

# Flow-Pro® Chemical Feed Pumps

*Ideal for chlorine metering in residential & commercial applications*



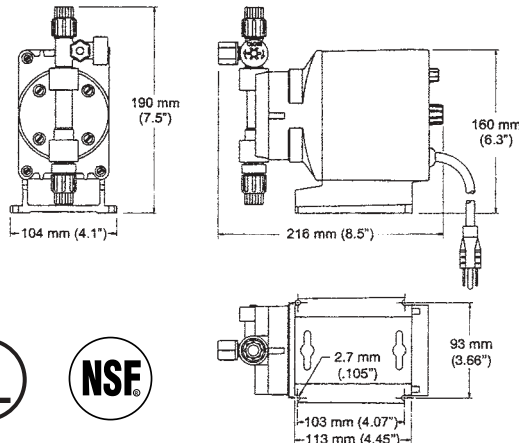
## Features & benefits

- Dual output control for easy & accurate adjustment.
- Turn-down ratio (500:1) provides excellent flexibility.
- 6 - 30 GPD maximum output at 80 psi.
- Quiet operation for residential or commercial use.
- Totally enclosed construction for chemical resistance and suitability for outdoor installation.
- Safe operation, with built-in pressure relief, designed to stop pump if system backpressure is excessive.
- Thermostatic protection provided for over heating.
- Priming valve provides safe and easy priming, with out having to disconnect tubing.
- Pumps come with four self-cleaning valves to help maintain prime and eliminate scale and clogging.
- Priming valve, injection check/back pressure valve, foot valve with strainer, vinyl suction tubing, UV resistant PE discharge tubing and ceramic weight are included for complete and easy installation.
- Heads and fittings are made of high strength PVC.

## Typical applications

- Residential water conditioning
- Commercial water treatment
- Irrigation
- Boiler feed
- Cooling towers
- Agriculture
- Laundries
- Livestock
- Food processing
- Car wash
- Photo processing
- Metal finishing

## Dimensions



## Standard models

Model No.	GPD		GPH		Liters Per Hour		ml / cc Per Min.		Electrical (w / plug)	Amps.	Ship Wt.
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.			
FP-DCP-12	0.04	12.0	0.002	0.5	0.006	1.9	0.11	32	120 VAC	1.4	8 lbs.
FP-DCP-24	0.05	24.0	0.002	1.0	0.008	3.8	0.13	63	120 VAC	1.4	8 lbs.
FP-DCP-30	0.06	30.0	0.003	1.25	0.010	4.7	0.16	79	120 VAC	1.4	8 lbs.
FP-DCP-30/230	0.06	30.0	0.003	1.25	0.010	4.7	0.16	79	230 VAC*	1.4	8 lbs.

\*Plug not suitable for export. Maximum injection pressure is 80 psi (5.5 bar) for all models.

## Diaphragm repair kits

Part Number	Model	Description
FP-CFP-DRK-12	FP-DCP-12	Complete repair kit with diaphragm and associated components.
FP-CFP-DRK-24	FP-DCP-24	Complete repair kit with diaphragm and associated components.
FP-CFP-DRK-30	FP-DCP-30	Complete repair kit with diaphragm and associated components.

# Pulsafeeder® Chemical Metering Pump

*Ideal for commercial & industrial applications.*



## Series A+

The Series A+ offers manual control over stroke length and stroke rate as standard with the option to select external pace for automatic control.

- 6 distinct flow/pressure envelopes
- Flow/pressure capacity ranging from 6 gpd (.95 lph) @150 psi (10.3 bar) to 48 gpd (7.57 lph) @ 50 psi (3.3 bar)
- 100:1 turn down ratio
- Optional external pacing with Auto/Manual switch
- Internally dampened to reduce noise - ideal for home installations
- Water resistant for outdoor installations



## Series E+

The Series E+ Plus offers manual control over stroke length and stroke rate as standard with the option to choose between 4-20mA or external pace inputs for automatic control.

- 20 distinct flow/pressure envelopes
- Flow/pressure capacity ranging from 3 gpd (.47 lph) @300 psi (20.7 bar) to 500 gpd (78.9 lph) @ 20 psi (1.4 bar)
- 100:1 turn down ratio
- Optional 4-20mA with stop function
- Optional External Pacing with stop function
- Auto-Off-Manual selection switch with lights
- Built-in circuit protection
- Water resistant cover over controls

## Series A+ (standard industrial)

Model Number	Series	Tube Size	Electrical	Flow Rate
LBC3SA-WTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	10 GPD @ 250 psi
LBO2SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	6 GPD @ 150 psi
LBO3SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	12 GPD @ 150 psi
LBO4SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	22 GPD @ 100 psi
LB64SA-VTC1-XXX	A+	3/8"	115 Volt / 50 - 60 Hz	30 GPD @ 100 psi
LBO3SB-VTC1-XXX	A+	3/8"	230 Volt / 50 - 60 Hz	12 GPD @ 150 psi
LBO4SB-VTC1-XXX	A+	3/8"	230 Volt / 50 - 60 Hz	22 GPD @ 100 psi

## Series E+ (premium industrial)

Model Number	Series	Tube Size	Electrical	Flow Rate
LPB2SA-WTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	5 GPD @ 250 psi
LPA3SA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4SA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	24 GPD @ 100 psi
LPE4SA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	44 GPD @ 100 psi
LPH6SA-VTC3-XXX	E+	1/2"	115 Volt / 50 - 60 Hz	120 GPD @ 100 psi
LPA3SB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4SB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	24 GPD @ 100 psi

## Series E+ (premium industrial with capacity to accept a 4-20 mA signal)

Model Number	Series	Tube Size	Electrical	Flow Rate
LPA3MA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4MA-VTC1-XXX	E+	3/8"	115 Volt / 50 - 60 Hz	24 GPD @ 100 psi
LPA3MB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	12 GPD @ 100 psi
LPB4MB-VTC1-XXX	E+	3/8"	230 Volt / 50 - 60 Hz	24 GPD @ 100 psi

# Flow-Pro® Commercial Water Testing Equipment

Full line of test equipment for water treatment dealers and professionals.



## Flow-Pro® 6-In-One Combination Test Kit For Water Treatment Professionals

Part Number (Test Kit)	Test	Test Type	Description / Range
FPCTK-6	P & M Alkalinity	Drop	1 drop = 10 PPM / 25 ml
	Chloride	Drop	1 drop = 10 PPM / 25 ml
	Total Hardness	Drop	1 drop = 2 PPM / 25 ml
	Sulfite	Drop	1 drop = 10 PPM / 25 ml
	Phosphate	Comparator	0 - 10 PPM & 10 - 100 PPM (dual range)
	pH	Comparator (Phenol Red)	6.8 - 8.2



P &amp; M Alkalinity



Chloride



Total Hardness



Phosphate



pH



Sulfite

### Flow-Pro® test kits for water treatment professionals

Part Number	Number	Test for	Description / range	Test Type & Sample Size	No. Per Case
FPTK-ALK	497/10	P & M Alkalinity	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-CHLORIDE	507/10	Chloride	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-TH2	417/2	Total Hardness	1 drop = 2 PPM	Drop, 25 ml	1
FPTK-TH10	417/10	Total Hardness	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-PHOS	598	Phosphate	0-10 PPM & 10-100 PPM range	Drop, 25 ml	1
FPTK-PR	807/PH	pH (Phenol red)	6.8 - 8.2 range	Comparator	1
FPTK-IRON	4447	Iron	0 - 10 PPM range	Comparator	1
FPTK-SM	609	Sodium Molybdate	1 - 10 PPM range	Comparator	1
FPTK-C10	4263	Chlorine and Bromine	0 - 10 PPM range	Comparator	1
FPTK-SULFIDE	2233	Sulfide	0.2- 20 PPM range	Comparator	1
FPTK-SULFITE	447/10	Sulfite	1 drop = 10 PPM	Drop, 25 ml	1
FPTK-OP	667/1	Organo Phosphonate	1 drop = 1 PPM as 100% OP	Drop, 25 ml	1
FPTK-N	437/50	Nitrite	1 drop = 50 PPM as NO <sub>2</sub>	Drop, 5 ml	1

**Note:** The test kits listed above are particularly well suited for boiler and cooling tower water testing.



## Reagents

Test	Product Code	Size	Description	Range
P & M Alkalinity	FP-R471/10-C	4 oz.	Sulfuric Acid titration solution	1 drop = 10 PPM / 25 ml
	FP-168-A	2 oz.	Phenolphthalein indicator solution	
	FP-165-A	2 oz.	Methyl purple indicator solution	
Chloride	FP-R501/10-C	4 oz.	Silver Nitrate titration solution	1 drop = 10 PPM / 25 ml
	FP-173-A	2 oz.	Potassium Chromate indicator sol.	
	FP-157-A	2 oz.	Hydrogen Peroxide solution, 3%	
	FP-204-A	2 oz.	Sulfuric Acid neutralizing solution	
Hardness	FP-R411/2-C	4 oz.	Hardness titration solution	1 drop = 2 PPM / 25 ml
	FP-R411/10-C	4 oz.	Hardness titration solution	Drop = 10 PPM / 25 ml
	FP-143-A	2 oz.	Hardness indicator buffer solution	
pH	FP-159PR-A	2 oz.	Phenol Red pH indicator solution	
Sodium Molybdate	FP-484NH-A	2 oz.	pH adjustor solution	
	FP-486-X	10 gr.	Sodium Molybdate indicator power	
Sulfite	FP-R441/10-C	4 oz.	Potassium Iodine-Iodate solution	1 drop = 10 PPM / 25 ml
	FP-199-B	60 gr.	Starch Acid/Sulfite indicator power	
	FP-168-A	2 oz.	Phenolphthalein indicator solution	
Organo Phosphonate	FP-R461/1C	4 oz.	Thorium Nitrate titration solution	Drop = 1 PPM OP / 25 ml
	FP-669-B	30 gr.	Phosphonate indicator powder	
	FP-465	-	Narrow range pH paper	1.3 - 4.4
	FP-R462NH-A	2 oz.	O.P. pH adjustor solution	
Nitrite	FP-R431NH/50-C	4 oz.	Ceric Sulfate titration solution	Drop = 50 PPM NO <sub>2</sub> / 5ml
	FP-129-A	2 oz.	Nitrite indicator solution	
Phosphate	FP-194-A	2 oz.	Stannous Chloride liquid	
	FP-208NH-A	2 oz.	VM Phosphate reagent	
Iron	FP-4450-G	30 ml	Iron reagent #1	
	FP-4451-S	4.5 gr	Iron reagent #2 powder	
Sulfide	FP-4458-G	30 ml	Sulfide reagent A	
	FP-4459-E	15 ml	Sulfide reagent B	
	FP-4460-H	60 ml	Sulfide reagent C	
Chlorine / Bromine	FP-6807-C	5 gr.	DPD #1 powder	
	FP-6905-H	50 ml	Chlorine DPD #3R tablets	
	FP-3992-H	50 ml	Chlorine / Bromine titrant	

# HF Scientific® Turbidity Meters

*The newest member of the Watts Water Technologies family.*



## Micro 100® turbidity meter for laboratory & field use

Designed to provide the accuracy demanded for laboratory use. Auto ranging from 0 to 1000 NTU, with push button calibration. Available in White Light or Infrared. USEPA or ISO7072 compliant.

## MicroTPW™ & MicroTPI™ hand held turbidity meters

Portable meter for field applications. Comes complete with shock resistant, rugged and waterproof carrying case. Auto ranging from 0 to 1,100 NTU. Push button calibration. "TPW", White Light model; "TPI, Infrared model.



## HF Microtol® OnLine turbidity meter

Uses leading edge technology and thirty years of optical measurement experience to provide the most reliable line of regulatory reporting turbidity instruments available.

Catalog Number	Type	Range (NTU)	Ultrasonic Autoclean	USEPA Method 180.1	ISO 7027
20053	#2 white light	0-1000		•	
20054	#2 infrared	0-1000			•
20055	#3 white light	0-100	•	•	
20056	#3 infrared	0-100	•		•
20063	#4 white light	0-1000	•	•	
20064	#4 infrared	0-1000	•		•

## Accessories

Part Number	Description
19783	HF OnLine windows software for data collection and reporting.
19609	Remote display for an additional digital readout.
19953	Primetime™ primary calibration kit (0.02, 10 & 100 NTU)
19957	Primetime™ primary calibration kit (full range including 0.02, 10 & 1000 NTU)

# HF Scientific®

## Chlorine Monitors & Measurement Equipment.



Each dispenser has enough reagent for 100 tests or multi-packs for 400 or 1000 tests. No foil, pouches and no mess!

### PPD-2 Chlorine DPD reagent dispenser

The patented HF Powder Pop® dispenser delivers a precise dose of DPD reagent directly to the sample with the push of a button. No foil pouches to tear open and no mess to leave behind.

Number	Test (Package includes dispenser and reagent)
10500	Free chlorine, 5 ml samples for 100 tests
10500C	Free chlorine, 5 ml samples for 1000 tests (5 x 200 tests)
10502	Total chlorine, 5 ml samples for 100 tests
10502C	Total chlorine, 5 ml samples for 1000 tests (5 x 200 tests)
10504	Free chlorine, 10 ml samples for 100 tests
10504C	Free chlorine, 10 ml samples for 1000 tests (5 x 200 tests)
10506	Total chlorine, 10 ml samples for 100 tests
10506C	Total chlorine, 10 ml samples for 1000 tests (5 x 200 tests)

### Chlorine Pocket Photometer

Gives accurate readings from 0 to 6 ppm. When packaged with the PPD-2 Chlorine Powder Pop dispenser the Chlorine Pocket Photometer has everything needed to measure free or total chlorine in a rugged, convenient package.



#10478 Chlorine Pocket Photometer



### Chlorine Micro Check Test Strips

An accurate, safe and inexpensive alternative to reagent chlorine testing. Bottle of fifty strips.

- #09940 Free chlorine.  
#09941 Total chlorine.

### CLX® OnLine Chlorine Residual Monitor

An economical and low maintenance instrument for chemical treatment applications where continuous monitoring and control of residual Free or Total Chlorine levels are required. Ability to use a 4-20mA output to control feed pumps for automatic dosing. Housed in a sturdy, shatterproof case with easy access to all functions and reagents.

- Measures Free or Total Chlorine.
- Low operating cost.
- Simple operation.
- Auto ranging from 0 to 10 mg/L.
- Uses colorimetric DPD chemistry and micro processor based technology.



Part No. 20040