

Tubular Glass Gages



For cost effective level indication.

Penberthy Tubular Glass Gages are used to register liquid levels in low to medium pressure applications. They are externally mounted to the vessel and use tubular glass to provide direct visual verification of the liquid level present. The transparent glass also provides an excellent means to optically inspect fluid characteristics.

Liquid enters the gage through the lower tank connection. The meniscus present in the glass tube corresponds to the liquid level in the tank. Available accessories allow you to customize each gage to your specific application requirements. These options can also provide enhanced level indication and protection for the tubular glass.

Protectors

Tubular glass is susceptible to accidental breakage. To counteract this condition, Penberthy offers a variety of protectors. These protectors prevent damage to the glass, but do not restrict level indication capability. In some cases the protector actually enhances it. Protectors can be adapted to fit most major manufacturers' valves.

Guard Rods -- Two or four metallic rods placed next to the glass tube.

Plastic or Wire Glass -- A transparent box surrounding the tubular glass constructed from either clear plastic or wire glass.

Sheet Metal -- Two pieces of sheet metal formed to protect both sides of the tubular glass. The front and back are left open to facilitate easy viewing.

Refractive -- An extruded aluminum channel with your choice of either a polymer or glass cover. The interior is a white anodized finish with 45° angle red stripes on the back wall. As the gage fills, liquid passes in front of the stripes. The refractive nature of the liquid changes the stripe angle showing the highly visible contrast between liquid presence and absence.

If water is the liquid used, the stripes become horizontal. Liquids with a refractive index less than water will alter the angle less, higher indexes will alter the angles more. The refractive protector is designed for use with standard tubular glass.

Internal Tubes

A stainless steel internal heating or cooling tube that passes through the length of the tubular glass can be used in conjunction with an offset pattern valve and high pressure glass.

Glass Union

Intended for use in gages over 48" in height. It allows you to join two pieces of glass within the same gage. This increases the length of the gage, yet maintains the same pressure/ temperature rating as the individual pieces of glass. Glass unions should be used in conjunction with the refractive protector to provide mechanical stability.

Hydraulic Adapters

Hydraulic Adapters are used in place of valves for connecting the gage to your vessel. They attach directly to the ends of the tubular glass, providing a 1/2" NPT male connection. This allows you to incorporate most standard hydraulic connections currently available.



Wire Glass
Protector



Plastic
Protector



Glass Union



Hydraulic Adapter