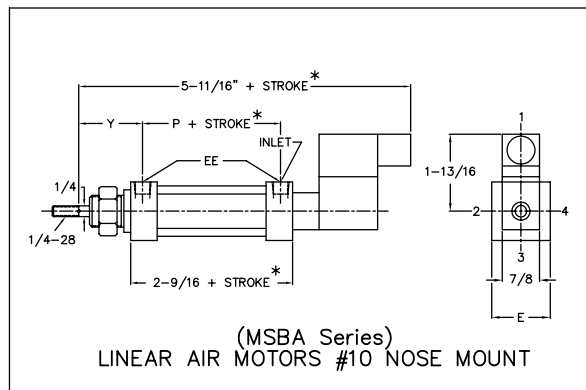
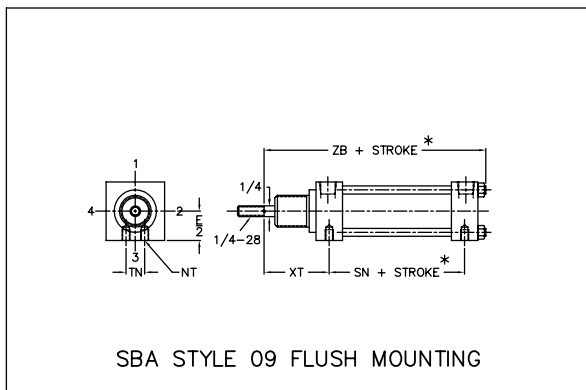
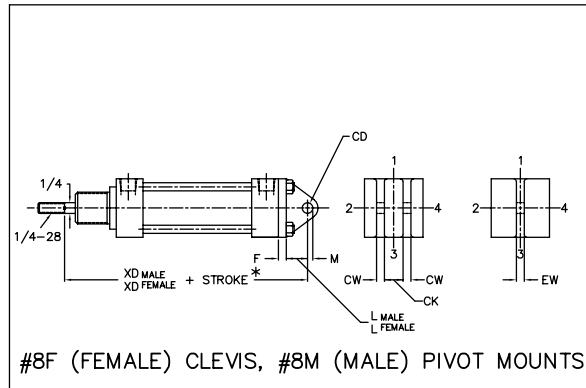
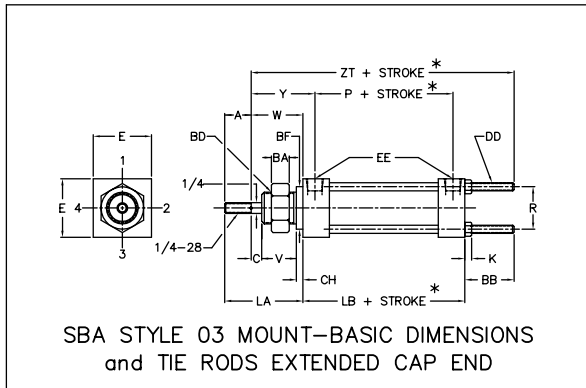




## TIE ROD MOUNTED CYLINDERS

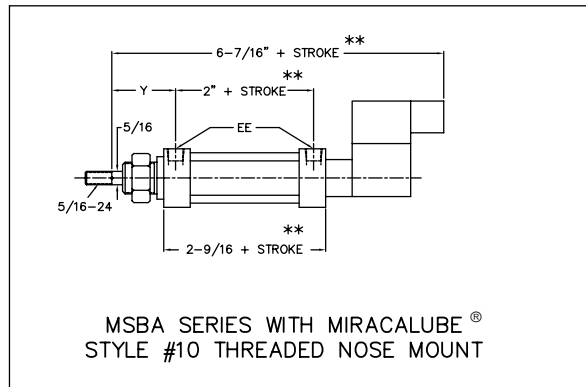
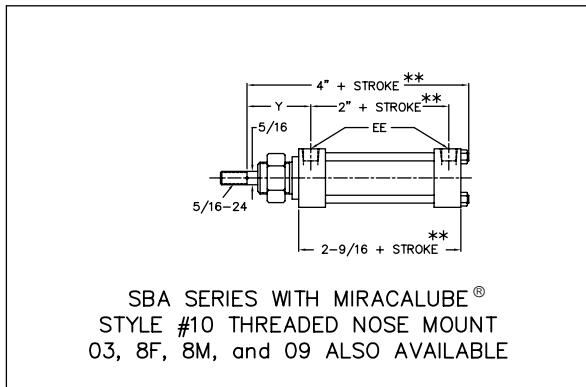
### 3/4" AND 1" BORE SBA SERIES AIR CYLINDERS

### 3/4" AND 1" BORE MSBA SERIES LINEAR AIR MOTORS



\*For spring return cylinder, add twice stroke to "+ stroke" dimension

### Miracalube® Small Bore Air Cylinders and Small Bore Linear Air Motors



\*\*For spring return cylinder, add 3/4" to "+ stroke" dimension

### ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD DIAMETER

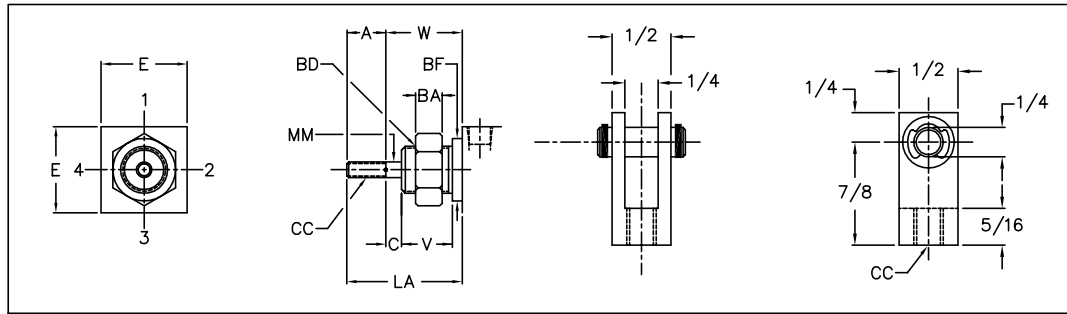
Bore	BB	CD	CH	CK	CW	DD	E	EE (NPT)	EW	F	K	L Male	L Female
3/4	1 5/32	.250	5/32	7/32	3/16	#8-32	1 1/8	1/8	3/16	3/16	5/32	5/16	1/2
1	1 5/32	.250	5/32	7/32	3/16	#10-32	1 3/8	1/8	3/16	3/16	5/32	5/16	1/2

Bore	LB	NT	P	R	SN	TN	XD Male	XD Female	XT	Y	ZB	ZT
3/4	1 13/16	#10-32	1 1/4	13/16	1 3/16	7/16	3 17/32	3 23/32	1 17/32	1 1/2	3 1/4	4 3/16
1	1 13/16	#10-32	1 1/4	1	1 3/16	7/16	3 17/32	3 23/32	1 17/32	1 1/2	3 1/4	4 3/16

Note: All SBA and MSBA series cylinders are furnished with style 10 threaded nose mount and nut in addition to other available mounts

For pneumatic service to 150 PSI

## TIE ROD MOUNTED CYLINDERS (Cont.)

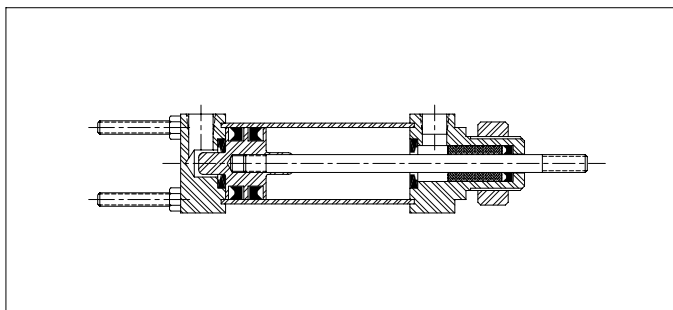


**ROD END DIMENSIONS**

Rod Dia. MM	A	BA	BD	BF	C	CC	E	LA	V	W
1/4	5/8	7/16	3/4-16	1	1/4	1/4-28	1 1/8	1 27/32	13/16	1 7/32
5/16	5/8	7/16	3/4-16	1	1/4	5/16-24	1 3/8	1 27/32	13/16	1 7/32

**Description:** Small Bore Air Cylinders and Linear Air Motors are designed to be used as components of machines or other applications where reliability in rugged service is the prime consideration. These units are built to operate without maintenance for millions of high-speed cycles because of the combined features which are standard only in Lehigh Heavy Duty Cylinders.

### Standard Construction Features: SBA and MSBA Series



- Fast break-away, lip type cushion seals (on all double acting cylinders)
- Strong, special alloy, low inertia piston rod for high speed service
- Long Oilite piston rod bearing for impact resistance
- Steel heads and pistons for impact resistance
- 1/8" NPT ports, unrestricted for full flow
- Low friction U-cup piston and piston rod seals for long life and speed of response
- Smooth tempered brass tubing for corrosion resistance
- High tensile tie rods

#### Additional Feature for MSBA Series

- Valve-in-head construction simplifies installation by direct connection of electric and air lines to cylinder

#### MSBA Electrical Specifications

- Miniature 3-way solenoid operated valve
- 6 watts power consumption
- 110 volt 60 Hz standard
- Spade terminal coil with ground per DIN 43650
- Continuous duty rated, Class A, molded coil
- Voltages include: 24, 120, 240, 480 VAC  
Other voltages available

### Ordering Information

PRODUCT DESIGNATION	DESCRIPTION
<b>SBA 34</b>	3/4" Bore Standard Cylinder
<b>SBA 34S</b>	3/4" Bore Cylinder, Spring Return
<b>MSBA 34S</b>	3/4" Bore Linear Air Motor, Spring Return
<b>MSBA 34AR</b>	3/4" Bore Linear Air Motor, Air Return
<b>SBA 100</b>	1" Bore Standard Cylinder
<b>SBA 100S</b>	1" Bore Cylinder, Spring Return
<b>MSBA 100S</b>	1" Bore Linear Air Motor, Spring Return
<b>MSBA 100AR</b>	1" Bore Linear Air Motor, Air Return

- Cylinders are furnished with cushions both ends, except spring return
- Standard port position is #1

**Select Product Designation and also specify:**

- Standard design or with MIRACALUBE®
- Stroke length
- Mounting style (Note: #10 nose mount with nut is provided as standard, and in addition to optional second mount)