PT 101
Understanding pressure units
February 27, 2026

Pressure units are confusing primarily due to omission of 'G' to signify gauge units and 'A' for absolute units. If neither are specified, it is a guess as to whether the reference is atmospheric pressure or absolute vacuum. It should also be noted that MPa and Bar do not add A for atmospheric units, only G for gauge units. In addition, it is common to omit the minus sign for gauge units when below atmospheric pressure. The difference between the two is only 14.7 psi (101.3 kPa) so it is a minor difference at high pressures. However, at very low pressures it can be a large relative difference which makes specifying how the units are referenced important.

The chart below depicts how common units of pressure measurement are referenced.

Values are rounded for clarity and positive pressure values noted at 1 MPa for comparison.