

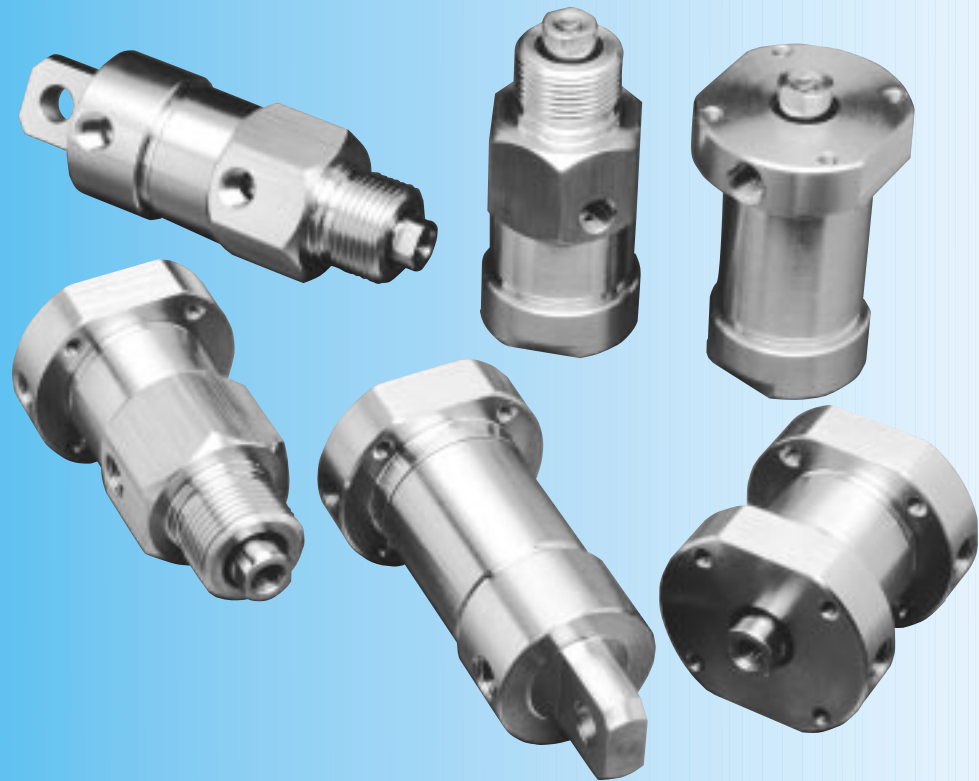
SMS Solid Stainless Cylinders

Space Saving and Conventional Lengths

Pneumatic to 200 PSI

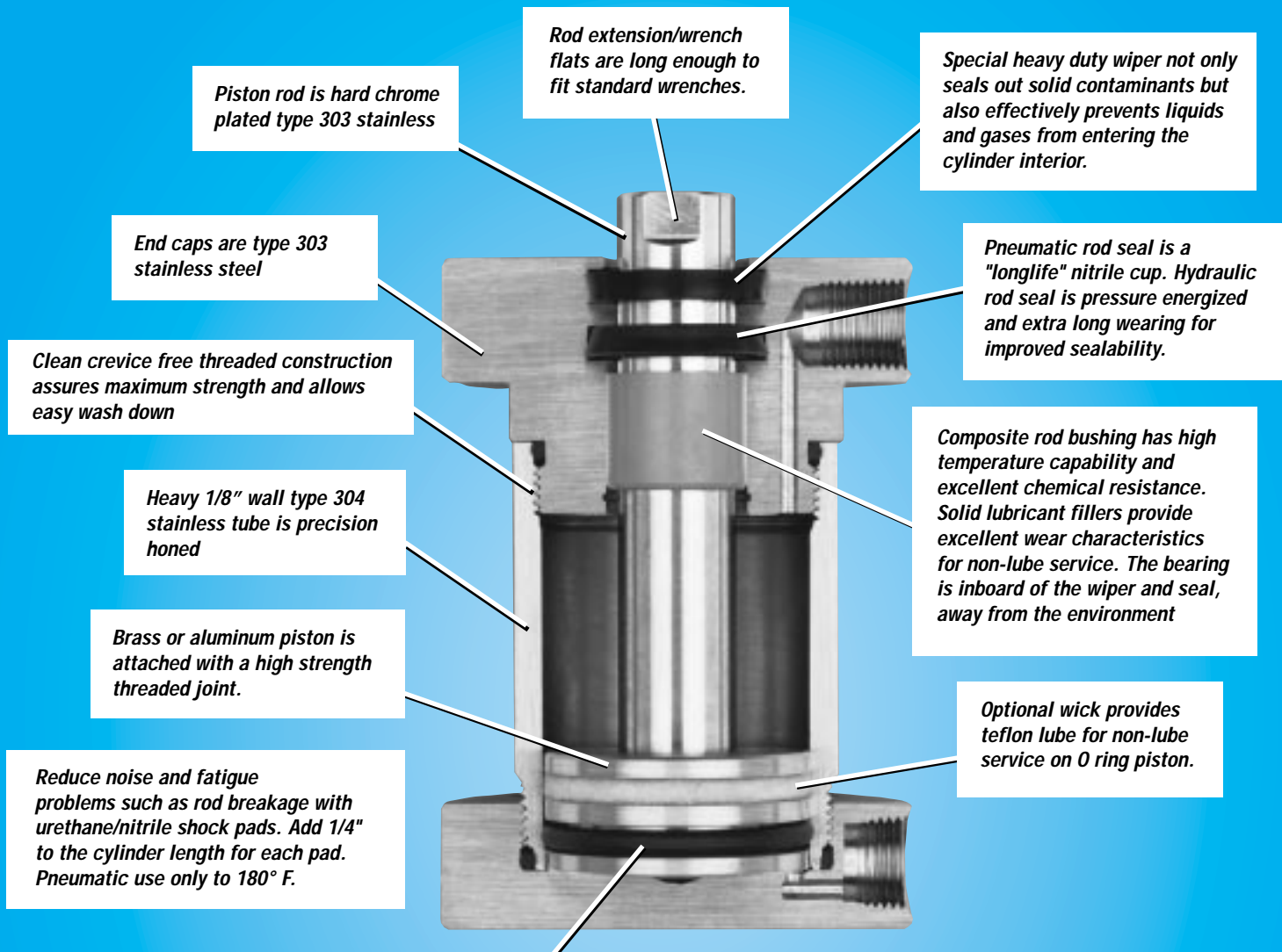
Hydraulic 400 to 500 PSI Non shock

1 1/8", 1 1/2", 2", 3" Bore



***300 Series Stainless Exterior Assures Aesthetics and Function
in Washdown Applications or other Harsh Environments***

SMS DESIGN FEATURES



Piston rod is hard chrome plated type 303 stainless

Rod extension/wrench flats are long enough to fit standard wrenches.

Special heavy duty wiper not only seals out solid contaminants but also effectively prevents liquids and gases from entering the cylinder interior.

End caps are type 303 stainless steel

Pneumatic rod seal is a "longlife" nitrile cup. Hydraulic rod seal is pressure energized and extra long wearing for improved sealability.

Clean crevice free threaded construction assures maximum strength and allows easy wash down

Composite rod bushing has high temperature capability and excellent chemical resistance. Solid lubricant fillers provide excellent wear characteristics for non-lube service. The bearing is inboard of the wiper and seal, away from the environment

Heavy 1/8" wall type 304 stainless tube is precision honed

Brass or aluminum piston is attached with a high strength threaded joint.

Optional wick provides teflon lube for non-lube service on O ring piston.

Reduce noise and fatigue problems such as rod breakage with urethane/nitrile shock pads. Add 1/4" to the cylinder length for each pad. Pneumatic use only to 180° F.

Standard piston seal is large cross section O ring. Compounds are carefully selected for maximum cycle life. Optional U cup piston seals with teflon wear strip stretch the limits of service even further. Reduce friction and operate without lube in the severest applications while extending or eliminating the service interval.

If space permits for applications involving side loads or long strokes, select SMS 1, 2, 3, 5, 7, 8, 9, which have extra long bearings with added space between support points.

Strokes longer than the maximum listed in the ordering procedure can be produced but careful consideration must be given to how the cylinder is applied — how well is the load supported or guided, is the cylinder used in push or tension, is the cylinder vertical or horizontal, etc. Consult factory on all strokes longer than standard. Stroke increments other than standard can also be made. Special lengths are generally available in a few days and are priced as "non-standard" strokes.



TM

SMS Options

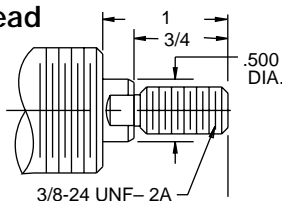
- Shock Pads
- Viton Seals
- Non-lube Service
- Magnetic Piston
- U Cup Piston
- 90° Rear Clevis

Spring Return Cylinders

Pneumatic only
Springs add to cyl. length
0-2" stroke add 1 1/2" extra
2 1/2-4" stroke add 3" extra
over 4" stroke not available

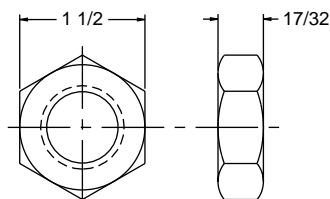
Spring force
Fully extended—8#
Fully compressed—22#
Spring material—Stainless steel

Optional Male Rod Thread



1-14SS Nut Nose Mounting Nut

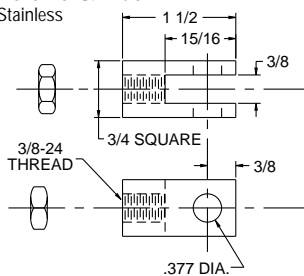
Not included with cylinder Order Separately



18-8 Stainless

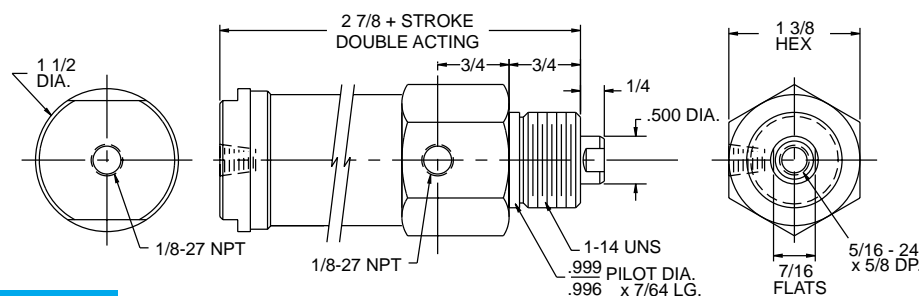
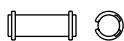
SS-375 Rod Clevis & Nut

303 Stainless

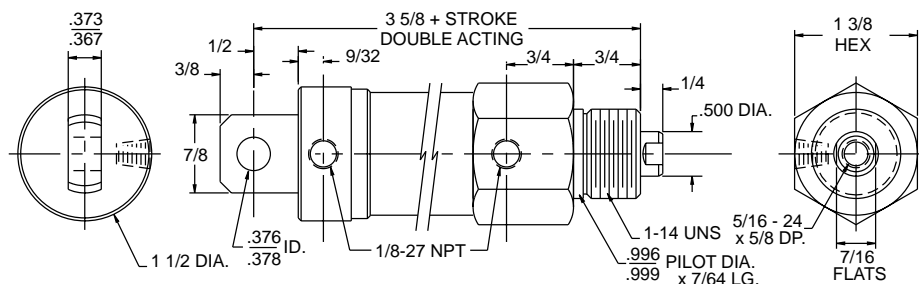


SS-301 Clevis Pin assembly

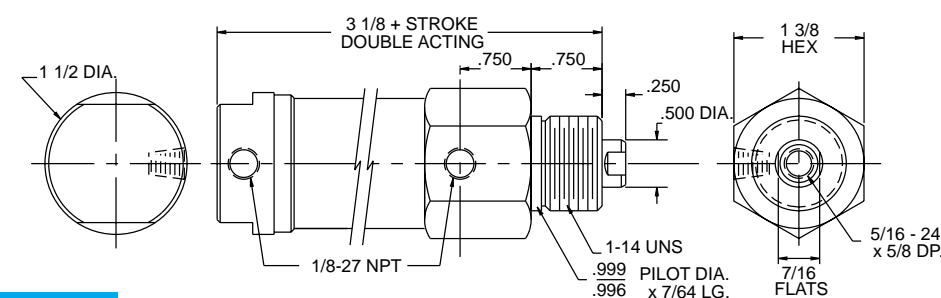
Used on SS-375
303 Stainless



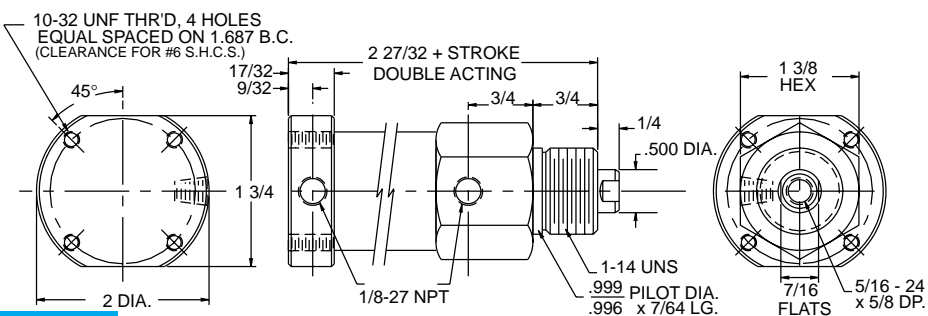
SMS1



SMS2



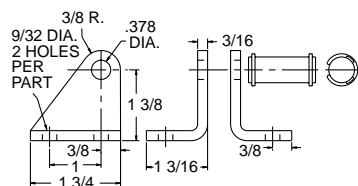
SMS3



SMS5

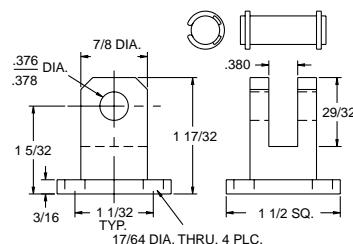
SS-90 St'd Clevis Brk't

Used on SMS 2
Series 300 Stainless

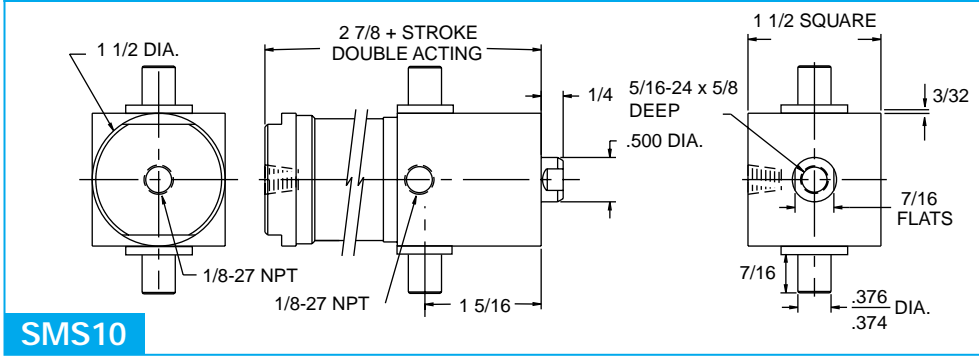
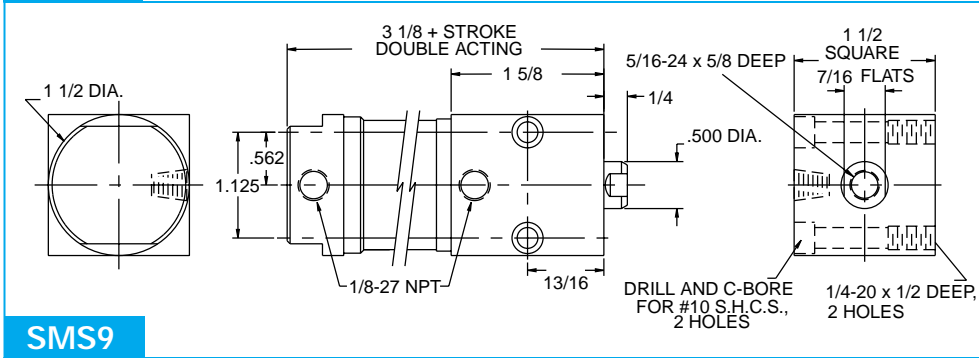
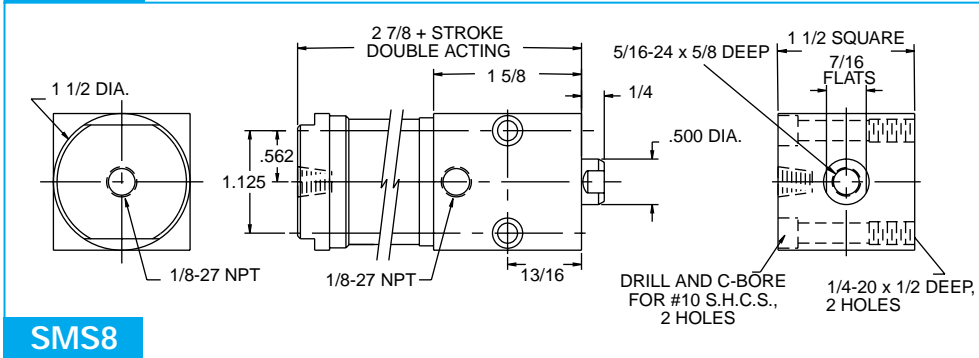
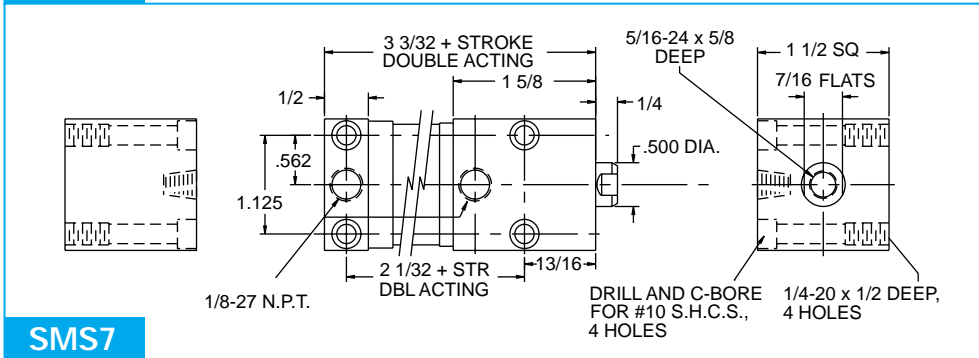
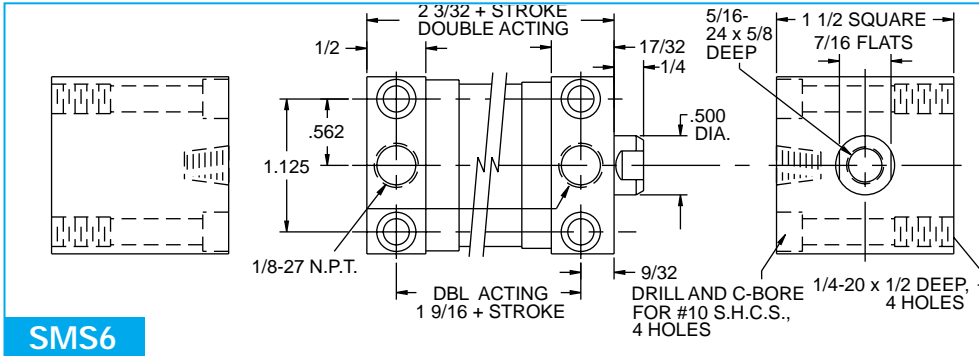


SSC-40 Low Profile Clevis Brk't

Used on SMS 2
303 Stainless



1 1/8" BORE SMS STAINLESS

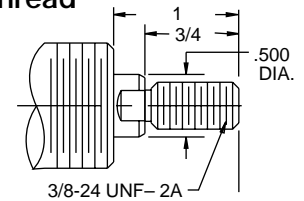


Spring Return Cylinders

Pneumatic only
 Springs add to cyl. length
 0-2" stroke add 1 1/2" extra
 2 1/2-4" stroke add 3" extra
 over 4" stroke not available

Spring force
 Fully extended—8#
 Fully compressed—22#
 Spring material—Stainless steel

Optional Male Rod Thread

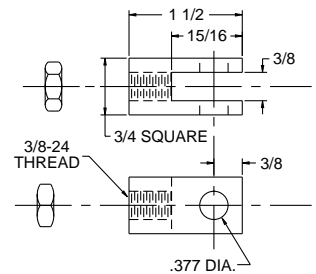


**WHEN YOU'VE FINALLY
 HAD IT WITH PLATED
 CYLINDERS . . .**



SS-375 Rod Clevis & Nut

303 Stainless



SS-301 Clevis Pin assembly

Used on SS-375
 303 Stainless

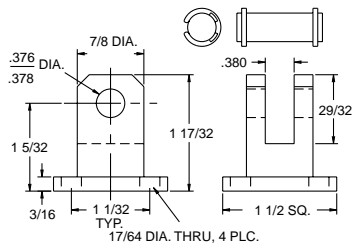


SMS Options

- Shock Pads
- Viton Seals
- Non-lube Service
- Magnetic Piston
- U Cup Piston
- Non-rotate
(SMA 7, 8, 9, 14, 15, 17)
- 90° Rear Clevis

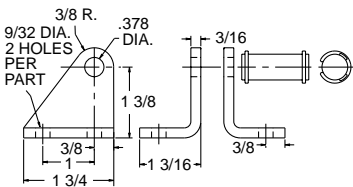
SSC-40

Low Profile Clevis Brk't
Used on SMS16 303 Stainless



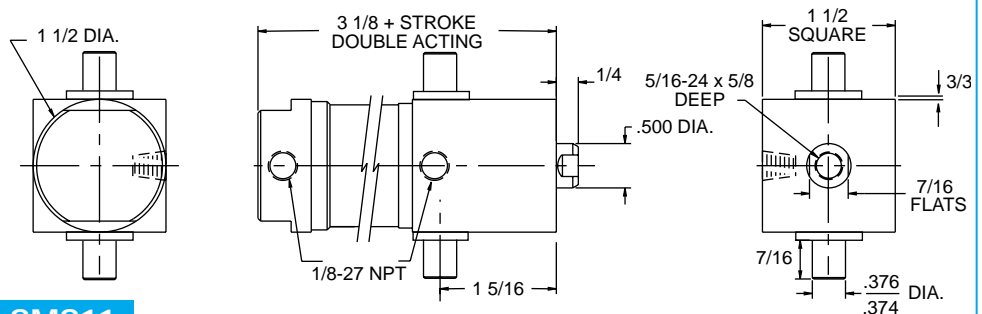
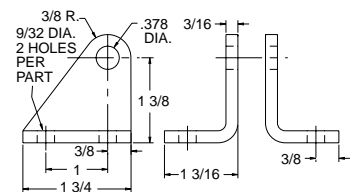
SS-90

St'd Clevis Brk't
Used on SMS 16
Series 300 Stainless steel

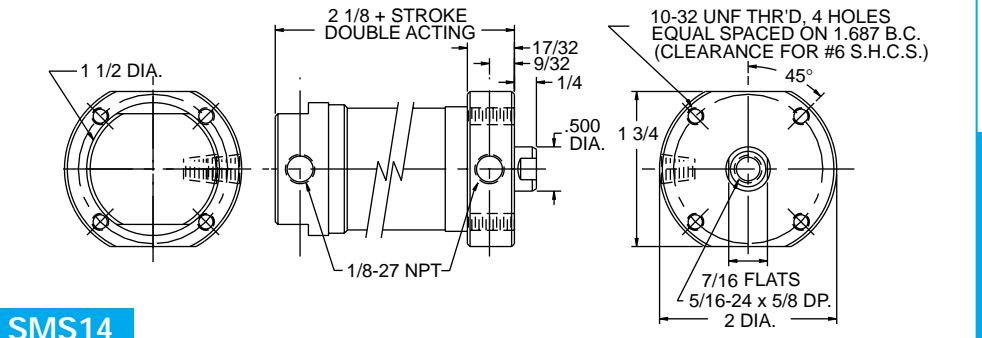


SS-90T

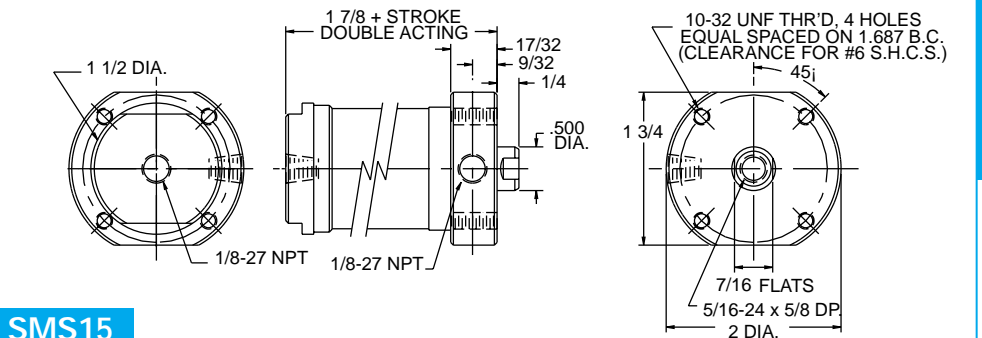
Trunnion Brk't
Used on SMS 10, 11 304 Stainless



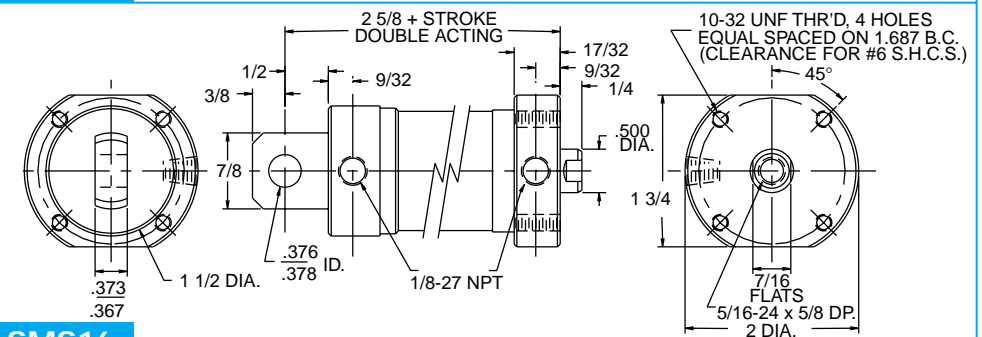
SMS11



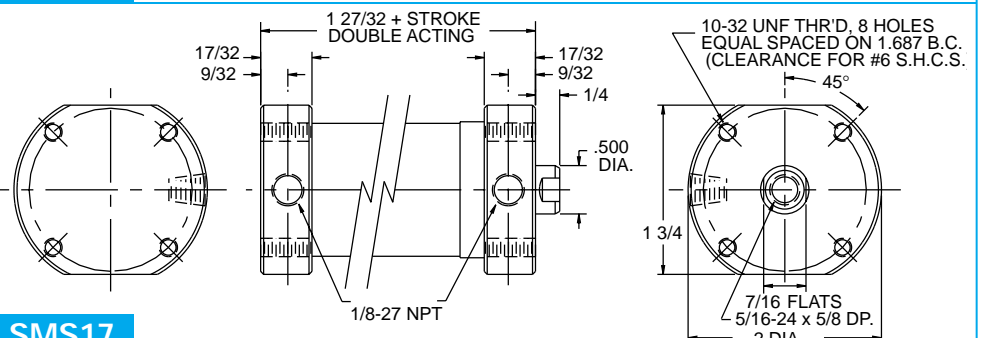
SMS14



SMS15



SMS16



SMS17

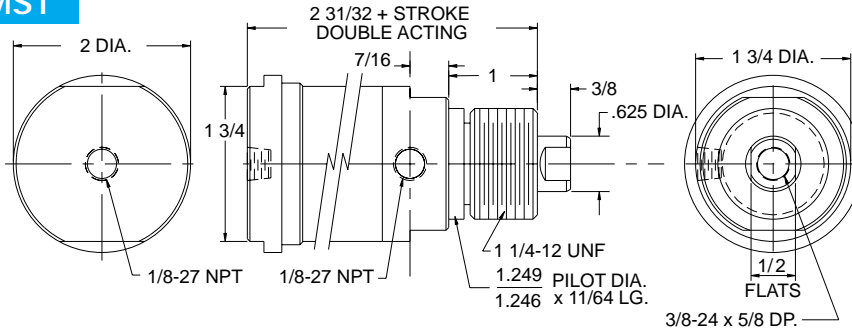
Series SMS Solid Stainless

**RAISE THE BAR FOR
YOUR COMPETITORS
BY SELECTING
AURORA
SOLID STAINLESS
PRODUCTS**

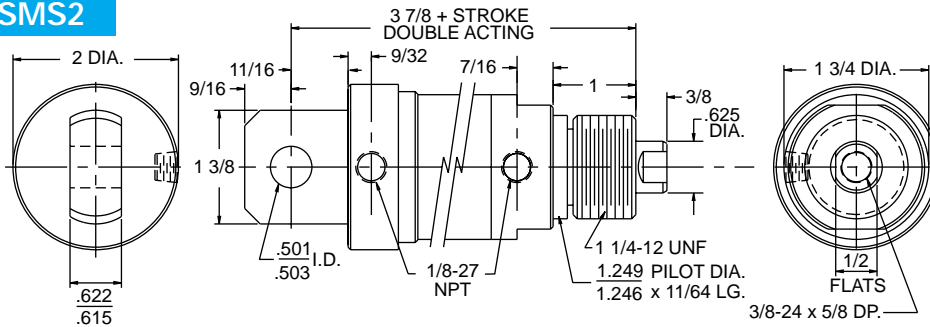
1 1/2" BORE SMS STAINLESS

200 PSI MAX. AIR
500 PSI MAX. HYD. Non shock

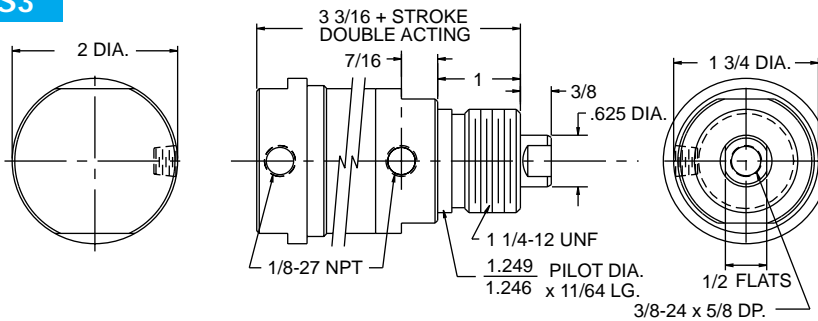
SMS1



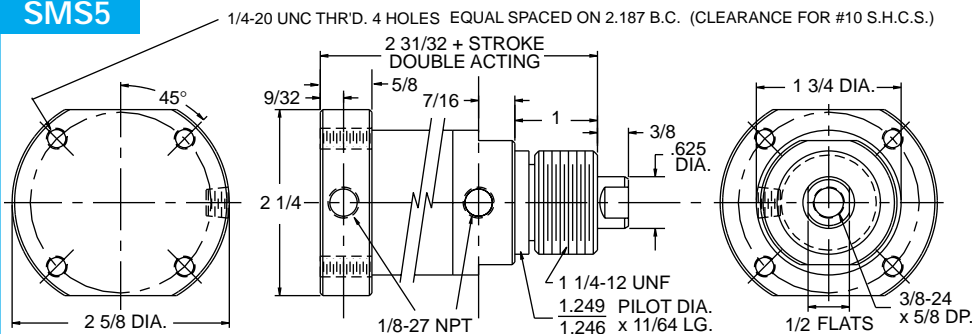
SMS2



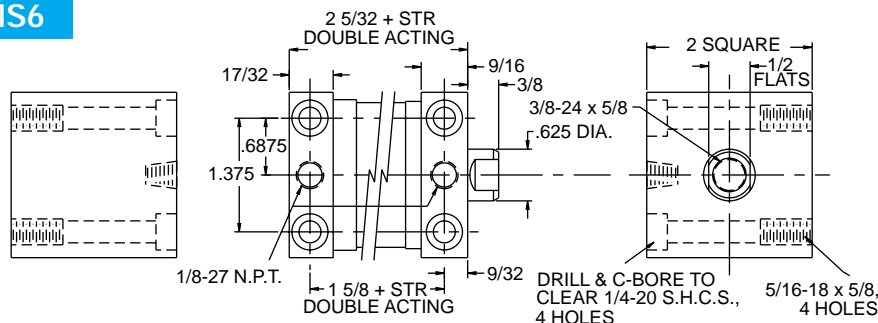
SMS3



SMS5



SMS6

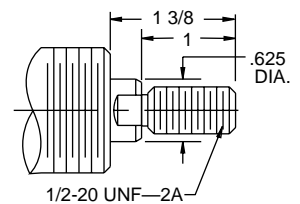


Spring Return Cylinders

Pneumatic only
Springs add to cyl. length
0-2" stroke add 1 1/2" extra
2 1/2-4" stroke add 3" extra
over 4" stroke not available

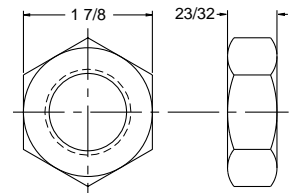
Spring force
Fully extended—15#
Fully compressed—50#
Spring material—Stainless steel

Optional Male Rod Thread

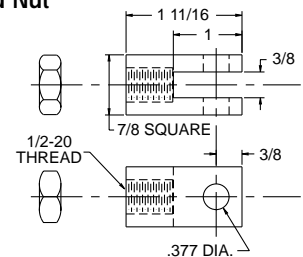


1 1/4 -12SS Nut Nose Mounting Nut

Not included with cylinder
Order Separately



SS-500 Rod Clevis and Nut



303 Stainless

SS-501 Clevis Pin Assembly

Used on SS-500 303 Stainless

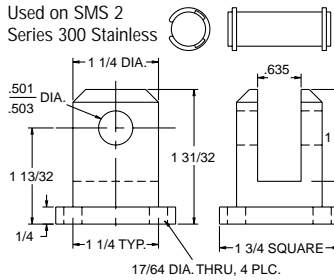


SMS Options

- Shock Pads
- Viton Seals
- Non-lube Service
- Magnetic Piston
- U Cup Piston
- Non-rotate (SMA 7,8,9)
- 90° Rear Clevis

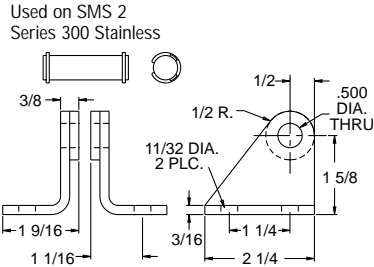
SSC-90

Low Profile Clevis Brk't



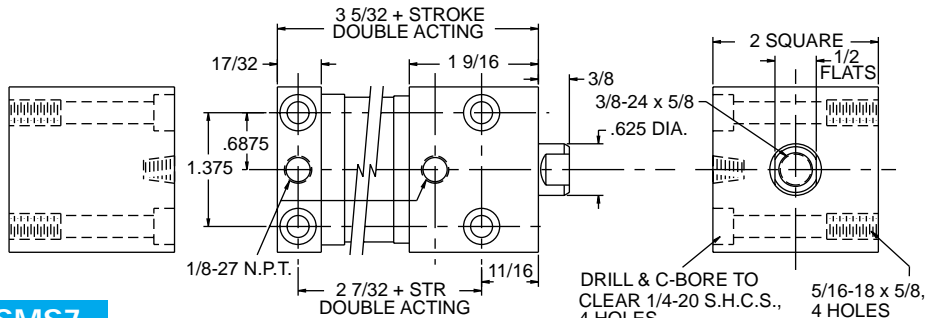
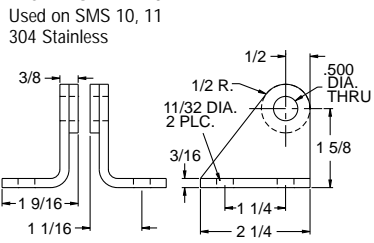
SS-100

St'd Clevis Brk't

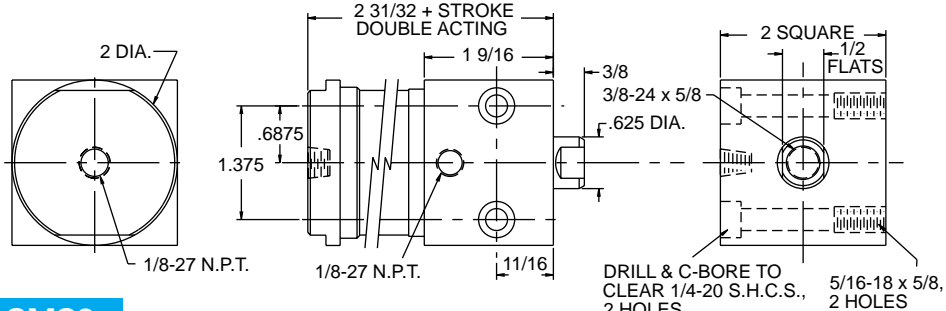


SS-100T

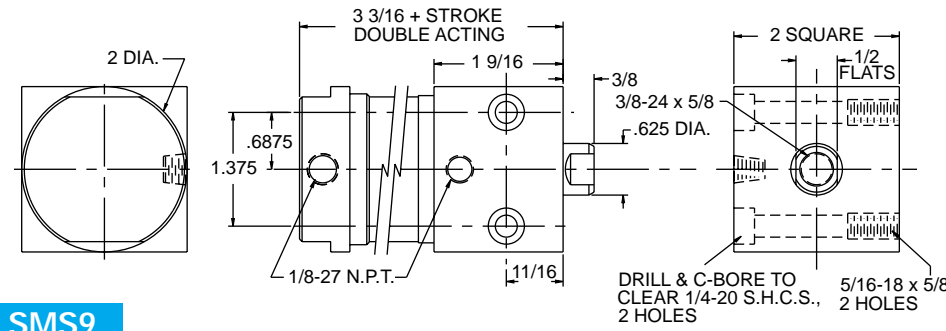
Trunnion Brk't



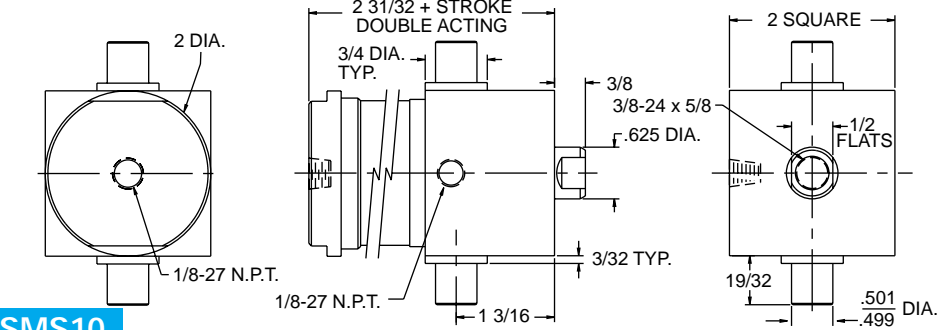
SMS7



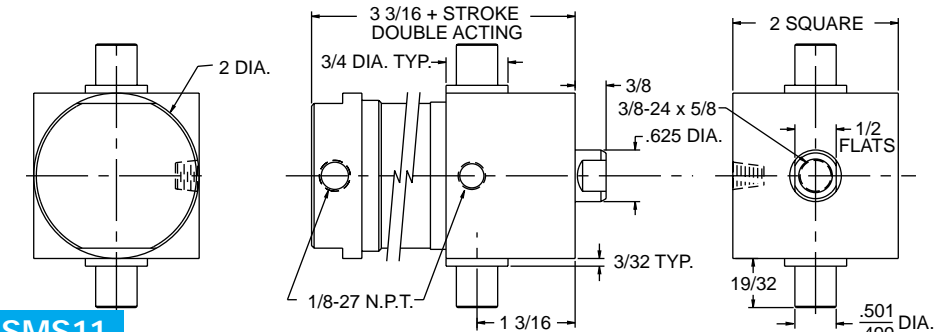
SMS8



SMS9



SMS10



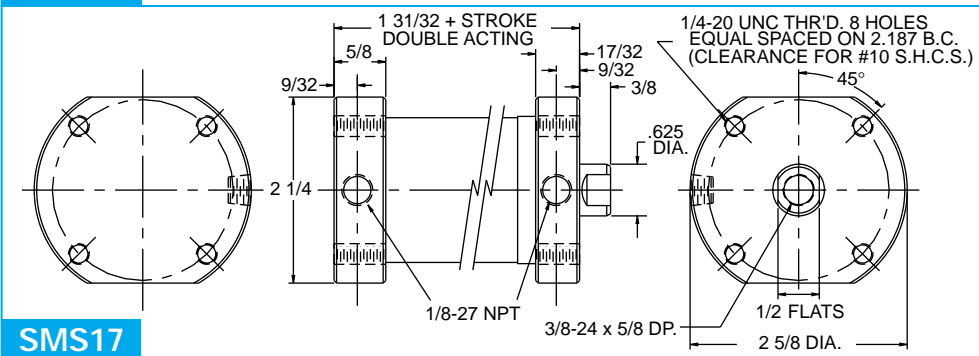
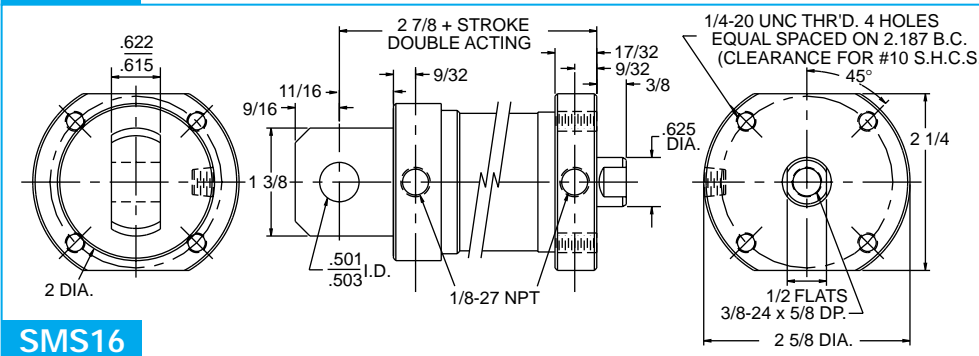
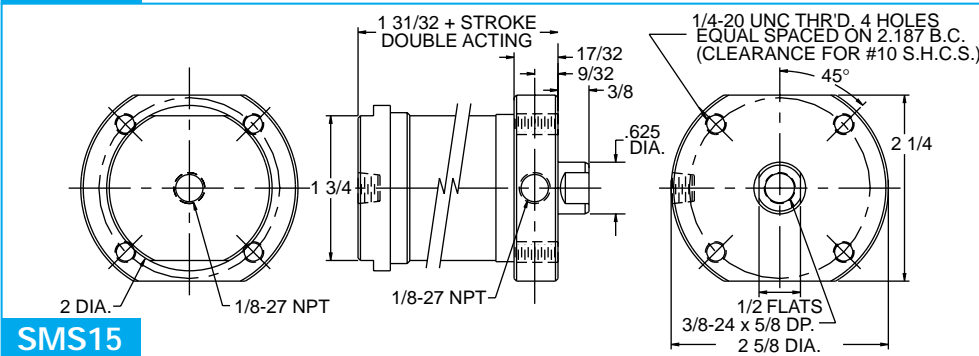
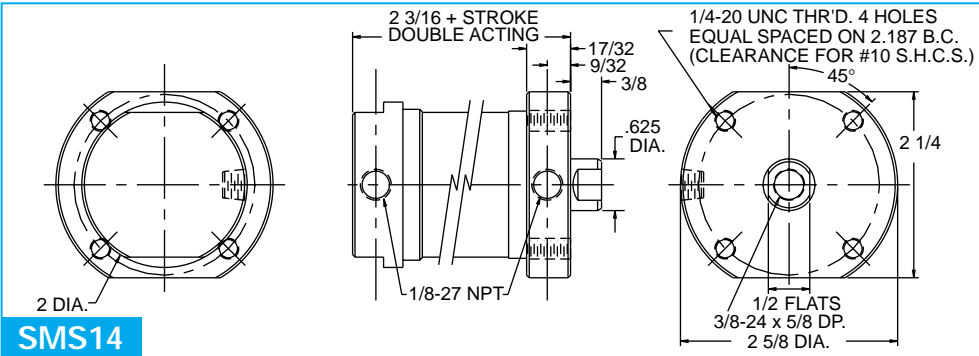
SMS11

Series SMS Solid Stainless

All Aurora Cylinders
are 100% Factory
Tested to insure
Trouble Free
Performance

1 1/2" BORE SMS STAINLESS

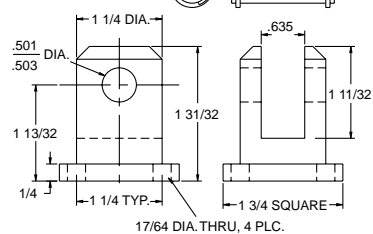
200 PSI MAX. AIR
500 PSI MAX. HYD. Non shock



SSC-90

Low Profile Clevis Brk't

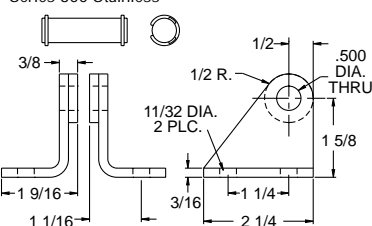
Used on SMS 16
Series 300 Stainless



SS-100

St'd Clevis Brk't

Used on SMS 16
Series 300 Stainless

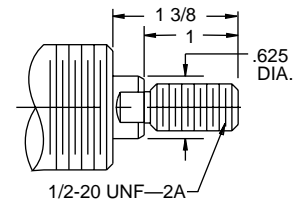


Spring Return Cylinders

Pneumatic only
Springs add to cyl. length
0-2" stroke add 1 1/2" extra
2 1/2-4" stroke add 3" extra
over 4" stroke not available

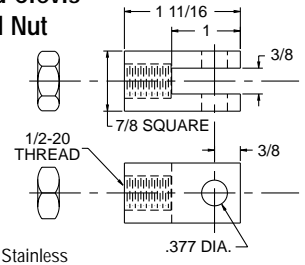
Spring force
Fully extended—15#
Fully compressed—50#
Spring material—Stainless steel

Optional Male Rod Thread



SS-500

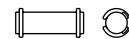
Rod Clevis and Nut



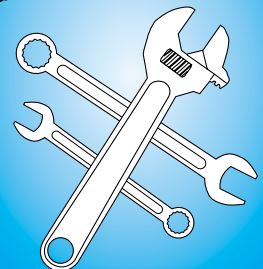
SS-501

Clevis Pin Assembly

Used on SS-500 303 Stainless



All Aurora Cylinders
are Fully Repairable



2" BORE SMS STAINLESS

200 PSI MAX. AIR
500 PSI MAX. HYD. Non shock

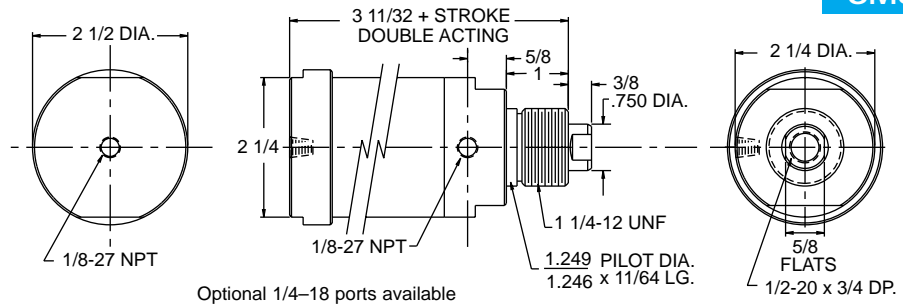


SMS1

Spring Return Cylinders

Pneumatic only
Springs add to cyl. length
0-2" stroke add 1 1/2" extra
2 1/2-4" stroke add 3" extra
over 4" stroke not available

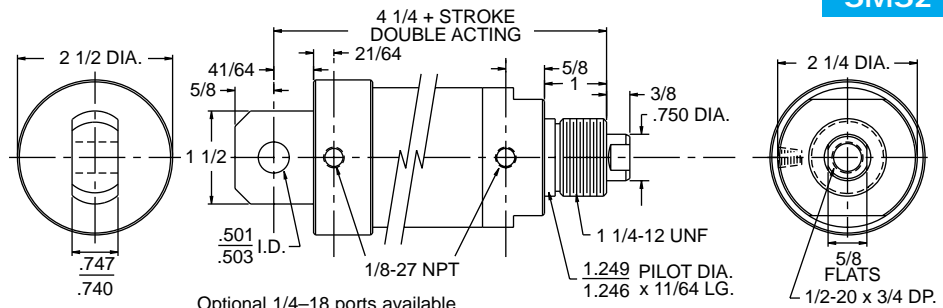
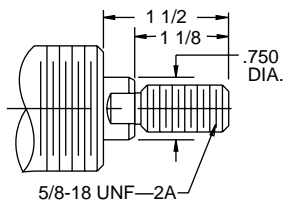
Spring force
Fully extended—20#
Fully compressed—75#
Spring material—Stainless steel



Optional 1/4-18 ports available

SMS2

Optional Male Rod Thread

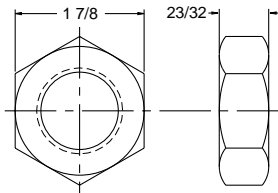


Optional 1/4-18 ports available

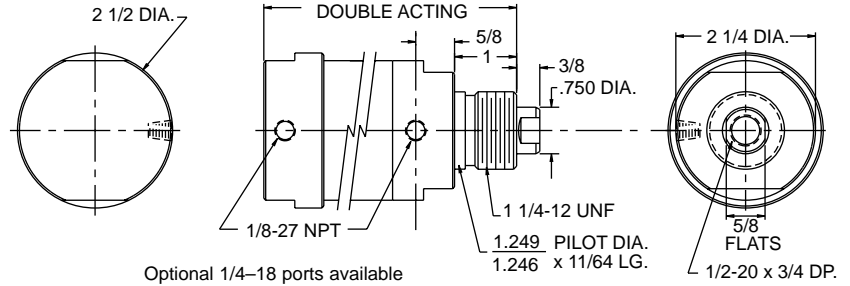
SMS3

1 1/4 - 12SS Nut Nose Mounting Nut

Not included with cylinder
Order Separately



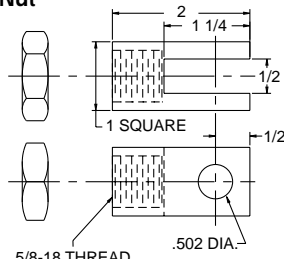
18-8 Stainless



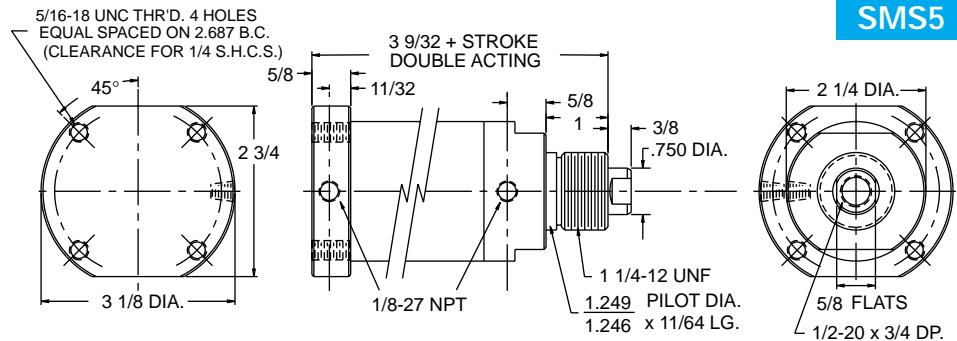
Optional 1/4-18 ports available

SMS5

SS-625 Rod Clevis and Nut

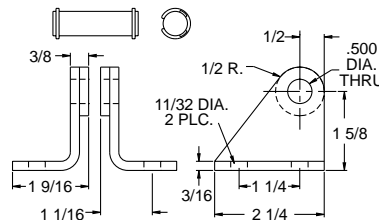


303 Stainless



SS-100 St'd Clevis Brk't

Used on SMS 2
Series 300 Stainless

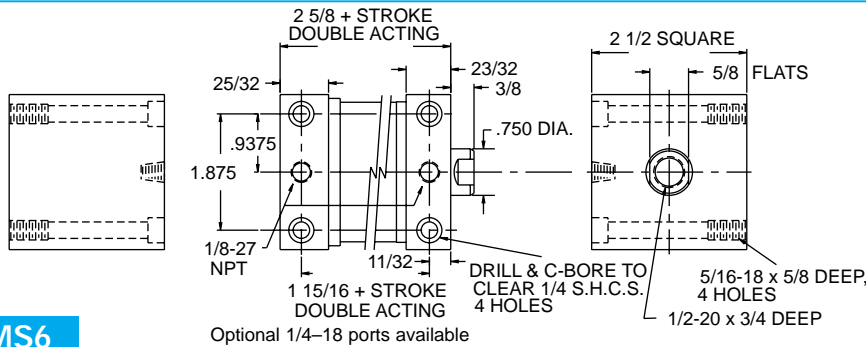


Make the Best Choice

1 630 851 4515

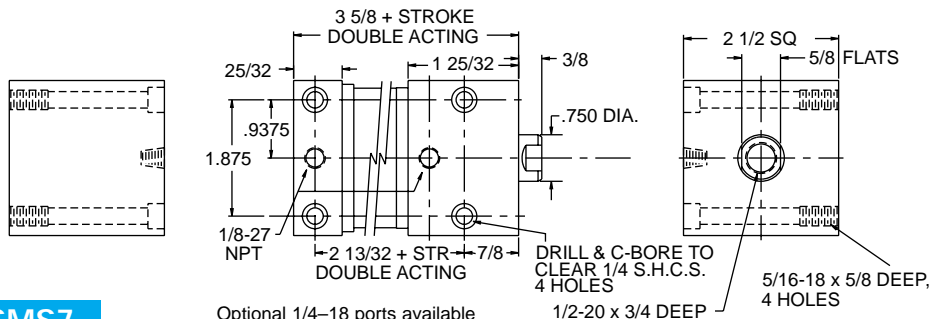
ask for Technical Support

Series SMS Solid Stainless



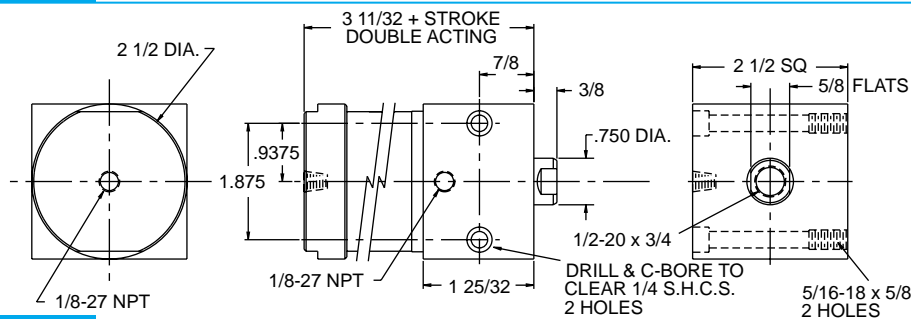
SMS6

Optional 1/4-18 ports available



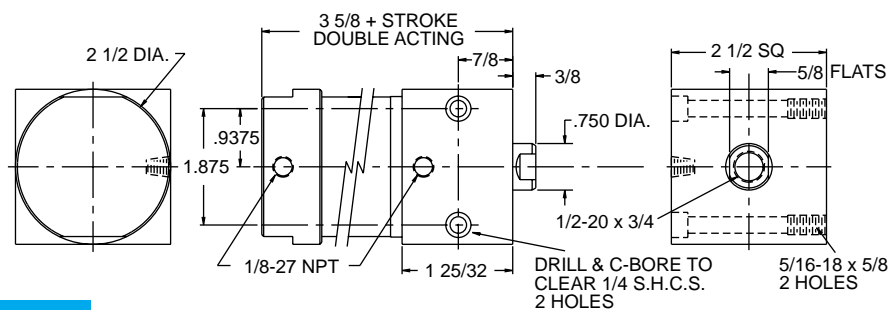
SMS7

Optional 1/4-18 ports available



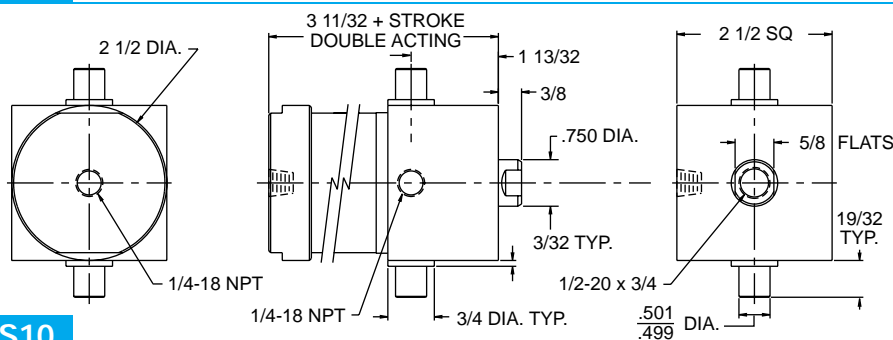
SMS8

Optional 1/4-18 ports available



SMS9

Optional 1/4-18 ports available



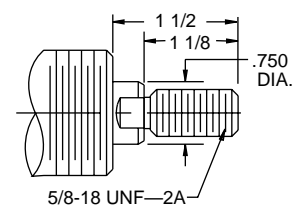
SMS10

Spring Return Cylinders

Pneumatic only
Springs add to cyl. length
0-2" stroke add 1 1/2" extra
2 1/2-4" stroke add 3" extra
over 4" stroke not available

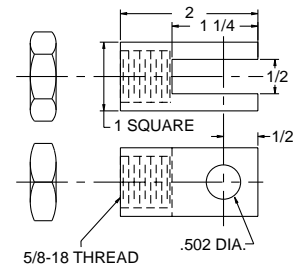
Spring force
Fully extended—20#
Fully compressed—75#
Spring material—Stainless steel

Optional Male Rod Thread



SS-625

Rod Clevis and Nut



303 Stainless

SS-601

Clevis Pin Assembly

Used on SS-625 303 Stainless



You CAN Buy
Peace of Mind

**Aurora
Stainless**

SMS Options

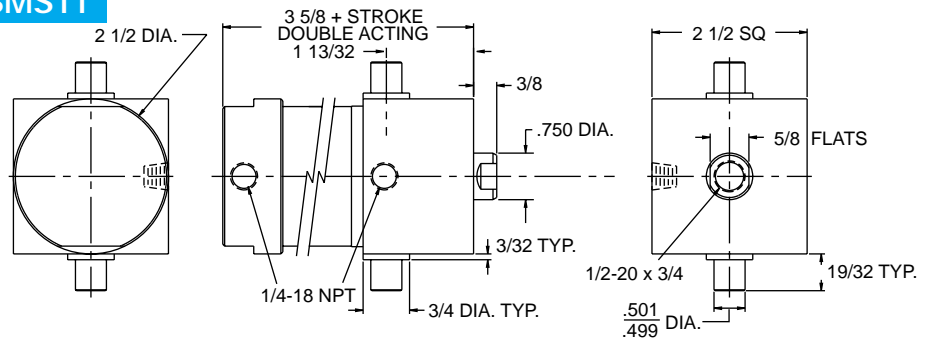
- Shock Pads
- Viton Seals
- Non-lube Service
- Magnetic Piston
- U Cup Piston
- Non-rotate
(SMA 7, 8, 9, 14, 15, 17)
- 90° Rear Clevis

Unique Applications Sometimes Require Unique Cylinders

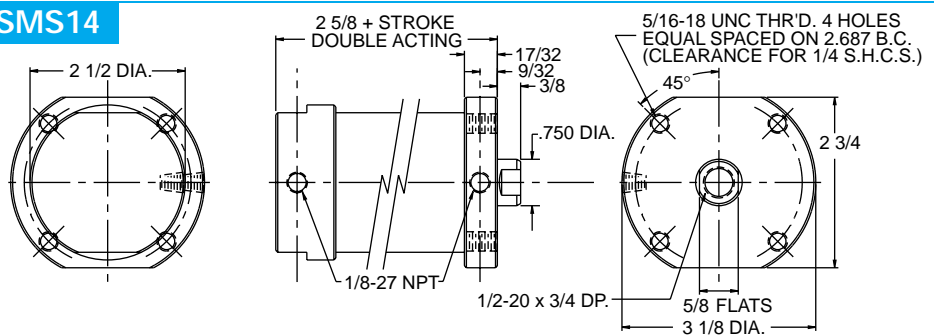
See our custom design capabilities on page 87

Series SMS Solid Stainless

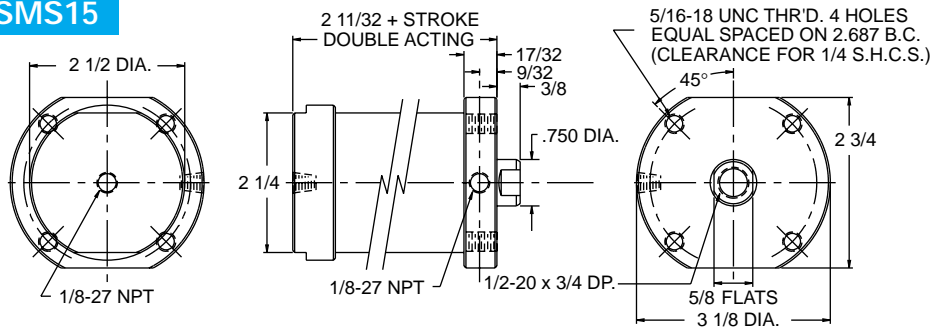
SMS11



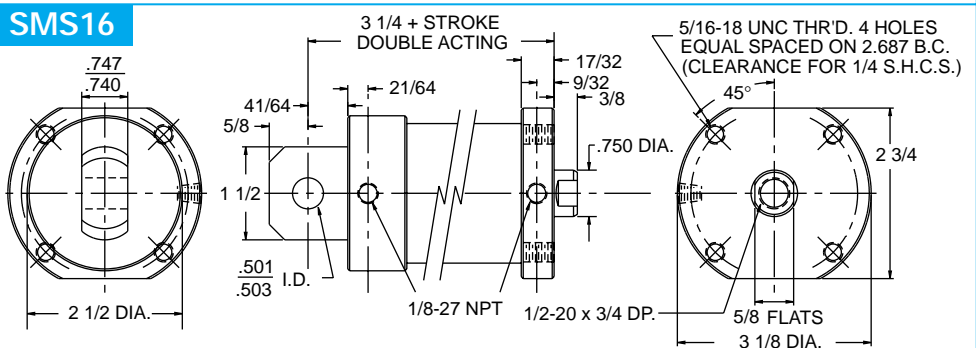
SMS14



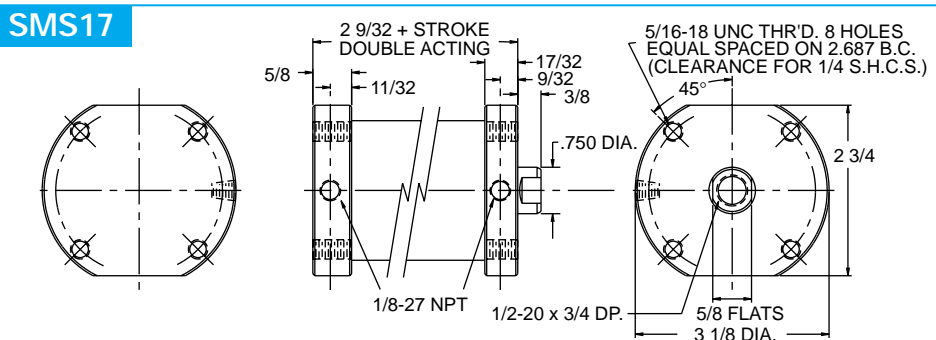
SMS15



SMS16

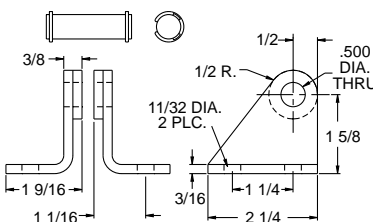


SMS17



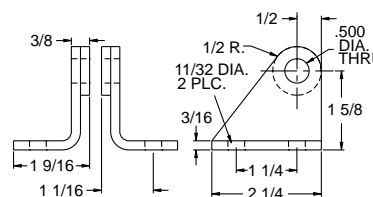
SS-100

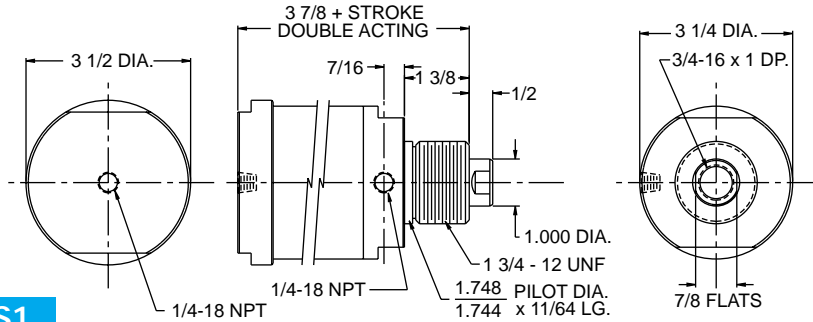
St'd Clevis Brk't
Used on SMS 16 Series 300 Stainless



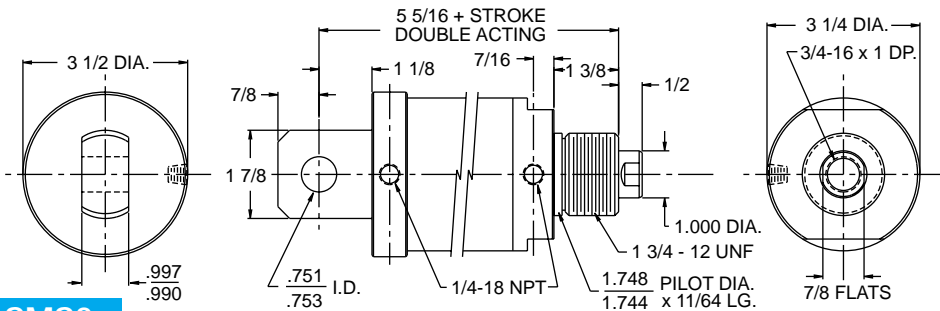
SS-100T

Trunnion Brk't
Used on SMS 10, 11 304 Stainless steel

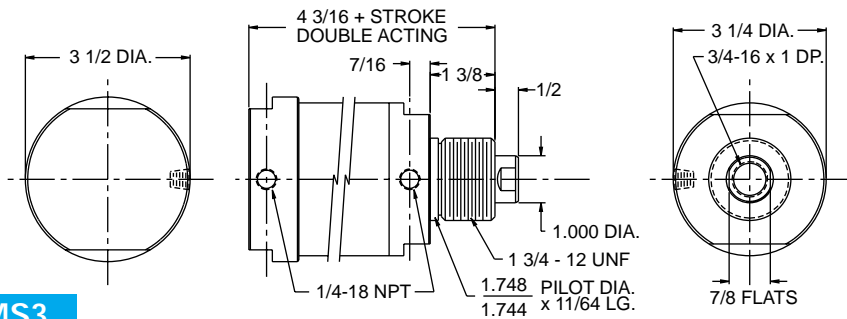




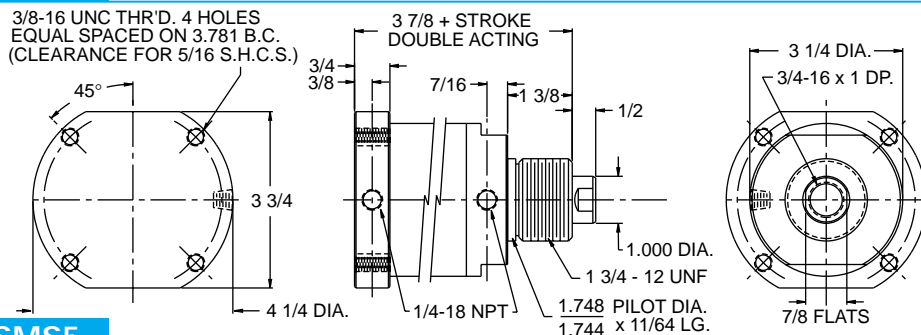
SMS1



SMS2



SMS3



SMS5

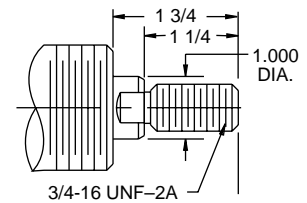
STANDARD CYLINDERS + CORROSION = LIABILITY
AURORA STAINLESS + CORROSION = PEACE OF MIND

Spring Return Cylinders

Pneumatic only
Springs add to cyl. length
0-2" stroke add 1 1/2" extra
2 1/2-4" stroke add 3" extra
over 4" stroke not available

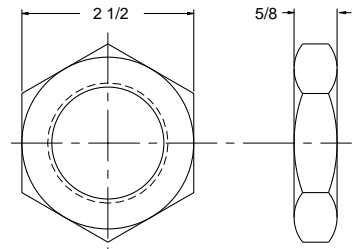
Spring force
Fully extended—20#
Fully compressed—75#
Spring material—Stainless steel

Optional Male Rod Thread

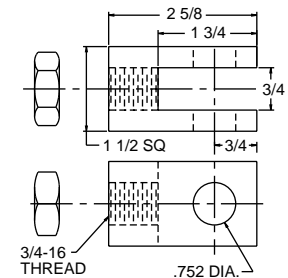


1 3/4 -12SS Nut Nose Mounting Nut

Not included with cylinder Order Separately



SMS-750 Rod Clevis and Nut

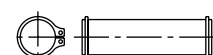


303 Stainless

SS-701

Clevis Pin Assembly

Used on SMS-750 303 Stainless

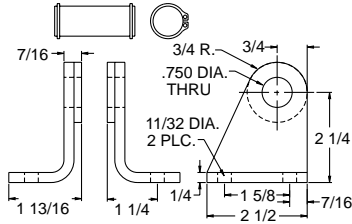


SMS Options

- Shock Pads
- Viton Seals
- Non-lube Service
- Magnetic Piston
- U Cup Piston
- 90° Rear Clevis

SSC-300

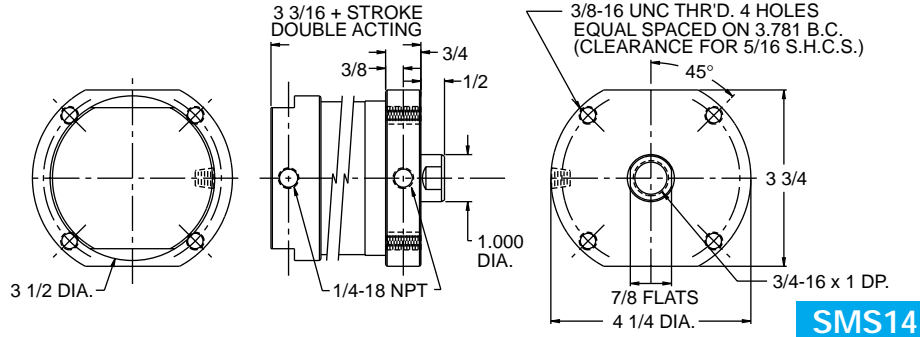
Clevis Brk't
Used on SMS2, 16
Series 300 Stainless steel



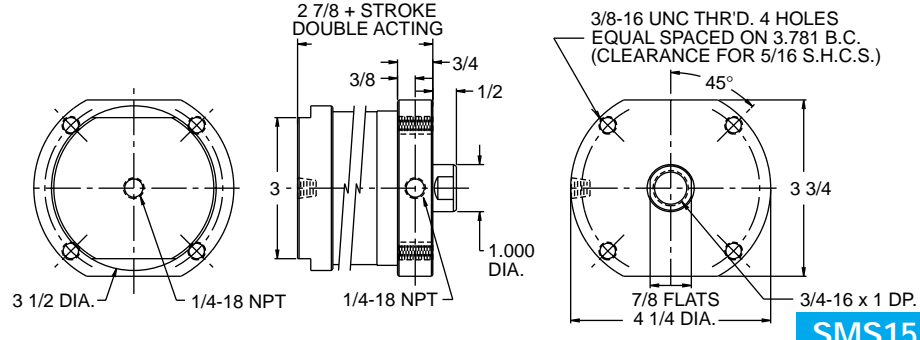
**STAINLESS
CYLINDERS**



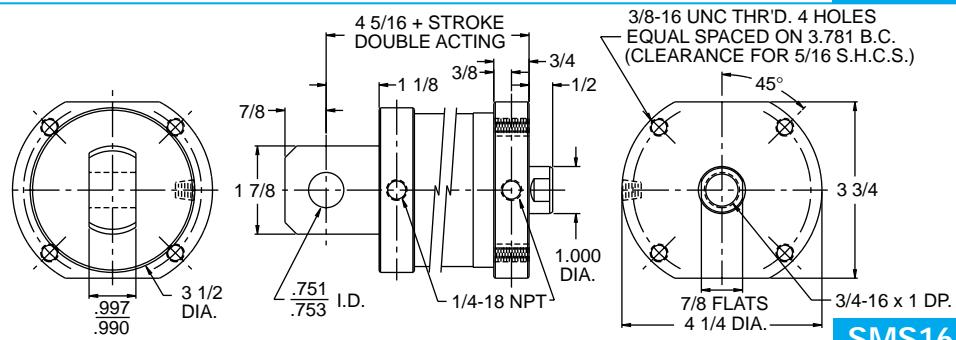
**STAINLESS
ACCESSORIES**



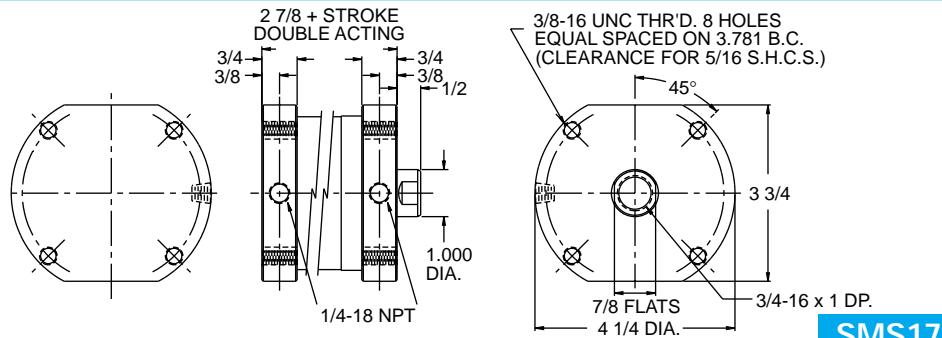
SMS14



SMS15



SMS16



SMS17

Series SMS Solid Stainless

Help in Making the Best Choice

Technical Assistance @ 630 851 4515

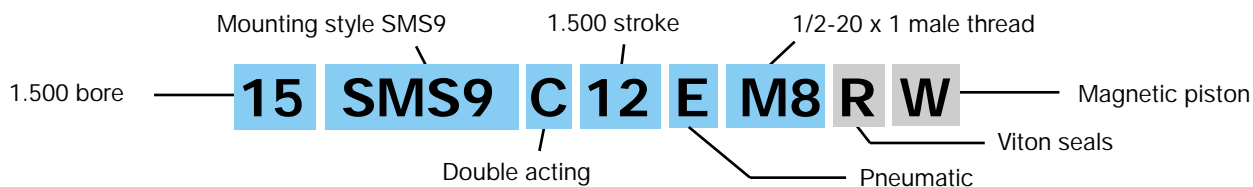
ORDERING PROCEDURE - SMS Stainless

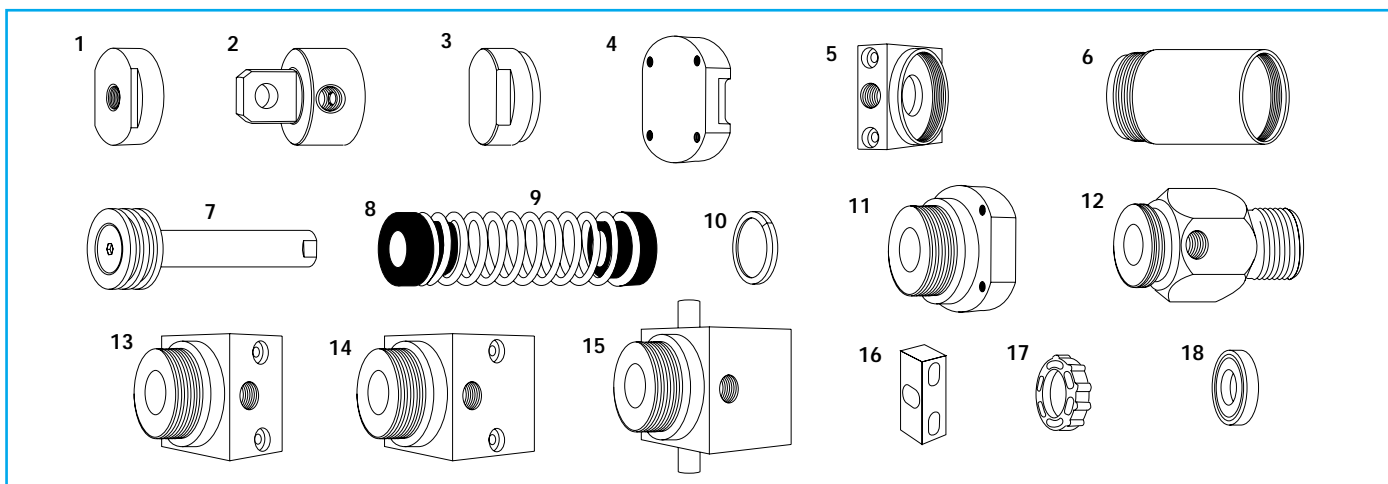
Select code numbers/letters (**bold type**) from each of the six boxes below - then select options desired from the table below. List codes in the same sequence as shown.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Bore</th><th>Code</th></tr> </thead> <tbody> <tr><td>1 1/8"</td><td>11</td></tr> <tr><td>1 1/2"</td><td>15</td></tr> <tr><td>2"</td><td>20</td></tr> <tr><td>3"</td><td>30</td></tr> </tbody> </table>	Bore	Code	1 1/8"	11	1 1/2"	15	2"	20	3"	30	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Type</th><th>Code</th></tr> </thead> <tbody> <tr><td>Double acting</td><td>C</td></tr> <tr><td>Single acting spring return (Adds to cyl. length) Spring extend not available</td><td>A</td></tr> </tbody> </table>	Type	Code	Double acting	C	Single acting spring return (Adds to cyl. length) Spring extend not available	A	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Service</th><th>Code</th></tr> </thead> <tbody> <tr><td>Pneumatic</td><td>E</td></tr> <tr><td>Hydraulic</td><td>G</td></tr> </tbody> </table>	Service	Code	Pneumatic	E	Hydraulic	G																																																		
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Option	Description	Code
Extra rod extension 1/4 " increments	Specify code letter J followed by extra length required as a two place decimal Example: J.50 = 1/2" extra J1.25 = 1 1/4"extra	J
Shock pads	Add to either or both ends in 1 1/8", 1 1/2", 2" bore up to 2" stroke.	Rod end only L
Pneu. only to 180° F	Over 2" stroke and on all 3" bore must be added to both ends	Cap end only M
Double acting only	Each pad adds 1/4" length	Both ends N
Non-lube service	Available on standard O ring Piston. Not available or necessary on U cup piston	P
Viton seals	Standard seals are nitrile and urethane +10 to +200° F For service -10 to +400° F specify viton	R
U cup piston	Extends cycle life and reduces friction Piston is aluminum and includes teflon wear strip — adds 1/2" to length	S
Clevis 90° to std	SMS 2, 16, only	T
Magnetic piston	Adds 1/2" to length	W
Non rotate	Available only on double acting SMS 7, 8, 9, 14, 15, 17	with male stud X without male stud Y
1/4" oversize ports	2" bore only — SMS 1, 2, 3, 6, 7, 8, 9, only Not available with option x,y	Z

Part No. Example:





Key	Description	1 1/8 Bore	1 1/2 Bore	2 Bore	3 Bore
Seal kits for cylinders with O ring piston					
	Pneumatic, Nitrile Add suffix NL for Non-Lube	SMS 3411	SMS 3415	SMS 3420	SMS 3430
	Pneumatic, Viton Add suffix NL for Non-Lube	SMS 3411V	SMS 3415V	SMS 3420V	SMS 3430V
	Hydraulic, Nitrile	SMS 3511	SMS 3515	SMS 3520	SMS 3530
	Hydraulic, Viton	SMS 3511V	SMS 3515V	SMS 3520V	SMS 3530V
Seal kits for cylinders with U cup piston – includes Teflon wear strip					
	Pneumatic, Nitrile	SMS 5411	SMS 5415	SMS 5420	SMS 5430
	Pneumatic, Viton	SMS 5411V	SMS 5415V	SMS 5420V	SMS 5430V
	Hydraulic, Nitrile	SMS 5511	SMS 5515	SMS 5520	SMS 5530
	Hydraulic, Viton	SMS 5511V	SMS 5515V	SMS 5520V	SMS 5530V
1	Rear port cap Add suffix 250 for 2" bore 1/4 NPT	SMS 1011	SMS 1015	SMS 1020	SMS 1030
2	Rear pivot cap Add suffix 250 for 2" bore 1/4 NPT	SMS 1111	SMS 1115	SMS 1120	SMS 1130
2	90° Rear pivot cap Add suffix 250 for 2" bore 1/4 NPT	SMS 111190	SMS 111590	SMS 112090	SMS 113090
3	Side port cap Add suffix 250 for 2" bore 1/4 NPT	SMS 4811	SMS 4815	SMS 4820	SMS 4830
4	Rear flange cap	SMS 1311	SMS 1315	SMS 1320	SMS 1330
5	Square cap Add suffix 250 for 2" bore 1/4 NPT	SMS 4611	SMS 4615	SMS 4620	
6	Tube	part No. is T followed by the complete cylinder part number			
7	Piston rod assembly	part No. is PR followed by the complete cylinder part number			
8	Spring guide Pair	SMS 1211	SMS 1215	SMS 1220	SMS 1230
9	Spring	SS 2111	SS 2115	SS 2120	SS 2120
10	Magnet SMS5911 and SS3215 supplied in pairs	SMS 5911	SS 3215	SS 3220	SS 3230
11	Flange head Add suffix NR for non-rotate	SMS 1411	SMS 1415	SMS 1420	SMS 1430
12	Nose Mount Head Add suffix 250 for 2" bore, 1/4 NPT	SMS 0111	SMS 0115	SMS 0120	SMS 0130
13	Short square Head Add suffix 250 for 2" bore, 1/4 NPT	SMS 4411	SMS 4415	SMS 4420	
14	Long square Head Add suffix 250 for 2" bore, 1/4 NPT	SMS 4511	SMS 4515	SMS 4520	
14	Square non rotate head	SMS 4511NR	SMS 4515NR	SMS 4520NR	
15	Trunnion head	SMS 4511T	SMS 4515T	SMS 4520T	
16	Non-rotate guide bushing Pair	SMS 5111	SMS 5111	SMS 5111	
17	Cap end shock pad	Consult factory			3MSP
18	Head end shock pad	11CSP	15CSP	2CSP	3MSP