

High Purity Stainless Steel Tubing



FITOK
Valves and Fittings

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1 High-purity Stainless Steel Tubing

Features

- ⦿ 316L stainless steel
- ⦿ Available in sizes from 1/4" to 1 1/2" in. outside diameter; metric sizes from 6 mm to 18 mm
- ⦿ ASTM A269 compliant
- ⦿ Automatic orbital welding applicable
- ⦿ Electropolished internal surface with roughness not exceeding 10 µin. (0.25 µm)
- ⦿ Purged with filtered nitrogen after ultrasonic cleaning
- ⦿ Packed in double polyethylene bags in clean room
- ⦿ Each tube marked with size, material type and heat number

Technical Data

⦿ Material

Grade	UNS	ASTM
316L	S31603	A269

⦿ Chemical Composition

Technology Grade	C [⊙]	Mn	P	S	Si	Ni	Cr	Mo
BA	≤ 0.035	≤ 2.00	≤ 0.045	≤ 0.03	≤ 0.75	10.0 - 15.0	16.0 - 18.0	2.0 - 3.0
EP	≤ 0.035	≤ 2.00	≤ 0.045	≤ 0.01	≤ 0.75	10.0 - 15.0	16.0 - 18.0	2.0 - 3.0

Wt. %

① The carbon content of tubing with outside diameter smaller than 1/2 inch is allowed up to 0.04%

⦿ Working Pressure

Working pressures are calculated according to ASME B31.1 and B31.3 at ambient temperature. For more information, please refer to the FITOK Catalog *Tubing and Pipes*.

⦿ Technology Grade

Process	Bright Annealing	Electropolishing
Process Designator	BA	EP

⦿ Roughness

Technology Grade	Internal Surface	External Surface
BA	Ra ≤ 15 µin. (0.38 µm)	Ra ≤ 63 µin. (1.6 µm)
EP	Ra ≤ 10 µin. (0.25 µm)	

Ordering Information

Select a basic ordering number. Add a process designator to the basic ordering number to get a complete ordering number.

Example: 6L-ST4-035-20-BA

Fractional

Tube O.D. (in.)	Nominal Wall Thickness (in.)	Basic Ordering Number	Length (ft)	Weight (lb/ft)
1/4	0.035	6L-ST4-035-20-□□	20	0.081
3/8	0.035	6L-ST6-035-20-□□		0.127
1/2	0.049	6L-ST8-049-20-□□		0.242
3/4	0.065	6L-ST12-065-20-□□		0.484
1	0.065	6L-ST16-065-20-□□		0.672
1 1/2	0.065	6L-ST24-065-20-□□		1.020

Tube O.D. (in.)	Nominal Wall Thickness (in.)	Basic Ordering Number	Length m(ft)	Weight (kg/m)
1/4	0.035	6L-ST4-035-6M-□□	6 (19.7)	0.12
3/8	0.035	6L-ST6-035-6M-□□		0.19
1/2	0.049	6L-ST8-049-6M-□□		0.37
3/4	0.065	6L-ST12-065-6M-□□		0.73
1	0.065	6L-ST16-065-6M-□□		1.02
1 1/2	0.065	6L-ST24-065-6M-□□		1.54

Metric

Tube O.D. (mm)	Nominal Wall Thickness (mm)	Basic Ordering Number	Length m(ft)	Weight (kg/m)
6	1.0	6L-ST6M-1.0-6M-□□	6(19.7)	0.12
8	1.0	6L-ST8M-1.0-6M-□□		0.18
10	1.0	6L-ST10M-1.0-6M-□□		0.23
12	1.0	6L-ST12M-1.0-6M-□□		0.28
18	1.5	6L-ST18M-1.0-6M-□□		0.62

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Tube O.D. (mm)	Nominal Wall Thickness (mm)	Basic Ordering Number	Length (ft)	Weight (lb/m)
6	1.0	6L-ST6M-1.0-20-□□	20	0.081
8	1.0	6L-ST8M-1.0-20-□□		0.121
10	1.0	6L-ST10M-1.0-20-□□		0.154
12	1.0	6L-ST12M-1.0-20-□□		0.188
18	1.5	6L-ST18M-1.0-20-□□		0.417

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