**MT Series Part Number Builder**

**A - SPECIAL COATING**
- ENP = Electroless Nickel Plated
- LMC = LockMesh Coated
- EPOXY = Epoxy Coated
  - Omit if N/A

**B - SPECIAL PINION**
- DD = Double-D
- KYWY = Keyway
  - Omit if N/A

**C - SERIES**
- MT

**D - SIZE**
- 04
- 12
- 08
- 16
- 17
- 21
- 26
- 31
- 36
- 41
- 46
- 51
- 56
- 61
- 66
- 71
- 76

**E - CONFIGURATION**
- DA = Double-Acting
- S2 = 2+2 Springs
- S3 = 3+3 Springs
- S4 = 4+4 Springs
- S5 = 5+5 Springs
- S7x5 = 7+5 Springs

**F - MOUNTING**
- F04
- F03 - F05
- F04 - F07
- F05 - F07
- F07 - F10
- F10 - F12
- F10 - F14
- F16

**G - OUTPUT DRIVE**
- CH11 = 11mm DSQ
- CH14 = 14mm DSQ
- CH17 = 17mm DSQ
- CH22 = 22mm DSQ
- CH27 = 27mm DSQ
- CH36 = 36mm DSQ
- CH46 = 46mm DSQ
- .500" x .375" DD
- .560" x .375" DD
- .625" x .438" DD
- .750" x .500" DD
- 1.181" x .866" DD
- 18mm x 10mm DD
- 14mm x 22mm DD
- 22mm x 14mm DD
- 25mm x 19mm DD

**H - SPECIAL SEALS**
- SLT = Super Low Temp
- LT = Low Temp
- Standard Temp (Omit)
- HT = High Temp
- LTB = Low Temp Buna

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**EPOXY.MT.S5.F05-F07 CH17**
- SPECIAL COATING = EPOXY
- SIZE = 31
- CONFIGURATION = 5+5 Springs
- MOUNTING = F05-F07
- OUTPUT DRIVE = 17mm DSQ

**MT26.S4.F05-F07 CH17**
- SIZE = 26
- CONFIGURATION = 4+4 Springs
- MOUNTING = F05-F07
- OUTPUT DRIVE = 17mm DSQ

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**Actuator Quick Reference Table**

<table>
<thead>
<tr>
<th>Drive (mm)</th>
<th>Drive (in)</th>
<th>Standard ISO Pattern</th>
<th>DA Torques @ 80 PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT04</td>
<td>9</td>
<td>0.354</td>
<td>F03</td>
</tr>
<tr>
<td>MT12</td>
<td>11</td>
<td>0.433</td>
<td>F04</td>
</tr>
<tr>
<td>MT08</td>
<td>11</td>
<td>0.433</td>
<td>F03/F05</td>
</tr>
<tr>
<td>MT16</td>
<td>14</td>
<td>0.551</td>
<td>F05/F07</td>
</tr>
<tr>
<td>MT17</td>
<td>14</td>
<td>0.551</td>
<td>F05/F07</td>
</tr>
<tr>
<td>MT21</td>
<td>17</td>
<td>0.670</td>
<td>F05/F07</td>
</tr>
<tr>
<td>MT26</td>
<td>17</td>
<td>0.670</td>
<td>F05/F07</td>
</tr>
<tr>
<td>MT31</td>
<td>17</td>
<td>0.670</td>
<td>F05/F07</td>
</tr>
<tr>
<td>MT36</td>
<td>22</td>
<td>0.866</td>
<td>F07/F10</td>
</tr>
<tr>
<td>MT41</td>
<td>22</td>
<td>0.866</td>
<td>F07/F10</td>
</tr>
<tr>
<td>MT46</td>
<td>22</td>
<td>0.866</td>
<td>F07/F10</td>
</tr>
<tr>
<td>MT51</td>
<td>27</td>
<td>1.063</td>
<td>F10/F12</td>
</tr>
<tr>
<td>MT56</td>
<td>27</td>
<td>1.063</td>
<td>F10/F12</td>
</tr>
<tr>
<td>MT61</td>
<td>36</td>
<td>1.417</td>
<td>F10/F14</td>
</tr>
<tr>
<td>MT86</td>
<td>36</td>
<td>1.417</td>
<td>F10/F14</td>
</tr>
<tr>
<td>MT71</td>
<td>46</td>
<td>1.811</td>
<td>F14</td>
</tr>
<tr>
<td>MT76</td>
<td>46</td>
<td>1.811</td>
<td>F16</td>
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</table>

**Seal Options**

<table>
<thead>
<tr>
<th>SEALS</th>
<th>CODE</th>
<th>TEMP RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Low Temp. (FVMQ)</td>
<td>SLT</td>
<td>-67°F (-55°C) to 250°F continuous and 300°F cyclic</td>
</tr>
<tr>
<td>Low Temp. (Silicone)</td>
<td>LT</td>
<td>-49°F (-45°C) to 250°F continuous and 300°F cyclic</td>
</tr>
<tr>
<td>Standard (BUNA-N)</td>
<td>STD</td>
<td>-4°F (-20°C) to 176°F (80°C)</td>
</tr>
<tr>
<td>High Temp. (VITON)</td>
<td>HT</td>
<td>-10°F (-23°C) to 250°F continuous and 300°F cyclic</td>
</tr>
<tr>
<td>Low Temp. Buna</td>
<td>LTB</td>
<td>-40°F (-40°C) to 212°F (100°C)</td>
</tr>
</tbody>
</table>

**Pinion Options**

- **Double-Square (ISO Standard)**
- **Double-D (Optional)**
- **Keyway (Optional)**
MT SERIES ALUMINUM ACTUATORS
The MT Series actuator design helps make automation effortless.

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 ±10° adjustment for the open/closed positions, all backed by the best unlimited cycle life warranty.

Standard Features:
- Compact Rack and Pinion Design
- 3D Models Available for All 17 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
- Double-Acting (Air-to-Air) Operation
- Spring-Return (Air-to-Spring), Fail-Close or Fail-Open
- Standard (CCW open) or Reverse (CW open) Rotation
- Patented Dual Travel Stop Design ±10° Adjustment
- Designed for High Cycles 1,000,000+
- Unlimited Cycle Life Warranty

Options:
- Female Double-D and Keyed Pinions
- T-Port & L-Port indicators for multiport applications
- Extended travel stops for greater stroke adjustment
- ENP, Polyamide Epoxy, & LockMesh™ coatings
- Alternative Operating Media (Water, Oil, Inert Gas)
- High and Low Temperature Options
- Fast Open / Fast Close Options

Patented Dual Travel Stop Design
STANDARD +/- 10° 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 +/-3°

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°)

17 Different Sizes Available
With 50% more actuator sizes than the competition, the MT Series can better match valve torques and reduce oversizing. This saves valuable space, reduces overall weight, and eliminates unnecessary cost.
SUPEOR PERFORMANCE
Patented Dual Travel Stops, Industry Leading Pressure Rating,
Convenient & Flexible Design, High and Low Temperature Options

150 PSI Rating
Thicker Body Walls and Better Sealing Interfaces

High Visibility Beacon OPEN / CLOSED

Bi-Directional Blowout Retention

Patented Dual Travel Stop Design

Low and High Temp Seal and Grease Options

Anodized Extended Aluminum Body

Lower and Upper Pinion Bearings

NAMUR Top Accessory Mount (30 x 80 x 30)

Easy Changeout from Double Acting to Spring Return CW or CCW Rotation

Standard End Caps Regardless of Spring Return or Double Acting

1/4" NPT NAMUR Accessory Mount

ISO 5211 Direct Valve Mounting

Air Inlet/Outlet Location Provides Extra Clearance for Tubing and Accessories
**Precision Honed Bore**
- High end feature, not industry standard
- Extremely uniform bore surface provides consistent seal contact and compression
- Micro-scratches provide even lubrication and minimize “wiping” effect
- Honed for consistent long-life operation with multiple seal materials and greases

**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

**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.

**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.
- Tooth profile has larger base and deeper engagement than typical rack & pinion
- More curved profile allows for longer contact with increased tooth pitch for low backlash
  - Blow-out proof feature incorporated into piston rack
  - Pinion electroless nickel plated for increased hardness and corrosion resistance
The Best Way To Automate Your Process

Your nearest Max-Air dealer can be found at: