Valves

# **T20D Series Tubing**

#### **Features**

- O Material: 316/316L, enhanced-316/316L
- O Working pressure up to 20,000 psig (1379 bar)
- Working temperature: -325°F to 800°F (-198°C to 427°C)
- O Cold-drawn 1/8-hard seamless tubing
- For use with FITOK 20D series (formerly DHL series) tube fittings
- Marked with brand, material grade, specification, pressure and heat number
- O Standard length: 20 ft and 6 m



#### **Materials**

UNS	Grade	FITOK Designator	Composition %							
			С	Mn	Р	S	Si	Cr	Ni	Мо
S31600/S31603	316/316L	SS	0.035	- ≤2.00	< 2.00 < 0.045	≤0.03	≤1.00	16-18	10-14	2.0-3.0
Enhanced- S31600/S31603	Enhanced- <sup>①</sup> 316/316L	SH	0.030		0   <0.045			17-18	12-14	2.6-3.0

① Enhanced-316/316L complying with GB50516-2021 Technical Code for Hydrogen Fuelling Station is available, in which Nieq is not less than 28.5%. Leave a note for your requirements when placing order.

## **Mechanical Properties**

UNS	Grade	Yield Strength ksi	Tensile Strength ksi	Elongation %	Hardness
S31600/S31603	316/316L	87 to 110	105 to 140	≥25	≤26 HRC
Enhanced- S31600/S31603	Enhanced- 316/316L	87 10 110			

### **Dimensional Tolerance**

Tube O.D. in.	O.D. Tolerance in.	Wall Thickness Tolerance %
1/4		
3/8		
1/2	+/-0.005	+/-10
9/16		
3/4		



## **Working Pressure at Ambient Temperature**

Tube O.D. in.	Wall Thickness Tolerance in.	Working Pressure <sup>①</sup> psig (bar)
1/4	0.065	
3/8	0.083	
1/2	0.109	20,000 (1379)
9/16	0.125	
3/4	0.165	

① Working pressures are calculated from an S value of 50,000 psi (344 MPa) at -20 to 100°F (-28 to 38°C) for ASME B31.3 Chapter IX High Pressure Piping.

## **Elevated Temperature Factors**

Tempe			
°F	°C	Factor	
100	38		
200	93	1.00	
300	149		
400	204	0.96	
500	260	0.89	
600	316	0.85	
700	371	0.81	
800	427	0.79	

# **Ordering Information**

Tube O.D. in.	Wall Thickness in.	Ordering Number <sup>①②</sup>		
1/4	0.065	□□-T20D-4-065-6M	□□-T20D-4-065-20	
3/8	0.083	□□-T20D-6-083-6M	□□-T20D-6-083-20	
1/2	1/2 0.109		□□-T20D-8-109-20	
9/16	0.125	□□-T20D-9-125-6M	□□-T20D-9-125-20	
3/4	0.165	□□-T20D-12-165-6M	□□-T20D-12-165-20	

 $<sup>\</sup>textcircled{1}$  In the ordering number, "6M" designates tubing length of 6 meters; "20" designates tubing length of 20 feet.



② To order, add the appropriate material designator as prefix: SS for 316/316L and SH for enhanced-316/316L.