

GZ-15-V4A to GZ-40-VA

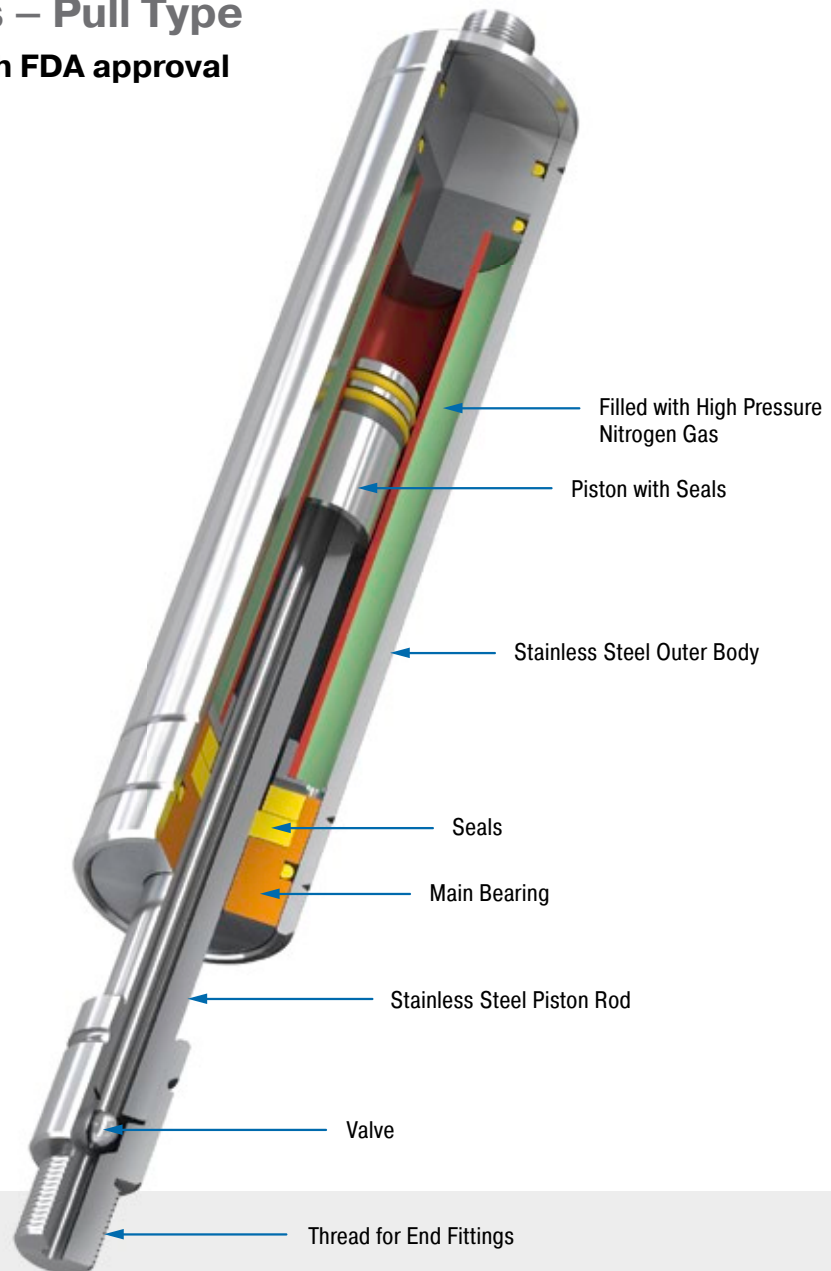
Industrial Gas Springs – Pull Type

Very low progression rate with FDA approval

Brilliant performance when things become tight: For specific use e.g. in tough surroundings or small spaces, the broad spectrum of ACE industrial pull type gas springs made of stainless steel with body diameters from 15 to 40 mm supplements the comprehensive programme of the ACE industrial pull type gas springs with valves.

This high quality design is rust free and is more robust against environmental impact compared with standard gas pull type springs. These stainless steel gas springs are also optically appealing, very durable and available, upon request, in many stroke lengths and are also possible in many extension forces in combination with the suitable stainless steel accessories.

ACE industrial push type springs made of stainless steel are used in industries such as the chemical and food industry, in automobiles, plant engineering and shipbuilding and also in medical, military, environmental and water supply technology.



Technical Data

Traction force range: 40 N to 5,000 N

Piston rod diameter: Ø 4 mm to Ø 28 mm

Progression: Approx. 11 % to 40 %

Lifetime: Approx. 2,000 m

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

Material: Outer body, Piston rod, End fittings: Stainless steel (1.4301/1.4305, AISI 304/303 and 1.4404/1.4571, AISI 316L/316Ti)

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 in the pulling direction 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

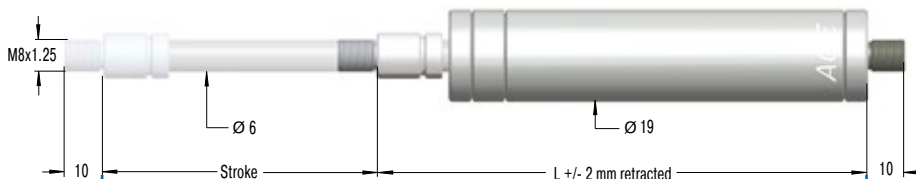
springs with end position damping also available on request. Other traction gas springs material 1.4404/1.4571, AISI 316L/316Ti (V4A) available on request.

End Fitting

Standard Dimensions

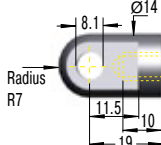
End Fitting

B8



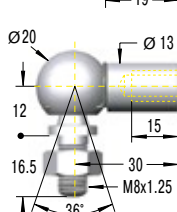
Stud Thread B8

A8-VA



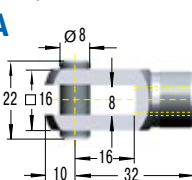
Eye A8-VA
max. force 1,560 N

C8-VA



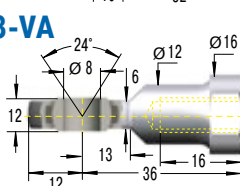
Angle Ball Joint C8-VA
max. force 1,140 N

D8-VA



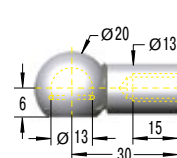
Clevis Fork D8-VA
max. force 1,560 N

E8-VA



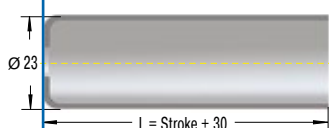
Swivel Eye E8-VA
max. force 1,560 N

G8-VA



Ball Socket G8-VA
max. force 1,140 N

Rod Shroud
W8-19-VA



Adjuster Knob
DE-GAS-8
See page 171.

Performance and Dimensions

TYPES	Stroke mm	L retracted mm	Traction Force Range max. N
GZ-19-30-VA	30	130	300
GZ-19-50-VA	50	150	300
GZ-19-100-VA	100	200	300
GZ-19-150-VA	150	250	300
GZ-19-200-VA	200	300	300
GZ-19-250-VA	250	350	300

Ordering Example

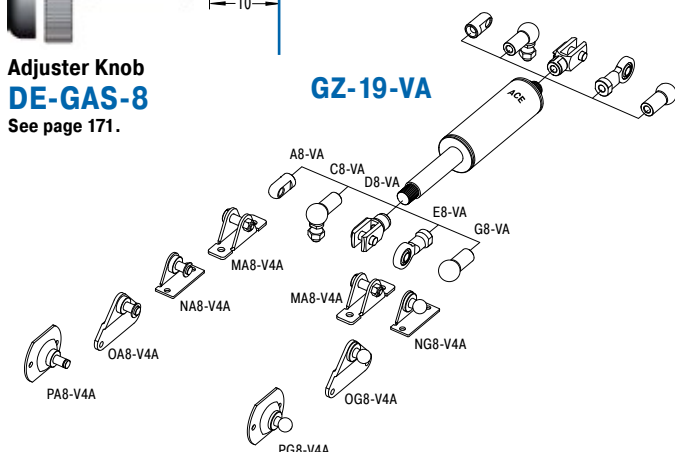
GZ-19-150-AC-150-VA

Type (Pull Type) _____
 Body Ø (19 mm) _____
 Stroke (150 mm) _____
 Piston Rod End Fitting A8-VA _____
 Body End Fitting C8-VA _____
 Traction Force F₁ 150 N _____
 Material (1.4301/1.4305, AISI 304/303, VA) _____

Mounting accessories see from page 202.

GZ-19-VA

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, Piston rod, End fittings: 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 in the pulling direction provided by the customer.

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

Valve Technology, Stainless Steel, Traction force range 150 N to 1,200 N (ext. up to 1,460 N)

End Fitting

Standard Dimensions

End Fitting

B10

M10x1.5

Ø 10

Stroke

L +/- 2 mm retracted

Ø 28

12

Stud Thread B10

A10-VA

Radius R9

Ø 18

8.1

15

15

27

Eye A10-VA

max. force 3,800 N

10 thick

27

C10-VA

Ø 24

Ø 16

16

18

20

35

M10x1.5

36°

Angle Ball Joint C10-VA

max. force 1,750 N

35

D10-VA

Ø 10

26.5

20

10

12

20

40

Clevis Fork D10-VA

max. force 3,800 N

40

E10-VA

24°

Ø 10

7

Ø 15

Ø 19

14

16

43

18

Swivel Eye E10-VA

max. force 3,800 N

43

Rod Shroud W10-28-VA

Ø 32

L = Stroke + 40

Performance and Dimensions

TYPES	Stroke mm	L retracted mm	Traction Force Range max. N
GZ-28-50-VA	50	165	1,200
GZ-28-100-VA	100	215	1,200
GZ-28-150-VA	150	265	1,200
GZ-28-200-VA	200	315	1,200
GZ-28-250-VA	250	365	1,200
GZ-28-300-VA	300	415	1,200
GZ-28-350-VA	350	465	1,200
GZ-28-400-VA	400	515	1,200
GZ-28-450-VA	450	565	1,200
GZ-28-500-VA	500	615	1,200
GZ-28-550-VA	550	665	1,200
GZ-28-600-VA	600	715	1,200

Ordering Example

GZ-28-150-EE-800-VA

Type (Pull Type) _____

Body Ø (28 mm) _____

Stroke (150 mm) _____

Piston Rod End Fitting E10-VA _____

Body End Fitting E10-VA _____

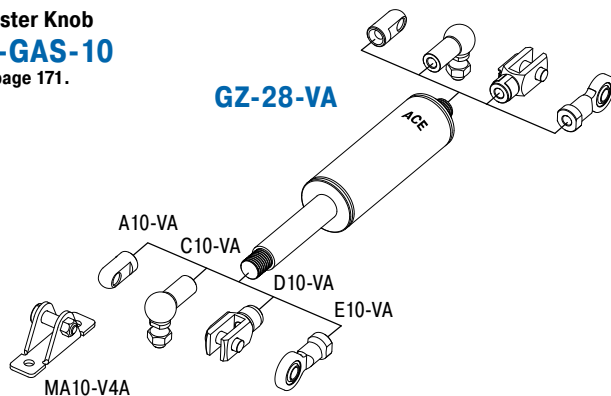
Traction Force F₁ 800 N _____

Material (1.4301/1.4305, AISI 304/303, VA) _____

Mounting accessories see from page 202.

Adjuster Knob DE-GAS-10
See page 171.

GZ-28-VA



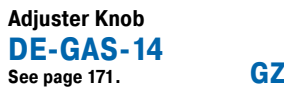
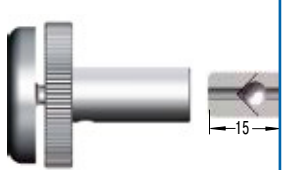
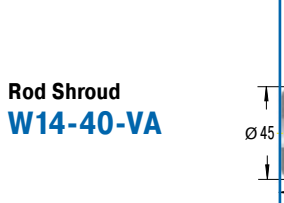
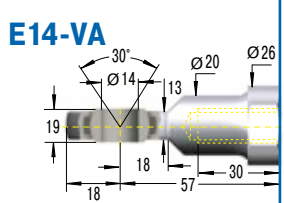
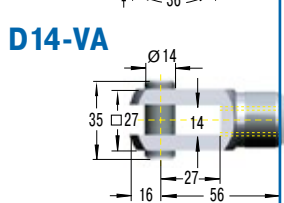
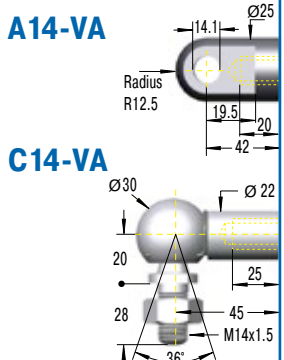
Technical Data

- Traction force range:** 150 N to 1,200 N (extended up to 1,460 N)
- Progression:** Approx. 22 %
- Lifetime:** Approx. 2,000 m
- Operating temperature range:** -20 °C to +80 °C
- Material:** Outer body, Piston rod, End fittings: 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 in the pulling direction provided by the customer.
- End fittings:** They are interchangeable and must be positively secured by the customer to prevent unscrewing.

End Fitting

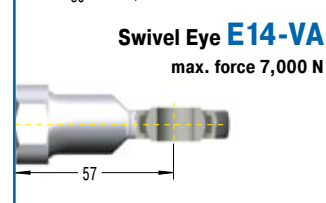
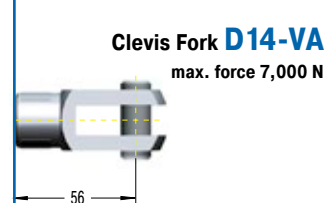
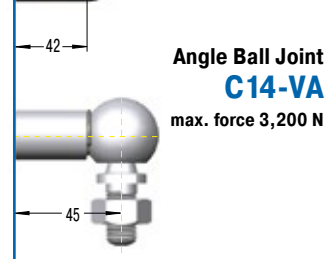
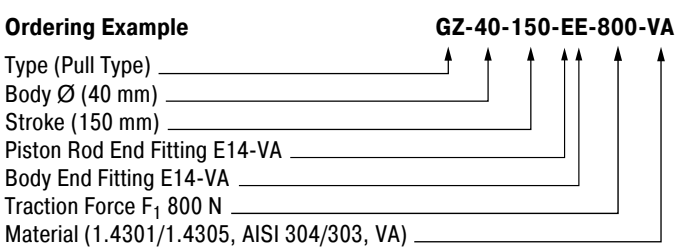
Standard Dimensions

End Fitting

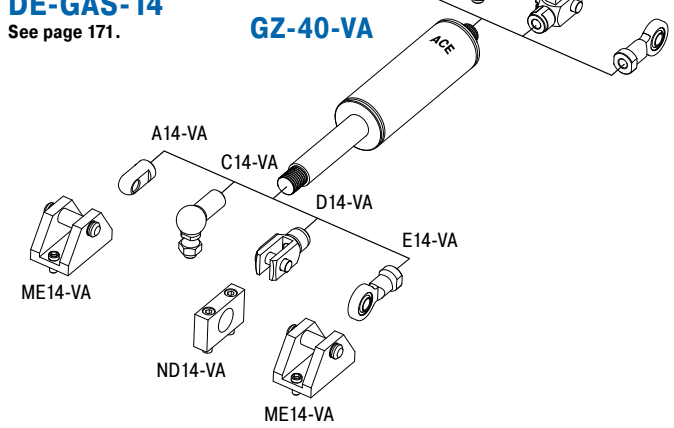


Performance and Dimensions

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



Mounting accessories see from page 202.



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, Piston rod, End fittings: 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 in the pulling direction provided by the customer.
- End fittings:** They are interchangeable and must be positively secured by the customer to prevent unscrewing.

Further Stainless Steel Gas Springs (Pull Type), V4A

Performance			
TYPES	Stroke mm	L retracted mm	Dimensions see Page
GZ-19-30-V4A	30	130	164
GZ-19-50-V4A	50	150	164
GZ-19-150-V4A	150	250	164
GZ-19-200-V4A	200	300	164
GZ-19-250-V4A	250	350	164
GZ-28-50-V4A	50	165	165
GZ-28-100-V4A	100	215	165
GZ-28-150-V4A	150	265	165
GZ-28-200-V4A	200	315	165
GZ-28-250-V4A	250	365	165
GZ-28-300-V4A	300	415	165
GZ-28-350-V4A	350	465	165
GZ-28-400-V4A	400	515	165
GZ-28-450-V4A	450	565	165
GZ-28-500-V4A	500	615	165
GZ-28-550-V4A	550	665	165
GZ-28-600-V4A	600	715	165
GZ-40-100-V4A	100	250	166
GZ-40-150-V4A	150	325	166
GZ-40-200-V4A	200	400	166
GZ-40-250-V4A	250	475	166
GZ-40-300-V4A	300	550	166
GZ-40-400-V4A	400	700	166
GZ-40-500-V4A	500	850	166
GZ-40-600-V4A	600	1,000	166

Further Stainless Steel Accessories, V4A

End Fittings		End Fittings	
TYPES	Dimensions see Page	TYPES	Dimensions see Page
A5-V4A	204	A10-V4A	206
C5-V4A	204	C10-V4A	206
D5-V4A	204	D10-V4A	206
E5-V4A	204	E10-V4A	206
G5-V4A	204	A14-V4A	207
A8-V4A	205	C14-V4A	207
C8-V4A	205	D14-V4A	207
D8-V4A	205	E14-V4A	207
E8-V4A	205		
G8-V4A	206		