Gate Gas Springs

GSG-19 / GSG-22
**Introduction**

ACE gate gas springs are used for controlled open and closing of entrances in schools, colleges, sports complexes and homes and apartments. A specially designed gas spring acts as a safety product. The gate gas spring provides a steady, slow and controlled opening and closing of entrance gates, often used with an electro-magnetic security lock and CCTV to achieve a high level of security.

These special gas springs also steady gates when opening and closing in strong winds, although they always automatically close slowly to allow plenty of time for people to pass through. The gate type gas springs are self-contained; environmentally friendly and maintenance free for tens of thousands of automated gate operations.

The gas springs are supplied with a choice of 300 N, 400 N, 500 N, 800 N closing forces. However each gas spring has a gas pressure valve hidden in the stud of the body end fitting. This can be carefully vented by threading on the adjuster knob tool to allow small amounts of the nitrogen gas to be vented to suit each particular gate.

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Technical Data

Models available: GSG-19 for gates under 750mm and GSG-22 for gates over 750mm.

Force range: Available from stock in forces 300 N, 400 N, 500 N and 800 N.

Stroke: 150mm and 250mm.

Piston rod diameter: Ø8mm and Ø10mm.

Lifetime: Approx. 10,000m.

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

Material: Outer body: Coated steel; Piston rod: Steel with wear-resistant coating; End fittings: Zinc plated steel; Rod shroud: Powder coated steel.

Operating fluid: Nitrogen gas and oil.

Mounting: Can be mounted in any position.

End position damping length: Damped throughout complete stroke.

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

On request: Special sizes and alternative end fittings are available.

Fitting

With more and more customers requesting mounting information, ACE has introduced two mounting kits – MKU-19 and MKU-22 – to go with their two gate gas springs. Each kit comprises a DE-GAS gate force adjuster tool (essential to set the force to suit each gate), a GP and a GC style mounting bracket and a GSLA gas spring length adaptor, which allows the gas spring to be set to an exact length without the requirement to compress the spring.
ACE has been producing many of its products in stainless steel for several years, harnessing the key performance benefits of these products with the inherent benefits that stainless steel offers.

The key attributes that stainless steel adds to products are corrosion protection, non-rusting, low magnetism and where products are visible, the clean, attractive look of stainless steel.

To meet the demand for gate gas springs where their look is as important as their performance then both models are available with a stainless steel shroud.

**Stainless Steel - Strong and Attractive**

**GSG-22**

Available from stock in forces 400 N, 500 N and 800 N.

*Ordering Example:* GSG-22-250-CC-800N

*Note:* A DE-GAS adjuster tool is essential to set the force to suit each gate

**GSG-19**

Available from stock at 300 N force.

*Ordering Example:* GSG-19-150-CC-300N

*Note:* A DE-GAS adjuster tool is essential to set the force to suit each gate
Gas Spring Length Adaptor (GSLA)

The GSLA has been designed to allow a gas spring to be set to the exact length without the requirement to compress the spring. Note: it is not recommended to compress a gas spring due to the high extension forces.

The GSLA also allows easy alignment of the end fittings without the need to unscrew them of the shoulder (which can often lead to the stud snapping off).

In addition, a GSLA can be used to match the extended length when replacing an existing gas spring. Manufactured from steel with black oxide finish.

<table>
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<th>C</th>
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GSG-19-150 Brackets to suit C8 Ball Joints

GP8

GSG-19-150 Brackets to suit C8 Ball Joints

GP10

Note: Brackets supplied separately.
Fitting Instructions When Using GSLA

1. Remove end fitting from the gas spring (if mounted).
2. Screw GSLA onto rod shroud end ensuring that it is securely tightened up to the shoulder using a suitable spanner.
3. Screw on end fittings ensuring that they are securely tightened up to the shoulder.
4. Turn the body of the GSLA to set extended dimension ‘L’ as required (clockwise to reduce counter clockwise to increase).
5. Close gate and fit gas spring to brackets. If length is incorrect then you will need to repeat the step 4 adjustment procedure.
6. Operate gate to check closing speed.
7. It is important that the gas spring is now set to the correct force, remove gas spring from the gate and remove end fitting from body end.
8. Reduce force using DE-GAS adjuster tool and refit to gate.
9. Repeat 7 & 8 until desired closing speed is reached (normally 5 to 7 seconds). It may take several attempts to achieve the correct speed.
10. If too much pressure is released please return the unit to ACE for re-gas (a small charge will apply).
11. If required secure the GSLA to prevent unscrewing of the adjustment (i.e. using Loctite).

Mounting Tips For Gate Gas Springs

Suggested mounting positions for 90 degree opening of typical gate using a GSG-19 and GSG-22 fitted with a GSLA.

Note: When fitting without a GSLA, it is not recommended to compress the spring.