

**GUIDELINE FOR DETERMINING THE MAXIMUM WORKING PRESSURE IN PSI,
CALCULATIONS ARE BASED ON 2014 ASME B31.1 POWER PIPING CODE**

SEAMLESS ASTM A106 Grades B & C / ASTM A53 Type S GRADE B				
	SCHEDULE 40		SCHEDULE 80	
NPS	PLAIN END	THREADED	PLAIN END	THREADED
1/8	6700	3350	9800	6200
1/4	6400	2800	9100	5150
3/8	5150	2400	7500	4450
1/2	4900	2050	7000	3900
3/4	4050	1800	5700	3300
1	3800	1600	5250	3000
1 ¼	3150	1450	4350	2600
1 ½	2800	1350	3950	2450
2	2350	1200	3400	2200
	SCHEDULE 160		SCHEDULE XXS	
NPS	PLAIN END	THREADED	PLAIN END	THREADED
1/2	9300	5950	16200	12100
3/4	8550	5900	12950	9900
1	7650	5200	11750	8900
1 ¼	5900	4000	9550	7450
1 ½	5750	4150	8600	6800

A SAFETY FACTOR SHOULD ALWAYS BE INCULDED WHEN USING THE ABOVE PRESSURES. WORKING PRESSURES ARE THEORETICAL; THE ACTUAL WORKING PRESSURE MAY VARY BASED ON DESIGN CALCULATIONS.

<u>Safety Factor</u>	<u>Multiplier</u>
5	0.80
6	0.67
7	0.57
8	0.50
9	0.44
10	0.40

A safety factor of 8 would be suitable for the majority of applications, local codes or specific applications may require a higher safety factor. A piping design engineer should be consulted for specific applications. To determine a safe working pressure using a safety factor, multiply the values found in the tables by one of the above multipliers.

Note:

1. The pressures listed are based on the 2014 ASME B31.1 Power Piping Code.
2. No provision is made for abnormal or unusual conditions
3. No allowance for the coupling design or limitations
4. No allowance for the thinning of the pipe wall due to corrosion, bending etc.
5. Temperature rating: -20 degrees to 400 degrees Fahrenheit.

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