Catalog No. C13106D

DADCO®

Sectional Mounting Systems

SMS® and SMS-i®

Alternatives to Traditional Manifolds

PED
2014/68/EU
COMPLIANT

SMS® Features

DADCO's Sectional Mounting System (SMS®) is an established way to link DADCO nitrogen gas springs using a variety of available hose and fittings. Each system utilizes nitrogen gas springs mounted to a base plate, with the plumbing located on top of the plate, for unlimited mounting configurations. Each SMS® is assembled and tested at the factory to assure leak-free operation and is shipped ready to install.

Features

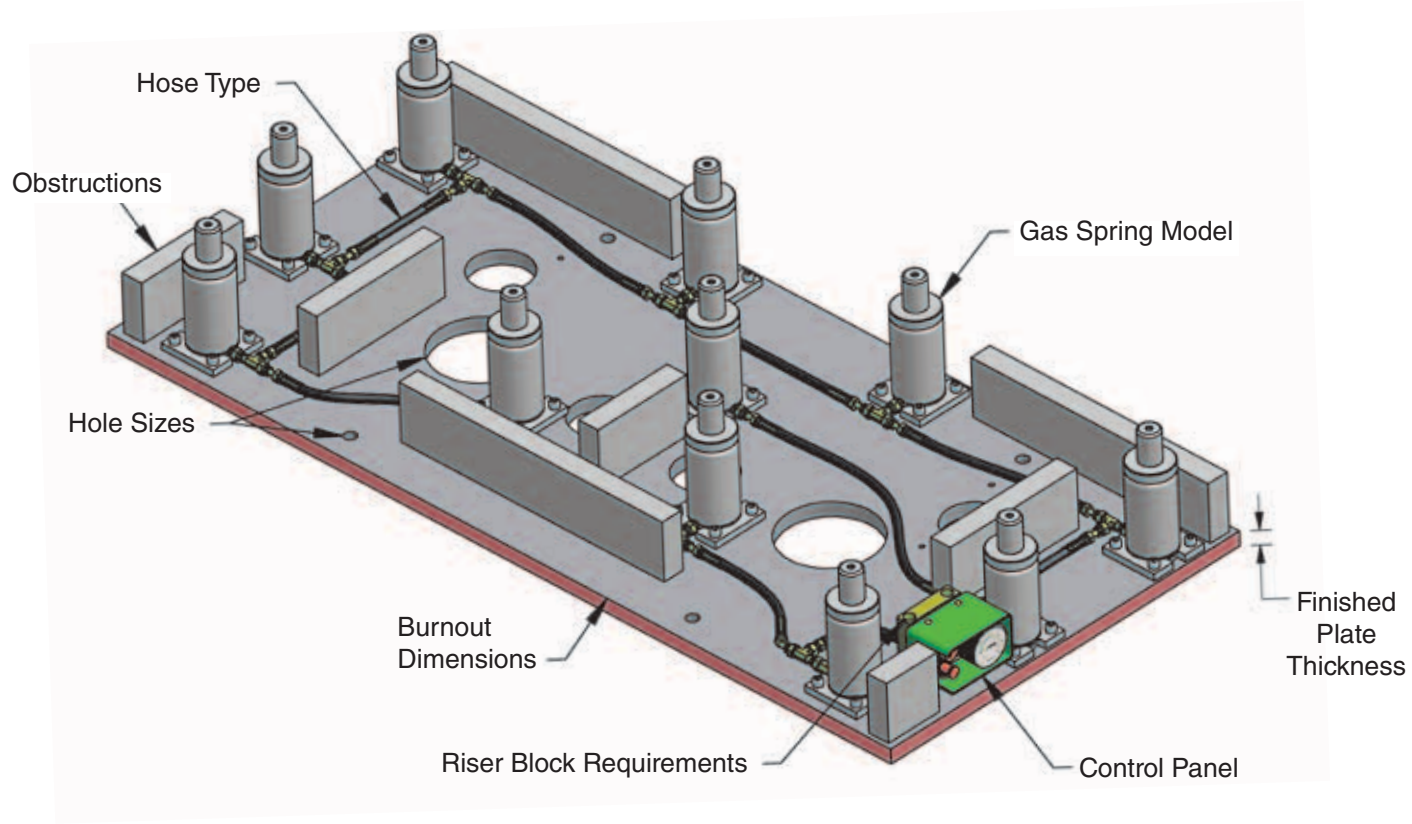
- Unlimited design configurations
- Uniform pressure in system
- Cost effective
- Quick delivery
- Easy installation and removal
- Simplified maintenance

DADCO applies the following standards for Sectional Mounting System (SMS®) layouts unless otherwise specified.

SMS® Layout	DADCO Standard
Plate Thickness	25 mm *(.98˝)* Recommended +0/-0.13 mm *(+.000/-.005˝)*
Plate Material	A36 HRS, Normalized Blanchard Ground
Plate Edges	Burned out and Painted ±2 mm *(±.08˝)*
Fasteners	Metric SHCS
Hose	90.500 *(Y-500)* or best fit
Hose Adapters	Crimped
Fittings	Standard swivel nut or best fit
Panel Mounting	DADCO riser blocks
Risers/Parallels	Customer specified

Sample SMS® Layout

Send DADCO your new system specifications or your current manifold design to discover the advantages. When quoting a SMS®, please provide CAD files and detailed plate information including gas spring model, finished plate thickness, burnout dimensions, hole sizes, control panel, hose type, riser block requirments and any obstructions; refer to the sample provided below.



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SMS® Component Selection

DADCO Gas Springs are grouped by two main classifications: Mini Springs with a M6 Port and Large Springs with a G 1/8 BSPP Port. DADCO recommends choosing control panels, fittings and hose type based on port style and application requirements. Refer to the Linked System Components Catalog for more information. To determine the force and pressure rise for your system use the **DADCO Force Calculator** from our website at www.dadco.net.

Port Style

M6 Mini Port

Gas Springs with M6 Port:
U.0400 – U.2600
LJ and L Series
SCR Series
90.10.00170

G 1/8 Large Port

Gas Springs with G 1/8 Port:
U.4600 – U.20000
UH Series
UX Series
90.8 Series
90.10.00500 – 90.10.10000
SCL.01000 – SCL.18300

Control Panels

Distribution Blocks

Surge Tanks

Tools

Compatible Fitting Styles

SMS® preferred

DADCO *MINILink*® (M8 x 1)

D-24 Tapered (M12 x 1.5)

Zip (CNOMO) (S12.65 x 1.5)

O-Ring Face Seal (ORFS) (9/16-18)

Hose System

SMS® preferred

90.700 *(Y-700)* Hose
90.705 *(Y-705)* Hose

90.500 *(Y-500)* Hose

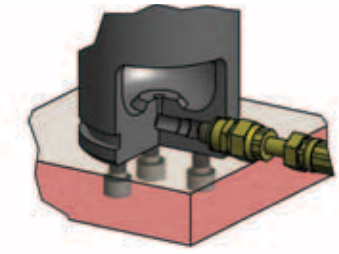
90.400 *(Y-400)* Hose

SMS® Installation Specifications

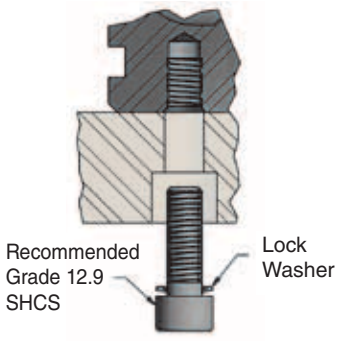
SMS® Cylinder Mounting

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.

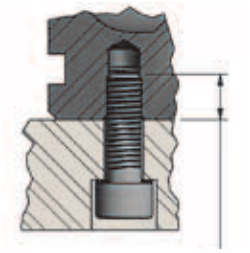
SMS® Connection



DADCO gas springs used in a SMS® are attached to the base plate with standard mounting hardware and piped through the side port. Refer to the port type of your springs to determine the best hose and fittings to use.



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



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

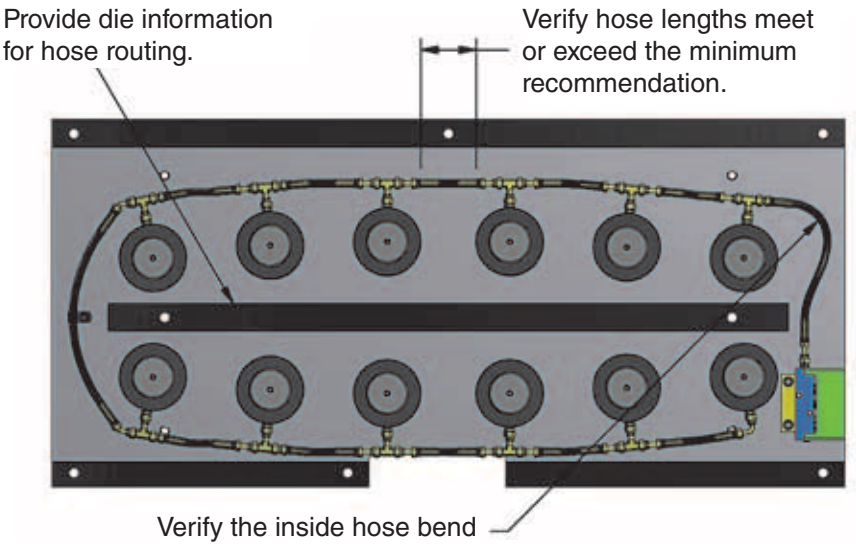
Series	Model	Port Type	SHCS		Torque		Preferred Thread Engagement Range	
			Thread Size	Lock Washer	N·m	*lb·in*	mm	*inch*
L/LJ	300	M6	M6	UMR06	8.5	*75*	5 - 5.5	*.20 - .22*
	500		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
	750		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
U	0400	M6	M6	UMR06	8.5	*75*	5 - 5.5	*.20 - .22*
	0600		M6	UMR06	8.5	*75*	5 - 5.5	*.20 - .22*
	0800		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
	1000		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
	1200		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
	1600		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
	2600		M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*
	4600	G 1/8	M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	6600		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	9600		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	20000		M12	UMR12	125	*1108*	11 - 15	*.43 - .60*
UH	0400	G 1/8	M6	UMR06	15	*132*	13 - 14	*.51 - .55*
	0600		M6	UMR06	15	*132*	13 - 14	*.51 - .55*
	0800		M8	UMR08	36	*321*	14 - 15	*.55 - .60*
	1000		M8	UMR08	36	*321*	14 - 15	*.55 - .60*
	1600		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	2600		M8	UMR08	36	*321*	14 - 15	*.55 - .60*
	4600		M8	UMR08	36	*321*	14 - 15	*.55 - .60*
	6600		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
UX	0800	G 1/8	M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	1000		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	1600		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	2600		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	4600		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	6600		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	9600		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	20000		M12	UMR12	125	*1108*	11 - 15	*.43 - .60*
90.8	00750	G 1/8	M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	01500		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	03000		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	05000		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	07500		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
90.10	00170	M6	M6	UMR06	15	*132*	10 - 11	*.40 - .43*
	00500	G 1/8	M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	00750		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	01500		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	03000		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	05000		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	07500		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	10000		M12	UMR12	125	*1108*	11 - 15	*.43 - .60*
SCR	00500	M6	M6	UMR06	8.5	*75*	7 - 8	*.28 - .31*
	00800		M6	UMR06	8.5	*75*	7 - 8	*.28 - .31*
	01900		M8	UMR08	36	*321*	9 - 10	*.35 - .40*
	03200		M8	UMR08	36	*321*	9 - 10	*.35 - .40*
SCL (SC Series with Sub Plate)	01000	G 1/8	M6	UMR06	15	*132*	10 - 11	*.40 - .43*
	01800		M6	UMR06	15	*132*	10 - 11	*.40 - .43*
	03500		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	04700		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	07500		M8	UMR08	36	*321*	10 - 11	*.40 - .43*
	11800		M10	UMR10	72	*635*	10 - 11	*.40 - .43*
	18300		M10	UMR10	72	*635*	10 - 11	*.40 - .43*

SMS® Design Examples

Below are examples of SMS® layouts as guidelines for the different configurations that can maximize cost-savings. To determine the force and pressure rise for your system use the **DADCO Force Calculator** from our website at www.dadco.net.

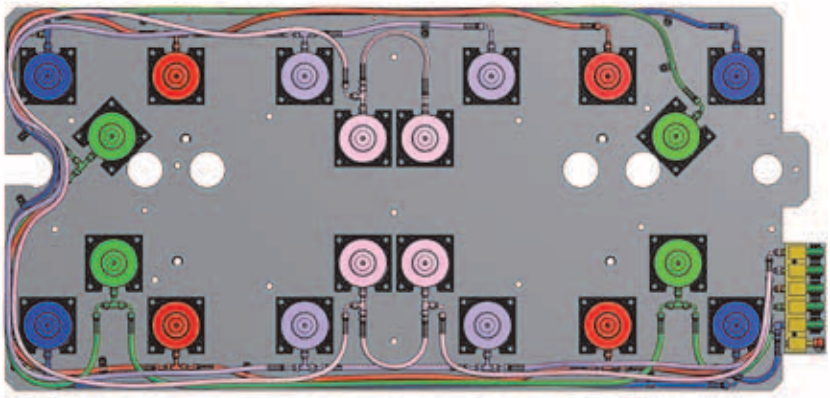
Standard System Configuration

Cylinders are linked in series with hose and fittings to a single control panel for a clean design and uniform force. Provide details about obstructions in the die to help with the routing of the hose assemblies so they do not interfere with operation. Hose Straps may be used to help hold the hose assemblies in place. To avoid taut connections and kinks in the hose adhere to the recommended hose length and bend radius. The bend radius is measured to the inside of the hose bend, not the centerline of the hose. Refer to catalog C09118F for hose specifications.

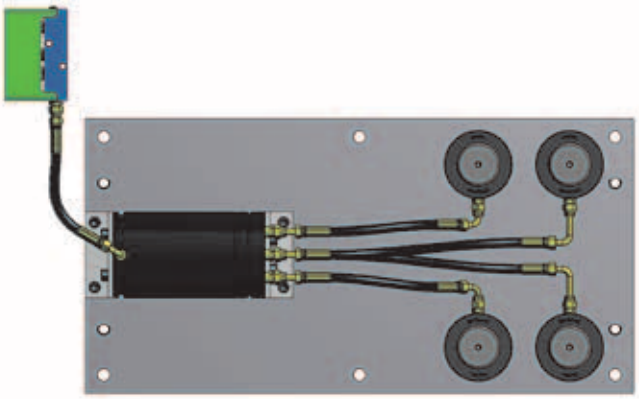


Multiple Force Zones

With the use of a Multi Panel, an SMS® can be designed to create different zones. Each color in the drawing represents a different force zone that is controlled by a different module. This type of layout can add additional versatility to the plate.

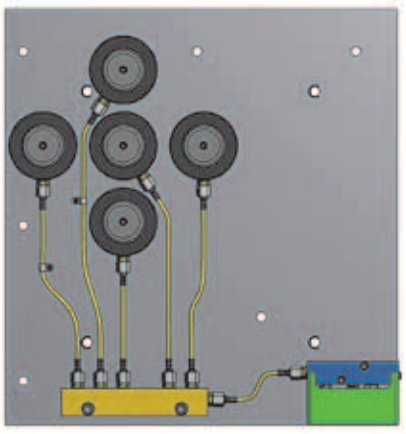


Reduced Pressure Rise



Link multiple cylinders to a surge tank to increase the volume of gas and reduce the pressure rise in the system. Use Y-400 hose and direct connections from each cylinder to the surge tank for optimum gas flow.

Tight Configurations



SMS® designs can utilize distribution blocks to create tight cylinder configurations and uniform force.

SMS-i® Features

DADCO's Sectional Mounting System - Internal (SMS-i®) is a popular alternative to conventional manifold systems. SMS-i® utilizes DADCO gas springs mounted to a base plate and all of the connecting passages are drilled within the plate, obviating the need for external hose and fittings. DADCO's SMS-i® is less expensive, performs better and is easier to maintain than conventional manifold systems. Each SMS-i® is factory tested to assure leak-free operation and is shipped ready to install. Contact DADCO Engineering for a proposal.

Features

- Simplifies design with internal plumbing
- Uniform pressure in system
- Cost effective
- Tight configurations possible
- Quick delivery
- Less machining in the die
- Easy maintenance and installation

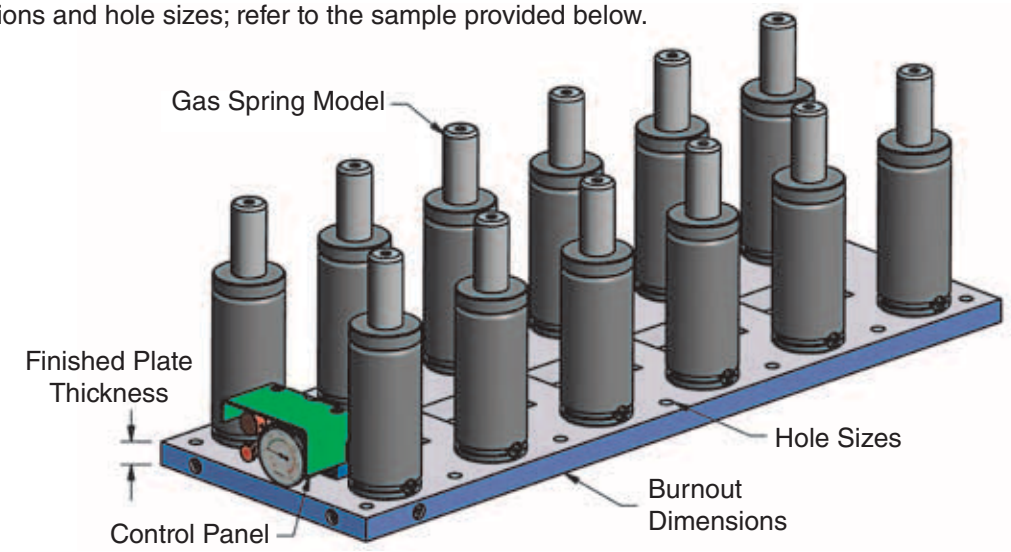
DADCO applies the following standards for Sectional Mounting System - Internal (SMS-i®) layouts unless otherwise specified.

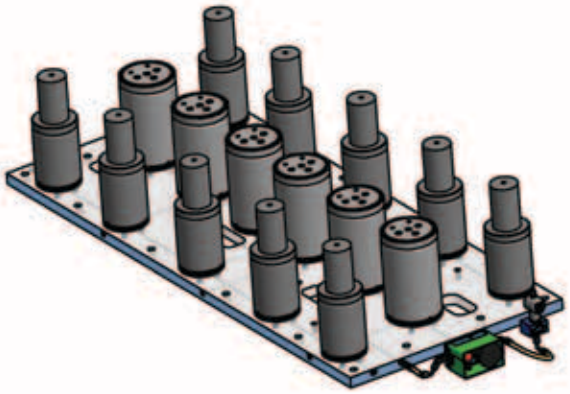
SMS-i® Layout	DADCO Standard
Plate Thickness*	25 mm *(.98˝)* Minimum Recommended +0/-0.13 mm *(+.000/-.005˝)*
Plate Material	A36 HRS, Normalized Blanchard Ground
Plate Edges	Burned out and Painted ±2 mm *(±.08˝)*
Fasteners	Metric SHCS

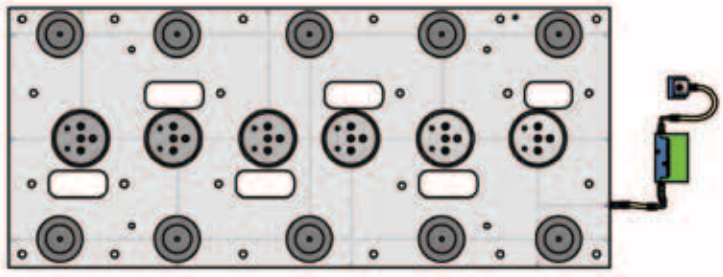
*Varies by system configuration

Sample SMS-i® Layout

Send DADCO your new system specifications or your current manifold design to discover the advantages. When quoting a SMS-i®, please provide CAD files and detailed plate information including gas spring model, finished plate thickness, burnout dimensions and hole sizes; refer to the sample provided below.







The SMS-i® facilitates filling, draining and monitoring from a control panel mounted directly to the plate or from outside the die. A pressure monitor may be included to alert press controllers of changes to the system pressure. Surge tanks increase the volume in the system thereby reducing the pressure rise, lowering the heat produced during operation and extending the life of the cylinders.

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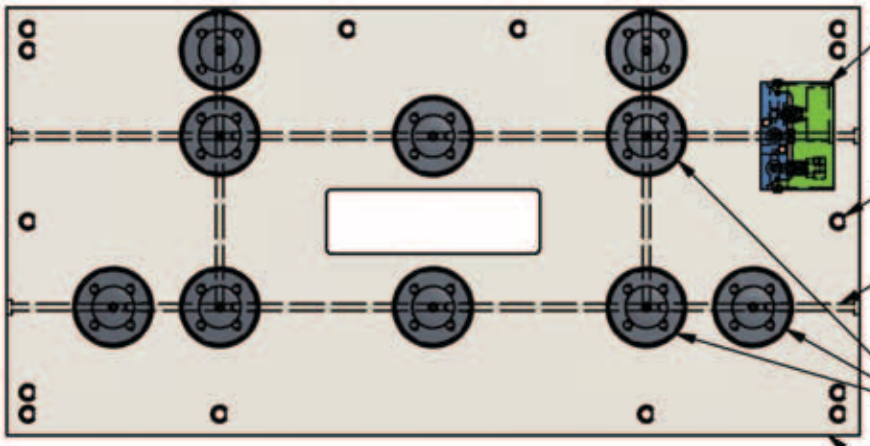
SMS-i® Design Recommendations

DADCO recommends following the guidelines below when designing SMS-i® layouts to maximize cost-savings. To determine the force and pressure rise for your system use the **DADCO Force Calculator** from our website at www.dadco.net.

Recommended Layout



✓ Control Panel Location
Mount the control panel to the plate using an existing port.

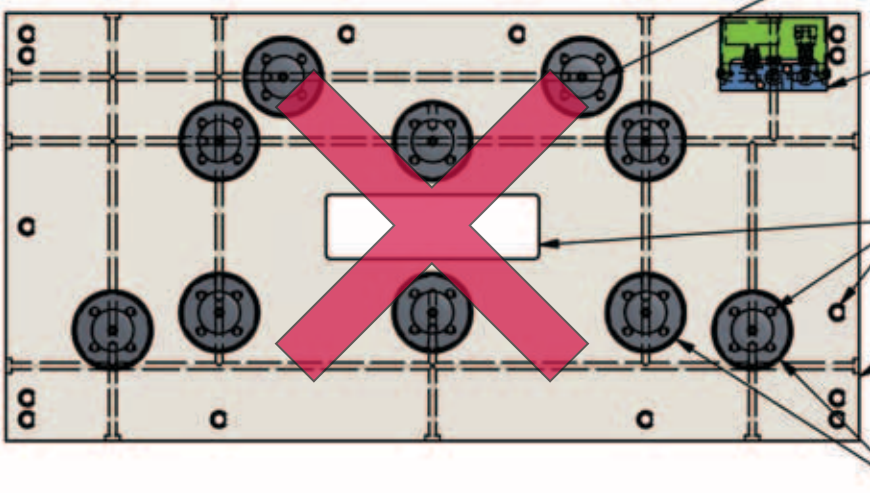
✓ Thru-Hole / Feature Placement
Make sure thru-holes and other plate features are clear of nitrogen ports.

✓ Drill Location
Drills should run completely through the plate or intersect another drilled port.

✓ Gas Spring Arrangement
Align gas springs where possible so they share G 1/8 ports.

✓ Machining on Plate Sides
Place ports on as few sides of the plate as possible to reduce machining requirements. Plates must be machined on every edge that contains a G 1/8 port.

Items that Increase the Complexity of SMS-i® Machining



× Blind Holes
Avoid drilling G 1/8 ports as blind holes since it makes clean-up and deburring difficult.

× Control Panel Location
Refrain from isolating a control panel to its own G 1/8 port to minimize cost and complexity.

× Thru-Hole / Feature Placement
Avoid interior burnouts, thru-holes and cylinder mounting holes where there is not adequate clearance around G 1/8 ports.

× Machining on Plate Sides
Adding G 1/8 ports to all four sides of the plate is costly. Plates must be machined on every edge that contains a G 1/8 port.

× Gas Spring Arrangement
Avoid offset placement of gas springs. It requires individual G 1/8 ports, increasing cost and complexity.

Additional Recommendations

Plate Thickness
25 mm (*0.98˝*) Minimum Recommended

Maximum Drill Depth for G 1/8 Ports
42˝ per port
(NOTE: For two G 1/8 ports drilled from opposite ends that meet in the middle, the combined port length becomes 84˝.)

Control Panel Location
Control panels can be mounted to a plate or piped externally using hose and fittings.

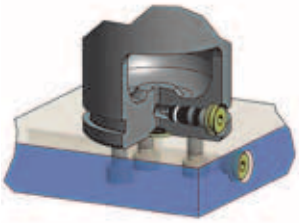
Long Stroke Gas Springs
Choose longer stroke gas springs mounted directly to the plate (over increased plate thickness) to achieve the desired contact point and to gain more volume in the system.

SMS-i® Installation Specifications

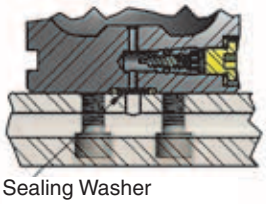
SMS-i® Cylinder Mounting

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

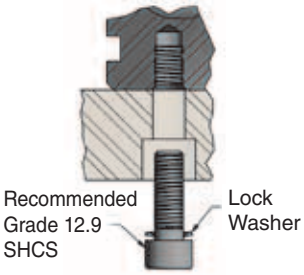


DADCO gas springs used in a SMS-i® have a bottom port and are attached to the base plate with a sealing washer and mounting holes.

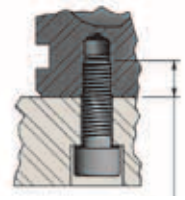


Sealing Washer

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



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



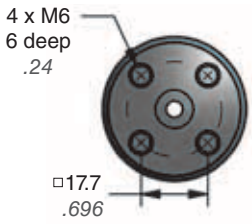
Thread Engagement

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

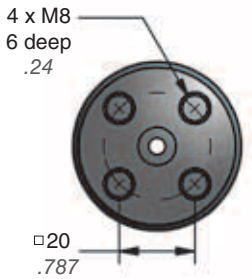
Series	Model	SHCS		Torque		Preferred Thread Engagement Range		SMS-i® Plate Sealing Component	
		Thread Size	Lock Washer	N·m	*lb·in*	mm	*inch*	M	M1
U	0600	M6	UMR06	8.5	*75*	5 - 5.5	*.20 - .22*	90.252	EZ451441
	0800	M8	UMR08	15.3	*135*	5 - 5.5	*.20 - .22*	90.252	EZ451441
	1000	M8	UMR08	15.3	*135*	5 - 5.5	*.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 - .43*	EZ451443	EZ457238
	6600	M10	UMR10	72	*635*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	9600	M10	UMR10	72	*635*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	20000	M12	UMR12	125	*1108*	11 - 15	*.43 - .60*	EZ451443	EZ457238
UH	0400	M6	UMR06	15	*132*	13 - 14	*.51 - .55*	90.252	EZ451441
UX	0800	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	90.252	EZ451441
	1000	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	90.252	EZ451441
	1600	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	EZ451443	EZ451441
	2600	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	EZ451443	EZ451441
	4600	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	6600	M10	UMR10	72	*635*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	9600	M10	UMR10	72	*635*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	20000	M12	UMR12	125	*1108*	11 - 15	*.43 - .60*	EZ451443	EZ457238
90.10	00500	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	90.252	EZ451441
	00750	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	90.252	EZ451441
	01500	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	EZ451443	EZ451441
	03000	M8	UMR08	36	*321*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	05000	M10	UMR10	72	*635*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	07500	M10	UMR10	72	*635*	10 - 11	*.40 - .43*	EZ451443	EZ457238
	10000	M12	UMR12	125	*1108*	11 - 15	*.43 - .60*	EZ451443	EZ457238
SC	03500	M8	UMR08	15.3	*135*	7 - 8	*.28 - .31*	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	*.31 - .35*	90.270	N/A

U Series Mount Pattern for SMS-i® Gas Springs

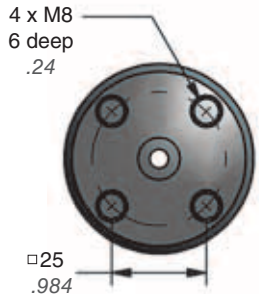
DADCO's U.0600-U.1200 gas springs installed in a SMS-i® have additonal bottom mounting holes used to attach to the base plate. Replacement springs ordered with the 'TG' mount option will have this mounting pattern.



U.0600.__.TG



U.0800.__.TG



U.1000.__.TG / U.1200.__.TG

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 replacment springs.

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Components: Control Panels

DADCO offers a variety of control panels that are used to fill, drain and monitor the pressure of linked nitrogen gas springs from outside the die. For a control panel that may be mounted directly to a SMS-i® plate order 90.406.P1M or 90.407.PM. Optionally, DADCO offers a variety of pressure monitors to alert controllers to changes in system pressure. Refer to the Linked System Components Catalog for detailed information on pressure monitors and more information on the control panels.

Convertible Control Panel

Note: Convertible Control Panel dimensions are H = 77 mm, W = 127 mm, D = 87 mm

Ordering Example:

90.406. P 1 N

Convertible Control Panel

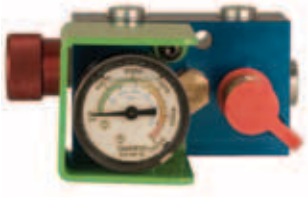
Gauge Style
PSI/Bar Gauge *(DPG-3RB)* = P,
Bar/MPa Gauge *(DPG-3RM)* = A
When not specified, default is P.

Guard
Top Guard = 1,
Top and Bottom Guards = 2
When not specified, default is 1.

Fitting Connection
N = No Fitting Supplied,
M = Manifold Seal,
S = ORFS Fitting,
D = D-24 Fitting,
B = Zip Fitting,
L = *MINILink*® Fitting
When not specified, default is N.

NOTE: *The 90.406.P2S is a direct replacement of DADCO's 90.406.03.*

Compact Control Panel



Note: Compact Control Panel dimensions are H = 50.8 mm, W = 110 mm, D = 90 mm

Ordering Example:

90.405. P N.

Compact Control Panel

Gauge Style
PSI/Bar Gauge = P

Fitting Connection
N = No Fitting Supplied,
S = ORFS Fitting,
D = D-24 Fitting,
B = Zip Fitting,
L = *MINILink*® Fitting
When not specified, default is N.

Pressure Monitor Sensor Options (optional)
EDS = Electronic Pressure Switch,
DSK = Piston Pressure Switch,
DPS= Dial Pressure Switch,
DPT = Electronic Pressure Transmitter

Mini Convertible Control Panel

Note: Mini Convertible Control Panel dimensions are H = 53.5 mm, W = 127 mm, D = 91 mm

Ordering Example:

90.407. P N

Mini Control Panel

Gauge Style
PSI/Bar Gauge = P

Fitting Connection
N = No Fitting Supplied,
M = Manifold Seal,
S = ORFS Fitting,
D = D-24 Fitting,
B = Zip Fitting,
L = *MINILink*® Fitting
When not specified, default is N.

Mini Control Panel

Note: Mini Control Panel dimensions are H = 53.5 mm, W = 127 mm, D = 85 mm

Ordering Example:

90.407. 11G

Mini Control Panel

11 M6 Ports

Multi Panel

90.401.3 Shown

Note: Multi Panel dimensions are H = 76 mm, W = 44.5 x (N+1) mm, D = 94 mm

Ordering Example:

90.401. 3.

Guard Location
Standard
(No Guard) = 401,
Top = 402,
Bottom = 403,
Both = 404

For optional reversed mounting, add R.

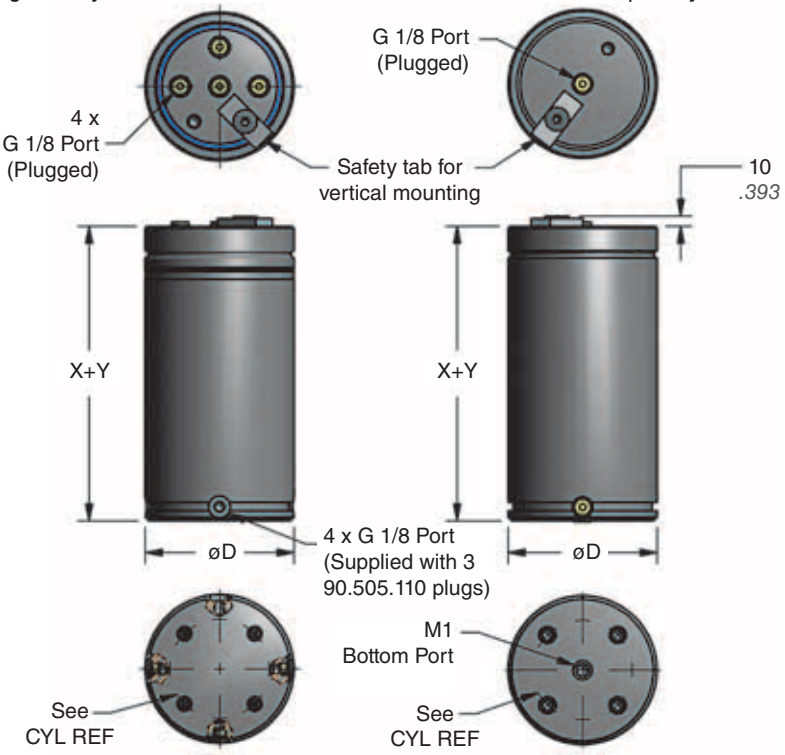
Number of Modules
2-6, 8 or 10

Components: Surge Tanks

DADCO surge tanks are used with open-flow systems to increase the volume in the system thereby reducing the pressure rise when cylinders are stroked. The Surge Tank is offered in two Models: F – Free Flow Model with multiple open ports supplied as standard for maximum flexibility when piping; M1– SMS-i® Model with a bottom port to attach to a base plate. Gauges and shut-off ball valves are available upon request. For assistance in determining appropriate surge tank size for your system, use the **DADCO Force Calculator** from our website at www.dadco.net.

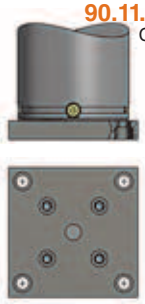
90.400 (Y-400) hose is the preferred hose to use with surge tanks. 90.700 (Y-700) / 90.705 (Y-705) hose is generally not recommended for use due to restricted flow capability.

ST.50.150.B29



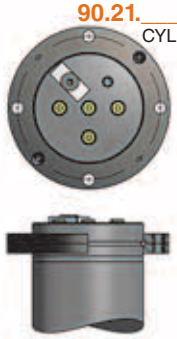
Preferred Mounts for Surge Tanks.
See the 90.10/90.8 Series Catalog for mount details.

B11 **90.11.____** CYL REF

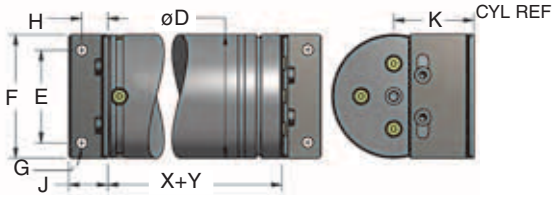


NOTE: B11 mount available with ST.30-ST.75 models only

B21 **90.21.____** CYL REF



B29 **90.29.____** CYL REF



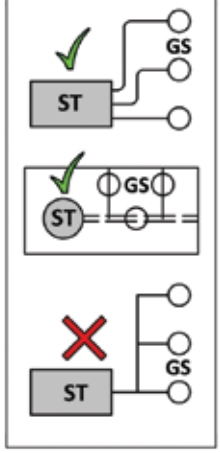
Surge Tank	CYL REF	D	E	F	G	H	J	K
30	3000	95 *3.74*	50 *1.97*	75 *2.95*	4 x M10 *3/8*	25.4 *1.00*	38 *1.50*	50.5 1.99
50	5000	120 *4.72*	90 *3.54*	120 *4.72*	4 x M10 *3/8*	25.4 1.00	38 *1.50*	78 *3.07*
75	7500	150 *5.91*	90 *3.54*	120 *4.72*	4 x M10 *3/8*	25.4 *1.00*	38 *1.50*	85 *3.35*
100	10000	195 *7.67*	100 *3.94*	150 *5.91*	4 x M12 *1/2*	31.8 *1.25*	50.8 *2.00*	98.5 *3.88*

F – Free Flow Model

M1 – SMS-i® Model

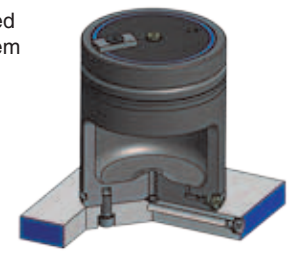
ST	30	50	75	100
D	95 *3.74*	120 *4.72*	150 *5.91*	195 *7.67*
X	117 *4.61*	137 *5.39*	152 *5.98*	157 *6.18*
Y	Volume of Tank L *(in³)*			
50 *1.97*	0.59 *36*	1.05 *64*	1.71 *105*	2.92 *178*
100 *3.94*	0.85 *52*	1.44 *88*	2.33 *142*	3.99 *244*
150 *5.91*	1.10 *67*	1.83 *112*	2.94 *180*	5.06 *309*
200 *7.87*	1.35 *82*	2.22 *136*	3.56 *217*	6.13 *374*
250 *9.84*	1.60 *98*	2.62 *160*	4.17 *254*	7.20 *439*
300 *11.81*	1.85 *113*	3.01 *184*	4.78 *292*	8.27 *505*
350 *13.78*	2.10 *128*	3.40 *208*	5.40 *329*	9.34 *570*
400 *15.74*	2.35 *144*	3.79 *232*	6.01 *367*	10.41 *635*

Surge Tank Recommendations



SMS-i® Surge Tank Connection

DADCO surge tanks ordered with the M1 operating system are used in a SMS-i® and have a bottom port. These tanks are attached to the base plate with a sealing washer and standard mounting hardware.



Ordering Example: ST.30. 150. TO. F

Size:
30, 50, 75, 100

Length (Y):
50, 100, 150, 200, 250, 300, 350, 400

Operating System:
F = Free Flow Fitting, M1 = SMS-i® *(Bottom port + sealing component)*

Mount Option:
TO = Basic Model. *When not specified, default is TO.* Mount ordered with cylinder will be attached at factory.

Charging Medium: Nitrogen Gas

Operating Temperature: 4°C – 71°C (*40°F – 160°F*)*

Charging Pressure Range: 15 – 150 bar (*220 – 2175 psi*)

**Note: Surge Tank pressure should not exceed 264 bar (3828 psi) at maximum temperature.*

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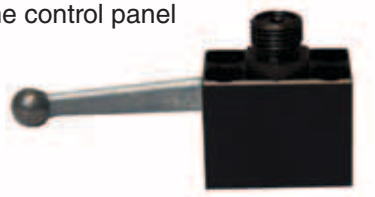
Accessories

Safety Plates for SMS® & SMS-i®

DADCO supplies a safety plate with every SMS® and SMS-i® to ensure proper handling of the cylinders. For information on the different plates available or to order a replacment refer to bulletin B01103C.

Shut-Off Valve MV-3G

DADCO's Shut-off Valve (MV-3G) is used with SMS-i® allowing for cut-off of nitrogen gas from the control panel while enabling the SMS-i® to remain charged. For more information refer to bulletin B14136.



Pressure Monitors

DADCO offers a variety of pressure monitor options to alert press controllers to changes in system pressure. Some models, including the 90.421.2D, are capable of shutting the press down if it drops below the minimum operating pressure. The new electronic pressure monitors are available in several configurations with different cable, base and fitting options to best suit the application. For more information refer to catalog C09118G.

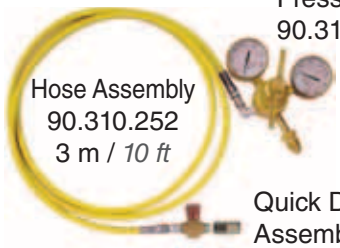
Quick Disconnect Charging Assembly

Use the DADCO Quick Disconnect Charging Assembly, *90.310.040*, with the *90.310.143* or *90.310.111* Charging Nipple or the *90.315.5* Pressure Analyzer to charge self-contained gas springs. The *90.310.040* can also be used with a DADCO control panel to charge linked systems.

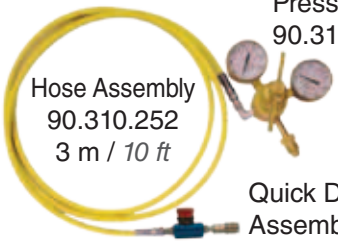
The *90.310.044* Quick Disconnect Filling Assembly with self-venting capabilities releases residual pressure after charging self-contained or linked nitrogen gas spring systems for easy decoupling between the filling assembly and charging nipple or filler valve.

DADCO recommends using the *90.310.044* or the *90.310.041* High Pressure Charging Assembly to charge SCR Series and U.0400 nitrogen gas springs to maximum pressure. For more information refere to bulletin B16118B.

90.310.040



90.310.044 (Self-Venting)



**Not recommended with 90.416.A2B or 90.406.421*

Compact Nitrogen Gas Booster DGB.100

DADCO's Compact Nitrogen Gas Booster System, DGB.100, is a lightweight, cost-effective way to extend the life of your nitrogen supply tanks. Using the DGB.100, tanks with low pressure can be boosted to a higher pressure suitable for gas spring charging. For more information refer to bulletin B13105.

Nitrogen Gas Booster System DGB.150

DADCO's Nitrogen Gas Booster System, DGB-150, is an all-in-one solution to the problems of low pressure supply tanks and lost nitrogen gas during discharge. For more information on the booster, refer to bulletin B07101.

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