FORM 5034

MJS Series “Piston/Diaphragm” Spring Brakes are designed to provide dependable service for the long haul, as well as withstand the rigors of "stop and go" operations such as emergency response and parcel delivery.

MJS Series Chambers provide fleets with the ability to keep moving, even with an air leak in the spring side of the unit. Unlike diaphragm type spring brakes, which can be rendered inoperable by a minor rupture in the spring side diaphragm, MJS Series piston brakes continue to function, even if the "piston-seal" becomes worn or damaged. This feature allows the piston brake to maintain sufficient air pressure to "hold-off" the power spring, allowing the vehicle to complete its route and return home for repair, avoiding the high cost of an "on-the-road" service call. This is a benefit fully recognized by an overwhelming number of transit bus operations, worldwide.

MJS Series Chambers also provide higher parking forces: as much as 502 lbs. more at 1¼ inches of stroke over an equivalent size double-diaphragm model; another benefit recognized by fire truck and emergency vehicle manufacturers and fleet operations throughout North America. These trucks loaded with hoses, ladders and other equipment; along with 500 gallons or more of water, are expected to park and hold on all types of terrain: from U.S. Forest Service mountain roads, to the hills of San Francisco, to the streets of New York. Our MJS Series piston/diaphragm brakes meet these expectations every day.

MJS Series “Piston/Diaphragm” Spring Brakes: service and dependability you can count on from a name you can trust . . . MGM Brakes.

Guaranteed Tough—
Steel and epoxy combine to make the MGM Brakes MAGNUM Performance Plus Spring Brake the most durable you can buy.

MGM Brakes MAGNUM Performance Plus Spring Brakes have a heavy-gauge steel head and a tough double protective coating for long service life. The result is a piston spring brake that is:

- Impact Resistant
- Corrosion Resistant
- Virtually Maintenance-Free

You can count on the MGM Brakes MAGNUM Performance Plus piston spring brake to perform when you need it most. Compare the benefits and safety features built into the MGM piston spring brake against the brakes you’re using now.

Compatible with:
- S-Cam Brakes
- Disc Brakes
- Wedge Brakes

- Compact design: smaller diameter, shorter height.
- Interchangeable as replacement for other makes of spring brakes.
- Fits in tight areas where some spring brakes can’t due to protrusion of release bolt.
- Engineered and built for dependable, trouble-free service on heavy-duty trucks and trailers, even in severe service conditions.
- Manufactured and guaranteed by the world’s largest and most experienced spring brake manufacturer.
The world’s most advanced spring brake chamber delivers more reliable stopping and parking-force/output power for today’s air-braked heavy-duty commercial vehicles. Ideally suited for refuse, ready-mix concrete, school bus and transit fleets.

**MAGNUS Performance Plus**

**Model MJS Series**

**Performance Characteristics**

The world’s most advanced spring brake chamber delivers more reliable stopping and parking-force/output power for today’s air-braked heavy-duty commercial vehicles. Ideally suited for refuse, ready-mix concrete, school bus and transit fleets.

**MGM Piston Brake**

**Available in the following sizes:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>MJS1724ET</td>
<td>1724</td>
</tr>
<tr>
<td>MJS2024ET</td>
<td>2024</td>
</tr>
<tr>
<td>MJS2030ET</td>
<td>2030</td>
</tr>
<tr>
<td>MJS2424ET</td>
<td>2424</td>
</tr>
<tr>
<td>MJS2430ET</td>
<td>2430</td>
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<tr>
<td>MJS3024ET</td>
<td>3024</td>
</tr>
<tr>
<td>MJS3028ET</td>
<td>3028</td>
</tr>
<tr>
<td>MJS3030ET</td>
<td>3030</td>
</tr>
<tr>
<td>MJS3628ET</td>
<td>3628</td>
</tr>
<tr>
<td>MJS3630ET*</td>
<td>3630*</td>
</tr>
</tbody>
</table>

*Units utilize lower parking force power spring for lower hold-off pressure. *MJS3630ET not “3-inch long stroke” unit; readjustment limit 2.25”.

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**MAGNUM Performance Plus**  
(MJS Piston Type Model)

<table>
<thead>
<tr>
<th>Model Size</th>
<th>Parking Chamber Force Output at 1.25 Inch Stroke Nominal ±10% lbs.</th>
<th>Hold-Off Pressure (psig) (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MJSxx24-ET</td>
<td>1922 lbs.</td>
<td>71</td>
</tr>
<tr>
<td>MJSxx28-ET</td>
<td>2320 lbs.</td>
<td>73</td>
</tr>
<tr>
<td>MJSxx30-ET</td>
<td>2600 lbs.</td>
<td>75</td>
</tr>
</tbody>
</table>

(a) Hold-off pressure measured as decreasing air pressure required to activate spring chamber to within .020” (5 mm) of full “OFF” (deactivated) stroke.

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**1. Release Bolt**  
Patented “Dual Thread Release Bolt” design, an MGM Brakes exclusive, provides minimal bolt protrusion at maximum release. (Approx. 1.00 inch (25.4 mm) protrusion when manually released)

**2. “Long Life” Power Spring**  
Powerful, reliable, non-coil clash design. Heat-fused epoxy-coated for maximum corrosion protection.

**3. Piston Seal and Guide Ring**  
Main seal is molded from specially formulated low temperature (-65 °F) and oil resistant neoprene to provide long term protection against air leaks. Guide ring is “self-lubricating” for long service life.

**4. Steel Head**  
MGM Brakes “Roll-In” Tamper Resistant design steel head provides high-impact protection and is double-coated for maximum resistance to corrosion.

**5. External Breather Tube**  
Vents air from the inside protected area of the non-pressure chamber to effectively seal out liquid and solid corrosive airborne contaminants.

**6. Center Case Push-Rod and Seal**  
Aluminum push-rod surface is hard coat finished and slightly porous to retain lubricants. New multi-lipped pressure activated seal retains lubrication to ensure a positive air seal at full range of stroke. Newly designed high tech polymer “guide” prevents metal to metal contact and wear from side loading.

**7. “Roll-In” Tamper Resistant Design**  
With the MGM Brakes “Roll-In” Tamper Resistant design, the heavy gauge steel head is permanently “locked” to the rugged, non-corrosive alloy 360 aluminum center case to positively prevent inadvertent disassembly of the power spring housing.

**8. Square Air Inlets (Long Stroke Identifier)**  
Cast into flange case to provide an instant “Long Stroke” identifier that is pronounced and easily detected.

**9. Heavy-Duty Diaphragm**  
Cold weather tested (-40°F/-40°C) natural rubber for long service life and resistance to deterioration.

**10. Non-Pressure Chamber**  
Heavy-duty 8-gauge steel—heaviest gauge in the industry—embossed for added strength. Heat-fused epoxy-coated to protect against rust and corrosion.

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**Product information and specifications subject to change without notice.**

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**SPRING SIDE PERFORMANCE COMPARISON CURVE**

**TR30/TR30LP3 VS. MJSXX30ET**  
(AT 100 PSI AIR PRESSURE)

**Outstanding Performance for Demanding Applications**