

# ENGLISH-METRIC CONVERSIONS

## METRIC EQUIVALENTS

Measurement	Conversion	Example
<b>Length</b>	1 in. = 25.4 mm	12 in. x 25.4 = 304.8 mm
	1 in. = .0254 m	120 in. x .0254 = 3.05 m
	1 ft. = .3048 m	12 ft. x .3048 = 3.68 m
	1 mm = .03937 in.	100 mm x .03937 = 3.94 in.
	1 m = 39.37 in.	10 m x 39.37 = 393.7 in.
<b>Weight</b>	1 lb. = .454 kg	10 lbs. x .454 = 4.54 kg
	1 kg = 2.205 lbs.	10 kg x 2.205 = 22.05 lbs.
<b>Pressure</b>	1 psi = .069 bar	20,000 psi x .069 = 1,380 bar
	1 bar = 14.5 psi	1,000 bar x 14.5 = 14,500 psi
<b>Flow</b>	1 gpm = 3.785 lpm	30 gpm x 3.785 = 113.55 lpm
	1 lpm = .264 gpm	100 lpm x .264 = 26.4 gpm
<b>Force</b>	1 lb. (f) = 4.44 N	100 lbs. (f) x 4.44 = 444 N
	1 N = .2248 lbs. (f)	900 N x .2248 = 202.32 lbs. (f)
<b>Power</b>	1 hp = .7457 kw	50 hp x .7457 = 37.29 kw
	1 kw = 1.341 hp	50 kw x 1.341 = 67.05 hp
<b>Air Flow</b>	1 cfm = .47195 l/s	10 cfm x .47195 = 4.72 l/s
	1 l/s = 2.1189 cfm	10 l/s x 2.1189 = 21.2 cfm

## QUICK-REFERENCE PRESSURE CHART

U.S.	Metric	Metric (Rounded)*
40,000 psi	2,760 bar	2,800 bar
36,000 psi	2,484 bar	2,500 bar
30,000 psi	2,070 bar	2,070 bar
20,000 psi	1,380 bar	1,400 bar
15,000 psi	1,035 bar	1,050 bar
13,000 psi	897 bar	900 bar
10,000 psi	690 bar	700 bar
5,000 psi	345 bar	350 bar
3,000 psi	207 bar	230 bar
1,000 psi	69 bar	70 bar

\*Rounded pressures are used throughout this catalog for the reader's convenience.

## HYDRAULIC POWER CALCULATIONS

English	Metric
$\text{hhp} = \frac{\text{gpm} \times \text{psi}}{1715}$	$\text{hkW} = \frac{\text{lpm} \times \text{bar}}{600}$

## BACK THRUST CALCULATIONS

$$\text{lb.f} = .052 \times \text{gpm} \times \sqrt{\text{psi}}$$

$$\text{N} = .2357 \times \text{lpm} \times \sqrt{\text{bar}}$$

*Due to NLB's continuing program of product improvement, specifications in this catalog are subject to change without notice.*

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