



SRS

SRS 750 to SRS 5000

Smooth Return Springs



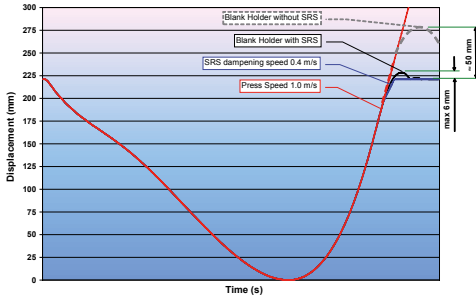
Product Value

Ideal for part position control in a fast return stroke application, the SRS Series significantly reduces pad bounce on the return stroke, allowing for repeatable stamping processes. This aids in transfer presses or line dies, where the part must be returned to the same location in each stroke, maintaining position for automation. SRS Series also reduces shock loading inside the die, extending the life of pad keepers and other mechanical stops.

Product Features

- Easily fits into existing standard mounts.
- Upstroke damping feature reduces pad bounce.
- Can be hoses together to equalize force.

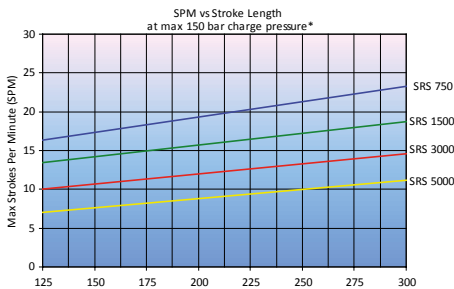
Function Example



SRS Gas Springs gave a 90% reduction of blank holder bounce!

Performance:

Allowable Strokes Per Minute



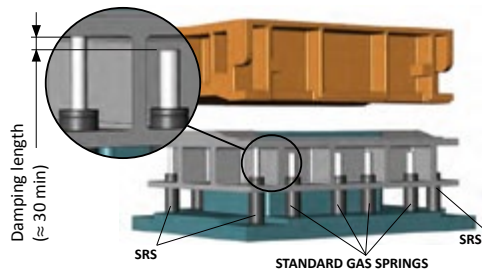
*At ambient room temperatures with free air flow

Example: SRS-5000X250 at 150 bar can run at 10 SPM. Note that if you reduce the fill pressure to 75 bar, you can double the SPM to 20.

Installation Options

Option 1 - Replace all springs with SRS

Option 2 - Corner Concept - replace standard springs with SRS Series Allowable Strokes Per Minute

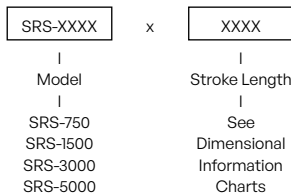




Product Specifications

Initial Force Range 7,400–50,000 N
 Pressure medium Nitrogen Gas
 Min. charging pressure 25 bar/363 psi
 Max. charging pressure 150 bar/2,175 psi
 Operating temperature 0 to 80°C/32 to 176°F
 Force Increase by Temperature ±0.3% / °C
 Recommended Max. Strokes per Minute See Performance Chart below
 Damping Speed 0.4 m/s

Ordering Options



All Gas Springs shipped at maximum charge pressure unless otherwise specified.

Repair Kits

Post Series	Order Number*
SRS-750	SRSSK-750
SRS-1500	SRSSK-1500
SRS-3000	SRSSK-3000
SRS-5000	SRSSK-5000

*Replacement Gas Spring sold separately.

Gas Spring Model	Page
SRS 750	190
SRS 1500	192
SRS 3000	194
SRS 5000	196

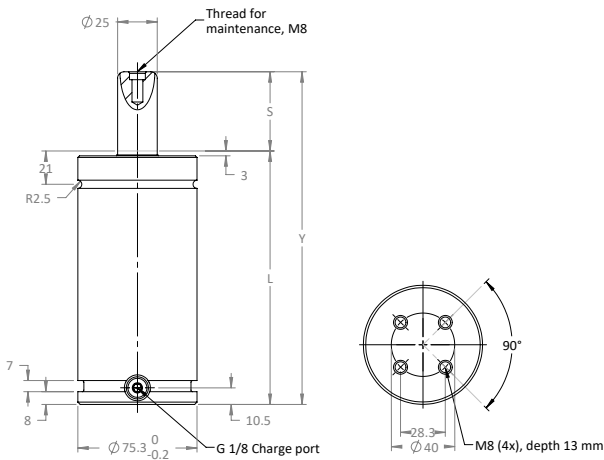
SRS-750 provides full stroke force of 8,700 N (1,960 lbf) and is available in seven stroke lengths.

The available Flanges are Lower Square Flange (FFC-1500), Circular Flange (FC-1500), Upper Square Flange (FCS-1500), and Bottom Mounting Flange (MP-1500).

Basic Information

For general information see “About Gas Springs”.

Min. charging pressure (at 20°C)	25 bar
Max. charging pressure (at 20°C)	150 bar
Contact Force at max. pressure (N)	7400
Contact Force at max. pressure (lbf)	1665
Recommended max strokes/min (at 20°C)	See download tab*
Cylinder diameter (mm)	75
Charge port	G 1/8"
Repair kit	SRSSK-750
Operating temperature	0 to +80°C
Max piston rod velocity	1.6 m/s
Force increase by temperature	±0.3%/°C
Pressure medium	Nitrogen



Order Number Model X Stroke	Stroke		Contact Force		Full Stroke Force		Cylinder Height		Body Height		Gas vol. ℓ	Weight	
	S		N	lbf.	N	lbf.	Y ±0.25	Y ±0.010	L			kg	lb
	mm	in					mm	in	mm	in			
SRS-750X80	80	0.39	7,400	1,665	8,700	1,960	270	10.63	190	7.48	0.30	5.5	12.125
SRS-750X100	100	0.79					310	12.20	210	8.27	0.36	5.8	12.787
SRS-750X125	125	1.18					360	14.17	235	9.25	0.44	6.10	13.448
SRS-750X160	160	1.57					430	16.93	270	10.63	0.55	6.60	14.551
SRS-750X200	200	1.97					510	20.08	310	12.20	0.67	7.15	15.763
SRS-750X250	250	2.36					610	24.02	360	14.17	0.83	7.85	17.306
SRS-750X300	300	2.76					710	27.95	410	16.14	0.98	8.60	18.960

Note: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.



Mounting Possibilities

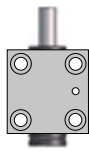


Body $\varnothing_{+2.0}^{+0.5}$

Top Mount



Foot Mount



Body Mount



Base Mount

Recommended Flanges



FC-1500

235



FCS-1500

238



FFC-1500

240



MP-1500

246



S-1500

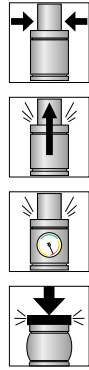
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Note!

For dimensions on all Mounting Flanges, refer to “Flanges” in chapter 3.

SRS-1500 provides full stroke force of 19,000 N (4,275 lbf) and is available in five stroke lengths. Can be hoses together to equalize force.

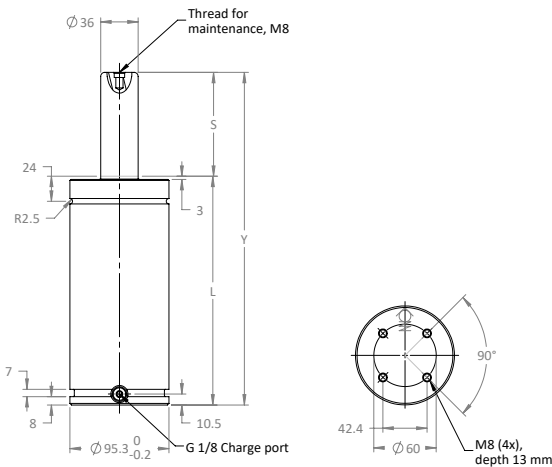
The available Flanges are Lower Square Flange (FFC-3000), Circular Flange (FC-3000), and Upper Square Flange (FCS-3000).



Basic Information

For general information see “About Gas Springs”.

Min. charging pressure (at 20°C)	25 bar
Max. charging pressure (at 20°C)	150 bar
Contact Force at max. pressure (N)	1500
Contact Force at max. pressure (lbf)	3375
Recommended max strokes/min (at 20°C)	See download tab*
Cylinder diameter (mm)	95
Charge port	G 1/8”
Repair kit	SRSSK-1500
Operating temperature	0 to +80°C
Max piston rod velocity	1.6 m/s
Force increase by temperature	±0.3%/°C
Pressure medium	Nitrogen



Order Number Model X Stroke	Stroke		Contact Force		Full Stroke Force		Cylinder Height		Body Height		Gas vol. ℓ	Weight	
	S		N	lbf.	N	lbf.	Y ±0.25	Y ±0.010	L			kg	lb
	mm	in					mm	in	mm	in			
SRS-1500X125	125	4.92	15,000	3,375	19,000	4,275	370	14.57	245	9.65	0.73	9.2	20.283
SRS-1500X160	160	6.30					440	17.32	280	11.20	0.91	10.3	22.708
SRS-1500X200	200	7.87					520	20.47	320	12.60	1.11	11.4	25.133
SRS-1500X250	250	9.84					620	24.41	370	14.57	1.36	12.9	28.440
SRS-1500X300	300	11.81					720	28.35	420	16.54	1.62	14.4	31.747

Note: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.



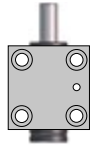
Mounting Possibilities



Top Mount
Body $\varnothing_{+2.0}^{+0.5}$



Foot Mount



Body Mount



Base Mount

Recommended Flanges



FC-3000
 235



FCS-3000
 238



FFC-3000
 240



MP-3000
 246



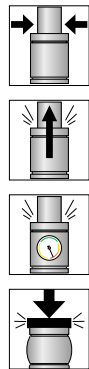
S-3000
 248

Note!

For dimensions on all Mounting Flanges, refer to “Flanges” in chapter 3.

SRS-3000 provides full stroke force between 38,000 N (8,550 lbf) and 39,000 N (8,775 lbf) and is available in five stroke lengths. Can be hoses together to equalize force.

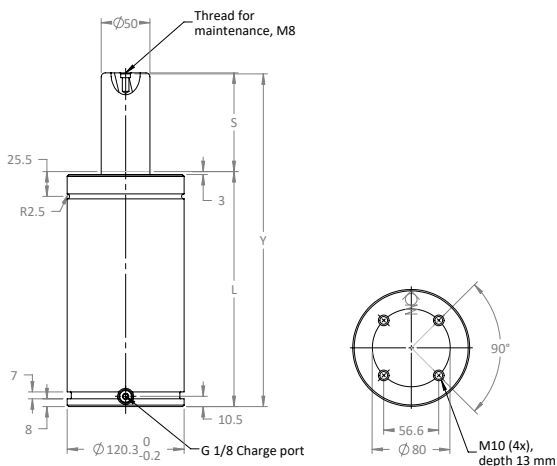
The available Flanges are Lower Square Flange (FFC-3000), Circular Flange (FC-3000), and Upper Square Flange (FCS-3000).



Basic Information

For general information see “About Gas Springs”.

Min. charging pressure (at 20°C)	25 bar
Max. charging pressure (at 20°C)	150 bar
Contact Force at max. pressure (N)	30000
Contact Force at max. pressure (lbf)	6750
Recommended max strokes/min (at 20°C)	See download tab*
Cylinder diameter (mm)	120
Charge port	G 1/8”
Repair kit	SRSSK-3000
Operating temperature	0 to +80°C
Max piston rod velocity	1.6 m/s
Force increase by temperature	±0.3%/°C
Pressure medium	Nitrogen



Order Number Model X Stroke	Stroke		Contact Force		Full Stroke Force		Cylinder Height		Body Height		Gas vol. ℓ	Weight	
	S		N	lbf.	N	lbf.	Y ±0.010		L			kg	lb
	mm	in					mm	in	mm	in			
SRS-3000X125	125	4.92	30,000	6,750	38,000	8,550	390	15.35	265	10.43	1.15	10.7	23.589
SRS-3000X160	160	6.30			38,000	8,550	460	18.11	300	11.81	1.43	11.4	25.133
SRS-3000X200	200	7.87			38,000	8,550	540	21.26	340	13.39	1.74	12.1	26.676
SRS-3000X250	250	9.84			39,000	8,775	640	25.20	390	15.35	2.14	13.1	28.881
SRS-3000X300	300	11.81			39,000	8,775	740	29.13	440	17.32	2.53	14.0	30.865

Note: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.



Mounting Possibilities

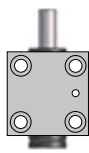


Body $\varnothing_{+2.0}^{+0.5}$

Top Mount



Foot Mount



Body Mount

Recommended Flanges



FC-5000

235



FCS-5000

238



FFC-5000

240



MP-5000

246



S-5000

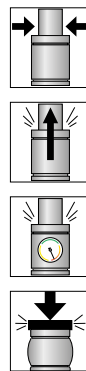
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Note!

For dimensions on all Mounting Flanges, refer to “Flanges” in chapter 3.

SRS-5000 provides full stroke force between 64,000 N (14,400 lbf) and 66,000 N (14,850) and is available in five stroke lengths. Can be hoses together to equalize force.

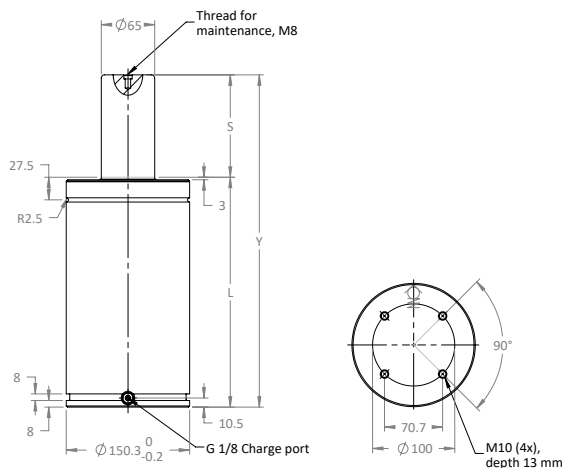
The available Flanges are Lower Square Flange (FFC-1500), Circular Flange (FC-1500), and Upper Square Flange (FCS-1500).



Basic Information

For general information see “About Gas Springs”.

Min. charging pressure (at 20°C)	25 bar
Max. charging pressure (at 20°C)	150 bar
Contact Force at max. pressure (N)	50000
Contact Force at max. pressure (lbf)	11250
Recommended max strokes/min (at 20°C)	See download tab*
Cylinder diameter (mm)	150
Charge port	G 1/8”
Repair kit	SRSSK-5000
Operating temperature	0 to +80°C
Max piston rod velocity	1.6 m/s
Force increase by temperature	±0.3%/°C
Pressure medium	Nitrogen



Order Number Model X Stroke	Stroke		Contact Force		Full Stroke Force		Cylinder Height		Body Height		Gas vol. ℓ	Weight	
	S		N	lbf.	N	lbf.	Y ±0.25		L			kg	lb
	mm	in					mm	in	mm	in			
SRS-5000X125	125	4.92	50,000	11,250	65,000	14,400	405	15.94	280	11.02	1.90	26.6	58.643
SRS-5000X160	160	6.30			65,000	14,625	475	18.70	315	12.40	2.33	28.9	63.714
SRS-5000X200	200	7.87			66,000	14,850	555	21.85	355	13.98	2.82	31.7	69.887
SRS-5000X250	250	9.84			66,000	14,850	655	25.79	405	15.94	3.43	35.0	77.162
SRS-5000X300	300	11.81			66,000	14,850	755	29.72	455	17.91	4.05	38.6	85.098

Note: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.



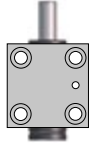
Mounting Possibilities



Body $\varnothing_{+2.0}^{+0.5}$
Top Mount



Foot Mount



Body Mount

Recommended Flanges



FC-7500
 235



FCS-7500
 238



FFC-7500
 240



MP-7500
 246



S-7500
 248

Note!

For dimensions on all Mounting Flanges, refer to “Flanges” in chapter 3.