KM26 Magnetic level gauges
KTEK products

Measurement made easy

Magnetic level gauges with extruded T connections

Introduction

Extrusion is an accepted industry standard and is described in detail in ANSI B16.9, the American standard that describes the dimensions and thicknesses required for commercially available T-piping connections.

KM26 magnetic level gauges

ABB uses extruded T junctions whenever possible on its KM26 range of magnetic level gauges. ABB checks the wall thickness of all extruded outlets in the extrusion area to ensure they comply with the material thickness requirements of ASME B31.3. Additional non-destructive testing (NDT) in the form of Dye Penetration testing and Radiography (where applicable) is performed to provide additional assurance that the deformation of the pipe is mechanically sound. The fabricated chamber is also pressure tested to provide further assurance of integrity and compliance with the European Pressure Equipment Directive (PED).
Advantages of extruded T junctions

A true and straight chamber is an essential component in the full cost of ownership of any level gauge. Welding the pipe surface can cause heat-induced deformation of the pipe. Extruding the KM26 side connection T junctions minimizes deformation of the chamber and eliminates float damage due to rubbing.

The weld to the process connection is a single plane, full penetration weld that adds strength and integrity to the joint. Removing any chance of weld penetration into the chamber, particularly on thinner wall chambers, also removes the chance of the float rubbing against internal obstructions and leaking over time.

A leaking float is a sunk float and a sunk float is an instrument out of service.

How is an extruded outlet made?

Using highly advanced semi-automatic machine tools, the extruded T junction is a three-pass process that ensures the wall thickness requirements of ASME B31.3 are maintained while providing a free path for the float inside the chamber.

PED and extruded outlets

The European Pressure Equipment Directive dictates the measures required by manufacturers to place pressure retaining equipment on to the European market. Compliance to ASME standards B31.1 and B31.3 are among the most demanding industry codes in the world and are fully supported by PED. All KM26 instruments supplied for the European market are designed and built to PED.

Contact us

ABB Limited
Process Automation
Salterbeck Trading Estate
Workington
Cumbria CA14 5DS
UK
Tel: +44 (0)1946 830 611
Fax: +44 (0)1946 832 661

www.abb.com

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