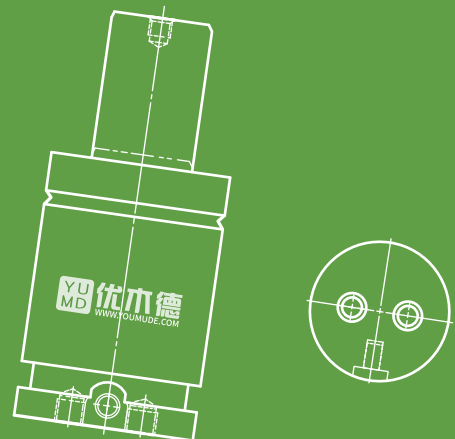


Gas spring

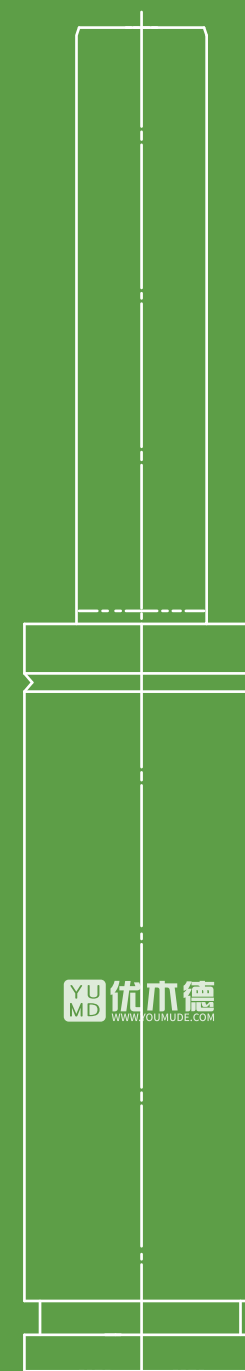
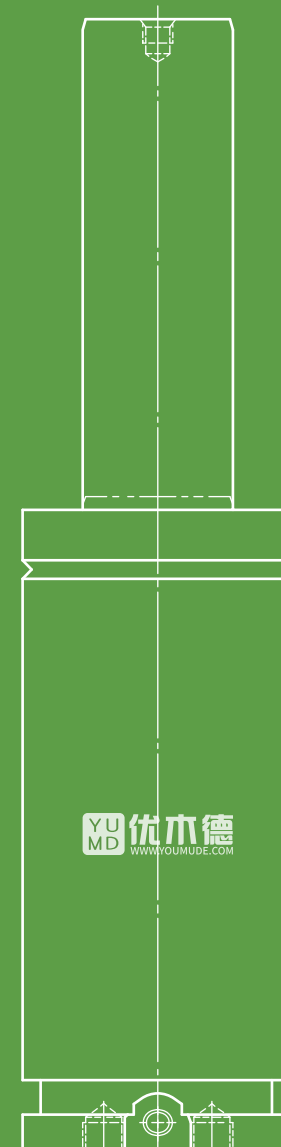
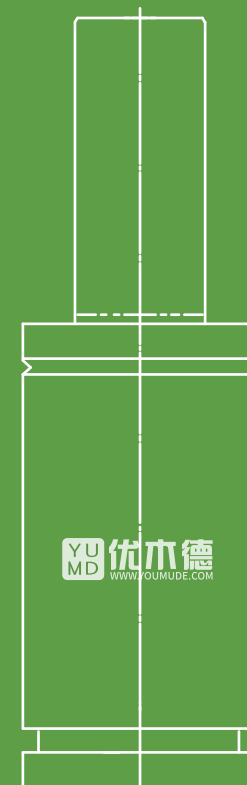
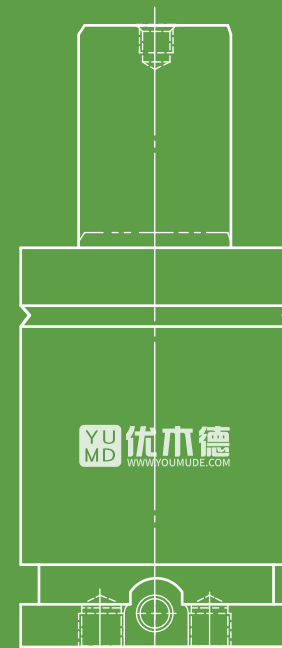
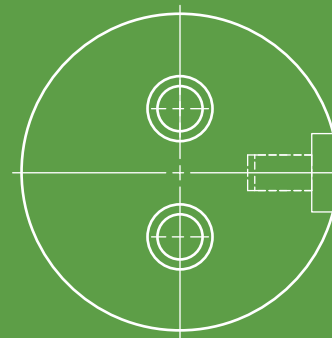
Stamping die parts Youmude



Youmude
Gas spring

优木德精密技术(东莞)有限公司

Youmude Precision Technology (Dongguan) Co., Ltd



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YOUMUDE®

Stamping die parts

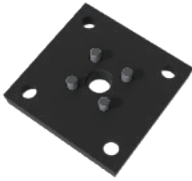
总目录	导套凸模/白模	滑动导向件	
产品目录的使用方法	固定做	料钢用 相关零件	
凸模	卸料板 导柱·导套	螺旋簧	
方形凸模	模架用外 生零件	Gas Spring	
导正销	导柱组件	保吊 件具	
凹模	铸件模具用 导向零件	电机模具高刚 性球导柱组件	
方形凹模	铸件模具用 小零件		
凸模导套	铸件模具用 定位零件		
成形加工用 凸模&凹模	铸件模具 座运用零件		

Gas Spring

氮气弹簧

Type Product Name	YR Gas spring	YM Gas spring	YC Gas spring	YX Gas spring
Gas spring				
Page	P.8/9	P.10	P.10	P.11/16

YG Gas spring	YU Gas spring	YTX Gas spring	YCU Gas spring	FFC Flange
				
P.17/20	P. 21/24	P. 25/28	P. 29/33	P. 34

FC Flange	FCS Flange	S Flange	MP Flange
			
P. 34	P. 35	P. 35	P. 36

USER INFORMATION

INSTALLATION INSTRUCTIONS

To maximize the service life and safety of the nitrogen springs, the following instructions must be followed. Nitrogen springs are suitable for mold and machine tool applications.

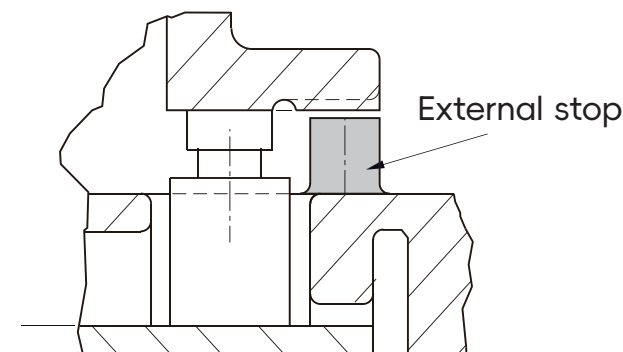
- Whenever possible, use the threaded holes in the base of the nitrogen spring or a suitable flange to secure the nitrogen spring to the mold/machine.
- The threaded hole on the top of the plunger rod must not be used for mounting. It can only be used to repair the nitrogen spring.
- When using nitrogen springs, the plunger rod must not be allowed to freely release from its compressed position. This can cause internal damage to the nitrogen spring.
- The maximum permissible stroke speed is 0.5 to 2.0 m/s, depending on the model (see product catalog).
- Make sure that the helium spring is installed parallel to the direction of the compression stroke.
- Make sure that the contact surface on the top of the plunger rod is perpendicular to the direction of the compression stroke and is sufficiently hardened.
- Do not subject the nitrogen spring to side loads.
- Protect the plunger rod from mechanical damage and contact with liquids.
- Make sure that the entire contact surface of the plunger rod/plunger is used.

INSTALLING THE GAS SPRING

- When installing the gas spring in the mold/machine, specific specifications must be followed to ensure that the mounting flange does not loosen:
 - The free length of the screw (clamping length) must be 2 to 4 times the thread diameter, and the thread depth must be at least 1 time the thread diameter for steel and 1.5 times the thread diameter for cast iron.
 - If the required free length cannot be achieved by other means, the screw hole must be countersunk.
- Always tighten with a torque wrench to the correct torque.
- Ensure that the bottom of the spring is always properly supported.

Stroke Length

All gas springs can fully utilize their nominal stroke (defined as S in the catalog tables), however, in *normal operation, it is not recommended to use the full stroke length. This is to prevent the gas spring from "over-stroke" due to tooling variations or tolerances. It is recommended to use an external stop for the tooling. We do not recommend using the last 5 mm or 10% of the nominal stroke length.



Maintenance Intervals

Under the premise of correct installation and use, it is recommended to maintain the youmude nitrogen spring at least according to the following intervals (except MT models).

Stroke length does not exceed **50mm**:
After 1 million strokes

Stroke length exceeds **50mm**:
After 100,000,000 strokes

The formula for calculating the stroke meter value is as follows:
Used stroke (meters) x 2 x number of strokes

Maximum filling pressure

The maximum filling pressure (at 20 °C) specified for the different gas springs must not be exceeded, otherwise the safety of the product may be compromised.

Operating temperature

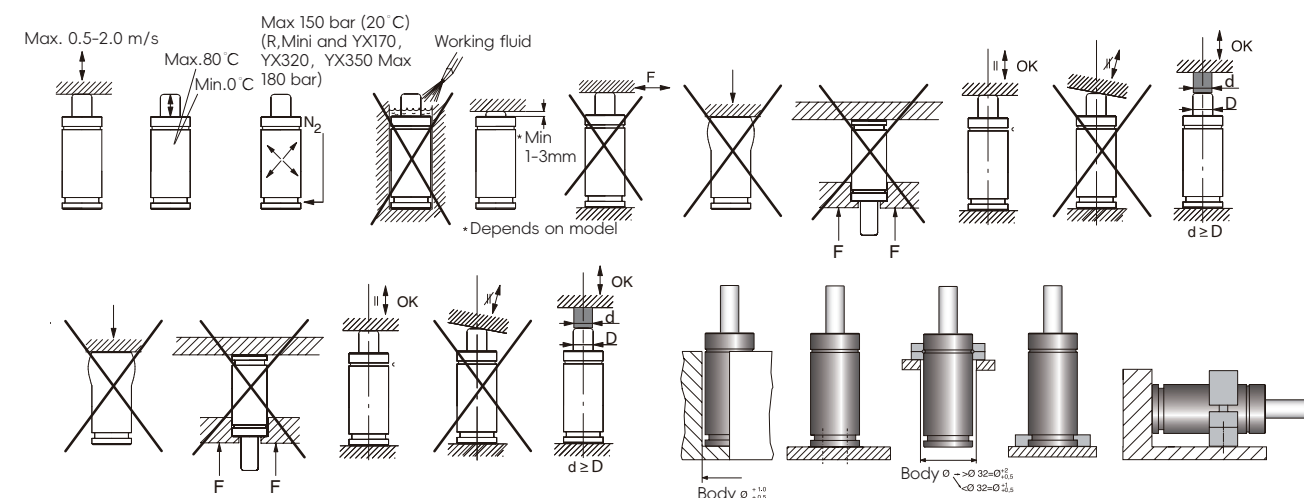
Exceeding the recommended maximum operating temperature of the gas spring will shorten the service life of the gas spring.

Recommended maximum strokes/minute

The values specified for each gas spring in the catalog are for "normal" stamping die applications. The lower values given are for longer stroke lengths, while the higher values are for short stroke springs. These values are based on fully utilized stroke. The strokes per minute can be increased if only part of the stroke is used. For more information, please contact your local distributor

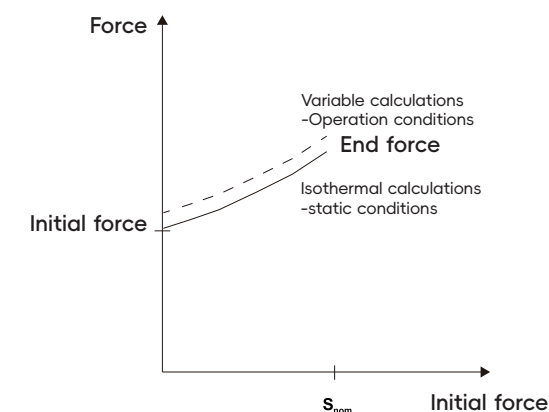
Maximum plunger rod speed

The maximum plunger rod speed limit must not be exceeded, otherwise it may compromise safety and affect the performance of the gas spring.

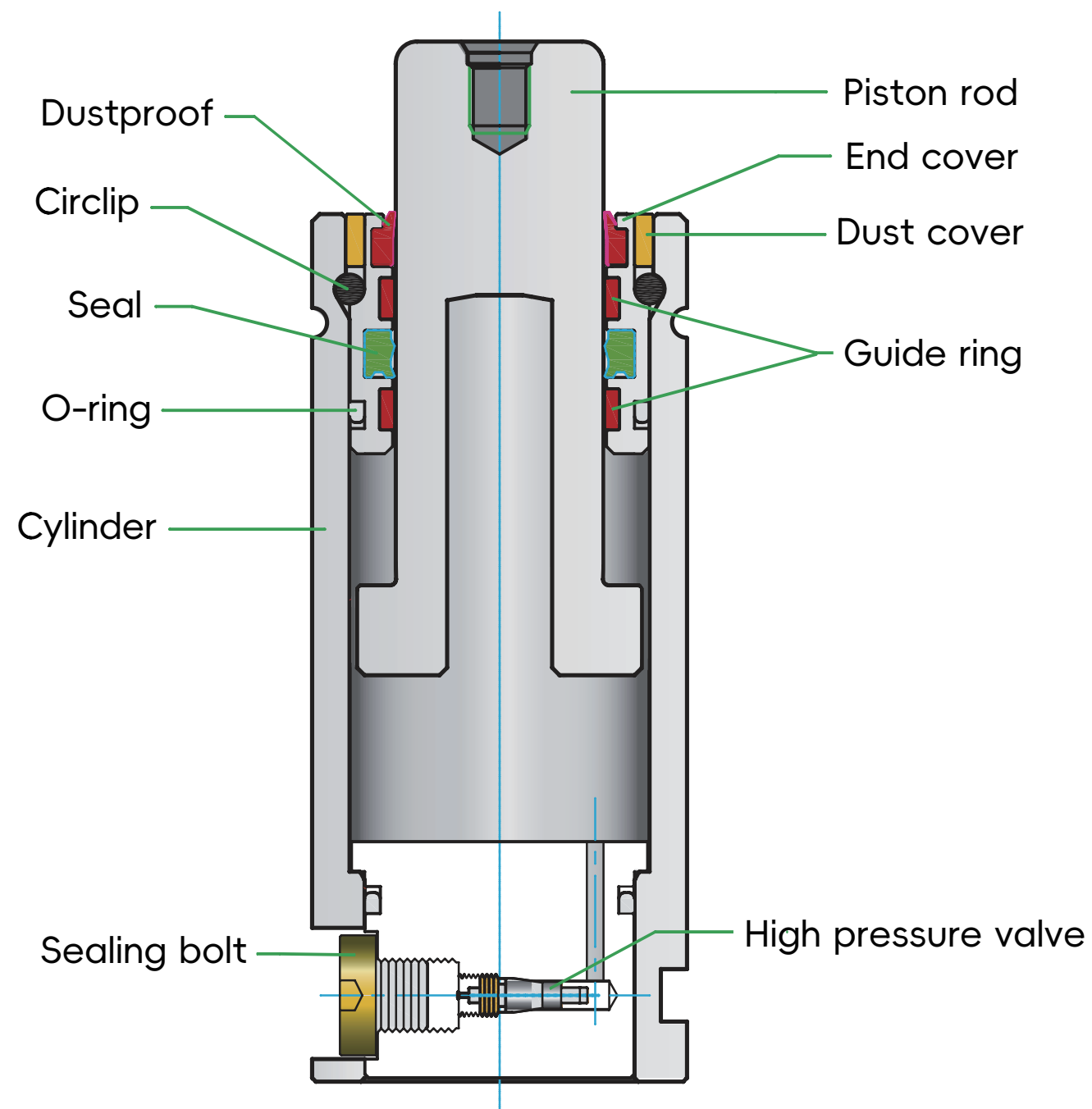


Spring force calculation

All terminal forces shown in the product catalog are isothermal terminal forces. For normal use, isothermal calculations are sufficient. Polytropic calculations should only be considered when there are special requirements, depending on the specific situation. For more detailed information, please refer to the Umd nitrogen spring basic theory manual.



Basic structure of nitrogen gas spring

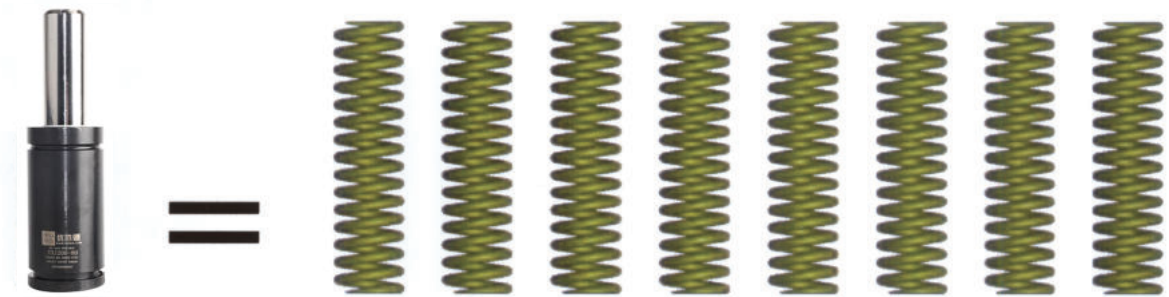


氮气弹簧的优点

Advantages of nitrogen gas springs

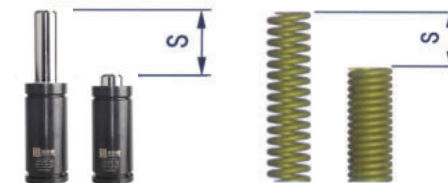
所需平面安装空间更小

Higher force with less place requirement.



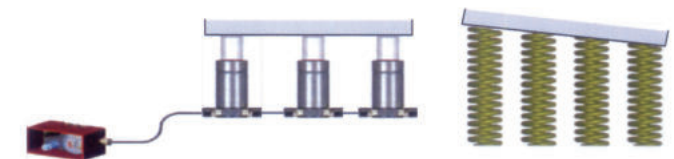
所需高度安装空间更小

Smaller installation size with the same working stroke and the same force.



具有均衡的弹压力

Some force at all contact points.



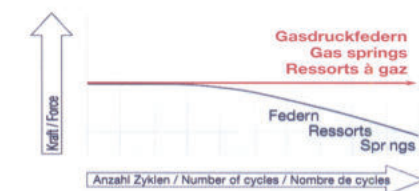
具有初始弹压力

At the beginning of the stroke the whole force is available.



具有恒定的弹压力

Constant force during the whole service life.



Nitrogen Gas Spring Catalog

Initial force,N 	Cylinder diameter,mm 	Type 
$F_{INIT} < 2,500$	Ø 12 Ø 32	YR 12、YR 15、YR 19 YM、YC YX 170
$2,500 \leq F_{INIT} < 5,000$	Ø 25 Ø 38	YU 250 YX 320、YX 350、YG 350 YCU 420
$5,000 \leq F_{INIT} < 7,500$	Ø 38 Ø 45	YX 500、YG 500 YU 500 YCU 740
$7,500 \leq F_{INIT} < 10,000$	Ø 45 Ø 75	YX 750、YG 750 YU 750、YTX 750
$10,000 \leq F_{INIT} < 25,000$	Ø 38 Ø 95	YCU 1000、YCU 1800 YX 1000、YG 1000、YTX 1000 YX 1500、YG 1500、YTX 1500 YU 1500、YCU 1500 YX 2400、YG 2400、YTX 2400
$25,000 \leq F_{INIT} < 50,000$	Ø 75 Ø 120	YCU 2900、YCU 4700 YU 3000 YX 4200、YG 4200、YTX 4200
$50,000 \leq F_{INIT} < 75,000$	Ø 120 Ø 150	YU 5000 YX6600、YG 6600、YTX 6600
$75,000 \leq F_{INIT} < 100,000$	Ø 95 Ø 150	YCU 7500、YU 7500 YX 9500、YTX 9500
$F_{INIT} \geq 100,000$	Ø 120 Ø 195	YU 10000 YCU 11800、YCU 18300 YX 20000、YTX 20000

Selection Guide

Series	Description	Gas spring model	Available stroke lengths	Initial force at max pressure	Total length	Cylinder diameter
			(mm)	(N)	(mm)	(mm)
YR12 YR15 YR19	Plunger rod seals and color-coded nitrogen gas springs -Compact and fully adjustable.	YR12	7 - 125	500	56 - 295	Ø 12
		YR15	7 - 125	700	56 - 295	Ø 15
		YR19	7 - 125	900	56 - 295	Ø 19
YM YC	Repairable, color-coded and fully adjustable nitrogen gas springs, available with or without threads	YM	10 - 125	2,000	62 - 295	Ø 25
		YC	10 - 125	2,000	50 + (2 x stroke)	Ø 32
YX	The Power Line series includes our shortest and most powerful plunger sealed gas springs, which provide very impressive spring force in a very compact package.	YX 170	7 - 125	1,700	44 - 285	Ø 19
		YX 320	7 - 125	3,200	44 - 285	Ø 25
		YX 350	10 - 125	3,600	30 + (2 x stroke)	Ø 32
		YX 500	10 - 125	4,700	30 + (2 x stroke)	Ø 38
		YX 750	10 - 125	7,400	32 + (2 x stroke)	Ø 45
		YX 1000	13 - 125	9,200	38 + (2 x stroke)	Ø 50
		YX 1500	13 - 125	15,000	44 + (2 x stroke)	Ø 63
		YX 2400	16 - 125	24,000	45 + (2 x stroke)	Ø 75
		YX 4200	16 - 125	42,000	58 + (2 x stroke)	Ø 95
		YX 6600	16 - 125	66,300	68 + (2 x stroke)	Ø 120
		YX 9500	19 - 125	95,000	78 + (2 x stroke)	Ø 150
		YX 20000	19 - 125	200,000	110 + (2 x stroke)	Ø 195
YG	The Power Line YG Series is based on the X Series and has the same features but is longer in overall length, offers a larger G 1/8" charge port and longer bottom threads.	YG 350	10 - 125	3,600	40 + (2 x stroke)	Ø 32
		YG 500	10 - 125	4,700	40 + (2 x stroke)	Ø 38
		YG 750	10 - 125	7,400	47 + (2 x stroke)	Ø 45
		YG 1000	13 - 125	9,200	52 + (2 x stroke)	Ø 50
		YG 1500	13 - 125	15,000	52 + (2 x stroke)	Ø 63
		YG 2400	16 - 125	24,000	59 + (2 x stroke)	Ø 75
		YG 4200	16 - 125	42,000	62 + (2 x stroke)	Ø 95
YU	The dimensions of the YU series nitrogen gas springs are based on the ISO 11901 nitrogen gas spring standard as well as the Ford WDX and GM nitrogen gas spring standards.	YU 250	10 - 125	2,650	50 + (2 x stroke)	Ø 38
		YU 500	10 - 160	4,700	85 + (2 x stroke)	Ø 45
		YU 750	12.7 - 300	7,400	95 + (2 x stroke)	Ø 50
		YU 1500	25 - 300	15,000	110 + (2 x stroke)	Ø 75
		YU 3000	25 - 300	30,000	120 + (2 x stroke)	Ø 95
		YU 5000	25 - 300	50,000	140 + (2 x stroke)	Ø 120
		YU 7500	25 - 300	75,000	155 + (2 x stroke)	Ø 150
		YU 10000	25 - 300	106,000	160 + (2 x stroke)	Ø 195
		YCU 420	6 - 50	4,250	56 - 195	Ø 25
		YCU 740	6 - 50	7,400	63 - 195	Ø 32
YCU	Ultra-compact nitrogen gas springs with extremely small cylinder diameter and extremely high spring force.	YCU 1000	6 - 50	10,600	61 - 230	Ø 38
		YCU 1800	6 - 65	18,000	66 - 271	Ø 50
		YCU 2900	10 - 65	29,500	85 - 256	Ø 63
		YCU 4700	10 - 65	47,000	80 - 273	Ø 75
		YCU 7500	10 - 65	75,000	90 - 279	Ø 95
		YCU 11800	10 - 65	118,000	100 - 320	Ø 120
		YCU 18300	10 - 65	183,000	110 - 323	Ø 150
		YTX 750	13 - 200	7,400	85 + (2 x stroke)	Ø 45
YTX	The Power Line Heavy Duty Series is between the standard TU Series and the Power Line X Series. The overall length is the same as the TU Series and the spring force is the same as the X Series.	YTX 1000	13 - 300	9,200	95 + (2 x stroke)	Ø 50
		YTX 1500	13 - 300	15,000	95 + (2 x stroke)	Ø 63
		YTX 2400	25 - 300	24,000	110 + (2 x stroke)	Ø 75
		YTX 4200	25 - 300	42,000	120 + (2 x stroke)	Ø 95
		YTX 6600	25 - 300	66,300	140 + (2 x stroke)	Ø 120
		YTX 9500	25 - 300	95,000	155 + (2 x stroke)	Ø 150
		YTX 20000	25 - 300	200,000	160 + (2 x stroke)	Ø 195

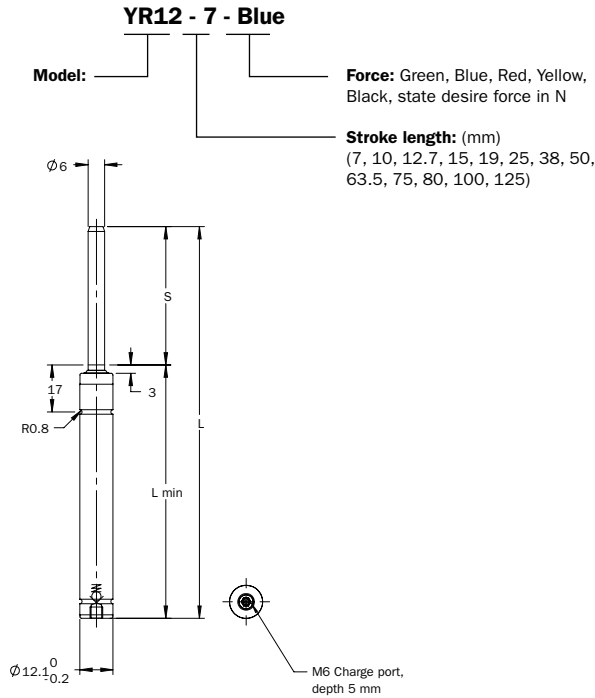
氮气弹簧使用注意事项
PRECAUTIONS FOR USE

- 优木德氮气弹簧为高压密封制品, 出厂前经过严格的检查和测试, 不允许有任何的气体泄漏现象, 因此要求用户正确地安装和使用, 才能确保其安全可靠性和最佳的使用寿命。
- 1.当氮气弹簧作为独立部件使用时, 安装到模具后, 在使用寿命范围内一般无需拆卸维修。
 - 2.若将氮气弹簧连成系统使用, 一般需由经过专门训练的人员或专业人员的指导, 应特别注意在气缸中的氮气尚未完全释放前, 严禁拆卸或进行维修, 以防意外事故发生。
 - 3.氮气弹簧下端的螺钉主要起保护和加强密封作用, 不得擅自拆卸和随意敲击。
 - 4.推荐工作行程≤0.9xS (制造行程), 严禁超行程压缩。
 5. 被活塞杆上端顶压的工件之接触面与活塞杆轴线的不垂直度应≤1° (即应保持垂直, 严禁偏载)。
 - 6.不可有侧作用力, 压缩作用力必须以缸体底部垂直。
 - 7.氮气弹簧在被压缩后, 不要使活塞杆自由空回程, 以免引起氮气弹簧内部损坏。
 - 8.注意保持活塞杆圆柱表面的清洁, 避免刮伤或刻痕, 严禁敲击碰撞。
 - 9.严禁将氮气弹簧置于烈日下暴晒和高热源环境中, 最高允许温度80℃ (特制耐高温氮气弹簧例外)。
 - 10.氮气弹簧应存放在干燥通风、无腐蚀性气体环境中包装存放; 拆箱安装后如长期不使用时可在为其表面涂抹油脂保护防腐。
 - 11不得在氮气弹簧缸体、密封圈等处做任何修改或加工。
 - 12.不得为减小行程而将活塞杆截短。
 - 13.不得对氮气弹簧及其附件进行其它加工。
 - 14.不得以非氮气气体充填氮气弹簧。
 - 15.严禁非专业人员对氮气弹簧进行拆解和改造, 否则将导致安全问题。
 - 16.将氮气弹簧底部固定在平整的固定板上, 使用过程中, 氮气弹簧不允许有摇动或窜动现象。
 - 17.氮气弹簧运输时应使用专用包装物进行包装, 不得相互碰撞。
 - 18.报废时请将废氮气弹簧隔离存放, 不能与其它产品混装, 更不能以重物压在废缸体上。
 - 19.处理时请将氮气弹簧内的气体全部放出后再进行其它处理。

Youmude Nitrogen Gas Spring contains high pressure nitrogen gas, each of MASON gas springs is strictly inspected and tested any of leaking gas or damages are not allowed. Therefore we ask our customers install and use MASON correctly to ensure their safety and MASON's reliable and suitable lifetime.

1. When gas spring is self-contained, normally there is no need to dismount after being installed in die.
2. At linked mode, only specially trained personnel with good knowledge about products should carry out the maintenance. To avoid any of accidents, DO NOT attempt maintenance spring until internal pressure is exhausted.
3. Port plug is for the purpose of protection and seal. Do not release and strike.
4. The recommended stroke is less than 90% x stroke.
5. It is necessary to have a flat surface against the base of the spring in all circumstances. Contact misalignment should be minimized ≤1°
6. The gas spring should not be subject to side loads. Never allow open clearances in a bottom mount or horizontal application.
7. Do not use the gas spring in such a way that the piston rod is released freely from its compressed position as this could cause internal damage to the gas spring.
8. Keep piston rod clean. Avoid any of scratch and injury. Protect the piston rod against mechanical damage and contact with fluids.
9. The maximum operating temperature 80°C (Except special high temperature resistance gas spring) Do not expose gas spring under sunshine and high heat.
10. Store gas spring under dry and ventilation
11. Do not machine or modify.
12. Do not machine piston rod to fit the stroke.
13. Do not machine cylinder and its parts.
14. Do not charge any of gas except nitrogen.
15. Only trained and skilled technicians could mount and connect gas springs; otherwise there will be a safety concern.
16. Use the recommended mount solutions and dispose properly.
17. Pack properly and keep away from bumping while delivering.
18. While disposing, store gas springs separately. Do not mix with other products and put under any of heavy material.
19. Discharge gas completely before discard or any of disposing.

How to order



YR12

Basic information

For general information see "About gas springs".

Pressure medium Nitrogen

Max. charging pressure (at 20°C) 180 bar

Min. charging pressure (at 20°C) 20 bar

Operating temperature 0 to +80°C

Force increase by temperature 0.3 %/°C

Recommended max. strokes/min (at 20°C) ~40 – 100

S stroke	Isothermal end force in N at +20°C **				L ±0.25	L min.
	YR12	YR12	YR12	YR12		
7	149	299	448	597	56	49
10	158	317	475	634	62	52
12.7	164	329	493	657	67.4	54.7
15	168	335	503	670	72	57
19	172	344	517	689	80	61
25	177	354	530	707	92	67
38	183	365	548	730	118	80
50	185	371	556	742	142	92
63.5	197	395	592	789	172	108.5
75	197	394	591	788	195	120
80	207	414	620	827	205	125
100	204	409	613	817	245	145
125	202	405	607	810	295	170

** at full stroke ■ Recommended stroke length for optimal delivery.

Model	Force in N at +20°C	Force in lbf at +20°C	Color	Charging pressure (bar)
	in N	in lbf		
YR12	130	29	Green	45
YR12	250	56	Blue	90
YR12	380	85	Red	135
YR12	500	112	Yellow	180
YR12 XX*	60-500	13-112	Black	20-180

* Force to be set by the customer. Delivered with a pre-charge of 5-10 bar.

YR15

Basic information

For general information see "About gas springs".

Pressure medium Nitrogen

Max. charging pressure (at 20°C) 180 bar

Min. charging pressure (at 20°C) 20 bar

Operating temperature 0 to +80°C

Force increase by temperature 0.3 %/°C

Recommended max. strokes/min (at 20°C) ~100 – 150

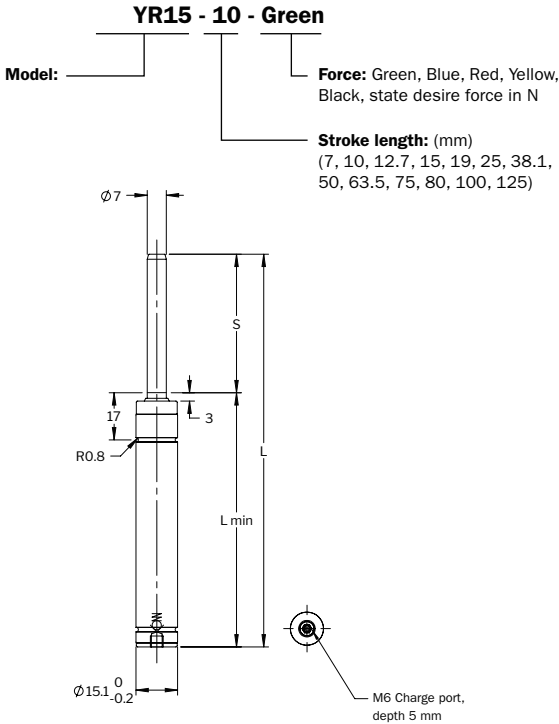
Model	Force in N at +20°C	Force in lbf at +20°C	Color	Charging pressure (bar)
	in N	in lbf		
YR15	180	40	Green	45
YR15	350	80	Blue	90
YR15	500	115	Red	135
YR15	700	160	Yellow	180
YR15 XX*	80-700	18-160	Black	20-180

* Force to be set by the customer. Delivered with a pre-charge of 5-10 bar.

S stroke	Isothermal end force in N at +20°C **				L ±0.25	L min.
	YR15	YR15	YR15	YR15		
7	216	432	648	865	56	49
10	224	447	671	895	62	52
12.7	228	457	685	914	67.4	54.7
15	232	463	695	927	72	57
19	236	471	707	943	80	61
25	240	480	720	961	92	67
38.1	258	516	774	1,032	118.2	80.1
50	258	516	774	1,033	142	92
63.5	273	546	819	1,092	172	108.5
75	270	541	811	1,982	195	120
80	270	539	809	1,079	205	125
100	267	534	802	1,069	245	145
125	265	531	796	1,062	295	170

** at full stroke

How to order



YR19

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 100-150

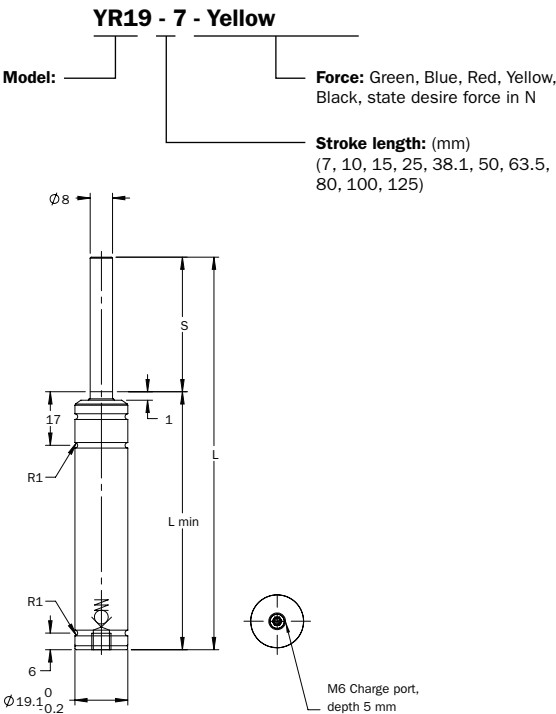
S stroke	Isothermal end force in N at +20°C **				L ±0.25	L min.
	YR19	YR19	YR19	YR19		
7	530	880	1,200	1,600	56	49
10	470	780	1,100	1,400	62	52
12	444	740	1,040	1,330	66	54
15	440	730	1,000	1,300	72	57
25	420	700	980	1,300	92	67
38.1	410	690	970	1,200	118.2	80.1
50	410	680	960	1,200	142	92
63.5	410	680	950	1,200	172	108.5
80	410	680	950	1,200	205	125
100	410	670	940	1,200	245	145
125	410	670	940	1,200	295	170

** at full stroke ■ Recommended stroke length for optimal delivery.

Model	Force in N at +20°C		Color	Charging pressure (bar)
	in N	in lbf		
YR19	300	67	Green	60
YR19	500	112	Blue	100
YR19	700	157	Red	140
YR19	900	202	Yellow	180
YR19 XX *	125-900	67-202	Black	25-180

* Force to be set by the customer. Delivered with a pre-charge of 5-10 bar.

How to order



YM

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C)..... ~ 80-100

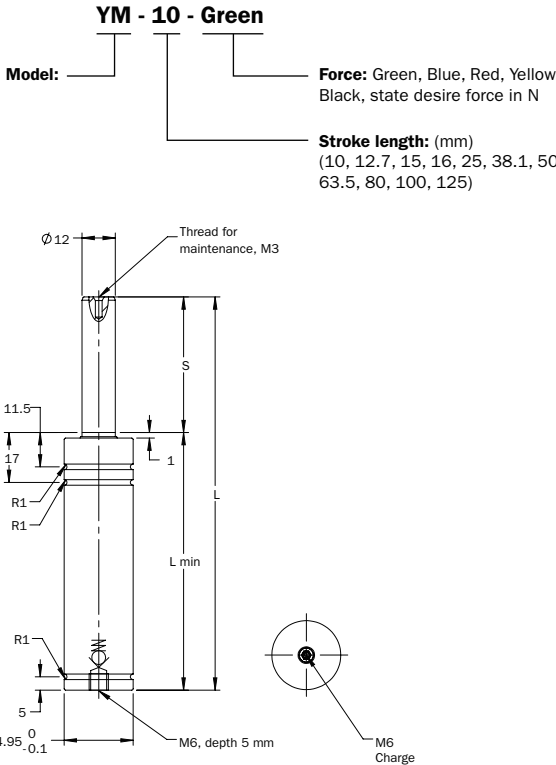
S stroke	Isothermal end force in N at +20°C **				L ±0.25	L min.
	YM	YM	YM	YM		
10	770	1,530	2,300	3,060	62	52
12.7	770	1,530	2,300	3,070	67.4	54.7
15	770	1,540	2,310	3,070	72	57
16	770	1,540	2,310	3,070	74	58
25	770	1,540	2,310	3,080	92	67
38.1	770	1,540	2,320	3,090	118.2	80.1
50	770	1,540	2,320	3,090	142	92
63.5	760	1,520	2,270	3,020	172	108.5
80	760	1,520	2,280	3,040	205	125
100	760	1,520	2,290	3,050	245	145
125	760	1,530	2,290	3,060	295	170

** at full stroke

Model	Force in N at +20°C	Force in lbf at +20°C	Color	Charging pressure (bar)
	in N	in lbf		
YM	500	110	Green	45
YM	1,000	225	Blue	90
YM	1,500	340	Red	135
YM	2,000	450	Yellow	180
YM XX*	280-2,000	63-450	Black	25-180

* Force to be set by the customer. Delivered with a pre-charge of 5-10 bar.

How to order



YC 350

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 80-100

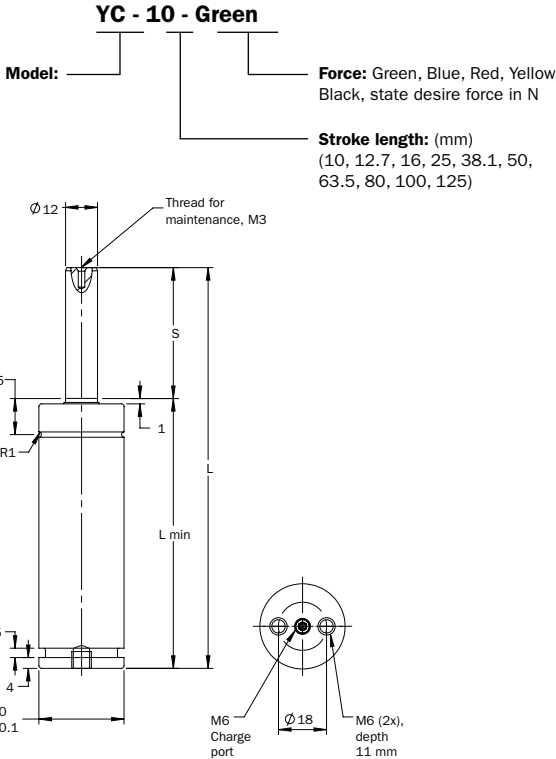
Model	Force in N at +20°C	Force in lbf at +20°C	Color	Charging pressure (bar)
	in N	in lbf		
YC	500	110	Green	45
YC	1,000	225	Blue	90
YC	1,500	340	Red	135
YC	2,000	450	Yellow	180
YC XX*	280-2,000	63-450	Black	25-180

* Force to be set by the customer. Delivered with a pre-charge of 5-10 bar.

S stroke	Isothermal end force in N at +20°C**				L ±0.25	L min.
	YC	YC	YC	YC		
10	770	1,530	2,300	3,060	70	60
12.7	770	1,530	2,300	3,070	75.4	62.7
16	770	1,540	2,310	3,070	82	66
25	770	1,540	2,310	3,080	100	75
38.1	770	1,540	2,320	3,090	126.2	88.1
50	770	1,540	2,320	3,090	150	100
63.5	760	1,520	2,270	3,020	177	113.5
80	760	1,520	2,280	3,040	210	130
100	760	1,520	2,290	3,050	250	150
125	760	1,530	2,290	3,060	300	175

** at full stroke

How to order



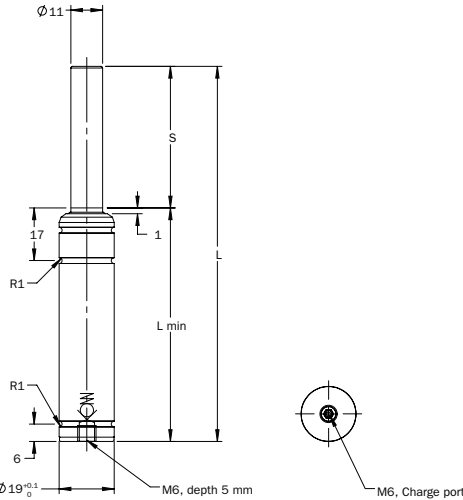
YX 170

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 40-100

Order No.	S stroke	Force in N at 180 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 170-007	7	1,700	2,800	44	37
YX 170-010	10			50	40
YX 170-015	15			60	45
YX 170-019	19			68	49
YX 170-025	25 ■			80	55
YX 170-032	32			94	62
YX 170-038	38 ■			106	68
YX 170-050	50 ■			130	80
YX 170-063	63 ■			156	93
YX 170-075	75			185	110
YX 170-080	80			195	115
YX 170-100	100			235	135
YX 170-125	125			285	160

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



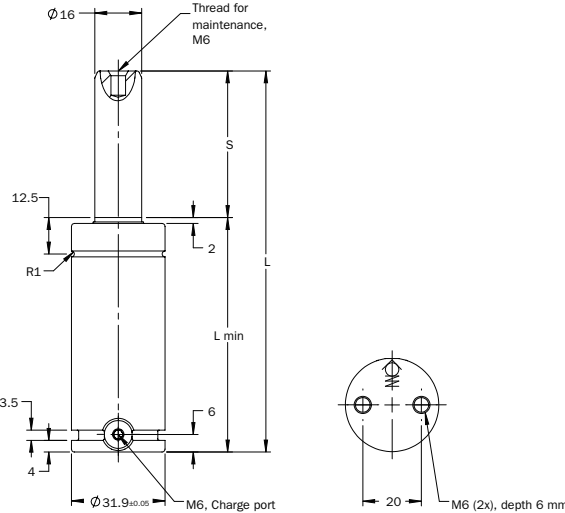
YX 350

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 180 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 350-010	10	3,600	5,900	50	40
YX 350-013	13		5,200	56	43
YX 350-016	16		5,300	62	46
YX 350-019	19		5,600	68	49
YX 350-025	25 ■		5,500	80	55
YX 350-032	32		5,500	94	62
YX 350-038	38 ■		5,500	106	68
YX 350-050	50 ■		5,600	130	80
YX 350-063	63 ■		5,500	156	93
YX 350-075	75		5,500	180	105
YX 350-080	80		5,500	190	110
YX 350-100	100		5,500	230	130
YX 350-125	125		5,500	280	155

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



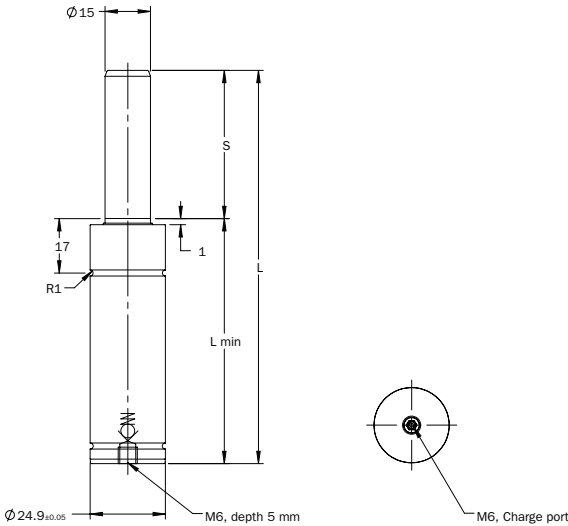
YX 320

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S Stroke	Force in N at 180 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 320-007	7	3,200	4,800	44	37
YX 320-010	10		4,900	50	40
YX 320-015	15		5,100	60	45
YX 320-019	19		5,100	68	49
YX 320-025	25 ■		5,200	80	55
YX 320-032	32		5,300	94	62
YX 320-038	38 ■		5,300	106	68
YX 320-050	50 ■		5,300	130	80
YX 320-063	63 ■		5,300	156	93
YX 320-075	75		5,300	185	110
YX 320-080	80		5,300	195	115
YX 320-100	100		5,300	235	135
YX 320-125	125		5,300	285	160

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



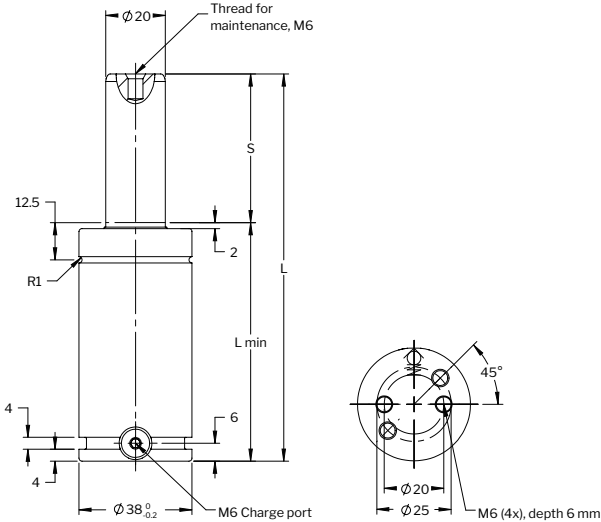
YX 500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 500-010	10	4,700	7,200	50	40
YX 500-013	13		7,100	56	43
YX 500-016	16		7,200	62	46
YX 500-019	19		7,400	68	49
YX 500-025	25 ■		7,300	80	55
YX 500-032	32		7,200	94	62
YX 500-038	38 ■		7,200	106	68
YX 500-050	50 ■		7,200	130	80
YX 500-063	63 ■		7,200	156	93
YX 500-075	75		7,100	180	105
YX 500-080	80		7,100	190	110
YX 500-100	100		7,100	230	130
YX 500-125	125		7,100	280	155

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YX 750

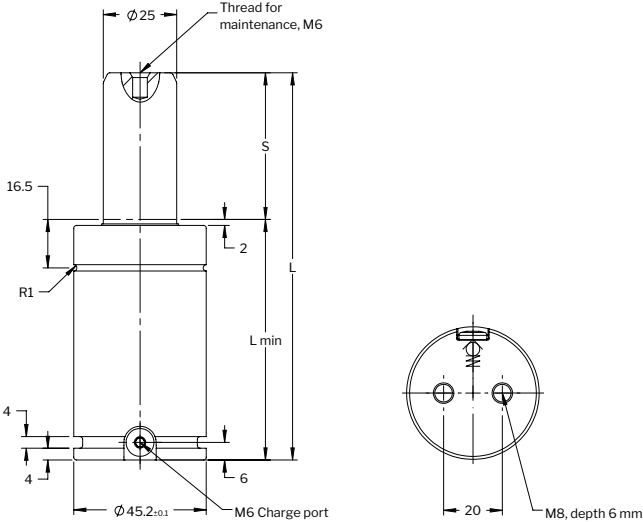
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 750-010	10	7,400	12,100	52	42
YX 750-013	13		12,100	58	45
YX 750-016	16		12,100	64	48
YX 750-019	19		11,700	70	51
YX 750-025	25 ■		11,800	82	57
YX 750-032	32		11,800	96	64
YX 750-038	38 ■		11,800	108	70
YX 750-050	50 ■		11,800	132	82
YX 750-063	63 ■		11,800	158	95
YX 750-075	75		11,900	182	107
YX 750-080	80		11,900	192	112
YX 750-100	100		11,900	232	132
YX 750-125	125		11,900	282	157

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YX 1500

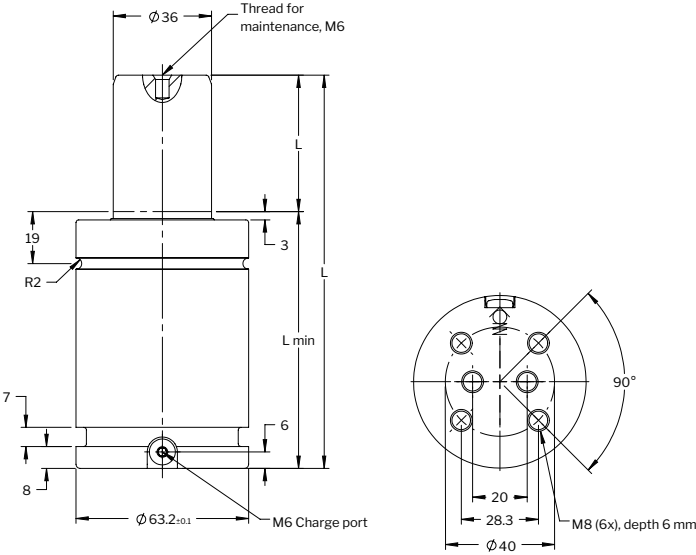
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 1500-013	13	15,000	24,000	70	57
YX 1500-016	16		24,100	76	60
YX 1500-019	19		24,200	82	63
YX 1500-025	25 ■		24,300	94	69
YX 1500-032	32		23,800	108	76
YX 1500-038	38 ■		23,900	120	82
YX 1500-050	50 ■		24,000	144	94
YX 1500-063	63 ■		24,100	170	107
YX 1500-075	75		24,200	194	119
YX 1500-080	80		24,200	204	124
YX 1500-100	100		24,300	244	144
YX 1500-125	125		24,300	294	169

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.

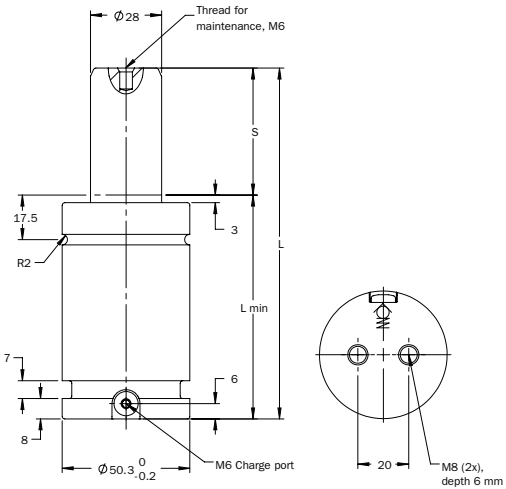


YX 1000

Basic information

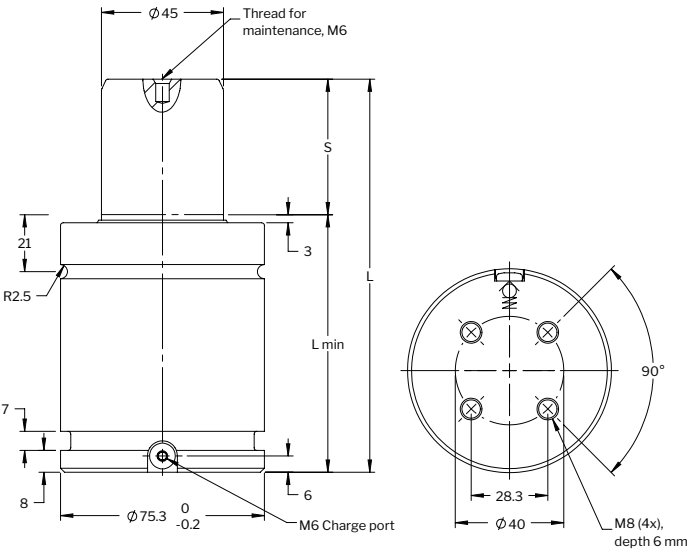
For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40



Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 1000-013	13	9,200	13,800	64	51
YX 1000-016	16		13,800	70	54
YX 1000-019	19		14,000	76	57
YX 1000-025	25 ■		14,200	88	63
YX 1000-032	32		14,300	102	70
YX 1000-038	38 ■		14,500	114	76
YX 1000-050	50 ■		14,600	138	88
YX 1000-063	63 ■		14,700	164	101
YX 1000-075	75		14,700	188	113
YX 1000-080	80		14,800	198	118
YX 1000-100	100		14,800	238	138
YX 1000-125	125		14,800	288	163

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YX 2400

Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 40-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 2400-016	16	24,000	38,300	77	61
YX 2400-019	19		38,500	83	64
YX 2400-025	25 ■		38,700	95	70
YX 2400-032	32		38,600	109	77
YX 2400-038	38 ■		38,400	121	83
YX 2400-050	50 ■		39,200	145	95
YX 2400-063	63 ■		39,200	171	108
YX 2400-075	75		39,200	195	120
YX 2400-080	80		39,200	205	125
YX 2400-100	100		39,300	245	145
YX 2400-125	125		39,300	295	170

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.

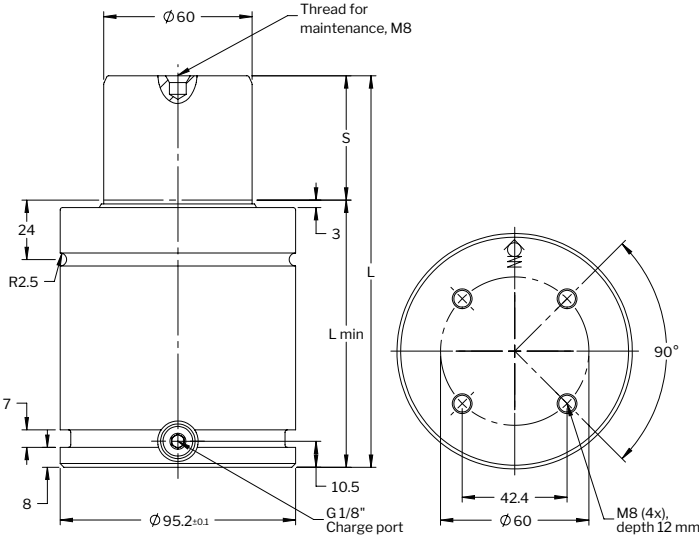
YX 4200

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 4200-016	16	42,000	61,700	90	74
YX 4200-019	19		63,700	96	77
YX 4200-025	25		64,800	108	83
YX 4200-032	32		65,300	122	90
YX 4200-038	38		65,800	134	96
YX 4200-050	50 ■		67,000	158	108
YX 4200-063	63 ■		67,800	184	121
YX 4200-075	75		68,000	208	133
YX 4200-080	80 ■		68,600	218	138
YX 4200-100	100 ■		69,100	258	158
YX 4200-125	125		69,600	308	183

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



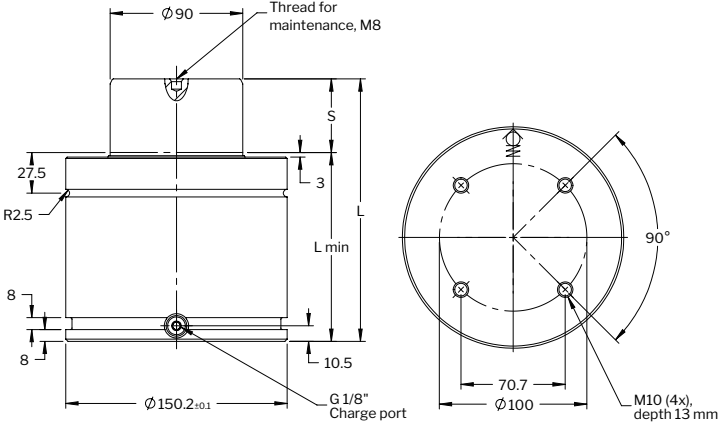
YX 9500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 9500-019	19	95,000	135,000	116	97
YX 9500-025	25		139,000	128	103
YX 9500-032	32		142,000	142	110
YX 9500-038	38		143,000	154	116
YX 9500-050	50 ■		146,000	178	128
YX 9500-063	63 ■		148,000	204	141
YX 9500-075	75		149,000	228	153
YX 9500-080	80 ■		150,000	238	158
YX 9500-100	100 ■		151,000	278	178
YX 9500-125	125		152,000	328	203

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



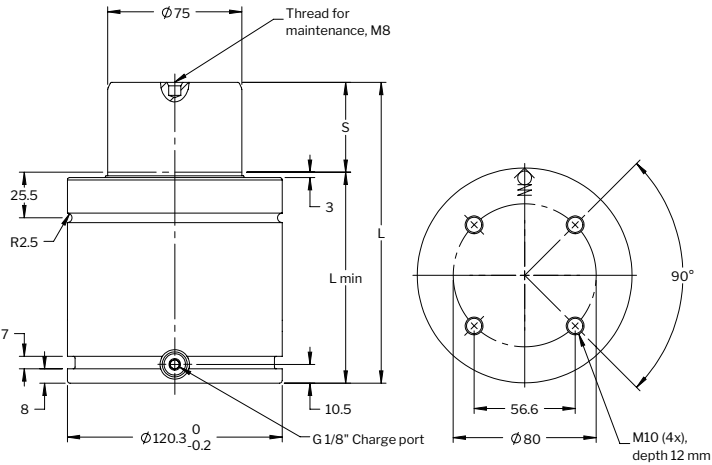
YX 6600

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YX 6600-016	16	66,300	89,000	100	84
YX 6600-019	19		91,000	106	87
YX 6600-025	25		93,900	118	93
YX 6600-032	32		96,100	132	100
YX 6600-038	38		98,200	144	106
YX 6600-050	50 ■		100,600	168	118
YX 6600-063	63 ■		102,400	194	131
YX 6600-075	75		103,400	218	143
YX 6600-080	80 ■		104,100	228	148
YX 6600-100	100 ■		105,400	268	168
YX 6600-125	125		106,500	318	193

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



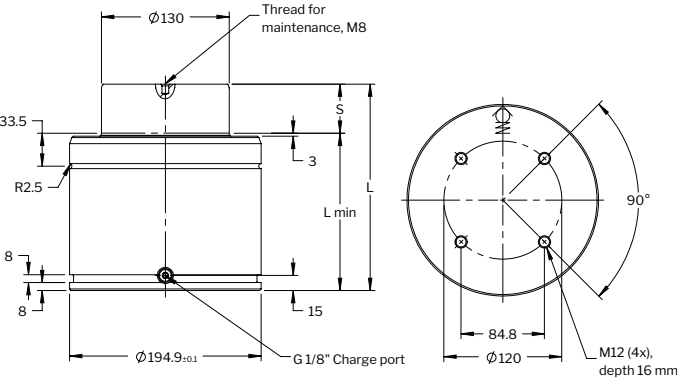
YX 20000

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
XY 20000-019	19	200,000	259,000	148	129
YX 20000-025	25		270,000	160	135
YX 20000-032	32		280,000	174	142
YX 20000-038	38		287,000	186	148
YX 20000-050	50 ■		298,000	210	160
YX 20000-063	63 ■		307,000	236	173
YX 20000-075	75		313,000	260	185
YX 20000-080	80 ■		315,000	270	190
YX 20000-100	100 ■		323,000	310	210
YX 20000-125	125		330,000	360	235

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



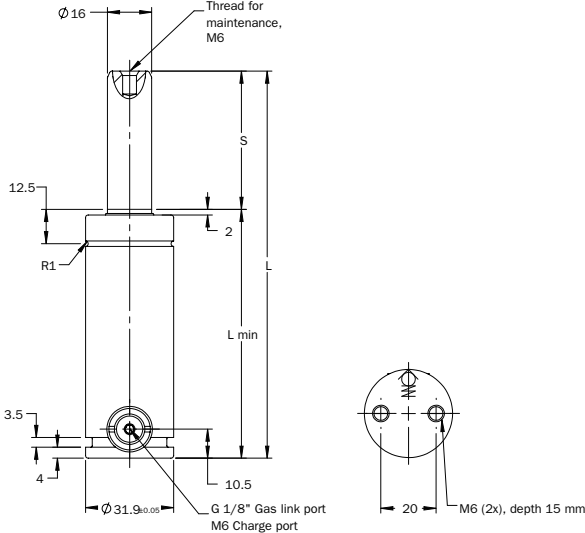
YG 350

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 180 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 180 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 350-010	10	3,600	5,900	60	50
YG 350-013	13		5,200	66	53
YG 350-016	16		5,300	72	56
YG 350-019	19		5,600	78	59
YG 350-025	25		5,500	90	65
YG 350-032	32		5,500	104	72
YG 350-038	38 ■		5,500	116	78
YG 350-050	50 ■		5,600	140	90
YG 350-063	63 ■		5,500	166	103
YG 350-075	75		5,500	190	115
YG 350-080	80		5,500	200	120
YG 350-100	100		5,500	240	140
YG 350-125	125		5,500	290	165

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



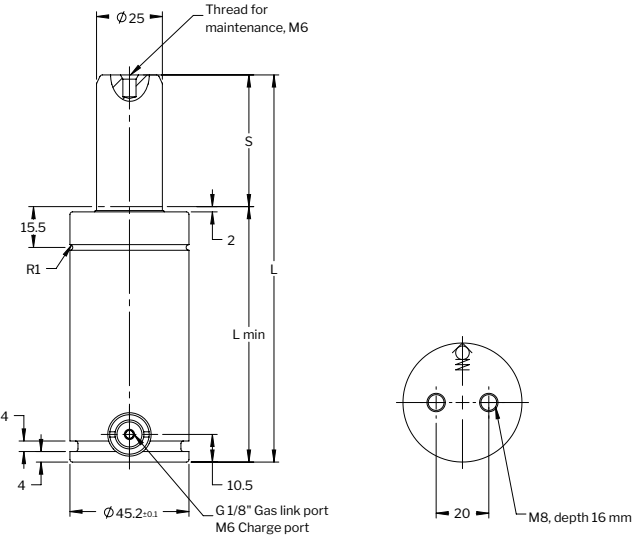
YG 750

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 750-010	10	7,400	12,100	67	57
YG 750-013	13		12,100	73	60
YG 750-016	16		12,100	79	63
YG 750-019	19		11,700	85	66
YG 750-025	25		11,800	97	72
YG 750-032	32		11,800	111	79
YG 750-038	38 ■		11,800	123	85
YG 750-050	50 ■		11,800	147	97
YG 750-063	63 ■		11,800	173	110
YG 750-075	75		11,900	197	122
YG 750-080	80		11,900	207	127
YG 750-100	100		11,900	247	147
YG 750-125	125		11,900	297	172

* Isothermal end force at full stroke.



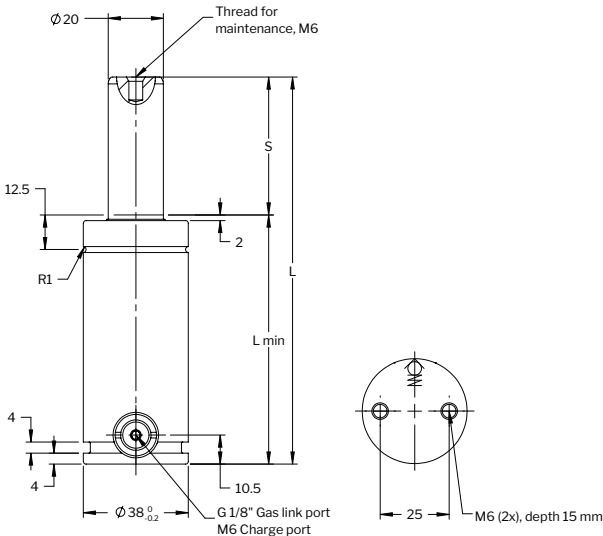
YG 500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 500-010	10	4,700	7,200	60	50
YG 500-013	13		7,100	66	53
YG 500-016	16		7,200	72	56
YG 500-019	19		7,400	78	59
YG 500-025	25		7,300	90	65
YG 500-032	32		7,200	104	72
YG 500-038	38 ■		7,200	116	78
YG 500-050	50 ■		7,200	140	90
YG 500-063	63 ■		7,200	166	103
YG 500-075	75		7,100	190	115
YG 500-080	80		7,100	200	120
YG 500-100	100		7,100	240	140
YG 500-125	125		7,100	290	165

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



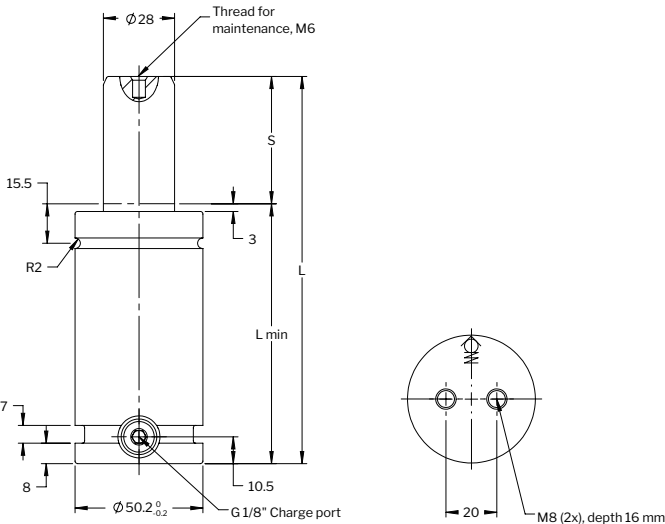
YG 1000

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 1000-013	13	9,200	13,800	78	65
YG 1000-016	16		13,800	84	68
YG 1000-019	19		14,000	90	71
YG 1000-025	25		14,200	102	77
YG 1000-032	32		14,300	116	84
YG 1000-038	38 ■		14,500	128	90
YG 1000-050	50 ■		14,600	152	102
YG 1000-063	63 ■		14,700	178	115
YG 1000-075	75		14,700	202	127
YG 1000-080	80		14,800	212	132
YG 1000-100	100		14,800	252	152
YG 1000-125	125		14,800	302	177

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



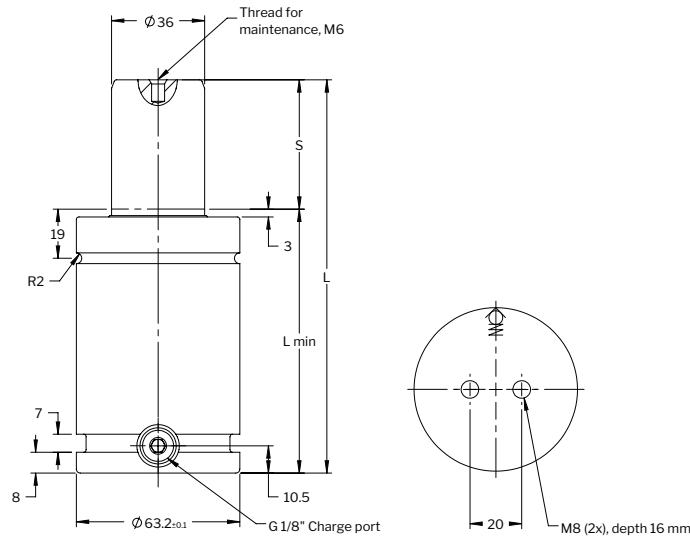
YG 1500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 1500-013	13	15,000	24,000	78	65
YG 1500-016	16		24,100	84	68
YG 1500-019	19		24,200	90	71
YG 1500-025	25		24,300	102	77
YG 1500-032	32		23,800	116	84
YG 1500-038	38		23,900	128	90
YG 1500-050	50		24,000	152	102
YG 1500-063	63		24,100	178	115
YG 1500-075	75		24,200	202	127
YG 1500-080	80		24,200	212	132
YG 1500-100	100		24,300	252	152
YG 1500-125	125		24,300	302	177

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



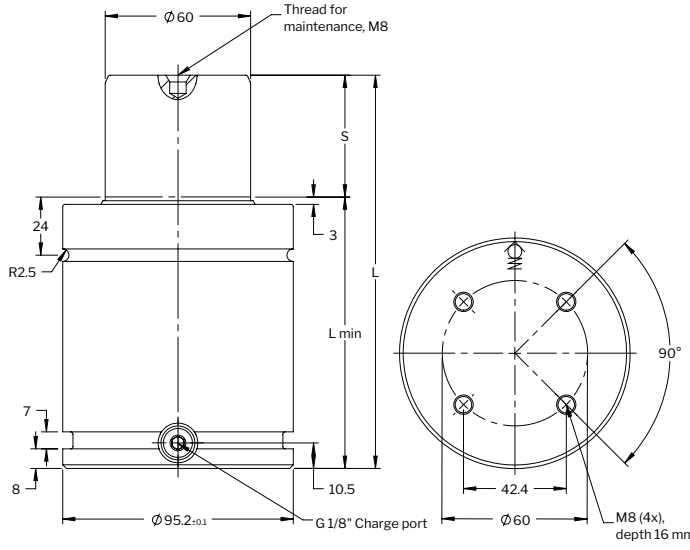
YG 4200

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 4200-016	16	42,000	61,700	94	78
YG 4200-019	19		63,700	100	81
YG 4200-025	25		64,800	112	87
YG 4200-032	32		65,300	126	94
YG 4200-038	38		65,800	138	100
YG 4200-050	50		67,000	162	112
YG 4200-063	63		67,800	188	125
YG 4200-075	75		68,000	212	137
YG 4200-080	80		68,600	222	142
YG 4200-100	100		69,100	262	162
Y G 4200-125	125		69,600	312	187

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



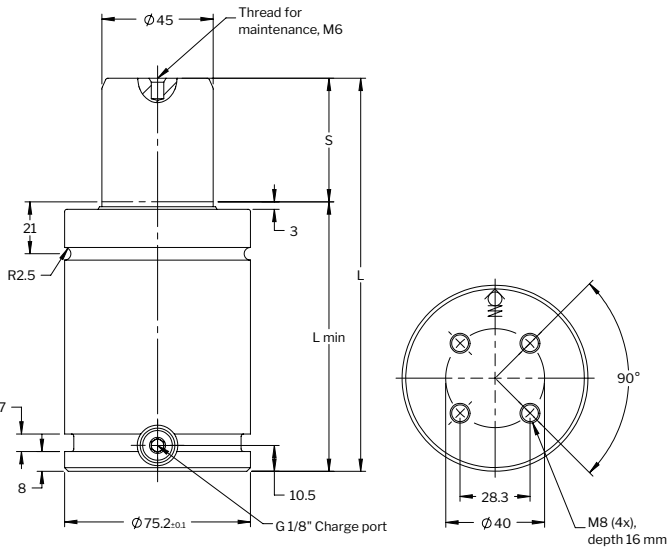
YG 2400

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 40-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 2400-016	16	24,000	38,300	91	75
YG 2400-019	19		38,500	97	78
YG 2400-025	25		38,700	109	84
YG 2400-032	32		38,600	123	91
YG 2400-038	38		38,400	135	97
YG 2400-050	50		39,200	159	109
YG 2400-063	63		39,200	185	122
YG 2400-075	75		39,200	209	134
YG 2400-080	80		39,200	219	139
YG 2400-100	100		39,300	259	159
YG 2400-125	125		39,300	309	184

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



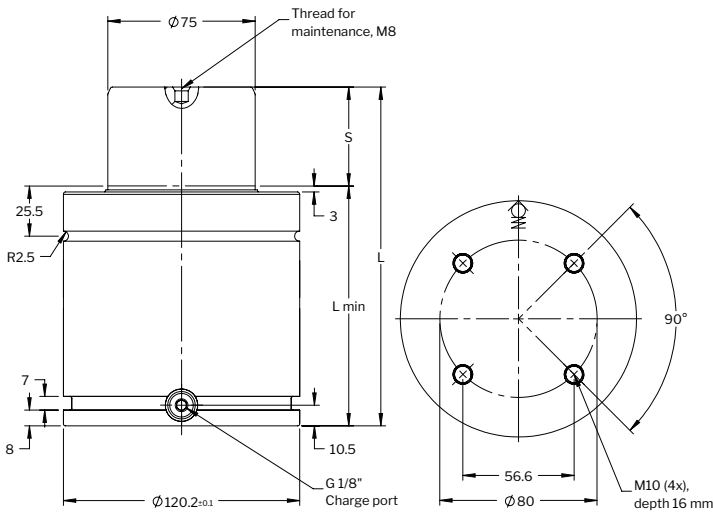
YG 6600

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YG 6600-016	16	66,300	89,000	104	88
YG 6600-019	19		91,000	110	91
YG 6600-025	25		93,900	122	97
YG 6600-032	32		96,100	136	104
YG 6600-038	38		98,200	148	110
YG 6600-050	50		100,600	172	122
YG 6600-063	63		102,400	198	135
YG 6600-075	75		103,400	222	147
YG 6600-080	80		104,100	232	152
YG 6600-100	100		105,400	272	172
YG 6600-125	125		106,500	322	197

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YU 250

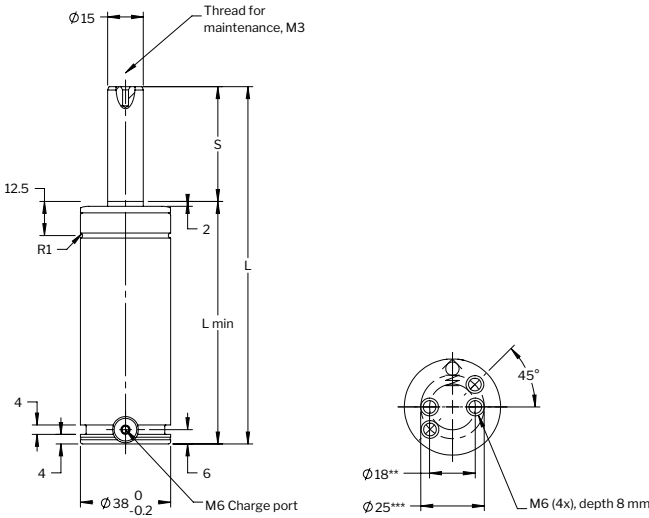
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 80-100

Order No.	S stroke	Force in N at 180 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 250-010	10	2,650	3,500	70	60
YU 250-013	12.7		3,500	75.4	62.7
YU 250-016	16		3,500	82	66
YU 250-025	25 ■		3,500	100	75
YU 250-038	38.1		3,500	126.2	88.1
YU 250-050	50 ■		3,500	150	100
YU 250-064	63.5		3,500	177	113.5
YU 250-080	80 ■		3,500	210	130
YU 250-100	100		3,500	250	150
YU 250-125	125		3,500	300	175

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YU 750

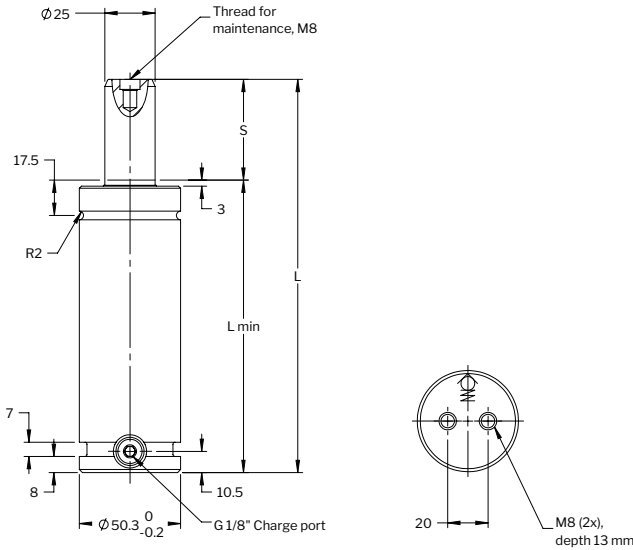
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 750-013	12.7	7,400	12,000	120.4	107.7
YU 750-025	25 ■		12,000	145	120
YU 750-038	38.1		12,000	171.2	133.1
YU 750-050	50 ■		12,000	195	145
YU 750-064	63.5		12,000	222	158.5
YU 750-080	80 ■		12,000	255	175
YU 750-100	100		12,000	295	195
YU 750-125	125		12,100	345	220
YU 750-160	160 ■		12,100	415	255
YU 750-175	175		12,100	445	270
YU 750-200	200		12,100	495	295
YU 750-225	225		12,100	545	320
YU 750-250	250		12,100	595	345
YU 750-300	300		12,100	695	395

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YU 500

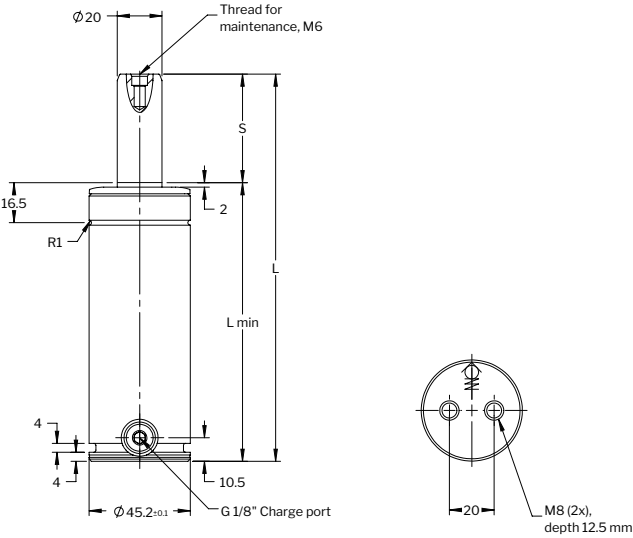
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 40-80

Order No.	S stroke	Force in N at 180 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 500-010	10	4,700	6,000	105	95
YU 500-013	12.7		6,100	110.4	97.7
YU 500-025	25 ■		6,400	135	110
YU 500-038	38.1		6,500	161.2	123.1
YU 500-050	50 ■		6,600	185	135
YU 500-064	63.5		6,600	212	148.5
YU 500-080	80 ■		6,700	245	165
YU 500-100	100		6,700	285	185
YU 500-125	125		6,700	335	210
YU 500-160	160 ■		6,700	405	245

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YU 1500

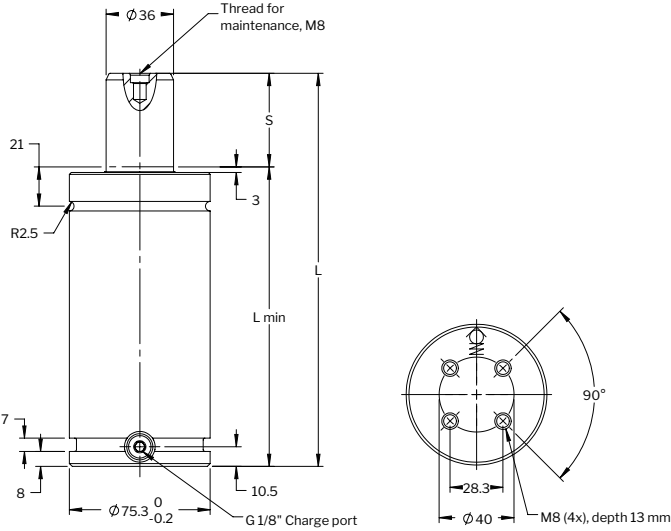
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 1500-025	25 ■	15,000	23,000	160	135
YU 1500-038	38.1			186.2	148.1
YU 1500-050	50 ■			210	160
YU 1500-064	63.5			237	173.5
YU 1500-080	80 ■			270	190
YU 1500-100	100			310	210
YU 1500-125	125			360	235
YU 1500-160	160 ■			430	270
YU 1500-175	175			460	285
YU 1500-200	200			510	310
YU 1500-225	225			560	335
YU 1500-250	250			610	360
YU 1500-300	300			710	410

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



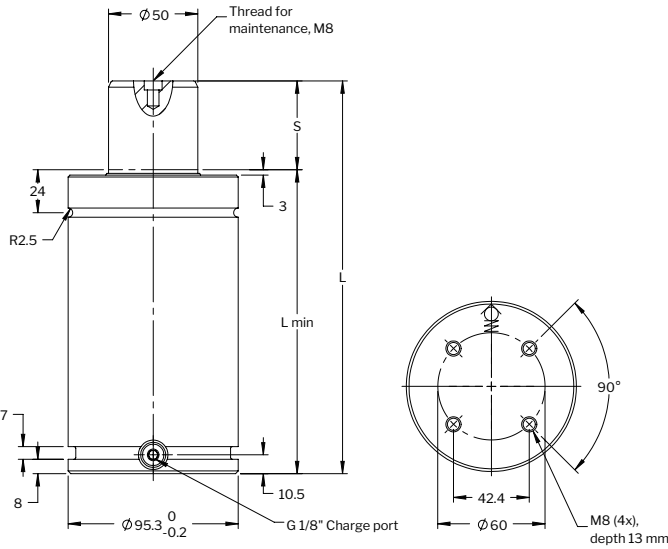
YU 3000

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 3000-025	25 ■	30,000	42,000	170	145
YU 3000-038	38.1		43,000	196.2	158.1
YU 3000-050	50 ■		44,000	220	170
YU 3000-064	63.5		45,000	247	183.5
YU 3000-080	80 ■		46,000	280	200
YU 3000-100	100		47,000	320	220
YU 3000-125	125		47,000	370	245
YU 3000-160	160 ■		47,000	440	280
YU 3000-175	175		48,000	470	295
YU 3000-200	200		48,000	520	320
YU 3000-225	225		48,000	570	345
YU 3000-250	250		48,000	620	370
YU 3000-300	300		48,000	720	420

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



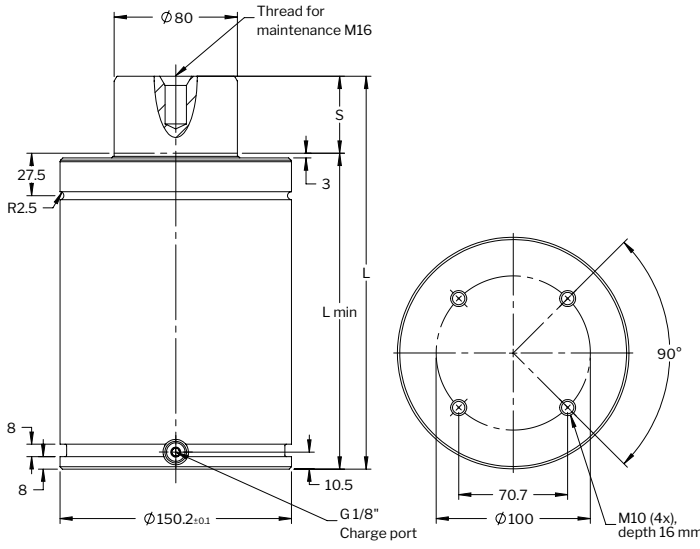
YU 7500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 7500-025	25	75,000	105,000	205	180
YU 7500-038	38.1		110,000	231.2	193.1
YU 7500-050	50		113,000	255	205
YU 7500-064	63.5		115,000	282	218.5
YU 7500-080	80 ■		117,000	315	235
YU 7500-100	100 ■		119,000	355	255
YU 7500-125	125 ■		121,000	405	280
YU 7500-160	160 ■		122,000	475	315
YU 7500-175	175		123,000	505	330
YU 7500-200	200 ■		123,000	555	355
YU 7500-225	225		124,000	605	380
YU 7500-250	250		124,000	655	405
YU 7500-300	300		124,000	755	455

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



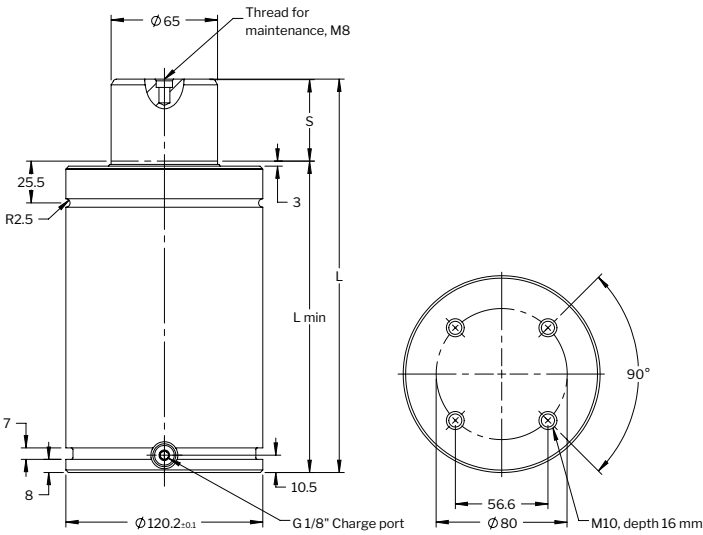
YU 5000

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 5000-025	25	50,000	71,000	190	165
YU 5000-038	38.1		75,000	216.2	178.1
YU 5000-050	50		77,000	240	190
YU 5000-064	63.5		80,000	267	203.5
YU 5000-080	80 ■		81,000	300	220
YU 5000-100	100 ■		82,000	340	240
YU 5000-125	125 ■		82,000	390	265
YU 5000-160	160 ■		83,000	460	300
YU 5000-175	175		84,000	490	315
YU 5000-200	200 ■		84,000	540	340
YU 5000-225	225		84,000	590	365
YU 5000-250	250		84,000	640	390
YU 5000-300	300		84,000	740	440

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



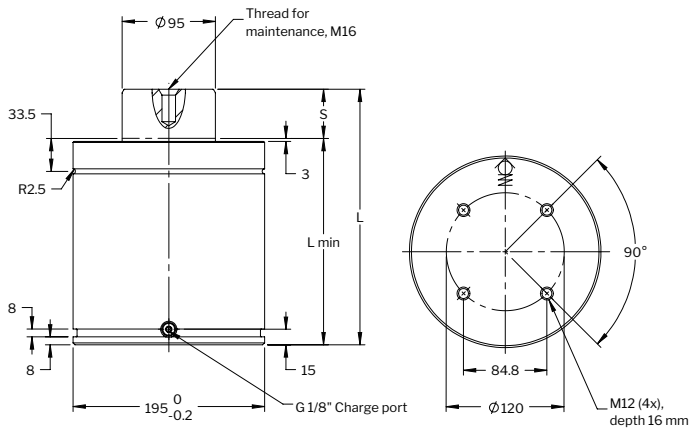
YU 10000

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-40

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YU 10000-025	25	106,000	138,000	210	185
YU 10000-038	38.1		143,000	236.2	198.1
YU 10000-050	50		147,000	260	210
YU 10000-064	63.5		150,000	287	223.5
YU 10000-080	80 ■		152,000	320	240
YU 10000-100	100 ■		156,000	360	260
YU 10000-125	125 ■		157,000	410	285
YU 10000-160	160 ■		158,000	480	320
YU 10000-200	200 ■		160,000	560	360
YU 10000-250	250		160,000	660	410
YU 10000-300	300		160,000	760	460

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



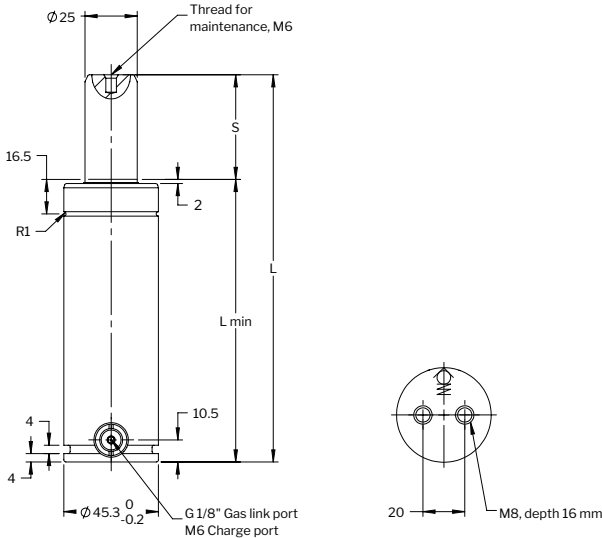
YTX750

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 750-013	13	7,400	12,000	111	98
YTX 750-025	25		12,000	135	110
YTX 750-038	38		12,000	161	123
YTX 750-050	50		12,000	185	135
YTX 750-063	63		12,000	211	148
YTX 750-075	75		12,000	235	160
YTX 750-080	80		12,000	245	165
YTX 750-100	100		12,000	285	185
YTX 750-125	125		12,100	335	210
YTX 750-150	150 ■		12,100	385	235
YTX 750-160	160 ■		12,100	405	245
YTX 750-175	175 ■		12,000	435	260
YTX 750-200	200 ■		12,100	485	285

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



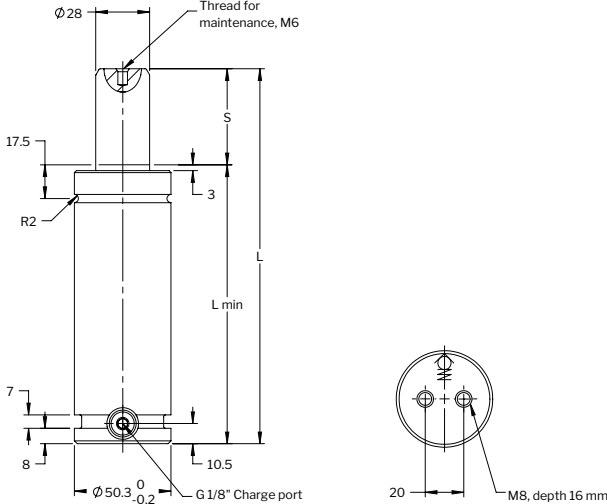
YTX1000

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 1000-013	13	9,200	11,200	121	108
YTX 1000-025	25		12,100	145	120
YTX 1000-038	38		12,800	171	133
YTX 1000-050	50		13,200	195	145
YTX 1000-063	63		13,500	221	158
YTX 1000-075	75		13,700	245	170
YTX 1000-080	80		13,800	255	175
YTX 1000-100	100		14,100	295	195
YTX 1000-125	125		14,300	345	220
YTX 1000-150	150 ■		14,500	395	245
YTX 1000-160	160 ■		14,500	415	255
YTX 1000-175	175 ■		14,600	445	270
YTX 1000-200	200 ■		14,700	495	295
YTX 1000-250	250		14,800	595	345
YTX 1000-300	300		14,900	695	395

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



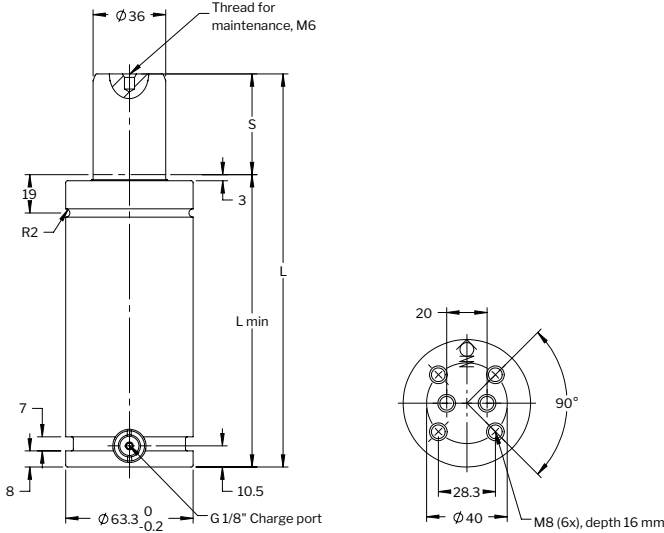
YTX1500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 1500-013	13	15,000	17,700	121	108
YTX 1500-025	25		19,100	145	120
YTX 1500-038	38		20,000	171	133
YTX 1500-050	50		20,600	195	145
YTX 1500-063	63		21,100	221	158
YTX 1500-075	75		21,500	245	170
YTX 1500-080	80		21,600	255	175
YTX 1500-100	100		21,700	295	195
YTX 1500-125	125		22,400	345	220
YTX 1500-150	150 ■		22,500	395	245
YTX 1500-160	160 ■		22,600	415	255
YTX 1500-175	175 ■		22,600	445	270
YTX 1500-200	200 ■		22,800	495	295
YTX 1500-250	250		23,000	595	345
YTX 1500-300	300		23,200	695	395

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



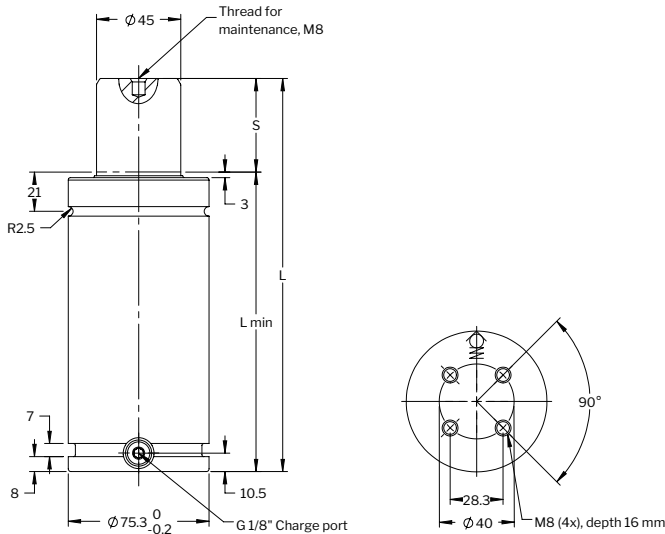
YTX2400

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 40-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 2400-025	25	24,000	37,100	160	135
YTX 2400-038	38		37,600	186	148
YTX 2400-050	50		37,900	210	160
YTX 2400-063	63		38,100	236	173
YTX 2400-075	75		38,300	260	185
YTX 2400-080	80		38,300	270	190
YTX 2400-100	100		38,500	310	210
YTX 2400-125	125		38,700	360	235
YTX 2400-150	150 ■		38,800	410	260
YTX 2400-160	160 ■		38,800	430	270
YTX 2400-175	175 ■		38,900	460	285
YTX 2400-200	200 ■		38,900	510	310
YTX 2400-250	250		39,000	610	360
YTX 2400-300	300		39,100	710	410

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YTX4200

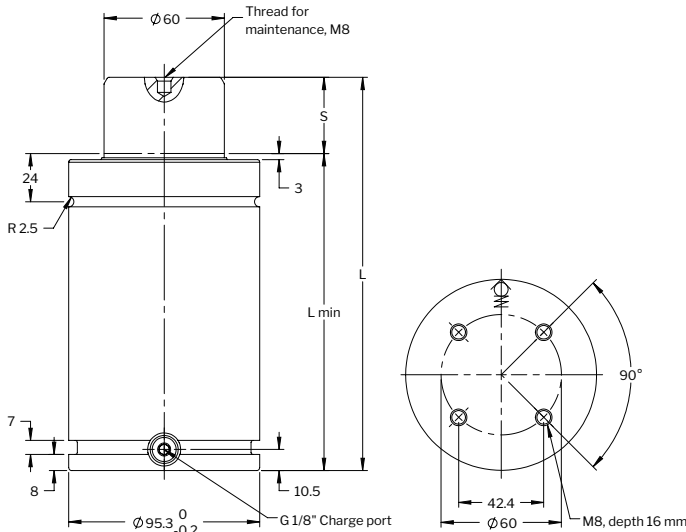
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 40-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 4200-025	25	42,000	52,100	170	145
YTX 4200-038	38		55,100	196	158
YTX 4200-050	50		57,200	220	170
YTX 4200-063	63		59,000	246	183
YTX 4200-075	75		60,300	270	195
YTX 4200-080	80		60,800	280	200
YTX 4200-100	100		62,500	320	220
YTX 4200-125	125		64,000	370	245
YTX 4200-150	150 ■		65,100	420	270
YTX 4200-160	160 ■		65,500	440	280
YTX 4200-175	175 ■		66,000	470	295
YTX 4200-200	200 ■		66,800	520	320
YTX 4200-250	250		67,900	620	370
YTX 4200-300	300		68,700	720	420

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YTX9500

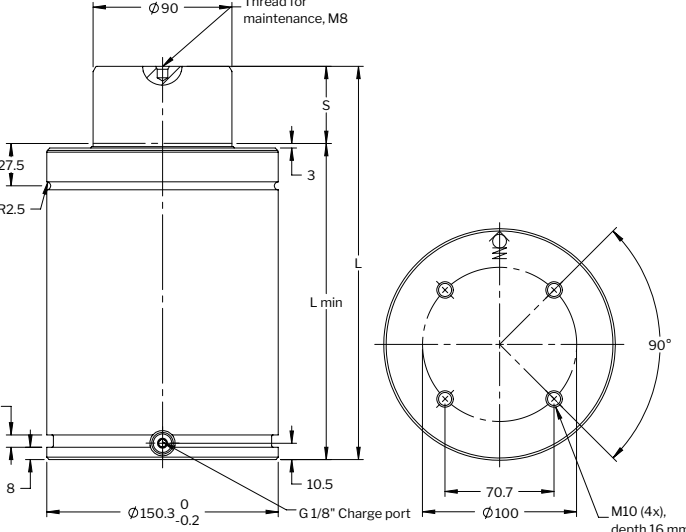
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 9500-025	25 ■	95,000	113,200	205	180
YTX 9500-038	38 ■		119,000	231	193
YTX 9500-050	50 ■		123,300	255	205
YTX 9500-063	63 ■		127,000	281	218
YTX 9500-075	75 ■		129,700	305	230
YTX 9500-080	80 ■		130,800	315	235
YTX 9500-100	100 ■		134,300	355	255
YTX 9500-125	125 ■		137,600	405	280
YTX 9500-150	150		140,200	455	305
YTX 9500-160	160 ■		141,000	475	315
YTX 9500-175	175		142,200	505	330
YTX 9500-200	200 ■		143,800	555	355
YTX 9500-250	250 ■		146,300	655	405
YTX 9500-300	300 ■		148,200	755	455

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YTX6600

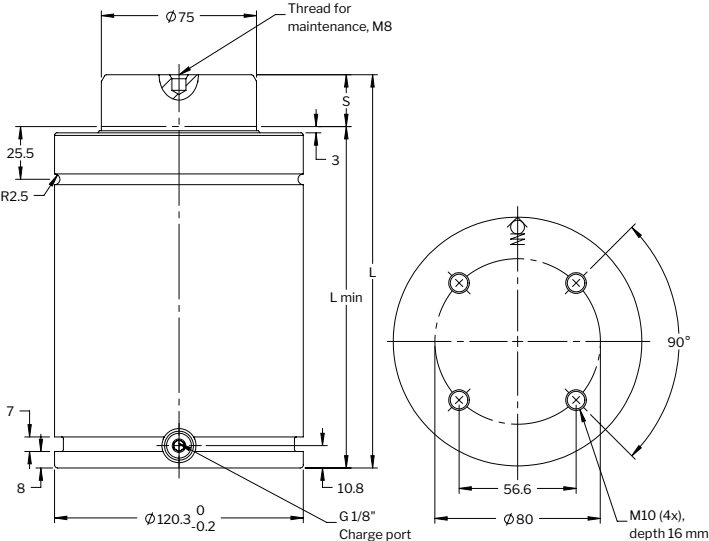
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 30-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 6600-025	25	66,300	79,500	190	165
YTX 6600-038	38		83,900	216	178
YTX 6600-050	50		87,000	240	190
YTX 6600-063	63		89,700	266	203
YTX 6600-075	75		91,800	290	215
YTX 6600-080	80		92,600	300	220
YTX 6600-100	100		95,100	340	240
YTX 6600-125	125		97,600	390	265
YTX 6600-150	150 ■		99,500	440	290
YTX 6600-160	160 ■		100,100	460	300
YTX 6600-175	175 ■		101,000	490	315
YTX 6600-200	200 ■		102,200	540	340
YTX 6600-250	250		104,000	640	390
YTX 6600-300	300		105,300	740	440

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



YTX20000

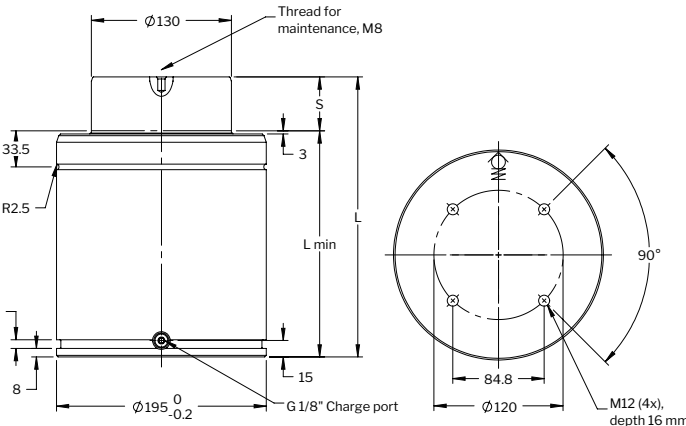
Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 15-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YTX 20000-025	25	200,000	242,000	210	185
YTX 20000-038	38		256,400	236	198
YTX 20000-050	50		266,800	260	210
YTX 20000-063	63		276,000	286	223
YTX 20000-075	75		283,100	310	235
YTX 20000-080	80		285,700	320	240
YTX 20000-100	100		294,600	360	260
YTX 20000-125	125		303,100	410	285
YTX 20000-150	150		309,700	460	310
YTX 20000-160	160		312,000	480	320
YTX 20000-175	175		315,000	510	335
YTX 20000-200	200		319,000	560	360
YTX 20000-250	250		325,600	660	410
YTX 20000-300	300		330,600	760	460

* Isothermal end force at full stroke.



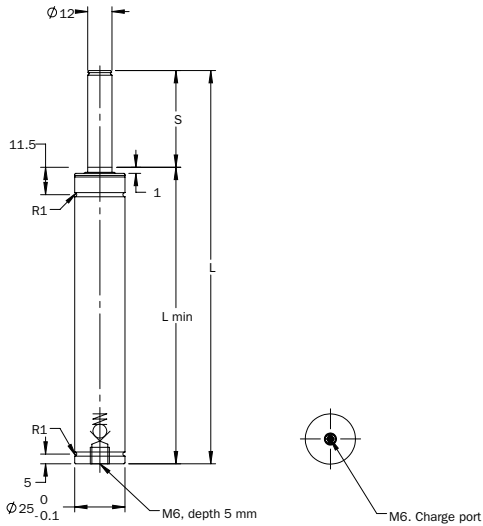
YCU 420

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force*		
YCU 420-006	6	4,250	7,300	56	50
YCU 420-010	10 ■		7,300	70	60
YCU 420-016	16 ■		7,300	91	75
YCU 420-025	25 ■		7,400	120	95
YCU 420-032	32		7,900	140	108
YCU 420-040	40		8,000	165	125
YCU 420-050	50		8,000	195	145

* Isothermal end force at full stroke.
■ Recommended stroke length for optimal delivery.



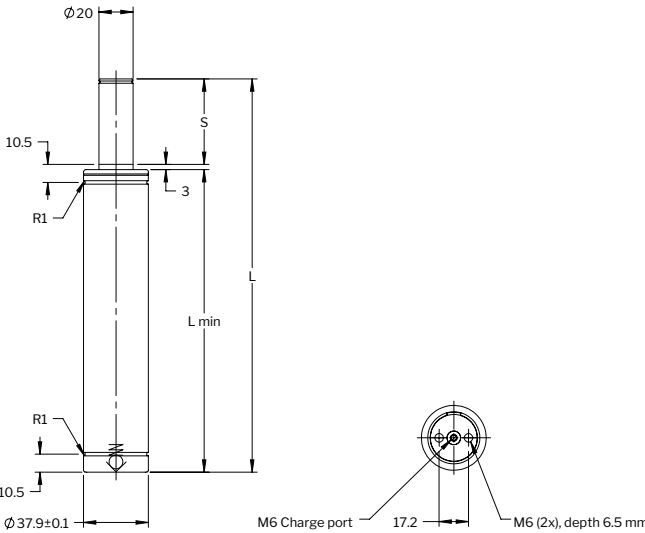
YCU 1000

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 1000-006	6	10,600	16,000	61	55
YCU 1000-010	10 ■			78	68
YCU 1000-016	16 ■			100	84
YCU 1000-025	25 ■			135	110
YCU 1000-032	32*			167	135
YCU 1000-040	40*			195	155
YCU 1000-050	50*			230	180

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



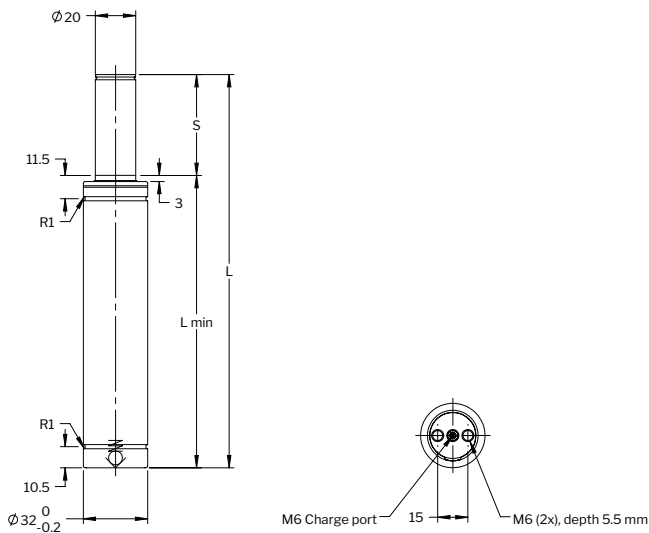
YCU 740

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 50-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 740-006	6	7,400	10,000	63	57
YCU 740-010	10 ■		10,000	75	65
YCU 740-016	16 ■		11,000	93	77
YCU 740-025	25 ■		12,000	120	95
YCU 740-032	32*		12,000	140	108
YCU 740-040	40*		12,000	165	125
YCU 740-050	50*		12,000	195	145

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



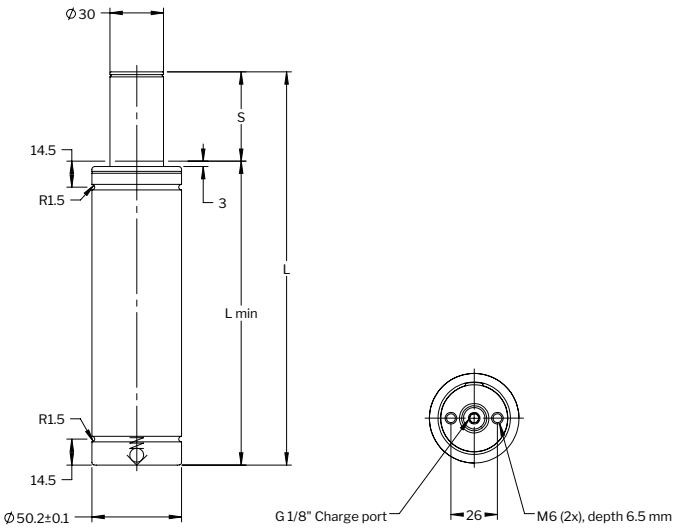
YCU 1800

Basic information

For general information see "About gas springs".
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 1800-006	6	18,000	24,000	66	60
YCU 1800-010	10 ■		25,000	80	70
YCU 1800-016	16 ■		25,000	106	90
YCU 1800-025	25 ■		26,000	135	110
YCU 1800-032	32*		26,000	162	130
YCU 1800-040	40*		26,000	190	150
YCU 1800-050	50*		27,000	220	170
YCU 1800-065	65*		28,000	271	206

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



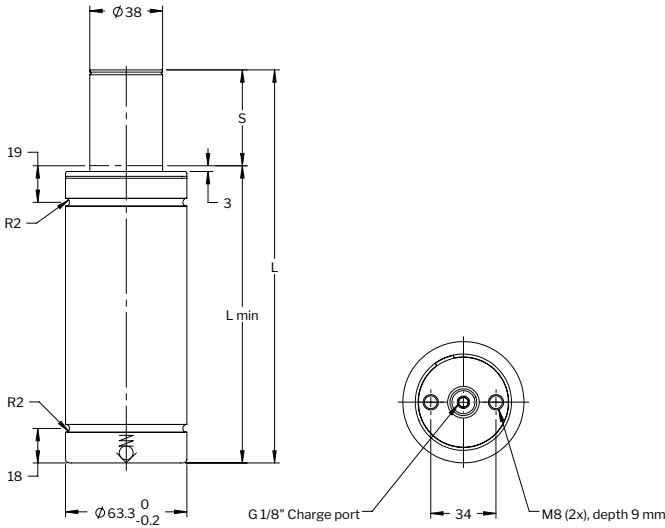
YCU 2900

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 80-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 2900-010	10 ■	29,500	40,000	85	75
YCU 2900-016	16 ■		42,000	103	87
YCU 2900-025	25 ■		45,000	130	105
YCU 2900-032	32*		46,200	150	118
YCU 2900-040	40*		47,200	175	135
YCU 2900-050	50*		45,000	205	155
YCU 2900-065	65*		47,000	256	191

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



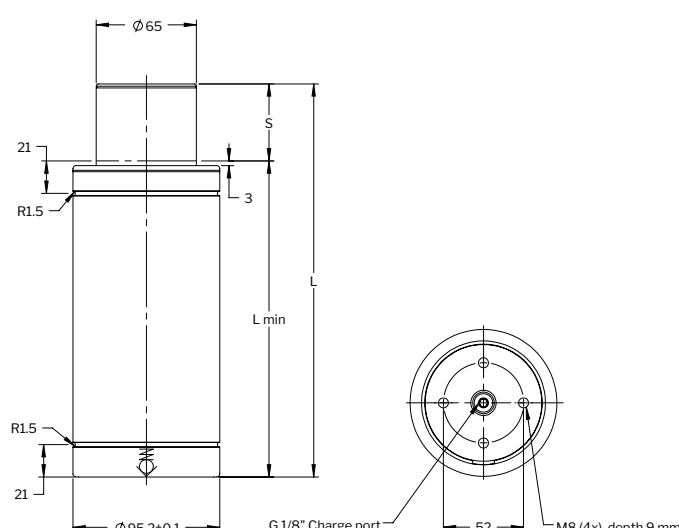
YCU 7500

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 80-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 7500-010	10 ■	75,000	98,500	90	80
YCU 7500-016	16 ■		100,000	116	100
YCU 7500-025	25 ■		104,000	145	120
YCU 7500-032	32*		102,000	182	150
YCU 7500-040	40*		104,000	210	170
YCU 7500-050	50*		103,000	255	205
YCU 7500-065	65*		111,000	279	214

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



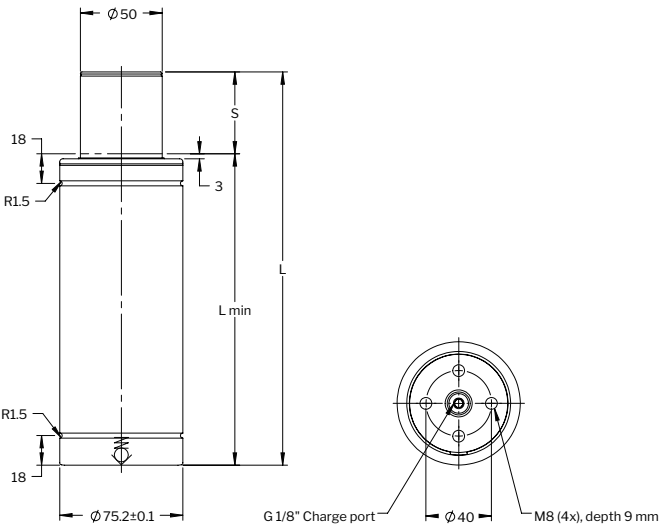
YCU 4700

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 80-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 4700-010	10 ■	47,000	67,000	80	70
YCU 4700-016	16 ■		66,000	106	90
YCU 4700-025	25 ■		68,000	135	110
YCU 4700-032	32*		67,000	167	135
YCU 4700-040	40*		67,000	200	160
YCU 4700-050	50*		67,000	240	190
YCU 4700-065	65*		71,000	273	208

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



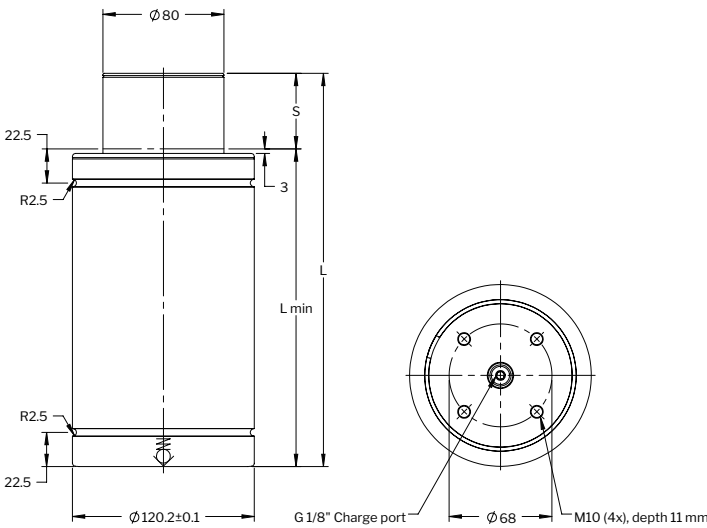
YCU 11800

Basic information

For general information see “About gas springs”.
Pressure medium Nitrogen
Max. charging pressure (at 20°C) 150 bar
Min. charging pressure (at 20°C) 25 bar
Operating temperature 0 to +80°C
Force increase by temperature 0.3%/°C
Recommended max strokes/min (at 20°C) ~ 80-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 11800-010	10 ■	118,000	150,000	100	90
YCU 11800-016	16 ■		153,000	126	110
YCU 11800-025	25 ■		160,000	155	130
YCU 11800-032	32*		165,000	187	155
YCU 11800-040	40*		160,000	220	180
YCU 11800-050	50*		161,000	260	210
YCU 11800-065	65*		163,000	320	255

* Should always be attached to the tool using the tapped holes in the bottom or a flange.
■ Recommended stroke length for optimal delivery.
** Isothermal end force at full stroke.



YCU 18300

Basic information

For general information see “About gas springs”.

Pressure medium Nitrogen

Max. charging pressure (at 20°C) 150 bar

Min. charging pressure (at 20°C) 25 bar

Operating temperature 0 to +80°C

Force increase by temperature 0.3%/°C

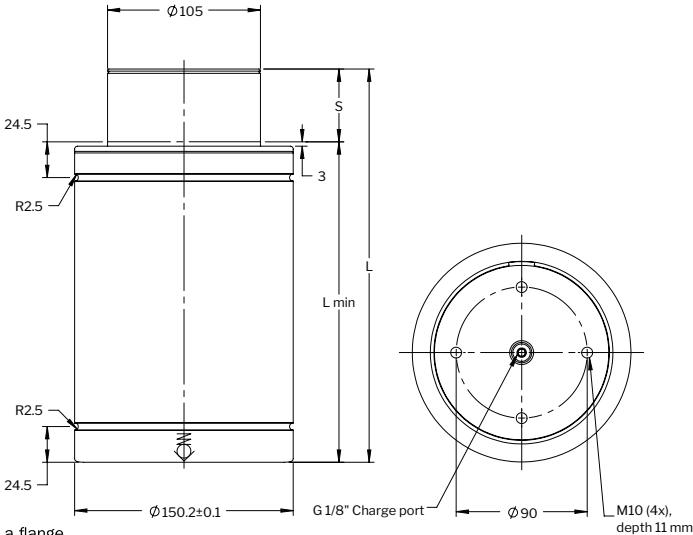
Recommended max strokes/min (at 20°C) ~ 80-100

Order No.	S stroke	Force in N at 150 bar/+20°C		L ±0.25	L min.
		Initial	End force**		
YCU 18300-010	10 ■	183,000	227,000	110	100
YCU 18300-016	16 ■		233,000	136	120
YCU 18300-025	25 ■		244,000	165	140
YCU 18300-032	32*		244,000	197	165
YCU 18300-040	40*		244,000	235	195
YCU 18300-050	50*		248,000	270	220
YCU 18300-065	65*		253,000	323	258

* Should always be attached to the tool using the tapped holes in the bottom or a flange.

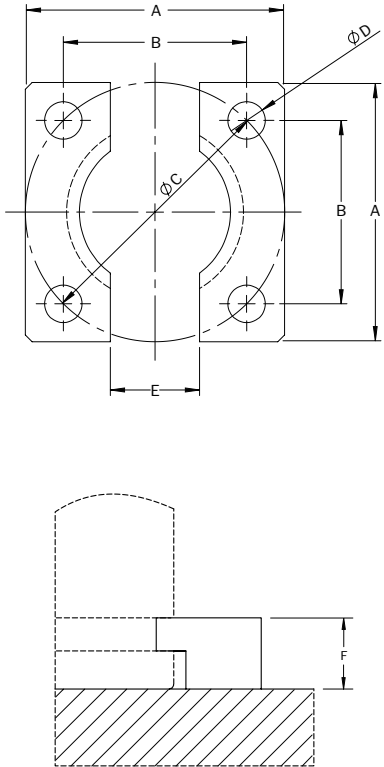
** at full stroke.

■ Recommended stroke length for optimal delivery.



FFC

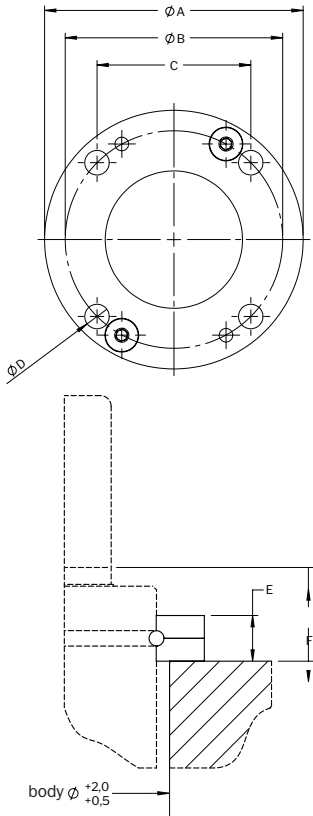
Order No.	A	B	C	D	E	F
FFC-MC-150	50	35	49.5	7	12	6.5
FFC-250	55	40	56.6	7	12	6.5
FFC-500	70	50	70.7	9	20	6.5
FFC-750	75	56.5	80	9	24	12
FFX-1500	100	73.5	104	11	24	12
FFCX-1500	85	60	84.85	11	23	12
FFC-1500	100	73.5	104	11	24	12
FFC-3000	120	92	130	13.5	24	12
FFC-5000	140	109.5	155	13.5	24	12
FFC-7500	190	138	195.2	17.5	24	12
FFC-10000	210	170	240.4	17.5	24	13
FFC-XG-350	50	35	49.5	7	18	6.5
FFC-XG-500	55	40	56.6	7	18	6.5



FC

Order No.	Spring size	A	B	C	D	E	F
FC-150		50	38	26.9	7	9	16 (YCU 420)* 21.5 (M2, YX 320)*
FCN-150	M2, X 320	56	42	29.7	9	9	16 (YCU 420)* 21.5 (M2, YX 320)*
FC-MC-150		60	49.5	35	7	9	16 (YCU 740)* 17 (MC3, MC3-SP, MT 300, YX350 YG 350)*
FC-250		68	56.5	40	7	9	15 (YCU 1000)* 17 (MT 500, YU 250, YX500, YG 500)*
FCN-250	TU 250, X/XG 50,0	70	56.6	40	9	9	15 (YCU 1000)* 17 (MT 500, YU 250, YX500, YG 500)*
FC-500		86	70.7	50	9	13	22 (K 500)* 23 (MT 750, YU 500, YTX 750, YX750, YG 750, XF 750)*
FC-750		95	80	56.5	9	13	22 (K 750)* 24 (MT 1000, YX 1000, YG 1000, XF 1000 LCF 750, TL 750, YU 750, TUS 750, YTX 1000)*
XFC-1500	X/XG 1500	105	85	60	11	16	27
XFCJ-1500	X/XG 1500	122	104	73.5	11	16	27
FC-1500		122	104	73.5	11	16	29
FC-3000		150	130	92	13.5	18	33
FC-5000		175	155	109.5	13.5	21	33 (YCU 11800)* 36 (YX 6600, YG 6600, LCF 5000, SPC 3000, TL 5000, TU 5000, TUS 5000, TX 6600)*
FC-7500		220	195	138	17.5	27	38 (CU4 18300)* 41 (LCF 7500, SPC 5000, TL 7500, YU 7500, TUS 7500, YTX 9500, YX 9500)*

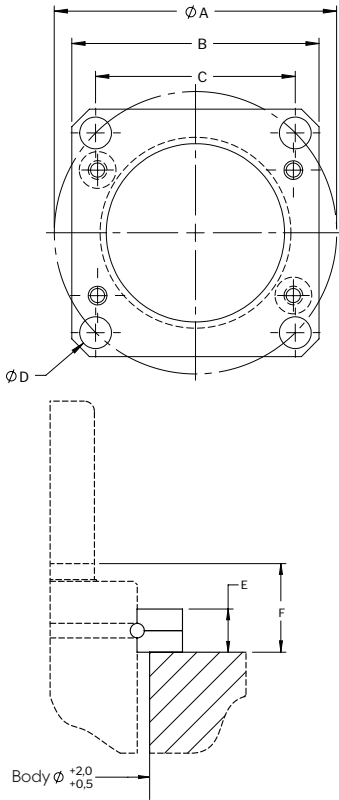
*Mounts to this model/models



FCS

Order No.	A	B	C	D	E	F
FCS-32	49.5	45	35	7	9	16 (YCU 740)* 17 (MC3 MC3-SP MY 300 YX 350 YG 350)*
FCS-250	56.5	52	40	7	9	15 (CU4 1000)* 17 (MT 500 YU 250 YX 500 YG 500)*
FCS-500	70.7	64	50	9	13	22 (K 500)* 23 (MT 750 YU 500 YTX 750 YX 750 YG 750
FCS-750	80	70	56.5	9	13	22 (K 750)* 24 (MT 1000 YX1000YG 1000 XF 1000 TL 750 YTU 750TUS 750 YTX 1000)*
FCSX-1500	90.5	80	64	11	16	27
FCS-1500	104	90	73.5	11	16	29
FCS-3000	130	110	92	13.5	18	33
FCS-5000	155	130	109.5	13.5	21	33 (CU4 11800)* 36 (X 6600 XG 6600 LCF 5000 SPC 3000 TU 5000 TUS 5000 TX 6600)*
FCS-7500	195	162	138	17.5	27	38 (YCU 18300)* 41 (LCF 7500 SPC 5000 TL 7500 YU 7500 YTX 9500 YX 9500)*
FCS-10000	240.4	210	170	17.5	27	47

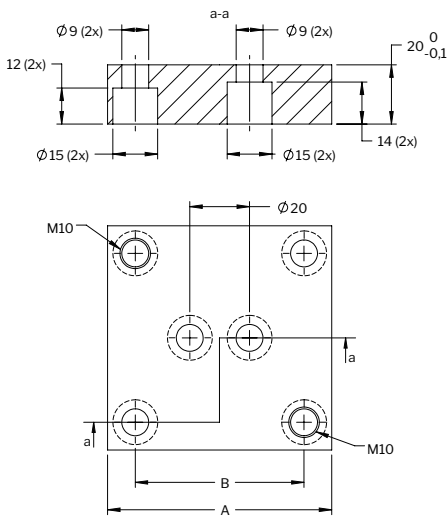
*Mounts to this model/models



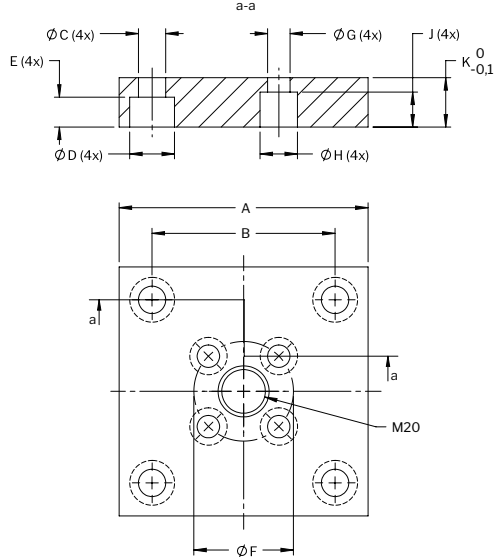
MP

Order No.	A	B	C	D	E	F	G	H	J	K
MP-500	70	50	9	15	12	20	9	15	14	20
MP-750	75	56.5	9	15	12	20	9	15	14	20
MPX-1500	100	73.5	10.5	18	13	20	9	15	12	20
MP-1500	100	73.5	11	18	12	40	9	15	14	20
MP-3000	120	92	13.5	20	13	60	9	15	14	20
MP-5000	140	109.5	13.5	20	13	80	11	18	15	20
MP-7500	190	138	17.5	26	17	100	11	18	20	25
MP-10000	210	170	17.5	26	17	120	13.5	20	13	25

MP-500 MP-750



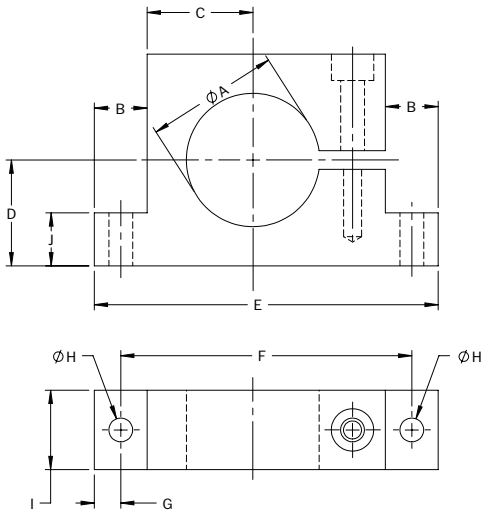
MP-1500 MP-3000 MP-5000 MP-7500 MP-10000



S

Order No.	A	B	C	D	E	F	G	H	I	J
S-MC	32.1	18	22	22.5	90	72	9	8.5	20	15
S-250	38.1	18	24	27.5	95	77	8	9	20	15
S-500	45.4	17	29	30	100	82	9	9	20	15
S-750	50.4	20	40	40	130	110	10	9	30	20
S-1500	75.4	22.5	52.5	52.5	160	137	11.5	11	30	20
S-3000	95.4	25	67.5	62.5	195	170	12.5	13	30	20
S-5000	120.4	27.5	77.5	74	220	195	12.5	13	30	20
S-7500	150.4	30	95	100	260	230	15	13	30	20

Note! The base of the gas spring must always be supported when using the S mount.



MPX-1500

