

Straight Pipes (ASME B31.3 par. 304.1)

Design conditions

Project name

Design pressure

$P = [\text{psig}]$

Design temperature

$T = [^{\circ}\text{F}]$

Material

Name

Basic allowable stress

$S = [\text{ksi}]$

Component geometry

Diameter

$D = [\text{in}]$

Thickness

$t_{\text{nom}} = [\text{in}]$

Factors/Tolerances

Quality factor

$E = [-]$

Weld joint factor

$W = [-]$

Corrosion tolerance

$c = [\text{in}]$

Manufacturer's thickness tolerance

Mill = [%]

Coefficient

$Y = [-]$

Condition ($P/SE \leq 0.385$)

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Results

Minimum wall thickness

$T = [\text{in}]$

Pressure design thickness

$t = [\text{in}]$

Minimum required thickness

$t_m = [\text{in}]$

Condition ($T \geq t_m$)

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Maximum allowable pressure

MAWP = [psig]