



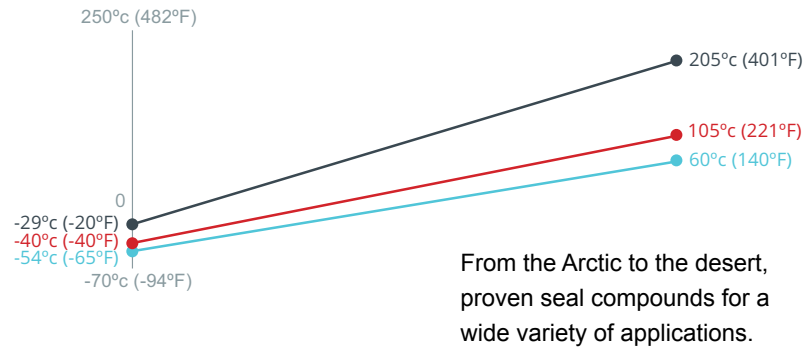
MS SERIES

Hydraulic Spring-Return

Taking Spring-Return Actuation to the Next Level

- Preloads up 72,000 lbs
- SIL-3 Capable
- GT3 Triple Seal Gland for Severe Service Applications
- Fail-Open or Fail-Close

Specifications



- **Thrust: up to 72,000 lbs**
- **Bore size: 1½" - 14"**
- **Configuration: Single-Stage**
- **Stroke Range: Up to 24"**
- **Pressure Rating: 3000 psi**
- **Rod Size: 1" to 7"**

Add-Ons

Mounting Kits: ISO, MSS & Customized Patterns Available

Cowan valve mounting kits can be designed for any linear valve. Mounting kits available in steel and stainless steel construction.



Anti-Rotation Torque Arm:
Maintains constant alignment between valve stem and cylinder piston-rod. Compatible with rotary type switch boxes and beacons.

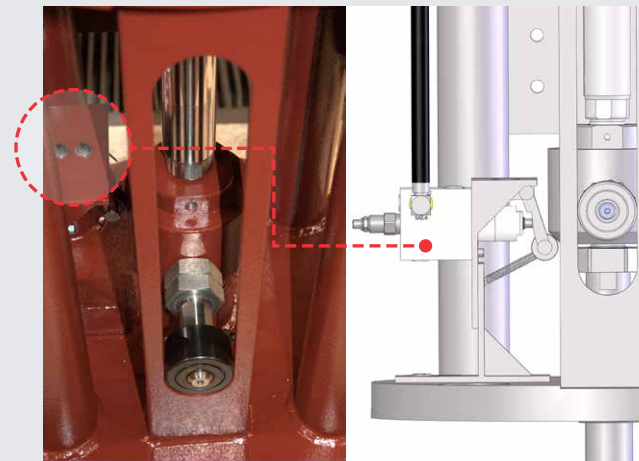
Field-Adjustable Travel Stops:
to limit stroke for position-seated or limited-travel applications. Ensures valve reaches positive sealing every time without damage to valve internals

Gland Seals



GT3 Gland for Harsh Environments:
Triple-seal gland with dual wipers. Rugged metallic scraper and urethane double-acting wiper deflect contamination away from the rod seal for long service life.

- Low Temp available
- Cast iron construction for applications where yellow metals are not allowed



Dual Speed Manifold

Dual-Speed Cam-Operated hydraulic manifold reduces speed at end of stroke to help prevent water hammer.

How to Order

Actuation Solutions and Systems for the World's Most Challenging Environments

SERIES

MS - Hydraulic Spring-Return

BORE SIZE

C - 1 1/2" L - 6"
 D - 2" M - 7"
 E - 2 1/2" N - 8"
 G - 3 1/4" P - 10"
 H - 4" R - 12"
 K - 5" S - 14"

ROD DIAMETER

E - 1"
 G - 1 3/8"
 H - 1 3/4"
 J - 2"
 K - 2 1/2"
 L - 3"
 M - 3 1/2"

ROD END

A4 - Series A Female
 N1 - Small Male Rod End

TANDEM

TC - Tandem Cylinder
 - Omit for single-stage

SPRING PRELOAD

XXXXX - Spring preload in lbs
 See catalogue for values

PORTS & POSITIONS

NX - NPT
 TX - BSPT
 SX - SAE

** X denotes 2nd prt position in relation to 1st port

STROKE

XX.XX Stroke in inches

MOUNTINGS

I## - ISO Mounting Flange
 M## - MSS Mounting Flange
 PM - Pedestal Mount
 X3 - Tie rods extended head end

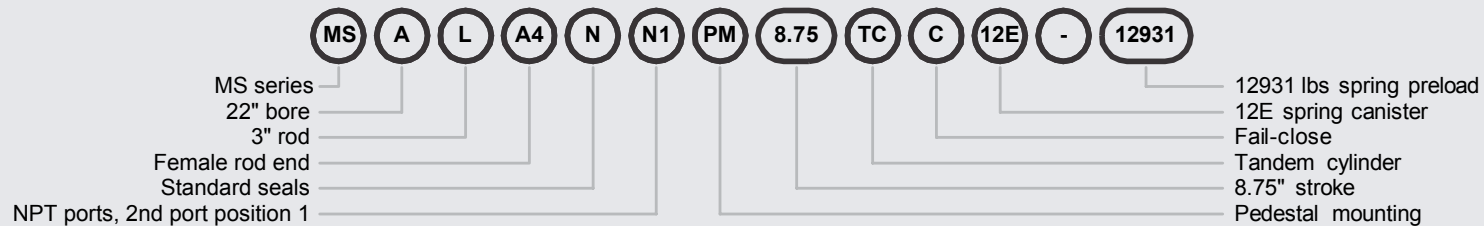
APPLICATION MOD

- Omit if none required
 GT3 - Triple Seal Gland
 P2 - Magnetic piston (Max 14" bore)
 S5 - Hydraulic use (150 PSI)
 W1 - "AWWA" Cylinder
 List application mods alpha numerically

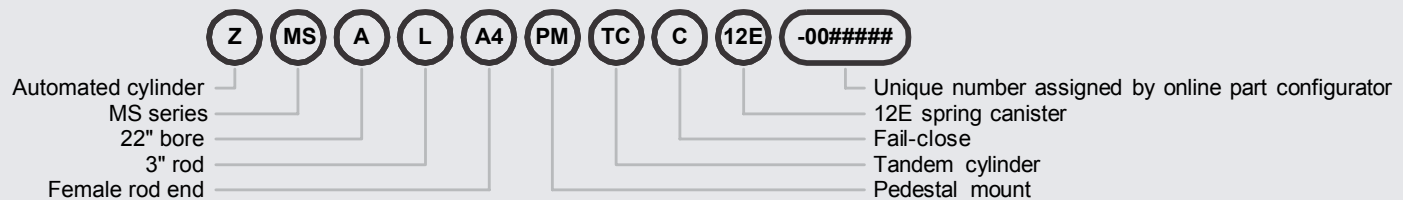
MODS

- Omit if none required
 A# - Thread extensions ex: A2.50 = A = 2.50"
 C1 - Epoxy Paint (Do not specify with ASC or AWWA)
 M2 - Stainless Steel tie rods (Do not specify with ASC or AWWA)
 M3 - Stainless Steel piston rod
 M7 - Steel Barrel
 LE - Lifting lugs (8" bore and above)
 W# - Rod Extension ex: W2.50 = W = 2.50"
 Modifications to be listed alpha numerically after the stroke #
 ex: MSNEA48NN11X012.0A2.50C1W5.50

EXAMPLE



EXAMPLE WITH AUTOMATION OPTIONS



Related materials

Visit our website to download or request a printed catalogue.



Solutions Include:

Valve Actuators

Fail-Safe Systems

Digital Process Control Panels

Pneumatic Process Control Panels

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