

## DIAPHRAGM SEAL WELDED FLANGED CONNECTION



The WF is a high integrity Diaphragm Seal Gauge designed to withstand the high pressures and temperatures normally associated with Chemical and Oil / Gas applications.

The WF has a diaphragm welded to the Flange.

A unique feature of the unit is the ability to set the diaphragm to 'lock off' at set pressures thereby protecting the unit from major overload conditions up to and including 400 Bar. This eliminates the need for expensive overload protection valves.

Available in a wide range of options including a choice of dial sizes, connections, materials, filling fluids and options to permit operation at temperatures in excess of 440 Degrees Celsius.



### Applications

Designed for continuous operation on gases or liquids where the pressure element could be become corroded or clogged by the process media. Versions are available to withstand pressure pulsations, vibrations and operation at very high temperatures.

### Dial Sizes

63mm, 100mm & 150mm are standard.

### Pressure Gauges

See separate Pressure Gauge Datasheets for suitable gauges for use on diaphragm seals.

### Accuracy Class

1.0% as EN837

### Pressure Range

The welded seal units is available in a range of configurations dependant upon the required Dial Size and Operating pressure range as follows:

Dial Size	Seal Diameter	Min Range	Max Range
63/100 / 150mm Gauge with	69 mm Seal	1 Bar to	400 Bar

### Over range protection

All units will withstand 130% overload as standard up to 200 Bar. Optionally the diaphragm can be set to 'lock off' allowing the unit to withstand an overload up to the maximum pressure rating of the seal unit. This unique feature can be used to avoid the use and cost of additional overload protection valves.

### Materials of Construction

Due to the welded construction, all materials including the diaphragm and connection have to be of the same material. Standard - 316L Stainless Steel  
Other materials available upon request

### Process connections

All standard RF flanges from 150 to 1500#  
in sizes 1/2" to 3"

All standard PN10 flanges from DN15 to DN50

Other connections are available

### Filling Fluids

A wide range of filling fluids are available to suit most applications including high temperature and pharmaceutical applications.

Standard Options are Mineral Oil, Silicon HT Oil, Medicinal Paraffin, Glycerine, Syltherm XLT & 400.

Inert Fluorine based fluids can be specified for oxygen and chlorine applications as well as a range of FDA approved fluids for food and pharmaceutical applications.

### Temperature

Normal process operating temperature range: -20 to +100 °C  
Elevated temperature operation up to 400 °C can be achieved by the selection of an extended neck option and an associated high temperature filling fluid. See relevant datasheet.

Serial Number printed on the dial.

### Pulsation Damper

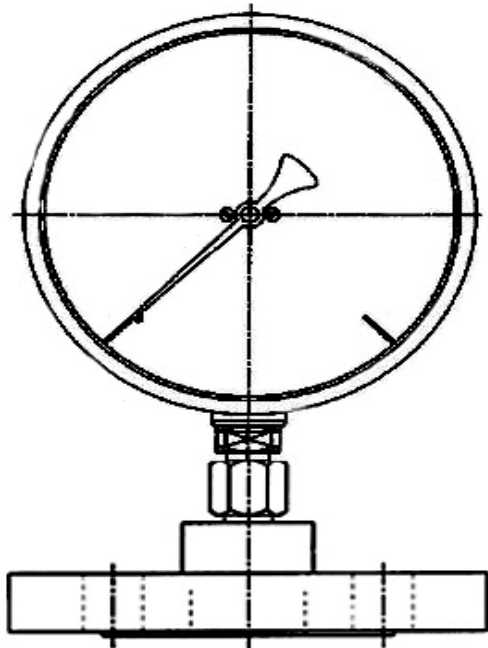
The welded design allows us to offer a snubber internally to dampen pulsations and beneficially protect the Pressure Gauge.

### Certification

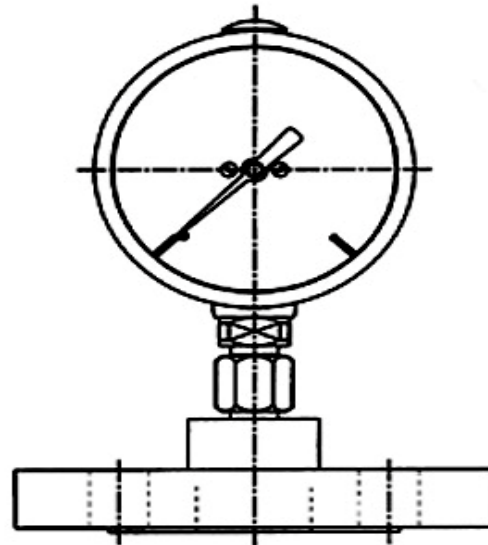
A Certificate of conformity traceable to National Standards is supplied free of charge.

### Safety

All units are manufactured to comply with EN 837-1 and other regulatory standards including P.E.D.



WF with 150mm Gauge



WF with 100mm Gauge

**Options**

**Anti Tamper**

Designed to prevent disassembly

**Extended Neck**

For use in elevated temperatures up to 300 °C we can dissipate the effect of heat from the Pressure Gauge by inserting an extended neck between the WF and the pressure gauge.

**Remote Mounting**

St/steel capillary can be fitted between gauge and seal to protect instrument from heat or vibration

**Fitting Transmitters**

We have a range of standard and 'Smart' Transmitters that can be used in combination with the WF or we can fit customers own free issue transmitters to most diaphragm seal units

**Accessories**

**Valves and Adaptors**

A full range of Needle and Ball Valves to fit the WF - See separate Datasheets.

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Specifications and dimensions in this leaflet, are subject to change without prior notice.

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