Parker Hannifin Instrument Tubing

Parker now offers quality-assured seamless stainless steel tubing

The ABILITY to provide the total instrumentation tubing packages!

When you want to reduce the risk of leakage in your hydraulic and instrumentation system, consider Parker seamless stainless steel tubing.

Every step of the tube production is controlled to ensure consistent quality. Parker tubing are characterized by the ovality, concentricity and hardness limits required for superior performance in hydraulic and instrumentation system applications, plus Parker tubing offers the high surface smoothness and close dimensional tolerances needed to ensure there are no leakages when connected with Parker fittings.

Let's engineer your cost savings with Parker seamless stainless steel tubing.

Product Features:	Product Benefits:
·A complete package of tube fittings and tubing via a single order	·The installer ONLY needs to develop ONE source for products ·Reduce your vendors
·Weldability	·Controlled and consistent quality of steel grades provide easy welding
·Plugged ends	·Protection of tube ends and ID from environments contamination
·Superior OD Finish and Close tolerances	·Ensure a high integrity system with Parker tubing and fittings
·Strictly controlled ovality, concentricity and hardness	·Superior performance in a wide variety of system applications, temperatures and pressures.
·High cleanness of Tubing Inside	·Suitable for clean environment application
·Parker branded for quality assure	·Easy to identify brand and tubing specifications along the full length of the tubing

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Parker

ENGINEERING YOUR SUCCESS.

Ordering Information and Dimension

Tube OD inch	Nominal Wall Thickness inch	Basic Ordering Number Std Instrumentation Tubing	Weight kg / m
1/8”	0.028”	TUBE 1/8X.028-SS	0.04
1/4"	0.035”	TUBE 1/4X.035-SS	0.12
	0.049”	TUBE 1/4X.049-SS	0.16
3/8”	0.035”	TUBE 3/8X.035-SS	0.19
	0.049”	TUBE 3/8X.049-SS	0.26
	0.065”	TUBE 3/8X.065-SS	0.33
1/2"	0.035”	TUBE 1/2X.035-SS	0.26
	0.049”	TUBE 1/2X.049-SS	0.36
	0.065”	TUBE 1/2X.065-SS	0.46
3/4"	0.049”	TUBE 3/4X.049-SS	0.55
	0.065”	TUBE 3/4X.065-SS	0.72
	0.083”	TUBE 3/4X.083-SS	0.90
	0.095”	TUBE 3/4X.095-SS	1.01
	0.105”	TUBE 3/4X.105-SS	1.10
1”	0.065”	TUBE 1X.065-SS	0.98
	0.083”	TUBE 1X.083-SS	1.23

Tube OD MM	Nominal Wall Thickness MM	Basic Ordering Number Std Instrumentation Tubing	Weight kg / m
3	0.71	TUBE 3MMX0.71-SS	0.04
6	1.00	TUBE 6MMX1.0-SS	0.13
	1.50	TUBE 6MMX1.5-SS	0.17
8	1.00	TUBE 8MMX1.0-SS	0.18
	1.50	TUBE 8MMX1.5-SS	0.24
10	1.00	TUBE 10MMX1.0-SS	0.23
	1.50	TUBE 10MMX1.5-SS	0.32
12	1.00	TUBE 12MMX1.0-SS	0.28
	1.50	TUBE 12MMX1.5-SS	0.40
	2.00	TUBE 12MMX2.0-SS	0.50
14	2.00	TUBE 14MMX2.0-SS	0.60
	2.50	TUBE 14MMX2.5-SS	0.72
16	1.50	TUBE 16MMX1.5-SS	0.54
	2.00	TUBE 16MMX2.0-SS	0.70
18	1.50	TUBE 18MMX1.5-SS	0.62
	2.00	TUBE 18MMX2.0-SS	0.80
20	2.00	TUBE 20MMX2.0-SS	0.90
22	2.00	TUBE 22MMX2.0-SS	1.00
25	2.00	TUBE 25MMX2.0-SS	1.15
	2.50	TUBE 25MMX2.5-SS	1.41

Term Definition:

SS : 316/316L Cold Drawn Tubing
TUBE : Seamless Tubing
TUBE Nominal Length : 6 meters / EA

Material Standards:

Grade : 316 / 316L
UNS: S31603
ASTM: A213/A269
ASME : SA213

Chemical Composition:

Element	Composition , wt . %
Chromium	16.0 - 18.0
Nickel	10.0 - 15.0
Molybdenum	2.00 - 3.00
Manganese	2.00 max
Silicon	0.75 max
Carbon	0.07 max
Sulfur	0.03 max

How to Order Tubing

TUBE 3MMX0.71 - SS

Tubing | OD X WT | Material Stainless Steel

If you need the **Cold Rolling Tubing** Add the suffix **“ – CR ”** to the end of the part number

Dimensional Tolerances

Tolerances according to ASTM A213/A269

Product	Size	Tolerances OD mm	Tolerances ID mm	Wall Thickness
Standard Instrumentation Tubing	1/8"-1"	±0.05 mm	±0.05 mm	±10
	3 mm - 25 mm	±0.05 mm	±0.05 mm	±10
Cold Rolling Tubing	1/8"-1"	±0.08 mm	±0.12 mm	±10
	3 mm – 25 mm	±0.08 mm	±0.12 mm	±10

Cleaning and Packaging

Product	ID Finish
Standard Instrumentation Tubing	Standard Finish (Reference ASTM A269)
Cold Rolling Tubing	0.5 um Ra Max

All of Tubing ends are protected with polyethylene caps.

Standard Instrumentation Tubing is bulk packed in polyethylene, heat-sealed bags.

Cold Rolling Tubing is packed in single polyethylene, heat-sealed bags.

Instrument Tubing Selection Guide

316/316L Stainless Steel (Seamless) Maximum Allowable Working Pressure Rating Table psi

Tube OD Size	Wall Thickness inch															
	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/16	5600	6900	8200	9500	12100	16800										
1/8 3/16 1/4						8600 5500 4000	10900 7000 5100	10300 7500	10300							
5/16 3/8 1/2							4100 3300 2600	5900 4800 3700	8100 6600 5100	6700						
5/8 3/4 7/8								3000 2400 2100	4000 3300 2800	5200 4300 3600	6100 5000 4200	5800 4900				
1 1-1/4 1-1/2									2400	3200 2500	3700 2900 2400	4200 3300 2700	4700 3700 3000	4700 3700 3000	4900 4000	4500
2												2000	2200	2500	2900	3200

Remark: Ratings in gray not suitable for gas service.

Putting it all together

Parker has the fittings, tools, and training to help reduce the risk of system leaks.

The Fittings

Four flareless fitting innovations allow users to make tubing connections faster, smarter, cleaner, and safer; with improvements ranging from lower bill of material costs and faster assembly to fewer potential leak paths, lower emissions, and longer life.

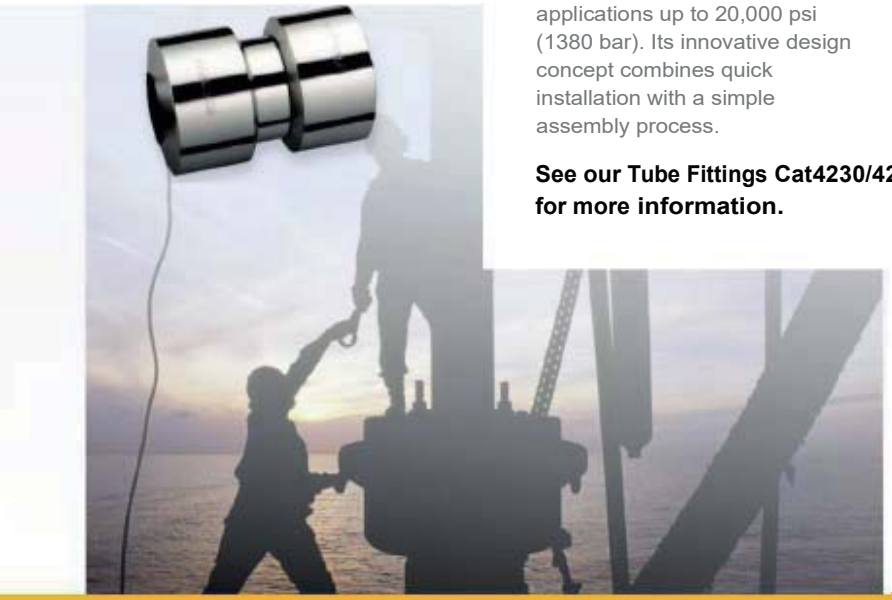
- **A-LOK®:** A twin-ferrule compression fitting that dominates low-pressure applications up to 6,000 psi(414 Bar), aided by the unique anti-corrosion performance of its Suparcase®-treated ferrule.

- **CPI™:** Delivers a single-ferrule version (Suparcase®-treated) of the industry standard twin-ferrule fitting, reducing potential leak paths.

- **MPI™:** Brings the Suparcase®-treated ferrule compression assembly principle to medium pressures, providing a time-and cost-saving alternative to cone and thread fittings for applications up to 15,000 psi (1034 bar).

- **Phastite®:** A ferrule-less, push-fit connector that can be used in applications up to 20,000 psi (1380 bar). Its innovative design concept combines quick installation with a simple assembly process.

See our Tube Fittings Cat4230/4233 for more information.



The Tubing Tools

Parker offers a comprehensive selection of hand-operated tools for fabricating small bore tubing runs. Available for a broad spectrum of instrumentation tubing sizes, the tools include seven heavy-duty tube benders, a cutter, a deburrer tool, a sawing vise with an integral hacksaw guide, and inspection gauges. The tools are key to reliable, leak-free assembly, easily providing accurate, tight radius bends of up to

180 degrees on soft copper, aluminum, brass, steel, and stainless steel tubing.

See our Tube Fabricating Equipment Cat 4290 for more information.

The Training

Parker's Tube Fabrication Training Seminar can teach anybody the right way to measure, cut, and bend tubing. The class is designed to demonstrate the proper method of installing tube fittings in various system applications. Attendees will learn the right way to measure, cut, and bend tubing, as well as the correct tube fitting make-up and remake procedures. Plus all attendees will receive a free training guide.

See our Tube Fitting installation manual Bul 4200-B4 for more information.