
Product Series
Gas Springs

 **KALLER**[®]

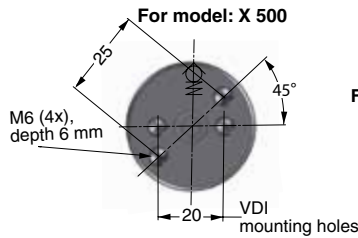
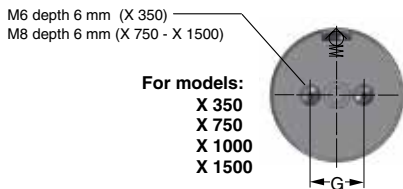
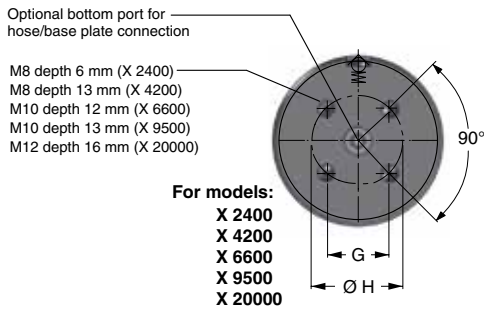
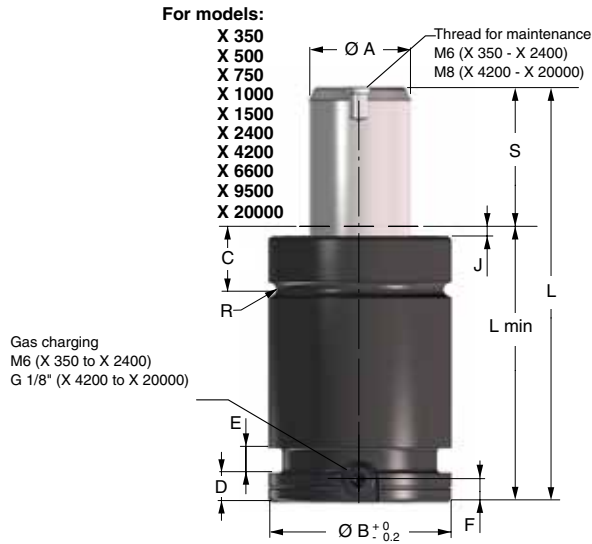
The Safer Choice

Power Line X 170 – X 20000



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

Power Line – the world’s shortest, strongest and most advanced rod sealed gas springs

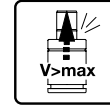


KALLER - THE SAFER CHOICE

Training



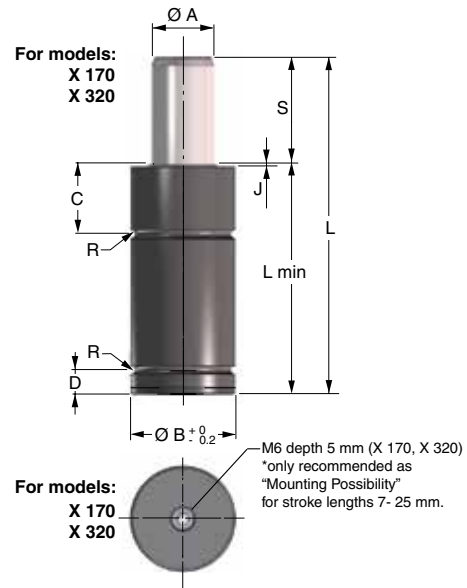
Safety



Reliability



Need additional information on the KALLER features? Look at the back cover of this brochure or at kaller.com/FAQ.



Limited features for X 170 and X 320

Model	Spring force in N at 150 ⁺ bar/ + 20° C		Ø A	Ø B	C	D	E	F	G	Ø H	J	R
	Initial	End force **										
X 170	1,700	2,700	11	19	17	5.8	--	--	--	--	1	1
X 320	3,200	5,000	15	25	17	5.8	--	--	--	--	1	1
X 350	3,600	5,500	16	32	12.5	4	3.5	6	20	--	2	1
X 500	4,700	7,200	20	38	12.5	4	4	6	20/25	--	2	1
X 750	7,400	12,000	25	45.2	16.5	4	4	6	20	--	2	1
X 1000	9,200	14,000	28	50.2	17.5	8	7	6	20	--	3	2
X 1500	15,000	24,000	36	63.2	19	8	7	6	20	--	3	2
X 2400	24,000	38,000	45	75.2	21	8	7	6	28.3	40	3	2.5
X 4200	42,000	66,000	60	95.2	24	8	7	10.5	42.4	60	3	2.5
X 6600	66,300	99,000	75	120.2	25.5	8	7	10.5	56.6	80	3	2.5
X 9500	95,000	145,000	90	150.2	27.5	8	8	10.5	70.7	100	3	2.5
X 20000	200,000	324,000	130	195	33.5	8	8	15	84.8	120	3	2.5

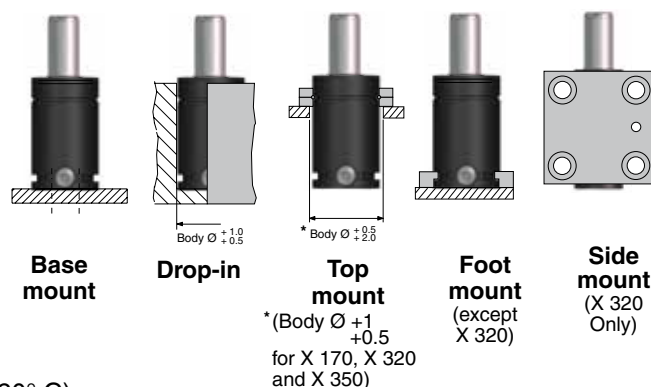
* for X 170 - X 350 = 180 bar, ** at full stroke,

Stroke		7	10	13	15	16	19	25	32	38	50	63	75	80	100	125
X 170	L	44	50	--	60	--	68	80	--	106	130	156	185	195	235	285
	L min	37	40	--	45	--	49	55	--	68	80	93	110	115	135	160
X 320	L	44	50	--	60	--	68	80	--	106	130	156	185	195	235	285
	L min	37	40	--	45	--	49	55	--	68	80	93	110	115	135	160
X 350	L	--	50	56	--	62	68	80	94	106	130	156	180	190	230	280
	L min	--	40	43	--	46	49	55	62	68	80	93	105	110	130	155
X 500	L	--	50	56	--	62	68	80	94	106	130	156	180	190	230	280
	L min	--	40	43	--	46	49	55	62	68	80	63	105	110	130	155
X 750	L	--	52	58	--	64	70	82	96	108	132	158	182	192	230	282
	L min	--	42	45	--	48	51	57	64	70	82	95	107	112	132	157
X 1000	L	--	--	64	--	70	76	88	102	114	138	164	188	198	238	288
	L min	--	--	51	--	54	57	63	70	76	88	101	113	118	138	163
X 1500	L	--	--	70	--	76	82	94	108	120	144	170	194	204	244	294
	L min	--	--	57	--	60	63	69	76	82	94	107	119	124	144	169
X 2400	L	--	--	--	--	77	83	95	109	121	145	171	195	205	245	295
	L min	--	--	--	--	61	64	70	77	83	95	108	120	125	145	170
X 4200	L	--	--	--	--	90	96	108	122	134	158	184	208	218	258	308
	L min	--	--	--	--	74	77	83	90	96	108	121	133	138	158	183
X 6600	L	--	--	--	--	100	106	118	132	144	168	194	218	228	268	318
	L min	--	--	--	--	84	87	93	100	106	118	131	143	148	168	193
X 9500	L	--	--	--	--	--	116	128	142	154	178	204	228	238	278	328
	L min	--	--	--	--	--	97	103	110	116	128	141	153	158	178	203
X 20000	L	--	--	--	--	--	148	160	174	186	210	236	260	270	310	360
	L min	--	--	--	--	--	129	135	142	148	160	173	185	190	210	235

Performance and design features

- Initial forces from 1,700 to 200,000 N
- Side or bottom charging ports for hose-system connection
- Upper C-groove, lower U-groove (except X 170 and X 320) and bottom threaded holes allow for various standard mounting possibilities

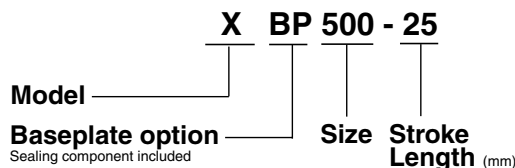
Mounting possibilities



Basic information

Pressure medium.....Nitrogen
 Max. charge pressure (X 170 – X 350).....180 bar (at 20° C)
 Max. charge pressure (X 500 – X 20000).150 bar (at 20° C)
 Min. charge pressure..... 25 bar (at 20° C)
 Operating temperature..... 0 to +80°C
 Force increase by temperature..... ±0.3%/°C
 Recommended max strokes/min..... ~ 15 -100 (at 20° C)
 Max. piston rod velocity..... 1.6 m/s
 Repair kit..... Available for all models except X 170, X 320 and X 2400-016

How to order



Note! See KALLER main catalog for further information.

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.



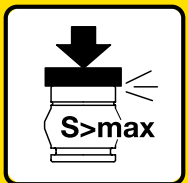
Flex Guide™ System

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



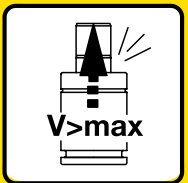
Dual Seal™ Link Systems

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.