



*We're There.*



## APPLICATION SOLUTIONS

**WINTERS INSTRUMENTS**  
MANUFACTURER OF INDUSTRIAL INSTRUMENTATION

High temperature industrial process where there is a need to isolate pressure instrument from media / concern for chemical compatibility



**PPC Series Process Gauge**  
Phenolic case gauge with safety features  
4.5" dial  
316L SS socket

**SCT Series Cooling Tower**  
316 SS body  
Cools media by up to 500°F before reaching pressure instrument

**D70 Series Diaphragm Seal**  
316 SS or other housing material  
316 SS, Monel®, Hastelloy® C, Viton® diaphragm

Multi-line process requiring pressure shutoff or re-direct control for safety and ease in maintenance.



**PFP Series Premium Stainless Steel Gauge**  
Stainless steel filled case to protect against pulsation / harmful vibration  
304 SS case, 316 SS Bourdon tube

**SCT Series Cooling Tower**  
316 SS body  
Cools media by up to 500°F before reaching pressure instrument

**D70 Series Diaphragm Seal**  
316 SS or other housing material  
316 SS, Monel®, Hastelloy® C, Viton® diaphragm

**Double Block and Bleed Manifold**  
316L SS construction, NACE compliant  
Various materials and sizes available

Industrial application where there are safety concerns regarding proximity to process media (high heat, corrosive, space)



**PPC Series Process Gauge**  
Phenolic case gauge with safety features  
4.5" dial  
316L SS socket (brass available)

**Stainless Steel Capillary with Armour**  
Various lengths available to facilitate remote gauge mounting  
Capillary allows media to cool before reaching pressure gauge

**D44 Series Flanged Diaphragm Seal**  
316 SS, Tantalum, Hastelloy® C or Teflon® diaphragm  
316 SS flanged seal to be secured over process connection

# Viscous, Aggressive Process Media



Viscous media that may solidify or clog the pressure sensing element in the socket of the gauge



#### PPC Series Process Gauge

Phenolic case gauge with safety features  
4.5" dial  
316L SS socket

#### D44 Series Flanged Diaphragm Seal

316 SS, Tantalum, Hastelloy® C or Teflon® diaphragm  
316 SS flanged seal to be secured over process connection

Viscous, corrosive or heavy media containing solids in flow-through applications that have a high potential for clogging.



#### PPC Series Process Gauge

Available dry or liquid filled or with StabiliZR™ movement  
Brass or 316 SS Bourdon tube and socket

#### FIR Series Instrument Tees

316 SS material  
Three mounting configurations to choose from

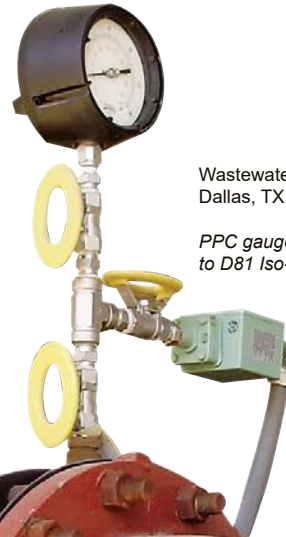
#### D81 Series Isolation Ring Seal

1" to 24" sizes for pipe diameters and stinger instrument connection are standard. Pictured with carbon steel centre and 316 SS end plates. Other configurations are available.

See catalogue or website for selection of pressure switches

Wastewater plant  
Dallas, TX

PPC gauge mounted  
to D81 Iso-ring



# Overpressure, Pulsation & Vibration

Applications where occasional (sustained) pressure surges that exceed safe range would damage the internals of pressure gauge



### PFP Series Premium Stainless Steel Gauge

Stainless steel filled case to protect against pulsation and vibration  
304 SS case, 316 SS Bourdon tube  
Optional maxi-pointer to indicate highest pressure reached

### SOP Series Overpressure Protector

Auto pressure shut-off when adjustable preset pressure is exceeded  
10,000 psi burst pressure  
316 SS body

### D40 Series Diaphragm Seal

316 SS housing material  
316L SS welded diaphragm

Pumps, compressors, hydraulic presses, and fluid power applications that produce damaging pulsation to the internals of pressure gauges, transmitters, and switches



### PPC Series Process Gauge

Phenolic case gauge with blowout protection  
4.5" dial  
316L SS socket

### SAS Series Adjustable Snubber

Used to restrict and slow down pressure flow  
Brass or stainless steel body  
Adjustable amount of restriction



### PFQ Series Stainless Steel Gauge

Filled case to protect gauge internals  
Brass or 316 SS Bourdon tube and socket

### SSN Series Snubber

316 SS porous "snubbing" element  
Brass or stainless steel housing



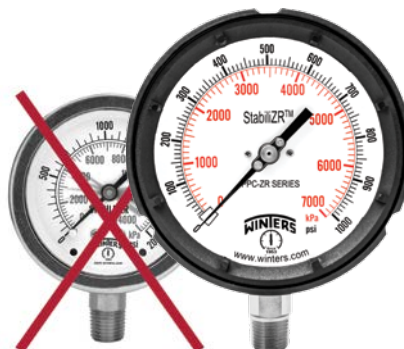
Applications that produce considerable amount of vibration, causing pointer fluttering and possible damage to the movements and gears of gauges

### PFP-ZR Series StabilizR™ Gauge

Dry stainless steel case gauge to minimize process media incompatibility issues  
StabilizR™ internal movement to protect gears and dampen pointer flutter

Tested as more accurate after 20,000 times cycle test and 16 hour heat test than leading competitor

Ask us how our StabilizR™ dampening mechanism design gives you the best performance





Non-corrosive applications that require pressure control up to a maximum of 400 psi



#### **P1S Series 100 Gauge / PEM Series Economy Gauge**

Various dial sizes up to 6"  
Brass internals  
From 3-2-3% to 1% accuracy

#### **SMV Series Mini Ball Valve**

Economical isolation valve  
Forged brass body and stainless steel ball  
Three configurations: lever handle, T-handle FxF, T-handle FxM

Aggressive media in refineries, petrochemical and other processing plants that must be controlled before reaching instrument



#### **PFP Series Premium Stainless Steel Gauge**

Stainless steel filled case with 304 SS ring  
304 SS case, 316 SS Bourdon tube  
15% - 30% overpressure limit

#### **NVA Series Stainless Steel Needle Valve**

1-piece body construction for strength, safety and corrosion resistance  
Provides leak tight flow regulation  
Allows slow valve opening to prevent damaging pressure surges

Precision pressure control for mild, non-corrosive process that may produce harmful pressure pulsation



#### **P9S Series 90 Gauge**

Features a dampened movement for added protection against pulsation  
Removable lens for pointer re-adjustment  
Suitable for compressors, filters, regulators

#### **SNV Series Needle Valve**

Forged brass construction  
May be used to control pressure pulsation



# Harmful Media for Thermometers

Pipe or equipment requiring a flange fitting for thermowell insertion to create a sealed system



### TBM Series Bi-metal Thermometer

Versatile with fixed back and bottom, and adjustable angle connections  
Stem lengths up to 12" are standard, other configurations also available  
External pointer re-adjustment is standard

### TWF Series Flange Thermowell

Made of 304 SS or 316 SS  
1", 1.5", 2" flange sizes  
Stem length up to 15"

Applications with media that can be corrosive to bi-metal stems or high velocity media that may break or damage thermometer stems



### TBM Series Bi-metal Thermometer

Versatile with fixed back and bottom, and adjustable angle connections  
Stem length up to 12"  
External pointer re-adjustment is standard

### TBR Series Thermowell

Standard configuration is stepped; straight, tapered, flanged, sanitary available  
Creates sealed process system so thermometer may be removed freely



Equipment with insulation covering the process connection, producing a lag distance



### TIM Series Industrial Thermometer

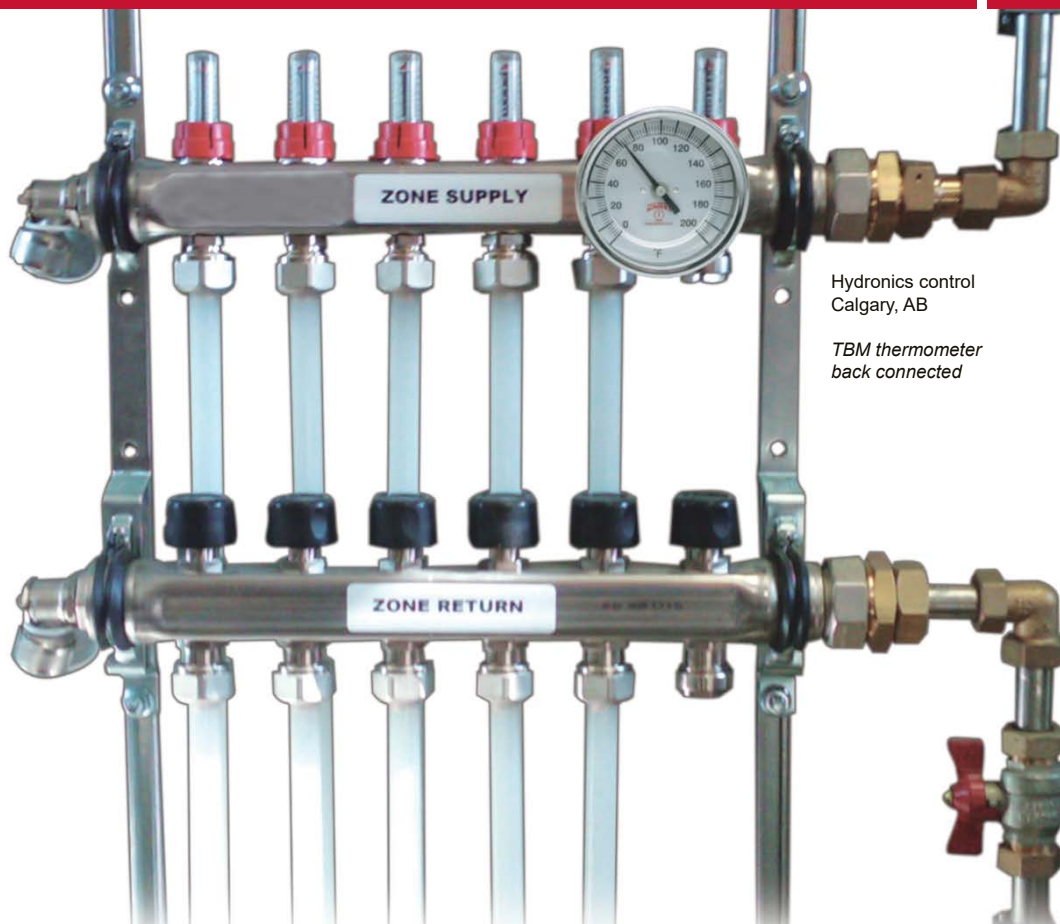
9" scale with Valox or aluminum case  
Stem connection angle is adjustable  
360 degree rotation for scale  
Comes standard with brass no-lag thermowell

### TIW Series Thermowell with Lag

Use when pipe (process connection) is beneath insulation  
Brass, 304 SS or 316 SS  
*No-lag version comes standard with TIM*

Hastelloy® is a registered trademark of Haynes International, Inc.  
Monel® is a registered trademark of Inco Alloys International  
Teflon® is a registered trademark of Dupont Corporation  
Viton® is a registered trademark of DuPont Performance Elastomers





Hydronics control  
Calgary, AB

*TBM thermometer  
back connected*

**Do you have an application that requires a custom part or assembly which is different from what you see here?**

**Let us know!** Winters manufactures instrumentation for custom orders from various industries. Most likely, we have come across your inquiry before. And if we have not, our engineers and technical sales staff will make sure we design a solution for you.

**Call 1-800-WINTERS (946-8377)** to connect with one of our team members.

### **Winters Gauge Services**

- **Engineering Specification Support**
- **Accuracy Calibration & Certification**
- **Liquid Filling**
- **Diaphragm Seal Assembly**
- **Repairs**
- **Gauge Cleaning**



Gauge with custom dial (coloured zones for quick visual indication)



Differential pressure switch with stainless steel armoured capillaries and flanged diaphragm seals to assist in control of pressure drops from remote location



Gauge with SSP Series Syphon for use on hot steam service

# WINTERS INSTRUMENTS

MANUFACTURER OF INDUSTRIAL INSTRUMENTATION



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