

**GUIDELINE FOR DETERMINING THE MAXIMUM WORKING PRESSURE IN PSI,
 CALCULATIONS ARE BASED ON 2020 ASME B31.1 POWER PIPING CODE**

CONTINUOUS WELD PIPE ASTM A 53 TYPE F GRADE A, APL5L GRADE A25 PSL 1				
NPS	SCHEDULE 40		SCHEDULE 80	
	PLAIN END	THREADED	PLAIN END	THREADED
1/4	2600	1150	3700	2100
3/8	2100	950	3000	1800
1/2	2000	850	2850	1600
3/4	1650	750	2350	1350
1	1550	650	2150	1200
1 ¼	1300	600	1750	1050
1 ½	1150	550	1600	1000
2	950	500	1400	900
2 ½	1050	500	1450	850
3	900	450	1300	800
3 ½	850	400	1200	800
4	750	400	1100	750

ELECTRIC RESISTANCE WELD PIPE ASTM A 53 GRADE B & API 5L GRADE B PSL 1				
NPS	SCHEDULE 40		SCHEDULE 80	
	PLAIN END	THREADED	PLAIN END	THREADED
2	1700	850	2500	1600
2 1/2	1900	850	2600	1550
3	1650	800	2300	1450
3 1/2	1500	750	2100	1400
4	1400	750	2000	1350
5	1200	700	1800	1300
6	1100	650	1750	1300
8	1000	650	1550	1200

A safety factor should always be included when using the above pressures. Working pressures are theoretical. The actual pressure may vary based on design calculations.

Safety Factor	Multiplier
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:

- The pressures listed are based on the 2020 ASME B31.1 Power Piping Code.
- No provision is made for abnormal or unusual conditions
- No allowance for the coupling design or limitations
- No allowance for the thinning of the pipe wall due to corrosion, bending etc.
- Temperature rating: -20 degrees to 400 degrees Fahrenheit.
- ERW or CW pipe may not be suitable for specific applications, consult a piping design engineer for specific applications.

SPRINKLER PIPE MAXIMUM WORKING PRESSURE

Type	Maximum Pressure in PSI
WLS, MEGA-FLOW, MLT, GL, MEGA-THREAD	→ 300
Schedule 10 & Schedule 40	→ Can be used with any UL Listed rubber gasketed fittings rated higher than 300 psi. More information is available upon request.

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