EXAKT FLOWMETER INSTALLATION GUIDE

GENERAL INSTALLATION:

EXAKT meters were designed to assist in making installations fast and simple. Basically these meters are installed in the same fashion as a true union ball valve. All meters are intended for vertical positioning only.

EXAKT meters are equipped with union ends ported in threaded (FNPT), solvent socket weld or heat fusion socket weld. Union fittings should always be removed from the meter body before installation. Welding solvents and glue should never be allowed to contact the meter body, float, or other meter components.

Connections are O-ring sealed and designed for hand tightening between the meter body and union ends. Wrenches of any kind are not to be used on meter bodies. For removal after initial installation (cleaning), should a wrench be necessary, strap type wrench in recommended and should be used on the union insert and securing nut.

HOW TO READ YOUR EXAKT FLOWMETER:

The correct flow rate is indicated where the top of the float lines up with the scale readings.

REMOVE VIEW INDICATOR ARROWS

For distant visual monitoring, red external indicators arrows are furnished as standard. The arrows are positioned along a guide rail on the meter face between the dual scales. Simply place the arrows at critical high and low flow points.

EXTERNAL SWITCHES

Critical high/low float alarms are available. These external Reed switched actuated by magnetic floats. The Z31 is single pole (unlatched) and the Z32 is dual pole (latched). Multiple pod switches are also available for percent scale readouts and computer interfacing (4-20 MA OR 0-5 V). Consult with your local area distributor or the factory for guidance.

LIQUIDS AND GASES

EXAKT meters can be used with a wide range of fluids - liquid or gas. A variety of scales are available, but the ones most often furnished are either the GPM of SCPM with a percent scale. Liquid scales for the variation of specific gravity are clearly indicated. Gas scales are available in one atmosphere (14.7 PSI) increments. Consult either the chemical compatibility tables in our brochure or the factory for material selections.

ROTAMETER GAS CORREECTION FACTOR EQUATION

All standard EXAKT air meters come calibrated for air flow at 0 PSIG and 68° F.
In order to accuratly measure gas flow for other gases and conditions, a corrected factor must be calculated and applied to all readings.
The equation used to compute the corrected factor is:

F_{actual} = true (corrected) rate of flow
$F_{indicated}$ = indicated meter reading (uncorrected)

P_{cal} = density of calibration gas
P_{actual} = density of natural gas
} @STP

P_{cal} = pressure during meter calibration (14.7 PSIA)
P_{actual} = operating pressure at exit of meter (in PSIA)

T_{cal} = gas temperature during calibration ($528^{0}R = 68^{0}F$)
T_{actual} = gas temperature during operation (in $^{0}R = {}^{0}F + 460$)

$$F_{actual} = F_{indicated} \times \sqrt{\frac{P_{cal}}{P_{actual}} \times \frac{P_{actual}}{P_{cal}} \times \frac{T_{cal}}{T_{actual}}}$$

Maximum Operating Pressure (psi)

Operating Temp. F.	PVC	CPVC	PP	PVDF
100	150	150	150	150
110	135	140	140	150
120	110	130	130	150
130	75	120	118	150
140	50	110	105	150
150	N.R.	100	93	140
160	N.R.	90	80	133
170	N.R.	80	70	125
180	N.R.	70	50	115
190	N.R.	60	N.R.	106
200	N.R.	50	N.R.	97
250	N.R.	N.R.	N.R.	50
280	N.R.	N.R.	N.R.	25

N.R. = Not Recommended.
Standard Design Not UV Protected.

WARRENDER, LTD.
28401 N. Ballard Dr. Suite H.
Lake Forest, IL 60045

Ph:(847) 247-8677
Fax:(847) 247-8680
www.warrender.com
email:sales@warrender.com

Seal-less Mag-drive Pump Specialists