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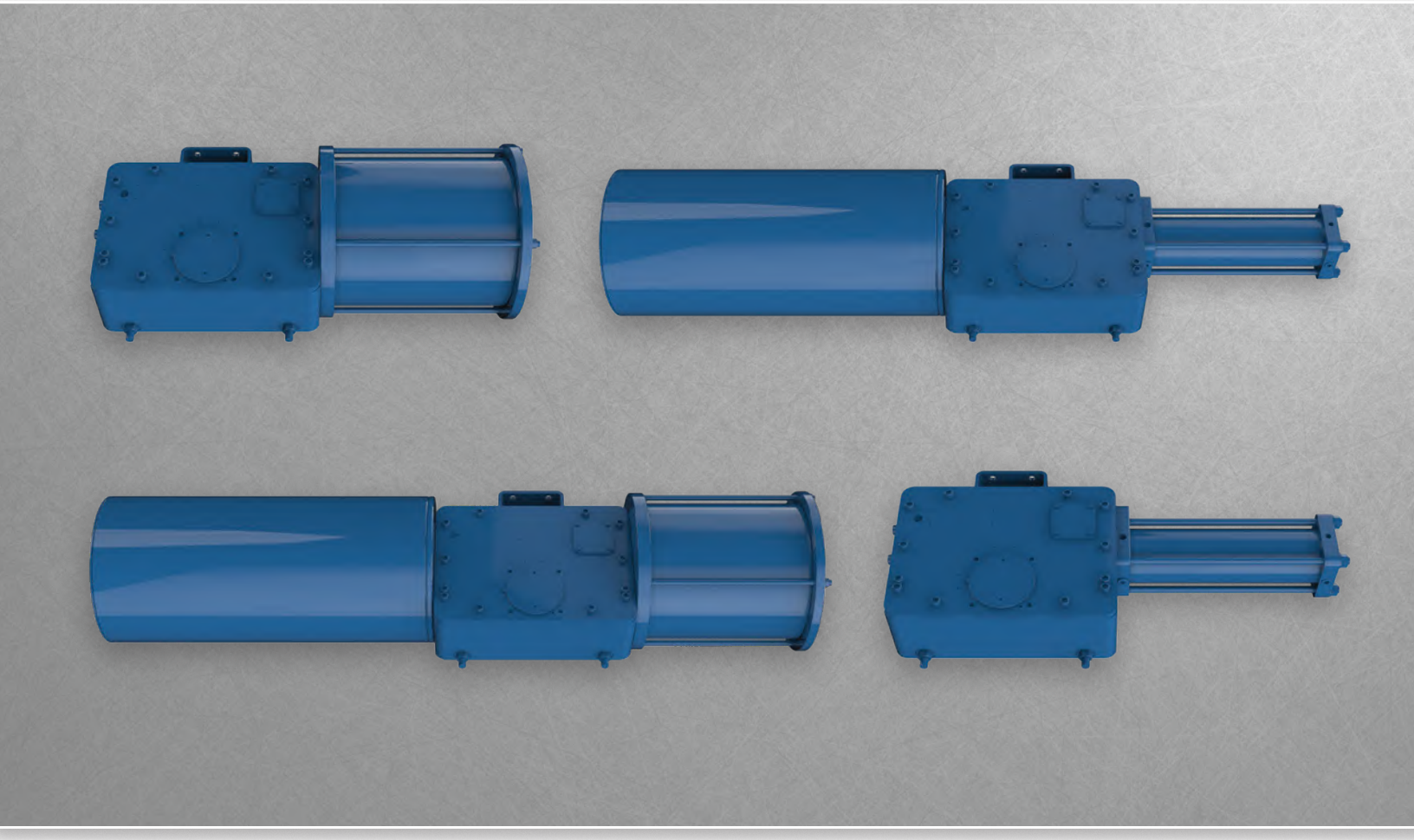


LEDEEN GS Series

Pneumatic and hydraulic actuators

wegman
Est. 1797

LEDEEN GS Series Pneumatic and Hydraulic Actuators

Typical application

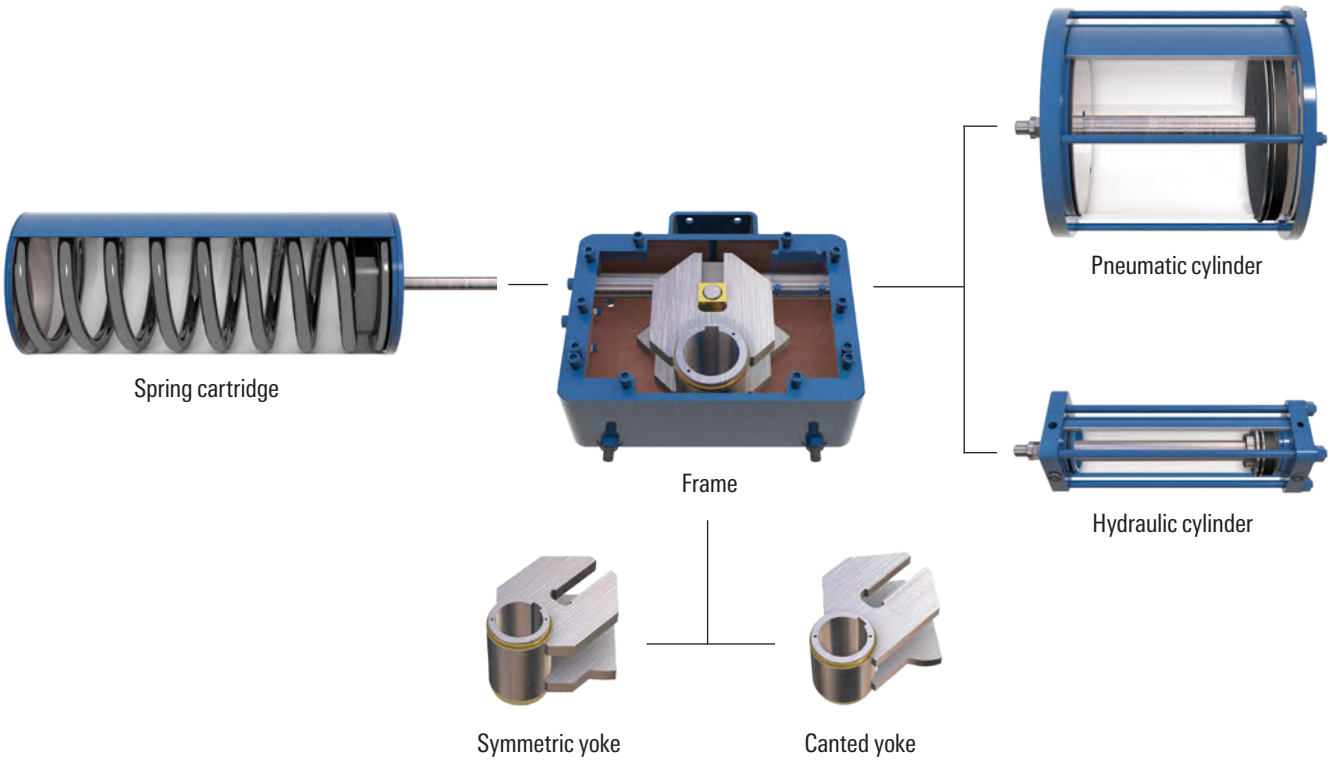
For on-off or modulating control of any quarter-turn operated valve

Pneumatic quarter-turn actuator.

Hydraulic quarter-turn actuator.

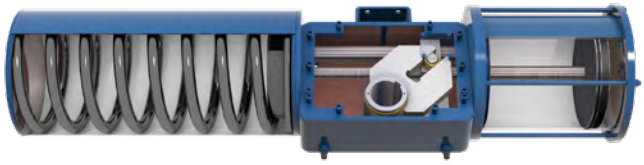
Modular assembly

LEDEEN* GS series actuators provide increased flexibility through consistent engineering design and efficient modularity. Double-acting, single cylinder, or dual cylinder are combinations readily available to meet specific pipeline application requirements.

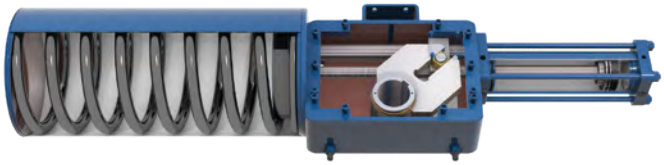


Standard Features

- All models available as double-acting or spring-return
- Torque outputs to 57,360 in.lbf [6,480 N.m]
- Open and close travel stops provide ± 3° minimum
- Scotch yoke mechanism generates powerful opening and closing torque outputs
- Steel-fabricated frame provides rugged foundation of modular assemblies
- Chrome-plated side-load bar with guide block for effective elimination of piston rod deflection
- Bronze bushing interfaces provide low-friction support of sliding and rotating components
- Aluminum bronze sliding blocks for a low-friction, low-stress pin connection
- Steel cylinder assembly provides robust pressure containment for all conditions
- Cylinder ID plated to ensure sealing surface with excellent corrosion resistance
- Nitrile rubber piston seal configurations specifically designed for pneumatic and hydraulic applications
- Composite guide band on piston provides low-friction guidance and support
- Steel spring cartridge is fully enclosed from environmental conditions
- Seal-welded design construction provides maximum personnel safety
- Epoxy-coated prestressed springs provide consistent performance with corrosion protection



Pneumatic spring-return actuator.

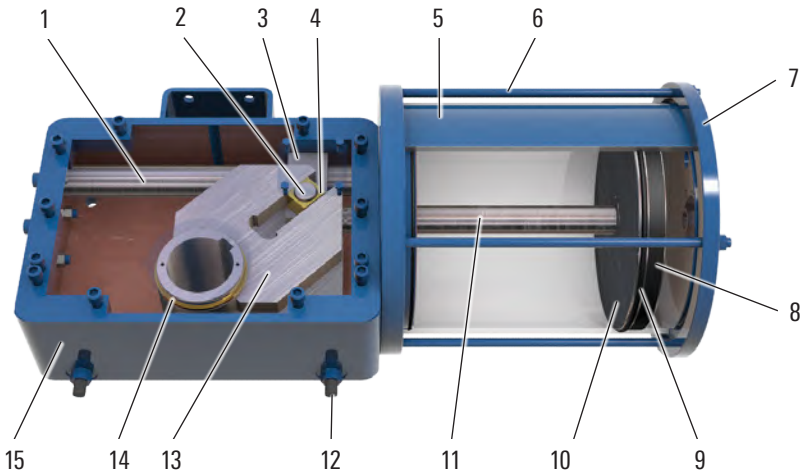


Hydraulic spring-return actuator.

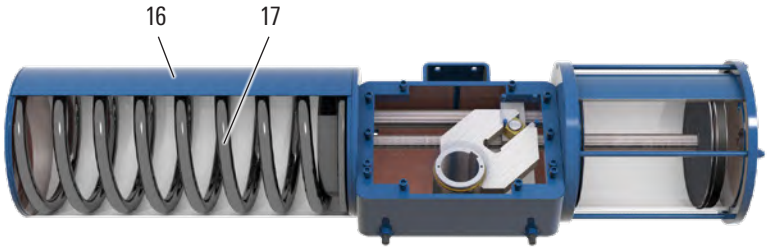
Standard Product Characteristics

Actuator Type	Temperature Range, degF [degC]	Gauge Pressure Range, psi [bar]
Pneumatic	–22 to 212 [–30 to 100]	40 to 175 [3 to 12]
Hydraulic		145 to 3,000 [10 to 202]

Pneumatic Actuator Standard Construction



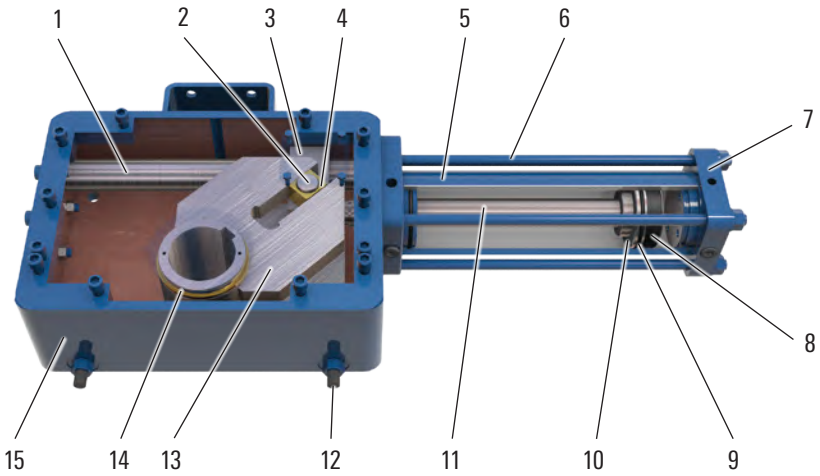
Pneumatic double-acting actuator.



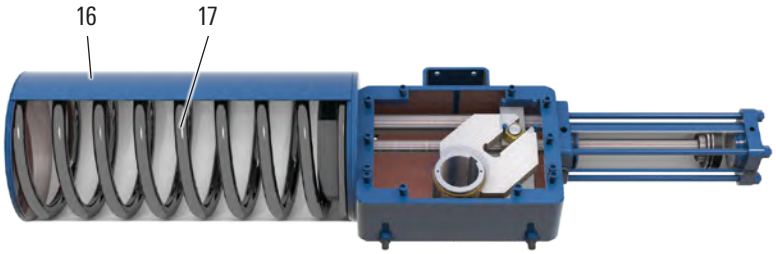
Pneumatic spring-return actuator.

Item	Description	Material
1	Guide bar	Alloy steel and chrome plated
2	Pin	Alloy steel
3	Guide block	Carbon steel
4	Sliding block	Aluminum bronze
5	Cylinder	Carbon steel
6	Tie rod	Alloy steel
7	Flange	Carbon steel
8	Guide band	Teflon® and graphite
9	Seal	Nitrile rubber O-ring
10	Piston	Carbon steel
11	Piston rod	Alloy steel
12	Travel stop	Alloy steel
13	Scotch yoke	Alloy steel
14	Bushing	Bronze
15	Frame	Carbon steel
16	Spring cartridge	Carbon steel
17	Spring	Alloy steel

Hydraulic Actuator Standard Construction



Hydraulic double-acting actuator.

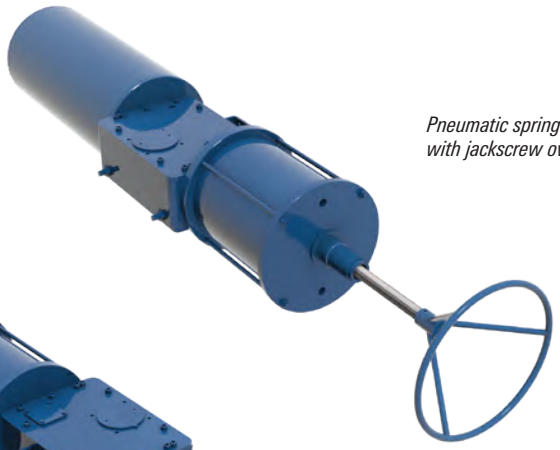


Hydraulic spring-return actuator.

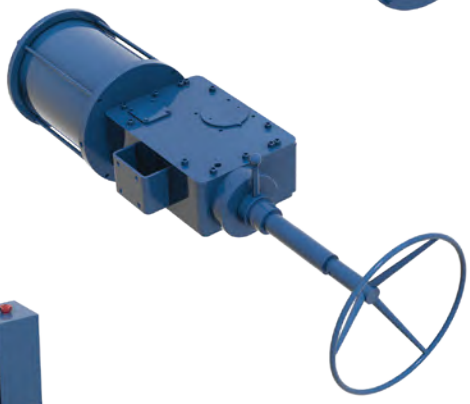
Item	Description	Material
1	Guide bar	Alloy steel and chrome plated
2	Pin	Alloy steel
3	Guide block	Carbon steel
4	Sliding block	Aluminum bronze
5	Cylinder	Carbon steel
6	Tie rod	Alloy steel
7	Flange	Carbon steel
8	Guide band	Teflon and graphite
9	Seal	Nitrile rubber quad ring
10	Piston	Carbon steel
11	Piston rod	Alloy steel
12	Travel stop	Alloy steel
13	Scotch yoke	Alloy steel
14	Bushing	Bronze
15	Frame	Carbon steel
16	Spring cartridge	Carbon steel
17	Spring	Alloy steel

Standard Options

- Jackscrew override
- Hand pump override
- Special seals for low-temperature applications to –76 degF [–60 degC] and for high-temperature applications to 392 degF [200 degC]



Pneumatic spring-return actuator with jackscrew override.



Pneumatic double-acting actuator with jackscrew override.

Pneumatic double-acting actuator with hand pump override.

Certifications

Cameron LEDEEN GS series actuators comply with many industry standards.

- ISO 9001:2000
- PED 97/23/EC
- SI 825
- IEC 61508:2000 (TUV SIL-3)
- Technical Regulations Customs Union (TR CU)

ISO 9001:2008

ISO 9001:2008 quality management system.

PED 97/23/EC

European PED—pressure equipment directive.

IEC 61508-1÷7:2010

SIL 3 capability.

Model Number Designation

Cameron offers customizable actuators from the frame type to the override options. A sample of the actuator selection process is shown below. Starting with Step 1, Frame Type, the actuator components needed to fit the customer's requirements are built. An example model number is shown below, which specifically identifies each variable for selection.

GS623P-A-SRC6-JS

Example

GS 6 23 P - A - SR C 6 - JS

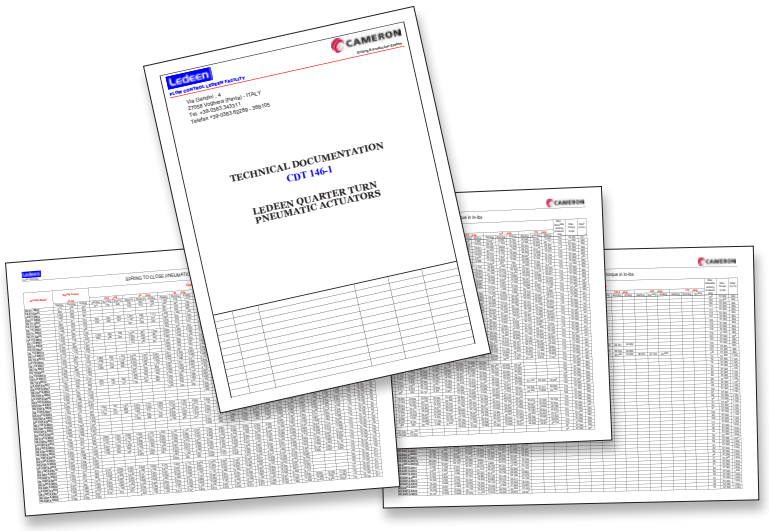
Frame type
Frame size
Power cylinder size
Product type
Actuator type
Fail position
Spring cartridge size
Manual override option

Frame Type	Frame Size	Power Cylinder Size	Product Type	Yoke Type	Actuator Type‡	Fail Position‡	Spring Cartridge Size‡	Manual Override Option§
GS	2	**Pneumatic**	P Pneumatic	A Canted†	SR Spring-return	0 Open	1–12	JS Jackscrew
	6	10–38	H Hydraulic	S Symmetric		C Close		HMO Hand pump†
		Hydraulic						
		4–7						

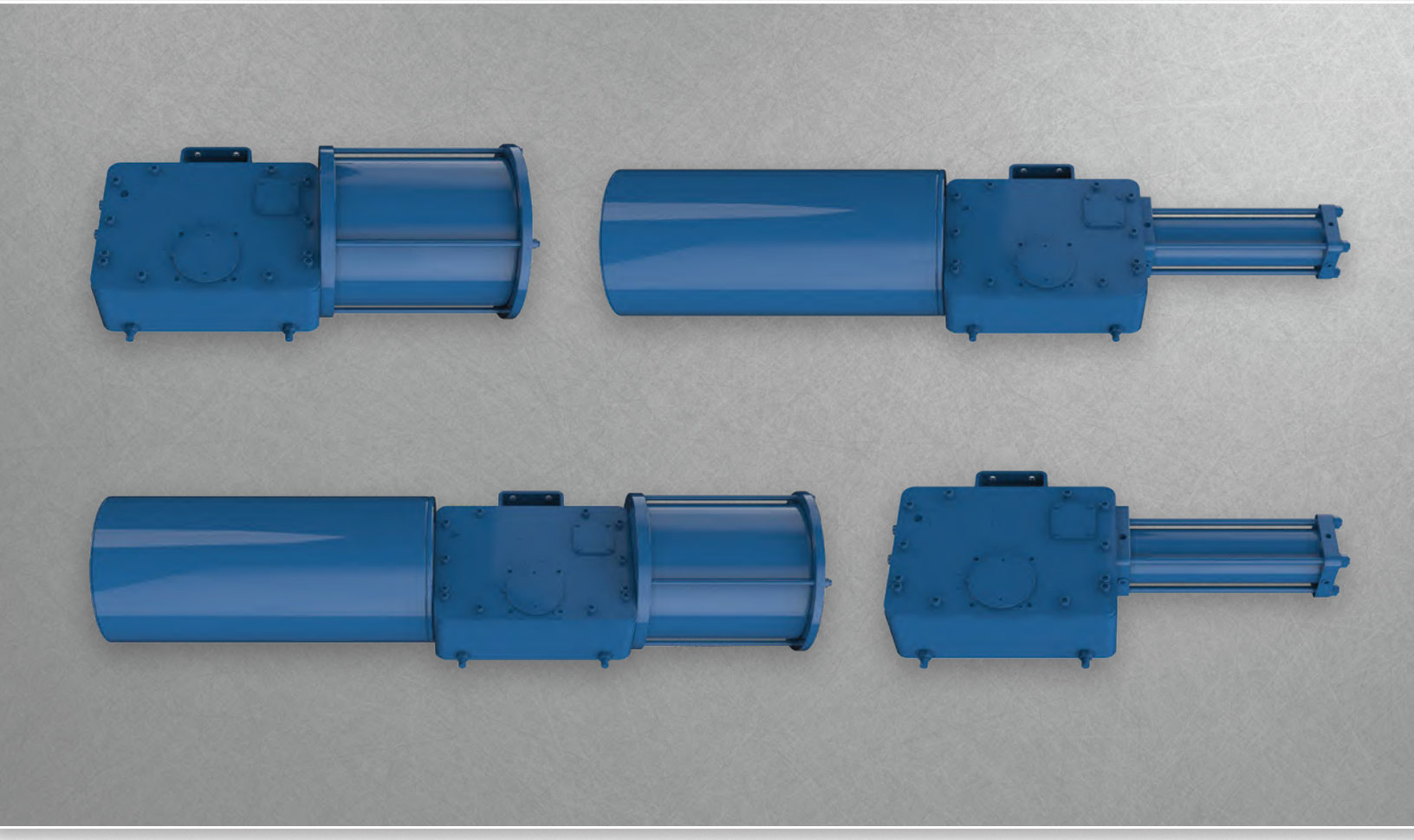
† GS6 Models only
‡ Only for spring-return models
§ If required

Technical data

For additional technical data such as torque charts, dimensional drawings, etc., refer to the LEDEEN GS Series actuators technical data packages or contact Cameron.



LEDEEN GS Series



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