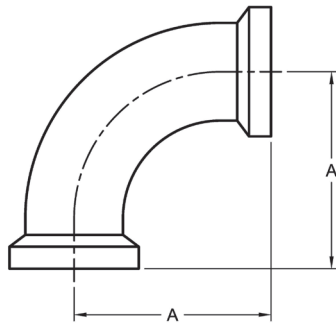


| PART NUMBER | SIZE            | A    |
|-------------|-----------------|------|
| 23BI-1      | 1 X 1/2 NPT     | .505 |
| 23BI-1.5    | 1-1/2 X 3/4 NPT | .505 |
| 23BI-2      | 2 X 3/4 NPT     | .505 |
| 23BI-2.5    | 2-1/2 X 3/4 NPT | .692 |
| 23BI-3      | 3 X 3/4 NPT     | .692 |
| 23BI-4      | 4 X 3/4 NPT     | .755 |
| 23BI-6      | 6 X 3/4 NPT     | .755 |

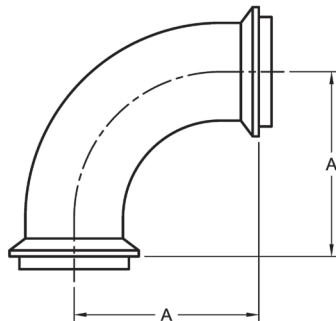


**2FI - 90 DEGREE ELBOW, FEMALE X MALE ENDS**


| PART NUMBER | SIZE  | A      | B     | R     |
|-------------|-------|--------|-------|-------|
| 2FI-1       | 1     | 2.286  | 2.089 | 1.500 |
| 2FI-1.5     | 1-1/2 | 3.192  | 2.996 | 2.250 |
| 2FI-2       | 2     | 4.036  | 3.780 | 3.000 |
| 2FI-2.5     | 2-1/2 | 4.911  | 4.600 | 3.750 |
| 2FI-3       | 3     | 5.723  | 5.412 | 4.500 |
| 2FI-4       | 4     | 7.348  | 7.037 | 6.000 |
| 2FI-6       | 6     | 10.130 | 9.818 | 9.000 |

**2CI - 90 DEGREE ELBOW, FEMALE ENDS**


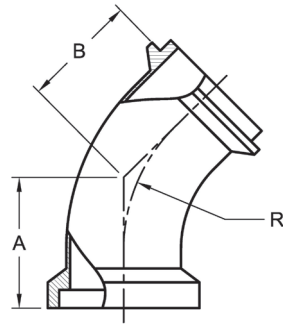
| PART NUMBER | SIZE  | A      |
|-------------|-------|--------|
| 2CI-1       | 1     | 2.286  |
| 2CI-1.5     | 1-1/2 | 3.192  |
| 2CI-2       | 2     | 4.036  |
| 2CI-2.5     | 2-1/2 | 4.911  |
| 2CI-3       | 3     | 5.723  |
| 2CI-4       | 4     | 7.348  |
| 2CI-6       | 6     | 10.130 |

**2EI - 90 DEGREE ELBOW, MALE ENDS**


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 2EI-1       | 1     | 2.089 |
| 2EI-1.5     | 1-1/2 | 2.996 |
| 2EI-2       | 2     | 3.780 |
| 2EI-2.5     | 2-1/2 | 4.600 |
| 2EI-3       | 3     | 5.412 |
| 2EI-4       | 4     | 7.037 |
| 2EI-6       | 6     | 9.818 |

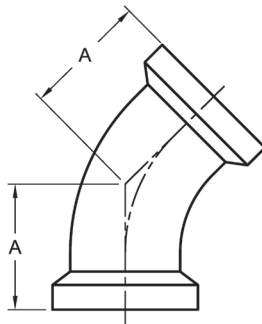


### 2PI - 45 DEGREE ELBOW, FEMALE X MALE ENDS



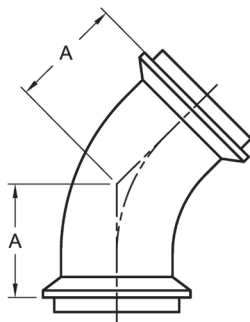
| PART NUMBER | SIZE  | A     | B     | R     |
|-------------|-------|-------|-------|-------|
| 2PI-1       | 1     | 1.411 | 1.214 | 1.500 |
| 2PI-1.5     | 1-1/2 | 1.879 | 1.526 | 2.250 |
| 2PI-2       | 2     | 2.286 | 2.030 | 3.000 |
| 2PI-2.5     | 2-1/2 | 2.723 | 2.412 | 3.750 |
| 2PI-3       | 3     | 3.098 | 2.787 | 4.500 |
| 2PI-4       | 4     | 3.848 | 3.537 | 6.000 |

### 2KI - 45 DEGREE ELBOW, FEMALE ENDS

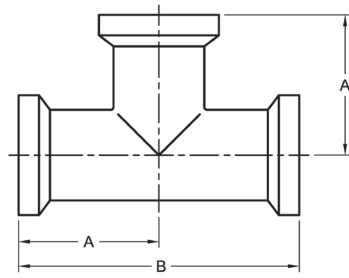
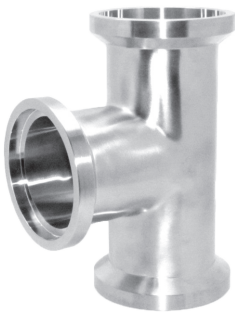


| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 2KI-1       | 1     | 1.411 |
| 2KI-1.5     | 1-1/2 | 1.879 |
| 2KI-2       | 2     | 2.286 |
| 2KI-2.5     | 2-1/2 | 2.723 |
| 2KI-3       | 3     | 3.098 |
| 2KI-4       | 4     | 3.848 |

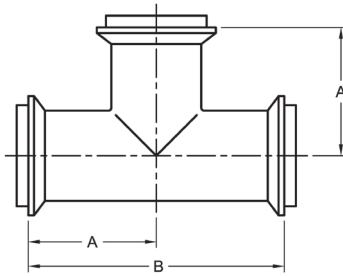
### 2HI - 45 DEGREE ELBOW, MALE ENDS



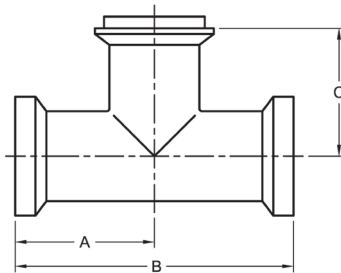
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 2HI-1       | 1     | 1.214 |
| 2HI-1.5     | 1-1/2 | 1.526 |
| 2HI-2       | 2     | 2.030 |
| 2HI-2.5     | 2-1/2 | 2.412 |
| 2HI-3       | 3     | 2.787 |
| 2HI-4       | 4     | 3.537 |

**7I - TEE, FEMALE ENDS**

| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 7I-1        | 1     | 1.911 | 3.822 |
| 7I-1.5      | 1-1/2 | 2.598 | 5.196 |
| 7I-2        | 2     | 3.099 | 6.198 |
| 7I-2.5      | 2-1/2 | 3.505 | 7.010 |
| 7I-3        | 3     | 3.817 | 7.634 |
| 7I-4        | 4     | 4.786 | 9.572 |

**7HI - TEE, MALE ENDS**

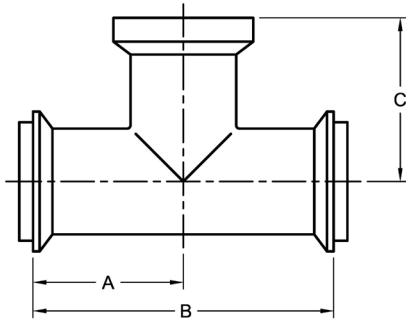
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 7HI-1       | 1     | 1.714 | 3.428 |
| 7HI-1.5     | 1-1/2 | 2.402 | 4.804 |
| 7HI-2       | 2     | 2.843 | 5.686 |
| 7HI-2.5     | 2-1/2 | 3.194 | 6.388 |
| 7HI-3       | 3     | 3.506 | 7.012 |
| 7HI-4       | 4     | 4.475 | 8.950 |

**7AI - TEE, FEMALE RUN X MALE OUTLET**

| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 7AI-1       | 1     | 1.911 | 3.822 | 1.714 |
| 7AI-1.5     | 1-1/2 | 2.598 | 5.196 | 2.402 |
| 7AI-2       | 2     | 3.099 | 6.198 | 2.843 |
| 7AI-2.5     | 2-1/2 | 3.505 | 7.010 | 3.194 |
| 7AI-3       | 3     | 3.817 | 7.634 | 3.506 |
| 7AI-4       | 4     | 4.786 | 9.572 | 4.475 |

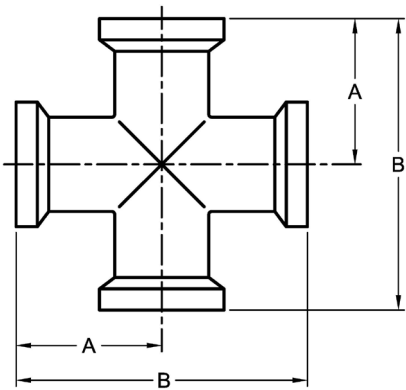


**7EI - TEE, MALE RUN X FEMALE OUTLET**



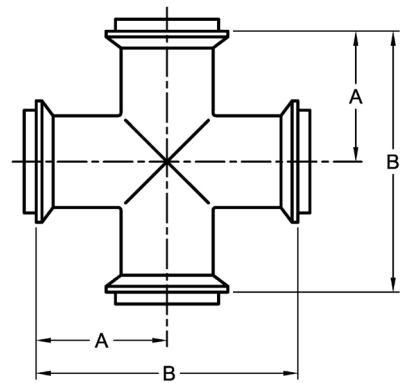
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 7EI-1       | 1     | 1.714 | 3.428 | 1.911 |
| 7EI-1.5     | 1-1/2 | 2.402 | 4.804 | 2.598 |
| 7EI-2       | 2     | 2.843 | 5.686 | 3.099 |
| 7EI-2.5     | 2-1/2 | 3.194 | 6.388 | 3.505 |
| 7EI-3       | 3     | 3.506 | 7.012 | 3.817 |
| 7EI-4       | 4     | 4.475 | 8.950 | 4.786 |

**9I - CROSS, FEMALE ENDS**



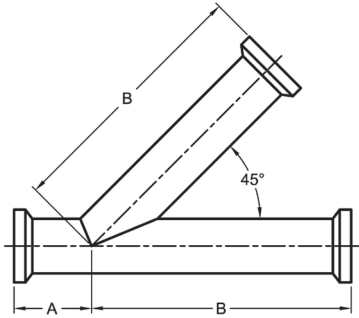
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 9I-1        | 1     | 1.911 | 3.822 |
| 9I-1.5      | 1-1/2 | 2.598 | 5.196 |
| 9I-2        | 2     | 3.099 | 6.198 |
| 9I-2.5      | 2-1/2 | 3.505 | 7.010 |
| 9I-3        | 3     | 3.817 | 7.634 |
| 9I-4        | 4     | 4.786 | 9.572 |

**9HI - CROSS, MALE ENDS**



| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| 9HI-1       | 1     | 1.714 | 3.428 |
| 9HI-1.5     | 1-1/2 | 2.402 | 4.804 |
| 9HI-2       | 2     | 2.843 | 5.686 |
| 9HI-2.5     | 2-1/2 | 3.194 | 6.388 |
| 9HI-3       | 3     | 3.506 | 7.012 |
| 9HI-4       | 4     | 4.475 | 8.950 |

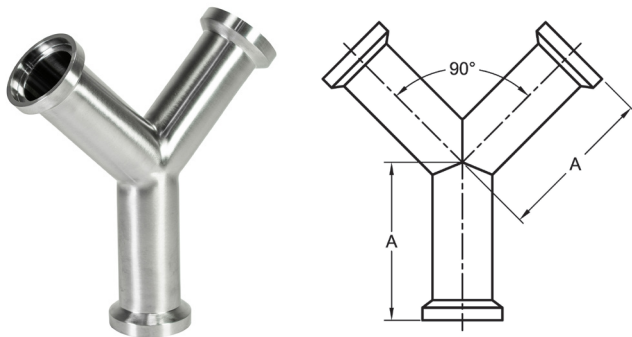
### 28AI - LATERAL WYE, FEMALE ENDS



| PART NUMBER | SIZE  | A     | B      |
|-------------|-------|-------|--------|
| 28AI-1      | 1     | 1.786 | 5.786  |
| 28AI-1.5    | 1-1/2 | 2.132 | 7.132  |
| 28AI-2      | 2     | 2.656 | 8.156  |
| 28AI-2.5    | 2-1/2 | 2.661 | 9.661  |
| 28AI-3      | 3     | 3.103 | 10.103 |
| 28AI-4      | 4     | 3.408 | 12.148 |

ALSO AVAILABLE WITH MALE I-LINE ENDS  
OTHER CONFIGURATIONS AVAILABLE UPON REQUEST

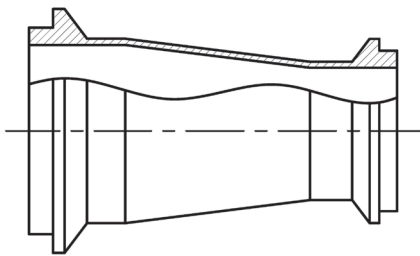
### 28BI - TRUE WYE, FEMALE ENDS



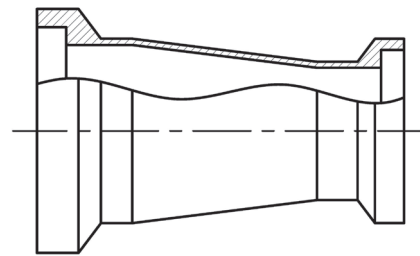
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 28BI-1      | 1     | 3.786 |
| 28BI-1.5    | 1-1/2 | 3.942 |
| 28BI-2      | 2     | 5.036 |
| 28BI-2.5    | 2-1/2 | 6.161 |
| 28BI-3      | 3     | 7.223 |
| 28BI-4      | 4     | 9.348 |

ALSO AVAILABLE WITH MALE I-LINE ENDS  
OTHER CONFIGURATIONS AVAILABLE UPON REQUEST

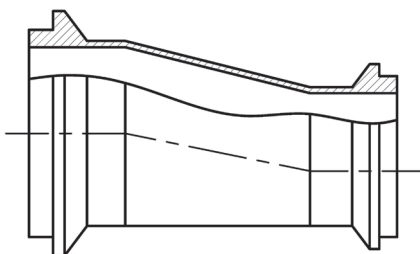
### I-LINE REDUCERS



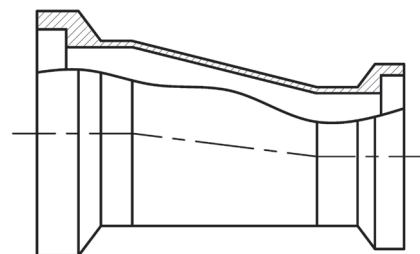
**31-14I-14I (CONCENTRIC)**



**31-15I-15I (CONCENTRIC)**

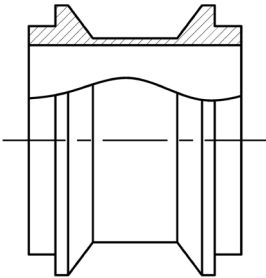


**32-14I-14I (ECCENTRIC)**

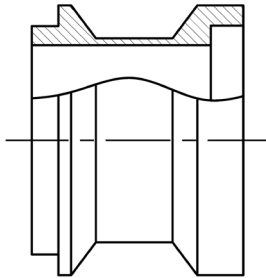


**32-15I-15I (ECCENTRIC)**

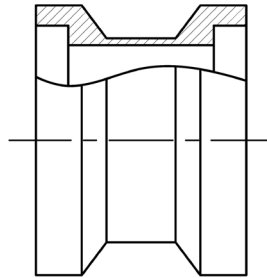
I-LINE ADAPTERS



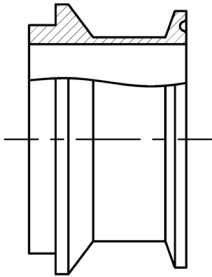
**17-14I-14I**  
MALE I-LINE X MALE I-LINE



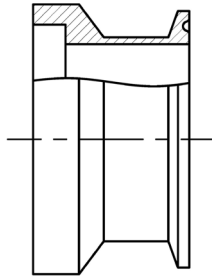
**17-14I-15I**  
MALE I-LINE X FEMALE I-LINE



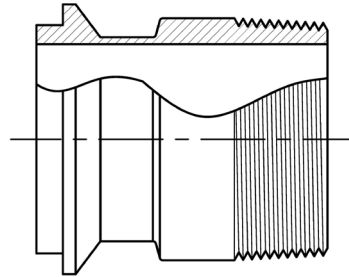
**17-15I-15I**  
FEMALE I-LINE X FEMALE I-LINE



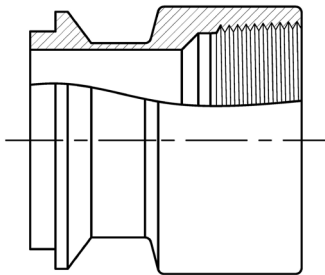
**17-14I-14MP**  
MALE I-LINE X CLAMP



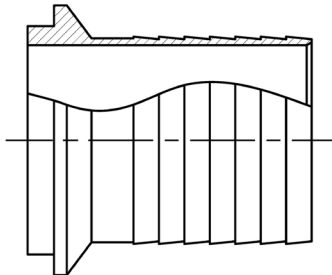
**17-15I-14MP**  
FEMALE I-LINE X CLAMP



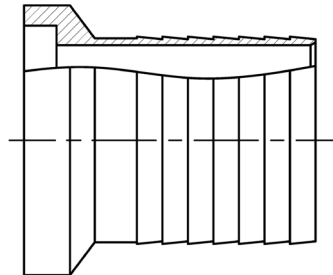
**21FI-14I**  
MALE I-LINE X MALE NPT  
(ALSO AVAILABLE W/FEMALE I-LINE)



**22FI-14I**  
MALE I-LINE X FEMALE NPT  
(ALSO AVAILABLE W/FEMALE I-LINE)



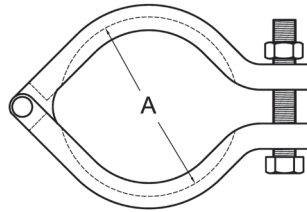
**14HRI**  
MALE I-LINE X RUBBER HOSE



**15HRI**  
FEMALE I-LINE X RUBBER HOSE

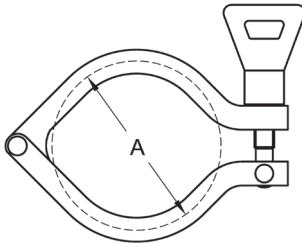


### 13I - I-LINE CLAMP, BOLTED STYLE



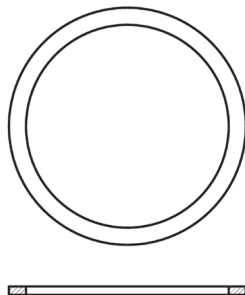
| PART NUMBER | SIZE      | A     | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|-------|----------------------|-----------------------|
| 13I-1       | 1 & 1-1/2 | 2.124 | 1220                 | 1100                  |
| 13I-2       | 2         | 2.843 | 900                  | 830                   |
| 13I-2.5     | 2-1/2     | 3.468 | 720                  | 660                   |
| 13I-3       | 3         | 4.031 | 600                  | 550                   |
| 13I-4       | 4         | 5.031 | 570                  | 525                   |
| 13I-6       | 6         | 7.688 | 150                  | 75                    |
| 13I-8       | 8         | 9.688 | --                   | --                    |

### 13IS - I-LINE CLAMP, WING NUT STYLE



| PART NUMBER | SIZE      | A     | PSI RATING<br>@ 70°F | PSI RATING<br>@ 250°F |
|-------------|-----------|-------|----------------------|-----------------------|
| 13IS-1      | 1 & 1-1/2 | 2.155 | 1220                 | 1100                  |
| 13IS-2      | 2         | 2.843 | 900                  | 830                   |
| 13IS-2.5    | 2-1/2     | 3.529 | 720                  | 660                   |
| 13IS-3      | 3         | 4.071 | 600                  | 550                   |
| 13IS-4      | 4         | 5.071 | 570                  | 525                   |
| 13IS-6      | 6         | 7.688 | 150                  | 75                    |
| 13IS-8      | 8         | 9.688 | --                   | --                    |

### I-LINE GASKET



| PART NUMBER | SIZE  |
|-------------|-------|
| 40I-1       | 1     |
| 40I-1.5     | 1-1/2 |
| 40I-2       | 2     |
| 40I-2.5     | 2-1/2 |
| 40I-3       | 3     |
| 40I-4       | 4     |
| 40I-6       | 6     |
| 40I-8       | 8     |

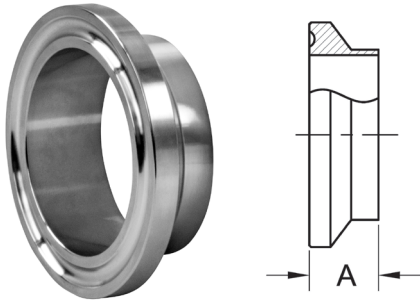
AVAILABLE IN THE FOLLOWING MATERIALS:  
 BUNA-N, EPDM, TEFLON, VITON, & SILICONE



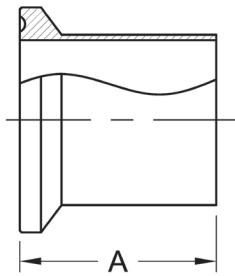
## Q-LINE FITTINGS

Nutech overseas stocks a broad assortment of 304 and 316L stainless steel Q-Line sanitary fittings in a wide variety of shapes, configurations and sizes. These fittings are made of the highest-quality materials so they perform consistently for your sanitary applications.

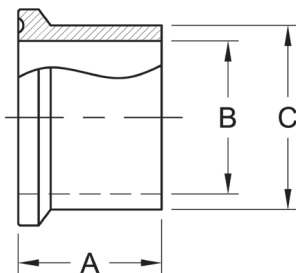


**14WQ - SHORT WELD FERRULE**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WQ-1      | 1     | .531  |
| 14WQ-1.5    | 1-1/2 | .562  |
| 14WQ-2      | 2     | .812  |
| 14WQ-2.5    | 2-1/2 | .937  |
| 14WQ-3      | 3     | .937  |
| 14WQ-4      | 4     | 1.000 |
| 14WQ-6      | 6     | 1.130 |

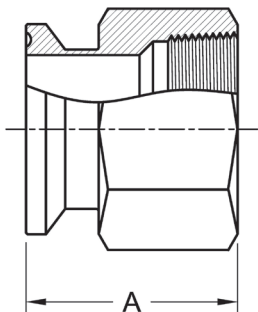
**14WLQ - LONG WELD FERRULE**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 14WLQ-1     | 1     | 1.750 |
| 14WLQ-1.5   | 1-1/2 | 2.031 |
| 14WLQ-2     | 2     | 2.313 |
| 14WLQ-2.5   | 2-1/2 | 2.500 |
| 14WLQ-3     | 3     | 2.688 |
| 14WLQ-4     | 4     | 3.000 |
| 14WLQ-6     | 6     | 4.000 |

**14WHQ - TANK WELD FERRULE**

| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 14WHQ-1     | 1     | 1.500 | .870  | 1.250 |
| 14WHQ-1.5   | 1-1/2 | 1.625 | 1.370 | 1.688 |
| 14WHQ-2     | 2     | 1.750 | 1.870 | 2.250 |
| 14WHQ-2.5   | 2-1/2 | 1.750 | 2.370 | 2.750 |
| 14WHQ-3     | 3     | 1.813 | 2.870 | 3.313 |
| 14WHQ-4     | 4     | 2.125 | 3.834 | 4.250 |
| 14WHQ-6     | 6     | 2.125 | 5.782 | 6.500 |

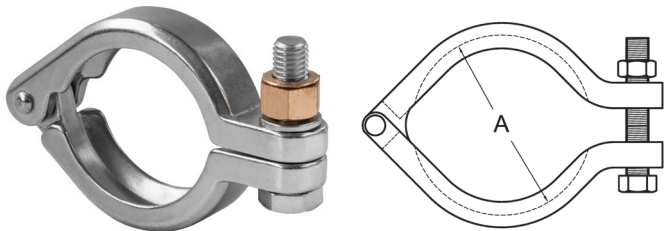
22Q - ADAPTER, Q-LINE x FEMALE NPT



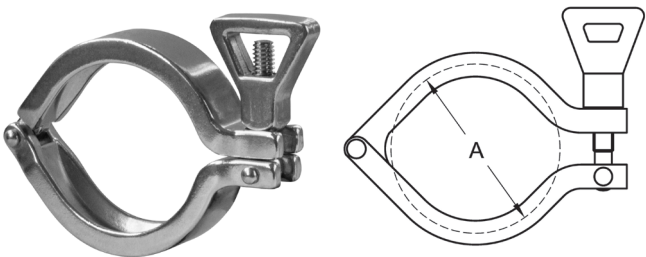
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 22Q-1       | 1     | 1.625 |
| 22Q-1.5     | 1-1/2 | 2.250 |
| 22Q-2       | 2     | 2.343 |
| 22Q-2.5     | 2-1/2 | 2.094 |
| 22Q-3       | 3     | 2.187 |
| 22Q-4       | 4     | 2.625 |

NOTE: REDUCING SIZES AVAILABLE UPON REQUEST  
WRENCH FLAT STYLE AVAILABLE UPON REQUEST

13I - BOLT STYLE

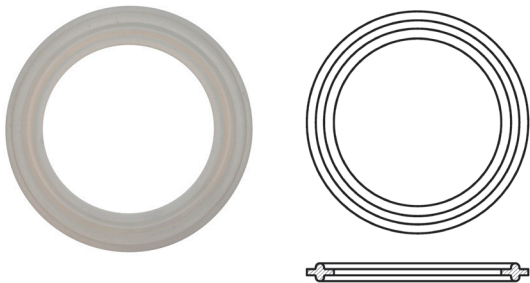


13IS - WING NUT STYLE



NOTE: Q-LINE FITTINGS UTILIZE I-LINE CLAMPS, SEE I-LINE SECTION FOR CLAMP DIMENSIONS.

Q-LINE GASKET



| PART NUMBER | SIZE  |
|-------------|-------|
| 40Q-1       | 1     |
| 40Q-1.5     | 1-1/2 |
| 40Q-2       | 2     |
| 40Q-2.5     | 2-1/2 |
| 40Q-3       | 3     |
| 40Q-4       | 4     |

MOST COMMON MATERIAL IS BUNA  
OTHER MATERIALS AVAILABLE UPON  
REQUEST

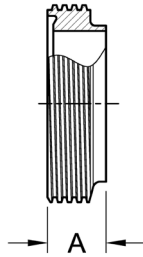


## APC/APV FITTINGS

Nutech overseas stocks a broad assortment of 304 and 316L stainless steel APC/APV sanitary fittings in a wide variety of shapes, configurations and sizes. These fittings are made of the highest-quality materials so they perform consistently for your sanitary applications.

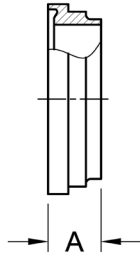


**PV15WX - APC SHORT WELD FERRULE, THREADED**



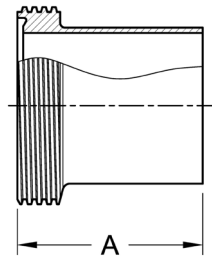
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| PV15WX-1    | 1     | .690  |
| PV15WX-1.5  | 1-1/2 | .690  |
| PV15WX-2    | 2     | .750  |
| PV15WX-2.5  | 2-1/2 | .844  |
| PV15WX-3    | 3     | .906  |
| PV15WX-4    | 4     | 1.000 |

**PV14WX - APC SHORT WELD FERRULE, PLAIN**



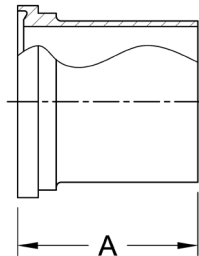
| PART NUMBER | SIZE  | A    |
|-------------|-------|------|
| PV14WX-1    | 1     | .610 |
| PV14WX-1.5  | 1-1/2 | .580 |
| PV14WX-2    | 2     | .665 |
| PV14WX-2.5  | 2-1/2 | .719 |
| PV14WX-3    | 3     | .781 |
| PV14WX-4    | 4     | .834 |

**PV15A - APC LONG WELD FERRULE, THREADED**



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| PV15A-1     | 1     | 1.625 |
| PV15A-1.5   | 1-1/2 | 1.875 |
| PV15A-2     | 2     | 2.375 |
| PV15A-2.5   | 2-1/2 | 2.625 |
| PV15A-3     | 3     | 2.875 |
| PV15A-4     | 4     | 2.875 |

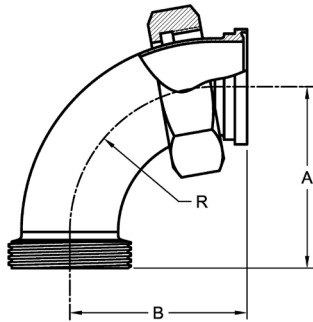
**PV14A - APC LONG WELD FERRULE, PLAIN**



| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| PV14A-1     | 1     | 1.297 |
| PV14A-1.5   | 1-1/2 | 1.770 |
| PV14A-2     | 2     | 2.218 |
| PV14A-2.5   | 2-1/2 | 2.375 |
| PV14A-3     | 3     | 2.562 |
| PV14A-4     | 4     | 2.578 |



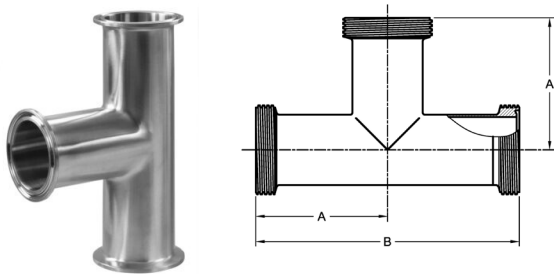
**PV2F - APC 90 DEGREE ELBOW, THREADED X PLAIN ENDS**



| PART NUMBER | SIZE  | A     | B     | R     |
|-------------|-------|-------|-------|-------|
| PV2F-1      | 1     | 2.190 | 2.110 | 1.500 |
| PV2F-1.5    | 1-1/2 | 2.940 | 2.830 | 2.250 |
| PV2F-2      | 2     | 3.750 | 3.665 | 3.000 |
| PV2F-2.5    | 2-1/2 | 4.594 | 4.469 | 3.750 |
| PV2F-3      | 3     | 5.406 | 5.281 | 4.500 |
| PV2F-4      | 4     | 7.000 | 6.834 | 6.000 |

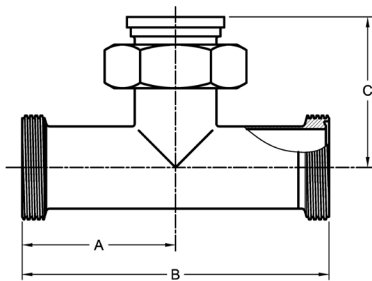
CAPTIVE NUT IS INCLUDED  
FOR 13H HEX NUT DETAILS SEE PG. 86

**PV7 - APC TEE, THREADED ENDS**



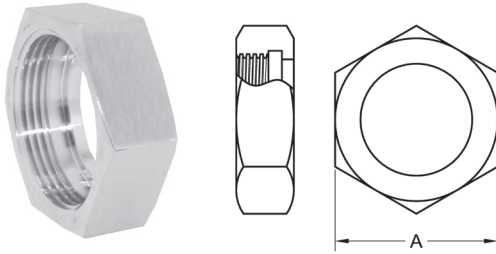
| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| PV7-1       | 1     | 1.815 | 3.630 |
| PV7-1.5     | 1-1/2 | 2.346 | 4.692 |
| PV7-2       | 2     | 2.813 | 5.626 |
| PV7-2.5     | 2-1/2 | 3.188 | 6.376 |
| PV7-3       | 3     | 3.500 | 7.000 |
| PV7-4       | 4     | 4.438 | 8.876 |

**PV7A - APC TEE, THREADED X THREADED X PLAIN OUTLET**



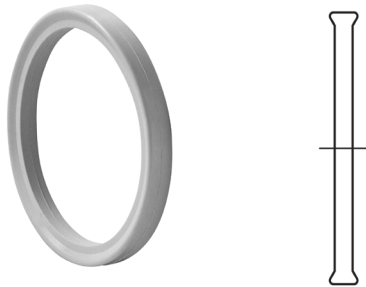
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| PV7A-1      | 1     | 1.815 | 3.630 | 1.735 |
| PV7A-1.5    | 1-1/2 | 2.346 | 4.692 | 2.236 |
| PV7A-2      | 2     | 2.813 | 5.626 | 2.728 |
| PV7A-2.5    | 2-1/2 | 3.188 | 6.376 | 3.063 |
| PV7A-3      | 3     | 3.500 | 7.000 | 3.375 |
| PV7A-4      | 4     | 4.438 | 8.876 | 4.272 |

CAPTIVE NUT IS INCLUDED  
FOR 13H HEX NUT DETAILS SEE PG. 86

**13H - HEX UNION NUT**

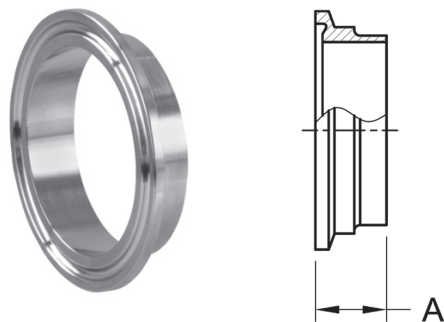
| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 13H-1       | 1     | 1.812 |
| 13H-1.5     | 1-1/2 | 2.406 |
| 13H-2       | 2     | 3.000 |
| 13H-2.5     | 2-1/2 | 3.594 |
| 13H-3       | 3     | 4.188 |
| 13H-4       | 4     | 5.438 |

NOTE: AVAILABLE IN 304 &amp; 316 GRADES

**40APC - GASKET**

| PART NUMBER | SIZE  |
|-------------|-------|
| 40APC-1     | 1     |
| 40APC-1.5   | 1-1/2 |
| 40APC-2     | 2     |
| 40APC-2.5   | 2-1/2 |
| 40APC-3     | 3     |
| 40APC-4     | 4     |

STANDARD CLAMPS ARE USED ON APC CLAMP FITTINGS,

**PV14WMP - APC WELD FERRULE, SHORT**

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| PV14WMP-1   | 1     | .688  |
| PV14WMP-1.5 | 1-1/2 | .688  |
| PV14WMP-2   | 2     | .750  |
| PV14WMP-2.5 | 2-1/2 | .843  |
| PV14WMP-3   | 3     | .906  |
| PV14WMP-4   | 4     | 1.000 |

STANDARD CLAMPS ARE USED ON APC FITTINGS

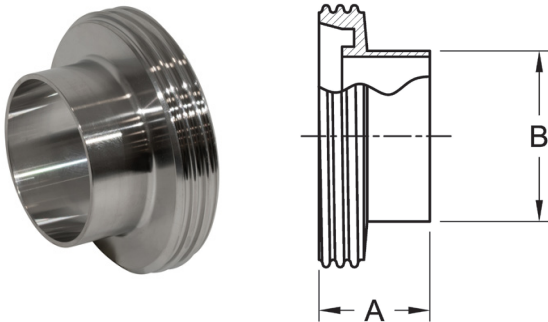


## EUROPEAN DIN FITTINGS

DIN – short for ‘Deutsches Institut für Normung’ – which means German institute for Standardization, sanitary DIN fittings include metric dimension and thread options. Nutech overseas has a wide range of sanitary DIN fittings available in multiple sizes, materials and connection types. The selection of products we provide include DIN 11851 sanitary fittings commonly used in food and beverage applications.

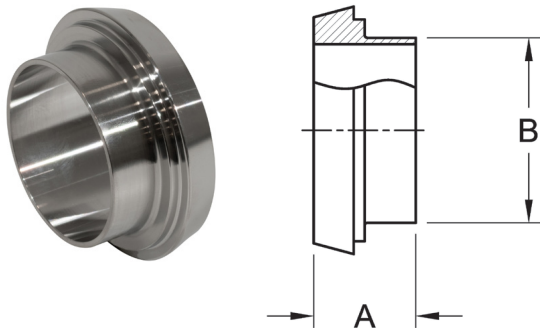
## DIN CONNECTION x TUBE O.D. WELD CONNECTION

### DN15SC - 15DIN THREAD (DIN 11851) X SANITARY TUBE WELD



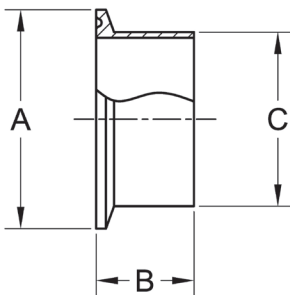
| PART NUMBER | SIZE         | A     | B     |
|-------------|--------------|-------|-------|
| DN15SC-1    | DN25 X 1     | 1.143 | 1.000 |
| DN15SC-1.5  | DN40 X 1-1/2 | 1.300 | 1.500 |
| DN15SC-2    | DN50 X 2     | 1.378 | 2.000 |
| DN15SC-2.5  | DN65 X 2-1/2 | 1.575 | 2.500 |
| DN15SC-3    | DN80 X 3     | 1.772 | 3.000 |
| DN15SC-4    | DN100 X 4    | 2.126 | 4.000 |

### DN14SD - 14DIN LINER (DIN 11851) X SANITARY TUBE WELD



| PART NUMBER | SIZE         | A     | B     |
|-------------|--------------|-------|-------|
| DN14SD-1    | DN25 X 1     | .866  | 1.000 |
| DN14SD-1.5  | DN40 X 1-1/2 | 1.025 | 1.500 |
| DN14SD-2    | DN50 X 2     | 1.102 | 2.000 |
| DN14SD-2.5  | DN65 X 2-1/2 | 1.260 | 2.500 |
| DN14SD-3    | DN80 X 3     | 1.460 | 3.000 |
| DN14SD-4    | DN100 X 4    | 1.732 | 4.000 |

### DN14WMPAS - DIN 32676 CLAMP X SANITARY TUBE WELD



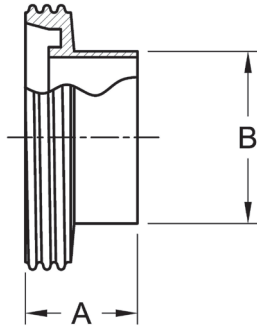
| PART NUMBER     | SIZE         | A     | B     | C     |
|-----------------|--------------|-------|-------|-------|
| DN14WMPAS-DN20  | DN20 X 3/4   | 1.339 | .625  | .750  |
| DN14WMPAS-DN25  | DN25 X 1     | 1.988 | .846  | 1.000 |
| DN14WMPAS-DN40  | DN40 X 1-1/2 | 1.988 | .846  | 1.500 |
| DN14WMPAS-DN50  | DN50 X 2     | 2.539 | .500  | 2.000 |
| DN14WMPAS-DN80  | DN80 X 3     | 4.173 | .500  | 3.000 |
| DN14WMPAS-DN100 | DN100 X 4    | 4.685 | 1.102 | 4.000 |





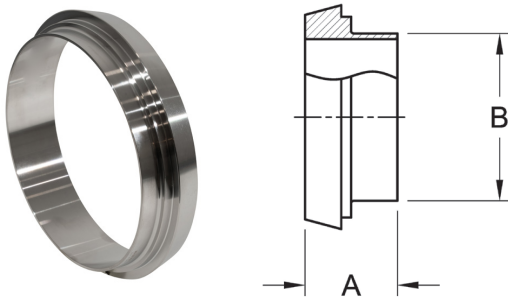
## DIN CONNECTION x METRIC WELD CONNECTION

### DN15SCM - 15DIN THREAD (DIN 11851) X METRIC TUBE WELD



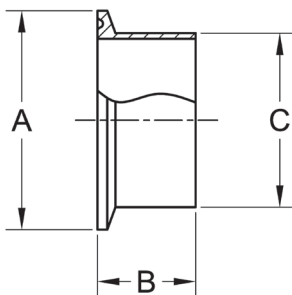
| PART NUMBER   | SIZE  | A     | B     |
|---------------|-------|-------|-------|
| DN15SCM-DN25  | DN25  | 1.143 | 1.142 |
| DN15SCM-DN40  | DN40  | 1.300 | 1.614 |
| DN15SCM-DN50  | DN50  | 1.378 | 2.087 |
| DN15SCM-DN65  | DN65  | 1.575 | 2.755 |
| DN15SCM-DN80  | DN80  | 1.772 | 3.346 |
| DN15SCM-DN100 | DN100 | 2.126 | 4.094 |

### DN14SDM - 14DIN LINER (DIN 11851) X METRIC TUBE WELD

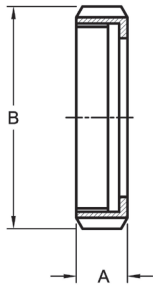


| PART NUMBER   | SIZE  | A     | B     |
|---------------|-------|-------|-------|
| DN14SDM-DN25  | DN25  | .866  | 1.142 |
| DN14SDM-DN40  | DN40  | 1.025 | 1.614 |
| DN14SDM-DN50  | DN50  | 1.102 | 2.087 |
| DN14SDM-DN65  | DN65  | 1.260 | 2.755 |
| DN14SDM-DN80  | DN80  | 1.460 | 3.346 |
| DN14SDM-DN100 | DN100 | 1.732 | 4.094 |

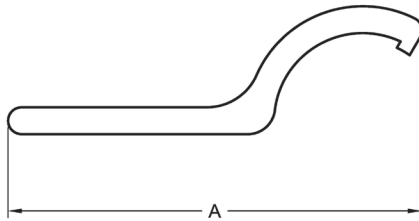
### DN14WMPMAS - DN 32676 CLAMP X METRIC TUBE WELD



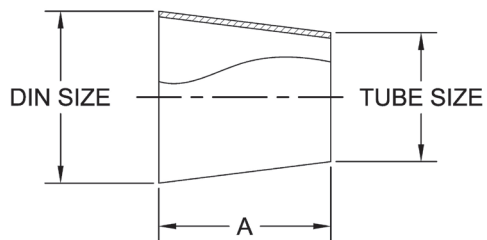
| PART NUMBER      | SIZE    | A     | B     | C     |
|------------------|---------|-------|-------|-------|
| DN14WMPMAS-DN20  | DIN 20  | 1.339 | .709  | .906  |
| DN14WMPMAS-DN25  | DIN 25  | 1.988 | .846  | 1.142 |
| DN14WMPMAS-DN40  | DIN 40  | 1.988 | .846  | 1.614 |
| DN14WMPMAS-DN50  | DIN 50  | 2.520 | .846  | 2.087 |
| DN14WMPMAS-DN80  | DIN 80  | 4.173 | 1.102 | 3.346 |
| DN14WMPMAS-DN100 | DIN 100 | 4.685 | 1.102 | 4.094 |

**DN13R - DIN ROUND NUT**

| PART NUMBER | SIZE  | A     | B     |
|-------------|-------|-------|-------|
| DN13R-DN25  | DN25  | .827  | 2.480 |
| DN13R-DN40  | DN40  | .827  | 3.071 |
| DN13R-DN50  | DN50  | .866  | 3.622 |
| DN13R-DN65  | DN65  | .984  | 4.409 |
| DN13R-DN80  | DN80  | 1.142 | 5.000 |
| DN13R-DN100 | DN100 | 1.220 | 5.827 |

**25HD - DIN SPANNER WRENCH**

| PART NUMBER  | SIZE          | A    |
|--------------|---------------|------|
| 25HD-25-50   | DN25 - DN50   | 9.5  |
| 25HD-65-100  | DN65 - DN100  | 10.0 |
| 25HD-100-150 | DN100 - DN150 | 11.0 |

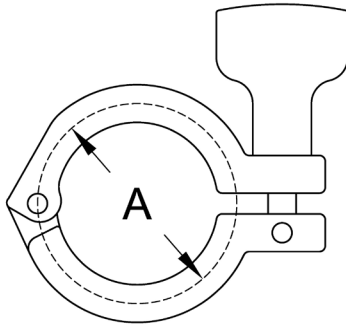
**DIN31W - DIN X SANITARY TUBE BW**

| PART NUMBER    | DIN SIZE       | TUBE SIZE | A     |
|----------------|----------------|-----------|-------|
| DN31W-DN20X1   | DN20 - (.905)  | 1.000     | .380  |
| DN31W-DN25X1   | DN25 - (1.142) | 1.000     | .567  |
| DN31W-DN40X1.5 | DN40 - (1.614) | 1.500     | 1.000 |
| DN31W-DN50X2   | DN50 - (2.087) | 2.000     | 1.250 |
| DN31W-DN65X2.5 | DN65 - (2.756) | 2.500     | 1.024 |
| DN31W-DN80X3   | DN80 - (3.346) | 3.000     | 1.125 |

OTHER SIZES AVAILABLE UPON REQUEST

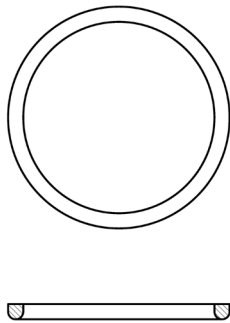


### DN13MHHM - SINGLE PIN CLAMP



| PART NUMBER    | SIZE           | A     |
|----------------|----------------|-------|
| DN13MHHM-DN10  | DIN 10, 15, 20 | 1.481 |
| DN13MHHM-DN25  | DIN 25, 40     | 2.122 |
| DN13MHHM-DN50  | DIN 50         | 2.654 |
| DN13MHHM-DN65  | DIN 65         | 3.717 |
| DN13MHHM-DN80  | DIN 80         | 4.260 |
| DN13MHHM-DN100 | DIN 100        | 4.820 |

### DIN 11851 - DIN GASKET



| PART NUMBER    | SIZE          |
|----------------|---------------|
| DIN11851-DN25  | DN25 - 1"     |
| DIN11851-DN40  | DN40 - 1 1/2" |
| DIN11851-DN50  | DN50 - 2"     |
| DIN11851-DN65  | DN65 - 2 1/2" |
| DIN11851-DN80  | DN80 - 3"     |
| DIN11851-DN100 | DN100 - 4"    |

AVAILABLE IN BUNA, EPDM AND FKM/SFY MATERIALS.  
FOR USE WITH THREADED DIN FITTINGS.

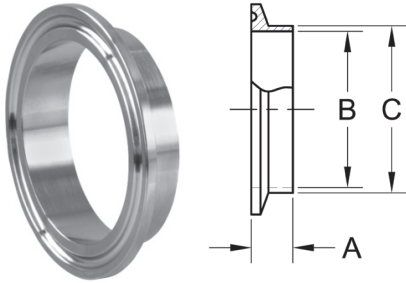


## PIPE SIZE SANITARY FITTINGS

Nutech overseas stocks a broad assortment of 304 and 316L stainless steel Pipe Size sanitary fittings in a wide variety of shapes, configurations and sizes. These fittings are made of the highest-quality materials so they perform consistently for your sanitary applications.

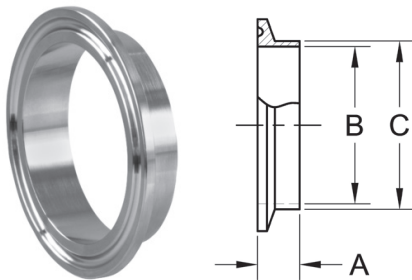


### 14WMV - SCHEDULE 5 SHORT WELD FERRULE



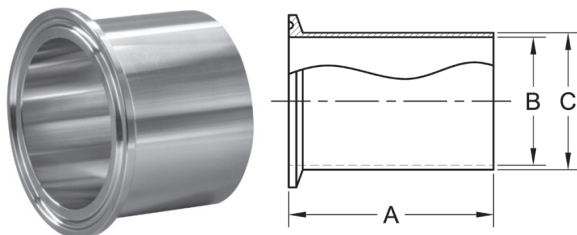
| PART NUMBER | SIZE  | A     | B      | C      |
|-------------|-------|-------|--------|--------|
| 14WMV-1     | 1     | .500  | 1.185  | 1.315  |
| 14WMV-1.5   | 1-1/2 | .500  | 1.770  | 1.900  |
| 14WMV-2     | 2     | .500  | 2.245  | 2.375  |
| 14WMV-2.5   | 2-1/2 | .500  | 2.709  | 2.875  |
| 14WMV-3     | 3     | .500  | 3.334  | 3.500  |
| 14WMV-4     | 4     | .625  | 4.334  | 4.500  |
| 14WMV-6     | 6     | .875  | 6.407  | 6.625  |
| 14WMV-8     | 8     | .875  | 8.407  | 8.625  |
| 14WMV-10    | 10    | 1.000 | 10.482 | 10.750 |
| 14WMV-12    | 12    | 1.000 | 12.420 | 12.750 |

### 14WMX - SCHEDULE 10 SHORT WELD FERRULE

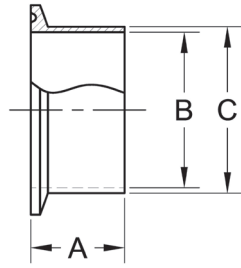


| PART NUMBER | SIZE  | A     | B      | C      |
|-------------|-------|-------|--------|--------|
| 14WMX-1     | 1     | .500  | 1.097  | 1.315  |
| 14WMX-1.5   | 1-1/2 | .500  | 1.682  | 1.900  |
| 14WMX-2     | 2     | .500  | 2.157  | 2.375  |
| 14WMX-2.5   | 2-1/2 | .500  | 2.635  | 2.875  |
| 14WMX-3     | 3     | .500  | 3.260  | 3.500  |
| 14WMX-4     | 4     | .625  | 4.260  | 4.500  |
| 14WMX-6     | 6     | .875  | 6.375  | 6.625  |
| 14WMX-8     | 8     | .875  | 8.329  | 8.625  |
| 14WMX-10    | 10    | 1.000 | 10.420 | 10.750 |
| 14WMX-12    | 12    | 1.000 | 12.390 | 12.750 |

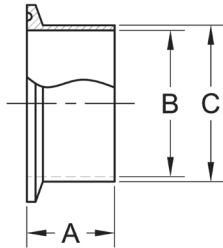
### 14WLMV - SCHEDULE 5 TANK SPUD (LIGHT)



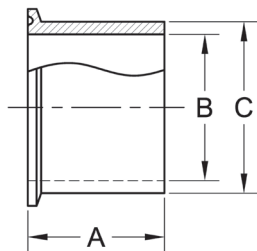
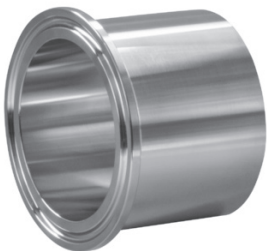
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 14WLMV-1    | 1     | 3.000 | 1.185 | 1.315 |
| 14WLMV-1.5  | 1-1/2 | 3.000 | 1.770 | 1.900 |
| 14WLMV-2    | 2     | 3.000 | 2.245 | 2.375 |
| 14WLMV-2.5  | 2-1/2 | 4.000 | 2.709 | 2.875 |
| 14WLMV-3    | 3     | 4.000 | 3.334 | 3.500 |
| 14WLMV-4    | 4     | 4.000 | 4.334 | 4.500 |
| 14WLMV-6    | 6     | 6.000 | 6.407 | 6.625 |
| 14WLMV-8    | 8     | 8.000 | 8.407 | 8.625 |

**L14AMV - SCHEDULE 5 WELD FERRULE**

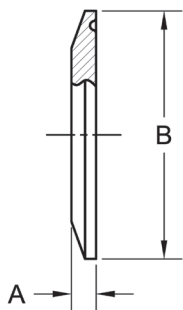
| PART NUMBER | SIZE  | A     | B      | C      |
|-------------|-------|-------|--------|--------|
| L14AMV-1    | 1     | 1.125 | 1.185  | 1.315  |
| L14AMV-1.5  | 1-1/2 | 1.125 | 1.770  | 1.900  |
| L14AMV-2    | 2     | 1.125 | 2.245  | 2.375  |
| L14AMV-2.5  | 2-1/2 | 1.125 | 2.709  | 2.875  |
| L14AMV-3    | 3     | 1.125 | 3.334  | 3.500  |
| L14AMV-4    | 4     | 1.125 | 4.334  | 4.500  |
| L14AMV-6    | 6     | 1.500 | 6.407  | 6.625  |
| L14AMV-8    | 8     | 1.500 | 8.407  | 8.625  |
| L14AMV-10   | 10    | 1.500 | 10.482 | 10.750 |
| L14AMV-12   | 12    | 1.500 | 12.420 | 12.750 |

**L14AMX - SCHEDULE 10 WELD FERRULE**

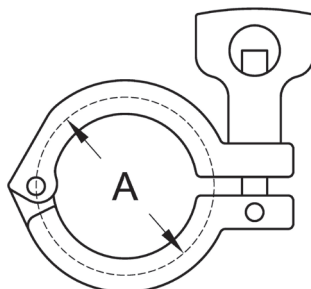
| PART NUMBER | SIZE  | A     | B      | C      |
|-------------|-------|-------|--------|--------|
| L14AMX-1    | 1     | 1.125 | 1.097  | 1.315  |
| L14AMX-1.5  | 1-1/2 | 1.125 | 1.682  | 1.900  |
| L14AMX-2    | 2     | 1.125 | 2.157  | 2.375  |
| L14AMX-2.5  | 2-1/2 | 1.125 | 2.635  | 2.875  |
| L14AMX-3    | 3     | 1.125 | 3.260  | 3.500  |
| L14AMX-4    | 4     | 1.125 | 4.260  | 4.500  |
| L14AMX-6    | 6     | 1.500 | 6.357  | 6.625  |
| L14AMX-8    | 8     | 1.500 | 8.329  | 8.625  |
| L14AMX-10   | 10    | 1.500 | 10.420 | 10.750 |
| L14AMX-12   | 12    | 1.500 | 12.390 | 12.750 |

**14MVW - SCHEDULE 5 TANK TANK SPUD (HEAVY)**

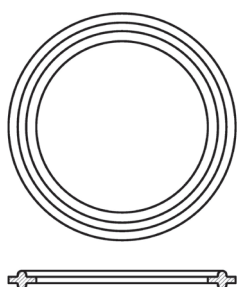
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 14MVW-1     | 1     | 1.625 | 1.185 | 1.531 |
| 14MVW-1.5   | 1-1/2 | 1.625 | 1.770 | 2.109 |
| 14MVW-2     | 2     | 1.750 | 2.245 | 2.594 |
| 14MVW-2.5   | 2-1/2 | 1.750 | 2.709 | 3.109 |
| 14MVW-3     | 3     | 1.812 | 3.334 | 3.562 |
| 14MVW-4     | 4     | 2.125 | 4.334 | 4.562 |

**16AMV - SCHEDULE 5 SOLID END CAP**

| PART NUMBER | SIZE  | A    | B      |
|-------------|-------|------|--------|
| 16AMV-1     | 1     | .250 | 1.984  |
| 16AMV-1.5   | 1-1/2 | .250 | 2.516  |
| 16AMV-2     | 2     | .250 | 3.047  |
| 16AMV-2.5   | 2-1/2 | .250 | 3.579  |
| 16AMV-3     | 3     | .313 | 4.125  |
| 16AMV-4     | 4     | .313 | 5.125  |
| 16AMV-6     | 6     | .460 | 7.195  |
| 16AMV-8     | 8     | .500 | 9.200  |
| 16AMV-10    | 10    | .500 | 11.320 |

**13MHHV - SCHEDULE 5 CLAMP**

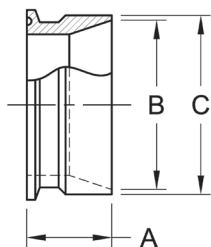
| PART NUMBER | SIZE  | A      |
|-------------|-------|--------|
| 13MHHV-1    | 1     | 2.122  |
| 13MHHV-1.5  | 1-1/2 | 2.654  |
| 13MHHV-2    | 2     | 3.185  |
| 13MHHV-2.5  | 2-1/2 | 3.717  |
| 13MHHV-3    | 3     | 4.263  |
| 13MHHV-4    | 4     | 5.263  |
| 13MHHV-6    | 6     | 7.333  |
| 13MHHV-8    | 8     | 9.320  |
| 13MHHV-10   | 10    | 11.450 |
| 13MHHV-12   | 12    | 13.310 |

**SCHEDULE 5 GASKETS**

| PART NUMBER | SIZE  |
|-------------|-------|
| 40MPV-1     | 1     |
| 40MPV-1.5   | 1-1/2 |
| 40MPV-2     | 2     |
| 40MPV-2.5   | 2-1/2 |
| 40MPV-3     | 3     |
| 40MPV-4     | 4     |

AVAILABLE IN THE FOLLOWING MATERIALS:  
BUNA-N, EPDM, PTFE, FKM/SFY, & SILICONE

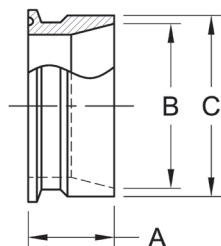
### 19MPV - SANITARY CLAMP X SCHEDULE 5 PIPE ADAPTER



| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 19MPV-.50   | 1/2   | 1.500 | .710  | .840  |
| 19MPV-.75   | 3/4   | 1.500 | .920  | 1.050 |
| 19MPV-1     | 1     | 1.125 | 1.185 | 1.315 |
| 19MPV-1.5   | 1-1/2 | 1.125 | 1.770 | 1.900 |
| 19MPV-2     | 2     | 1.125 | 2.245 | 2.375 |
| 19MPV-2.5   | 2-1/2 | 1.125 | 2.709 | 2.875 |
| 19MPV-3     | 3     | 1.125 | 3.334 | 3.500 |
| 19MPV-4     | 4     | 1.125 | 4.334 | 4.500 |
| 19MPV-6     | 6     | 1.125 | 6.407 | 6.625 |

ADDITIONAL LENGTHS AVAILABLE UPON REQUEST

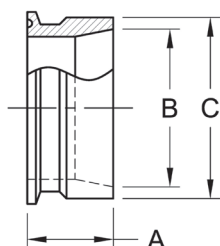
### 19MPX - SANITARY CLAMP X SCHEDULE 10 PIPE ADAPTER



| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 19MPX-.50   | 1/2   | 1.500 | .674  | .840  |
| 19MPX-.75   | 3/4   | 1.500 | .884  | 1.050 |
| 19MPX-1     | 1     | 1.125 | 1.097 | 1.315 |
| 19MPX-1.5   | 1-1/2 | 1.125 | 1.682 | 1.900 |
| 19MPX-2     | 2     | 1.125 | 2.157 | 2.375 |
| 19MPX-2.5   | 2-1/2 | 1.125 | 2.635 | 2.875 |
| 19MPX-3     | 3     | 1.125 | 3.260 | 3.500 |
| 19MPX-4     | 4     | 1.125 | 4.260 | 4.500 |
| 19MPX-6     | 6     | 1.125 | 6.357 | 6.625 |

ADDITIONAL LENGTHS AVAILABLE UPON REQUEST

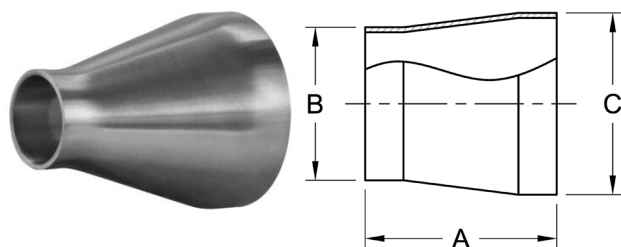
### 19MP40 - SANITARY CLAMP X SCHEDULE 40 PIPE ADAPTER



| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 19MP40-.50  | 1/2   | 1.500 | .622  | .840  |
| 19MP40-.75  | 3/4   | 1.500 | .824  | 1.050 |
| 19MP40-1    | 1     | 1.125 | 1.049 | 1.315 |
| 19MP40-1.5  | 1-1/2 | 1.125 | 1.610 | 1.900 |
| 19MP40-2    | 2     | 1.125 | 2.067 | 2.375 |
| 19MP40-2.5  | 2-1/2 | 1.125 | 2.469 | 2.875 |
| 19MP40-3    | 3     | 1.125 | 3.068 | 3.500 |
| 19MP40-4    | 4     | 1.125 | 4.026 | 4.500 |
| 19MP40-6    | 6     | 1.125 | 6.065 | 6.625 |

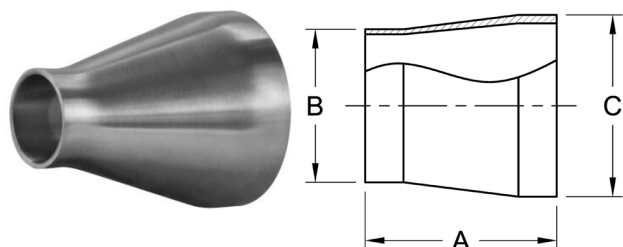
ADDITIONAL LENGTHS AVAILABLE UPON REQUEST



**19WV - TUBE X SCHEDULE 5 PIPE ADAPTER**

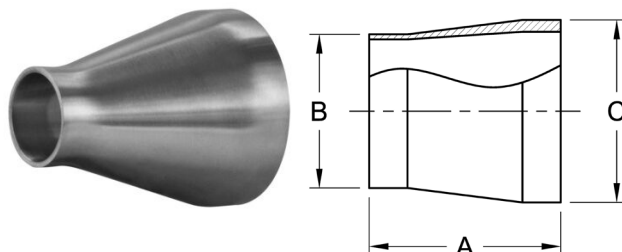
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 19WV-.50    | 1/2   | 1.500 | .500  | .840  |
| 19WV-.75    | 3/4   | 1.500 | .750  | 1.050 |
| 19WV-1      | 1     | 1.500 | 1.000 | 1.315 |
| 19WV-1.5    | 1-1/2 | 1.500 | 1.500 | 1.900 |
| 19WV-2      | 2     | 2.500 | 2.000 | 2.375 |
| 19WV-2.5    | 2-1/2 | 2.500 | 2.500 | 2.875 |
| 19WV-3      | 3     | 3.000 | 3.000 | 3.500 |
| 19WV-4      | 4     | 3.000 | 4.000 | 4.500 |

ADDITIONAL LENGTHS AVAILABLE UPON REQUEST

**19WX - TUBE X SCHEDULE 10 PIPE ADAPTER**

| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 19WX-.50    | 1/2   | 1.500 | .500  | .840  |
| 19WX-.75    | 3/4   | 2.000 | .750  | 1.050 |
| 19WX-1      | 1     | 2.000 | 1.000 | 1.315 |
| 19WX-1.5    | 1-1/2 | 2.500 | 1.500 | 1.900 |
| 19WX-2      | 2     | 2.500 | 2.000 | 2.375 |
| 19WX-2.5    | 2-1/2 | 2.500 | 2.500 | 2.875 |
| 19WX-3      | 3     | 2.500 | 3.000 | 3.500 |
| 19WX-4      | 4     | 3.000 | 4.000 | 4.500 |

ADDITIONAL LENGTHS AVAILABLE UPON REQUEST

**19W40 - TUBE X SCHEDULE 40 PIPE ADAPTER**

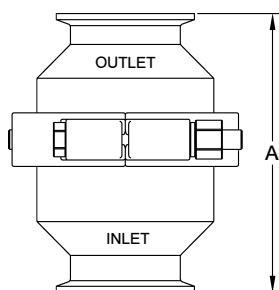
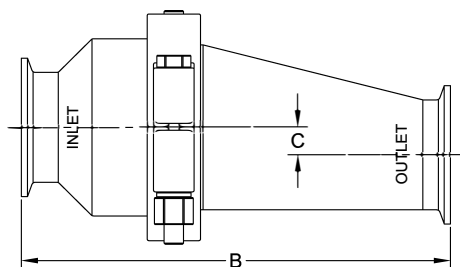
| PART NUMBER | SIZE  | A     | B     | C     |
|-------------|-------|-------|-------|-------|
| 19W40-.50   | 1/2   | 1.500 | .500  | .840  |
| 19W40-.75   | 3/4   | 1.000 | .750  | 1.050 |
| 19W40-1     | 1     | 2.000 | 1.000 | 1.315 |
| 19W40-1.5   | 1-1/2 | 2.000 | 1.500 | 1.900 |
| 19W40-2     | 2     | 2.500 | 2.000 | 2.375 |
| 19W40-2.5   | 2-1/2 | 2.500 | 2.500 | 2.875 |
| 19W40-3     | 3     | 3.000 | 3.000 | 3.500 |
| 19W40-4     | 4     | 3.000 | 4.000 | 4.500 |

ADDITIONAL LENGTHS AVAILABLE UPON REQUEST



## TUBING & HANGERS

As a premier sanitary tube supplier, we offer electropolished options that meet ASME BPE standards required for high purity applications. Our sanitary tubing comes in a variety of sizes from ½" O.D. to 6" O.D meeting ASTM A213, A249, A269, and A270 requirements. Our most popular line of ASTM A270 tubing provides our customers with sanitary tubing that is validated through mechanical and hydrostatic testing prior to shipping.

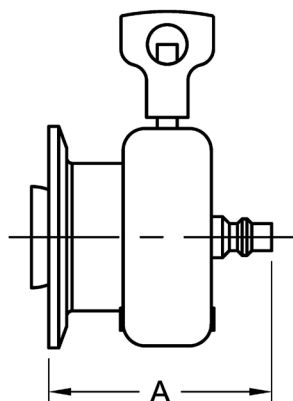
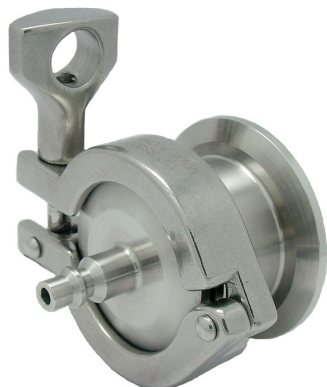
**TOP-FLO® T45/T45E & MC/ME DISC CHECK VALVES****T45 / MC45****T45E / ME45**

The TOP-FLO® 3A & BPE disc type 316L check valve can be used in a variety of hygienic processes depending on valve construction. Valves can be supplied either with clamp or extended butt weld type to facilitate orbital welding. Configurations in both concentric (T45/MC45) for vertical and eccentric outlet (T45E/ME45) for horizontal installation. Internal surface finishes available are BPE SF1, SF4, and SF5. Oxygen clean/cap/bag also available.

- Suitable for use in process and finished product lines, clean in place (CIP) and clean steam
- Material traceability on all wetted parts
- FDA compliant seal materials & USP Class VI certified
- 3A Certified
- Conforms to ASME BPE
- Operating temperature: T45/T45E - up to 250°F  
MC45/ME45 - up to 366° F
- Operating pressure: T45/T45E - up to 150 PSIG  
MC45/ME45 - up to 349 PSIG
- Clamp or extended butt weld connections
- Materials: 316L, AL6XN, Hastelloy, 2205
- Seals: FKM, EPDM, Silicone, PTFE, FFKM
- Disc: Flat or Guide Finger type
- Body Clamp: Single Pin (T45/T45E), High Pressure (MC/ME)
- ID Finish: 20RA (SF1), 20RA EP (SF5), 15RA EP (SF4)

| VALVE SIZE | T45 / MC45 A | T45E / ME45 B | T45E / ME45 OFFSET C | EST. Cv | CRACKING PRESSURE STANDARD SPRING | CRACKING PRESSURE LOW PRESSURE |
|------------|--------------|---------------|----------------------|---------|-----------------------------------|--------------------------------|
| 1/2"       | 3.500        | 5.687         | 0.500                | 8.3     | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 3/4"       | 3.500        | 5.187         | 0.375                | 17.5    | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 1"         | 4.125        | 9.692         | 0.750                | 35.2    | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 1-1/2"     | 4.563        | 7.623         | 0.500                | 64.6    | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 2"         | 5.063        | 7.805         | 0.500                | 113.3   | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 2-1/2"     | 5.375        | 10.771        | 0.750                | 167.9   | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 3"         | 6.125        | 9.107         | 1.000                | 271     | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 4"         | 8.125        | 11.469        | 1.000                | 377     | 0.5 - 1 PSIG                      | 0.72 PSIG                      |
| 6"         | 8.125        | CF            | CF                   | 502     | 1 - 3 PSIG                        | N/A                            |
| 8"         | 11.050       | CF            | CF                   | CF      | CF                                | N/A                            |

## AIR BLOW CHECK VALVES



Air blow check valves are used to clean CIP solution or product through the use of pressurized air.

The simple design uses the supplied pressurized air to open and when the air supply is removed, a spring closes the valve. The clamp connection allows for quick assembly and disassembly for cleaning and replacement of filter media.

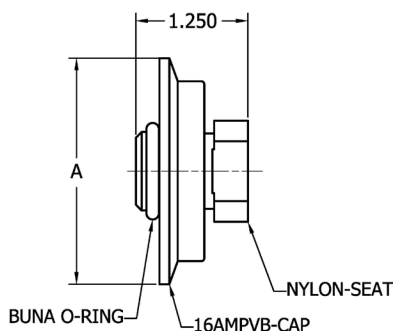
Nutech overseas offers these valves in various air supply configurations.

- Available standard with quick disconnect, female NPT, or hose barb style air supply connections.
- Field serviceable with no special tools required, repair kits available.
- Approved for 3A Accepted Practice 64-05 for supplying air under pressure in contact with milk products when filter disc is used.

| PART NUMBER | SIZE  | A     |
|-------------|-------|-------|
| 45AB-1.5    | 1-1/2 | 2.589 |
| 45AB-2      | 2     | 2.589 |
| 45AB-2.5    | 2-1/2 | 2.589 |
| 45AB-3      | 3     | 2.589 |
| 45AB-4      | 4     | 2.589 |

NOTE: DRAWING, PART NUMBERS, AND DIMENSIONS SHOWN ARE FOR CLAMP END STYLE AIR BLOW CHECK VALVE WITH QUICK DISCONNECT CONNECTION. CALL Nutech overseas FOR DETAILS ON OTHER CONFIGURATIONS.

## 16AMPVB - VACUUM BREAKER VALVE



Vacuum breaker valve prevents the formation of a vacuum in the process line. Offered in 1-1/2" to 4" clamp sizes. Generally installed at the highest point in the system. Not for use in tanks.



## CAMLOCK FITTINGS

Nutech overseas is your best source for sanitary camlock fittings. These camlock couplings are used to provide fast and simple connections involving hoses, pipes or tubing. Camlock clamps may be used to connect supply lines in chemical plants as well as to connect hoses carrying product in the food and beverage industry. No matter what industry you serve, you can count on us to provide you with the best selection of sanitary camlock fittings.



## OUR QUALITY POLICY

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Manufacturing is committed to understanding the needs of our customers and meeting or exceeding those requirements through careful attention to detail and through the continuous improvement of our processes.

We are dedicated to delivering defect-free products on-time at the most competitive cost possible through an effective Quality Management System based on sound Quality Objectives while complying with all relevant national and international requirements.



# **NUTECH**OVERSEAS

Trusted Manufacturer for Critical Onshore & Offshore Projects

#### PLEASE NOTE:

Reasonable care has been taken in preparing this catalog. Nutech overseas. reserves the right to make changes or corrections to any of the product information, including dimensions, listed herein without notice.