



## EMCO Flow Systems Product Guide

Flow metering  
technologies for  
liquid, steam, and  
gas applications



## Water Measurement

Suited to traditional and conductive liquid applications, our line of industrial, municipal, and HVAC flow meters provides superior accuracy and maintenance-free operation for ultimate performance.



### Sono-Trak™ Transit Time Ultrasonic

- *Liquid applications*
- *Accuracy typically  $\pm 2.0\%$  of rate*
- *Simple, non-invasive, clamp-on installation*
- *Maintenance-free operation*
- *Multiple outputs available*
- *Fully submersible NEMA 6-rated transducers*
- *EZ-Logic™ menu-driven user interface*
- *Built-in infrared capability for optional PC interface*



### Sono-Trak™ Doppler Ultrasonic

- *Liquid applications with reflective materials or air bubbles*
- *Typically  $\pm 2.0\%$  full-scale accuracy with proper flow conditions*
- *Automatic gain control for variable conditions*
- *Variable frequency drive (VFD) immunity*
- *Simple, clamp-on installation*
- *Custom cable lengths of up to 5000'*
- *User-friendly, menu-driven interface*



### Magflo® Electromagnetic

- *Conductive liquid applications*
- *Accuracy up to 0.25% of rate*
- *No moving parts*
- *SENSORPROM® technology for easy maintenance*
- *Backlit display*
- *Flanged, wafer, and sanitary connections available*
- *Comprehensive selection of liners, including ceramic, PTFE, Neoprene, LinaTex, etc.*



## Steam & Gas Measurement

Designed for steam, gas, and liquid measurement for industrial, and HVAC applications, our exceptional line of metering technologies offers the perfect set of features to fit your particular criteria.



### V-Bar™ Insertion Vortex

- *Liquid, gas, and steam applications*
- *EZ Logic™ user interface*
- *Liquid flow velocity down to 1.5 ft/sec (0.45 m/sec)*
- *Installation without process shutdown*
- *Flow turndown ratio up to 25:1*
- *No moving parts, resulting in no maintenance*
- *Accuracy*
  - *Liquids  $\pm 1.0\%$  of rate*
  - *Gas and steam  $\pm 1.5\%$  of rate*
- *Repeatability  $\pm 0.15\%$  of rate*



### Turbo-Bar™ Insertion Turbine

- *Liquid, gas, and steam applications*
- *EZ Logic™ user interface*
- *Liquid flow velocity down to 1 ft/sec (0.3 m/sec)*
- *Installation without process shutdown*
- *Flow turndown ratio up to 35:1*
- *Accuracy*
  - *Liquids  $\pm 1.0\%$  of rate*
  - *Gas and steam  $\pm 1.5\%$  of rate*
- *Repeatability  $\pm 0.25\%$  of rate*



### Vortex PhD™ Inline Vortex

- *Gas, steam, and liquid applications*
- *EZ Logic™ user interface*
- *Liquid flow velocity down to 1.5 ft/sec (0.45 m/sec)*
- *No moving parts, resulting in no maintenance*
- *Accuracy*
  - *Liquids  $\pm 0.7\%$  of rate*
  - *Gas and steam  $\pm 1.0\%$  of rate*
- *Repeatability  $\pm 0.15\%$  of rate*
- *No need for bypass piping installation*



## Commercial Water Measurement

Measuring a wide range of liquids, including water, water-glycol mixtures, and solvents, the Hydro-Flow series of flow meters provides the low-cost, low-maintenance solution for your unique application.



### Hydro-Flow™ Water Vortex (Models 1200, 2200, 2300, 3100)

- Water, water-glycol mixture, and solvent applications
- No moving parts, resulting in no maintenance
- Flow range 1 to 15 ft/sec (0.3 to 4.5 m/sec)
- Accuracy  $\pm 1.0\%$  full scale
- Inline and insertion models for line sizes from 1 to 20"
- Microprocessor-based electronics with optional local display
- Maximum fluid temperature 160°F (70°C)

Flow Meter Type	Steam & Gas	Water	DI & Ultra Pure Water	Viscous Liquids	Raw Sewage	Acids & Chemicals	Hydro-Carbons	Low Flow
Transit-Time Ultrasonic		•	•	•	•	•	•	•
Doppler Ultrasonic				•	•	•		•
Electromagnetic		•		•*	•	•*		•
Insertion Vortex	•	•					•**	
Insertion Turbine	•	•					•**	•
Inline Vortex	•	•				•	•**	
Water Vortex		•	•			•		•

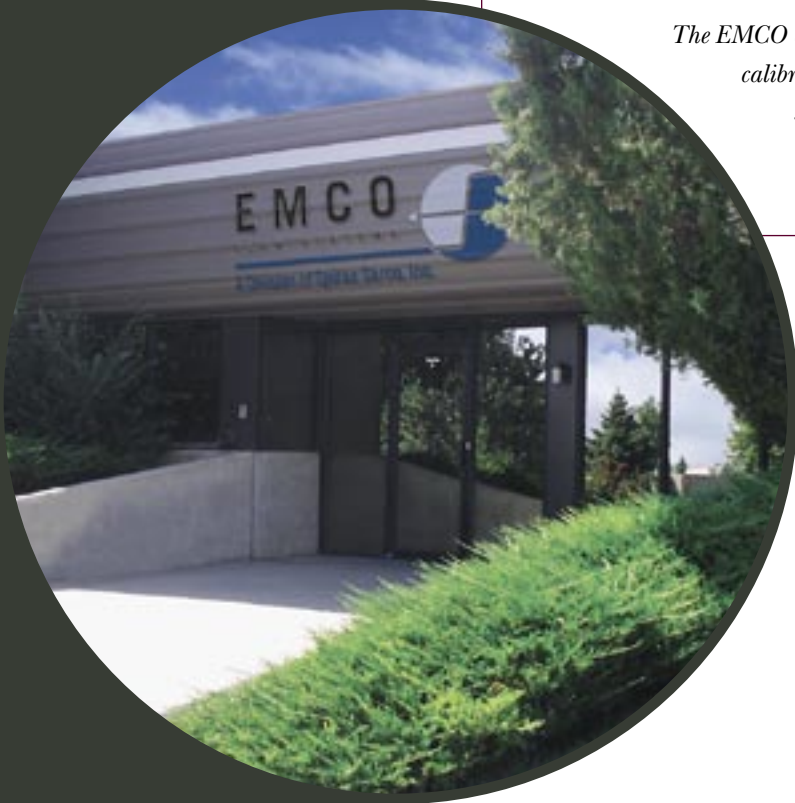
\* Must be conductive liquid greater than 5  $\mu\text{s}/\text{cm}$ .

\*\* Low viscosity (< 3 cP)

Line Size	¼"	½"	1"	3"	12"	20"	80"	100"
Transit-Time Ultrasonic				████████████████████	████████████████████	████████████████████	████████████████████	████████████████████
Doppler Ultrasonic		████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████
Electromagnetic	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	
Insertion Vortex				████████████████████	████████████████████	████████████████████	████████████████████	
Insertion Turbine				████████████████████	████████████████████	████████████████████	████████████████████	
Inline Vortex			████████████████████	████████████████████	████████████████████			
Water Vortex			████████████████████	████████████████████	████████████████████	████████████████████		

*EMCO Flow Systems, a division of Spirax Sarco, Inc., is the brand of precision flow meters for liquid, gas, and steam applications, accommodating a wide range of pipe sizes. Field proven for over 35 years, the EMCO product line offers solutions for liquid, gas, and steam measurement, including industrial inline vortex, industrial insertion vortex and turbine, commercial vortex, electromagnetic, and clamp-on ultrasonic flow products. EMCO products provide a wide range of metering solutions to diverse industries, including the military, hospitals, universities, and many Fortune 500 companies.*

*The EMCO commitment to quality is focused on extensive flow calibration capabilities, engineering excellence, and superior service, resulting in the best and most cost-effective flow meters in the industry.*





**EMCO Flow Systems is a division of Spirax Sarco, Inc. • 1150 Northpoint Blvd. • Blythwood, SC 29016**

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SL-EMCO-210-02 3M 9/05