

Calculating Thrust in a Pipe

- 1) Determine inside diameter of pipeline in inches (divide by 2 for Radius)
- 2) Determine maximum back pressure
- 3) Calculate thrust pressure (Radius x Radius x π x PSI)

Example:

Pipe Size = 30"

Radius = 15"

$\pi = 3.14$

Back Pressure = 10 psi

$15" \times 15" \times 3.14 \times 10 \text{ psi} = \mathbf{7,065 \text{ Pounds of Thrust}}$

Conversions		
FROM:	TO:	MULTIPLY BY:
Pounds per Square Inch (psi)	Bars	0.069
Feet of Water (Head)	Pounds per Square Inch (psi)	0.4335
Feet of Water (Head)	Inches of Mercury	0.8825
Inches	Millimeters	25.4
Feet	Meters	0.3048
Pounds	Kilograms	0.4536
Radius X Radius X π X Psi = Pounds of Thrust		

