

SEAMLESS STAINLESS STEEL TUBE

| TYPE: STAINLESS STEEL TUBING ASTM A269 A/W 316/316L METRIC RANGE: | | | | | | | | |
|--|------|--------|-------|--------|-------|----------|--|--|
| | | | | | | | | |
| (MM) | (MM) | (PSI) | (BAR) | (PSI) | (BAR) | (KG/MTR) | | |
| 6 | 1 | 7400 | 515 | 29,800 | 2060 | 0.125 | | |
| 6 | 1.5 | 10,500 | 725 | 42,000 | 2900 | 0.169 | | |
| 8 | 1 | 5900 | 410 | 23,700 | 1640 | 0.175 | | |
| 10 | 1 | 4400 | 310 | 17,900 | 1240 | 0.255 | | |
| 10 | 1.5 | 7100 | 490 | 28,400 | 1960 | 0.319 | | |
| 10 | 2 | 9200 | 640 | 37,100 | 2560 | 0.401 | | |
| 12 | 1 | 3500 | 245 | 14,200 | 980 | 0.275 | | |
| 12 | 1.5 | 5400 | 375 | 21,700 | 1500 | 0.405 | | |
| 12 | 2 | 6900 | 480 | 27,800 | 1920 | 0.501 | | |
| 16 | 1.5 | 3500 | 245 | 14,200 | 980 | 0.545 | | |
| 16 | 2 | 5000 | 350 | 20,300 | 1400 | 0.701 | | |
| 20 | 2 | 4200 | 290 | 16,800 | 1160 | 0.901 | | |
| 25 | 2 | 3300 | 230 | 13,300 | 920 | 1.150 | | |

Special Note: The above working pressures are for guidance purposes only. Your design pressure orking shou pressure to allow for possible fluctuations of pressure during operation. This allowance should be separately determined for each application by your design department.

System Temperature

Operating temperature, is another factor in determining the proper tubing material. Stainless steel tubing is suitable for higher temperature media. Special alloys such as Alloy 600 are recommended for extremely high temperatures. The table below lists derating factors which should be applied to the recommended working pressure of tubing for elevated temperature conditions. Simply locate the correct factor in the table below and multiply this to the appropriate working pressure to achieve the elevated temperature working pressure.

| Temperature Derating Factors | | | | | | | | |
|------------------------------|------------|------------|-------|--|--|--|--|--|
| Temperature | 316 SS | 304 SS | Monel | | | | | |
| (°F) | & 6Mo | | 400 | | | | | |
| 100 | 1.00 | 1.00 | 1.00 | | | | | |
| 200 | 1.00 | .84 | .88 | | | | | |
| 300 | 1.00 | .75 | .82 | | | | | |
| 400 | .97 | .69 | .79 | | | | | |
| 500 | .90 | .65 | .79 | | | | | |
| 600 | .85 | .61 | .79 | | | | | |
| 700 | .82 | .59 | .76 | | | | | |
| 800 | .80 | .56 | .76 | | | | | |
| 900 | .78 | .54 | | | | | | |
| 1000 1100 | .77 .62 | .52 .47 | | | | | | |
| 1200 | .37 | .32 | | | | | | |

Example: 1/2" x 1.0 wall seamless stainless steel tubing has a working pressure of 245 bar @ room temperature. If the system were to operate @ 800° F, a factor of 80% (or .80) would apply (see Table left) and the "at temperature" system pressure would be 245 bar x .80 = 196 bar.

OTHER SIZES AVAILABLE ON REQUEST