



Solutions that turn
things around for you



SAFEAir Series Pneumatic Actuators

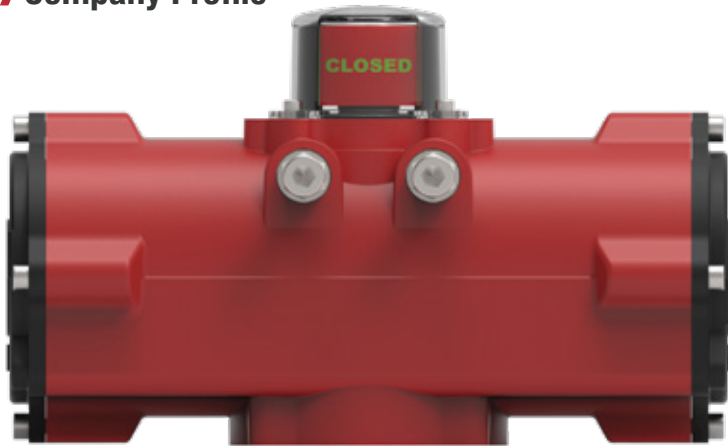
Rack and Pinion

Scotch Yoke Symmetric and Canted

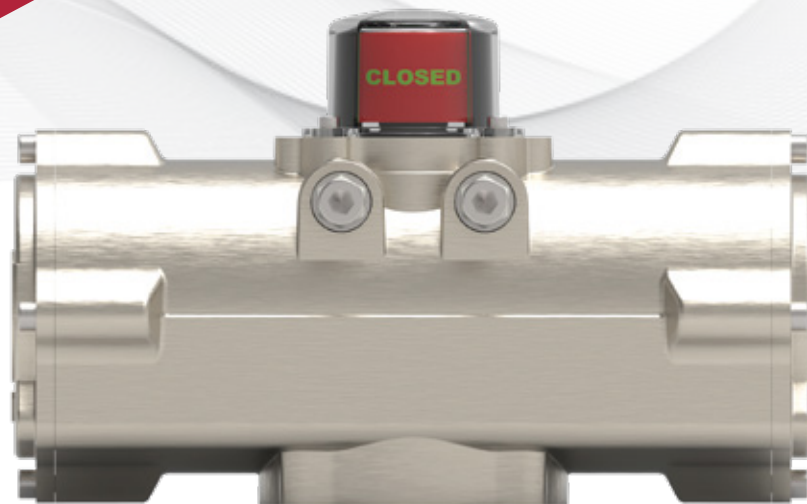




» Company Profile



Sanyata Actuation and Fluid Engineering (S.A.F.E.), is an innovative actuation start-up focused on creating an all new and exciting range of actuation products. It is driven by a group of actuator industry veterans with unwavering customer focus and unmatched engineering excellence. End users and valve OEMs will find optimally engineered products that are fit for purpose across a wide range of applications. All products reflect our deeply held passion for design innovation and a commitment to world-class manufacturing.



» SAFEAir Pneumatic Actuators

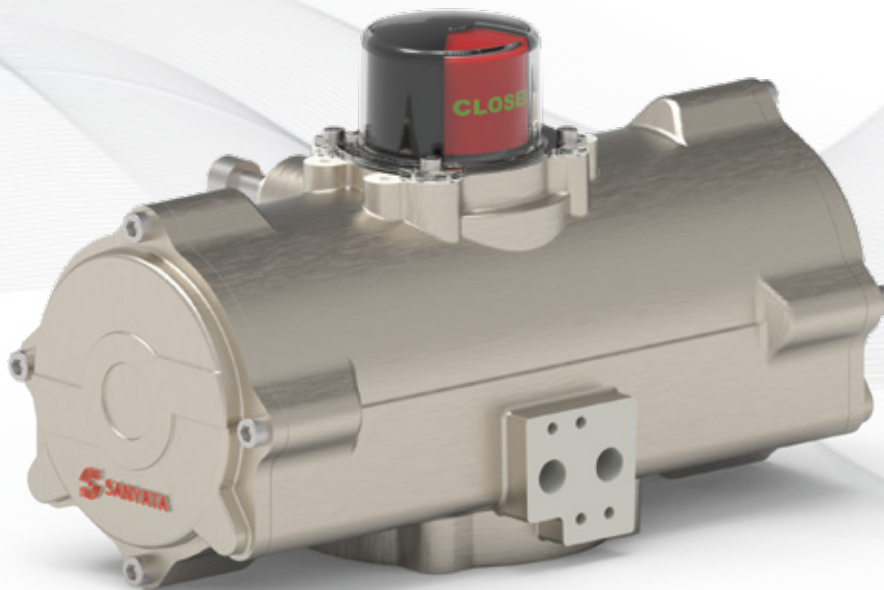
The SAFEAir pneumatic range of actuators provide the user with the widest selection of actuators with the shortest heights, superb weight/torque ratios, packaged together with several accessories as standard. Packed with several innovative features, the entire range has been rigorously tested and comes with all the right credentials for your valve application. The lead times for these products are amongst the shortest of any major manufacturer and we are the first to offer a seamless online ordering experience.





» Key Features

- Specialist actuator manufacturer with unwavering focus on serving valve OEMs and end users.
- Widest range of torque selections available, from 5 N-m to 7,800 N-m (44 lb-in to 69,000 lb-in).
- One of the best torque to weight ratios in the market.
- Tailored end caps for double acting applications for reduced air consumption.
- Actuators are field convertible from double acting to single acting and vice versa.
- High visibility indicator and Double End Stops are standard, not a cost adder!
- Zero leak stop bolts achieved by carefully designed seals.
- Hard anodised or nickel plated housing option for all aluminium body actuators.
- Also available in carbon steel and stainless steel enclosures.



Reliable Hard anodized / nickel plated body and nickel plated steel pinion, which provides high wear and corrosion resistance, thus ensuring consistent performance over an extended operating life.

Strong Best in class industry processes are used to manufacture these actuators which result in class leading torque/weight ratios.

Compact Designed to provide high torque with minimum space and weight. Spring package, if present, is installed inside the cylinder.

Safe Springs can be easily removed/replaced due to the use of cartridges.





» Technical Specification

Working Pressures

2 - 10 bar (29 - 145 psig) for Rack and Pinion

2 - 7 bar (29 - 102 psig) for Scotch Yoke

Working Environment

Standard: -50°C to 70°C (-58°F to 158°F) with NBR Seals

High Temperature: -15°C to 160°C (5°F to 320°F) with Viton Seals

Extended Temperature - 60°C to 200°C (-76°F to 392°F) with Silicone Seals

Food safe version also available

Endurance Testing

Standard working life is 500,000 cycles according EN15714-3 (certified by TUV Nord)

Valve Interface

Valve Shaft Interface: ISO 5211
double square, DIN 3337

Air Supply Ports

VDI/VDE3845 NAMUR,
EN ISO228 G1/8", G1/4", G1/2" based on the actuator size

Accessories

VDI/VDE3845 NAMUR

Involute Teeth

Facilitates smooth engagement and operation of rack & pinion

Machined Steel Rack Insert

Rugged design enabling it to be used even in demanding manual override situations offering better serviceability and precise control for modulating applications with minimal backlash.

Anti-blowout design

Stem retained with steel circlip

Lubrication

Lubricated for life

Extruded body

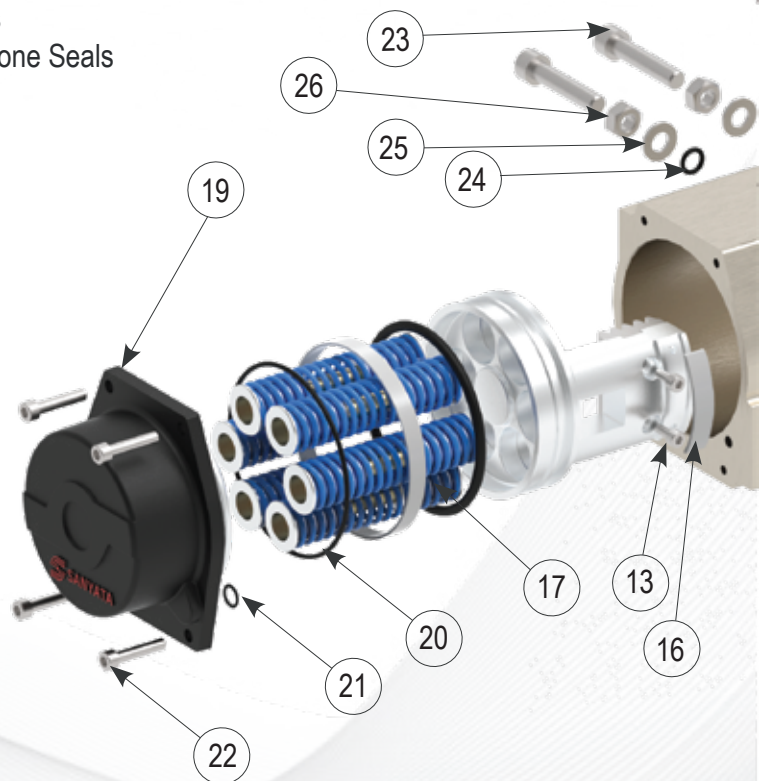
Low weight, better strength and hard anodised / nickel plated finish.

Springs

Cartridge type, pocketed design for compactness and easy serviceability. Shot peened, oil tempered alloy steel springs with powder coated finish, enclosed in a cartridge. These cartridge type springs ensure the best fit for your valve with guaranteed fail-safe action.

Manual Override

An integral and de-clutchable handwheel is available as an option across all models.



Approvals and Industry Standards:

Management System in Accordance
with ISO 9001:2015

Valve flange: ISO 5211/DIN3337

Solenoid flange: VDE/VDI 3845 (NAMUR)

Accessory flange: VDE/VDI 3845 (NAMUR)

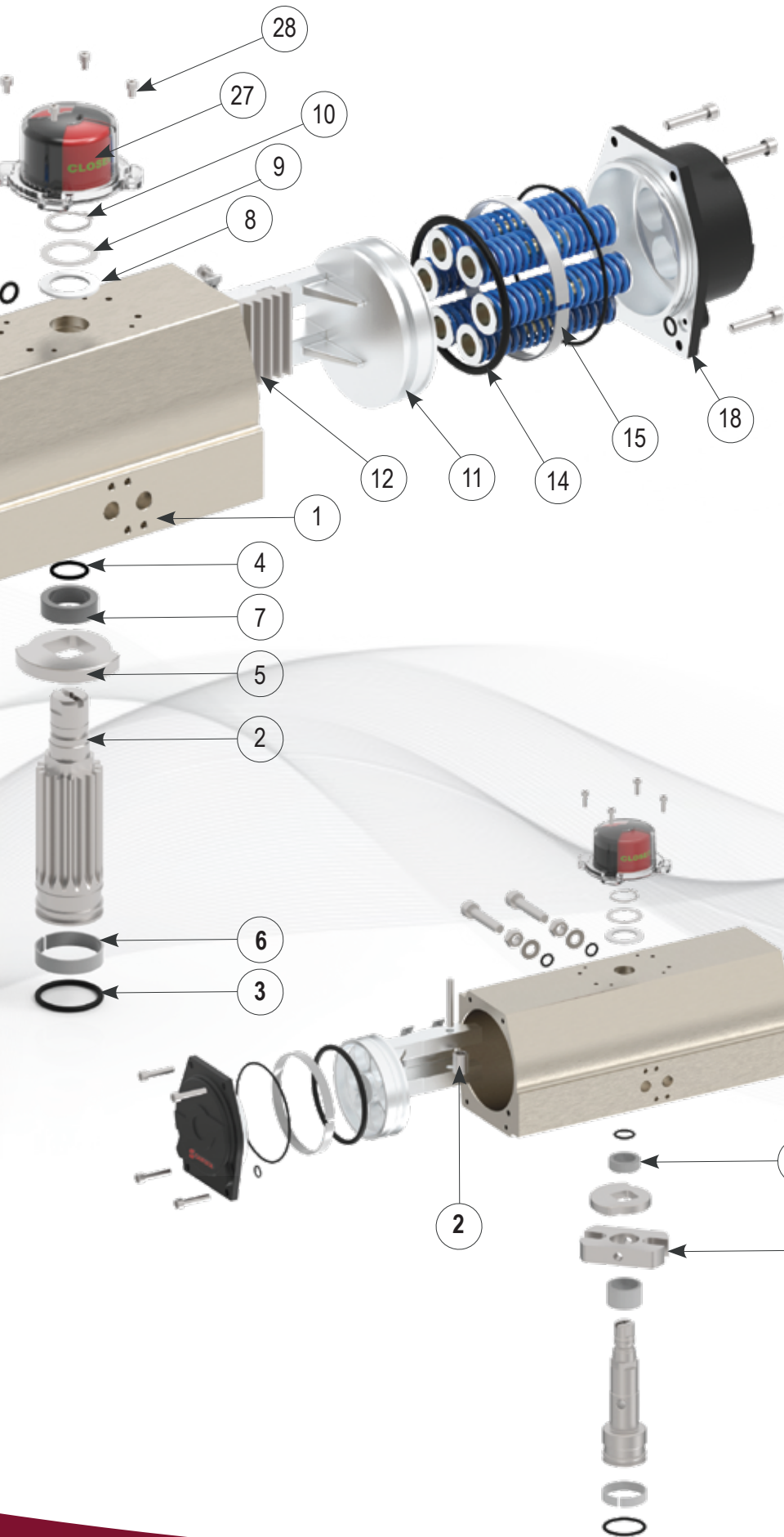
Complies with EN60529 for IP68

European Directives: ATEX 2014/34/EU, PED and CE

Coating Options:

- 1 Hard Anodised
- 2 Epoxy coated (200+ Hours Salt Spray Test)
- 3 Duraflon PTFE coating
- 4 FDA Compliant Epoxy Polyester Coating
5. Nickel plated





Parts Lists - Rack and Pinion		
ITEM	DESCRIPTION	MATERIAL
1	Housing	Aluminium
2	Pinion	Steel
3	O-Ring	Rubber
4	O-Ring	Rubber
5	Stopper	Steel
6	Wear Ring	DELRIN®/Nylon
7	Bearing Bush	DELRIN®/Nylon
8	Thrust Washer	DELRIN®/Nylon
9	Shim	Stainless Steel
10	Circlip	Stainless Steel
11	Piston	Aluminium
12	Rack	Steel
13	Socket Head Cap Screw	Stainless Steel
14	O-Ring	Rubber
15	Wear Ring	DELRIN®/Nylon
16	Wear Strip	DELRIN®/Nylon
17	Spring Cartridge	Spring Steel
18	End Cover	Aluminium
19	End Cover	Aluminium
20	O-Ring	Rubber
21	O-Ring	Rubber
22	Socket Head Cap Screw	Stainless Steel
23	Socket Head Cap Screw	Stainless Steel
24	O-Ring	Rubber
25	Washer	Stainless Steel
26	Hex Nut	Stainless Steel
27	Indicator	Plastic
28	Socket Head Cap Screw	Stainless Steel

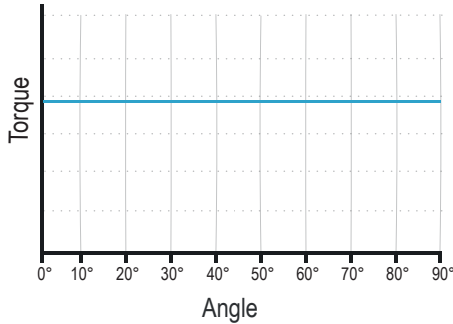
Key Parts - Scotch Yoke		
ITEM	DESCRIPTION	MATERIAL
1	Yoke	Steel
2	Yoke Rollers	Steel
3	Bearing Bush	DELRIN®/Nylon



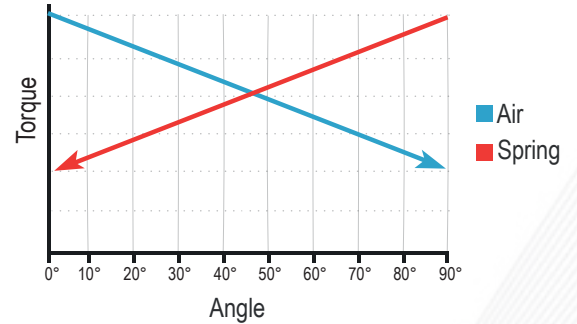


» Pick the right solution for your application

For applications that demand constant torque across the valve stroke, pick our Rack and Pinion Actuators.

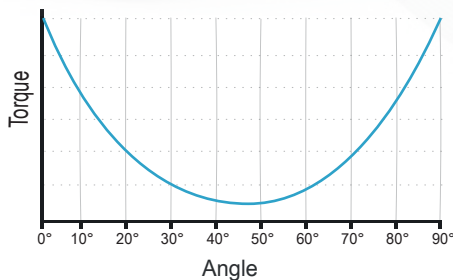
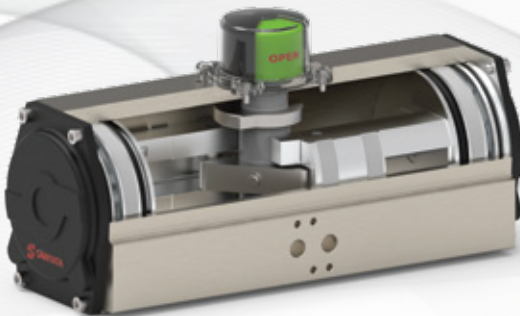


Rack and Pinion Double Acting

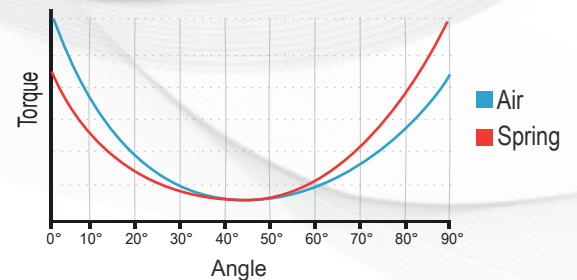
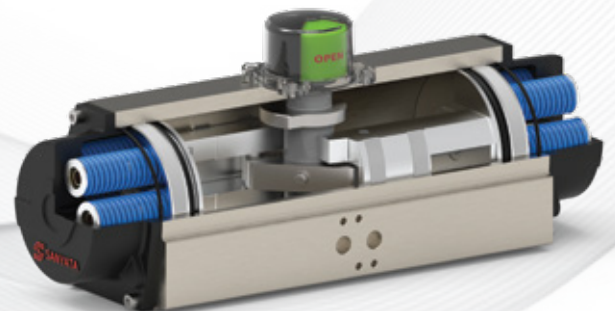


Rack and Pinion Spring Return

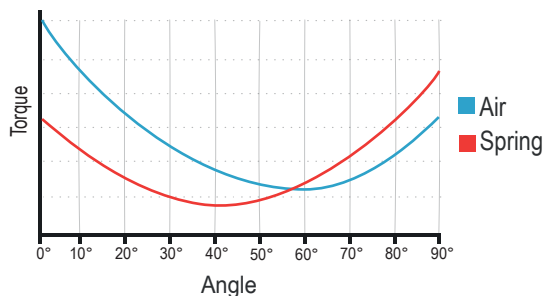
For applications requiring varying torque across the stroke with higher break and end torque, choose our symmetric Scotch yoke actuators. For applications that demand a very high break torque, our Canted Scotch Yoke actuator is a better choice.



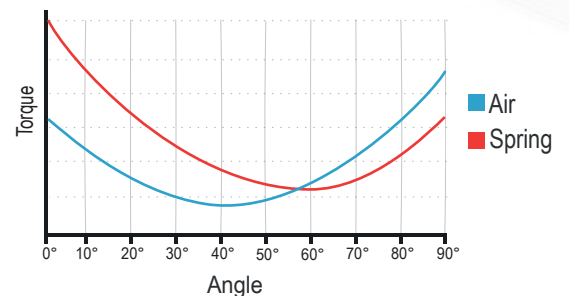
Scotch Yoke Symmetric Double Acting



Scotch Yoke Symmetric Spring Return



Scotch Yoke Canted Spring to Close



Scotch Yoke Canted Spring to Open





» Naming Scheme

RP 060 FC 4 N A 2 1 S 1 X

Product Series

RP, SY, SYC

Size

005, 010, 020, 030, 040, 050, 060, 070, 080, 090,
100, 110, 120, 130, 140, 150, 160, 170, 180, 190

Action

DA: Double Acting
FC: Spring Return, Fail to Close (Clockwise)
FO: Spring Return, Fail to Open (Counter Clockwise)

Spring Set

X, 1, 2, 3, 4, 5, 6 (Use X for Double Acting)

Manual Override

Y: Yes
N: No

Material of Construction

A: Aluminium
C: Carbon Steel
S: Stainless Steel

Valve Flange Interface*

1: F03 5: F10 9: F25
2: F04 6: F12
3: F05 7: F14
4: F07 8: F16

Valve Stem Interface

1: Double Square
2: Bore and Keyway
3: Double D

Environment

S: Standard Temp
E: Extended Temp
H: High Temp
F: Food Grade

Coating

1: Hard Anodised
2: Epoxy coated (200+ Hours Salt Spray Test)
3: Duraflon PTFE coating
4: FDA Compliant Epoxy Polyester coating
5: Nickel Plating

Specials

X-None

*Refer actuator performance data sheet for valve flange interface details.





CONTACT US



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