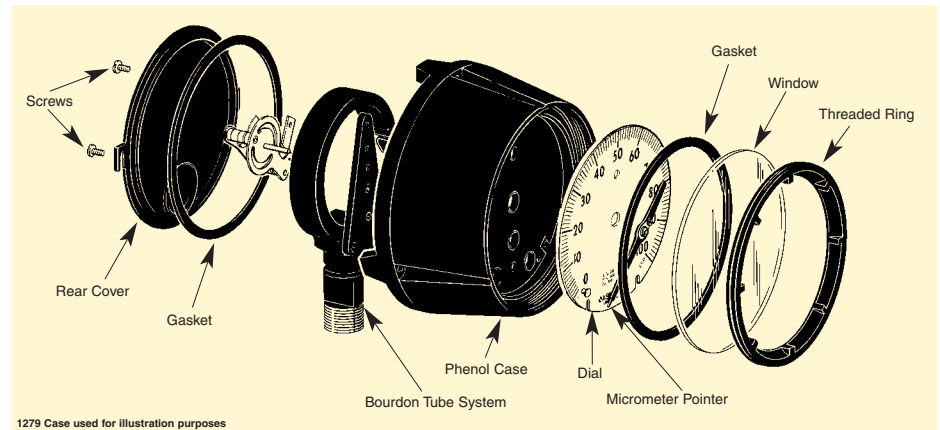


Product Selection Information Process Gauges



Consult ASME B40.1 for guidance in gauge selection

WARNING: To prevent misapplication, pressure gauges should be selected considering media and ambient operating conditions. Improper application can be detrimental to the gauge, causing failure and possible personal injury or property damage. Additional information is available from Ashcroft Inc.

Pressure Ranges: As recommended by ASME B40.1, select a gauge with a full scale pressure range of approximately twice the normal operating pressure. The maximum operating pressure should not exceed approximately 75% of the full scale range. Failure to select a gauge range within these criteria may ultimately result in fatigue failure of the Bourdon tube.

Operating Conditions: The operating conditions to which a gauge will be subjected must be considered. If the gauge will be subjected to severe vibrations or pressure pulsation, liquid-filling the gauge or the *PLUS!* option may be necessary to obtain normal product life. Other than discoloration of the dial and hardening of the gasketing that may occur as ambient temperatures exceed 150°F, non liquid-filled Type 1279 (phenolic case), 1377 and 1379 (aluminum case) Duragauges with standard glass windows, can withstand continuous operating temperatures up to 250°F. Liquid-filled gauges can withstand 200°F but glycerin fill and acrylic window will tend to yellow. Accuracy will be affected by approximately 1.5% per 100°F. Gauges with welded joints will withstand 750°F (450°F with silver brazed joints) for short times without rupture, although other parts of the gauge will be destroyed and calibration will be lost. Proper selection of the Bourdon system material is dependent on the process fluid to which the system will be subjected. If the correct material is not available, the use of a diaphragm seal may be necessary to protect the system from the

process fluid. Liquid-filled gauges are recommended for the discharge side of positive displacement pumps.

Pressure Elements: Available in a wide variety of materials, including: phosphor bronze, alloy steel, 316 stainless steel, K Monel and Inconel.

Cases: Four solid front case types are offered. Solid front cases have a solid wall between the Bourdon tube and the window. The 1279 and 1379 Duragauges cases are field convertible by means of a kit. These gauges can be converted to hermetically sealed or liquid-filled. Buna-N seals at the front and rear of the case provide resistance to aggressive atmospheres.

Rings: The ring, which retains the window, is threaded, bayonet (cam), or hinged, depending upon case type.

Movements: Movements are designed and materials of construction selected to reduce friction and extend wear life. The Duragauges stainless steel movement is a rotary geared design with Teflon coated wear parts.

Dials: Dials are uniformly graduated and have highly legible black markings. A pointer dial stop pin at the 7:00 o'clock position is standard.

Windows: The standard is glass on dry gauges and acrylic on liquid-filled gauges. Options are laminated safety glass, non-glare glass or acrylic.

Pointers: Duragauges pressure gauges have balanced micrometer adjustable pointers which can be repositioned without removal from the pinion shaft.