# Stainless Steel Tubing & Fittings

*World Leader Since 1976*

Valex™

Valex has led the industry for decades, developing innovative piping products to meet the needs of our customers' ultra-high purity gas systems.

Our market is global, and so is Valex, with factories in the USA and Korea. We produce the widest range of piping components of any supplier. Valex products meet the diverse and exacting standards of all customers from the Silicon Valley of California, to the High Tech Parks of Singapore, Korea, Taiwan, and China.

Benefit from world leadership - choose Valex.

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# Summary of Applications, Materials & Processes

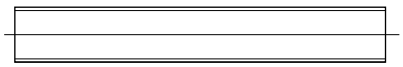
| PROCESS | PRODUCT LINE | APPLICATIONS | ALLOY[1] |
|---|---|---|---|
| EP | 501 | Ultra-high purity systems requiring highest grade of materials and certifications | 316L (Special Double Melt) |
| | 401 | Ultra-high purity systems | 316L (Single or Double Melt) |
| | 301 | Ultra-high purity systems | 316L (Single Melt) |
| BA or AP | 201 | High Purity Systems | 304, 304L and 316L (Single Melt) |
| | 101 | High Purity Systems | 304, 304L and 316L (Single Melt) |
| | 222 | Extremely corrosive systems | Hastelloy® C-22® |

1. Not all combinations of alloy, surface finish, and sizes are available. Please contact your local Valex representative for details.
2. Please check www.valex.com for Valex specifications and other technical data.

| I.D. SURFACE FINISH (Ra)[1] | SIZES[1] | VALEX PROCESSES, TESTING, INSPECTION, CERTIFICATION, MARKING, AND PACKAGING |
|---|---|---|
| 5, 7 and 10 µin. (0.13, 0.18 and 0.25 µm) | Seamless:<br>0.25 thru 1.5 in. (6.35 thru 38.1 mm) | Per Specification SP-9232 |
| 5, 7 and 10 µin. (0.13, 0.18 and 0.25 µm) | Seamless:<br>0.125 thru 2.0 in. (3.18 thru 50.8 mm)<br>8A thru 100A (13.8 thru 114.3 mm)<br><br>Welded:<br>1.0 thru 6.0 in. (25.4 thru 152.4 mm)<br>8A thru 250A (13.8 thru 267.4 mm) | Per Specification SP-9220 |
| 10 µin. (0.25 µm) | Seamless:<br>0.125 thru 2.0 in. (3.18 thru 50.8 mm)<br><br>Welded:<br>0.5 thru 4.0 in. (12.7 thru 101.6 mm) | Per Specification SP-9223 |
| 15, 20 and 25 µin (0.38, 0.51 and 0.64 µm) | Seamless:<br>0.125 thru 2.0 in. (3.18 thru 50.8 mm)<br>15A thru 100A (21.7 thru 114.3 mm)<br><br>Welded:<br>0.5 thru 6.0 in. (12.7 thru 152.4 mm)<br>20A thru 350A (27.2 thru 355.6 mm) | Per Specification SP-9206 |
| 40 and 200 µin. (1.0 and 5.1 µm) | Seamless:<br>0.125 thru 2.0 in. (3.18 thru 50.8 mm)<br>15A thru 100A (114.3 mm)<br><br>Welded:<br>0.5 thru 6.0 in. (12.7 thru 152.4 mm)<br>20A thru 500A (27.2 thru 508.0 mm) | Per Specification SP-9204 |
| 20, 24 µin and Mill Finish (0.51, 0.61 µm and MF) | Seamless:<br>0.25 thru 1.0 in. (6.35 thru 25.4 mm)<br><br>Welded:<br>0.5 thru 1.0 in. (12.7 thru 25.4 mm) | Per Specification SP-9207 |

# Dimensions (ASTM)

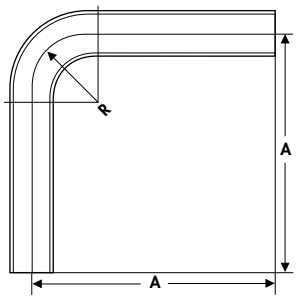
NOTE: All dimensions are in inches.



## TUBE

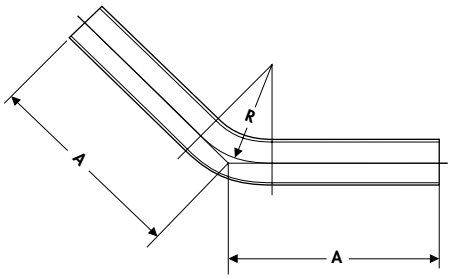
| O.D. | Wall | Weight per foot (lbs.) | Maximum Safe Working Pressure* | | | |
|---|---|---|---|---|---|---|
| | | | PSI | | Bar | |
| | | | Seamless | Welded | Seamless | Welded |
| .125 | .028 | 0.03 | 7,805 | N.A. | 538 | N.A |
| .250 | .035 | 0.08 | 4,598 | N.A. | 317 | N.A. |
| .375 | .035 | 0.13 | 2,974 | N.A. | 205 | N.A. |
| .500 | .049 | 0.24 | 3,136 | 2,509 | 216 | 173 |
| .750 | .065 | 0.48 | 2,759 | 2,207 | 190 | 152 |
| 1.000 | .065 | 0.65 | 2,039 | 1,631 | 141 | 112 |
| 1.500 | .065 | 1.00 | 1,340 | 1,072 | 92 | 74 |
| 2.000 | .065 | 1.35 | 995 | 796 | 69 | 55 |
| 3.000 | .065 | 2.05 | N.A. | 528 | N.A. | 36 |
| 4.000 | .083 | 3.49 | N.A. | 505 | N.A. | 35 |
| 6.000 | .109 | 6.90 | N.A. | 440 | N.A. | 30 |

* Maximum safe working pressure is calculated per ASME B31.3-2002, 304.1.2
Material: T304L or T316L per ASTM A269 and A632
Temperature Range = -20°F to +300°F, -28.8°C to +148.9°C



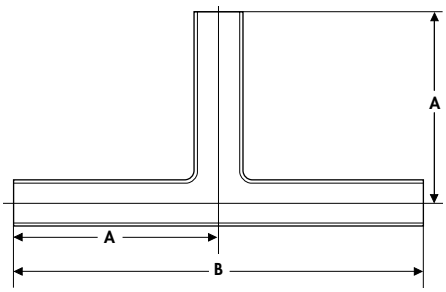

## 90° ELBOW

| O.D. | Wall | A | R |
|---|---|---|---|
| .250 | .035 | 2.06 | 0.56 |
| .375 | .035 | 2.62 | 0.56 |
| .500 | .049 | 2.62 | 0.75 |
| .750 | .065 | 2.62 | 1.12 |
| 1.000 | .065 | 4.00 | 1.50 |
| 1.500 | .065 | 4.75 | 2.25 |
| 2.000 | .065 | 5.50 | 3.00 |
| 3.000 | .065 | 10.00 | 4.50 |
| 4.000 | .083 | 11.00 | 6.00 |
| 6.000 | .109 | 14.00 | 9.00 |




## 45° ELBOW

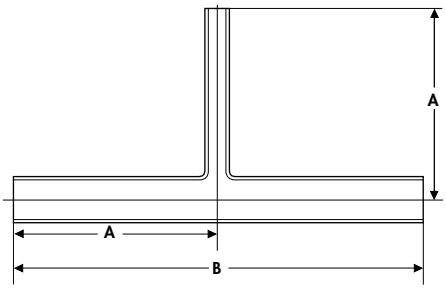
| O.D. | Wall | A | R |
|---|---|---|---|
| .250 | .035 | 1.10 | 0.56 |
| .375 | .035 | 2.00 | 0.56 |
| .500 | .049 | 2.50 | 0.75 |
| .750 | .065 | 2.50 | 1.12 |
| 1.000 | .065 | 3.12 | 1.50 |
| 1.500 | .065 | 3.50 | 2.25 |
| 2.000 | .065 | 3.75 | 3.00 |
| 3.000 | .065 | 6.00 | 4.50 |
| 4.000 | .083 | 7.00 | 6.00 |
| 6.000 | .109 | 8.75 | 9.00 |




## EQUAL TEE

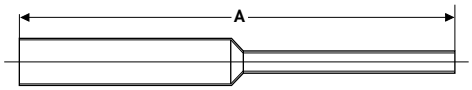
| O.D. | Wall | A | B |
|---|---|---|---|
| .250 | .035 | 1.75 | 3.50 |
| .375 | .035 | 1.75 | 3.50 |
| .500 | .049 | 2.12 | 4.25 |
| .750 | .065 | 2.12 | 4.25 |
| 1.000 | .065 | 2.50 | 5.00 |
| 1.500 | .065 | 2.75 | 5.50 |
| 2.000 | .065 | 3.25 | 6.50 |
| 3.000 | .065 | 5.50 | 11.00 |
| 4.000 | .083 | 6.00 | 12.00 |
| 6.000 | .109 | 10.63 | 21.25 |

## REDUCING TEE




| O.D. | Wall | x | O.D. | Wall | A | B |
|---|---|---|---|---|---|---|
| .375 | .035 | x | .250 | 0.35 | 1.75 | 3.50 |
| .500 | .049 | x | .250 - .375 | 0.35 | 2.12 | 4.25 |
| .750 | .065 | x | .250 - .500 | .035 - .049 | 2.12 | 4.25 |
| 1.00 | .065 | x | .250 - .750 | .035 - .065 | 2.50 | 5.00 |
| 1.50 | .065 | x | .250 - 1.00 | .035 - .065 | 2.75 | 5.50 |
| 2.00 | .065 | x | .250 - 1.50 | .035 - .065 | 3.25 | 6.50 |
| 3.00 | .065 | x | .250 - 2.00 | .035 - .065 | 3.75 | 7.50 |
| 4.00 | .083 | x | .250 - 2.00 | .035 - .065 | 4.25 | 8.50 |
| 4.00 | .083 | x | 3.00 | .065 | 6.00 | 12.00 |
| 6.00 | .109 | x | .250 - 2.00 | .035 - .065 | 6.00 | 12.00 |
| 6.00 | .109 | x | 3.00 - 4.00 | .065 - .083 | 11.00 | 22.00 |

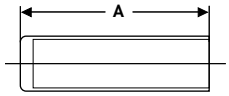
## CONCENTRIC REDUCER




| O.D. | Wall | x | O.D. | Wall | A |
|---|---|---|---|---|---|
| .375 | .035 | x | .250 | .035 | 2.75 |
| .500 | .049 | x | .250 - .375 | .035 | 2.75 |
| .750 | .065 | x | .250 - .500 | .035 - .049 | 2.75 |
| 1.00 | .065 | x | .250 - .750 | .035 - .065 | 3.00 |
| 1.50 | .065 | x | .250 - 1.00 | .035 - .065 | 5.25 |
| 2.00 | .065 | x | .250 - 1.50 | .035 - .065 | 5.50 |
| 3.00 | .065 | x | .500 - 2.00 | .049 - .065 | 6.00 |
| 4.00 | .083 | x | .750 - 3.00 | .065 | 6.50 |
| 6.00 | .109 | x | 1.00 - 4.00 | .065 - .083 | 11.50 |

SIZES OTHER THAN SHOWN MAY BE AVAILABLE FROM FACTORY

## END CAP



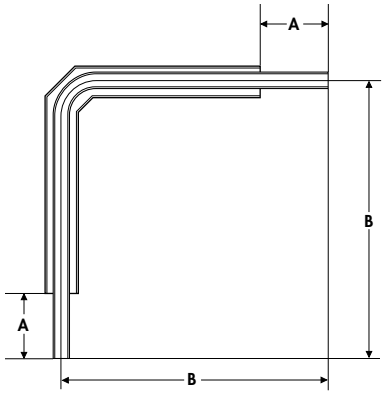

| O.D. | Wall | A |
|---|---|---|
| .250 | .035 | 1.125 |
| .375 | .035 | 1.125 |
| .500 | .049 | 1.375 |
| .750 | .065 | 1.75 |
| 1.000 | .065 | 1.75 |
| 1.500 | .065 | 2.00 |
| 2.000 | .065 | 2.00 |
| 3.000 | .065 | 2.00 |
| 4.000 | .083 | 2.50 |
| 6.000 | .109 | 4.77 |

# Dimensions (ASTM)

## COAXIAL TUBE

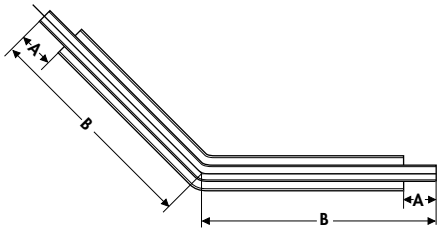
| Size | | Weight per foot (lbs) | Maximum Safe Working Pressure * | |
|---|---|---|---|---|
| Inner | Outer | | PSI | Bar |
| .250 x .035 | .500 x .049 | 0.32 | 3,136 | 216 |
| .375 x .035 | .625 x .049 | 0.43 | 2,477 | 171 |
| .500 x .049 | .750 x .065 | 0.71 | 2,759 | 190 |
| .750 x .065 | 1.00 x .065 | 1.13 | 1,631 | 112 |
| 1.00 x .065 | 1.25 x .065 | 1.48 | 1,294 | 89 |
| 1.50 x .065 | 2.00 x .065 | 2.35 | 796 | 55 |

* Maximum safe working pressure is calculated for the outer jacket per ASME B31.3-2002, 304.1.2 (304L/316L, -20°F to 300°F)
Weight includes inner and outer tube.



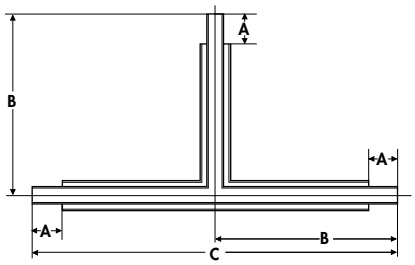

## COAXIAL 90° ELBOW

| Inner Tube O.D. | Inner Tube Wall | Outer Tube O.D. | Outer Tube Wall | A | B |
|---|---|---|---|---|---|
| .250 | .035 | .500 | .049 | 1.00 | 4.37 |
| .375 | .035 | .625 | .049 | 1.00 | 4.12 |
| .500 | .049 | .750 | .065 | 1.00 | 4.25 |
| .750 | .065 | 1.00 | .065 | 1.75 | 6.75 |
| 1.00 | .065 | 1.25 | .065 | 1.75 | 7.12 |
| 1.50 | .065 | 2.00 | .065 | 2.00 | 8.37 |




## COAXIAL 45° ELBOW

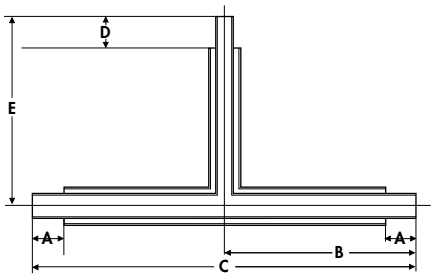
| Inner Tube O.D. | Inner Tube Wall | Outer Tube O.D. | Outer Tube Wall | A | B |
|---|---|---|---|---|---|
| .250 | .035 | .500 | .049 | 1.00 | 4.00 |
| .375 | .035 | .625 | .049 | 1.00 | 3.87 |
| .500 | .049 | .750 | .065 | 1.00 | 3.87 |
| .750 | .065 | 1.00 | .065 | 1.75 | 6.12 |
| 1.00 | .065 | 1.25 | .065 | 1.75 | 6.25 |
| 1.50 | .065 | 2.00 | .065 | 2.00 | 7.12 |




## COAXIAL EQUAL TEE

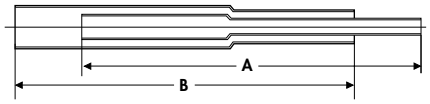
| Inner Tube O.D. | Inner Tube Wall | Outer Tube O.D. | Outer Tube Wall | A | B | C |
|---|---|---|---|---|---|---|
| .250 | .035 | .500 | .049 | 1.00 | 3.87 | 7.75 |
| .375 | .035 | .625 | .049 | 1.00 | 4.00 | 8.00 |
| .500 | .049 | .750 | .065 | 1.00 | 4.00 | 8.00 |
| .750 | .065 | 1.00 | .065 | 1.75 | 6.37 | 12.75 |
| 1.00 | .065 | 1.25 | .065 | 1.75 | 6.50 | 13.00 |
| 1.50 | .065 | 2.00 | .065 | 2.00 | 7.62 | 15.25 |

## COAXIAL REDUCING TEE



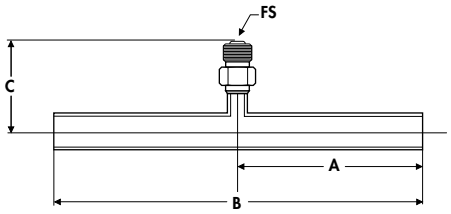

| Inner Tube O.D. | Inner Tube Wall | x | Inner Tube O.D. | Inner Tube Wall | Outer Tube O.D. | Outer Tube Wall | x | Outer Tube O.D. | Outer Tube Wall | A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .375 | .035 | x | .250 | .035 | .625 | .049 | x | .500 | .049 | 1.00 | 3.87 | 7.75 | 1.00 | 4.12 |
| .500 | .049 | x | .250 | .035 | .750 | .065 | x | .500 | .049 | 1.00 | 3.87 | 7.75 | 1.00 | 4.12 |
| .500 | .049 | x | .375 | .035 | .750 | .065 | x | .625 | .049 | 1.00 | 4.00 | 8.00 | 1.00 | 4.12 |
| .750 | .065 | x | .250 | .035 | 1.000 | .065 | x | .500 | .049 | 1.75 | 6.12 | 12.25 | 1.00 | 4.25 |
| .750 | .065 | x | .375 | .035 | 1.000 | .065 | x | .625 | .049 | 1.75 | 6.25 | 12.50 | 1.00 | 4.25 |
| .750 | .065 | x | .500 | .049 | 1.000 | .065 | x | .750 | .065 | 1.75 | 6.25 | 12.50 | 1.00 | 4.25 |
| 1.000 | .065 | x | .250 | .035 | 1.250 | .065 | x | .500 | .049 | 1.75 | 6.12 | 12.25 | 1.00 | 4.37 |
| 1.000 | .065 | x | .375 | .035 | 1.250 | .065 | x | .625 | .049 | 1.75 | 6.25 | 12.50 | 1.00 | 4.37 |
| 1.000 | .065 | x | .500 | .049 | 1.250 | .065 | x | .750 | .065 | 1.75 | 6.25 | 12.50 | 1.00 | 4.37 |
| 1.000 | .065 | x | .750 | .065 | 1.250 | .065 | x | 1.000 | .065 | 1.75 | 6.37 | 12.75 | 1.75 | 6.62 |
| 1.500 | .065 | x | .750 | .065 | 2.000 | .065 | x | 1.000 | .065 | 2.00 | 7.12 | 14.25 | 1.75 | 7.00 |
| 1.500 | .065 | x | 1.000 | .065 | 2.000 | .065 | x | 1.250 | .065 | 2.00 | 7.25 | 14.50 | 1.75 | 7.00 |

## COAXIAL CONCENTRIC REDUCER



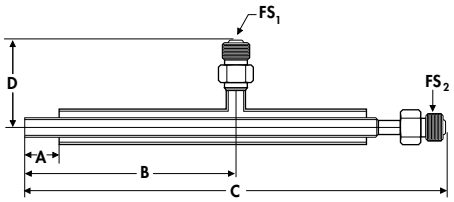

| Inner Tube O.D. | Inner Tube Wall | x | Inner Tube O.D. | Inner Tube Wall | Outer Tube O.D. | Outer Tube O.D. | x | Outer Tube O.D. | Outer Tube O.D. | A | B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| .375 | .035 | x | .250 | .035 | .625 | .049 | x | .500 | .049 | 4.00 | 4.00 |
| .500 | .049 | x | .250 | .035 | .750 | .065 | x | .500 | .049 | 4.00 | 4.00 |
| .500 | .049 | x | .375 | .035 | .750 | .065 | x | .625 | .049 | 4.00 | 4.00 |
| .750 | .065 | x | .250 | .035 | 1.000 | .065 | x | .500 | .049 | 5.00 | 5.75 |
| .750 | .065 | x | .375 | .035 | 1.000 | .065 | x | .625 | .049 | 5.00 | 5.75 |
| .750 | .065 | x | .500 | .049 | 1.000 | .065 | x | .750 | .065 | 5.00 | 5.75 |
| 1.000 | .065 | x | .250 | .035 | 1.250 | .065 | x | .500 | .049 | 5.00 | 5.75 |
| 1.000 | .065 | x | .375 | .035 | 1.250 | .065 | x | .625 | .049 | 5.00 | 5.75 |
| 1.000 | .065 | x | .500 | .049 | 1.250 | .065 | x | .750 | .065 | 5.00 | 5.75 |
| 1.000 | .065 | x | .750 | .065 | 1.250 | .065 | x | 1.000 | .065 | 6.50 | 6.50 |
| 1.500 | .065 | x | .250 | .035 | 2.000 | .065 | x | .500 | .049 | 5.75 | 6.75 |
| 1.500 | .065 | x | .375 | .035 | 2.000 | .065 | x | .625 | .049 | 5.75 | 6.75 |
| 1.500 | .065 | x | .500 | .049 | 2.000 | .065 | x | .750 | .065 | 5.75 | 6.75 |
| 1.500 | .065 | x | .750 | .065 | 2.000 | .065 | x | 1.000 | .065 | 7.25 | 7.50 |
| 1.500 | .065 | x | 1.000 | .065 | 2.000 | .065 | x | 1.250 | .065 | 7.25 | 7.50 |

## COAXIAL PURGE TEE



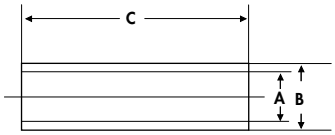

| Size | Outer Tube O.D. | Outer Tube Wall | A | B | C | F5 |
|---|---|---|---|---|---|---|
| .250 | .500 | .049 | 2.87 | 5.75 | 1.51 | .25 |
| .375 | .625 | .049 | 3.00 | 6.00 | 1.57 | .25 |
| .500 | .750 | .065 | 3.00 | 6.00 | 1.62 | .25 |
| .750 | 1.000 | .065 | 4.62 | 9.25 | 1.74 | .25 |
| 1.00 | 1.250 | .065 | 4.75 | 9.50 | 1.87 | .25 |
| 1.50 | 2.000 | .065 | 5.62 | 11.25 | 2.25 | .25 |

# Dimensions (ASTM)




## COAXIAL PURGE TEE WITH FACE SEAL GLAND

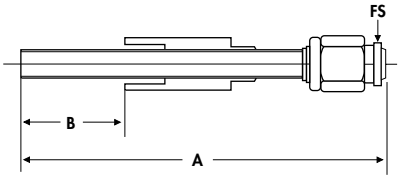
| Inner Tube O.D. | Inner Tube Wall | Outer Tube O.D. | Outer Tube Wall | A | B | C | D | $FS_1$ | $FS_2$ |
|---|---|---|---|---|---|---|---|---|---|
| .250 | .035 | .500 | .049 | 1.00 | 3.87 | 7.75 | 1.51 | .25 | .25 |
| .375 | .035 | .625 | .049 | 1.00 | 4.00 | 8.00 | 1.57 | .25 | .37 |
| .500 | .049 | .750 | .065 | 1.00 | 4.00 | 8.00 | 1.62 | .25 | .50 |




## COAXIAL SLEEVE

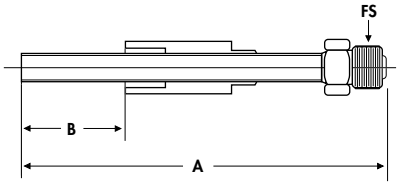
| Size | A | B | C | C (E4*) | C (E5*) | C (E6*) |
|---|---|---|---|---|---|---|
| .250 | .505/.509 | .62 | 2.50 | 4.00 | 5.00 | 6.00 |
| .375 | .630/.634 | .75 | 2.50 | 4.00 | 5.00 | 6.00 |
| .500 | .756/.760 | .87 | 2.50 | 4.00 | 5.00 | 6.00 |
| .750 | 1.006/1.010 | 1.12 | 4.00 | N.A. | 5.00 | 6.00 |
| 1.00 | 1.256/1.260 | 1.37 | 4.00 | N.A. | N.A. | N.A. |
| 1.50 | 2.021/2.025 | 2.12 | 4.50 | N.A. | N.A. | N.A. |

* Extra length




## COAXIAL FEMALE FACE SEAL WELD GLAND

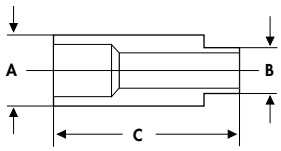
| Size | A | B | FS |
|---|---|---|---|
| .250 | 3.50 | 1.00 | .250 |
| .375 | 3.50 | 1.00 | .375 |
| .500 | 3.50 | 1.00 | .500 |




## COAXIAL MALE FACE SEAL WELD GLAND

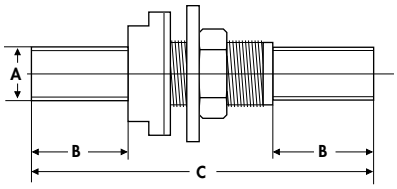
| Size | A | B | FS |
|---|---|---|---|
| .250 | 3.50 | 1.00 | .250 |
| .375 | 3.50 | 1.00 | .375 |
| .500 | 3.50 | 1.00 | .500 |

## COAXIAL TERMINATOR




| Size | A | B | C |
|---|---|---|---|
| .250 | .500 | 3.25 | 1.250 |
| .375 | .625 | .450 | 1.250 |
| .500 | .750 | .603 | 1.250 |
| .750 | 1.000 | .885 | 2.000 |
| 1.000 | 1.250 | 1.135 | 2.000 |
| 1.500 | 2.000 | 1.870 | 2.250 |

## COAXIAL BULKHEAD FITTING ASSEMBLY




| Size | A | B | C | Hex Nut Size |
|---|---|---|---|---|
| .250 | .500 | 1.00 | 3.625 | 3/4" - 16UNF |
| .375 | .625 | 1.00 | 3.625 | 7/8" - 14UNF |
| .500 | .750 | 1.00 | 3.625 | 1-1/16" - 12UNF |
| .750 | 1.000 | 1.75 | 5.125 | 1-5/16" - 12UNF |
| 1.000 | 1.250 | 1.75 | 5.125 | 1-5/8" - 12UNF |

# Specification 501 UHP Electropolished (ASTM)

## TUBE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ] - [ ] [ ]

X4 *

| | |
|---|---|
| | **Process** |
| T5A | Tube, Valex 501 Specification |
| | **Alloy** *(Per Valex SP-9200)* |
| KS | Special Double-melt 316L seamless |
| | **Size (O.D.)** |
| 00250 | 1/4" (6.35mm), 20' length |
| 00375 | 3/8" (9.53mm), 20' length |
| 00500 | 1/2" (12.7mm), 20' length |
| * .25 | 1/4" (6.35mm), 4M length |
| * .38 | 3/8" (9.53mm), 4M length |
| * .50 | 1/2" (12.7mm), 4M length |
| | **Wall Thickness** |
| 035 | .035" (0.89mm) |
| 039 | .039" (1.00mm) |
| 049 | .049" (1.24mm) |
| | **Visual Characteristics** |
| A<br>B | Surface conditions (allowable number and severity of flaws) are coded A and B with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length tube: T 5 A - K S - . 5 0 X4 - 0 4 9 - A 5

## COAXIAL TUBE

PART NO. [ ][ ][ ][ ] - [ ] - [ ][ ] - . [ ][ ][ ] X4 - [ ] [ ]

X4 *

| | |
|---|---|
| | **Process** |
| CT5A | Coaxial Tubing, Valex 501 Specification |
| | **Outer Jacket Type** |
| S | 316L seamless |
| W | 316L welded |
| | **Inner Alloy** *(Per Valex SP-9200)* |
| KS | Special double-melt 316L seamless |
| | **Size (O.D.)** *Specify Process (Inner) Tube Size* |
| .25 | 1/4" O.D. x .035" inner tube (6.35 x 0.89mm) with 1/2" O.D. x .049" outer tube (12.7 x 1.24mm) |
| .375 | 3/8" O.D. x .035" inner tube (9.53 x 0.89mm) with 5/8" O.D. x .049" outer tube (15.87 x 1.24mm) |
| .5 | 1/2" O.D. x .049" inner tube (12.7 x 1.24mm) with 3/4" O.D. x .065" outer tube (19.05 x 1.65mm) |
| | **Inner Visual Characteristics** |
| A<br>B | Surface conditions (allowable number and severity of flaws) are coded A and B with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Inner Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max |



NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length coaxial tube: C T 5 A - W - K S - . 5 X4 - A 5

## FITTINGS

PART NO. G [ ] [ ] - . [ ] [ ] [ ] X . [ ] [ ] [ ] [ ] - [ ] [ ]

*

| | |
|---|---|
| | **Type** |
| 2 | 90° Elbow |
| 2K | 45° Elbow |
| 7 | Equal Tee |
| 7R | Reducing Tee |
| 31 | Concentric Reducer |
| 16 | End Cap |
| | **Size (O.D.)** |
| .25 | 1/4" O.D. x .035" wall (6.35 x 0.89mm) |
| .375 | 3/8" O.D. x .035" wall (9.53 x 0.89mm) |
| .5 | 1/2" O.D. x .049" wall (12.7 x 1.24mm) |
| | **Visual Characteristics** |
| A<br>B | Surface conditions (allowable number and severity of flaws) are coded A and B with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee: G 7 R - . 5 [ ] [ ] X . 3 7 5 - A 5

## COAXIAL FITTINGS

PART NO. F [ ] [ ] [ ] [ ] - . [ ] [ ] [ ] X . [ ] [ ] [ ] [ ] - [ ] [ ]

*

| | |
|---|---|
| | **Type** |
| 2 | 90° Elbow |
| 2K | 45° Elbow |
| 7 | Equal Tee |
| 7R | Reducing Tee |
| 31 | Concentric Reducer |
| 7PFS | Purge Tee with FS |
| 14FS | FS Weld Gland, Female |
| 15FS | FS Weld Gland, Male |
| | **Size (O.D.)** *Specify Process (Inner) Tube Size* |
| .25 | 1/4" O.D. x .035" inner tube (6.35 x 0.89mm) with 1/2" O.D. x .049" outer tube (12.7 x 1.24mm) |
| .375 | 3/8" O.D. x .035" inner tube (9.53 x 0.89mm) with 5/8" O.D. x .049" outer tube (15.87 x 1.24mm) |
| .5 | 1/2" O.D. x .049" inner tube (12.7 x 1.24mm) with 3/4" O.D. x .065" outer tube (19.05 x 1.65mm) |
| | **Visual Characteristics** |
| A<br>B | Surface conditions (allowable number and severity of flaws) are coded A and B with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee:

F 7 R [ ] [ ] - . 5 [ ] [ ] X . 2 5 [ ] - A 5

# Specification 401 UHP Electropolished (ASTM)

## TUBE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ] - [ ] [ ]

*

**Process**

| | |
|---|---|
| T4A | Tube, Valex 401 Specification |

**Alloy** ***(Per Valex SP-9200)***

| | |
|---|---|
| OS | Single-melt 316L seamless |
| OW | Single-melt 316L welded |
| BS | Double-melt 316L seamless |
| KS | Double-melt 316L seamless |
| NS | Single-melt 316L seamless |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| VS | Double-melt 316L seamless |

**Size (O.D.)**

| | |
|---|---|
| 00125 | 1/8" (3.18mm), 10' length |
| 00250 | 1/4" (6.35mm), 20' length |
| 00375 | 3/8" (9.53mm), 20' length |
| 00500 | 1/2" (12.7mm), 20' length |
| 00750 | 3/4" (19.05mm), 20' length |
| 01000 | 1" (25.4mm), 20' length |
| 01500 | 1.5" (38.1mm), 20' length |
| 02000 | 2" (50.8mm), 20' length |
| 03000 | 3" (76.2mm), 20' length |
| 04000 | 4" (101.6mm), 20' length |
| 06000 | 6" (152.4mm), 20' length |
| * .25 | 1/4" (6.35mm), 4M length |
| * .38 | 3/8" (9.53mm), 4M length |
| * .50 | 1/2" (12.7mm), 4M length |
| * .75 | 3/4" (19.05mm), 4M length |
| * 1.0 | 1" (25.4mm), 4M length |
| * 1.5 | 1.5" (38.1mm), 4M length |
| * 2.0 | 2" (50.8mm), 4M length |
| * 3.0 | 3" (76.2mm), 4M length |
| * 4.0 | 4" (101.6mm), 4M length |
| * 6.0 | 6" (152.4mm), 4M length |

**Wall Thickness**

| | |
|---|---|
| 028 | .028" (0.71mm) |
| 035 | .035" (0.89mm) |
| 039 | .039" (1.00mm) |
| 049 | .049" (1.24mm) |
| 065 | .065" (1.65mm) |
| 083 | .083" (2.10mm) |
| 109 | .109" (2.76mm) |

**Visual Characteristics**

A, B, C — Surface conditions (allowable number and severity of flaws) are coded A, B and C with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled.

**Surface Roughness**

| | |
|---|---|
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max; For "C" above, 10Ra µin |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length tube: T 4 A - 0 S - . 5 0 X4 - 0 4 9 - A 7

## COAXIAL TUBE

PART NO. [ ][ ][ ][ ] - [ ][ ] - [ ][ ] - . [ ][ ][ ] X4 - [ ] [ ]

*

**Process**

| | |
|---|---|
| CT4A | Coaxial Tubing, Valex 401 Specification |

**Outer Jacket Type**

| | |
|---|---|
| S | 316L seamless |
| AW | 304 welded |
| W | 316L welded |

**Inner Alloy** ***(Per Valex SP-9200)***

| | |
|---|---|
| BLANK | Single-melt 316L seamless |
| OW | Single-melt 316L welded |
| BS | Double-melt 316L seamless |
| KS | Double-melt 316L seamless |
| NS | Single-melt 316L seamless |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| VS | Double-melt 316L seamless |

**Size (O.D.)** ***Specify Process (Inner) Tube Size***

| | |
|---|---|
| .25 | 1/4" O.D. x .035" inner tube (6.35 x 0.89mm) with 1/2" O.D. x .049" outer tube (12.7 x 1.24mm) |
| .375 | 3/8" O.D. x .035" inner tube (9.53 x 0.89mm) with 5/8" O.D. x .049" outer tube (15.87 x 1.24mm) |
| .50 | 1/2" O.D. x .049" inner tube (12.7 x 1.24mm) with 3/4" O.D. x .065" outer tube (19.05 x 1.65mm) |
| .75 | 3/4" O.D. x .065" inner tube (19.05 x 1.65mm) with 1" O.D. x .065" outer tube (25.4 x 1.65mm) |
| 1 | 1" O.D. x .065" inner tube (25.4 x 1.65mm) with 1.25" O.D. x .065" outer tube (31.75 x 1.65mm) |
| 1.5 | 1.5" O.D. x .065" inner tube (38.1 x 1.65mm) with 2" O.D. x .065" outer tube (50.8 x 1.65mm) |

**Inner Visual Characteristics**

A, B, C — Surface conditions (allowable number and severity of flaws) are coded A, B and C with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled.

**Inner Surface Roughness**

| | |
|---|---|
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max; For "C" above, 10Ra µin |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length coaxial tube: C T 4 A - W - 0 S - . 5 X4 - A 7

## FITTINGS

| | |
|---|---|
| | **Alloy** *(Per Valex SP-9200)* |
| E | OS/OW (Single-melt 316L) |
| Q | VS (Double-melt 316L seamless) |
| RE | RS/RW (Single-melt 316L) |
| Y | KS (Double-melt 316L seamless) |
| | **Type** |
| 2 | 90° Elbow |
| 2W | 90° Elbow, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 16 | End Cap |
| 16W | End Cap, welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| .25 | 1/4" O.D. x .035" wall (6.35 x 0.89mm) |
| .375 | 3/8" O.D. x .035" wall (9.53 x 0.89mm) |
| .5 | 1/2" O.D. x .049" wall (12.7 x 1.24mm) |
| .75 | 3/4" O.D. x .065" wall (19.05 x 1.65mm) |
| 1 | 1" O.D. x .065" wall (25.4 x 1.65mm) |
| 1.5 | 1.5" O.D. x .065" wall (38.1 x 1.65mm) |
| 2 | 2" O.D. x .065" wall (50.8 x 1.65mm) |
| 3 | 3" O.D. x .065" wall (76.2 x 1.65mm) |
| 4 | 4" O.D. x .083" wall (101.6 x 2.1mm) |
| 6 | 6" O.D. x .109 wall (152.4 x 2.76mm) |
| | **Visual Characteristics** |
| A<br>B<br>C | Surface conditions (allowable number and severity of flaws) are coded A, B and C with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max; for "C" above, 10Ra µin |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.
* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee.

E 7 R - 1 X .375 - A 7

## COAXIAL FITTINGS

PART NO.

| | |
|---|---|
| | **Inner Alloy** *(Per Valex SP-9200)* |
| C | OS/OW (Single-melt 316L) |
| R | VS (Double-melt 316L seamless) |
| RC | RS/RW (Single-melt 316L) |
| W | KS (Double-melt 316L seamless) |
| | **Type** |
| 2 | 90° Elbow |
| 2K | 45° Elbow |
| 7 | Equal Tee |
| 7R | Reducing Tee |
| 31 | Concentric Reducer |
| 7P | Purge Tee |
| 7PFS | Purge Tee with FS |
| 12 | Sleeve |
| 14FS | FS Weld Gland, Female |
| 15FS | FS Weld Gland, Male |
| 16 | Terminator |
| 17BH | Bulkhead Fitting |
| | **Size (O.D.)** *Specify Process (Inner) Tube Size* |
| .25 | 1/4" O.D. x .035" inner tube (6.35 x 0.89mm) with 1/2" O.D. x .049" outer tube (12.7 x 1.24mm) |
| .375 | 3/8" O.D. x .035" inner tube (9.53 x 0.89mm) with 5/8" O.D. x .049" outer tube (15.87 x 1.24mm) |
| .5 | 1/2" O.D. x .049" inner tube (12.7 x 1.24mm) with 3/4" O.D. x .065" outer tube (19.05 x 1.65mm) |
| .75 | 3/4" O.D. x .065" inner tube (19.05 x 1.65mm) with 1" O.D. x .065" outer tube (25.4 x 1.65mm) |
| 1 | 1" O.D. x .065" inner tube (25.4 x 1.65mm) with 1.25" O.D. x .065" outer tube (31.75 x 1.65mm) |
| 1.5 | 1.5" O.D. x .065" inner tube (38.1 x 1.65mm) with 2" O.D. x .065" outer tube (50.8 x 1.65mm) |
| | **Visual Characteristics** |
| A<br>B<br>C | Surface conditions (allowable number and severity of flaws) are coded A and B with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max; for "C" above, 10Ra µin |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.
* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee.

C 7 R - .5 X .25 - A 7

# Specification 301 HP Electropolished (ASTM)

## TUBE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] - [ ][ ][ ]

| | |
|---|---|
| | **Process** |
| T3A | Tube, Valex 301 Specification |
| | **Alloy** *(Per Valex SP-9200)* |
| 0S | Single-melt 316L seamless |
| 0W | Single-melt 316L welded |
| | **Size (O.D.)** |
| 00125 | 1/8″ (3.18mm), 10′ length |
| 00250 | 1/4″ (6.35mm), 20′ length |
| 00375 | 3/8″ (9.53mm), 20′ length |
| 00500 | 1/2″ (12.7mm), 20′ length |
| 00750 | 3/4″ (19.05mm), 20′ length |
| 01000 | 1″ (25.4mm), 20′ length |
| 01500 | 1.5″ (38.1mm), 20′ length |
| 02000 | 2″ (50.8mm), 20′ length |
| 03000 | 3″ (76.2mm), 20′ length |
| 04000 | 4″ (101.6mm), 20′ length |
| | **Wall Thickness** |
| 028 | .028″ (0.71mm) |
| 035 | .035″ (0.89mm) |
| 049 | .049″ (1.24mm) |
| 065 | .065″ (1.65mm) |
| 083 | .083″ (2.10mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

Example: T 3 A - 0 S - 0 0 5 0 0 - 0 4 9

## FITTINGS

PART NO. L [ ][ ][ ][ ] - [ ][ ][ ][ ] X [ ][ ][ ][ ] *

| | |
|---|---|
| | **Type** |
| 2 | 90° Elbow |
| 2W | 90° Elbow, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 16 | End Cap |
| 16W | End Cap, welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| .25 | 1/4″ O.D. x .035″ wall (6.35 x 0.89mm) |
| .375 | 3/8″ O.D. x .035″ wall (9.53 x 0.89mm) |
| .5 | 1/2″ O.D. x .049″ wall (12.7 x 1.24mm) |
| .75 | 3/4″ O.D. x .065″ wall (19.05 x 1.65mm) |
| 1 | 1″ O.D. x .065″ wall (25.4 x 1.65mm) |
| 1.5 | 1.5″ O.D. x .065″ wall (38.1 x 1.65mm) |
| 2 | 2″ O.D. x .065″ wall (50.8 x 1.65mm) |
| 3 | 3″ O.D. x .065″ wall (76.2 x 1.65mm) |
| 4 | 4″ O.D. x .083″ wall (101.6 x 2.1mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee: L 7 R W [ ] - 1 [ ][ ][ ] X . 3 7 5

# Specification 201 Non-Electropolished (ASTM)

## TUBE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ]

*

| | |
|---|---|
| | **Process** |
| T2A | Tube, Valex 201 Specification |
| | **Alloy** *(Per Valex SP-9200)* |
| 0S | Single-melt 316L seamless |
| 0W | Single-melt 316L welded |
| 2S | Single-melt 304L seamless |
| 2W | Single-melt 304L welded |
| AS | Single-melt 304 seamless |
| AW | Single-melt 304 welded |
| NS | Single-melt 316L seamless |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| | **Size (O.D.)** |
| 00125 | 1/8" (3.18mm), 20' length |
| 00250 | 1/4" (6.35mm), 20' length |
| 00375 | 3/8" (9.53mm), 20' length |
| 00500 | 1/2" (12.7mm), 20' length |
| 00750 | 3/4" (19.05mm), 20' length |
| 01000 | 1" (25.4mm), 20' length |
| 01500 | 1.5" (38.1mm), 20' length |
| 02000 | 2" (50.8mm), 20' length |
| 03000 | 3" (76.2mm), 20' length |
| 04000 | 4" (101.6mm), 20' length |
| 06000 | 6" (152.4mm), 20' length |
| * .13 | 1/8" (3.18mm), 4M length |
| * .25 | 1/4" (6.35mm), 4M length |
| * .38 | 3/8" (9.53mm), 4M length |
| * .50 | 1/2" (12.7mm), 4M length |
| * .75 | 3/4" (19.05mm), 4M length |
| * 1.0 | 1" (25.4mm), 4M length |
| * 1.5 | 1.5" (38.1mm), 4M length |
| * 2.0 | 2" (50.8mm), 4M length |
| * 3.0 | 3" (76.2mm), 4M length |
| * 4.0 | 4" (101.6mm), 4M length |
| * 6.0 | 6" (152.4mm), 4M length |
| | **Wall Thickness** |
| 028 | .028" (0.71mm) |
| 035 | .035" (0.89mm) |
| 039 | .039" (1.00mm) |
| 049 | .049" (1.24mm) |
| 065 | .065" (1.65mm) |
| 083 | .083" (2.10mm) |
| 109 | .109" (2.76mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision. * For use only with 4-meter lengths. Example for 4-meter length tube:

T 2 A - 0 S - 0 0 5 0 0 X4 - 0 4 9

## FITTINGS

PART NO. [ ][ ] [ ][ ][ ][ ] - [ ][ ][ ][ ] X [ ][ ][ ][ ]

*

| | |
|---|---|
| | **Inner Alloy** *(Per Valex SP-9200)* |
| AD | AS/AW (Single-melt 304) |
| B | OS/OW (Single-melt 316L) |
| D | 2S/2W (Single-melt 304L) |
| RB | RS/RW (Single-melt 316L) |
| | **Type** |
| 2 | 90° Elbow |
| 2W | 90° Elbow, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 16 | End Cap |
| 16W | End Cap, welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| .25 | 1/4" O.D. x .035" wall (6.35 x 0.89mm) |
| .375 | 3/8" O.D. x .035" wall (9.53 x 0.89mm) |
| .5 | 1/2" O.D. x .049" wall (12.7 x 1.24mm) |
| .75 | 3/4" O.D. x .065" wall (19.05 x 1.65mm) |
| 1 | 1" O.D. x .065" wall (25.4 x 1.65mm) |
| 1.5 | 1.5" O.D. x .065" wall (38.1 x 1.65mm) |
| 2 | 2" O.D. x .065" wall (50.8 x 1.65mm) |
| 3 | 3" O.D. x .065" wall (76.2 x 1.65mm) |
| 4 | 4" O.D. x .083" wall (101.6 x 2.1mm) |
| 6 | 6" O.D. x .109" wall (152.4 x 2.76mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.
* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee:

B [ ] 7 R W [ ] - 1 [ ][ ][ ] X . 3 7 5

# Specification 101 Non-Electropolished (ASTM)

## TUBE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ]

*

| | |
|---|---|
| | **Process** |
| T1A | Tube, Valex 101 Specification |
| | **Alloy** ***(Per Valex SP-9200)*** |
| 0S | Single-melt 316L seamless |
| 0W | Single-melt 316L welded |
| 2S | Single-melt 304L seamless |
| 2W | Single-melt 304L welded |
| AS | Single-melt 304 seamless |
| AW | Single-melt 304 welded |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| | **Size (O.D.)** |
| 00125 | 1/8" (3.18mm), 20' length |
| 00250 | 1/4" (6.35mm), 20' length |
| 00375 | 3/8" (9.53mm), 20' length |
| 00500 | 1/2" (12.7mm), 20' length |
| 00750 | 3/4" (19.05mm), 20' length |
| 01000 | 1" (25.4mm), 20' length |
| 01500 | 1.5" (38.1mm), 20' length |
| 02000 | 2" (50.8mm), 20' length |
| 03000 | 3" (76.2mm), 20' length |
| 04000 | 4" (101.6mm), 20' length |
| 06000 | 6" (152.4mm), 20' length |
| * .13 | 1/8" (3.18mm), 4M length |
| * .25 | 1/4" (6.35mm), 4M length |
| * .38 | 3/8" (9.53mm), 4M length |
| * .50 | 1/2" (12.7mm), 4M length |
| * .75 | 3/4" (19.05mm), 4M length |
| * 1.0 | 1" (25.4mm), 4M length |
| * 1.5 | 1.5" (38.1mm), 4M length |
| * 2.0 | 2" (50.8mm), 4M length |
| * 3.0 | 3" (76.2mm), 4M length |
| * 4.0 | 4" (101.6mm), 4M length |
| * 6.0 | 6" (152.4mm), 4M length |
| | **Wall Thickness** |
| 028 | .028" (0.71mm) |
| 035 | .035" (0.89mm) |
| 039 | .039" (1.00mm) |
| 049 | .049" (1.24mm) |
| 065 | .065" (1.65mm) |
| 083 | .083" (2.10mm) |
| 109 | .109" (2.76mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.
* For use only with 4-meter lengths. Example for 4-meter length tube: T1A - 0S - 00500 X4 - 049

## FITTINGS

PART NO. M[ ][ ][ ][ ] - [ ][ ][ ][ ] X [ ][ ][ ][ ]

*

| | |
|---|---|
| | **Type** |
| 2 | 90° Elbow |
| 2W | 90° Elbow, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 16 | End Cap |
| 16W | End Cap, welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| .25 | 1/4" O.D. x .035" wall (6.35 x 0.89mm) |
| .375 | 3/8" O.D. x .035" wall (9.53 x 0.89mm) |
| .5 | 1/2" O.D. x .049" wall (12.7 x 1.24mm) |
| .75 | 3/4" O.D. x .065" wall (19.05 x 1.65mm) |
| 1 | 1" O.D. x .065" wall (25.4 x 1.65mm) |
| 1.5 | 1.5" O.D. x .065" wall (38.1 x 1.65mm) |
| 2 | 2" O.D. x .065" wall (50.8 x 1.65mm) |
| 3 | 3" O.D. x .065" wall (76.2 x 1.65mm) |
| 4 | 4" O.D. x .083" wall (101.6 x 2.1mm) |
| 6 | 6" O.D. x .109" wall (152.4 x 2.76mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.
* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee: M7RW[ ] - 1[ ][ ][ ] X .375

# Specification 222 Hastelloy® C22® (ASTM)

## TUBE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] - [ ][ ][ ]

| | |
|---|---|
| | **Process** |
| TMC | Tube, Valex 222 Specification |
| | **Alloy** *(Hastelloy® C-22®)* |
| HS | Seamless |
| HW | Welded |
| | **Size (O.D.)** |
| 00250 | 1/4" (6.35mm), 20' length |
| 00375 | 3/8" (9.53mm), 20' length |
| 00500 | 1/2" (12.7mm), 20' length |
| 00750 | 3/4" (19.05mm), 20' length |
| 01000 | 1" (25.4mm), 20' length |
| | **Wall Thickness** |
| 035 | .035" (0.89mm) |
| 049 | .049" (1.24mm) |
| 065 | .065" (1.65mm) |

NOTE: Not all configurations are available.

Example: [T][M][C] - [H][S] - [0][0][5][0][0] - [0][4][9]

## FITTINGS

PART NO. [H][ ][ ][ ][ ] - [ ][ ][ ][ ] X [ ][ ][ ][ ] *

| | |
|---|---|
| | **Type** |
| 2 | 90° Elbow |
| 2W | 90° Elbow, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 16 | End Cap |
| 16W | End Cap, welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| .25 | 1/4" O.D. x .035" wall (6.35 x 0.89mm) |
| .375 | 3/8" O.D. x .035" wall (9.53 x 0.89mm) |
| .5 | 1/2" O.D. x .049" wall (12.7 x 1.24mm) |
| .75 | 3/4" O.D. x .065" wall (19.05 x 1.65mm) |
| 1 | 1" O.D. x .065" wall (25.4 x 1.65mm) |

NOTE: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with Reducing Tees and Concentric Reducers - specify reduced tube size. Example for Reducing Tee: [H][7][R][W][ ] - [1][ ][ ][ ] [.][5][ ][ ]

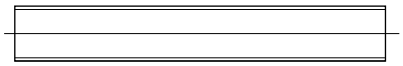
# Dimensions (JIS)

NOTE: All dimensions are in millimeters.

## PIPE

| Size | Sch. | O.D. | Wall | Weight per meter (kg) | Maximum Safe Working Pressure* | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Bar | | PSI | |
| | | | | | Seamless | Welded | Seamless | Welded |
| 8A | 5S | 13.8 | 1.2 | 0.38 | 171 | 136 | 2,474 | 1,979 |
| 10A | 5S | 17.3 | 1.2 | 0.48 | 135 | 108 | 1,959 | 1,567 |
| 15A | 5S | 21.7 | 1.65 | 0.82 | 158 | 126 | 2,291 | 1,833 |
| 20A | 5S | 27.2 | 1.65 | 1.05 | 125 | 100 | 1,813 | 1,451 |
| 25A | 5S | 34.0 | 1.65 | 1.32 | 99 | 79 | 1,440 | 1,152 |
| 32A | 5S | 42.7 | 1.65 | 1.68 | 78 | 63 | 1,138 | 911 |
| 40A | 5S | 48.6 | 1.65 | 1.92 | 69 | 55 | 997 | 797 |
| 50A | 5S | 60.5 | 1.65 | 2.41 | 55 | 44 | 797 | 638 |
| 65A | 5S | 76.3 | 2.1 | 3.87 | 57 | 46 | 824 | 660 |
| 80A | 5S | 89.1 | 2.1 | 4.53 | 49 | 39 | 704 | 563 |
| 90A | 5S | 101.6 | 2.1 | 5.19 | 42 | 34 | 616 | 493 |
| 100A | 5S | 114.3 | 2.1 | 5.85 | 38 | 30 | 547 | 437 |
| 125A | 5S | 139.8 | 2.8 | 9.52 | 41 | 33 | 597 | 477 |
| 150A | 5S | 165.2 | 2.8 | 11.29 | 35 | 28 | 504 | 403 |
| 200A | 5S | 216.3 | 2.8 | 14.84 | 26 | 21 | 384 | 307 |
| 250A | 5S | 267.4 | 3.4 | 22.28 | 26 | 21 | 377 | 302 |
| 300A | 5S | 318.5 | 4.0 | 31.22 | 26 | 21 | 372 | 298 |
| 8A | 10S | 13.8 | 1.65 | 0.50 | 254 | 204 | 3,689 | 2,951 |
| 10A | 10S | 17.3 | 1.65 | 0.64 | 200 | 160 | 2,904 | 2,323 |
| 15A | 10S | 21.7 | 2.1 | 1.02 | 210 | 168 | 3,038 | 2,431 |
| 20A | 10S | 27.2 | 2.1 | 1.31 | 165 | 132 | 2,396 | 1,917 |
| 25A | 10S | 34.0 | 2.8 | 2.17 | 177 | 142 | 2,568 | 2,054 |
| 32A | 10S | 42.7 | 2.8 | 2.77 | 139 | 111 | 2,019 | 1,616 |
| 40A | 10S | 48.6 | 2.8 | 3.18 | 122 | 97 | 1,764 | 1,411 |
| 50A | 10S | 60.5 | 2.8 | 4.01 | 97 | 78 | 1,405 | 1,124 |
| 65A | 10S | 76.3 | 3.0 | 5.46 | 82 | 66 | 1,188 | 950 |
| 80A | 10S | 89.1 | 3.0 | 6.41 | 70 | 56 | 1,013 | 810 |
| 90A | 10S | 101.6 | 3.0 | 7.34 | 61 | 49 | 886 | 709 |
| 100A | 10S | 114.3 | 3.0 | 8.29 | 54 | 43 | 786 | 628 |
| 125A | 10S | 139.8 | 3.4 | 11.51 | 50 | 40 | 727 | 582 |
| 150A | 10S | 165.2 | 3.4 | 13.65 | 42 | 34 | 613 | 491 |
| 200A | 10S | 216.3 | 4.0 | 21.08 | 38 | 30 | 550 | 440 |
| 250A | 10S | 267.4 | 4.0 | 26.15 | 31 | 24 | 444 | 355 |
| 300A | 10S | 318.5 | 4.5 | 35.07 | 29 | 23 | 419 | 335 |
| 350A | N.A. | 355.6 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| 400A | N.A. | 406.4 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |

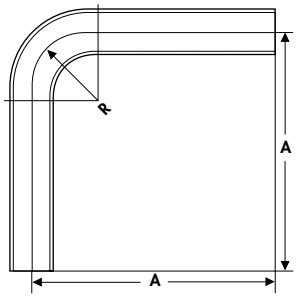
* Maximum safe working pressure is calculated per ASME B31.3-2002, 304.1.2
Material: T304L or T316L per JIS G3459
Temperature Range = -28.8°C to +148.9°C, -20°F to +300°F





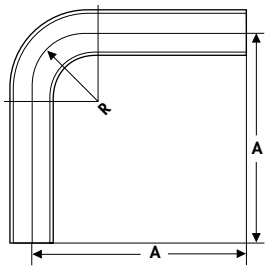
NOTE: For sizes 350A and larger please contact Valex for availability.

## 90° ELBOW (LONG)



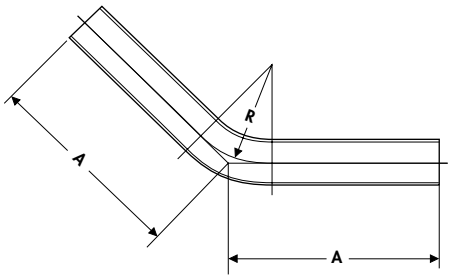

| Size | O.D. | Wall | | A | R |
|---|---|---|---|---|---|
| | | 5S | 10S | | |
| 8A | 13.8 | 1.2 | 1.65 | 55 | 25.4 |
| 10A | 17.3 | 1.2 | 1.65 | 62 | 25.4 |
| 15A | 21.7 | 1.65 | 2.1 | 75 | 38.1 |
| 20A | 27.2 | 1.65 | 2.1 | 75 | 38.1 |
| 25A | 34.0 | 1.65 | 2.8 | 75 | 38.1 |
| 32A | 42.7 | 1.65 | 2.8 | 94 | 47.6 |
| 40A | 48.6 | 1.65 | 2.8 | 104 | 57.2 |
| 50A | 60.5 | 1.65 | 2.8 | 123 | 76.2 |
| 65A | 76.3 | 2.1 | 3.0 | 147 | 95.3 |
| 80A | 89.1 | 2.1 | 3.0 | 166 | 114.3 |
| 100A | 114.3 | 2.1 | 3.0 | 204 | 152.4 |
| 125A | 139.8 | 2.8 | 3.4 | 250 | 190.5 |
| 150A | 165.2 | 2.8 | 3.4 | 290 | 228.6 |
| 200A | 216.3 | 2.8 | 4.0 | 375 | 304.8 |

## 90° ELBOW (SHORT)



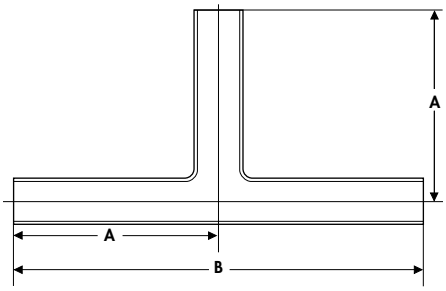

| Size | O.D. | Wall | | A | R |
|---|---|---|---|---|---|
| | | 5S | 10S | | |
| 8A | 13.8 | 1.2 | 1.65 | 42 | 12.7 |
| 10A | 17.3 | 1.2 | 1.65 | 49 | 12.7 |
| 15A | 21.7 | 1.65 | 2.1 | 49 | 12.7 |
| 20A | 27.2 | 1.65 | 2.1 | 56 | 19.1 |
| 25A | 34.0 | 1.65 | 2.8 | 62 | 25.4 |
| 32A | 42.7 | 1.65 | 2.8 | 78 | 31.8 |
| 40A | 48.6 | 1.65 | 2.8 | 85 | 38.1 |
| 50A | 60.5 | 1.65 | 2.8 | 97 | 50.8 |
| 65A | 76.3 | 2.1 | 3.0 | 115 | 63.5 |
| 80A | 89.1 | 2.1 | 3.0 | 128 | 76.2 |
| 100A | 114.3 | 2.1 | 3.0 | 153 | 101.6 |
| 125A | 139.8 | 2.8 | 3.4 | 185 | 127.0 |
| 150A | 165.2 | 2.8 | 3.4 | 210 | 152.4 |
| 200A | 216.3 | 2.8 | 4.0 | 275 | 203.2 |

## 45° ELBOW




| Size | O.D. | Wall | | A | R |
|---|---|---|---|---|---|
| | | 5S | 10S | | |
| 8A | 13.8 | 1.2 | 1.65 | 40 | 25.4 |
| 10A | 17.3 | 1.2 | 1.65 | 47 | 25.4 |
| 15A | 21.7 | 1.65 | 2.1 | 52 | 38.1 |
| 20A | 27.2 | 1.65 | 2.1 | 52 | 38.1 |
| 25A | 34.0 | 1.65 | 2.8 | 52 | 38.1 |
| 32A | 42.7 | 1.65 | 2.8 | 66 | 47.6 |
| 40A | 48.6 | 1.65 | 2.8 | 70 | 57.2 |
| 50A | 60.5 | 1.65 | 2.8 | 78 | 76.2 |
| 65A | 76.3 | 2.1 | 3.0 | 91 | 95.3 |
| 80A | 89.1 | 2.1 | 3.0 | 99 | 114.3 |
| 100A | 114.3 | 2.1 | 3.0 | 115 | 152.4 |
| 125A | 139.8 | 2.8 | 3.4 | 145 | 190.5 |
| 150A | 165.2 | 2.8 | 3.4 | 155 | 228.6 |
| 200A | 216.3 | 2.8 | 4.0 | 195 | 304.8 |

NOTE: For sizes 250A and larger please contact Valex for availability.




## EQUAL TEE

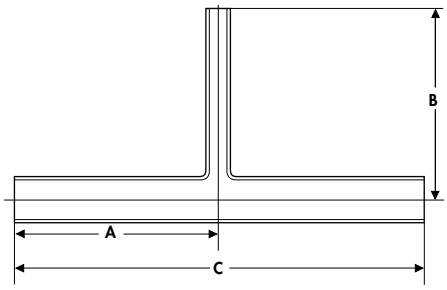
| Size | O.D. | Wall | | A | B |
|---|---|---|---|---|---|
| | | 5S | 10S | | |
| 8A | 13.8 | 1.2 | 1.65 | 42 | 84 |
| 10A | 17.3 | 1.2 | 1.65 | 49 | 98 |
| 15A | 21.7 | 1.65 | 2.1 | 59 | 118 |
| 20A | 27.2 | 1.65 | 2.1 | 65 | 130 |
| 25A | 34.0 | 1.65 | 2.8 | 68 | 136 |
| 32A | 42.7 | 1.65 | 2.8 | 88 | 176 |
| 40A | 48.6 | 1.65 | 2.8 | 95 | 190 |
| 50A | 60.5 | 1.65 | 2.8 | 102 | 204 |
| 65A | 76.3 | 2.1 | 3.0 | 121 | 242 |
| 80A | 89.1 | 2.1 | 3.0 | 130 | 260 |
| 100A | 114.3 | 2.1 | 3.0 | 145 | 290 |
| 125A | 139.8 | 2.8 | 3.4 | 160 | 320 |
| 150A | 165.2 | 2.8 | 3.4 | 170 | 340 |
| 200A | 216.3 | 2.8 | 4.0 | 190 | 380 |



NOTE: For sizes 250A and larger please contact Valex for availability.

## REDUCING TEE

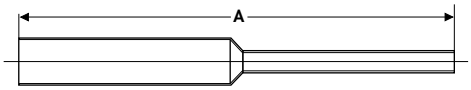
| Size | O.D. | Wall | | X | Size | O.D | Wall | | A | B | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5S | 10S | | | | 5S | 10S | | | |
| 10A | 17.3 | 1.2 | 1.65 | x | 8A | 13.8 | 1.2 | 1.65 | 47 | 44 | 94 |
| 15A | 21.7 | 1.65 | 2.1 | x | 8A | 13.8 | 1.2 | 1.65 | 47 | 44 | 94 |
| 15A | 21.7 | 1.65 | 2.1 | x | 10A | 17.3 | 1.2 | 1.65 | 52 | 52 | 104 |
| 20A | 27.2 | 1.65 | 2.1 | x | 8A | 13.8 | 1.2 | 1.65 | 47 | 47 | 94 |
| 20A | 27.2 | 1.65 | 2.1 | x | 10A - 15A | 17.3 - 21.7 | 1.2 - 1.65 | 1.65 - 2.1 | 55 | 55 | 110 |
| 25A | 34.0 | 1.65 | 2.8 | x | 8A | 13.8 | 1.2 | 1.65 | 47 | 50 | 94 |
| 25A | 34.0 | 1.65 | 2.8 | x | 10A - 20A | 17.3 - 27.2 | 1.2 - 1.65 | 1.65 - 2.1 | 59 | 59 | 118 |
| 32A | 42.7 | 1.65 | 2.8 | x | 8A | 13.8 | 1.2 | 1.65 | 57 | 54 | 114 |
| 32A | 42.7 | 1.65 | 2.8 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 68 | 62 | 136 |
| 40A | 48.6 | 1.65 | 2.8 | x | 8A | 13.8 | 1.2 | 1.65 | 57 | 57 | 114 |
| 40A | 48.6 | 1.65 | 2.8 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 68 | 65 | 136 |
| 40A | 48.6 | 1.65 | 2.8 | x | 32A | 42.7 | 1.65 | 2.8 | 77 | 77 | 154 |
| 50A | 60.5 | 1.65 | 2.8 | x | 8A | 13.8 | 1.2 | 1.65 | 57 | 63 | 114 |
| 50A | 60.5 | 1.65 | 2.8 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 68 | 71 | 136 |
| 50A | 60.5 | 1.65 | 2.8 | x | 32A - 40A | 42.7 - 48.6 | 1.65 | 2.8 | 83 | 83 | 166 |
| 65A | 76.3 | 2.1 | 3.0 | x | 8A | 13.8 | 1.2 | 1.65 | 61 | 71 | 122 |
| 65A | 76.3 | 2.1 | 3.0 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 72 | 79 | 144 |
| 65A | 76.3 | 2.1 | 3.0 | x | 32A - 50A | 42.7 - 60.5 | 1.65 | 2.8 | 88 | 90 | 176 |
| 80A | 89.1 | 2.1 | 3.0 | x | 8A | 13.8 | 1.2 | 1.65 | 61 | 77 | 122 |
| 80A | 89.1 | 2.1 | 3.0 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 72 | 85 | 144 |
| 80A | 89.1 | 2.1 | 3.0 | x | 32A - 50A | 42.7 - 60.5 | 1.65 | 2.8 | 88 | 96 | 176 |
| 80A | 89.1 | 2.1 | 3.0 | x | 65A | 76.3 | 2.1 | 3.0 | 103 | 103 | 206 |
| 100A | 114.3 | 2.1 | 3.0 | x | 8A | 13.8 | 1.2 | 1.65 | 61 | 90 | 122 |
| 100A | 114.3 | 2.1 | 3.0 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 72 | 98 | 144 |
| 100A | 114.3 | 2.1 | 3.0 | x | 32A - 50A | 42.7 - 60.5 | 1.65 | 2.8 | 88 | 109 | 176 |
| 100A | 114.3 | 2.1 | 3.0 | x | 65A - 80A | 76.3 - 89.1 | 2.1 | 3.0 | 116 | 116 | 232 |
| 125A | 139.8 | 2.8 | 3.4 | x | 8A | 13.8 | 1.2 | 1.65 | 80 | 110 | 160 |
| 125A | 139.8 | 2.8 | 3.4 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 100 | 120 | 200 |
| 125A | 139.8 | 2.8 | 3.4 | x | 32A - 50A | 42.7 - 60.5 | 1.65 | 2.8 | 120 | 130 | 240 |
| 125A | 139.8 | 2.8 | 3.4 | x | 65A - 100A | 76.3 - 114.3 | 2.1 | 3.0 | 140 | 140 | 280 |
| 150A | 165.2 | 2.8 | 3.4 | x | 8A | 13.8 | 1.2 | 1.65 | 90 | 130 | 180 |
| 150A | 165.2 | 2.8 | 3.4 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 110 | 140 | 220 |
| 150A | 165.2 | 2.8 | 3.4 | x | 32A - 50A | 42.7 - 60.5 | 1.65 | 2.8 | 130 | 150 | 260 |
| 150A | 165.2 | 2.8 | 3.4 | x | 65A - 100A | 76.3 - 114.3 | 2.1 | 3.0 | 150 | 160 | 300 |
| 150A | 165.2 | 2.8 | 3.4 | x | 125A | 139.8 | 2.8 | 3.4 | 170 | 170 | 340 |
| 200A | 216.3 | 2.8 | 4.0 | x | 8A | 13.8 | 1.2 | 1.65 | 100 | 150 | 200 |
| 200A | 216.3 | 2.8 | 4.0 | x | 10A - 25A | 17.3 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 120 | 160 | 240 |
| 200A | 216.3 | 2.8 | 4.0 | x | 32A - 50A | 42.7 - 60.5 | 1.65 | 2.8 | 140 | 170 | 280 |
| 200A | 216.3 | 2.8 | 4.0 | x | 65A - 100A | 76.3 - 114.3 | 2.1 | 3.0 | 160 | 180 | 320 |
| 200A | 216.3 | 2.8 | 4.0 | x | 125A - 150A | 139.8 - 165.2 | 2.8 | 3.4 | 180 | 190 | 360 |




NOTE: For sizes 250A and larger please contact Valex for availability.

## CONCENTRIC REDUCER

| Size | O.D. | Wall | | X | Size | O.D | Wall | | A |
|---|---|---|---|---|---|---|---|---|---|
| | | 5S | 10S | | | | 5S | 10S | |
| 10A | 17.3 | 1.2 | 1.65 | x | 8A | 13.8 | 1.2 | 1.65 | 90 |
| 15A | 21.7 | 1.65 | 2.1 | x | 8A - 10A | 13.8 - 17.3 | 1.2 | 1.65 | 100 |
| 20A | 27.2 | 1.65 | 2.1 | x | 8A - 15A | 13.8 - 21.7 | 1.2 - 1.65 | 1.65 - 2.1 | 105 |
| 25A | 34.0 | 1.65 | 2.8 | x | 8A - 20A | 13.8 - 27.2 | 1.2 - 1.65 | 1.65 - 2.1 | 120 |
| 32A | 42.7 | 1.65 | 2.8 | x | 8A - 25A | 13.8 - 34.0 | 1.2 - 1.65 | 1.65 - 2.8 | 125 |
| 40A | 48.6 | 1.65 | 2.8 | x | 8A - 32A | 13.8 - 42.7 | 1.2 - 1.65 | 1.65 - 2.8 | 130 |
| 50A | 60.5 | 1.65 | 2.8 | x | 8A - 40A | 13.8 - 48.6 | 1.2 - 1.65 | 1.65 - 2.8 | 140 |
| 65A | 76.3 | 2.1 | 3.0 | x | 8A - 50A | 13.8 - 60.5 | 1.2 - 1.65 | 1.65 - 2.8 | 165 |
| 80A | 89.1 | 2.1 | 3.0 | x | 8A - 65A | 13.8 - 76.3 | 1.2 - 2.1 | 1.65 - 3.0 | 170 |
| 100A | 114.3 | 2.1 | 3.0 | x | 8A - 80A | 13.8 - 89.1 | 1.2 - 2.1 | 1.65 - 3.0 | 180 |
| 125A | 139.8 | 2.8 | 3.4 | x | 8A - 100A | 13.8 - 114.3 | 1.2 - 2.1 | 1.65 - 3.0 | 250 |
| 150A | 165.2 | 2.8 | 3.4 | x | 8A - 125A | 13.8 - 139.8 | 1.2 - 2.8 | 1.65 - 3.4 | 260 |
| 200A | 216.3 | 2.8 | 4.0 | x | 8A - 150A | 13.8 - 165.2 | 1.2 - 2.8 | 1.65 - 3.4 | 280 |






NOTE: For sizes 250A and larger please contact Valex for availability.

# Specification 401 UHP Electropolished (JIS)

## PIPE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ] - [ ] [ ]

*

| | |
|---|---|
| | **Process** |
| P4A | Pipe, Valex 401 Specification |
| | **Alloy *(Per Valex SP-9200)*** |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| | **Size (O.D.)** |
| 0008A | 13.8mm, 6M length |
| 0010A | 17.3mm, 6M length |
| 0015A | 21.7mm, 6M length |
| 0020A | 27.2mm, 6M length |
| 0025A | 34.0mm, 6M length |
| 0032A | 42.7mm, 6M length |
| 0040A | 48.6mm, 6M length |
| 0050A | 60.5mm, 6M length |
| 0065A | 76.3mm, 6M length |
| 0080A | 89.1mm, 6M length |
| 0090A | 101.6mm, 6M length |
| 0100A | 114.3mm, 6M length |
| 0125A | 139.8mm, 6M length |
| 0150A | 165.2mm, 6M length |
| 0200A | 216.3mm, 6M length |
| 0250A | 267.4mm, 6M length |
| * 008A | 13.8mm, 4M length |
| * 010A | 17.3mm, 4M length |
| * 015A | 21.7mm, 4M length |
| * 020A | 27.2mm, 4M length |
| * 025A | 34.0mm, 4M length |
| * 032A | 42.7mm, 4M length |
| * 040A | 48.6mm, 4M length |
| * 050A | 60.5mm, 4M length |
| * 065A | 76.3mm, 4M length |
| * 080A | 89.1mm, 4M length |
| * 090A | 101.6mm, 4M length |
| * 100A | 114.3mm, 4M length |
| * 125A | 139.8mm, 4M length |
| * 150A | 165.2mm, 4M length |
| * 200A | 216.3mm, 4M length |
| * 250A | 267.4mm, 4M length |
| | **Pipe Schedule** |
| 05S | JIS Pipe Schedule 5 |
| 10S | JIS Pipe Schedule 10 |
| * 05 | JIS Pipe Schedule 5 |
| * 10 | JIS Pipe Schedule 10 |
| | **Visual Characteristics** |
| A<br>B<br>C | Surface conditions (allowable number and severity of flaws) are coded A, B, and C with A being superior. Each surface code is defined by a set of workmanship standards that are configuration and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max; for "C" above, 10Ra µin |

Note: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length pipe: P 4 A R S - 0 2 0 A X4 - 0 5 - A 7

## FITTINGS

PART NO. J E [ ] [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ] X [ ] [ ] [ ] [ ] - [ ] [ ]

*

| | **Type** |
|---|---|
| 2(S) | 90° Elbow, short |
| 2(L) | 90° Elbow, long |
| 2W(S) | 90° Elbow, short, welded |
| 2W(L) | 90° Elbow, long, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| 8A | 13.8mm |
| 10A | 17.3mm |
| 15A | 21.7mm |
| 20A | 27.2mm |
| 25A | 34.0mm |
| 32A | 42.7mm |
| 40A | 48.6mm |
| 50A | 60.5mm |
| 65A | 76.3mm |
| 80A | 89.1mm |
| 100A | 114.3mm |
| 125A | 139.8mm |
| 150A | 165.2mm |
| 200A | 216.3mm |
| 250A | 267.4mm |
| | **Pipe Schedule** |
| BLANK | JIS Pipe Schedule 5 |
| T | JIS Pipe Schedule 10 |
| | **Visual Characteristics** |
| A<br>B<br>C | Surface conditions (allowable number and severity of flaws) are coded A, B, and C with A being superior. Each surface code is defined by a set of workmanship standards that are configured and change controlled. |
| | **Surface Roughness** |
| 5 | 5Ra µin max |
| 7 | 7Ra µin max |
| 0 | For "B" above, 10Ra µin max: for "C" above, 10Ra µin |

Note: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision

* For use only with Reducing Tees and Concentric Reducers - specify reduced pipe size. Example for Reducing Tee:

J E 7 R [ ] [ ] - 8 0 A [ ] [ ] X 2 0 A [ ] - B 0

## PIPE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ]
*

| | |
|---|---|
| | **Process** |
| P2A | Pipe, Valex 201 Specification |
| | **Alloy *(Per Valex SP-9200)*** |
| 2S | Single-melt 304L seamless |
| 2W | Single-melt 304L welded |
| AS | Single-melt 304 seamless |
| AW | Single-melt 304 welded |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| | **Size (O.D.)** |
| 0015A | 21.7mm, 6M length |
| 0020A | 27.2mm, 6M length |
| 0025A | 34.0mm, 6M length |
| 0032A | 42.7mm, 6M length |
| 0040A | 48.6mm, 6M length |
| 0050A | 60.5mm. 6M length |
| 0065A | 76.3mm, 6M length |
| 0080A | 89.1mm, 6M length |
| 0090A | 101.6mm, 6M length |
| 0100A | 114.3mm, 6M length |
| 0125A | 139.8mm, 6M length |
| 0150A | 165.2mm, 6M length |
| 0200A | 216.3mm, 6M length |
| 0250A | 267.4mm, 6M length |
| 0300A | 318.5mm, 6M length |
| 0350A | 355.6mm, 6M length |
| * 015A | 21.7mm, 4M length |
| * 020A | 27.2mm, 4M length |
| * 025A | 34.0mm, 4M length |
| * 032A | 42.7mm, 4M length |
| * 040A | 48.6mm, 4M length |
| * 050A | 60.5mm, 4M length |
| * 065A | 76.3mm, 4M length |
| * 080A | 89.1mm, 4M length |
| * 090A | 101.6mm, 4M length |
| * 100A | 114.3mm, 4M length |
| * 125A | 139.8mm, 4M length |
| * 150A | 165.2mm, 4M length |
| * 200A | 216.3mm, 4M length |
| * 250A | 267.4mm, 4M length |
| * 300A | 318.5mm, 4M length |
| * 350A | 355.6mm, 4M length |
| | **Pipe Schedule** |
| 05S | JIS Pipe Schedule 5 |
| 10S | JIS Pipe Schedule 10 |
| * 05 | JIS Pope Schedule 5 |
| * 10 | JIS Pipe Schedule 10 |

Note: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length pipe: [P][2][A] - [R][S] - [0][2][0][A][ ] X4 - [0][5][ ]

## FITTINGS

PART NO. [ ][ ] [ ][ ][ ][ ] - [ ][ ][ ][ ] [ ] X [ ][ ][ ][ ] *

| | |
|---|---|
| | **Alloy *(Per Valex SP-9200)*** |
| JB | RS/RW Single-melt 316L |
| JD | AS/AW Single-melt 304 |
| | **Type** |
| 2(S) | 90° Elbow, short |
| 2(L) | 90° Elbow, long |
| 2W(S) | 90° Elbow, short, welded |
| 2W(L) | 90° Elbow, long, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| 15A | 21.7mm |
| 20A | 27.2mm |
| 25A | 34.0mm |
| 32A | 42.7mm |
| 40A | 48.6mm |
| 50A | 60.5mm |
| 65A | 76.3mm |
| 80A | 89.1mm |
| 100A | 114.3mm |
| 125A | 139.8mm |
| 150A | 165.2mm |
| 200A | 216.3mm |
| 250A | 267.4mm |
| | **Pipe Schedule** |
| BLANK | JIS Pipe Schedule 5 |
| T | JIS Pipe Schedule 10 |

Note: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with Reducing Tees and Concentric Reducers - specify reduced pipe size. Example for Reducing Tee: [J][B][7][R][ ][ ] - [8][0][A][ ] [ ] X [2][0][A][ ]

## PIPE

PART NO. [ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ] X4 - [ ][ ][ ]

*

| | |
|---|---|
| | **Process** |
| P1A | Pipe, Valex 101 Specification |
| | **Alloy** ***(Per Valex SP-9200)*** |
| 2S | Single-melt 304L seamless |
| 2W | Single-melt 304L welded |
| AS | Single-melt 304 seamless |
| AW | Single-melt 304 welded |
| RS | Single-melt 316L seamless |
| RW | Single-melt 316L welded |
| | **Size (O.D.)** |
| 0015A | 21.7mm, 6M length |
| 0020A | 27.2mm, 6M length |
| 0025A | 34.0mm, 6M length |
| 0032A | 42.7mm, 6M length |
| 0040A | 48.6mm, 6M length |
| 0050A | 60.5mm, 6M length |
| 0065A | 76.3mm, 6M length |
| 0080A | 89.1mm, 6M length |
| 0090A | 101.6mm, 6M length |
| 0100A | 114.3mm, 6M length |
| 0125A | 139.8mm, 6M length |
| 0150A | 165.2mm, 6M length |
| 0200A | 216.3mm, 6M length |
| 0250A | 267.4mm, 6M length |
| 0300A | 318.5mm, 6M length |
| 0350A | 355.6mm, 6M length |
| 0400A | 406.4mm, 6M length |
| 0500A | 508.0mm, 6M length |
| * 015A | 21.7mm, 4M length |
| * 020A | 27.2mm, 4M length |
| * 025A | 34.0mm, 4M length |
| * 032A | 42.7mm, 4M length |
| * 040A | 48.6mm, 4M length |
| * 050A | 60.5mm, 4M length |
| * 065A | 76.3mm, 4M length |
| * 080A | 89.1mm, 4M length |
| * 090A | 101.6mm, 4M length |
| * 100A | 114.3mm, 4M length |
| * 125A | 139.8mm, 4M length |
| * 150A | 165.2mm, 4M length |
| * 200A | 216.3mm, 4M length |
| * 250A | 267.4mm, 4M length |
| * 300A | 318.5mm, 4M length |
| * 350A | 355.6mm, 4M length |
| * 400A | 406.4mm, 4M length |
| * 500A | 508.0mm, 4M length |
| | **Pipe Schedule** |
| 05S | JIS Pipe Schedule 5 |
| 10S | JIS Pipe Schedule 10 |
| * 05 | JIS Pipe Schedule 5 |
| * 10 | JIS Pipe Schedule 10 |

Note: Not all configuration are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.

* For use only with 4-meter lengths. Example for 4-meter length pipe: P 1 A - R S - 0 2 0 A X4 - 0 5

## FITTINGS

PART NO. J A [ ] [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ] X [ ] [ ] [ ] [ ] *

| | |
|---|---|
| | **Type** |
| 2(S) | 90° Elbow, short |
| 2(L) | 90° Elbow, long |
| 2W(S) | 90° Elbow, short, welded |
| 2W(L) | 90° Elbow, long, welded |
| 2K | 45° Elbow |
| 2KW | 45° Elbow, welded |
| 7 | Equal Tee |
| 7W | Equal Tee, welded |
| 7R | Reducing Tee |
| 7RW | Reducing Tee, welded x seamless |
| 7RWW | Reducing Tee, welded x welded |
| 31 | Concentric Reducer |
| 31W | Concentric Reducer, welded x seamless |
| 31WW | Concentric Reducer, welded x welded |
| | **Size (O.D.)** |
| 15A | 21.7mm |
| 20A | 27.2mm |
| 25A | 34.0mm |
| 32A | 42.7mm |
| 40A | 48.6mm |
| 50A | 60.5mm |
| 65A | 76.3mm |
| 80A | 89.1mm |
| 100A | 114.3mm |
| 125A | 139.8mm |
| 150A | 165.2mm |
| 200A | 216.3mm |
| 250A | 267.4mm |
| | **Pipe Schedule** |
| BLANK | JIS Pipe Schedule 5 |
| T | JIS Pipe Schedule 10 |

Note: Not all configurations are available. Part number options may be subject to change. Please refer to SP-9200 at www.valex.com for the latest revision.
* For use only with Reducing Tees and Concentric Reducers - specify reduced pipe size. Example for Reducing Tee:

J A 7 R [ ] [ ] - 8 0 A [ ] [ ] X 2 0 A [ ]

**CONTROLLING PROVISIONS:**
These terms and conditions shall replace all terms and conditions of Buyer's order and of any proposal or quotation to Buyer not agreed to by Buyer and Seller prior to the date of invoice. In the absence of a written acceptance by Buyer, an acceptance of any goods covered by Buyer's order shall constitute an acceptance of these terms and conditions. No waiver, alteration or modification of these provisions shall be valid unless made in writing and signed by an officer or other authorized representative of Seller.

**PRICE, QUOTATIONS, & DISCOUNTS:**
List prices, discounts, and quotations are subject to change without notice. All orders are subject to acceptance in writing by Seller. If it is necessary to change prices after order acceptance, Buyer's approval will be obtained prior to shipment; otherwise the order will be deemed canceled. **MINIMUM ORDER:** $150.00

**TERMS:**
1% cash discount will be allowed on all invoices if paid by check dated and envelope postmarked not later than ten (10) days following date of invoice; otherwise net 30 days.
A carrying charge of 1 1/2% per month will be assessed on all overdue accounts.

**CANCELLATIONS OR ADD-ONS:**
Since all orders are individually entered for processing immediately upon receipt, Seller reserves the right to charge back to the Buyer costs incurred from either cancellation of the order or change of the order or of any item on the order. Seller also reserves the right to consider all add-ons as separate and new orders subject to all terms and conditions.

**SHIPMENTS:**
Seller will estimate the date of shipment as closely as possible and will make every effort to ship as promised but cannot and does not guarantee shipping dates. All materials sent out will be carefully examined, counted and packed. The cost of any special packing or special handling caused by Buyer's requirements or requests shall be added to the amount of the order. No claim for shortages will be allowed unless made in writing within ten (10) days of receipt of a shipment. Claims for goods damaged or lost in transit should be made on the carrier, as Seller's responsibility ceases on delivery to the carrier.

**PRODUCT RETURNS:**
In keeping with its goal of Customer satisfaction with its products, Seller agrees to supply replacement products or credit for returned goods, subject to the following return policy and procedures. Returns must be authorized in writing (Material Return Authorization Form), and will be replaced or credited, at Seller's sole discretion, subject to the articles below.

**(a) DEFECTIVE GOODS / WARRANTY**. Seller warrants for one year from the date of shipment its manufactured products to the extent that it will replace those having defects in material or workmanship when used for the purpose which Seller recommends. If Seller's examination discloses to its satisfaction that the products are defective, and an adjustment is required, the amount of such adjustment shall be the net sales price of the defective products only and no allowance will be made for labor or expense of repairing defective products or damage resulting from the same. Seller warrants the products which it sells of other manufacturers to the extent of the warranties of the respective makers. **THIS IS SELLER'S SOLE WARRANTY. SELLER MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED; AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATION STATED HEREIN ARE HEREBY DISCLAIMED BY SELLER AND EXCLUDED FROM THE WARRANTY.** Seller neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sales of its products. This warranty shall not apply to any products or parts of products which (i) have been repaired or altered outside of Seller's factory, in any manner; or (ii) have been subjected to misuse, negligence or accident; or (iii) have been used in a manner contrary to Seller's instructions or recommendations.

**(b) NON-DEFECTIVE GOODS.** If Seller determines that current business conditions permit, Seller will take return of non-defective goods, up to 10% of each line item in the purchasing contract, if request is made within 120 days of original shipment. Upon authorization, goods must, on arrival at the Seller's factory, be found to be of current design, unaltered, and in first-class saleable condition. A handling charge of 25%, or amount agreed to in the purchasing contract, whichever is greater, will be deducted from credit memoranda. If goods are found not to be in saleable condition, the cost of upgrading to saleable condition plus the handling charge will be deducted from credit memoranda; or, at Seller's sole discretion, goods may be returned to the Buyer with transportation costs at Buyer's expense.

**(c) TRANSPORTATION CHARGES.** Returned goods must arrive at the Seller's factory via common carrier or normal ground delivery service with transportation charges prepaid, FOB the Seller's factory. Goods appearing to have been damaged in transit will not be received. Transportation charges for defective goods or items shipped by Seller in error will be credited back to the Buyer.

**PRODUCT MODIFICATIONS:**
Consistent with Seller's policy of offering quality products with optimum mechanical function, Seller reserves the right to modify any product contained herein without any prior notice. Seller also reserves the right to deliver modified products in fulfillment of any accepted order unless Buyer indicates otherwise.

**COLLECTION CHARGES:**
In the event Seller incurs any expenses for collection of an overdue account, reasonable collection charges including reasonable attorney's fees will be added to the balance due, and Buyer agrees to pay said charges.

**TAXES:**
The amount of any sales, excise or other taxes, if any, applicable to the products covered by this order, shall be added to the purchase price and shall be paid by Buyer unless Buyer provides Seller with an exemption certificate acceptable to the taxing authorities.

**LABOR LAW:**
All goods herein are manufactured in accordance with Fair Labor Standards Act of 1939 as amended.

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