

# Pneumatic Actuators

## New Options Now Available

**NEW**



Asahi America, Inc. is please to introduce two new options that are now available for our pneumatic actuators.

First is the **Safety Spring option** for single acting pneumatic actuators.

This option allows the removal of the end caps for maintenance or changing of the fail orientation without the fear of injury due to the stored energy of the springs. We have incorporated a captive spring design (shown as the black, green and yellow items) into the concentric spring pack so that they are contained, and the stored energy remains just that; *stored*.

The Safety Spring option is available for the C79P through the G79P. The output torque of the actuator and actuator dimensions are unaffected with this option.

### Engineering Specifications

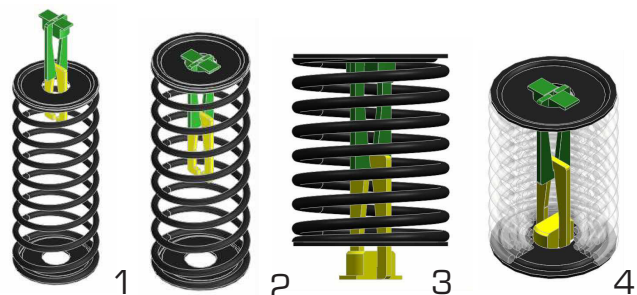
- **Actuator design:**  
Double rack and pinion
- **Body and end cap material:**  
Cataphoresis and Rilsan coated aluminum (inside and outside for maximum corrosion resistance)
- **Output Shaft:**  
303SS or cataphoresis coated shaft, each with double O-Ring seal on top and bottom



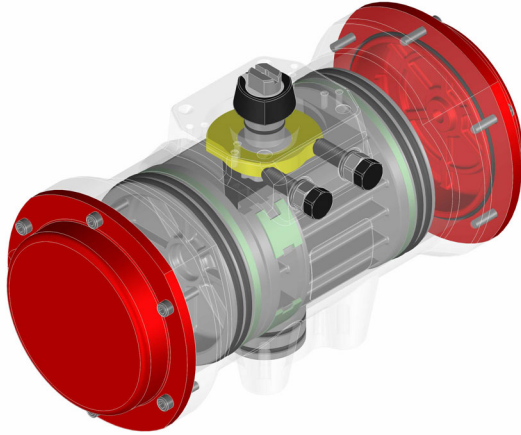
- **Temperature range:**  
-25 °F – 195 F
- **O-Ring material:**  
Self lubricating BUNA-N
- **Output torque range:**  
286 in/lbs – 17,000 in/lbs
- **Piston guide & guide ring material:**  
Polyacetyl or PTFE and bronze
- **Spring Material:**  
Cataphoresis coated DIN-17223-C
- **Spring Design:**  
Concentric safety spring with spring retainer, all Cataphoresis coated
- **Supply air:**  
60psi – 120psi
- **Air connections:**  
¼" FNPT
- **Mounting dimensions:**  
ISO and NAMUR

### Sample Specification

All Series 79P Pneumatic Actuators shall be double piston, double rack and pinion design. Piston guides and guide rings shall be polyacetyl or PTFE and bronze. Body and end cap materials shall be cast aluminum with a Cataphoresis and Rilsan coating inside and outside. Shaft shall be 303 Stainless Steel or Cataphoresis coated, each with double o-ring seals on top and bottom. Actuators shall have ¼" FNPT air connections, and visual position indicator. Single acting versions (spring return) shall have concentric spring sets with Safety Spring design. All actuators shall have ISO bolt circle and NAMUR mounting dimensions for the installation of optional accessories, as manufactured by Asahi America, Inc.



# Integral Travel Stop



Second is the **Integral travel stop** for double and single acting pneumatic actuators.

The integral travel stop allows for independent adjustment of the close stroke (0 °) from -2 ° to +4 °, and independent adjustment of the open stroke (90 °) from -4 ° to +2 °; and is available for models C79P through G79 P. This is a factory-installed option.

All products that are manufactured have tolerances that must be met. When multiple manufactured products are assembled, the total tolerance for all of the “components” becomes exaggerated. When this occurs, it is possible that the actuator will rotate 90 degrees, but the valve will actually rotate less than 90 degrees. To compensate for this action, the actuator must travel more than 90 degrees so that the valve can travel to its full open and full closed positions. With this in mind, we have developed and now offer the integral travel stop option.

## Engineering Specifications

- **Actuator design:**  
Double rack and pinion

- **Body and end cap material:**  
Cataphoresis and Rilsan coated aluminum (inside and outside for maximum corrosion resistance)
- **Output Shaft:**  
303SS or cataphoresis coated shaft, each with double O-Ring seal on top and bottom
- **Temperature range:**  
-25 °F – 195 F
- **O-Ring material:**  
Self lubricating BUNA-N
- **Output torque range:**  
286 in/lbs – 17,000 in/lbs
- **Piston guide and guide ring material:**  
Polyacetyl or PTFE and bronze
- **Integral Travel Stop:**  
300SS for sizes C79P – E79P, Alloy steel for sizes F79P – G79P all with Buna-N O-Rings seals
- **Supply air:**  
60psi – 120psi
- **Air connections:**  
¼” FNPT
- **Mounting dimensions:**  
ISO and NAMUR

## Sample Specification

All Series 79P Pneumatic Actuators shall be double piston, double rack and pinion design. Piston guides and guide rings shall be polyacetyl or PTFE and bronze. Body and end cap materials shall be cast aluminum with a Cataphoresis and Rilsan coating inside and outside. Shaft shall be 303 Stainless Steel or Cataphoresis coated, each with double o-ring seals on top and bottom. Actuators shall have ¼” FNPT air connections, visual position indication, and a travel stop integral to the actuator body. All actuators shall have ISO bolt circle and NAMUR mounting dimensions for the installation of optional accessories, as manufactured by Asahi America, Inc.