

GZ-15 to GZ-40

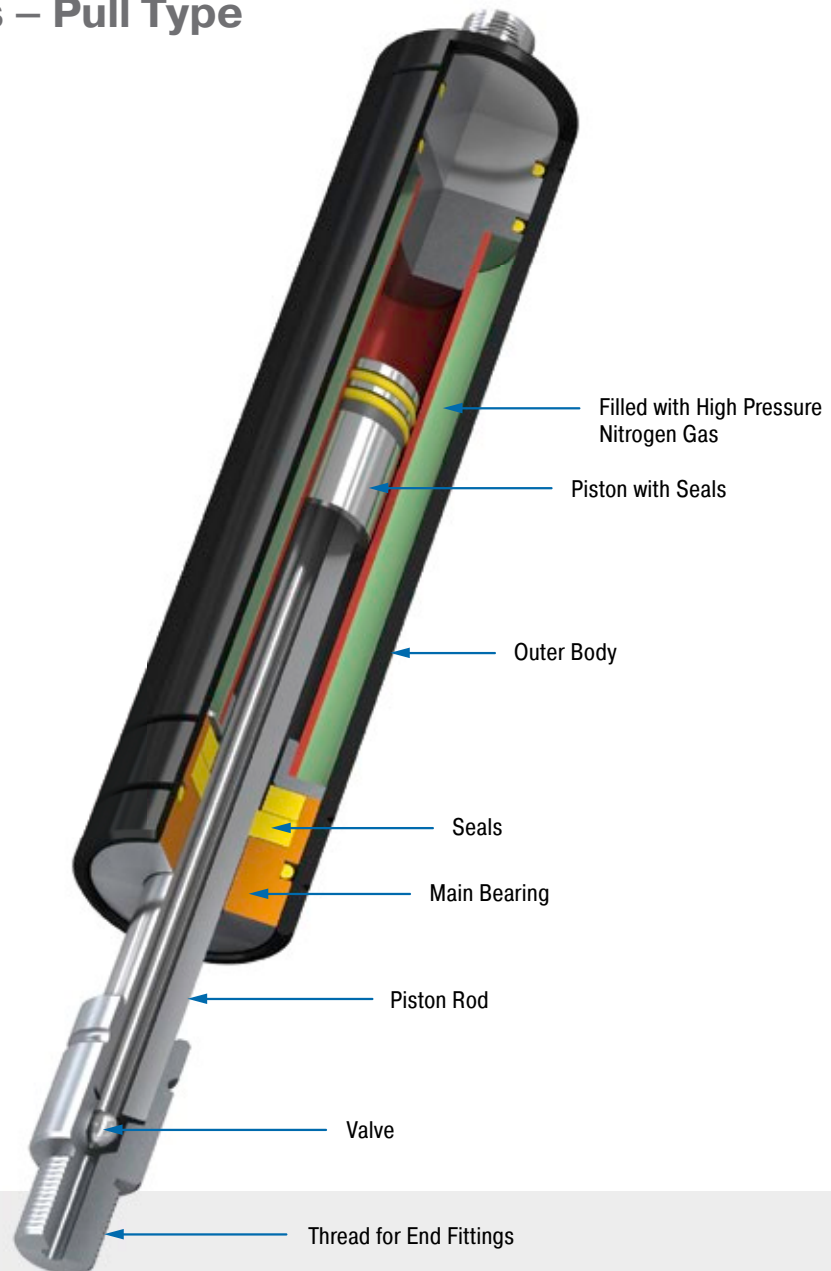
Industrial Gas Springs – Pull Type

Very low progression rate

The solution to a lack of space: If standard push type gas springs cannot be used due to a lack of space, ACE's industrial pull type gas springs come into their own. They work in the opposite way to standard push type gas springs. The piston rod is retracted when the cylinder is unloaded. The gas pressure in the cylinder draws the piston rod in.

ACE pull type gas springs offer the maximum service life thanks to the solid chrome-plated piston rod and an integrated sliding bearing. The maintenance-free and ready-to-install products are available in body diameters of 15 to 40 mm as well as forces from 40 to 5,000 N and are available from stock with valve and large selection of accessories. The traction force can be subsequently adjusted using the valve.

Gas traction springs from ACE are used in industrial applications, especially in mechanical engineering and in medical technology as well as in the electronics and furniture industries.



Technical Data

Traction force range: 40 N to 5,000 N

Piston rod diameter: Ø 4 mm bis Ø 28 mm

Progression: Approx. 20 % bis 40 %

Lifetime: Approx. 2,000 m

Operating temperature range: -20 °C to +80 °C

Material: Outer body, End fittings: Zinc plated steel; Piston rod: Steel or stainless steel with wear-resistant coating

Operating fluid: Nitrogen gas

Mounting: With piston rod upwards.

End position damping length: Without damping. For end position damping use damping material (e.g. TUBUS or SLAB).

Positive stop: External positive stop at the end of stroke provided by the customer.

Application field: Hoods, Shutters, Machine housing, Conveyor systems

End fittings: They are interchangeable and must be positively secured by the customer to prevent unscrewing.

On request: Special oils and other special options. Alternative accessories. Traction gas

springs with end position damping also available on request.

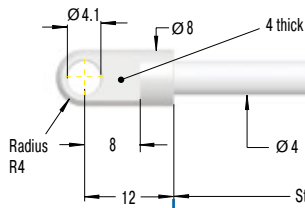
Valve Technology, Traction force range 50 N to 150 N (extended up to 185 N)

End Fitting

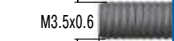
Standard Dimensions

End Fitting

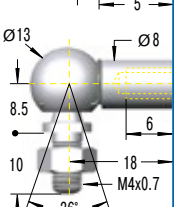
A3,5



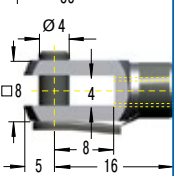
B3,5



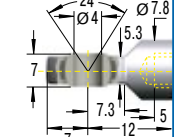
C3,5



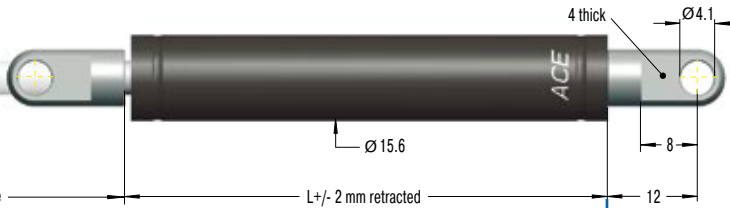
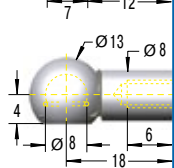
D3,5



E3,5



G3,5

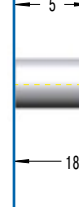


Eye A3,5
max. force 370 N

Stud Thread B3,5



Angle Ball Joint C3,5
max. force 370 N



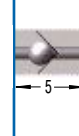
Clevis Fork D3,5
max. force 370 N



Swivel Eye E3,5
max. force 370 N



Ball Socket G3,5
max. force 370 N



Adjuster Knob DE-GAS-3,5
See page 171.

Performance and Dimensions

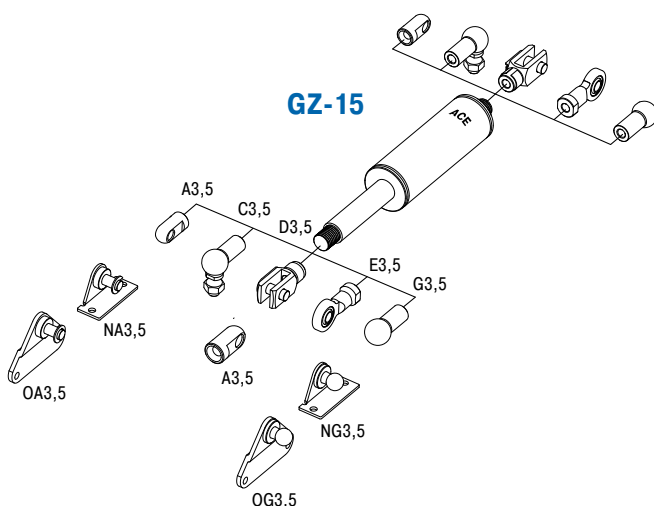
TYPES	Stroke mm	L retracted mm	Traction Force Range max. N
GZ-15-20	20	87	150
GZ-15-40	40	107	150
GZ-15-50	50	117	150
GZ-15-60	60	127	150
GZ-15-80	80	147	150
GZ-15-100	100	167	150
GZ-15-120	120	187	150
GZ-15-150	150	217	150

Ordering Example

GZ-15-150-AC-150

Type (Pull Type) _____
 Body Ø (15 mm) _____
 Stroke (150 mm) _____
 Piston Rod End Fitting A3,5 _____
 Body End Fitting C3,5 _____
 Traction Force F₁ 150 N _____

Mounting accessories see from page 194.



Technical Data

Traction force range: 50 N to 150 N (extended up to 185 N)

Progression: Approx. 23 %

Lifetime: Approx. 2,000 m

Operating temperature range: -20 °C to +80 °C

Material: Outer body, End fittings: Zinc plated steel; Piston rod: Stainless steel (1.4301/1.4305, AISI 304/303)

Mounting: With piston rod upwards.

End position damping length: Without damping. For end position damping use damping material (e.g. TUBUS or SLAB).

Positive stop: External positive stop at the end of stroke provided by the customer.

End fittings: They are interchangeable and must be positively secured by the customer to prevent unscrewing.

Valve Technology, Traction force range 40 N to 350 N (extended up to 448 N)

End Fitting

Standard Dimensions

End Fitting

A8

B8

C8

D8

E8

G8

Eye A8
max. force 3,000 N

Stud Thread B8

Angle Ball Joint C8
max. force 1,200 N

Clevis Fork D8
max. force 3,000 N

Swivel Eye E8
max. force 3,000 N

Ball Socket G8
max. force 1,200 N

TYPES	Stroke mm	L retracted mm	Traction Force Range max. N
GZ-19-30	30	112	300
GZ-19-50	50	132	300
GZ-19-100	100	182	300
GZ-19-150	150	232	300
GZ-19-200	200	282	300
GZ-19-250	250	332	300

Ordering Example

GZ-19-150-AC-250

Type (Pull Type) _____

Body Ø (19 mm) _____

Stroke (150 mm) _____

Piston Rod End Fitting A8 _____

Body End Fitting C8 _____

Traction Force F₁ 250 N _____

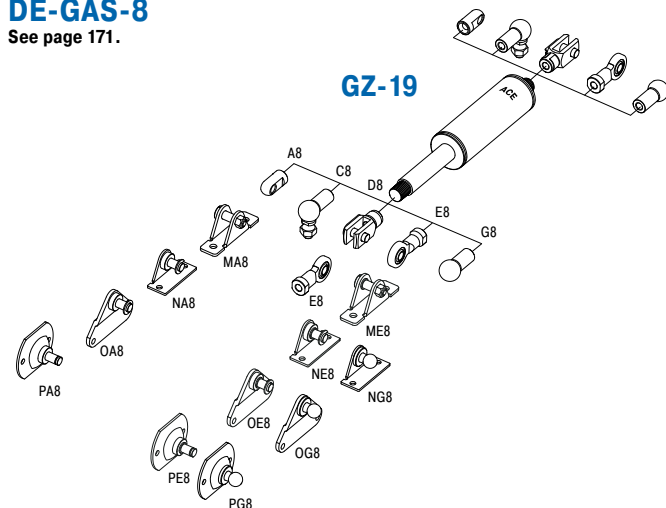
Mounting accessories see from page 194.

Rod Shroud W8-19

Ø 23

L = Stroke + 30

Adjuster Knob DE-GAS-8
See page 171.



Technical Data

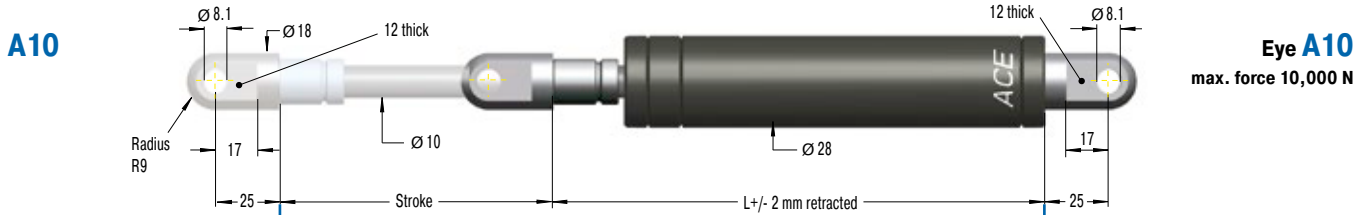
- Traction force range:** 40 N to 350 N (extended up to 448 N)
- Progression:** Approx. 21 % to 28 %
- Lifetime:** Approx. 2,000 m
- Operating temperature range:** -20 °C to +80 °C
- Material:** Outer body, End fittings: Zinc plated steel; Piston rod: Steel with wear-resistant coating
- Mounting:** With piston rod upwards.
- End position damping length:** Without damping. For end position damping use damping material (e.g. TUBUS or SLAB).
- Positive stop:** External positive stop at the end of stroke provided by the customer.
- End fittings:** They are interchangeable and must be positively secured by the customer to prevent unscrewing.

Valve Technology, Traction force range 150 N to 1,200 N (extended up to 1,440 N)

End Fitting

Standard Dimensions

End Fitting



B10

Stud Thread B10

C10

Angle Ball Joint C10

D10

Clevis Fork D10

E10

Swivel Eye E10

Performance and Dimensions			
TYPES	Stroke mm	L retracted mm	Traction Force Range max. N
GZ-28-30	30	130	1,200
GZ-28-50	50	150	1,200
GZ-28-100	100	200	1,200
GZ-28-150	150	250	1,200
GZ-28-200	200	300	1,200
GZ-28-250	250	350	1,200
GZ-28-300	300	400	1,200
GZ-28-350	350	450	1,200
GZ-28-400	400	500	1,200
GZ-28-450	450	550	1,200
GZ-28-500	500	600	1,200
GZ-28-550	550	650	1,200
GZ-28-600	600	700	1,200
GZ-28-650	650	750	1,200

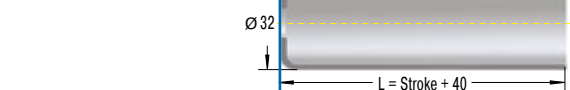
Ordering Example

GZ-28-150-EE-800

- Type (Pull Type) _____
- Body Ø (28 mm) _____
- Stroke (150 mm) _____
- Piston Rod End Fitting E10 _____
- Body End Fitting E10 _____
- Traction Force F₁ 800 N _____

Mounting accessories see from page 194.

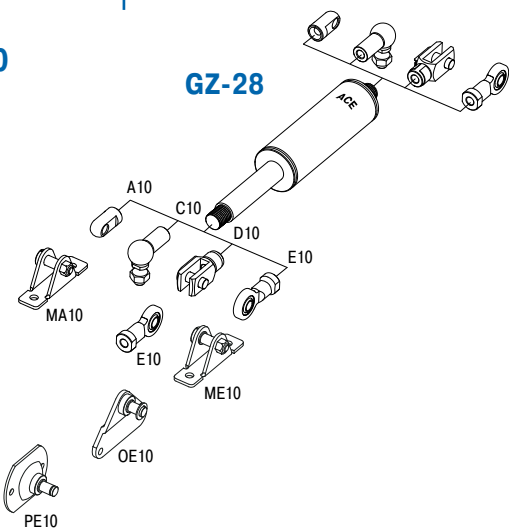
Rod Shroud W10-28



Adjuster Knob DE-GAS-10

See page 171.

GZ-28



Technical Data

- Traction force range:** 150 N to 1,200 N (extended up to 1,440 N)
- Progression:** Approx. 20 %
- Lifetime:** Approx. 2,000 m
- Operating temperature range:** -20 °C to +80 °C
- Material:** Outer body, End fittings: Zinc plated steel; Piston rod: Steel with wear-resistant coating
- Mounting:** With piston rod upwards.
- End position damping length:** Without damping. For end position damping use damping material (e.g. TUBUS or SLAB).
- Positive stop:** External positive stop at the end of stroke provided by the customer.
- End fittings:** They are interchangeable and must be positively secured by the customer to prevent unscrewing.

Issue 08.2016 – Specifications subject to change

Valve Technology, Traction force range 500 N to 5,000 N (extended up to 7,000 N)

End Fitting

Standard Dimensions

End Fitting

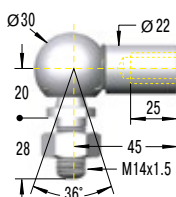


B14

Stud Thread B14

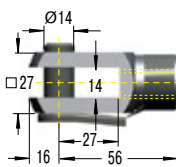
C14

Angle Ball Joint C14



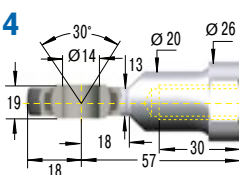
D14

Clevis Fork D14



E14

Swivel Eye E14



Performance and Dimensions			
TYPES	Stroke mm	L retracted mm	Traction Force Range max. N
GZ-40-100	100	250	5,000
GZ-40-150	150	325	5,000
GZ-40-200	200	400	5,000
GZ-40-250	250	475	5,000
GZ-40-300	300	550	5,000
GZ-40-400	400	700	5,000
GZ-40-500	500	850	5,000
GZ-40-600	600	1,000	5,000

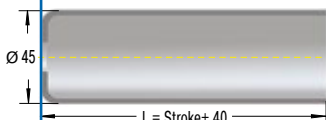
Ordering Example

GZ-40-150-EE-800

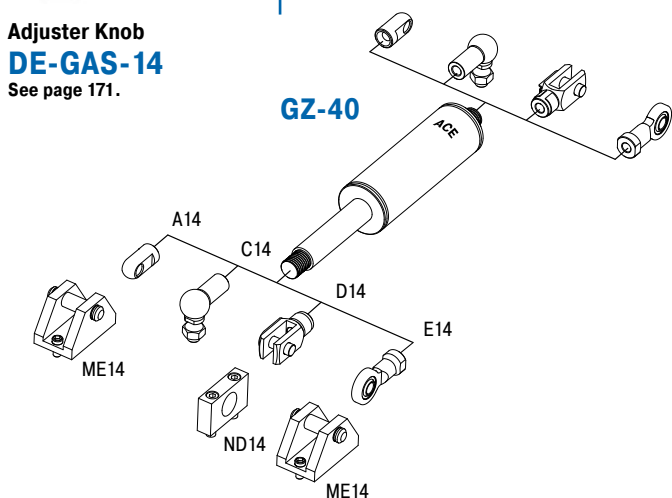
- Type (Pull Type) _____
- Body Ø (40 mm) _____
- Stroke (150 mm) _____
- Piston Rod End Fitting E14 _____
- Body End Fitting E14 _____
- Traction Force F_1 800 N _____

Mounting accessories see from page 194.

Rod Shroud W14-40



Adjuster Knob DE-GAS-14
See page 171.



Technical Data

- Traction force range:** 500 N to 5,000 N (extended up to 7,000 N)
- Progression:** Approx. 40 %
- Lifetime:** Approx. 2,000 m
- Operating temperature range:** -20 °C to +80 °C
- Material:** Outer body, End fittings: Zinc plated steel; Piston rod: Steel with wear-resistant coating
- Mounting:** With piston rod upwards.
- End position damping length:** Without damping. For end position damping use damping material (e.g. TUBUS or SLAB).
- Positive stop:** External positive stop at the end of stroke provided by the customer.
- End fittings:** They are interchangeable and must be positively secured by the customer to prevent unscrewing.