

Engineered Composites for Your World



COMPOSITE CYLINDERS



DESIGN GUIDE

POLYSLIDE™

Composite Cylinder Series

Patented *Snap Fit* is a complete composite body air cylinder designed and built to improve performance. It will out perform your light-duty application requirements. Polygon Company has designed this cylinder to interchange with stainless steel body air cylinders. *Press Fit* end cap design permits easy port rotation.

The below features make the Polygon Company *Snap Fit* series cylinder the superior product for your application.

Polygon Company also has custom designed cylinders to fit your specific application.

Snap Fit Composite Cylinder Series

FEATURES

Corrosion Resistant

Superior Wear - 3x Longer Service Life than Metal Cylinders

Lighter Weight than Metal Cylinders

Dent Resistant

Stainless Rod Standard

Stainless Accessories Available

Adjustable Port Locations

FDA Compliant Material

Low Friction Operation

Quiet Operation

Interchangeable with Non-Repairable Metal Cylinders



Performance Specifics

BORE SIZES: 7/16, 9/16, 3/4, 1-1/16, 1-1/4

Other bore sizes available upon request

- Low Temperature Option Available
- Viton® Seals for High Heat Applications

Composite Body

- Patented, Continuous Wound Thermo-Set Epoxy
- Corrosion Resistance
- Dent/Wear Resistance
- Light Weight / Low Friction
- FDA Compliant Materials
- Performance Specifics

Technical Data

Temperature Range: -40° to 200° F (-25° to 95° C)*

Pressure Range: 200 PSI (4 PSI Breakaway)

Chemical Compatibility

Composites have excellent resistance to a wide variety of solvents, esters, oils, greases, gasoline and other petroleum hydrocarbons.

Comparative Data

30% lighter vs. Metal
3x Wear life of Metal
Maximum Temperature 350° *

* Use Viton® Seals for High Temperatures

U.S. Patents Numbers: 7,278,788 / 7,240,607 / 7,100,492 / 5,669,284 / 5,651,303 / 5,465,647

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SINGLE ACTING

SPECIFICATION INFORMATION

BORE SIZE	RELAXED (lbs.)	COMPRESSED (lbs.)
5/16"	.5	1
7/16"	1	2
9/16"	2	4
3/4"	3	6
7/8"	3	6
1-1/16"	3	6
1-1/4"	7.5	15
1-1/2"	7	14
1-3/4"	11	24
2"	15	30

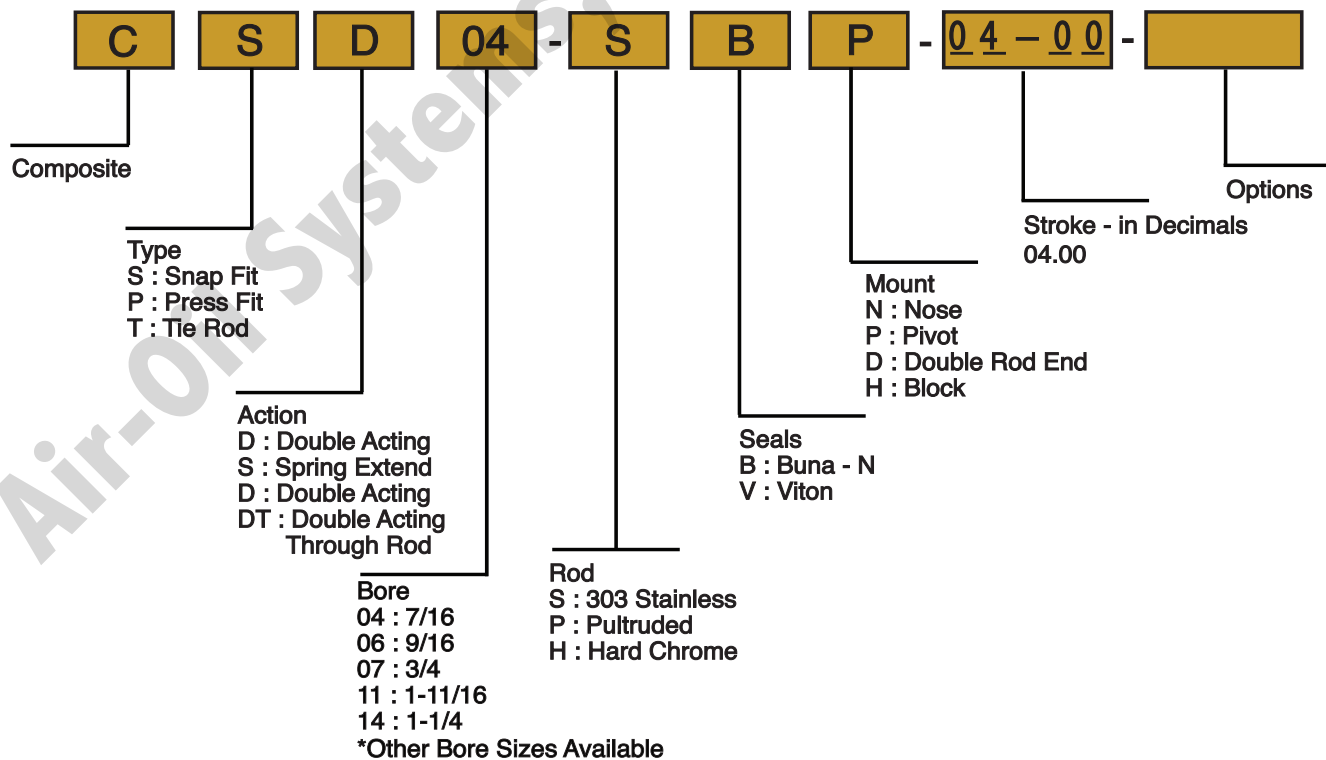
BORE - Selection Sizes

CYLINDER BORE (INCHES)	ROD DIAMETER (INCHES)	EFFECTIVE PISTON AREA (SQ. IN.)	OPERATING PRESSURE PSI											
			20	40	60	70	80	90	100	110	125	150	200	
SELECTING BORE SIZE			FORCE OR LOAD VALUE											
7/16	3/16	.15 .123	3 2.5	6 4.9	9 7.4	10 8.6	12 9.8	13 11	15 12.3	16 13.5	18 15.4	22 18.5	30 24.6	
9/16	3/16	.25 .23	5 4.5	10 8.9	15 13.4	17 15.6	20 17.8	22 20	25 22	27 29.5	31 27.9	37 33.5	50 44.6	
3/4	1/4	.442 .393	9 8	18 16	27 24	31 28	35 31	40 35	44 39	49 43	55 49	66 59	88 79	
1-1/16	5/16	.890 .810	18 16	36 32	53 49	62 57	71 65	80 73	89 81	98 89	111 101	134 122	178 162	
1-1/4	7/16	1.227 1.077	25 22	49 43	74 65	88 75	98 86	110 97	123 108	135 118	153 135	184 162	245 215	
1-1/2	7/16	1.767 1.616	35 32	71 65	106 97	124 113	141 129	159 145	177 162	194 178	221 202	265 242	353 323	
2	5/8	3.141 2.834	63 57	126 113	188 170	220 198	251 227	283 255	314 283	346 312	393 354	471 425	628 567	

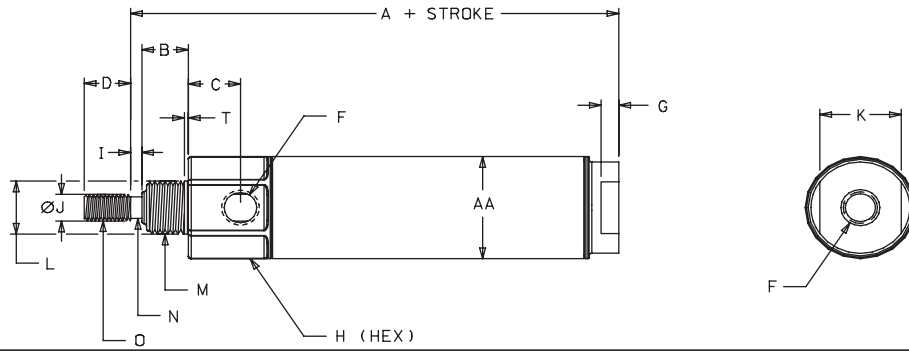


HOW TO ORDER:

Cylinder Part Numbers

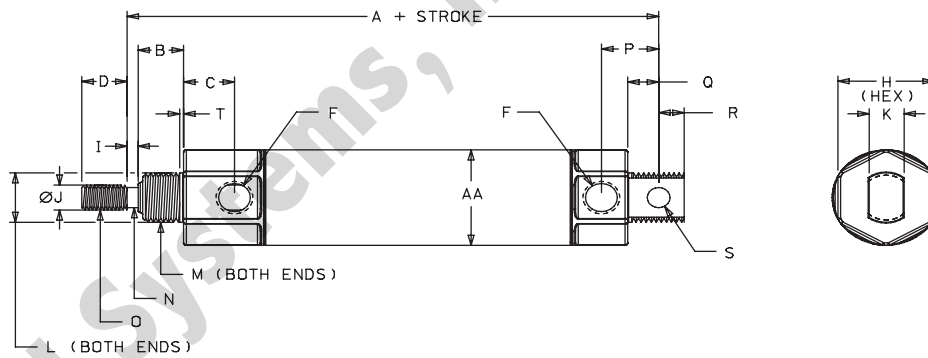


DOUBLE ACTING/NOSE MOUNT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	2.13	2.28	2.97	3.13	4	J	0.19	0.19	0.25	0.31	0.44
B	0.38	0.38	0.5	0.5	0.62	K	0.38	0.50	0.62	0.88	0.88
C	0.34	0.34	0.47	0.56	0.75	L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749
D	0.5	0.5	0.5	0.5	0.75	M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	N	-	-	-	0.25	0.38
G	0.19	0.19	0.19	0.19	0.19	O	#10-32	#10-32	1/4-28	5/16-24	7/16-20
H	0.56	0.69	0.88	1.06	1.25	T	0.05	0.06	0.09	0.09	0.09
I	-	-	-	0.13	0.25	AA	0.56	0.69	0.88	1.19	1.38

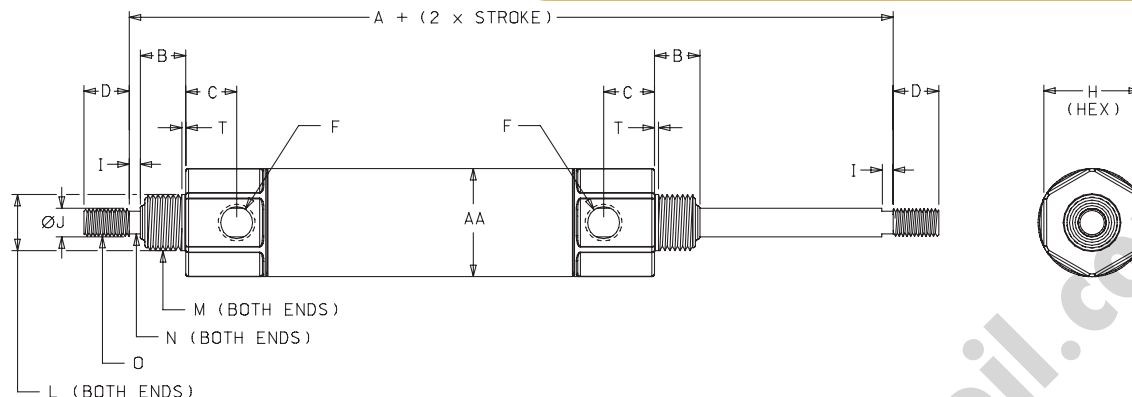
DOUBLE ACTING/(REAR) PIVOT MOUNT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	1.75	1.81	2.28	2.66	3.38	N	-	-	-	0.25	0.38
B	0.31	0.38	0.5	0.5	0.63	O	#10-32	#10-32	1/4-28	5/16-24	7/16-20
D	0.5	0.5	0.5	0.5	0.75	P	0.44	0.44	0.69	0.63	0.78
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	Q	0.25	0.25	0.34	0.34	0.41
H	0.56	0.69	0.88	1.06	1.25	R	0.25	0.25	0.28	0.28	0.41
I	-	-	-	0.13	0.25	S	0.156	0.156	0.25	0.25	0.25
J	0.19	0.19	0.25	0.31	0.44	T	0.05	0.06	0.09	0.09	0.09
K	0.31	0.31	0.38	0.38	0.5	Z	0.94**	1.63	1.69	1.56	1.81
L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749	AA	0.56	0.69	0.88	1.19	1.38
M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16						

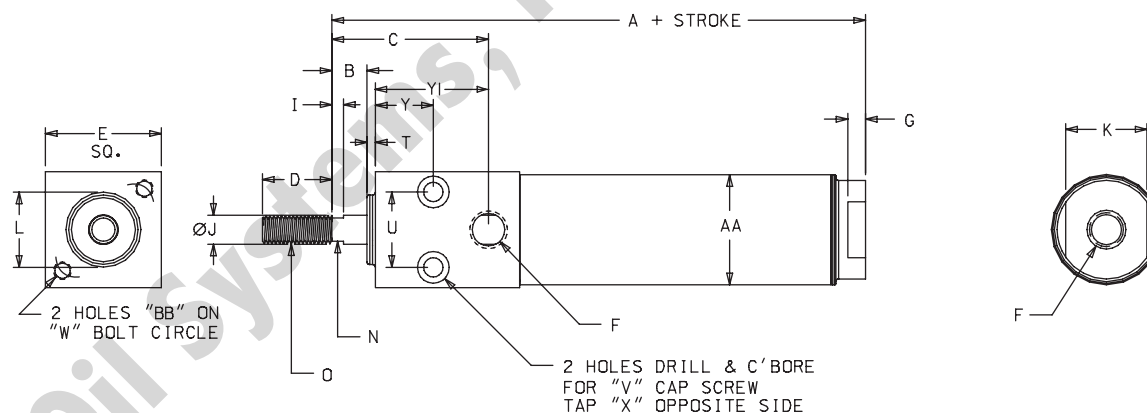
** - PER .500" STROKE (7/16" BORE ONLY)

DOUBLE ACTING /THROUGH ROD



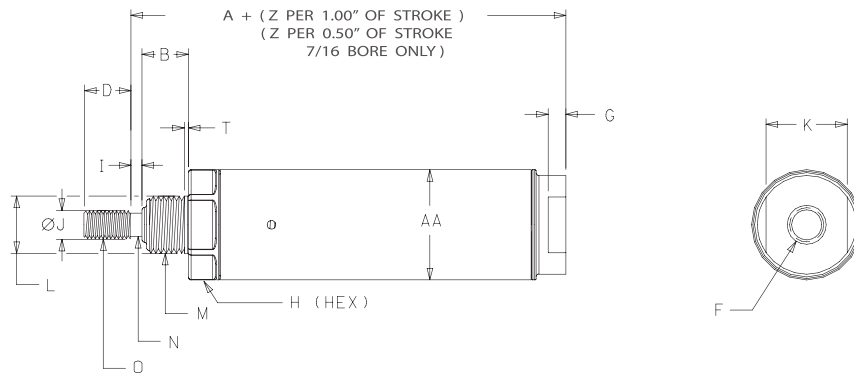
Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	2.81	2.94	4	4.38	5.56	J	0.19	0.19	0.25	0.31	0.44
B	0.38	0.38	0.5	0.5	0.63	L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749
C	0.34	0.34	0.47	0.56	0.75	M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16
D	0.5	0.5	0.5	0.5	0.75	N	-	-	-	0.25	0.38
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	O	#10-32	#10-32	1/4-28	5/16-24	7/16-20
H	0.56	0.69	0.88	1.06	1.25	T	0.05	0.06	0.09	0.09	0.09
I	-	-	-	0.13	0.25	AA	0.56	0.69	0.88	1.19	1.38

DOUBLE ACTING /BLOCK MOUNT



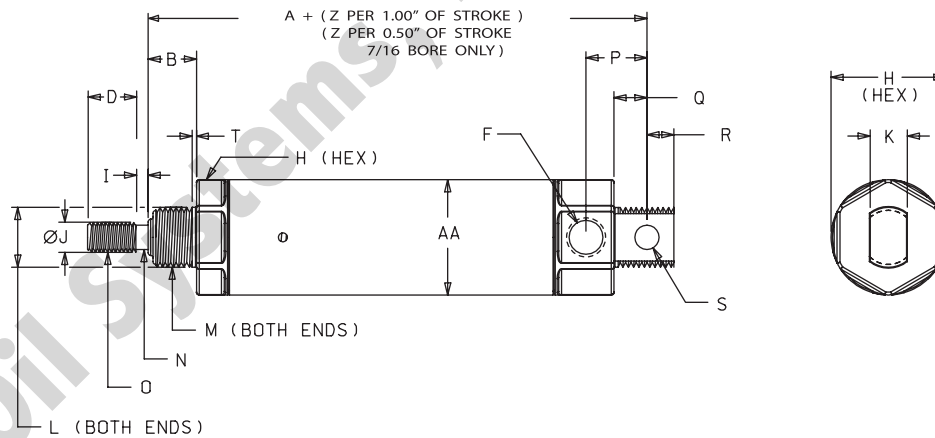
Bore	7/16" (04)	3/4" (07)	1-1/16" (11)	Bore	7/16" (04)	3/4" (07)	1-1/16" (11)	Bore	7/16" (04)	3/4" (07)	1-1/16" (11)
A	2.13	3.22	3.75	J	0.19	0.25	0.31	V	-	#10-32	#10-32
B	-	0.25	0.38	K	0.38	0.63	0.88	W	0.75	1.00	1.25
C	0.72	1.34	1.63	L	0.44	0.63	0.75	X	#8-32	1/4-20 UNC-28	1/4-20 UNC-28
D	0.5	0.75	0.75	N	-	0.22	0.25	Y	0.25	0.38	0.63
E	0.75	1	1.25	O	#10-32	1/4-28	5/16-24	Y1	0.69	-	-
F	#10-32	1/8 NPT	1/8 NPT	T	0.06	0.09	0.09	AA	0.56	0.88	1.19
G	0.19	0.19	0.19	U	0.44	0.63	0.81	BB	#8-32	#10-32	#10-32
I	-	0.25	0.25								

SINGLE ACTING/SPRING RETRACT/NOSE MOUNT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	1.31	1.53	1.5	2.06	2.66	K	0.38	0.50	0.62	0.88	0.88
B	0.31	0.38	0.5	0.5	0.63	L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749
D	0.5	0.5	0.5	0.5	0.75	M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	N	-	-	-	0.25	0.38
G	0.19	0.19	0.19	0.19	0.19	O	#10-32	#10-32	1/4-28	5/16-24	7/16-20
H	0.56	0.69	0.88	1.06	1.25	T	0.05	0.06	0.09	0.09	0.093
I	-	-	-	0.13	0.25	Z	0.94	1.63	1.69	1.56	1.81
j	0.19	0.19	0.25	0.31	0.44	AA	0.56	0.69	0.88	1.19	1.38

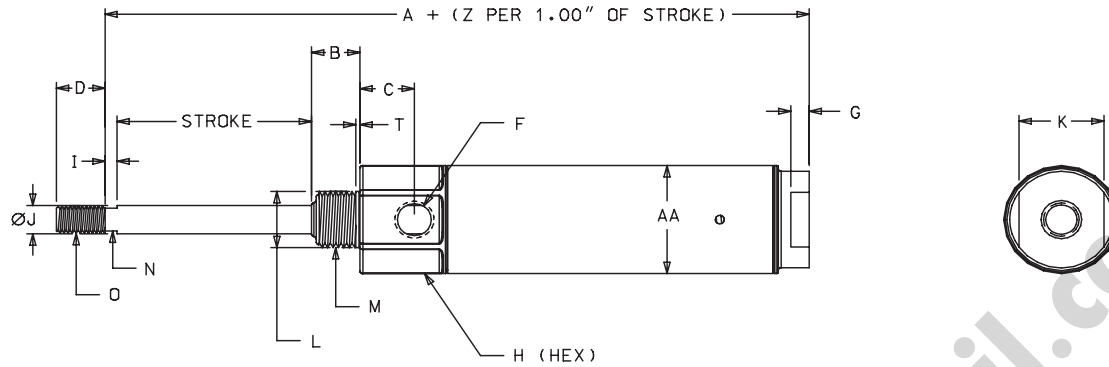
SINGLE ACTING/SPRING RETRACT/PIVOT MOUNT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	1.75	1.81	2.28	2.66	3.38	N	-	-	-	0.25	0.38
B	0.31	0.38	0.5	0.5	0.63	O	#10-32	#10-32	1/4-28	5/16-24	7/16-20
D	0.5	0.5	0.5	0.5	0.75	P	0.44	0.44	0.69	0.63	0.78
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	Q	0.25	0.25	0.34	0.34	0.41
H	0.56	0.69	0.88	1.06	1.25	R	0.25	0.19	0.28	0.28	0.41
I	-	-	-	0.13	0.25	S	0.156	0.156	0.25	0.25	0.25
j	0.19	0.19	0.25	0.31	0.44	T	0.05	0.06	0.09	0.09	0.09
K	0.31	0.31	0.38	0.38	0.5	Z	0.94**	1.63	1.69	1.56	1.81
L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749	AA	0.56	0.69	0.88	1.19	1.38
M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16						

** - PER .500" STROKE (7/16" BORE ONLY)

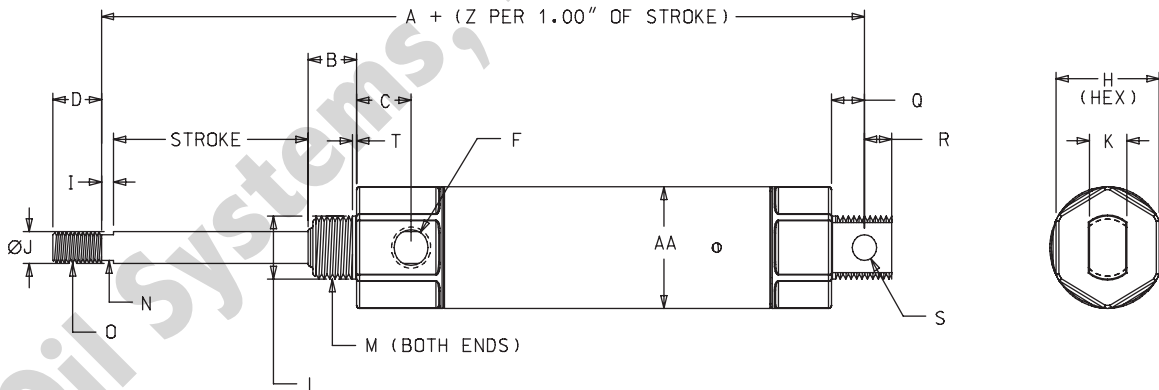
SINGLE ACTING/SPRING EXTEND/NOSE MOUNT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	1.78	2	2.31	2.38	3.31	K	0.38	0.5	0.38	0.38	0.5
B	0.38	0.38	0.5	0.5	0.63	L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749
C	0.34	0.34	0.47	0.56	0.62	M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16
D	0.5	0.5	0.5	0.5	0.75	N	-	-	-	0.25	0.38
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	O	#10-32	#10-32	1/4-28	5/16-24	7/16-20
G	0.19	0.19	0.19	0.19	0.19	T	0.05	0.06	0.09	0.09	0.09
H	0.63	0.75	0.94	1.19	1.38	Z	1.44	1.63	2.69	2.81	2.81
I	-	-	-	0.13	0.25	AA	0.56	0.69	0.88	1.19	1.38
J	0.19	0.19	0.25	0.31	0.44						

Polygon Company, P.O. Box 176, 103 Industrial Park Drive, Walkerton, IN 46574 (p) 800.918.9261 or 574.586.3145 (f) 574.586.7336

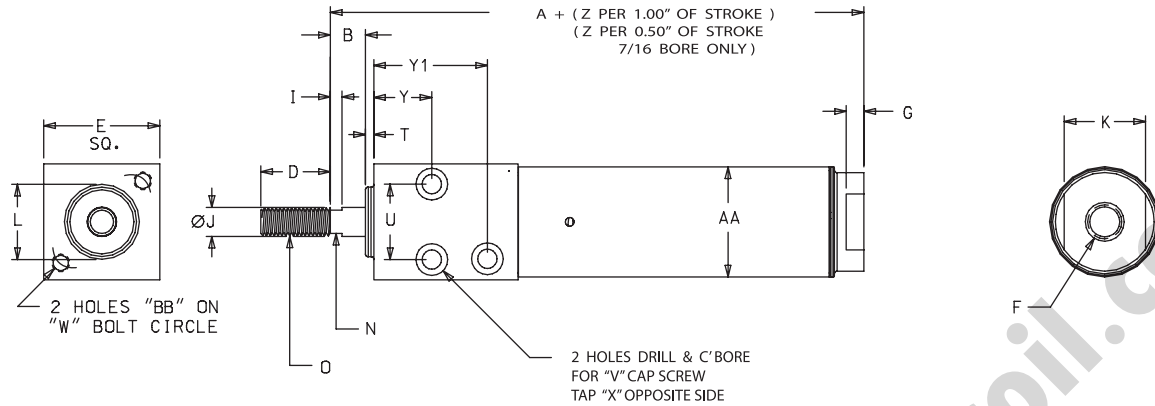
SINGLE ACTING/SPRING EXTEND/PIVOT MOUNT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)	Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	2.22	2.31	2.44	2.66	3.78	M	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16
B	0.38	0.38	0.5	0.5	0.63	N	-	-	-	0.25	0.38
D	0.5	0.5	0.5	0.5	0.75	O	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT
F	#10-32	#10-32	1/8 NPT	1/8 NPT	1/8 NPT	Q	0.25	0.25	0.34	0.34	0.41
H	0.56	0.69	0.88	1.06	1.25	R	0.25	0.25	0.28	0.28	0.41
I	-	-	-	0.31	0.25	S	0.16	0.16	0.25	0.25	0.25
j	0.19	0.19	0.25	0.31	0.44	T	0.05	0.06	0.09	0.09	0.09
K	0.31	0.31	0.38	0.38	0.5	Z	1.44	2.63	2.69	2.81	2.18
L	.433/.437	.433/.437	.621/.624	.621/.624	.746/.749	AA	0.56	0.69	0.88	1.19	1.38

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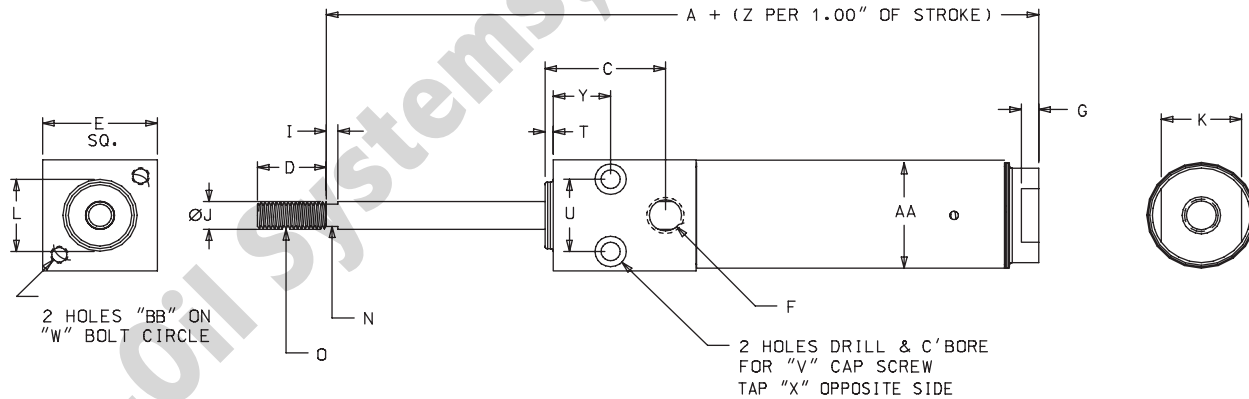
SINGLE ACTING /SPRING RETRACT/BLOCK MOUNT



Bore	7/16" (04)	3/4" (07)	1-1/16" (11)	Bore	7/16" (04)	3/4" (07)	1-1/16" (11)
A	1.94	2.56	3.13	T	0.06	0.09	0.09
B	-	0.25	0.38	U	0.44	0.63	0.81
D	0.5	0.75	0.75	V	-	#10-32	#10-32
E	0.75	1	1.25	W	0.75	1.00	1.25
F	#10-32	1/8 NPT	1/8 NPT	X	#8-32	1/4-20 UNC-2B	1/4-20 UNC-2B
G	0.19	0.19	0.19	Y	0.25	0.38	0.63
I	-	0.25	0.25	Y1	0.69	-	-
J	0.19	0.25	0.31	Z	.94**	1.69	1.81
K	0.38	0.63	0.88	AA	0.56	0.88	1.19
L	0.44	0.63	0.75	BB	#8-32	#10-32	#10-32
O	#10-32	1/4-28	5/16-24				

* - 7/16" Bore Only ** - Per .500" Stroke (7/16" Bore Only)

SINGLE ACTING /SPRING EXTEND/BLOCK MOUNT



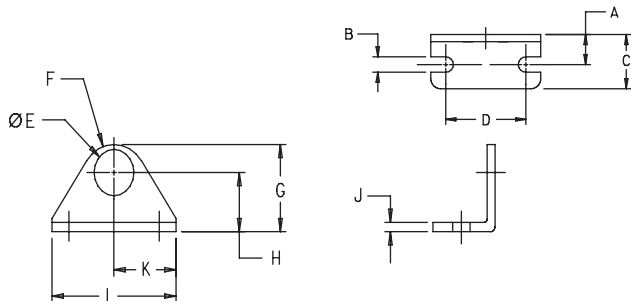
Bore	3/4" (07)	1-1/16" (11)	Bore	3/4" (07)	1-1/16" (11)	Bore	3/4" (07)	1-1/16" (11)
A	2.56	3.13	K	0.63	0.88	W	1	1.25
C	0.88	1.16	L	0.625	0.75	X	1/4-20 UNC-2B	1/4-20 UNC-2B
D	0.75	0.75	N	0.22	0.25	Y	0.38	0.63
E	1	1.25	O	1/4-28	5/16-24	Z	2.69	2.81
F	1/8 NPT	1/8 NPT	T	0.09	0.09	AA	0.94	1.19
G	0.19	0.19	U	0.63	0.81	BB	#10-32	#10-32
I	0.13	0.13	V	#10-32	#10-32	BB	#10-32	#10-32
J	0.25	0.31						

ACCESSORIES - MOUNTS

PLATED STEEL & STAINLESS STEEL AVAILABLE

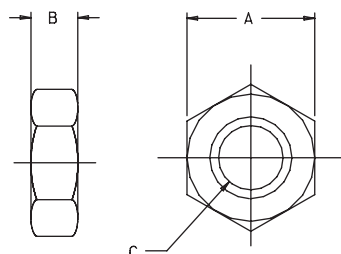
When ordering the stainless steel option add the letter **S** after the model number

L-MOUNTS (One Bracket, One Nut)



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	0.38	0.38	0.56	0.56	0.75
B	0.19	0.19	0.27	0.27	0.28
C	0.69	0.69	1	1	1.5
D	1	1	1.5	1.5	1.88
E (DIA.)	0.44	0.44	0.63	0.63	0.75
F (RAD.)	0.38	0.38	0.56	0.56	0.75
G	0.83	0.83	1.38	1.38	1.75
H	0.56	0.56	0.81	0.81	1
J	0.09	0.09	0.13	0.13	0.13
K	0.69	0.69	0.94	0.94	1.25
L	1.38	1.38	1.88	1.88	2.5
MODEL	190-0706	190-0706	190-0707	190-0707	190-0708

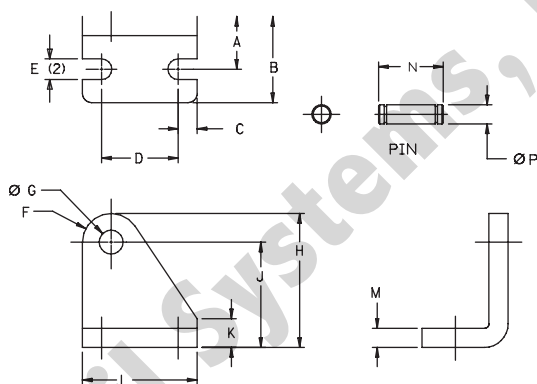
MOUNTING NUT



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	0.69	0.69	0.94	0.94	1.13
B	0.25	0.25	0.38	0.38	0.42
C	7/16-20	7/16-20	5/8-18	5/8-18	3/4-16
MODEL	190-0709	190-0709	190-0710	190-0710	190-0711

PIVOT BRACKET AND PIVOT PIN KIT

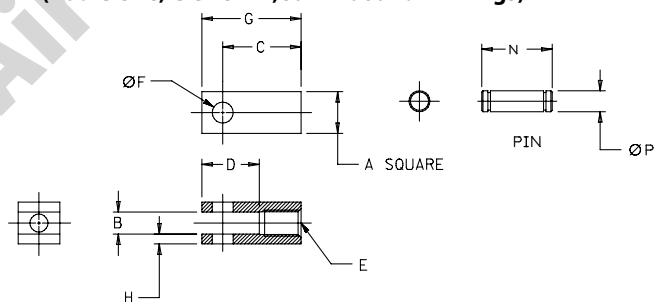
(Left Bracket, Right Bracket, Pivot Pin, 2 E Clips)



Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	0.28	0.28	0.44	0.44	0.44
B	0.5	0.5	0.81	0.81	0.81
C	0.13	0.13	0.19	0.19	0.19
D	0.5	0.5	0.75	0.75	0.75
E	0.19	0.19	0.27	0.27	0.27
F (RAD.)	0.2	0.2	0.31	0.31	0.31
G (DIA.)	0.16	0.16	0.25	0.25	0.25
H	0.77	0.77	1.19	1.19	1.19
J	0.56	0.56	0.88	0.88	0.88
K	0.13	0.13	0.25	0.25	0.25
L	0.75	0.75	1.13	1.13	1.13
M	0.06	0.06	0.13	0.13	0.13
N	0.602	0.602	0.829	0.829	0.954
P	0.156	0.156	0.250	0.250	0.250
MODEL	190-0712	1190-0712	190-0713	190-0713	190-0714

ROD CLEVIS AND CLEVIS PIN KIT

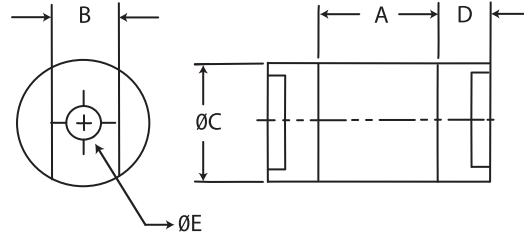
(Rod Clevis, Clevis Pin, Jam Nut and 2 E Rings)



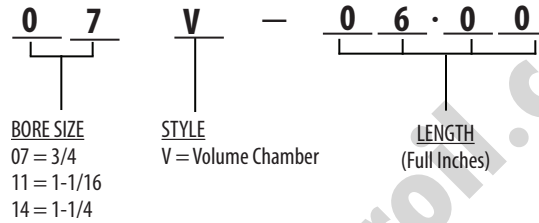
Bore	7/16" (04)	9/16" (06)	3/4" (07)	1-1/16" (11)	1-1/4" (12)
A	0.38	0.38	0.5	0.5	0.75
B	0.19	0.19	0.25	0.25	0.38
C	0.75	0.75	0.94	0.94	1.31
D	0.56	0.56	0.69	0.69	0.94
E	#10-32	#10-32	1/4-28	5/14-2	7/16-20
F (DIA.)	0.19	0.19	0.25	0.25	0.38
G	0.94	0.94	1.19	1.19	1.69
H	0.09	0.09	0.13	0.13	0.19
N	0.55	0.56	0.700	0.700	1.03
P (DIA.)	0.187	0.19	0.25	0.25	0.375
MODEL	190-0715	190-0715	190-0716	190-0717	190-0718

VOLUME CHAMBER Standard Lengths

Bore	3/4"	1-1/16"	1-1/4"
A/CU. IN.	2.267	1.128	.814
B	.625	.875	.875
C	.875	1.187	1.375
D	.330	.375	.670
E	1/8-NPT	1/8-NPT	1/8-NPT
STANDARD LENGTH	1" - 6"	1" - 8"	1" - 24"
MAXIMUM LENGTH	24"	24"	30"



HOW TO ORDER



SWITCHES

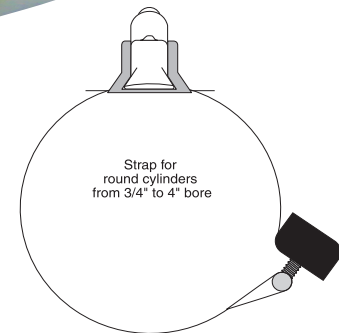
General Description:

Polygon Company magnetic proximity switch is available in both solid state electronic and reed style. These sensors are designed to fit stringent space requirements with mounting hardware strap for round cylinders installation. The switch has on board indicator light that can be viewed from wide angles. Standard connection to sensors is provided by 9 ft. cable or optional model standard 8mm pigtail connector.

Designed to meet NEMA 6/IP67 specifications.



Style 3



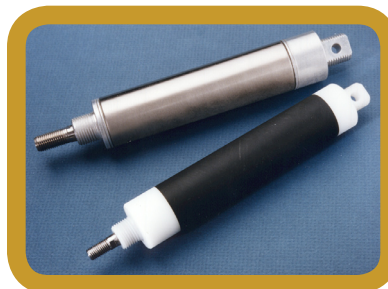
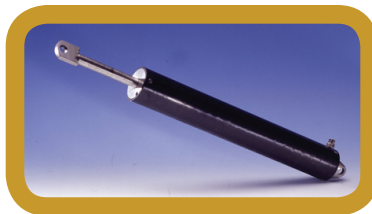
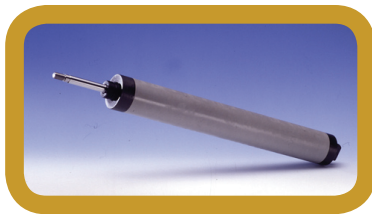
Ordering

Switches are designed to nest in cradle (included). Cradle can be affixed to cylinder using Posi-lock® system. Switches can be fine adjusted in cradle then fastened with strap for round cylinders.

Part Number	Description
190-0719	Reed, 9' wire, 1/4" dovetail, round cylinder clamp
190-0720	PNP Electronic, 9' wire, 1/4" dovetail, round cylinder clamp
190-0721	NPN Electronic, 9' wire, 1/4" dovetail, round cylinder clamp
190-0722	Reed, 8mm pigtail, 1/4" dovetail, round cylinder clamp
190-0723	PNP Electronic, 8mm pigtail, 1/4" dovetail, round cylinder clamp
190-0724	NPN Electronic, 8mm pigtail, 1/4" dovetail, round cylinder clamp
190-0725	Mating straight female connector cord for 8mm locking 5m length
190-0726	90° mating female connector cord for 8mm locking 5m length

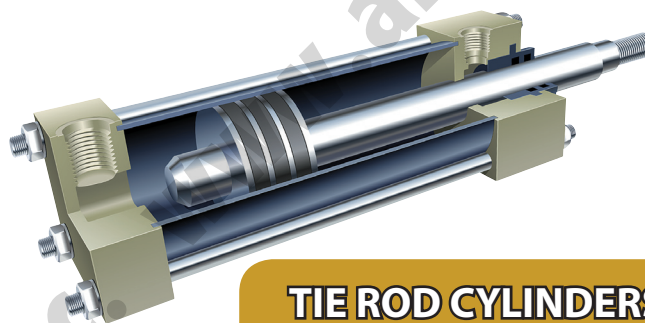
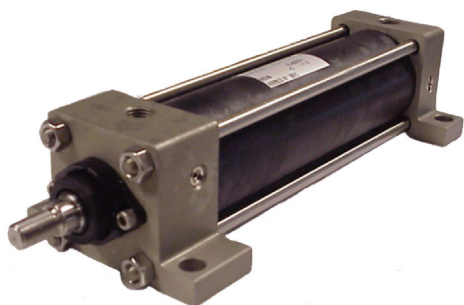
Specifications

Description	Function	Switching Voltage	Switching Current	Switching Power	Switching Speed	Voltage Drop	Magnetic Sensitivity
Reed Switch For PLC's LED Current Limiting	Normally Open	5-120V AC/DC 50/60Hz	0.03 Amp Max 0.001 Amp Min	4 Watts Max	0.4 ms operate 0.1 ms release	3.5 Volts @ 5mA	85 ga
PNP Electronic for Reed Magnet, LED, and Sourcing	Normally Open	5-28 VDC	0.2 Amps Max	4.8 Watts Max	4 µs operate 4 µs release	1.0 Volts Max	28 ga
NPN Electronic for Reed Magnet, LED, and Sinking	Normally Open	5-28 VDC	0.2 Amps Max	4.8 Watts Max	4 µs operate 4 µs release	1.0 Volts Max	28ga



PRESS FIT CYLINDERS

Press fit series features a composite body with metal end caps. This allows for mounting means upon a metallic end cap attachment. Designed with ease of assembly in mind and produced in the most competitive and continuous improvement environment. Custom and special applications are easily adapted for this type of cylinder. Polygon Company provides a composite rod material as an option in this product line. This series has exceeded metal cylinder technology in friction, corrosion and impact resistance.



TIE ROD CYLINDERS

Polygon Company, for years, has supplied this form of cylinder for Fluid Power Industry. Replacing the industries traditional metallic tubing. Tie-Rod versions are available in pneumatic & hydraulic pressures. Designed for the most demanding applications, Polygon Company's Tie-Rod series features composite tube and glass tape composite guide rod bushing. Providing superior support, wear and impact or denting resistance. NFPA interchangeable along with custom designs and composite piston rods are available for lighter weights and low coefficient of friction applications.



IST SENSING CYLINDERS

Polygon Company's revolutionary new IST provides integral sensing feedback. Our new cylinder technology has an embedded resistive layer in the composite cylinder tube. This non-contacting coupling is positioned between the piston and cylinder tube and reflects its position. Polygon Company's IST is a great solution for any continuous liner feedback application providing a variety of possible output options. POLYSLIDE™ IST provides improved capabilities, including excellent repeatability and resolution.

2007 patent pending. Sensing Technology developed in conjunction with SENTRINSIC, LLC.



POLYLUBE®

POLYLUBE® is Polygon's line of self-lubricated composite bushing and bearings. Bushings that are available in various sizes ranging from over 20" in diameter down to 1/8" bushings.

Offering high temperature, high impact, food grade, insulating, corrosion resistant and numerous other specialty composite bushings. Providing a variety of flat, round, or flanged products along with complex fabricated or machined geometries.

Polygon Company is the World's largest producer of composite self-lubricated bushing products.

POLYSTRUCTURE™

POLYSTRUCTURE™ Is our patented process for CFT® (Continuous Fiber Thermoplastics) or thermoset resin materials.

CFT® is a continuous high fiber volume filaments in a thermoplastic resin matrix. The hybridized **CFT®** process combines pultrusion and extrusion.

Pultrusion is the process that uses continuously pulled, linear fiber filament reinforcements, providing the stability of metallics without their inherent isotropic stress constraints.

Designers now have the power to control performance characteristics by simply changing the fiber architecture.



POLYGON TUBE®

POLYGON TUBE® This filament-woven double insulated composite tube provides an insulation barrier has set the standard for electrical insulation and armature shaft tubing.

Satisfies the UL® requirements and is used in millions of handheld power tools, appliance motors, vacuum cleaners, food processors, and other electrical equipment throughout the world.

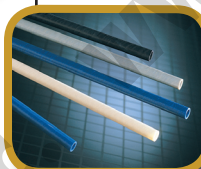


POLYMED™

POLYMED™ a thin-walled, composite tube providing:

- Precise tolerances
- High rigidity & improved durability
- Better strength-to-weight ratios
- Without the x-ray resonance of stainless steel

Polygon is the World's largest supplier of composite cannulas for the disposable medical device market.



PolyLube®, Polygon Tube®, PolyMed™, PolyStructure™ and PolySlide™ are reregistered trademark of Polygon® Company.

Air-Oil Systems, Inc.



Polygon Company

P.O. BOX 176

103 INDUSTRIAL PARK DRIVE

WALKERTON, INDIANA 46574 USA

(800) 918-9261 - (574) 586-3145

www.polygoncompany.com