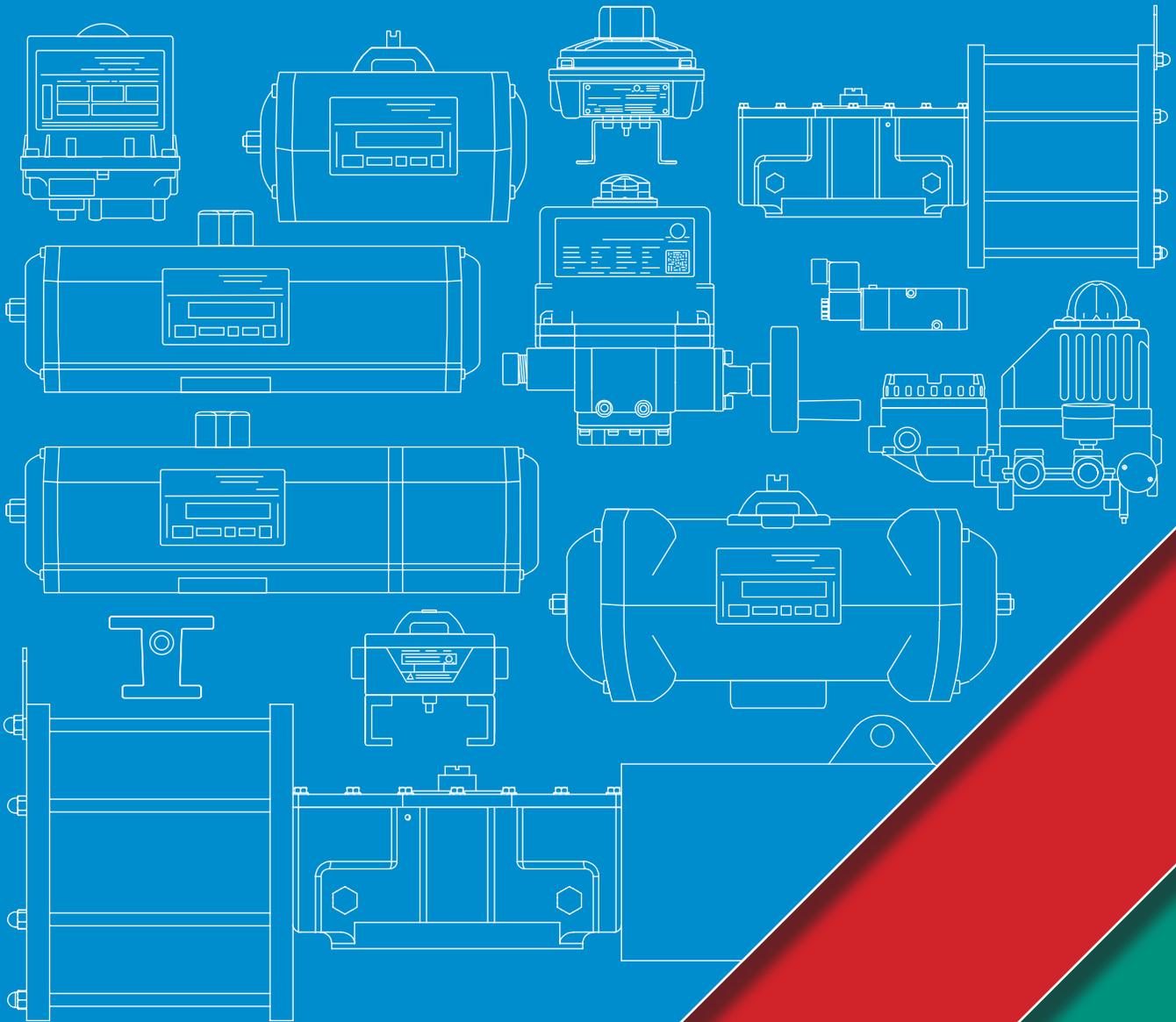


# Max-Air

TECHNOLOGY

*The Best Way To Automate Your Process*



## Product & Services Sales Guide

*Max-Air Technology Inc. | Rotary Actuators & Valve Automation Solutions*

Max-Air Technology, Inc. • 114 Resource Drive • Wentzville, MO 63385 • United States of America  
Tel +1.636.272.4934 • Toll Free 888.842.9998 • Fax 636.272.4937 • [www.maxairtech.com](http://www.maxairtech.com) • [info@maxairtech.com](mailto:info@maxairtech.com)



### ISO9001:2015

Max-Air Technology is certified to the ISO9001:2015 international standard for quality management systems (QMS). Certification to this standard demonstrates the ability to consistently provide products and services, and a commitment to continual process improvement and innovation.



### API SPEC Q1

Max-Air Technology is certified to API Spec Q1 9th Edition, which is specific to the oil and gas industry. The requirements of this standard impose additional formalized controls to manage risk and change, making certification more difficult and differentiating those with the highest quality standards.

## STANDARD WARRANTY

*Max-Air Technology Inc. | The Best Way to Automate Your Process*

Max-Air Technology provides the following warranty regarding products manufactured by it. **THE WARRANTY STATED HEREIN IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES AND REPRESENTATIONS, EXPRESSED OR IMPLIED, OR STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** Max-Air Technology warrants its products to be free from defects in materials and workmanship when these products are used for the purpose for which they were designed and manufactured. Max-Air Technology does not warrant its products against chemical or stress corrosion or against any other failure other than from defects in materials or workmanship. The warranty period is for twelve (12) months from installation date or eighteen (18) months from shipment date, whichever date comes first. Any claims regarding this warranty must be in writing and received by Max-Air Technology before the last effective date of the warranty period. Upon Max-Air Technology's receipt of a warranty claim, Max-Air Technology reserves the right to inspect the product(s) in question at either the field location or at the Max-Air Technology Manufacturing plant. If, after inspection of the product(s) in question, Max-Air Technology determines that the purchaser's claim is covered by this warranty, Max-Air Technology's sole liability and the purchaser's sole remedy under this warranty is limited to the refunding of the purchase price or repair or replacement thereof at Max-Air Technology option. Max-Air Technology will not be liable for any repairs, labor, material or other expenses that are not specifically authorized in writing by Max-Air Technology, and in no event shall Max-Air Technology be liable for any direct or consequential damages arising out of any defect from any cause whatsoever. If any Max-Air Technology product is modified or altered at any location other than Max-Air Technology – St. Louis (Missouri) UNITED STATES or Max-Air Technology – Agrate Brianza (MB) ITALY without the express written authorization of Max-Air Technology, said product is not covered by this warranty. The warranty for such products shall be subject only to the warranty relief, if any, provided by the suppliers and/or manufacturers of such products.

## MAX-AIR TECHNOLOGY GLOBAL OFFICES

### EUROPE

EMME TECHNOLOGY S.R.L.

Emme Technology S.r.l.  
Via Euclide  
Agrate Brianza (MB) Italy

Tel: 0039.02.26262174  
Fax: 0039.02.26220777  
E-mail: sales@emmetech.com

### UNITED STATES

MAX-AIR TECHNOLOGY INC.

Max-Air Technology Inc.  
114 Resource Drive  
Wentzville, MO 63385

Tel: 888.842.9998  
Fax: 636.272.4937  
E-mail: info@maxairtech.com

### ASIA

JINAN MAX-AIR

Max-Air Technology Co. Ltd  
Room 606, Tongyuan Building No.68  
Tongyuanju Front Street, Jinan 250012

Tel: 86 531 86917039  
Fax: 86 531 86917039  
E-mail: sales@maxair.asia



# Product & Services Sales Guide

Max-Air Technology Inc. | Rotary Actuators & Valve Automation Solutions



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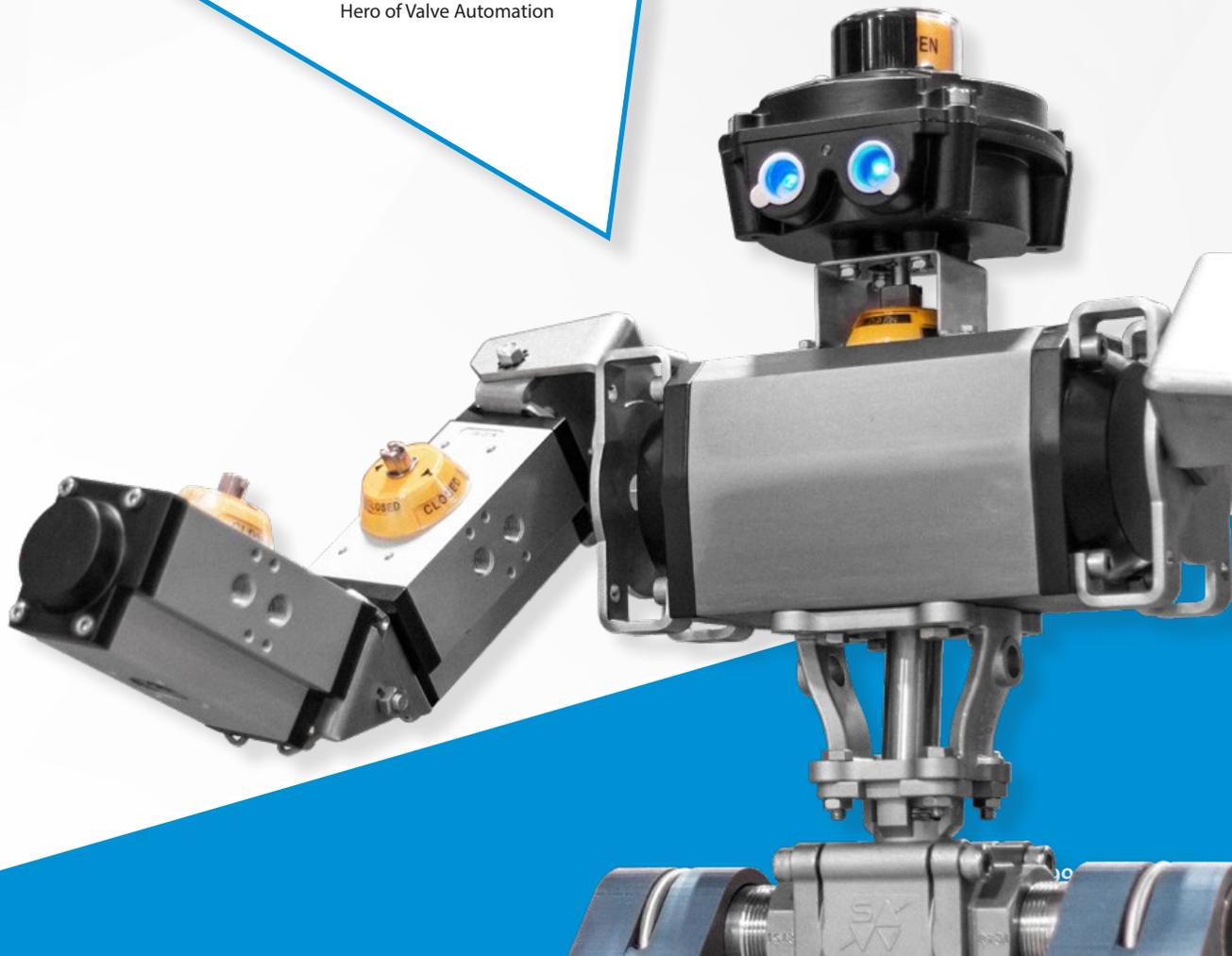
## The best way to automate your process.

Max-Air Technology is a worldwide leader in automation technology and process control products. For almost 20 years we have used our engineering expertise and industry experience to continually improve our products, striving to provide robust solutions and competitive prices. Designed for easy integration and reliability, our products have been proven in a variety of industries and applications including chemical, pharmaceutical, food and beverage, power, oil and gas, wastewater, and dampers. We also strive to provide exceptional customer support to back our products and keep your downtime to a minimum.

Max-Air's full line of pneumatic control products – including our industry recognized rack and pinion actuators – provide cost-effective solutions for simple on/off control or more complicated flow requirements such as diverting or multi-port applications. Our patented adjustable dual travel stops provide the greatest degree of control in the industry at  $\pm 10$  degrees on each end of the stroke. To complement our actuators we have a complete range of control accessories including solenoid valves, limit switches, positioners, and a wide assortment of automation hardware. In addition, Max-Air offers best-in-class assembly services and turn-key automation packages to minimize installation time and simplify project sourcing.

### Maximus

Hero of Valve Automation



# 90° Rack & Pinion Actuators

Air powered rotary actuators for precise action and reliable long-life operation.

## The Core of Max-Air Technology

Back in 1999, Max-Air Technology entered the market with rack and pinion actuators featuring a unique, patented design. Today, Max-Air's core product line-up builds on this proven design with the most extensive rack and pinion actuator offering in the world. Alternate housing and seal materials, finishes, coatings, 90° through 180° rotations, and industry best +/-10° travel stops ensure that Max-Air offers the perfect solution.



### Standard Features:

- Compact Rack and Pinion Design
- 3D Models Available for All Designs and Sizes
- Direct ISO 5211 Standard Valve Mounting
- Direct NAMUR Accessory Mounting
- Anti-Blowout Bi-Directional Pinion Retention
- High Visibility Open/Closed Beacon
- Pre-Loaded Spring Cartridges



### MT Series Aluminum

Max-Air's proven and patented design provides built-in flexibility and repeatable, reliable action. Standard housing is anodized aluminum, with optional coatings available. (See page 5-6)



### UT Series Technopolymer

Actuators with polyarylamide epoxy resin housing are suited for environments with hydrocarbons, organic solvents, and fuels. (See page 7)



### SS Series Stainless

Actuators with fully stainless steel housing and hardware offer the highest level of corrosion resistance. (See page 5-6)



### GP Series GRP

Actuators with glass-reinforced polypropylene housing are ideal for corrosive acidic and alkaline environments. (See page 7)

<b>Torque Range</b>	Up to 47,250 in-lbs (DA) & 22,746 in-lbs (SR)
<b>Materials</b>	Aluminum, Stainless Steel, Technopolymer, Glass Reinforced Polypropylene
<b>Coating/Finish Options</b>	Epoxy, Electroless Nickel Plating, Lock Mesh™ (SS+PTFE), Mirror Polish (SS Only)
<b>Ambient Temp.</b>	-4°F to 176°F Standard (-67°F Low, 300°F High)

<b>Rotation</b>	90°-180° Degrees ±10° Adjustment Spring Return or Double Acting
<b>Operation Media</b>	Gas or Low Pressure Hydraulic Fluid
<b>Mounting</b>	ISO 5211, NAMUR VDI/VDE 3845
<b>Additional Options</b>	DD Pinions, Fast Acting, Extended Travel Stops

## 90° Rack and Pinion Series Selection

Start from the top of the chart and work down to select the correct Rack & Pinion series.

Torque	Up to 625 in-lbs DA or 278 in-lbs SR				625 in-lbs - 47,250 in-lbs DA or 278 in-lbs - 14,275 SR			
	Corrosive		Standard		Corrosive		Standard	
	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)
Environment	Corrosive		Standard		Corrosive		Standard	
Temperature	Corrosive		Standard		Corrosive		Standard	
Recommended Series/Options	MT Series w/ Special Coating	MT Series w/ Special Coating & Temp Seals	GP Series	MT Series w/ Temp Seals	MT Series w/ Special Coating	MT Series w/ Special Coating & Temp Seals	MT Series	MT Series w/ Temp Seals
	SS Series	SS Series w/ Temp Seals	MT Series	MT Series w/ Temp Seals	SS Series	SS Series w/ Temp Seals	MT Series	MT Series w/ Temp Seals
	GP Series	SS Series w/ Temp Seals	UT Tech Series	MT Series w/ Temp Seals	SS Series	SS Series w/ Temp Seals	MT Series	MT Series w/ Temp Seals
	UT Tech Series	SS Series w/ Temp Seals	UT Tech Series	MT Series w/ Temp Seals	SS Series	SS Series w/ Temp Seals	MT Series	MT Series w/ Temp Seals

# Product & Services Sales Guide

Max-Air Technology Inc. | Rotary Actuators & Valve Automation Solutions



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## MT Series Aluminum & Coating/Finish Options

The MT Series rack & pinion pneumatic actuators continue the Max-Air tradition of easy integration, flexible customization, and reliable operation. Features include two ISO bolt circle patterns drilled directly in the body, NAMUR standard mounting for accessories, and our patented  $\pm 10^\circ$  adjustment for the open/closed positions, all backed by the best unlimited cycle life warranty.

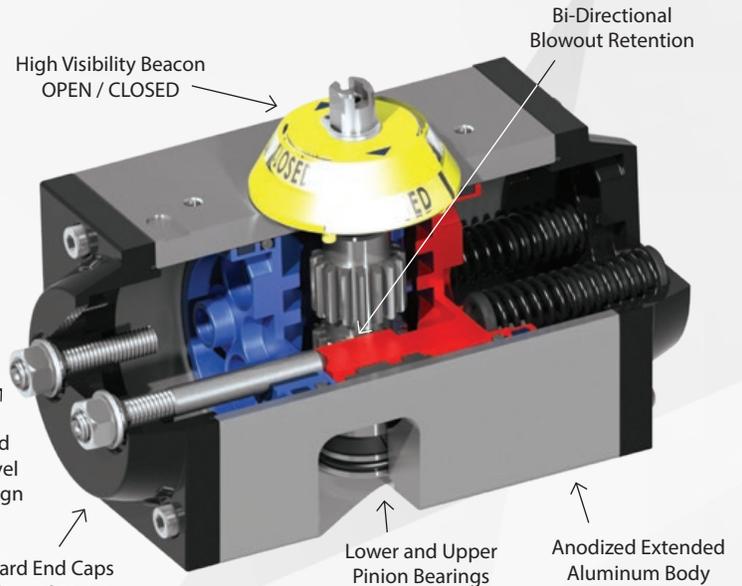


Lock Mesh™

### Special Finish/Coatings

Aluminum corrosion resistance can be enhanced by epoxy coating, electro-less nickel plating, or Max-Air's exclusive LockMesh™ SS+PTFE coating.

Available in 17 Sizes!



High Visibility Beacon OPEN / CLOSED

Bi-Directional Blowout Retention

Patented Dual Travel Stop Design

Standard End Caps Regardless of SR & DA

Lower and Upper Pinion Bearings

Anodized Extended Aluminum Body

**150 PSI Rating:** Thicker Body Walls & Better Sealing Interfaces (Industry Standard Only 120 PSI)

## SS Series Stainless

The MAX-AIR rack & pinion stainless steel pneumatic actuator produces linear torque output in a compact design utilizing the same body and end caps for double acting and spring return units.

Slim Design to Reduce Weight

High Visibility Beacon OPEN / CLOSED



Patented Dual Travel Stop Design

Standard End Caps Regardless of SR or DA

### Mirror Polish Options

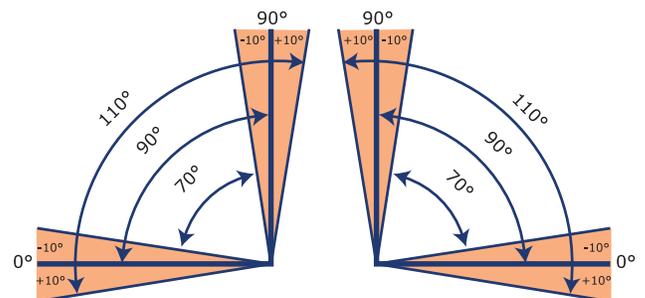
For stainless steel actuators in sanitary environments, antimicrobial and biofilm resistance can be increased with a mirror polished finish.

### AISI 316 Stainless Steel

All external components (body, end caps, pinion and fasteners) are made in stainless steel (CF8M or AISI 316) for a superior corrosion resistance

## Patented Dual Travel Stop Design

Standard on MT Series, SS Series, & UT Series Rack and Pinion Actuators



### STANDARD $\pm 10^\circ$ ADJUSTMENT OPEN & CLOSE

- Travel adjustable from 70° up to 110° rotation
- Angle seating capable with standard travel stops
- Compensates for slop in valve/actuator/coupling interface
- Typical industry standard is  $\pm 3^\circ$

### LINEAR PISTON STOPS, BOTH ON SAME SIDE

- Easier adjustment for tighter space requirements
- Clearly marked "0" (Closed) and "MAX" (Open)
- Extremely high repeatability, no hysteresis
- Allows for greater travel adjustment than rotary cam stops
- Lower degrees per turn allows for more precision
- No uneven side loading or wear on the pinion

### OPTIONAL EXTENDED TRAVEL STOPS

- Close adjustment up to 30° or more from full closed
- Open adjustment up to full actuator stroke (90° from open)
- Fail-safe applications where full close shutoff is not desired
- Special rotations where travel is much less than 90° (i.e. 45°, 60°)

## Temperature Seal Options

Available for MT Series and SS Series Actuators



Seals	Temperature Range
Super Low Temp. (FVMQ)	-67°F (-55°C) to 250°F continuous & 300°F cyclic
Low Temp. (Silicone)	-49°F (-45°C) to 250°F continuous & 300°F cyclic
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)
High Temp. (VITON)	-10°F (-23°C) to 250°F continuous & 300°F cyclic
Low Temp. Buna	-40°F (-40°C) to 212°F (100°C)

# High Cycle Life Design

Precision Honed Bore, High Cycle Wear Bearings, Unlimited Cycle Life Warranty, Rugged Tooth Design



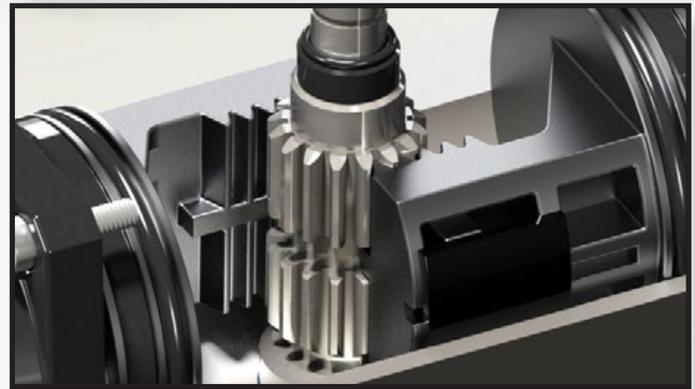
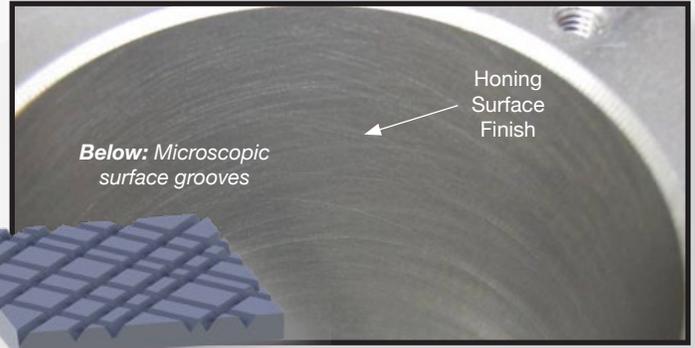
## High Cycle Wear Bearings

High performance technopolymer bearings eliminate metal-to-metal sliding contact.

- Low friction, Large contact area
- 2 axial + 1 thrust bearing for pinion
- 2 axial bearings per piston, plus zero travel stop bearing

## Precision Honed Bore

This high end feature, is not industry standard. A uniform bore surface provides consistent seal contact and compression. Micro-scratches provide even lubrication which minimizes the “wiping” effect. Our Honed Bore will provide consistent long-life operation with multiple seal materials and greases.



## Unlimited Cycle Life Warranty

MT Series actuators have the best warranty in the industry, made possible by a holistic high-cycle life design. To maximize actuator life and take full advantage of the warranty, Max-Air always recommends clean, dry air for operation and regular preventative maintenance. Rebreathers are readily available and also recommended to keep dirty environmental air out of the internals and prolong the life of seals and grease. The Max-Air MT Series design is tested and verified to over 1,000,000+ cycles under full rated load.

**SIL3**  
Safety Integrity Level

**Designed & Tested 1,000,000+ Cycles**

## Rugged Tooth Rack and Pinion Design

The MT Series exclusive rack and pinion tooth design was created to better withstand valve “slamming” and other dynamic forces. After years of research and development, Max-Air was able to optimize a tooth profile for higher strength and resiliency, but with minimal backlash.

### Increased Corrosion Resistance & Relative Cost

Materials/Coatings w/ Properties & Limitations

Options	Aluminum: Hard Anodized (Standard)	Aluminum: Anodized w/ Polyamide Epoxy Coating	Aluminum: Electroless Nickel Infused	Aluminum: Teflon Infused SS Mesh “Lock Mesh”™ Coating	Stainless Steel: ASTM A351 Grade CF8M
Properties	Good general corrosion properties in most “natural” environments with pH from 4.5 to 8.5. Good resistance to salt air environments. The coating is extremely hard and resistant to abrasion.	The epoxy coating is relatively thick, which creates a barrier against many of the chemicals which anodizing alone cannot adequately resist. It will resist more acidic or basic environments than anodizing alone.	Uniformly thick coating with essentially no porosity and a reasonably high hardness. The coating is pure, tough, hard, and resistant to many types of corrosion media.	This coating provides complete surface coverage and exhibits excellent corrosion resistance properties in a wide variety of applications. In addition, it is FDA approved for food contact.	304 and 316 stainless steel are the most commonly used alloys. Both have good corrosion resistance but 316 is generally considered superior, however more expensive.
Performance Limitations	Highly acidic or basic environments will break down the coating.	Good general corrosion resistance, particularly in salt or alkaline environments. Limited resistance to acids. Surface chalking will occur when exposed to UV radiation. Also suitable for low concentrations of caustic washdown solutions.	The coating will provide enhanced corrosion protection in very acidic environments but will not withstand attack from strong alkaline media. Also suitable for low to medium concentrations of caustic washdown solutions.	These coatings are resistant to any environment into which an actuator would be installed. Provided the integrity of the surface is intact, the coating can resist a broad array of chemical environments at temperatures ranging from sub-zero to 350° F.	Although stainless steel does offer enhanced corrosion resistance, it also is dramatically higher in both cost and weight. The weight differential will often necessitate the use of special support bracketry. Corrosion resistance is superior.



## Engineered Polymers

Since their conception the Max-Air lines of thermoplastic actuators have been installed worldwide in the most arduous environments. The series is now also available in GLASS-REINFORCED POLYPROPYLENE becoming the most effective choice for your corrosion resistance applications.

### Standard Features:

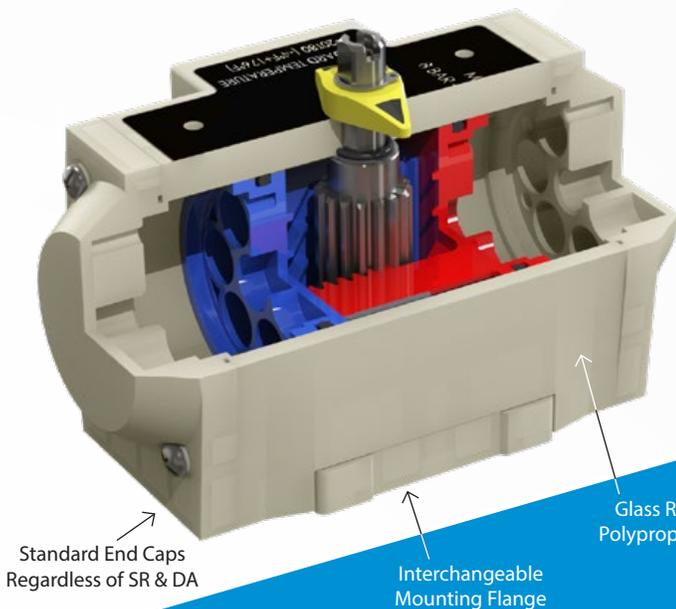
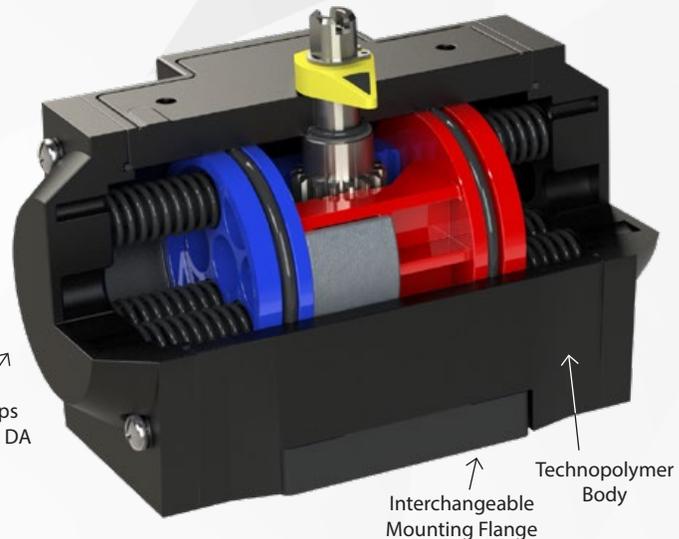
- Compact Rack and Pinion Design
- Direct ISO 5211 Standard Valve Mounting
- Interchangeable Mounting Flange
- Skates and Bearings Isolate for High Cycle Wear Resistance
- Anti-Blowout Bi-Directional Pinion Retention
- Rugged Tooth Rack and Pinion Design (See page 6)
- Pre-Loaded Spring Cartridges for Easy Changeout
- Low Profile Indicator



## UT Series Technopolymer

The UT Technopolymer Series actuators are designed to withstand the most extreme environments (Hydrocarbons, Organic Solvents, and Fuels). Available in three sizes, your applications requiring plastics and corrosion resistance are covered with up to 500 in-lbs of torque (Double-Acting).

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)



## GP Series GRP

The GP Series GRP line of glass-reinforced polypropylene actuators are designed to withstand the most extreme environments (Strong Acid and Alkali Environments). Available in three sizes, your applications requiring plastics and corrosion resistance are covered with up to 500 in-lbs of torque (Double-Acting).

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)

# 180° Rack & Pinion Actuators

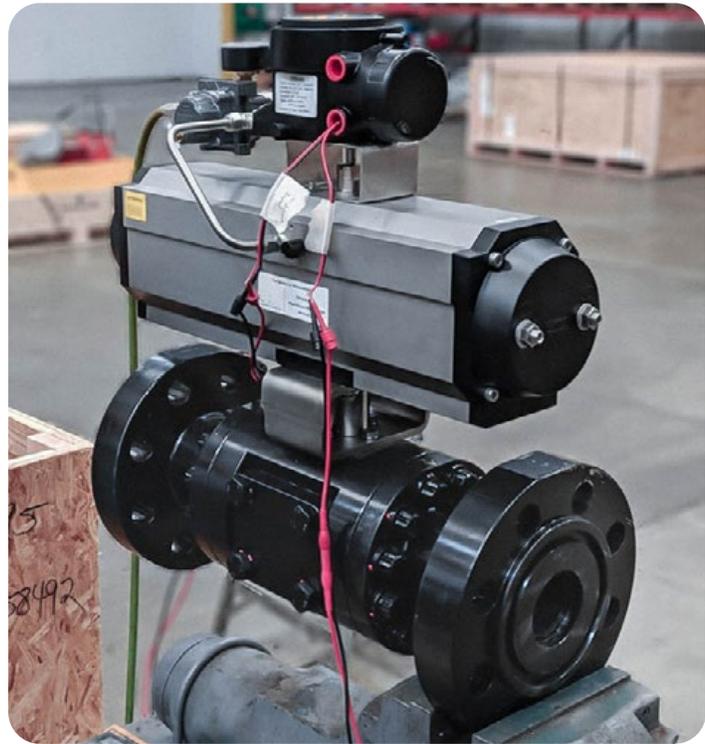
Air powered rotary actuators for precise action and reliable long-life operation.

## Special Rotations

UT 180° actuators offer an extended range of rotation beyond 90° quarter turn applications. Double acting actuators can be ordered in custom lengths between 120° and 180°, or extended travel stops can be used on the stock 180° actuator to adjust travel anywhere between 0° and 180°. Spring return actuators are available in a standard configuration (0°-180° travel, spring return to one end) or in "center return" configuration (0° ± 90° travel, spring return to the center). UT 180° actuators offer the same patented dual travel stop design (excluding 3 Position DA) w/ extended travel stop options and multiple mounting options for the ultimate flexibility.

### Standard Features:

- Compact Rack and Pinion Design
- 3D Models Available for All Designs and Sizes
- Direct ISO 5211 Standard Valve Mounting
- Direct NAMUR Accessory Mounting
- Anti-Blowout Bi-Directional Pinion Retention
- High Visibility Open/Closed Beacon
- Pre-Loaded Spring Cartridges



### UT 180° Series Aluminum

Max-Air's unique and patented design delivers rotation beyond 90°, with configurable stroke end positions and fail directions. Standard housing is anodized aluminum, with optional coatings available.



<b>Torque Range</b>	Up to 47,250 in-lbs (DA) & 22,746 in-lbs (SR)
<b>Materials</b>	Aluminum
<b>Coating/Finish Options</b>	Epoxy
<b>Ambient Temp. Ranges</b>	-4°F to 176°F Standard (-67°F Low, 300°F High)

<b>Rotation</b>	±10° Adjustment Standard on Spring Return or Double Acting, Special Rotation Options Available
<b>Operation Media</b>	Gas or Low Pressure Hydraulic Fluid
<b>Mounting</b>	ISO 5211, NAMUR VDI/VDE 3845
<b>Additional Options</b>	DD Pinions, Extended Travel Stops

## 180° Rack & Pinion Series Selection

Start from the top of the chart and work down to select the correct Rack & Pinion Series.

Type	180° Double Acting Air to 0° or Air to 180°		180° Spring Return Air to 180° or Spring to 0°		180° Center Return Air to +90°/-90° or Spring to 0°	
	Corrosive		Standard		Standard	
Environment	Corrosive		Standard		Standard	
Temperature	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)
Recommended Series/Options	UT 180° Series w/ Special Coating	UT 180° Series w/ Special Coating & Temp Seals	UT 180° Series	UT 180° Series	UT 180° Series	UT 180° Series w/ Temp Seals



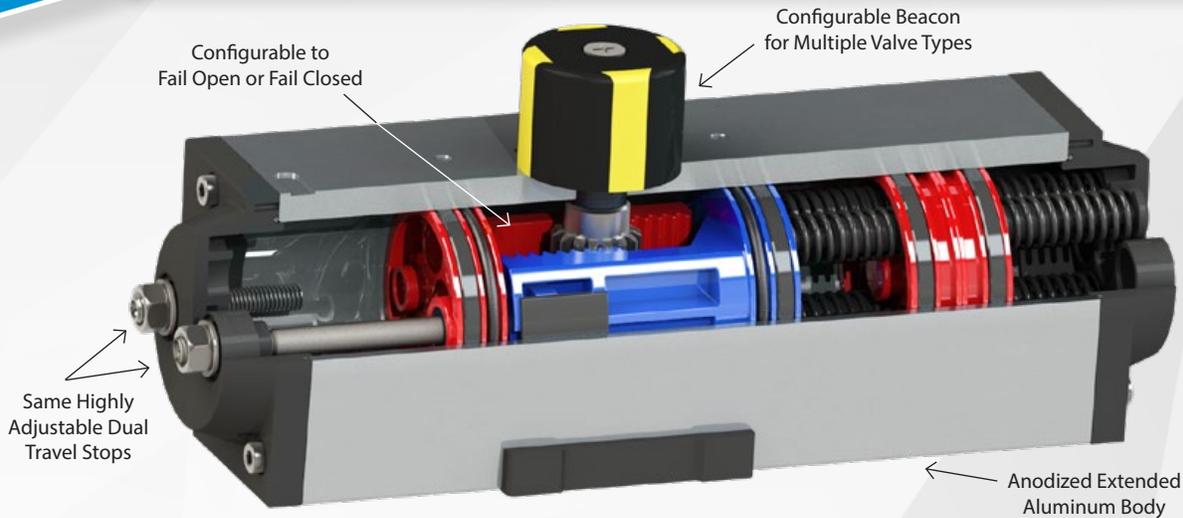
Center-Return 180° actuator shown with open centers S36A solenoid valve.

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## UT 180° Series Aluminum

**Double Acting** Max-Air's 180 degree double acting actuators maintain the operating torques and many of the key features of the standard UT and MT actuators. With the same travel stop adjustability, honed bore, rugged teeth, and Namur accessory mounting, we can reliably operate multiport and other 180 degree valves and with an almost infinite travel stop adjustability, we can handle a wide variety of special travel/rotation requirements.

**Spring Return** The Max-Air Technology 180° actuator maintains the same high output torques as the standard MT actuators while providing a solid solution for a lifetime of consistent performance without hassling with an oversized unit.

**Center Return** For applications where returning to center is imperative, Max-Air Technology has this optimal solution. Specially designed and machined, this unit saves hours of engineering redesign for fail-to-center applications.

**3-Position** Max Air's 3-position actuator has been developed for use with multiport valves in mind. Its unique design and operating system creates hard travel stops at three distinct positions for the ultimate reliability in positioning.

### Increased Corrosion Resistance & Relative Cost

Materials/Coatings w/ Properties & Limitations

Options	Aluminum: Hard Anodized (Standard)	Aluminum: Anodized w/ Polyamide Epoxy Coating
Properties	Good general corrosion properties in most "natural" environments with pH from 4.5 to 8.5. Good resistance to salt air environments. The coating is extremely hard and resistant to abrasion.	The epoxy coating is relatively thick, which creates a barrier against many of the chemicals which anodizing alone cannot adequately resist. It will resist more acidic or basic environments than anodizing alone.
Performance Limitations	Highly acidic or basic environments will break down the coating.	Good general corrosion resistance, particularly in salt or alkaline environments. Limited resistance to acids. Surface chalking will occur when exposed to UV radiation. Also suitable for low concentrations of caustic washdown solutions.

## Temperature Seal Options

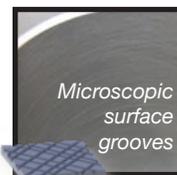
Available for MT Series and SS Series Actuators



Seals	Temperature Range
Super Low Temp. (FVMQ)	-67°F (-55°C) to 250°F continuous & 300°F cyclic
Low Temp. (Silicone)	-49°F (-45°C) to 250°F continuous & 300°F cyclic
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)
High Temp. (VITON)	-10°F (-23°C) to 250°F continuous & 300°F cyclic
Low Temp. Buna	-40°F (-40°C) to 212°F (100°C)

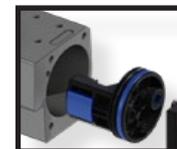
## High Cycle Life Design

Precision Honed Bore, High Cycle Wear Bearings, Rugged Tooth Design



### Precision Honed Bore

This high end feature, is not industry standard. A uniform bore surface provides consistent seal contact and compression. Micro-scratches provide even lubrication which minimizes the "wiping" effect.



### High Cycle Wear Bearings

High performance technopolymer bearings eliminate metal-to-metal sliding contact.



### Rugged Tooth Rack & Pinion Design

The Rugged Tooth Design reduces "slamming" and other dynamic forces. Max-Air's tooth profile is refined for higher strength and resiliency, but with minimal backlash.

# Scotch Yoke Actuators

Air or fluid powered rotary actuators for heavy duty, high torque applications.

## The Solution for High Torque Applications.

Max-Air Technology HD Series scotch yoke actuators are designed to be a comprehensive solution for a range of industrial, high torque applications. Our completely modular design includes a rugged high-strength center body, slide block yoke mechanism, and tensile spring compression for safe and reliable fail-safe action. Actuators can be sized and outfitted with air cylinders or high-pressure hydraulic cylinders to closely match your valve torque requirements. Manual overrides are readily available and specialty coatings upon request.

### Standard Features:

- Symmetric and Canted Yoke options
- Slide Block Technology extends service life
- Hard chrome plated wear surfaces
- Three layer epoxy coating for general corrosion resistance
- Modular design w/ self-contained spring modules
- Optional Heavy Duty Polyamide Epoxy coating



### HD Series Pneumatic

Max-Air's rugged, modular design features high-integrity components with symmetric and canted yoke options to allow for torque profiles that more closely match valve requirements.

<b>Torque Range</b>	Up to 2,000,000 in-lbs (DA) & 1,000,000 in-lbs (SR)
<b>Materials</b>	Coated Carbon Steel
<b>Coating Option</b>	Epoxy
<b>Ambient Temp. Ranges</b>	-4°F to 176°F Standard, (-40°F Low/ 300°F High)



### HHD Series Hydraulic

Hydraulic power cylinders multiply actuator torque output in a more compact design and can reduce stroke times. Actuators can be converted from air to fluid power with stock or custom hydraulic cylinders.

<b>Rotation</b>	90 Degrees $\pm 6^\circ$ Adjustment Spring Return or Double Acting
<b>Operation Media</b>	Gas or High Pressure Hydraulic Fluid
<b>Mounting</b>	ISO 5211, NAMUR VDI/VDE 3845
<b>Available Options</b>	Manual Hand Pump Override, Custom Cylinders, Symmetric or Canted Yoke

## Scotch Yoke Series Selection

Start from the top of the chart and work down to select the correct Scotch Yoke Series.

Operation Media	Gas		Hydraulic Fluid	
	1000 psi		Up to +3000 psi	
Pressure				
Temperature	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)
Recommended Series/Options	HD Series	HD Series w/ Temp Seals	HHD Series	HHD Series w/ Temp Seals
Available Options	Manual Hand Pump Override Custom Cylinders Symmetric or Canted Yoke		Manual Hand Pump Override Custom Cylinders Symmetric or Canted Yoke	

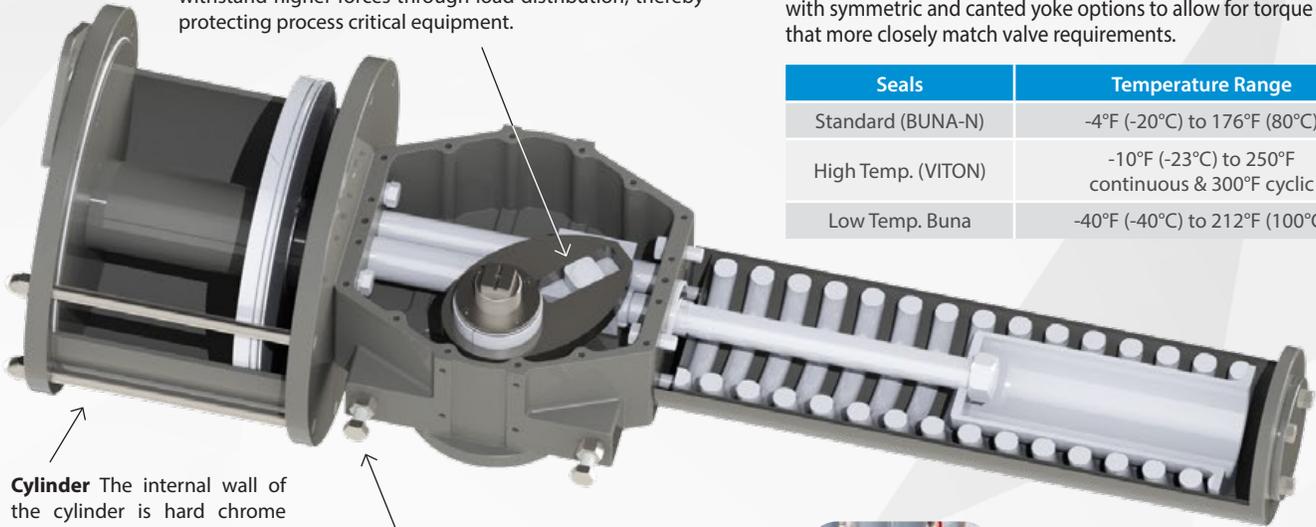
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**Slide Block Technology** The slide block has a wide surface contact area, impregnated with graphite, that assures lower contact forces and smoother operation and is designed to withstand higher forces through load distribution, thereby protecting process critical equipment.



**Cylinder** The internal wall of the cylinder is hard chrome plated in order to maximize wear and corrosion resistance.

**Double Travel Stop** The SHD and CHD actuators are all provided with bi-directional travel stops to allow for open and closed position location adjustments of +/- 6 degrees.

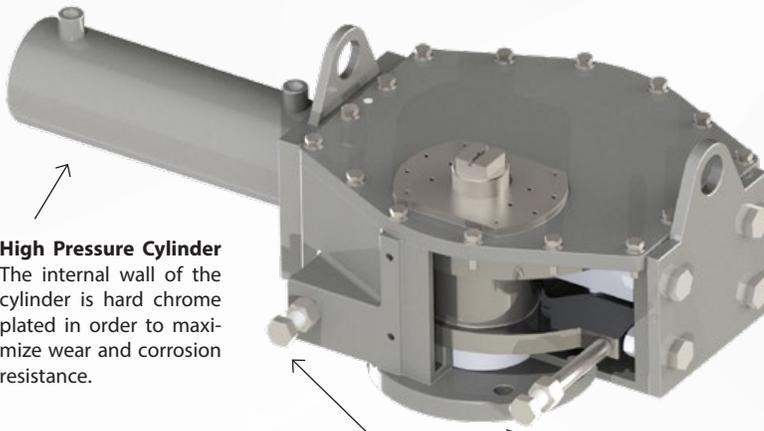
## HD Series Pneumatic

Max-Air's rugged, modular design features high-integrity components with symmetric and canted yoke options to allow for torque profiles that more closely match valve requirements.

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)
High Temp. (VITON)	-10°F (-23°C) to 250°F continuous & 300°F cyclic
Low Temp. Buna	-40°F (-40°C) to 212°F (100°C)



**Manual Hydraulic Handpump Override**  
Both the HD & HHD Series have the option for manual override via a Hydraulic Handpump. The double acting override is shown.



**High Pressure Cylinder**  
The internal wall of the cylinder is hard chrome plated in order to maximize wear and corrosion resistance.

**Double Travel Stop** The HSHD and HCHD actuators are all provided with bi-directional travel stops to allow for open and closed position location adjustments of +/- 6 degrees.

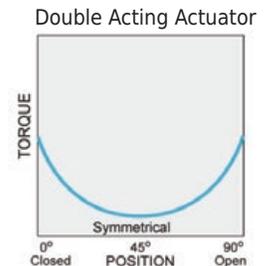
## HHD Series Hydraulic

Hydraulic power cylinders multiply actuator torque output in a more compact design and can reduce stroke times. Actuators can be converted from air to fluid power with stock or custom hydraulic cylinders.

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)
High Temp. (VITON)	-10°F (-23°C) to 250°F continuous & 300°F cyclic
Low Temp. Buna	-40°F (-40°C) to 212°F (100°C)

### Symmetric Torque Curves

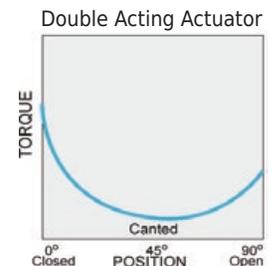
Symmetric Type



SHD series is equipped with a SYMMETRIC design yoke that produces maximum torques at both ends of the stroke (0° and 90°) and minimal in the middle, therefore this series is the optimal solution for metal seated ball valves, plug valves and for modulating service.

### Canted Torque Curves

Canted Type



CHD series is equipped with a CANTED design yoke that produces a higher maximum torque at the beginning of stroke (i.e. valve unseating/reseating at 0°) and less torque at the end of stroke (90°), therefore this series is optimal solution for high performance butterfly valves.

# Solenoid Valves

Electrically signaled air switching valves w/ NAMUR interface or inline NPT ports, for air actuators.

## CSA Approved, Air Directional Valves.

Max-Air Technology's solenoid valves are CSA approved, built, tested and made to order in the USA. Our SV NAMUR mount and NV inline series feature a modular design with extensive coil and connector options, pilot configurations, and seal materials. Stainless steel bodies are also available in the SSV series.

### Standard Features:

- Direct mount compatible with any Max-Air rack & pinion actuator (or any actuator with 1/4" NAMUR pattern)
- Multiple voltages available (AC/DC)
- Water and dust proof according to IP65, IP67 available
- Standard duty, intrinsically safe & explosion proof models
- Suitable for use with other Max-Air NAMUR speed controls
- Standard lockable manual override button



**SV Series NAMUR**  
Aluminum 3/4-way direct mount body, 2 position normal closed or fail-in-place, for ordinary or hazardous locations.

**NV Series Inline**  
Aluminum 3 or 4-way body with NPT ports, 2 position normal closed, for ordinary or hazardous locations.



**SSV Series NAMUR**  
Stainless steel 3/4-way direct mount body, 2 position normal closed, for ordinary or hazardous locations.

**S3 Series NAMUR**  
Aluminum 3/4-way direct mount body, 3 position center return, for ordinary or hazardous locations.

<b>Locations</b>	Ordinary, Hazardous, IP65
<b>Materials</b>	Aluminum, Stainless Steel
<b>Ambient Temp. Ranges</b>	-4°F to 122°F Standard (-30°F Low, 176°F High)
<b>Body Type</b>	3 or 4 Way Aluminum

<b>Operation Media</b>	Gas
<b>Voltages</b>	AC/DC, Ordinary & Hazardous Locations
<b>Mounting</b>	NAMUR or Inline NPT
<b>Available Options</b>	3-Way & 4-Way Polymer or Aluminum Spacer Plates, LED DIN Connector

## Solenoid Valve Series Selection

Start from the top of the chart and work down to select the correct Solenoid Valve Series.

Mounting	Standard			Inline	
	Standard		Corrosive	Standard	
Environment	Standard		Corrosive	Standard	
Positions	2 Position		3 Position	2 Position	2 Position
Temperature	Standard	Extreme (High/Low)	Standard	Standard	Standard
Recommended Series/Options	SV Series NAMUR	SV Series NAMUR w/Temp. Seals	S3 Series NAMUR	SSV Series NAMUR	NV Series Inline
Available Options	3-Way & 4-Way Polymer or Aluminum Spacer Plates LED DIN Connector Molded Leads			LED DIN Connector Molded Leads	

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## SV Series NAMUR

Aluminum 3/4-way direct mount body, 2 position normal closed or fail-in-place, for ordinary or hazardous locations.

Seals	Temperature Range
Low Temp. (Buna)	-30°F (-34°C) to 122°F (50°C)
Standard (BUNA)	-4°F (-20°C) to 122°F (50°C)
High Temp. (VITON)	0°F (-18°C) to 176°F (80°C)

## NV Series Inline

Aluminum 3 or 4-way body with NPT ports, 2 position normal closed, for ordinary or hazardous locations.

Seals	Temperature Range
Standard (BUNA)	-4°F (-20°C) to 122°F (50°C)
High Temp. (VITON)	0°F (-18°C) to 176°F (80°C)



## SSV Series NAMUR

Stainless steel 3/4-way direct mount body, 2 position normal closed, for ordinary or hazardous locations.

Seals	Temperature Range
Standard (BUNA)	-4°F (-20°C) to 122°F (50°C)

## S3 Series NAMUR

Aluminum 3/4-way direct mount body, 3 position center return, for ordinary or hazardous locations.

Seals	Temperature Range
Standard (BUNA)	-4°F (-20°C) to 122°F (50°C)



# Air Controls

Air regulation and management options for air operated actuators.

## Quiet, Clean, & Consistent Air Supply

Controlling incoming air quality and pressure can protect an actuator and help assure the longevity of the unit and its accessories. Few facilities have reliably clean air supplied at an accurately regulated pressure so the use of an air filter regulator can help achieve the recommended operating conditions, particularly when critical accessory items such as a solenoid or a positioner are also within the valve assembly. Other accessories can also be added in order to alter the air flow in order to achieve optimal/target operating times. Mufflers can also be included to reduce ambient noise and guard against intrusion of foreign materials into the actuator.

### Standard Features:

- 3D Models Available
- Direct NAMUR Mounting
- Compact Stackable Design
- High Flow Rates



## Air Filter Regulators

Max-Air's filter regulators are general purpose air service regulators which are designed to protect air operated equipment from internal contamination while at the same time regulating the air pressure such that specified supply line pressure levels are not exceeded. In most applications, a properly selected pneumatic filter regulator is required and specified according to best engineering practices, and in other installations the lowest cost option is preferred.



## Mufflers & Speed Controls

Mufflers dramatically reduce noise, and speed controls can cost-effectively slow down stroke times.



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## Block/Bleeds & Lockup Valves

Block off air supply and bleed remaining pressure for maintenance or manual override. Or lock up an air actuated assembly in place upon loss of air pressure.



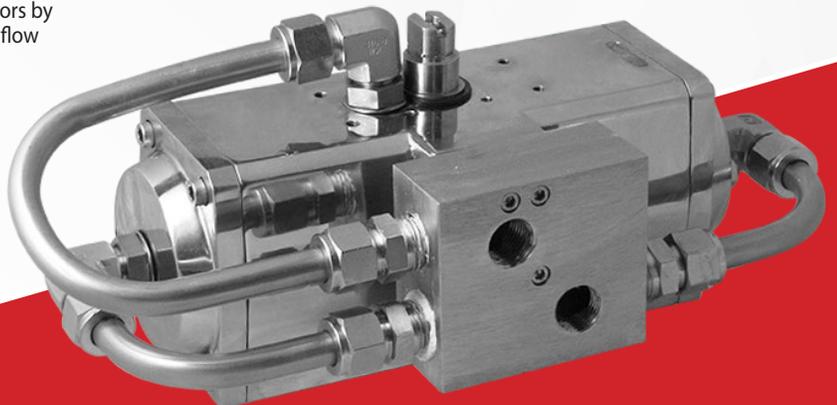
## Volume Boosters

Larger actuators in proportional control applications may suffer from slow stroke times due to positioners' low flow rate. Volume boosters bypass positioners with a larger air supply to achieve faster stroke times while maintaining accuracy.



## High Capacity Flow Devices

High Capacity Flow Devices have been designed to provide a solution to increasing the volumetric media flow (mainly air or water) into our actuators by providing a mechanism to supplement delivery through bypassing the inflow and outflow of media supply to the actuator in question.



# Limit Switch Boxes

Standard & hazardous duty limit switch boxes available with mechanical, proximity, or inductive switches.

## Standard/Hazardous Switch Feedback

Max-Air limit switch boxes offer convenient and reliable switch feedback for actuated assemblies, for standard or hazardous duty environments. The NAMUR standard mounting design is compatible with all Max-Air pneumatic actuators.

### Standard Features:

- Compact Design & Quick Set Cams
- 3D Models Available for All Designs and Sizes
- Easy Wiring Through PCB Terminal, 10pt.
- Single and Dual-Coil Solenoid Valve Options
- High Visibility Open/Close Beacon
- 3-Way T-Port & L-Port Beacon Options
- Inclusive 30x80x30 NAMUR Mounting Bracket
- Other Mounting Brackets Available



### 41 Series Technopolymer

Cost effective mechanical or non-contact switches with epoxy resin enclosure for ordinary locations.



### 45 Series Aluminum & Stainless

Mechanical or non-contact switch options for ordinary locations.

### 48 Series Aluminum & Stainless

Mechanical or non-contact switch options with heavy duty enclosure for hazardous locations.

<b>Locations</b>	Ordinary, Hazardous, NEMA 4/4x
<b>Materials</b>	Aluminum, Stainless Steel
<b>Ambient Temp. Range</b>	-4°F to 140°F Standard (-40°F Low, 185°F High)
<b>Switch Type</b>	Mechanical, Inductive, & Magnetic

<b>Voltages</b>	AC/DC, Ordinary & Hazardous Locations
<b>Mounting</b>	NAMUR VDI/VDI 3845
<b>Available Options</b>	T-Port, L-Port, Special Beacons, Low Temp Option

## Limit Switch Box Selection

Start from the top of the chart and work down to select the correct Limit Switch Box.

Environment	Standard			Corrosive		
	Ordinary	Hazardous		Ordinary	Hazardous	
Electrical Classification						
Temperature	Standard	Standard	Extreme (Low)	Standard	Standard	Extreme (Low)
Recommended Series/Options	41 Series 45 Series (Aluminum)	41 Series w/ Intrinsically Safe 45 Series w/ Intrinsically Safe (Aluminum) 48 Series (Aluminum)	48 Series w/ Temp. Seals & (Aluminum)	41 Series 45 Series (Stainless Steel)	41 Series w/ Intrinsically Safe 45 Series w/ Intrinsically Safe (Stainless Steel) 48 Series (Stainless Steel)	48 Series w/ Temp. Seals & (Stainless Steel)
Switch Types	Mechanical, Proximity, Inductive					
Available Options	T-Port Beacons, L-Port Beacons, Specialty Beacons, Brackets					

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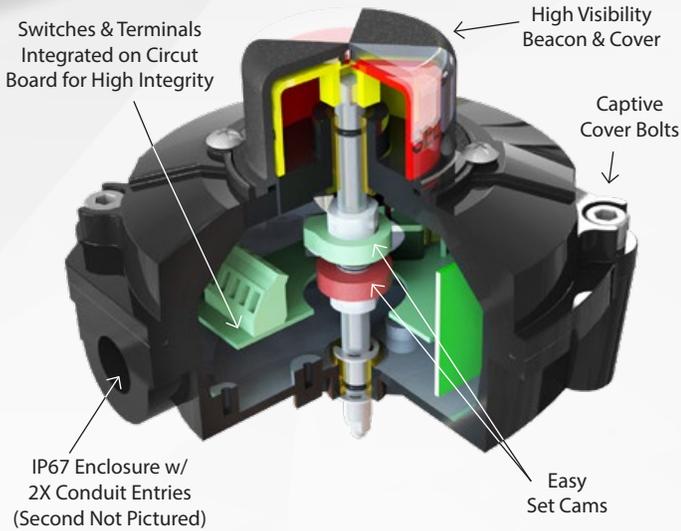
## 48 Series

The Max-Air 48 Series Explosion Proof aluminum and stainless steel limit switch boxes are available for the highest level of safety in hazardous environments. Extremely reliable, robust, and time tested the 48 Series is an excellent solution for your position monitoring needs. Switches available with mechanical, proximity and inductive types, and fully certified to North American and European standards.

Seals	Temperature Range
Low Temp. (Silicone)	-49°F (-45°C) to 250°F continuous & 300°F cyclic
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)

### Available Types

Omron D3V11 or Cherry D44 (250VAC/DC, 11A MAX, 50/60 HZ) Honeywell V7 (250VAC/DC, 0.1A MAX, 50/60 HZ), Magnetic Emme Reed (High Power, 100W Max, 300V, H.S.I.) , Magnetic Reed Hamlin (Low Power, 5W Max), IFM NS5002 EExia (7.5-30 DC, NC; Nominal 8.2 DC), IFM IS5001 DC 3 Wire PNP Switch (10-36V, NO), IFM IS5026 DC 2 Wire PNP or NPN (5-36V, Programmable), IFM IS0003 AC/DC 2 Wire Inductive (20-140VAC/10-140VDC, NO) P&F NJ2-V3-N Namur 2 Wire (8.2V, NC, EExia Rated), P&F NBB2-V3-E2 DC 3 Wire PNP (10-30V, NO), P&F NBB3-V3-Z4 DC 2 Wire (5-60V, NO), P&F NBB2-V3-E3 DC 3 Wire PNP (10-30V, NC), P&F NBB2-V3-E0 DC 3 Wire NPN (10-30V, NO), P&F NCB2-V3-N0 Namur (8.2V, NC, EExia Rated), IFM IS5004 DC 3 Wire NPN (10-36V, NO).



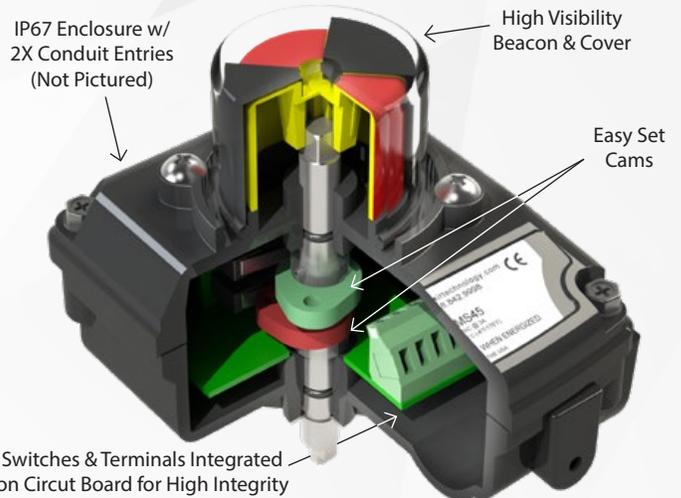
## 45 Series

The Max-Air 45 Series aluminum and stainless steel series limit switch boxes are an extremely reliable, robust, and time tested solution for your position monitoring needs. Switch boxes available with mechanical, proximity and inductive switch types, and fully certified to North American and European standards.

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)

### Available Switch Types

Omron SS-5 or SSG, SPDT, 5A 250V, Omron SS-01, SPDT, 0.1A 125VAC 30VDC, Gold Plated Contacts, Magnetic Reed Hamlin (Low Power, 5W Max), IFM NS5002 EExia (7.5-30 DC, NC; Nominal 8.2 DC), IFM IS5001 DC 3 Wire PNP Switch (10-36V, NO), IFM IS5026 DC 2 Wire PNP or NPN (5-36V, Programmable), IFM IS0003 AC/DC 2 Wire Inductive (20-140VAC/10-140VDC, NO), P&F NJ2-V3-N Namur 2 Wire (8.2V, NC, EExia Rated), P&F NBB2-V3-E2 DC 3 Wire PNP (10-30V, NO), P&F NBB3-V3-Z4 DC 2 Wire (5-60V, NO), P&F NBB2-V3-E3 DC 3 Wire PNP (10-30V, NC), P&F NBB2-V3-E0 DC 3 Wire NPN (10-30V, NO), P&F NCB2-V3-N0 Namur (8.2V, NC, EExia Rated).



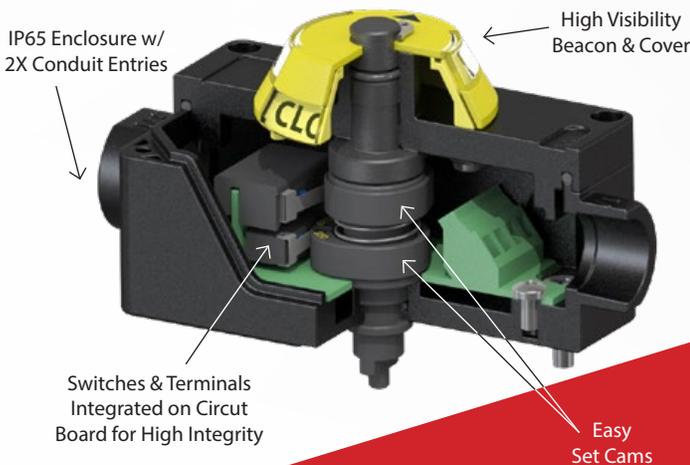
## 41 Series

The Max-Air 41 Series Technopolymer Limit Switch Box provides unparalleled position indication for rotary actuators. Manufactured completely in technopolymer with stainless steel fasteners CSA Listed, and carrying a NEMA 4/4X rating, these compact lightweight limit switches are an excellent choice for general corrosive environments.

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)

### Available Switch Types

Omron SS-5 or SSG, SPDT, 5A 250V, Omron SS-01, SPDT, 0.1A 125VAC 30VDC, Gold Plated Contacts, Magnetic Reed Hamlin (Low Power, 5W Max), IFM NS5002 EExia (7.5-30 DC, NC; Nominal 8.2 DC), IFM IS5001 DC 3 Wire PNP Switch (10-36V, NO), IFM IS5026 DC 2 Wire PNP or NPN (5-36V, Programmable), IFM IS0003 AC/DC 2 Wire Inductive (20-140VAC/10-140VDC, NO), P&F NJ2-V3-N Namur 2 Wire (8.2V, NC, EExia Rated), P&F NBB2-V3-E2 DC 3 Wire PNP (10-30V, NO), P&F NBB3-V3-Z4 DC 2 Wire (5-60V, NO), P&F NBB2-V3-E3 DC 3 Wire PNP (10-30V, NC), P&F NBB2-V3-E0 DC 3 Wire NPN (10-30V, NO).



# Positioners

Standard positioners with 4-20mA or 3-15psi control signal, & smart positioners with auto-calibration.

## Standard & Smart Positioners

Max-Air Technology offers a full range of positioning equipment that is used to control the position of a valve (ball, butterfly, and globe) such that a given process will achieve certain desired flow parameters. An example of this type of positioning control will include the mixing of hot and cold water, such that a specified downstream temperature requirement is achieved. Please see Max-Air 3-Way Tee Assemblies for specific examples. Other parameters which can be controlled are flow rates and pressure, as well as others. Many different types of models are offered, including pneumatic, electro-pneumatic, intrinsically safe, explosion proof, and Smart type positioners.



### Ordinary Locations

Analog 4-20mA control and feedback options with aluminum enclosure for ordinary locations.



### Explosion Proof

Analog 4-20mA control and feedback options with aluminum enclosure for hazardous locations.



### Pneumatic

3-15psi control with aluminum enclosure for ordinary locations.



### Smart

Smart digital 4-20mA control, feedback options and auto calibration, with aluminum enclosure for ordinary or hazardous locations.



Locations	Ordinary, Hazardous, NEMA 4/4x
Materials	Aluminum
Ambient Temp. Range	-4°F to 140°F Standard (-40°F Low, 248°F High)
Operation Type	Fail Safe (Close/Open) Fail Freeze

Signal Type	4-20mA, 3-15 psi
Mounting	NAMUR VDI/VDE 3845
Available Options	Limit Switches, Position Transmitter, HART, High/Low Temp Option

## Positioner Series Selection

Start from the top of the chart and work down to select the correct Positioner Series.

Type	Analog			Smart	
	Pneumatic	Ordinary	Explosion Proof	Ordinary	Explosion Proof
Environment	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum or Stainless Steel
Enclosure	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum or Stainless Steel
Temperature Options	Standard	Standard & Extreme (High/Low)	Standard & Extreme (Low)	Standard & Extreme (Low)	Standard & Extreme (Low)
Feedback Options	None	Mechanical Limit Switch and / or 4-20mA	None	Mechanical or Proximity Limit Switch and / or 4-20mA	Mechanical or Proximity Limit Switch and / or 4-20mA

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## Ordinary Locations

Analog 4-20mA control and feedback options with aluminum enclosure for ordinary locations.

Seals	Temperature Range
Low Temp.	-40°F (-40°C) to 158°F (70°C)
Standard	-4°F (-20°C) to 158°F (70°C)
High Temp.	-4°F (-20°C) to 248°F (120°C)

## Explosion Proof

Analog 4-20mA control and feedback options with aluminum enclosure for hazardous locations.

Class	Temperature Range	Class
Standard	-4°F (-20°C) to 140°F (60°C)	T5
	-4°F (-20°C) to 104°F (40°C)	T6
Low Temp.	-40°F (-40°C) to 140°F (60°C)	T5
	-40°F (-40°C) to 104°F (40°C)	T6



## Pneumatic

3-15psi control with aluminum enclosure for ordinary locations.

Seals	Temperature Range
Standard	-4°F (-20°C) to 158°F (70°C)

## Smart

Smart digital 4-20mA control, feedback options and auto calibration, with aluminum enclosure for ordinary or hazardous locations.

### Ordinary Locations

Seals	Temperature Range
Low Temp.	-40°F (-40°C) to 185°F (85°C)
Standard	-22°F (-30°C) to 185°F (85°C)



### Explosion Proof

Class	Temperature Range	Class
Standard	-22°F (-30°C) to 176°F (80°C)	T5
	-22°F (-30°C) to 158°F (70°C)	T6
Low Temp.	-40°F (-40°C) to 176°F (80°C)	T5
	-40°F (-40°C) to 158°F (70°C)	T6



# Manual Operators

Handwheel driven gear operators for standalone operation or declutchable manual override.

## Heavy Duty Gear Operators w/ Options

Max-Air Technology offers two primary types of gear operators for use with quarter-turn valves; a manual gear, and a declutchable gear. Both types are designed with a broad output torque range, and are generally designed for use with ISO 5211 valve mounting interfaces, but not required. For the declutchable gear, an ISO 5211 interface is standard for the actuator and valve connections. Both units come standard with a female double square output drive, which directly couples to square valve stems, or quickly adapts to smaller square drives, or double-D and keyed drives with the use of adapter bushings.

### Standard Features:

- Direct ISO 5211 standard valve mounting
- Compact Design
- ISO Valve Connection (Double Square)
- Durable Epoxy Coating
- Wide temperature range w/ corresponding high/low temperature gaskets and grease



### GO Series Manual Gear

Direct ISO 5211 valve mounting for easy and compact handwheel operation.



### GOW Series Declutchable

Declutchable override gear with triple epoxy coated IP67 housing mounts between ISO 5211 valve and actuator interfaces. Features an easy declutch mechanism, integrated block and bleed capability and lockout/tagout holes.

Lockout/Tagout Standard

<b>Torque Range</b>	See Selection Guide Below
<b>Rotation</b>	90 ±5° Degrees
<b>Ambient Temp. Range</b>	-4°F to 176°F Standard/ -40°F Low/ +248°F High

<b>Mounting</b>	ISO 5211
<b>Materials</b>	WCB, Cast Iron
<b>Available Options</b>	See Selection Guide Below

## Gear Operator Series Selection

Start from the top of the chart and work down to select the correct Gear Operator Series.

Type	Manual Operation		Declutchable Operation	
<b>Torque</b>	Up to 885,000 in-lbs		Up to 61,955 in-lbs	
<b>Environment</b>	Standard		Standard & Corrosive	
<b>Temperature</b>	Standard	Extreme (High/Low)	Standard	Extreme (High/Low)
<b>Recommended Series/Options</b>	GO Series	GO Series w/ Temp. Seals	GOW Series	GOW Series w/ Temp. Seals
<b>Features</b>	N/A		Lockout Plate Standard Integrated Block & Bleed	
<b>Available Options</b>	Chain Wheel Operators Stem Extensions Square Operating Nuts Custom Size Handwheel Limit Switch Mounting Kits Optional Lockout Plate		Custom Size Handwheel	

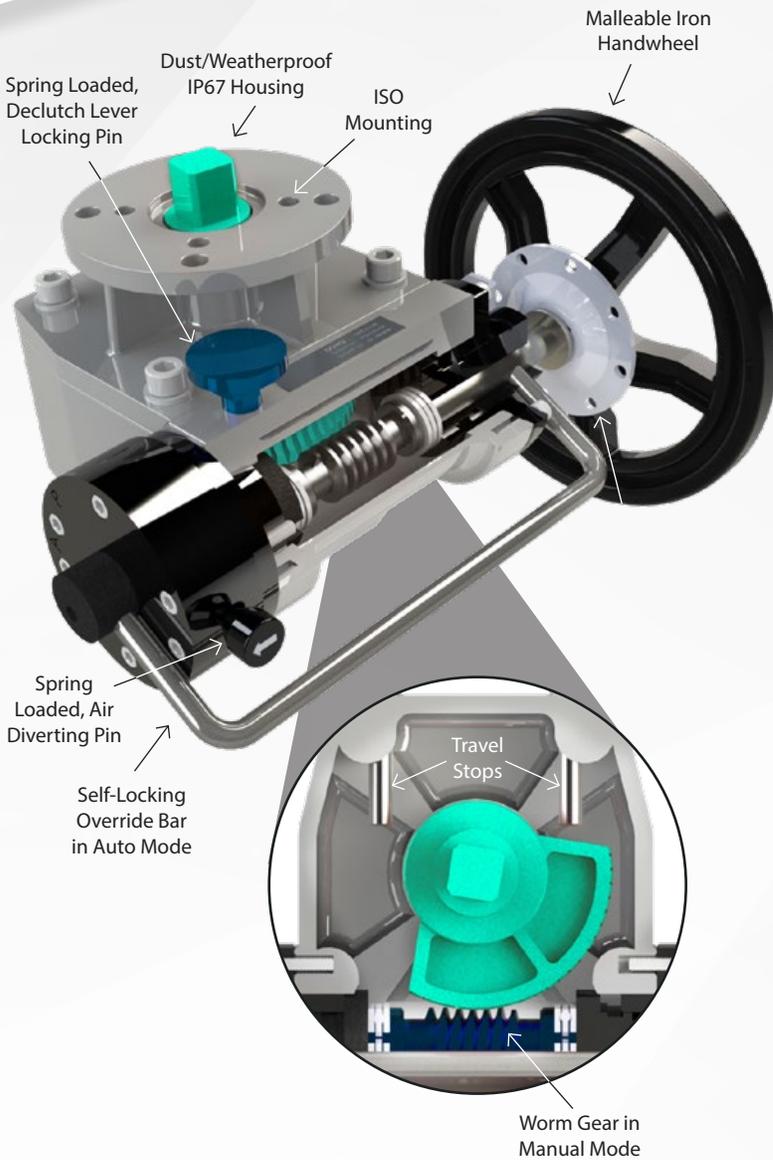


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## GOW Series Declutchable

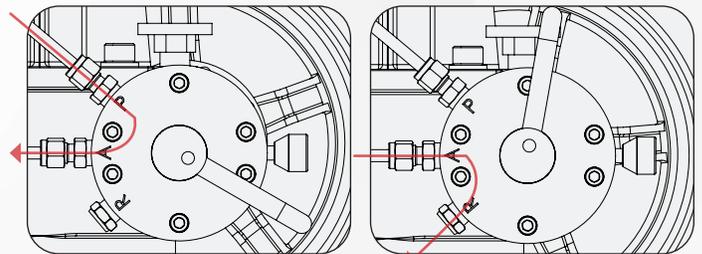
Max-Air offers a declutchable override gear with triple epoxy coated IP67 housing mounts between ISO 5211 valve and actuator interfaces. It features an easy declutch mechanism, integrated block and bleed capability and lockout/tagout holes. GOW Series comes standard with a female double square output drive, which directly couples to square valve stems, or quickly adapt to smaller square drives, or double-D and keyed drives with the use of adapter bushings.

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)
High Temp. (FKM)	5°F (-15°C) to +248°F (120°C)
Low Temp. (BUNA-N)	-40°F (-40°C) to 176°F (80°C)

**Integrated Block & Bleed Air Tubing** GOW Series includes an integrated block & bleed valve triggered by the clutching mechanism which can be used. If using a separate block & bleed device, please follow manufacturer's instructions. Air tubing from integrated block & bleed valve to actuator air ports should be as follows. If not using, leave ports plugged or install dust screens/filters.

"R" - Relief - Exhaust to Atmosphere  
 "A" - Actuator - To Solenoid/ Actuator Supply  
 "P" - Pressure - Instrument Air Supply Here

Override Bar Raised to Enter Manual Mode



**Auto Mode** Pressurized supply air flows freely into "P" port and out "A" port to the Actuator/Solenoid.

**Manual Mode** Pressurized supply air flow is blocked at "P" port. Air exhausts from the actuator/solenoid "A" port through "R" port to atmosphere.

## GO Series Manual

Direct ISO 5211 valve mounting for easy and compact handwheel operation. The GO Series comes standard with a female double square output drive, which directly couples to square valve stems, or quickly adapt to smaller square drives, or double-D and keyed drives with the use of adapter bushings.

Seals	Temperature Range
Standard (BUNA-N)	-4°F (-20°C) to 176°F (80°C)
High Temp. (FKM)	5°F (-15°C) to +248°F (120°C)
Low Temp. (Silicone)	-40°F (-40°C) to 176°F (80°C)



# Electric Actuators

Standard on/off & modulating, electric rotary actuators for ordinary & heavy industrial applications.

## On/Off & Modulating Electric Actuators

Our electric actuators are designed to provide years of service in light duty and demanding industrial environments such as chemical processing, waste and water treatment, power generation, oil & gas, marine, mining and building services.

### Standard Features:

- NEMA 4/4X/IP67 Enclosure
- Raised Position Indicator
- ISO5211 Compliant Mounting
- Internal Low Power Heater
- Clutchless Manual Override
- Self-Locking Drive
- Permanently Lubricated
- Thermally Protected Motor
- 2 Auxiliary Switches
- Silicone Fre



### AE Series

Compact, light duty actuator for shutoff or proportional control with standard auxiliary feedback switches, internal heater and LED position indication. Optional extended duty or fast acting models available.



### ME Series

Industrial grade actuator with heavy duty NEMA 4/4X/IP67 aluminum enclosure, standard auxiliary feedback switches, internal heater and 3D position indication. Handwheel override standard on most models, and optional torque limit switches available.

Locations	Ordinary, NEMA 4/4x
Torque Range	Up to 177,000 in-lbs
Materials	Aluminum Base/Poly Lid, Aluminum Lid
Ambient Temp. Range	-14°F to 140°F Standard (AE Series) -22°F to 158°F Standard (ME Series)
Rotation	90 Degrees

Power Supply	120 VAC, 24VAC/VDC, 12VDC, 220VAC, 3-Phase, & More
Signal Type	On/Off or Modulating (4-20mA, 2-10v)
Mounting	ISO 5211
Available Options	Handwheel, Torque Limit Switches, 3 Position Control

## Electric Actuator Series Selection

Start from the top of the chart and work down to select the correct Electric Actuator Series.

Service	Light Duty (Indoor or Covered)			Heavy Duty (Indoor/Outdoor)			
	Electrical Classification	Ordinary			Ordinary		
Temperature	Standard			Standard			
Recommended Series/Options	AE Series			ME Series			
Power Supply	AC	DC	AC/DC	AC	DC	AC/DC	3-Phase
Available Options	180° On/Off			Handwheel Torque Limit Switches 3-Position Control 180° On/Off (On Select Models) Battery Backup Local Control			

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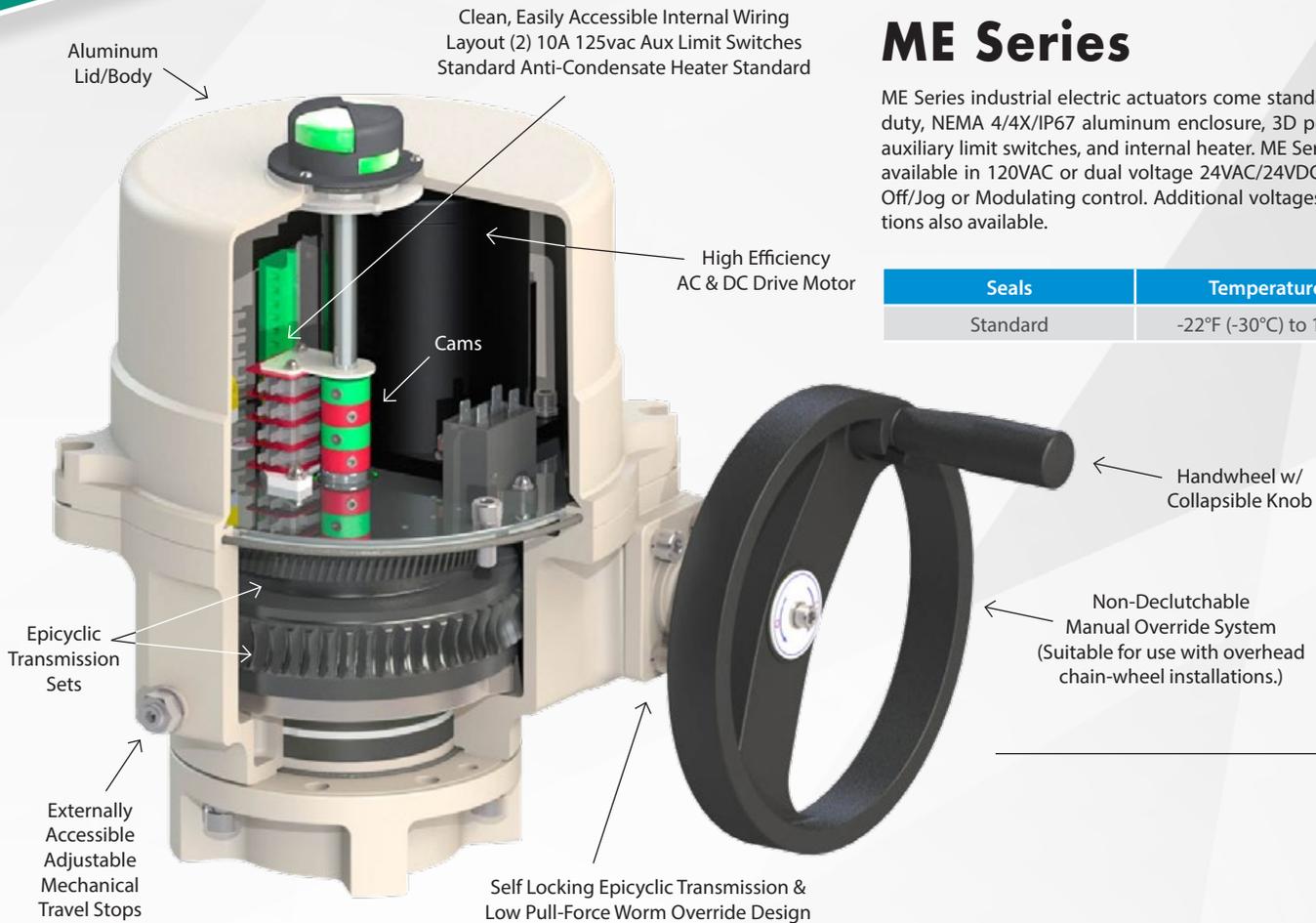


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## ME Series

ME Series industrial electric actuators come standard with a heavy duty, NEMA 4/4X/IP67 aluminum enclosure, 3D position indicator, auxiliary limit switches, and internal heater. ME Series actuators are available in 120VAC or dual voltage 24VAC/24VDC models for On/Off/Jog or Modulating control. Additional voltages and customizations also available.

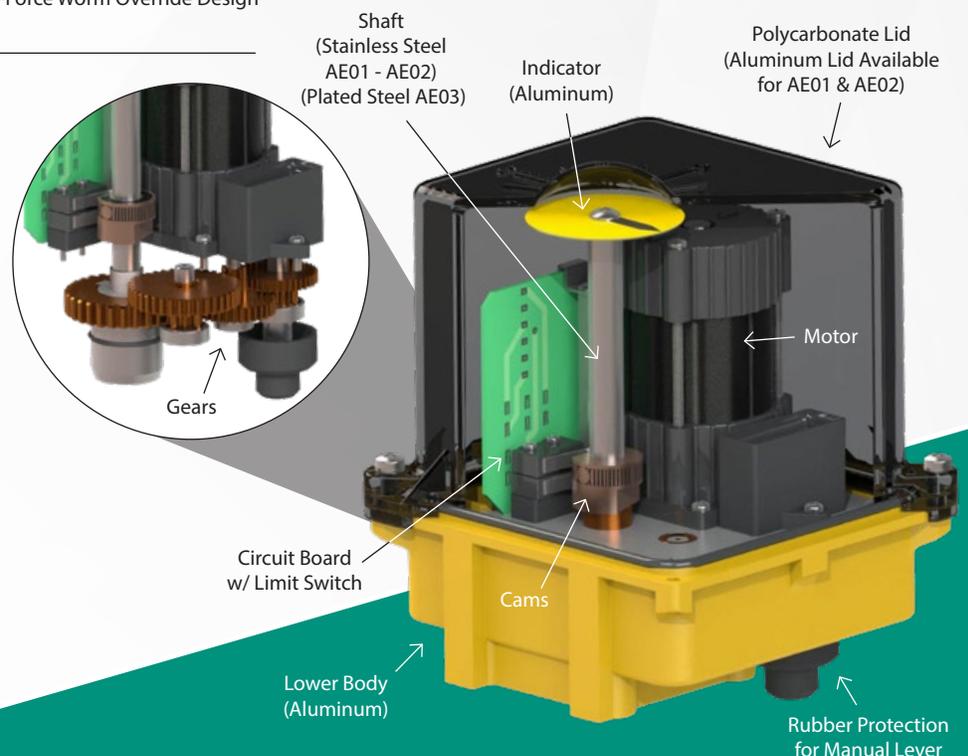
Seals	Temperature Range
Standard	-22°F (-30°C) to 158°F (70°C)



## AE Series

The AE Series electric actuators come standard with a polycarbonate semi-transparent lid, LED position indication, auxiliary limit switches, and space heater. AE Series on/off actuators are available in a wide range of voltages and can be specially equipped with dual voltage, fast acting, or extended duty motors. AE Series modulating actuators are designed for ultimate flexibility and convenience, with selectable 4-20mA or 0-10V input and outputs, sensitivity adjustment, and easy position stop adjustment.

Seals	Temperature Range
Standard	-14°F (-25°C) to 140°F (60°C)

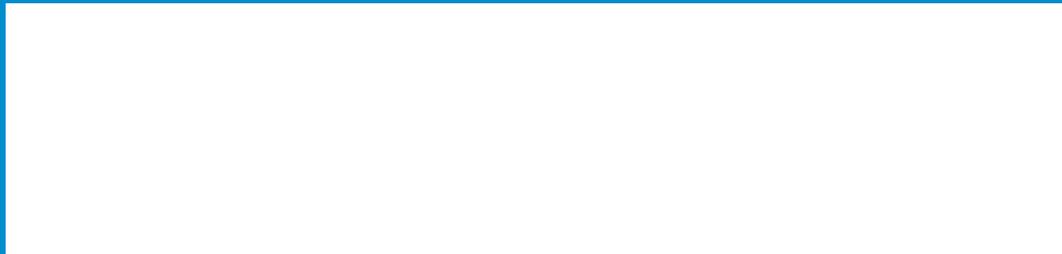


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