

Solutions for the Food Industry

Bakeries, Dairies, Frozen Foods, Poultry, Meat Processing, Packaging, Bottle Blowing



Long life replacement actuators to reduce downtime and increase productivity

- Packaging
- Material Handling
- Product Dispensing
- Palletizing
- Labeling
- Warehousing

FOOD14A



PHD is a member of the
MAC Distributor Network



www.phdinc.com

food industry solutions

to reduce downtime and increase production.

Preparation, processing, or packaging - if your process falls in any of these areas of the food industry, then PHD likely has automation solutions just for you. We specialize in actuators constructed from corrosion resistant materials and platings. With various FDA approved metals and plastics, we can manufacture devices with special functions, motions, and capabilities for the most demanding applications and environments.

Many of our actuators are capable of being operated with FDA approved lubricants or even no lubrication at all! From heavy duty slides designed of 100% corrosion resistant metals, to grippers made of PET and designed for picking and placing ice cream cones, PHD has extensive experience in engineering actuators for a vast variety of purposes with very customer specific requirements.

Whether it's cylinders, rotary actuators, slides, or grippers, PHD's Unlimited Unique Solutions engineers have years of experience assisting customers with a wide variety of application needs.

From snack food packaging slides to doughnut flipping rotary actuators, PHD has it all.



See this symbol for washdown environment ready products

Find your food industry solutions throughout the flier!



Meat



Vegetable



Snacks



Dairy



Poultry



Ice Cream





ML307562 Polymer PET Long Jaw Travel

- Synchronized jaw travel
- Long jaw travel
- PET plastic body
- Stainless steel jaws
- Low profile



ML309208 Corrosion Resistant Plastic Rotary

- Constructed of PET and stainless steel materials especially for wash down environments
- Direct drop-in replacement for triangle check weigher rotaries
- Repairable
- Reduced downtime due to reliability and long life
- Reduced product waste



ML308000 Plastic Cylinder

- FDA compliant polymer and stainless components



ML310600 Plastic Cylinder with Hollow Rod

- Double hollow rod for vacuum
- Chrome-plated piston rod
- Light weight



ML305001 Plastic Volumetric Pump

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



ML310385 2 Jaw Gripper

- Direct drop-in to an existing gripping device
- 0 degree closed/16 degrees open
- Food grade lubrication
- Stainless steel tooling included
- Integrated push to connect fittings
- Wafer ice cream cone gripper



ML310665 Plastic GRW Gripper

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

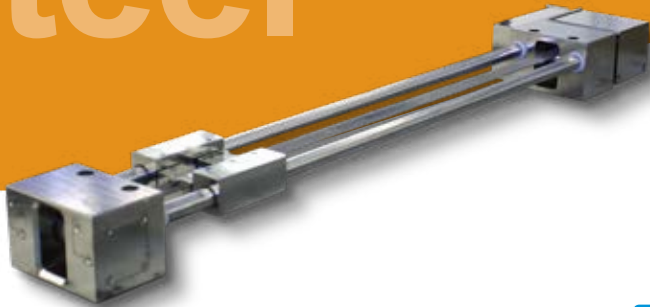


ML308838 Polymer PET Plastic

- Designed for part production in a deionized water environment
- Fully field repairable
- Simple design, long life
- Double-acting
- Longer bearing surface when compared to other cylinders



stainless steel



ML310393 IP67 Servo Electric Slide (Ingress Protected)

- Designed for high-speed actuation in a typical food industry, caustic wash-down environment
- Meets IP67 rating
- All stainless steel construction
- Stainless steel fasteners, pulleys and connectors
- Suitable for horizontal and vertical applications
- Suitable for push operation



ML311176 GRA Gripper with Stainless Steel Jaws

- Food grade stainless steel jaws in place of standard GRA jaws
- Food grade lubricants



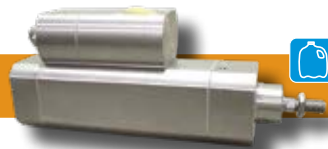
ML310717 All Stainless Steel with Unique T

- Food grade stainless components
- Food grade lubricants



ML304096 Food Grade Actuator

- Complete stainless steel cylinder with stainless steel cover
- Valve attached to cylinder
- Stainless steel cover protects the valve from caustic wash down



Series ECP Ingress Protected Electric Cylinder

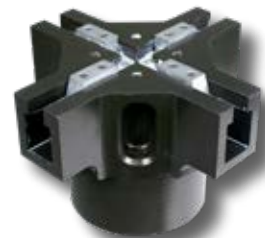


- IP69K with stainless steel components for food grade washdown environments
- Made with food grade compliant materials and lubricants
- Rotating and non-rotating rod options
- Three sizes: 32, 40, and 50



ML302807 Volumetric Pump

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



ML309923 4 Jaw Gripper

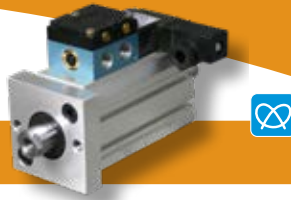
- Food grade grease
- Unique FDA compliant plating and materials
- Stainless jaws



handling solutions

ML308600 Case Erector Replacement Cylinders with Direct Mount Valve

- Direct drop-in to existing competitor's cylinder
- Bore is 32 mm diameter
- PHD Cylinder ML# 308600 mounts into the same space and bolt pattern as the FABCO cylinder
- Double rod for added bearing support provides greater rigidity
- Longer life, reduced downtime
- Fast acting case erector/box drop cylinder



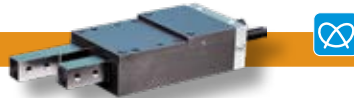
SD/SE Slide

- Thruster style slides with up to 28" [700 mm] of standard travel
- Typical loads up to 50 lb [223 N]
- High performance, many options and low price



Series 160 Escapement

- Ideal for isolating and feeding individual parts from vibratory feeders, magazines, hoppers, or conveyors
- Internally ported design requires only one 4-way valve
- Next day delivery



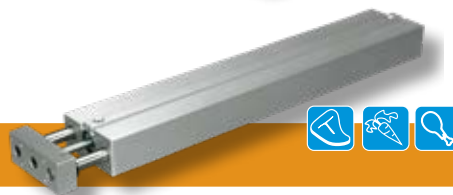
Series 8400 Gripper

- Compact size
- Stainless steel jaws and components
- Rugged design for long life



ML307268 Tamp Cylinder

- Cylinder with built-in vacuum chamber
- Extra long bearings on front of slide for increased support
- Used for tamping and blow off release of labels



ML302550 Slide Gate Cylinder

- Direct drop-in to existing competitor's cylinder
- Bore is 32 mm diameter
- Strokes designed are 6, 7, 8, 9, and 11 inches
- Other strokes are available
- All units include a fastener kit which contains all hardware for replacement
- Incorporates a 12 mm oversized rod for durability
- Smooth deceleration and quiet operation
- Hundreds in service



ML311161 Bottle Gripper

- 10° Jaw opening with 3 point contact
- Used to grip glass bottles internally
- Molded rubber tips on jaws



CV Cylinder

- Conforms to ISO 6432, 6431 and VDMA 24562 specifications
- Available in eight bore sizes



ML302704 Ball Valve Rotary Actuator

- Pneumatic ball valve
- Corrosion resistant option
- Higher torque

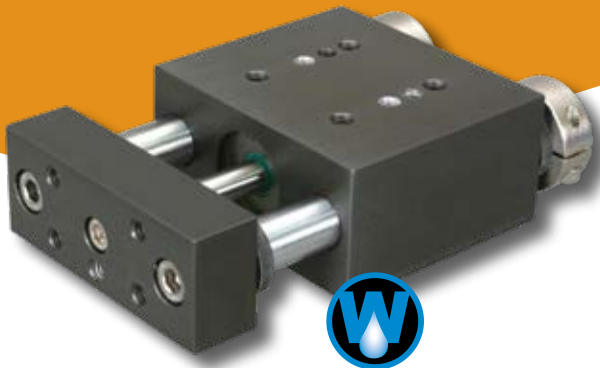
Tom Thumb® Cylinders

- Low cost
- Repairable
- Multiple bores and strokes



For more information visit
phdinc.com/industries

conveyor solutions



ML307246
Corrosion Resistant
Compact Heavy Duty Slide



- 100% corrosion resistant
- Long life and field repairable
- One size guide shafts
- Heavy duty, rugged
- Stainless steel stop collars
- Bumpers



Dual Series SIP Slide
ML#310659

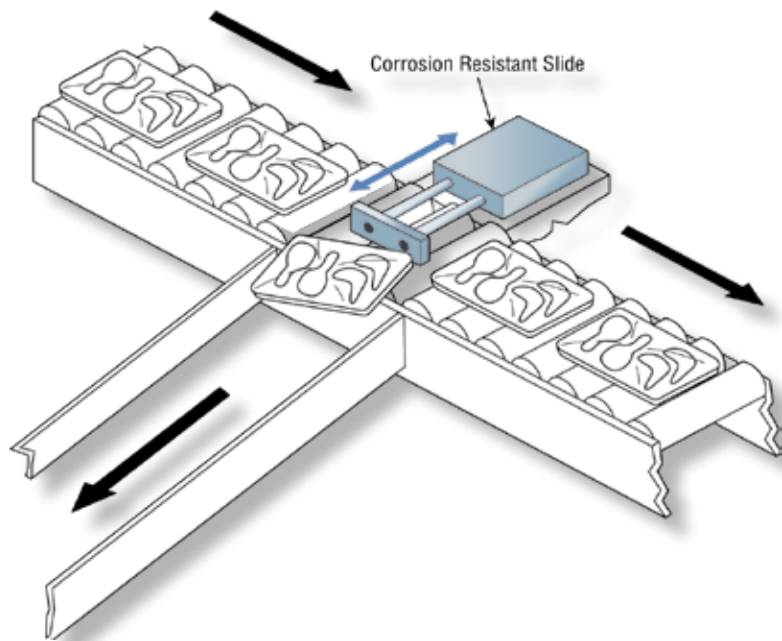


- Slide with FDA-approved materials/plating
- Uses vacuum cups to pick food off of conveyor
- Two independent rail-guided slides for high speed product picking
- Safety guard to keep rail on body in case of impact



Series SxL, SxH Slide

- Compact
- Lightweight
- High side loads
- Travel adjustment and shock pads
- Ideal for labeling and packaging



bottle blowing



BCS Stretch Rod Cylinders

- Now available with -X27 check valve
- 'S' Style Series1 and Series2 components
- Mounts into the same space and bolt pattern
- Superior delivery
- Longer life and reduced maintenance



BCZ Nozzle Cylinder

- 'S' Style Model Series2 CSD & Heat Set component
- Valve manifold assembled to cylinder available as standard
- Longer life



Series1 Heat Set Nozzle Cylinder

- Cylinder built like 'S' Style Series2 Cold Set



Series1 Pneumatic Nozzle Cylinder (SB02-SB06)

- Mounts into the same space and bolt patterns
- Longer life, less downtime
- Simplified design and maintenance
- Provides energy savings with enhanced sealing technology



FCA Filler Cylinder

- Direct replacement of competitor unit
- Significantly longer life
- Reduces maintenance and downtime



Replacement Filler Cylinder

- Directly interface on 'K' Style filling machinery
- Significantly longer life
- High precision

Needle Cylinders

- Direct replacement
- Mounts into the same space and bolt patterns
- Significantly longer life, reduces downtime
- Reduces "suckback"
- Improves exhaust



Replacement Cam Follower Wheels

- Significantly longer life than competitor wheels
- Can be made in a variety of materials and sizes



For more bottle blowing information, request the PPC Binder.

For more information visit phdinc.com/industries

PHD Standard Products



PA Swing Arm Clamp

Ideal for a wide variety of automated part holding and transfer applications



PEC Arm Over Clamp

Superior part holding for assembly and welding applications
Up to 900 in-lb [102 Nm] torque



PLK Pin Locating Clamp

For part holding and positioning in weld areas
Enclosed finger design keeps weld slag out
50 mm bore



PB Swing Arm Clamp

Ideal for part holding and transfer welding applications



GRM Clamp - 13 jaw styles available

Standard, Flange, Needlenose, Hammerhead, Single Shovel, Double Shovel, Single Flat Shovel, Double Flat Shovel, Single Chisel, Double Chisel, Hook, G Jaw, and R Jaw

Sheet metal handling applications

Three sizes

Modular designed tips

Simple design, long life, high clamp force

Fully field-repairable



CR and CT Cylinders

Compact size

8 bore sizes from 12 to 63 mm



CV Cylinder

Conforms to ISO 6432, 6431 and VDMA 24562 specifications

Available in eight sizes



RA Rotary

Retains zero backlash

5 sizes and 6 standard rotations



RIS Rotary

Eliminates external air lines

High torque

High axial load capacity



SFM Slide

Multiple midstops

Space saving rodless slide design

Lowest deflection and highest moment capacity combination in the industry



SIP Slide

Low profile design utilizes rail bearing technology for smooth precision movement

Multiple mounting surfaces

3 sizes with up to 2.953" [75 mm] of travel

Typical loads up to 4.5 lb [20 N]



SHP Slide

Compact design utilizes rail bearing technology for smooth precision movement

Multiple mounting surfaces

3 sizes with up to 2.17" [55 mm] of travel

Typical loads up to 2.53 lb [11.25 N]



SD/SE Slide

Thruster style slides with up to 28" [700 mm] of standard travel

Typical loads up to 50 lb [223 N]

High performance, many options and low price



SFP Slide

Space saving rodless slide design

Lowest deflection and highest moment capacity combination in the industry

2 bore sizes with standard travel lengths to 3400 mm



SM Slide

Precision ball or polymer bushings

Smooth linear motion at twice the thrust of a single bore cylinder

5 bore sizes with travel lengths up to 6" [150 mm]

Typical loads up to 70 lb [311 N]

Long life



GRW Gripper

Large tooling surfaces and precision dowel holes for accurate tooling attachment

Long tooling lengths and high moment capabilities

Reduced deflection



GRS Gripper

Low profile, high force
Rugged jaw support, hardened jaws and hardcoated bearing surfaces

8 sizes

2 jaw travels each size



GRB Gripper

Three total jaw rotations are available 60°, 90°, and 180°

6 sizes

Grip forces up to 549 lb [2443 N] at 1.90" [48.3 mm] from pivot



GRF Gripper

Low profile to fit limited space applications

Jaw covers help prevent contamination

Rugged jaw support, hardened jaws, and hardcoated bearing surfaces for long life

4 sizes with grip forces up to 116 lb [516 N]



GRK Gripper

Highest grip force in its class

Precision jaw movement wear compensating over life of unit

High moment capacity for longer tooling and greater part weights



EGRK Gripper

Electric parallel gripper with long or short jaw travels with high force or high speed

Precision jaw movement wear compensating over life of unit

PHD, Inc.

9009 Clubridge Drive
Fort Wayne, Indiana 46809 U.S.A.
Phone (260) 747-6151 • Fax (260) 747-6754
www.phdinc.com • phdinfo@phdinc.com

PHDinEurope GmbH

Zum Carl-Alexander-Park 6
52499 Baesweiler, Germany
Tel. +49 (0)2401-619 77 0 • Fax. +49 (0)2401-619 77 99
www.phdinc.com • info@PHDinEurope.de

8/19 11006