



USEFUL UNIT CONVERSION TABLES

LEAK RATE UNITS

1 ↓ = ... →	mbar l/s	std.cc/ hour	std.cc/ min	std.cc/s	Torr l/s	Pa l/s
mbar l/s	1	3554	59.234	0.987	0.75	100
std.cc/ hour	2.81E-04	1	0.016	2.78E-04	2.11E-04	2.81E-02
std.cc/ min	1.69E-02	60	1	0.016	1.27E-02	1.69E+00
std.cc/s	1.013	3600	60	1	0.76	101
Torr l/s	1.33	4727	7.90E+01	1.32	1	133
Pa l/s	1.00E-02	35.54	5.93E-01	9.87E-03	7.50E-03	1

VOLUME UNITS

1 ↓ = ... →	litre	cc	mm ³	inch ³	US Gallon
litre	1	1.00E+03	1.00E+06	6.10E+01	2.64E-01
cc	1.00E-03	1	1.00E+03	6.10E-02	2.64E-04
mm ³	1.00E-06	1.00E-03	1	6.10E-05	2.60E-07
inch ³	1.64E-02	1.64E-01	1.64E-04	1	4.33E-03
US Gallon	3.79E+00	3.79E+03	3.85E+06	2.31E+02	1

1 inch³ + 1cu-in: 1ml = 1cc = 1cm³

PRESSURE UNITS

1↓ = ...→	MPa	KPa	Pa	mPa	bar	mbar	atm	psi	Torr	mmTorr
MPa	1	1.00E+03	1.00E+06	1.00E+09	10	1.00E+04	9.87E+00	1.45E+02	7.50E+03	7.50E+06
KPa	1.00E+03	1	1.00E+03	1.00E+06	1.00E+02	10	9.87E-03	1.45E+01	7.500617	7.50E+03
Pa	1.00E+06	1.00E-03	1	1.00E+03	1.00E+05	1.00E-02	9.87E+06	1.45E+04	7.50E-03	7.500617
mPa	1.00E+09	1.00E-06	1.00E-03	1	1.00E+08	1.00E-05	9.87E+09	1.45E+07	7.50E-06	7.50E-03
bar	1.00E+01	1.00E+02	1.00E+05	1.00E+08	1	1.00E+03	9.87E+01	14.50377	7.50E+02	7.50E+05
mbar	1.00E+04	1.00E-01	1.00E+02	1.00E+05	1.00E+03	1	9.87E+04	1.45E-02	7.50E-01	7.50E+02
atm	1.01E+01	1.01E+02	1.01E+05	1.01E+08	1.01325	1.01E+03	1	14.69595	7.60E+02	7.60E+05
psi	6.89E+03	6.8947591	6.89E+03	6.89E+06	6.89E-02	6.89E+01	6.80E-02	1	5.17E+01	5.17E+04
Torr	1.33E+04	1.33E-01	1.33E+02	1.33E+05	1.33E-03	1.33E+00	1.32E-03	1.93E-02	1	1.00E+03
mmTorr	1.33E+07	1.33E-04	1.33E+01	1.33E+02	1.33E-06	1.33E-03	1.32E-06	1.93E-05	1.00E+03	1



Interesting Fact

Leak rate unit conversion tables often include a wide range of units to accommodate different industries, from vacuum technology (using units like mbar·L/s or Pa·m³/s) to HVAC systems (using SCFM or CFM).

One of the trickiest aspects of conversion is that standard conditions (STP) can vary between organisations. For example, some tables assume 0°C and 1 atm, while others use 20°C and 1 atm, leading to slight variations in results.

This means that when converting leak rates between different units, it's crucial to check which standard temperature and pressure (STP) conditions are being used, or the converted values might be incorrect!