

# Blue-White<sup>®</sup>

## Industries, Ltd.



F-430N

F-440LEA

**FLEXFLO<sup>®</sup>**  
A-100NV DIGITAL  
MODEL

**CHEM-FEED<sup>®</sup>**  
NOIR

**CHEM-FEED<sup>®</sup>**  
C-1500N

F-461

**BW DIGI-METER<sup>®</sup>**  
FLOW MONITORING SYSTEM

**BLUE-WHITE<sup>®</sup> has been a leading manufacturer of top quality Flowmeters, Metering Pumps and Water Treatment Accessories for 53 years.**

At Blue-White, we pride ourselves on innovative engineering, quality materials of construction and excellent customer service. Our worldwide network of factory authorized representatives, distributors, dealers and warranty centers look forward to serving you. This catalog is designed to familiarize you with Blue-White's extensive product lines. If you don't see the product that meets your system requirements here, please contact the factory. In addition, Blue-White is pleased to provide price quotation for custom calibrations and feed rates; alternate materials of construction, and private labeling to volume purchasers.

**FLOWMETERS • METERING PUMPS • ACCESSORIES**





# CHEM-FEED<sup>®</sup> METERING PUMPS

When you need a Tough,  
Accurate, Dependable Metering  
Pump insist on CHEM-FEED<sup>®</sup>.

CHEM-FEED injectors combine high quality materials of construction and smart engineering, with flexibility and value.

Because we manufacture most of the components in our own plant, including the all ball bearing gear motor, we can offer CHEM-FEED metering pumps with a wide range of configuration, material, voltage and feed rate options.

CHEM-FEED metering pumps feature Blue-White's Exclusive Heavy Duty Cartridge Valve Head. The thoughtful design of this pump head begins with BULLET Cartridge Valves constructed of tough PVDF Plastic. Each Valve has two Ceramic Ball Checks and, is double sealed with high grade Aflas o-rings. The double ball valve pump head design ensures enhanced priming capabilities, and it is exceptional for purging air and gas.

Because CHEM-FEED has earned the reputation as the BEST small metering pump in the business, other manufacturers may try to confuse you by using the name CHEM-FEED. Only Blue-White manufactures the genuine CHEM-FEED metering pump.

**Don't Settle for Imitations – Insist on  
CHEM-FEED Metering Pumps!**

## CHEM-FEED<sup>®</sup> BENEFITS

- Superior, efficient pump head design.
- Double Ball inlet and outlet valves which are completely interchangeable.
- PVDF valve body and fittings, ceramic ball checks, Viton<sup>®</sup> and TFE/P o-rings.
- All ball bearing gear motor plus permanent lubrication.
- Quick Adjusting Output Mechanisms.
- Efficient, Dependable Design.
- Each Unit Factory Tested.
- Backed by an excellent limited warranty.

## CHEM-FEED<sup>®</sup> APPLICATIONS

- Water treatment and conditioning.
- Soap, wax and detergent injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## CHEM-FEED<sup>®</sup> OPTIONS

There are a wide range of feed/output rate options, voltage options and configuration options. In addition, the factory is pleased to quote on custom material and color options as well as, private labeling and packaging for volume purchasers.

# CHEM-FEED<sup>®</sup> C-600P

## CHEM-FEED<sup>®</sup> C-600P BENEFITS

- Easy access, side mounted mechanical output rate adjustment.
- Double-ball inlet and outlet cartridge type ceramic check valves.
- PVDF valve body and fitting, ceramic balls, Viton and TFE/P o-rings.
- Superior pump head design of precision molded polypropylene.
- Teflon coated EP diaphragm.
- All ball bearing, permanently lubricated gear motor for smooth, powerful operation.
- Polypropylene injection check valve with Viton and TFE/P o-rings and spring loaded ceramic ball seal.
- PVDF suction (foot) valve with Viton and TFE/P o-rings, ceramic check ball and removable polypropylene filter screen.
- Includes 3/8" OD suction and discharge tubing, and all mounting hardware.
- Efficient, dependable design - each unit is factory tested.
- Private labeling for volume purchasers.

## C-600P ORDERING GUIDELINES

### STANDARD MODEL with Stroke Adjustment

MODEL NUMBER	GPD	GPH	LPH	OZ/MIN	MAX PSI
C-614P-(*)VAC	24	1.0	3.8	2.7	125
C-630P-(*)VAC	58	2.4	9.3	5.2	125
C-645P-(*)VAC	91	3.8	14.9	8.1	80
C-660P-(*)VAC	110	4.6	17.4	9.8	60
C-6125P-(*)VAC	237	9.9	37.0	21.1	30
C-6250P-(*)VAC	389	16.2	61.4	34.6	10

### VOLTAGE OPTIONS

(\*) Replace: 115=115V/60Hz, 220=220V/50Hz,  
230=230V/60Hz, 24=24V/60Hz

Note: 220V/50Hz units deliver approx. 20% less output

## C-600P SPECIFICATIONS

Max. Working Pressure.....125 psig (8.6 bar)  
Max. Fluid Temperature.....130° F (54° C)  
Ambient temp range.....14° to 110° F (-10° to 43° C)  
Max. viscosity.....1000 Centipoise  
Max. suction lift.....10 ft. Water  
Output accuracy.....+/- 10% of max.  
(water 0 psi, 5' suction lift)  
Turndown ratio.....27:1 Standard models

Amperage draw.....115V/60Hz....starting .74 / running .45  
230V/60Hz....starting .36 / running .21  
220V/50Hz....starting .31 / running .19  
24V/60Hz....starting 3.4 / running 2.0  
12VDC.....3.0 amp max  
Dimensions.....6-1/2" H x 6-5/8" W x 5-3/8" D  
Approximate shipping wt...8 lb. (3.6 kg)



C-600P



\* Viton<sup>®</sup> is a registered trademark of DuPont.



## 3



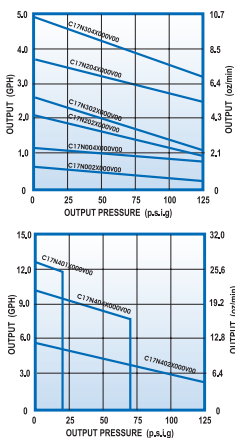
# CHEM-FEED® C-1700N DUPLEX HEAD PUMP

The CHEM-FEED C1700N Duplex Head Metering Pump features independently controlled pump heads.

Because of the unique duplex head configuration, motor power is used to maximum efficiency. This is of particular importance for overcoming backpressure. Also, alternating strokes mean double the injections per minute. For example, a 125 RPM delivers 250 injections per minute, or four injections per second. This is of significance for applications requiring a pump approaching a constant, even feed rate, without broad spaces of time between injections.

The C1700N can be used to inject different amounts of like chemical into separate systems, feed two different chemicals into the same system (blend), or when a single head pump doesn't provide quite enough output.

## C-1700N OUTPUT VS. PRESSURE



### C-1700N SPECIFICATIONS

Max. Working Pressure	125 psig (8.6 bar)
Max. Fluid Temperature	130° F (54° C)
Ambient temp range	14° to 110° F (-10° to 43° C)
Max. viscosity	1000 Centipoise
Max. suction lift	10 ft. Water
Output accuracy	+/- 10% of max. (water 0 psi, 5' suction lift)
Turndown ratio	20:1 Standard models 400:1 Deluxe models with optional Time Interval controller
Amperage draw	115V/60Hz.....starting .74 / running .45 230V/60Hz.....starting .36 / running .21 220V/50Hz.....starting .31 / running .19 24V/60Hz.....starting 3.4 / running 2.0
O-ring seals	Viton® and TFE/P
Dimensions	9-1/2" H x 7-1/2" W x 4" D
Approximate shipping wt.	11 lb. (5.0 kg)

### C-1700N ORDERING GUIDELINES

#### STANDARD MODEL with Stroke Adjustment

MODEL NUMBER	GPD	MAX OUTPUT @ 0 PSI GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
C17N0(*)2X000V00	14.2	0.6	2.3	1.3	14	125
C17N0(*)4X000V00	28.9	1.2	4.5	2.6	14	125
C17N2(*)2X000V00	50.2	2.1	7.9	4.4	45	125
C17N3(*)2X000V00	62.3	2.6	9.8	5.5	60	125
C17N2(*)4X000V00	89.7	3.7	14.1	8.0	45	125
C17N3(*)4X000V00	119.0	5.0	18.8	10.6	60	125
C17N4(*)2X000V00	133.8	5.5	21.1	11.9	125	125
C17N4(*)4X000V00	243.3	10.1	38.4	21.6	125	70
C17N4(*)1X000V00	304.2	12.6	48.0	27.0	125	20

#### VOLTAGE OPTIONS

(\*) Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz  
Note: 220V/50Hz units deliver approximately 20% less output

Please Note: Outputs given are a combined total of both pump heads using pure water at zero gauge pressure. All C-1700N are shipped complete with accessory package. Ordering matrix available on request, Order #80000-301.



C-1700N

# CHEM-FEED® STAR SYSTEM

## Blue-White's CHEM-FEED STAR SYSTEM

is shipped complete with the CHEM-FEED C-1500N metering pump of your choice, STANDARD or DELUXE. The pump is mounted on a sturdy Polyethylene tank, which is offered in three convenient sizes: 7, 15 or 30 gallon capacity. The tank is constructed of Polyethylene and features extra heavy wall thickness for added strength, and includes a U.V. inhibitor for sunlight protection. The tank is rectangular in shape for convenient placement, and is raised off the floor for easy wash down. An opening at the top of the tank makes adding chemical simple. The multi-position opening can be left open, or can be completely closed, or vented. For an efficient, well-designed metering system, choose The Star System.

### STAR SYSTEM C-600P BENEFITS

- The Star System is equipped with the C-1500N model of your choice - Standard or Deluxe.
- All necessary accessories are included.
- Three Tank capacities to choose from: 7 gallon, 15 gallon, or 30 gallon. The Polyethylene tank has extra heavy wall thickness for stability with U.V. inhibitor for sunlight protection.
- Lid positions include open, closed, or vent.
- Convenient rectangular shape.
- Flooded suction assists in priming.
- Raised off the floor for easy wash down.

### STAR SYSTEM ORDERING GUIDELINES

#### STANDARD MODEL with 7, 15, and 30 GALLON Tanks

MODEL NUMBER	GPD	MAX OUTPUT @ 0 PSI GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
T15N0(*)2X026V0(***)	3.4	0.2	0.5	0.3	14	125
T15N1(*)2X026V0(***)	8.3	0.3	1.3	0.7	30	125
T15N3(*)2X026V0(***)	16.3	0.6	2.5	1.4	60	125
T15N2(*)2X000V0(***)	26.6	1.1	4.2	2.4	45	125
T15N4(*)2X026V0(***)	34.2	1.4	5.4	3.0	125	125
T15N2(*)4X000V0(***)	49.0	2.0	7.7	4.3	45	125
T15N3(*)4X000V0(***)	57.7	2.4	9.1	5.1	60	125
T15N4(*)2X000V0(***)	68.4	2.8	10.8	5.9	125	125
T15N4(*)4X000V0(***)	119.7	4.9	18.9	10.6	125	70
T15N4(*)1X000V0(***)	155.9	6.4	24.6	13.8	125	20
T15N4(**)3X000V0(***)	228.1	9.5	36.0	20.2	125	10

#### DELUXE MODELS with 7, 15, and 30 GALLON Tanks

MODEL NUMBER	GPD	MAX OUTPUT @ 0 PSI GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
T15N4(*)2I026V00	.007-1.4	.027-5.40	.015-3.00		125	125
T15N4(*)2I000V00	.014-2.8	.054-10.8	.030-5.90		125	125
T15N4(*)1I000V00	.032-6.4	.123-24.6	.069-13.8		125	20

#### VOLTAGE OPTIONS

(\*) Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz  
(\*\*) Replace: 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output

#### GALLON OPTIONS

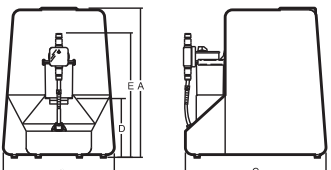
(\*\*\*) Replace: 1=7 Gallon, 2=15 Gallon, 3=30 Gallon

#### STAR TANKS ONLY

MODEL NUMBER	GAL	CAPACITY LITER	HEIGHT INCH	CM	WIDTH INCH	CM	DEPTH INCH	CM	SHIP WEIGHT LBS.	KG
STAR 7	7	26.5	17-1/2"	44.5	12"	30.5	16"	41	19	9
STAR 15	15	57	22"	56	15-1/2"	38	19-1/2"	50	27	12
STAR 30	30	113.5	27"	69	20"	51	24"	61	35	16

DIMENSIONS - INCH (CM)

	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'	SHIP WT.
7 GALLON TANK	17.5 (44.5)	12.0 (30.5)	16.0 (41.0)	7.8 (19.7)	17.0 (43.0)	19 LB. (9 Kg)
15 GALLON TANK	22.0 (56.0)	15.5 (39.0)	19.5 (50.0)	7.8 (19.7)	17.0 (43.0)	28 LB. (13 Kg)
30 GALLON TANK	27.0 (69.0)	20.0 (51.0)	24.0 (61.0)	7.8 (19.7)	17.0 (43.0)	36 LB. (16 Kg)



STAR SYSTEM





# CHEM-FEED® C-1100 SERIES FIXED SPEED UNITS

## The Superior CHEM-FEED C-1100

Fixed Speed pumps are offered with three output control options.

**STANDARD X MODELS** feature a quick-adjusting, high accuracy mechanical stroke length control. The efficient design of the pump allows for a minimum stroke length of 5%. Minimum recommended output is 5% of maximum.

**DELUXE C MODELS** feature stroke length and electronic time interval control. The pump's on-time is adjustable from 5-100% of the repeating 5 second time interval. (0.25-5.0 seconds) The high frequency of the repeating 5 second time interval and the extremely accurate mechanical stroke adjustment, result in a higher frequency of small injections per minute. Minimum recommended output is .5% of maximum.

**DIGITAL E MODELS** feature stroke length, electronic user programmable time interval (interval lengths from 1 through 99 seconds are user programmable), and external input signal control. The unit accepts pulse inputs (programmable from 1-9900) which can trigger programmable timed chemical injection batches from 1-99 seconds in duration. Analog signals can be used to remotely vary the interval timer's on-time adjustment.

### CHEM-FEED® C-1100 BENEFITS

- Superior pump head design.
- All ball bearing, permanently lubricated gear motor for smooth, powerful operation.
- Pump head design and material options.
- Efficient, dependable design - each unit is factory tested.
- Private labeling for volume purchasers.
- 3/8" OD x 1/4" ID tubing connections.

### CHEM-FEED® C-1100 APPLICATIONS

- Water treatment and conditioning.
- Soap, wax and detergent injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

### C-1100 FIXED SPEED SPECIFICATIONS

Max. Working Pressure .....	150 psig (10.3 bar)
Max. Fluid Temperature .....	130° F (54° C)
Ambient temp range .....	14° to 110° F (-10° to 43° C)
Max. viscosity .....	1000 Centipoise
Max. suction lift .....	10 ft. Water
Output accuracy .....	+/- 1% full scale repeatability
Turndown ratio .....	20:1 Standard models 400:1 Deluxe models 4000:1 Digital models
Enclosure .....	Acceptable for outdoor use. NEMA 3R (IP23)
Amperage draw .....	115V/60Hz.....start 1.37 / run 1.95 230V/60Hz.....start 0.57 / run 0.37 220V/50Hz.....start 0.49 / run 0.34
O-ring seals .....	Viton® and TFE/P
Dimensions .....	6-1/4" H x 10" W x 9-1/4" D
Approximate shipping wt...	10 lb. (4.2 kg)

### C-1100 FIXED SPEED ORDERING GUIDELINES

#### STANDARD X MODELS with Stroke Adjustment

MODEL NUMBER	GPD	GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
C11X3(*)4X000V00	57.7	2.4	9.1	5.1	60	150
C11X4(*)4X000V00	119.7	4.9	18.9	10.6	125	150
C11X4(*)1X000V00	155.9	6.4	24.6	13.8	125	150
C11X5(*)4X000V00	260.8	10.8	41.1	23.1	250	100
C11X5(*)3X000V00	360.0	15.0	56.8	32.0	250	25

#### DELUXE C MODELS with Stroke and Time Adjustment

MODEL NUMBER	GPD	GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
C11C3(*)4X000V00	57.7	2.4	9.1	5.1	60	150
C11C4(*)4X000V00	119.7	4.9	18.9	10.6	125	150
C11C4(*)1X000V00	155.9	6.4	24.6	13.8	125	150
C11C5(*)4X000V00	260.8	10.8	41.1	23.1	250	100
C11C5(*)3X000V00	360.0	15.0	56.8	32.0	250	25

#### DIGITAL E MODELS with Stroke, Pulse, and 4-20mA Adjustment

MODEL NUMBER	GPD	GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
C11E3(*)4X000V00	57.7	2.4	9.1	5.1	60	150
C11E4(*)4X000V00	119.7	4.9	18.9	10.6	125	150
C11E4(*)1X000V00	155.9	6.4	24.6	13.8	125	150
C11E5(*)4X000V00	260.8	10.8	41.1	23.1	250	100
C11E5(*)3X000V00	360.0	15.0	56.8	32.0	250	25

#### VOLTAGE OPTIONS

(\*)Replace: 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output



STANDARD X MODEL  
with Stroke Adjustment



DELUXE C MODEL  
with Stroke Length & Time Interval Control



DIGITAL E MODEL  
with Stroke Length & Time Interval Control



\* Viton® is a registered trademark of DuPont.



# CHEM-FEED® C-1100 SERIES VARIABLE SPEED UNITS

## The CHEM-FEED C-1100

Variable Speed Units feature Two Output Control Options.

**DELUXE F MODELS** have stroke length and analog speed control. The pump's speed is adjustable from 5-100% of the maximum using a dial knob style controller. The minimum recommended output is .25% of maximum.

**DIGITAL V MODELS** feature stroke length, manual digital percentage and external input signal speed control. The unit accepts pulse inputs from 1-999 Hz and 4-20mA or 0-10Vdc analog input signals. The minimum and maximum speed at the minimum and maximum input values can be programmed using the digital LCD display.



DELUXE F MODEL - VARIABLE SPEED UNIT  
with Stroke Length & Analog Speed Control



DIGITAL V MODEL - VARIABLE SPEED UNIT  
with Stroke Length & 4-20mA, 0-10Vdc,  
and Pulse Input Speed Control

## CHEM-FEED® C-1100 BENEFITS

- Superior pump head design.
- All ball bearing, permanently lubricated gear motor for smooth, powerful operation.
- Flow verification sensor option available.
- No special input signal connectors to buy.
- 1 amp alarm output (digital models).
- Pump head design and material options.
- Efficient, dependable design - each unit is factory tested.
- Private labeling for volume purchasers.
- 3/8" OD x 1/4" ID tubing connections.

## CHEM-FEED® C-1100 APPLICATIONS

- Water treatment and conditioning.
- Soap, wax and detergent injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## C-1100 VARIABLE SPEED SPECIFICATIONS

Max. Working Pressure	..... 150 psig (10.3 bar)
Max. Fluid Temperature	..... 130° F (54° C)
Ambient temp range	..... 14° to 110° F (-10° to 43° C)
Max. viscosity	..... 1000 Centipoise
Max. suction lift	..... 10 ft. Water
Output accuracy	..... +/- 1% full scale repeatability
Turndown ratio	..... 400:1
Enclosure	..... Acceptable for outdoor use. NEMA 3R (IP23)
Amperage draw	..... 115V/60Hz.... start 1.37 / run .35
	..... 230V/60Hz.... start 0.57 / run .18
	..... 220V/50Hz.... start 0.49 / run .23
O-ring seals	..... Viton® and TFE/P
Dimensions	..... 6-1/4" H x 10" W x 9-1/4" D
Approximate shipping wt.	..... 12 lb. (5.4 kg)

## C-1100 VARIABLE SPEED ORDERING GUIDELINES

### DELUXE F MODELS with Stroke and Dial Knob Speed Adjustment

MODEL NUMBER	GPD	GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
C11F3(*)4X000V00	57.7	2.4	9.1	5.1	60	150
C11F4(*)4X000V00	119.7	4.9	18.9	10.6	125	150
C11F4(*)1X000V00	155.9	6.4	24.6	13.8	125	150
C11F5(*)4X000V00	260.8	10.8	41.1	23.1	250	100
C11F5(*)3X000V00	360.0	15.0	56.8	32.0	250	25

### DIGITAL V MODELS with Stroke, Pulse Input and 4-20mA Analog Input Speed Adjustment

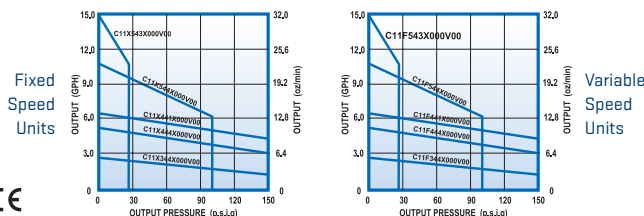
MODEL NUMBER	GPD	GPH	LPH	OZ/MIN	Max Strokes Per minute	MAX PSI
C11V3(*)4X000V00	57.7	2.4	9.1	5.1	60	150
C11V4(*)4X000V00	119.7	4.9	18.9	10.6	125	150
C11V4(*)1X000V00	155.9	6.4	24.6	13.8	125	150
C11V5(*)4X000V00	260.8	10.8	41.1	23.1	250	100
C11V5(*)3X000V00	360.0	15.0	56.8	32.0	250	25

### VOLTAGE OPTIONS

(\*)Replace: 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output

## C-1100 OUTPUT VS. PRESSURE





# FLEXFLO®

## PERISTALTIC METERING PUMPS

When your installation calls for a compact Peristaltic Metering Pump, don't Settle for Less Than the BEST - FLEXFLO®!

Peristaltic Injectors are Well Suited to Metering Chemicals that could foul heads with Conventional Check Valves. Peristaltic Pumps have Rollers that Compress the Tube in a Progressive Squeezing Action. Blue-White's Superior FLEXFLO Peristaltic Injectors have an Impressive Edge over the others. Only FLEXFLO Pumps feature Blue-White's SUPERIOR Patented Pump Tube Design! It's a Breeze to Install, and Doesn't Need to be Manually Advanced.

All FLEXFLO Peristaltic Pumps are equipped with Blue-White's exclusive patented TUBE FAILURE DETECTION SYSTEM. No other manufacturer can offer this feature.

*When you want the Best Compact Peristaltic Injector – Get FLEXFLO!*



### FLEXFLO® BENEFITS

- Self priming, even against line pressure.
- Outputs to 95.1 GPD, pressures to 100 PSI.
- Tube Failure Detection System (TFD).
- Compatible with Blue-White's Micro-Flo Verification Sensor.
- De-gassing design eliminates gas or air accumulation in the head.
- Precise output control to 20:1 turndown by means of dial knob.
- Preset 60 second recycle time (other time cycles available).
- Output amount is not affected by changes in back pressure.
- Durable housing of rugged Valox.
- Advanced cooling system.

### FLEXFLO® APPLICATIONS

- Water treatment and conditioning.
- Proportional chemical injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

### FLEXFLO® OPTIONS

There are a wide range of feed/output rate options, voltage options, motor options, feature and configuration options. In addition, the factory is pleased to quote on custom material and output options as well as, private labeling and packaging for volume purchasers.

## TUBE FAILURE DETECTION SYSTEM

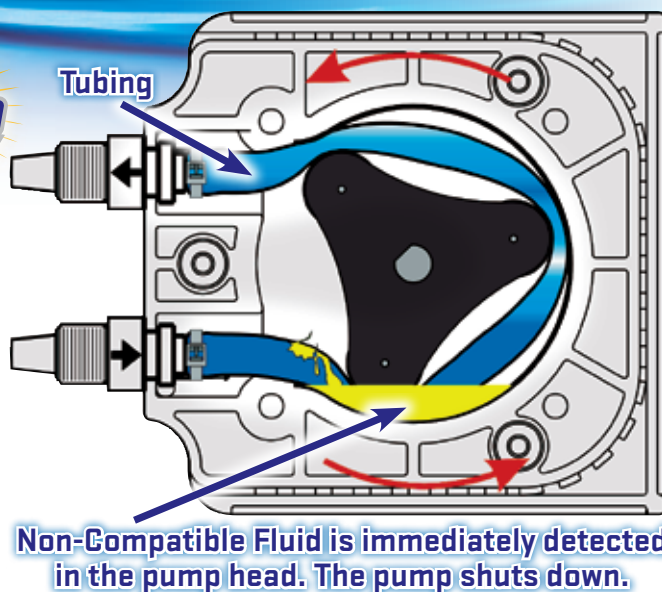
### TFD system

#### Tube Failure Detection

Exclusive  
PATENTED  
TECHNOLOGY

The TFD System is breakthrough technology for Peristaltic Metering Pumps. Blue-White developed this system for peristaltic pumps, and is the only manufacturer able to offer the Patented TFD System (U.S. Patent 7,001,153). The TFD System is able to detect a wide range of chemicals (i.e. chlorine, acids, soaps, etc.). This exclusive technology was designed to disregard pump compatible fluids; such as water and lubricants. If there is a rupture in the pump tube, and a chemical is detected in the pump head, the pump will automatically shut off and energize a relay, permitting communications with external equipment, such as an alarm or a SCADA system. The chemical must be cleaned from the pump head before the pump will restart. The TFD System is a Standard Feature on Blue-White's FLEXFLO A-100N Series Peristaltic Metering Pumps.

\* Viton® is a registered trademark of DuPont.





# FLEXFLO® A-100N PERISTALTIC FIXED SPEED UNITS



**FLEXFLO® A-100NC - FIXED SPEED UNIT**  
with Time Interval Control



**FLEXFLO® A-100NE - FIXED SPEED UNIT**  
with Pulse Input Batching & Time Interval Control



## PUMP TUBING MATERIAL SELECTION GUIDE

### Norprene®

Alcohol general  
Alum, 5% in water  
Ammonium chloride  
Ammonium hydroxide  
Benzyl alcohol  
Bleach  
Brine solutions  
Calcium hypochlorite 20%  
Ethylene glycol  
Ferric chloride  
Ferric nitrate  
Ferric sulfate  
Ferrous chloride  
- 43% in water  
Ferrous sulfate  
Formic acid  
Glucose  
Hydrochloric acid 33%

### Tygothane®

Hydrocyanic acid  
Hydrogen peroxide  
Hypochlorous acid  
Iodine  
Lactic acid  
Magnesium chloride  
Magnesium sulfate  
Phosphoric acid  
Plating solutions  
Potassium hydroxide  
Potassium permanganate  
Propylene glycol  
Sodium hydroxide 40%  
Sodium Bisulfite  
Sodium Hypochlorite 12.5%  
Sodium sulfide  
Sulfuric acid 50%  
Tannic acid

### Viton®

Cyclohexane  
Diesel Fuel  
Fatty acids  
Gasoline  
Heptane  
Hexane  
Kerosene  
Lard  
Mineral spirits  
Oils:  
ASTM reference No. 1,2,3  
Castor  
Coconut  
Fuel  
Linseed  
Lubricating  
Mineral  
Soap solutions  
Turpentine

### Viton®

Allyl Alcohol  
Ethylene bromide  
Hydrofluoric acid  
Hydrobromic acid  
Isopropyl Alcohol  
Toluene

## FLEXFLO® STANDARD MODEL A-100NC BENEFITS

- Self priming against maximum line pressure.
- Outputs to 95.1 GPD, pressures to 100 PSI.
- Tube Failure Detection System (TFD).
- Compatible with Blue-White's Micro-Flo Verification sensor.
- De-gassing design eliminates gas or air accumulation in the head.
- Precise output control to 20:1 turndown by means of a dial knob.
- Adjustable 5 second repeating interval timer (0.25 - 5.0 sec) results in a high frequency of small injections per minute.
- Output amount is not effected by changes in back pressure.
- Durable housing of rugged valox.
- Advanced cooling system.

## FLEXFLO® STANDARD MODEL A-100NE BENEFITS

- Self priming against maximum line pressure.
- Outputs to 95.1 GPD, pressures to 100 PSI.
- De-gassing design eliminates gas or air accumulation in the head.
- Manual output control digital interval timer for 200:1 turndown ratio.
- Accepts pulse inputs for time on per one pulse or multiple pulses.
- Accepts 4-20mA & 0-10Vdc signal for external interval percentage control.
- No special input wiring connectors to buy.
- Digital interval timer results in a high frequency of small injections per minute.
- Output amount is not effected by changes in back pressure.
- Durable housing of rugged valox.
- Advanced cooling system.

## FLEXFLO® A-100N APPLICATIONS

- Water treatment and conditioning.
- Proportional chemical injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## A-100N FIXED SPEED SPECIFICATIONS

Max. Working Pressure ..... 100 psig (6.9 bar)  
Max. Fluid Temperature ..... 130°F (54°C)  
Ambient Temp Range ..... 14° to 110°F (-10° to 43°C)  
Max. Viscosity ..... 5,000 Centipoise  
Max. Suction Lift ..... 30 ft. Water 0 psig  
Duty Cycle ..... Continuous  
Max. Solids ..... 50% by volume  
Amperage Draw ..... 115V/60Hz, 230V/60Hz, 220V/50Hz  
O-ring Seals ..... Viton®  
Dimensions ..... 6-1/4" H x 10" W x 9-1/4" D  
Approx. Shipping Weight... 10 lb. (4.5 kg)

## A-100N FIXED SPEED ORDERING GUIDELINES

### FIXED and VARIABLE SPEED MODELS

MODEL NUMBER	GPD	GPH	LPH	ML/MIN	MAX PSI
A1N0(**)-4T	2.3	0.10	0.20	6	100
A1N1(**)-4T	4.9	0.21	0.44	13	100
A1N2(**)-4T	8.0	0.33	0.71	21	100
A1N1(**)-6T	16.0	0.67	1.42	42	100
A1N2(**)-6T	24.0	1.00	2.13	63	100
A1N3(**)-6T	30.1	1.25	2.67	79	75
A1N1(**)-7T	52.5	2.19	4.66	138	50
A1N3(**)-7T	95.1	3.96	8.45	250	50

### VOLTAGE OPTIONS

(\*)Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output.

### MODEL OPTIONS

(\*\*)Replace: C=A100NC, E=A100NE, F=A100NF, V=A100NV



# FLEXFLO® A-100N PERISTALTIC VARIABLE SPEED UNITS

## FLEXFLO® ANALOG MODEL A-100NF BENEFITS

- Self priming against maximum line pressure.
- Outputs to 95.1 GPD, pressures to 100 PSI.
- Output amount is not affected by changes in back pressure.
- Tube Failure Detection System (TFD).
- Compatible with Blue-White's Micro-Flo Verification sensor.
- Easy to use dial knob style output control.
- Variable speed results in near continuous chemical injection.
- De-gassing design eliminates gas or air accumulation in the head.
- Durable housing of rugged Valox.

## FLEXFLO® DIGITAL MODEL A-100NV BENEFITS

- Self priming against maximum line pressure.
- Outputs to 95.1 GPD, pressures to 100 PSI.
- Output amount is not affected by changes in back pressure.
- Tube Failure Detection System (TFD).
- 1 amp alarm output relay switch.
- Compatible with Blue-White's Micro-Flo Verification sensor.
- Precise output control with digital touch and LCD display.
- Variable speed results in near continuous chemical injection.
- Accepts 4-20mA, 0-10Vdc, and Pulse inputs for external speed control.
- Easy to read Service and Alarm indicator icons on LCD display.
- Display motor speed or input signal values on the LCD display.
- De-gassing design eliminates gas or air accumulation in the head.
- Durable housing of rugged Valox.

## FLEXFLO® A-100N APPLICATIONS

- Water treatment and conditioning.
- Proportional chemical injection.
- Wastewater treatment.
- Biocide feed.
- Rural water systems.
- Cooling tower & boiler treatment.
- Fertilizer and nutrient injection.
- Pool chlorination & PH control.

## A-100N VARIABLE SPEED SPECIFICATIONS

Max. Working Pressure ..... 100 psig (6.9 bar)  
 Max. Fluid Temperature ..... 130°F (54°C)  
 Ambient Temp Range ..... 14° to 110°F (-10° to 43°C)  
 Max. Viscosity ..... 5,000 Centipoise  
 Max. Suction Lift ..... 30 ft. Water 0 psig  
 Duty Cycle ..... Continuous  
 Max. Solids ..... 50% by volume  
 Amperage Draw ..... 115V/60Hz, 230V/60Hz, 220V/50Hz  
 O-ring Seals ..... Viton®  
 Dimensions ..... 6-1/4" H x 10" W x 9-1/4" D  
 Approx. Shipping Weight... 10 lb. (4.5 kg)

## A-100N VARIABLE SPEED ORDERING GUIDELINES

### FIXED and VARIABLE SPEED MODELS

MODEL NUMBER	MAX OUTPUT @ ANY PRESSURE				MAX PSI
	GPD	GPH	LPH	ML/MIN	
A1N0(*)(**)-4T	2.3	0.10	0.20	6	100
A1N1(*)(**)-4T	4.9	0.21	0.44	13	100
A1N2(*)(**)-4T	8.0	0.33	0.71	21	100
A1N1(*)(**)-6T	16.0	0.67	1.42	42	100
A1N2(*)(**)-6T	24.0	1.00	2.13	63	100
A1N3(*)(**)-6T	30.1	1.25	2.67	79	75
A1N1(*)(**)-7T	52.5	2.19	4.66	138	50
A1N3(*)(**)-7T	95.1	3.96	8.45	250	50

### VOLTAGE OPTIONS

(\*)Replace: 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz

Note: 220V/50Hz units deliver approximately 20% less output.

### MODEL OPTIONS

(\*\*)Replace: C=A100NC, E=A100NE, F=A100NF, V=A100NV



**FLEXFLO® A-100NF - VARIABLE SPEED UNIT**  
with Percentage Speed Control



**FLEXFLO® A-100NV - VARIABLE SPEED UNIT**  
with 4-20mA, 0-10Vdc, and Pulse Input Speed Control



# FLEXFLO® A-1600

## FLEXFLO® A-1600 BENEFITS

- Basic design that is efficient and economical.
- No valves to clog in the pump head.
- Self priming against maximum line pressure.
- De-gassing design eliminates gas or air accumulation in the head.
- Patented pump tube design for easy installation and trouble free operation.
- Output amount is not effected by changes in back pressure.
- Clear pump head cover allows viewing of pump operation.
- OEM design modifications.

## FLEXFLO® A-1600 APPLICATIONS

- Pool and Spa chlorine and acid injection.
- Automatic PH control systems.

## A-1600 SPECIFICATIONS

Max. Working Pressure.....	5 psig (1.7 bar)
Max. Fluid Temperature.....	130° F (54° C)
Ambient temp range.....	14° to 110° F (-10° to 43° C)
Max. viscosity.....	500 Centipoise
Max. suction lift.....	10 ft. Water
Duty cycle.....	Continuous
Turndown ratio.....	Not adjustable
Amperage draw.....	115V/60Hz..... starting .74 / running .45 230V/60Hz..... starting .36 / running .21 220V/50Hz..... starting .31 / running .19 24V/60Hz..... starting 3.4 / running 2.0
Dimensions.....	4-3/4" H x 10" W x 6-1/4" D



A-1600

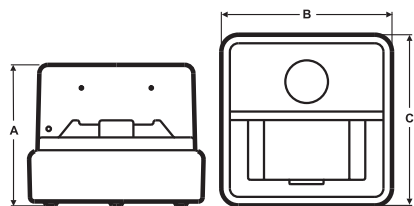
# FLEXFLO® STAR III METERING SYSTEM

## Blue-White's STAR III Metering System features

*the FLEXFLO® A-100N Series Peristaltic Metering Pump of your choice, combined with a sturdy Polyethylene tank.*

The STAR III tank is available in 7, 15 or 30 gallon capacity. The Polyethylene Tank has UV inhibitors for sunlight protection; and extra heavy wall thickness for stability. A well located opening at the top of the tank allows for easy addition of chemical. The tank lid position can be open, closed or vented. The STAR III tank is a handy rectangular shape, and is raised off the floor for easy wash down.

For a convenient Peristaltic Metering System Package, Get the FLEXFLO STAR III.



	DIM 'A'	DIM 'B'	DIM 'C'	SHIP WT.
7 GALLON TANK	12.00 (30)	18.50 (47)	18.50 (47)	24 LB. (11 Kg)
15 GALLON TANK	17.25 (44)	20.00 (51)	20.00 (51)	32 LB. (15 Kg)
30 GALLON TANK	27.50 (69)	20.00 (51)	20.00 (51)	38 LB. (18 Kg)

## FLEXFLO® STAR III BENEFITS

- The Star System is equipped with the FLEXFLO A-100N model of your choice - fixed or variable speed models with standard or digital controls.
- All necessary accessories are included.
- Three Tank capacities to choose from: 7 gallon, 15 gallon, or 30 gallon. The polyethylene tank has extra heavy wall thickness for stability with U.V. inhibitor for sunlight protection.
- Lid positions include open, closed, or vent.
- Convenient rectangular shape.
- Raised off the floor for easy wash down.



STAR III  
with 15 GALLON





# MICRO-FLO FLOW VERIFICATION SYSTEM

## An Effortless Means of Accessing Critical Data

### Are you certain the pump is actually pumping?

An empty chemical tank, clogged injection fitting, lost prime, and other problems can prevent a metering pump from actually injecting chemical – even though the pump is in good working order!

**This innovative product** is designed to be used with your metering pump to provide accurate Flow Measurement and Accumulated Flow Data. KNOW how much chemical your metering pump is dispensing. The MICRO-FLO may be installed directly into the pumps discharge tubing, inline in the system after the pump, or conveniently mounted to a panel.

**The Micro-Flo Model FV Flow Verification Sensor** can be connected directly to Blue-White model **A-100NV** and **C-1100V** metering pumps and verify that chemical injection has actually occurred. The pump's sophisticated electronics constantly monitor the sensor. If chemical should fail to inject, the pump will stop and an alarm relay will close, allowing for remote alarm indication or initiation of a back-up injector pump.

**For Innovation, Accuracy and Dependable Service, count on Blue-White's MICRO-FLO VERIFICATION METER.**

### MICRO-FLO BENEFITS

- Model Variations include: Sensor Only; and Panel Mount Display, which includes 25' of Cable.
- Six Digit LCD, up to Four decimal points.
- Displays both Rate of Flow and Accumulated Flow.
- Non-volatile programming and accumulated flow memory.
- User Selectable scale factors include:  
*Flow units:* Gallons; Liters; Ounces; Milliliters  
*Time units:* Minutes; Hours; Days
- Clear PVC viewing lens.
- Weather resistant Valox PBT enclosure.
- LCD is not recommended for direct sunlight installation.

### MICRO-FLO SPECIFICATIONS

Max. Working Pressure.....150 psig (10.3 bar) @ 70°F (21°C)  
Max. Fluid Temperature.....200°F (93°C) @ 0 PSI  
Body, Paddle, Axle Material .....PVDF  
Connector Material .....3/8" Tubing connectors: PVDF  
O-ring Seals .....Viton®  
Compression Seal to Pump.....PVC  
Approx. Shipping Weight.....1 lb. (.45 kg)

### MICRO-FLO ORDERING GUIDELINES

#### MODELS with PVC LENS CAP

MODEL NUMBER	GPD	OPERATING FLOW RANGE OZ/MIN	ML/MIN
FV-100-6V	11.4 to 114	1 to 10	30 to 300
FV-200-6V	38.0 to 380	3.5 to 35	100 to 1000
FV-300-6V	76.0 to 760	7 to 70	200 to 2000
FV-400-6V	114 to 1440	10 to 100	300 to 3000
FV-500-6V	190 to 1900	17 to 170	500 to 5000
FV-600-6V	266 to 2660	24 to 240	700 to 7000

#### MODELS with PVDF LENS CAP

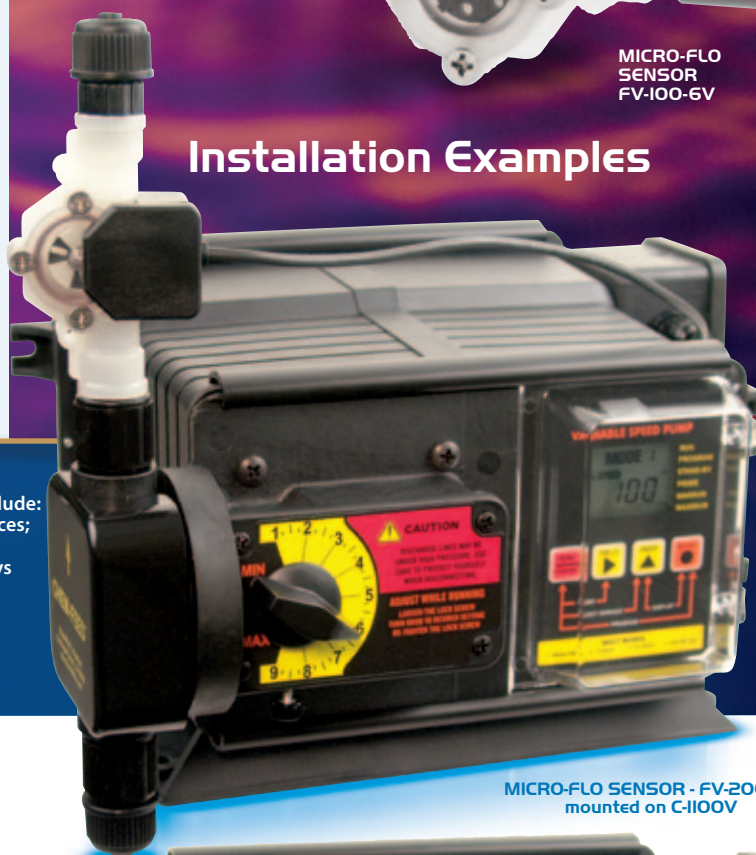
MODEL NUMBER	GPD	OPERATING FLOW RANGE OZ/MIN	ML/MIN
FV-101-6V	11.4 to 114	1 to 10	30 to 300
FV-201-6V	38.0 to 380	3.5 to 35	100 to 1000
FV-301-6V	76.0 to 760	7 to 70	200 to 2000
FV-401-6V	114 to 1440	10 to 100	300 to 3000
FV-501-6V	190 to 1900	17 to 170	500 to 5000
FV-601-6V	266 to 2660	24 to 240	700 to 7000



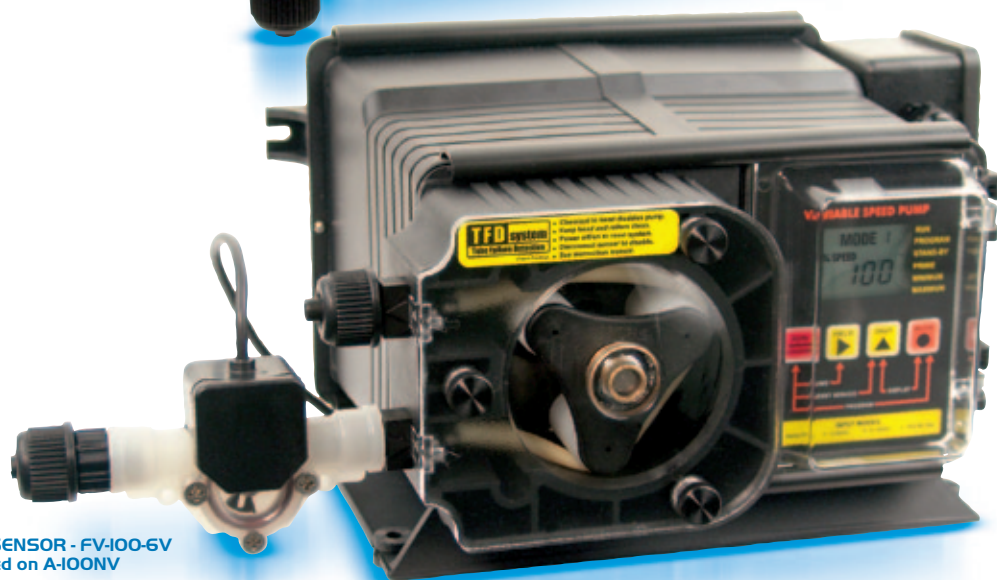
MICRO-FLO  
SENSOR  
FV-200-6V

MICRO-FLO  
SENSOR  
FV-100-6V

## Installation Examples



MICRO-FLO SENSOR - FV-200-6V  
mounted on C-1100V



MICRO-FLO SENSOR - FV-100-6V  
mounted on A-100NV



# MODEL PC: PROPORTIONAL FEED SYSTEM

## MODEL PC SYSTEM BENEFITS

- The F-2000 digital paddlewheel flowmeter includes circuitry that automatically turns on your metering pump for a preset injection time, from 1 through 999 seconds, per volume of fluid flow measured.
- The simple relay switch (8A 115/230Vac) can be used to control any electrically operated device such as a metering pump, centrifugal pump, solenoid valve, etc.
- It maintains a constant chemical injection to water flow ratio regardless of changes in the system flow rate or pressure.
- Setpoint status icon indicates when chemical is being injected.
- Total number of injections (batches) is recorded and displayed.
- When purchased as a Flowmeter & Pump System Kit, the system is factory wired and tested for easy installation.
- Hundreds of Flowmeter and pump combinations to choose from.

## MODEL PC SYSTEM APPLICATIONS

- Water treatment and conditioning.
- Rural water well systems.
- Wastewater treatment.
- Cooling tower & boiler treatment.
- Biocide feed.
- Fertilizer and nutrient injection.

## How to Build Your System

### 1 SELECT YOUR F-2000-PC FLOWMETER:

Each F-2000 flowmeter is designed specifically for use on the intended pipe size and operating flow range. Contact the factory for assistance in specifying the correct model for your application.

#### THE MODEL F-2000-PC FEATURES THE FOLLOWING OPTIONS:

- Models with flow ranges from .4 to 8000 gallons per minute.
- Pipe sizes from 3/8" through 12".
- Pipe fitting styles include:
  - Injection molded inline units with MPT end connectors. 3/8" - 2" pipe.
  - Machined inline units with FPT end connectors and union adapters. 3/8" - 2" pipe.
  - Saddle mount units from 1-1/2" - 12" pipe.
  - PVC solvent weld tee fittings from 1" - 2"
- Display mounting options include:
  - On-sensor mounting.
  - Remote panel mounting (1/4 DIN opening)
  - Remote pipe or wall mounting.
- Power options include 115Vac, 220Vac, 230Vac, 16-24V DC.
- Calibration unit options:
  - Gallons, liters, cubic meters, acre feet, imperial gallons, or custom units.

### 2 SELECT YOUR METERING PUMP:

Virtually any metering pump can be used for your Proportional Feed System. For diaphragm pump applications, we recommend the CHEM-FEED C-1500N Series. For peristaltic pump applications, we recommend the FLEXFLO A-100N Series. Contact the factory for assistance in specifying the best model for your application.

#### OPTION 1: CHEM-FEED C-1500N DIAPHRAGM PUMP

- Standard Models feature a quick adjusting, high accuracy mechanical stroke length feed control allowing you to easily fine tune your system.
- Superior pump head design.
- All ball bearing gear motor for smooth, powerful operation.
- Voltage options 115Vac, 220Vac, 230Vac, 24Vac.
- Pump head configuration and material options.
- Field serviceable.
- Efficient, dependable design - each unit is factory tested.

#### OPTION 2: FLEXFLO A-100N PERISTALTIC PUMP

- Self priming, even against line pressure.
- No valves in the pump head to clog or clean.
- Great for slurries.
- Patented Tube Failure Detection System (TFD).
- De-gassing design eliminates gas or air accumulation in the pump head.
- Output amount is not effected by changes in back pressure.
- Voltage options: 115Vac, 220Vac, 230Vac.

### 3 CONTACT THE FACTORY:

Our sales staff can assist you in selecting the exact flowmeter and pump models to meet your application requirements. The flowmeter and pump will be pre-wired and factory tested to ensure a high quality, hassle free installation.



OPTION 1 - C-1500N DIAPHRAGM PUMP SYSTEM

F-2000 FLOWMETER MODEL NUMBER: PCS11MP2GM2-Z  
C-1500N PUMP MODEL NUMBER: C15N402Z000V00  
[Tank sold separately]



OPTION 2 - A-100N PERISTALTIC PUMP SYSTEM

F-2000 FLOWMETER MODEL NUMBER: PCP120K8GM1-ZW  
A-100N PUMP MODEL NUMBER: A1N10A-6T  
[Tank sold separately]



# VARIABLE AREA FLOWMETERS

## F-400 SERIES OF IN-LINE UNITS

### F-400N

#### F-400N BENEFITS

- Tough machined acrylic meter body, highly polished to a clear finish.
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade Viton® o-ring seals.
- Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).
- Standard models #316 stainless steel, PVDF, Teflon float. (Optional K-series hastelloy C-276, PVDF, Teflon).
- Acceptable in direct sunlight applications.
- Available OEM options: Private labeling, custom calibrations, custom materials.

#### F-400N SPECIFICATIONS

Max. Working Pressure ..... 150 psig (10.3 bar) @ 70° F (21° C)  
 Max. Fluid Temperature..... Polypropylene adapters: 150° F (65° C) @ 0 PSI  
 Full scale accuracy..... +/- 5%  
 Meter body material..... Machined acrylic  
 O-ring seals..... Viton® (optional EP)  
 Approximate shipping wt... 1/2 lb. (.23 kg)  
 NIST certificates optional

#### PIPE SIZES

1/4", 3/8" and 1/2" F/NPT

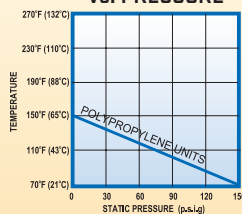
#### FLOW RATES

0.025 to 5 GPM  
 0.1 to 20 LPM  
 .2 to 20 SCFM  
 .4 to 34 M3HR

#### DIMENSIONS

Height: 8 3/16"  
 Width: 1 1/4"

#### F-400N TEMPERATURE vs. PRESSURE



#### F-410N BENEFITS

- Tough machined acrylic meter body, highly polished to a clear finish.
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade Viton® o-ring seals.
- Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).
- Standard models #316 stainless steel or PVC float. (Optional K-series hastelloy C-276 or PVC).
- Acceptable in direct sunlight applications.
- Available OEM options: Private labeling, custom calibrations, custom materials.

#### F-410N SPECIFICATIONS

Max. Working Pressure ..... 150 psig (10.3 bar) @ 70° F (21° C)  
 Max. Fluid Temperature..... 316 SS and Hastelloy Floats: 150° F (65° C) @ 0 PSI  
 PVC floats: 120° F (49° C) @ 0 PSI  
 Full scale accuracy..... +/- 5%  
 Meter body material..... Machined acrylic  
 O-ring seals..... Viton® (optional EP)  
 Approximate shipping wt... 2 lb. (.91 kg)  
 NIST certificates optional

#### PIPE SIZES

3/4" and 1" F/NPT

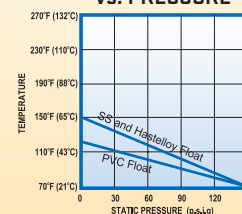
#### FLOW RATES

1 to 20 USGPM  
 4 to 80 LPM  
 4 to 80 SCFM  
 8 to 135 M3HR

#### DIMENSIONS

Height: 11"  
 Width: 1 3/4"

#### F-410N TEMPERATURE vs. PRESSURE



### F-420N

#### F-420N BENEFITS

- Tough machined acrylic meter body, highly polished to a clear finish.
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade Viton® o-ring seals.
- Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).
- Acceptable in direct sunlight applications.
- Available OEM options: Private labeling, custom calibrations, custom materials.

#### F-420N SPECIFICATIONS

Max. Working Pressure ..... 130 psig (8.9 bar) @ 70° F (21° C)  
 Max. Fluid Temperature..... 130° F (54° C) @ 0 PSI  
 Full scale accuracy..... +/- 5%  
 Meter body material..... Machined acrylic  
 O-ring seals..... Viton® (optional EP)  
 Approximate shipping wt... 2 lb. (.91 kg)  
 NIST certificates optional

#### PIPE SIZES

1" and 1 1/2" M/NPT

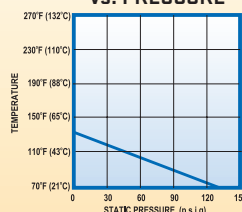
#### FLOW RATES

5 to 50 USGPM  
 20 to 200 LPM

#### DIMENSIONS

Height: 12"  
 Width: 2"

#### F-420N TEMPERATURE vs. PRESSURE



### F-430N

#### F-430N BENEFITS

- Tough machined acrylic meter body, highly polished to a clear finish.
- Direct reading permanent scale.
- White back reflector for easy reading.
- Sturdy adapters with high grade Viton® o-ring seals.
- Standard models #316 stainless steel float guide rods. (Optional K-series hastelloy C-276).
- Acceptable in direct sunlight applications.
- Available OEM options: Private labeling, custom calibrations, custom materials.
- Optional Polypropylene and CPVC Adapters available.

#### F-430N SPECIFICATIONS

Max. Working Pressure ..... 130 psig (8.9 bar) @ 70° F (21° C)  
 Max. Fluid Temperature..... 130° F (54° C) @ 0 PSI  
 Full scale accuracy..... +/- 5%  
 Meter body material..... Machined acrylic  
 O-ring seals..... Viton® (optional EP)  
 Approximate shipping wt... 6 lb. (2.7 kg)  
 NIST certificates optional

#### PIPE SIZES

1 1/2" M/NPT and 2" F/NPT

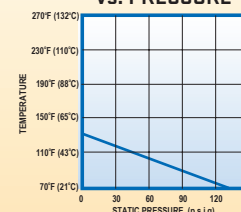
#### FLOW RATES

4 to 100 USGPM  
 15 to 375 LPM

#### DIMENSIONS

Height: 14"  
 Width: 3"

#### F-430N TEMPERATURE vs. PRESSURE



F-400N



F-410N



F-420N



F-430N



# F-550 SERIES MACHINED PANEL MOUNT METER



## F-550 BENEFITS

- Durable, highly polished, one piece machined meter body.
- #316 Stainless Steel floats and float guides.
- Sturdy adapters with Viton® o-ring seals.
- Bulkhead nuts attach directly to inside panel.
- Separate mounting screws are not required.
- Optional Adjustable Flow Control Valve (F-550A only) easy to disassemble. No special tool required, ALL FIELD REPLACEABLE.
- Acceptable in direct sunlight applications.

## F-550 SPECIFICATIONS

Temperature.....200°F (93°C) @ 0 pressure  
 Pressure.....250 psig (17.2 Bar) @ 70°F (21°C)  
 Full Scale Accuracy.....± 5%  
 Meter Body Material.....Machined acrylic  
 Shield Material.....Lexan®  
 Adapter Material.....PVC, PVDF, CPVC  
 O-rings.....Viton®  
 Float Material.....#316 SS  
 Max. Pressure Drop.....2 psi full scale  
 Approximate Shipping Wt. .2 lbs. (.907 kg.)

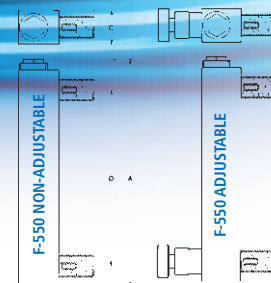
## F-550 ORDERING GUIDELINES

with NON-ADJUSTABLE & ADJUSTABLE Valves

MODEL NUMBER	GPM	CALIBRATION LPM	ADAPTER SIZE	FLOAT MATERIAL
F-55250L(*)	0.025 to 0.250	0.1 to 1	1/4" M/NPT	#316 SS
F-55375L(*)	0.1 to 1	0.4 to 4	3/8" M/NPT	#316 SS
F-55376L(*)	0.2 to 2	0.75 to 7.5	3/8" M/NPT	#316 SS
F-55500L(*)	0.5 to 5	2 to 20	1/2" M/NPT	#316 SS
F-55750L(*)	1 to 10	4 to 40	3/4" M/NPT	#316 SS
F-55005L(*)	1 to 5	3 to 18	1" M/NPT	Teflon
F-55010L(*)	1 to 10	4 to 40	1" M/NPT	#316 SS
F-55015L(*)	1 to 15	5 to 60	1" M/NPT	#316 SS
F-55200L(*)	2 to 20	7.5 to 75	1" M/NPT	#316 SS

## MODEL OPTIONS

(\*) To order with Flow Adjustment Valve add the letter "A" after the "L" in the model number.  
 Model #F-55005L is not available with Adjustment Valve.  
 For optional hastelloy internals, add letter "K" to model number.



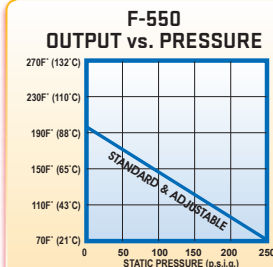
## F-550 NON-ADJUSTABLE DIMENSIONS

Model Number	A	B	C	D	E	Mount Hole
F-55250L (1/4")	7-1/4"	2-1/2"	11/16"	5-5/8"	1-1/4"	9/16"
F-55375L (3/8")	8-3/8"	2-3/4"	1-11/32"	6-1/2"	1-1/2"	1-1/16"
F-55376L (3/8")	8-3/8"	2-3/4"	1-11/32"	6-1/2"	1-1/2"	1-1/16"
F-55500L (1/2")	8-3/8"	2-3/4"	1-11/32"	6-1/2"	1-1/2"	7/8"
F-55750L (3/4")	9"	3-3/4"	1-1/2"	6-1/2"	1-3/4"	1-1/16"
F-55200L (1")	10-5/8"	4"	1-3/4"	8"	2"	12-1/64"

## F-550 ADJUSTABLE DIMENSIONS

Model Number	A	B	C	D	E	F
F-55250LA (1/4")	7-1/4"	3-7/16"	1"	5-5/8"	2-7/16"	1-11/32"
F-55375LA (3/8")	8-3/8"	4-1/2"	1-11/32"	6-1/2"	3-1/4"	1-3/4"
F-55376LA (3/8")	8-3/8"	4-1/2"	1-11/32"	6-1/2"	3-1/4"	1-3/4"
F-55500LA (1/2")	8-3/8"	4-1/2"	1-11/32"	6-1/2"	3-1/4"	1-3/4"
F-55750LA (3/4")	9"	5-1/2"	1-1/2"	6-1/2"	3-1/4"	1-5/16"
F-55200LA (1")	10-5/8"	5-1/4"	1-3/4"	8"	3-1/2"	1-7/16"

Note: Mount Hole Dimensions are the same as the Model Non-Adjustable



**PIPE SIZES**  
 1/4", 3/8, 1/2", 3/4"  
 and 1" M/NPT

**FLOW RATES**  
 0.025 to 20 GPM  
 0.1 to 75 LPM  
 0.1 to 45 SCFM

# F-500E SERIES PANEL MOUNT

## F-500E BENEFITS

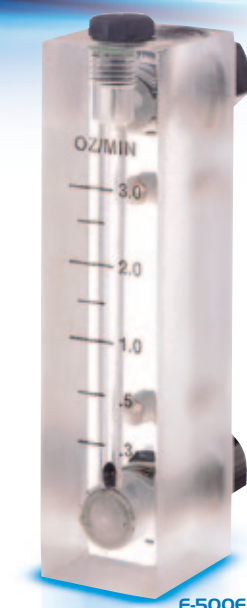
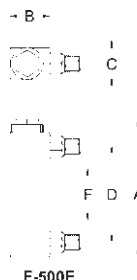
- Impact resistant, one piece machined acrylic meter body.
- #316 Stainless Steel or glass floats (material depends on meter ordered).
- Permanent screen printed scales.
- A wide range of standard calibrations.
- Viton® o-ring seals.
- Excellent Accuracy.
- Acceptable in direct sunlight applications.

## F-500E SPECIFICATIONS

Temperature.....120°F (49°C) @ 0 pressure  
 Pressure.....150 psig (10.3 Bar) @ 70°F (21°C)  
 Full Scale Accuracy.....± 5%  
 Meter Body Material.....Machined acrylic  
 Adapter Material.....PVC  
 O-rings.....Viton®  
 Float Material.....#316 SS or Glass  
 Max. Pressure Drop.....2 psi  
 Approximate Shipping Wt. 1/2 lbs. (.227 kg.)

## F-500E DIMENSIONS

Model #	A	B	C	D	F
F-501E	4-1/8"	1-1/4"	1"	3"	1-5/8"
F-502E	4-1/8"	1-1/4"	1"	3"	1-5/8"
F-503E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-504E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-505E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-506E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-507E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-508E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-509E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-510E	4-3/8"	1-1/4"	1"	3"	1-5/8"
F-511E	4-1/8"	1-1/4"	1"	3"	1-5/8"
F-514E	4-1/8"	1-1/4"	1"	3"	1-5/8"
F-512E	4-1/8"	1-1/4"	1"	3"	1-5/8"
F-513E	4-1/8"	1-1/4"	1"	3"	1-5/8"



## PIPE SIZES

1/4" and 1/8 M/NPT

## FLOW RATES

4.0 to 40 OZ/Hour  
 0.3 to 20 OZ/Min  
 2 to 50 SCFM  
 5 to 24 LPM/Air  
 1 to 72 GPH  
 2 to 300 CFH

# F-300 SERIES MACHINED ACRYLIC FLOWMETERS

## F-300 BENEFITS

- Well suited for closed pipe installation.
- Easy to read dual scale (GPM/LPM), screen printed on both sides of the meter body.
- Horizontal or Vertical pipe installation.
- One piece machined acrylic meter body.
- Corrosion resistant internal parts.
- Calibrated pitot tube.
- Ships with gasket seal and mounting clamps.
- Calibrated for use on PVC or Copper Pipe.
- Low Flow units offered.

## F-300 SPECIFICATIONS

Max. Working Pressure.....150 psig (10.3 bar) @ 70°F (21°C)  
 Max. Fluid Temperature.....190°F/88°C @ 0 pressure  
 Full Scale Accuracy.....± 10%  
 Meter Body Material.....Acrylic  
 Connection Type.....Saddle  
 Float Material.....#316 SS, Hastelloy or Teflon (low flow units)  
 Max. Pressure Drop.....0 psi  
 Approx. Shipping Weight... 1" to 4" Pipe: 1 lbs. (.454 kg.); 6" to 8" Pipe: 2 lbs. (.907 kg.)

## I.P.S. PIPE SIZES

1", 1-1/4", 1-1/2", 2",  
 2-1/2", 3", 4", 6", 8"

## FLOW RATES

5 to 1900 U.S. GPM  
 20 to 7200 LPM



\* Viton® is a registered trademark of DuPont.



# POLYSULFONE VARIABLE AREA FLOWMETERS

## VERSATILE F-451 SERIES

### F-451 BENEFITS

- A Heat and Chemical resistant meter body of injection molded Polysulfone.\*
- Floats are #316 S.S. or Teflon, depending on calibration.
- Many calibrations are offered in GPM, LPM and SCFM.
- Permanent, easy to read screen printed scales.
- 1" F/NPT Polysulfone adapters, or, 1 1/2" PVC adapters (depending on model ordered).
- Viton® o-ring seals.
- Accuracy  $\pm 3\%$ .
- May be ordered with 90° elbow adapters.
- Available with brass sweat or brass 1" F/NPT adapters.
- Available with Polycarbonate Protective Shield.
- Not recommended for direct sunlight applications.

### F-451 SPECIFICATIONS

Max. Working Pressure..... 150 psi (10 Bar) @ 70°F (21°C)  
 Max. Fluid Temperature..... 212°F (100°C) @ 0 pressure  
 Full Scale Accuracy.....  $\pm 3\%$   
 Meter Body Material..... Polysulfone  
 Adapter Material..... 1" Polysulfone & 1 1/2" PVC  
 O-Rings..... Viton®  
 Float Material..... #316 SS, Hastelloy C or Teflon, depending on calibration.  
 Max. Pressure Drop..... 1 psi  
 Approx. Shipping Weight..... 3 lbs. (1.36 kg.)

### PIPE SIZES

1", 1-1/2" F/NPT

### DIMENSIONS

Height: 14-1/2"  
 Width: 3-5/16"

### FLOW RATES

0.5 to 40 GPM  
 2 to 155 LPM  
 4 to 80 SCFM  
 7 to 140 M3/Hr

### F-451 ORDERING GUIDELINES

MODEL NUMBER	CALIBRATION GPM	LPM	ADAPTER SIZE
F-451006LHN	0.5 to 6	to 22	1" F/NPT
F-451001LHN	1.0 to 10	4 to 40	1" F/NPT
F-451002LHN	2.0 to 20	7.5 to 75	1" F/NPT
F-451003LHN	3.0 to 30	12 to 115	1" F/NPT
F-451004LHN	4.0 to 40	15 to 155	1" F/NPT

### 1-1/2" F/NPT PVC Adapters

MODEL NUMBER	CALIBRATION GPM	LPM	ADAPTER SIZE
F-451006LHN-24	0.5 to 6	to 22	1-1/2" F/NPT
F-451001LHN-24	1.0 to 10	4 to 40	1-1/2" F/NPT
F-451002LHN-24	2.0 to 20	7.5 to 75	1-1/2" F/NPT
F-451003LHN-24	3.0 to 30	12 to 115	1-1/2" F/NPT
F-451004LHN-24	4.0 to 40	15 to 155	1-1/2" F/NPT

### Models calibrated for Air

MODEL NUMBER	CALIBRATION GPM	LPM	ADAPTER SIZE
F-451001GHN	4 to 40	7 to 70	1" F/NPT
F-451001GHN-24	4 to 40	7 to 70	1-1/2" F/NPT
F-451002GHN	8 to 80	14 to 140	1" F/NPT
F-451002GHN-24	8 to 80	14 to 140	1-1/2" F/NPT



F-451 with Protective Shield



F-452N

## HIGH CAPACITY F-452N SERIES

### F-452N BENEFITS

- One piece Polysulfone meter body resists high temperatures and pressures.\*
- 316 Stainless Steel or Hastelloy rod guided float.
- Direct reading permanent scale.
- Adapters and unions engineered for maximum protection from misalignment and vibration.
- Optional Polycarbonate Protective Shield.
- Available OEM options: Private labeling, custom calibrations and custom materials.
- Not recommended for direct sunlight.

### F-452N SPECIFICATIONS

Max. Working Pressure..... 150 psig (10.3 bar) @ 70°F (21°C)  
 Max. Fluid Temperature..... 200°F (93°C) @ 0 PSI  
 Full Scale Accuracy.....  $\pm 3\%$   
 Meter Body Material..... Polysulfone  
 Union Nuts..... Glass fiber reinforced Nylon  
 Guide Rod Material..... 316 Stainless Steel  
 Options: Hastelloy C-276  
 O-Ring Material..... Viton®; Options: EPDM  
 Max. Pressure Drop..... 2 psi  
 Approx. Shipping Weight..... 5 lb. (2.27 kg)

### PIPE SIZES

2" F/NPT

### DIMENSIONS

Height: 18-7/8"  
 Width: 4-5/8"

### FLOW RATES

2 to 175 U.S. GPM  
 8 to 675 LPM  
 4 to 240 SCFM  
 7 to 400 M3/Hr

### F-452 ORDERING GUIDELINES

MODEL NUMBER	DUAL SCALE RANGE GPM	LPM	ADAPTER SIZE
F-452020LHN	2 to 20	8 to 78	2" F/NPT
F-452060LHN	6 to 60	30 to 230	2" F/NPT
F-452080LHN	8 to 80	40 to 300	2" F/NPT
F-452100LHN	6 to 100	20 to 380	2" F/NPT
F-452130LHN	20 to 130	80 to 500	2" F/NPT
F-452175LHN	25 to 175	100 to 675	2" F/NPT

### Models calibrated for Air

MODEL NUMBER	DUAL SCALE RANGE SCFM	M3/hr	ADAPTER SIZE
F-452040GHN	4 to 40	7 to 67	2" F/NPT
F-452250GHN	40 to 240	70 to 400	2" F/NPT

\* Viton® is a registered trademark of DuPont.

\* The factory does not guarantee their flowmeters for use with liquids other than water. Customers are required to do their own compatibility testing. Request Kit #70000-718, at no charge.



# ECONOMIC F-440 SERIES

## F-440 BENEFITS

- Now with Adjustable Flow Indicating Marker.
- Increased meter body wall thickness.
- Reengineered, larger half union connections.
- Oversized o-rings for Superior seal.
- All wetted parts are now PVDF or Polypropylene.
- Tough Polysulfone meter body resists high temperatures and pressures.\*
- Compact size for tight installation spaces.
- 2" scale length (approximate).
- Direct reading permanent scale.
- In-line or Panel mount configurations available.
- Optional Integral Flow Adjustment Valve.
- Available OEM options: Private labeling, custom calibrations, custom materials.
- Standard models have #316 Stainless Steel, Teflon or PVC float. (Optional K-series Hastelloy C-276 or PVC).
- Not recommended for direct sunlight.

## F-440 SPECIFICATIONS

Max. Working Pressure ..... 150 psig (10.3 bar) @ 70°F (21°C)  
 Max. Fluid Temperature ..... 212°F (100°C) @ 0 PSI  
 Models with PVC Float .. 130°F (54°C) @ 0 PSI  
 Full Scale Accuracy ..... +/- 5%  
 Meter Body Material ..... Polysulfone  
 Adapter Material ..... Polysulfone  
 O-Ring Material ..... Viton®  
 Max. Pressure Drop ..... 2 psi  
 Approx. Shipping Weight..... 1/2lb. (.23 kg)

## PIPE SIZES

3/8" F/NPT; 1/2"; 3/4" M/NPT

## FLOW RATES

0.025 to 10 U.S. GPM  
 0.1 to 37.5 LPM  
 3 to 60 GPH  
 10 to 220 LPH

## F-440 ORDERING GUIDELINES

### STANDARD LIQUID MODELS

MODEL NUMBER	Pipe Size M/NPT	DUAL SCALE RANGE		Float Material
		GPM	LPM	
F-44250(*)-6	3/8"	.025 to .250	0.1 to 1.0	PVDF
F-44250(*)-8	1/2"	.025 to .250	0.1 to 1.0	PVDF
F-44375(*)-6	3/8"	0.1 to 1.0	0.4 to 4.0	316 SS
F-44375(*)-8	1/2"	0.1 to 1.0	0.4 to 4.0	316 SS
F-44376(*)-6	3/8"	0.2 to 2.0	0.8 to 8.0	316 SS
F-44376(*)-8	1/2"	0.2 to 2.0	0.8 to 8.0	316 SS
F-44500(*)-6	3/8"	0.5 to 5.0	1.8 to 18.0	316 SS
F-44500(*)-8	1/2"	0.5 to 5.0	1.8 to 18.0	316 SS
F-44750(*)-8	1/2"	1.0 to 10.0	5.0 to 37.5	316 SS
F-44750(*)-12	3/4"	1.0 to 10.0	5.0 to 37.5	316 SS
GPH LPH				
F-44330(*)-6	3/8"	3.0 to 30.0	10 to 110	Teflon
F-44330(*)-8	1/2"	3.0 to 30.0	10 to 110	Teflon
F-44560(*)-6	3/8"	5.0 to 60.0	20 to 220	316 SS
F-44560(*)-8	1/2"	5.0 to 60.0	20 to 220	316 SS

### MODEL Variations

\*L = In-Line Model is listed

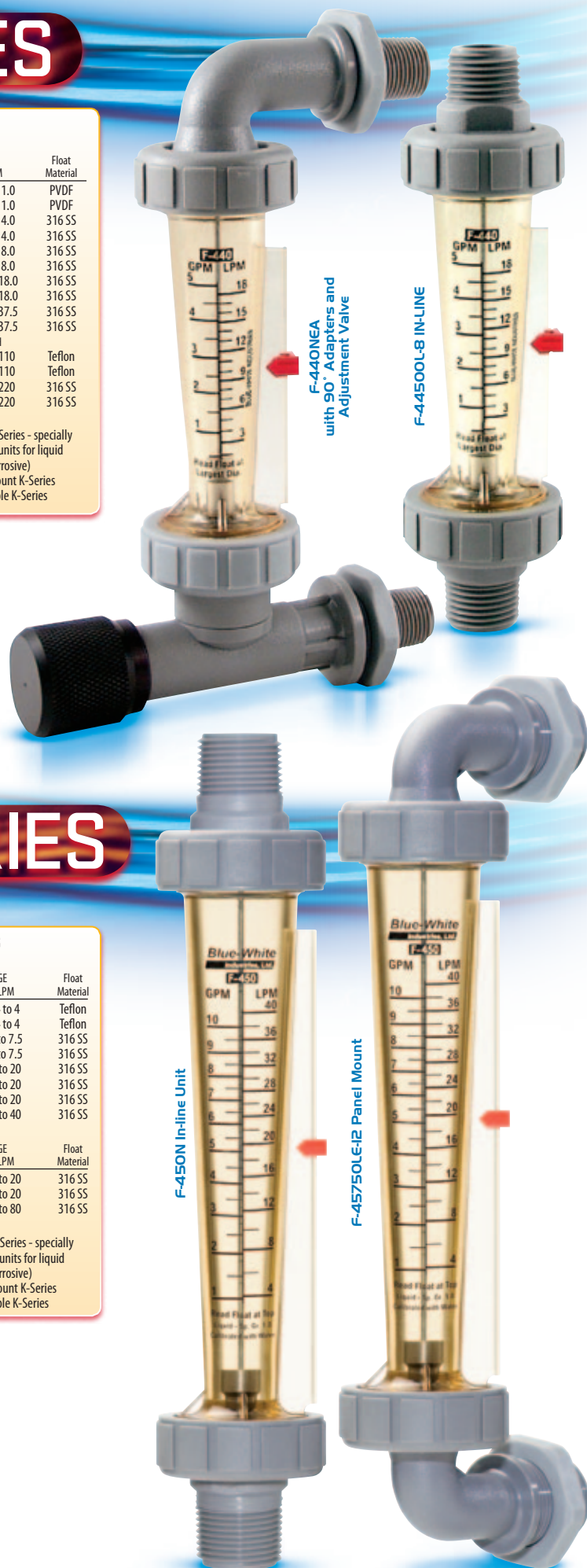
\*LE = Panel Mount Model

\*LA = Adjustable Model

\*LK = In-Line K-Series - specially equipped units for liquid (highly corrosive)

\*LKE = Panel Mount K-Series

\*LKA = Adjustable K-Series



# VERSATILE F-450N SERIES

## F-450N BENEFITS

- Now with Adjustable Flow Indicating Marker.
- Increased meter body wall thickness.
- Reengineered, larger half union connections.
- Oversized o-rings for Superior seal.
- All wetted parts are now PVDF or Polypropylene.
- Tough Polysulfone meter body resists high temperatures and pressures.\*
- 4" approximate scale length for easy reading.
- Direct reading permanent scale.
- In-line or Panel mount configurations available.
- Optional integral flow adjustment valve.
- Standard models have #316 Stainless Steel or Teflon float. (Optional K-series Hastelloy C-276 or Teflon).
- Available OEM options: Private labeling, custom calibrations, custom materials.
- Not recommended for direct sunlight.

## F-450N SPECIFICATIONS

Max. Working Pressure ..... 150 psig (10.3 bar) @ 70°F (21°C)  
 Max. Fluid Temperature ..... 212°F (100°C) @ 0 PSI  
 Models with PVC Float .. 130°F (54°C) @ 0 PSI  
 Full Scale Accuracy ..... +/- 5%  
 Meter Body Material ..... Polysulfone  
 Adapter Material ..... Polysulfone  
 O-Ring Material ..... Viton®  
 Max. Pressure Drop ..... 2 psi  
 Approx. Shipping Weight..... 1/2lb. (.23 kg)

## PIPE SIZES

3/8" F/NPT; 1/2"; 3/4" M/NPT

## FLOW RATES

0.1 to 10 U.S. GPM  
 4 to 40 LPM  
 1 to 48 SCFM  
 2 to 80 M3/Hr

## F-450N ORDERING GUIDELINES

### STANDARD LIQUID MODELS

MODEL NUMBER	Pipe Size	DUAL SCALE RANGE		Float Material
		GPM	LPM	
F-45375(*)-6	3/8" F/NPT	.1 to 1	.4 to 4	Teflon
F-45375(*)-8	1/2" M/NPT	.1 to 1	.4 to 4	Teflon
F-45376(*)-6	3/8" F/NPT	.2 to 2	1 to 7.5	316 SS
F-45376(*)-8	1/2" M/NPT	.2 to 2	1 to 7.5	316 SS
F-45500(*)-6	3/8" F/NPT	.5 to 5	2 to 20	316 SS
F-45500(*)-8	1/2" M/NPT	.5 to 5	2 to 20	316 SS
F-45500(*)-12	3/4" M/NPT	.5 to 5	2 to 20	316 SS
F-45750(*)-12	3/4" M/NPT	1 to 10	4 to 40	316 SS

### STANDARD AIR MODELS

MODEL NUMBER	Pipe Size	DUAL SCALE RANGE		Float Material
		GPM	LPM	
F-45376G-6	3/8" F/NPT	1 to 12	2 to 20	316 SS
F-45376G-8	1/2" M/NPT	1 to 12	2 to 20	316 SS
F-45750G-12	3/4" M/NPT	4 to 48	8 to 80	316 SS

### MODEL Variations

\*L = In-Line Model is listed

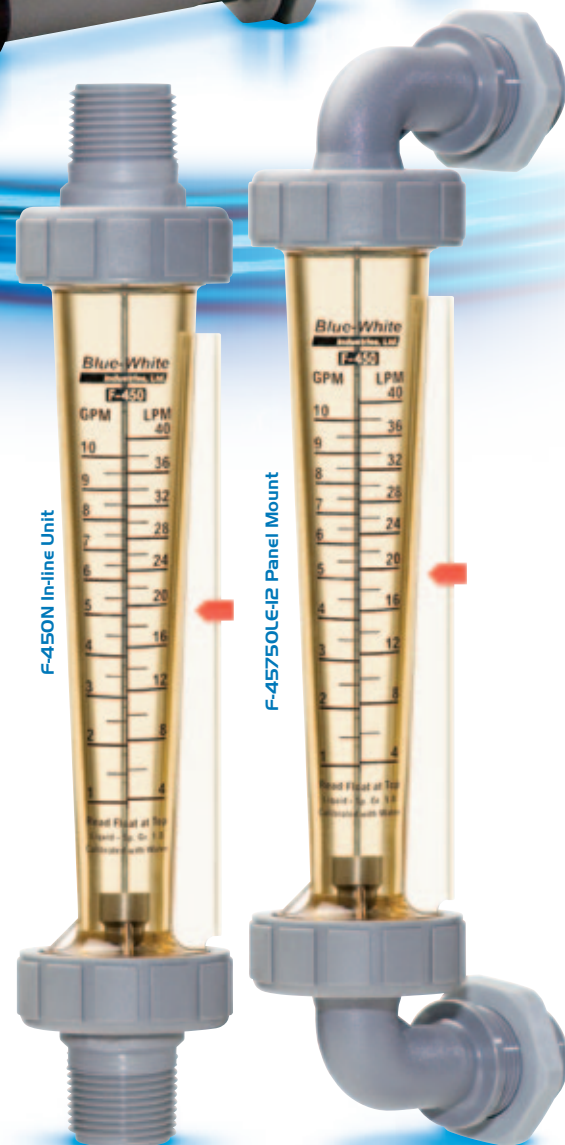
\*LE = Panel Mount Model

\*LA = Adjustable Model

\*LK = In-Line K-Series - specially equipped units for liquid (highly corrosive)

\*LKE = Panel Mount K-Series

\*LKA = Adjustable K-Series





# F-460 & F-461 SERIES with RIB GUIDED FLOAT



## F-460 & F-461 BENEFITS

- Polysulfone meter body with precisely engineered float guide ribs.
- No metal in the fluid path.
- Direct reading permanent scale.
- Ideal for corrosive environments\* such as Deionized Water or other applications where an all plastic meter is desirable.
- Available OEM options: Private labeling, special calibrations and alternate materials.
- Not recommended for direct sunlight.

## F-460 & F-461 SPECIFICATIONS

Max. Working Pressure ..... 150 psig (10.3 bar) @ 70°F (21°C)  
 Max. Fluid Temperature ..... PVDF adapters: 210°F (98°C) @ 0 PSI  
 PVC adapters: 130°F (54°C) @ 0 PSI  
 Full Scale Accuracy ..... +/- 2-1/2%  
 Meter Body Material ..... Polysulfone  
 Float Material ..... Teflon  
 O-ring Seals ..... Viton®  
 Max. Pressure Drop ..... 2 psi  
 Approx. Shipping Weight... F-460 = 1 lb. (.45 kg)  
 F-461 = 3 lb. (1.4 kg)

## F-460 PIPE SIZES

1/2", 3/4", and 1" F/NPT

## F-460 FLOW RATES

0.1 to 5.0 U.S. GPM  
 0.4 to 20 LPM

## F-460 DIMENSIONS

Height: 10"  
 Width: 1-3/4"

## F-461 PIPE SIZES

1/2", 3/4", and 1" F/NPT

## F-461 FLOW RATES

1 to 35 U.S. GPM  
 4 to 130 LPM

## F-461 DIMENSIONS

Height: 15"  
 Width: 2-3/4"

## F-460 & F-461 ORDERING GUIDELINES

### STANDARD F-460 LIQUID MODELS with F/NPT Adapters

MODEL NUMBER	Pipe Size	DUAL SCALE RANGE GPM	LPM
F-46010LX-08(*)	1/2"	0.1 to 1.2	0.4 to 4.4
F-46010LX-12(*)	3/4"	0.1 to 1.2	0.4 to 4.4
F-46020LX-08(*)	1/2"	0.2 to 2.0	0.8 to 8.0
F-46020LX-12(*)	3/4"	0.2 to 2.0	0.8 to 8.0
F-46030LX-08(*)	1/2"	0.3 to 3.0	1.0 to 11
F-46030LX-12(*)	3/4"	0.3 to 3.0	1.0 to 11
F-46050LX-08(*)	1/2"	0.5 to 5.0	2.0 to 20
F-46050LX-12(*)	3/4"	0.5 to 5.0	2.0 to 20

### STANDARD F-461 LIQUID MODELS with F/NPT Adapters

MODEL NUMBER	Pipe Size	DUAL SCALE RANGE GPM	LPM
F-461100LX-16(*)	1"	1 to 10	to 40
F-461200LX-16(*)	1"	2 to 20	5 to 75
F-461300LX-16(*)	1"	3 to 35	12 to 130

### MODEL Variations

\*P = PVC Adapter  
 \*K = PVDF Adapter  
 PVC Union Nuts = replace "X" with "P"

## Butt Fusion & Socket Fusion Fittings



Available for F-460 and F-461  
 Polypropylene or PVDF Butt Fusion & Socket Fusion Fittings for ULTRA PURE APPLICATIONS

# F-462 SERIES with RIB GUIDED FLOAT

## F-462 BENEFITS

- Polysulfone meter body with precisely engineered float guide ribs.
- No metal in the fluid path.
- Direct reading permanent scale.
- Ideal for corrosive environments\* such as Deionized Water or other applications where an all plastic meter is desirable.
- Available OEM options: Private labeling, special calibrations and alternate materials.
- Not recommended for direct sunlight.

## F-462 SPECIFICATIONS

Max. Working Pressure ..... 150 psig (10.3 bar) @ 70°F (21°C)  
 Max. Fluid Temperature ..... 200°F (93°C) @ 0 PSI  
 Full Scale Accuracy ..... +/- 2-1/2%  
 Meter Body Material ..... Polysulfone  
 Float Material ..... Teflon  
 O-ring Seals ..... Viton®  
 Max. Pressure Drop ..... 2 psi  
 Approx. Shipping Weight... 5 lb. (2.27 kg)

## PIPE SIZES

2" F/NPT

## DIMENSIONS

Height: 18-7/8"  
 Width: 4-5/8"

## FLOW RATES

2 to 80 GPM  
 8 to 30 LPM

## F-462 ORDERING GUIDELINES

### STANDARD F-462 LIQUID MODELS with 2" F/NPT Adapters

MODEL NUMBER	Pipe Size	DUAL SCALE RANGE GPM	LPM	Adapter Material	Float Material
F-462200LX-32H	2" F/NPT	2 to 20	8 to 80	Polysulfone	Teflon
F-462500LX-32H	2" F/NPT	5 to 50	20 to 200	Polysulfone	Teflon
F-462800LX-32H	2" F/NPT	8 to 80	30 to 300	Polysulfone	Teflon

### STANDARD F-462 LIQUID MODELS with 2" Socket Fusion Adapters

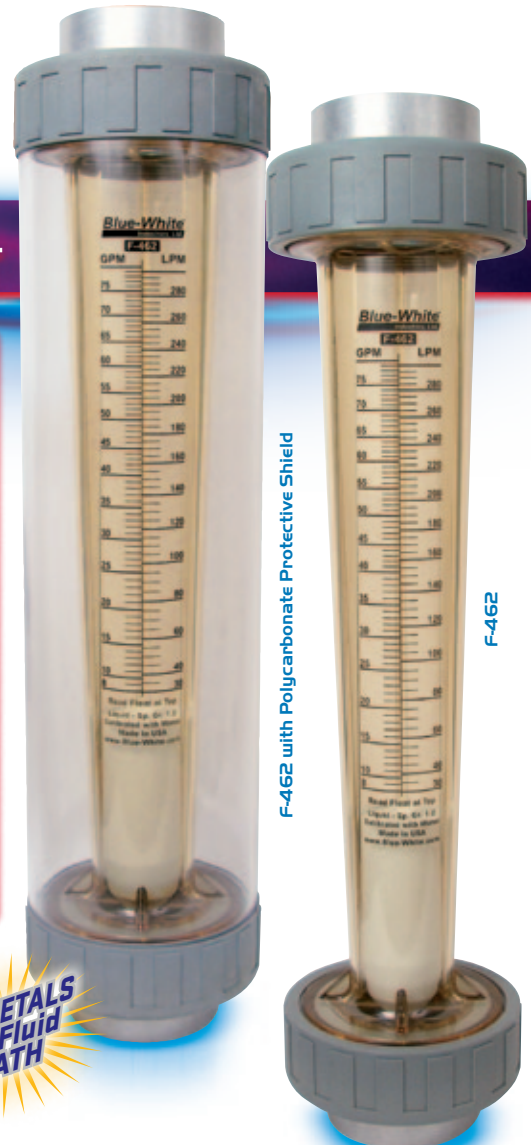
MODEL NUMBER	Pipe Size	DUAL SCALE RANGE GPM	LPM	Adapter Material	Float Material
F-462200LX-33G	2" S.F.	2 to 20	8 to 80	Polypropylene	Teflon
F-462500LX-33G	2" S.F.	5 to 50	20 to 200	Polypropylene	Teflon
F-462800LX-33G	2" S.F.	8 to 80	30 to 300	Polypropylene	Teflon
F-462200LX-33K	2" S.F.	2 to 20	8 to 80	PVDF	Teflon
F-462500LX-33K	2" S.F.	5 to 50	20 to 200	PVDF	Teflon
F-462800LX-33K	2" S.F.	8 to 80	30 to 300	PVD	Teflon

### STANDARD F-462 LIQUID MODELS with 63mm Butt Fusion Adapters

MODEL NUMBER	Pipe Size	DUAL SCALE RANGE GPM	LPM	Adapter Material	Float Material
F-462200LX-34G	63mm B.F.	2 to 20	8 to 80	Polypropylene	Teflon
F-462500LX-34G	63mm B.F.	5 to 50	20 to 200	Polypropylene	Teflon
F-462800LX-34G	63mm B.F.	8 to 80	30 to 300	Polypropylene	Teflon
F-462200LX-34K	63mm B.F.	2 to 20	8 to 80	PVDF	Teflon
F-462500LX-34K	63mm B.F.	5 to 50	20 to 200	PVDF	Teflon
F-462800LX-34K	63mm B.F.	8 to 80	30 to 300	PVD	Teflon

### MODEL Variations

Polycarbonate shield = add the letter "C" to the end of the model number.  
 PVC Union Nuts = replace "X" with "P"



## Butt Fusion & Socket Fusion Fittings

Available for F-462

Polypropylene or PVDF Butt Fusion & Socket Fusion Fittings for ULTRA PURE APPLICATIONS

\* Viton® is a registered trademark of DuPont.

\* The factory does not guarantee their flowmeters for use with liquids other than water. Customers are required to do their own compatibility testing. Request Kit #70000-718, at no charge.



# BW DIGI-METER<sup>®</sup> PADDLEWHEEL FLOWMETERS

The BW DIGI-METER<sup>®</sup> is the meter of choice when your application requires an Innovative, Accurate and Versatile Digital Flowmeter.

## BW DIGI-METER F-1000 PADDLEWHEEL FLOWMETER

*Blue-White's carefully engineered BW DIGI-METER F-1000 Series include premier features and provide outstanding performance.*

Three versions of the BW DIGI-METER F-1000 are offered. The F-1000RB Unit is a rate meter only; the F-1000TB Unit is a flow totalizer; and the F-1000RT Unit is both a Rate Meter and Flow Totalizer. BW DIGI-METERS are available with a number of configuration and mounting style options. If you don't see the unit that meets your requirements here, please contact our courteous and knowledgeable staff for assistance.

### F-1000 BENEFITS

- Easy to read six digit LCD, up to four decimal positions.
- Tamper proof.
- Battery operated (2 AAA batteries included).
- Three model variations:
  - RB = RATE ONLY
  - TB = TOTAL ONLY
  - RT = RATE & TOTALIZER
- Total reset function can be disabled.
- Display update time: Rate 1.5 sec., Total 0.5 sec.
- Factory calibrated - nothing to program.
- Custom calibration units available. Contact the factory.
- Weather resistant ABS enclosure. NEMA 4X
- Calibration Units: GPM, LPM, m<sup>3</sup>/min, oz/min, GPH, LPH.
- LCD is not recommended for direct sunlight applications.

### F-1000 SPECIFICATIONS

#### with Saddle Mount Body

Max. Working Pressure .....300 psig (20 bar) @ 70° F (21° C)  
 Max. Fluid Temperature .....200° F (93° C) @ 0 PSI (all PVDF saddle fittings)  
   140° F (60° C) @ 0 PSI (all PVC saddle and TEE fittings)  
 Note: Temperature rating of F-1000 only. Actual pipe rating may vary.  
 Full scale accuracy .....+/- 2%  
 Saddle material .....PVDF (1-1/2", 2", 3", 50mm, 63mm, 90mm sizes)  
   PVC (all other sizes)  
 Sensor/Paddle/Axle material .....PVDF  
 O-ring seals .....Viton  
 Max. pressure drop .....0 psi (no significant drop)  
 Approximate shipping wt. ....2 lb. (.91 kg)

#### with Solvent TEE Body

Max. Working Pressure .....300 psig (20 bar) @ 70° F (21° C)  
 316 SS Tee fittings .....300 psig (20 bar) @ 70° F (21° C)  
 PVC Tee fittings .....200 psig (13.8 bar) @ 70° F (21° C)  
 Max. Fluid Temperature .....200° F (93° C) @ 0 PSI  
   140° F (60° C) @ 0 PSI  
 Full scale accuracy .....+/- 2%  
 Tee material options .....316 Stainless Steel, PVC  
 Body, Paddle, Axle material .....PVDF  
   Axle options .....Ceramic, Hastelloy, Titanium  
 O-ring seals .....Viton  
 Max. pressure drop .....0 psi (no significant drop)  
 Approximate shipping wt. ....2 lb. (.91 kg)

#### with Molded In-Line Body

Max. Working Pressure .....300 psig (20 bar) @ 70° F (21° C)  
 Max. Fluid Temperature .....200° F (93° C) @ 0 PSI  
 Full scale accuracy .....+/- 2%  
 Meter body material .....Polysulfone  
 Sensor/Paddle/Axle material .....PVDF  
 O-ring seals .....Viton  
 Max. pressure drop .....8 psi (varies per model)  
 Approximate shipping wt. ....2 lb. (.91 kg)

#### with Machined In-Line Body

Max. Working Pressure .....300 psig (20 bar) @ 70° F (21° C)  
 Max. Fluid Temperature .....200° F (93° C) @ 0 PSI  
 Full scale accuracy .....+/- 2%  
 Sensor/Paddle/Axle material .....PVDF  
 O-ring seals .....Viton  
 Max. pressure drop .....8 psi (varies per model)  
 Approximate shipping wt. ....5 lb. (2.31 kg)

BW DIGI-METER<sup>®</sup>  
F-1000  
with Solvent TEE Body  
PIPE SIZES  
1", 1-1/2", 2"



BW DIGI-METER<sup>®</sup> F-1000  
with Saddle Mount  
PIPE SIZES  
1-1/2", 2", 2-1/2", 3", 4", 6", 8", 10", 12"



BW DIGI-METER<sup>®</sup>  
F-1000  
with Molded In-Line Body  
PIPE SIZES  
1/4", 3/8", 1/2", 3/4", 1", 2" M/NPT



BW DIGI-METER<sup>®</sup>  
F-1000  
with Machined In-Line Body  
PIPE SIZES  
1/4", 3/8", 1/2", 3/4", 1", 2" F/NPT

\* Viton® is a registered trademark of DuPont.



# F-2000 PADDLEWHEEL FLOWMETER

*The thoughtfully engineered BW DIGI-METER® F-2000 combine innovative features and benefits, and the finest materials of construction to provide an accurate and versatile Digital Flowmeter.*

If you don't see the unit that matches your requirements listed here, please contact our courteous and knowledgeable staff for assistance

## FOUR MODEL VARIATIONS

- RT** = Rate and Totalizer. Transformer or battery operated.
- AO** = 4-20mA, 0-10 VDC analog output, flow rate & totalizer. Transformer operated.
- PC** = Batch processing, flow rate alarm, proportional chemical metering, flow rate and totalizer. Transformer operated.
- AP** = Analog output, batch processing, flow rate alarm, proportional chemical metering, flow rate and totalizer. Transformer operated.

## F-2000 BENEFITS

- Easy to read 8 digit LCD, up to 4 decimal positions.
- Flow rate and Total flow display.
- AC/DC transformer or battery operated (RT models only). 4 AA batteries.
- Factory programmed with calibration certificate.
- Field programmable via front panel touch pad.
- Front panel security lockout.
- Total reset function can be disabled.
- Weather resistant ABS enclosure. NEMA 4X.  
Note: LCD is not recommended for direct sunlight applications.
- Panel mounting option available.
- Custom calibration units available. Contact the factory.

## F-2000 SPECIFICATIONS

### with Saddle Mount & Solvent TEE Body

Max. Working Pressure .....300 psig (20 bar) @ 70°F (21°C)  
 Max. Fluid Temperature.....200°F (93°C) @ 0 PSI  
 (all PVDF saddle fittings)  
 .....140°F (60°C) @ 0 PSI  
 (all PVC saddles and TEE fittings)  
 Note: Temperatures rating of F-1000 only. Actual pipe rating may vary.  
 Full Scale Accuracy .....+/- 2%  
 Sensor/Paddle/Axle Material ....PVDF  
 O-ring Seals .....Viton®  
 Max. Pressure Drop .....0 psi (no significant pressure drop)  
 Approx. Shipping Weight.....2 lb. (.91 kg)

### with Molded In-Line Body

Max. Working Pressure .....300 psig (20 bar) @ 70°F (21°C)  
 Max. Fluid Temperature.....200°F (93°C) @ 0 PSI  
 Full Scale Accuracy .....+/- 2%  
 Sensor/Paddle/Axle Material ....PVDF  
 O-ring Seals .....Viton®  
 Max. Pressure Drop .....8 psi (varies per model)  
 Approx. Shipping Weight.....2 lb. (.91 kg)

### with Machined In-Line Body

Max. Working Pressure .....300 psig (20 bar) @ 70°F (21°C)  
 Max. Fluid Temperature.....200°F (93°C) @ 0 PSI  
 Full Scale Accuracy .....+/- 2%  
 Sensor/Paddle/Axle Material ....PVDF  
 O-ring Seals .....Viton®  
 Max. Pressure Drop .....8 psi (varies per model)  
 Approx. Shipping Weight.....5 lb. (2.3 kg)



**BW DIGI-METER® F-2000 with Molded In-Line Body**

**PIPE SIZES**  
3/8", 1/2", 3/4", 1", 1-1/2", 2"



**BW DIGI-METER® F-2000 with Saddle Mount**

**PIPE SIZES**  
1-1/2", 2", 2-1/2", 3",  
4", 6", 8", 10", 12"



**BW DIGI-METER® F-2000 with Machined In-Line Body**

**PIPE SIZES**  
3/8", 1/2", 3/4", 1", 1-1/2", 2" F/NPT



**BW DIGI-METER® F-2000 with Solvent TEE Body**  
**PIPE SIZES**  
1", 1-1/2", 2"



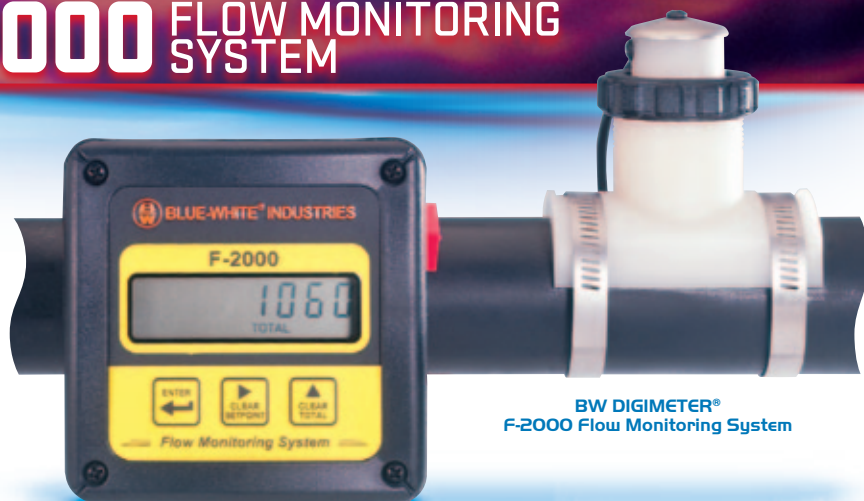
# F-2000 FLOW MONITORING SYSTEM

*BW DIGI-METER® F-2000 Series electronic insertion style flowmeters, are well suited for monitoring flow in municipal water and wastewater applications.*

The clamp on saddle fitting and insertion sensor is quickly installed on IPS (ASTM-D-1785) pipe sizes from 1-1/2" through 12" and metric (DIN 8062) pipe sizes from 50mm through 315mm. The electronic display and communication enclosure can be mounted directly to the sensor, or remotely mounted to a pipe or panel.

Standard F-2000 models display flow rate and accumulated total flow, and include an NPN open collector output for communication with data loggers, SCADA systems, and other external devices. For additional information and assistance, please contact the factory.

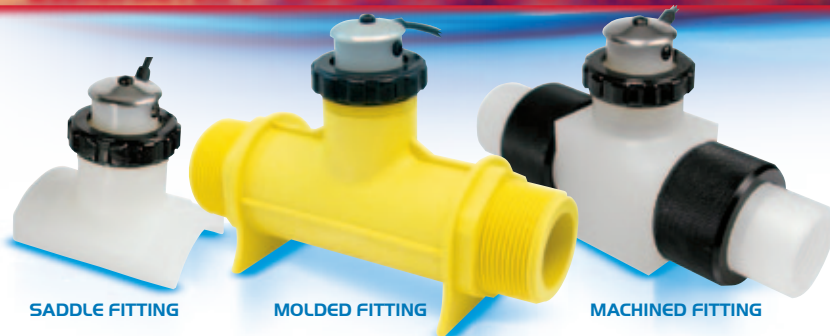
\* Viton® is a registered trademark of DuPont.



**BW DIGI-METER® F-2000 Flow Monitoring System**



# BW DIGI-METER F-2000 with DIGITAL HALL EFFECT OUTPUT SIGNAL



## F-2000 BENEFITS

- TTL/CMOS compatible, current sinking output signal.
- Optional AC sine wave output.
- One mile signal range without sensor available.
- NEMA 4X rated boosters

## F-2000 SPECIFICATIONS

Max. Working Pressure ..... 300 psig (20 bar) @ 70°F (21°C)  
 Max. Fluid Temperature ..... 200°F (93°C) @ 0 PSI  
 (In-Line Polypropylene and PVDF saddles)  
 140°F (60°C) @ 0 PSI  
 (PVC saddles and TEE fittings)  
 Note: Temperature rating of F-1000 only. Actual pipe rating may vary.  
 Power Requirements ..... 6-24 VDC, AC/DC transformer sold separately.  
 Full Scale Accuracy ..... +/- 1%  
 Sensor/Paddle/Axle Material PVDF  
 O-ring Seals ..... Viton®  
 Approx. Shipping Weight..... 2 lb. (0.9 kg)

## BW DIGI-METER F-1000 & F-2000 Installation Options & Dimensions

### MOLDED IN-LINE

- One piece injection molded construction.
  - Male pipe thread In-line installation.
  - Polypropylene fittings for standard applications.
  - PVDF material for highly corrosive applications.
- Max. PSI ..... 300 psig (20 bar) @ 70°F (21°C)  
 Max. Temp. .... 200°F (93°C) @ 0 PSI  
 Note: Temperature rating of pipe fitting only. Actual pipe rating may vary  
**PIPE SIZES:** 3/8", 1/2", 3/4", 1", 1-1/2", 2" M/NPT

### MACHINED IN-LINE

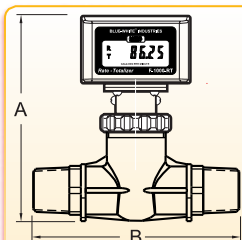
- Machined from solid bar and sheet stock.
  - Union and F/NPT pipe adapter connections for easy installation.
  - Internal gland o-ring adapter seals provide greater protection against installation misalignment and vibration.
  - Polypropylene fittings for standard applications.
  - PVDF material for highly corrosive applications.
- Max. PSI ..... 300 psig (20 bar) @ 70°F (21°C)  
 Max. Temp. .... 200°F (93°C) @ 0 PSI  
 Note: Temperature rating of pipe fitting only. Actual pipe rating may vary  
**PIPE SIZES:** 3/8", 1/2", 3/4", 1", 1-1/2", 2" F/NPT

### SADDLE MOUNT

- 1-1/2" thru 3" (50mm thru 90mm) injection molded PVDF.
  - 3" thru 12" (110mm thru 315mm) machined from solid PVC sheet stock.
  - Installs on existing pipe - no other fittings are required.
  - No added pressure drop to system.
- Max. PSI ..... 300 psig (20 bar) @ 70°F (21°C)  
 Max. Temp. .... 200°F (93°C) @ 0 PSI PVC: 140°F (60°C) @ 0 PSI  
 Note: Temperature rating of pipe fitting only. Actual pipe rating may vary  
 O-ring Seals ..... Viton®  
**I.P.S. PIPE SIZES:** 1-1/2", 2", 3", 4", 6", 8", 10", 12"  
**METRIC PIPE SIZES:** 50, 63, 90, 110, 160, 200, 250, 315mm

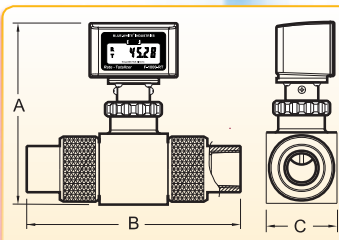
### TEE

- Easy to install.
  - No added pressure drop to system.
- Max. PSI ..... 316 SS TEE: 300 psig (20 bar) @ 70°F (21°C)  
 PVC TEE: 200 psig (13.8 bar) @ 70°F (21°C)  
 Max. Temp. .... 316 SS TEE: 200°F (93°C) @ 0 PSI  
 PVC TEE: 140°F (60°C) @ 0 PSI  
**PIPE SIZES:** 1", 1-1/2", 2"



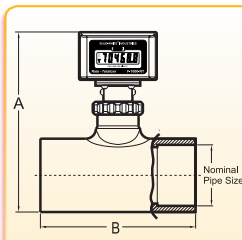
**F-1000 with MOLDED In-Line Body**

PIPE SIZE	A	B
3/8" MPT	5-3/8"	4-3/4"
1/2" MPT	5-3/8"	5-1/8"
3/4" MPT	5-3/8"	5-1/4"
1" MPT	5-3/8"	5-5/8"
1-1/2" MPT	6-1/8"	6-1/2"
2" MPT	6-3/8"	6-3/4"



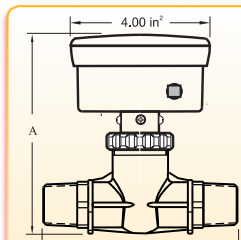
**F-1000 with MACHINED In-Line Body**

PIPE SIZE	A	B	C
3/8" FPT	6-3/8"	7-1/2"	2-1/2"
1/2" FPT	6-3/8"	7-1/2"	2-1/2"
3/4" FPT	6-3/8"	7-1/2"	2-1/2"
1" FPT	6-3/8"	7-1/2"	2-1/2"
1-1/2" FPT	6-5/8"	9-1/2"	2-1/2"
2" FPT	7"	11-1/2"	3"



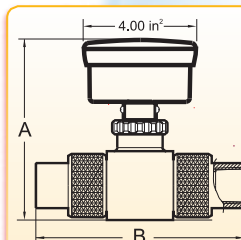
**F-1000 with SOLVENT TEE Body**

PIPE SIZE	A	B
1"	4"	6"
1-1/2"	4-1/2"	6-5/8"
2"	4-3/4"	7-1/8"



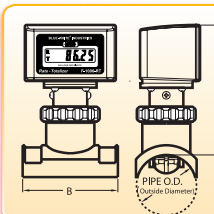
**F-2000 with MOLDED In-Line Body**

PIPE SIZE	A	B
3/8" MPT	5-7/8"	4-3/4"
1/2" MPT	5-7/8"	5-1/8"
3/4" MPT	6"	5-1/4"
1" MPT	6"	5-5/8"
1-1/2" MPT	6-1/2"	7"
2" MPT	6-3/4"	7"



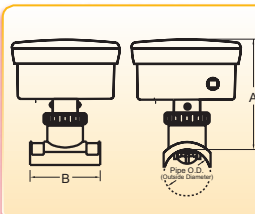
**F-2000 with MACHINED In-Line Body**

PIPE SIZE	A	B
3/8" FPT	6-3/8"	7-1/2"
1/2" FPT	6-3/8"	7-1/2"
3/4" FPT	6-3/8"	7-1/2"
1" FPT	6-3/8"	7-1/2"
1-1/2" FPT	6-5/8"	9-1/2"
2" FPT	7-1/8"	11-1/2"



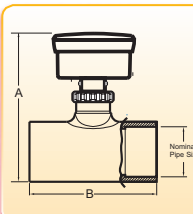
**F-1000 with SADDLE MOUNT Body**

PIPE SIZE (mm)	A	B
150(050)	4-5/16"	3-3/16"
200(063)	4-5/16"	3-3/16"
300(090)	4-5/16"	3-3/16"
400(110)	4-5/16"	3-3/16"
600(160)	4-1/4"	3-3/16"
800(200)	4-1/4"	3-3/16"
1000(250)	4-1/4"	4-1/2"
1200(315)	4-1/4"	4-1/2"



**F-2000 with SADDLE MOUNT Body**

PIPE SIZE (mm)	A	B
150(050)	4-1/2"	3-3/16"
200(063)	4-1/2"	3-3/16"
300(090)	4-1/2"	3-3/16"
400(110)	4-1/2"	3-3/16"
600(160)	4-3/8"	3-3/16"
800(200)	4-3/8"	3-3/16"
1000(250)	4-3/8"	4-1/2"
1200(315)	4-1/2"	4-1/2"



**F-2000 with SOLVENT TEE Body**

PIPE SIZE	A	B
1"	6"	4"
1-1/2"	6-5/8"	4-1/2"
2"	7-1/8"	4-3/4"

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