

DADCO has established operating specifications and installation requirements for its Sectional Mounting System-Internal (SMS-i®) to help ensure customer safety and optimize product performance. Review the guidelines in this bulletin carefully. DADCO can look up information on existing SMS-i® to determine replacement gas springs and SHCS length.

**Operating Specifications**

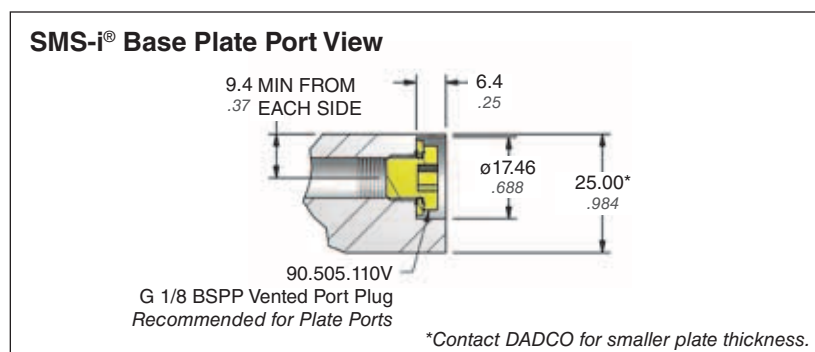
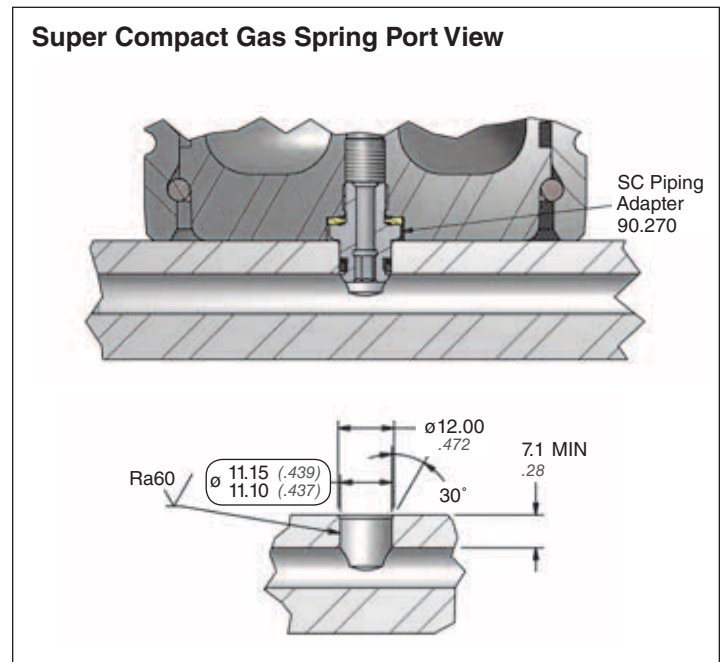
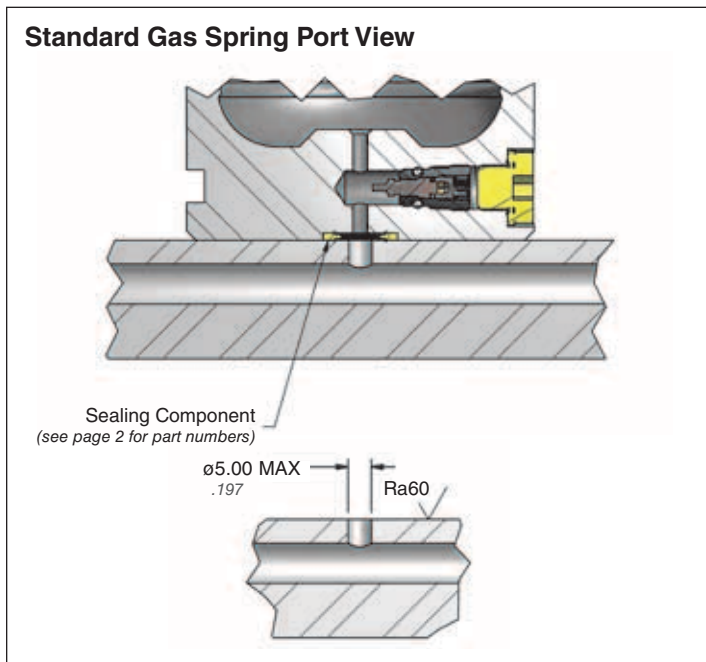
System	Maximum Charging Pressure	Operating Temperature Range
SMS-i®	150 bar (2175 psi)	40° F - 160°F (4°C - 71°C)

- Nitrogen is an abundant gas that does not react easily with other elements. These properties make it the ideal charging medium for gas springs. **No other gas should be used.**
- Refer to the chart for the maximum charging pressure for the system. Do not exceed the maximum charging pressure.

- Operating the system within the specified temperature range is important to extend the nitrogen gas spring life. For high-temperature operations contact DADCO for assistance. After prolonged operation, the outside of the gas springs may be hot to touch, handle with care. Operating the system within speed limits prevents heat build-up and prolongs gas springs life. For applications outside of the speed limits contact DADCO.
- TRAVEL SHOULD NOT EXCEED 90% OF STROKE. DESIGN ADEQUATE SAFETY SO THE GAS SPRINGS ARE NOT OVER-STROKED.

**SMS-i® Port View**

DADCO gas springs used in a SMS-i® have a bottom port and are attached with a sealing component and standard mounting hardware to an internally piped base plate. DO NOT perform maintenance or attempt to remove nitrogen gas springs before exhausting system pressure. Refer to the chart on the following page for additional cylinder mounting information including torque specifications and sealing component part numbers.



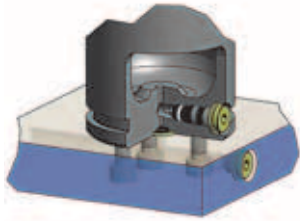
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# SMS-i® Installation and Operation

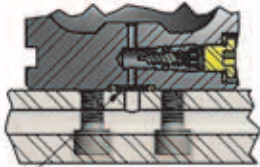
## Cylinder Mounting

Cylinders must be secured to the base plate according to the proper torque specification indicated below. Use a serviceable thread locking compound when installing socket head cap screws. Contact DADCO for information on gas springs not listed below.

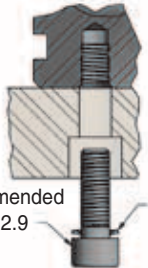
### SMS-i® Connection



DADCO gas springs used in a SMS-i® have a bottom port and are attached to the base plate with a sealing washer and mounting holes.

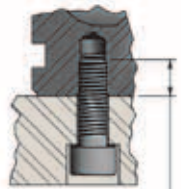


Sealing Washer  
Sealing Washer is installed between the bottom port and the SMS-i® Plate.



Recommended Grade 12.9 SHCS  
Lock Washer

Use a serviceable thread locking compound and lock washers when installing socket head cap screws.

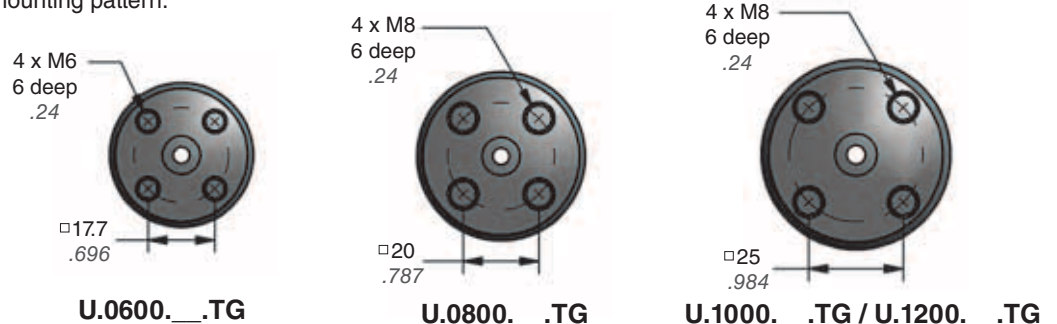


Thread Engagement  
Refer to the preferred engagement range when determining the length of SHCS.

Series	Model	SHCS		Torque		Preferred Thread Engagement Range		SMS-i® Plate Sealing Component	
		Thread Size	Lock Washer	N-m	lb-in	mm	inch	M	M1
UH	0400	M6	UMR06	15	132	13 - 14	.51 - .55	90.252	EZ451441
	0600	M6	UMR06	8.5	75	5 - 5.5	.20 - .22	90.252	EZ451441
U	0800	M8	UMR08	15.3	135	5 - 5.5	.20 - .22	90.252	EZ451441
	1000	M8	UMR08	15.3	135	5 - 5.5	.20 - .22	90.252	EZ451441
	1200	M8	UMR08	15.3	135	5 - 5.5	.20 - .22	90.252	EZ451441
	1600	M8	UMR08	15.3	135	5 - 5.5	.20 - .22	90.252	EZ451441
	2600	M8	UMR08	15.3	135	5 - 5.5	.20 - .22	EZ451443	EZ451441
	4600	M8	UMR08	36	321	10 - 11	.40 - .44	EZ451443	EZ457238
	6600	M10	UMR10	72	635	10 - 11	.40 - .44	EZ451443	EZ457238
	9600	M10	UMR10	72	635	10 - 11	.40 - .44	EZ451443	EZ457238
	20000	M12	UMR12	125	1108	11 - 15	.44 - .60	EZ451443	EZ457238
	UX	0800	M8	UMR08	36	321	10 - 11	.40 - .44	90.252
1000		M8	UMR08	36	321	10 - 11	.40 - .44	90.252	EZ451441
1600		M8	UMR08	36	321	10 - 11	.40 - .44	EZ451443	EZ451441
2600		M8	UMR08	36	321	10 - 11	.40 - .44	EZ451443	EZ451441
4600		M8	UMR08	36	321	10 - 11	.40 - .44	EZ451443	EZ457238
6600		M10	UMR10	72	635	10 - 11	.40 - .44	EZ451443	EZ457238
9600		M10	UMR10	72	635	10 - 11	.40 - .44	EZ451443	EZ457238
90.10	00500	M8	UMR08	36	321	10 - 11	.40 - .44	90.252	EZ451441
	00750	M8	UMR08	36	321	10 - 11	.40 - .44	90.252	EZ451441
	01500	M8	UMR08	36	321	10 - 11	.40 - .44	EZ451443	EZ451441
	03000	M8	UMR08	36	321	10 - 11	.40 - .44	EZ451443	EZ457238
	05000	M10	UMR10	72	635	10 - 11	.40 - .44	EZ451443	EZ457238
	07500	M10	UMR10	72	635	10 - 11	.40 - .44	EZ451443	EZ457238
SC	10000	M12	UMR12	125	1108	11 - 15	.44 - .60	EZ451443	EZ457238
	03500	M8	UMR08	15.3	135	7 - 8	.28 - .32	90.270	N/A
	04700	M8	UMR08	15.3	135	6 - 7	.24 - .28	90.270	N/A
	07500	M8	UMR08	15.3	135	6 - 7	.24 - .28	90.270	N/A
	11800	M10	UMR10	72	635	8 - 9	.32 - .36	90.270	N/A

### U Series Mount Pattern for SMS-i® Gas Springs

DADCO's U.0600-U.1200 gas springs installed in a SMS-i® have additional bottom mounting holes used to attach to the base plate. Replacement springs ordered with the 'TG' mount option will have this mounting pattern.



### Replacement SMS-i® Gas Spring Ordering Example:

90.10.00750.025. TO. M

Part Number: Includes Series, Model and Stroke Length.

Mount Option: TO = Basic Model or TG = Additional Mounting Holes (U.0600-U.1200 only).

Fitting Connection:

M = SMS-i® (bottom port + sealing component).

M1 = SMS-i® (larger bottom port for increased flow + sealing component).

Reference the laser mark on the cylinder when ordering replacement springs.