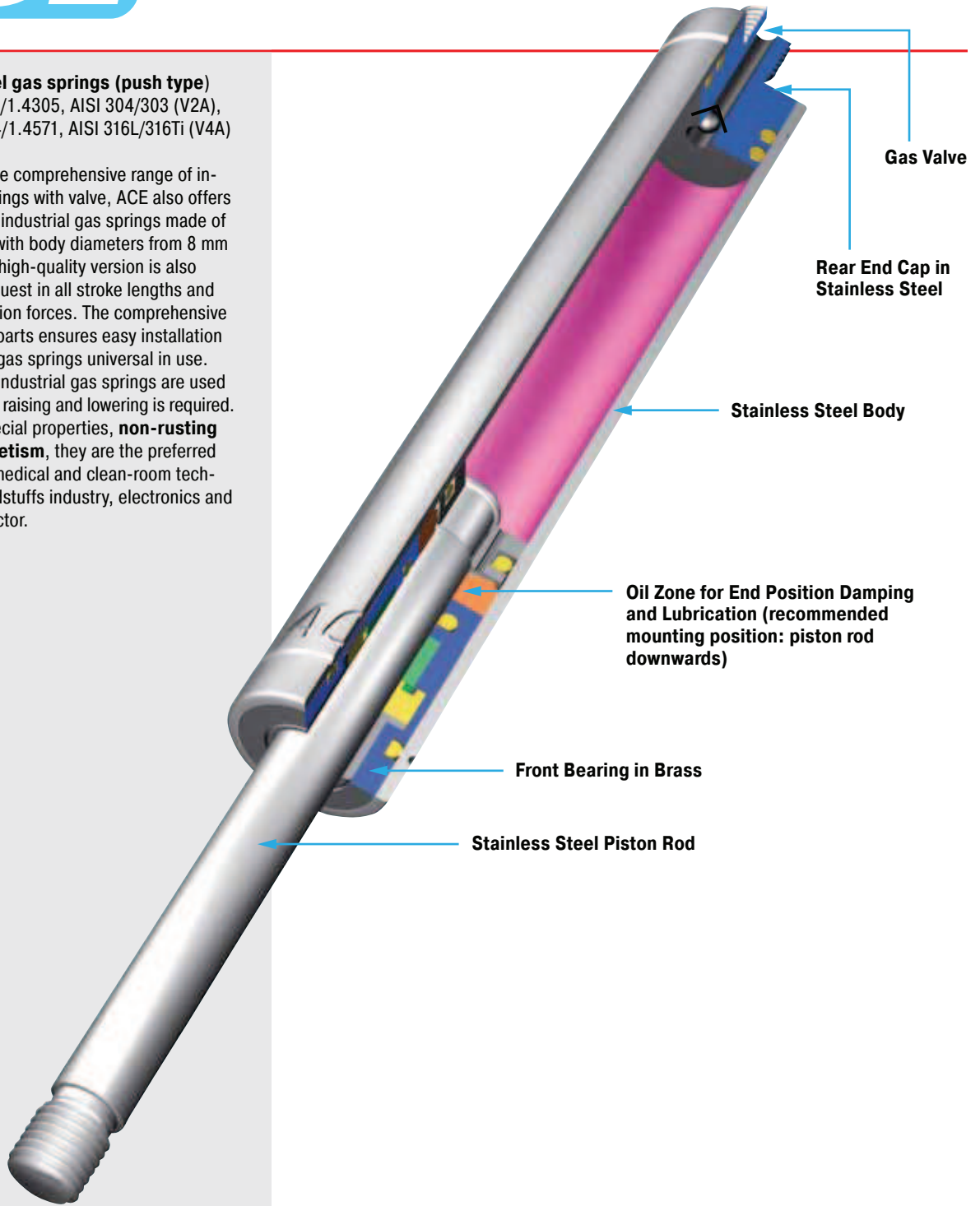


Stainless steel gas springs (push type)
 Material 1.4301/1.4305, AISI 304/303 (V2A),
 Material 1.4404/1.4571, AISI 316L/316Ti (V4A)

In addition to the comprehensive range of industrial gas springs with valve, ACE also offers a wide range of industrial gas springs made of stainless steel with body diameters from 8 mm to 70 mm. This high-quality version is also available on request in all stroke lengths and possible extension forces. The comprehensive range of fitting parts ensures easy installation and makes the gas springs universal in use. Stainless steel industrial gas springs are used everywhere that raising and lowering is required. Due to their special properties, **non-rusting and low magnetism**, they are the preferred equipment for medical and clean-room technology, the foodstuffs industry, electronics and shipbuilding sector.



Operating fluid: Nitrogen gas and oil

Material: Piston rod, body and end fittings: Material 1.4301/1.4305, AISI 304/303 (V2A) or material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

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

On request: Without damping, strong end position damping, special force curves, wiper, special lengths, alternative end fittings.



End Fitting

Standard Dimensions

End Fitting

B3,5 M3.5x0.6

A3,5-V4A 5 4.1 Ø8 Radius R4 8 6 4 11

C3,5-V4A Ø13 Ø8 8.5 10 18 36° M4x0.7

D3,5-V4A Ø4 8 4 5 8 16

G3,5-V4A Ø13 Ø8 4 18

Rod Shroud W3,5-8-V4A Ø11 L = Stroke + 10

Stud Thread B3,5

Eye A3,5-V4A max. force 370 N

Angle Ball Joint C3,5-V4A max. force 370 N

Clevis Fork D3,5-V4A max. force 370 N

Ball Socket G3,5-V4A max. force 370 N

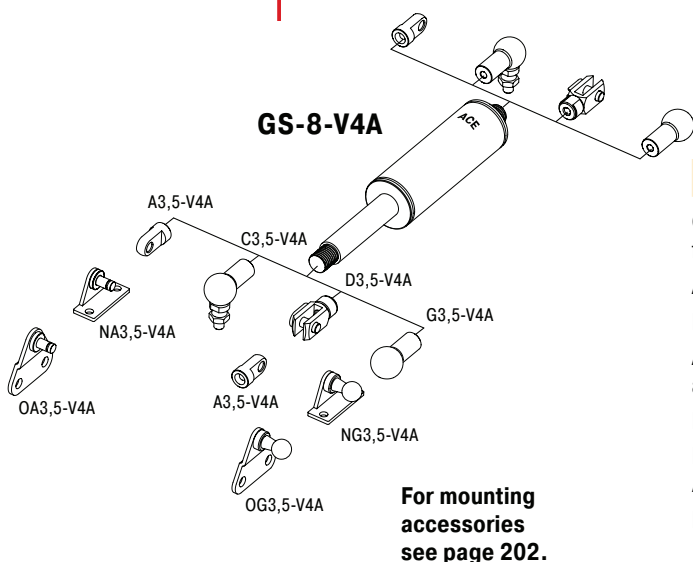
Adjuster Knob U3,5 See page 163.

Dimensions		
Type	Stroke mm	L extended
GS-8-20-V4A	20	72
GS-8-30-V4A	30	92
GS-8-40-V4A	40	112
GS-8-50-V4A	50	132
GS-8-60-V4A	60	152
GS-8-80-V4A	80	192

Ordering Example
GS-8-30-AC-30-V4A
 Type (Push Type) _____
 Body Ø (8 mm) _____
 Stroke (30 mm) _____
 Piston Rod End Fitting A3,5-V4A _____
 Body End Fitting C3,5-V4A _____
 Nominal Force F_1 30 N _____
 Indicated by K.-No. on delivery _____

**The end fittings are interchangeable.
For mounting accessories see page 202.**

Issue 6.2011 Specifications subject to change



Technical Data

On request: Without damping, increased end position damping, special force curves, special end fittings.

Available force range F_1 at 20 °C: 25 N to 100 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: approx. 5 mm

Material: Piston rod, body and end fittings: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

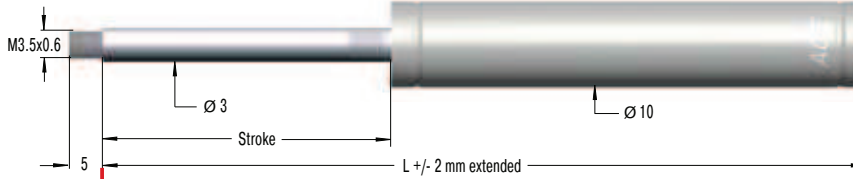
Progression: approx. 27%, F_2 max. 130 N

End Fitting

Standard Dimensions

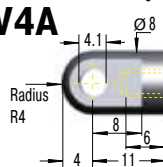
End Fitting

B3,5



Stud Thread **B3,5**

A3,5-V4A

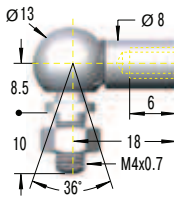


Dimensions

Type	Stroke mm	L extended
GS-10-20-V4A	20	72
GS-10-30-V4A	30	92
GS-10-40-V4A	40	112
GS-10-50-V4A	50	132
GS-10-60-V4A	60	152
GS-10-80-V4A	80	192

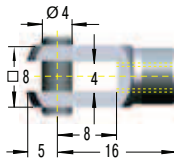
Eye
A3,5-V4A
max. force 370 N

C3,5-V4A



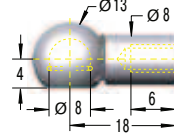
Angle Ball Joint
C3,5-V4A
max. force 370 N

D3,5-V4A



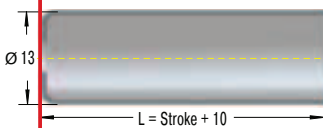
Clevis Fork
D3,5-V4A
max. force 370 N

G3,5-V4A



Ball Socket
G3,5-V4A
max. force 370 N

Rod Shroud
W3,5-10-V4A

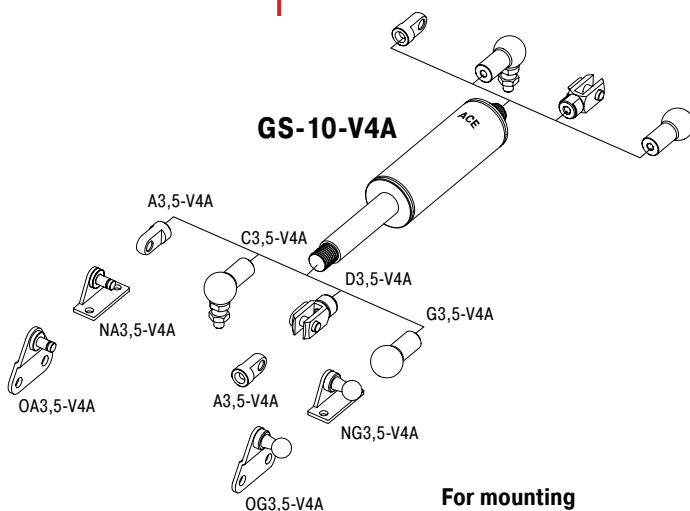


The end fittings are interchangeable.
For mounting accessories see page 202.

Ordering Example

GS-10-30-AC-30-V4A

Type (Push Type) _____
Body Ø (10 mm) _____
Stroke (30 mm) _____
Piston Rod End Fitting A3,5-V4A _____
Body End Fitting C3,5-V4A _____
Nominal Force F_1 30 N _____
Indicated by K.-No. on delivery _____



For mounting
accessories
see page 202.

Technical Data

On request: Without damping, increased end position damping, special force curves, special end fittings.

Available force range F_1 at 20 °C: 30 N to 100 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: approx. 5 mm

Material: Piston rod, body and end fittings: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Progression: approx. 12%, F_2 max. 115 N

End Fitting

Standard Dimensions

End Fitting

B3,5

A3,5-V4A

C3,5-V4A

D3,5-V4A

G3,5-V4A

Rod Shroud W3,5-12-V4A

Dimensions

Type	Stroke mm	L extended
GS-12-20-V4A	20	72
GS-12-30-V4A	30	92
GS-12-40-V4A	40	112
GS-12-50-V4A	50	132
GS-12-60-V4A	60	152
GS-12-80-V4A	80	192
GS-12-100-V4A	100	232
GS-12-120-V4A	120	272
GS-12-150-V4A	150	332

Ordering Example

GS-12-100-AA-30-V4A

Type (Push Type) _____

Body Ø (12 mm) _____

Stroke (100 mm) _____

Piston Rod End Fitting A3,5-V4A _____

Body End Fitting A3,5-V4A _____

Nominal Force F₁ 30 N _____

Indicated by K.-No. on delivery _____

The end fittings are interchangeable.
For mounting accessories see page 202.

Stud Thread **B3,5**

Eye A3,5-V4A
max. force 370 N

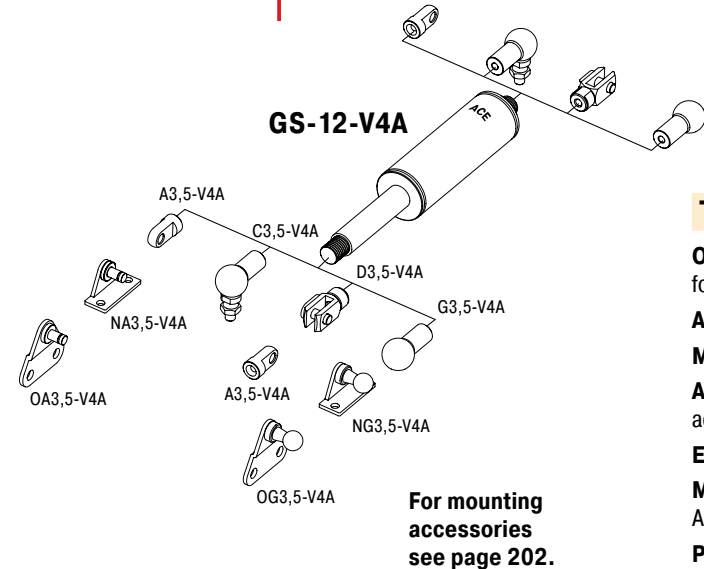
Angle Ball Joint C3,5-V4A
max. force 370 N

Clevis Fork D3,5-V4A
max. force 370 N

Ball Socket G3,5-V4A
max. force 370 N

Adjuster Knob U3,5
See page 163.

Issue 6.2011 Specifications subject to change



Technical Data

On request: Without damping, increased end position damping, special force curves, special end fittings.

Available force range F₁ at 20 °C: 25 N to 200 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: approx. 10 mm

Material: Piston rod, body and end fittings: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Progression: approx. 18%, F₂ max. 235 N

End Fitting

Standard Dimensions

End Fitting

Dimensions

Type	Stroke mm	L extended
GS-15-20-VA	20	74
GS-15-40-VA	40	114
GS-15-50-VA	50	134
GS-15-60-VA	60	154
GS-15-80-VA	80	194
GS-15-100-VA	100	234
GS-15-120-VA	120	274
GS-15-150-VA	150	334

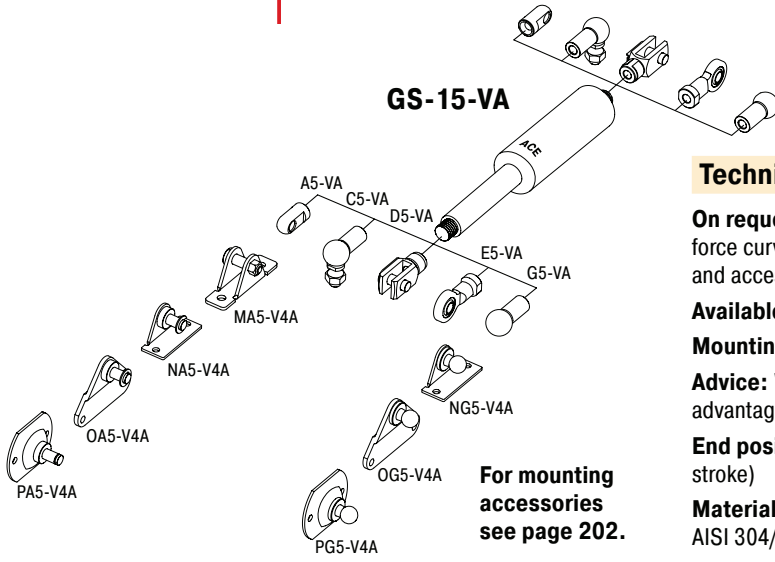
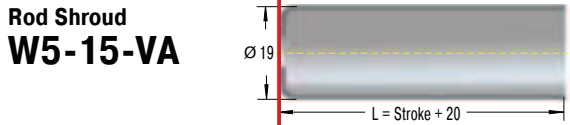
Ordering Example

GS-15-150-AC-150-VA

Type (Push Type) _____
 Body Ø (15.6 mm) _____
 Stroke (150 mm) _____
 Piston Rod End Fitting A5-VA _____
 Body End Fitting C5-VA _____
 Nominal Force F₁ 150 N _____
 Indicated by K.-No. on delivery _____

The end fittings are interchangeable.
Strokes also available up to 300 mm.
For mounting accessories see page 202.

End Fittings:
 Stud Thread **B5**
 Eye **A5-VA** max. force 490 N
 Angle Ball Joint **C5-VA** max. force 430 N
 Clevis Fork **D5-VA** max. force 490 N
 Swivel Eye **E5-VA** max. force 490 N
 Ball Socket **G5-VA** max. force 430 N
 Adjuster Knob **U5** See page 163.



Technical Data

On request: Without damping, increased end position damping, special force curves, special lengths, alternative end fittings, wiper. Gas springs and accessories: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Available force range F₁ at 20 °C: 40 N to 400 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: Approx. 20 mm (depending on the stroke)

Material: Piston rod, body and end fittings: Material 1.4301/1.4305, AISI 304/303 (V2A).

Progression: Approx. 34%, F₂ max. 490 N

Issue 6.2011 Specifications subject to change

Extension Forces 50 N to 700 N
(when Piston Rod Compressed up to 910 N)

End Fitting

Standard Dimensions

End Fitting

B8

A8-VA

C8-VA

D8-VA

E8-VA

G8-VA

Rod Shroud W8-19-VA

Dimensions

Type	Stroke mm	L extended
GS-19-50-VA	50	164
GS-19-100-VA	100	264
GS-19-150-VA	150	364
GS-19-200-VA	200	464
GS-19-250-VA	250	564
GS-19-300-VA	300	664

Ordering Example

GS-19-150-AC-600-VA

Type (Push Type) _____

Body Ø (19 mm) _____

Stroke (150 mm) _____

Piston Rod End Fitting A8-VA _____

Body End Fitting C8-VA _____

Nominal Force F₁ 600 N _____

Indicated by K.-No. on delivery _____

**The end fittings are interchangeable.
Strokes also available up to 500 mm.
For mounting accessories see page 203.**

Stud Thread B8

Eye A8-VA
max. force 1560 N

Angle Ball Joint C8-VA
max. force 1140 N

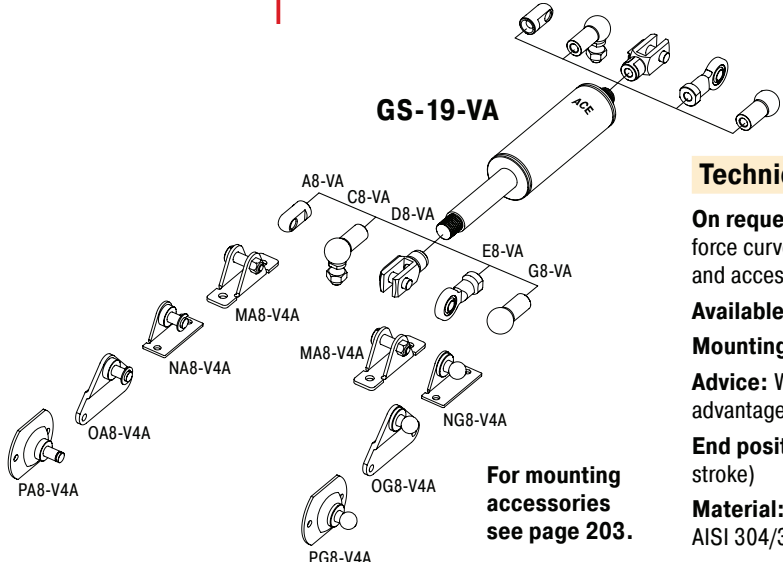
Clevis Fork D8-VA
max. force 1560 N

Swivel Eye E8-VA
max. force 1560 N

Ball Socket G8-VA
max. force 1140 N

Adjuster Knob U8
See page 163.

Issue 6.2011. Specifications subject to change



Technical Data

On request: Without damping, increased end position damping, special force curves, special lengths, alternative end fittings, wiper. Gas springs and accessories: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Available force range F₁ at 20 °C: 50 N to 700 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: Approx. 20 mm (depending on the stroke)

Material: Piston rod, body and end fittings: Material 1.4301/1.4305, AISI 304/303 (V2A).

Progression: Approx. 33%, F₂ max. 910 N

For mounting accessories see page 203.

End Fitting

Standard Dimensions

End Fitting

B8

A8-VA

C8-VA

D8-VA

E8-VA

G8-VA

Rod Shroud W8-22-VA

Dimensions

Type	Stroke mm	L extended
GS-22-50-VA	50	164
GS-22-100-VA	100	264
GS-22-150-VA	150	364
GS-22-200-VA	200	464
GS-22-250-VA	250	564
GS-22-300-VA	300	664
GS-22-350-VA	350	764
GS-22-400-VA	400	864
GS-22-450-VA	450	964
GS-22-500-VA	500	1 064
GS-22-550-VA	550	1 164
GS-22-600-VA	600	1 264
GS-22-650-VA	650	1 364
GS-22-700-VA	700	1 464

Ordering Example

GS-22-150-AE-800-VA

Type (Push Type) _____

Body Ø (23 mm) _____

Stroke (150 mm) _____

Piston Rod End Fitting A8-VA _____

Body End Fitting E8-VA _____

Nominal Force F₁ 800 N _____

Indicated by K.-No. on delivery _____

**The end fittings are interchangeable.
For mounting accessories see page 203.**

Stud Thread B8

Eye A8-VA
max. force 1560 N

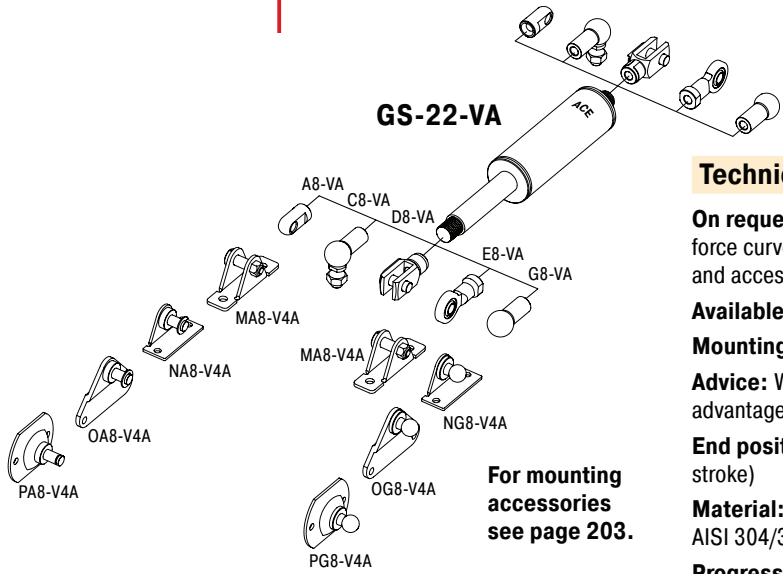
Angle Ball Joint C8-VA
max. force 1140 N

Clevis Fork D8-VA
max. force 1560 N

Swivel Eye E8-VA
max. force 1560 N

Ball Socket G8-VA
max. force 1140 N

Adjuster Knob U8
See page 163.



Technical Data

On request: Without damping, increased end position damping, special force curves, special lengths, alternative end fittings, wiper. Gas springs and accessories: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Available force range F₁ at 20 °C: 100 N to 1200 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: Approx. 20 mm (depending on the stroke)

Material: Piston rod, body and end fittings: Material 1.4301/1.4305, AISI 304/303 (V2A).

Progression: Approx. 32%, F₂ max. 1560 N

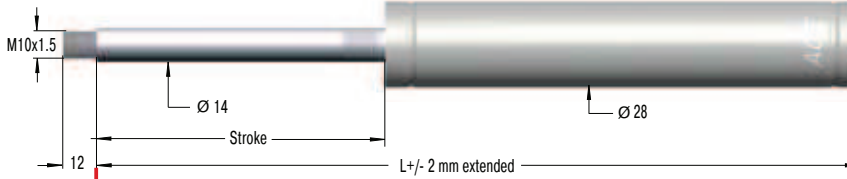
Issue 6.2011 Specifications subject to change

End Fitting

Standard Dimensions

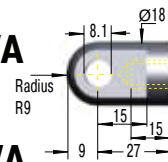
End Fitting

B10



Stud Thread B10

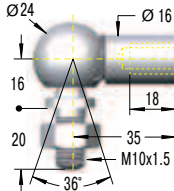
A10-VA



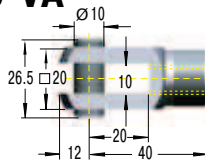
Dimensions

Type	Stroke mm	L extended
GS-28-100-VA	100	262
GS-28-150-VA	150	362
GS-28-200-VA	200	462
GS-28-250-VA	250	562
GS-28-300-VA	300	662
GS-28-350-VA	350	762
GS-28-400-VA	400	862
GS-28-450-VA	450	962
GS-28-500-VA	500	1 062
GS-28-550-VA	550	1 162
GS-28-600-VA	600	1 262
GS-28-650-VA	650	1 362

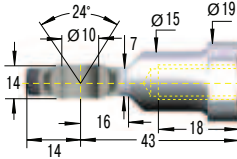
C10-VA



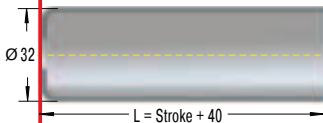
D10-VA



E10-VA



Rod Shroud W10-28-VA



Eye A10-VA max. force 3800 N

Angle Ball Joint C10-VA max. force 1750 N

Clevis Fork D10-VA max. force 3800 N

Swivel Eye E10-VA max. force 3800 N

Adjuster Knob U10-VA See page 163.

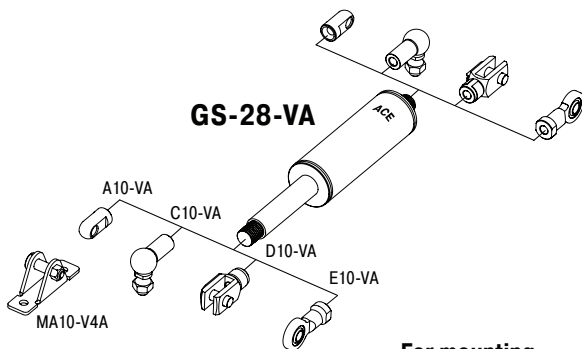
Ordering Example

GS-28-150-EE-1200-VA

Type (Push Type) _____
 Body Ø (28 mm) _____
 Stroke (150 mm) _____
 Piston Rod End Fitting E10-VA _____
 Body End Fitting E10-VA _____
 Nominal Force F₁ 1200 N _____
 Indicated by K.-No. on delivery _____

The end fittings are interchangeable.
 Strokes also available up to 750 mm.
 For mounting accessories see page 203.

Issue 6.2011 Specifications subject to change



For mounting accessories see page 203.

Technical Data

On request: Without damping, increased end position damping, special force curves, special lengths, alternative end fittings, wiper. Gas springs and accessories: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Available force range F₁ at 20 °C: 150 N to 2500 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: Approx. 20 mm (depending on the stroke)

Material: Piston rod, body and end fittings: Material 1.4301/1.4305, AISI 304/303 (V2A).

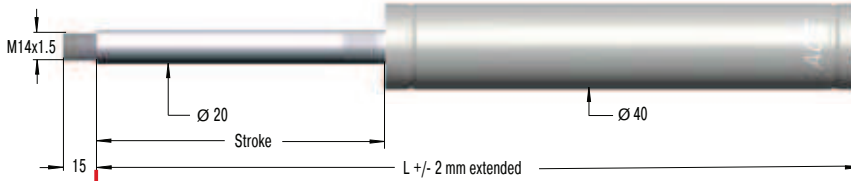
Progression: Approx. 52%, F₂ max. 3800 N

End Fitting

Standard Dimensions

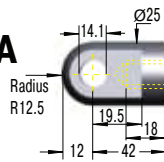
End Fitting

B14



Stud Thread B14

A14-VA

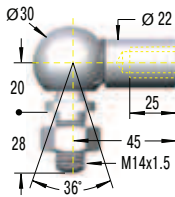


Dimensions

Type	Stroke mm	L extended
GS-40-100-VA	100	317
GS-40-150-VA	150	417
GS-40-200-VA	200	517
GS-40-300-VA	300	717
GS-40-400-VA	400	917
GS-40-500-VA	500	1 117
GS-40-600-VA	600	1 317

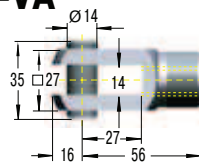
Eye A14-VA max. force 7000 N

C14-VA



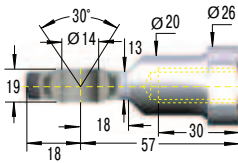
Angle Ball Joint C14-VA max. force 3200 N

D14-VA



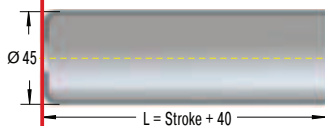
Clevis Fork D14-VA max. force 7000 N

E14-VA



Swivel Eye E14-VA max. force 7000 N

Rod Shroud W14-40-VA



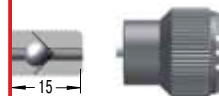
Ordering Example

GS-40-150-DD-3500-VA

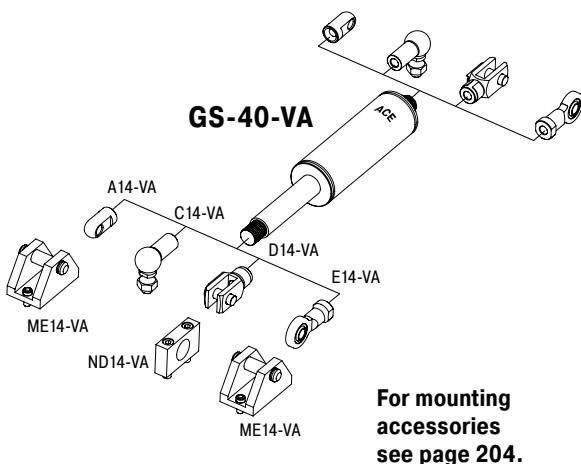
Type (Push Type) _____
 Body Ø (40 mm) _____
 Stroke (150 mm) _____
 Piston Rod End Fitting D14-VA _____
 Body End Fitting D14-VA _____
 Nominal Force F₁ 3500 N _____
 Indicated by K.-No. on delivery _____

The end fittings are interchangeable.
 Strokes also available up to 1000 mm.
 For mounting accessories see page 204.

Adjuster Knob U14-VA



Adjuster Knob U14-VA See page 163.



For mounting
 accessories
 see page 204.

Technical Data

On request: Without damping, increased end position damping, special force curves, special lengths, alternative end fittings, wiper. Gas springs and accessories: Material 1.4404/1.4571, AISI 316L/316Ti (V4A).

Available force range F₁ at 20 °C: 500 N to 5000 N

Mounting: In any position

Advice: We recommend mounting with piston rod downwards to take advantage of the built-in end position damping.

End position damping length: Approx. 30 mm (depending on the stroke)

Material: Piston rod, body and end fittings: Material 1.4301/1.4305, AISI 304/303 (V2A).

Progression: Approx. 40%, F₂ max. 7000 N