



# Volumetric Pump Products



*A volumetric pump fills based on a precise volume regardless of pressure, flow, and time.*



***Used in the following industries:***

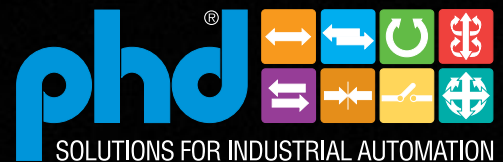
Personal Care  
Condiments  
Health Care  
Pharmaceuticals  
Lubricants  
Filling Viscous Materials  
Food Processing



VOLPUMP01A



PHD is a member of the  
MAC Distributor Network



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# Volumetric Pump Actuators

Volumetric pumps are used in the filling of personal hygiene products, detergents, oils and Plastisol, to name a few.

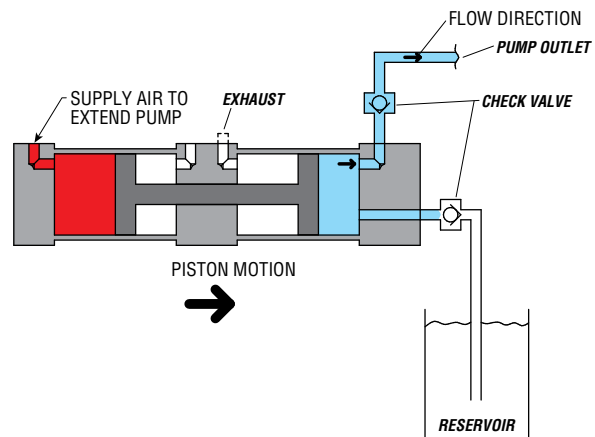
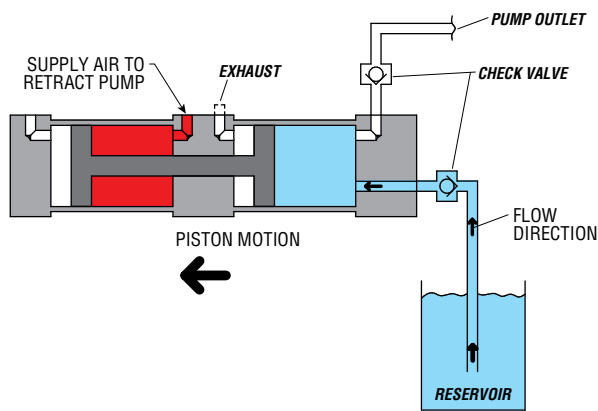
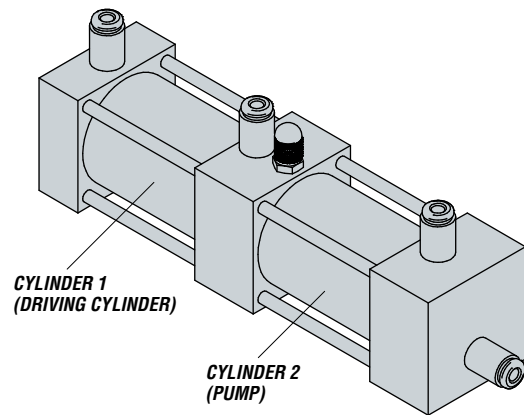
Every application is unique. Quote exactly as you need it with PHD Unlimited®.

PHD can produce these actuators in a wide variety of materials to match the environment, such as stainless steel, PET, PEEK, Ertalyte (FDA-approved plastic), aluminum, and nickel-plated aluminum.

To further provide a solution to meet your needs, there are designs for a wide range of volumes (from a few mL up to 1 L).

Other options:

- Match seal materials as needed
- Stroke/volume adjustments
- Quick change interfaces



Pneumatic Cylinder can be replaced by a PHD Plus® Electric Actuator.



Nearly every standard unit PHD makes is manufactured to order. That's because PHD has such a wide variety of actuators, options and accessories available. PHD has the capabilities built into our factory systems to modify products within our everyday processes. Because of our flexibility, creating Unique Solutions® is simple for PHD.

We have dedicated assembly cells, machining centers, and many engineers to design and build unique solutions for our customers. With over 34,000 unique designs and over 100,000 quotes already in our database, we can provide most quotes within eight working hours. We have the systems in place to provide the best delivery in the industry.



## Examples of PHD's Unique Pumps



### Volumetric Pump

#### ML302807

- 303 stainless steel body, piston, piston rod, adjustment screws, and fasteners
- Adjustment screw for volume adjustment
- Additional Buna-N quad seal for added sealing and protection
- Used for filling viscous materials



### Volumetric Pump

#### ML316675

- 1" bore x 1-1/2" stroke pump
- Stainless steel pump section with PHD's Tom Thumb® Cylinder



### Plastic Volumetric Pump

#### ML305001

- Resistant to most chemicals
- Stainless steel hardware with plastic body
- Can be made adjustable



### Volumetric Pump

#### ML315887

- Similar to tandem double power unit (CVASE6V100 x 129 x 129 -M)
- Stroke adjustment in cap, 600 - 1000 mL



### Quick Change Volumetric Pump

#### ML312857

- Quick change for easy cleaning
- Adjustable volume
- Clear pump for visual confirmation
- Easy 90° turn of the pump to remove
- Slide off piston design
- Corrosion resistant and designed for autoclave
- Size based on your requirements - Consult PHD



### Volumetric Pump

#### ML312548

- 1 mL volumetric pump for ink
- Powered by CRS3U 20 x .515 -M cylinder with MAC44 valve directly
- Cylinder body modified to have mounting provisions for a DIN rail mounting bracket
- Check valves and MAC 44 valve supplied by distributor, installed by PHD



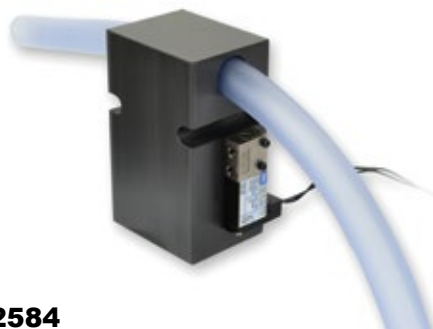
## Other Dispensing Solutions



### Suck-Back Cylinder

#### ML313230

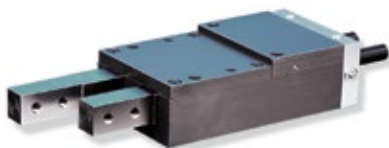
- Installed on volumetric dispensing machines for shampoos and soaps
- After filling nozzle closes, pressure is reduced and stops the dripping effect



### ML312584

- Pinch valve
- Easy replacement of tube in comparison to diaphragm
- No contact with fluids

## Other PHD Products to Consider



### Series 160 Escapement (double rod)

- Four bore sizes with standard or heavy duty
- Two fixtured, squared shafts with internally sequenced strokes work with your tooling to isolate a single part for continuation
- Models are available with switches for easy interface with various electronic controls
- Switches are free of moving parts and mechanical contacts, providing long life and eliminating bounce



### Bottle Eject Slides

- Direct valve manifold provides quicker response with higher kinetic energy capacity



### Copper Gripper

- Improved wear characteristics
- Longer life than OEM product
- Competitive price point
- Can be produced in several materials to fit the application
- Can be produced in any size to fit the machine
- Drop-in replacement



### PHD Literature

- PHD Plus® Electric Automation Solutions Catalog - PHDPLUS05
- Conveyor Solutions Industry Brochure - CONVEYOR01

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