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

| CONTINUOUS WELD PIPE (CW)<br>ASTM A 53 TYPE F <b>GRADE A</b> , APL5L GRADE A25 PSL 1 |             |          |             |          |
|--|-------------|----------|-------------|----------|
|  | SCHEDULE 40 |          | SCHEDULE 80 |          |
| NPS  | PLAIN END   | THREADED | PLAIN END   | THREADED |
| 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      |

  

| CONTINUOUS WELD PIPE (CW)<br>ASTM A 53 TYPE F <b>GRADE B</b> |             |          |             |          |
|--|-------------|----------|-------------|----------|
|  | SCHEDULE 40 |          | SCHEDULE 80 |          |
| NPS  | PLAIN END   | THREADED | PLAIN END   | THREADED |
| 1/2  | 2550        | 1050     | 3550        | 2000     |
| 3/4  | 2050        | 900      | 2900        | 1700     |
| 1  | 1950        | 850      | 2700        | 1500     |
| 1 ¼  | 1600        | 750      | 2250        | 1300     |
| 1 ½  | 1450        | 700      | 2000        | 1250     |
| 2  | 1200        | 600      | 1750        | 1100     |
| 2 1/2  | 1300        | 600      | 1850        | 1100     |
| 3  | 1150        | 550      | 1600        | 1000     |
| 3 1/2  | 1050        | 550      | 1500        | 950      |
| 4  | 950         | 500      | 1400        | 950      |

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 2022 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.
- 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, 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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