

SMALL BORE CYLINDERS

1/2", 3/4" & 1-1/8" BORES

DESIGN FEATURES

Cylinders are not throw away type. Seals can easily be replaced when required after a long trouble-free life. They have corrosion resistant brass tubing, precision honed (16 Micro or better) with cross hatch lubricant retaining pattern. Front and Rear Heads are precision machined and threaded into the tube.

Pressure Rating: 150 P.S.I. Pneumatic or Hydraulic.
Breakaway: Approximately 5-10 P.S.I.

BASIC CONSTRUCTION

1/2" & 3/4" BORES: Feature low friction U-Cups on the Duronze Piston, coupled with a 416 Stainless Rod. These Cylinders are available as standard in half-inch increments. to 6" stroke.

1-1/8" BORE: Features an all-O-Ring construction. Aluminum Piston ground and polished 416 stainless steel rod. Cylinders are available as standard in half-inch increments to 6" and inch increments to 12" stroke. Special strokes available in all bore sizes. Up to 14" maximum on 1-1/8" bore and 10" maximum on 1/2" & 3/4" bores.

TYPE SM SINGLE ENDED

An all purpose light duty pneumatic Cylinder designed for nose mounting with rear face porting. 1-1/8" Bore is also available in 300 Series Stainless Steel, TYPE SSSM. See catalog SS200.



TYPE SMD DOUBLE ENDED

Similar to above except there is a single rod which protrudes from both ends and as one end retracts the other extends. 1-1/8" Bore is also available in 300 Series Stainless Steel, TYPE SSSMD. See catalog SS200.



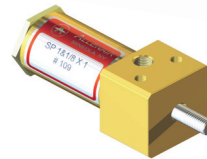
TYPE SMT SINGLE ENDED

Cylinder is designed for Clevis and various other universal mountings.



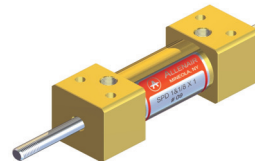
TYPE SP SINGLE ENDED

Similar to Type "SM" except a square front head is used, thereby eliminating the need for a separate Foot Mount.



TYPE SPD DOUBLE ENDED

Similar to Type "SMD" except square heads have been incorporated, eliminating the need for separate Foot Mounts.



ALL DIMENSIONS WILL BE FOUND ON THE FOLLOWING PAGE

STANDARD OPTIONS (FOR ALL BORE SIZES)

SPECIFY: HTP FOR HIGH TEMPERATURE SEALS

Seals are a fluorocarbon compound (viton) and have an operating temperature range of +10°F to +350°F. They will function at temperatures up to +400°F with reduced life.

SPECIFY: DRP FOR FRONT HEAD DOUBLE ROD SEALS:

A second set of rod seals are available for heavy-duty and hydraulic applications.

SPECIFY: OS FOR OVERSIZED ROD, Larger diameter rod for column loading. Available on 1-1/8" Bore only.

SPECIFY: SRF FOR SPRING RETURN, SPRING IN FRONT END (AIR PUSH)

SPECIFY: SRR FOR SPRING RETURN, SPRING IN REAR END (AIR PULL)

APPROXIMATE SPRING FORCES IN POUNDS

BORE SIZE	1/2"		3/4"		1-1/8"	
	SRF	SRR	SRF	SRR	SRF	SRR
AT REST	2	5	3	5	10	10
FULL STROKE	3	7	4	12	20	25

Maximum stroke available on Spring Return Cylinders is 3" on 1/2" and 3/4" Bores and 6" on 1-1/8" Bore.

Polyurethane Bumpers see Page 14

ALL MOUNTS ORDERED SEPARATELY FROM THE FOLLOWING PAGE.

ORDERING PROCEDURE

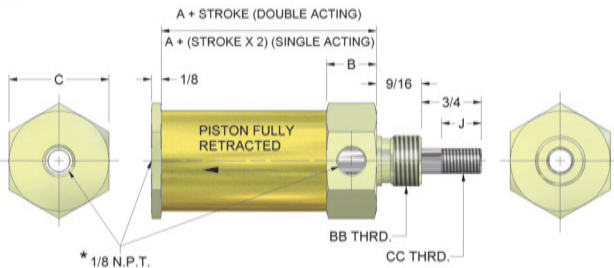
TYPE	BORE SIZE	STROKE	OPTIONS (List Alphabetically)
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EXAMPLE: SM 3/4 X 3 HTP SRR

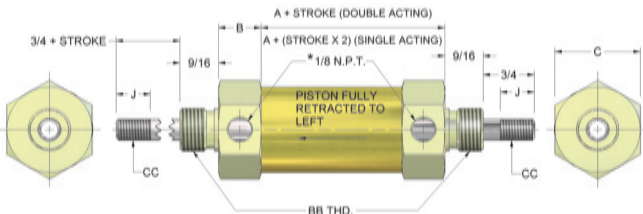
SMALL BORE DIMENSIONS

1/2", 3/4" & 1-1/8" BORES

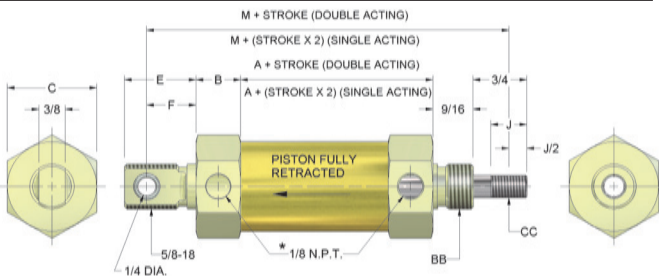
TYPE SM



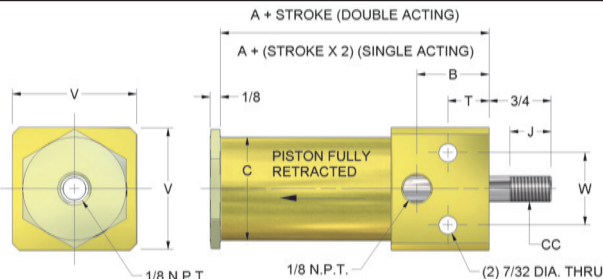
TYPE SMD



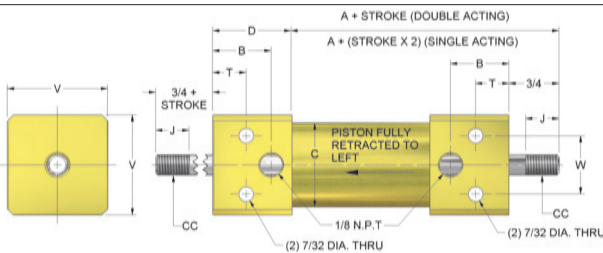
TYPE SMT



TYPE SP



TYPE SPD

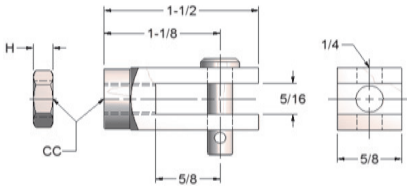


DIMENSION	BORE SIZE			
	1/2"	3/4"	1-1/8"	
			STD	OS
A	2-1/8	2-1/8	1-11/16	1-11/16
B	1/2	1/2	5/8	5/8
C	3/4	1"	1-1/4	1-1/4
E	13/16	13/16	1"	1"
F	9/16	9/16	11/16	11/16
H	3/4	3/4	3/4	15/16
J	5/8	5/8	1/2	7/8
M	4-3/16	4-3/16	4"	4"
BB	5/8-18	5/8-18	5/8-18	3/4-16
CC	1/4-20	1/4-20	5/16-24	3/8-16
ROD DIA.	1/4	1/4	5/16	3/8

NOTE: *1/2" Bore Front Heads have a 1/16 N.P.T., supplied with a 1/8 N.P.T. adapter.

MOUNTING NUTS ARE SUPPLIED EXCEPT WHEN SWIVEL BRACKETS ARE ORDERED.

DIMENSION	BORE SIZES			
	1/2"	3/4"	1-1/8"	
			STD	OS
A	2-11/16	2-11/16	2-1/4	2-1/4
B	13/16	13/16	7/8	7/8
C	11/16	15/16	1-1/4	1-1/4
D	1-1/16	1-1/16	1-3/16	1-3/16
H	3/4	3/4	3/4	15/16
J	5/8	5/8	1/2	7/8
T	3/8	3/8	1/2	1/2
V	1"	1"	1-1/2	1-1/2
W	11/16	11/16	7/8	7/8
CC	1/4-20	1/4-20	5/16-24	3/8-16
ROD DIA.	1/4	1/4	5/16	3/8

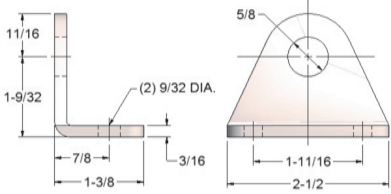


SM-45 ROD CLEVIS, NUT & PIN

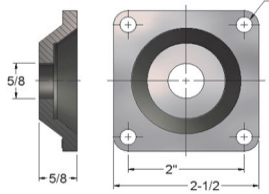
Bore Sizes	H	CC
1/2" & 3/4" (SM-545)	5/32	1/4-20
1-1/8" (SM-145)	3/16	5/16-24

SMALL BORE CYLINDER MOUNTING BRACKETS

CYLINDER BORE SIZES	PART NUMBERS			
	FOOT MOUNT	FLANGE MOUNT	SWIVEL BRACKET	ROD CLEVIS, NUT & PIN
1/2"	SM-32	SM-29	A-139	SM-545
3/4"	SM-32	SM-29	A-139	SM-545
1-1/8"	SM-32	SM-29	A-139	SM-145, A-145 (FOR OS)

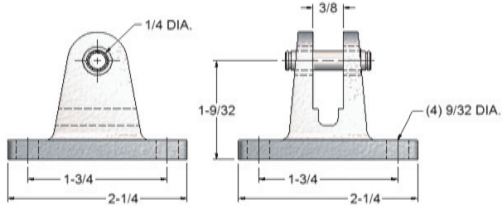


SM-32 FOOT MOUNT



SM-29 FLANGE MOUNT

When mounting on rear of Cylinder, Tang will extend beyond flange. Tang can be provided flush when required at slight extra charge.



A-139 SWIVEL BRACKET