

SC/V



Engineering
GREAT Solutions

Pneumatic Valve Actuators

SC/V: Pneumatic Valve Actuators

Our pneumatic linear piston actuators are designed to drive control valves for the most demanding applications in the Power and Oil & Gas Industries; such as turbine bypass, steam conditioning valves, desuperheaters, compressors and antisurge. Thanks to the special patented piston design, including a double ring guiding system and a grease channel providing continuous lubrication, SC/V actuators ensure smooth and precise valve operation without any maintenance for the whole operating life. This series of actuators are designed with a patented plug-in connection system for a wide range of customer-tailored accessories and control systems to meet the most demanding and critical valve operating conditions.

Key features

- > Several sizes available from 150 mm to 1600 mm or larger if required
- > Several strokes available
- > Double acting and single or double acting plus spring design
- > Die casting aluminum bodies for small/medium sizes up to ND 320
- > Carbon steel bodies for larger sizes
- > Fully stainless steel design available for both double acting and spring return actuators for the harshest environment conditions
- > Heavy duty control actuators designed for the most challenging applications used in the Oil & Gas and Power Industries

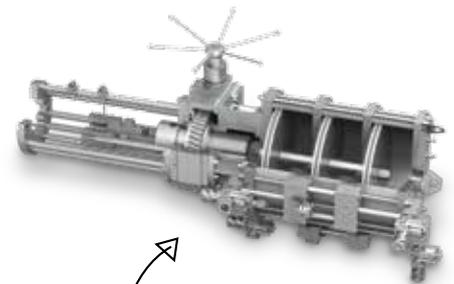
Benefits

- > **Capability**
Available in single/duplex/triplex configuration for thrust and space optimization. Double acting or spring return
- > **Safety**
SC/V actuators are designed to meet SIL 3 requirements (IEC61508) as a "single device". SIL analysis report of the safety loop available on request
- > **Flexibility**
Manifold mounted 3 way valves and accessories for optimal performances and increased safety
- > **Built in permanent lubrication system**
Patented piston design with double ring guiding system and grease channel which makes it virtually maintenance free
- > **Long operating life**
Double guide for piston and bushing
- > **Protection**
Exhaust mufflers with integral non return valve to prevent contamination of actuator internals

Total capability in valve actuation



LNG project actuator for antisurge



Manifold mounted for flexibility and increased safety

Product specification and dimensions

Standard pneumatic supply medium

Air, nitrogen or sweet gas (special version for sour gas on request)

Operating pressure

Pneumatic version up to 10 bar (design up to 12 bar)

Standard operating temperature

-20°C to 70°C (lower or higher temperature on request)

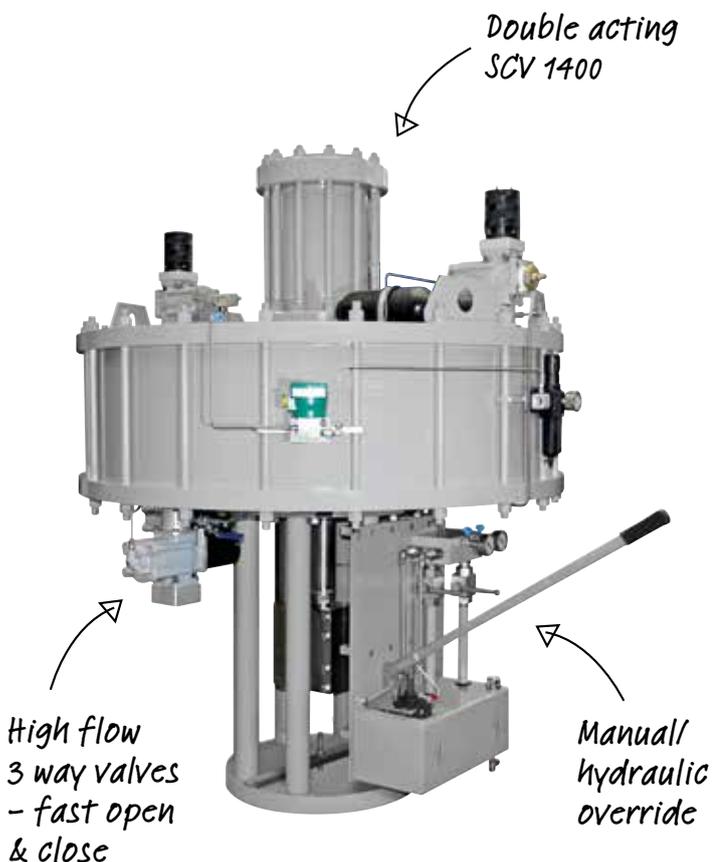
Certifications / approvals

PED 97/23/EC
ATEX 94/9/EC
EAC TR TS 012/2011
MACHINERY DIRECTIVE 2006/42/EC
IP66/67M according to IEC/EN 60529
SIL3 certified (IEC 61508)
as a "single device"
Designed and tested in accordance with EN 15714-3
Further certifications are available please contact IMI STI for updated list.



Application on the North Sea

Dimensions



The picture shows a double acting SC/V 1400 with manual hydraulic override. High flow 3-way pneumatic valves are used to achieve very fast opening/closing time.

	1* SC/V actuator mm	2 Max. stroke mm	3** Active Area cm ²	4 Thrust at 500 kPa supply daN
Casting (Aluminum body) Size/Stroke	150/40	40	177	885
	200/65	67	319	1595
	200/100	103	319	1595
	200/150	153	319	1595
	250/80	80	497	2485
	250/100	103	497	2485
	250/150	153	497	2485
	320/100	103	794	3970
	320/200	205	794	3970
Machined (Carbon Steel - Aluminum Alloy Stainless Steel - Composite Materials)	320/300	305	794	3970
	260/...		521	2605
	300/...		687	3440
	330/...		845	4225
	390/...		1194	5957
	400/...		1237	6185
	420/...		1366	6830
	500/...		1944	9720
	520/...		2104	10520
	600/...		2787	13935
	650/...		3278	16390
	800/...		4985	24925
	850/...		5633	28165

	1600/...		20050	100250
...		

Shorter travels are available on request.

* Stroke, including reserve stroke, available for each type of actuator

** This is the active area of each type of actuator

Further information and specific technical support may be obtained by contacting IMI STI sales organization.

Optional accessories

IMI STI designs and produces a wide range of accessories and control systems to ensure superior performance and to satisfy the most demanding requirements in modulating, on/off and heavy duty service. Control systems pan-els/cabinets can be installed on the actuators or supplied loose for remote mounting which allows for easy access and limits exposure to excess heat and vibration. For more information, see dedicated brochure of accessories.

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