PRODUCT OVERVIEW
A Trusted Advisor and Supplier for the Oil, Energy, Mining and Industrial Sectors
Quality and Service

We at Western Gauge and Instruments (WGI) pride ourselves on being innovators in the industry by continually offering the latest technology and measurement solutions, providing some of the best customer support in the marketplace. Our stock is ready for same-day shipping. Talk to our staff at WGI to take advantage of their wealth of knowledge in the Gauge and instrumentation field. We are a great resource to answer your questions for your applications.

Look for the WGI “Cactus” Logo that identifies our manufactured product as adhering to exact WGI Standards. These products are manufactured by ISO certified factories and have CRN (Canadian Registration Numbers). This number guarantees top quality and extremely reliable workmanship.

Ask us about a custom ID printed face for your larger OEM requirements!

- Pressure Gauges
- Temperature Indicators
- Needle & Ball Valves
- Regulators
- Electronics
- Support Accessories

Calibration Services

Western Gauge and Instruments can offer the following services at our repair centers located in Edmonton and Saskatoon, please contact us to find out which location serve your needs.

General Repairs

Western Gauge and Instruments repairs all makes and models of Gauges, including Direct Drive Pressure Gauges. Deadweight Certificates of Calibration are available upon request. WGI calibrations on your Pressure Devices and Temperature Instruments, are traceable to NIST (National Institute of Standards and Technology). WGI uses Silicone and other Specialty fluids for Pressure Gauges and BiMetal Thermometers. Ask us about Stainless Steel or Aluminum tags installed for your custom requirements. WGI can also mount various instruments to your Diaphragm or Chemical Seals, as well as fill with either Silicone or High Temperature Products to meet your needs.

Custom

Custom Dial Faces: Are available in many different scales including Psi, kPA, kg/cm², cm of H20, feet of water, inches of Hg, inches of H2O, ounces per square inch, bar, mBar, MPa, and many more.

Close to You!

* Unified Valve Group Ltd.
  - Western Gauge
  - Mercer Valve
  - Suporisk
  - GPM Pump

CONTACT US TODAY
EMAIL: sales@wgiltd.com

Calgary 403.236.4888 • Edmonton 780.463.3800 • Saskatoon 306.986.0099
Fort St John: 250.787.0080 • Grande Prairie: 780.539.7800
Classic 150/200/250/350

Classic series gauges are for general service applications where cost savings are needed. Suited for use with water, oil, air, gas and other non-corrosive media. Not for use with oxygen.

**Sizes**
1.5" through 3.5" Dial – Bottom and back connection

**Case**
Steel

**Accuracy**
± 3%-2%-3% ASME B40.1 Grade B

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Elite 150 Stainless

Internal gauges have a 304 stainless steel case and 316 stainless steel internals, silicone fill for use in harsh environments. Suited for use with water, oil, air, gas and other corrosive media.

**Sizes**
1.5" Dial – Bottom and back connection

**Case**
304 Stainless Steel

**Accuracy**
± 2%-1%-2% ASME B40.1 Grade A

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HVAC Gauge

The WGI Contractor gauge was designed to service the mechanical industry. The HVAC gauge offers high reliability at an economical price and features a corrosion resistant, stainless steel case and acrylic window.

**Sizes**
4.5" Dial – Bottom connection

**Case**
Stainless steel

**Accuracy**
± 1% ASME B40.1 Grade B

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Elite 200 Stainless

Elite 200 series gauges have a 304 stainless steel case, 316 stainless steel internals, silicone fill for use in harsh environments. Suited for use with water, oil, air, gas and other corrosive media.

**Sizes**
2" Dial – Back and Bottom Connection

**Case**
304 Stainless Steel

**Accuracy**
± 2%-1%-2% ASME B40.1 Grade A

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Elite 250 Brass

Elite 250 series brass gauges have a 304 stainless steel case, silicone fill for use in harsh environments. Suited for use with water, oil, air, gas and other non-corrosive media.

**Sizes**
2.5" Dial – bottom and back connection

**Case**
304 Stainless Steel

**Accuracy**
± 2%-1%-2% ASME B40.1 Grade A

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Elite 250 Stainless

Elite 250 series gauges have a 304 stainless steel case and 316 stainless steel internals, silicone filled for use in harsh environments. Suited for use with water, oil, air, gas and other corrosive media.

**Sizes**
2.5" Dial – Bottom and back connection

**Case**
304 Stainless Steel

**Accuracy**
± 2%-1%-2% ASME B40.1 Grade A
Pressure Gauges

**Elite 400 Stainless - NACE**

WGI Elite 400 series pressure gauges have a 304 stainless steel case for use in harsh or corrosive environments, and silicone filled for pulsation dampening. Suited for oil and gas equipment, refineries, hydraulic equipment, process systems etc.

- **Size**
  - 4” Dial – Bottom and back connection
- **Case**
  - 304 Stainless steel
- **Accuracy**
  - ± 1% Full Scale ASME B40.1 Grade A

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**Elite 600 Stainless - NACE**

WGI Elite 600 series pressure gauges have a 304 stainless steel case for use in harsh or corrosive environments and is silicone filled for pulsation dampening. Ideally suited for oil and gas equipment, refineries, hydraulic equipment, process systems etc.

- **Sizes**
  - 6” Dial – Bottom connection
- **Case**
  - 304 Stainless steel
- **Accuracy**
  - ± 0.5% ASME B40.1 Grade A

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**Elite 450 Process Gauge – Solid Front**

WGI’s Elite 450 NACE process gauge was engineered for the oil and industrial process industries designed with operator safety in mind. Features a solid front blow-out back

- **Sizes**
  - 4.5” Dial – Bottom connection
- **Case**
  - Phonelic
- **Accuracy**
  - ± 0.5% ASME B40.1 Grade B

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**Diaphragm Gauge (Low Pressure)**

WGI Diaphragm gauges are sensitive instruments used in low pressure applications not exceeding 10 PSI. Typical applications include air flow indicators, liquid level, leak testers, natural gas and any other low pressure applications.

- **Sizes**
  - 2.5” Dial – Bottom and Back Connections
- **Case**
  - Steel & 304 Stainless steel
- **Accuracy**
  - ± 3-2-3% ASME B40.1 Grade B

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**Elite 450SS Process Gauge – Solid Front**

WGI’s Elite 450 NACE process gauge was engineered for the oil and industrial process industries designed with operator safety in mind. Features a solid front blow-out back

- **Sizes**
  - 4.5” – Bottom connection
- **Case**
  - 304 Stainless steel
- **Accuracy**
  - ± 0.5% ASME B40.1 Grade B

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**Ammonia Gauges**

WGI ammonia gauges are designed for rugged performance in the measurement of vacuum and pressure for any system or piece of equipment that is charged with ammonia.

- **Sizes**
  - 2.5” & 4” Dial – Bottom & Back connection
- **Case**
  - 304 Stainless Steel
- **Accuracy**
  - ± 2-1-2% ASME B40.1 Grade B

**Commercial or Agricultural Models Available**
**Temperature Gauges**

### Bi-Metal Thermometers
Features a 304 stainless steel hermetically sealed case providing weather tight protection. External recalibration screw on rear of case for ease of calibration. Silicone fill available. Ranges from -40°C to 1000°C.

**Sizes**
2", 3" & 5" Dial

**Case**
304 stainless steel

**Accuracy**
± 1% ASME B40.3 Grade A

### Industrial Thermometers
WGI Industrial thermometers are mainly used by the boiler industry in HVAC applications. The adjustable angle case can be moved to any viewing position for enhanced readability.

**Scale sizes**
7" & 9"

**Case**
Die-cast Aluminum

**Accuracy**
± 1% ASME B40.1 Grade B

### Hot Water Thermometers
WGI hot water thermometers are typically used in hot water heating systems, boilers and hydronic heating systems. Complete with removable NPT or solder brass thermowell for maintaining a sealed system.

**Size**
2" Dial

**Case**
Aluminum

**Accuracy**
± 5° F / 2°C full scale

### Pocket Thermometers
General purpose pocket thermometer used mainly for field or lab testing. Ranges from -40°C to 500°C. External recalibration screw on rear of case. Also available in digital or alcohol reading.

**Size**
1 3/8” Dial (PT1835)
5” Scale (GT-120)

**Case/Stem**
304 Stainless Steel (PT1835)
Glass stem (GT-120)

**Accuracy**
± 2% full scale

### Magnetic Thermometers
WGI bimetal magnetic surface thermometers are ideal for use on engines, bearings, pipes, tanks, ovens or any flat metallic surface. Rear recalibration adjustment standard. Ranges from -100°F to 500°F

**Size**
2" Dial

**Case**
Aluminum

**Accuracy**
± 2% full scale

### Tridicators
WGI tridicators indicate pressure, temperature and altitude in one compact instrument. Intended for use on all types of hot water heating systems

**Sizes**
2.5" & 3.5” Dial

**Case**
Drawn steel

**Accuracy**
± 1% ASME B40.1 Grade A
### Brass Ball Valves
601 Series ball valves are an economical full port NPT brass ball valve featuring a cast brass body for durability and superior corrosion resistance.

**Sizes**
- 1/4" to 4" NPT

**Body**
- Cast brass – 600 WOG

**Porting**
- Full port

### High Flow Needle Valves
Rated at 10,000 psi working pressure to cover most applications. Features adjustable PTFE packing, and non-rotating stems for high throttling applications.

**Sizes**
- 1/8" through 1" NPT

**Body material**
- A105 carbon steel & 316 Stainless steel

**Seat**
- Hard seat

**Pressure Rating**
- 10,000 PSI @ 100°F

### Brass Ball Valves – Gas / Sprinkler Service
2-Piece, full port, brass ball valves are used in commercial and industrial applications for a full range of liquids and gases. They feature a bottom-loaded blow-out proof stem, virgin PTFE seats, double o-rings, chrome plated brass ball, brass adapter, and steel handle.

**Sizes**
- 1/4" through 2" NPT or Soldered

**Body**
- Cast brass – 600 WOG

**Porting**
- Full port

### Standard Flow Needle Valves
Rated at 6,000 psi working pressure to cover most applications. Features adjustable PTFE packing, and non-rotating stems for standard throttling applications.

**Sizes**
- 1/8” through 1” NPT

**Body**
- A105 carbon steel & 316 Stainless steel

**Pressure Rating**
- 6,000 PSI at 100°F

### Miniature Soft Seat Needle Valves
WGI miniature needle valves feature soft seats for use with any medium that requires a bubble tight shut off. Available in straight or angle pattern.

**Size**
- 1/4" NPT

**Body Material**
- A105 carbon steel (zinc plated)
- Or 316 stainless steel

**Pressure rating**
- 3000 psi @ 100°F

**Seat**
- Soft seat (Delrin)

### Soft Seat Needle Valves
Soft seat needle valves are designed for use with various instrumentation equipment and can be installed to control, isolate, measure, calibrate, equalize, drain or vent the pressure of gases and liquids. Features bubble tight shutoff.

**Sizes**
- 1/4” through 1” NPT

**Body material**
- A105 carbon steel, 316 stainless steel

**Pressure rating**
- 6000 PSI @ 100°F

**Seat**
- Soft Seat (Delrin)
Angle Pattern Needle Valves

Angle pattern needle valves are available in carbon and stainless steel. Angle pattern valves will allow the installer / design engineer to optimize space and components in a system. Mainly used by the propane and agricultural industries.

Sizes
1/8” Through 1” NPT

Body
A105 carbon steel, 316 stainless steel

Hard seat Pressure rating
10,000 psi @ 100°F

Gauge Valves (Block and Bleed)

WGI multi-port gauge valves allow for easy positioning of gauges or pressure switches without requiring additional penetration of the main piping system. Metal to metal seats for high-pressure applications.

Sizes
1/2” x 1/2” NPT &
3/4” x 1/2” NPT,
1” x 1/2” NPT

Body
A105 carbon steel, 316 stainless steel

Seat
Hard seat

Pressure rating
10,000 PSI @ 100°F

High Pressure (15,000 psi)

Metal to metal seats for high-pressure applications. High flow port.

Sizes
1/2” NPT Only
(new sizes coming soon)

Body
316 stainless steel

Pressure rating
15,000 psi @ 100°F

Check Valves

VU series in-line check valves are designed to allow free flow of oil in a hydraulic system in one direction and block flow in the reverse direction. Can also be used in natural gas or air service.

Sizes
1/4” Through 2” NPT

Body Materials
A105 carbon steel & 316 stainless steel

Cracking Pressure
7 PSI

Pressure rating
3675 Through 10,000 PSI

Needle Valve Accessories

Bleed Valves / Plugs
Replacement bleed valves and plugs for multi-port gauge valves. Rated at 10,000 psi

Metal to metal seats for high-pressure applications. High flow port.

Sizes
1/2” NPT Only
(new sizes coming soon)

Body
316 stainless steel

Pressure rating
15,000 psi @ 100°F

2, 3 & 5 Valve Manifolds

WGI manifolds are designed for remote or separate mounting. Connecting system impulse lines, transmitters & chart recorders. NACE models are available.

Configurations
NPT x NPT, NPT x Flange

Body Materials
A105 carbon steel, 316 stainless steel

Seat
Soft seat (Delrin) Hard seat available

Pressure rating
6000 psi @ 200°F
**Thermowells**
Thermowells are used to provide isolation between a temperature sensor and the environment, either liquid, gas or slurry. A thermowell allows the temperature sensor to be removed and replaced without compromising either the ambient region or the process.

**Styles**
Threaded and flanged

**Shank styles**
Straight, stepped & tapered

**Bore Sizes**
0.260, 0.385 & 0.702

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**Diaphragm Seals**
Diaphragm seals use a flexible barrier or diaphragm seal to isolate a pressure sensor such as a gauge or transmitter from the process fluid. Diaphragm seals are available in many configurations.

**Sizes**
1/4" NPT & 1/2" NPT

**Body material**
316 Stainless steel

(Other materials available)

**Pressure Rating**
30" Vac to 2,500 PSI @ 100°F

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**Siphons / Cooling Towers**
Gauge siphons are used to protect the pressure gauge from the effect of hot pressure media such as steam and also to reduce the effect of rapid pressure surges. The siphon allows condensate to form and be collected inside the siphon, preventing the hot media from coming in direct contact with the pressure instrument.

**Types**
Pigtail, barrel & finned

**Body**
Pigtail – Carbon or stainless steel
Barrel & Finned – stainless steel

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**Snubbers**
Snubbers are used to reduce the effects of pulsation on gauges, transmitters and pressure switches in most water, light oil or air services.

**Sizes**
1/4" & 1/2" NPT

**Body**
Brass & 316 stainless steel

Pressure rating
10,000 PSI at 100°F

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**Tube Fittings**

**Ball Valves**
**Calibration Services**

Western Gauge and Instruments can offer the following services at our repair centre located in Edmonton, Alberta and Saskatoon Saskatchewan.

**Deadweight Certificates:** WGI will certify the accuracy of your pressure devices, temperature instruments traceable to the National Institute of Standards and Technology (NIST).

**Fluid Filling:** Silicone can be installed inside of a Pressure Gauge or Bi-metal Dial Thermometer.

**Instrument Tagging:** Stainless Steel or Aluminum tags are available for marking an instrument field location or use.

**Mounting Diaphragm/Chemical Seals:** WGI can mount and fill your Diaphragm seals with either Silicone Oil, or high temperature fill.

**Custom Dial Faces:** Custom Dials are available in many different scales including Psi, kPA, kg/cm², cm of H2O, feet of water, inches of Hg, inches of H2O, ounces per square inch, bar, mBar, MPa, and many more. Customer “name on dial” service also available.
Additional Products

**Midwest DPI**
A low cost differential pressure gauge for use in measuring the pressure drop across filters, strainers, separators, valves, pumps, chillers, in addition to local flow indication and control.

**Sizes**
2.5", 3.5" & 4.5" Dial

**Body Materials**
Aluminum & 316 stainless steel

**Ranges**
0-5 PSID through 0-110 PSID

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**Gauge Minder**
The Model 200 “Gauge Minder” features a pressure limiting valve that blocks off excess pressure to the instrument thus preventing calibration failure, internal damage, and “blowout” from over-ranging, a principal cause of instrument failure.

**Sizes**
1/4" NPT & 1/2" NPT

**Body material**
316 Stainless steel (other materials available)

**Pressure Rating**
10,000 PSI @ 100°F

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**Thermocouple and RTD**
JMS designs and manufactures a complete line of high quality standard and customized temperature sensors including Thermocouples, RTD’s and Thermowells as well as a wide selection of temperature accessories.

- Miniature and Industrial Thermocouples
- Plastics Industry Temperature Sensors
- Resistance Temperature Devices (RTDs & PRTs)
- Sanitary and 3-A Certified Temperature Sensors
- Specialty Sensors
- Thermowells, Protection Tubes, and Coatings Accessories
- Thermocouple and RTD Wire
- Transmitters
- Thermistors
- Miscellaneous Temperature Instruments

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**High Pressure Valves, Fittings & Tubing**
Eight pressure classes from 10,000 psi to 150,000 psi. Tubing connections from 1/16” to 1” and pipe connections from 1/8” to 1” NPT. Complete line of specialty valves, air operated valves, accessories and tooling.

- Taper Seal – 10 & 15,000 psi
- Medium Pressure – 20,000 psi
- High Pressure – 30, 40 & 60,000 psi
- Ultra High Pressure – 100,000 & 150,000 psi
- Specialty Valves
- Air operated Valves, Accessories, Tooling

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**High Pressure Ball Valves**
BKH high pressure ball valves are made of nickel plated carbon steel and are primarily used in the hydraulic industry where pressures operate at 3000 psi and greater. BKH series ball valves are field repairable, have blowout proof stems and delrin ball seats.

**Sizes**
1/4” through 2” NPT

**Connection**
NPT and ORB Threads

**Configurations**
Two way and three way

**Porting**
Full port

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**Pressure Transducers / Transmitters**
Transducers are commonly used in applications for industrial OEMs, fluid power, hydraulic systems, fuel cells, medical gases, HVAC/R, water management, oil and gas exploration, aerospace, scientific research, aircraft ground support and military. Many Sensor products offer UL/cUL, CSA approvals for hazardous environments (ATEX and CRN pending).

**Models Include**
- General Purpose
- High Accuracy
- Industrial
- Differential Pressure
- Submersible
- OEM
- Hazardous Area UL/CSA Approved

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Additional Products

Instrument
Air / Gas Regulators

The Marsh Bellofram Type 50 & Type 50 NACE are reliable, precision filter air set pressure regulators, designed for instrumentation and general purpose use in both standard (Type 50) and corrosive environments (Type 50 NACE).

- **Port Size**: 1/4" NPT
- **Body**: Die-cast aluminum
- **Inlet Pressure**: 250 PSI
- **Pressure Ranges**: 0-10, psi, 0-30 psi, 0-60 psi & 0-120 psi

Backflow Prevention Assembly Test Kit
"MODEL 845-5"

The 845 is in the list of Acceptable gages from Both FCCC & HR-USC and CA-NV AWWA Functions and Applications: Backflow Test Kits provide the capability for testing all brands of Reduced Pressure Principle, Pressure Vacuum Breaker, Spill Resistant Vacuum Breaker and Double Check Valve backflow prevention assemblies.

WGI Teflon Tape

A rugged inert tape made from 100% pure, virgin PTFE. It is highly resistant to acids, alkalies, solvents and gases. Clean and easy to use, never dries out and doesn’t drip or run. Use anywhere you need strength, thickness and resistance on threaded connections. It keeps its protective qualities indefinitely and adapts to galvanized iron, stainless steel, brass, plastic or fibreglass. Underwriters Laboratory of Canada Approved. Meets US military specification MIL-T-27730A.

- **Sizes**: 1/2" x 480" 3/4" x 480" 1" x 480"
- **Thickness**: White Tape 3mm, Yellow Tape 4mm

Mid-West® Instrument

Digital Gauges

Compatible liquids and combustible gases.

- **Sizes**: 1/4" NPT
- **Body Housing**: Aluminum
- **Accuracy**: ±0.25% or ±0.5% Full Scale
- **Accuracy, NEMA 4X Housing**:

Direct Drive Gauges

The advantage of Perma-Cal® direct drive over conventional C-tube gauges is simple, there is only one moving part; no gears, linkages, or springs to wear or break. Perma-Cal® gauges have a unique helical-wound elastic element that is attached directly to the pointer shaft. This eliminates the need for any movement-amplifying gears or linkages (the parts of a C-tube that fail most frequently).

- **Accuracy, Grade 3A, 0.25% of FS**
- **Overpressure without calibration shift, 150% of FS pressure**
- **Burst pressure +500% of FS**
- **Wetted parts, Inconel X-750 element, 316SS stem, 304SS capillary, silver solder**
Additional Product Lines (Distributed Products)

- Differential Pressure Gauges (DPI)
- Gauge Minders
- Backflow Test Kits

- Magnehelic Gauges
- Flow Meters
- Level Gauges / Switches
- Pressure Switches
- Pressure Transducers

- Air / Gas Regulators
- Pressure Gauges
- I/P & E/P Transducers
- FRL’s
- Diaphragm Cylinders

- Direct Drive Pressure Gauges

- Digital Thermometers
- Pocket Thermometers
- Min/Max Thermometers
- Food Service Products

- Gate, Globe, Check, Ball, & Strainer Valve configurations

- Calibration Services
- Pressure Gauges
- Thermometers
- Back-flow Test Kits

- Thermocouples
- RTD’s
- Explosion Proof Heads
- Wire
- Accessories

- High Pressure Valves
- High Pressure Fittings
- Pumps & Intensifiers
- Vessels

- High Pressure Ball Valves
- High Pressure Check Valves

- Calibration Fittings
- High Pressure Swivels
- TwistMate Connectors

- Tube Fittings
- Manifolds
- Valves
- Accessories

- Pressure Gauges
- Thermometers
- Back-flow Test Kits

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