

BIMBA PRODUCT GUIDE



ACTUATORS

VALVES

AIR PREP

AUTOMATION

TIE RODS/NFPA



BIMBA

ROUND LINE

Since introducing our Original Line in 1957, Bimba has earned a reputation for ruggedly designed round line cylinders with exceptional performance. Today these original non-repairable, stainless steel body air cylinders are inexpensive and come in more bore sizes, mounting styles and options than any other brand. Recently Bimba's round line product breadth has expanded beyond non-repairable stainless steel. Whether it's an off-the-shelf unit or a custom assembly, we can get you cylinders that are easy-to-use, reliable and ready for your engineering challenges.



Original Line

- Originator of the round line stainless steel body non-repairable cylinder
- Over 1,000 different cylinders and accessories in stock at all times for same day shipment
- Non-stocking models ship in 4 days, or can be quick-shipped the next day for emergency situations
- Variations include models with air cushions, rod locks, non-rotating rods, stainless steel end caps, acetal resin end caps, three position and low pressure hydraulic models
- Optional magnetic pistons can be combined with a wide variety of stocked switches for position sensing applications
- Includes hole punch cylinders, air reservoirs, manual valves and single acting cylinders with built-in solenoid valves
- Industry-leading breadth of options
- Metric version available that conform to ISO 6432 dimensional requirements
- Available in 12 bore sizes from, 5/16" to 3"



Centaur by Mead

- Economical aluminum body cylinders are designed to match tie-rod cylinder performance at up to 45% less cost
- Standard Teflon piston seals require no lubrication and offer smooth breakaway and travel throughout the stroke length
- Available in 5 bore sizes from 1-1/8" to 3" with built-in bumpers



Repairable All Stainless

- Repairable All Stainless Steel Cylinders are ideal for food processing and packaging and many other applications where corrosion resistance is required
- Meets USDA and 3A guidelines for sanitary standards
- Available in 8 bore sizes, from 1-1/2" to 8"

AIR PREPARATION EQUIPMENT

Without clean, consistent air pressure, your pneumatic components are susceptible to breakdowns that can disrupt your entire manufacturing process. That's why we offer a full line of Air Preparation Filters, Regulators and Lubricators (FRLs) with optional accessories, including porting blocks, shut-off valves, gauges and more. Plus, with custom options and fast delivery, you get a flexible solution that fits your needs. All units and accessories are stocked for same-day shipment.



Compressed Air Filters

- Air baffles direct air in a whirling pattern for superior air filtration and liquid separation
- Plastic or bronze filter media available from 5 to 100 micron rating
- Optional automatic drains available to eject collected liquid when the collector bowl is full
- Product lines include oil (coalescing) and vapor removal filter units used for oil-free and more stringent air quality requirements



Regulators

- Large size low torque knob to precisely control a diaphragm to respond to flow demand and pressure changes efficiently
- Units are panel mount with a variety of pressure ranges available



Lubricators

- Uniquely atomizes oil to enable it to travel greater distances than drip type lubricators for your pneumatic systems and tools
- A fine adjustable knob with visual indication gives a constant oil/air output ratio



Combination F/R Units

- Combination F/R units provide the same features of our standard air filters and regulators in one single unit to save space and installation time



FRL Units

- All FRL components can be assembled together in any combination at the factory to ship in two days
- Optional accessories include slow start/vent valves, shut-off valves, porting blocks and pressure gauges



FRL Units from MFD

- Drip lubricator design
- 23 psi to 120 psi pressure range
- Modular design
- Built-in pressure gauge
- Accessories include a pressure relief valve and soft start-up valve

To see an animation of the FRL units in action, visit bimba.com/FRL



LOW PROFILE ACTUATORS

If your application is tight on space, Bimba's line of Low Profile Actuators is the answer. Bimba offers the widest variety of space-saving actuators in the market, from our most popular low profile cylinder, the Flat-1, to the Mead MF series.



Flat-1

- The industry leader in product line depth and breadth of low profile repairable cylinders
- Available in round and square configurations with four different rod actions: standard acting, double end rod, spring return/retract, dual rod/non-rotating
- Options include but are not limited to port locations, rod ends, mounting options, seal types, lube, magnetic position sensing, wipers, bumpers and more
- Hundreds of standard model stroke lengths and accessories in stock for same day shipment
- All standard non-stocking models in any configuration ship within 3 days or can be quick-shipped for next day delivery
- Available in 8 bore sizes, from 9/16" to 4" diameters, manufactured to any stroke length dimension to the nearest .001" increment



Extruded Flat

- Compact extruded aluminum body cylinder anodized with a special PTFE impregnation process for superior wear characteristics
- Interchangeable with similar units in the industry
- Product line includes, Twist Clamp, Stoppers, Multiposition, Multiforce, Lift Table and Pressure Booster Cylinder
- Many units available in stock for same-day shipment
- Standard non-stocked units can be manufactured just-in-time to ship within 3 days
- Available in 10 bore sizes, from 12 to 100 mm diameters, manufactured to any stroke length to the nearest 1 mm increment with dozens of options



Twin Bore

- Precision dual bore non-rotating cylinder provides twice the force of single bore units
- Available in 7 bore sizes, from 6mm to 32mm, configured to any stroke length to the nearest 1 mm increment with various options
- Air Table models incorporate a linear bearing rail to provide highly precise load guiding and greater resistance to deflection



Space Saving Series by Mead

- Convenient base flange mount
- Body rotates to allow flexible port positioning
- Available in bore sizes from 3/4" to 4" bore



MF Series by Mead

- Designed for ultra-tight space constraints
- Slim-profile brass body, efficient mounting
- Available in 1/4", 3/8", 1/2" bores with 1/4" or 1/2" strokes



AUTOMATION PRODUCTS

Bimba's Automation Products are ideal for applications that require increased flexibility and adaptability. Featuring innovative designs, our line of thrusters and actuators help with challenging applications that require quick changeovers, mass customized product assembly and heavy loads. And, with a wide variety of stroke lengths and catalog options, you get a solution that is not only dependable, but easy-to-use and ready-to-order.



Electric Actuators

- Ideal for precise positioning and closed loop control
- Available in rod and guided versions, standard and custom
- New UHLE models provide high side and moment load capacity
- Wide variety of speeds, strokes and load capacities



Position Feedback Cylinders: Rotary and Linear Actuators

- Ideal for closed loop control of machinery
- Provide precise, continuous position feedback
- New PFCN cylinders deliver long life and high durability utilizing a non-contact probe
- Utilize cylinders with PCS controls for closed loop pneumatic positioning
- Rod Lock models are available for fail safe operation



Linear Thrusters

- Composite bearings protect against corrosive environments
- Re-circulating ball bearings make thrusters ideal for high load capacities
- Available in bores up to 3" and strokes up to 36"



PneuMoment™ Guided Actuators

- Clean design provides high side and moment load capacity
- Optional auxiliary ports simplify plumbing and eliminate hose snags, kinks, and fatigue
- Both end and side ports are provided to avoid hose kinks and clutter
- Mounting via base mount or optional front or end flanges



Rotary Actuators

- Rack and pinion construction enables high load capacity
- Bores up to 2", standard rotations up to 360 degrees and specials up to 1080 degrees are available
- Can operate on air or oil
- Double rack designs create higher torque output



Rodless Actuators

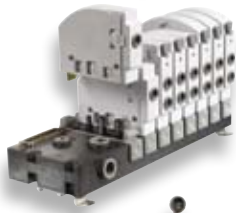
- Fully supported guide rods enable high moment load capacities up to 2,976 pounds
- Saves space and costs compared to conventional actuators

Whether it's a solenoid air valve or a button valve, Mead Fluid Dynamics has the technology you need to handle the most demanding pneumatic control applications. Our innovative concepts and pioneering approach to valve design has directly challenged the conventions of traditional manufacturers.



Two Hand Control Valve

- Actuates any 3 or 4-way air piloted, spring return power valve or small single-acting cylinders
- Designed for use in wash-down environments
- Corrosion resistant enclosures available



Isonic® Mod 3 Valve

- Multi-patented, award-winning design
- Efficient ribbon flow paths means less energy loss
- Small package size versus traditional solenoid valves
- Lightweight, constructed of engineered polymer shells and ultrasonically welded
- No fittings required; all models come standard with quick-connect collets



Capsula Control Valves

- Sub-base style, high-flow valves (up to ~3.2 Cv)
- Valve line with complete functionality offered (2-position, 3-position)
- Full range of operators: solenoid, air pilot, various manual types



Light Touch 4-Way Air Valves (LTV Series)

- Snap-acting response time; fastest responding mechanical valve on the market
- Full range of mechanical, manual and solenoid operators available



Delay Signal

- Add adjustability to circuit logic
- Convenient timing/sequencing functions



MV-3 Way Switch (Trigger Valves) by Mead

- 1/8" ported air pilot valves identical in size, actuating style, and mounting style to most industrial electric limit switches
- Ideal to be substituted for electric limit switches to save on installation costs and eliminate sparking hazards.



Dyla-Trol Flow Controls by Mead

- Eliminates turbulence associated with conventional needle type flow controls
- Yields unprecedented smoothness in cylinder speed control
- Maintains an even 360 degree laminar flow regardless of the setting



TIE ROD/NFPA MEDIUM & HEAVY DUTY

At TRD Manufacturing, every product component is precision machined to enhance performance. Our industry-leading line of NFPA Tie Rod cylinders is no exception. Through the use of high alloy aluminum, these cylinders deliver quality and durability for all of your heavy-duty needs. To complement our top line of NFPA cylinders, Bimba offers a Double Wall® cylinder and Mead provides an Extruded Body NFPA and Small Bore Tie Rod. And, as always, each cylinder is made to order with fast delivery guaranteed.



Heavy Duty Tie Rod by TRD

- Precision machined for consistent performance and long life
- Industry leading delivery
- Standard TA series feature precision-machined aluminum body, black anodized endcaps and precision-machined, hard chrome plated steel piston rods
- Alternate materials such as an all stainless design and unique configurations such as the TR series (triple rod design) are readily available with the same precision machining
- Available in Heavy-Duty Industrial Hydraulic Design (3000 psi max), bore sizes from 1-1/2" to 8", with rod diameters up to 5-1/2"



Double Wall®

- Unique round line construction uses separate mounting kits to provide convenient NFPA interchange
- Outer wall is constructed of high-strength aluminum and epoxy coated for protection from harsh environments
- Inner wall is the cylinder bore, made of ultra smooth 304 stainless steel, and is protected from the environment (flying debris that can cause dents) by the outer wall
- Available in NFPA sizes from 1-1/2" through 4" bore and in stroke lengths up to 72"
- Alternate, non-NFPA features available, such as nose mounting and non-standard rod threads



Small Bore Tie Rod by Mead

- Available bore sizes 3/4" and 1-1/8"
- Extruded body design ideal for wash down applications and clean environments
- Features built in miniature 3-way valve for pneumatic end of stroke sensing (Inter-Pilots®)



Extruded Body NFPA by Mead

- Available bore sizes 1-1/2" to 6"
- Extruded body design ideal for wash down applications and clean environments
- Features built in miniature 3-way valve for pneumatic end of stroke sensing (Inter-Pilots®)



SOLUTIONS AND CAPABILITIES

For more than 50 years, Bimba has embraced custom solutions. In fact, the “Original Line” non-repairable cylinders began as a solution, designed for a customer who could not afford the down-time needed to repair tie-rod cylinders. Today, that dedication lives on. More than ever, Bimba is committed to helping OEMs and MROs meet the demands of changing markets and needs. That’s why we have increased the diversity and breadth of our Solutions Shop™ exponentially over the past decade.



2:1 Booster

- Provides a localized 2:1 boost of air pressure to ensure your actuator provides the needed force
- Available in a high flow design and 4:1 boosting capabilities as well



Fluid Valve

- Combines the reliable actuation of an Original Line cylinder with a fluid filling nozzle to provide a complete packaged solution for many filling applications
- Available in various nozzle designs and materials



Cube Cylinder

- A 0.188” bore, double acting miniature cylinder, ideal for applications requiring low output force in extremely tight spaces



Diaphragm Cylinder

- 1” bore designed for clamping and lifting applications
- Fits into tight spaces to provide 0.12” stroke with minimal friction



Mold Lock and Pin

- Delivers tight tolerance for a locking assembly to hold two halves of a mold together
- Designs capable of holding forces from 1 to 10 tons

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