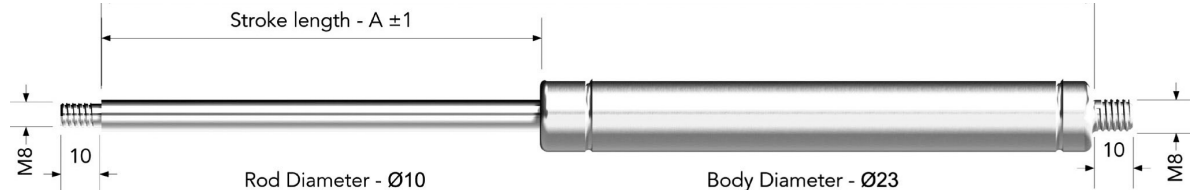


The table below shows the standard program of stainless steel gas springs available, non - standard sizes are available on special order.

The diagram also shows hatch size indication when mounting the gas spring in the rim of the hatch, with 90 degree opening. For other applications use the formula below or contact our office.



Stainless steel Gas spring I.D.#	Hatch weight lb. for 1 spring	Hatch in inches Max. size	Force IN Newton	Stroke length		Rod diameter	Cylinder diameter	Overall length, extended and compressed, not counting the threads, without attachments		Thread on both sides
				mm	inches			mm	inch	
61.650	4 / 30lb	8"	25 / 400 N	50	2"	6 mm	15 mm	130 / 80	5 1/8" / 3 1/8"	M 5 x 0.8
61.665	4 / 30lb	10"	25 / 400 N	65	2 3/8"	6 mm	15 mm	160 / 95	6 1/4" / 3 3/4"	M 5 x 0.8
61.680	4 / 30lb	12 1/2"	25 / 400 N	80	3"	6 mm	15 mm	190 / 110	8 1/4" / 5 1/8"	M 5 x 0.8
61.610	4 / 30lb	15 3/4"	25 / 400 N	100	4"	6 mm	15 mm	230 / 130	9 1/16" / 5 1/8"	M 5 x 0.8
61.612	4 / 30lb	19 1/2"	25 / 400 N	120	4 3/4"	6 mm	15 mm	270 / 150	10 5/8" / 5 7/8"	M 5 x 0.8
61.615	4 / 30lb	23 1/2"	25 / 300 N	150	5 7/8"	6 mm	15 mm	330 / 180	13" / 7 1/16"	M 5 x 0.8
61.620	4 / 30lb	31 1/4"	25 / 300 N	200	7 7/8"	6 mm	15 mm	430 / 230	16 15/16" / 9 1/16"	M 5 x 0.8
61.810	10/70lb	15 3/4"	100 / 750 N	100	4"	8 mm	19 mm	245 / 145	9 5/8" / 5 3/4"	M 8 x 1.25
61.815	10/70lb	23 1/2"	100 / 750 N	150	5 7/8"	8 mm	19 mm	345 / 195	13 3/4" / 7 3/4"	M 8 x 1.25
61.820	10/70lb	31 1/4"	100 / 700 N	200	7 7/8"	8 mm	19 mm	445 / 245	17 1/2" / 9 5/8"	M 8 x 1.25
61.825	10/70lb	39 3/8"	100 / 700 N	250	9 7/8"	8 mm	19 mm	545 / 295	21 1/2" / 11 5/8"	M 8 x 1.25
61.110	15/120lb	15 3/4"	150 /1200 N	100	4"	10 mm	23 mm	245 / 145	9 5/8" / 5 3/4"	M 8 x 1.25
61.115	15/120lb	23 1/2"	150 /1200 N	150	5 7/8"	10 mm	23 mm	345 / 195	13 3/4" / 7 3/4"	M 8 x 1.25
61.120	15/120lb	31 1/4"	150 /1200 N	200	7 7/8"	10 mm	23 mm	445 / 245	17 1/2" / 9 5/8"	M 8 x 1.25
61.125	15/110lb	39 3/8"	150 /1100 N	250	9 7/8"	10 mm	23 mm	545 / 295	21 1/2" / 11 5/8"	M 8 x 1.25
61.130	15/100lb	47 1/4"	150 /900 N	300	11 13/16	10 mm	23 mm	645 / 345	25 5/8" / 13 3/4"	M 8 x 1.25
61.135	15/77lb	55 1/8"	150 /700 N	350	13 3/4"	10 mm	23 mm	745 / 395	29 5/16" / 15 9/16"	M 8 x 1.25
61.140	15/65lb	63"	150 /500 N	400	15 3/4"	10 mm	23 mm	845 / 445	33 1/4" / 17 1/2"	M 8 x 1.25
10-23-series	120 lb:	with	protection	tube	1200N					
61.410 to 61.450	25/250lb	15 3/4" 63"	250 /2500 N	100 / 500	4 / 19 11/16	14 mm	28 mm	on request	on request	M 10 x 1.5
61.220 to 61.210	50/500lb	15 3/4" 63"	500 / 5000 N		7 7/8 to 39 3/8"	22 mm	38 mm	on request	on request	M 14 x 1.5
61.310 series	--/1650lb --/2200lb	15 3/4" to 63"	5000N / 10000N	1000 1000	39 3/8"			on request	on request	M 24 x 3

Compression Gas Springs Details per size: Please see page 6-5 to 6-10. For attachments: Please see page 6-11, 6-14 and 6-15.

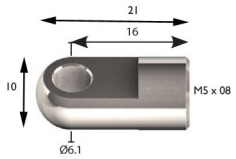
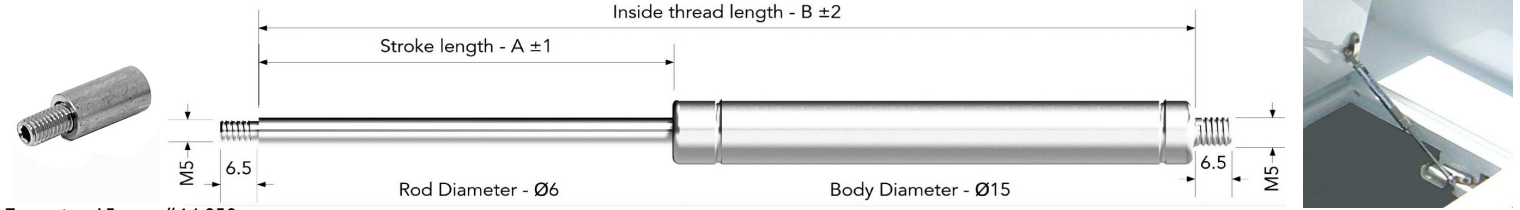
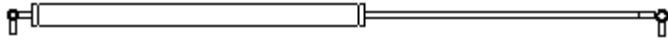
For Blocking Gas Springs: Please see Page 6-10

**HOW TO CHOOSE THE RIGHT GAS SPRING WITH THE RIGHT CHARGE:**

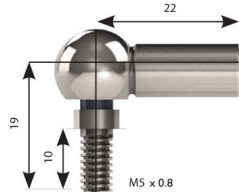
Please find the following data:

1. The weight of the part (hatch) to be lifted.
2. The length of the hatch. This is the distance from the hinges to the locking side.
3. The thickness of the hatch. (small hatches which are very thick – like freezer hatches- need longer size gas springs)
4. The degree to which the hatch will be opened. (90 degrees or more, up to 160 degrees)

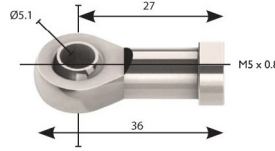
To find the actual weight of an existing hatch, without removing it from the deck, place a hanging scale on the side of the hatch in a position as close as possible to the horizontal position and multiply the measured weight by 2. Keep in account the friction of the hinges, if any, and the weight of locks and hatch dogging devises that can upset the center of gravity of the hatch. Adjust for these variables in the formula. See also pages 6-0-2-0 and 6-0-2-1.



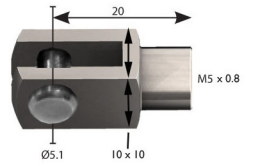
#62.516 Eye M5x16 6mm thick



#62.522 Balljoint M5x22

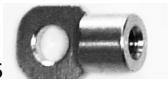


# 62.527 Ball Swivel End M5x27



#62.520 Fork with pin M5x20

Eye end fittings: #62.515L Eye M5x15



with 3 mm thick leaf

#62.520L Eye M5x20



Series 6-15		"A"	"B"	#62.516	#62.522	#62.520	#62.527	Force & thread
Part ID	Series 6-15 stainless steel gas spring with valve	Stroke Length In mm	Total length without attachments (not counting the thread) 2 x stroke +30 mm	Eyes, add 2 x 16 mm	Ball joints, add 2 x 22 mm	Forks, add 2 x 20 mm	Swivel rod ends, add 2 x 27 mm	Thread size and max. N force per length rod
61.650	Extended	50 mm	130 mm	162 mm	174 mm	170 mm	178 mm	M5; 25N-400N
	Compressed	50 mm	80 mm	112 mm	124 mm	120 mm	134 mm	M5; 25N-400N
61.665	Extended	65 mm	160 mm	192 mm	204 mm	200 mm	214 mm	M5; 25N-400N
	Compressed	65 mm	95 mm	127 mm	139 mm	135 mm	149 mm	M5; 25N-400N
61.680	Extended	80 mm	190 mm	222 mm	234 mm	230 mm	244 mm	M5; 25N-400N
	Compressed	80 mm	110 mm	142 mm	154 mm	150 mm	164 mm	M5; 25N-400N
61.610	Extended	100mm	230mm	262 mm	274 mm	270 mm	284 mm	M5; 25N-400N
	Compressed	100 mm	130 mm	162 mm	174 mm	170 mm	184 mm	M5; 25N-400N
61.612	Extended	120mm	270 mm	302 mm	314 mm	310 mm	324 mm	M5; 25N-400N
	Compressed	120 mm	150 mm	177 mm	189 mm	185 mm	199 mm	M5; 25N-400N
61.615	Extended	150 mm	330 mm	362 mm	374 mm	370 mm	384 mm	M5; 25N-400N
	Compressed	150 mm	180 mm	212 mm	224 mm	220 mm	234 mm	M5; 25N-400N
61.617	Extended	175 mm	380 mm	412 mm	424 mm	390 mm	404 mm	M5; 25N-400N
	Compressed	175 mm	205 mm	237 mm	249 mm	215 mm	229 mm	M5; 25N-400N
61.620	Extended	200 mm	430 mm	462 mm	474 mm	470 mm	484 mm	M5; 25N-400N
	Compressed	200 mm	230 mm	262 mm	274 mm	270 mm	284 mm	M5; 25N-400N

Maximum force in Newtons\*  
\*Depends on rod length

400N\* (88 lb.)\*

Check also pages 6-0-2-0 and 6-0-2-1 for force calculation

Minimum charge in Newtons

25N (5.5 lb.)

For custom sizes please email our office at

**Application: "A" Gas spring Series: 6-15: Samples, indicating possible setups:**

	size 3:	gas spring ID	weight hatch	size 1:	size 2:
	length of hatch		up to:	hatch bracket to hinge pin	coaming bracket to hinge pin with balljoints installed
	400 mm ~ 16"	6-15-100 mm	33 lbs	75 mm ~ 3"	260 ~ 10 1/4"
	600 mm ~ 23 1/2"	6-15-150 mm	33 lbs	125 mm ~ 5"	362 mm ~ 14 1/8"
	800 mm ~ 31 1/2"	6-15-200 mm	33 lbs	175 mm ~ 6 7/8"	463 mm ~ 18 1/4"

**Application: "B" Gas spring Series: 6-15: Samples, indicating possible setups:**

	size 3:	gas spring ID	weight hatch	size 1:	size 2:
	length of hatch		up to:	hatch bracket to hinge pin	coaming bracket to hinge pin with ball joint
	400 mm ~ 16"	6-15-150 mm	33 lbs	125 mm ~ 5"	376 mm ~ 14 3/4"
	400 mm ~ 16"	6-15-200 mm	33 lbs	175 mm ~ 6 7/8"	500 mm ~ 19 1/2"

**ALWAYS INSTALL GAS SPRING WITH ROD DOWN AND CYLINDER UP**