



One Council Avenue Wheatland, PA 16161 Ph: (800) 257-8182

**GUIDELINE FOR DETERMINING THE MAXIMUM WORKING PRESSURE IN PSI,
CALCULATIONS ARE BASED ON 2022 ASME B31.1 POWER PIPING CODE**

ELECTRIC RESISTANCE WELD PIPE (ERW) ASTM A53 TYPE E GRADE B SCHEDULE 40 & STD WALL*			
NPS	WALL THICKNESS	PLAIN END	THREADED
2	0.154	1700	850
2 ½	0.203	1900	850
3	0.216	1650	800
4	0.237	1400	750
5	0.258	1200	700
6	0.280	1100	650
8	0.322	950	650
10	0.365	900	625
12	0.375*	750	550
14	0.375*	700	500
16	0.375*	600	400
18	0.375*	500	400
ELECTRIC RESISTANCE WELD PIPE (ERW) ASTM A53 TYPE E GRADE B SCHEDULE 80			
NPS	WALL THICKNESS	PLAIN END	THREADED
2	0.218	2500	1600
2 ½	0.276	2600	1550
3	0.300	2300	1450
4	0.337	2000	1350

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.

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(s):

1. The pressures listed are based on the 2022 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.
6. ERW pipe may not be suitable for specific applications, consult a piping design engineer for specific applications.

*Exception: 12 inch through 18 inch pipe are Standard walls, not Schedule 40 walls.

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