

# JAMEC PEM

## CONVERSION CHART

### P.S.I. (IMPERIAL MEASUREMENT)

p.s.i. is commonly used worldwide, e.g. to measure car and bike tyre pressure, SCUBA diving equipment and domestic plumbing.

1 p.s.i. is the pressure exerted by one pound-force of force being applied to an area of one square inch.

### Some examples of pressure:

50 p.s.i. is the typical pressure of water leaving a garden hose  
 162 p.s.i. is the average pressure of a human bite.  
 Air tools except spray guns operate at a pressure of 90 to 100 p.s.i. An aluminum SCUBA tank is typically pressurized to 3,000 p.s.i.

### BAR (METRIC MEASUREMENT)

The bar is a widely used metric unit of measurement for pressure and 1 bar equals precisely 100,000 pascals. Bar has been adopted as one of the most popular pressure units particularly in European countries where most pressure measurement instruments are specified with pressure ranges in bar.

The value of 1 bar is a close approximation to atmospheric pressure and is often used to represent atmospheric pressure rather than standard atmosphere (101325 pascals) which is the correct value used by the scientific and engineering community.

### KPA (METRIC MEASUREMENT)

The pascal (Pa) or kilopascal (kPa) as a unit of pressure measurement is widely used throughout the world and has *idden* largely replaced the pounds per square inch (p.s.i.) unit, except in some countries that still use the imperial measurement system.

p.s.i.	bar	kPa
1.5	0.1	10
2.9	0.2	20
4.4	0.3	30
5.8	0.4	40
7.3	0.5	50
8.7	0.6	60
<b>8.7-16.1</b>	<b>AFL football pressure</b>	
10.2	0.7	70
11.6	0.8	80
13.1	0.9	90
14.5	1	100
29.0	2	200
<b>30-40</b>	<b>Typical small to medium car tyre pressure</b>	
43.5	3	300
<b>50</b>	<b>Water pressure leaving a garden hose</b>	
58.0	4	400
72.5	5	500
87.0	6	600
<b>90-100</b>	<b>Most air tools operate at this pressure</b>	
101.5	7	700
116.0	8	800
130.5	9	900
145	10	1,000
290	20	2,000
435	30	3,000
580	40	4,000
725	50	5,000
870	60	6,000
1,015	70	7,000
1,160	80	8,000
1,305	90	9,000
1,450	100	10,000
2,900	200	20,000
<b>3,000</b>	<b>Aluminium SCUBA tank pressurized</b>	
4,350	300	30,000
5,800	400	40,000
7,250	500	50,000
8,700	600	60,000
10,150	700	70,000
11,600	800	80,000
13,050	900	90,000
14,500	1,000	100,000
15,950	1,100	110,000
17,400	1,200	120,000
18,850	1,300	130,000