The Safer Choice

Introduced in 1983, the KALLER gas spring technology quickly led to world-wide demand. The Safer Choice - Training, Safety and Reliability - has always been a KALLER top priority for providing the safer working environment. We recommend looking through all available KALLER features when selecting gas springs and gas or hose linked systems.

KALLER Training Program

TRAINING. Without doubt the KALLER Training Program is the best and most creative way to fully understand and appreciate the importance of the safety and reliability features.

PED approved for 2 million strokes

RELIABILITY. Our 2 million stroke PED approval ensures safer component cycle life.

Flex Guide™ System

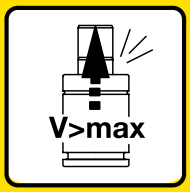
RELIABILITY. Prolongs service life, allows more strokes per minute, and offers greater tolerance to lateral tool movements.

Dual Seal™ Link Systems

RELIABILITY. Fewer production interruptions due to leakage caused by vibration. Simplified installation thanks to the non-rotation feature.

Overstroke Protection System

SAFETY. When a gas spring is overstroked, this helps reduce the risk of tool damage or injury.



Overload Protection System

SAFETY. Jammed cam or tool part being forced by gas springs? This will help reducing such risks.

Overpressure Protection System

SAFETY. Vents the spring if the internal gas pressure exceeds the maximum allowable limit to prevent accidents.

8100-2772-08 © STRÖMSHOLMEN AB, Printed in Sweden 2014

kaller.com

Product Series
Gas Springs including Standard mounts

KALLER®
The Safer Choice

Gas Spring Selection Guide 2014

Would you like to order this product?
All available information at www.kaller.com.

GAS SPRING SELECTION GUIDE 2014

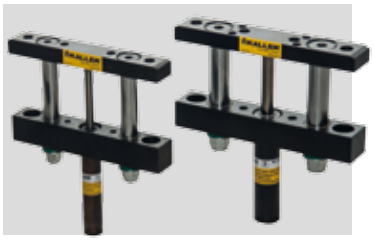
*For more information, see KALLER main catalog

Note: 1" = 25.4 mm 1 daN ≈ 1 kgf 1 daN ≈ 2.25 lbf 1 bar = 14.5 psi

Series	Description		Gas spring model	Available stroke lengths* (mm)	Initial force at max. pressure (N)	(lbf)
EP2 24 EPS2 24 EP3 16	EP2 24, EPS2 24 and EP3 16 are color coded gas Ejector-Pins, interchangeable with mechanical spring plungers		EP3 16	10 - 125	420	95
			EP2 24	10 - 125	1,700	380
			EPS2 24	10 - 125	1,700	380
R12 R15 R19	R12, R15 & R19 rod sealed and color coded gas springs – compact and fully adjustable		R12	7 - 125	500	110
			R15	7 - 125	700	160
			R19	7 - 125	900	200
M2 MM2 MC3 MC3-SP	Repairable, color coded and fully adjustable gas springs available with or without threaded cylinders		M2	10 - 125	2,000	450
			MM2	10 - 125	2,000	450
			MC3	10 - 125	2,000	450
			MC3-SP	10 - 125	2,000	450
CU4	Super compact gas springs provide extreme forces with minimal cylinder diameters		CU4 420	6 - 65	4,250	960
			CU4 740	6 - 65	7,400	1,660
			CU4 1000	6 - 65	10,600	2,380
			CU4 1800	6 - 65	18,000	4,045
			CU4 2900	10 - 65	29,500	6,630
			CU4 4700	10 - 65	47,000	10,570
			CU4 7500	10 - 65	75,000	16,860
			CU4 11800	10 - 65	118,000	26,530
			CU4 18300	10 - 65	183,000	41,140
Power Line X	The world's shortest, strongest and most advanced rod sealed gas springs		X 170	7 - 125	1,700	380
			X 320	7 - 125	3,200	720
			X 350	10 - 125	3,600	810
			X 500	10 - 125	4,700	1,055
			X 750	10 - 125	7,400	1,665
			X 1000	13 - 125	9,200	2,070
			X 1500	13 - 125	15,000	3,375
			X 2400	16 - 125	24,000	5,400
			X 4200	16 - 125	42,000	9,440
			X 6600	16 - 125	66,300	14,905
			X 9500	19 - 125	95,000	21,400
			X 20000	19 - 125	200,000	45,000
TL	Ranges from model sizes 750 to 7,500, with the same features and technology as the TU. At the same time, the TL gas spring is shorter than the corresponding TU by 25 mm, except TL 5000 and TL 7500, which are 37.5 and 50 mm shorter respectively		TL 750	12.5 - 250	7,400	1,665
			TL 1500	12.5 - 250	15,000	3,375
			TL 3000	12.5 - 250	30,000	6,740
			TL 5000	25 - 250	50,000	11,240
			TL 7500	25 - 250	75,000	16,860
TU	The TU gas springs' dimensions are the basis of the International Organization for Standardization (ISO 11901) for gas springs as well as the Ford WDX and GM gas spring standards		TU 250	10 - 125	2,650	790
			TU 500	10 - 160	4,700	1,055
			TU 750	12.7 - 300	7,400	1,665
			TU 1500	25 - 300	15,000	3,375
			TU 3000	25 - 300	30,000	6,740
			TU 5000	25 - 300	50,000	11,240
			TU 7500	25 - 300	75,000	16,860
			TU 10000	25 - 300	106,000	23,830
TX	The Power Line Heavy Duty series, a crossover between the standard TU series and the Power Line X series		TX 750	13 - 200	7,400	1,663
			TX 1000	13 - 300	9,200	2,075
			TX 1500	13 - 300	15,000	3,372
			TX 2400	25 - 300	24,000	5,400
			TX 4200	25 - 300	42,000	9,450
			TX 6600	25 - 300	66,300	14,925
			TX 9500	25 - 300	95,000	21,400
			TX 20000	25 - 300	200,000	44,961
SPC	Speed Control™ have been engineered to reduce or eliminate blank holder bounce; commonly associated with increased return stroke speeds from link drive presses		SPC 750	125 - 300	7,400	1,665
			SPC 1500	125 - 300	15,000	3,375
			SPC 3000	125 - 300	30,000	6,750
			SPC 5000	125 - 300	50,000	11,250
LCF	These innovative Low Contact Force gas spring are 100% interchangeable with ISO gas springs (i.e. KALLER TU series) and reduce shock loads, noise levels and pad bounce problems		LCF 750	12.7 - 300	7,400	1,665
			LCF 1500	25 - 300	15,000	3,375
			LCF 3000	25 - 300	30,000	6,740
			LCF 5000	25 - 300	50,000	11,240
			LCF 7500	25 - 300	75,000	16,860
MT	Mould Temp gas springs are compact and powerful piston rod sealed gas springs, which can be used up to 120°C		MT 16	10 - 80	420	95
			MT 24	10 - 80	1,700	380
			MT 300	10 - 80	3,000	675
			MT 500	10 - 80	4,700	1,055
			MT 750	10 - 80	7,440	1,665
			MT 1000	13 - 80	9,200	2,070

	Total length* (mm)	Cylinder diameter (mm)
	45 + (2 x Stroke)	M16x1.5/M16x2
	45 + (2 x Stroke)	M24x1.5
	45 + (2 x Stroke)	M24x1.5
	56 - 295	Ø 12
	56 - 295	Ø 15
	56 - 295	Ø 19
	62 - 295	Ø 25
	42 + (2 x Stroke)	M28x1.5
	50 + (2 x Stroke)	Ø 32
	50 + (2 x Stroke)	Ø 32
	56 - 195	Ø 25
	63 - 195	Ø 32
	61 - 230	Ø 38
	66 - 271	Ø 50
	85 - 256	Ø 63
	80 - 273	Ø 75
	90 - 279	Ø 95
	100 - 320	Ø 120
	110 - 223	Ø 150
	44 - 285	Ø 19
	44 - 285	Ø 25
	30 + (2 x Stroke)	Ø 32
	30 + (2 x Stroke)	Ø 38
	32 + (2 x Stroke)	Ø 45
	38 + (2 x Stroke)	Ø 50
	44 + (2 x Stroke)	Ø 63
	45 + (2 x Stroke)	Ø 75
	58 + (2 x Stroke)	Ø 95
	68 + (2 x Stroke)	Ø 120
	78 + (2 x Stroke)	Ø 150
	110+ (2 x Stroke)	Ø 195
	70 + (2 x Stroke)	Ø 50
	85 + (2 x Stroke)	Ø 75
	95 + (2 x Stroke)	Ø 95
	102,5 + (2 x Stroke)	Ø 120
	105 + (2 x Stroke)	Ø 150
	50 + (2 x Stroke)	Ø 38
	85 + (2 x Stroke)	Ø 45
	95 + (2 x Stroke)	Ø 50
	110 + (2 x Stroke)	Ø 75
	120 + (2 x Stroke)	Ø 95
	140 + (2 x Stroke)	Ø 120
	155 + (2 x Stroke)	Ø 150
	160 + (2 x Stroke)	Ø 195
	85 + (2 x Stroke)	Ø 45
	95 + (2 x Stroke)	Ø 50
	95 + (2 x Stroke)	Ø 63
	110 + (2 x Stroke)	Ø 75
	120 + (2 x Stroke)	Ø 95
	140 + (2 x Stroke)	Ø 120
	155 + (2 x Stroke)	Ø 150
	160 + 2 x Stroke)	Ø 194
	110 + (2 x Stroke)	Ø 75
	120 + (2 x Stroke)	Ø 95
	140 + (2 x Stroke)	Ø 120
	155 + (2 x Stroke)	Ø 150
	95 + (2 x Stroke)	Ø 50
	110 + (2 x Stroke)	Ø 75
	120 + (2 x Stroke)	Ø 95
	140 + (2 x Stroke)	Ø 120
	155 + (2 x Stroke)	Ø 150
	48 + (2 x Stroke)	M16x1.5
	48 + (2 x Stroke)	M24x1.5
	30 + (2 x Stroke)	Ø 32
	30 + (2 x Stroke)	Ø 38
	32 + (2 x Stroke)	Ø 45
	38 + (2 x Stroke)	Ø 50

Other KALLER products with unique safety features:



Dual Post Lifters can be used in progressive dies for lifting the stock when it progresses through the die.

Flex Form™ offers an excellent control system both for movement and forces. KALLER can offer a lockable return function or an adjustable slow return.

Flex Cam® 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.

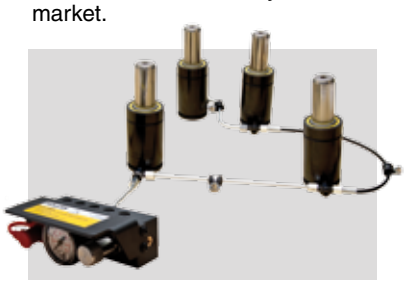
Roller Cam - RC2, RCP2 used for piercing, trimming, flanging and restriking. The Roller Cam can be mounted in both vertical and horizontal planes.

Soft-hit Striker Plate - SSP engineered to address three of the major problems that face metal stampers:

- Excessive shock loads
- High noise levels
- Poor part quality

Die Separation Gas Springs - DS
Using the DS springs is an excellent way to avoid unnecessary wear of die, press and gas springs. A 70-80 % energy saving compared to using traditional springs is an additional benefit.

Hose-less Baseplate™ the increasingly popular easy-accessible alternative to the conventional manifold systems on the market.



The Micro EO24™ Hose and Tube system is our most compact, soft sealed gas linking system.

Controllable Gas Springs - KF2
a family of gas springs for use in press tools, can be locked in their bottom position and the return stroke of the spring can be controlled.

Stock Lifters & Flange Strippers used in transfer and progression dies to provide self-guiding, non-rotating and easily adjustable lifting or stripping forces.

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.