

VOLUMETRIC PUMP SOLUTIONS

Filling based on a precise volume regardless of pressure, flow, and time

Personal Care

Condiments

Health Care

Pharmaceuticals

Lubricants

Filling Viscous Materials

Food Processing



PHD Solutions at Work

Reduce downtime and increase productivity.

OUR STORY

Creating the Solutions For Productivity

Behind nearly every product is a carefully engineered manufacturing operation where elements are produced, pieces come together, and products keep rolling off the line. For over 65 years, PHD has made the parts that make it all possible.



Empowering Automation

Through imagination, creativity, decades of experience, and skill, we provide innovative automation solutions to companies looking to enhance their productivity. We rely on customer intimacy to deliver what our customers need when they need it: products that fuel breakthroughs, innovation, and success – that simplify, improve, and advance people's everyday lives.

Standard Solutions to Fit Your Needs

PHD offers a full line of standard built-to-order pneumatic and electric automation components providing flexibility, durability, and repeatability: cylinders, escapements, grippers, linear slides, rotary actuators, clamps, multi-motion actuators, switches, sensors, and more.

136 PRODUCT SERIES

100 INDUSTRIES SERVED

98 WORLDWIDE DISTRIBUTION PARTNERS

3 INTERNATIONAL OFFICES

Custom Solutions

We have the engineering expertise and factory capability to design and build custom solutions (identified by ML number) for almost any industry and application. Currently, our database includes over 35,000 unique designs born out of a commitment to provide our customers exactly what they need. If an application requires a modified component, our experienced design team is ready to help.

We can engineer a solution that combines our standard offering with engineered polymers and allows us to provide long-lasting actuators. We also offer special materials, such as stainless steel and plastic, for use in washdown applications.

PHD prides itself on our relationship with our customers as we work together to solve their manufacturing needs. In the event our customers desire that our shared innovation is exclusive, we will agree to a non-disclosure agreement to protect the investment.

FAST & EASY PRODUCT CUSTOMIZATION

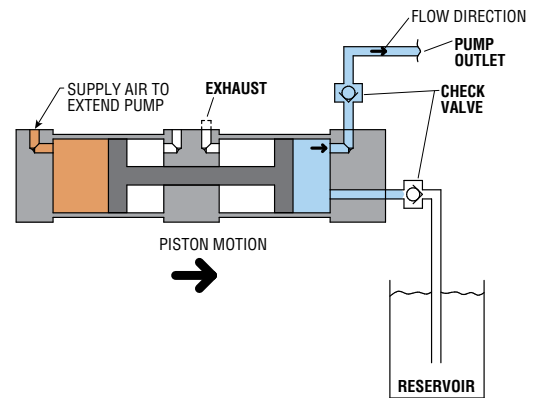
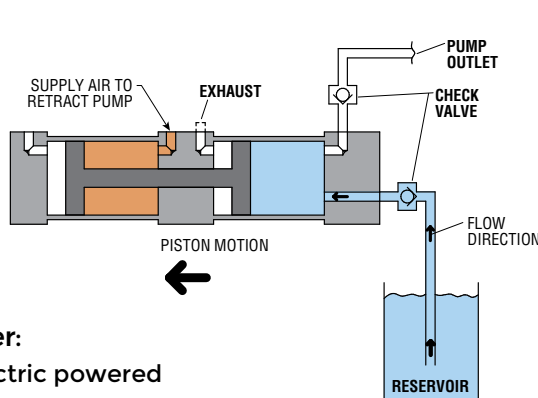
35,000+ DESIGNS IN OUR DATABASE

150,000+ AVAILABLE QUOTES

NO MINIMUM ORDER QUANTITIES

Filling Line Solutions

Volumetric pumps are used in the filling of personal hygiene products, detergents, oils, and Platisol, to name a few. Every application is unique. 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, and quick change interfaces.



Things to Consider:

- Pneumatic or electric powered
- Light to semi-viscous liquids
- Adjustable variable flow rate
- Adjustable volume ranges



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



Volumetric Pump - ML312548

- 1 mL volumetric pump for ink
- Powered by CRS3U 20 x .515 -M cylinder with MAC44 valve
- 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



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



Plastic Volumetric Pump - ML305001

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

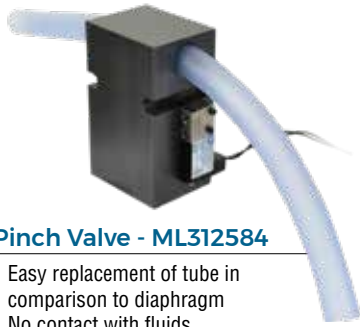


Volumetric Pump - ML315887

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

Volumetric Pump Solutions

Other PHD Products to Consider



Pinch Valve - ML312584

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



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

Digital Design Tools



CAD APP

- Select from popular CAD formats (AutoCAD®, Inventor®, Unigraphics®, Solidworks®, and more)
- Graphical configurator supports real-time compatibility
- Download CAD models directly from your browser or have them emailed



Sizing APP

Answer questions about your application to find a product that meets your exact requirements.

- Save a project to revisit and revise later
- Automatic calculations and unit conversion: imperial or metric
- Available for web and mobile use



Our powerful online engineering tools simplify the design process to save you time.



Partnering to Serve the Customer

Our distribution partners within this global network are factory-trained, application-oriented, and carry a wide range of supporting products. MDN offers the opportunity to blend their unique expertise with that of the PHD team to provide exceptional automation solutions and ongoing support to our customers around the world.

Global Reach

A globally linked network of partners in over 45 countries facilitates fast and seamless support to multinational customers.

Expert Support

Factory-trained application and industry specialists ensure cost-effective and field-proven automation solutions.

Customer Commitment

MDN members are committed to providing customers what they need when they need it.

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Rebuild. Repair. Recycle.

Rebuild or repair your PHD Actuators for significantly less cost than the original price. Ask your distributor about PHD's Rebuild Program.



Distributor Support

We are a proud member of the MAC Distributor Network (MDN). MDN is a customer-focused network of global manufacturers and distributors providing worldwide sales and exceptional service. With partners located worldwide, we are equipped to provide you a wide variety of value-added support and ongoing assistance.