



**WAJAX**



# Instrumentation

**PRODUCT LINECARD**  
**Instrumentation Products**  
**Products Support**  
**Engineered Solutions**  
**Shop & Field Services**



**Together We Get More Done.™**

**@Wajax**



**@gowajax**



**1 877 GO WAJAX**

**wajax.com**

# Applications



- Boiler level armoured gauges or boiler safety instruments
- Pressure and temperature transmitters
- Instrumentation fittings and valves
- Magnetic level gauges
- Pressure and temperature switches
- Heated enclosures



- Boiler level armoured gauges or boiler safety instruments
- Ball and butterfly valves
- Transmitter and switches with diaphragm seal
- Pressure/temperature transmitters and switches
- Gas detection



- Temperature controllers and recorders
- Infra-red temperature measurement and imaging
- Automated ball and butterfly valves
- Temperature sensors
- Gas detection



- Measurement of pH and conductivity
- Gas detection
- Paddle-wheel and insertion magnetic flowmeters
- Transmitter and switches with diaphragm seal
- Ball and butterfly valves



- Boiler level armoured gauges or boiler safety instruments
- Steam flowmeters
- Pressure/temperature transmitters and switches
- Pressure and temperature gauges
- Gas detection



- Boiler level armoured gauges or boiler safety instruments
- Magnetic level gauges
- Gas detection
- Pressure and temperature gauges
- Level detectors
- Instrumentation fittings and valves

NOTE: Certain brands may not be available in all Canadian provinces.

# Level



Armoured Level Gauges



Magnetic Level Gauges



Tubular Glass Level Gauges



Level Illuminators



Boiler Level Gauges



Remote Drum Level Indication



Water Column



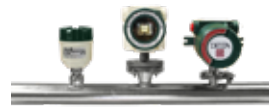
Single probe alarm



Submersible Level Transmitters



Flanged Level Transmitters



Thermal Level Switches



Tuning Fork Level Gauges



Radar Level Gauges



Roto Bindicators



Yo-Yo Level Gauges



Float Style Level Gauges

## BRANDS



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# Flow



**Coriolis Flow Meters (Mass Flow)**



**Magnetic Flow Meters**



**Vortex Flow Meters**



**Water Turbine Flow Meters**



**Fixed Ultrasonic Flow Meters**



**Portable Ultrasonic Flow Meters**



**Rotating Disc Flowmeters**



**Pitot Tube Flow Meters**



**Paddle Wheel Flow Meters**



**Positive Displacement Meters**



**Variable Area Flow Meters / Rotameters**



**Cone / Wedge DP Flow Elements**



**Eductors**



**Visual flow Indicators**



**Turbine Flow Meters**



**Orifice Plates**

## BRANDS



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# Temperature



**RTD & Thermocouple Assemblies**



**Thermowells**



**Bi-Metallic and Gas Filled Thermometers**



**Sanitary Thermometers**



**General Purpose Temperature Switches**



**Explosion Proof Switches**



**Hybrid Transmitter-Switches**



**Speciality Temperature Sensors**



**Temperature Transmitters**



**Application Specific Temperature Measurement**



**Temperature Calibrators**



**Digital Thermometers**



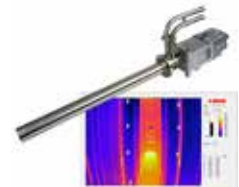
**Fixed Infrared Thermometers**



**Temperature Scanners**

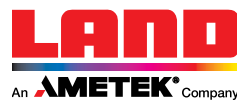


**Portable Infrared Thermometers**



**Fixed Imaging Cameras**

## BRANDS



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# Pressure



Differential & Pressure Transmitters



Pressure Transducers



OEM Pressure Switches



Diaphragm Seal Transmitters



Process Gauges



Gauges with Integrated Diaphragm Seals



Liquid Fill Gauges



Dead Weight Testers



Diaphragm Seals



Hybrid Transmitter Switches



Explosion Proof Pressure Switches



General Purpose Pressure Switches



Instrument Body Enclosures



Complete Enclosures with Heaters & Manifolds



Differential Pressure Gauges



Differential Gauges with Contact

## BRANDS



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# Environmental



Multi 4-Gas Detectors



Multi Gas Detectors with Integral Pump



Wireless Gas Detectors



Single Gas Detectors



Intellidox Stations for Detectors



Fixed Gas Detectors



Searchline Gas Detection



Dissolved Oxygen Sensors and Transmitters



Monitors and Analyzers for pH, Conductivity & Other



Integral pH Sensors and Transmitters



Integral Conductivity Transmitters



Specific Ion Measurement



Digital Indicators for Ph & Conductivity



Turbidity



Chlorine Measurements



NEMA 4X Transmitters for pH & Conductivity

## BRANDS



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# Valves & specialty



**Automated Ball Valves**



**Butterfly Valves**



**Ball Valves  
(Sanitary)**



**Electric Actuators**



**Segmented Ball Valves**



**Ball Valves PVC PVDF**



**Diaphragm Valves PVDF EPDM**



**Butterfly Valves EPDM**



**High Performance  
Firesafe Valves**



**Knife Gate Valves**



**High Performance 3 ,4, 5  
Way Ball Valves**



**Pinch Valves**



**Globe Valves**



**Gate Valves**



**Check Valves**



**Manual Ball Valves**

## BRANDS



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# Valves & Specialty



**Manifolds with Body Enclosure Solutions**



**Close Couple Technology**



**Bypass Manifolds and Valves**



**Check & Safety Valves**



**Compression Fittings**



**Instrumentation Ball Valves**



**Instrumentation Needle Valves**



**Fluid Handling and Metering Valves**



**Solenoid Valves for High Pressure & Temperature**



**Sampling Cylinders**



**Compression Fitting Installation Equipment**



**Pressure Regulators**



**Cylinder Regulators**



**Miniature Regulators**



**Quick Disconnect Fittings**



**Quick Change Fitting Systems**

## BRANDS



Circle Seal Controls



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# Technical Solutions

## Product Support

- Gas Detector Training
- Instrument Selection

## Shop Services

- Instrument Assemblies
- Diaphragm Seal Assemblies
- Instrument Repairs
- Tension and Compression Testing
- Calibration Certificates - Temperature
- Calibration Certificates - Pressure
- Transmitter Calibration and Configuration
- NIST Certified Calibration

## Turn-key solutions such as Process

- Chemical metering skids
- Transfer skids
- Filtration skids
- Centralized lubrication systems



## APPLICATIONS CASE STUDIES



### Improvements to Pipeline System Offer Enhanced Safety and Environmental Protection

Wajax's client transports various grades of fuel through a pipeline system, required enhancements to its operational processes. A key challenge was that when ambient temperatures fluctuate, deep vacuums are created inside the pipes for up to several hours. This can trigger mechanical switches that monitor the pipeline pressures to leak fuel. Leaks of hazardous materials can present a risk of explosion, require ground remediation, and can harm the environment. Leveraging its technical and industry expertise around safety and operational efficiency, Wajax implemented a system to prevent leaks due to vacuums. This system uses an all-stainless steel welded diaphragm and sensors capable of withstanding full vacuum for several days without calibration issues. In addition, the digital display implemented eliminates the need for a mechanical gauge which reduces potential leak paths. The solution enabled the client to address environmental, safety and operational concerns.

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## Infrared Monitoring System Improves Safety

Wajax's client required gigantic industrial ladles to transport hundreds of tons of molten steel each day within its facility. Due to the extreme heat of the liquid metal, these vessels were prone to damage and break-outs, which can threaten personnel safety and create significant damage to the plant. But operators were primarily reliant on personal judgement around the number of 'heats' to evaluate the level of risk. To ensure long-term safety and efficiency, Wajax partnered with the client to help implement a system that would enable the client to evaluate the structural integrity of ladles using real-time data. Wajax implemented an AMETEK Land system to help prevent these breakouts. The system fed data from multiple thermal imaging cameras into a software system that provided early detection of hotspots. With more accurate and timely information, the client was able to successfully improve safety, prevent break-outs, and extend the life of its equipment. As one of Wajax's largest customers, this client's business also includes heavy equipment, industrial parts and Engineered Repair Services.



## Solution Improves Safety and Operation for Underground Mine

To prevent groundwater from entering underground mines, the ground adjacent to the mining zone needed to be frozen. To create this freezing effect, the client used ammonia refrigeration chillers. These chillers use glass level gauges to monitor and control the level of ammonia. However, ammonia tends to 'flash' inside conventional glass gauges. This makes it challenging to monitor and control the level effectively, which creates safety risks to personnel and equipment. Leveraging its engineering and technical expertise, Wajax developed a customised solution to help avoid this flash effect, which included implementing flash-proof magnetic level gauges. By using a flash-proof magnetic level gauge, the Wajax team could resolve the monitoring issue. The upgraded system also provided a highly reliable gauge to mitigate risk of ammonia gas leakage, which helped address safety concerns while enhancing operational performance. In addition to this application, Wajax's business with this important client includes power generation systems and services.



## Distance Boiler Gauge Improves Safety

Wajax's client used a vast boiler system to heat expansive areas. Boilers have to be very carefully managed and are required to follow strict safety codes that include the monitoring of water levels to avoid overheating, which can create the risk of explosion. The client's boiler requirements included critical measurements be completed with at least one direct reading gauge which must be kept in continuous service. The challenge was the current gauges were prone to breaking and difficult to read unless operators were close to the gauge. Wajax worked with the client to implement a system that ensured gauges were visible from a control room 50 feet away. The solution improves workplace safety, the reliability of the measurement gauges and lowers maintenance requirements while adhering to all required boiler safety codes.





# Across Industries. Across Canada.

Since 1858, Wajax has been serving major Canadian industries as one of the nation's leading providers of heavy equipment, power systems, and industrial products and services.

With our dedicated team, national network, diverse market expertise, broad range of products and services and world-class vendor partners – Wajax has you covered from coast-to-coast.

