

What are Pressure Gauges?

The **purpose of a pressure gauge** is to measure the pressure in either a compressed gas or liquid. They are widely used across a range of industries and can be used for general purpose jobs, such as checking tyre pressure to more specialised fields, such as monitoring pressure in gas cylinders. Such a vast array of pressure gauge applications means there needs to be a wide range of pressure gauge styles, to suit. Here we talk you through the functions and applications of pressure gauges.

Pressure gauge function

The **function of a pressure gauge** varies depending on the type of gauge being used and the reading will vary depending on the instrument. Some gauges measure pressure against a complete vacuum, while others measure the pressure relative to the air pressure, providing different readings.

The device uses mechanical movements, with an element inside the gauge moving in response to pressure changes and pushing the part of the gauge that provides the metered reading. Depending on the specification and age of the pressure gauge, they will either use digital readouts or analogue dials.

Pressure gauges are mainly used as a safety feature, to prevent injury to users. By measuring the pressure, it is possible to keep a track of the amount in a certain field, reducing it when necessary. Pressure gauges also have additional safety features, such as a solid front, preventing injury and encouraging optimal performance.

Where are pressure gauges used?

Pressure gauges are used in a variety of industries and are commonly used in the automotive sector. In this field, pressure gauges are often linked to a remote indicator panel, which will alert a driver when the pressure gauge has found an obscure measurement – this can be when the pressure is either too high or too low.

This is a much safer way of measuring tyre pressure, as it eliminates the need for the driver to manually carry out a tyre pressure check. While checking tyre pressure is one of the more general uses of a pressure gauge, they are also used in the manufacturing and engineering industries, in order to ensure the pressure in liquid or gas applications remain at a safe and steady rate.

Common pressure gauge types

The most common pressure gauge is known as the Bourdon tube. This flexible tube responds to pressure and displays as a measurement reading. This pressure gauge is the most common gauge available today as it provides extreme accuracy. The Bourdon tube is often used to determine tyre pressure and is commonly used in engineering industries.

Why calibrate a pressure gauge

Before use, pressure gauges should be calibrated. Like other measurement devices, this is an important factor in order to ensure efficient use. Regular calibration of a pressure gauge protects the instrument and allows it to work reliably and accurately especially during sensitive and precise applications.

MGA Controls offer a wide range of pressure gauges, including Bourdon Tube models. If you require further information regarding any of our instrumentation products, please contact our technical team by calling **01704 898980** or emailing sales@mgacontrols.co.uk