

GZ-15 to GZ-40

Very low progression rate

Valve Technology

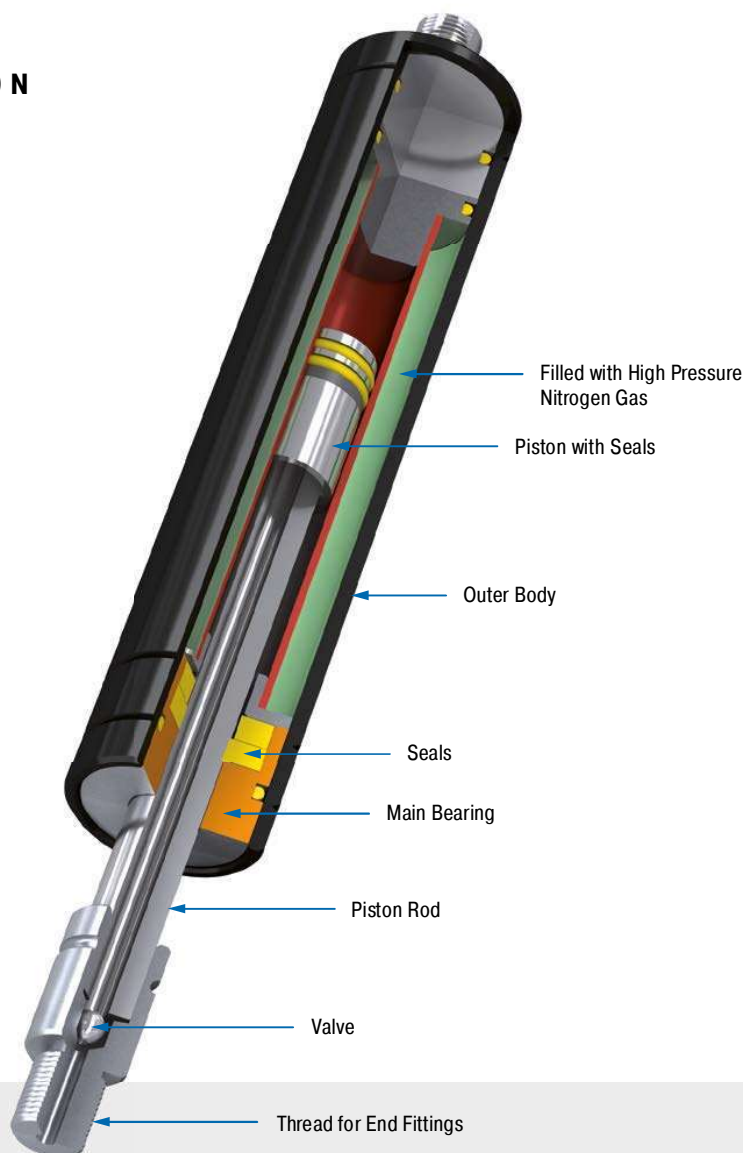
Traction force range 40 N to 5,000 N

Stroke 20 mm to 650 mm

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: 40 N to 5,000 N

Piston rod diameter: Ø 4 mm to Ø 28 mm

Progression: approx. 12 % to 45 %

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, control boxes, furniture industry, shipbuilding, assembly stations, vehicle technology, folding elements

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

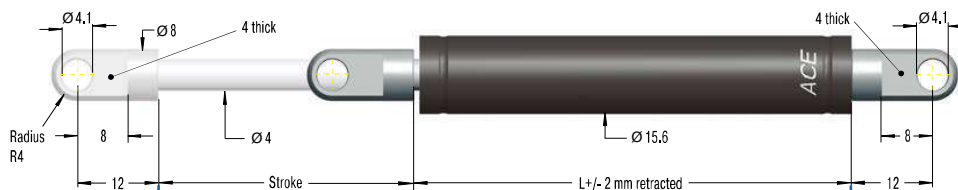
On request: Special oils and other special options. Alternative accessories. Traction gas springs with end position damping also available on request.

End Fitting

Standard Dimensions

End Fitting

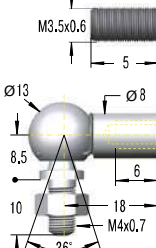
A3.5



Eye A3.5
max. force 370 N

B3.5

C3.5



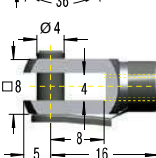
Performance and Dimensions

TYPES	Stroke mm	L retracted mm	Traction force 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

Stud Thread B3.5

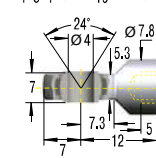
Angle Ball Joint C3.5
max. force 370 N

D3.5



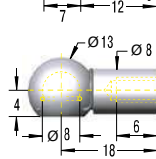
Clevis Fork D3.5
max. force 370 N

E3.5



Swivel Eye E3.5
max. force 370 N

G3.5



Ball Socket G3.5
max. force 370 N

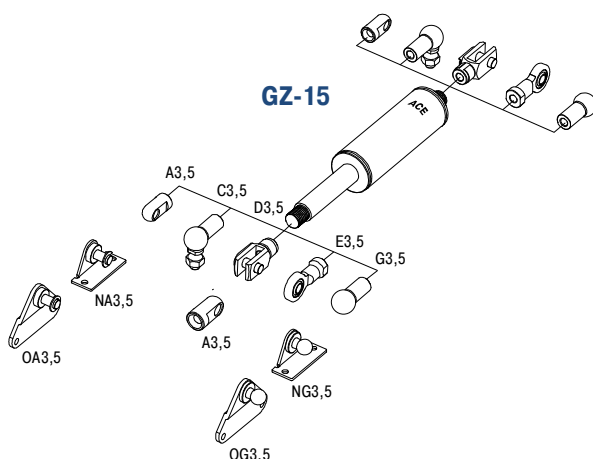
Ordering Example

GZ-15-150-AC-150
Type (Pull Type) _____
Body Ø (15.6 mm) _____
Stroke (150 mm) _____
Piston Rod End Fitting A3.5 _____
Body End Fitting C3.5 _____
Traction Force F_1 150 N _____

Mounting accessories see from
page 200.

**Adjuster Knob
DE-GAS-3.5**
See page 175.

GZ-15



Technical Data

Traction force: 50 N to 150 N (extended up to 183 N)

Progression: Approx. 12 % to 22 %

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).

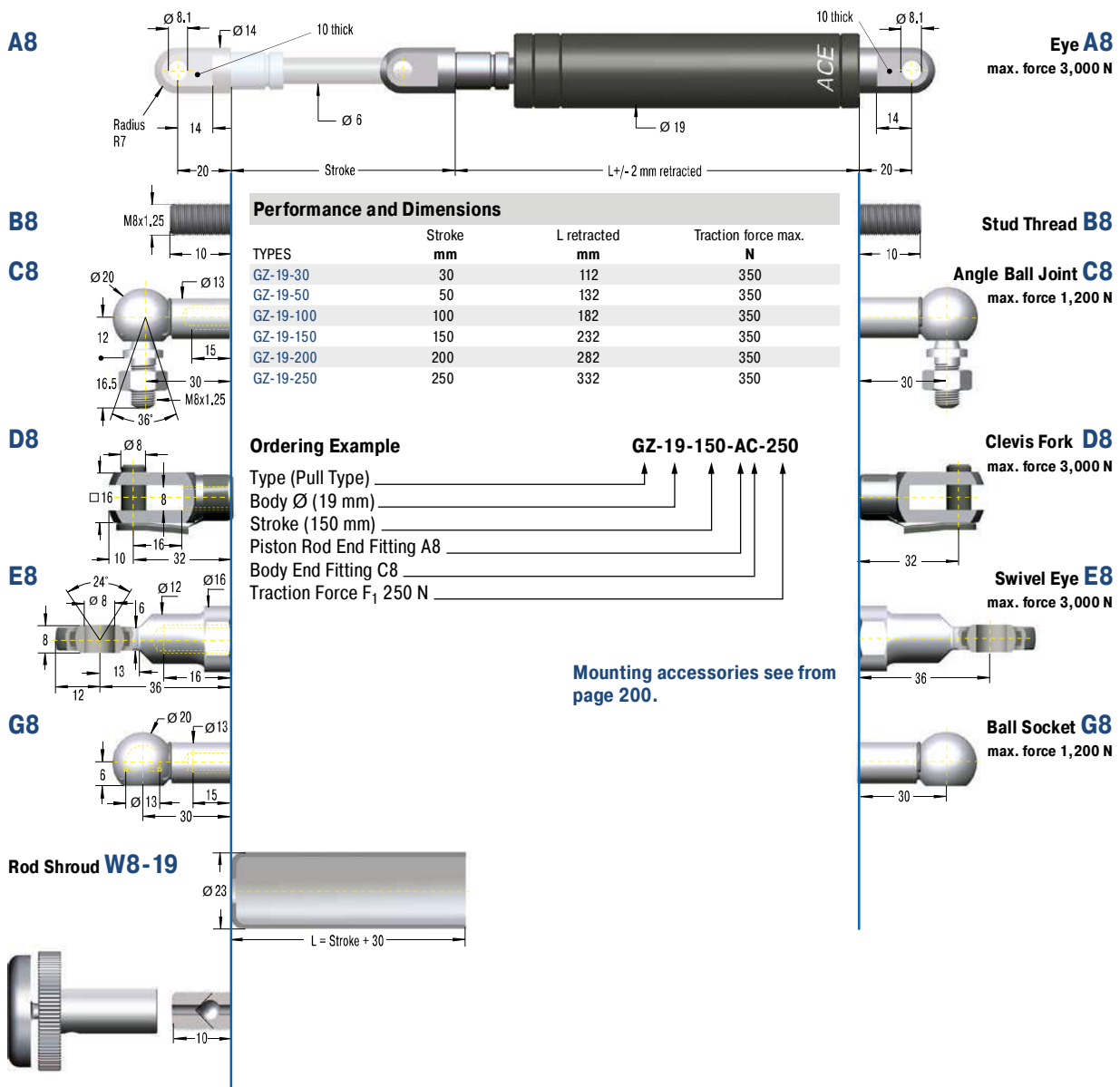
Positive stop: External positive stop at the end of stroke provided by the customer.

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

End Fitting

Standard Dimensions

End Fitting



Technical Data

Traction force: 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

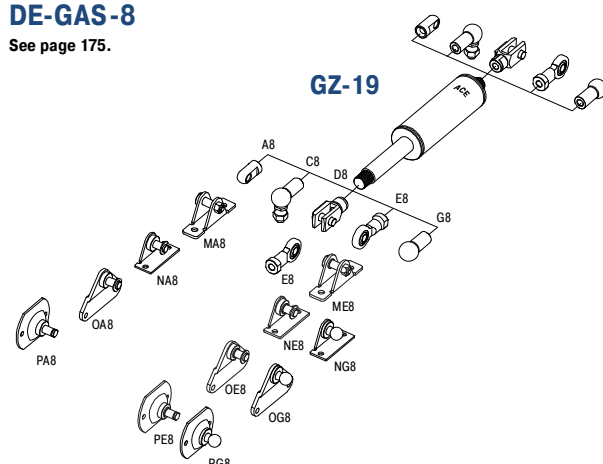
End position damping length: Without damping. For end position damping use damping material (e.g. TUBUS or SLAB).

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

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

Adjuster Knob
DE-GAS-8

See page 175.

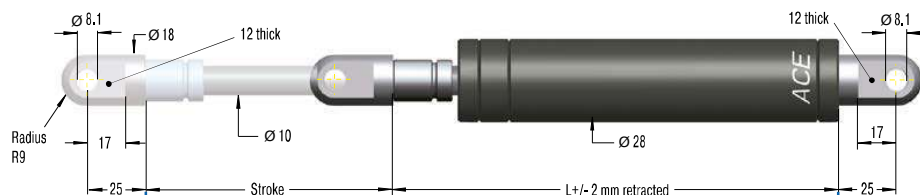


End Fitting

Standard Dimensions

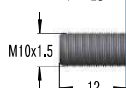
End Fitting

A10



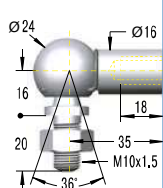
Eye A10
max. force 10,000 N

B10



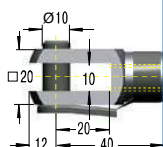
Stud Thread B10

C10



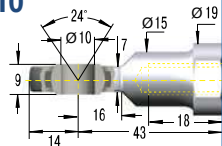
Angle Ball Joint C10
max. force 1,800 N

D10



Clevis Fork D10
max. force 10,000 N

E10



Swivel Eye E10
max. force 10,000 N

Performance and Dimensions

TYPES	Stroke mm	L retracted mm	Traction force 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

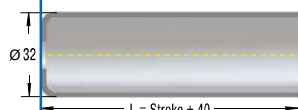
Ordering Example

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 F_T 800 N _____

Mounting accessories see from
page 200.

Rod Shroud W10-28



Adjuster Knob
DE-GAS-10
See page 175.

GZ-28

Technical Data

Traction force: 150 N to 1,200 N (extended up to 1,560 N)

Progression: Approx. 28 % to 30 %

Lifetime: Approx. 2,000 m

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

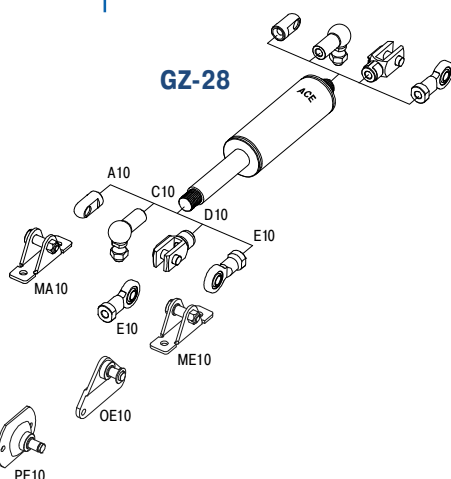
Material: Outer body, End fittings: zinc plated steel; Piston rod: steel with wear-resistant coating

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 if necessary must be positively secured by the customer to prevent unscrewing.



End Fitting

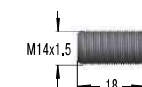
Standard Dimensions

End Fitting

A14

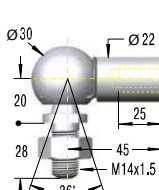

Eye A14
 max. force 10,000 N

B14

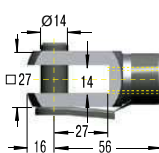


Stud Thread B14

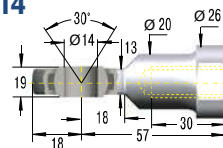
C14


Angle Ball Joint C14
 max. force 3,200 N

D14


Clevis Fork D14
 max. force 10,000 N

E14


Swivel Eye E14
 max. force 10,000 N

Performance and Dimensions

TYPES	Stroke mm	L retracted mm	Traction force 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)

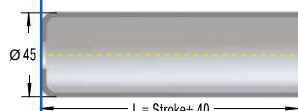
Stroke (150 mm)

Piston Rod End Fitting E14

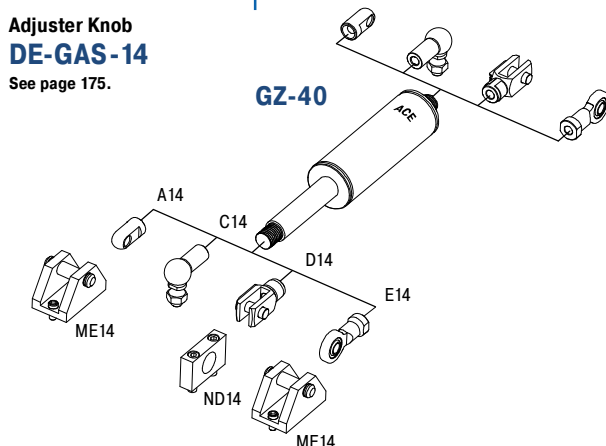
Body End Fitting E14

Traction Force F₁ 800 N
 Mounting accessories see from
 page 200.

Rod Shroud W14-40


 Adjuster Knob
 DE-GAS-14

See page 175.



Technical Data

Traction force: 500 N to 5,000 N (extended up to 7,250 N)**Progression:** Approx. 43 % to 45 %**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 if necessary must be positively secured by the customer to prevent unscrewing.