

Pipe Threads & Pressure Ratings

Many BFO tube fittings have a male or female pipe end. These ends sometimes have a lower pressure rating than the pressure rating of the tube fitting end.

Table 9: Pipe End Pressure Rating

Size /Designator	ISO/NPT Pipe Size	316 Stainless Steel			
		Male		Female	
		PSIG	BAR	PSIG	BAR
1	1/16	14,000	965	6,600	455
2	1/8	10,000	689	6,400	441
4	1/4	8,300	572	6,500	448
6	3/8	10,000	689	5,200	358
8	1/2	7,800	537	4,800	331
12	3/4	7,500	517	4,600	317
16	1	5,300	365	4,400	303
20	1-1/4	6,200	427	5,000	345
24	1-1/2	5,100	351	4,500	310
32	2	4,000	276	3,900	269

- The ratings shown above are based on ASME B31.3-1999
- Female pipe ends have lower ratings than male pipe in a given size due to the inner and outer diameters of female threads being larger than those of male pipe ends.
- The ratings above are for reference only.

Pipe Thread Sealant

Pipe thread sealant is essential to ensure a leak-free seal. Since the Teflon Tape is commonly used, we provide information of recommended tape width as well as the numbers of thread to be wrapped. The Teflon Tape fills the voids between threads and prevents galling on pipe threads. The sealant usually contains lubricant.

Table 10: Pipe End Pressure Rating

Nominal Pipe Size	Recommended Tape Width	Effective Thread Length (External) L*	Approx. # of Threads
1/8	1/8-1/4	0.2639	7
1/4	1/4	0.4018	7-1/4
3/8	1/4	0.4075	7-1/3
1/2	1/4-1/2	0.5337	7-1/2
3/4	1/4-1/2	0.5457	7-2/3
1	1/4-1/2	0.6828	8

*ASME B1.201-NPT

Note 1. Wrap Teflon Tape clockwise from the first thread. Do not overhang the first thread, as the tape may get into the fluid system.

Note 2. Teflon Tape has a temperature limit of 230°C (450°F)

Pressure Equivalents:

1 bar = 100 kPa = 14.503 psi 1 kPa = 0.01 bar = 0.145 psi

1 psi = 0.069 bar = 6.89 kPa 1 kg/cm² = 0.98 bar = 14.22 psi

***The information shown in these tables are not for design purpose – but for reference only. The accuracy of the information is not the liability of BFO.**

*All dimensions are in millimeters unless otherwise specified and only for reference subject to change

TABLE 17- Elastomer Seal temperature Ratings

Elastomer O-Ring	Rating
NBR	-40 to 110°C (-40 to 230°F)
FKM	-28 to 204°C (-18 to 400°F)
FFKM (Kalrez®)	-30 to 275°C (-22 to 527°F)

Care must be taken as fitting with elastomer O-ring seal may have lower temperature rating.
Kalrez®: DupPont™