

# GAS SPRINGS



T 01634 819651

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[www.KENTGASSPRINGS.com](http://www.KENTGASSPRINGS.com)



## A FLEXIBLE APPROACH TO GAS SPRINGS



**STANDARD  
GAS SPRINGS**

**BESPOKE  
GAS SPRINGS**

**STEEL or  
STAINLESS STEEL**

**SHORT  
PRODUCTION  
TIMES**

**SMALL or LARGE  
QUANTITIES**

**GAS SPRING  
CALCULATION  
SERVICE**

With over 20 years of experience within the gas spring industry, we have collated a vast portfolio of knowledge of differing gas spring applications.

Kent Gas Springs provide high quality bespoke, standard or stainless steel gas springs and support our customers with our industry leading technical backup service. This gives our customers full confidence that the best results are being achieved from their applications.

Our bespoke and standard gas strut production lead times are consistently between 5-7 working days for small quantities and 3-5 weeks for larger quantities.

All Kent Gas Springs are produced under an ISO9001:2000 certified quality production system.

**WE WILL BE PLEASED TO SHOW YOU THE DIFFERENCE**

**Kelvin & Jonathan Leason**

**KENT GAS SPRINGS, a division of Gate Control Gear Limited**  
**T: +44 (0)1634 819651 F: +44 (0)1634 841045 E: [solutions@kentgassprings.com](mailto:solutions@kentgassprings.com)**  
**[www.KENTGASSPRINGS.com](http://www.KENTGASSPRINGS.com)**



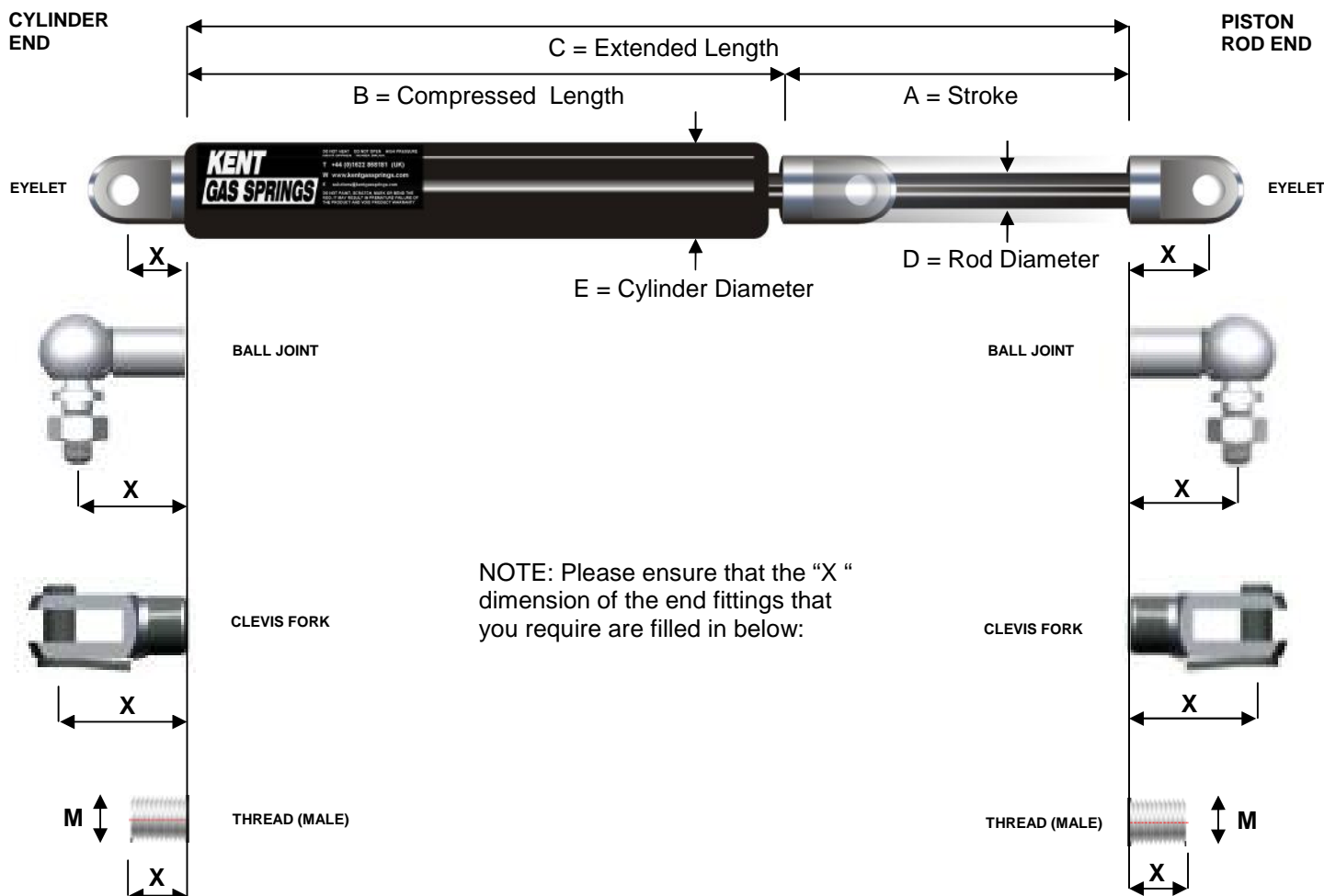
# GAS SPRING IDENTIFICATION QUESTIONNAIRE

Please tick appropriate box:

☐ PUSH TYPE

☐ PULL TYPE

☐ LOCKING TYPE



## GAS SPRING INFORMATION

A = ..... mm

B = ..... mm

C = ..... mm

D = ..... mm

E = ..... mm

FORCE = ..... (Newtons)

## END FITTING INFORMATION & DIMENSIONS

Cylinder End

Piston Rod End

Tick one box

Tick one box

☐ Eyelet X = .....mm

☐ Eyelet X = .....mm

☐ Ball Joint X = .....mm

☐ Ball Joint X = .....mm

☐ Clevis Fork X = .....mm

☐ Clevis Fork X = .....mm

☐ Thread X = .....mm

☐ Thread X = .....mm

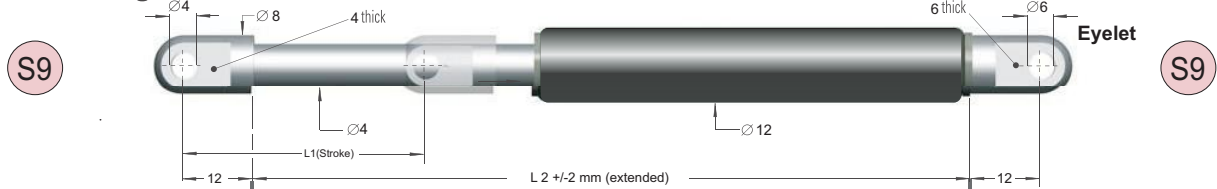
M = .....mm

M = .....mm

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T: +44 (0)1634 819651 F: +44 (0)1634 841045 E: solutions@kentgassprings.com  
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End Fitting

End Fitting



Standard Specifications

L1 (STROKE)		L2 (EXTENDED LENGTH)		FORCE F1(N)
MIN.	MAX.	MIN.	MAX.	
20	100	90	270	20 - 100

Technical Data

**KENT Gas springs** are self contained and maintenance free.

**Mounting Position :** Can be mounted in any position, but we recommend mounting with Position downwards so that the damping is effective at the end of extension stroke.

End position damping length : approximately (15mm)

Temperature range : -30° to +80°C

**Medium :** Nitrogen gas and oil (for end position damping)

**Material :** Black Nitriding piston rod,

Body : Epoxy coated or powder coated.

**End fitting :** Zinc plated , Plastic , Steel,  
Stainless steel and aluminum.

Ordering Example

G	12	S	30	140	B1	S2	350N	V
								Valve (optional)
								F1 : Force ( Newton)
								Tube End Connector (optional)
								Rod End Connector (optional)
								L2 : Extended Length
								L1 : Stroke
								Stainless Steel (optional)
								Series(Tube Dia)
								Type(Compression Gas spring)

Please mention "00" in the part number if you do not require the end fittings.

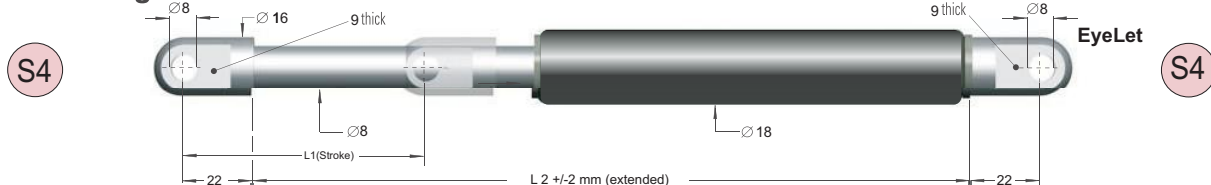
Some end fittings are interchangeable and must be positively secured by the customer to prevent unscrewing (i.e. loctite).

We reserve the right to make modifications



End Fitting

End Fitting



Standard Specifications

L1 (STROKE)		L2 (EXTENDED LENGTH)		FORCE F1(N)
MIN.	MAX.	MIN.	MAX.	
25	400	120	850	100 - 700

Technical Data

**KENT Gas springs** are self contained and maintenance free.

**Mounting Position :** Can be mounted in any position, but we recommend mounting with Position downwards so that the damping is effective at the end of extension stroke.

End position damping length : approximately (40mm)

Temperature range : -30° to +80°C

**Medium :** Nitrogen gas and oil (for end position damping)

**Material :** Black Nitriding piston rod,

Body : Epoxy coated or powder coated.

**End fitting :** Zinc plated , Plastic , Steel,  
Stainless steel and aluminum.

Ordering Example

G	18	S	30	140	B1	S2	350N	V
								Valve (optional)
								F1 : Force ( Newton)
								Tube End Connector (optional)
								Rod End Connector (optional)
								L2 : Extended Length
								L1 : Stroke
								Stainless Steel (optional)
								Series(Tube Dia)
								Type(Compression Gas spring)

Please mention "00" in the part number if you do not require the end fittings.

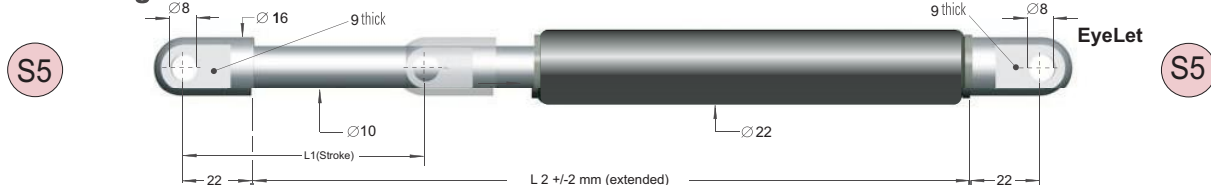
Some end fittings are interchangeable and must be positively secured by the customer to prevent unscrewing (i.e. loctite).

We reserve the right to make modifications

**ADJUSTMENT VALVE :** This bleed valve is optional and is used in the gas spring to lower the F1(N) force inside the cylinder. It is typically used where the force required is unknown. If you have variety of applications, one type of gas spring can be used by simple adjustment. The gas springs with the bleed valve come with the maximum force F1(N) and it must be bled until the satisfactory results of your application have been achieved.

End Fitting

End Fitting



Standard Specifications

L1 (STROKE)		L2 (EXTENDED LENGTH)		FORCE F1(N)
MIN.	MAX.	MIN.	MAX.	
50	500	200	1100	150 - 1100

Technical Data

**KENT Gas springs** are self contained and maintenance free.

**Mounting Position :** Can be mounted in any position, but we recommend mounting with Position downwards so that the damping is effective at the end of extension stroke.

End position damping length : approximately (45mm)

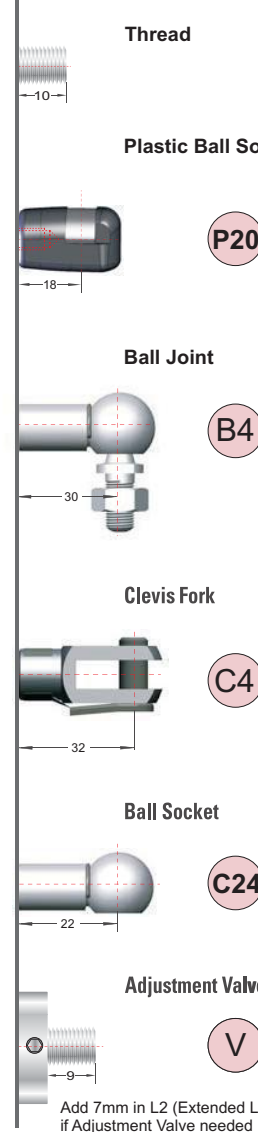
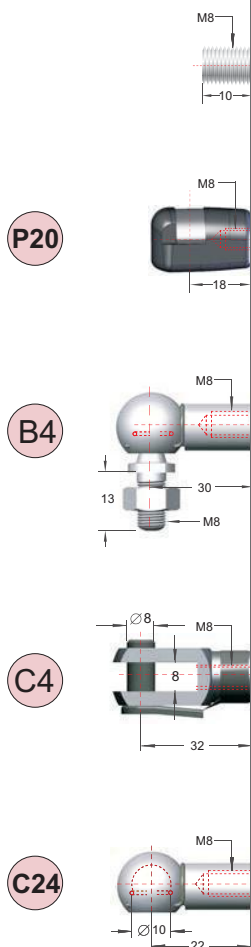
Temperature range : -30° to +80°C

**Medium :** Nitrogen gas and oil (for end position damping)

**Material :** Black Nitriding piston rod,

Body : Epoxy coated or powder coated.

**End fitting :** Zinc plated , Plastic , Steel,  
Stainless steel and aluminum.



Ordering Example

G	22	S	30	140	B1	S2	350N	V
								Valve (optional)
								F1 : Force ( Newton)
								Tube End Connector (optional)
								Rod End Connector (optional)
								L2 : Extended Length
								L1 : Stroke
								Stainless Steel (optional)
								Series(Tube Dia)
								Type(Compression Gas spring)

Add 7mm in L2 (Extended Length)  
if Adjustment Valve needed

**ADJUSTMENT VALVE :** This bleed valve is optional and is used in the gas spring to lower the F1(N) force inside the cylinder. It is typically used where the force required is unknown. If you have variety of applications, one type of gas spring can be used by simple adjustment. The gas springs with the bleed valve come with the maximum force F1(N) and it must be bled until the satisfactory results of your application have been achieved.

Please mention "00" in the part number if you do not require the end fittings.

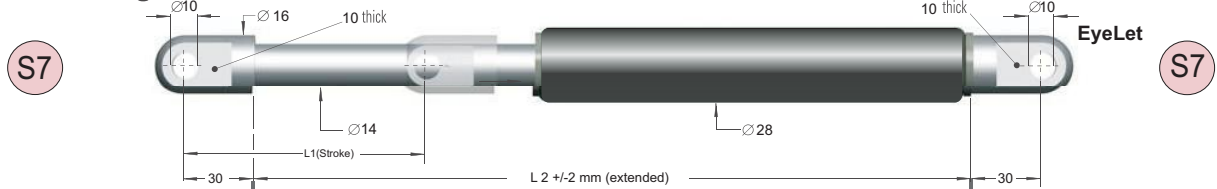
Some end fittings are interchangeable and must be positively secured by the customer to prevent unscrewing (i.e. loctite).

We reserve the right to make modifications



End Fitting

End Fitting



Standard Specifications

L1 (STROKE)		L2 (EXTENDED LENGTH)		FORCE F1(N)
MIN.	MAX.	MIN.	MAX.	
60	700	160	1600	200 - 2500

Technical Data

**KENT Gas springs** are self contained and maintenance free.

**Mounting Position :** Can be mounted in any position, but we recommend mounting with Position downwards so that the damping is effective at the end of extension stroke.

End position damping length : approximately (80mm)

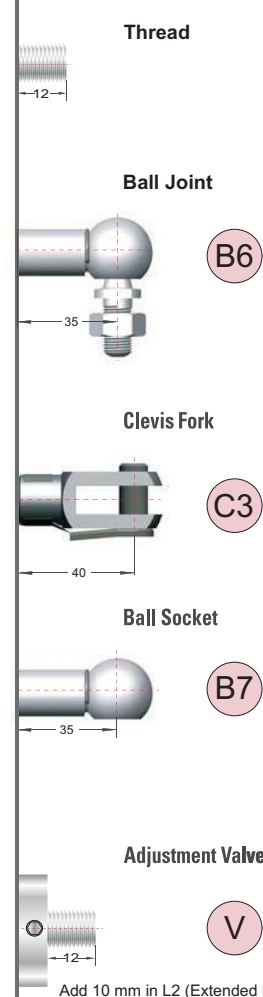
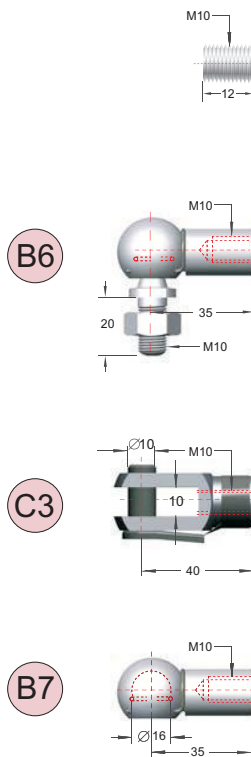
Temperature range : -30° to +80°C

**Medium :** Nitrogen gas and oil (for end position damping)

**Material :** Black Nitriding piston rod,

Body : Epoxy coated or powder coated.

**End fitting :** Zinc plated , Plastic , Steel, Stainless steel and aluminum.



Ordering Example									
G	28	S	30	140	B1	S2	350N	V	

Valve (optional)  
F1 : Force ( Newton)  
Tube End Connector (optional)  
Rod End Connector (optional)  
L2 : Extended Length  
L1 : Stroke  
Stainless Steel (optional)  
Series(Tube Dia)  
Type(Compression Gas spring)

**ADJUSTMENT VALVE :** This bleed valve is optional and is used in the gas spring to lower the F1(N) force inside the cylinder. It is typically used where the force required is unknown. If you have variety of applications, one type of gas spring can be used by simple adjustment. The gas springs with the bleed valve come with the maximum force F1(N) and it must be bled until the satisfactory results of your application have been achieved.

Please mention "00" in the part number if you do not require the end fittings.

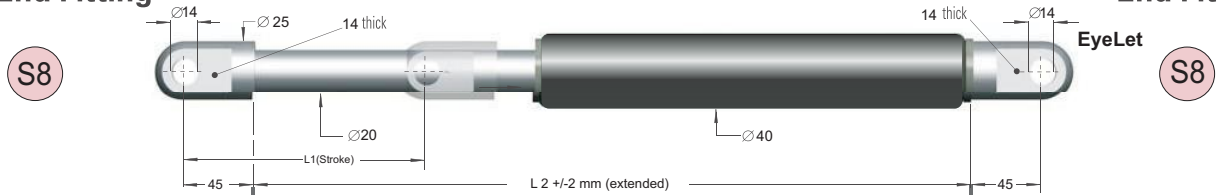
Some end fittings are interchangeable and must be positively secured by the customer to prevent unscrewing (i.e. loctite).

We reserve the right to make modifications



End Fitting

End Fitting



Standard Specifications

L1 (STROKE)		L2 (EXTENDED LENGTH)		FORCE F1(N)
MIN.	MAX.	MIN.	MAX.	
100	1000	365	2200	500 - 3500

Technical Data

**KENT Gas springs** are self contained and maintenance free.

**Mounting Position :** Can be mounted in any position, but we recommend mounting with Position downwards so that the damping is effective at the end of extension stroke.

End position damping length : approximately (80mm)

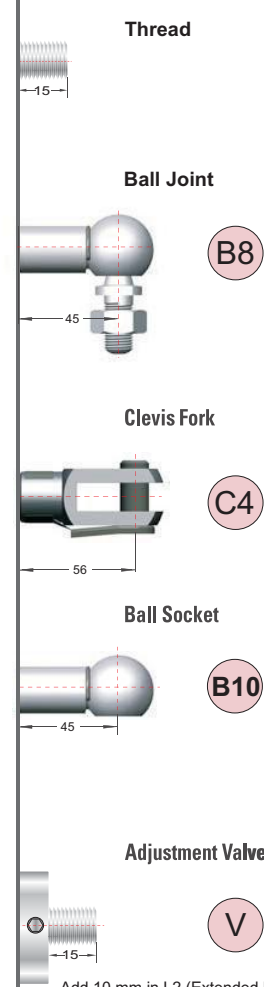
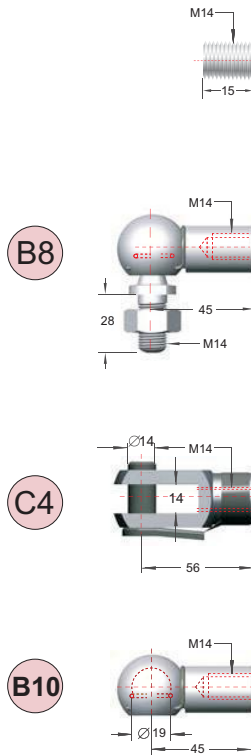
Temperature range : -30° to +80°C

**Medium :** Nitrogen gas and oil (for end position damping)

**Material :** Black Nitriding piston rod,

Body : Epoxy coated or powder coated.

**End fitting :** Zinc plated , Plastic , Steel, Stainless steel and aluminum.



Add 10 mm in L2 (Extended Length) if Adjustment Valve needed

**ADJUSTMENT VALVE :** This bleed valve is optional and is used in the gas spring to lower the F1(N) force inside the cylinder. It is typically used where the force required is unknown. If you have variety of applications, one type of gas spring can be used by simple adjustment. The gas springs with the bleed valve comes with the maximum force F1(N) and it must be bled until the satisfactory results of your application have been achieved.

Ordering Example

G 40 S 30 140 B1 S2 350N V

- Valve (optional)
- F1 : Force ( Newton)
- Tube End Connector (optional)
- Rod End Connector (optional)
- L2 : Extended Length
- L1 : Stroke
- Stainless Steel (optional)
- Series(Tube Dia)
- Type(Compression Gas spring)

Please mention "00" in the part number if you do not require the end fittings.

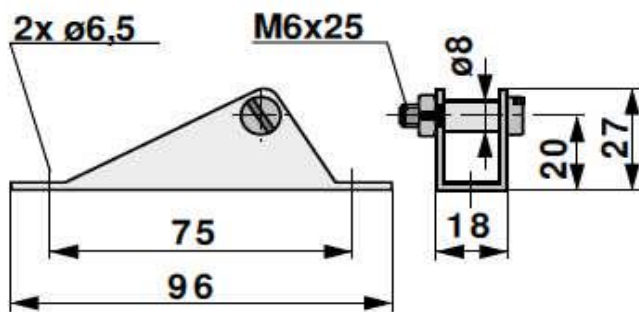
Some end fittings are interchangeable and must be positively secured by the customer to prevent unscrewing (i.e. loctite).

We reserve the right to make modifications



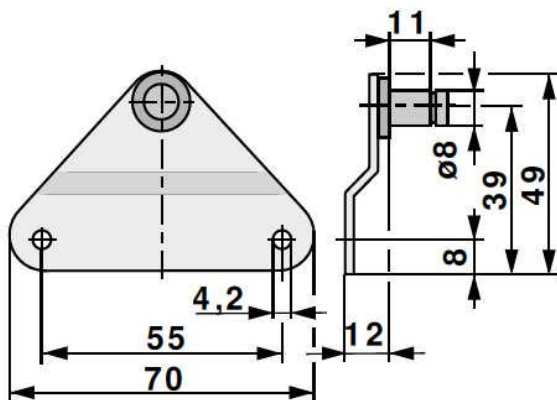
## Gas Spring Brackets (Standard)

Bracket 001



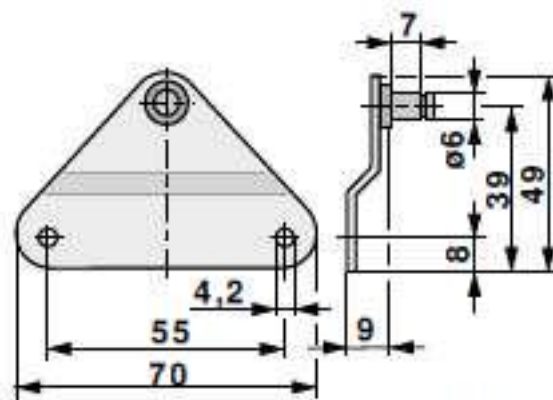
t = 2

Bracket 002



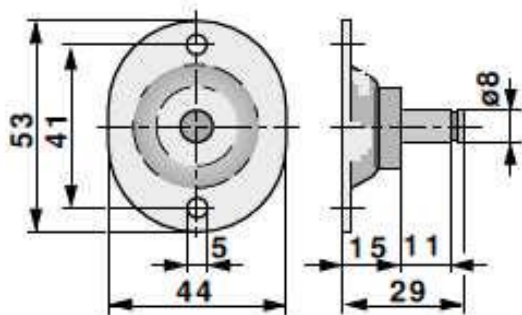
t = 3

Bracket 003



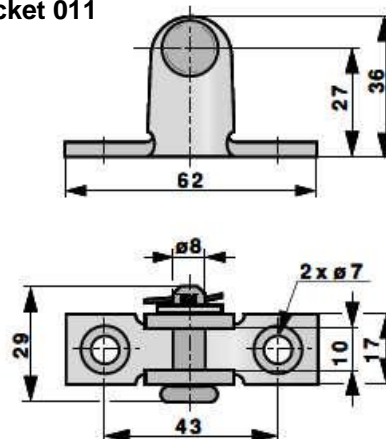
t = 3

Bracket 004



t = 2

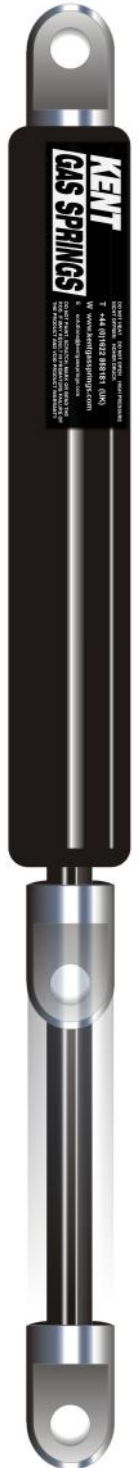
Bracket 011





## Important Installation & Warranty Advice

1. Kent gas springs will operate in surrounding temperatures from  $-30^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ . We can supply our gas springs with special seals to withstand temperatures as low as  $-55^{\circ}\text{C}$  or as high as  $+200^{\circ}\text{C}$ .  
  
Gas Springs should not be over heated or placed in open fire! Other environmental conditions can also influence the considerable life time of gas springs. Please take appropriate preventative measures into consideration.
2. Gas Springs are filled with pure nitrogen. Nitrogen is an inert gas, which does not burn, will not explode and is not poisonous.  
  
**But:**  
**Gas springs have very high internal pressure (up to approximately 300 bar).**  
**Do not open without instruction!**
3. Disposal/Recycling:  
Gas springs consist mostly of metal and can be recycled, but first the gas spring must be de-pressurized.
4. All gas springs are labelled with the warning. DO NOT OPEN, HIGH PRESSURE, the part number and the production date. If these dates are unreadable (removed, painted over or any other influences) we refuse the liability for damages which result of this fact. Warranties are then not applicable anymore.
5. Gas springs should be installed with the piston rod downwards. This position ensures the best damping effect.
6. Gas Springs should not be exposed to any tilting or side (lateral) forces during operation. If this is unavoidable, please check the installation and use suitable connecting parts.
7. Gas springs are maintenance free. Do not grease or oil the piston rod.
8. The piston rod must not be painted and should be protected against shocks, impact, scratches & dirt. The cylinder should not be deformed. Such damage will destroy the sealing system.
9. Kent gas springs can be stored short term in any position. Pressure loss through long term storage may be possible in certain conditions. There are no negative values known, but there may be a sticking effect when you compress a gas spring, which may require a higher expenditure of force the first few times (initial break away force).
10. We cannot assume any liability for the function and the lifetime of the final product that you fit the gas springs upon.
11. Warranty claims expire one year from the date of supply. Manufacturing mistakes and/or quality defects are immediately noticeable. If you are unhappy for any reason with the delivered quality, we ask you to return the gas springs immediately. Testing methods adopted by customers must be the same as in production in order to achieve the same conditional matching results.
12. If gas springs are sent to us for a detailed examination, the agreement for the destruction of this part is given and the property rights expire. A return delivery of single components is not possible.
13. Kent gas springs which mostly consist of parts held in stock are produced according to customers orders. A cancellation, modification afterwards, change or refusal is therefore not possible.
14. Without detailed specifications supplied to us at enquiry stage and our specific written agreement, our gas springs will not be guaranteed for special applications involving vibration, magnetic fields, stray currents or intense accidental loads etc.....



# KENT GAS SPRINGS

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