

# ACTUATORS AND CONTROLS

## Pneumatic Actuators – AD and AS (Sizes 0600 to 4000)

### APOLLO RACK & PINION

Designed and manufactured for the ultimate in durability and reliability, the new Apollo® Pneumatic Rack & Pinion Actuators provide outstanding service life.

Apollo Rack & Pinion actuators have replaceable insert drive adapters in all but the largest models, and many units have dual “F” series bolt patterns. The numerous actuator drive and bolt pattern combinations allow direct mounting of several valve styles.



### FEATURES

- 1. Cast Aluminum Body**  
Yellow Chromate Powder Coat Finish
- 2. Die Cast Aluminum End Caps**  
Yellow Chromate Powder Coat Finish
- 3. Die Cast Aluminum Pistons**  
Yellow Chromate Coated
- 4. Aluminum Alloy Pinion**  
7075-T6  
Hard-coat Anodized Finish
- 5. Drive Inserts**  
Extruded Aluminum  
Hard-coat Anodized Finish
- 6. Preloaded Concentric Springs**  
Deltatone® Coated
- 7. Piston Guides**  
Molybdenum Disulfide filled Polyamide
- 8. Bushings**  
Polyoxymethylene (POM)
- 9. O-Ring Seals**  
Standard Temp. (-4°F to 180°F): Buna-N  
High Temp. (-4°F to 250°F): Fluorocarbon  
Low Temp. (-40°F to 180°F): Silicone
- 10. Capscrews, Nuts & Other Hardware**  
304 Stainless Steel

### BENEFITS

- Compact Rack & Pinion Design
- Quarter-Turn Operation
- Designed for use on a variety of Valve Types:  
Ball Valves, Butterfly Valves, Plug Valves
- Applicable to Damper and Door Openers
- Both Single Stop and Double Stop Versions\*\*
- Both Double-Acting and Spring-Return Units
- Double-Acting Torque Outputs from 6028 in-lbs to 40293 in-lbs with an 80 psi Air Supply
- Removable/Replaceable Drive Inserts\*



- Pre-loaded Spring Assemblies
- ISO 5211 Valve Mounting
- NAMUR (VDI/VDE) Accessory Mounts
- ATEC Classification II, 2 GD, Zones 1 or 2 (Gases) and 21 or 22 (Dust)
- Anti Blow-Out Pinion Design
- Maximum Pressure Rating: 116 psig (8 bar)
- Compatible Media: Clean, Dry Air, Filtered Non-corrosive Gas or Light Hydraulic Oil
- Pre-lubricated for the life of the Actuator
- Chromate Corrosion Protection on all Aluminum Components
- Each Unit is Serialized
- 5 Year Apollo Warranty**

#### Notes:

\* A wide selection of standard inserts is available for Square, DIN and Double-D drives.

\*\* Single Stop units are used where the open position of the valve requires precise adjustment. These are standard on all actuators with the exception of the two larger sizes where single stops are optional. Actuators with dual adjustable stops are also available for those applications on butterfly valves, for example, to allow precise adjustment of both the open and closed positions.