

Pressure Rating

The informed pressure rating in this catalogue is obtained by the calculation with the allowable stress 20,000 psig (1,378 bar) of stainless steel 316 at -20°F (-28°C) to 100°F (37°C) according to ASME B31.3 and B31.1 code.

The pressure derating factors are greater than 100°F (37°C) shall be determined from these pressure code and is listed in the table 1.

To obtain the adequate pressure rating at the temperature is higher than the 100°F (37°C) in accordance with ASME B31.3 and B31.1 code, that shall be multiply the pressure rating on this catalogue by the factor in the table 1.

Table 1. Derating Factor

Material	SS 316	SS 316L
Temperature °F (°C)	Derating Factor	
-20 (-28) ~ 100 (37)	1.00	1.00
~ 200 (93)	1.00	0.83
~ 400 (204)	0.96	0.77
~ 600 (315)	0.85	0.67
~ 800 (426)	0.79	0.62
~ 1000 (537)	0.76	0.56

Material

Material	Designation	Specificatoin	
		Bar stock	Forging
Stainless Steel 316	S	ASME SA479 ASTM A479 / A276	ASME SA182 ASTM A182
Stainless Steel 316L	L		
Stainless Steel 316L Single Vacuum Melting	SL		
Stainless Steel 316L Double Vacuum Melting	DL		

Cleaning & Packing

Passivation is done in accordance with ASTM A380 and the Ultra-sonic cleaning in clean room (class 100) is implemented with resistivity over 18MΩ D.I water after finishing the passivation for precision cleaning. After Cleaning, the product shall be double packed in the clean room within anti-static polyethylene bags where let high purity nitrogen in.

Surface Roughness

Grade	Designation	Roughness, Ra
BA	Nil	10 µin. (0.25µm)

Feature

- Proper design for tube fitting in the small space
- Optimised gap between the parts for tube fitting
- Flow capacity to be equivalent to the conventional big size welding fitting

Rounded Edge : all edges of the product are rounded for safety handling and preventing to damage the other products

Material Heatcode : marked on the product for easy raw material traceability

Laser Marking : Part number, material and the grade of surface roughness are marked on the body for easy identification

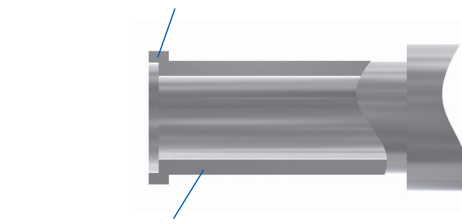


Standard surface roughness is 10 µin. (0.25µm)

For automatic tube butt welding, integral filler ring can be applicable for proper alignment

Sharp and burr-free tube end :

Radiused Junction : pockets and entrapment zones in the junction portion are eliminated for the smooth flow transition



Accurately machined diameter dimension conforms to tube diameter