

PIPE THREAD SPECIFICATIONS

Tylok Pipe Fittings are manufactured from materials meeting applicable ASTM or ASME specifications, with pipe threads which meet or exceed ANSI B1.20.1 requirements. Strict quality control procedures are followed throughout production. All parts are individually inspected to provide the finest possible product.

Materials: Brass ■ Steel ■ 316 Stainless Steel
Aluminum ■ Others materials available as special order

Suggested Maximum Operating Pressures for Male Pipe Threads

NPT Size	316 Stainless Steel PSI Rating	Brass PSI Rating	Steel PSI Rating
1/16"	10,100	5,700	10,500
1/8"	9,200	5,300	9,800
1/4"	7,500	4,100	8,000
3/8"	7,250	4,000	7,700
1/2"	6,900	3,900	7,300
3/4"	6,600	3,700	7,000
1"	5,000	2,700	5,000

Suggested Maximum Operating Pressures for Female Pipe Threads

NPT Size	316 Stainless Steel PSI Rating	Brass PSI Rating	Steel PSI Rating
1/16"	6,200	3,500	6,800
1/8"	6,000	3,400	6,600
1/4"	6,100	3,300	6,500
3/8"	5,000	2,700	5,400
1/2"	4,700	2,500	4,800
3/4"	4,300	2,400	4,600
1"	4,100	2,300	4,500

These charts are to be used as a guide only and are based on normal wall thicknesses, used for the various sizes. These ratings may vary widely from effects such as the proper use of sealants, size of stock, temperature, corrosion factors, etc. Therefore, Tylok International, Inc., assumes no responsibility for its accuracy in any individual design.

TEMPERATURE RATINGS

The standard Tylok Instrumentation Fittings are rated at the following temperatures:

316 Stainless -325°F to 1200°F (-198°C to 648°C) Brass -40°F to 400°F (-40°C to 204°C) Steel¹ -65°F to 400°F (-54°C to 204°C) Aluminum -40°F to 400°F (-40°C to 204°C)

Note: Consideration should be given to maximum temperature ratings if fittings and/or tubing are coated or plated.

¹Special attention should be considered when selecting coated and/or plated materials such as Steel.

TUBE PRESSURE RATINGS AT ELEVATED TEMPERATURES

The following table lists multiplier factors that must be considered in applications above that of ambient temperatures.

Temperatures		Multiplier Factors				
°F	°C	304 SS	316 SS	Carbon Steel	Brass	Aluminum
200	93	1.00	1.00	.95	.80	1.00
400	204	.94	.97	.86	.50	.40
600	315	.82	.85	.77		
800	427	.76	.80	.59		
1000	538	.69	.77			
1200	649	.30	.37			

Example

Type 316 Stainless Steel 1/4" O.D. x .049" wall at 800°F is...

$$7,500 \text{ PSI} \times .80 = \underline{6,000 \text{ PSI}}$$

Therefore, the maximum allowable working pressure for 316 Stainless Steel - 1/4" O.D. with .049" tube wall - at 800°F is 6,000 PSI.

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