

Solutions for Water and Wastewater Industries



*Fluid Metering Solutions
Made Simple®*

Blue-White®

FLEXFLO® PERISTALTIC METERING PUMPS



Blue-White's FLEXFLO® Series of Peristaltic Metering Pump are designed to dose precise amount of chemical and FLEXFLO® pumps will not experience vapor lock or loss of prime. Each pump comes with built in Tube Failure Detection, which will prevent dangerous chemical spills and downtime.

M5 is all inclusive with motor, controls, and connections all housed in one protective enclosure.

- Capable of outputs 9 gallons per minute/ 534 gallons per hour at only 75 RPM motor speed.
- Up to 80% reduced pulsation due to exclusive offset roller design and dual-channel tube assembly.
- .0076-534 GPH (.0286-2021 LPH)
- 65 PSI (4.4 bar)

M4 has smooth, dependable, feed for applications that require high volume chemical dosing requirements.

- 5" touchscreen display, IP rated M12 connection parts, and advanced communication protocols.
- .0028-158.5 GPH (.0108-600 LPH)
- 125 PSI (8.6 bar)

M3 features a bright and responsive 5" display screen that can be used with or without gloves.

- 5" touchscreen display, IP rated M12 connection parts, and advanced communication protocols.
- .0002-33.3 GPH (.0007-126 LPH)
- 125 PSI (8.6 bar)

M2 is designed to handle the demands of a wide range of chemical injection volumes.

- Self-priming even against max line pressure and by-pass valves are not required.
- .0085-21.23 GPH (.032-80.4 LPH)
- 125 PSI (8.6 bar)

M1 is easy to work with and simple to maintain with smooth chemical feed that will not vapor lock.

- Standardize on one pump with the wide feed range.
- .0001-5.6 GPH (.0004-21.2 LPH)
- 100 PSI (6.9 bar)

FLEXFLO® PERISTALTIC METERING PUMPS

Choose the FLEXFLO® Capabilities
Your Application Requires:



	M1	M2	M3	M4	M5
Flow Output Range	.0001–5.6 GPH (.004–21.2 LPH)	.0085–21.23 GPH (.032–80.4 LPH)	.0002–33.3 GPH (.0007–126 LPH)	.0028–158.5 GPH (.01–600 LPH)	.0076–534 GPH (.0286–2021 LPH)
Turndown	10,000:1	200:1		10,000:1	
Warranty	5 YEAR				
Variable Speed DC Motor	BRUSHLESS	BRUSH		BRUSHLESS	
TFD (Pat.#7,001,153 and 7,284,964)	✓	✓	✓	✓	✓
Maintenance Mode (Pat. Pend)	■	✓	✓	✓	✓
Motor Reverse	■	✓	✓	✓	✓
Tube Info Button	■	TIMER	REVOLUTION COUNTER & TIMER		
Input: Remote Start/Stop	✓	✓	✓	✓	✓
Input: 4-20mA	✓	✓	✓	✓	✓
Input: Frequency (Pulsed)	■	✓	✓	✓	✓
Output: Relay & CC	✓	✓	✓	✓	✓
Output: 4-20mA	✓	✓	✓	✓	✓
Output: Pulse	■	■	✓	✓	✓
Password Protect (PIN)	■	■	✓	✓	✓
Ethernet/IP™	■	■	✓	✓	✓
Profibus	■	■	✓	✓	✓
Modbus-TCP	■	■	✓	✓	✓
NSF 61 Listed	✓	✓	✓	✓	✓

FLEXFLO® PERISTALTIC PUMPS have smooth, quiet pumping action and deliver accurate amounts of chemical to your system. Four FLEXFLO® models are offered featuring a broad range of output rates, electronics options and features. If you don't see the FLEXFLO® pump that meets your system requirements, please contact the factory. Blue-White® specializes in meeting OEM requirements.

FLEXFLO® APPLICATIONS INCLUDE

Municipal Water Treatment
Municipal Wastewater Treatment
Chemical Injection
Chlorination

Chloramination
Fluoridation
Pac Injection
Acid Injection

Caustic Injection
Alum Injection

Blue-White®

CHEM-FEED® **MULTI-DIAPHRAGM METERING PUMPS**



Exclusive Hyperlink Drive Technology allows for smooth chemical feed. The Dual-Diaphragm Pumps with full stroke technology will not lose prime and minimize vapor lock with off-gassing chemicals such as Peracetic Acid and Sodium Hypochlorite.

MD3

- .03-52.6 GPH
(.10-199 LPH)
- 145 PSI (10 bar)

MD1

- .0008-8.0 GPH
(.0030-30.3 LPH)
- 150 PSI (10.3 bar)

CHEM-FEED® **DIAPHRAGM METERING PUMPS**



CHEM-FEED® Single Diaphragm Metering Pumps ensure precision chemical feed while providing excellent chemical resistance and dependable service.

C3

- .13-40.6 GPH (.5-154 LPH)
- 150 PSI (10.3 bar)

C2

- .01-16.5 GPH (.05-62.5 LPH)
- 175 PSI (12 bar)



CHEM-FEED® DIAPHRAGM METERING PUMPS

Choose the **CHEM-FEED®** Capabilities Your Application Requires:



C2

C3

MD1

MD3

Flow Output Range	.01–16.5 GPH (.05–62.5 LPH)	.13–40.6 GPH (.5–154 LPH)	.0008–8.0 GPH (.0030–30.3 LPH)	.03–52.6 GPH (.10–199 LPH)
Turndown	200:1		10,000:1	1,000:1
Warranty	2 YEAR		5 YEAR	
Variable Speed DC Motor	BRUSH	BRUSH	BRUSHLESS	
Dia-Flex® PVDF Single-layer Diaphragm	✓	✓	✓	✓
DFD (Diaphragm Failure Detection)	✓	✓	✓	✓
Protective LCD Snap-on Cover	✓	✓	✓	■
Maintenance Mode	■	■	■	✓
Input: Remote Start/Stop	✓	✓	✓	✓
Input: 4-20mA	✓	✓	✓	✓
Input: Frequency (Pulsed)	✓	✓	■	✓
Output: 4-20mA	✓	✓	✓	✓
Proportional Dosing	■	■	■	✓
Password Protect (PIN)	■	■	LOCKOUT BUTTON	✓

CHEM-FEED® DIAPHRAGM METERING PUMPS provide superior chemical resistance, precision chemical metering capabilities, and are designed to provide excellent service in a wide range of applications.

CHEM-FEED® APPLICATIONS INCLUDE

Chemical Metering	Fluoridation	Printing Inks	Shear Sensitive Fluids	Food and Beverage
Chlorination	Polymer Injection	Oil Based Fluids	Caustics	
Chloramination	Pulp and Paper Slurries	Gaseous Fluids	Chemical Slurries	



Blue-White's CO₂ FEED SYSTEM

The CO₂ Feed System is a safe and effective way to adjust pH and minimize risk associated with dangerous mineral acids. The 0-100% scaled flowmeter has an integral adjustment needle valve for increased accuracy.

Additional benefits of the CO₂ Feed System include NEMA 4X enclosure, illuminated on/off switch, a flow setpoint indicator, stainless steel solenoid valve, and simple push-tight tubing connectors.

The CO₂ Feeder is an affordable and reliable system that is simple to use and adjust.

CHEM-FEED® ENGINEERED SKID SYSTEMS



CHEM-FEED® Simplex, Duplex, and Triplex Plastic Skid System

The lightweight Plastic Skid Systems are equipped with all necessary components for hassle-free ordering and drop-in-place installation. The durable plastic skids feature rugged, chemical resistant Polyethylene construction with single, duplex, and triplex configurations offered.

CHEM-FEED® Simplex and Duplex Wall Skids

Piping options such as, PVC, CPVC, PVDF, and Chem Proline® (PE), for the Wall Mount Skid System make it strong and lightweight. The skid systems are chemical resistant, solvent or fusion welded for strength, and designed for small spaces.



CHEM-FEED® Simplex and Duplex Compact Plastic Skid Systems

The CHEM-FEED® engineered skid system is ideal for small spaces with a condensed design and compact footprint. The skid is constructed of strong and lightweight chemical and UV-resistant polyethylene. It is shipped fully assembled, with leak-free threadless connections and a built-in fluid containment tray.

CHEM-FEED® SKID SYSTEMS

**Choose the
SKID SYSTEM
Capabilities
Your
Application
Requires:**



CFPS
CHEM-FEED®
Plastic Skid System



CFCS
CHEM-FEED®
Compact Skid System



CFWS
CHEM-FEED®
Wall Mount Skid System

System Type	SINGLE, DOUBLE, AND TRIPLE PUMP SYSTEMS		SINGLE AND DOUBLE PUMP SYSTEMS	
Frame Material	POLYETHYLENE		POLYETHYLENE	POLYETHYLENE
Pipe Material Options	PVC, CPVC, PVDF, CHEM PROLINE (PE), 316SS		PVC, CPVC, 316SS	PVC, CPVC, PVDF, CHEM PROLINE (PE), 316SS
Mounting Position	FLOOR OR WALL		FLOOR OR WALL	WALL
PSI	150		150	150
Bar	10.3		10.3	10.3
Flow Indicator	✓		✓	✓
Calibration Cylinder	✓		✓	✓
Inlet Y Strainer	✓		✓	✓
Pulsation Dampener	OPTIONAL		OPTIONAL	OPTIONAL
Pressure Gauge with Guard	OPTIONAL		OPTIONAL	OPTIONAL
MS6 Chemical Flow Meter	OPTIONAL		■	OPTIONAL
Terminal Box	OPTIONAL		OPTIONAL	OPTIONAL
Drip Containment	✓		✓	■



SONIC-PRO® MS6 ULTRASONIC FLOW METERS

The MS6 Ultrasonic Flow Meter accurately measures chemical feed from your chemical metering pump using the latest Ultrasonic technology. The expertly engineered design offers a wide flow range from 10 to 10,000 ml/min and has a low pressure drop of less than 1 PSI.

EXCLUSIVE PATENTED PARTS & ACCESSORIES

Flex-A-Prene®

Heavy-Duty Peristaltic Pump Tubing

Flex-A-Prene® is our single and multi-channel pump tube assembly designed by Blue-White® exclusively for FLEXFLO® Peristaltic Dosing Pumps. Flex-A-Prene® is engineered for optimum performance, including up to four times longer service than other pump tube assemblies.

Exclusive Diaphragms

Blue-White's PVDF diaphragms, used in our CHEM-FEED® Diaphragm type Chemical Metering Pumps, are manufactured in our factory to ensure a quality product. DiaFlex® features an innovative single layer design that exhibits zero breakdown or delamination. DiaFlex® is designed to last the life of the pump which greatly reduces downtime and maintenance.

The PVDF composition of both the pump head itself and the diaphragm ensures excellent chemical compatibility. DiaFlex® is available in three sizes to accommodate varying flow rates.

Quick Disconnect Fittings for Chemical Feed Pumps

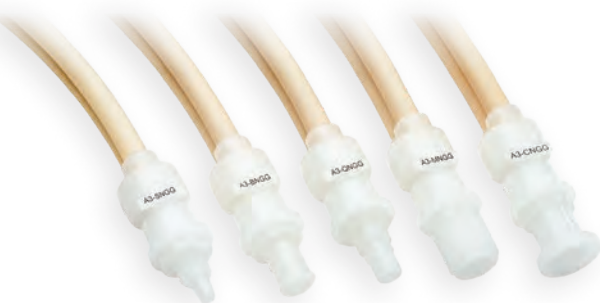
Blue-White's Quick Disconnect Fittings can stop chemicals from pouring or spraying from your pump during maintenance. These Quick disconnect fittings are a toolless and quick way to disconnect a metering pump that will save time and money.

Star Tanks

The Star System Complete Metering System is available in 7, 15, and 30 gallons. The Star Systems have an easy fill lid with three lid positions: open, closed and vented. The compact and efficient tanks are constructed of natural polyethylene with U.V. inhibitors, and 0.30" thick walls for stability, strength and superior chemical resistance.

Foot Valves/ Injector Fittings

Foot Valves are used with all Blue-White® diaphragm pumps. The Foot Valve with Filter Strainer prevents loss of prime, and also restricts larger particles from entering into the metering pump, helping to avoid clogs. Injection fittings allow injection directly into piping and also act as a check valve.



Blue-White®

VARIABLE AREA FLOW METERS



Acrylic Variable Area Flow Meters

Acrylic Variable Area Flow Meters are durable, highly polished, one piece meter bodies annealed for strength and chemical resistance and are suitable for direct sunlight. Great for dependable flow monitoring.

Polysulfone Variable Area Flow Meters

Polysulfone Variable Area Molded Flow Meters resist high temperatures and pressures. Models available with no metal in the fluid path for use in UltraPure applications or ideal for corrosive environments such as Deionized Water applications.



Blue-White®

BW DIGI-METER® PADDLEWHEEL FLOW METERS



BW DIGI-METER® F-1000 and F-2000 Paddlewheel Flow Meters

The F-1000 and F-2000 Flow Meters are accurate, easy to install, and easy to operate. The F-1000 Flow Meter is sensor mounted on a pipe fitting and battery operated. The F-2000 has sensor, pipe, panel, or wall mount options available and are AC/DC transformer or battery operated (RT models only).

BW DIGI-METER® MICRO-FLO Paddlewheel Flow Sensor

The Micro-Flo Flow Sensor is accurate for monitoring low-flow monitoring applications. Be certain your pump is pumping and quickly detect an empty chemical tank, a clogged injection fitting, lost prime, and other problems that can prevent a metering pump from injecting chemical even know the pump is in good working condition.



Blue-White

CASE STUDIES

Dual Diaphragm Pump Used for ALUM Dosing ➤

Suez Water Treatment Plant was successfully using peristaltic FLEXFLO® M3 peristaltic metering pumps to inject various chemicals into their water system. However, the amount of pressure needed to inject ALUM was too high to inject with peristaltic pumps and caused decreased tube life and increased maintenance. CHEM-FEED® MD3 dual diaphragm chemical metering pumps proved to be a good solution in this high pressure application. Suez Water was able to achieve the same smooth flow with and no need for replacement tubes.



◀ **Challenging Groundwater Chemical Treatment Resolved**

Mammoth Community Water District obtains the towns' drinking water from nine wells and fresh water from Lake Mary. The Arsenic present in the well water needed to be removed using sodium hypochlorite and ferric chloride. The solenoid pump originally used would require constant maintenance due to excess gas accumulation causing vapor lock. By switching to FLEXLO® M3 peristaltic metering pumps, the Water District achieved smooth, accurate, and constant flow with no potential for vapor lock and did not lose prime.

Money Saving Solution for Marine Corps Base Application ➤

A Marine Corps Base located in Southern California maintains a self-sustaining water supply and sewage treatment plant to serve a population of 70,000. The Camp had been using four single diaphragm metering pumps to inject sodium hypochlorite into their finished potable water to pre and post-chlorinate the drinking water for the base. The hypochlorite was causing vapor lock and the pump would lose prime. The solution was to switch to the CHEM-FEED® MD3 dual diaphragm pumps. When the first diaphragm is in the suction phase, the second diaphragm is in the discharge phase, so the chemical feed is in a near continuous flow preventing gas build up and loss of prime.

