

Food grade products













ERD Electric Cylinder Actuator

ERD electric cylinder series are the perfect alternative to pneumatic cylinders for automating manual processes. The **ERD** is economical electric cylinder an compatible with many NEMA & metric mount stepper and flexible. motors create powerful, cost-effective electric cylinder solution over traditional pneumatic cylinders. Perfect for gating, sorting, diverting and product change overs, ERD electric cylinders offer these features:

- 3 body sizes
- Ball and acme screw choices
- Force/thrust capabilities up to 500 lbf (2.2 kN)
- Stroke lengths up to 24 inches (610 mm)



ERD-SS2 Actuators with Integrated Motor

ERD stainless steel electric actuators are IP69k rated and are washdown ready. The all stainless steel ERD actuator with integrated motor in protective enclosure (ERD-SS2) accommodates both servo (23-frame) and stepper (NEMA 17 and NEMA 23-frame) motors. Combine any ERD-SS2 with the Tolomatic ACS servo or stepper drive and get a complete motion control system with high performance at a very competitive pric

- 3 body sizes
- Ball and acme screw choices
- Force/thrust capabilities up to 2.2 kN
- Stroke lengths up to 610 mm
- Choice of stepper and servo drive/controller and motor solutions
- Clean-in-place compatible





RSA Electric Linear Actuators

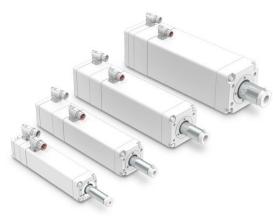
The RSA Electric Linear Rod Actuator combines excellent accuracy with a low-to-high thrust capacity in tough environments. These electric linear actuators feature acme, ball or roller screw selections, with enhanced high thrust bearings and heavy duty internal bumpers. A rigid, strong aluminum housing allows for easy mounting of switches and sensors.



- Stroke lengths up to 60 inches (1,524 mm)
- Forces up to 13,039 lbf (58,001 N)
- Acme, Ball, and Roller Screw options
- IP67 option to protect against dust and water ingress

IMA Food Grade Servo Actuator

IIMA food grade servo actuators offer a white epoxy food grade coating, food grade grease and are available with stainless-steel fasteners, rod and rod ends. Features a unique integrated motor design in a compact, sanitary package. Available in both ball and roller screw configurations, IMA food grade servo actuators provide forces up to 30.6 kN (6875 lbf) ideal high duty cycle applications.



Tolomatic IMA food grade servo actuator design eliminates:

- · Contamination from air or oil
- Hydraulic systems
- Pneumatic systems
- Forced air or water cooling
- Need for multiple vendors



Series ECP Electric IP69K Cylinders

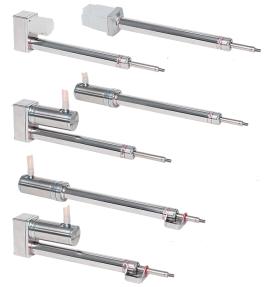
are available in either ball screw or lead screw (polymer nut) versions, providing a wide range of high thrust or high speed capabilities. These performance electric cylinders are designed for food processing and packaging equipment utilized in high pressure/high temperature washdown and clean-in-place (CIP) environments. Three models are available:

Base Model

- Designed for applications in high pressure and high temperature washdown environments
- 300 grade stainless steel body and rod with aluminum head and motor mount

USDA Certified for Product Splash Zone (-Y8 Option)

- USDA certified for splash zone environments in all orientations
- Designed for food processing industry splash zone and caustic washdown applications



RSH Hygienic Electric Actuators

Tolomatic's line of hygienically designed all stainless steel electric actuators offer up to 7,943 lbf (35.3 kN) and they are the perfect solution for food and beverage applications where higher forces are required for pressing, pumping, cutting or slicing.

- 3 body sizes with 316 series stainless steel construction
- Ball and roller screw options
- Force/thrust capabilities up to 7,943 lbf (35.3 kN)
- Stroke lengths up to 48 inches (1.2 m) IP69K, clean in place compatible





Hygienic Integrated Stainless Steel Servo Actuators IMA-S

Designed for the most demanding food and beverage applications The IMA-S is a hygienically designed integrated electric servo actuator for the food and beverage processing industry. The IP69K hygienic design features all 316 stainless steel construction and hygienic fasteners/cord grips which allows for open machine designs and effective clean-in-place.

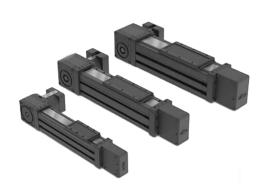


- Provides complete control over speed and position at all times
- Hygienic design to allow for food grade cleaning and sanitizing
- Resists corrosion with 316 stainless steel body
- Provides IP69k wash-down protection with blue seals/ o-rings and hygienic fasteners/cord grips

B3W Belt Driven Actuators

The B3W linear belt drive actuator is capable of accommodating heavy loads and handling high bending moments with consistent, smooth operation. B3W linear belt drive actuators incorporate an enclosed recirculating bearing system eliminating the need for external load guidance.

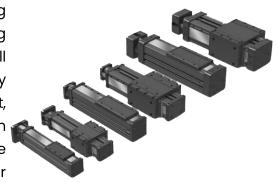
- 3 body sizes
- Wide urethane-steel belt delivers greater thrust with no stretch
- Load carrying capacities up to 35.7 kN (8,032 lbf)
- Strokes up to 574 in (14,579 mm)





B3S Linear Actuators

B3S ball screw linear actuators have an enclosed ball bearing design that accomodates heavy loads, high bending moments and delivers long service life. The B3S ball screw linear actuator is capable of accommodating heavy loads and handling high bending moments with consistent, smooth operation. B3S ball screw actuators incorporate an enclosed recirculating ball bearing system that eliminates the need for external load guidance. The B3S ball screw linear actuator delivers repeatability and 100% duty cycle with long service life.



- 3 body sizes
- Ball or acme screw choices
- Load carrying capacities up to 8032 lbf (35.7 kN)
- Strokes up to 179 inches (4,547mm) depending on screw selections

MXP-S Air Cylinders

MXP-S Solid bearing pneumatic air cylinder is available in long strokes (up to 206 inches). The Tolomatic MXP-S solid bearing long stroke pneumatic air cylinder offers a large carrier mounting pattern for load stability.

- Large bearing suface contact area minimizes wear for long service life
- Engineered bearing material does not require additional lubrication
- Solid bearings are field replaceable for easy service
- Higher Mx moment capacity than the Tolomatic BC2 band cylinder





MXB-P Actuators

MXB-P heavy duty linear actuators with profiled rail bearing support offers high load and bending moment capacities in a low profile package. The MXB-P heavy duty linear actuator is designed for applications requiring moderate to heavy load carrying and guidance.

- High speed and acceleration capabilities up to 1200 in/ sec2 (30.43 m/sec2)
- 6 body sizes accommodate a wide range of forces and loads
- Polyurethane belt with steel members resists stretching
- Excellent repeatability, high duty cycle performance
- Choose MXB belt drive for longer strokes than screw drive actuators
- Alternate belt materials and extended stroke lengths available upon request for select sizes



MGS Magnetic Linear Slides

The MG magnetic linear slide provides exceptional rigidity in a low-profile design

Like the MG cylinder the MGS magnetic linear slide has no mechanical piston connection resulting in easy rotation of its mounting block for mounting flexiblity. Block heads are multi-ported for flexible air connection.

- Coupling forces up to 70 lbs (31.8 Kg)
- Choice of precision linear ball or sintered bronze bearings
- End-of-stroke deceleration adjustment



Ball Valve Rotary Actuator - ML302704

- Drop in replacement for competitor unit
- Single or double acting available
- Designed for long life



Needle Cylinders Various MLs

- Drop-in replacement for competitor unit
- Mounts into the same space and bolt patterns
- Longer life, reduces downtime



Plastic Cylinder ML308838 & 309338

- Designed for part production in a deionized water environment
- Fully field repairable
- Simple design, long life
- Constructed of 100% PET plastic



Series BCZ Nozzle Cylinder for Blow Molding

- Direct replacement for 'S' Style Model Series2 CSD
- Valve manifold assembled to cylinder available as standard
- Designed for longer life





Food Grade Cylinder ML304096

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



Series BCS2 Stretching Cylinder for Blow Molding

- Drop-in replacement for 'S' Style Series2 machines
- Available with -X27 check valve
- · Mounts into the same space and bolt pattern



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



Series A, AV, HV Tie Rod NFPA Cylinder - Multiple MLs

Tom Thumb® Cylinders, feature a tie rod construction and are field repairable. Optional Port Controls® regulate speed through the entire stroke and the Rodlok option holds the rod in place wherever desired. Series A, AV, HV NFPA Cylinders are designed to NFPA standards with a wide array of options and mounting styles for easy installation.

- Designed to provide long life in many rugged applications
- Working pressure ranges up to 150 psi air for Series AV and up to 1500 psi hydraulic for Series HV



Series CTS Guided Pneumatic Compact Cylinder

Series CTS Guided Pneumatic Compact Cylinders feature a non-rotating design with a short cylinder length. Chrome plated steel guide shafts prevent rotation and increase side load capacity.

- Compact design for applications where space is limited
- Hard chrome plated guide shafts for anti-rotation and increased side load capacity
- Oil-impregnated bronze bushings for long cylinder life



Plastic Cylinder with Hollow Rod - ML310600

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





Plastic Cylinder ML308000

- FDA-compliant plastic and stainless steel components
- Stainless steel piston rod
- Low breakaway



Series1 Heat Set Nozzle Cylinder - ML306930

- Drop-in replacement for 'S' Style Series 2 Cold Set units
- Internal shock pads eliminate metal-to-metal contact
- Long life



Tamp Slide with Long Stroke - ML307268

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



Series SD/SE Versatile Thruster Pneumatic Slide

- Up to 711mm of standard travel
- Typical loads up to 50 pounds
- High performance, many options





Stainless Steel Slide with **Unique Tool** Plate - ML310717

- Food grade stainless steel components
- Food grade lubricants
- Designed for long life



Series SxL/SxH Compact Thruster Pneumatic Slide

- Compact and lightweight
- Ideal for labeling and packaging
- High side loads



Corrosion-Resistant Heavy Duty Slide ML307246

- Constructed with corrosion-resistant materials
- Hard anodized PTFE aluminum for maximum corrosion-resistance
- Long life and field repairable



Series SIP Dual Bore Slide ML310659

- FDA-approved materials/plating
- Uses vacuum cups to pick food off of conveyor
- Two independent rail-guided slides for high speed product picking





Plastic Body - Single **Acting Volumetric Pump**

- Designed to be compatible with deionized water
- Single acting motion material is dispensed with each piston stroke
- Completely constructed of corrosion-resistant PET plastic and stainless steel



Series 1000-8000 Heavy Duty Rotary Actuator

- Heavy duty with a versatile design
- Wide variety of options and accessories
- High torque



Volumetric Pump ML302807

- Stainless steel for corrosion resistance
- Adjustment screw for volume adjustment
- Additional quad seal for added sealing protection



4-Jaw Gripper ML309923

- Food grade lubrication
- FDA compliant plating and materials
- Stainless steel jaws





Plastic Body - Single Acting Volumetric Pump

- · Robust construction to ensure long operating life
- Precision dowel pin holes ensure accurate alignment of tooling and gripper mounting
- Standard internal speed control with no external flow control required



Series RL Compact Pneumatic Rotary Actuator

- Low cost OEM style rotary
- High axial and radial bearing load
- High torque/package size



Series GRA Parallel Pneumatic Micro Gripper with Stainless Steel Jaws - ML311176

- Food grade stainless steel jaws
- Food grade lubricants
- Compact size





Plastic Long Jaw Travel Gripper - ML307562

- Synchronized jaw travel
- Long jaw travel
- PET plastic body



2-Jaw Gripper ML310385

- Direct drop-in for competitor unit
- Stainless steel tooling included
- Food grade lubrication



Food grade Cylinders

Series AMX of cylinders according to ISO 15552 standard in AISI 316L Stainless Steel.

The new cylinders according to **DIN ISO 15552 standard in AISI 316L Stainless Steel <u>Series AMX</u>** proposed by A.P.I. are available in bores from 32 mm to 200 mm, and are realized with round tube and external tie-rods, standard with adjustable cushionings and scraper ring in special polyurethane specially developed for the applications it is intended for.

The pneumatic cylinders of Series AMX are designed and manufactured for the Food & Beverage, the chemical, the pharmaceutical and the medical industry: the AISI 316L Stainless Steel they are made of, allows the use in corrosive environments and in general in all those applications where it is essential to maintain the highest level of hygiene and cleaning.



New Series of compact cylinders according to ISO 21287 standard in AISI 316L Stainless Steel.

The new **compact cylinders according to ISO 21287 standard in AISI 316L Stainless Steel** proposed by A.P.I. are available in bores from 25 mm to 100 mm, in the standard versions single acting magnetic (type CIXS), double acting magnetic (type CIX), and double acting magnetic anti-rotating (type CIXN).



This cylinder series has got interesting features that make it **flexible**

and complete. A specific study has been devoted to the design, which thanks to the round tube and the external tie rods, is clean, modern and extremely tidy even in the smallest detail. Particular attention has also been given to the front end cap, which does not have any external drains where impurities can lie down and settle. All these elements, as well as the rod, are made of Stainless Steel AISI 316L.

Food grade fittings

Series RX/CX/OX/AX Stainless Steel Fittings

API's RX/CX/OX/AX Series Stainless Steel Fittings are designed for demanding food and beverage applications. Manufactured from AISI 316L stainless steel, they ensure high corrosion resistance and hygiene, making them ideal for washdown and cleanroom environments.

- AISI 316L stainless steel for superior corrosion resistance
- Multiple fitting types: push-in, rapid, compression, and standard thread
- Available in sizes from M5 to 1/2" and tube compatibility from Ø4 to Ø12 mm



Stainless Steel Couplings TYPE: GXA, GXF, GGLX, GGAX

Series of stainless steel double shut off flat face quick-lock couplings conforming to ISO 16028 standards, leak-free at the moment of disconnection. Suitable for use in aggressive environments, and in general in all those applications where is important that there is no fluid leaking.



- Corrosion-resistant AISI 316L stainless steel
- The non-reactive nature of stainless steel ensures that it does not alter the color, smell, or taste of substances it contacts
- These couplings can operate effectively across a wide temperature range, maintaining performance

Food grade equipment

A.P.I. Stainless Steel AISI316 Airline Equipment

Series of modular units in stainless steel AISI 316 suitable for industial application like: food, medical, chemical, Oil & Gas and mining. Light weight and compact size for space saving, the air preparation units have the following standard features:

- For high pressure use, corrosion and chemical resistance.
- Metallic parts meet NACE Standard MR-01-75.
- Lubricator oil can be replenished without stopping air supply.
- Good performance in chemical working environments and outdoor facility.



99.99998% Effective inverse flow filtration removal and 0.01 Micron final filtration with washable first stage element



The Eliminizer Stainless Steel Air Filter Units are made out of 316 stainless steel and protect properly all your equipment and delicate instruments from dirt, water and oil present in the pneumatic conduits.

The Eliminizer units are available in a wide range of models including Eliminex, Eliminizer, coalescing, oil extracting and combo.



Food grade gripper

Meat patty gripper

Millibar Robotics developed the Meat Patty Gripper to address the challenge of handling frozen meat patties with flaky surfaces. Traditional high-vacuum methods risk damaging such delicate items. Millibar's solution employs a **Flow Amplifier** vacuum source that generates high vacuum flow at low vacuum levels, ensuring a secure grip without compromising the product's integrity.

- Low vacuum levels prevent damage to delicate surfaces.
- Effectively grips irregularly shaped, frozen products.
- Instant vacuum engagement and release for rapid processing.
- No filters or moving parts, reducing downtime.



MTCFH series — manual tool changers

Are manual tool changers designed for the food industry, allowing for quick and tool-free swapping of end-of-arm tools. Its low-profile design adds just 21mm to the robot's wrist height and is compatible with ISO 9409 patterns of 20, 31.5, and 40 mm.

- Effortless, tool-free tool changes
- Low-profile design for minimal impact on robot reach
- Compatible with standard ISO 9409 mounting patterns



LDA Food grade Suction cups

Vacuum Cups Metal Detectable

Metal Detectable Cups have bits of metal embedded into the cup silicone material, used where contamination is a concern, such as in food processing.

- FDA approved material for use in food processing
- Metal impregnated for detection in food processing



Vacuum Cups - Universal

Universal cups can handle flat or slightly curved surfaces.

- 5mm to 500mm diameter cups available
- Flat cups hold firm to smooth surfaces
- Available in silicone for high temperature applications
- Good for use in low temperature applications



Vacuum Cups - Ultra-Miniature

Ultra-Miniature Cups are ideal for use in picking up extremely small parts such as computer chips, Ultra-miniature cups may be used in laboratory and food processing environments.



- Replacement cups for vacuum pencil kit
- Available in 0.09" to 0.75" diameters
- ESD-safe silicone or Buna-N for handling electronics

Vacuum Cups - Egg

Egg Cups safely handle delicate, round objects such as eggs and ceramics and can be used in the food processing and fiber optic testing industries.

- Available in red and translucent silicone
- Great for food processing applications
- Large bellows ensure gentle handling or work piece





.DA Food grade foam grippers

Foam grippers

From standard to complete custom solutions, Joulin provides the right vacuum grippers for your application. Firstly designed for the lumber industries and now for more than 50 years, this type of grippers are used in a broad range of applications and industries. Rugged and not sensitive to dust or debris the foam gripper vitualy grips everyting and don't require filters and are very low maintenance. For applications in direct contact with food there is FDA Compliant foam.







INOXLIFT – stainless steel gas springs

Need protection against corrosion? We offer you springs made of SAE304 or SAE316L grade stainless steel for superior corrosion protection. It's the ideal corrosion fighter in wash down areas for the food and packaging industries as well as outdoor environments. The "Inoxlift" type is the stainless steel made of, our most popular gas spring the "Lift".

The most common applications are in the marine/ship building, on medical equipment, chemical and food industries with food grade lube). Basic extras suchas various valve systems, protection tubes, special extension speed, special temperature range (up to -45°C or up to +200°C) an special damping are also available for Inoxlift gas springs.



PBCLinear. Food grade bearings

SilMO-series

The SIMO Series is ideal in bottling and food service applications that require repeatable motion and involve various load capacities. Plain bearings utilize the bonded FrelonGold® self-lubricating maintenance-free surface.

- Smooth & Quiet motion provided by proprietary Frelon® liner
- No Catastrophic failure as result of contamination
- Self-Lubricating linear motion without oil or grease



GST Gliding Surface Technology

withstand harsh environments while offering additional advantages. By utilizing plain bearing design, Gliding Surface Technology offers lower profiles, compact sizes, and smooth, quiet linear motion.

- Lubrication Ecolology System for reduced maintenance
- Reinforced end plates for long life and reduced maintenance
- Riging and precise recirculating ball design



RST Round Shaft Technology

Simplicity® plain bearings were used as an effective alternative to ball bearings. The plain bearing Frelon® liners produce a microscopic transfer of thin film that creates a smooth interaction between the bearing and shaft.

- Smooth & Quiet motion provided by proprietary Frelon® liner
- No Catastrophic failure as result of contamination
- Self-Lubricating linear motion without oil or grease





rotork Food grade valves

Solenoid valves

These are manufactured with high quality materials only to guarantee a durable performance as well as high reliability. They have a robust construction particularly suitable for industrial applications and offer the maximum compatibility with fluids thanks to a wide choice of seal materials. To be conform to the food industry the valves are equipped with FKM seals



Benefits of International solenoid valves

- Robust construction for industrial applications
- Featuring stainless steel orifice on most models
- Stainless steel operators with low residual magnetism
- Fully interchangeable coils with a wide range of AC and DC voltages Coil orientation possible through 360° installation
- Coils tested 100% in compliance with the current EC directives compliance to RoHS directive and to relevant international standards upon request

Food Industry Modified MAC Valves

MAC Valves presents the only valves offered in the pneumatics industry specifically modified for food/washdown resistance for use in extreme applications to prevent internal and external moisture and other contaminants. The patented Mac valve technology ensures reliable performance and long life. Mac Valves also offer a range of acetal bodied valves ideal for food applications due to their food grade materials and minimal bacteria harbour points.

The Mac Modification MOD 4922 (DM pilots) and MOD 7772 (PME pilots) are food/washdown resistant valves specifically modified and tested for extreme applications to prevent internal and external moisture and other contaminants. The MOD 0650 is a DOW Corning FDA grease for pick & place applications The patented Mac valve technology ensures reliable performance and long life.

Key modifications in the food/washdown resistant valves:

- Spool, D-seals and poppet made from special water-resistant compound.
- Dow 3452 'sticky' water resistant grease applied to valve and pilot body.
- Dow #510 silicone or solenoid assembly.
- Booted non-lock override.
- AC coils: 5.4-watt rated coils or higher to prevent sticking when contamination enters poppet.
- DOW Corning FDA grease
- All electrical connections (body to base, pilot to main valve) coated with Dow #4 silicone dielectric.



LDA Food grade pump

Saniboxer – Hygienic **Diaphragm Pump**

The Saniboxer is a volumetric double diaphragm pump powered by compressed air, specifically designed for the pharmaceutical, cosmetic, and hair care industries. Constructed from mechanically polished AISI 316L stainless steel with a surface finish of less than 0.8 µm.

- Equipped with optical fiber sensors that detect diaphragm rupture.
- Features a quick emptying system allowing complete manual drainage without tools.
- Can be fitted with eccentric-design fluid ball valves.



Aisiboxer - Hygienic **Diaphragm Pump**

The Aisiboxer is a volumetric double diaphragm pump operated by compressed air, tailored for the food and beverage, cosmetics, and hair care sectors. Like the Saniboxer, it is made from mechanically polished AISI 316L stainless steel with a surface finish below 0.8 µm and holds MOCA, ATEX, and FDA certifications.

- Incorporates a quick emptying system for complete manual drainage without tools.
- Offers optional eccentric-design fluid ball valves to handle fluids containing large suspended solids effectively.
- Designed for high performance with optimized air consumption, making it ideal for transporting various fluids in the food industry





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