

## GAS & LIQUID FLOW METERS - PRECISE & RELIABLE

### DESCRIPTION

The Waukee Flo-Meter™ is a precision instrument. Its aluminum body assures reliable performance and long service life. The patented float rod assembly is the meter's only moving part. Each flow meter is calibrated according to the **VDE/VDI 3513** standard in Waukee's ISO/IEC17025:2005 accredited laboratory.

Waukee flow meters can measure gas flows ranging from 4-40,000 CFH (0-1140 m<sup>3</sup>/hr) and liquid flows from 1.5 to 25 GPH (4-94 l/hr). A built-in control valve can be supplied for manual adjustment of gas flow rate.

Waukee Flo-Meter™ sizing depends on the type of fluid to be measured and the desired maximum flow rate at operating temperature and pressure. Standard Waukee flow meters are designed for a maximum operating pressure of 100 psig (7 bar) and 200°F (93°C) temperature.

### FEATURES

- Meets NFPA requirements for visual indication of flow
- Simple installation, panel or bracket mounting
- Easy to maintain
- Calibrated in our ISO/IEC17025:2005 Calibration Lab and traceable to NIST (National Institute of Standards and Technology)
- High turndown ratio
- Gas flow capacities up to 40,000 CFH (1140 m<sup>3</sup>/hr)
- Liquid flow capacities up to 25 GPH (94 l/hr)
- Aluminum body for reliable long service life
- Available with manual control valve
- Low pressure drop, less than 2"wc (5 mbar)

### SPECIFICATIONS

Scale: **Air (70°F; 14.7 PSIA / 21°C; 1 bar)**

Model S: 4-100 CFH (0-3 m<sup>3</sup>/hr)

**Model M: 10-1,500 CFH (0-42 m<sup>3</sup>/hr)**

Model L: 150-40,000 CFH (4-1140 m<sup>3</sup>/hr)

Liquid

Model SF: 1.5-25 GPH (4-94 l/hr)

Turndown Ratio: Model S: 10:1  
**Model M: 12.5:1**  
 Model L: 15:1

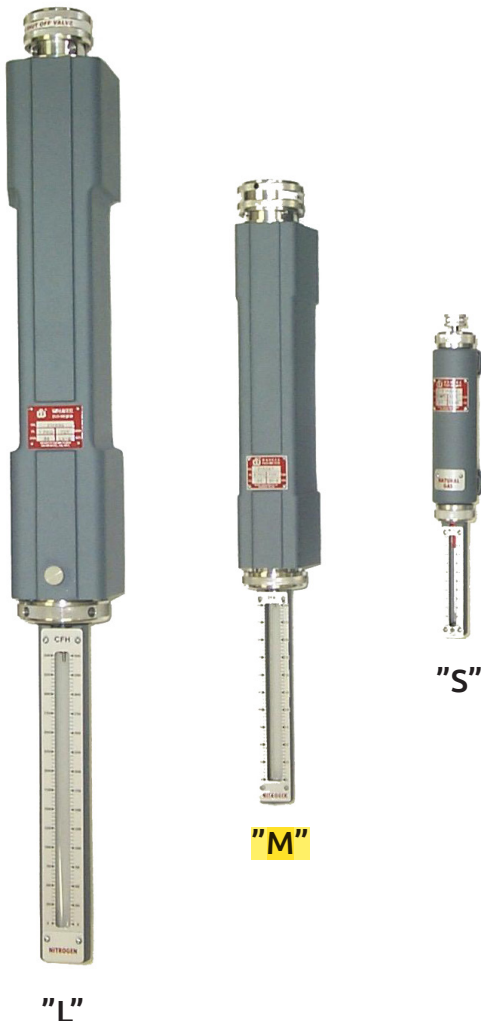
Accuracy: VDE/VDI 3513 sh.2, q<sub>c</sub>=50%  
 Model S/SF: 5%  
**Model M: 4%**  
 Model L: 3%

**Max Operating Temperature: 200°F (93°C)**

**Max Operating Pressure: 100 PSIG (7 bar)**

Pressure Drop: ≤ 2" W.C. (5 mbar)

Recommended Diff. Pressure: ≥ 0.5 PSI; 14" W.C. (35 mbar)



### CALIBRATION (N.I.S.T. TRACEABILITY)

Upon request, a 3pt, 8pt, or 13pt Calibration Curve can be provided with a Waukee Flo-Meter™ that is traceable to the National Industry of Standards and Technology.\*

## MINIMUM ORDERING INFORMATION

- Fluid type or specific gravity of fluid to be metered
- Fluid temperature
- Maximum flow rate
- Supply pressure
- Scale units



Waukee flow meters are custom built, then individually calibrated to VDE/VDI 3513, based on the customer specifications. Optional calibration certification is available.\*

## SG OF COMMONLY METERED FLUIDS

Air (1.00)	Ammonia (0.59)	Argon (1.38)
Butane (2.02)	Endothermic (0.59)	Hydrogen (0.069)
Natural Gas (0.65)	Nitrogen (0.96)	Oxygen (1.105)
Propane (1.52)	Water (1.00)	Methanol (0.79)
Acetone (0.79)		

## SELECTION CHART FOR WAUKEE "GAS" FLOW METERS

MOST FREQUENTLY REQUESTED METER SCALE - BASED ON AIR										
CFH: 0 to	75	100	350	500	650	750	1000	1500	2000	5000
m³/h: 0 to	2	2.5	10	14	18	20	30	42	60	140
Meter	S7/M5	S7/M6	M8/L3	M9/L3	M10/L4	M10/L4	M10/L4	L5	L5	L7

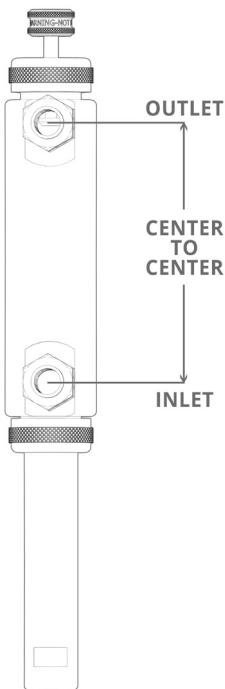
Meter Selection for Air at SG=1.0, 70°F (21°C), 14.7 psia (1 bar)

**Custom Sizes Also Available**

## SELECTION CHART FOR WAUKEE "LIQUID" FLOW METERS

TYPE "S" FLOW METERS FOR LIQUIDS								
Liquid to be measured	GPH	1.5-2	3-5	5-7.5	7.5-10	10-12.5	12.5-15	15-25
	LPM	5.7-7.6	11.4-18.9	18.9-28.4	28.4-37.9	37.9-45.4	45.4-56.8	56.8-94.6
Methanol	S.G. 0.79	SF-1	SF-2	SF-3	SF-4	SF-5	SF-6	SF-7
Acetone	S.G. 0.79	SF-1	SF-2	SF-3	SF-4	SF-5	SF-6	SF-7
Water	S.G. 1.00	SF-1	SF-2	SF-3	SF-4	SF-5	SF-6	SF-7

## FINAL SELECTION REQUIRES FACTORY GUIDANCE



## METER DIMENSIONS

Model	Height with Manual Valve	Height without Manual Valve	Width	Height Center to Center	Pipe
S1-S7	11.30" 28.7 cm	10.38" 26.37 cm	1.5" 3.81 cm	4.25" 10.80 cm	¼"-18 NPT
M1-M7	20.50" 52.1 cm	19.44" 49.38 cm	2.12" 5.38 cm	7.88" 20.02 cm	¾"
M8-M11	21.44" 54.46 cm	20.38" 51.77 cm	2.81" 7.14 cm	8.375" 21.27 cm	1 ¼"
L1-L3	30.90" 78.49 cm	29.34" 74.52 cm	3.00" 7.62 cm	12" 30.48 cm	1 ¼"
L4-L6	32.38" 82.24 cm	30.56" 77.62 cm	3.81" 9.68 cm	12.62" 32.06 cm	2"
L7	36.00" 91.44 cm	33.69" 85.57 cm	5.25" 13.34 cm	14.75" 37.47 cm	3"
L8-L9	38.82" 98.6 cm	36.38" 92.41 cm	6.50" 16.51 cm	16.25" 41.28 cm	4"
L10	n/a	36.38" 91.41 cm	8.50" 21.59 cm	18.25" 46.36 cm	5"

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