

BLOW MOLDING SOLUTIONS

PLASTIC PACKAGING COMPONENTS



INCREASE PRODUCTION • REDUCE MAINTENANCE • REDUCE DOWNTIME • REDUCE SCRAP



INJECTION MOLDING

STRETCH BLOW MOLDING

EXTRUSION BLOW MOLDING

FILLING

PACKAGING

PPCIB18A



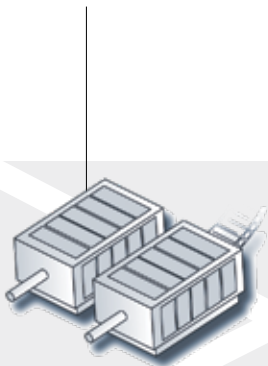
**PLASTIC PACKAGING
COMPONENTS**

Anywhere in the plant...

*we have solutions
for your bottleneck.*

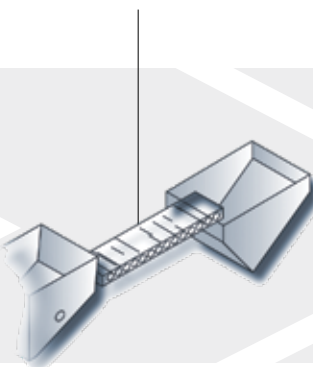
Injection Mold Preforms

- High Heat Air Dryer Cylinders



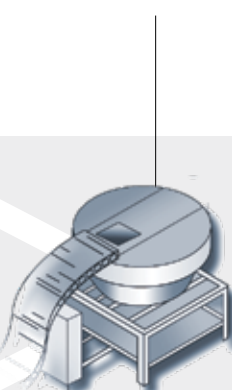
Soft Drop to Gaylord/ Feed to Hopper

- Series RL Rotary to rotate bucket to unload preforms
- Series SD/SE Slides to lower bucket of preforms to gaylord



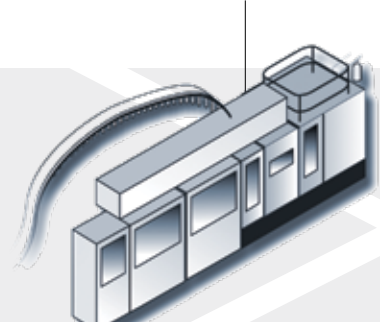
Descramble

- Series SxL/SxH Slides
- Series Tom Thumb® Cylinders



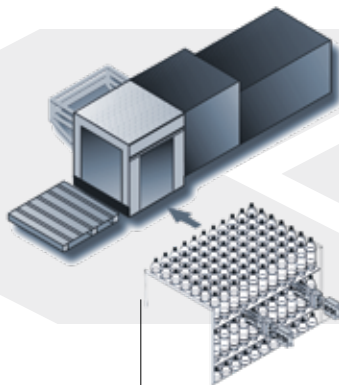
Stretch Blow Mold

- Series BCS, BCSU, or BCK Stretching Cylinders
- Series BCZ or BCZUS Nozzle Cylinders
- Series BST1 or BST2 Transfer Arms
- Eject Slides
- Unlimited Solutions®



Stretch Wrap

- ML304693 Zecchetti Replacement



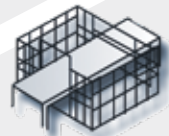
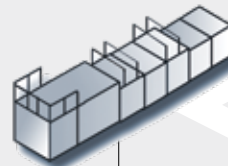
Palletize

- Standard PHD Slides
- Unlimited Solutions®



Case Erect, Package and Shrink Pack

- Variety of Standard PHD Slides, Cylinders and Rotaries

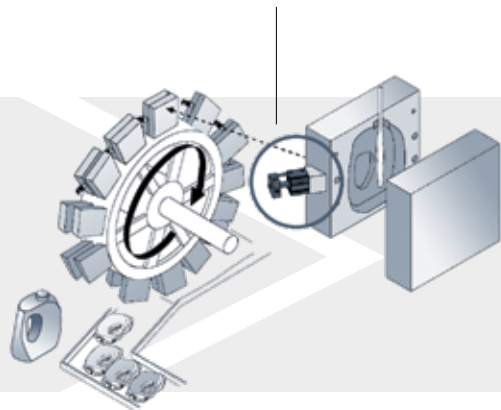


COMPONENTS DESIGNED FOR LONGER LIFE

PHD specializes in manufacturing standard blow molding replacements that provide longer life than the original components. In addition to our standard lines, unique solutions can be created for any machine in your plant that address production issues of downtime and service life.

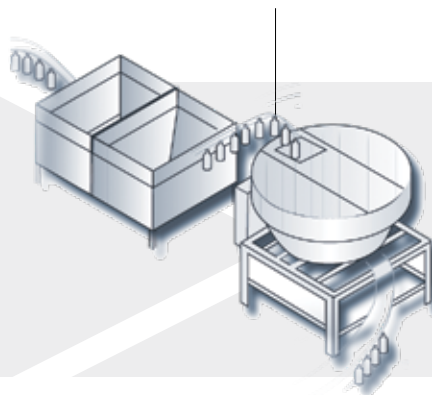
Continuous Extrusion

- Series BCN Needle Cylinders
- Series CTS Needle Cylinders
- Series CV Knockout Cylinders
- Series AV Knockout Cylinders



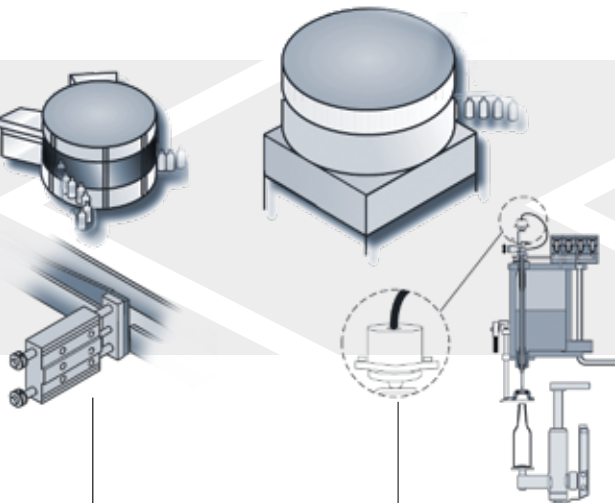
Accumulate/Descramble

- Series SD/SE Slides
- Series 1-8000 Rotaries
- Series RIS Rotaries
- Series Tom Thumb® Cylinders



Air-Veyor

- Series CV Cylinders
- Series Tom Thumb® Cylinders

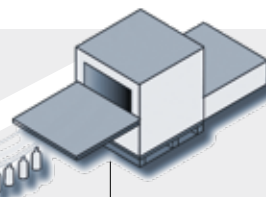


Eject/Divert

- Eject Slides and Cylinders

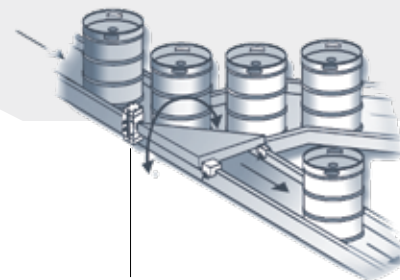
Fill/Label

- Series FCA Filler Cylinder
- ML313370 & ML312828
- Replacement Cam Follower Wheels



Depalletizer

- Slip Sheet Gripper



Keg Post-Fill Application

- Series RA Rotary Actuators



**PLASTIC PACKAGING
COMPONENTS**

We understand

your unique automation requirements

Focused on the specific needs of the plastic packaging industry, PHD offers many spare components for 'S' style and 'K' style machines such as stretching cylinders, nozzle and needle cylinders, and transfer arms. PHD also provides the added benefit of unique designs. Our built-to-need designs address your specific application issues.

Our components are the actuators of choice. Designed for long life, PHD products keep your blow molding lines running while increasing productivity and reducing downtime and scrap.

We also offer the added benefit of our rebuild program which refurbishes your existing PHD components, enabling even longer service life and savings.

To request literature, visit
www.phdinc.com/resources/inforequest/



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Solutions that Save

Easy Drop-in

**With longer life,
reduced maintenance,
and reduced downtime**

We offer a wide variety of components that match size and mounting for 'S' style, 'K' style, and other machines. Our drop-in components save you money by reducing costly production downtime and maintenance costs.

Many of our components provide up to twice the life of the original unit. This means longer up time for higher production and higher profits.



Superior Delivery

**FASTER
delivery than
competitor**

Excellent delivery saves you money by getting you back to business faster.



Unique Solutions

**Special
Requirements**

PHD offers a variety of components already designed to fit unique requirements. If your application requires a modified component from outside our large database of designs, our team is ready to help. We welcome special requests, regardless of quantity or frequency of order.



Rebuild Program

**Return
to service**

Our products can be rebuilt and put back in service for continued savings. Plus you will receive a "like new" warranty. See back page for more information.



'S' Style

DESIGNED TO DROP-IN

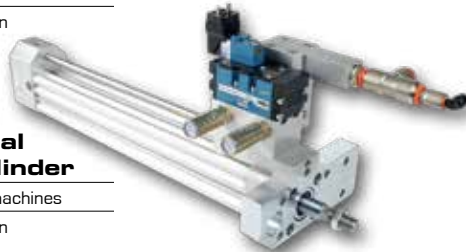
- ➔ Designed to drop-in
- ➔ Longer life
- ➔ Reduced maintenance
- ➔ Reduced downtime
- ➔ Superior delivery



BCS Stretching Cylinder

Component for Series1 and Series2 machines

X27 PHD check valve option



BCSU Universal Stretching Cylinder

Component for Universal machines

X27 PHD check valve option



BCZ Nozzle Cylinder

Component for Series2 CSD & Heat Resistant machines

Valve manifold assembled to cylinder available as standard



BCZUS Nozzle Cylinder

Component for Universal machines

FDA approved seals



BCZUD 3 Position HR Nozzle Cylinder

Component for Universal machines

FDA materials used on all internal components



Series1 Pneumatic Nozzle Cylinder (SB02-SB06)

Simplified design and maintenance

Provides energy savings with enhanced sealing technology



BST1 Transfer Arm

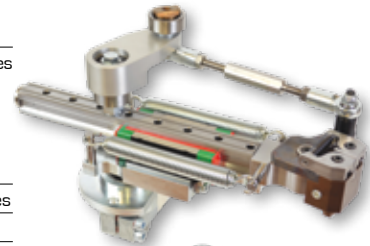
Component for Series1 machines

Significantly more robust and precise than other transfer arms

Designed to operate over 20 million cycles



BST Transfer Arm Preferential Head



Articulated Transfer Arm

Component for Series1 SB010 machines

Removable jaw stop for easy field repair

ML315189



BST2 Transfer Arm

Component for Series2 machines

Vertical height adjustment eliminates need for shims

Designed to operate over 20 million cycles

BST2 with vertical height adjustment



Series2 Transfer Arm Head

BST2 Transfer Arm Head

Component for Series2 head for arm

Replaceable wear components

Ball bearings increase precision

BST2 Transfer Arm Jig

Jig designed to verify and assist in rebuilding transfer arms as needed in the field

Designed to fit in a standard 6 inch vise



Preform/Bottle Eject Slide

Component for Series2 machines

Consistent preform/bottle ejection

Minimizes stress on transfer arm jaws



Bottle Eject Slide

Direct valve manifold provides quicker response with higher kinetic energy capacity



Universal/Matrix®

'K' Style

DESIGNED TO DROP-IN

Transfer Arm Head

ML311628

2 Position Filler Cylinder

ML313378, ML312828

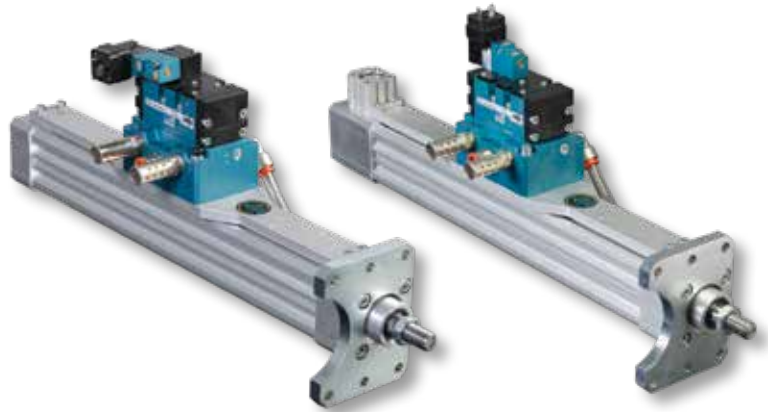
55 & 60 mm bolt spacing

Replaces failure-prone diaphragm with simple piston design

FCB Filler Cylinder

Reliable, field-tested design provides consistent performance

Food grade seal



BCK Stretching Cylinder

Simplified pneumatic system

OTHER SOLUTIONS

BCN Needle Cylinder

Continuous extrusion blow molding needle actuators replacement component

Significantly longer life

Reduces maintenance and downtime



BCT Needle Cylinder

Needle Cylinders for Continuous Extrusion Bottle Blow Molding

Non-rotating shaft to keep needle tip in correct orientation

High flow version (BCT2) available to increase run time between cleaning of "plate out" material



CV & AV Knockout Cylinders

Significantly longer life

Reduces maintenance and downtime



Fill Line Eject Slide

Repeatable ejection

High kinetic energy capacity

Uses proven PHD thruster slide technology

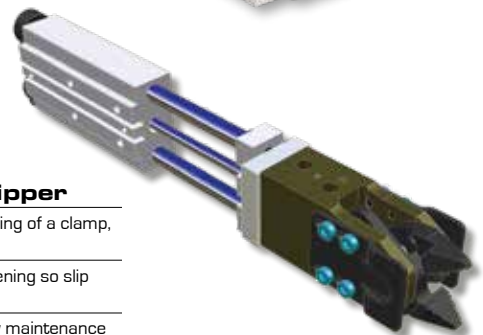


Slip Sheet Gripper

Modular assembly consisting of a clamp, slide and transition plate

Clamp provides a wide opening so slip sheets are not missed

Quick installation and easy maintenance



Cam Follower Wheels

Competitive pricing

Longer life than OEM

Available in variety of materials



Rebuild Program

REBUILD REPAIR RECYCLE

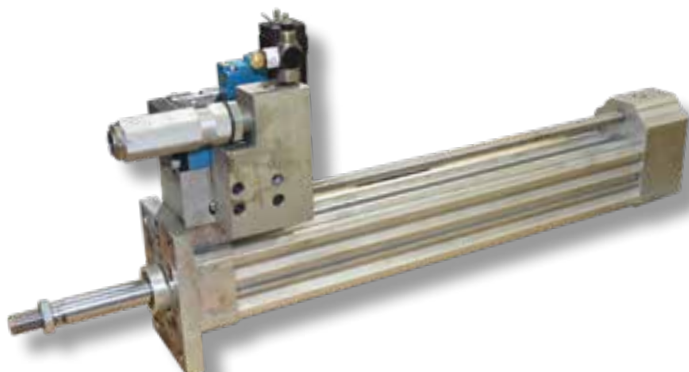
**Return your old
units for rebuilding**

**Get a 12 Month
"Like New"
Warranty**

*Plastic Packaging Components
such as Stretching Cylinders,
Transfer Arms, Blow Nozzles,
Filler Cylinders, Slip Sheet
Grippers, and Eject Slides
are rebuildable.*

REBUILD IT YOURSELF OR ALLOW PHD?

PHD's rebuild program can save your facility training, additional work load, possible tool requirements, and facility space to perform the rebuilds. In addition, you will receive a 12 month "like new" warranty.



Before:



*After: This stretching
cylinder was rebuilt and
returned to service.*

- ➔ PHD's Rebuild Program refurbishes your existing PHD products with all new wear items.
- ➔ Rebuilt units offer the same PHD quality that you're used to, but for a fraction of the cost of a new unit, reducing your total cost of ownership.
- ➔ Rebuilt units are placed back into service, thus reducing your total cost and saving valuable components from scrap.
- ➔ All PHD factory rebuilt units receive a 12 month "like new" warranty.



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