Fittings and Tubing - Low Pressure Tubing



Pressures to 15,000 psi (1034 bar)

Parker Autoclave Engineers offers a complete selection of annealed, seamless stainless steel tubing designed to match the performance standards of Parker Autoclave low pressure valves and fittings. Parker Autoclave Engineers low pressure tubing is furnished in random lengths between 20 feet (6 meters) and 26.5 feet (8.0 meters). The average is 24 feet (7.3 meters). The tubing is available in five sizes and a variety of materials. In order to ensure proper sleeve "bite" into tubing, Parker Autoclave Engineers specifies and controls the strength levels of both the tube and sleeve materials.

Inspection and Testing

Parker Autoclave Engineers low pressure tubing is inspected for compliance with specified defect restrictions as well as carburization or intergranular carbide precipitation. The tubing outside diameter and wall thickness is controlled within close tolerance to assure proper fit. Sample pieces of tube (for each lot) are tested to confirm mechanical properties for proper compression sleeve "bite" and pressure capability. Furthermore, the sample tubes are pressure tested as a final check.

Special Materials

In addition to the type 316/316L and 304/304L stainless steel tubing listed in this section, Parker Autoclave Engineers has a limited stock of hard-to-obtain shorter lengths of the following
tubing materials:

Monel 400, Inconel 600*, Titanium Grade 2*, Nickel 200*, Hastelloy C276** - (* Trademark names)

Please consult factory for stock availabilty.

Tubing Tolerance

Nominal Tubing Size inches (mm)	Tolerance/Outside Diameter inches (mm)
1/16 (1.59)	.064/.062 (1.62/1.57)
1/8 (3.18)	.128/.125 (3.25/3.18)
1/4 (6.35)	.254/.250 (6.45/6.35)
3/8 (9.53)	.379/.375 (9.74/9.53)
1/2 (12.70)	.505/.500 (12.83/12.70)

Catalog Number	Tube Materials	Fits Connection Type	Tube Size Inches (mm) Outside Diameter	Inside Diameter	Wall Thickness	Flow Area in.² (mm²)	Working Pressure psi (bar)* 0 - 100°F -17.8 to 37.8°C	200°F 93°C	400°F 204°C	600°F 316°C	650°F 343°C
MS15-070	316SS	W062	1/16 **(1.59)**	0.026 **(0.66)**	0.018 **(0.46)**	0.0005 **(0.32)**	15,000 **(1034.20)**	15,000 **(1034.20)**	14,400 **(992.83)**	13,600 **(937.67)**	12,600 **(868.73)**
MS15-200	316SS	W125	1/8 **(3.18)**	0.052 **(1.32)**	0.036 **(0.91)**	0.002 **(1.29)**	15,000 **(1034.20)**	15,000 **(1034.20)**	14,400 **(992.83)**	13,600 **(937.67)**	12,600 **(868.73)**
MS15-166†	304SS			0.069 **(1.75)**	0.028 **(0.71)**	0.004 **(2.58)**	9,950 **(686.02)**	9,400 **(648.10)**	8,550 **(589.49)**	8,450 **(582.60)**	8,000 **(551.57)**
MS15-203	316SS	W250 or SW250	1/4 **(6.35)**	0.084 **(2.13)**	0.083 **(2.11)**	0.029 **(18.71)**	15,000 **(1034.16)**	15,000 **(1034.16)**	14,400 **(992.83)**	13,600 **(937.67)**	12,600 **(868.73)**
MS15-055	316SS			0.125 **(3.18)**	0.062 **(1.57)**	0.012 **(7.74)**	11,650 **(803.23)**	11,650 **(761.86)**	11,250 **(775.65)**	10,600 **(730.83)**	9,850 **(679.12)**
MS15-161†	304SS			0.180 **(4.57)**	0.035 **(0.89)**	0.026 **(16.77)**	5,450 **(375.76)**	5,150 **(355.07)**	4,700 **(324.05)**	4,600 **(317.15)**	4,400 **(303.36)**
MS15-069	316SS			0.180 **(4.57)**	0.035 **(0.89)**	0.026 **(16.77)**	5,450 **(375.76)**	5,450 **(375.76)**	5,250 **(361.97)**	4,950 **(341.29)**	4,600 **(317.15)**
MS15-158†	304SS			0.194 **(4.93)**	0.028 **(0.71)**	0.029 **(18.71)**	4,600 **(317.15)**	4,350 **(299.92)**	3,950 **(272.34)**	3,900 **(272.34)**	3,700 **(255.10)**
MS15-204	316SS	W375 or SW375	3/8 **(9.53)**	0.139 **(3.53)**	0.118 **(3.00)**	0.015 **(9.79)**	15,000 **(1034.16)**	15,000 **(1034.16)**	14,400 **(992.83)**	13,600 **(937.67)**	12,600 **(868.73)**
MS15-184	304SS			0.195 **(4.95)**	0.090 **(2.29)**	0.030 **(19.35)**	10,000 **(689.46)**	9,400 **(648.10)**	8,600 **(592.94)**	8,500 **(586.05)**	8,450 **(582.60)**
MS15-084	316SS			0.195 **(4.95)**	0.090 **(2.29)**	0.030 **(19.35)**	10,000 **(689.46)**	10,000 **(689.46)**	9,650 **(665.33)**	9,000 **(620.52)**	8,400 **(579.15)**
MS15-155†	304SS			0.250 **(6.35)**	0.062 **(1.57)**	0.049 **(31.61)**	7,500 **(517.10)**	7,100 **(489.52)**	6,450 **(444.70)**	6,350 **(437.81)**	6,050 **(417.13)**

All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.

Catalog Number	Tube Materials	Fits Connection Type	Tube Size Inches (mm)			Flow Area in.² (mm²)	Working Pressure psi (bar)*				
			Outside Diameter	Inside Diameter	Wall Thickness		0 - 100°F -17.8 to - 37.8°C	200°F 93°C	400°F 204°C	600°F 316°C	650°F 343°C
MS15-062	316SS	W375 or SW375	3/8 **(9.53)**	0.250 **(6.35)**	0.062 **(1.57)**	0.049 **(31.61)**	7,500 **(517.10)**	7,500 **(517.10)**	7,200 **(496.41)**	6,800 **(468.84)**	6,300 **(434.36)**
MS15-162†	304SS			0.305 **(7.75)**	0.035 **(0.89)**	0.073 **(47.10)**	3,800 **(262.00)**	3,550 **(244.76)**	3,250 **(224.08)**	3,200 **(220.63)**	3,050 **(210.29)**
MS15-205	316SS	W500 or SW500	1/2 **(12.70)**	0.270 **(6.86)**	0.118 **(3.00)**	0.055 **(35.48)**	10,000 **(689.46)**	10,000 **(689.46)**	9,650 **(665.33)**	9,000 **(620.52)**	8,400 **(579.15)**
MS15-208†	304SS			0.270 **(6.86)**	0.118 **(3.00)**	0.055 **(35.48)**	10,000 **(689.46)**	9,400 **(648.10)**	8,600 **(592.94)**	8,500 **(586.05)**	8,450 **(582.60**
MS15-065	316SS			0.375 **(9.53)**	0.062 **(1.57)**	0.110 **(70.97)**	5,500 **(379.21)**	5,500 **(379.21)**	5,250 **(361.97)**	4,950 **(341.29)**	4,600 **(317.15)**
MS15-165†	304SS			0.402 **(10.21)**	0.048 **(1.22)**	0.127 **(81.94)**	4,000 **(275.79)**	3,750 **(258.55)**	3,400 **(234.42)**	3,400 **(234.42)**	3,200 **(220.63)**

*Maximum pressure rating is based on the lowest rating of any component.
Actual working pressure may be determined by tubing pressure rating, if lower.

†Items are being discontinued. Contact the factory for available stock

All dimensions for reference only and subject to change.
For prompt service, Parker Autoclave Engineers stocks select products.
Consult your local representative.