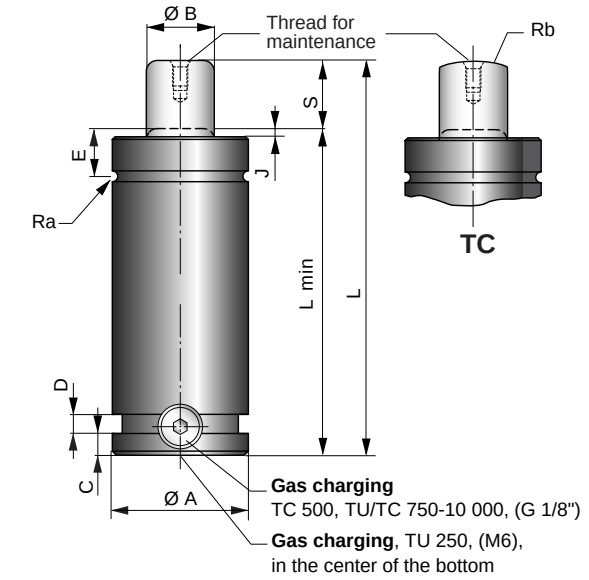
KALLER®

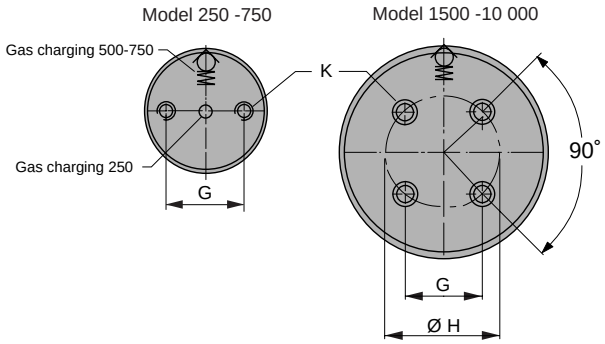
GAS SPRINGS

TU/TC 250 - 10000

KALLER®

Dimensions





The basic line of gas springs is the TU/TC - line. Sizes 250 to 7500 correspond to the ISO 11901 standard for gas springs.

The difference between the TU and the TC line is the shape of the piston rod top. The TU springs have a flat piston rod top where as the TC springs have a spherical piston rod top. All other specifications are identical.

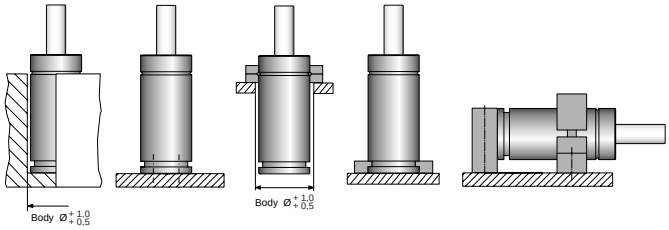
The TU 250 replaces earlier model TC 250. Note that new TU 250 has two threaded bottom holes for mounting, and gas charging in the bottom (earlier TU 250 had the gas charging in the piston rod).

Additional stroke lengths 200, 250 and 300 mm are available on all variants of models 750-10 000.

Note! All dimensions are stated in mm.

Model	G	Ø H	K	K (depth)
TU 250	25	-	M6	8
TC 500	20	-	M8	12,5
TU/TC 750	20	-	M8	12,5
TU/TC 1500	28,3	40	M8	13
TU/TC 3000	42,4	60	M8	13
TU/TC 5000	56,6	80	M10	16
TU 7500	70,7	100	M10	16
TU 10000	84,8	120	M12	16

Mounting possibilities



Drop - In | **B, MP** | **FC, FCS FS, FVC** | **K, KU, FFC, FU** | **FAC, SA, S, HM**

Bottom Mount | Top Mount | Foot Mount | Body Mount

Model	B	MP	FC	FCS	FS	FAC	K	KU	FFC	FU	SA	S	FVC	HM
TU 250	X		X	X			X		X					
TC 500	X	X	X	X			X		X	X				
TU/TC 750	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TU/TC 1500	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TU/TC 3000	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TU/TC 5000	X	X	X	X	X	X	X	X	X	X	X	X	X	
TU 7500	X	X	X	X			X	X	X	X		X		
TU 10000	X	X		X			X		X					

X = Mount is available for this model

Basic Information

Pressure medium ..... Nitrogen
Max. charging pressure ..... 150 bar
Min. charging pressure ..... 25 bar
Temp. range ..... 0- +80°C
Recommended max
strokes/min (at 20°C) ..... ~ 80-100 (TU 250)
..... ~ 40-80 (TC 500)
..... ~ 15-40 (TU 7500-10000)

Max piston rod velocity ..... 0,8 m/s

Tube surface ..... Black oxide
Rod surface ..... Chromium plated

Initial force

Calculation of filling pressure for TU/TC, to achieve desired initial force:

X = Desired initial force in N

$$\text{Filling pressure} = 150 \bullet \frac{X}{\text{Initial force at 150 bar}}$$

Example: A TU/TC 750 spring to have a desired initial force of 6000 N

$$\text{Filling pressure} = 150 \bullet \frac{6000}{7400} \approx 122 \text{ bar}$$

Dimensions

Order No.	S Stroke	Spring force in N at 150 bar/+20° C Initial	Spring force in N at 150 bar/+20° C Max.	L ±0,25	L min	ISO	ØA ± 0,1	ØB	C	D	E	J	Ra	Rb (Only TC)
TU 250-010	10	2650	3500	70	60	✔	37,9	15	4	4	12,5	2	1	-
TU 250-013	12,7		3500	75,4	62,7									
TU 250-016	16		3500	82	66	✔								
TU 250-025	25		3500	100	75	✔								
TU 250-038	38,1		3500	126,2	88,1									
TU 250-050	50		3500	150	100	✔								
TU 250-064	63,5		3500	177	113,5									
TU 250-080	80		3500	210	130	✔								
TU 250-100	100		3500	250	150									
TC 500-010	10	4700	6000	105	95		45,2	20	4	4	16,5	2	1	120
TC 500-013	12,7		6100	110,4	97,7									
TC 500-025	25		6400	135	110	✔								
TC 500-038	38,1		6500	161,2	123,1									
TC 500-050	50		6600	185	135	✔								
TC 500-064	63,5		6600	212	148,5									
TC 500-080	80		6700	245	165	✔								
TC 500-100	100		6700	285	185									
TC 500-125	125		6700	335	210									
TC 500-160	160		6700	405	245									
TU/TC 750-013	12,7	7400	12000	120,4	107,7		50,2	25	8	7	17,5	3	2	150
TU/TC 750-025	25		12000	145	120	✔								
TU/TC 750-038	38,1		12000	171,2	133,1									
TU/TC 750-050	50		12000	195	145	✔								
TU/TC 750-064	63,5		12000	222	158,5									
TU/TC 750-080	80		12000	255	175	✔								
TU/TC 750-100	100		12000	295	195	✔								
TU/TC 750-125	125		12100	345	220	✔								
TU/TC 750-160	160		12100	415	255	✔								
TU/TC 1500-025	25	15000	23000	160	135	✔	75,2	36	8	7	21	3	2,5	200
TU/TC 1500-038	38,1		23000	186,2	148,1									
TU/TC 1500-050	50		23000	210	160	✔								
TU/TC 1500-064	63,5		23000	237	173,5									
TU/TC 1500-080	80		23000	270	190	✔								
TU/TC 1500-100	100		23000	310	210	✔								
TU/TC 1500-125	125		23000	360	235	✔								
TU/TC 1500-160	160		23000	430	270	✔								
TU/TC 3000-025	25	30000	42000	170	145	✔	95,2	50	8	7	24	3	2,5	250
TU/TC 3000-038	38,1		43000	196,2	158,1									
TU/TC 3000-050	50		44000	220	170	✔								
TU/TC 3000-064	63,5		45000	247	183,5									
TU/TC 3000-080	80		46000	280	200	✔								
TU/TC 3000-100	100		47000	320	220	✔								
TU/TC 3000-125	125		47000	370	245	✔								
TU/TC 3000-160	160		47000	440	280	✔								
TU/TC 5000-025	25	50000	71000	190	165	✔	120,2	65	8	7	25,5	3	2,5	300
TU/TC 5000-038	38,1		75000	216,2	178,1									
TU/TC 5000-050	50		77000	240	190	✔								
TU/TC 5000-064	63,5		80000	267	203,5									
TU/TC 5000-080	80		81000	300	220	✔								
TU/TC 5000-100	100		82000	340	240	✔								
TU/TC 5000-125	125		82000	390	265	✔								
TU/TC 5000-160	160		83000	460	300	✔								
TU 7500-025	25	75000	105000	205	180	✔	150,2	80	8	8	27,5	3	2,5	-
TU 7500-038	38,1		110000	231,2	193,1									
TU 7500-050	50		113000	255	205	✔								
TU 7500-064	63,5		115000	282	218,5									
TU 7500-080	80		117000	315	235	✔								
TU 7500-100	100		119000	355	255	✔								
TU 7500-125	125		121000	405	280	✔								
TU 7500-160	160		122000	475	315	✔								
TU 10000-025	25	106000	138000	210	185	✔	194,9	95	8	8	33,5	3	2,5	-
TU 10000-038	38,1		143000	236,2	198,1									
TU 10000-050	50		147000	260	210	✔								
TU 10000-064	63,5		150000	287	223,5									
TU 10000-080	80		152000	320	240	✔								
TU 10000-100	100		156000	360	260	✔								
TU 10000-125	125		157000	410	285	✔								
TU 10000-160	160		158000	480	320	✔								

KALLER®

World Leader

In Gas Springs for Metal Forming

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