

## STAINLESS STEEL PNEUMATIC ACTUATORS

IDEAL FOR SANITARY APPLICATIONS, FOOD & BEVERAGE,  
PHARMACEUTICAL, CHEMICAL AND OTHER HARSH ENVIRONMENTS



AVAILABLE AS A COMPLETE AUTOMATED INSTRUPAK VALVE PACKAGE OR  
AS PART OF A RETROFIT ACTUATION PACKAGE COMPLETE WITH STAINLESS  
MOUNTING KIT AND ACCESSORIES.

### STANDARD FEATURES

#### MAXIMUM PRESSURE RATING

120 PSI/8 BAR

#### STANDARD TEMPERATURE RATING\*

-4° F/-20° C to +180° F/+85° C

#### MAX/MIN TEMPERATURE RATING\*\*

-40° F/-40° C to +302° F/+150° C

\*with standard NBR70 seals

\*\*with Viton or HNBR seals (available upon request)

- 100% FACTORY TESTED
- TWIN RACK AND PINION DESIGN FOR CONSISTENT TORQUE OUTPUT
- PRE-LUBRICATED FOR LIFE OF ACTUATOR
- OPTIONAL COATINGS AVAILABLE

### MOUNTING OPTIONS

**VALVE MOUNTING:** True ISO 5211 standard base mounting bolt patterns and a double square female output shaft provide multiple options for direct mounting to valve stems and a greater flexibility of actuator rotation. AVK Carbo-Bond mounting kits also are available for additional direct mount options.

**ACCESSORY MOUNTING:** The top mounting pad is drilled and tapped to international NAMUR and ISO standards, providing quick and economical accessory mounting in conjunction with the NAMUR pinion shaft. The standard NAMUR slotted and threaded shaft allows for direct mounting of NAMUR limit switches, valve positioners, and position monitors.

**SOLENOID MOUNTING:** All BI-TORQ® SS-series actuators have NAMUR solenoid mounting patterns that permit direct mounting of a wide range of solenoid models. The NAMUR mount eliminates the need for pipe nipples or brackets.

# BI-TORQ BI-SS PNEUMATIC ACTUATOR FEATURES

## STAINLESS STEEL BODY

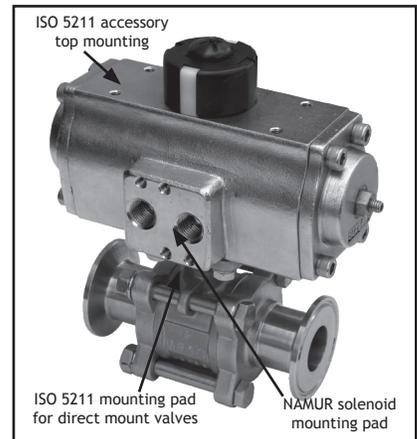
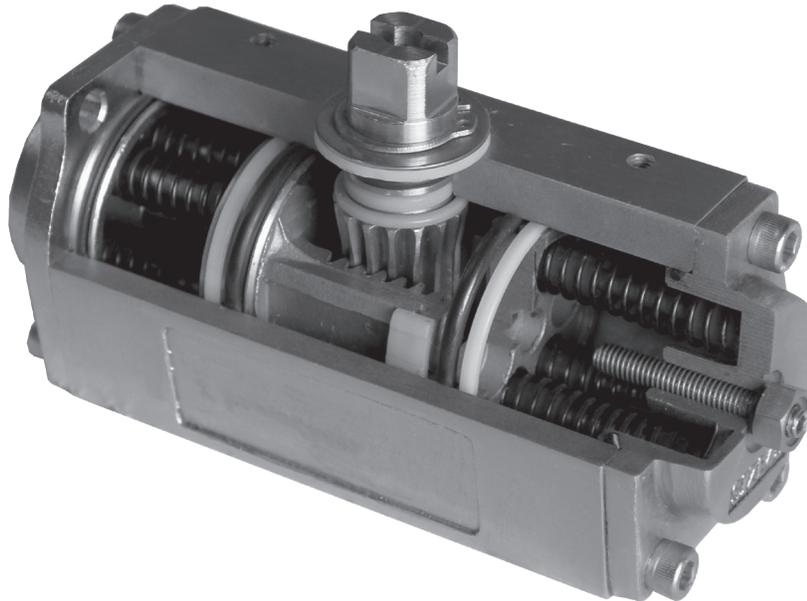
The all-SS housing is ideal for sanitary, pulp and paper, marine and a variety of other applications where corrosion-resistance is crucial.

## HEAVY-DUTY PINION

The one-piece stainless steel alloy shaft has precision machined gear teeth for precise operations.

## BEARINGS

Replacable top and bottom TFE pinion bearings ensure low friction, stability up to 400°F and corrosion resistance.



## ACCESSORY MOUNTING

NAMUR and ISO mounting allows for the easy factory or field installation of solenoids, switches and positioners.

## STAINLESS STEEL PISTONS

Durable, precision cast pistons provide full engagement with the pinion. Quality seals and guides provide high thrust stability with minimal friction.

## TRAVEL STOPS

Travel adjustment of +/- 4° in the open position is standard on all models.

## VALVE MOUNTING

ISO 5211 standard design provides direct mounting of most ISO pad valves, including BI-TORQ® InstruPak ball and butterfly valves.

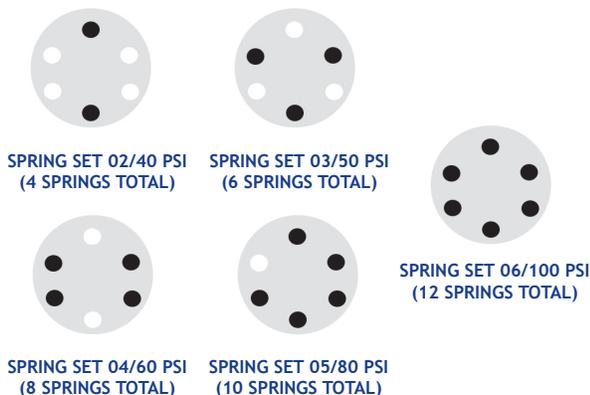
## SPRING CARTRIDGES

The heavy duty spring cartridges allow for easy conversion of a double acting actuator to a spring return actuator, or to modify the torque output depending on air pressure.

## NAMUR SHAFT

The slotted shaft, along with the NAMUR bolt pattern, allows for direct mounting of NAMUR standard switches and positioners.

## SPRING COMBINATION OPTIONS



### SPRING SETS

All BI-TORQ® SS series (stainless) pneumatic actuators come standard with a complete cartridge spring set (6 springs per side) sized for 80 PSI supply pressure unless otherwise specified. Actuators can be configured for different air supplies by removing springs from the end caps.

**IMPORTANT:** Springs must be arranged in a symmetrical manner (see arrangements to the left) so that side load does not occur between the pistons and the actuator body.

### REVERSE OPERATION

All BI-TORQ® actuators are set for a standard CW to close, CCW to open rotation. The action may be reversed by rotating the pistons 180°.

**CAUTION:** Refer to BI-TORQ® operation and maintenance instructions before disassembly and removal of springs.