







With nearly 60 years of experience in the pumping and chemical industries, Neptune is your single-source provider for the reliable and safe handling of critical chemical fluids for water-treatment processes from beginning to end, or "water-in to water-out." As part of a comprehensive portfolio of components for water-treatment processes, Neptune offers a broad range of hydraulic, mechanical, solenoid, and stepper-motor diaphragmmetering pumps designed with unique features to increase operational performance, improve system efficiencies and deliver peace-of-mind reliability. Neptune's product portfolio also includes polymer makedown systems, feeders and accessories as well as the largest variety of portable mixers for pail, drum, tote, and bulk tank.

Headquartered in Grand Terrace, CA, USA, Neptune resides in a world-class facility that occupies more than 170,000 square feet (15,793 square meters). With a commitment to manufacturing quality, unrivaled technical expertise, lean manufacturing, testing capabilities and exceptional customer support, Neptune operates a fully equipped R&D laboratory, test facility, QC department, CAD department, and customer service department at the site. Neptune is part of PSG, a Dover company.

Neptune delivers equipment solutions for use in the reliable and safe handling of chemical fluids used for water treatment applications in municipalities, general industries and agriculture. To find a Neptune representative closest to you, visit psqdover.com/neptune.











# Hydraulic and Mechanical Metering Pumps

#### **500-A SERIES**

Standard simplex design.

- Simplex capacities from 1 gph (3.7 L/h) to 18 gph (68 L/h)
- Pressures to 1,100 psi (76 bar)



#### **500-VS SERIES**

Special application pump for light slurries and viscous fluids to 5,000 cP. Available in simplex or duplex.

- Simplex capacities from 2 gph (7.5 L/h) to 29 gph (109.8 L/h)
- Pressures to 900 psi (62 bar)



#### **500-E SERIES**

Economy liquid head.

Available in simplex option only.

 Simplex capacities from 3 gph (11.4 L/h) to 29 gph (109.8 L/h)

• Pressures to 1,100 psi (76 bar)



#### **600 AND 6000 SERIES**

Suited for high-volume and highpressure applications. Available in simplex only.

- Simplex capacities to 240 gph (907 L/h)
- Pressures to 4,000 psi (276 bar)



### **500-S AND 500-D SERIES**

Standard simplex design or duplex design.

- Simplex capacities from 0.2 gph (0.75 L/h) to 94 gph (355.8 L/h)
- Pressures to 3,000 psi (206 bar)



### **MP7000/MP7100 SERIES**

Mechanically actuated metering pumps designed to self-prime, handle viscosities in excess of 5,000 cP, and a suction lift exceeding 20' (6 m).

- Simplex capacities from 2.3 gph (8.7 L/h) to 275 gph (1,041.0 L/h)
- Pressures to 235 psi (16t bar)





# Electronic Metering Pumps and Pump Options and Upgrades

#### **ELECTRONIC METERING PUMPS**

Electronic metering pumps offer low volume and low pressure for accurate, reliable injection for pumping chemicals and additives to a variety of applications.

- Capacities from 0.44 gph (1.67 L/h) to 20.6 gph (78 L/h)
- Pressures to 200 psi (13.8 bar)
- Offered in three sizes that are popular with water treaters, filtration and purification applications, and well driller



# DOUBLE-DIAPHRAGM LEAK DETECTION

Leak detection option available for applications where process fluid contamination from hydraulic fluid cannot be tolerated or where diaphragm failure must be sensed immediately.



#### **EZE-GRAB PLATFORM**

Molded polyethylene base provides elevated platform for use indoors or outdoors. Handles allow the pump to be moved easily.

 May be used with 500-S, 500-D, 500-A, 500-E, or 560 pumps



#### ADVANCED STROKE CONTROLLER



# Peristaltic Hose Pumps

### ABAQUE™ SERIES PERISTALTIC (HOSE) PUMPS

Abaque™ pumps feature a seal-less design that eliminates leaks and product contamination, and have the ability to continuously run dry without adversely affecting pump performance, pressure and accuracy (no slip).

- No seats, valves or mechanical seals to wear or replace
- Handles extremely abrasive and aggressive fluids, solid-loaded liquids, as well as shear sensitive and viscous materials



# Chemical Feed Equipment

#### **PACKAGED CHEMICAL FEED SYSTEMS**

Available in up to 500 gallons (1,892.7 L) with bottom-mounted or top-mounted pumps. Top-mounted pumps offer a space-saving, economical solution.



Two Pumps Bottom Mounted



Top Mount



Bottom Mount

#### **GLYCOL FEEDERS**

Automatically add glycol solution to make up for leakage in closed loop water systems.



# Chemical Feed Equipment

#### POLYMASTER™ CHEMICAL FEED SYSTEM

Polymaster™ Series polymer blend and feed systems dilute, mix and thoroughly activate emulsion, dispersion and solution polymers, including new high molecular weight products.

- Patented Gatlin distribution head ensures the optimum mixing required to achieve maximum polymer efficiency
- Provides maximum activation; not affected by fluctuating water pressure or dilution water/ration changes



#### **BY-PASS FEEDERS**

Neptune By-Pass Feeders are a convenient method of introducing treatment chemicals into closed circulating water systems.

- Dish bottom-in or dish bottom-out models available
- Standard high-pressure cap rated to 300 psi (20.7 bar)
- Filter bags available in 1, 5, 20 and 50 micron ratings
- Vertical options to 12 gallons (45.4 L)
- Pressures to 300 psi (20.7 bar)
- Temperatures to 200°F (93.3°C)





Type VTF

Type DBF

#### **BROMINE FEEDERS**

Bromine feeders are an efficient way to properly feed solid biocides or other corrosive water treatment chemicals.

- Offered in two body material options: vinylester resin and clear PVC
- Designed to easily handle ball, stick, tablet and other forms of bromine
- Excel in applications involving feeding chemicals into cooling towers
- Available in 15-300 lb. (6.8-136.1 kg) capacities
- Feed rates to 230 lb. (104.3 kg)/day
- Pressures to 150 psi (10.3 bar)
- Temperatures to 150°F (65.6°C)





Type FTF Filter Feeder with Filter Bag in Basket

• 1 - 50 micron rating



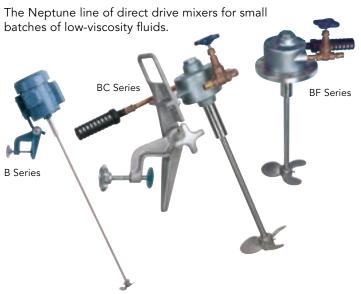
Type DBFC By-Pass Feeder with Cartridge Filter

• 5- and 20-micron pleated filter

## Mixers

Neptune offers and manufactures a complete line of portable mixers that are ideal for a wide variety of blending/mixing operations.

### **PORTABLE MIXERS**



#### **DRUM MIXERS**

Drum mixers are available in styles with a folding propeller for water-like solutions, and in styles using permanent blades and having higher horsepower for viscous fluids.

- F Series: Clamp-on
- E Series: Screws into 2" (50.8 mm) bung
- Available with 1/4 1HP options
- Available with electric or air motors powered by 1/4 - 1 HP



#### **HEAVY-DUTY PORTABLE MIXERS**

These mixers have been designed, engineered and manufactured to provide long life and trouble-free service, and can be clamp- or base-mounted on beams, tank walls and other supports.

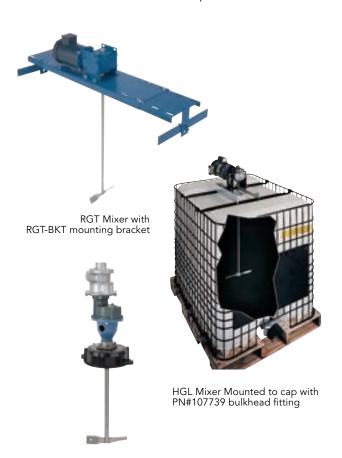
- Available with electric or air motors powered by 1/3 HP 5 HP
- Gear drives (up to 350 rpm) and direct drives (up to 1750 rpm) available



#### **BULK CONTAINER MIXERS**

Mounting to the tank or using the optional universal bracket, Neptune bulk container mixers are ideal for mixing in semi-bulk shipping containers.

Available with electric or air motor powered to 1 HP



# Additional Solutions by Neptune

#### **CALIBRATION COLUMNS**

Provide a fast, easy economical way to check the flow rate of a chemical metering pump.

- Standard sizes include 100, 250, 500, 1000 and 4000 ml options
- May be used with any 500-E Series or Electronic Metering Pumps



#### PRESSURE RELIEF VALVES

Relief valves protect piping and system from overpressure.

- Available in PVC, 316SS, PVDF and C-20 materials
- Standard sizes include 1/2" through 1-1/2" options



#### **30 GALLON MINI TANK**

Neptune offers a line of completely packaged chemical feed systems, with or without containment.





#### **CORPORATION STOPS & QUILLS**

Used for injecting chemicals pumped into turbulent-flow zone of highpressure water or steam lines to provide a more



rapid, uniform dispersion of injected chemical. Corporation stops allow injection quills to be inserted or removed without having to drain or shut down the system.

Available in CPVC, PVDF, 316SS and C-20 materials

### **PULSATION DAMPENERS**

Remove the pulsating flow caused by a pump's reciprocating action, ensuring a smooth, laminar flow.

- Bodies available in PVC, polypropylene, 316SS and C-20 materials
- Bladders available in FKM or EPDM materials



#### **CONTAINMENT SYSTEMS**

Completely-packaged chemical feed systems mounted within a containment to efficiently contain chemical leaks and spills; ideal for drumless chemical programs.



### **BACK PRESSURE VALVES**

Back pressure valves are adjustable to a maximum of 50 psi (3.5 bar). Ensure the set pressure is maintained at the pump outlet port (discharge) to assure accurate metering and prevent siphoning. Required accessory when pumping to a low-pressure injection point below the tank level or when pumping from a bulk tank with a high head pressure.

- Available in PVC, 316SS, PVDF and C-20 materials
- Standard sizes include 1/2" through 1-1/2" options

# HIGH-PRESSURE INJECTION QUILLS

Used to inject chemicals pumped into turbulent-flow zone of highpressure water or steam lines.

- Available in PVC, PVDF, 316SS and C-20 materials
- Special lengths are available up to 24" for CPVC and PVDF; up to 36" for 316SS and C-20



### **SAMPLE COOLERS**

Cool hot water or steam samples for easy handling and effective sample collection. Suitable for use on hot water, saturated steam or super-heated steam services.

 Available in 600 and Inconel materials



For more information on these additional solutions, visit us at psgdover.com/neptune.



PSG 22069 Van Buren Street Grand Terrace CA, 92313-5651 USA

P: +1 (909) 422-1700 F: +1 (909) 783-3440 psgdover.com/neptune



Where Innovation Flows

### NPT-10000-C-10

Authorized PSG® Partner:	Copyright 2022 PSG*, a Dover company