



## POSITIVE DISPLACEMENT **FLOW METERS**

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## ABOUT AW GEAR METERS:

The AW-Lake line of Positive Displacement flow meters have been the industry-standard flow meters for low flow applications, for example chemical injection, paint & adhesives, hydraulics, cylinder positioning, and hot melt, among others. The reasons companies standardize on our meters are simple:

**Exceptional Quality:** Our manufacturing facilities maintain the highest quality standards and superior machining technology. Our meters are calibrated to the highest specifications of NIST or ISO 17025.

**Ability to Customize:** Are you measuring a very specialized fluid that requires special materials of construction? Do you need to fit meters into tight spaces? Is there a need for specialized electronics? Our engineers are here to design a custom flow measurement system for you.

**Industry Experience:** We have been in the trenches with our customers... we understand their unique environments, challenges, and requirements. A purchase from AW-Lake Company comes with flow measurement expertise and industry experience to make the process as smooth as possible.

**Global Support:** With offices in the US, Europe, China and Singapore, we are strategically positioned to support our customers around the globe.



## POSITIVE DISPLACEMENT FLOW METERS



### JV-CG — SPUR GEAR FLOW METER

JV-CG Positive Displacement Meter is ideal for highly accurate, yet cost-effective metering of paints and industrial fluids.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down  
**Six Flow Ranges:** 0.001 to 20.0 GPM  
**Pressure Rating:** up to 5,000 psi  
**Temperature Rating:** Up to 450°F  
**Body Materials:** 303 and 316 stainless steel  
**EX Version:** Explosion-Proof version available



### JV-KG — SPUR GEAR FLOW METER

JV-KG Positive Displacement Meter is ideal for measuring oil, fuel, polyurethane, brake fluid, Skydrol® and other non-abrasive, low- to mid-viscosity lubricating fluids.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down  
**Six Flow Ranges:** 0.003 - 120 gpm (4.32-172,800 gpd)  
**Pressure Rating:** up to 5,000 psi  
**Temperature Rating:** Up to 450°F  
**Body Materials:** 303 and 316 stainless steel and aluminum  
**EX Version:** Explosion-Proof version available



## SPECIALITY POSITIVE DISPLACEMENT FLOW METERS



### SUBSEA SPUR GEAR FLOW METER

Our Subsea Positive Displacement Meters are available in a wide variety of flow ranges and electrical outputs, as well as a variety of exotic materials for highest corrosion resistance and material compatibility. Electronics are bolted on and sealed to withstand external pressures and temperatures.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down  
**Working Pressure:** Internal up to 15,000 psi  
External up to 8,700 psi  
**Flow Ranges:** 0.001 GPM to 70 GPM @1 cP  
**Water Temperature:** As low as  $-40^{\circ}\text{F}$   
**Temperature Rating:** Up to  $450^{\circ}\text{F}$   
**Turn down:** 400:1 with linearization  
**Analog Sensor:** 4-20 mA, pulse, HART®, Modbus, Foundation Fieldbus



### JV-HS — HIGH PRESSURE SPUR GEAR FLOW METER

JVHS High Pressure Positive Displacement Meter works extremely well under high pressure. Ideal for measuring oil, fuel, additives and chemicals in hazardous area rated environments, such as oil production platforms, land-based oil recovery sites, and chemical processing plants.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down  
**Three Flow Ranges:** 0.003 to 7 GPM  
**Pressure Rating:** up to 15,000 psi  
**Temperature Rating:** Up to  $450^{\circ}\text{F}$   
**Body Material:** 316 stainless steel  
**EX Version:** Explosion-Proof version available



### MICROFLOW — LOW FLOW SPUR GEAR FLOW METER

MicroFlow Positive Displacement Meter is ideal for flow measurement of low and medium viscosity fluids (solvents, polyurethanes, oils and other non-abrasive fluids) at very low flow rates, as in chemical injection.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down  
**Flow Range:** 0.0005 to .25 GPM  
**Pressure Rating:** up to 5,000 psi  
**Temperature Rating:** Up to  $450^{\circ}\text{F}$   
**Body Material:** 316 stainless steel  
**EX Version:** Explosion-Proof version available



### SLG — COMPACT SPUR GEAR FLOW METER

SLG Compact Positive Displacement Meter is ideal for measuring paints & coatings, especially where robotics are utilized or when space is limited.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down  
**Three Flow Ranges:** 0.003 to 2 GPM  
**Pressure Rating:** up to 2,000 psi  
**Temperature Rating:** Up to  $450^{\circ}\text{F}$   
**Body Material:** JVS: 316 stainless steel (2,000 psi max)  
**Intrinsically Safe Sensors Available**



### JVK — PLASTIC SPUR GEAR FLOW METER

JVK Plastic Positive Displacement Meter is ideal for measuring chemicals, including the strongest of chemicals such as acid, caustic-based fluids and corrosives.

**Measuring Accuracy:**  $\pm 1\%$  over a 10:1 turn down  
**Flow Range:** 0.1 to 7 GPM  
**Pressure Rating:** up to 500 psi  
**Temperature Rating:** Up to  $110^{\circ}\text{F}$   
**Body Materials:** Kynar® body with ceramic bearings



## ZHM — SPUR GEAR FLOW METER

ZHM Positive Displacement Meter is ideal for measuring the flow rates multi-viscosity fluids, as well as abrasive fluids and fluids under high pressure, such as paints, coatings, waxes, epoxies, sealants and oils.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down

**Ten Flow Ranges:** 0.001 to 265 GPM

**Pressure Rating:** up to 9,000 psi

**Temperature Rating:** Up to 450°F

**Body Material:** 303 stainless steel (standard)

*\*Contact factory for other materials available*

**EX Version:** Explosion-Proof version available

## HELICAL GEAR METER



### SRZ — ULTRA HIGH RESOLUTION HELICAL GEAR FLOW METER

SRZ STAT-HR High Res Helical Gear Meter ideal for highly filled and abrasive fluids, such as polyurethanes and polymers, glues and sealing materials, as well as heavy fuel oils.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down

**Flow Ranges:** 0.1 to 105 GPM (STAT model)  
0.1 to 2.0 GPM (HR model)

**Pressure Rating:** up to 6,000 psi

**Temperature Rating:** Up to 160°F

**Two Models:** STAT – High Resolution  
HR – Ultra High Resolution

**Body Material:** 303 stainless steel



### SRZ — HELICAL GEAR FLOW METER

SRZ Helical Gear Meter is ideal for highly filled and abrasive fluids, such as polyurethanes and polymers, glues and sealing materials, as well as heavy fuel oils.

**Measuring Accuracy:**  $\pm 0.5\%$  over 10:1 turn down

**Three Flow Ranges:** 0.1 to 105.0 GPM

**Pressure Rating:** up to 6,000 psi

**Temperature Rating:** Up to 450°F

**Body Material:** 303 stainless steel

## TURBIDITY SENSOR



### PROSCAN — TURBIDITY SENSOR

Ideal for detection of material transitions, monitoring turbidity and measuring product concentration, such as in dairy processing, juice processing, and brewing operations.

**Four sensor sizes:** 1 1/2", 2", 2 1/2", and 3" (sanitary)

**Stainless steel housing:** NEMA 6 / IP67

**Lens:** Sapphire

**4-20mA output / 10 programmable points**

**Temperature Rating:** 32-212°F (constant)  
32-300°F (intermittent)

## COMPATIBLE ELECTRONICS

We offer a complete line of compatible electronics, including local and remote displays, explosion-proof displays, closed loop controllers and batch controllers.



### ▶ MX 9000 — Panel Meter

- Rate, total & limit
- Batch control (up to 20 batches) or ratio monitor
- Built in 30 point linearizer
- Single or dual channel
- USB port for remote programming & data logging
- Two programmable Form C Relay outputs
- Assignable 4-20 mA output



Industrial Enclosure System

### Available in Industrial Enclosures

#### Standard Enclosure:

- On/Off Switch
- Power Cord
- DIN Rail

#### Options:

- Audible alarm
- Light stack for visual indication
- External buttons & switches



### ▶ RT — Family of Local Monitors

- CSA explosion-proof rating available
- Battery, or 15-24 VDC supply
- Built in 30 point linearizer
- HART® communication protocol
- 4-20 mA rate and scaled pulse outputs
- Programmable outputs



### ▶ FlowPod — Local Display

- Compact
- 2 or 4 wire
- 2 sensing options
- Tool-free assembly
- Rotatable through 360° display
- Low Maintenance
- EX Version: Explosion-Proof version available (CSA, ATE, IECEx)

## FLOW SENSORS & SIGNAL CONDITIONERS



### ▶ Outputs:

- Pulse Output (sinking & sourcing)
- Analog Outputs Available:
  - 1-5 VDC
  - 2-10 VDC
  - 0-5 VDC
  - 0-10 VDC
  - 4-20 mA
  - 0-20 mA

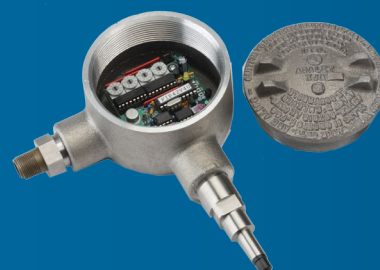
### ▶ Sensor Types:

- Analog
- Hall-Effect
- Carrier Frequency
- Inductive
- Fiber Optic



### ▶ Options Include:

- Quadrature
- Current or Voltage
- CSA, ATEX or IECEx
- High Temperature Version up to 450°F (stainless steel meters only)
- Frequency-to-Analog Conversion
- Pulse Amplification



# INDUSTRIES

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## OIL & GAS

As the leading supplier of offshore chemical injection flow meters, AW-Lake is acutely aware of the unique challenges faced by our Oil & Gas customers. We lead the onshore industry with our TRICOR Coriolis meter that has Net Oil calculations built right in. Together we help customers increase process efficiency, save operation costs, and reduce down-time.



## CHEMICAL/PETROCHEMICAL PROCESSING

We manufacture multiple lines of flow instrumentation well suited to the Chemical and Petrochemical industries. From organic chemicals to industrial solvents, resins, and adhesives, we supply meters capable of providing accurate measurement solutions to a wide variety of chemical applications.



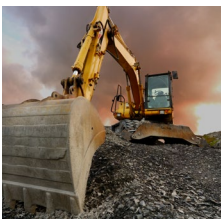
## AUTOMOTIVE/GENERAL MANUFACTURING

AW-Lake designed several flow meter lines that excel at measuring the flow of paints, coatings, sealants and adhesives found in automotive and general manufacturing. For decades, AW-Lake has produced meters that handle materials that are thick, abrasive, and subject to a broad range of system pressures.



## SUBSEA

Whether for subsea drilling operations, blowout prevention, ROV maintenance, valve actuation or subsea chemical injection AW-Lake's subsea PD and turbine flow meters are up to the task. Your offshore mission critical processes require the most reliable, highest accuracy instruments – those that were designed for the harsh subsea environment.



## INDUSTRIAL VEHICLE

Working with OEM manufacturers, AW-Lake has many years of experience providing flow measurement solutions to manufacturers of industrial, agricultural, and military vehicles. We help our customers safely monitor performance of cooling systems, lubrication systems, and other critical systems in these hard-working vehicles.



## MARINE

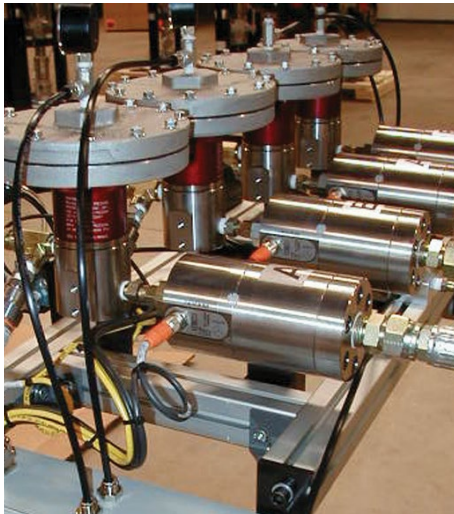
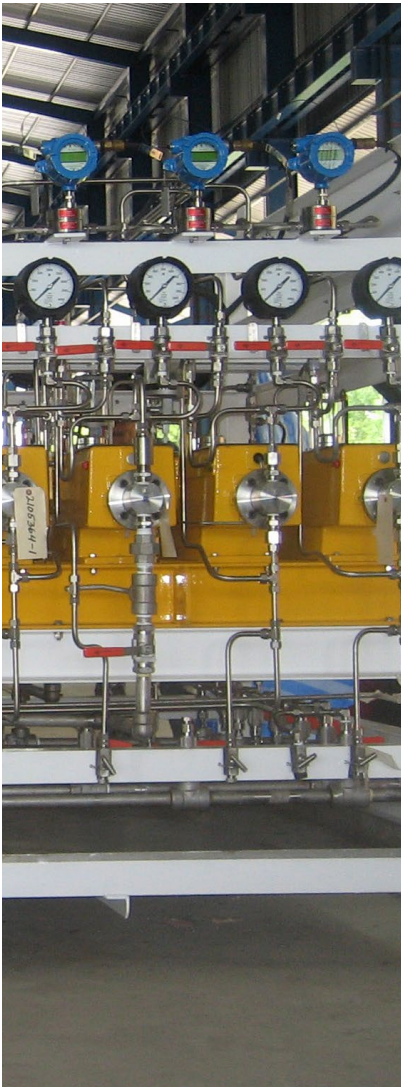
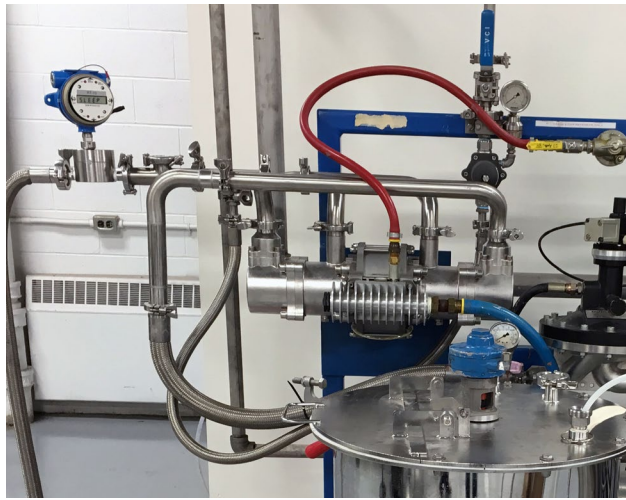
Since fuel usage directly affects operating costs in the maritime industry, accurate fuel consumption data is critical for controlling costs, decreasing fuel usage, and meeting EPA standards. Our ABS approved TRICOR Coriolis meters provide accurate mass flow measurements that help ship owners and operators keep their fleets globally competitive.



## FLUID POWER

Several of AW-Lake's product lines are particularly suited to around-the-clock monitoring of lubrication levels and process fluid quality to maintain optimal performance of hydraulic systems. Our broad line of electronics display flow measurement data at the meter or transmit that data to larger internal systems, computers or PLCs as needed.







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