



## TURBINE FLOW METERS & ELECTRONICS

## ABOUT AW-LAKE TURBINE FLOW METERS:

At AW-Lake, our turbine flow meters are crafted on state-of-the-art machining centers and wet tested on our flow calibrator to ensure accuracy and repeatability. Backed by more than 50 years of experience in turbine flow meters, AW-Lake continually serves global customers in oil & gas, petrochemical, semiconductor, food & beverage, pharmaceutical, and process control.



### TRG — STANDARD TURBINE FLOW METER

The TRG series is the workhorse of turbine flow meters. Its rugged stainless steel body construction and vast range of sizes makes this turbine ideal for many applications and is suitable for water, solvents, and other lower viscosity fluids, such as antifreeze.

**Flow Ranges:** 0.08 - 200 GPM  
**Working Pressure:** up to 5,000 PSI  
**Accuracy:**  $\pm 1\%$  of reading  
**Repeatability:**  $\pm 0.1\%$   
**Connections:** NPT  
**Body Material:** 316L stainless steel



### HM — HIGH PRESSURE TURBINE FLOW METER

Perfect for chemical injection systems, the HM flow meter withstands pressures up to 20,000 psi and is available in seven different flow ranges, from .08 GPM to 32 GPM.

**Flow Ranges:** 0.08 - 32 GPM  
**Working Pressure:** up to 20,000 PSI  
**Accuracy:**  $\pm 1\%$  of reading  
**Repeatability:**  $\pm 0.05\%$   
**Connections:** Medium pressure AutoClave® (Optional Flanges: Grayloc® and Techlok®)  
**Body Material:** 1.3980 Stainless Steel



### HM...F — FLANGED TURBINE FLOW METER

The well respected HM series turbine flow meters are also available in flanged versions for those applications where ease of installation and removal are a priority. The HM...F meter is available in ANSI and DIN flange connections, depending on your preference or pressure requirements.

**Flow Ranges:** 0.08 - 12,000 GPM  
**Working Pressure:** Dependent on flange  
**Accuracy:**  $\pm 1\%$  of reading  
**Repeatability:**  $\pm 0.05\%$   
**Connections:** ANSI & DIN flanges  
**Body Material:** 316 Ti stainless steel/ 316L



### TW — TURBINE FLOW METER

The TW turbine is ideal to withstand the demands of the most rigorous flow measurement applications such as liquid flow measurement on or off the oilfield.

**Flow Ranges:** 0.06 - 5,000 GPM  
**Working Pressure:** up to 5,000 PSI  
**Accuracy:**  $\pm 1\%$  of reading ( $\pm 1\%$  of reading over the upper 70% of the measuring range for 3/8, 1/2 and 3/4 in. meters)  
**Repeatability:**  $\pm 0.1\%$   
**Connections:** NPT and Victaulic®  
**Body Material:** 316 Stainless steel



## SUBSEA TURBINE FLOW METER



The sturdy construction of the subsea turbine flow meter means high performance and longer service life. With completely sealed off electronics and subsea connector there is no need for electronics module canister space.

- Flow Ranges:** 0.08 to 15.8 GPM
- Working Pressure (External):** Up to 7,200 PSI
- Working Pressure (Internal):** Up to 20,000 PSI
- Temperature:** -40 to 250°F
- Frequency Range:** 2 up to 2,000 Hz
- Connections:** AutoClave®
- Body Material:** 316 Ti stainless steel

## TR-QS — WAFER-STYLE TURBINE FLOW METER



The modified upstream and downstream flow straighteners of the TR-QS wafer-style turbine flow meter allow for a higher accuracy and greater fluid dynamics.

- Flow Ranges:** 0.5 - 5,000 GPM
- Working Pressure:** Refer to ASME/ANSI B16.5-1996
- Accuracy:** ±1% of reading (Liquid)
- Repeatability:** ±0.1%
- Connections:** Wafer-style ASME/ANSI B16.5-1996 Threaded, Flange, Grayloc®, Victaulic
- Body Materials:** 316 & 316L stainless steel

## TA3 — SANITARY TURBINE FLOW METER



Food and beverage processing plants require specialized standards different than many other industries. The TA3 series sanitary turbine meter meets the challenge. Used in plants around the world, the TA3 turbine has proved itself in industries including dairy, brewing, wine production and pharmaceuticals.

- Flow Ranges:** 0.6 - 400 GPM
- Working Pressure:** up to 1,000 PSI
- Accuracy:** ±1% of reading
- Repeatability:** ±0.1%
- Connections:** Tri-clamp sanitary process connection
- Body Material:** 316L stainless steel
- 3-A Sanitary Certificated**

## COMPATIBLE ELECTRONICS

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



### RT-50 Battery-Powered Flow Rate Transmitter

- Bluetooth connectivity for easy setup and monitoring from a mobile device
- Resettable Total and Grand Total
- Quick menu navigation
- Flow filtering
- Real-time clock & Contract time
- 10-point linearization



### RT-30 SD & EX Transmitters with Local Display

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

## FLOW SENSORS & SIGNAL CONDITIONERS

We provide sensors with the output you want – frequency, analog, voltage, Modbus or HART. Setup and trouble-shooting is made easier through the use of our PC and mobile apps.



### Sensor Types:

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

### Options Include:

- Bluetooth
- Quadrature
- Current or Voltage
- CSA, ATEX or IECEx
- High Temperature Version up to 600°F
- Frequency-to-Analog Conversion
- Pulse Amplification

**AW-Lake Company**  
2440 W. Corporate Preserve Dr. #600  
Oak Creek, WI 53154  
414.574.4300  
www.aw-lake.com

**KEM Küppers Elektromechanik**  
GmbH Liebigstraße 5  
85757 Karlsfeld, Germany  
+49 (0)8131 59391-0  
www.kem-kueppers.com

**TASI Flow China**  
Rm. 2429 Jin Yuan  
Office Building, No. 36  
CN - BeiYuan Road, Beijing 100012  
+86 10 520 037 38

