Measurement Conversions

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From:	To:	Multiply By:
Meters	Feet	3.281
Feet	Meters	.3048
Millimeters	Inches	.0394
Inches	Millimeters	25.4
Liters/min	GPM (US)	.2624
Liters/min	GPM (Brit)	.2200
GPM (US)	Liters/min	3.785
GPM (Brit)	Liters/min	4.546
GPM (US)	GPM (Brit)	.8327
GPM (Brit)	GPM (US)	1.201
Bar	Lbs/sq. in.	14.5
Lbs./sq. in.	Bar	.4536
Kilograms	Pounds (Mass)	.2248
Pounds (mass)	Kilograms	.4536
Newtons	Pounds (Force)	.2248
Pounds (Force)	Newtons	4.448
Kilowatts	Horsepower	1.341
Horsepower	Kilowatts	.7457

Pressure Quick Reference

U.S.	Metric
40,000 PSI	2760 Bar
36,000 PSI	2484 Bar
30,000 PSI	2070 Bar
20,000 PSI	1380 Bar
15,000 PSI	1035 Bar
13,000 PSI	897 Bar
10,000 PSI	690 Bar
5,000 PSI	345 Bar
3,000 PSI	207 Bar
1,000 PSI	69 Bar

Q = Flow in gpm — $Q = 29.92 \times d^2 \times P^{1/2} \times Cd$

V = Velocity in ft/sec — $V = 12.186 \times P^{1/2} = Cd \times .4085 \times Q/d^2$

P = Pressure in psi — $P = .00112 \times Q^2/(d^4 \times Cd^2)$

hp = Horsepower — $hp = .0174 \times d^2 \times P^{3/2} \times Cd = P \times Q/1714$

Cv = Flow Coefficient — $CV = Q/\triangle P^{1/2} = 53 \times (D^{2.5}/L^{1/2})$

$\triangle$**P** = Pressure Drop — $\triangle P = (Q/Cv)^2$

F = Thrust in Lbs. — $F = Pi/2 \times d^2 \times P \times CD = .052 \times P^{1/2} \times Q + .0018 \times (Q/D)2 \times Cd$

$\triangle$**T** = Temp Change °F — $\triangle T = \triangle P/337.6$