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Product Series  
Gas Springs

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 **KALLER**<sup>®</sup>

*The Safer Choice*

# Power Line Heavy Duty TX 750 – TX 20000

Edition 5.2013  
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Would you like to order this product?  
All available information at [kaller.com](http://kaller.com).

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# Power Line Heavy Duty – a crossover between the ISO standard TU and the Powerline X Series

TX springs combine the high forces of the X springs with the outer dimensions and stroke lengths of the TU springs.



## KALLER - THE SAFER CHOICE

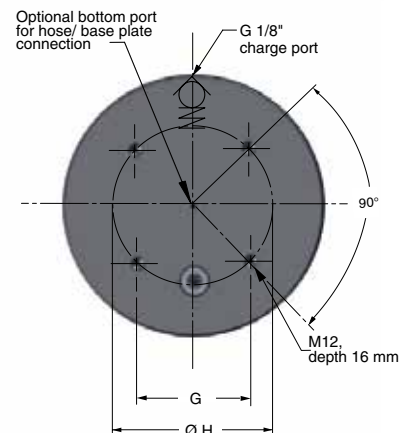
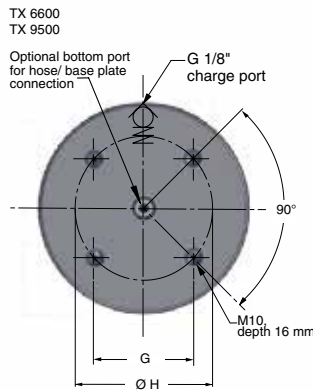
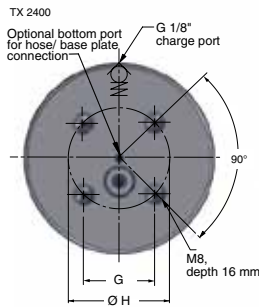
### Training Safety



### Reliability



Need additional information on the KALLER features? Look at the back cover of this brochure or at [kaller.com/FAQ](http://kaller.com/FAQ).



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 *										
TX 750	7,400	12,000	25	45.2	16.5	4	4	10.5	20	--	2	1
TX 1000	9,200	14,000	28	50.2	17.5	8	7	10.5	20	--	3	2
TX 1500	15,000	24,000	36	63.2	19	8	7	10.5	28.3	40	3	2
TX 2400	24,000	38,000	45	75.2	21	8	7	10.5	28.3	40	3	2.5
TX 4200	42,000	66,000	60	95.2	24	8	7	10.5	42.4	60	3	2.5
TX 6600	66,300	99,000	75	120.2	25.5	8	7	10.5	56.6	80	3	2.5
TX 9500	95,000	145,000	90	150.2	27.5	8	8	10.5	70.7	100	3	2.5
TX 20000	200,000	324,000	130	194.9	33.5	8	8	15	84.8	120	3	2.5

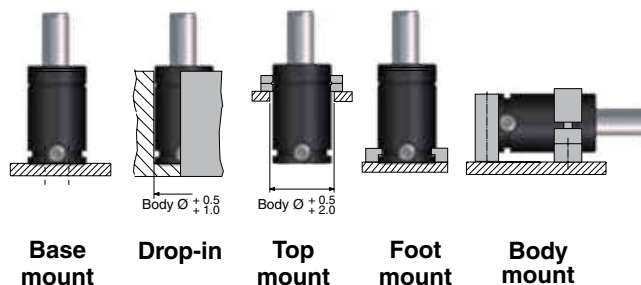
\* at full stroke,

Stroke		13	25	38	50	63	75	80	100	125	150	160	175	200	250	300
TX 750	L	111	135	161	185	211	235	245	285	335	385	405	435	485	-	-
	L min	98	110	123	135	148	160	165	185	210	235	245	260	285	-	-
TX 1000	L	121	145	171	195	221	245	255	295	345	395	415	445	495	595	695
	L min	108	120	133	145	158	170	175	195	220	245	255	270	295	345	395
TX 1500	L	121	145	171	195	221	245	255	295	345	395	415	445	495	595	695
	L min	108	120	133	145	158	170	175	195	220	245	255	270	295	345	395
TX 2400	L	-	160	186	210	236	260	270	310	360	410	430	460	510	610	710
	L min	-	135	148	160	173	185	190	210	235	260	270	285	310	360	410
TX 4200	L	-	170	196	220	246	270	280	320	370	420	440	470	520	620	720
	L min	-	145	158	170	183	195	200	220	245	270	280	295	320	370	420
TX 6600	L	-	190	216	240	266	290	300	340	390	440	460	490	540	640	740
	L min	-	165	178	190	203	215	220	240	265	290	300	315	340	390	440
TX 9500	L	-	205	231	255	281	305	315	355	405	455	475	505	555	655	755
	L min	-	180	193	205	218	230	235	255	280	305	315	330	355	405	455
TX 20000	L	-	210	236	260	286	310	320	360	410	460	480	510	560	660	760
	L min	-	185	198	210	223	235	240	260	285	310	320	335	360	410	460

**Performance and Design Features**

- Initial forces from 7,400 to 200,000 N.
- Side or bottom charging ports for Link-system connection.
- Upper C-groove, lower U-groove and bottom threaded holes allow for various standard mounting possibilities.
- Optional bottom port for hose/base plate connection.

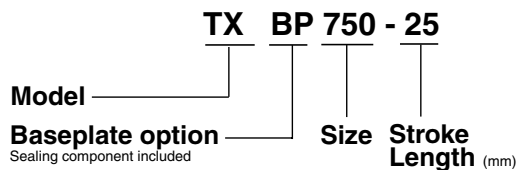
**Mounting possibilities**



**Basic information**

Pressure medium .....	Nitrogen
Max. charge pressure .....	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 TX 750 .....	3026200
Repair Kit TX 1000 .....	3023788
Repair Kit TX 1500 .....	3026202
Repair Kit TX 2400 .....	3022952
Repair Kit TX 4200 .....	3022953
Repair Kit TX 6600 .....	3022954
Repair Kit TX 9500 .....	3022901
Repair Kit TX 20000 .....	3026204

**How to order**



# 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.



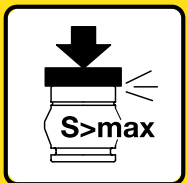
## Flex Guide™ System

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



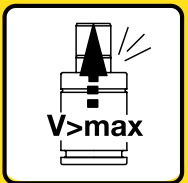
## Dual Seal™ Link Systems

**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.