



## Actuator Type C 90° - Technical Data, Summary



TruTorq actuators are pneumatic quarter turn actuators based on double rack and pinion design. The C-type actuator is also available in half turn execution (180°).

The C-type 90° actuator is generally recommended to “small” Butterfly valves, Ball valves and Plug valves.

### Data for C-Type actuators with movement 0 - 90°

#### Material, standard (outside)

- Anodized Aluminum, Black
- CNI, Chemically Nickel/PTFE Impregnated for increased corrosion resistance
- Other treatments upon request

#### Movement

- 0° to 90°

#### End Stop Adjustment

Single End Stop Adjustment, Open position, located in the End Cap

#### Over travel

- Open: 3°
- Closed: 0° to 0.5°
- Note! If the actuator is assembled Fail Open (FO), the over travel will be the opposite, ie.  
Open: 0° to 0.5°  
Closed: 3°

#### Sizes

- 2, 4, 8, 12, 20, 35, 55, 250 and 400

#### Torque

Linear torque, ie a Double Acting (DA) Actuator has the same rack power over the entire movement

#### Torque Output, Double Acting (DA) at 6 bar/80 psi

- 20 to 597 Nm and 2648 to 4803 Nm
- 166 to 4742 in.lbs and 21480 to 38971 in.lbs

#### Torque Output, Spring Return (SR) at 6 bar/80 psi

- 7 to 211 Nm and 1212 to 1888 Nm
- 59 to 1716 in.lbs and 10728 to 16711 in.lbs



## Actuator Type C 90° - Technical Data, Summary

### Operating Pressure

- DA: 2-10 bar / 30-145 psi
- SR: 2-10 bar / 30-145 psi. When the Actuators will be used at Operating pressures below 5.5 bar / 79.8 psi, we recommend that you contact your TT distributor.

### Drive Medium

- Standard: Air (Dry or Lubricated) or inert gases (non-dangerous fluids)
- Options (require rebuilding): Oxygen, Hydraulic Oil or Water

### Temperature Range, Standard execution (Buna Nitrile, NBR O-seals)

- -30° to +80°C
- -22° to +175°F

### Temperature Range, High temperature (Viton O-seals)

- -20° to +140°C
- -4° to +284°F

### Temperature Range, Low temperature

- -45° to +60°C
- -49° to +140°F

### Temperature Range, Arctic temperature

- -50° to +60°C
- -58° to +140°F

### Stroke, Double Acting (DA)

Looking at the front of the Actuator, Port A is on the left side and Port B is on the right

Port A: Air to Open (Anti-clockwise)

Port B: Air to Close (Clockwise)

### Stroke, Spring Return (SR)

Port A: Air to Open (Anti-clockwise, compressing springs)

Port B: Exhaust Port

Setting from factory: Fail Close (FC), clockwise closing. To change to Fail Open (FO): see separate instructions

### Max number of springs, size 2 to 55

A Spring Kit consists of 4 outer + 4 inner springs located inside the piston racks. To adjust for different Air Pressure; reduce the number of springs.

### Max number of springs, size 250 & 400

The precompressed Spring Kits is located inside the piston racks and consists of 6 outer + 6 inner springs for size 250 and 8 outer + 8 inner springs for size 400. To adjust for different Air Pressure; reduce the number of springs.

### Drive shaft

Stardrive shaft tailored to international standard for square-section shafts

### Standard Connections

Solenoid valves – Namur

Fitting accessories – ISO 5211, DIN 3337, Namur

Stardrive shaft – ISO 5211 (90°), DIN 79 (45°), Namur

### Lubricants, recommended

Springs and piston rack segments: Statoil Molyway LI 712 or similar

O-rings and plastic parts: Statoil Uniway LIX 42PA or similar

### Standards and Certificates

The Actuators are designed to and in compliance with several different standards. They also have different types of certificates, see separate information.

### End Caps, size 250 & 400

If conversion from DA to SR, or opposite, the End Caps must be changed (different for DA vs. SR).