technology



The Best Way To Automate Your Process



# **Product Portfolio**

Emme Technology Srl | Rotary Actuators & Valve Automation Solutions



#### 1509001:2015

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 guality 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 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 sup

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# The best way to automate your process.

Emme 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.

Emme's Technology's Max-Air brand offers a 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, Emme offers best-in-class assembly services and turn-key automation packages to minimize installation time and simplify project sourcing.

# **Rack & Pinion Actuators**

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



#### **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.

±10° Adjustment



# **ST Series Stainless**

Actuators with fully stainless steel housing and hardware offer the highest level of corrosion resistance.





UT 180° Series Aluminum Max-Air's unique and patented design delivers rotation beyond 90 degrees. with configurable stroke end positions and fail directions. Standard housing is anodized aluminum, with optional coatings available.

±10° Adjustment

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



### **UT Series Technopolymer**

Actuators with polyarylamide epoxy resin housing are suited for environments with hydrocarbons, organic solvents, and fuels.

Lock

Mesh™

# **UP Series GRP**

Actuators with glass-reinforced polypropylene housing are ideal for corrosive acidic and alkaline environments.

# Special Finish/Coatings

Aluminum corrosion resistance can be enhanced by epoxy coating, electro-less nickel plating, or Max-Air's exclusive LockMesh<sup>™</sup> SS+PTFE coating. For stainless steel actuators in sanitary environments, antimicrobial and biofilm resistance can be increased with a mirror polished finish.

#### **High/Low Temp Options** Max-Air aluminum and stainless steel

actuators can be outfitted with properly selected seal materials and grease compounds for extended high or low temperature applications.

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

# **Scotch Yoke Actuators**

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



### **HD Series Pneumatic**

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

Torque Range	Up to 2,000,000 in-lbs (DA) & 1,000,000 in-lbs (SR)
Materials	Coated Carbon Steel
<b>Coating Option</b>	Ероху
Ambient Temp. Ranges	-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.

Rotation	90 Degrees ±6° Adjustment Spring Return or Double Acting
Operation Media	Gas or High Pressure Hydraulic Fluid
Mounting	ISO 5211, NAMUR VDI/VDE 3845
Available Options	Manual Hand Pump Override, Custom Cylinders, Symmetric or Canted Yoke

# **Solenoid Valves**

Electrically signaled air switching valves with NAMUR interface or inline NPT ports, for air operated actuators.



#### **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.

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





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

# **Air Controls**

Air regulation and management options for air operated actuators.



### **Air Filter Regulators**

Protect air equipment by filtering out particulates and regulating air pressure. Inline NPT air connections standard.

#### 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.



#### **Mufflers & Speed Controls** Mufflers dramatically reduce noise, and speed controls can cost-effectively slow down stroke times.

#### **Block/Bleed & 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.

# **Limit Switch Boxes**

Discrete open/close feedback switches with weatherproof enclosure and NAMUR shaft interface for air operated actuators.



**41-42 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.

Voltages	AC/DC, Ordinary & Hazardous Locations
Mounting	NAMUR VDI/VDI 3845
Available Options	T-Port, L-Port, Special Beacons, Low Temp Option (Pending Certification)

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

# **Positioners**

Proportional control and feedback with weatherproof enclosure and NAMUR shaft interface for air operated actuators.



### **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.

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



#### **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.

Signal Type	4-20mA, 3-15 psi
Mounting	NAMUR VDI/VDE
Available Options	Limit Switches, Po High/Low Temp (

R VDI/VDE 3845

witches, Position Transmitter, ow Temp Option

# **Manual Operators**

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



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#### **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

orque Range	Up to 885,000 in-lbs
otation	90 ±5° Degrees
mbient Temp. ange	-4°F to 176°F Standard/ -40°F Low/ +248°F High

Mounting	ISO 5211
Materials	WCB, Cast Iron
Available Options	Limit Switch Mounting Kits, Lo

ockout/Tagout for ors, Chainwheels

# **Electric Actuators**

Electrically powered rotary actuators with ISO 5211 mounting and weatherproof enclosure, for ordinary locations.



### **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.

Locations	Ordinary, NEMA 4/4x
Torque Range	Up to 177,000 in-lbs
Materials	Aluminum Base/Poly Lid, Aluminum
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

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# **Mounting Hardware**

ISO 5211 standard and custom mounting solutions for actuator to valve interfaces.



### **Stem Adapters**

Adapts different valve stem sizes and shapes to actuator drives, for ISO 5211 direct mount valves and actuators.



Quick Ship Mounting Kits Non-direct mount ISO 5211 valves can be adapted to

actuators with expedited bracket and coupling kits.

### Custom Mounting Kits

Custom engineered and fabricated mounting kits are available for non-standard valve mounting requirements.

# **Automation Services**

Specification, assembly, testing and calibration of custom actuated valve assemblies.



# **Termination & Tubing**

Pre-wiring solenoid valves to limit switch boxes reduces field wiring time and provides a common termination point for input and output signals. Positioner to actuator air connections available with convenient quick-connect fittings and flexible tubing or durable, custom fabricated hard stainless steel tubing and fittings.



### **Assembly Drawings & Tags**

2D and 3D drawings available for most products and assembly drawings upon request. Laser engraved aluminum or stainless steel tags optional with customer specified tag numbers.



# **Assembly Testing**

Max-Air integrates actuators, valves, accessories and customer supplied material into complete automated valve assemblies with engineering and technical expertise. Every assembly is subjected to inspection and functional testing to ensure quality. Calibration and custom assembly testing also available.

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