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**SERIES 92/93**

# **PNEUMATIC ACTUATORS AND ACCESSORIES**



 **Bray**<sup>®</sup>

[BRAY.COM](http://BRAY.COM)

THE HIGH PERFORMANCE COMPANY



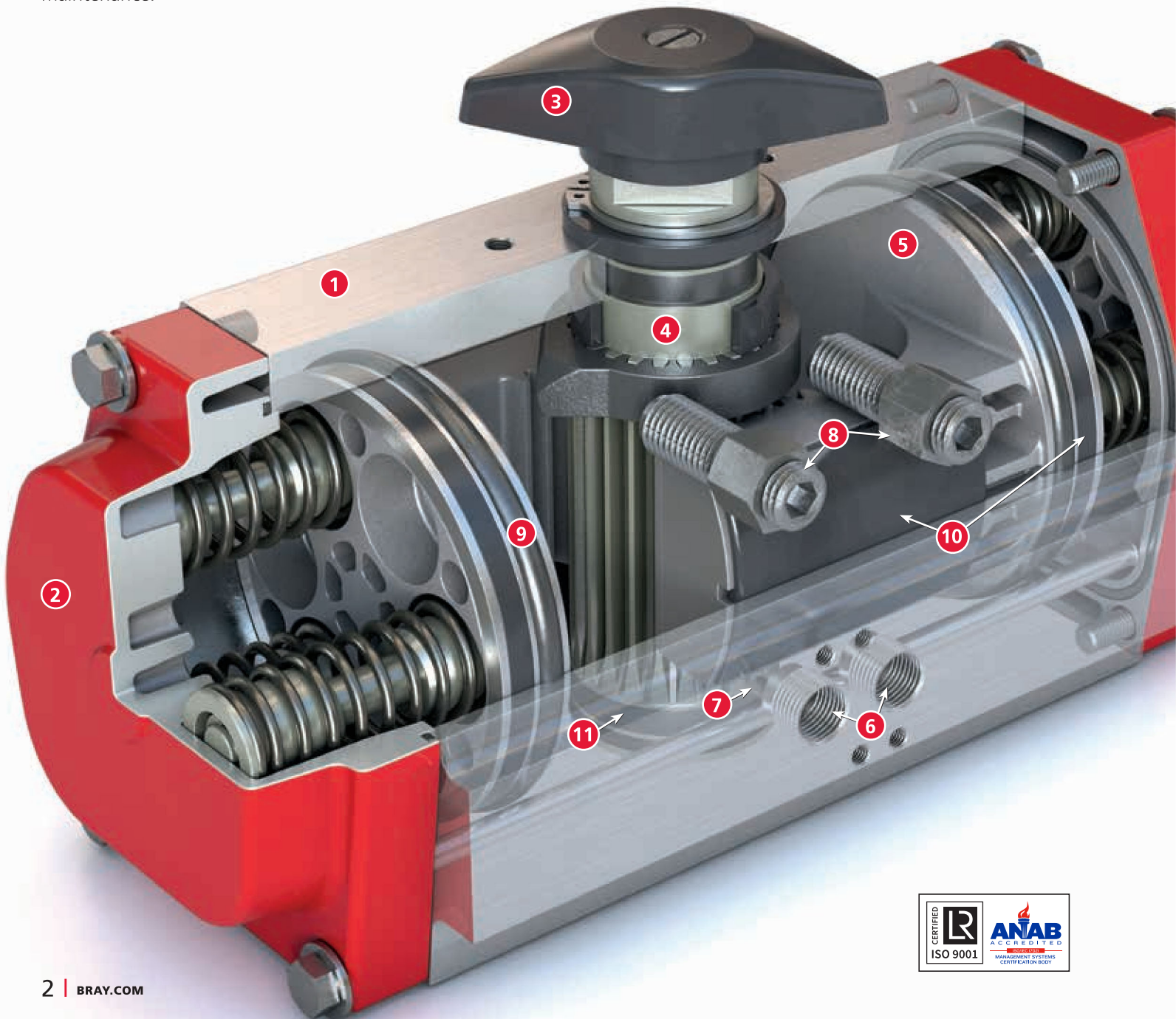
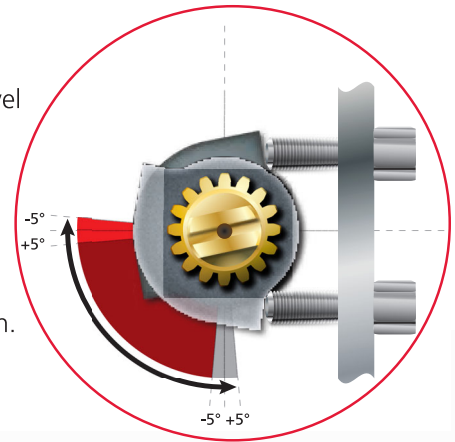
### DIRECT MOUNTING

Bray actuators comply with ISO 5211 dimensions and mount directly to Bray valves without using external linkages. Field installation is simple, misalignment is minimized and contamination buildup between valve and actuator is reduced.

Series 92/93 actuators are completely enclosed and self contained, with permanently lubricated bearings and guides which minimize maintenance.

### TRAVEL STOP ADJUSTMENT

The 0° and 90° travel positions have travel adjustments of +5° maximum to -5° minimum. Extended travel stops are also offered as an option.



- 1 **Body**
- 2 **End Caps**
- 3 **Position Indicator**
- 4 **Output Shaft and Pinion Gear**
- 5 **Pistons**
- 6 **Pneumatic Supply Ports**  
Available imperial or metric. NAMUR interface for accessory mounting is standard on all actuator sizes.
- 7 **Integral Porting**  
Reduces the cost of external tubing that is also easily damaged.
- 8 **Travel Stops**  
Adjusting screws limit the travel of the actuator to specific degrees of rotation in both open and closed directions.
- 9 **Piston O-Ring Seals**
- 10 **Piston Guides and Rings**  
Provide low coefficient of friction and absorb the side thrusts of the pistons.
- 11 **Output Shaft Bearings**  
Top and bottom of the pinion.

### STANDARD MATERIALS SELECTION

<b>Body</b>	Extruded aluminum alloy, anodized 316 Stainless Steel
<b>End Caps</b>	Die cast aluminum alloy with corrosion resistant polyester coating 316 Stainless Steel
<b>Pistons</b>	Die cast aluminum alloy
<b>Output Shaft/Pinion</b>	Carbon steel, zinc plated
<b>Travel Stop</b>	Alloy steel
<b>Shaft Bearings</b>	Acetal
<b>Piston Guides</b>	Acetal
<b>Fasteners</b>	Stainless steel
<b>Springs</b>	Spring steel, protective coating
<b>Piston O-Ring Seals</b>	Buna-N
<b>Options</b>	Polyester coated body exterior Electroless nickel plated body exterior Hard anodized body exterior Seacorr coated body exterior Stainless steel pinion

### OPERATING CONDITIONS

<b>Output Torque</b>	Up to 44,130 Lb-in (4,986 N-m)
<b>Pressure Range</b>	40 - 140 psi (2.8 - 10 bar)
<b>Media</b>	Dry Compressed Air/Inert Gas
<b>Temperature Range</b>	Standard: -4°F to 200°F (-20°C to 93°C)
	Low: -40°F to 176°F (-40°C to 80°C)
	High: 0°F to 300°F (-18°C to 149°C)
	Extreme: Up to 482°F (250°C)

**Note:** Cycle life on low and high temperature seal kits reduced compared to standard Buna-N seals

<b>Series 92 Double Acting</b>	Available in 90°, 135°, 180° rotation
<b>Series 93 Spring Return</b>	Available in 90° Rotation

## PNEUMATIC ACTUATOR OPTIONS



Series 05 - Declutchable Gear Operator



Stainless Steel



Extended travel stops