



When Gas Springs are used, it is often found that theoretical forces may be inaccurate because factors such as hinge friction and perceived speed of action and perceived handling will have a bearing on calculations.

Therefore, SFC supply an adjustable force Gas Spring, called Vari-Lift (See Below). Not only can it be adjusted to meet individual preferences, but it can also be adjusted whilst in position, saving you both time and effort.

Benefits

- **No Need to calculate force**
- **Adjustable down to any force within the range**
- **Force can be adjusted after installation**
- **Simple adjustment using standard tool supplied**
- **Ideal for Prototyping and short production runs**
- **Ideal where application weights vary**
- **Available as an option to most types of SFC Gas Springs on request**

These Gas Springs are charged to their maximum force during manufacture. By using the standard tool provided, Gas can be gradually released via the Vari-Lift valve to provide the force suited to your application. Once this has been established, SFC, are then able to measure this force and provide fixed force Gas Springs to your precise requirement.

Vari-Lift Gas Springs can also be used if panel weights vary. These will then allow you to provide the perfect solution to your customer needs every time. Spring weight ranges from 5kg (11lbs) to 250kg (550lbs), force ranges from 50N to 2500N, with standard strokes from 40mm (1.57") to 500mm (19.69").

Vari-Lift versions of the following gas spring ranges are available:

Standard Lift Gas Spring.

Locking Safety Shroud gas springs that lock automatically on full extension.

Additional Friction gas springs that lift and hold in any desired position.

316L Stainless Steel range, the ideal gas springs for high corrosion and clean environments.

Sizes, dimensions and materials are as listed in the following data pages for these ranges. Remember that Vari-Lift versions are supplied fully charged to the maximum force for the particular size gas spring.

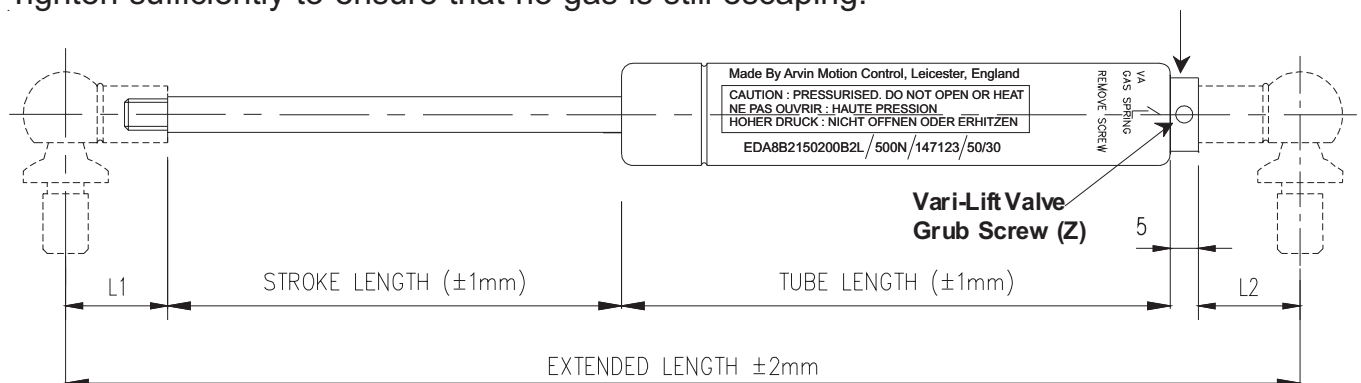


Valve Adjustment Instructions:

Fit the gas spring with the cylinder / tube in the uppermost position. The Vari-lift valve can be seen at the top of the cylinder / tube (X).

Adjustment of the Grub Screw

Ensure the 2mm allen key (provided) is located in the grub screw (Z) to its maximum depth. Undo the screw carefully by rotating anti-clockwise until the gas is heard escaping. When re-tightening care should be taken to ensure that excessive force is not applied, as this will damage the hexagon in the grub screw and make it inoperative. Tighten sufficiently to ensure that no gas is still escaping!



Repeat the process releasing a small amount of gas at a time until the required lifting action is achieved.

WARNING: The force can be adjusted downwards only.

It is advisable to add approximately 10% to the weight being supported when adjusting the gas spring. This will reduce the chance of releasing too much gas.

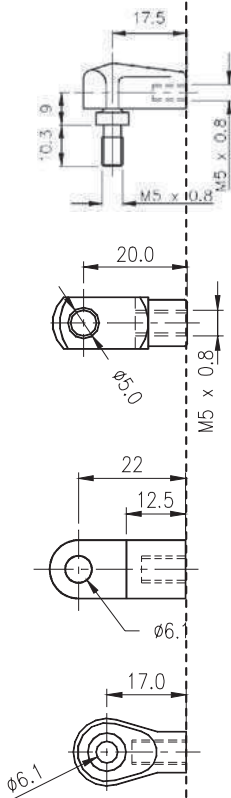
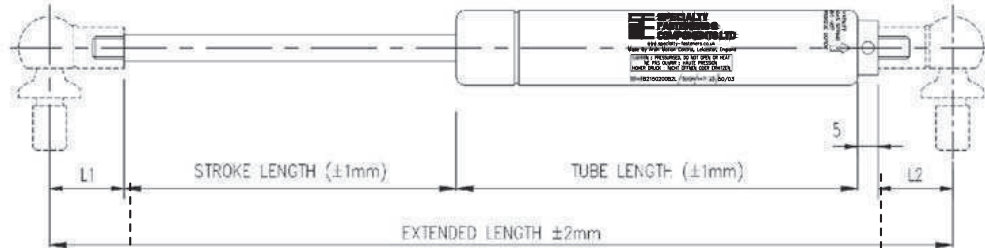
UNDER NO CIRCUMSTANCES SHOULD THE GRUB SCREW BE REMOVED

Note: A slight mist of oil may sometimes be seen escaping when venting gas. This is Normal.

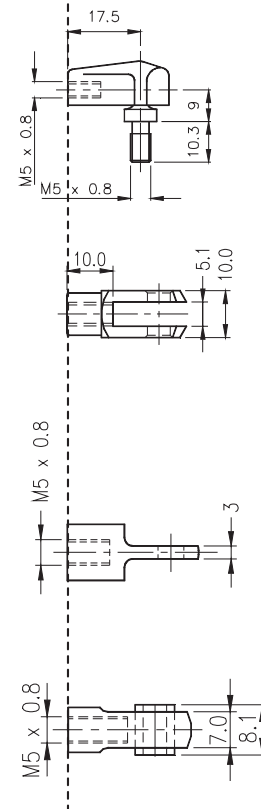


US Patent No. 6273398 & GB Patent No. 2336651

Variable Force - Standard Lift 6-15 Gas Spring	
Approximate Lid Weight	Up to 10Kg
Piston Rod	ø 6mm Nitrided Steel
Cylinder	ø 15 mm Steel Black Powder Coated
End Connectors	Nylon & Steel options



An Extensive Range of Sizes and Forces
Standard Stroke: (In 5mm Increments) 60mm to 200mm
Shortest Tube available for chosen stroke length: Tube = Stroke + 30mm
Standard Tube: (In 1mm increments) 90mm to 230mm
Extended Length: Stroke + Tube + 5mm(Valve)+L1+L2.
Force Range: Supplied charged to max force 400N . Force can be reduced through valve. (See Vari-Lift Instruction Section)
Standard Thread: M5 x 0.8
Also available in Fixed Force, Stop & Stay, and Stainless Steel Versions



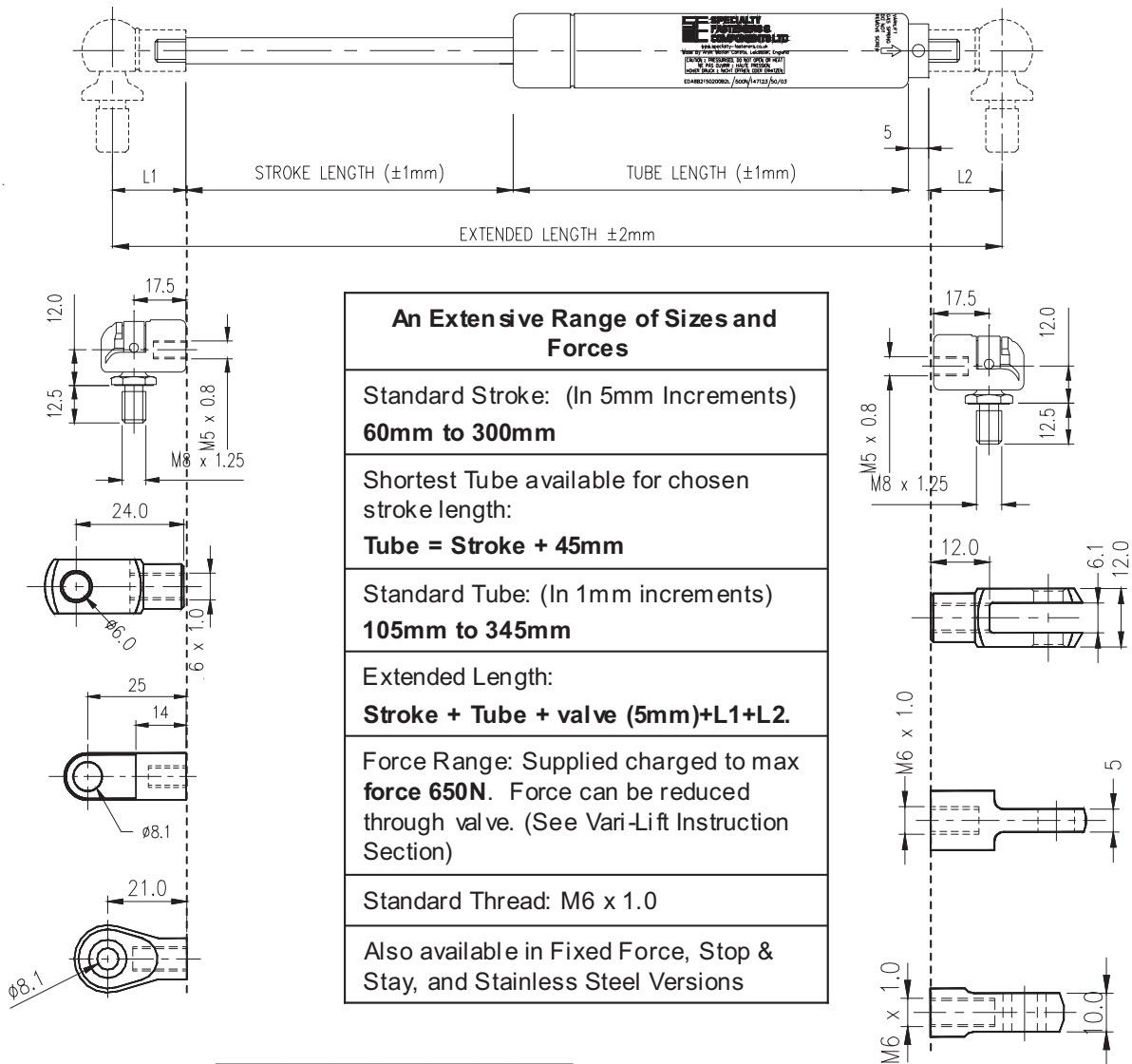
	SWW6	P1	100	135	P1	2	400N
6-15 Swift & Sure variable force							
Rod end connector P1 Nylon ball joint							
Stroke length (100mm)							
Tube length (135mm)							
Tube end connector P1 Nylon ball joint							
Packaging Code							
Force in New ton's (400N)							

Standard Parts Available Ex Stock			Connectors see page 51
Part No.	Stroke	Extd Lgth	
240-0615V-010	60	160	Brackets see page 55
240-0615V-020	100	240	
240-0615V-030	150	340	
240-0615V-040	200	440	

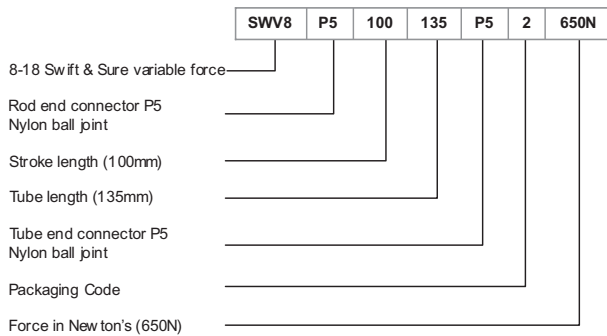
Vari-Lift

Variable Force - Standard Lift 8-18


Variable Force - Standard Lift 8-18 Gas Spring	
Approximate Lid Weight	10Kg to 40Kg
Piston Rod	ø 8 mm Nitrided Steel
Cylinder	ø 18 mm Steel Black Powder Coated
End Connectors	Nylon, Steel & Zinc options

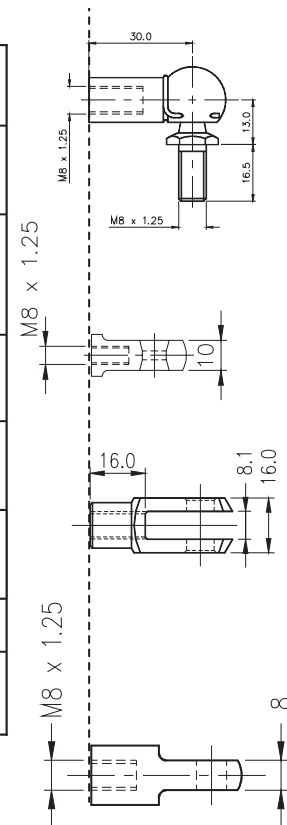
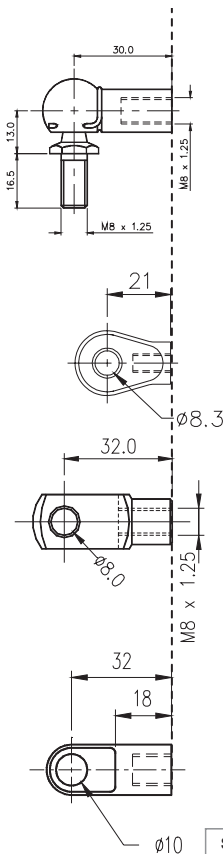
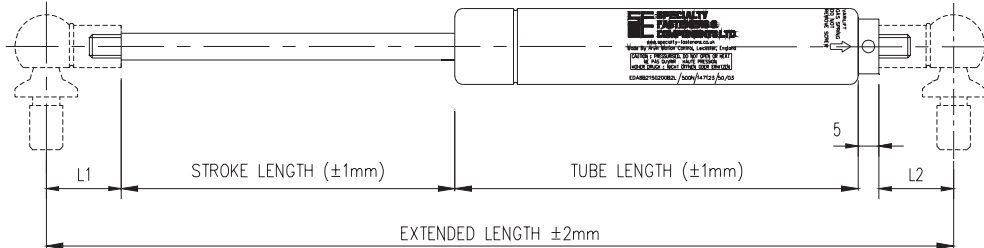


An Extensive Range of Sizes and Forces
Standard Stroke: (In 5mm Increments) 60mm to 300mm
Shortest Tube available for chosen stroke length: Tube = Stroke + 45mm
Standard Tube: (In 1mm increments) 105mm to 345mm
Extended Length: Stroke + Tube + valve (5mm)+L1+L2.
Force Range: Supplied charged to max force 650N . Force can be reduced through valve. (See Vari-Lift Instruction Section)
Standard Thread: M6 x 1.0
Also available in Fixed Force, Stop & Stay, and Stainless Steel Versions



Standard Parts Available Ex Stock			Connectors see page 51
Part No	Stroke	Extd Lgth	
240-0818V-010	100	264	Brackets see page 55
240-0818V-020	150	364	
240-0818V-030	200	464	
240-0818V-040	250	564	

Variable Force - Standard Lift 10-23 Gas Spring	
Approximate Lid Weight	40Kg to 150Kg
Piston Rod	ø 10 mm Nitrided Steel
Cylinder	ø 23 mm Steel Black Powder Coated
End Connectors	Nylon, Steel & Zinc options

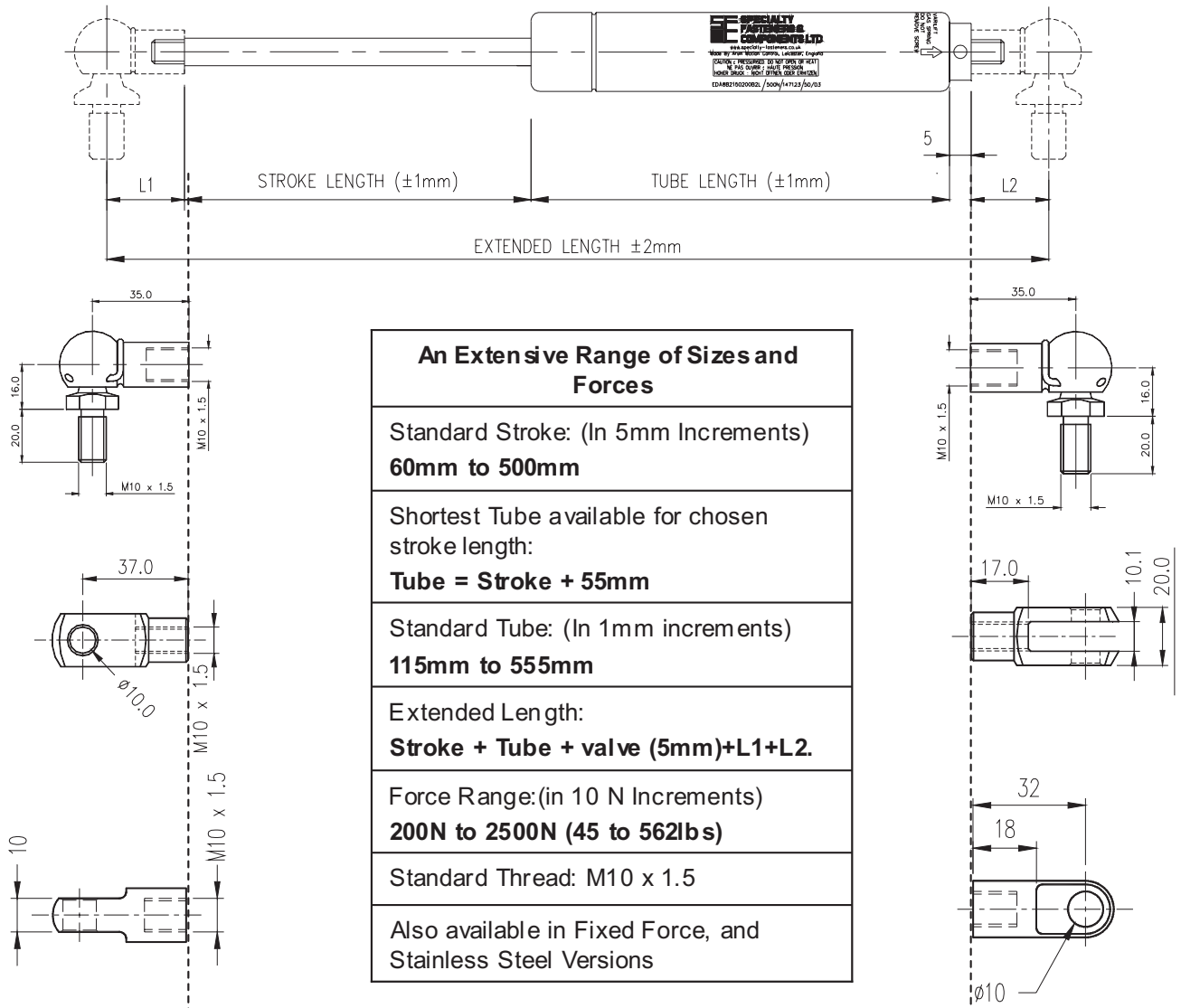


An Extensive Range of Sizes and Forces
Standard Stroke: (In 5mm Increments) 60mm to 400mm
Shortest Tube available for chosen stroke length: Tube = Stroke + 45mm
Standard Tube: (In 1mm increments) 105mm to 445mm
Extended Length: Stroke + Tube + valve (5mm)+L1+L2.
Force Range: (in 10 N Increments) 150N to 1200N (34 to 269lbs)
Standard Thread: M8 x 1.25
Also available in Fixed Force, Stop & Stay, and Stainless Steel Versions

	SWV1	B4	300	385	B4	2	1200N
10-23 Swift & Sure variable force	_____	_____	_____	_____	_____	_____	_____
Rod end connector B4 Steel ball joint	_____	_____	_____	_____	_____	_____	_____
Stroke length (300mm)	_____	_____	_____	_____	_____	_____	_____
Tube length (385mm)	_____	_____	_____	_____	_____	_____	_____
Tube end connector B4 Steel ball joint	_____	_____	_____	_____	_____	_____	_____
Packaging Code	_____	_____	_____	_____	_____	_____	_____
Force in Newton's (1200N)	_____	_____	_____	_____	_____	_____	_____

Standard Parts Available Ex Stock			Connectors see page 51
Part No	Stroke	Extd Lgth	
240-1023V-010	100	245	Brackets see page 55
240-1023V-020	200	445	
240-1023V-030	250	545	
240-1023V-040	300	645	

Variable Force - Standard Lift 14-28 Gas Spring	
Approximate Lid Weight	150Kg to 350Kg
Piston Rod	ø 14 mm Nitrided Steel
Cylinder	ø 28 mm Steel Black Powder Coated
End Connectors	Steel options available



An Extensive Range of Sizes and Forces
Standard Stroke: (In 5mm Increments) 60mm to 500mm
Shortest Tube available for chosen stroke length: Tube = Stroke + 55mm
Standard Tube: (In 1mm increments) 115mm to 555mm
Extended Length: Stroke + Tube + valve (5mm)+L1+L2.
Force Range:(in 10 N Increments) 200N to 2500N (45 to 562lbs)
Standard Thread: M10 x 1.5
Also available in Fixed Force, and Stainless Steel Versions

	SWV4	B6	450	505	B6	2	2500N
14-28 Swift & Sure variable force	_____						
Rod end connector B6 Steel ball joint	_____						
Stroke length (450mm)	_____						
Tube length (505mm)	_____						
Tube end connector B6 Steel ball joint	_____						
Packaging Code	_____						
Force in New ton's (2500N)	_____						

Standard Parts Available Ex Stock			Connectors see page 51
Part No	Stroke	Extd Lgth	
240-1428V-010	200	480	Brackets see page 55
240-1428V-020	300	680	
240-1428V-030	450	880	
240-1428V-040	500	1080	