

KALLER®



Stock Lifters
SLM 170, SLM 300 & SPC 800

Volvo standard

Kaller is the Volvo standard for gas springs, hydraulic cams and roller cams. In the downloads here you find the Volvo part numbers for all Kaller parts that are Volvo standard.

- **GREEN**: Preference 1. The items that are "first choice" have the Volvo part numbers marked green.
- **YELLOW**: Preference 2. The items with yellow Volvo part numbers can be used if the green marked alternative is impossible to use in the specific case.
- **UNCOLOURED**: The items with uncoloured Volvo part numbers must not be used for new design, only for replacement in old dies.

Items that are not provided with Volvo part numbers can be used after confirmation from Volvo: please contact glarss16@volvocars.com or your technical contact person at Volvo.

KALLER Stocklifter SLM 170 & SLM 300

are mainly for use in progressive dies. These units have an extremely robust design that can withstand high side loading.

SLM 170 & SLM 300 can also be mounted into the upper die and attached directly to stripper plates without the need for additional guide elements.

Stock Lifter SLM 170 & SLM 300 features:

- Simplifies tool design
- Saves cost and space
- Eliminates need for additional guide bushings or anti-rotation feature
- Easily adjustable force
- Double tube design isolates gas spring from side load and fluid contamination
- Available in two sizes SLM 170 and SLM 300
- Hoseable, the SLM 170 can be hosed together for uniform lifting force

KALLER Stock Lifter SPC 800

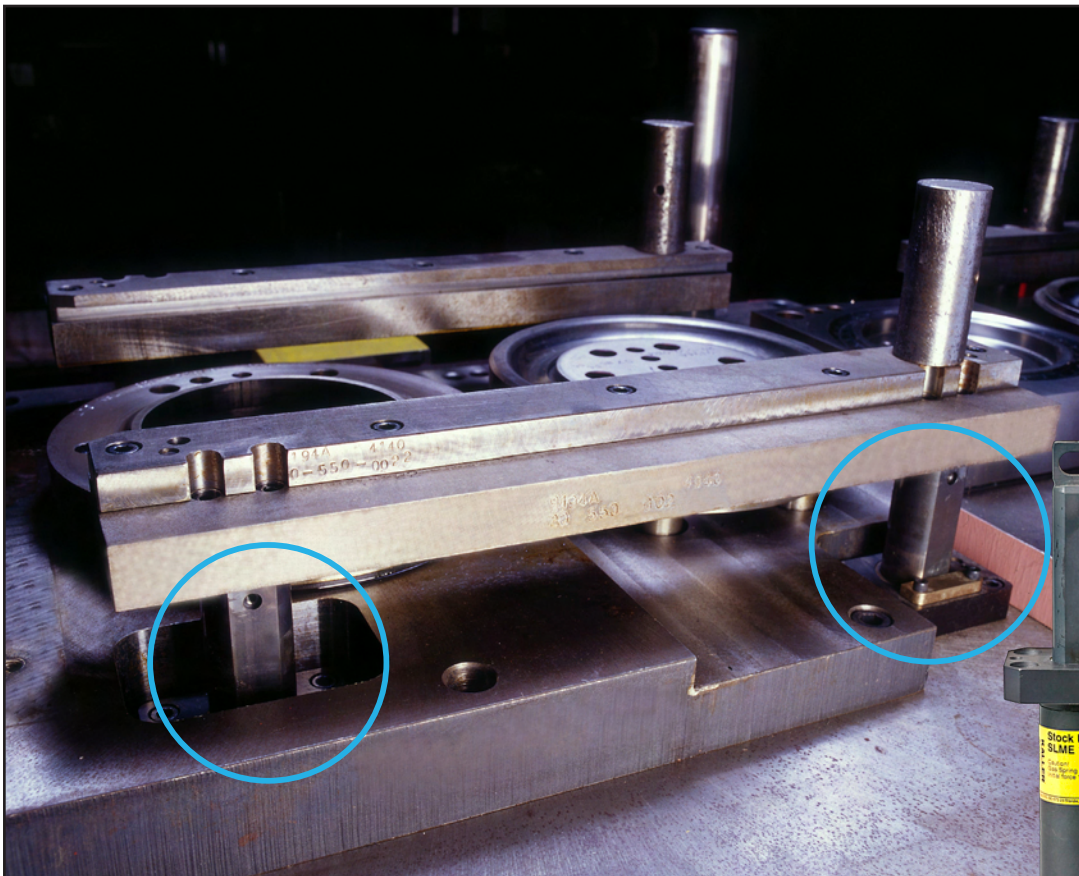
gas springs can be used in progressive dies for multi-point guide rail lifting. They are engineered with unique **Speed Control™ technology**, which dampens the last 20 mm of return stroke speed to 0.2 m/s. This brings the guide rail to a smooth return stop.

Use of a hose system is recommended, as this will provide an even distribution of forces.

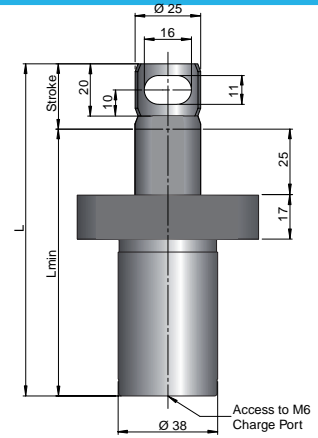
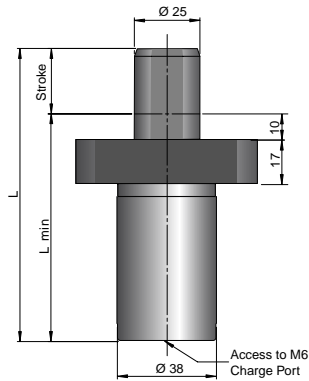
Stock Lifter SPC 800 features:

- Eliminates strip feed bounce
- Simplifies tool design, saving cost and space
- Eliminates need for additional guide bushings
- Easily adjustable force (linkable using hose-system)
- Other mounting possibilities according to TU 1500

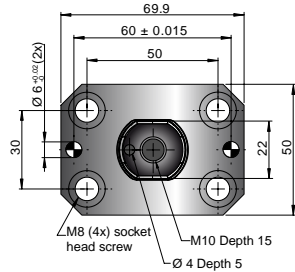
Application Example Progressive Die



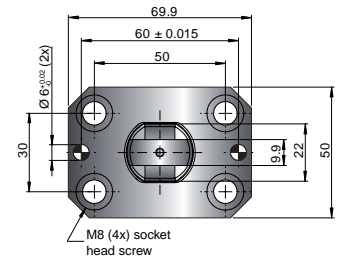
Stock Lifter SLMT / SLME 170



Volvo Part No.	Order No.
3054770	SLMT 170-025
3054771	SLMT 170-038
3054772	SLMT 170-050
3054773	SLMT 170-080
3054774	SLMT 170-100



Volvo Part No.	Order No.
3054775	SLME 170-025
3054776	SLME 170-038
3054777	SLME 170-050
3054778	SLME 170-080
3054779	SLME 170-100



Order No.	S Stroke	Force in N at 180 bar/ + 20°C		L ±0.25	L min	Gas Volume (l)	Weight (kg)
		Initial	End force*				
SLMT 170-025	25	1700	2800	112	87	0.006	0.79
SLMT 170-038	38			138	100	0.009	0.86
SLMT 170-050	50			162	112	0.012	0.92
SLMT 170-080	80			225	145	0.019	1.09
SLMT 170-100	100			265	165	0.024	1.19
SLMT 170-125	125			315	190	0.030	1.33

*At full stroke

Order No.	S Stroke	Force in N at 180 bar/ + 20°C		L ±0.25	L min	Gas Volume (l)	Weight (kg)
		Initial	End force*				
SLME 170-025	25	1700	2800	127	102	0.006	0.81
SLME 170-038	38			153	115	0.009	0.88
SLME 170-050	50			177	127	0.012	0.94
SLME 170-080	80			240	160	0.019	1.10
SLME 170-100	100			280	180	0.024	1.21
SLME 170-125	125			330	205	0.030	1.35

*At full stroke

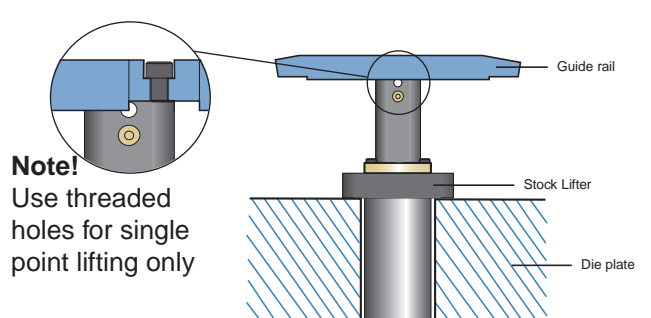
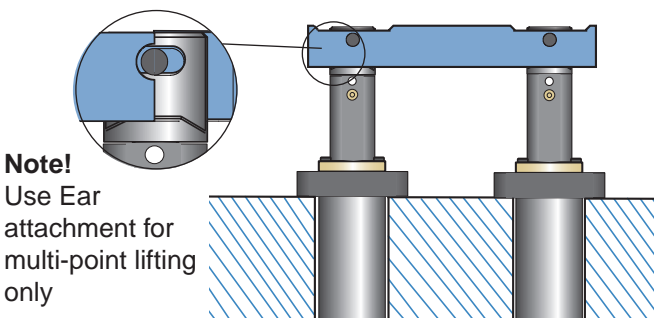
Max. Attachment Capacity Per Lifter* Metric	
Ram Velocity (m/s)	Attachment Mass (kg)
0.15	80
0.30	20
0.40	11
0.50	7
0.60	5

*Determine ram velocity and reference the recommended attachment mass per lifter. For increased capacity, install external positive stops to prevent lifter damage.

Basic Information

Initial Force Range 240-1700 N
 Pressure Medium Nitrogen
 Charging Pressure Range 25-180 bar
 Operating Temperature Range 0-80° C
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min 40-100 (at 20°C)
 Max. Piston Rod Velocity 0.6 m/sec
 Max. Utilised Stroke 100%
 Internal Gas Spring X 170

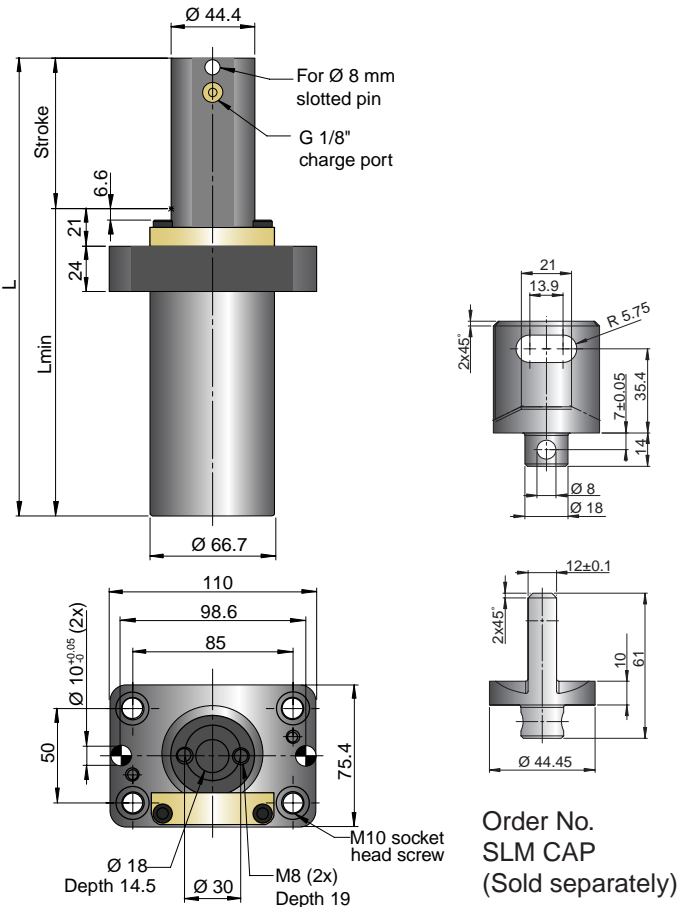
Mounting Example



We reserve the right to add, delete or modify components without notification.

All dimensions are stated in mm. All dimensions are nominal unless tolerance is stated.

Stock Lifter SLM 300



Order No.	S Stroke	Force in N at 180 bar/ + 20°C		L ±0.25	L min	Gas Volume (l)	Weight (kg)
		Initial	End force*				
SLM 300-025	25	3200	4300	146	121	0.016	2.04
SLM 300-050	50		4300	196	146	0.033	2.49
SLM 300-080	80		4350	256	176	0.053	3.31
SLM 300-100	100		4350	296	196	0.066	3.86
SLM 300-125	125		4350	346	221	0.083	4.54
SLM 300-150	150		4350	396	246	0.100	5.22

*At full stroke

Max. Attachment Capacity Per Lifter* Metric	
Ram Velocity (m/s)	Attachment Mass (kg)
0.30	29
0.40	16
0.50	10
0.70	5.3
0.80	4.1

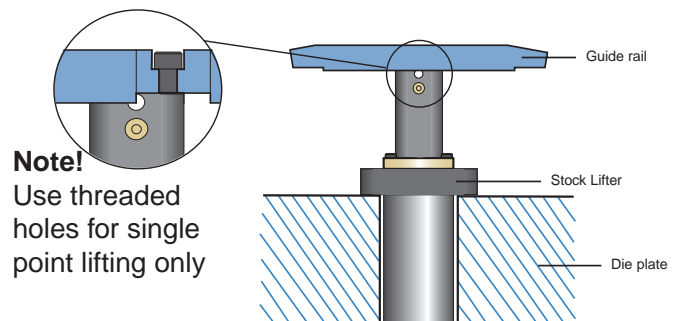
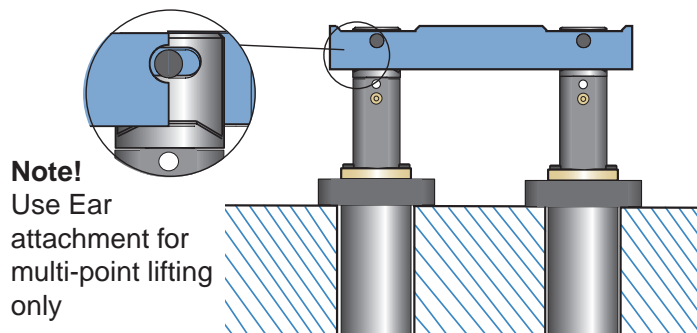
*Attachment mass assumes balanced load and actuation force. For increased capacity, install external positive stops to prevent lifter damage.

Basic Information

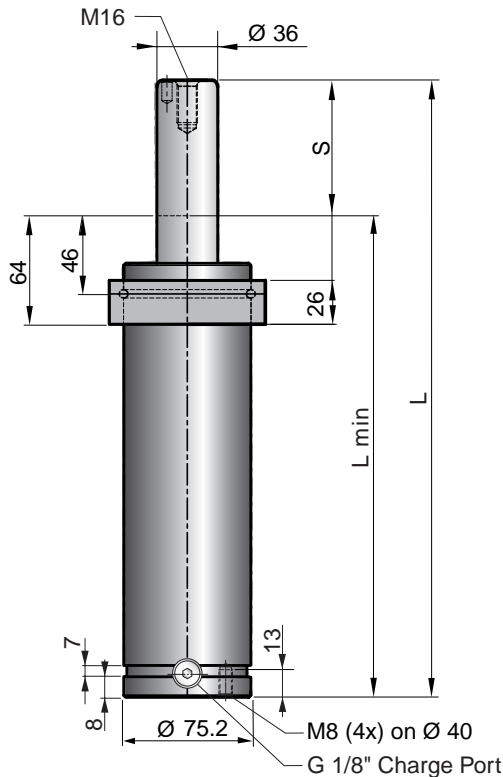
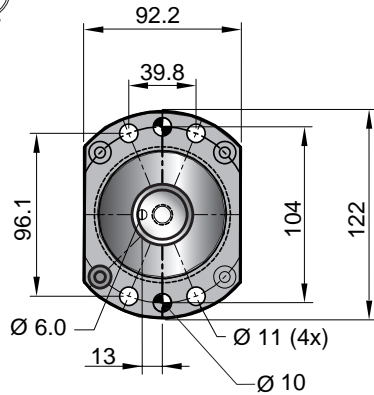
Initial Force Range450-3200 N
 Pressure MediumNitrogen
 Charging Pressure Range25-180 bar
 Operating Temperature Range0-80° C
 Force increase by temperature±0.3%/°C
 Recommended max strokes/min80-100 (at 20°C)
 Max. Piston Rod Velocity0.8 m/sec
 Max. Utilised Stroke100%
 Repair kit3020870

SLM CAP option to be mounted to top of SLM 300 and linked to guide rails of the die with a slotted pin.

Mounting Example



Stock Lifter SPC 800



Order No.	S Stroke	Force in N at 70 bar/ + 20°C		L ±0.25	L min	Gas Volume (l)	Weight (kg)
		Initial	End force*				
SPC 800-050	50	7100	8800	304	254	0.3	5.3
SPC 800-080	80		9200	364	284	0.4	5.8
SPC 800-100	100		9400	404	304	0.5	6.2
SPC 800-125	125		9600	454	329	0.5	6.7
SPC 800-150	150		9700	504	354	0.6	7.1
SPC 800-175	175		9800	554	379	0.7	7.6
SPC 800-200	200		9900	604	404	0.8	8.0

*At full stroke

Max. Attachment Capacity Per Lifter Metric	
Ram Velocity (m/s)	Attachment Mass (kg)
0.3	30
0.4	17
0.5	11
0.6	7

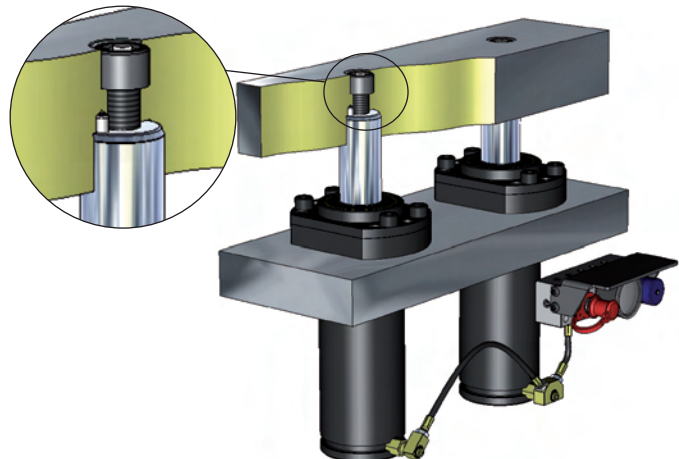
Determine ram velocity and do not exceed the recommended attachment mass per lifter. Use multiple lifters to accommodate attachment loads that exceed velocity or mass limits.

Basic Information

Pressure medium Nitrogen
 Charging pressure 15-70 bar (at 20°C)
 Operating temperature 0 to +80°C
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ≈ 25 (at 20°C)*
 Dampening length ≈ 20 mm
 Dampening speed 0.2 m/s
 Rod surface Nitrided
 Tube surface Black oxide
 Repair Kit 3021492

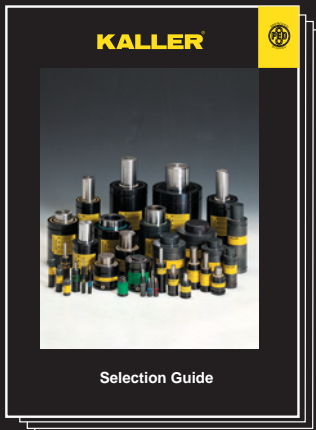
***Note!** By halving the initial charge pressure, the number of spm can be doubled

Mounting Example



KALLER®

The Safer Choice



Selection Guide

Gas Springs

Kaller developed the first nitrogen gas spring for press tools and today offers a comprehensive selection of high quality gas springs for use in different tool & die applications.



Controllable Gas Spring - KF2

Controllable Gas Springs-KF2

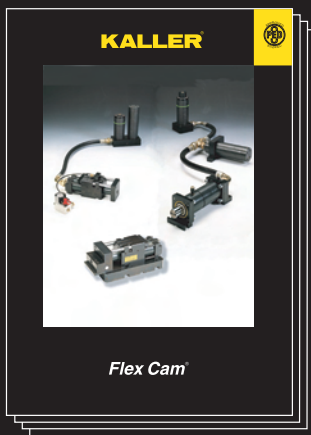
Kaller controllable springs are a family of gas springs, for use in press tools, that can be locked in their bottom position and where the return stroke of the spring can be controlled.



Flange Stripper LW, LT

Flange Stripper Unit

Kaller Flange Stripper Unit is used in flanging dies for stripping/lifting a flanged part after forming. It provides 200 daN of stripping force, can be top or bottom mounted and is self guiding.



Flex Cam®

Flex Cam®

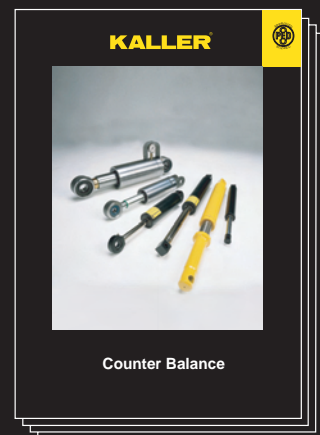
The Flex Cam is used for piercing, cutting, forming and flanging operations. The system allows for a flexible distribution of forces with optimal direction and velocity. By using a Flex Cam, fewer tools are required in production.



Roller Cam RC2, RCP2

Roller Cam

Kaller Roller Cam is used for piercing, trimming, flanging and restriking. The Roller Cam can be mounted in both vertical and horizontal angles.



Counter Balance

Counter Balance

Kaller Counter Balance gas springs can be used to lift, lower, assist, balance, and hold in a multitude of applications.

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