Pressure Gauge Accessories

Throttling Devices
A throttling device should be used when a pressure gauge is subjected to rapid pressure fluctuations, which make the gauge difficult to read because of rapid pointer movement. Such a device reduces pressure impact, slows the speed and range of pointer movement, and prolongs gauge life.

Throttling effect is obtained by installing a restricting orifice between the gauge socket connection and the bourdon tube. Several types are available: throttle screws, pressure snubbers, pulsation dampeners, Gauge Saver® and the Campbell MICRO-BEAN.

Severe service applications are characterized by the presence of significant levels of pressure pulsation and/or vibration. Gauges should be protected from severe pressure pulsation by the inclusion of a damper such as a throttle plug/screw or porous metal snubber. If the pulsation is extreme, a liquid-filled gauge, with damper, should be used. A liquid-filled gauge will also last significantly longer than a comparable dry gauge when vibration is present. If the vibration levels are extreme, the only solution may be to remotely mount the gauge away from the source of vibration. In that case capillary tubing may be used to connect the gauge to the pressure source.

Throttle Screws
The simplest means of providing a restriction in the socket, a throttle screw, should be ordered with the gauge. Threaded or pressed into an instrument socket, the throttle screw orifice selected is based on the viscosity of the pressure fluid, rapidity of pressure fluctuations, and the amount of dampening effect desired.

A smaller orifice should be used for low viscosities, high frequencies, high pressure and reduced pointer amplitude. To accommodate these variables, throttle screws are available in these sizes: 0.0135, 0.020, 0.031, 0.040, and 0.070 inches, in brass and stainless steel. When orifice size or service condition is not specified, a 0.020-inch orifice will be supplied on Duragauge® pressure gauges 0.0135, on 25-35 1009 and 63 and 100mm 1008S.

Pulsation Damper
Threads onto a gauge socket and provides restriction by means of a moving pin, which may be placed in either of five different sized holes, and thus allows the user to vary the amount of dampening to suit requirements. The pulsating pressure moves the pin up and down, providing a self-cleaning action. Damper plugs are shipped with a pin in the “middle” hole, and may be used in either a vertical or horizontal position. Maximum pressure is 5000 psi.

Pressure Snubber
Used for dampening and filtering, the snubber has a metal disc available in four standard grades of porosity. The one best suited for the application can be selected from the chart, using the same guidelines as for throttle screws. Due to the large filter area, the snubber has less tendency to clog than orifice-type devices. All-metal construction permits the snubber to be washed in a variety of common solvents.

ISO 9001
REGISTERED FIRM

All specifications are subject to change without notice. All sales subject to standard terms and conditions. © Ashcroft Inc. 2007