## Knowledge base





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## PRESSURE GAUGE - CORROSION RESISTANT

When specifying a pressure gauge there are many environmental considerations such as ambient temperature, condensation, humidity, water, chemicals, and air-borne particulate that the gauge could be exposed to.

Where ambient conditions are corrosive and contain a large amount of particulate or if the gauge will be exposed to a wet or humid environment, then a gauge should be specified that is weatherproof/hermetically sealed or liquid filled. The correct case material can prevent corrosion which will in turn prevent leaks and safety incidents occurring.

Wetted parts of a pressure gauge; the bourdon tube and socket must be compatible with the process medium. Bourdon tubes are commonly made from Phosphor Bronze, Stainless Steel, or Monel. If it is not compatible or the media is extremely viscous or dirty, a diaphragm seal/gauge isolator can be used but this will add an additional error to the reading.

The gauge's Bourdon tube can be weakened by the corrosive conditions it is exposed to or the environment it is in. This may occur as a pinhole leakage or early fatigue failure because of stress cracking. Therefore, it is critical to be aware of the chemical compatibility of the media with a gauge's case and construction materials.



For more information about any of our pressure gauges, please contact sales@brannan.co.uk.



