

## T20D Series

### Features

- ⦿ Materials: 316/316L, enhanced-316/316L
- ⦿ Working pressures: up to 20,000 psig (1379 bar)
- ⦿ Working temperature: -325°F to 800°F (-198°C to 427°C)
- ⦿ Supply conditions: cold-drawn 1/8-hard seamless tubing
- ⦿ For use with FITOK 20D series tube fittings
- ⦿ Marked with brand, material grade, specification, pressure and heat number
- ⦿ Standard length: 40 in, 80 in, 10 ft, 20 ft, 1 m, 2 m, 3 m and 6 m  
Customized length as per customer requirement is also available



### Materials

UNS	Grade	FITOK Designator	Composition %							
			C	Mn	P	S	Si	Cr	Ni	Mo
S31600/S31603	316/316L	SS	≤0.035	≤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	≤0.03					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 Ni<sub>eq</sub> is not less than 28.5%. Contact FITOK Group for more information.

### Mechanical Properties

UNS	Grade	Yield Strength ksi	Tensile Strength ksi	Elongation %	Hardness
S31600/S31603	316/316L	75 to 110	105 to 140	≥25	≤26 HRC
Enhanced-S31600/S31603	Enhanced-316/316L				

### Dimensional Tolerance

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

## Working Pressure at Ambient Temperature

Working pressures are calculated in accordance with ASME B31.3 Chapter IX High Pressure Piping.

Tube O.D. in.	Wall Thickness in.	Working Pressure psig (bar)
1/4	0.065	20,000 (1,379)
3/8	0.083	
1/2	0.109	
3/4	0.165	
1	0.172	17,800 (1,220)

## Elevated Temperature Factors

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

## Ordering Information

Tube O.D. in.	Wall Thickness in.	Ordering Number <sup>①②③</sup>	
1/4	0.065	□□-T20D-4-065-6M	□□-T20D-4-065-20F
3/8	0.083	□□-T20D-6-083-6M	□□-T20D-6-083-20F
1/2	0.109	□□-T20D-8-109-6M	□□-T20D-8-109-20F
3/4	0.165	□□-T20D-12-165-6M	□□-T20D-12-165-20F
1	0.172	□□-T20D-16-172-6M	□□-T20D-16-172-20F

① In the ordering number, "6M" designator refers to 6 m tubing length and "20F" designator refers to 20 ft tubing length.

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

③ Cold-drawn 1/8-hard seamless tubing is not used with 15S series single-ferrule tube fittings.