



# T-MOTION

## INDUSTRIAL CATALOGUE

2020 CATALOGUE

**GASFEDERN – GAS SPRING – MOLLA A GAS**

**Turkey** Discover the potential

UNICERT  
ISO 9001:2015



# About Our Company

From Tradition  
to Innovation

**TGS started its industry adventure in early 70s by the producon of machining products for gas springs and various fields of industry. Our early gas spring producon steps started in 1992.**

Day afer day we improved our manufacturing technologies and machinery equipments and caught world standards. In 2008 we started exporting our products to european countries and established our export company Tunatek Ltd. Co. for organizing our all export operations.

More than a quarter century of experience in gas spring producon ensures us self-confidence to provide our products all high level markets. Today we manufacture 5 different series in steel and stainless steel materials and dozens of different functions. Customers from about 50 countries and dozen of different industrial sectors rely on different kinds of gas springs made by TGS.



# Quality Policy



All our products are designed, manufactured and delivered according to the most strict quality standards. Our experienced and specially trained employees monitor the adherence to our quality criteria in every phase of the production process. Tunalift gas springs are manufactured with the highest quality, environmentally friendly materials.

We are certified in accordance with DIN ISO 9001:2015. Our quality program starts with implementing strict quality controls on our purchase transactions. Permanent quality is guaranteed due to the uncompromisingly monitoring of raw materials, an aggressive testing program and a redundant quality control program throughout the production process.

TGS products are continuously tested to ensure reliability, long life and over all product safety for your highest satisfaction. Using our test and development laboratory, products and technology are constantly being improved.



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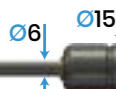
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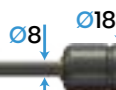
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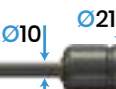
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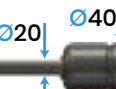
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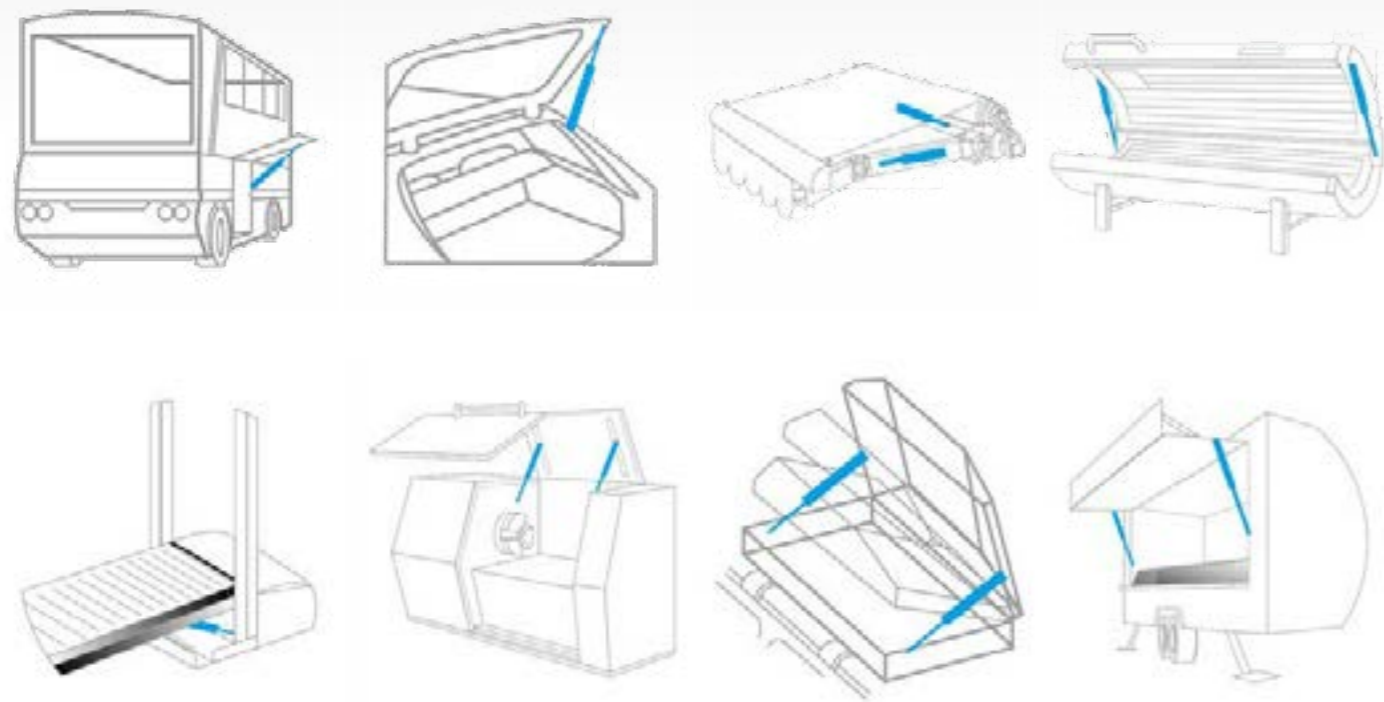


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# T-MOTION SERIES



# APPLICATION FIELDS OF T-MOTION GAS SPRINGS

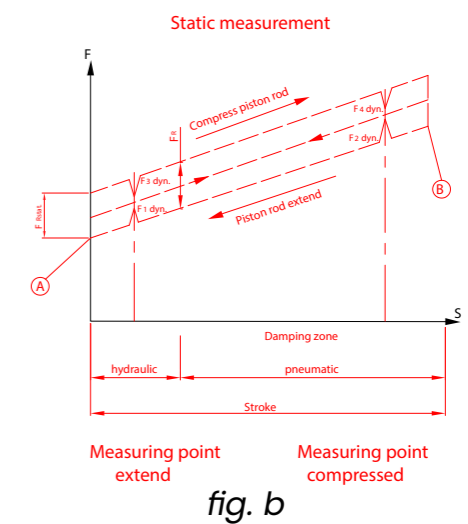
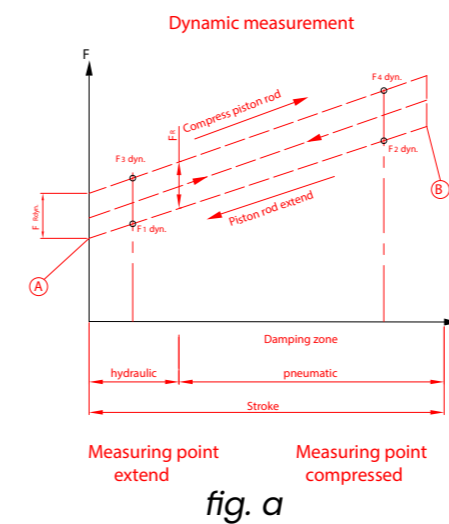
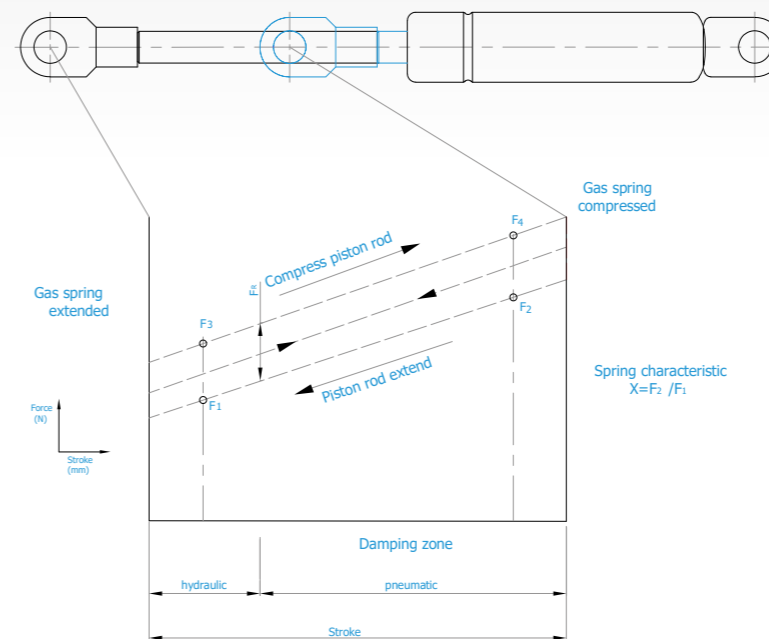


## DEMONSTRATION VIDEO



Scan for watch video on youtube

# Spring Characteristics T-MOTION SERIES



The spring characteristic curve shows the force path of the gas spring over the stroke, from the extended to the retracted state and back. The spring characteristic illustrates the balance of power of  $F_2/F_1$ . For the design of gas springs, the force  $F_1$  is, in addition to the dimensions, the most important criterion. The force  $F_1$  is measured 5mm before the end of the extension movement and thus defies the value of the spring force.

Gas Springs are being measured by two methods; Dynamic measurement and Static measurement. In Dynamic measurement ( fig.a) method test equipment records the force reaction during compression/extension at the same constant velocity. The Static measurement (fig.b) is performed with a constant speed similar to the Dynamic measurement. However, test equipment interrupts the motion at the measuring points and the spring force is being measured in a static condition.

# AA.100.249 - 100N - Y069 - B402 - MJ12 - 10

REFERENCE NO

F1

ROD MOUNTING

TUBE MOUNTING

ADDITIONAL ACCESSORIES

select from list

pressure rate

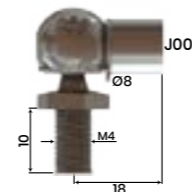
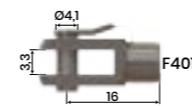
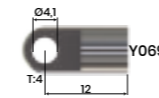
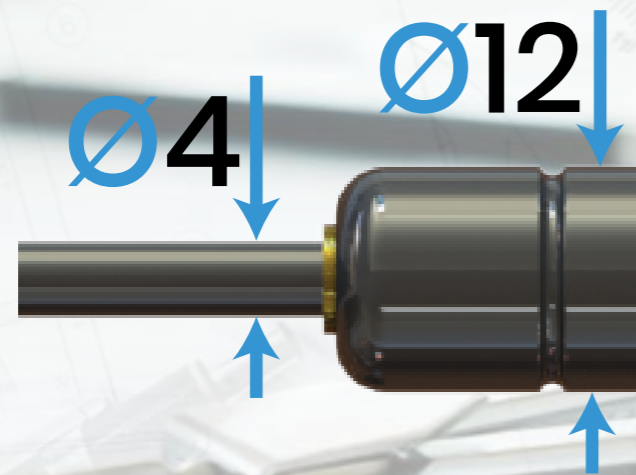
optional

optional

optional



Order Example



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
20	100	30N - 150N	AA.20.100
30	90	30N - 150N	AA.30.90
40	120	30N - 150N	AA.40.120
50	130	30N - 150N	AA.50.130
60	152	30N - 150N	AA.70.170
70	170	30N - 150N	AA.70.152
80	200	30N - 150N	AA.80.200
100	249	30N - 150N	AA.100.249
120	270	30N - 150N	AA.120.270
150	330	30N - 150N	AA.150.330



M-JOINT

MJ12-10 / Extends L +10mm

MJ12-15 / Extends L +15mm



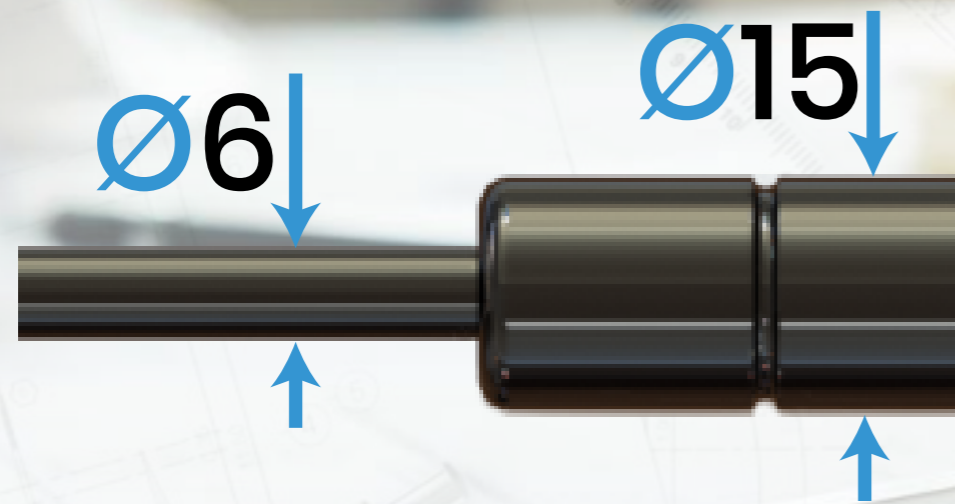
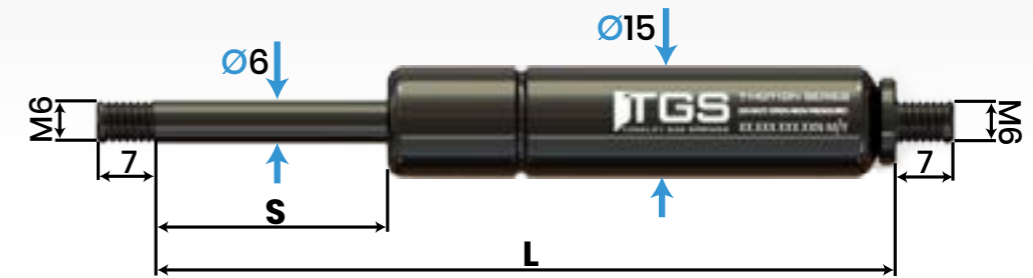
M-JOINT extends length of standard item with mounting on tube end. Please check page 32 for detailed information.

**BA.100.239 - 100N - Y524 - B001 - RV15**

REFERENCE NO select from list  
 F1 pressure rate  
 ROD MOUNTING optional  
 TUBE MOUNTING optional  
 ADDITIONAL ACCESSORIES optional



Order Example



	S	L	F1	REF. NO	
	STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE		
	20	86	50N - 400N	BA.20.86	
	30	100	50N - 400N	BA.30.100	
	40	126	50N - 400N	BA.40.126	
	50	156	50N - 400N	BA.50.156	
	60	162	50N - 400N	BA.60.126	
	73	184	50N - 400N	BA.73.184	
	75	215	50N - 400N	BA.75.215	
	80	199	50N - 400N	BA.80.199	
	90	270	50N - 400N	BA.90.270	
	100	239	50N - 400N	BA.100.239	
	120	282	50N - 400N	BA.120.282	
	140	345	50N - 400N	BA.140.345	
	150	342	50N - 400N	BA.150.342	
	170	395	50N - 400N	BA.170.395	
	180	434	50N - 350N	BA.180.434	
	200	442	50N - 350N	BA.200.442	



**M-JOINT**

MJ15-10 / Extends L +10mm

MJ15-15 / Extends L +15mm



M-JOINT extends length of standard item with mounting on tube end. Please check page 32 for detailed information.

**VALVE**

Order identification code:



**RV15**

Lets you to reduce gas spring pressure according to your requirement. Requires +10mm in extended length.

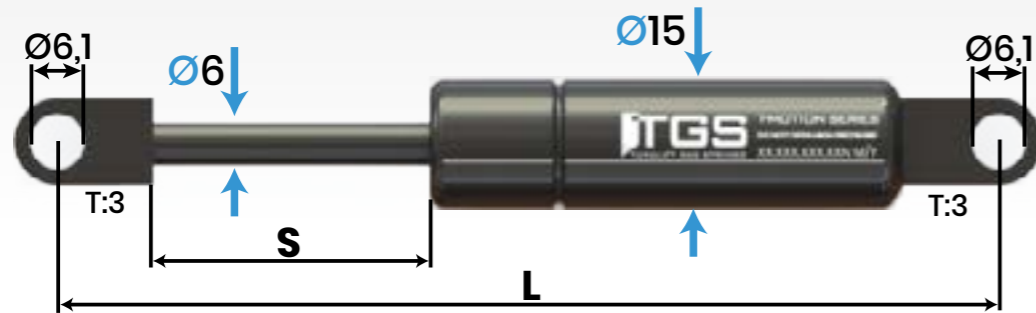
REFERENCE NO

**BM.100.265.100N**

select from list



Order Example



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
20	106	50N	BM.20.106.50N
		100N	BM.20.106.100N
		150N	BM.20.106.150N
		200N	BM.20.106.200N
		250N	BM.20.106.250N
		300N	BM.20.106.300N
		350N	BM.20.106.350N
40	146	50N	BM.40.146.50N
		100N	BM.40.146.100N
		150N	BM.40.146.150N
		150N	BM.40.146.150N
		200N	BM.40.146.200N
		250N	BM.40.146.250N
		350N	BM.40.146.350N
45	160	50N	BM.45.160.50N
		100N	BM.45.160.100N
		150N	BM.45.160.150N
		200N	BM.45.160.200N
		250N	BM.45.160.250N
		300N	BM.45.160.300N
		400N	BM.45.160.400N
60	186	50N	BM.60.186.50N
		100N	BM.60.186.100N
		150N	BM.60.186.150N
		200N	BM.60.186.200N
		250N	BM.60.186.250N
		300N	BM.60.186.300N
		400N	BM.60.186.400N

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
80	226	50N	BM.80.226.50N
		100N	BM.80.226.100N
		150N	BM.80.226.150N
		200N	BM.80.226.200N
		250N	BM.80.226.250N
		300N	BM.80.226.300N
		400N	BM.80.226.400N
100	265	50N	BM.100.265.50N
		100N	BM.100.265.100N
		150N	BM.100.265.150N
		200N	BM.100.265.200N
		250N	BM.100.265.250N
		300N	BM.100.265.300N
		400N	BM.100.265.400N
120	305	50N	BM.120.305.50N
		100N	BM.120.305.100N
		150N	BM.120.305.150N
		200N	BM.120.305.200N
		250N	BM.120.305.250N
		300N	BM.120.305.300N
		400N	BM.120.305.400N
150	366	50N	BM.150.366.50N
		100N	BM.150.366.100N
		150N	BM.150.366.150N
		200N	BM.150.366.200N
		250N	BM.150.366.250N
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		400N	BM.150.366.400N

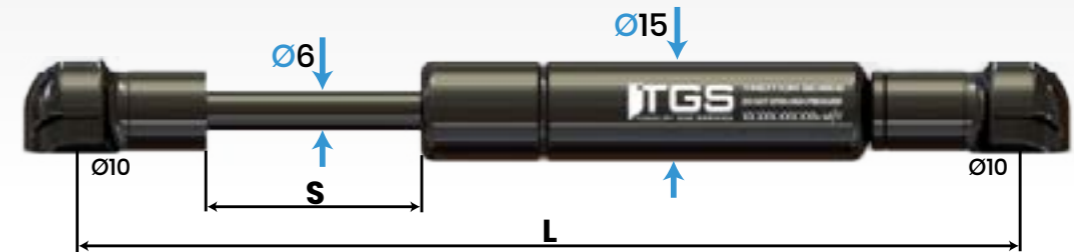
REFERENCE NO

**BC.100.275.100N**

select from list



Order Example



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
20	116	50N	BC.20.116.50N
		100N	BC.20.116.100N
		150N	BC.20.116.150N
		200N	BC.20.116.200N
		250N	BC.20.116.250N
		300N	BC.20.116.300N
		350N	BC.20.116.350N
35	145	50N	BC.35.145.50N
		100N	BC.35.145.100N
		150N	BC.35.145.150N
		200N	BC.35.145.200N
		250N	BC.35.145.250N
		300N	BC.35.145.300N
		400N	BC.35.145.400N
40	155	50N	BC.40.155.50N
		100N	BC.40.155.100N
		150N	BC.40.155.150N
		200N	BC.40.155.200N
		250N	BC.40.155.250N
		300N	BC.40.155.300N
		400N	BC.40.155.400N
60	195	50N	BC.60.195.50N
		100N	BC.60.195.100N
		150N	BC.60.195.150N
		200N	BC.60.195.200N
		250N	BC.60.195.250N
		300N	BC.60.195.300N
		400N	BC.60.195.400N

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
80	235	50N	BC.80.235.50N
		100N	BC.80.235.100N
		150N	BC.80.235.150N
		200N	BC.80.235.200N
		250N	BC.80.235.250N
		300N	BC.80.235.300N
		400N	BC.80.235.400N
90	255	50N	BC.90.255.50N
		100N	BC.90.255.100N
		150N	BC.90.255.150N
		200N	BC.90.255.200N
		250N	BC.90.255.250N
		300N	BC.90.255.300N
		400N	BC.90.255.400N
100	275	50N	BC.100.275.50N
		100N	BC.100.275.100N
		150N	BC.100.275.150N
		200N	BC.100.275.200N
		250N	BC.100.275.250N
		300N	BC.100.275.300N
		400N	BC.100.275.400N
120	315	50N	BC.120.315.50N
		100N	BC.120.315.100N
		150N	BC.120.315.150N
		200N	BC.120.315.200N
		250N	BC.120.315.250N
		300N	BC.120.315.300N
		400N	BC.120.315.400N
150	376	50N	BC.150.376.50N
		100N	BC.150.376.100N
		150N	BC.150.376.150N
		200N	BC.150.376.200N
		250N	BC.150.376.250N
		300N	BC.150.376.300N
		350N	BC.150.376.350N

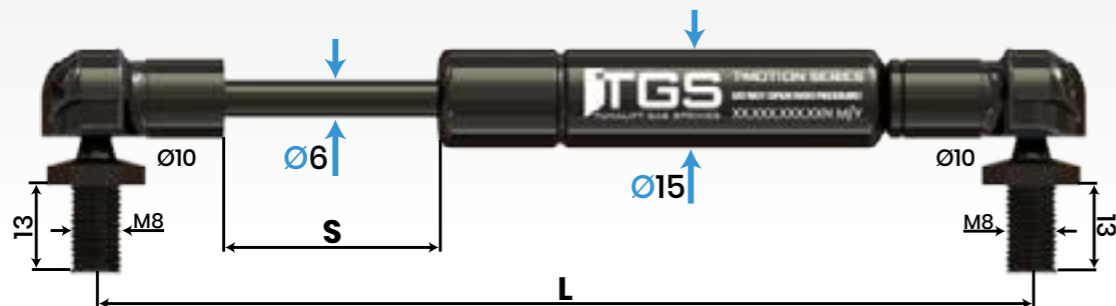
REFERENCE NO

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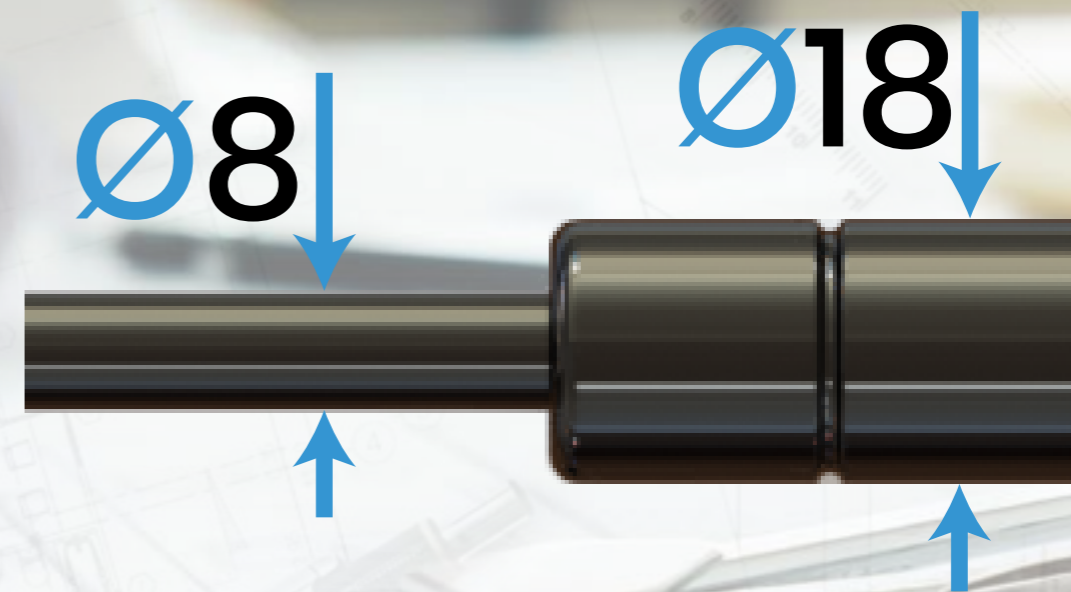
Order Example

select from list



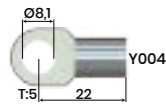
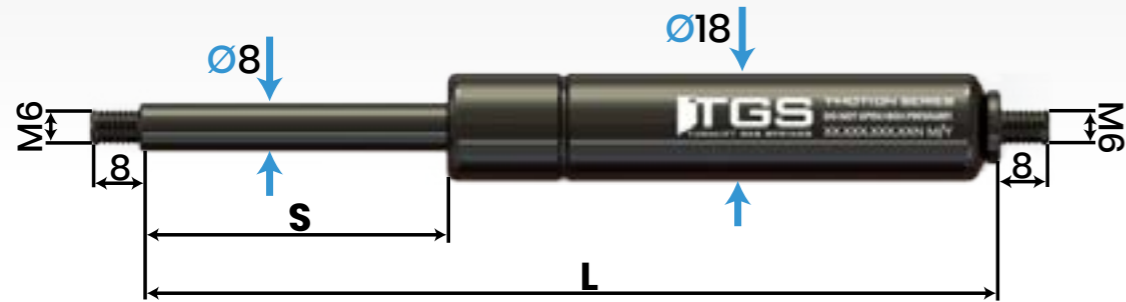
S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
20	116	50N	B4.20.116.50N
		100N	B4.20.116.100N
		150N	B4.20.116.150N
		200N	B4.20.116.200N
		250N	B4.20.116.250N
		300N	B4.20.116.300N
		350N	B4.20.116.350N
35	145	50N	B4.35.145.50N
		100N	B4.35.145.100N
		150N	B4.35.145.150N
		200N	B4.35.145.200N
		250N	B4.35.145.250N
		300N	B4.35.145.300N
		350N	B4.35.145.350N
40	155	50N	B4.40.155.50N
		100N	B4.40.155.100N
		150N	B4.40.155.150N
		200N	B4.40.155.200N
		250N	B4.40.155.250N
		300N	B4.40.155.300N
		350N	B4.40.155.350N
60	195	50N	B4.60.195.50N
		100N	B4.60.195.100N
		150N	B4.60.195.150N
		200N	B4.60.195.200N
		250N	B4.60.195.250N
		300N	B4.60.195.300N
		350N	B4.60.195.350N
400N	B4.60.195.400N		

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
80	235	50N	B4.80.235.50N
		100N	B4.80.235.100N
		150N	B4.80.235.150N
		200N	B4.80.235.200N
		250N	B4.80.235.250N
		300N	B4.80.235.300N
		350N	B4.80.235.350N
90	255	50N	B4.90.255.50N
		100N	B4.90.255.100N
		150N	B4.90.255.150N
		200N	B4.90.255.200N
		250N	B4.90.255.250N
		300N	B4.90.255.300N
		350N	B4.90.255.350N
100	275	50N	B4.100.275.50N
		100N	B4.100.275.100N
		150N	B4.100.275.150N
		200N	B4.100.275.200N
		250N	B4.100.275.250N
		300N	B4.100.275.300N
		350N	B4.100.275.350N
120	315	50N	B4.120.315.50N
		100N	B4.120.315.100N
		150N	B4.120.315.150N
		200N	B4.120.315.200N
		250N	B4.120.315.250N
		300N	B4.120.315.300N
		350N	B4.120.315.350N
150	376	50N	B4.150.376.50N
		100N	B4.150.376.100N
		150N	B4.150.376.150N
		200N	B4.150.376.200N
		250N	B4.150.376.250N
		300N	B4.150.376.300N
		350N	B4.150.376.350N



# CA.100.249 - 100N - B001 - B001 - LT18

REFERENCE NO **CA.100.249** **100N** **B001** **B001** **LT18**  
 select from list pressure rate optional optional optional  
 ROD MOUNTING TUBE MOUNTING ADDITIONAL ACCESSORIES



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
50	155	50N - 700N	CA.50.155
60	169	50N - 750N	CA.60.169
75	214	50N - 800N	CA.75.214
80	209	50N - 800N	CA.80.209
90	265	50N - 800N	CA.90.265
100	249	50N - 800N	CA.100.249
120	289	50N - 800N	CA.120.289
140	345	50N - 800N	CA.140.345
150	395	50N - 800N	CA.150.395
160	370	50N - 800N	CA.160.370
170	394	50N - 800N	CA.170.394
180	409	50N - 800N	CA.180.409
200	450	50N - 800N	CA.200.450
220	491	50N - 750N	CA.220.491
250	550	50N - 750N	CA.250.550



**M-JOINT**

**MJ18-10** / Extends L +10mm  
**MJ18-15** / Extends L +15mm



Order identification code: **RV18**



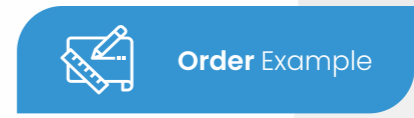
Order identification code: **LT18**

M-JOINT extends length of standard item with mounting on tube end. Please check page 32 for detailed information.

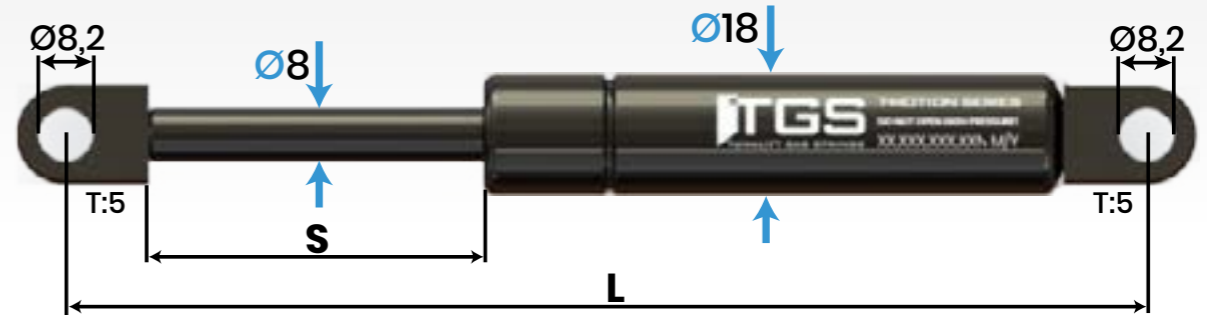
Let's you to reduce gas spring pressure according to your requirement. Requires +10mm in extended length.

External mechanical lock, blocks gas spring in extended position. Please check page 29 for detailed information.

REFERENCE NO **CK.100.286.100N**



select from list



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
60	206	400N	CK.60.206.400N
		500N	CK.60.206.500N
		600N	CK.60.206.600N
		700N	CK.60.206.700N
		800N	CK.60.206.800N
80	246	400N	CK.80.246.400N
		500N	CK.80.246.150N
		600N	CK.80.246.600N
		700N	CK.80.246.750N
		800N	CK.80.246.800N
100	286	400N	CK.100.286.400N
		500N	CK.100.286.500N
		600N	CK.100.286.600N
		700N	CK.100.286.700N
		800N	CK.100.286.800N
120	326	400N	CK.120.326.400N
		500N	CK.120.326.500N
		600N	CK.120.326.600N
		700N	CK.120.326.700N
		800N	CK.120.326.800N
140	366	400N	CK.140.366.400N
		500N	CK.140.366.500N
		600N	CK.140.366.600N
		700N	CK.140.366.700N
		800N	CK.140.366.800N
160	406	100N	CK.160.406.100N
		200N	CK.160.406.200N
		300N	CK.160.406.300N
		400N	CK.160.406.400N
		500N	CK.160.406.500N
600N	CK.160.406.600N		
700N	CK.160.406.700N		
800N	CK.160.406.800N		

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
180	446	100N	CK.180.446.100N
		200N	CK.180.446.200N
		300N	CK.180.446.300N
		400N	CK.180.446.400N
		500N	CK.180.446.500N
600N	CK.180.446.600N		
700N	CK.180.446.700N		
800N	CK.180.446.800N		
200	486	100N	CK.200.486.100N
		200N	CK.200.486.200N
		300N	CK.200.486.300N
		400N	CK.200.486.400N
		500N	CK.200.486.500N
600N	CK.200.486.600N		
700N	CK.200.486.700N		
800N	CK.200.486.800N		
220	526	100N	CK.220.526.100N
		200N	CK.220.526.200N
		300N	CK.220.526.300N
		400N	CK.220.526.400N
		500N	CK.220.526.500N
600N	CK.220.526.600N		
700N	CK.220.526.700N		
800N	CK.220.526.800N		
250	586	100N	CK.250.586.100N
		200N	CK.250.586.200N
		300N	CK.250.586.300N
		400N	CK.250.586.400N
		500N	CK.250.586.500N
600N	CK.250.586.600N		
750N	CK.250.586.750N		

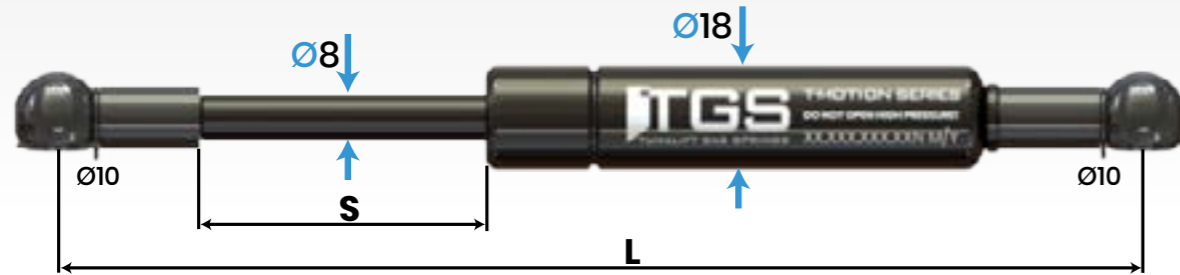
REFERENCE NO

**CD.100.285.100N**



Order Example

select from list



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
60	205	100N	CD.60.205.100N
		200N	CD.60.205.200N
		300N	CD.60.205.300N
		400N	CD.60.205.400N
		500N	CD.60.205.500N
		600N	CD.60.205.600N
		700N	CD.60.205.700N
80	245	100N	CD.80.245.100N
		200N	CD.80.245.200N
		300N	CD.80.245.300N
		400N	CD.80.245.400N
		500N	CD.80.245.500N
		600N	CD.80.245.600N
		700N	CD.80.245.700N
100	285	100N	CD.100.285.100N
		200N	CD.100.285.200N
		300N	CD.100.285.300N
		400N	CD.100.285.400N
		500N	CD.100.285.500N
		600N	CD.100.285.600N
		700N	CD.100.285.700N
120	325	100N	CD.120.325.100N
		200N	CD.120.325.200N
		300N	CD.120.325.300N
		400N	CD.120.325.400N
		500N	CD.120.325.500N
		600N	CD.120.325.600N
		700N	CD.120.325.700N
250	585	100N	CD.250.585.100N
		200N	CD.250.585.200N
		300N	CD.250.585.300N
		400N	CD.250.585.400N
		500N	CD.250.585.500N
		600N	CD.250.585.600N
		700N	CD.250.585.700N
800N	CD.250.585.800N		

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
140	365	100N	CD.140.365.100N
		200N	CD.140.365.200N
		300N	CD.140.365.300N
		400N	CD.140.365.400N
		500N	CD.140.365.500N
		600N	CD.140.365.600N
		700N	CD.140.365.700N
		800N	CD.140.365.800N
160	405	100N	CD.160.405.100N
		200N	CD.160.405.200N
		300N	CD.160.405.300N
		400N	CD.160.405.400N
		500N	CD.160.405.500N
		600N	CD.160.405.600N
		700N	CD.160.405.700N
		800N	CD.160.405.800N
180	445	100N	CD.180.445.100N
		200N	CD.180.445.200N
		300N	CD.180.445.300N
		400N	CD.180.445.400N
		500N	CD.180.445.500N
		600N	CD.180.445.600N
		700N	CD.180.445.700N
		800N	CD.180.445.800N
200	485	100N	CD.200.485.100N
		200N	CD.200.485.200N
		300N	CD.200.485.300N
		400N	CD.200.485.400N
		500N	CD.200.485.500N
		600N	CD.200.485.600N
		700N	CD.200.485.700N
		750N	CD.200.485.750N
220	525	100N	CD.220.525.100N
		200N	CD.220.525.200N
		300N	CD.220.525.300N
		400N	CD.220.525.400N
		500N	CD.220.525.500N
		600N	CD.220.525.600N
		700N	CD.220.525.700N

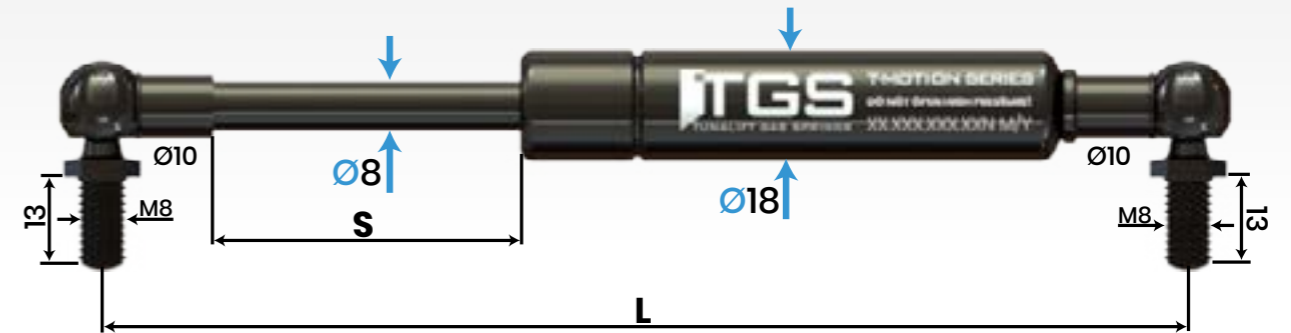
REFERENCE NO

**CAE.100.265.100N**



Order Example

select from list



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
60	205	100N	CAE.60.205.100N
		200N	CAE.60.205.200N
		300N	CAE.60.205.300N
		400N	CAE.60.205.400N
		500N	CAE.60.205.500N
		600N	CAE.60.205.600N
		700N	CAE.60.205.700N
80	245	100N	CAE.80.245.100N
		200N	CAE.80.245.200N
		300N	CAE.80.245.300N
		400N	CAE.80.245.400N
		500N	CAE.80.245.500N
		600N	CAE.80.245.600N
		700N	CAE.80.245.700N
100	285	100N	CAE.100.285.100N
		200N	CAE.100.285.200N
		300N	CAE.100.285.300N
		400N	CAE.100.285.400N
		500N	CAE.100.285.500N
		600N	CAE.100.285.600N
		700N	CAE.100.285.700N
120	325	100N	CAE.120.325.100N
		200N	CAE.120.325.200N
		300N	CAE.120.325.300N
		400N	CAE.120.325.400N
		500N	CAE.120.325.500N
		600N	CAE.120.325.600N
		700N	CAE.120.325.700N
250	585	100N	CAE.250.585.100N
		200N	CAE.250.585.200N
		300N	CAE.250.585.300N
		400N	CAE.250.585.400N
		500N	CAE.250.585.500N
		600N	CAE.250.585.600N
		700N	CAE.250.585.700N
800N	CAE.250.585.800N		

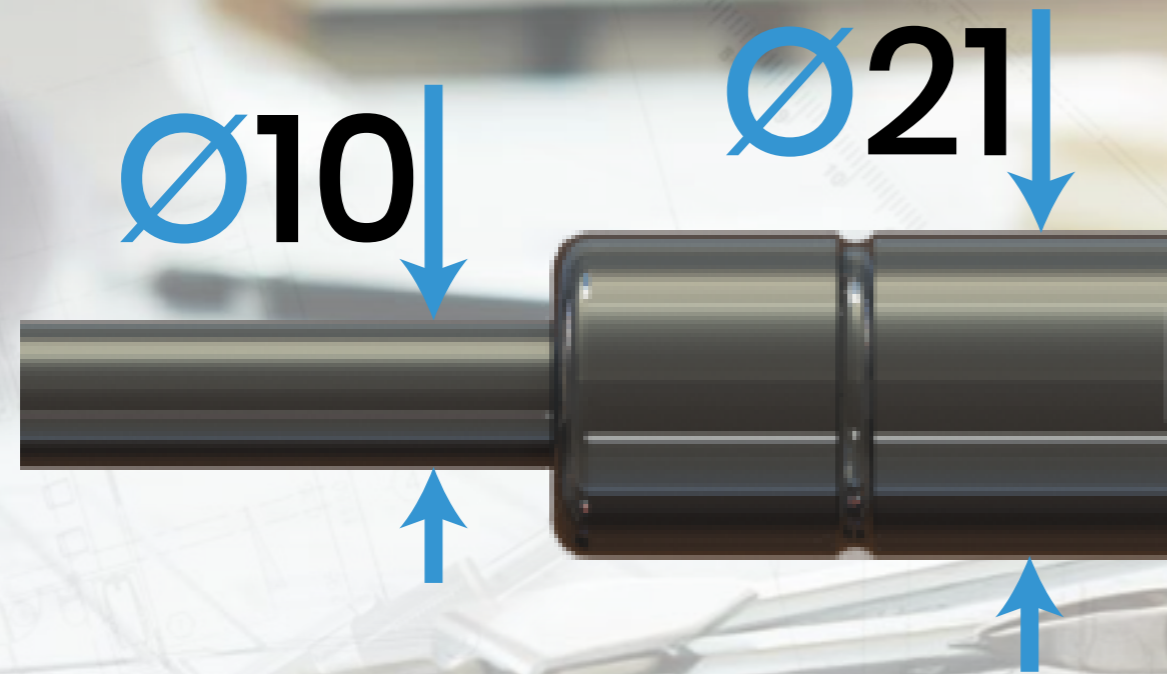
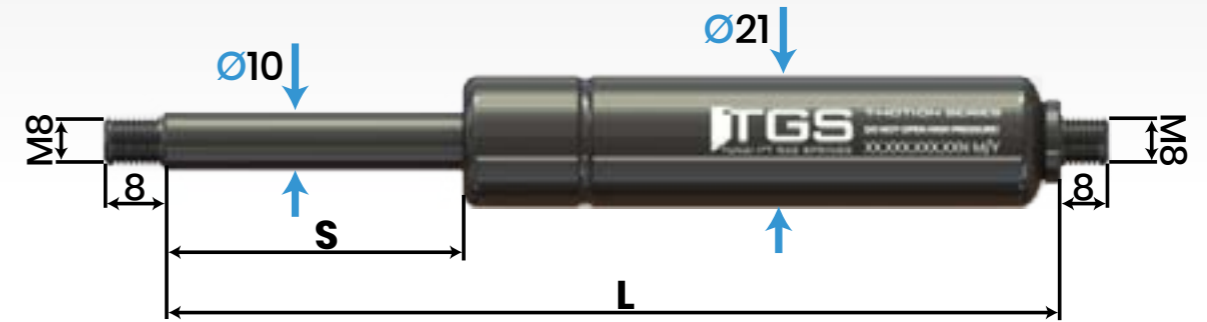
S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
140	365	100N	CAE.140.365.100N
		200N	CAE.140.365.200N
		300N	CAE.140.365.300N
		400N	CAE.140.365.400N
		500N	CAE.140.365.500N
		600N	CAE.140.365.600N
		700N	CAE.140.365.700N
		800N	CAE.140.365.800N
160	405	100N	CAE.160.405.100N
		200N	CAE.160.405.200N
		300N	CAE.160.405.300N
		400N	CAE.160.405.400N
		500N	CAE.160.405.500N
		600N	CAE.160.405.600N
		700N	CAE.160.405.700N
		800N	CAE.160.405.800N
180	445	100N	CAE.180.445.100N
		200N	CAE.180.445.200N
		300N	CAE.180.445.300N
		400N	CAE.180.445.400N
		500N	CAE.180.445.500N
		600N	CAE.180.445.600N
		700N	CAE.180.445.700N
		800N	CAE.180.445.800N
200	485	100N	CAE.200.485.100N
		200N	CAE.200.485.200N
		300N	CAE.200.485.300N
		400N	CAE.200.485.400N
		500N	CAE.200.485.500N
		600N	CAE.200.485.600N
		700N	CAE.200.485.700N
		800N	CAE.200.485.800N
220	525	100N	CAE.220.525.100N
		200N	CAE.220.525.200N
		300N	CAE.220.525.300N
		400N	CAE.220.525.400N
		500N	CAE.220.525.500N
		600N	CAE.220.525.600N
		700N	CAE.220.525.700N
800N	CAE.220.525.800N		


### DA.100.249 - 100N - B006 - B006 - LT21

REFERENCE NO select from list  
 FI pressure rate  
 ROD MOUNTING optional  
 TUBE MOUNTING optional  
 ADDITIONAL ACCESSORIES optional



Order Example



	S	L	FI	REF. NO	
	STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE		
	50	164	100N - 1200N	DA.50.164	
	75	214	100N - 1200N	DA.75.214	
	100	249	100N - 1200N	DA.100.249	
	125	304	100N - 1200N	DA.125.304	
	150	349	100N - 1200N	DA.150.349	
	175	405	100N - 1200N	DA.175.405	
	200	449	100N - 1200N	DA.200.449	
	225	504	100N - 1200N	DA.225.504	
	250	548	100N - 1200N	DA.250.548	
	275	603	100N - 1200N	DA.275.603	
	300	648	100N - 1200N	DA.300.648	
	325	705	100N - 1200N	DA.325.705	
	350	749	100N - 1200N	DA.350.749	
	375	804	100N - 1200N	DA.375.804	
	400	848	100N - 1200N	DA.400.848	



**M-JOINT**  
 MJ21-15 / Extends L +15mm  
 MJ21-20 / Extends L +20mm



**VALVE**

Order identification code: **RV21**



**TSL**

Order identification code: **LT21**

M-JOINT extends length of standard item with mounting on tube end. Please check page 32 for detailed information.

lets you to reduce gas spring pressure according to your requirement. Requires +10mm in extended length.

External mechanical lock, blocks gas spring in extended position. Please check page 29 for detailed information.

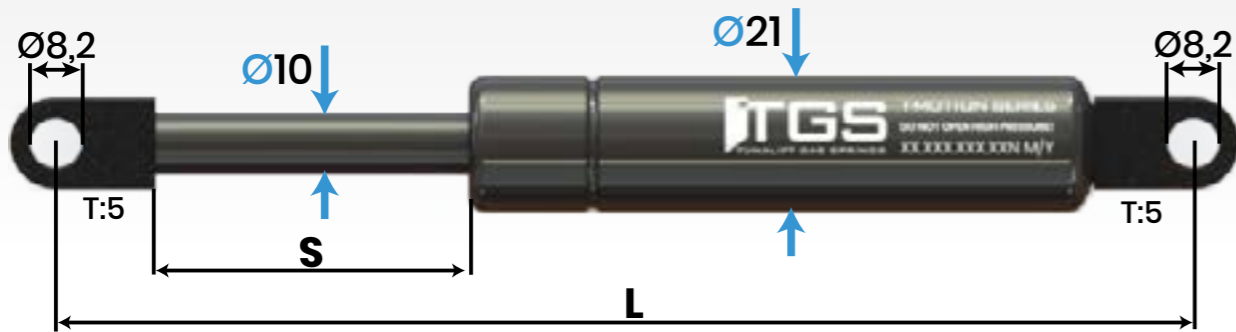
REFERENCE NO

**DI.160.405.700N**



Order Example

select from list



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
80	245	600N	DI.80.245.600N
		700N	DI.80.245.700N
		800N	DI.80.245.800N
		900N	DI.80.245.900N
		1000N	DI.80.245.1000N
95	286	600N	DI.95.286.600N
		700N	DI.95.286.700N
		800N	DI.95.286.800N
		900N	DI.95.286.900N
		1000N	DI.95.286.1000N
		1200N	DI.95.286.1200N
140	365	600N	DI.140.365.600N
		700N	DI.140.365.700N
		800N	DI.140.365.800N
		900N	DI.140.365.900N
		1000N	DI.140.365.1000N
		1200N	DI.140.365.1200N
145	385	800N	DI.145.385.800N
		900N	DI.145.385.900N
		1000N	DI.145.385.1000N
		1100N	DI.145.385.1100N
		1200N	DI.145.385.1200N
160	405	400N	DI.160.405.500N
		600N	DI.160.405.600N
		700N	DI.160.405.700N
		800N	DI.160.405.800N
		900N	DI.160.405.900N
		1000N	DI.160.405.1000N
		1100N	DI.160.405.1100N
		1200N	DI.160.405.1200N
190	460	100N	DI.190.460.200N
		200N	DI.190.460.500N
		300N	DI.190.460.700N
		400N	DI.190.460.800N
		500N	DI.190.460.900N
		600N	DI.190.460.1000N
		700N	DI.190.460.1100N
		800N	DI.190.460.1200N

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
195	486	900N	DI.195.486.900N
		1000N	DI.195.486.1000N
		1200N	DI.195.486.1200N
245	586	900N	DI.245.586.900N
		1000N	DI.245.586.1000N
		1200N	DI.245.586.1200N
345	785	150N	DI.345.785.150N
		200N	DI.345.785.200N
		250N	DI.345.785.250N
		300N	DI.345.785.300N
		350N	DI.345.785.350N
		400N	DI.345.785.400N
		500N	DI.345.785.500N
		600N	DI.345.785.600N
		700N	DI.345.785.700N
		900N	DI.345.785.900N
395	885	150N	DI.395.885.150N
		200N	DI.395.885.200N
		250N	DI.395.885.250N
		300N	DI.395.885.300N
		400N	DI.395.885.400N
		500N	DI.395.885.500N
		600N	DI.395.885.600N
		700N	DI.395.885.700N
		800N	DI.395.885.800N

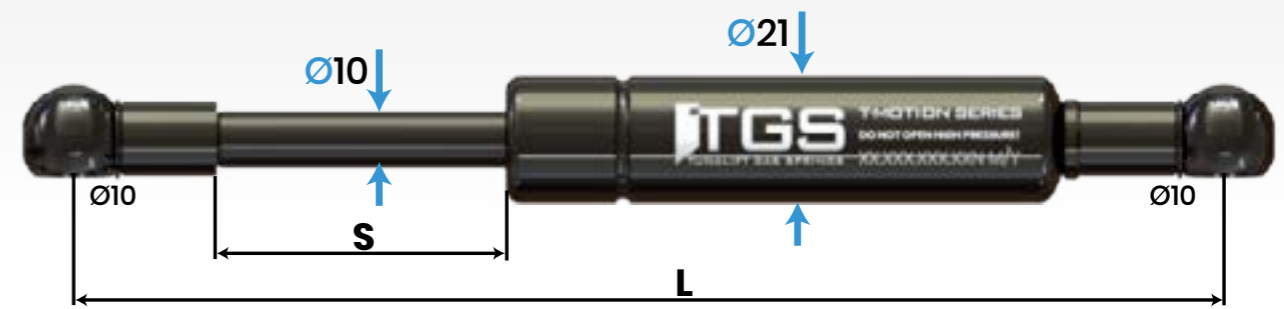
REFERENCE NO

**DGJ.100.285.900N**



Order Example

select from list



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
100	285	900N	DGJ.100.285.900N
		1000N	DGJ.100.285.1000N
		1150N	DGJ.100.285.1150N
150	385	900N	DGJ.150.385.900N
		1000N	DGJ.150.385.1000N
		1150N	DGJ.150.385.1150N
200	485	700N	DGJ.200.485.700N
		800N	DGJ.200.485.800N
		900N	DGJ.200.485.900N
		1000N	DGJ.200.485.1000N
		1150N	DGJ.200.485.1150N
250	585	700N	DGJ.250.585.700N
		800N	DGJ.250.585.800N
		900N	DGJ.250.585.900N
		1000N	DGJ.250.585.1000N
		1150N	DGJ.250.585.1150N
300	685	150N	DGJ.300.685.150N
		200N	DGJ.300.685.200N
		250N	DGJ.300.685.250N
		300N	DGJ.300.685.300N
		350N	DGJ.300.685.350N
		400N	DGJ.300.685.400N
		500N	DGJ.300.685.500N
		600N	DGJ.300.685.600N
		700N	DGJ.300.685.700N
		800N	DGJ.300.685.800N
		900N	DGJ.300.685.900N
		1000N	DGJ.300.685.1000N
1100N	DGJ.300.685.1100N		
1200N	DGJ.300.685.1150N		

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
350	785	150N	DGJ.350.785.150N
		200N	DGJ.350.785.200N
		250N	DGJ.350.785.250N
		300N	DGJ.350.785.300N
		350N	DGJ.350.785.350N
400	885	400N	DGJ.350.785.400N
		500N	DGJ.350.785.500N
		600N	DGJ.350.785.600N
		700N	DGJ.350.785.700N
		800N	DGJ.350.785.800N
		900N	DGJ.350.785.900N
		1000N	DGJ.350.785.1000N
400	885	150N	DGJ.400.885.150N
		200N	DGJ.400.885.200N
		250N	DGJ.400.885.250N
		300N	DGJ.400.885.300N
		350N	DGJ.400.885.350N
		400N	DGJ.400.885.400N
		500N	DGJ.400.885.500N
		800N	DGJ.400.885.800N

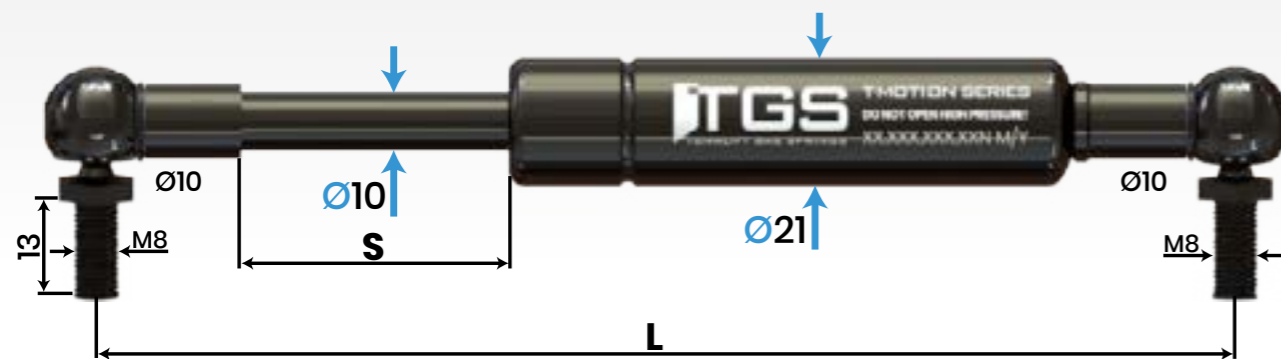
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**DAA.100.285.900N**



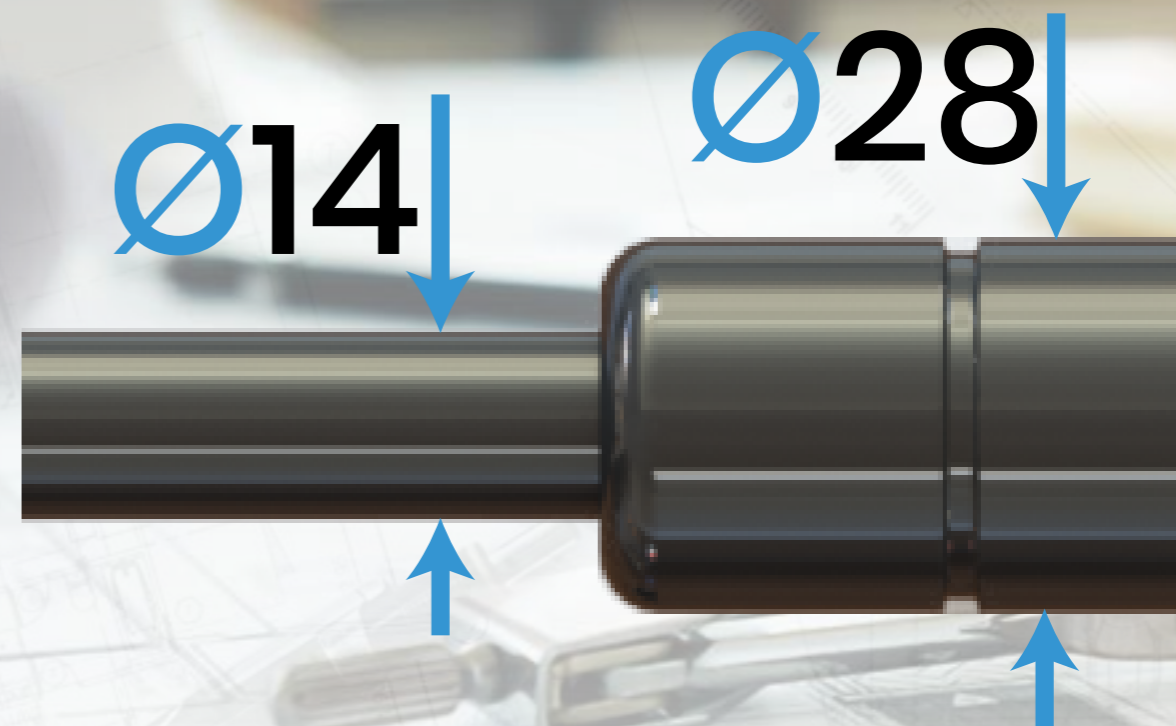
Order Example

select from list



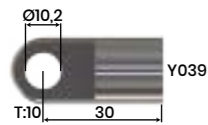
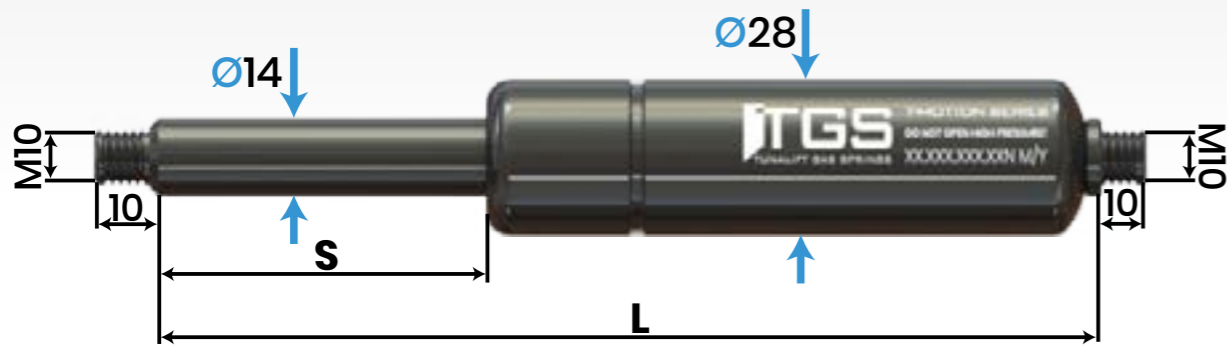
S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
100	285	900N 1000N 1150N	DAA.100.285.900N DAA.100.285.1000N DAA.100.285.1150N
150	385	900N 1000N 1150N	DAA.150.385.900N DAA.150.385.1000N DAA.150.385.1150N
200	485	700N 800N 900N 1000N 1150N	DAA.200.485.700N DAA.200.485.800N DAA.200.485.900N DAA.200.485.1000N DAA.200.485.1150N
250	585	700N 800N 900N 1000N 1150N	DAA.250.585.700N DAA.250.585.800N DAA.250.585.900N DAA.250.585.1000N DAA.250.585.1150N
300	685	150N 200N 250N 300N 350N 400N 500N 600N 700N 800N 900N 1000N 1100N 1200N	DAA.300.685.150N DAA.300.685.200N DAA.300.685.250N DAA.300.685.300N DAA.300.685.350N DAA.300.685.400N DAA.300.685.500N DAA.300.685.600N DAA.300.685.700N DAA.300.685.800N DAA.300.685.900N DAA.300.685.1000N DAA.300.685.1100N DAA.300.685.1150N

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
350	785	150N 200N 250N 300N 350N 400N 500N 600N 700N 800N 900N 1000N	DAA.350.785.150N DAA.350.785.200N DAA.350.785.250N DAA.350.785.300N DAA.350.785.350N DAA.350.785.400N DAA.350.785.500N DAA.350.785.600N DAA.350.785.700N DAA.350.785.800N DAA.350.785.900N DAA.350.785.1000N
400	885	150N 200N 250N 300N 350N 400N 500N 600N 700N 800N	DAA.400.885.150N DAA.400.885.200N DAA.400.885.250N DAA.400.885.300N DAA.400.885.350N DAA.400.885.400N DAA.400.885.500N DAA.400.885.600N DAA.400.885.700N DAA.400.885.800N

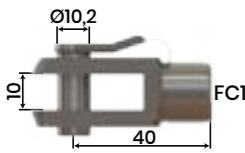
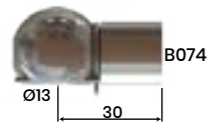
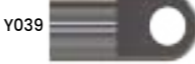
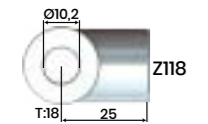


**GB.100.266 - 1500N - B074 - B074 - LT28**

REFERENCE NO *FI* ROD MOUNTING TUBE MOUNTING ADDITIONAL ACCESSORIES  
 select from list pressure rate optional optional optional



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
50	170	150N - 2500N	GB.50.170
100	266	150N - 2500N	GB.100.266
150	366	150N - 2500N	GB.150.366
200	466	150N - 2500N	GB.200.466
250	566	150N - 2500N	GB.250.566
300	666	150N - 2500N	GB.300.666
350	766	150N - 2500N	GB.350.766
400	866	150N - 2500N	GB.400.866
450	970	150N - 2500N	GB.450.970
500	1066	150N - 2500N	GB.500.1066



**M-JOINT**  
**MJ28-15** / Extends L +15mm  
**MJ28-25** / Extends L +25mm



Order identification code: **RV28**



**TSL**

Order identification code: **LT28**

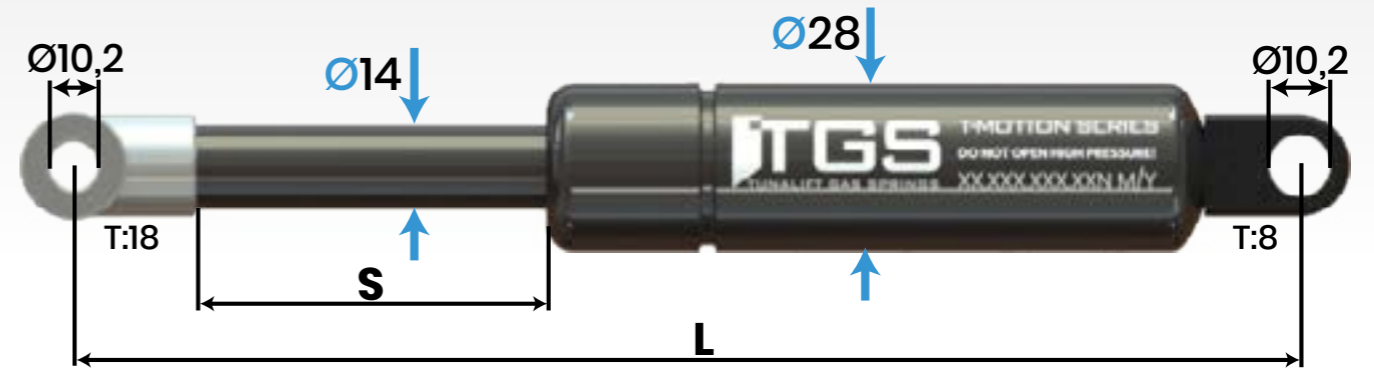
Lets you to reduce gas spring pressure according to your requirement. Requires +10mm in extended length.

External mechanical lock, blocks gas spring in extended position. Please check page 29 for detailed information.

REFERENCE NO  
**FU.150.402.1700N**



select from list



S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
100	302	1300N	FU.100.302.1300N
		1500N	FU.100.302.1500N
		1700N	FU.100.302.1700N
		1900N	FU.100.302.1900N
		2100N	FU.100.302.2100N
150	402	1300N	FU.150.402.1300N
		1500N	FU.150.402.1500N
		1700N	FU.150.402.1700N
		1900N	FU.150.402.1900N
		2100N	FU.150.402.2100N
200	502	1300N	FU.200.502.1300N
		1500N	FU.200.502.1500N
		1700N	FU.200.502.1700N
		1900N	FU.200.502.1900N
		2100N	FU.200.502.2100N
300	702	1300N	FU.300.702.1300N
		1500N	FU.300.702.1500N
		1700N	FU.300.702.1700N
		1900N	FU.300.702.1900N
		2100N	FU.300.702.2100N

S	L	F1	REF. NO
STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE	
350	802	1300N	FU.350.802.1300N
		1500N	FU.350.802.1500N
		1700N	FU.350.802.1700N
		1900N	FU.350.802.1900N
		2100N	FU.350.802.1900N
400	902	1300N	FU.400.902.1300N
		1500N	FU.400.902.1500N
		1700N	FU.400.902.1700N
		1900N	FU.400.902.1900N
		2100N	FU.400.902.2100N
500	1102	500N	FU.500.1102.500N
		600N	FU.500.1102.600N
		700N	FU.500.1102.700N
		800N	FU.500.1102.800N
		900N	FU.500.1102.800N
		1000N	FU.500.1102.1000N
		1100N	FU.500.1102.1100N
		1300N	FU.500.1102.1300N
		1500N	FU.500.1102.1500N
		1700N	FU.500.1102.1700N
1900N	FU.500.1102.1900N		

# MQ.50.220 - 1500N - Y409 - Y409 - RY40

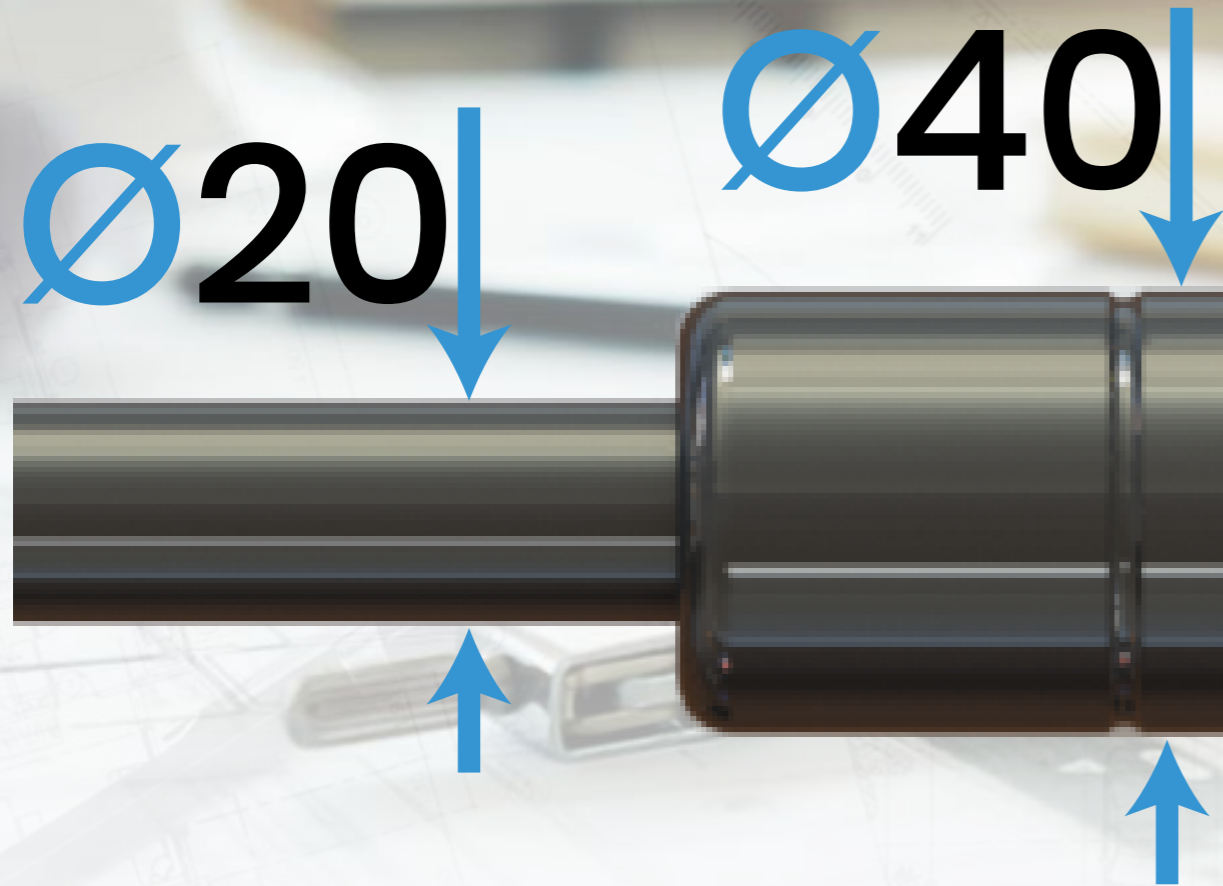
**REFERENCE NO** *select from list*    
 **F1** *pressure rate*    
 **ROD MOUNTING** *optional*    
 **TUBE MOUNTING** *optional*    
 **ADDITIONAL ACCESSORIES** *optional*



Order Example



	S	L	F1	REF. NO	
	STROKE LENGTH	EXTENDED LENGTH	PRESSURE RATE		
	50	220	500N - 5000N	MQ.50.220	
	100	317	500N - 5000N	MQ.100.317	
	150	417	500N - 5000N	MQ.150.417	
	200	517	500N - 5000N	MQ.200.517	
	300	717	500N - 5000N	MQ.300.717	
	400	917	500N - 5000N	MQ.400.917	
	500	1117	500N - 5000N	MQ.500.1117	
	600	1317	500N - 5000N	MQ.600.1317	
	800	1717	500N - 5000N	MQ.800.1717	
	1000	2117	500N - 5000N	MQ.1000.2117	



## M-JOINT

MJ40-25 / Extends L +25mm

MJ40-35 / Extends L +35mm



M-JOINT extends length of standard item with mounting on tube end. Please check page 32 for detailed information.



Order identification code:

**RV40**

Lets you to reduce gas spring pressure according to your requirement. Requires +10mm in extended length.

# TSL



TGS Safety Lock (TSL) is an optional device which serves as external mechanical locking for T-MOTION series gas springs. TSL operates automatically with spring loaded button. When the gas spring is in fully extended position TSL automatically blocks the moving way of the piston rod. In order to compress the gas spring back operator has to press "PRESS" button which is made of plastic. Even though main task of TSL is to prevent non-initiative falling downs, it also serves as piston rod protector from dirt, impacts and all kind of external damages.

ITEM	FOR	ØD	L	Stroke Shortage
LT8	8/18	24	S + 8	10MM
LT21	10/21	28	S + 8	10MM
LT28	14/28	32	S + 20	10MM



# RPT



TGS - RPT (Rod Protection Tube) Considering its role on lifetime of gas spring, rod surface is most important part to protect from external impacts. TGS recommends usage of RPT specially in dusty environment.

ITEM	FOR	ØD	L	Max Stroke
RPT18	8/18	22	S + 25	400MM
RPT21	10/21	26	S + 25	400MM
RPT28	14/28	32	S + 25	500MM





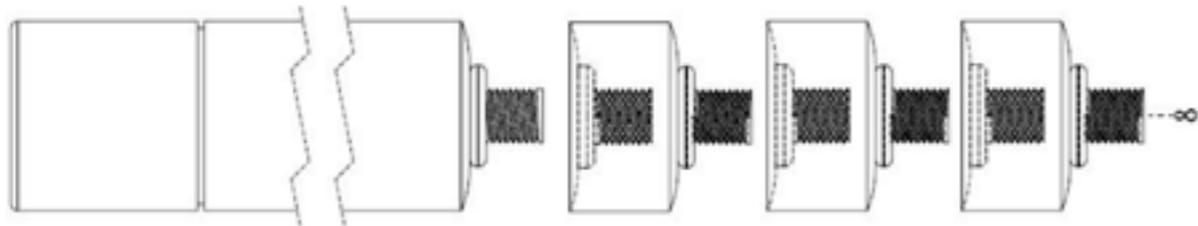
# M-JOINT EXTENDERS FOR T-MOTION SERIES GAS SPRINGS

M-JOINT is original gas spring length extender which designed and patented by TGS. It has monoblock steel design, which gives original tube end shape with both side connection thread (male-female) accordingly.

M-JOINT designed to give more variety to standard range T-MOTION, T-BLOCK, T-INOX, T-TRACTION and T-CLICK gas springs. This simple part will help distributors and stock keepers to keep less variety with maximum opportunity.



Scan for watch video on youtube

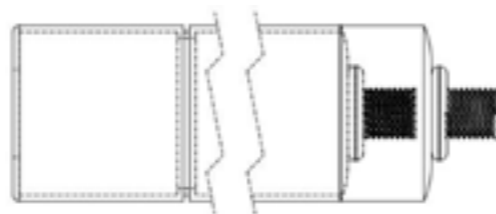


> Cluted form gives durability and resists all pressures.

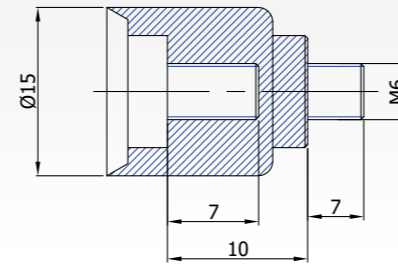
> Tube end shape gives originally integrated part appearance.



- S12** : 150N
- S15** : 400N
- S21** : 1200N
- S27** : 2500N
- S40** : 5000N

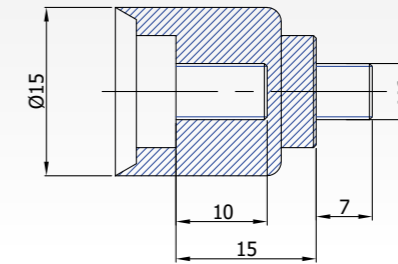


# M-JOINT



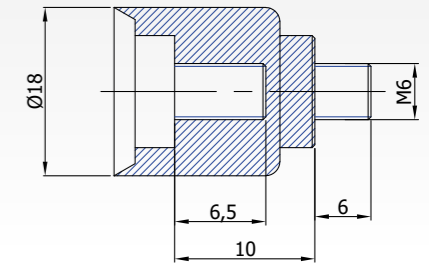
### FEATURES MJ15-10

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S15
Unit Weight	0,009 KG



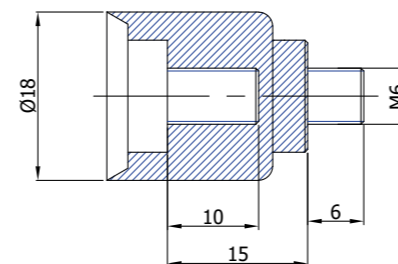
### FEATURES MJ15-15

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S15
Unit Weight	0,009 KG



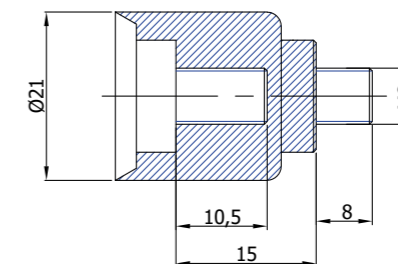
### FEATURES MJ18-10

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S18
Unit Weight	0,009 KG



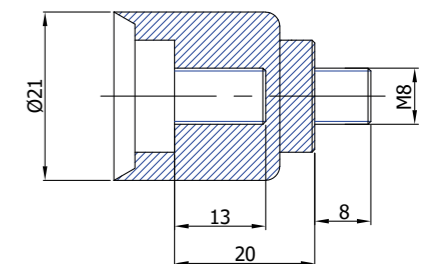
### FEATURES MJ18-15

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S18
Unit Weight	0,009 KG



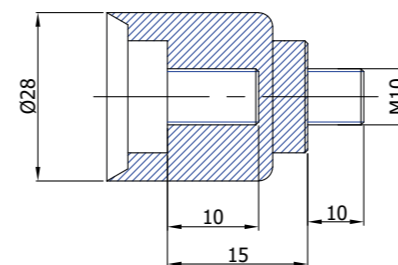
### FEATURES MJ21-15

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S21
Unit Weight	0,009 KG



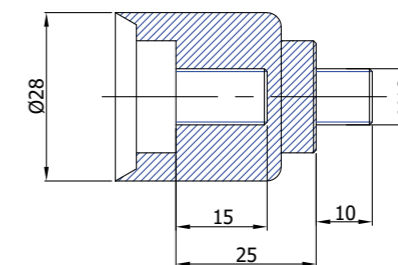
### FEATURES MJ21-20

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S21
Unit Weight	0,009 KG



### FEATURES MJ28-15

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S28
Unit Weight	0,009 KG



### FEATURES MJ28-25

Material Information	Steel ,DIN 1.0718
Surface Treatment	Zinc plated
Compatible With	S28
Unit Weight	0,009 KG



*"Feel Safe!"*  
www.tunalift.com



Bursa, Turkey



+90 224 211 44 73



info@tunalift.com



www.tunalift.com