

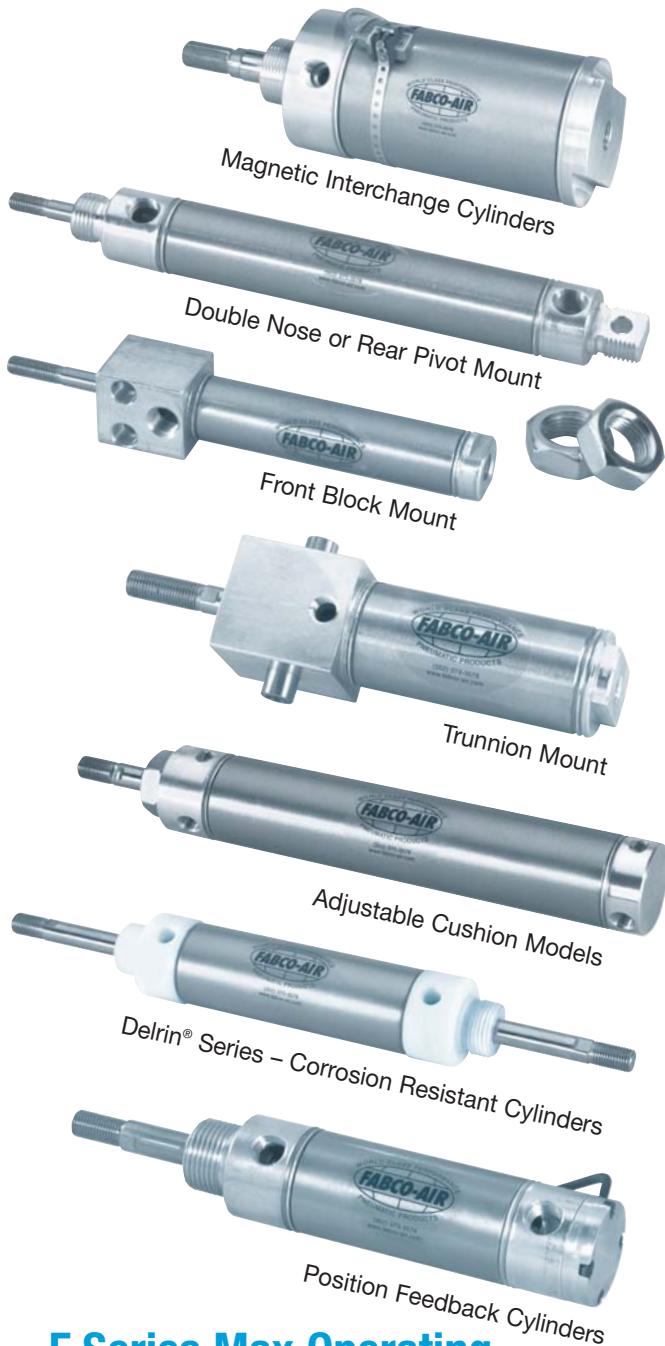
# ***F-Series Air Cylinders***

***Your Exact Interchange  
for Stainless Steel Body,  
Non-repairable Cylinders***



# F Series Direct Interchange Air Cylinders

## All the Models Bore-for-Bore!



## F Series Max Operating Pressure Ratings

F Series Basic Cylinders	250 psi
Adjustable Cushion Cylinders	250 psi
Custom Cylinders 1" Diameter Rod, 2" Bore	250 psi
Volume Chambers	250 psi
Delrin® Series	100 psi
Magnetic Interchange Cylinders	250 psi
Hole Punch Cylinders	250 psi
3-Position Cylinders	250 psi
Position Feedback Cylinders	150 psi

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**Direct Interchange Air Cylinders**

**Pre-Lubrication**

Factory lube is a special petroleum based oil formulated for long maintenance-free performance.

**Rod Bushing**

Oil impregnated sintered bronze for excellent wear and long life.

**Piston Rod**

303 stainless steel, ground, polished, and roller burnished for corrosion-free long life.

**Rod Thread**

Roll-formed rod threads at both ends provide strength for customer connections as well as the internal piston connection.

**Rod Seal**

Low friction Buna N "U"-cup seal is inherently wear compensating for long, trouble-free cycle life. Optional low and high temperature seals are available.

**Piston**

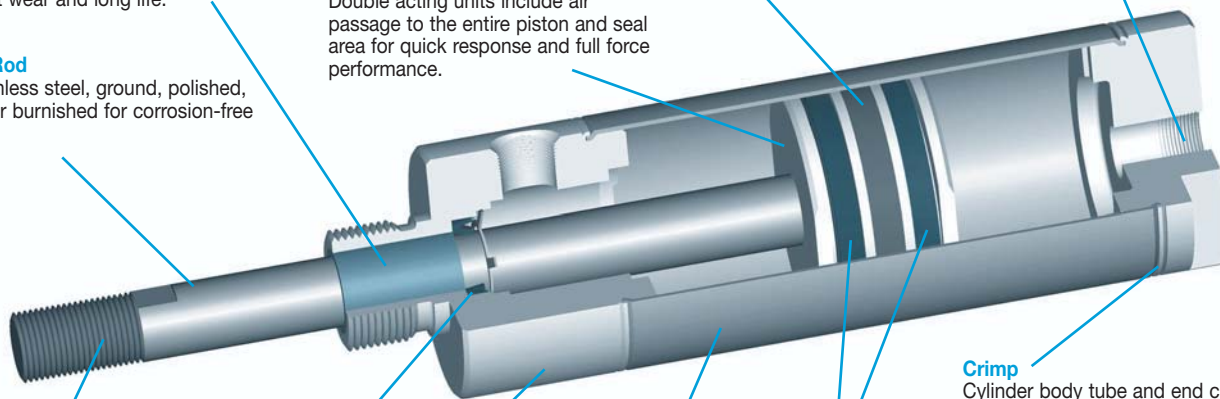
High strength aluminum in all units. Double acting units include air passage to the entire piston and seal area for quick response and full force performance.

**Magnet**

Piston position indication with reed or electronic sensors. See individual cylinder drawings for length adjustments. See page 62 for sensors.

**Ports**

Full-flow ports and cross-slots on the end caps allow air passage to the entire piston and seal area for quick response and full force performance.



**Crimp**

Cylinder body tube and end caps are attached with double rolled-in crimp.

**End Caps**

Anodized high strength aluminum.

**Piston Seals**

Low friction Buna N "U"-cups are inherently wear compensating for long, trouble-free cycle life.

**Tube**

Thin wall 304 stainless steel, drawn and polished for low friction and long life.

**Temperature Ranges**

Standard Seals . . . . . -10° to +165°F (-23° to + 74°C)  
 Low Temperature Seals . . . . . -40° to +225°F (-40° to + 107°C)  
 Viton® Seals . . . . . -15° to +350°F (-26° to + 177°C)

**Stroke Tolerance** = +/- .032

**Overall Length Calculations for F Series Cylinders**

Single acting F-Series cylinders have stop tubes added for every 1/2" or 1" depending on the bore size. Strokes with no fractional inch simplify the calculation of having a base length plus adder per inch of stroke. However, strokes with fractional inch require more in-depth calculation. The following equations help to calculate the OAL for fractional inch strokes.

**Variables:**

- OAL** = Overall Length of Cylinder
- S** = Actual Stroke
- B** = Base Length
- STA** = Stop Tube Adder per increment of stroke
- S1** = Stroke rounded up to the next increment (5/16" and 7/16" bores have 1/2" increments)

Note: for 2" bores – use lengths shown on page 34 for whole inch strokes and subtract the difference between desired stroke and next longer standard increment. (Subtract twice for spring extend models.)

**Single Acting Spring Return Cylinders**

Calculate the length of next whole standard increment of stroke. Then subtract the difference between desired stroke and next longer standard increment of stroke.

**OAL = B + (STA x S1) – (S1 – S)**

**Example: F-1062S01-02M (2-3/4" stroke)**

F-1062S01 base length =	1.938
Plus 1.562 per inch of stroke =	+4.686
1.562 x 3.0 (next longer stroke increment)	
F-1062S01-03A length =	6.624
Standard stroke increment =	3.000"
minus desired stroke =	-2.750
Stroke difference =	.250
F-1062S01-02M length =	<u>6.374</u>

**Double Acting Cylinders**

Add desired stroke length to base length of cylinder. **OAL = B + S**

**Example: F-0750D01-01E (1-1/4" stroke)**

F-0750D01 base length =	2.969
Plus 1.250 stroke =	+1.250
F-0750D01-01E =	4.219

**Single Acting Spring Extend Cylinders**

Calculate the length of next whole standard increment of stroke. Then subtract twice the difference between desired stroke and next longer standard increment of stroke.

**OAL = B + (STA x S1) – 2(S1 – S)**

**Example: F-0438R02-01K (1-5/8" stroke)**

F-0438R02 base length =	2.375
Plus 1.438 per each 0.5" stroke =	+5.752
1.438 x 4.0 (number of standard increments required for the next longer increment)	
F-0438R02-02A length =	8.127
Standard stroke increment =	2.000"
minus desired stroke =	-1.625
Stroke difference =	.375
Twice stroke difference =	.750
F-0438R02-01K length =	<u>7.377</u>



**Options (2 or 3 digits)**  
See opposite page

Bore      Mounting      Stroke      Options      Rod/Thread Options  
**F-1500 D01 - 02 A - 01 - 1A00M**

**Bore Size (4 digits)**

- 0313 = 5/16"
- 0438 = 7/16"
- 0563 = 9/16"
- 0750 = 3/4"
- 0875 = 7/8"
- 1062 = 1-1/16"
- 1250 = 1-1/4"
- 1500 = 1-1/2"
- 1750 = 1-3/4"
- 2000 = 2"
- 2500 = 2-1/2"
- 3000 = 3"

**Mounting Style (3 digits)**

- S01 = Single Acting Spring Return Nose Mount
- S02 = Single Acting Spring Return Rear Pivot
- R01 = Single Acting Spring Extend Nose Mount
- R02 = Single Acting Spring Extend Rear Pivot
- N01 = Single Acting Spring Return Non-Rotating Nose Mount
- N02 = Single Acting Spring Return Non-Rotating Rear Pivot
- D01 = Double Acting Nose Mount
- D02 = Double Acting Rear Pivot
- D03 = Double Acting Double Rod
- D04 = Double Acting Double nose
- D05 = Double Acting Front Block
- D13 = Interchange Option for 1-1/16" Bore
- DH3 = Double Acting Double Rod Hollow Rod
- D06 = Double Acting Trunnion Mount
- DG1 = Double Acting Adjustable Cushion Nose Mount
- DG2 = Double Acting Adjustable Cushion Rear Pivot
- DL1 = Double Acting Nose Mount 2" Bore 1" Rod
- DL2 = Double Acting Rear Pivot 2" Bore 1" Rod
- DC1 = Double Acting Delrin® Nose Mount
- DC2 = Double Acting Delrin® Rear Pivot
- DC3 = Double Acting Delrin® Double Rod
- DM1 = Magnetic Interchange, Nose Mount
- DM2 = Mag. Interchange, Nose/Rear Pivot Mt.
- DM3 = Magnetic Interchange, Double Rod

**Fractional Inch Stroke**

- (1 digit)
- A = 0"
  - B = 1/16"
  - C = 1/8"
  - D = 3/16"
  - E = 1/4"
  - F = 5/16"
  - G = 3/8"
  - H = 7/16"
  - I = 1/2"
  - J = 9/16"
  - K = 5/8"
  - L = 11/16"
  - M = 3/4"
  - N = 13/16"
  - O = 7/8"
  - P = 15/16"

Note: See page 3 for information regarding cylinder length calculations.

**Full Inch Stroke (2 digits)**

- 00 = 0"
- 01 = 1"
- 02 = 2"
- 03 = 3"
- 
- 
- 
- 32 = 32"

See specific cylinder drawings for maximum strokes.

**Rod and/or Thread Extension**

- 1A \_\_\_ = **Rod Extension** (Additional length)  
(Code is 1A plus 3 digits)  
Example: 1A01A = 1" and no fractional inch extension.
- 2A \_\_\_ = **Thread Extension** (Additional length)  
(Code is 2A plus 3 digits)  
Example: 2A01E = 1-1/4" extension.
- RT \_\_\_\_\_ = **Rod and Thread Extension** (Additional length)  
(Code is RT plus 6 digits; specify rod extension first)  
Example: RT02A01M = 2" rod extension and 1-3/4" thread extension

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## Standard F Series Options

- 01 = Bumpers
- 02 = Viton Seals
- 03 = Magnet
- 04 = Bumpers, and Magnet
- 05 = Pivot bushing
- 06 = Bumpers, and Pivot Bushing
- 07 = Viton Seals, and Pivot Bushing
- 08 = Magnet, and Pivot Bushing
- 09 = Bumpers, Magnet, and Pivot Bushing
- 20 = Port Rotated w/ No Options
- 30 = Rod Wiper w/ No Options
- 31 = Rod Wiper w/ Bumpers
- 32 = Rod Wiper w/ Viton Seals
- 33 = Rod Wiper w/ Magnet
- 34 = Rod Wiper w/ Bumpers, and Magnet
- 35 = Rod Wiper w/ Pivot bushing
- 36 = Rod Wiper w/ Bumpers, and Pivot Bushing
- 37 = Rod Wiper w/ Viton Seals, and Pivot Bushing
- 38 = Rod Wiper w/ Magnet, and Pivot Bushing
- 39 = Rod Wiper w/ Bumpers, Magnet, and Pivot Bushing
- 50 = Side Port w/No Options
- 100 = Low Temp Seals
- 101 = Low Temp Seals and Bumpers
- 103 = Low Temp Seals and Magnet
- 104 = Low Temp Seals, Bumpers and Magnet
- 105 = Low Temp Seals and Pivot Bushing
- 106 = Low Temp Seals, Bumpers and Pivot Bushing
- 108 = Low Temp Seals, Magnet and Pivot Bushing
- 109 = Low Temp Seals, Bumpers, Magnet and Pivot Bushing
- 200 = Polypak rod seal
- 300 = Polypak piston seal
- 400 = Both Polypak rod and piston seal



## How to Order – Examples

### F-0438S01-01A

0438 = 7/16" Bore  
 S01 = Single Acting, Spring Return, Nose Mount  
 01 = 1" Stroke  
 A = .00" Fractional Stroke

### F-1062D02-03E-04

1062 = 1-1/16" Bore  
 D02 = Double Acting, Rear Pivot Mount  
 03 = 3" Stroke  
 E = .25" Fractional Stroke  
 04 = Bumpers and Magnet

### F-1500D04-10I-01-1A02A

1500 = 1-1/2" Bore  
 D04 = Double Acting, Double Nose  
 10 = 10" Stroke  
 I = .50" Fractional Stroke  
 01 = Bumpers  
 1A02A = 2" Rod Extension

### F-2000DG2-20H-03-RT02A01I

2000 = 2" Bore  
 DG2 = Double Acting, Adjustable Cushion, Rear  
 Pivot Mount  
 20 = 20" Stroke  
 H = .4375 Fractional Stroke  
 03 = Magnet  
 RT02A01I = 2" Rod Extension and 1-1/2" Thread  
 Extension

# F Series

## 5/16" Bore Cylinders

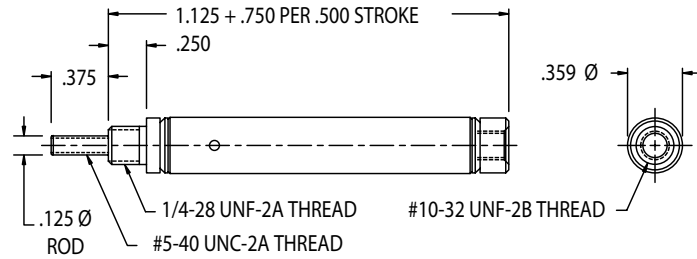


### Single Acting Spring Return Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117001 Mounting Bracket  
 • F-M127001 Rod Clevis  
 Base Weight: .03 lbs.  
 Plus .02 lbs. per inch of stroke

### F-0313S01-00A

MOUNTING NUT INCLUDED

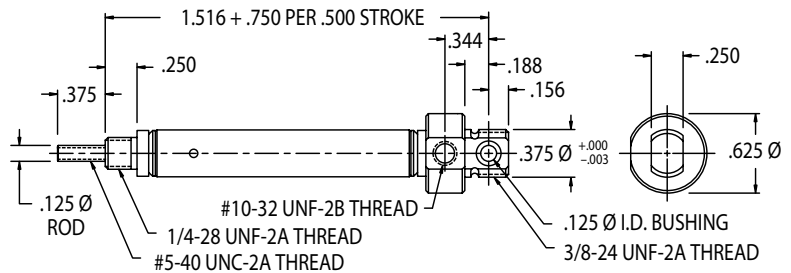


### Single Acting Spring Return Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117001 Mounting Bracket  
 (with front nose mount)  
 • F-M117002 Mounting Bracket  
 (with rear nose mount)  
 • F-M129001 Pivot Bracket  
 • F-M127001 Rod Clevis  
 Base Weight: .04 lbs.  
 Plus .02 lbs. per inch of stroke

### F-0313S02-00A

MOUNTING NUT NOT INCLUDED

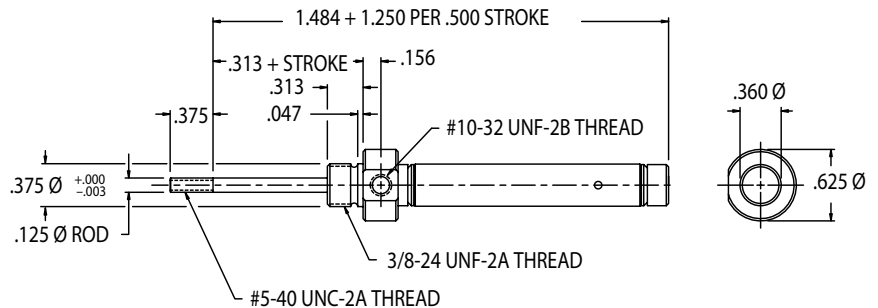


### Single Acting Spring Extend Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117002 Mounting Bracket  
 • F-M127001 Rod Clevis  
 Base Weight: .05 lbs.  
 Plus .03 lbs. per inch of stroke

### F-0313R01-00A

MOUNTING NUT INCLUDED

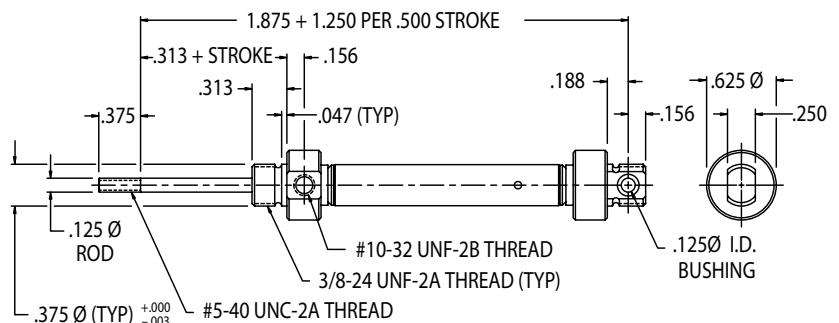


### Single Acting Spring Extend Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117002 Mounting Bracket  
 • F-M129001 Pivot Bracket  
 • F-M127001 Rod Clevis  
 Base Weight: .05 lbs.  
 Plus .03 lbs. per inch of stroke

### F-0313R02-00A

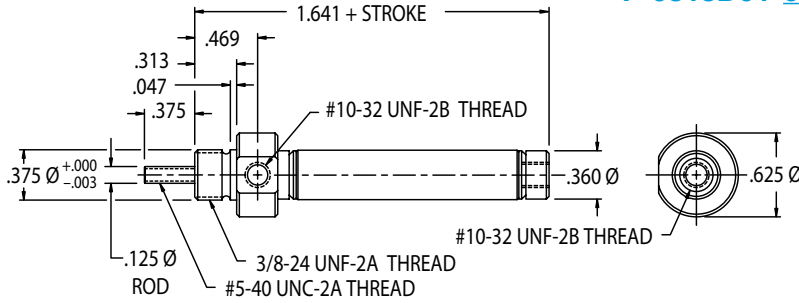
MOUNTING NUT NOT INCLUDED



MOUNTING NUT INCLUDED

**F-0313D01-00A**

**Double Acting  
 Front Nose Mount**

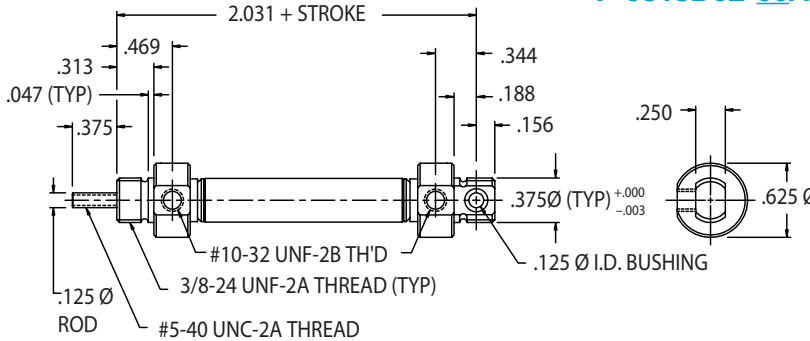


Standard Stroke Lengths:  
**1/2", 1", 1-1/2" 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117002 Mounting Bracket  
 • F-M127001 Rod Clevis  
 Base Weight: .05 lbs.  
 Plus .01 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

**F-0313D02-00A**

**Double Acting  
 Double Nose or Rear Pivot Mount**



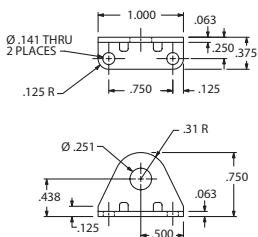
Standard Stroke Lengths:  
**1/2", 1", 1-1/2" 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117002 Mounting Bracket  
 • F-M129001 Pivot Bracket  
 • F-M127001 Rod Clevis  
 Base Weight: .06 lbs.  
 Plus .01 lbs. per inch of stroke

## 5/16" Bore Cylinder Features – Options & Accessory Pricing

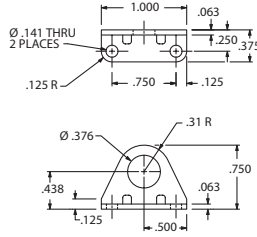
- -10° to +165°F
- Piston Rod: Ground and Polished 303 Stainless Steel
- Mounting nuts are standard on all nose mount cylinders
- Approximate Force Exerted: (0.07) x (Air Line Pressure)
- Spring Force: 0.5 lb. Relaxed – 1 lb. Compressed

### OPTION

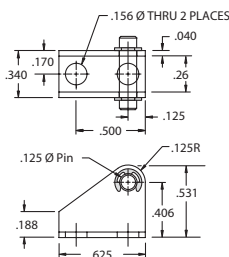
- Bumpers
- Viton® Seals – Spring Return (-15° F to 300° F)  
 Double Acting (-15° F to 350° F)  
 Spring Extend (-15° F to 300° F)
- Magnetic Piston
- Pivot Bushing – Bronze sleeve standard
- Ports Rotated – 90° on S02, R02, or D02 (both)
- Rod Wipers – Not available
- Side Port – Not available
- Low Temperature Seals – Not available
- Rod Extension
- Rod Thread Extension



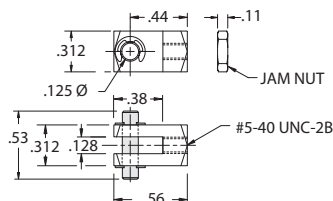
**Mounting Bracket  
 F-M117001**



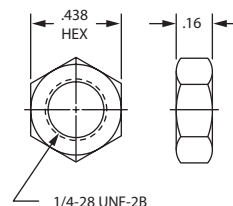
**Mounting Bracket  
 F-M117002**



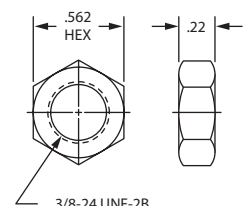
**Pivot Bracket  
 F-M129001**



**Rod Clevis  
 F-M127001**



**Mounting Nut  
 F-M190001**



**Mounting Nut  
 F-M190002**

# F Series

## 7/16" Bore Cylinders



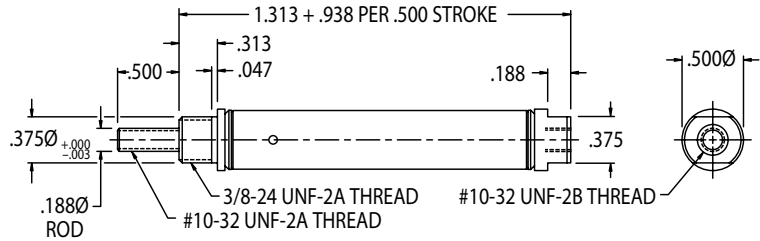
### Single Acting Spring Return Front Nose Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"

- Optional Accessories:
- F-M117004 Mounting Bracket
  - F-M127002 Rod Clevis
- Base Weight: .04 lbs.  
Plus .04 lbs. per inch of stroke

### F-0438S01-00A

MOUNTING NUT INCLUDED



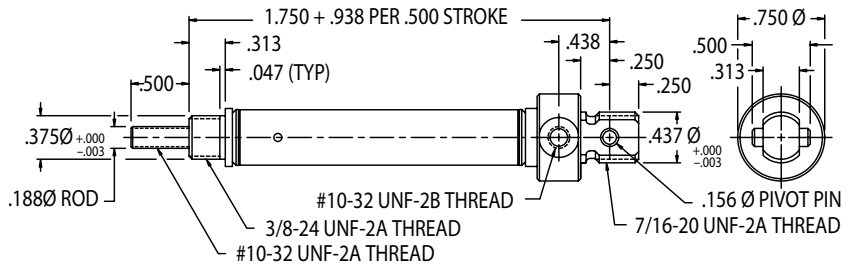
### Single Acting Spring Return Rear Pivot Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"

- Optional Accessories:
- F-M117004 Front Mounting Bracket
  - F-M117003 Rear Mounting Bracket
  - F-M029002 Pivot Bracket
  - F-M127002 Rod Clevis
- Base Weight: .04 lbs.  
Plus .04 lbs. per inch of stroke

### F-0438S02-00A

MOUNTING NUT NOT INCLUDED



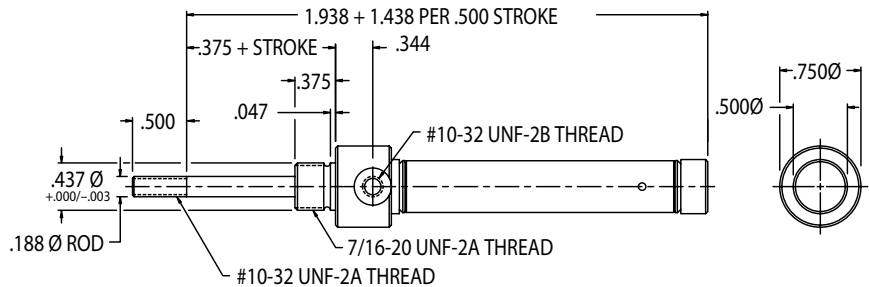
### Single Acting Spring Extend Front Nose Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3"  
Maximum Stroke: 6"

- Optional Accessories:
- F-M117003 Mounting Bracket
  - F-M127002 Rod Clevis
- Base Weight: .08 lbs.  
Plus .03 lbs. per inch of stroke

### F-0438R01-00A

MOUNTING NUT INCLUDED



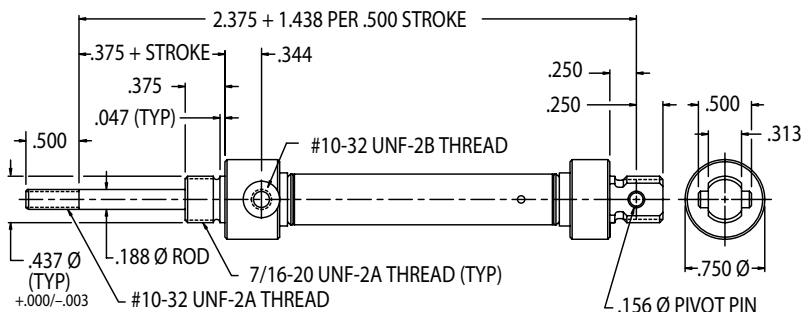
### Single Acting Spring Extend Rear Pivot Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3"  
Maximum Stroke: 6"

- Optional Accessories:
- F-M117003 Mounting Bracket
  - F-M029002 Pivot Bracket
  - F-M127002 Rod Clevis
- Base Weight: .08 lbs.  
Plus .03 lbs. per inch of stroke

### F-0438R02-00A

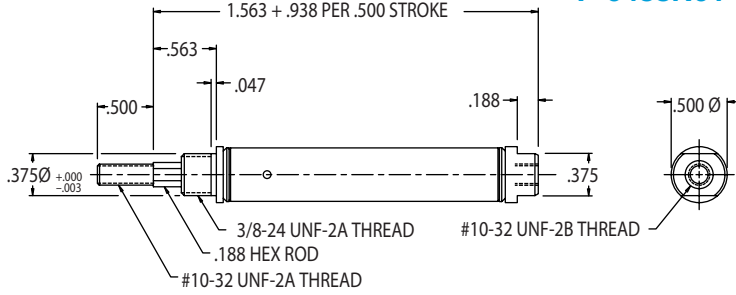
MOUNTING NUT NOT INCLUDED





MOUNTING NUT INCLUDED

**F-0438N01-00A**



Single Acting **Spring Return**  
 Front Nose Mount

**Non-Rotating**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**

Maximum Stroke: 6"

Optional Accessories:

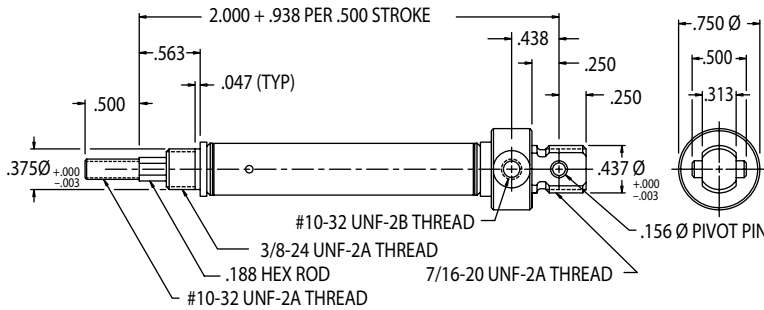
- F-M117004 Mounting Bracket
- F-M127002 Rod Clevis

Base Weight: .04 lbs.

Plus .04 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

**F-0438N02-00A**



Single Acting **Spring Return**  
 Rear Pivot Mount

**Non-Rotating**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**

Maximum Stroke: 6"

Optional Accessories:

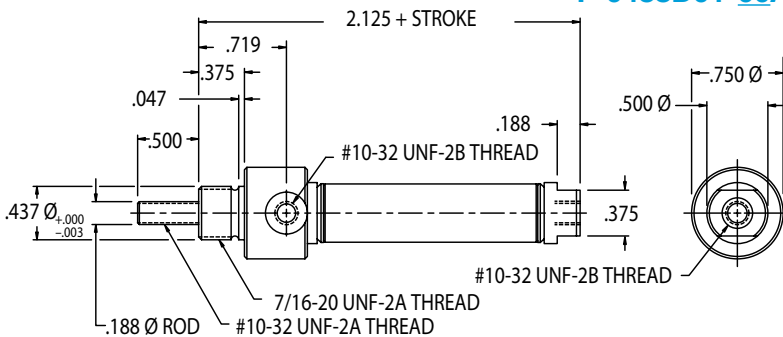
- F-M117004 Front Mounting Bracket
- F-M117003 Rear Mounting Bracket
- F-M029002 Pivot Bracket
- F-M127002 Rod Clevis

Base Weight: .04 lbs.

Plus .04 lbs. per inch of stroke

MOUNTING NUT INCLUDED

**F-0438D01-00A**



**Double Acting**  
 Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**

Maximum Stroke: 12"

Optional Accessories:

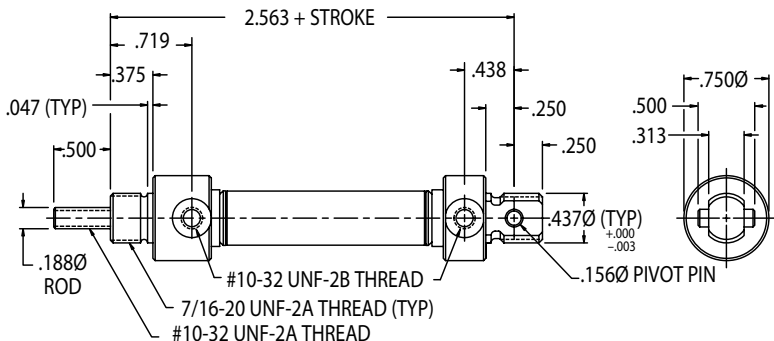
- F-M117003 Mounting Bracket
- F-M127002 Rod Clevis

Base Weight: .07 lbs.

Plus .02 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

**F-0438D02-00A**



**Double Acting**  
 Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5"**

Maximum Stroke: 12"

Optional Accessories:

- F-M117003 Mounting Bracket
- F-M029002 Pivot Bracket
- F-M127002 Rod Clevis

Base Weight: .08 lbs.

Plus .02 lbs. per inch of stroke

# F Series

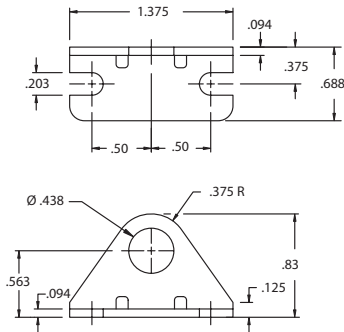
## 7/16" Bore Cylinders



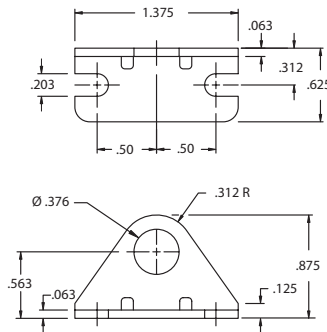
### Cylinder Features – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod:  
Round – Ground and Polished 303 Stainless Steel  
Hex – Ground 303 Stainless Steel
- Mounting nuts standard on all nose mount cylinders
- Approximate Force Exerted: (0.15) x (Air Line PSI)
- Spring Force: 1 lb. Relaxed – 2 lb. Compressed

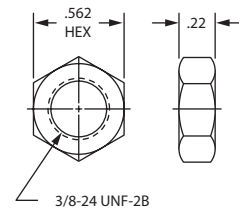
OPTION
<ul style="list-style-type: none"> <li>• Bumpers</li> <li>• Viton® Seals – Spring Return (-15° F to 300° F) Double Acting (-15° F to 350° F) Spring Extend (-15° F to 300° F)</li> <li>• Magnetic Piston</li> <li>• Pivot Bushing – Bronze sleeve substitution</li> <li>• Ports Rotated – 90° on S02, R02, N02, or D02 (both)</li> <li>• Rod Wiper – Not available</li> <li>• Side Port – Not available</li> <li>• Low Temperature Seals – Applications to -40° F Spring Return Double Acting Spring Extend</li> <li>• Rod Extension</li> <li>• Rod Thread Extension</li> </ul>



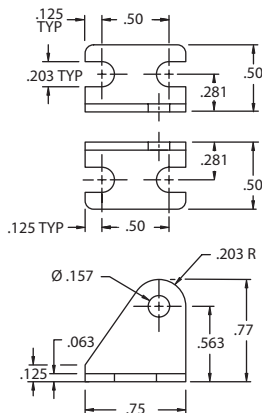
**Mounting Bracket**  
F-M117003



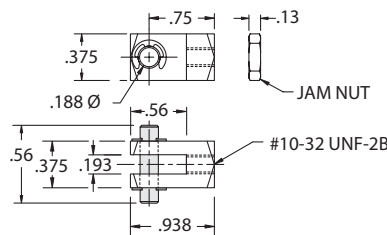
**Mounting Bracket**  
F-M117004



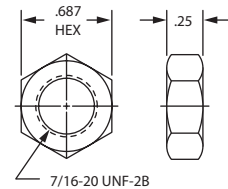
**Mounting Nut**  
F-M190002



**Pivot Bracket**  
F-M029002



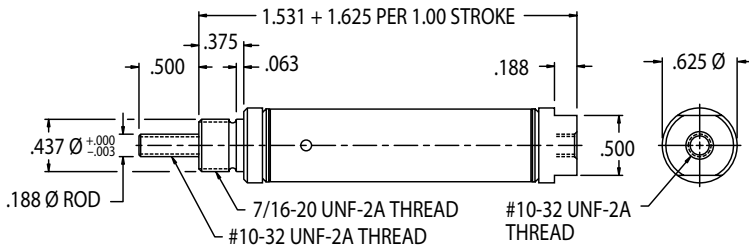
**Rod Clevis**  
F-M127002



**Mounting Nut**  
F-M190003

MOUNTING NUT INCLUDED

## F-0563S01-00A



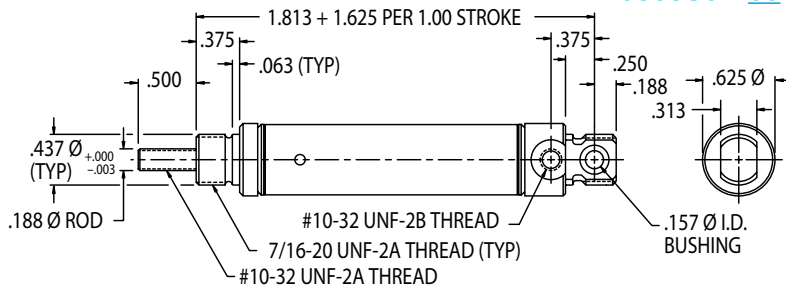
BUMPER OPTION (AVAILABLE AT CAP END ONLY) - ADD .062 TO OAL  
 MAGNETIC PISTON - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .713 TO OAL

Single Acting **Spring Return**  
 Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .06 lbs.  
 Plus .05 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

## F-0563S02-00A



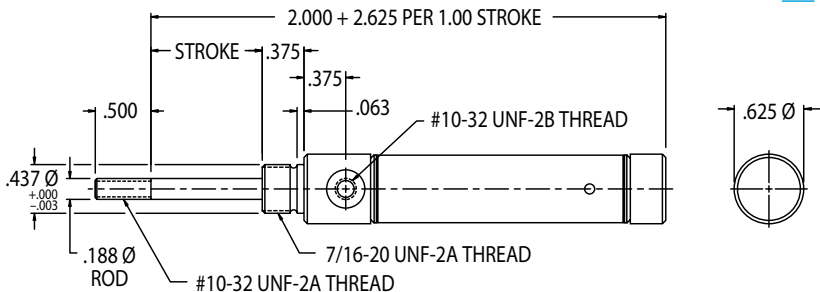
BUMPER OPTION (AVAILABLE AT CAP END ONLY) - ADD .062 TO OAL  
 MAGNETIC PISTON - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .713 TO OAL

Single Acting **Spring Return**  
 Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M129002 Pivot Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .06 lbs.  
 Plus .05 lbs. per inch of stroke

MOUNTING NUT INCLUDED

## F-0563R01-00A



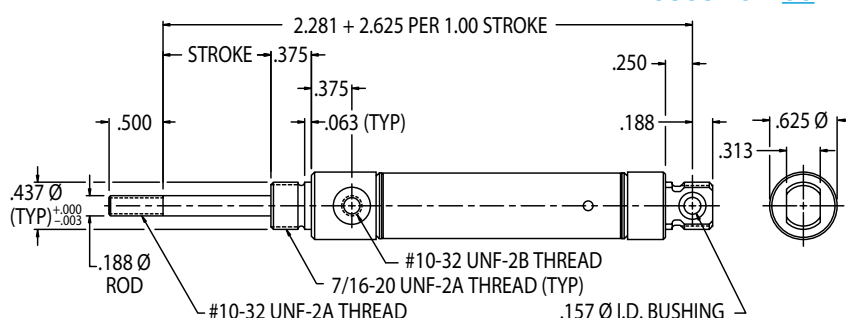
BUMPER OPTION (AVAILABLE AT ROD END ONLY) - ADD .062 TO OAL  
 MAGNETIC PISTON - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .713 TO OAL

Single Acting **Spring Extend**  
 Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .08 lbs.  
 Plus .04 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

## F-0563R02-00A



BUMPER OPTION (AVAILABLE AT ROD END ONLY) - ADD .062 TO OAL  
 MAGNETIC PISTON - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .713 TO OAL

Single Acting **Spring Extend**  
 Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M129002 Pivot Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .08 lbs.  
 Plus .04 lbs. per inch of stroke

# F Series

## 9/16" Bore Cylinders

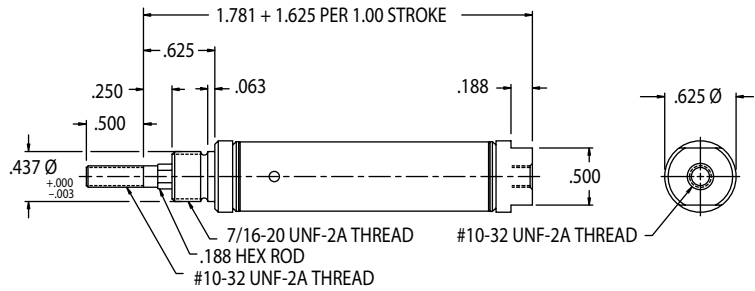


### Single Acting Spring Return Front Nose Mount Non-Rotating

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .06 lbs.  
 Plus .05 lbs. per inch of stroke

#### F-0563N01-00A

MOUNTING NUT INCLUDED



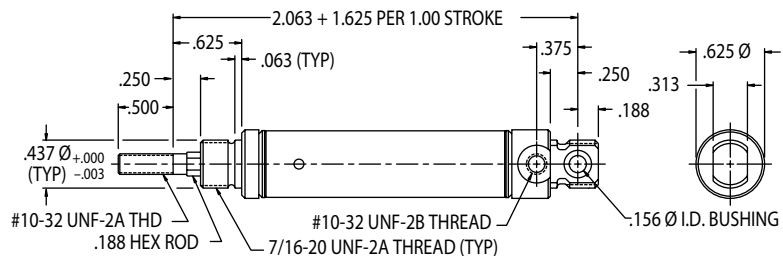
BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .062 TO OAL  
 MAGNETIC PISTON - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .713 TO OAL

### Single Acting Spring Return Rear Pivot Mount Non-Rotating

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M129002 Pivot Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .06 lbs.  
 Plus .05 lbs. per inch of stroke

#### F-0563N02-00A

MOUNTING NUT NOT INCLUDED



BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .062 TO OAL  
 MAGNETIC PISTON - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .713 TO OAL

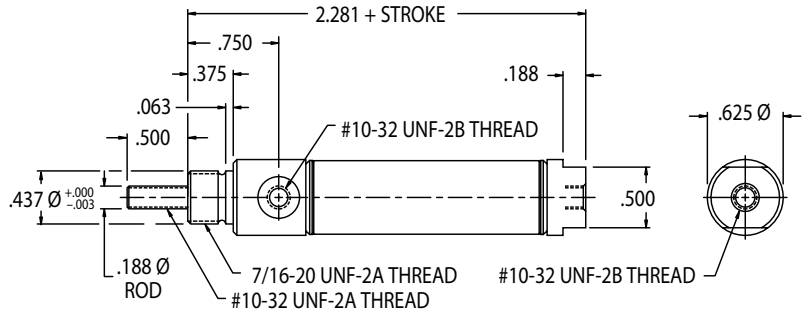
### Double Acting Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 12"

Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .09 lbs.  
 Plus .02 lbs. per inch of stroke

#### F-0563D01-00A

MOUNTING NUT INCLUDED



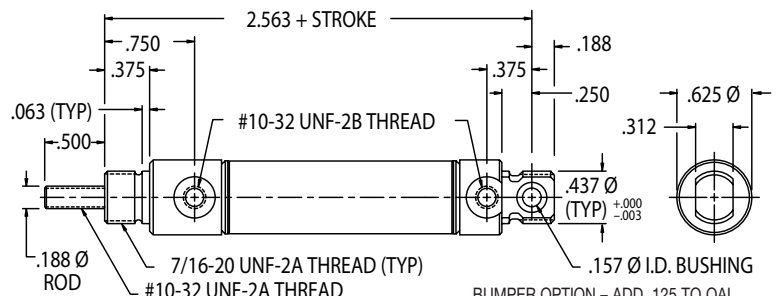
BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON - ADD .250 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .375 TO OAL

### Double Acting Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M129002 Pivot Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .09 lbs.  
 Plus .02 lbs. per inch of stroke

#### F-0563D02-00A or F-0563D04-00A

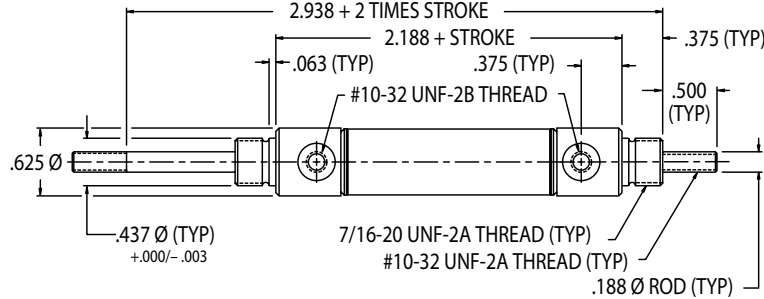
MOUNTING NUT NOT INCLUDED - D02



BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON - ADD .250 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .375 TO OAL

MOUNTING NUT INCLUDED

**F-0563D03-00A**

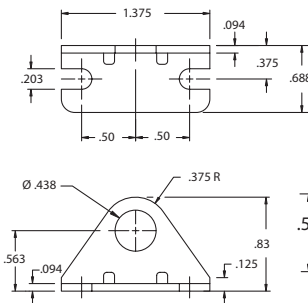


**Double Acting  
 Double Rod**

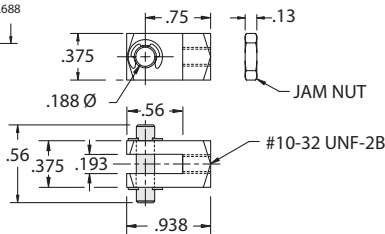
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .16 lbs.  
 Plus .03 lbs. per inch of stroke

BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON - ADD .250 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON - ADD .375 TO OAL

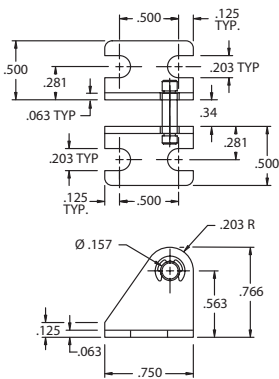
## 9/16" Bore Cylinder Specifications – Options & Accessory Pricing



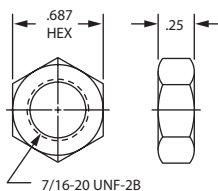
**Mounting Bracket**  
 F-M117003



**Rod Clevis**  
 F-M127002



**Pivot Bracket**  
 F-M129002



**Mounting Nut**  
 F-M190003

- -10° to +165°F
- Piston Rod: Hex - Ground 303 Stainless Steel  
 Round - Ground and Polished 303 Stainless Steel
- Mounting nuts are standard on all nose mount cylinders
- Bumpers are optional on all 9/16" bore cylinders (except in combination with Viton® option)
- Approximate Force Exerted: (0.25) x (Air Line Pressure)
- Spring Force: 2 lb. Relaxed - 4 lb. Compressed
- Magnetic piston optional on all 9/16" bore cylinders (except in combination with Viton® option).

### OPTION

- Bumpers - Single Acting  
 Double Acting
- Viton® Seals - Not available with bumpers or magnetic piston  
 Spring Return (-15° F to 300° F)  
 Double Acting (-15° F to 350° F)  
 Spring Extend (-15° F to 300° F)  
 Double Rod (-15° F to 350° F)
- Magnetic Piston
- Pivot Bushing - Bronze sleeve standard
- Ports Rotated - 90° on S02, R02, N02, or D02 (both)
- Rod Wiper - Not available
- Side Port - Cap end port on S01, N01, or D01  
 Add .03 to OAL
- Low Temperature Seals - Applications to -40° F  
 Spring Return  
 Double Acting  
 Spring Extend  
 Double Rod
- Rod Extension
- Rod Thread Extension

# F Series

## 3/4" Bore Cylinders

Single Acting **Spring Return**

Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

Optional Accessories:

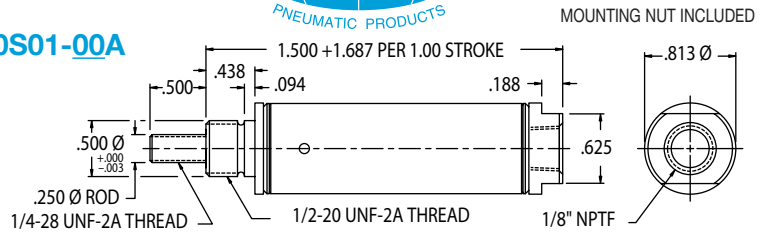
- F-M117006 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .10 lbs.

Plus .08 lbs. per inch of stroke



### F-0750S01-00A



BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .688 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .890 TO OAL

Single Acting **Spring Return**

Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

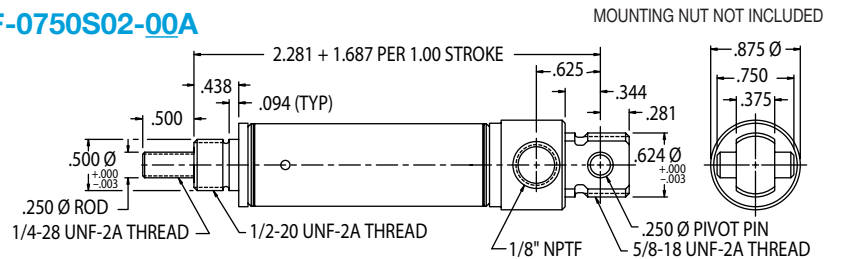
Optional Accessories:

- F-M117006 Mounting Bracket
- F-M029003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .13 lbs.

Plus .08 lbs. per inch of stroke

### F-0750S02-00A



BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .688 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .890 TO OAL

Single Acting **Spring Extend**

Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

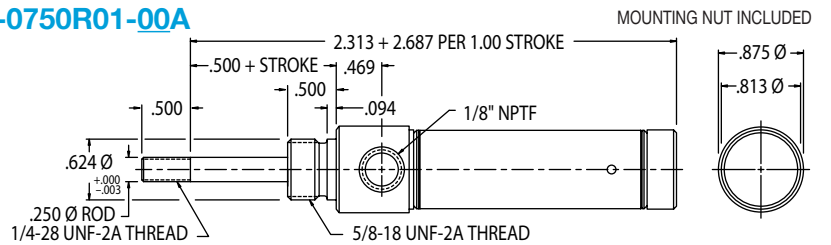
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .18 lbs.

Plus .07 lbs. per inch of stroke

### F-0750R01-00A



BUMPER OPTION (AVAILABLE ROD END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .688 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .890 TO OAL

Single Acting **Spring Extend**

Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

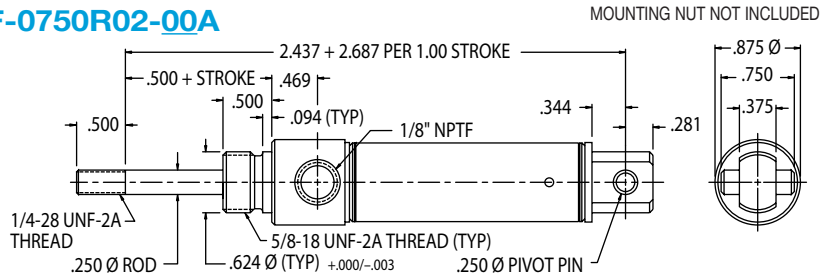
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M029003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .18 lbs.

Plus .07 lbs. per inch of stroke

### F-0750R02-00A



BUMPER OPTION (AVAILABLE ROD END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .688 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .890 TO OAL

Single Acting **Spring Return**

Front Nose Mount

**Non-Rotating**

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

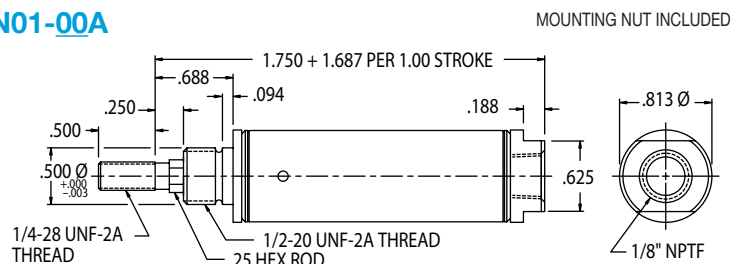
Optional Accessories:

- F-M117006 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .10 lbs.

Plus .08 lbs. per inch of stroke

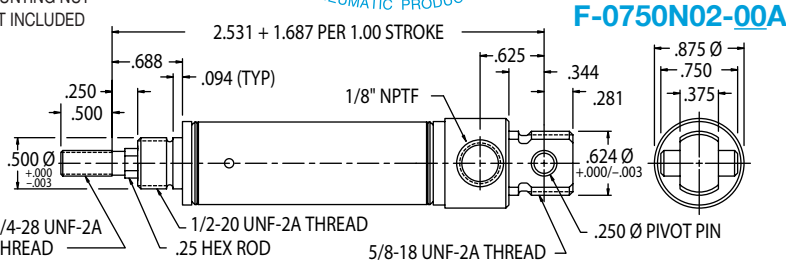
### F-0750N01-00A



BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .688 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .890 TO OAL

3/4" Bore Cylinders

MOUNTING NUT  
NOT INCLUDED



F-0750N02-00A

BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
MAGNETIC PISTON OPTION - ADD .688 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .890 TO OAL

Single Acting **Spring Return**  
Rear Pivot Mount **Non-Rotating**

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

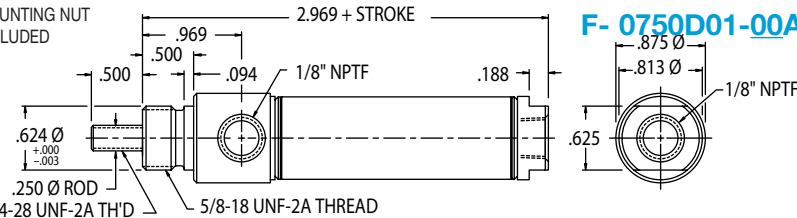
Optional Accessories:

- F-M117006 Mounting Bracket
- F-M029003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .12 lbs.

Plus .08 lbs. per inch of stroke

MOUNTING NUT  
INCLUDED



F-0750D01-00A

BUMPER OPTION - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

**Double Acting** - Front Nose Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

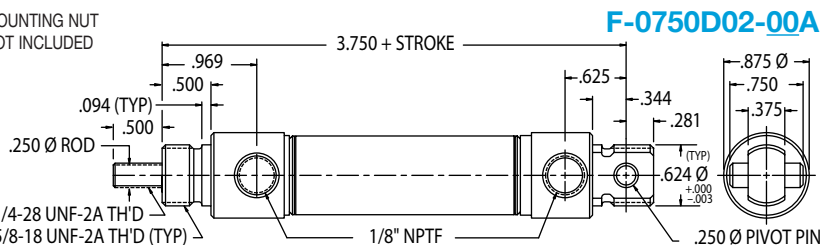
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .21 lbs.

Plus .03 lbs. per inch of stroke

MOUNTING NUT  
NOT INCLUDED



F-0750D02-00A

BUMPER OPTION - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

**Double Acting** - Rear Pivot Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

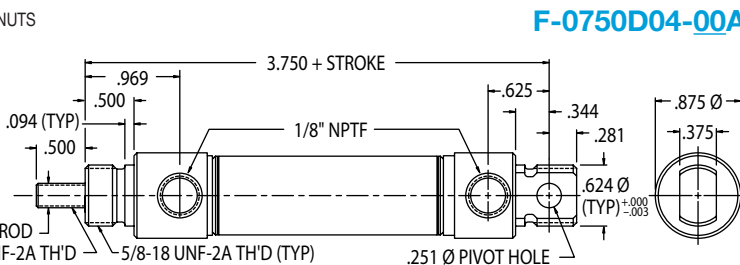
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M029003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .21 lbs.

Plus .03 lbs. per inch of stroke

MOUNTING NUTS  
INCLUDED



F-0750D04-00A

BUMPER OPTION - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

**Double Acting**

Double Nose or Rear Pivot Mount

Standard Stroke Lengths  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

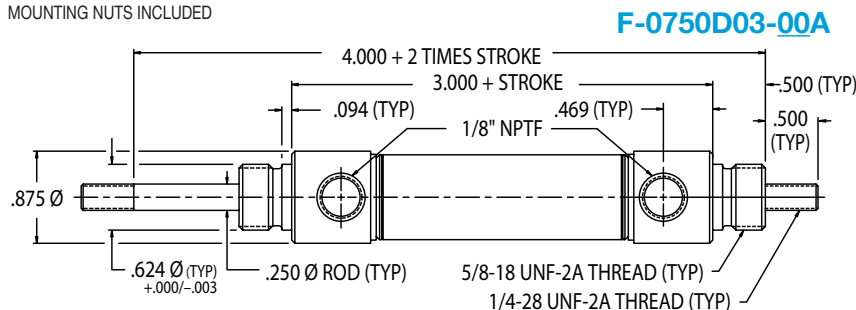
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M129003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .29 lbs.

Plus .03 lbs. per inch of stroke

MOUNTING NUTS INCLUDED



F-0750D03-00A

BUMPER OPTION - ADD .250 TO OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

**Double Acting**

Double Rod

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

Optional Accessories:

- F-M117005 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .37 lbs.

Plus .04 lbs. per inch of stroke

# F Series

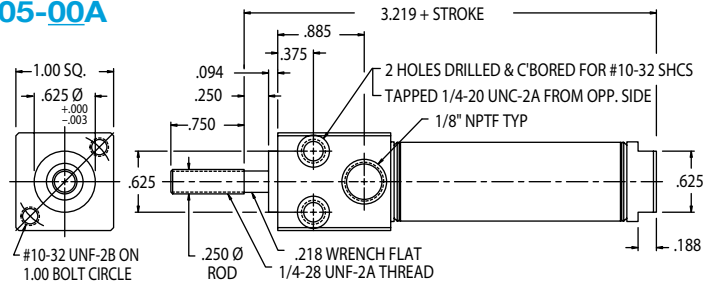
## 3/4" Bore Cylinders



### Double Acting Front Block Mount

#### F-0750D05-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127003 Rod Clevis  
 Base Weight: .22 lbs.  
 Plus .03 lbs. per inch of stroke

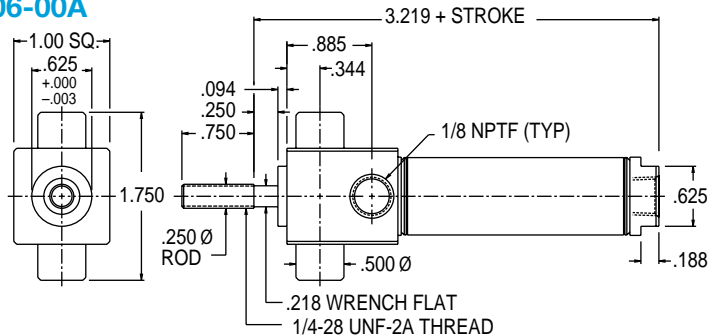


BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

### Double Acting Trunnion Mount

#### F-0750D06-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M029006 Trunnion Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .29 lbs.  
 Plus .03 lbs. per inch of stroke

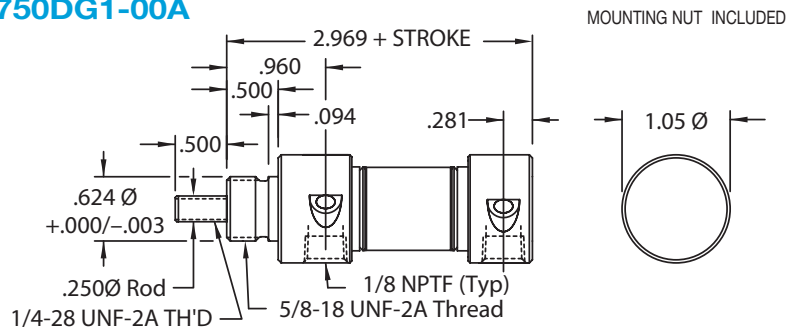


BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

### Double Acting Front Nose Mount with Adjustable Cushions

#### F-0750DG1-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .24 lbs.  
 Plus .03 lbs. per inch of stroke

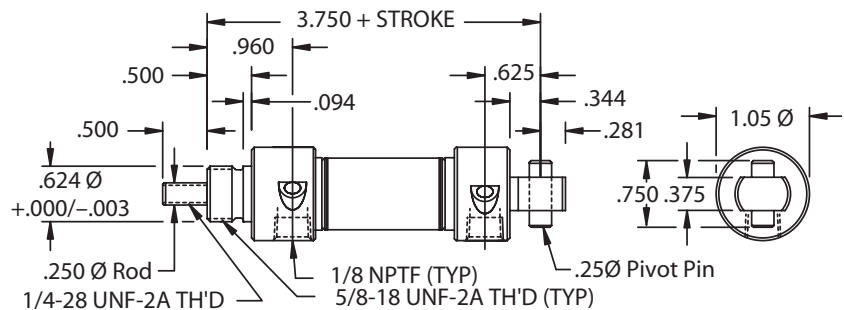


MAGNETIC PISTON OPTION - NO CHANGE IN OAL

### Double Acting Rear Pivot Mount with Adjustable Cushions

#### F-0750DG2-00A or F-0750DG4-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .29 lbs.  
 Plus .03 lbs. per inch of stroke

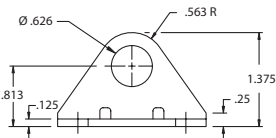
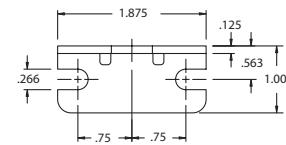


MAGNETIC PISTON OPTION - NO CHANGE IN OAL

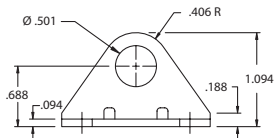
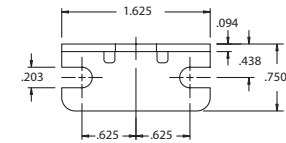


## Cylinder Specifications – Options & Accessory Pricing

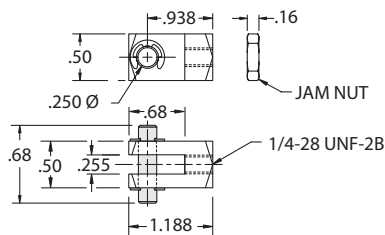
- -10° to +165°F
- Piston Rod:  
 Round - Ground, Polished, 303 Stainless Steel  
 Hex - Ground 303 Stainless Steel
- Mounting nuts are standard on all nose mount cylinders
- Bronze Rod Guide Bushing is Standard
- Approximate Force Exerted: (0.4) x (Air Line Pressure)
- Spring Force: 3 lb. Relaxed – 6 lb. Compressed
- Magnetic piston optional on all 3/4" bore cylinders (except in combination with Viton® option).



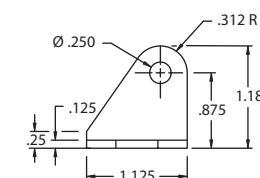
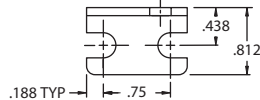
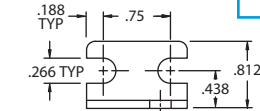
**Mounting Bracket**  
 F-M117005



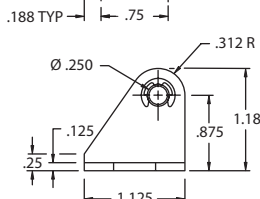
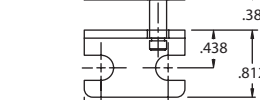
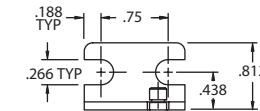
**Mounting Bracket**  
 F-M117006



**Rod Clevis**  
 F-M127003



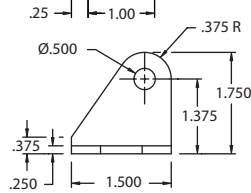
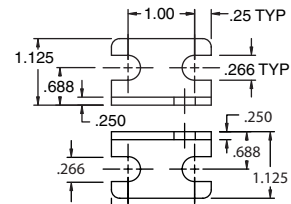
**Pivot Bracket**  
 F-M029003



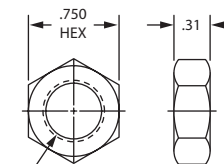
**Pivot Bracket**  
 F-M129003

**OPTION**

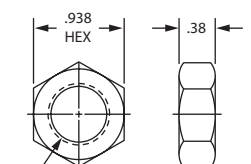
- Bumpers – Single Acting  
 Double Acting
- Viton® Seals – Not available with bumpers or magnetic piston  
 Spring Return (-15° F to 300° F)  
 Double Acting (-15° F to 350° F)  
 Spring Extend (-15° F to 300° F)  
 Double Rod (-15° F to 350° F)
- Magnetic Piston –
- Pivot Bushing – Bronze sleeve substitution
- Ports Rotated – 90°  
 on S02, R02, N02, D02 (both), or D04 (both)
- Rod Wiper – Not available in spring return models
- Side Port – Cap end port on S01, N01, D01, D05, or D06 (Add .44 to OAL)
- Low Temperature Seals – Applications to -40° F  
 Spring Return  
 Double Acting  
 Spring Extend  
 Double Rod
- Rod Extension
- Rod Thread Extension



**Trunnion Bracket**  
 F-M029006



**Mounting Nut**  
 F-M190004



**Mounting Nut**  
 F-M190005

# F Series

## 7/8" Bore Cylinders



### Single Acting Spring Return Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

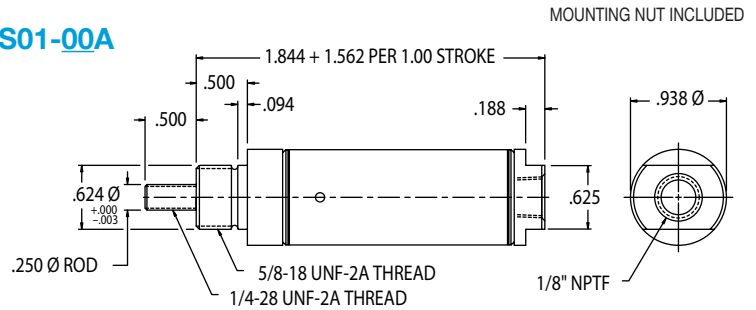
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .17 lbs.

Plus .09 lbs. per inch of stroke

### F-0875S01-00A



BUMPER OPTION (AVAILABLE CAP END ONLY) - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .733 TO OAL

### Single Acting Spring Return Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

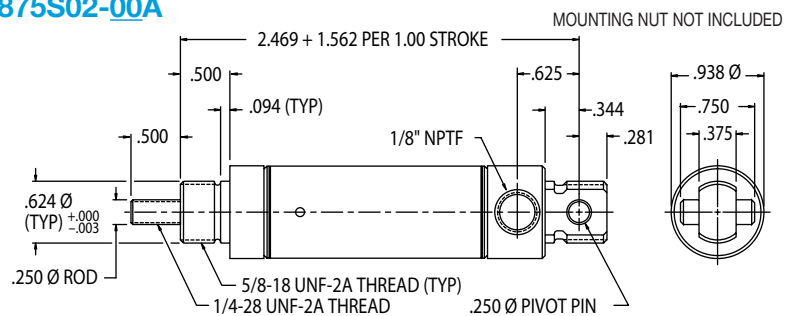
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M029003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .17 lbs.

Plus .09 lbs. per inch of stroke

### F-0875S02-00A



BUMPER OPTION (AVAILABLE CAP END ONLY) - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .733 TO OAL

### Single Acting Spring Extend Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

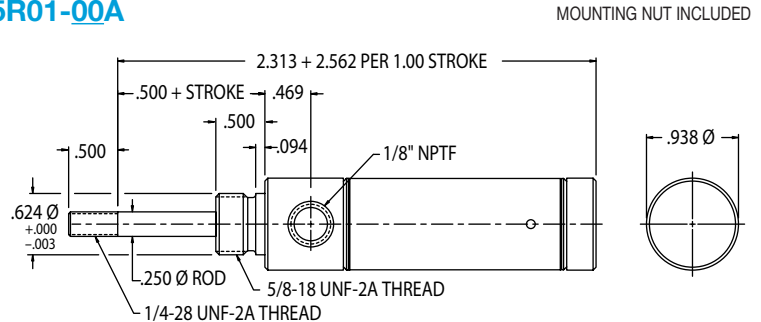
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M127003 Rod Clevis

Base Weight: .20 lbs.

Plus .09 lbs. per inch of stroke

### F-0875R01-00A



BUMPER OPTION (AVAILABLE ROD END ONLY) - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .733 TO OAL

### Single Acting Spring Extend Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

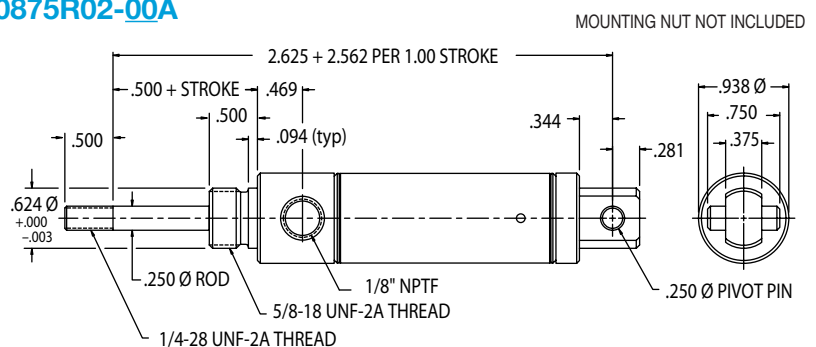
Optional Accessories:

- F-M117005 Mounting Bracket
- F-M029003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .20 lbs.

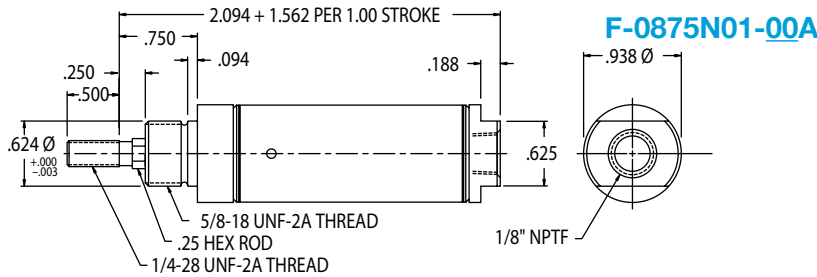
Plus .09 lbs. per inch of stroke

### F-0875R02-00A



BUMPER OPTION (AVAILABLE ROD END ONLY) - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .733 TO OAL

MOUNTING NUT INCLUDED

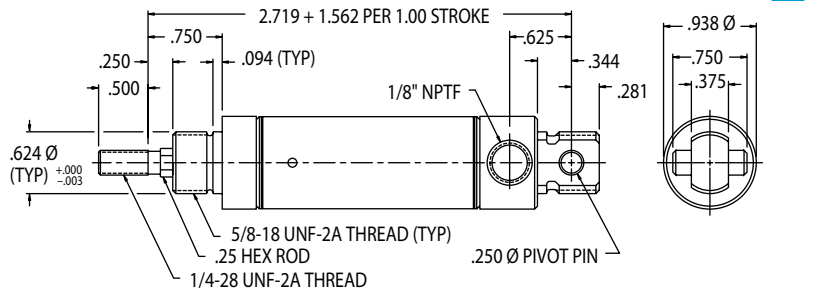


BUMPER OPTION (AVAILABLE CAP END ONLY) - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .733 TO OAL

**Single Acting Spring Return  
 Front Nose Mount Non-Rotating**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .17 lbs.  
 Plus .09 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

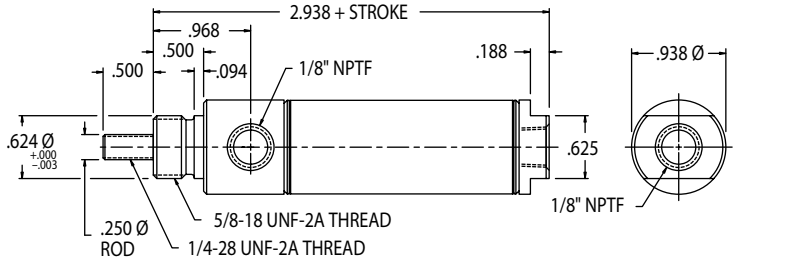


BUMPER OPTION (AVAILABLE CAP END ONLY) - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .531 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .733 TO OAL

**Single Acting Spring Return  
 Rear Pivot Mount Non-Rotating**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .17 lbs.  
 Plus .09 lbs. per inch of stroke

MOUNTING NUT INCLUDED

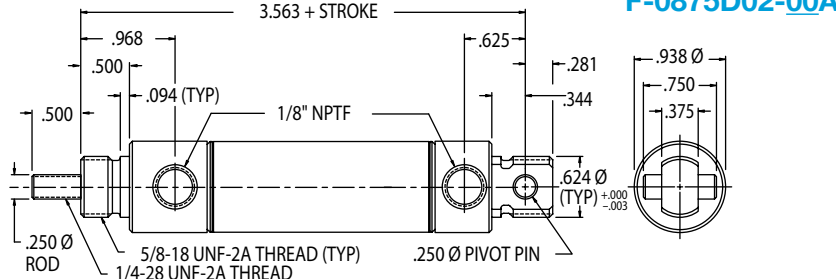


BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

**Double Acting – Front Nose Mount**

Standard Stroke Lengths  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .25 lbs.  
 Plus .03 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED



BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

**Double Acting – Rear Pivot Mount**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127003 Rod Clevis  
 Base Weight: .32 lbs.  
 Plus .03 lbs. per inch of stroke

# F Series

## 7/8" Bore Cylinders



### Double Acting

#### Double Nose or Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 32"

Optional Accessories:

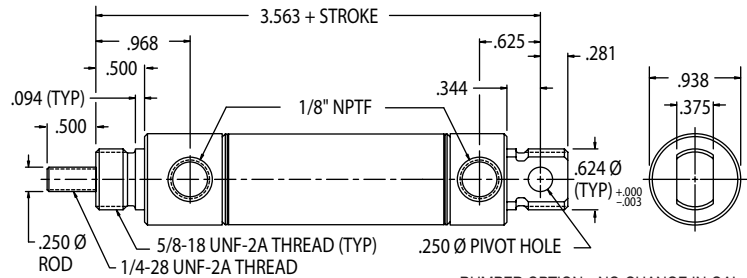
- F-M117005 Mounting Bracket
- F-M129003 Pivot Bracket
- F-M127003 Rod Clevis

Base Weight: .32 lbs.

Plus .03 lbs. per inch of stroke

### F-0875D04-00A

MOUNTING NUTS INCLUDED

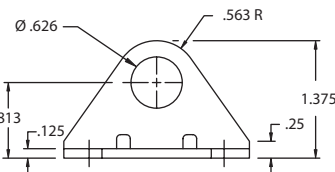
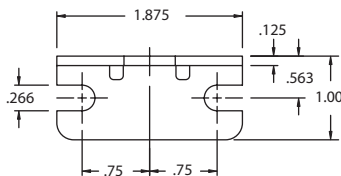


BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

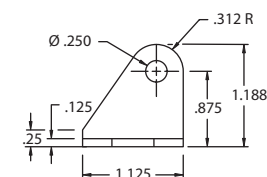
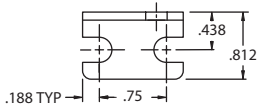
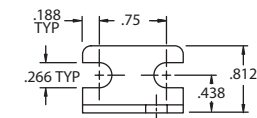
## 7/8" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod:
  - Round - Ground and Polished, 303 Stainless Steel
  - Hex - Ground 303 Stainless Steel
- Mounting nuts are standard on all nose mount cylinders
- Bronze Rod Guide Bushing is Standard
- Approximate Force Exerted: (0.6) x (Air Line Pressure)
- Spring Force: 3 lb. Relaxed – 6 lb. Compressed
- Magnetic piston optional on all 7/8" bore cylinders (except in combination with Viton® option).

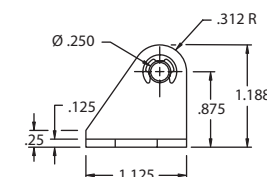
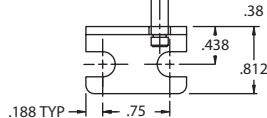
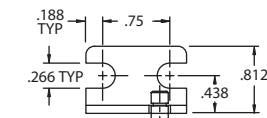
OPTION
• Bumpers – Single Acting Double Acting
• Viton® Seals – Not available with bumpers or magnetic piston Spring Return (-15° F to 300° F) Double Acting (-15° F to 350° F) Spring Extend (-15° F to 300° F)
• Magnetic Piston
• Pivot Bushing – Bronze sleeve substitution
• Ports Rotated – 90° on S02, R02, N02, D02 (both), or D04 (both)
• Rod Wiper – Not available in spring return models
• Side Port – Cap end port on S01, N01, or D01 Add .28 to OAL
• Low Temperature Seals – Applications to -40° F Spring Return Double Acting Spring Extend
• Rod Extension
• Rod Thread Extension



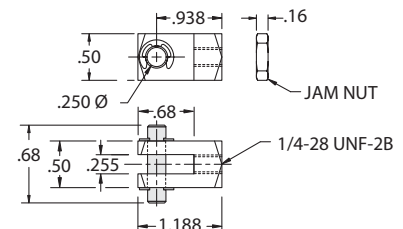
**Nose Mounting Bracket**  
F-M117005



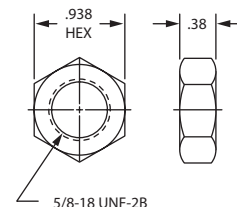
**Pivot Mounting Bracket**  
F-M029003



**Pivot Bracket**  
F-M129003

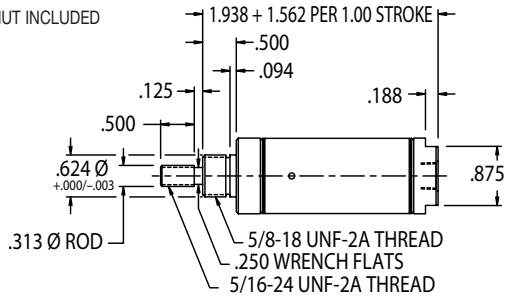


**Rod Clevis**  
F-M127003



**Mounting Nut**  
F-M190005

MOUNTING NUT INCLUDED



**F-1062S01-00A**

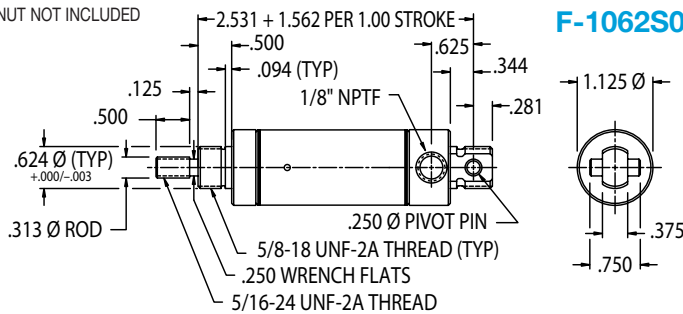
Single Acting **Spring Return**  
 Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 6"

Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .23 lbs.  
 Plus .11 lbs. per inch of stroke

BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .562 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

MOUNTING NUT NOT INCLUDED



**F-1062S02-00A**

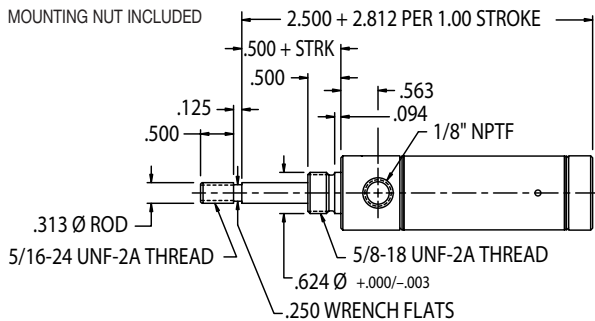
Single Acting **Spring Return**  
 Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"

Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .24 lbs.  
 Plus .11 lbs. per inch of stroke

BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .562 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

MOUNTING NUT INCLUDED



**F-1062R01-00A**

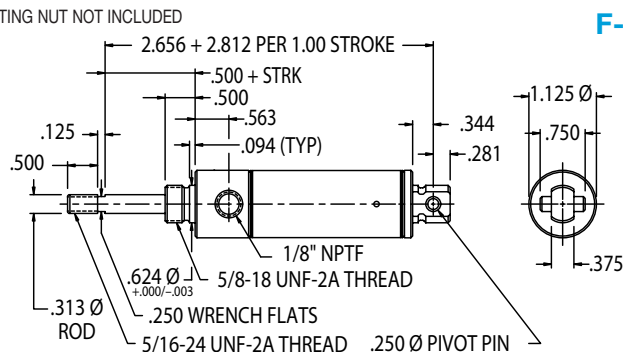
Single Acting **Spring Extend**  
 Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"

Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .24 lbs.  
 Plus .16 lbs. per inch of stroke

BUMPER OPTION (AVAILABLE ROD END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .562 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .687 TO OAL

MOUNTING NUT NOT INCLUDED



**F-1062R02-00A**

Single Acting **Spring Extend**  
 Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"

Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .22 lbs.  
 Plus .16 lbs. per inch of stroke

BUMPER OPTION (AVAILABLE ROD END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .562 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

# F Series

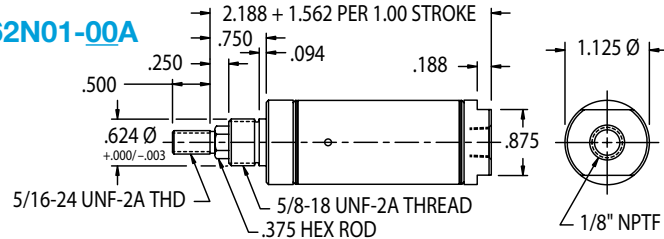
## 1-1/16" Bore Cylinders



### Single Acting Spring Return Front Nose Mount Non-Rotating

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .25 lbs.  
 Plus .12 lbs. per inch of stroke

#### F-1062N01-00A

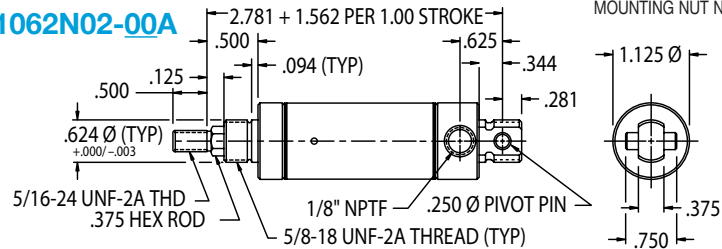


MOUNTING NUT INCLUDED  
 BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .562 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

### Single Acting Spring Return Rear Pivot Mount Non-Rotating

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .25 lbs.  
 Plus .12 lbs. per inch of stroke

#### F-1062N02-00A

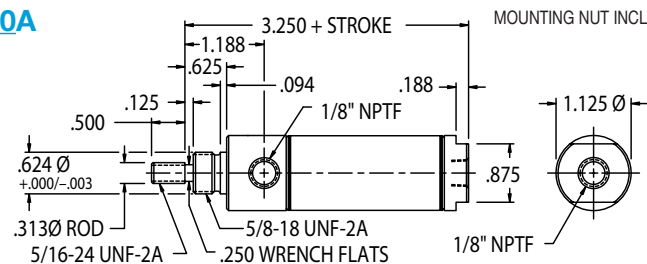


MOUNTING NUT NOT INCLUDED  
 BUMPER OPTION (AVAILABLE CAP END ONLY) - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - ADD .562 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

### Double Acting Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .33 lbs.  
 Plus .05 lbs. per inch of stroke

#### F-1062D01-00A

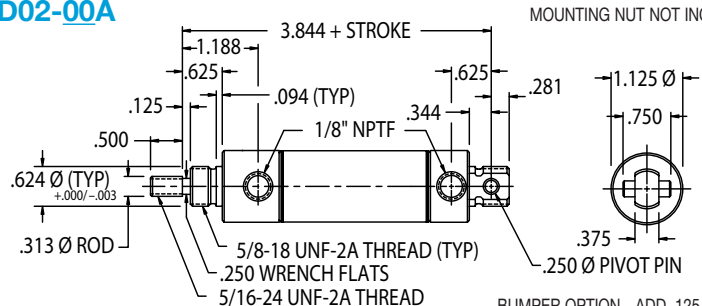


MOUNTING NUT INCLUDED  
 BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

### Double Acting Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .33 lbs.  
 Plus .05 lbs. per inch of stroke

#### F-1062D02-00A

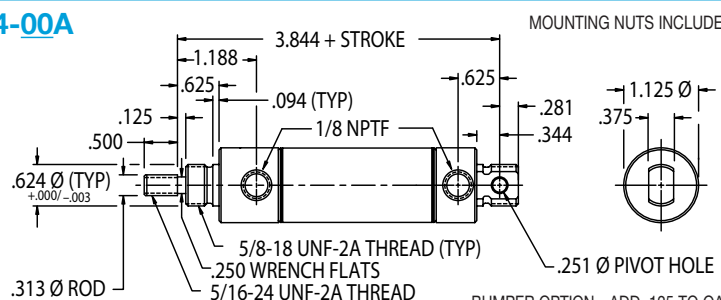


MOUNTING NUT NOT INCLUDED  
 BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

### Double Acting Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M129003 Pivot Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .33 lbs.  
 Plus .05 lbs. per inch of stroke

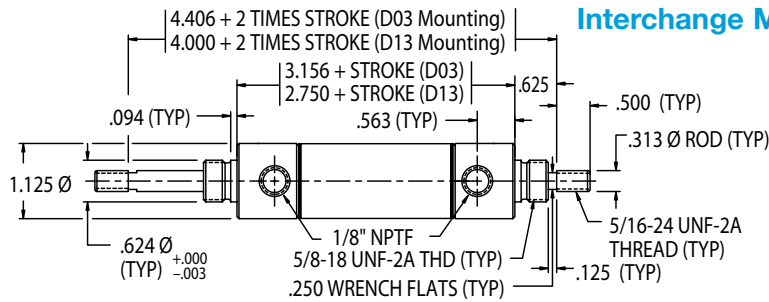
#### F-1062D04-00A



MOUNTING NUTS INCLUDED  
 BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

MOUNTING NUTS INCLUDED

**F-1062D03-00A and F-1062D13-00A**  
**Interchange Model**



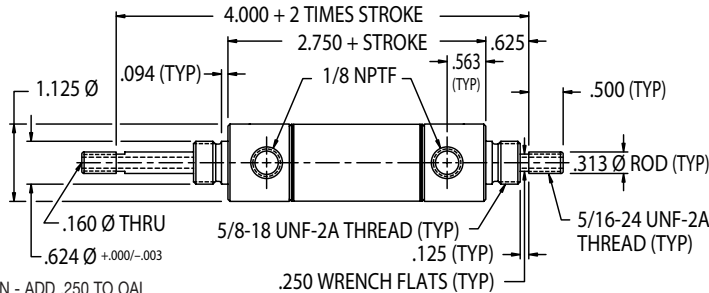
	D03	D13
BUMPER OPTION -	ADD .250 TO OAL	ADD .250 TO OAL
MAGNETIC PISTON OPTION -	ADD .000 TO OAL	ADD .406 TO OAL
BOTH BUMPER & MAG. PISTON OPTIONS -	ADD .250 TO OAL	ADD .656 TO OAL

**Double Acting**  
**Double Rod**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .48 lbs.  
 Plus .07 lbs. per inch of stroke

MOUNTING NUTS INCLUDED

**F-1062DH3-00A**



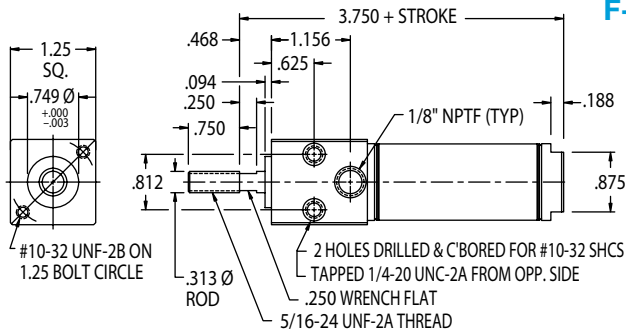
BUMPER OPTION -	ADD .250 TO OAL
MAGNETIC PISTON OPTION -	ADD .406 TO OAL
BOTH BUMPER & MAGNETIC PISTON OPTIONS -	ADD .656 TO OAL

**Double Acting**  
**Hollow Double Rod**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 Base Weight: .47 lbs.  
 Plus .07 lbs. per inch of stroke

MOUNTING NUTS INCLUDED

**F-1062D05-00A**



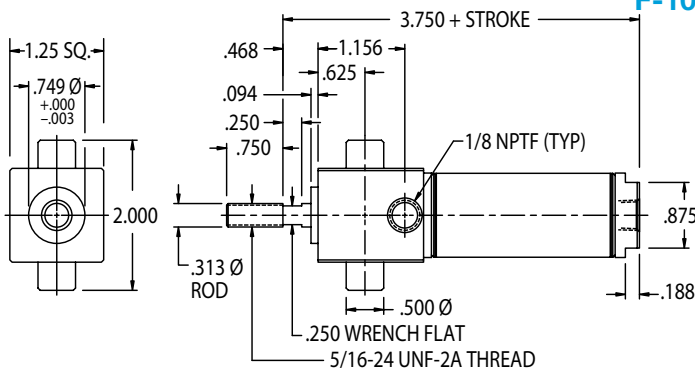
BUMPER OPTION -	ADD .125 TO OAL
MAGNETIC PISTON OPTION -	NO CHANGE IN OAL
BOTH BUMPER & MAGNETIC PISTON OPTIONS -	ADD .125 TO OAL

**Double Acting**  
**Front Block Mount**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127004 Rod Clevis  
 Base Weight: .49 lbs.  
 Plus .05 lbs. per inch of stroke

MOUNTING NUTS INCLUDED

**F-1062D06-00A**



BUMPER OPTION -	ADD .125 TO OAL
MAGNETIC PISTON OPTION -	NO CHANGE IN OAL
BOTH BUMPER & MAGNETIC PISTON OPTIONS -	ADD .125 TO OAL

**Double Acting**  
**Trunnion Mount**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M029006 Trunnion Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .49 lbs.  
 Plus .05 lbs. per inch of stroke

# F Series

## 1-1/16" Bore Cylinders



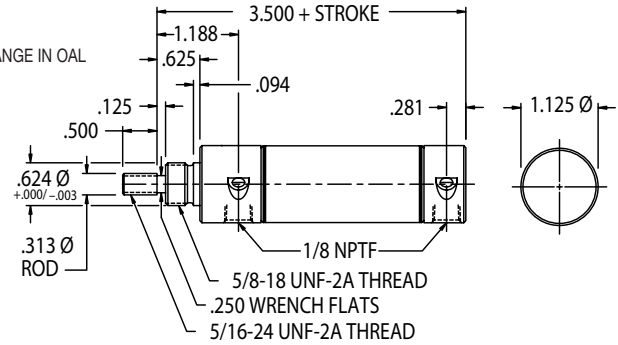
MOUNTING NUT INCLUDED

### Double Acting Front Nose Mount with Adjustable Cushions

#### F-1062DG1-00A

MAGNETIC PISTON - NO CHANGE IN OAL

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .38 lbs.  
 Plus .04 lbs. per inch of stroke

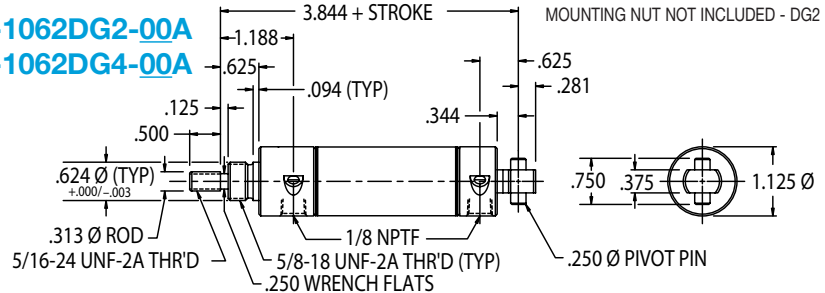


### Double Acting Rear Pivot Mount with Adjustable Cushions

#### F-1062DG2-00A F-1062DG4-00A

MOUNTING NUT NOT INCLUDED - DG2

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M117005 Mounting Bracket  
 • F-M029003 Pivot Bracket  
 • F-M127004 Rod Clevis  
 Base Weight: .44 lbs.  
 Plus .04 lbs. per inch of stroke



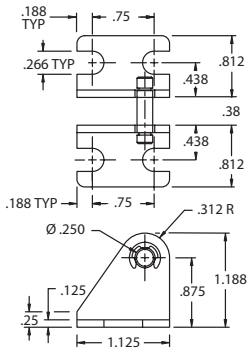
MAGNETIC PISTON OPTION - NO CHANGE IN OAL

## 1-1/16" Bore Cylinder Specifications – Options & Accessory Pricing

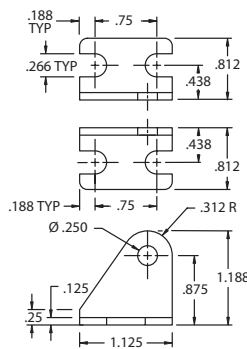
- -10° to +165°F
- Piston Rod: Hex - Ground 303 Stainless Steel
- Round - Ground and Polished, 303 Stainless Steel
- Bronze rod guide bushing is standard.
- Approximate force exerted = (0.9) x (air line pressure).
- Spring force: 3 lbs. relaxed, 6 lbs. compressed.
- Mounting nuts are standard on all nose mount cylinders.
- Bumpers are optional on all 1-1/16" bore cylinders (except in combination with Viton® option).
- Magnetic piston optional on all 1-1/16" bore cylinders (except in combination with Viton® option).

### OPTION

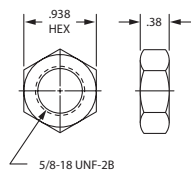
- Bumpers – Single Acting, Double Acting
- Viton® Seals: Not available with bumpers or magnetic piston
  - Spring Return (-15° F to 300° F)
  - Double Acting (-15° F to 350° F)
  - Spring Extend (-15° F to 300° F)
  - Double Rod (-15° F to 350° F)
- Magnetic Piston
- Pivot Bushing – Bronze sleeve substitution
- Ports Rotated - 90°
  - on S02, R02, N02, D02 (both), or D04 (both)
- Rod Wiper – Not available in spring return
- Side Port – Cap end port on S01, N01, D01, D05, or D06
  - Add .25 to OAL
- Low Temperature Seals (Applications to -40° F)
  - Spring Return
  - Double Acting
  - Spring Extend
  - Double Rod
- Rod Extension
- Rod Thread Extension



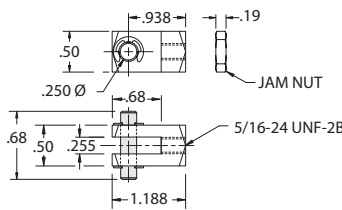
**Pivot Bracket**  
F-M129003



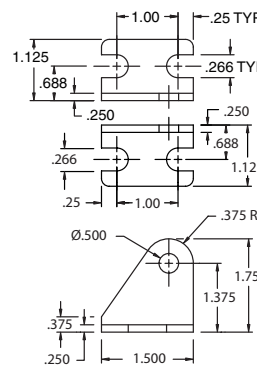
**Pivot Bracket**  
F-M029003



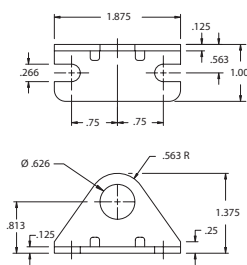
**Mounting Nut**  
F-M190005



**Rod Clevis**  
F-M127004



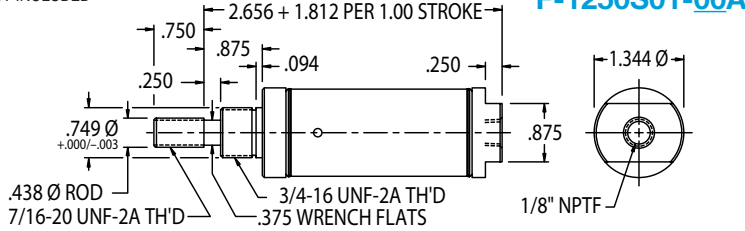
**Trunnion Bracket**  
F-M029006



**Mounting Bracket**  
F-M117005



MOUNTING NUT INCLUDED



**F-1250S01-00A**

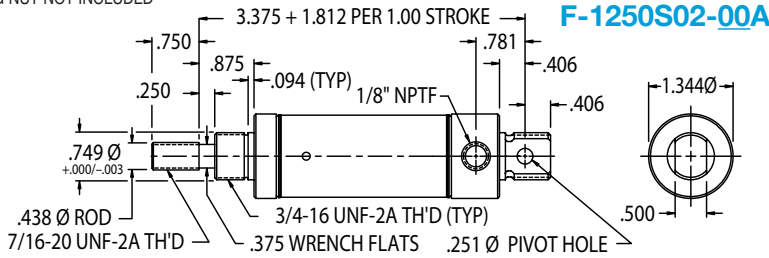
Single Acting **Spring Return**  
Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
Maximum Stroke: 6"

Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M127005 Rod Clevis  
Base Weight: .39 lbs.  
Plus .21 lbs. per inch of stroke

BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .531 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .734 TO OAL

MOUNTING NUT NOT INCLUDED



**F-1250S02-00A**

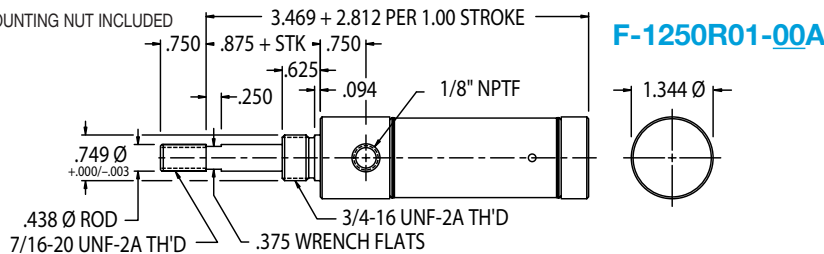
Single Acting **Spring Return**  
Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
Maximum Stroke: 6"

Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M229003 Pivot Bracket  
• F-M127005 Rod Clevis  
Base Weight: .53 lbs.  
Plus .21 lbs. per inch of stroke

BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .531 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .734 TO OAL

MOUNTING NUT INCLUDED



**F-1250R01-00A**

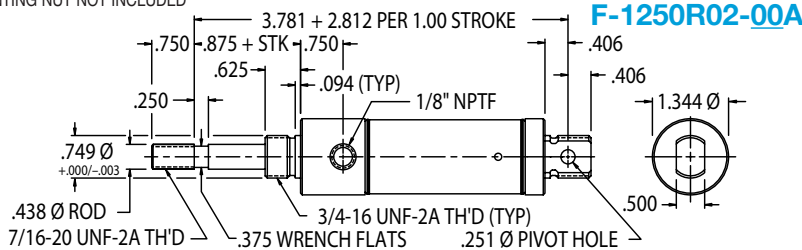
Single Acting **Spring Extend**  
Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
Maximum Stroke: 6"

Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M127005 Rod Clevis  
Base Weight: .50 lbs.  
Plus .21 lbs. per inch of stroke

BUMPER AVAILABLE ROD END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .531 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .734 TO OAL

MOUNTING NUT NOT INCLUDED



**F-1250R02-00A**

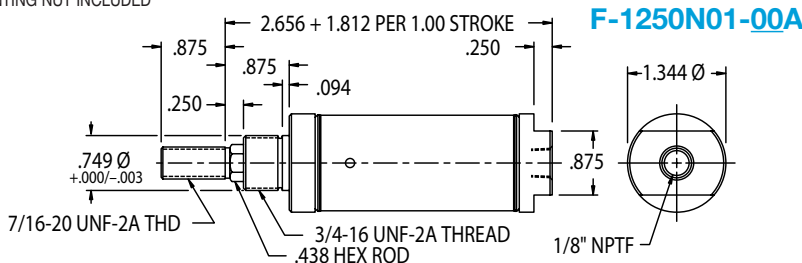
Single Acting **Spring Extend**  
Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
Maximum Stroke: 6"

Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M229003 Pivot Bracket  
• F-M127005 Rod Clevis  
Base Weight: .57 lbs.  
Plus .21 lbs. per inch of stroke

BUMPER AVAILABLE ROD END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .531 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .734 TO OAL

MOUNTING NUT INCLUDED



**F-1250N01-00A**

Single Acting **Spring Return**  
Front Nose Mount **Non-Rotating**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
Maximum Stroke: 6"

Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M127005 Rod Clevis  
Base Weight: .41 lbs.  
Plus .20 lbs. per inch of stroke

BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .531 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .734 TO OAL

# F Series

## 1-1/4" Bore Cylinders



### Single Acting Spring Return Rear Pivot Mount Non-Rotating

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"

Maximum Stroke: 6"

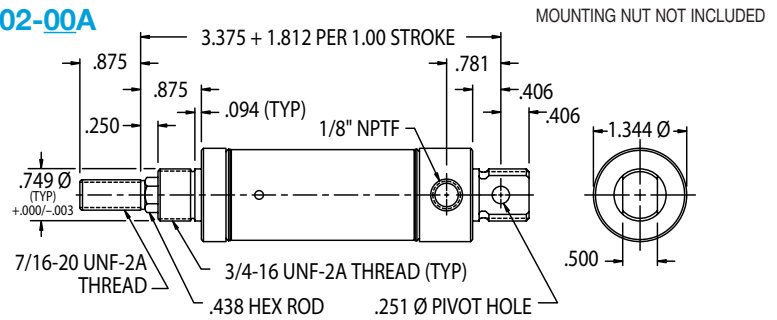
Optional Accessories:

- F-M117007 Mounting Bracket
- F-M229003 Pivot Bracket
- F-M127005 Rod Clevis

Base Weight: .41 lbs.

Plus .20 lbs. per inch of stroke

### F-1250N02-00A



MOUNTING NUT NOT INCLUDED  
BUMPER OPTION (AVAILABLE CAP END ONLY) - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .531 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .734 TO OAL

### Double Acting Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 12"

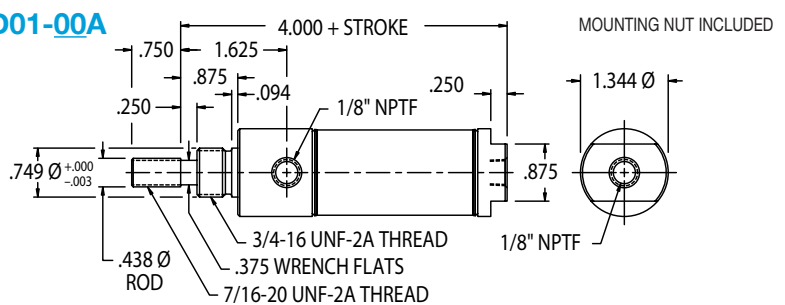
Optional Accessories:

- F-M117007 Mounting Bracket
- F-M127005 Rod Clevis

Base Weight: .58 lbs.

Plus .08 lbs. per inch of stroke

### F-1250D01-00A



MOUNTING NUT INCLUDED  
BUMPER OPTION - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

### Double Acting Double Nose or Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

Optional Accessories:

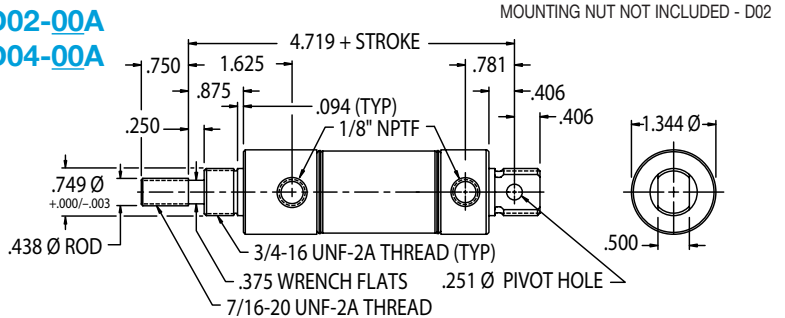
- F-M117007 Mounting Bracket
- F-M229003 Pivot Bracket
- F-M127005 Rod Clevis

Base Weight: .71 lbs.

Plus .08 lbs. per inch of stroke

### F-1250D02-00A

### F-1250D04-00A



MOUNTING NUT NOT INCLUDED - D02  
BUMPER OPTION - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .125 TO OAL

### Double Acting Double Rod

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

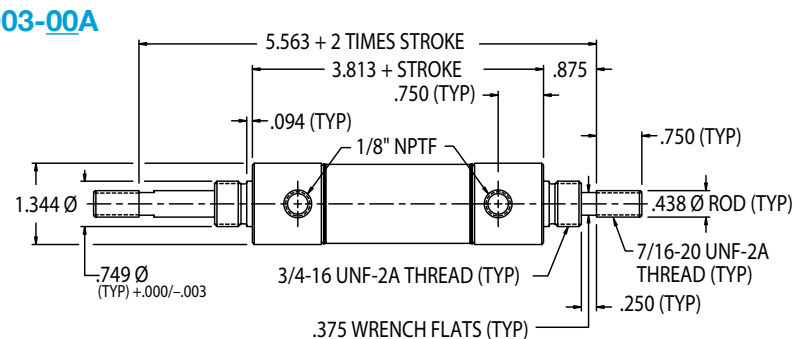
Optional Accessories:

- F-M117007 Mounting Bracket
- F-M127005 Rod Clevis

Base Weight: .98 lbs.

Plus .12 lbs. per inch of stroke

### F-1250D03-00A



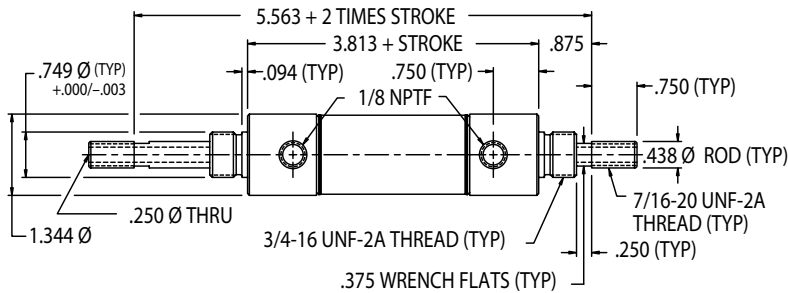
BUMPER OPTION - ADD .250 TO OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

MOUNTING NUT INCLUDED

**F-1250DH3-00A**

Double Acting  
**Hollow Double Rod**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
Maximum Stroke: 12"  
Optional Accessories:  
• F-M117007 Mounting Bracket  
Base Weight: .97 lbs.  
Plus .12 lbs. per inch of stroke



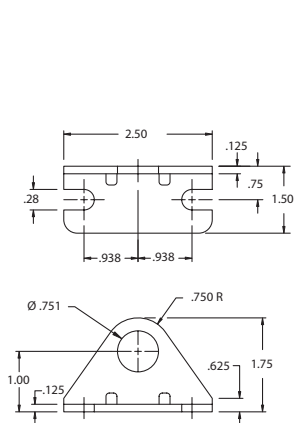
BUMPER OPTION - ADD .250 TO OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

## 1-1/4" Bore Cylinder Specifications – Options & Accessory Pricing

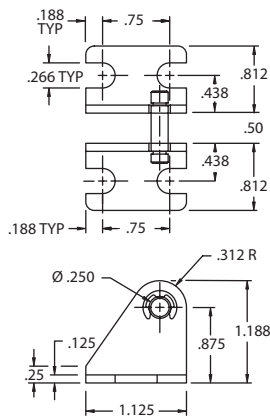
- -10° to +165°F
- Piston Rod:  
Round – Ground and Polished, 303 Stainless Steel.  
Hex – Ground 303 Stainless Steel.
- Bronze rod guide bushing is standard.
- Approximate force exerted = (1.2) x (air line pressure).
- Spring force: 7.5 lbs. relaxed, 15 lbs. compressed.
- Mounting nuts are standard on all nose mount cylinders.
- Bumpers are optional on all 1-1/4" bore cylinders (except in combination with Viton® option).
- Magnetic piston optional on all 1-1/4" bore cylinders (except in combination with Viton® option).

### OPTION

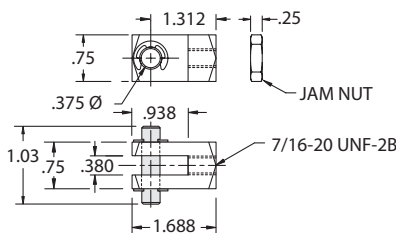
- Bumpers –  
Single Acting  
Double Acting
- Viton® Seals – Not available with Bumpers or Magnetic Piston  
Spring Return (-15°F to 300°F)  
Double Acting (-15°F to 350°F)  
Spring Extend (-15°F to 300°F)  
Double Rod (-15°F to 350°F)
- Magnetic Piston –
- Pivot Bushing – Bronze sleeve substitution
- Ports Rotated – 90°  
on S02, R02, N02, or D02 (both)
- Rod Wiper – Not available in spring return models
- Side Port - Cap end port on S01, N01, or D01  
Add .31 to OAL
- Low Temperature Seals – Applications to -40° F  
Spring Return0  
Double Acting  
Spring Extend  
Double Rod (-15°F to 400°F)
- Rod Extension - h
- Rod Thread Extension



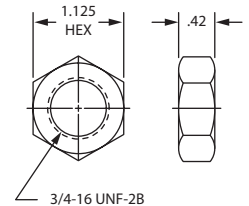
**Mounting Bracket**  
F-M117007



**Pivot Bracket**  
F-M229003



**Rod Clevis**  
F-M127005



**Mounting Nut**  
F-M190006

# F Series

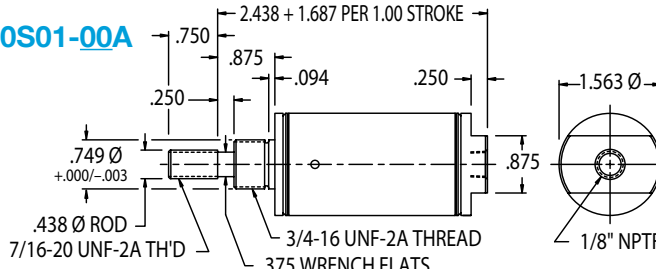
## 1-1/2" Bore Cylinders



### Single Acting Spring Return Front Nose Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"  
Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M127005 Rod Clevis  
Base Weight: .44 lbs.  
Plus .22 lbs. per inch of stroke

### F-1500S01-00A



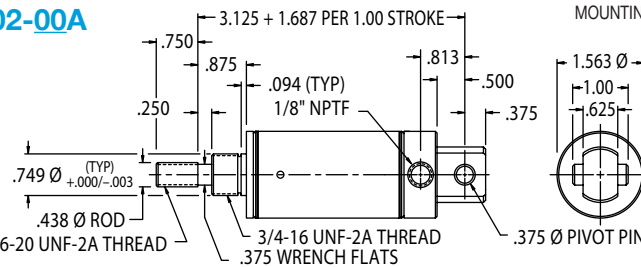
MOUNTING NUT INCLUDED

BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .438 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

### Single Acting Spring Return Rear Pivot Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"  
Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M029004 Pivot Bracket  
• F-M127005 Rod Clevis  
Base Weight: .45 lbs.  
Plus .22 lbs. per inch of stroke

### F-1500S02-00A



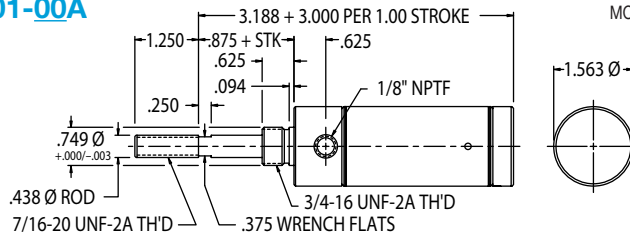
MOUNTING NUT NOT INCLUDED

BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .438 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

### Single Acting Spring Extend Front Nose Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"  
Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M127005 Rod Clevis  
Base Weight: .44 lbs.  
Plus .22 lbs. per inch of stroke

### F-1500R01-00A



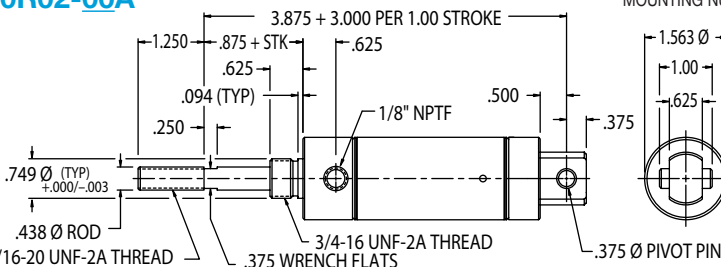
MOUNTING NUT INCLUDED

BUMPER AVAILABLE ROD END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .500 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .827 TO OAL

### Single Acting Spring Extend Rear Pivot Mount

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"  
Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M029004 Pivot Bracket  
• F-M127005 Rod Clevis  
Base Weight: .45 lbs.  
Plus .22 lbs. per inch of stroke

### F-1500R02-00A



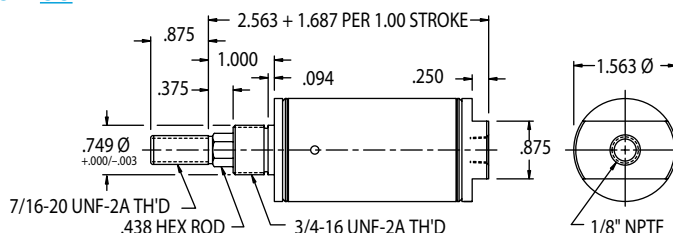
MOUNTING NUT NOT INCLUDED

BUMPER AVAILABLE ROD END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .438 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

### Single Acting Spring Return Front Nose Mount Non-Rotating

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"  
Maximum Stroke: 6"  
Optional Accessories:  
• F-M117007 Mounting Bracket  
• F-M127005 Rod Clevis  
Base Weight: .45 lbs.  
Plus .22 lbs. per inch of stroke

### F-1500N01-00A



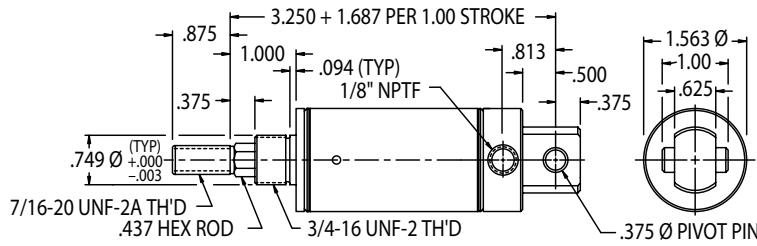
MOUNTING NUT INCLUDED

BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
MAGNETIC PISTON OPTION - ADD .438 TO OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .750 TO OAL

**1-1/2" Bore Cylinders**

MOUNTING NUT NOT INCLUDED

**F-1500N02-00A**



BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .438 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .765 TO OAL

Single Acting **Spring Return**  
 Rear Pivot Mount **Non-Rotating**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**

Maximum Stroke: 6"

Optional Accessories:

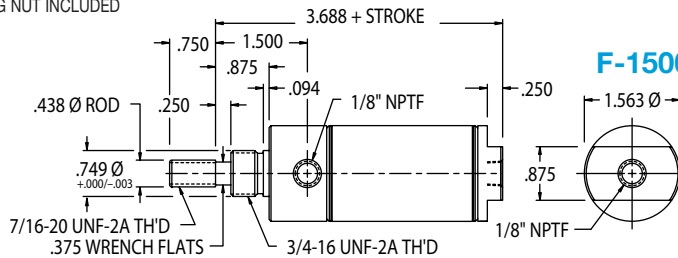
- F-M117007 Mounting Bracket
- F-M029004 Pivot Bracket
- F-M127005 Rod Clevis

Base Weight: .46 lbs.

Plus .22 lbs. per inch of stroke

MOUNTING NUT INCLUDED

**F-1500D01-00A**



BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

**Double Acting**

Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**

Maximum Stroke: 12"

Optional Accessories:

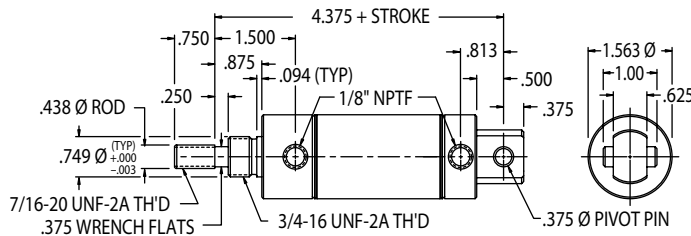
- F-M117007 Mounting Bracket
- F-M127005 Rod Clevis

Base Weight: .69 lbs.

Plus .08 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

**F-1500D02-00A**



BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

**Double Acting**

Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**

Maximum Stroke: 32"

Optional Accessories:

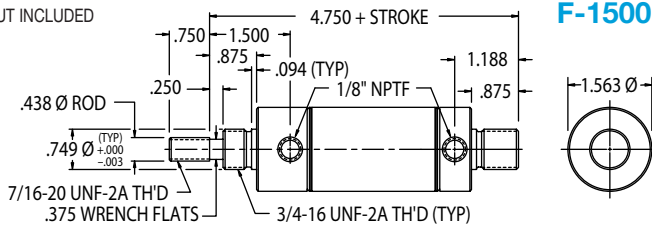
- F-M117007 Mounting Bracket
- F-M029004 Pivot Bracket
- F-M127005 Rod Clevis

Base Weight: .73 lbs.

Plus .08 lbs. per inch of stroke

MOUNTING NUT INCLUDED

**F-1500D04-00A**



BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

**Double Acting**

Double Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**

Maximum Stroke: 32"

Optional Accessories:

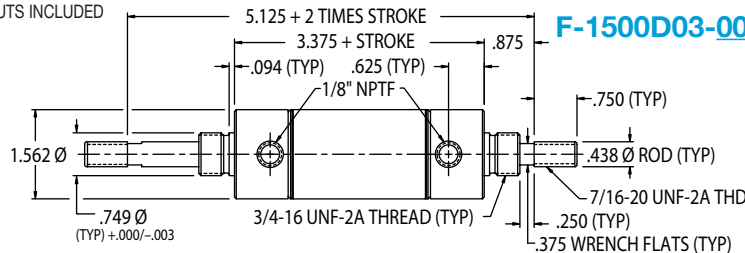
- F-M117007 Mounting Bracket
- F-M127005 Rod Clevis

Base Weight: .82 lbs.

Plus .08 lbs. per inch of stroke

MOUNTING NUTS INCLUDED

**F-1500D03-00A**



BUMPER OPTION - ADD .250 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

**Double Acting**

Double Rod

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**

Maximum Stroke: 12"

Optional Accessories:

- F-M117007 Mounting Bracket
- F-M127005 Rod Clevis

Base Weight: 1.17 lbs.

Plus .13 lbs. per inch of stroke

# F Series

## 1-1/2" Bore Cylinders

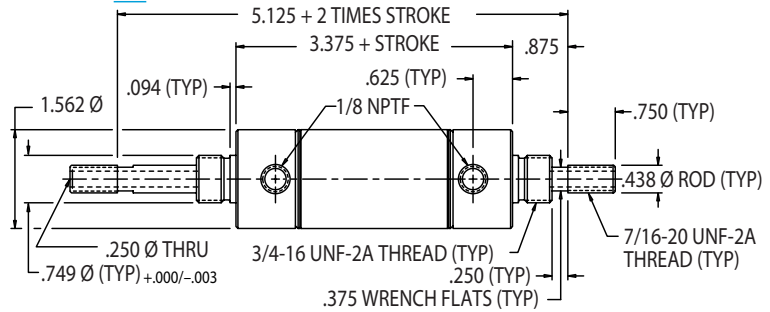


### Double Acting Hollow Double Rod

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117007 Mounting Bracket  
 • F-M127005 Rod Clevis  
 Base Weight: 1.16 lbs.  
 Plus .13 lbs. per inch of stroke

### F-1500DH3-00A

MOUNTING NUT INCLUDED

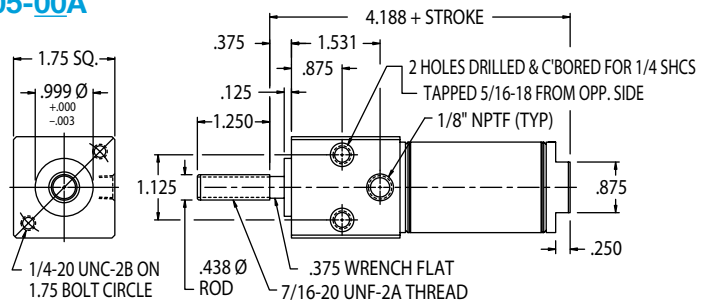


BUMPER OPTION - ADD .250 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

### Double Acting Front Block Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127005 Rod Clevis  
 Base Weight: .99 lbs.  
 Plus .08 lbs. per inch of stroke

### F-1500D05-00A

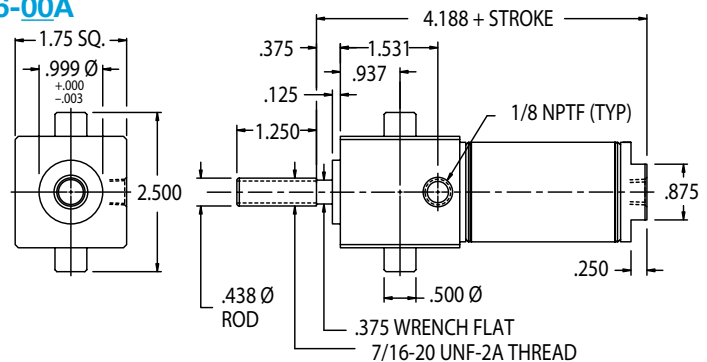


BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

### Double Acting Trunnion Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M029006 Trunnion Bracket  
 • F-M127005 Rod Clevis  
 Base Weight: 1.06 lbs.  
 Plus .08 lbs. per inch of stroke

### F-1500D06-00A



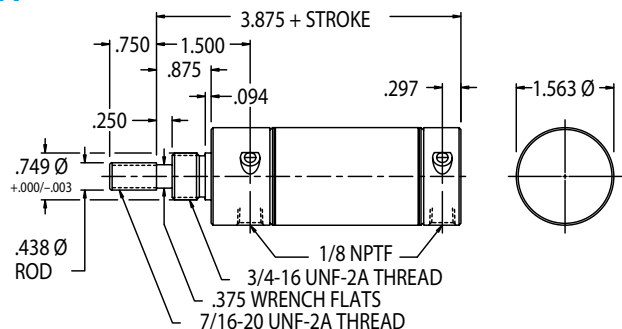
BUMPER OPTION - ADD .125 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

### Double Acting Front Nose Mount with Adjustable Cushions

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117007 Mounting Bracket  
 • F-M127005 Rod Clevis  
 Base Weight: .76 lbs.  
 Plus .09 lbs. per inch of stroke

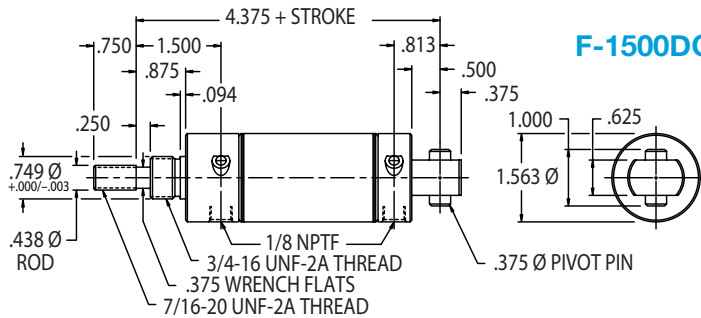
### F-1500DG1-00A

MOUNTING NUT INCLUDED



MAGNETIC PISTON OPTION - NO CHANGE IN OAL

MOUNTING NUT NOT INCLUDED



**F-1500DG2-00A**

MAGNETIC PISTON OPTION - NO CHANGE IN OAL

**Double Acting**  
**Rear Pivot Mount with**  
**Adjustable Cushions**

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",**  
**5", 6", 7", 8", 9", 10", 11", 12"**

Maximum Stroke: 32"

Optional Accessories:

- F-M117007 Mounting Bracket
- F-M029004 Pivot Bracket
- F-M127005 Rod Clevis

Base Weight: .77 lbs.

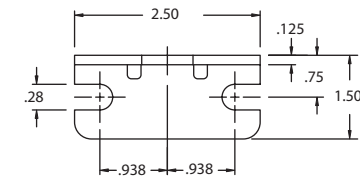
Plus .09 lbs. per inch of stroke

## 1-1/2" Bore Cylinder Specifications – Options & Accessory Pricing

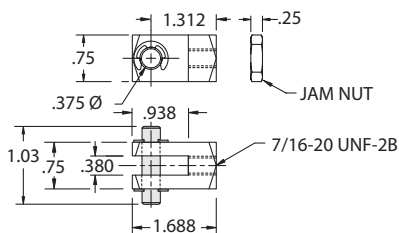
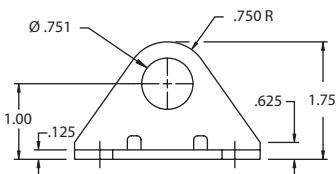
- -10° to +165°F
- Piston Rod – Ground 303 Stainless Steel.  
Round – Ground and Polished, 303 Stainless Steel.
- Bronze rod guide bushing is standard.
- Approximate force exerted = (1.7) x (air line pressure).
- Spring force: 7 lbs. relaxed, 14 lbs. compressed.
- Mounting nuts are standard on all nose mount cylinders.
- Bumpers are optional on all 1-1/2" bore cylinders (except in combination with Viton® option).
- Magnetic piston optional on all 1-1/2" bore cylinders (except in combination with Viton® option).

### OPTION

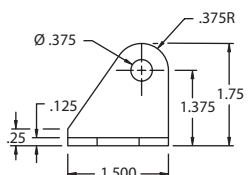
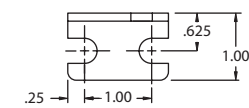
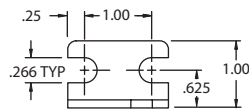
- Bumpers – Single Acting  
Double Acting \$4.40
- Viton® Seals – Not available with bumpers or magnetic piston  
Spring Return (-15° F to 300° F)  
Double Acting (-15° F to 350° F)  
Spring Extend (-15° F to 300° F)  
Double Rod (-15° F to 350° F)
- Magnetic Piston –
- Pivot Bushing – Bronze sleeve substitution
- Ports Rotated – 90° on S02, R02, N02, or D02 (both)
- Rod Wiper – Not available in spring return models
- Side Port – Cap end port on S01, N01, D01, D05, or D06 (Add .19 to OAL)
- Low Temperature Seals – Applications to -40° F  
Spring Return  
Double Acting  
Spring Extend  
Double Rod
- Rod Extension
- Rod Thread Extension



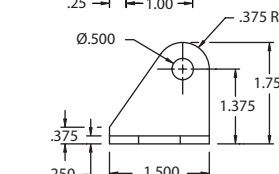
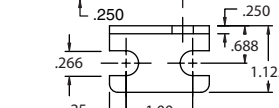
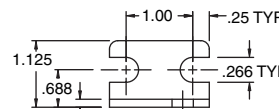
**Mounting Bracket**  
**F-M117007**



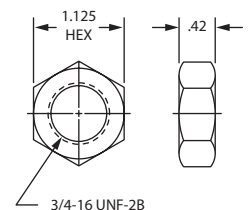
**Rod Clevis**  
**F-M127005**



**Pivot Bracket**  
**F-M029004**



**Trunnion Bracket**  
**F-M029006**



**Mounting Nut**  
**F-M190006**

# F Series

## 1-3/4" Bore Cylinders

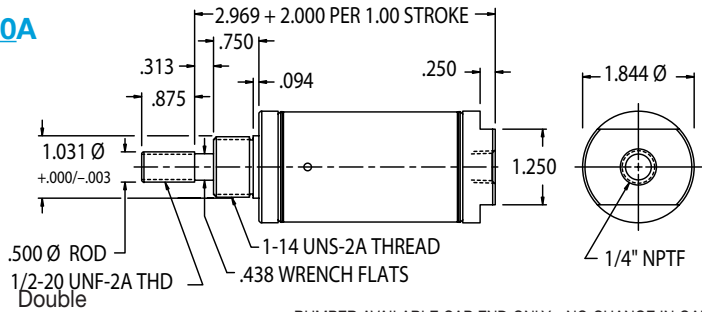


MOUNTING NUT INCLUDED

### Single Acting Spring Return Front Nose Mount

#### F-1750S01-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117008 Mounting Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: .85 lbs.  
 Plus .36 lbs. per inch of stroke



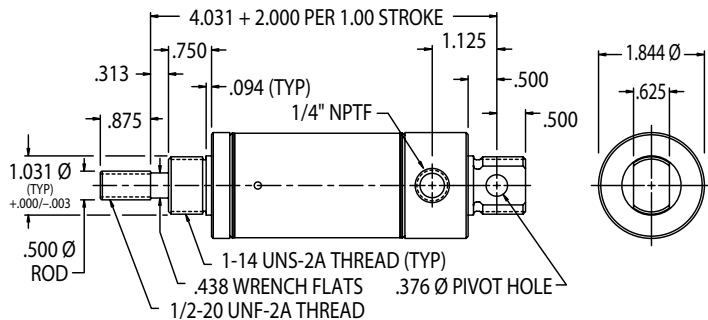
BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .656 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .735 TO OAL

### Single Acting Spring Return Double Nose or Rear Pivot Mount

#### F-1750S02-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117008 Mounting Bracket  
 • F-M129005 Pivot Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: .86 lbs.  
 Plus .36 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED



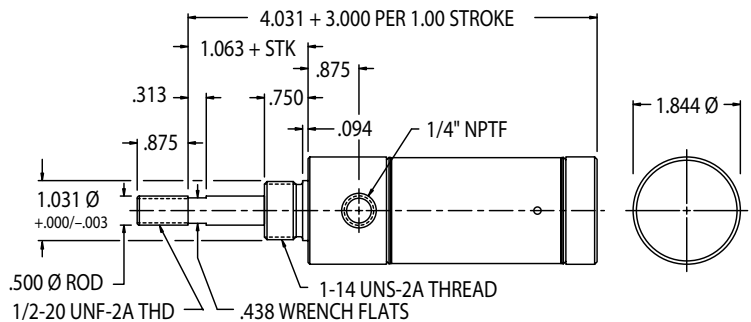
BUMPER AVAILABLE CAP END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .656 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .735 TO OAL

### Single Acting Spring Extend Front Nose Mount

#### F-1750R01-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 6"  
 Optional Accessories:  
 • F-M117008 Mounting Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.17 lbs.  
 Plus .31 lbs. per inch of stroke

MOUNTING NUT INCLUDED



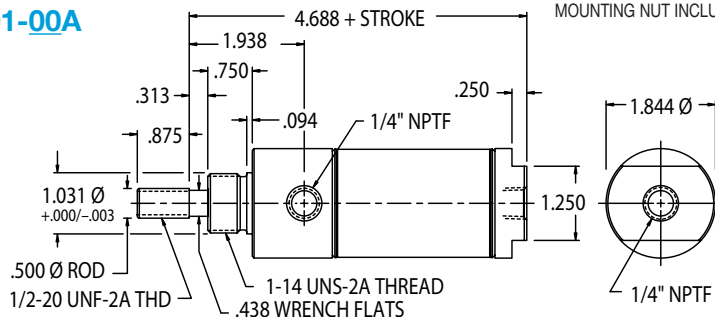
BUMPER AVAILABLE ROD END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .656 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .735 TO OAL

### Double Acting Front Nose Mount

#### F-1750D01-00A

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117008 Mounting Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.29 lbs.  
 Plus .11 lbs. per inch of stroke

MOUNTING NUT INCLUDED



BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - NO CHANGE IN OAL



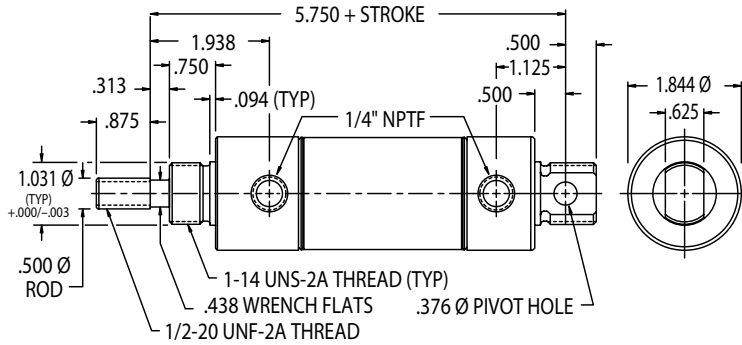
MOUNTING NUT NOT INCLUDED

# F Series 1-3/4" Bore Cylinders

## F-1750D02-00A

### Double Acting

### Double Nose or Rear Pivot Mount



Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
 5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

Optional Accessories:

- F-M117008 Mounting Bracket
- F-M129005 Pivot Bracket
- F-M127006 Rod Clevis

Base Weight: 1.64 lbs.

Plus .11 lbs. per inch of stroke

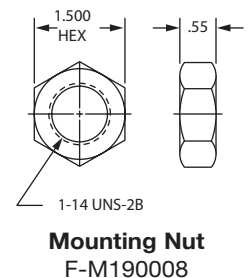
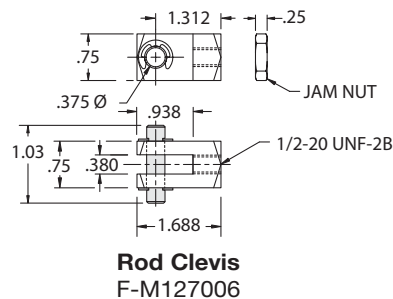
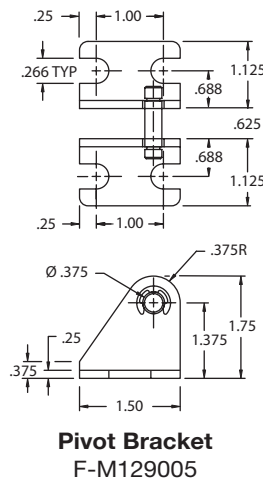
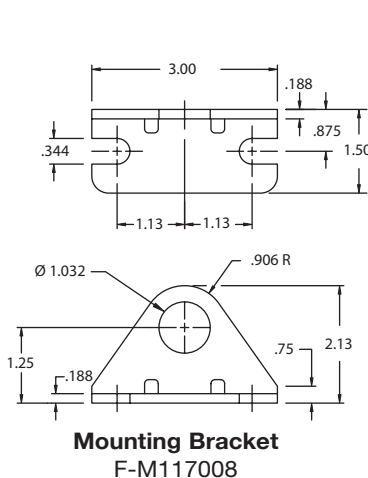
BUMPER OPTION - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - NO CHANGE IN OAL

## 1-3/4" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground and Polished, 303 Stainless Steel.
- Bronze rod guide bushing is standard.
- Approximate force exerted = (2.4) x (air line pressure).
- Spring force: 11 lbs. relaxed, 24 lbs. compressed.
- Mounting nuts are standard on all nose mount cylinders.
- Bumpers are optional on all 1-3/4" bore cylinders (except in combination with Viton® option).
- Magnetic piston optional on all 1-3/4" bore cylinders (except in combination with Viton® option).

### OPTION

- Bumpers – Single Acting  
 Double Acting
- Viton® Seals – Not available with bumpers or magnetic piston  
 Spring Return (-15° F to 300° F)  
 Double Acting (-15° F to 350° F)  
 Spring Extend (-15° F to 300° F)
- Magnetic Piston
- Pivot Bushing – Bronze sleeve substitution
- Ports Rotated – 90° on S02 or D02 models (both)
- Rod Wiper – Not available in spring return models
- Side Port - Cap end ports on S01 or D01 models  
 Add .56 to OAL
- Low Temperature Seals – Applications to -40° F  
 Spring Return  
 Double Acting  
 Spring Extend
- Rod Extension
- Rod Thread Extension



# F Series

## 2" Bore Cylinders

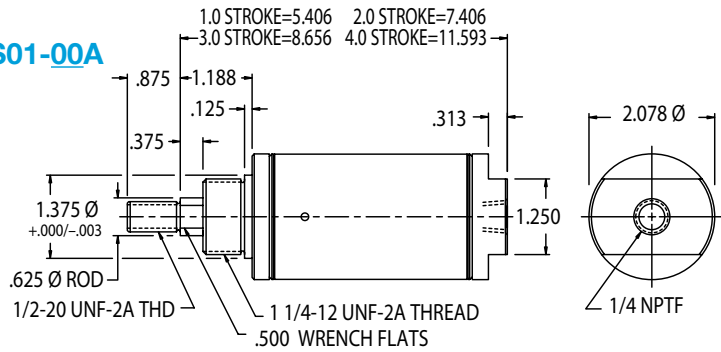


MOUNTING NUT INCLUDED

### Single Acting Spring Return Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117009 Mounting Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.04 lbs.  
 Plus .43 lbs. per inch of stroke

#### F-2000S01-00A

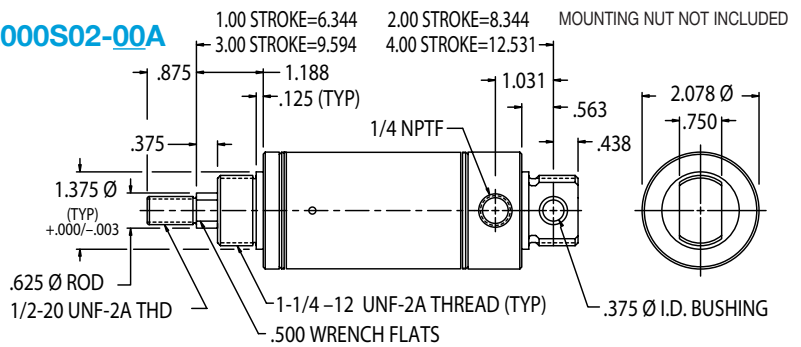


BUMPER AT CAP END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .461 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .789 TO OAL

### Single Acting Spring Return Double Nose or Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117009 Mounting Bracket  
 • F-M229005 Pivot Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.26 lbs.  
 Plus .43 lbs. per inch of stroke

#### F-2000S02-00A

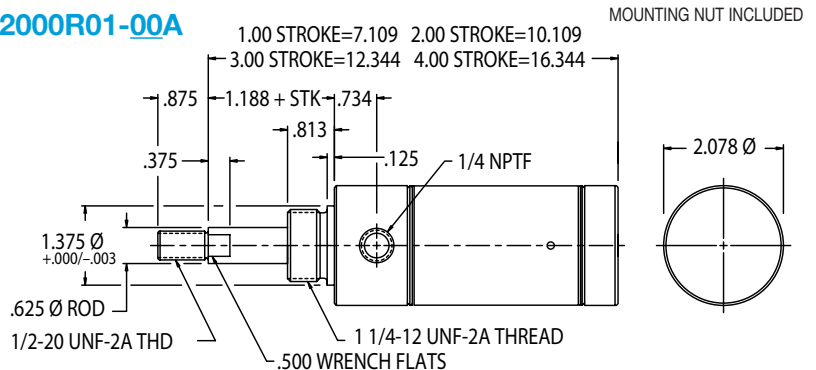


BUMPER AT CAP END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .461 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .789 TO OAL

### Single Acting Spring Extend Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117009 Mounting Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.24 lbs.  
 Plus .43 lbs. per inch of stroke

#### F-2000R01-00A

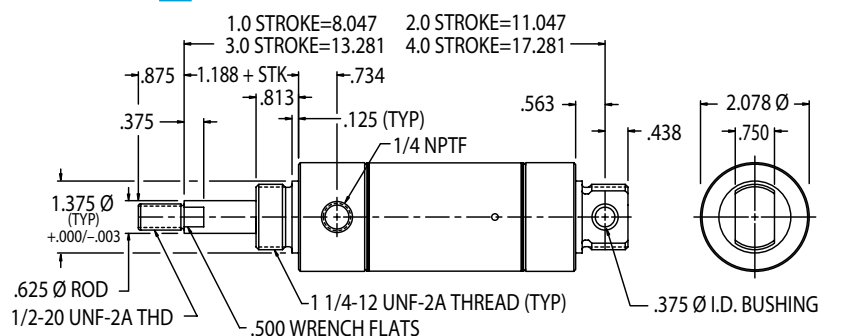


BUMPER AT ROD END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .714 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .789 TO OAL

### Single Acting Spring Extend Double Nose or Rear Pivot Mount

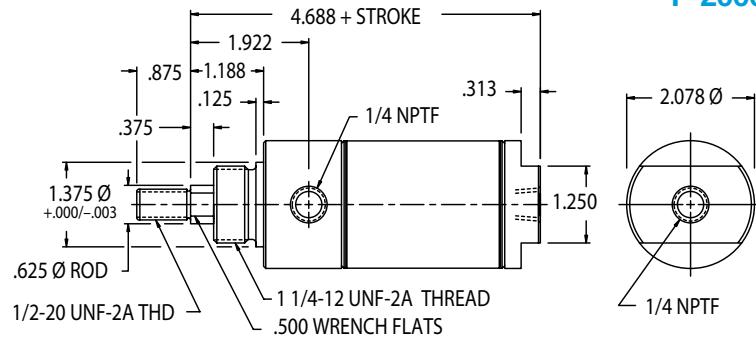
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4"**  
 Maximum Stroke: 4"  
 Optional Accessories:  
 • F-M117009 Mounting Bracket  
 • F-M229005 Pivot Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.46 lbs.  
 Plus .43 lbs. per inch of stroke

#### F-2000R02-00A



BUMPER AT ROD END ONLY - NO CHANGE IN OAL  
 MAGNETIC PISTON OPTION - ADD .714 TO OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .789 TO OAL

MOUNTING NUT INCLUDED



**F-2000D01-00A**

**Double Acting**

**Front Nose Mount**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2",  
 3", 4", 5", 6", 7", 8"

Maximum Stroke: 12"

Optional Accessories:

- F-M117009 Mounting Bracket
- F-M127006 Rod Clevis

Base Weight: 1.40 lbs.

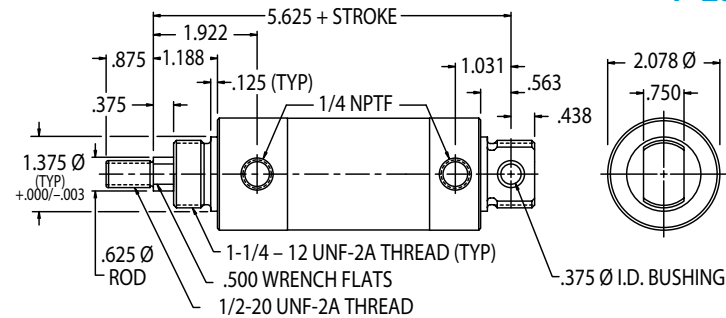
Plus .15 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

MAGNETIC PISTON OPTION - NO CHANGE IN OAL

BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

MOUNTING NUT NOT INCLUDED



**F-2000D02-00A**

**Double Acting**

**Double Nose or Rear Pivot Mount**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
 5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

Optional Accessories:

- F-M117009 Mounting Bracket
- F-M229005 Pivot Bracket
- F-M127006 Rod Clevis

Base Weight: 1.62 lbs.

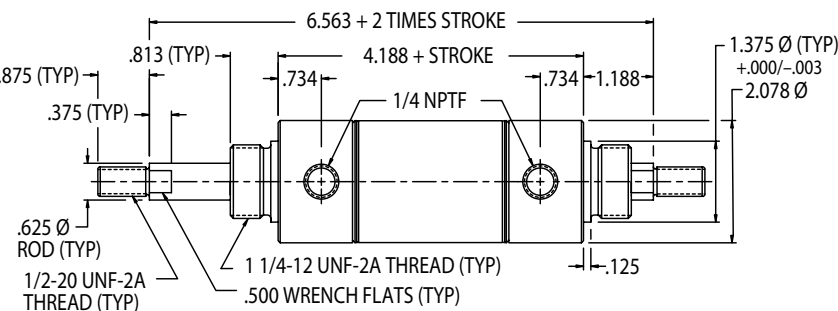
Plus .15 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

MAGNETIC PISTON OPTION - NO CHANGE IN OAL

BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

MOUNTING NUT INCLUDED



**F-2000D03-00A**

**Double Acting**

**Double Rod**

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

\*Optional Accessories:

- F-M117009 Mounting Bracket
- F-M127006 Rod Clevis

Base Weight: 1.97 lbs.

Plus .24 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

MAGNETIC PISTON OPTION - NO CHANGE IN OAL

BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .250 TO OAL

# F Series

## 2" Bore Cylinders

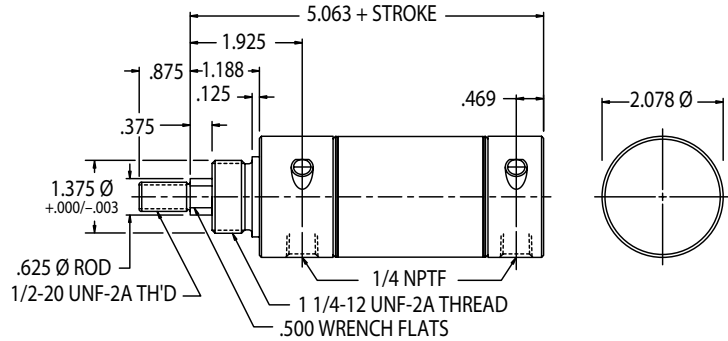


### Double Acting Front Nose Mount with Adjustable Cushions

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117009 Mounting Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.64 lbs.  
 Plus .15 lbs. per inch of stroke

### F-2000DG1-00A

MOUNTING NUT INCLUDED



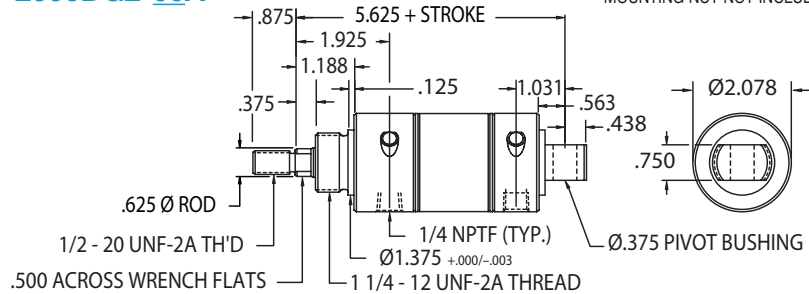
MAGNETIC PISTON OPTION - NO CHANGE IN OAL

### Double Acting Rear Pivot Mount with Adjustable Cushions

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M117009 Mounting Bracket  
 • F-M229005 Pivot Bracket  
 • F-M127006 Rod Clevis  
 Base Weight: 1.68 lbs.  
 Plus .15 lbs. per inch of stroke

### F-2000DG2-00A

MOUNTING NUT NOT INCLUDED



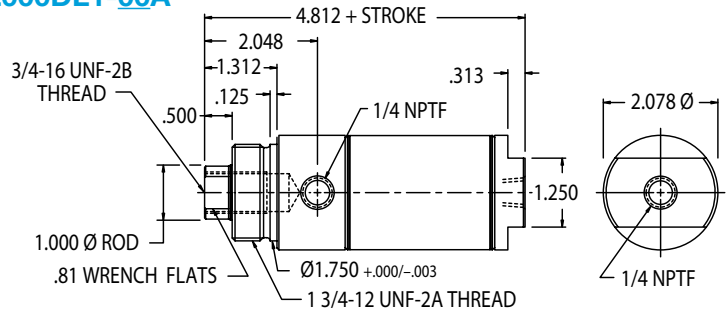
MAGNETIC PISTON OPTION - NO CHANGE IN OAL

### Double Acting Front Nose Mount 1" Diameter Rod with Wear Band Piston

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 Base Weight: approximately 1.79 lbs.  
 Plus .28 lbs. per inch of stroke

### F-2000DL1-00A

MOUNTING NUT NOT INCLUDED



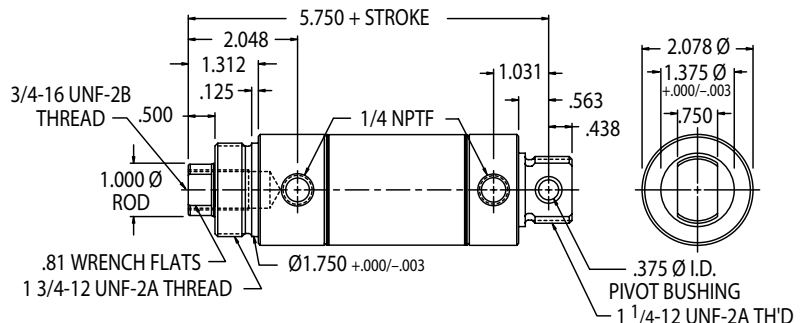
BUMPERS NOT AVAILABLE  
 MAGNETIC PISTON OPTION - ADD .299 TO OAL

### Double Acting Rear Pivot Mount 1" Diameter Rod with Wear Band Piston

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 32"  
 Base Weight: approximately 2.01 lbs.  
 Plus .28 lbs. per inch of stroke

### F-2000DL2-00A

MOUNTING NUT NOT INCLUDED



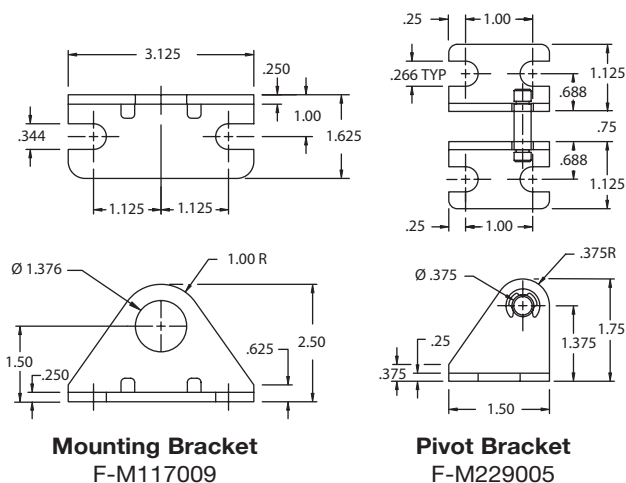
BUMPERS NOT AVAILABLE  
 MAGNETIC PISTON OPTION - ADD .299 TO OAL

## Standard Cylinder Specifications – Options & Accessory Pricing

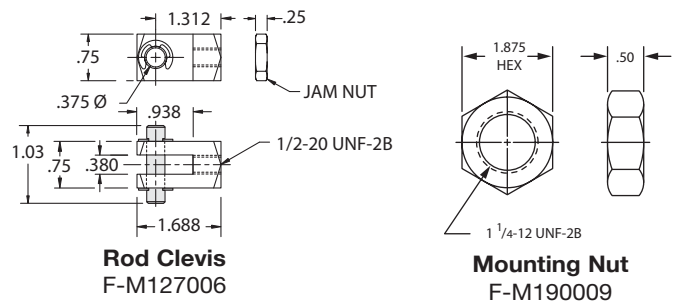
- -10° to +165°F
- Piston Rod: Ground and Polished, 303 Stainless Steel (Except for 1" Rod Models. See below).
- Bronze rod guide bushing is standard.
- Approximate force exerted = (3.1) x (air line pressure).
- Spring force: 15 lbs. relaxed, 30 lbs. compressed.
- Mounting nuts are standard on all nose mount cylinders except 1" rod models.
- Bumpers are optional on all 2" bore cylinders (except in combination with Viton® option).
- Magnetic piston optional on all 2" bore cylinders (except in combination with Viton® option).

### 1" Rod Cylinder Specifications

- 1" chrome rod is standard.
- Magnetic piston optional.
- Viton® seals optional.



OPTION
<ul style="list-style-type: none"> <li>• Bumpers – Single Acting                      Double Acting</li> <li>• Viton® Seals – Not available with bumpers or magnetic piston                      Spring Return (-15° F to 300° F)                      Double Acting (-15° F to 350° F)                      Spring Extend (-15° F to 300° F)                      Double Rod (-15° F to 350° F)</li> <li>• Magnetic Piston</li> <li>• Pivot Bushing – Bronze sleeve standard</li> <li>• Ports Rotated – 90°                      on S02, R02, or D02 models (both).</li> <li>• Rod Wiper – Not available in spring return models</li> <li>• Side Port - Cap end port on S01 or D01 models                      Add .38 to OAL</li> <li>• Low Temperature Seals – Applications to -40° F                      Spring Return                      Double Acting                      Spring Extend                      Double Rod</li> <li>• Rod Extension - Single, reverse and double acting</li> <li>• Rod Thread Extension</li> </ul>



# F Series

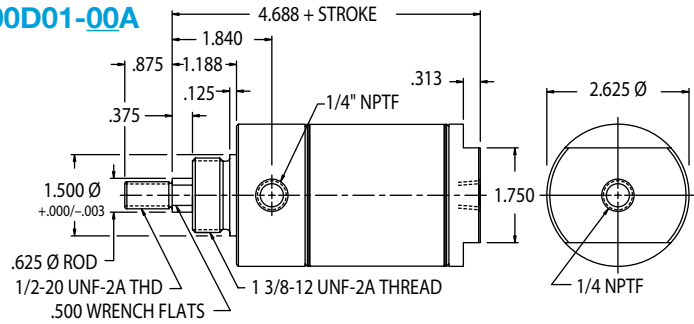
## 2-1/2" Bore Cylinders



### Double Acting Front Nose Mount

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117010 Mounting Bracket  
 • F-M127006 Rod Clevis  
 • F-M190012 Mounting Nut  
 Base Weight 1.98 lbs.  
 Plus .17 lbs. per inch of stroke

### F-2500D01-00A



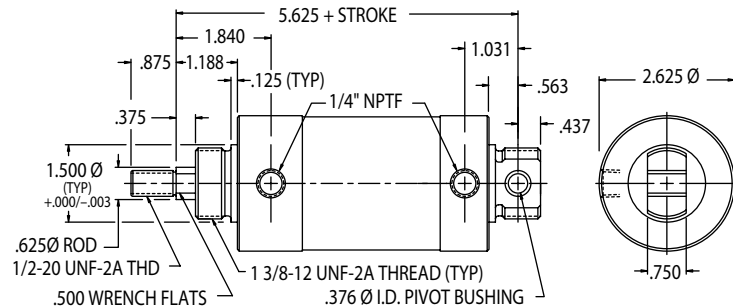
MOUNTING NUT NOT INCLUDED

BUMPER OPTION - ADD .062 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .062 TO OAL

### Double Acting Rear Pivot Mount

Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M117010 Mounting Bracket  
 • F-M229005 Pivot Bracket  
 • F-M127006 Rod Clevis  
 • F-M190012 Mounting Nut  
 Base Weight: 2.27 lbs.  
 Plus .17 lbs. per inch of stroke

### F-2500D02-00A



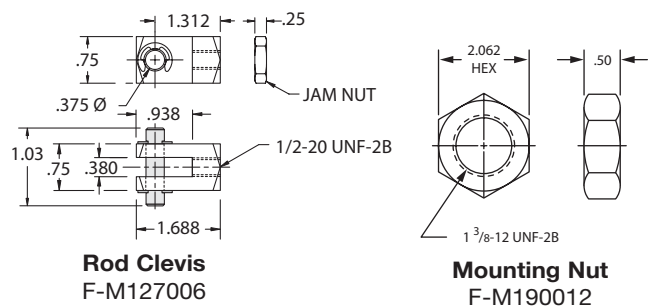
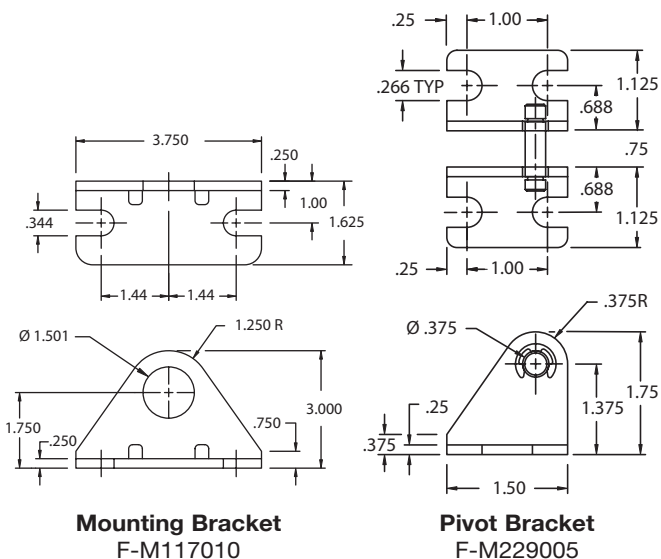
MOUNTING NUT NOT INCLUDED

BUMPER OPTION - ADD .062 TO OAL  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .062 TO OAL

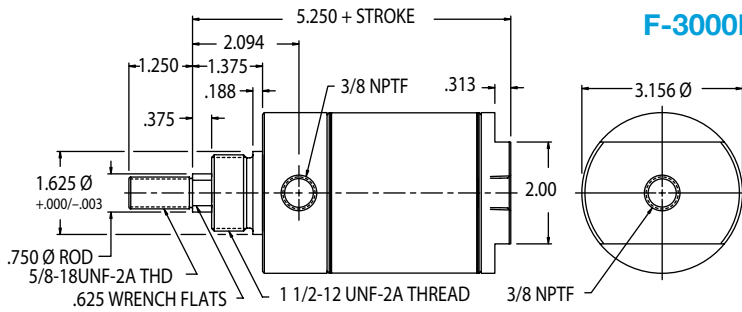
## 2-1/2" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground and Polished, 303 Stainless Steel.
- Bronze rod guide bushing is standard.
- Approximate force exerted = (5.0) x (air line pressure).
- Magnetic piston optional on all 2-1/2" bore cylinders (except in combination with Viton option).

OPTION
• Bumpers
• Viton® Seals – Not available with bumpers or magnetic piston
Double Acting (-15° F to 350° F)
• Magnetic Piston
• Pivot Bushing – Bronze sleeve
• Ports Rotated – 90° on D02 (both)
• Rod Wiper
• Side Port – Cap end on D01. Add .38 to overall length
• Low Temperature Seals – Applications to -40° F
• Rod Extension
• Rod Thread Extension



MOUNTING NUT NOT INCLUDED



**F-3000D01-00A**

**Double Acting – Front Nose Mount**

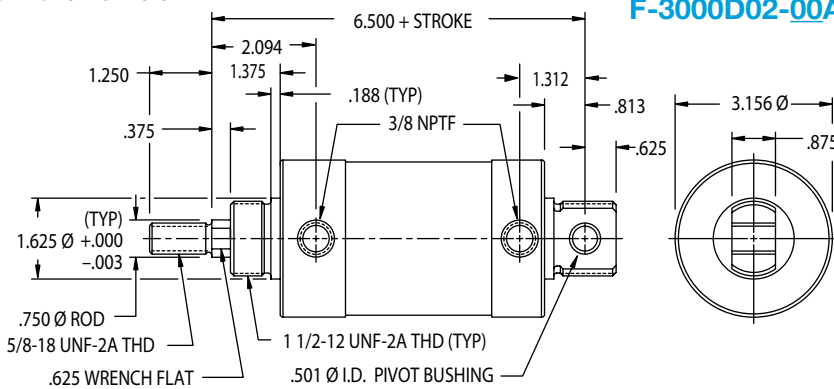
Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
Maximum Stroke: 12"

\*Optional Accessories:

- F-M117011 Mounting Bracket
  - F-M127007 Rod Clevis
  - F-M190013 Mounting Nut
- Base Weight: 3.34 lbs.  
Plus .26 lbs. per inch of stroke

BUMPER OPTION - ADD .062 TO OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .062 TO OAL

MOUNTING NUT NOT INCLUDED



**F-3000D02-00A**

**Double Acting**  
**Double Nose or Rear Pivot Mount**

Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
Maximum Stroke: 32"

\*Optional Accessories:

- F-M117011 Mounting Bracket
  - F-M229006 Pivot Bracket
  - F-M127007 Rod Clevis
  - F-M190013 Mounting Nut
- Base Weight: 3.87 lbs.  
Plus .26 lbs. per inch of stroke

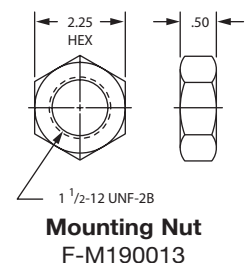
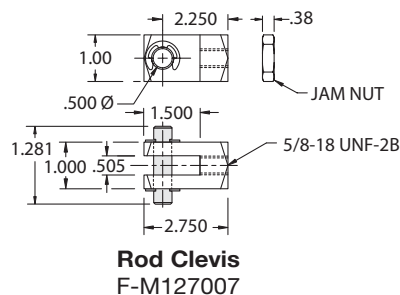
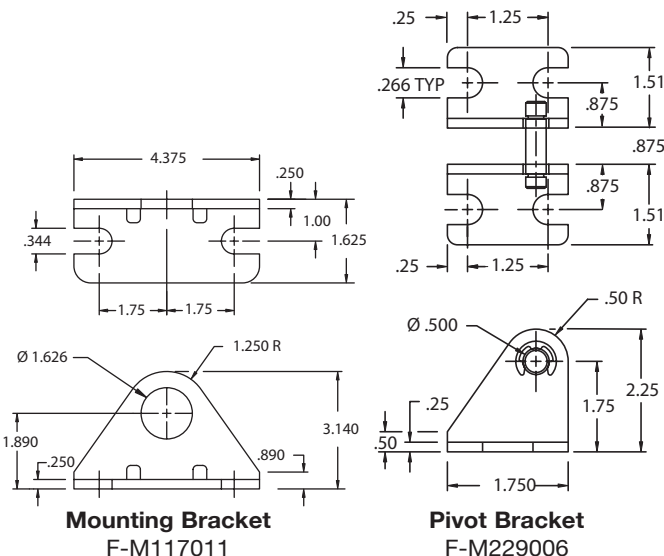
BUMPER OPTION - ADD .062 TO OAL  
MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
BOTH BUMPER & MAGNETIC PISTON OPTIONS - ADD .062 TO OAL

## 3" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod  
Ground and Polished, 303 Stainless Steel is standard.
- Bronze rod guide bushing is standard.
- Approximate force exerted = (7.0) x (air line pressure).
- Magnetic piston optional on all 3" bore cylinders (except in combination with Viton option).

### OPTION

- Bumpers
- Viton® Seals – Not available with bumpers or magnetic piston  
Double Acting (-15° F to 350° F)
- Magnetic Piston
- Pivot Bushing – Bronze sleeve standard
- Ports Rotated – 90° on D02 model (both)
- Rod Wiper –
- Side Port – Cap end on D01. Add .44 to OAL
- Low Temperature Seals – Applications to -40° F
- Rod Extension
- Rod Thread Extension



# F Series

## Volume Chambers



### How to Order

**F-1500 V 01 - 01 A**

**Series** ————

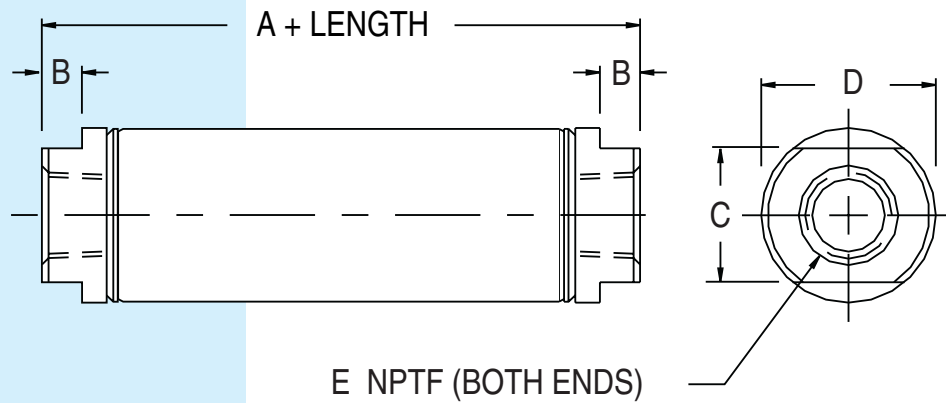
**Bore Size** (4 digits)  
 0750 = 3/4"  
 1062 = 1-1/16"  
 1500 = 1-1/2"  
 2000 = 2"  
 2500 = 2-1/2"  
 3000 = 3"

**Style**  
 V = Volume chamber

**Version**  
 01 = In-line mount

**Fractional Inch Length**  
 (1 digit)  
 A = 0"

**Full Inch Length** (2 digits)  
 00 = 0"  
 01 = 1"  
 02 = 2"  
 03 = 3"  
 .  
 .  
 .  
 32 = 32"



Bore	A	B	C	D	E	INCHES <sup>3</sup> PER INCH	STANDARD LENGTH	MAX. LENGTH
3/4"	1.062	0.19	0.625	0.813	1/8	0.44	1" Increments to 4"	32"
1-1/16"	1.188	0.19	0.875	1.125	1/8	0.88	1" Increments to 8"	32"
1-1/2"	1.375	0.25	0.875	1.563	1/8	1.76	1" Increments to 16"	32"
2"	1.767	0.31	1.250	2.087	1/4	3.14	1" Increments to 16"	32"
2-1/2"	1.767	0.31	1.750	2.625	1/4	4.9	1" Increments to 24"	32"
3"	2.000	0.31	2.000	3.156	3/8	7.0	1" Increments to 24"	32"

## Volume Chamber Specifications

- -40° to +350°F
- 303 stainless steel body.
- Aluminum alloy end caps.
- Pressure rating: 250 psi.



# Delrin® Corrosion Resistant Cylinders

## Features

- Delrin® head, Delrin® cap and aluminum piston provide excellent corrosion resistance in wash down environments where cylinders are exposed to moisture and certain solvents.\*
- Stainless steel rod and tube complete the corrosion resistance package and provide long life.
- Corrosion resistant cylinders are offered in three standard bore sizes: 3/4", 1-1/16" and 1-1/2" with both nose and rear pivot mounts.
- Stroke tolerance +/- .032

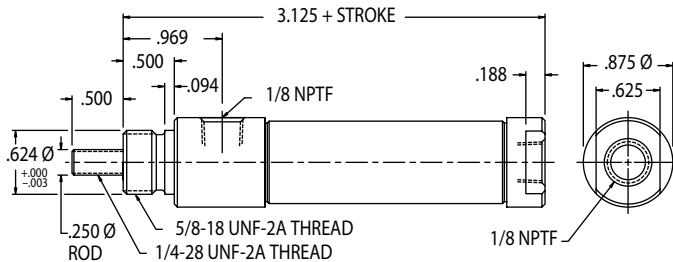
Delrin® is a registered trademark of DuPont.  
 ★ Call DuPont (800) 441-0575 for information regarding properties of this material.



- Max Operating Pressure: 100 psi Air
- Temperature Range: 32°F to 160°F (0°C to 72°C)

MOUNTING NUT NOT INCLUDED

### F-0750DC1-00A



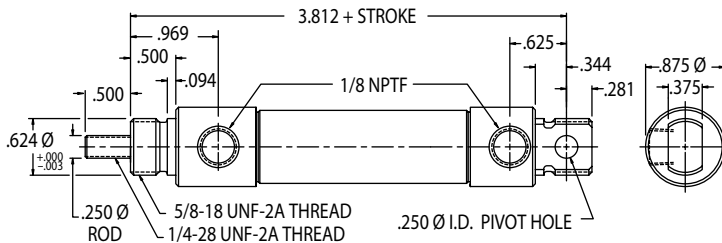
BUMPERS OPTION - ADD .281 TO OAL  
 MAGNETIC PISTON OPTION - ADD .281 TO OAL  
 BUMPERS WITH MAGNETIC PISTON OPTION - ADD .406 TO OAL

### 3/4" Bore Delrin® Series Double Acting Front Nose Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 \*Optional Accessories:  
 • F-M19S005 Stainless Steel Mounting Nut  
 Base Weight: .13 lbs.  
 Plus .03 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

### F-0750DC2-00A



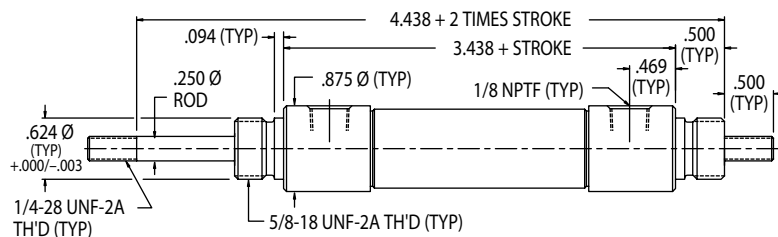
BUMPERS OPTION - ADD .281 TO OAL  
 MAGNETIC PISTON OPTION - ADD .281 TO OAL  
 BUMPERS WITH MAGNETIC PISTON OPTION - ADD .406 TO OAL

### 3/4" Bore Delrin® Series Double Acting Rear Pivot Mount

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 32"  
 \*Optional Accessories:  
 • F-M19S005 Stainless Steel Mounting Nut  
 Base Weight: .15 lbs.  
 Plus .03 lbs. per inch of stroke

MOUNTING NUT NOT INCLUDED

### F-0750DC3-00A



BUMPERS OPTION - ADD .250 TO OAL AND BODY LENGTH  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BUMPERS WITH MAGNETIC PISTON OPTION - ADD .250 TO OAL AND BODY LENGTH

### 3/4" Bore Delrin® Series Double Acting Double Rod

Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
 Maximum Stroke: 12"  
 \*Optional Accessories:  
 • F-M19S005 Stainless Steel Mounting Nut  
 Base Weight: .18 lbs.  
 Plus .05 lbs. per inch of stroke

# F Series

## Delrin® Corrosion Resistant Cylinders



MOUNTING NUT NOT INCLUDED

### 1-1/16" Bore Delrin® Series

Double Acting Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

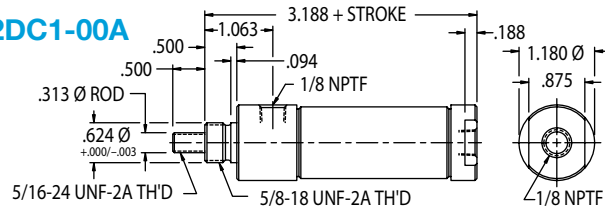
Optional Accessories:

- F-M19S005 Stainless Steel Mounting Nut

Base Weight: .21 lbs.

Plus .05 lbs. per inch of stroke

### F-1062DC1-00A



BUMPERS OPTION - ADD .375 TO OAL  
 MAGNETIC PISTON OPTION - ADD .250 TO OAL  
 BUMPERS WITH MAGNETIC PISTON OPTIONS - ADD .375 TO OAL

### 1-1/16" Bore Delrin® Series

Double Acting Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

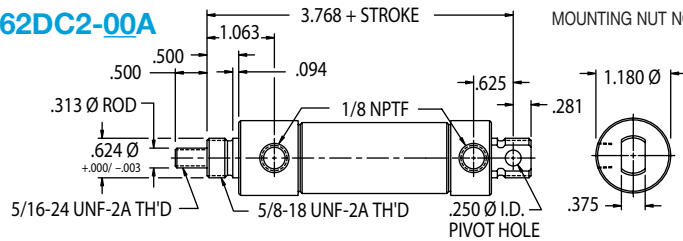
Optional Accessories:

- F-M19S005 Stainless Steel Mounting Nut

Base Weight: .25 lbs.

Plus .05 lbs. per inch of stroke

### F-1062DC2-00A



BUMPERS OPTION - ADD .375 TO OAL  
 MAGNETIC PISTON OPTION - ADD .250 TO OAL  
 BUMPERS WITH MAGNETIC PISTON OPTIONS - ADD .375 TO OAL

### 1-1/16" Bore Delrin® Series

Double Acting Double Rod

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

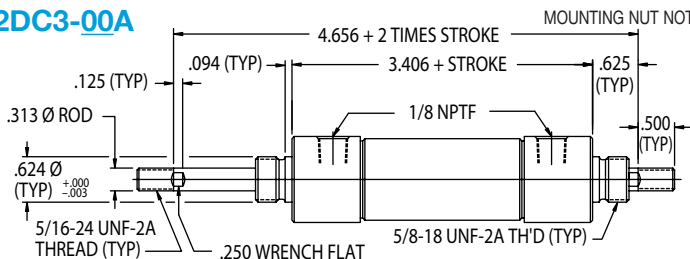
Optional Accessories:

- F-M19S005 Stainless Steel Mounting Nut

Base Weight: .30 lbs.

Plus .07 lbs. per inch of stroke

### F-1062DC3-00A



BUMPERS OPTION - ADD .250 TO OAL & BODY LENGTH  
 MAGNETIC PISTON OPTION - NO CHANGE IN OAL  
 BUMPERS WITH MAG. PISTON - ADD .250 TO OAL & BODY LENGTH

### 1-1/2" Bore Delrin® Series

Double Acting

Front Nose Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

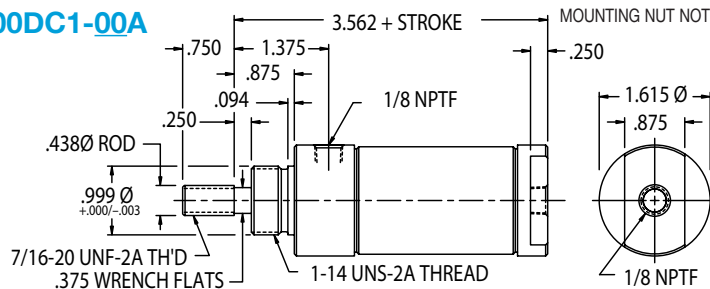
Optional Accessories:

- F-M19S006 Stainless Steel Mounting Nut

Base Weight: .46 lbs.

Plus .08 lbs. per inch of stroke

### F-1500DC1-00A



BUMPERS OPTION - ADD .375 TO OAL  
 MAGNETIC PISTON OPTION - ADD .250 TO OAL  
 BUMPERS WITH MAGNETIC PISTON OPTIONS - ADD .500 TO OAL

### 1-1/2" Bore Delrin® Series

Double Acting Rear Pivot Mount

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"

Maximum Stroke: 32"

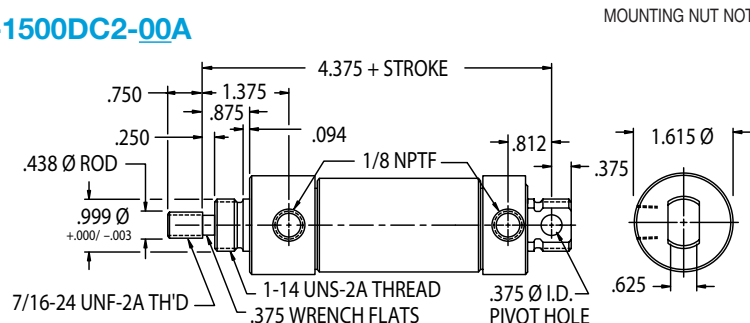
Optional Accessories:

- F-M19S006 Stainless Steel Mounting Nut

Base Weight: .48 lbs.

Plus .08 lbs. per inch of stroke

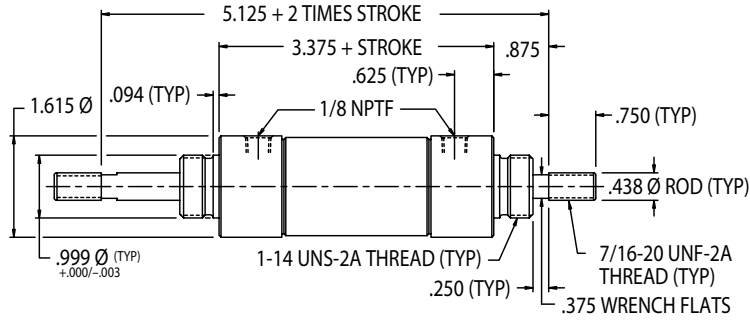
### F-1500DC2-00A



BUMPERS OPTION - ADD .375 TO OAL  
 MAGNETIC PISTON OPTION - ADD .250 TO OAL  
 BUMPERS WITH MAGNETIC PISTON OPTIONS - ADD .500 TO OAL

MOUNTING NUT NOT INCLUDED

## F-1500DC3-00A



## 1-1/2" Bore Delrin® Series Double Acting Double Rod

Standard Stroke Lengths:

1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"

Maximum Stroke: 12"

Optional Accessories:

- F-M19S006 Stainless Steel Mounting Nut

Base Weight: .60 lbs.

Plus .13 lbs. per inch of stroke

BUMPERS OPTION - ADD .250 TO OAL & BODY LENGTH

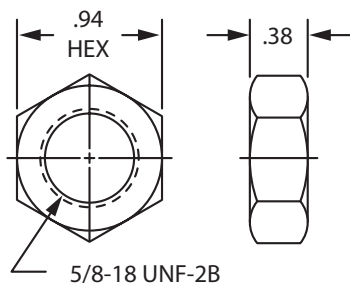
MAGNETIC PISTON OPTION - NO CHANGE IN OAL

BUMPERS WITH MAGNETIC PISTON - ADD .250 TO OAL & BODY LENGTH

## Delrin® Cylinder Specifications – Options & Accessory Pricing

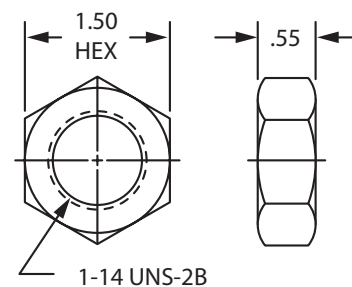
- Maximum operating pressure 100psi Air.
- Temperature range +32° to +160°F.
- Piston Rod  
Ground and polished, 303 stainless steel is standard.
- Magnetic piston optional on all bore cylinders (except in combination with Viton option).

OPTION	PRICE ADDER
• Viton® Seals – Not available with bumpers or magnetic piston (for media or environment compatibility only)	
• Pivot Bushing –	Not Available
• Ports Rotated –	Not Available
• Rod Wiper –	Not Available
• Side Port –	Not Available
• Low Temp. Seals –	Not Available
• Rod Extension	
• Rod Thread Extension	



**Mounting Nut**  
 F-M19S005

Max. Recommended Torque 12 in-lbs



**Mounting Nut**  
 F-M19S006

Max. Recommended Torque 30 in-lbs

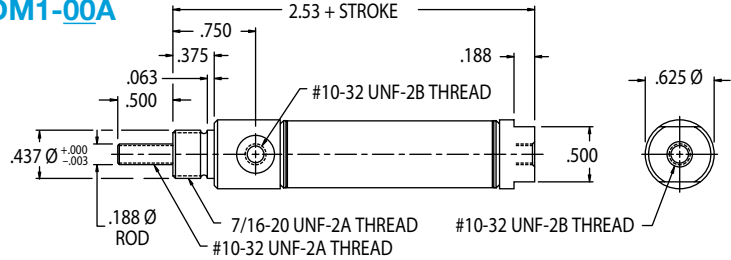
# F Series Magnetic Interchange



## 9/16" Bore Cylinders

Double Acting  
 Front Nose Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .10 lbs.  
 Plus .01 lbs. per inch of stroke

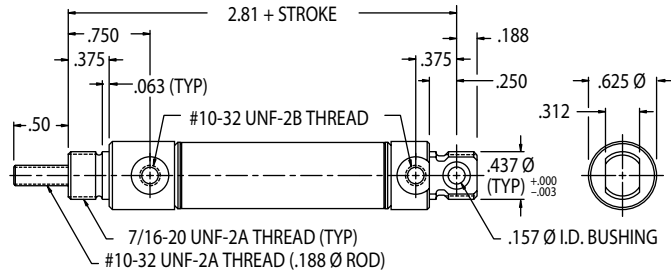
### F-0563DM1-00A



BUMPER OPTION - ADD .125 TO OAL

Double Acting  
 Double Nose or Rear Pivot Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M129002 Pivot Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .10 lbs.  
 Plus .01 lbs. per inch of stroke

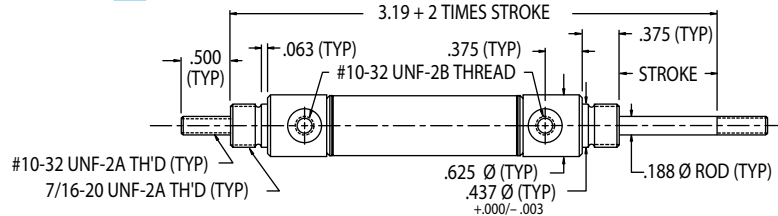
### F-0563DM2-00A



BUMPER OPTION - ADD .125 TO OAL

Double Acting  
 Double Rod  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M117003 Mounting Bracket  
 • F-M127002 Rod Clevis  
 Base Weight: .14 lbs.  
 Plus .02 lbs. per inch of stroke

### F-0563DM3-00A

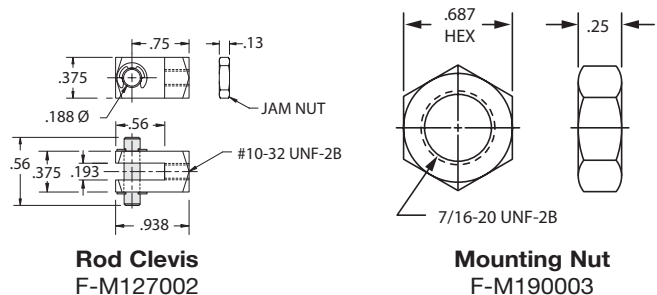
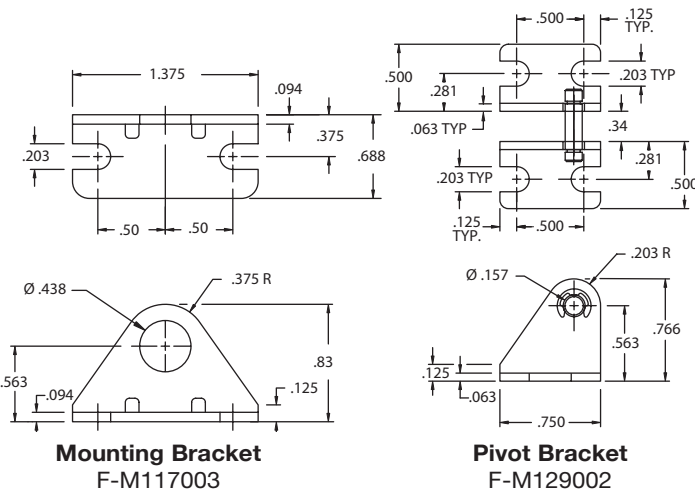


BUMPER OPTION - ADD .125 TO OAL

## 9/16" Bore Cylinder Specifications – Options & Accessory Pricing

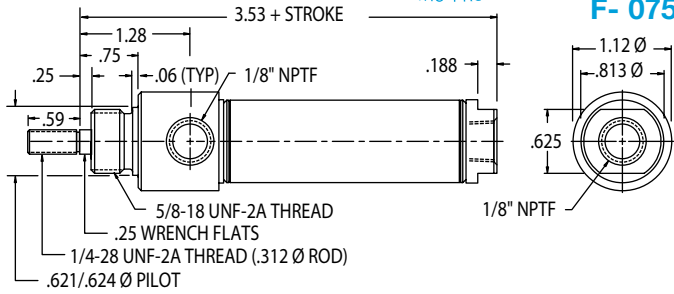
- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 9/16" bore cylinders
- Approximate Force Exerted: (0.25) x (Supply psi)
- Stroke tolerance ±.032

OPTION
• Bumpers
• Pivot Bushing – Bronze sleeve standard
• Ports Rotated – 90° on DM2 (both)
• Rod Wiper
• Side Port – DM1 (Add .03 to OAL)
• Rod Extension DM1, DM2h DM3 (added to both ends)
• Rod Thread Extension



# F Series Magnetic Interchange 3/4" Bore Cylinders

BUMPER OPTION - ADD .250 TO OAL

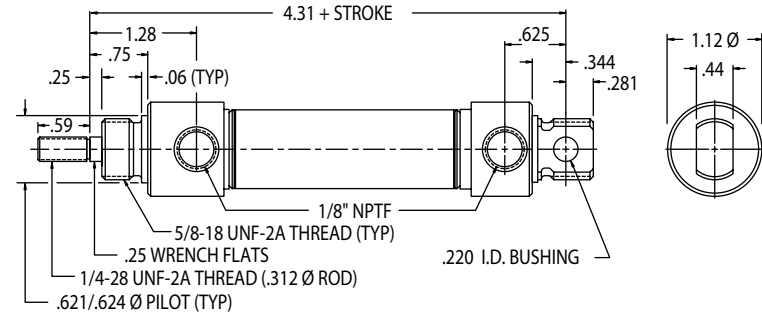


**F-0750DM1-00A**

Double Acting – Front Nose Mount  
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
Maximum Stroke: 12"

Optional Accessories:  
• F-M117005 Mounting Bracket  
Base Weight: .24 lbs.  
Plus .04 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

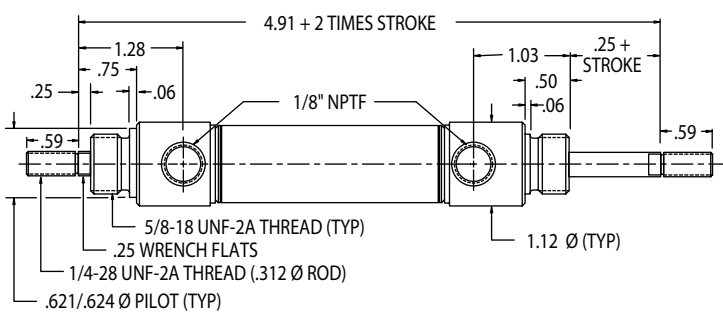


**F-0750DM2-00A**

Double Acting  
Double Nose or Rear Pivot Mount  
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
Maximum Stroke: 32"

Optional Accessories:  
• F-M117005 Mounting Bracket  
Base Weight: .30 lbs.  
Plus .04 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL



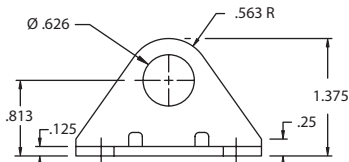
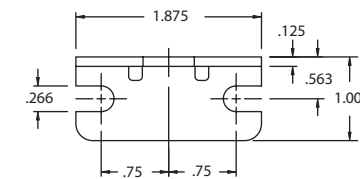
**F-0750DM3-00A**

Double Acting Double Rod  
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
Maximum Stroke: 12"

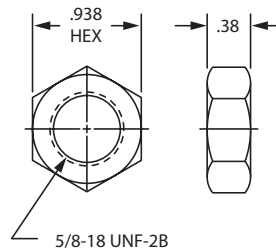
Optional Accessories:  
• F-M117005 Mounting Bracket  
Base Weight: .41 lbs.  
Plus .06 lbs. per inch of stroke

## 3/4" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 3/4" bore cylinders
- Approximate Force Exerted: (0.4) x (Supply psi)
- Stroke tolerance ±.032



**Mounting Bracket**  
F-M117005



**Mounting Nut**  
F-M190005

### OPTION

- Bumpers –
- Pivot Bushing – Bronze sleeve standard
- Ports Rotated – 90° on DM2 (both)
- Rod Wiper
- Side Port – DM1 (Add .44 to OAL)
- Rod Extension DM1, DM2  
DM3 (added to both ends)
- Rod Thread Extension

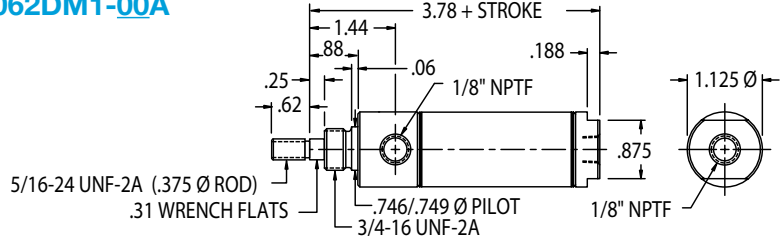
# F Series Magnetic Interchange



## 1-1/16" Bore Cylinders

Double Acting  
 Front Nose Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127004 Rod Clevis  
 Base Weight .37 lbs.  
 Plus .05 lbs. per inch of stroke

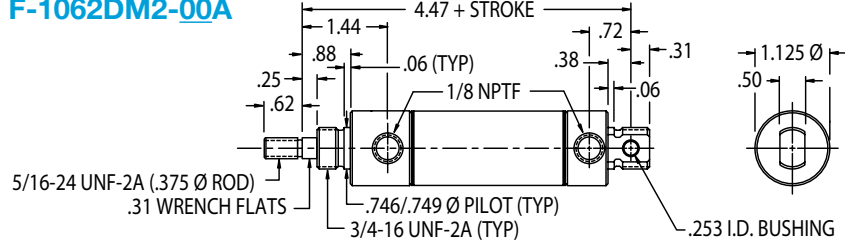
### F-1062DM1-00A



BUMPER OPTION - ADD .250 TO OAL

Double Acting  
 Double Nose or Rear Pivot Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M127004 Rod Clevis  
 Base Weight .42 lbs.  
 Plus .05 lbs. per inch of stroke

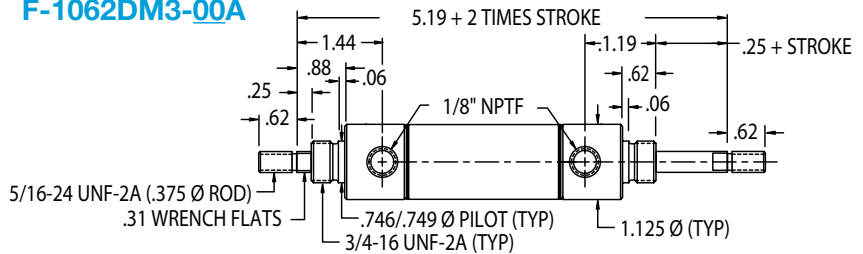
### F-1062DM2-00A



BUMPER OPTION - ADD .250 TO OAL

Double Acting  
 Double Rod  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127004 Rod Clevis  
 Base Weight: .60 lbs.  
 Plus .08 lbs. per inch of stroke

### F-1062DM3-00A

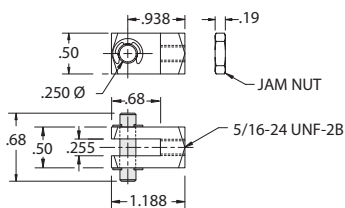


BUMPER OPTION - ADD .250 TO OAL

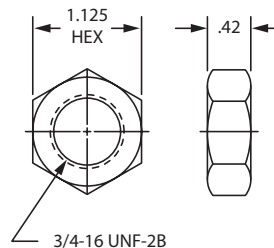
## 1-1/16" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 1-1/16" bore cylinders
- Approximate Force Exerted: (0.9) x (Supply psi)
- Stroke tolerance ±.032

OPTION
• Bumpers
• Pivot Bushing – Bronze sleeve standard
• Ports Rotated – 90° on DM2 (both)
• Rod Wiper
• Side Port – DM1 (Add .25 to OAL)
• Rod Extension DM1, DM2 DM3 (added to both ends)
• Rod Thread Extension

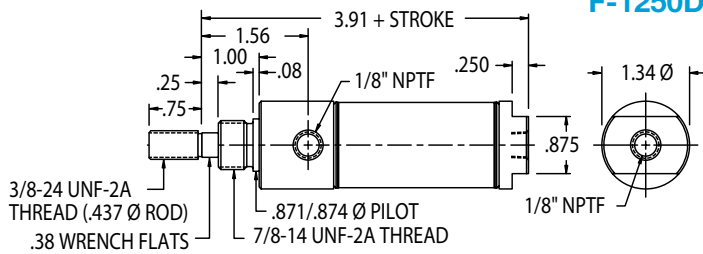


**Rod Clevis**  
F-M127004



**Mounting Nut**  
F-M190006

# F Series Magnetic Interchange 1-1/4" Bore Cylinders

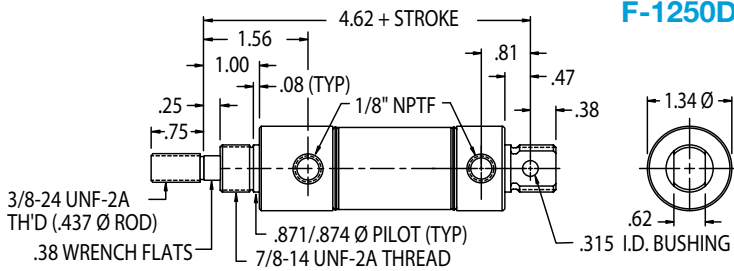


**F-1250DM1-00A**

Double Acting  
 Front Nose Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"

Optional Accessories:  
 • F-M117013 Mounting Bracket  
 Base Weight: .51 lbs.  
 Plus .07 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

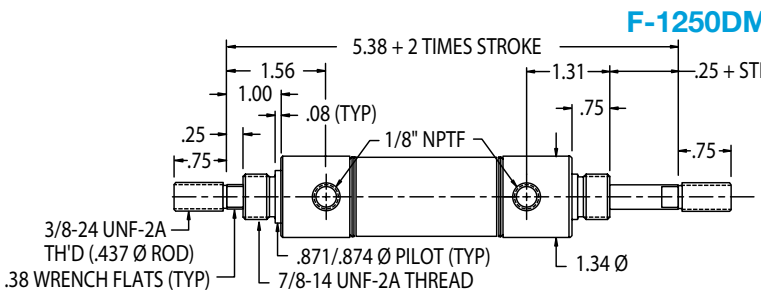


**F-1250DM2-00A**

Double Acting  
 Double Nose or Rear Pivot Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 32"

Optional Accessories:  
 • F-M117013 Mounting Bracket  
 Base Weight: .61 lbs.  
 Plus .07 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL



**F-1250DM3-00A**

Double Acting  
 Double Rod  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"

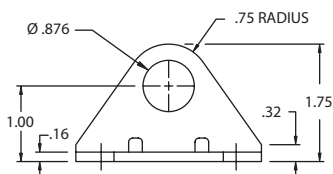
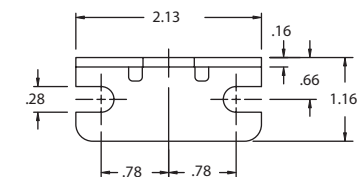
Optional Accessories:  
 • F-M117013 Mounting Bracket  
 Base Weight: .70 lbs.  
 Plus .14 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

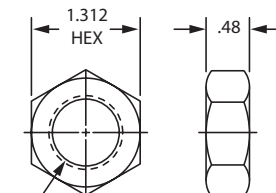
## 1-1/4" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 1-1/4" bore cylinders
- Approximate Force Exerted: (1.2) x (Supply psi)
- Stroke tolerance ±.032

OPTION
• Bumpers
• Pivot Bushing – Bronze sleeve standard
• Ports Rotated – 90° on DM2 (both)
• Rod Wiper
• Side Port – DM1 (Add .25 to OAL)
• Rod Extension DM1, DM2 DM3 (added to both ends)
• Rod Thread Extension



**Mounting Bracket**  
 F-M117013



7/8-14 UNF-2B  
**Mounting Nut**  
 F-M190007

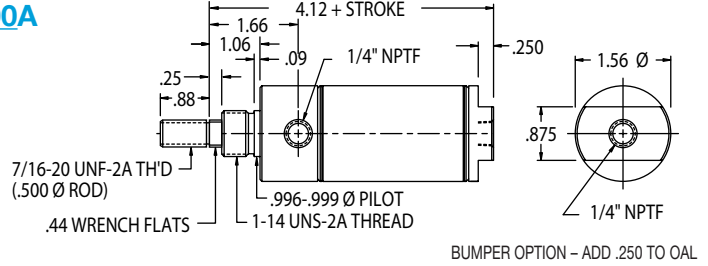
# F Series Magnetic Interchange

## 1-1/2" Bore Cylinders



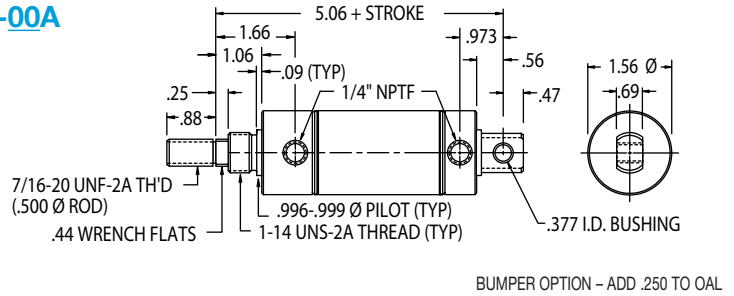
Double Acting  
 Front Nose Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127005 Rod Clevis  
 Base Weight: .74 lbs.  
 Plus .10 lbs. per inch of stroke

### F-1500DM1-00A



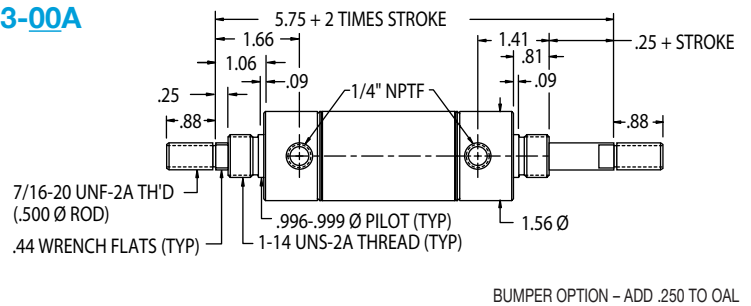
Double Acting  
 Double Nose or  
 Rear Pivot Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 32"  
 Optional Accessories:  
 • F-M127005 Rod Clevis  
 Base Weight: .87 lbs.  
 Plus .10 lbs. per inch of stroke

### F-1500DM2-00A



Double Acting Double Rod  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"  
 Optional Accessories:  
 • F-M127005 Rod Clevis  
 Base Weight: .94 lbs.  
 Plus .20 lbs. per inch of stroke

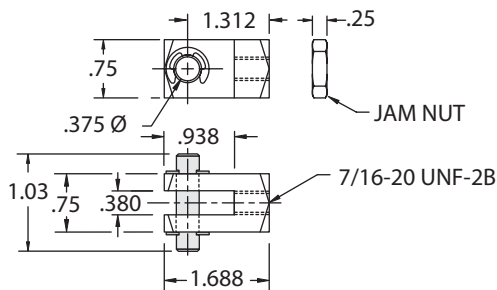
### F-1500DM3-00A



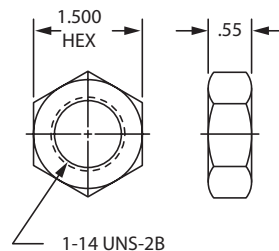
## 1-1/2" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 1-1/2" bore cylinders
- Approximate Force Exerted: (1.7) x (Supply psi)
- Stroke tolerance ±.032

OPTION
• Bumpers
• Pivot Bushing – Bronze sleeve standard
• Ports Rotated – 90° on DM2 (both)
• Rod Wiper
• Side Port – DM1 (Add .25 to OAL)
• Rod Extension DM1, DM2 DM3 (added to both ends)
• Rod Thread Extension



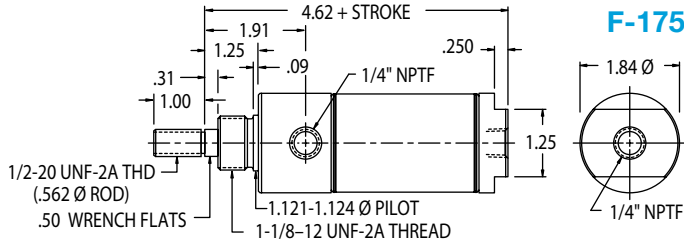
**Rod Clevis**  
 F-M127005



**Mounting Nut**  
 F-M190008



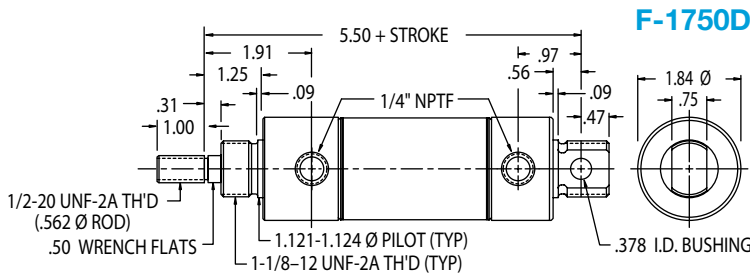
# F Series Magnetic Interchange 1-3/4" Bore Cylinders



**F-1750DM1-00A**

Double Acting Front Nose Mount  
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
Maximum Stroke: 12"  
Optional Accessories:  
• F-M117012 Mounting Bracket  
• F-M127006 Rod Clevis  
Base Weight: 1.14 lbs.  
Plus .13 lbs. per inch of stroke

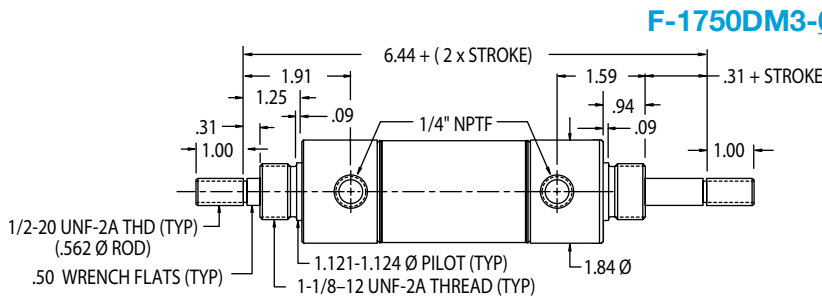
BUMPER OPTION - ADD .250 TO OAL



**F-1750DM2-00A**

Double Acting  
Double Nose or Rear Pivot Mount  
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"**  
Maximum Stroke: 32"  
Optional Accessories:  
• F-M117012 Mounting Bracket  
• F-M127006 Rod Clevis  
Base Weight: 1.30 lbs.  
Plus .13 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL



**F-1750DM3-00A**

Double Acting Double Rod  
Standard Stroke Lengths:  
**1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"**  
Maximum Stroke: 12"  
Optional Accessories:  
• F-M117012 Mounting Bracket  
• F-M127006 Rod Clevis  
Base Weight: 1.40 lbs.  
Plus .26 lbs. per inch of stroke

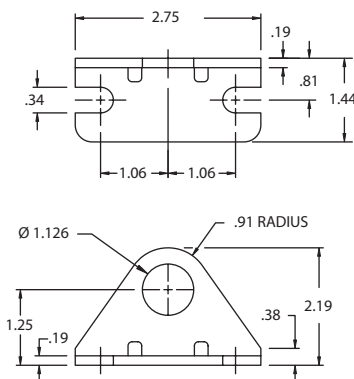
BUMPER OPTION - ADD .250 TO OAL

## 1-3/4" Bore Cylinder Specifications – Options & Accessory Pricing

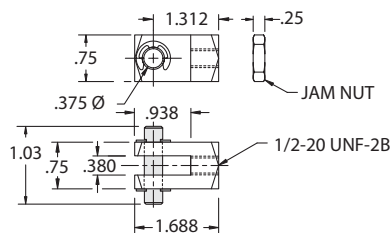
- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 1-3/4" bore cylinders
- Approximate Force Exerted: ( 2.4 ) x ( Supply psi )
- Stroke tolerance ±.032

### OPTION

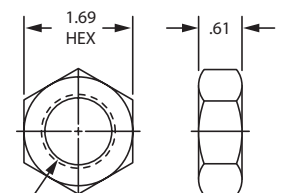
- Bumpers – Double Acting (add .250 to OAL)
- Pivot Bushing – Bronze sleeve standard
- Ports Rotated – 90° on DM2 (both)
- Rod Wiper
- Side Port – DM1 (Add .56 to OAL)
- Rod Extension DM1, DM2  
DM3 (added to both ends)
- Rod Thread Extension



**Mounting Bracket**  
F-M117012



**Rod Clevis**  
F-M127006



**Mounting Nut**  
F-M190015

# F Series Magnetic Interchange

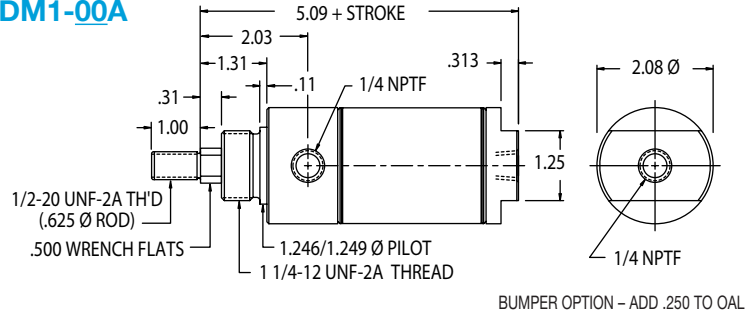


## 2" Bore Cylinders

Double Acting  
 Front Nose Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"

Optional Accessories:  
 • F-M127006 Rod Clevis  
 Base Weight: 1.55 lbs.  
 Plus .15 lbs. per inch of stroke

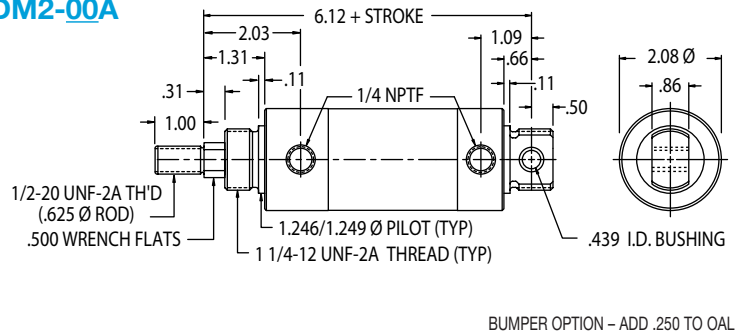
### F-2000DM1-00A



Double Acting  
 Double Nose or Rear Pivot Mount  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 7", 8", 9", 10", 11", 12"  
 Maximum Stroke: 32"

Optional Accessories:  
 • F-M127006 Rod Clevis  
 Base Weight: 1.80 lbs.  
 Plus .15 lbs. per inch of stroke

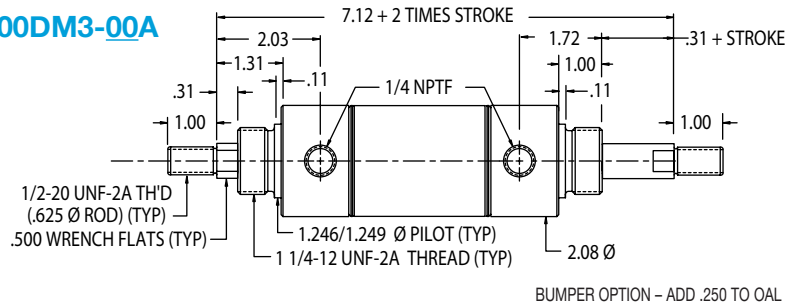
### F-2000DM2-00A



Double Acting Double Rod  
 Standard Stroke Lengths:  
 1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
 Maximum Stroke: 12"

Optional Accessories:  
 • F-M127006 Rod Clevis  
 Base Weight: 1.90 lbs.  
 Plus .30 lbs. per inch of stroke

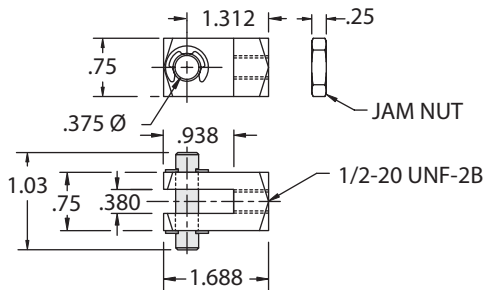
### F-2000DM3-00A



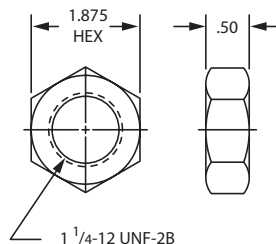
## 2" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 2" bore cylinders
- Approximate Force Exerted: (3.1) x (Supply psi)
- Stroke tolerance ±.032

OPTION
• Bumpers
• Pivot Bushing – Bronze sleeve standard
• Ports Rotated – 90° on DM2 (both)
• Rod Wiper
• Side Port – DM1 (Add .56 to OAL)
• Rod Extension DM1, DM2 DM3 (added to both ends)
• Rod Thread Extension

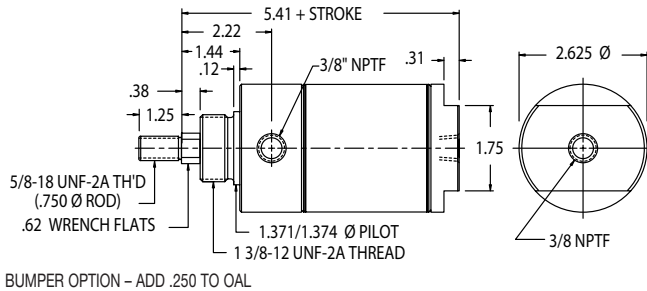


**Rod Clevis**  
 F-M127006



**Mounting Nut**  
 F-M190009

# F Series Magnetic Interchange 2-1/2" Bore Cylinders

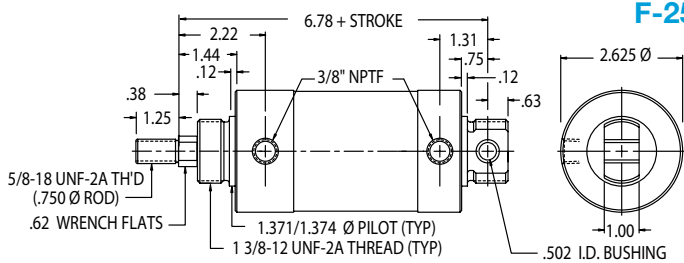


**F-2500DM1-00A**

Double Acting Front Nose Mount  
Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
Maximum Stroke: 12"

Optional Accessories:  
• F-M127007 Rod Clevis  
Base Weight: 2.48 lbs.  
Plus .20 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL

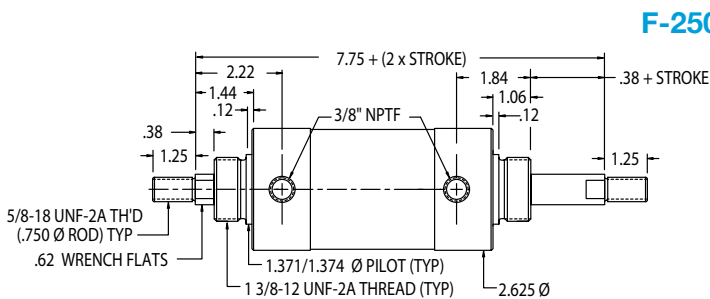


**F-2500DM2-00A**

Double Acting Double Nose or  
Rear Pivot Mount  
Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4",  
5", 6", 7", 8", 9", 10", 11", 12"  
Maximum Stroke: 32"

Optional Accessories:  
• F-M127007 Rod Clevis  
Base Weight: 2.90 lbs.  
Plus .20 lbs. per inch of stroke

BUMPER OPTION - ADD .250 TO OAL



**F-2500DM3-00A**

Double Acting Double Rod  
Standard Stroke Lengths:  
1/2", 1", 1-1/2", 2", 2-1/2", 3", 4", 5", 6"  
Maximum Stroke: 12"

Optional Accessories:  
• F-M127007 Rod Clevis  
Base Weight: 3.15 lbs.  
Plus .40 lbs. per inch of stroke

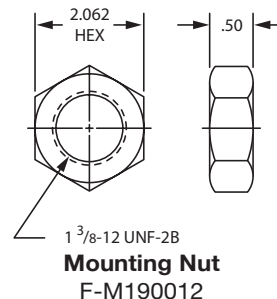
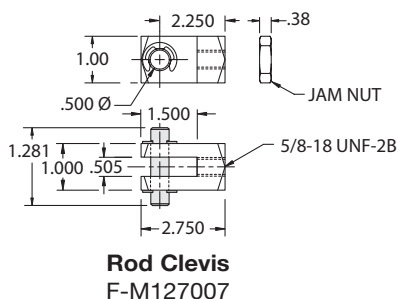
BUMPER OPTION - ADD .250 TO OAL

## 2-1/2" Bore Cylinder Specifications – Options & Accessory Pricing

- -10° to +165°F
- Piston Rod: Ground/Polished 303 Stainless Steel
- **Mounting nuts are not included**
- Bumpers are optional on all 2-1/2" bore cylinders
- Approximate Force Exerted: ( 5.0 ) x ( Supply psi )
- Stroke tolerance ±.032

### OPTION

- Bumpers –
- Pivot Bushing – Bronze sleeve standard
- Ports Rotated – 90° on DM2 (both)
- Rod Wiper
- Side Port - Cap end DM1. Add .38 to OAL
- Rod Extension DM1, DM2  
DM3 (added to both ends)
- Rod Thread Extension



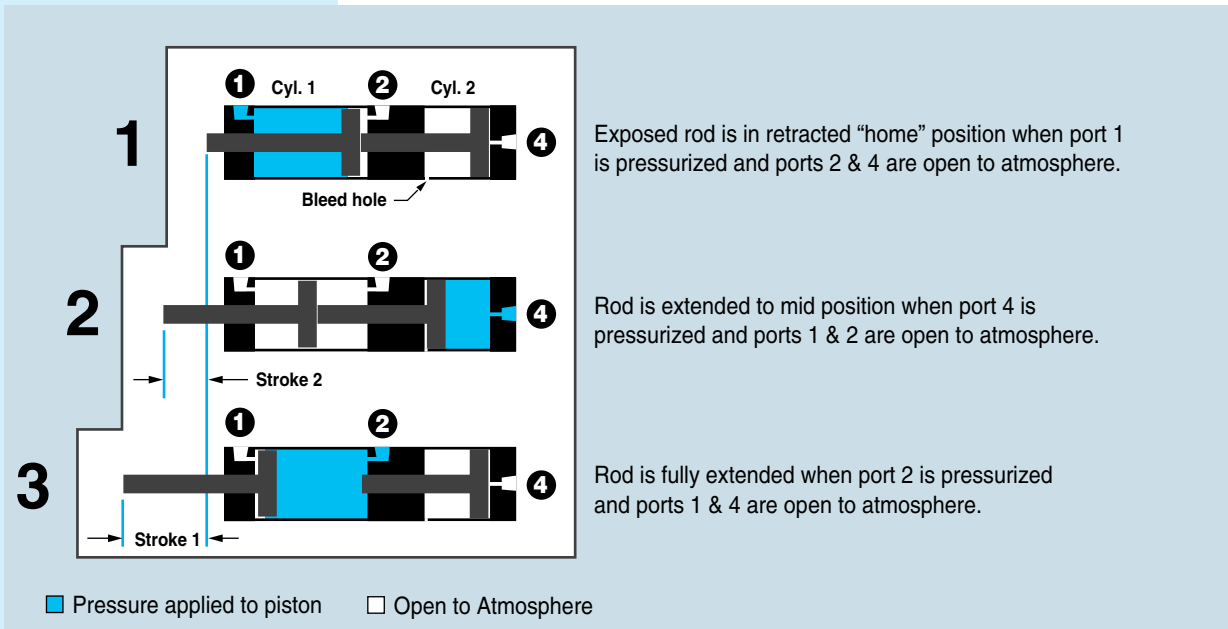
# F Series

## 3-Position (Tandem) Cylinders



Tandem cylinders are generally used when three distinct rod positions are required from a single cylinder body. Two cylinders are assembled tip-to-tail with a common center head. Using cylinders with two different lengths (the shorter located on the rear cylinder), enables the front rod to be extended from "home" to a positive mid-position or to full extension.

### How they work



### How to Order

Bore            Mounting  
**F-1500 D1**

**Bore Size** (4 digits)  
 0750 = 3/4"  
 1062 = 1-1/16"  
 1500 = 1-1/2"  
 2000 = 2"

**Mounting Style** (2 digits)  
 D1 = Double Acting Nose Mount

Stroke 1            Stroke 2            Options  
**- 06A - 04A - 12**

**Cyl. 2 Stroke**  
**Cyl. 1 Stroke**

**Options** (2 digits)  
 12 = Magnetic Piston both ends  
 Leave blank if magnetic piston is not required

In the order example above, when port 4 is pressurized, the cylinder will stroke 4". When port 2 is pressurized, the cylinder will stroke an additional 2" for a total of 6".

For cylinder 2 strokes over 8" and/or combined strokes over 24", consult factory.

Stroke Tolerance	
3/4" thru 1-1/2" bore	+0.075 / -0.040
2" bore	+0.095 / -0.060

**Full Inch Stroke** (2 digits)

00	= 0"
01	= 1"
02	= 2"
03	= 3"
08	= 8" (max. cyl. 2 stroke)

Note:  
 Total Stroke 1 + Stroke 2 not to exceed 24"

**Fractional Inch Stroke**

(1 digit)	
A	= 0"
I	= 1/2"



## F Series

# Hole Punch Cylinders



Fabco-Air's rugged Hole Punch Cylinder enables trouble-free punching of millions of holes in plastic film; ideally suited for LLDPE (linear low density polyethylene). A major feature allows punch replacement without having to replace the cylinder. Available in eight different hole punch sizes from 1/8" to 3/4," razor sharp plastic punches are self-sharpening and significantly outlast conventional steel punches in most applications.

An air ejector, foam ejector, and auto ejector are offered as options. These ejectors discharge material slugs from the center of the punch and prevent debris build-up.

Punches may be used with any F Series cylinder that has 1/4-28 UNF-2A male threads. For your convenience, Fabco-Air has configured three standard cylinders designed specifically for hole punch applications. A thread extension of 1/2" aids punch position adjustment. Elastomer bumpers are included to ensure quiet operation. The cylinders are rated for 250 psi. A mounting nut is included.



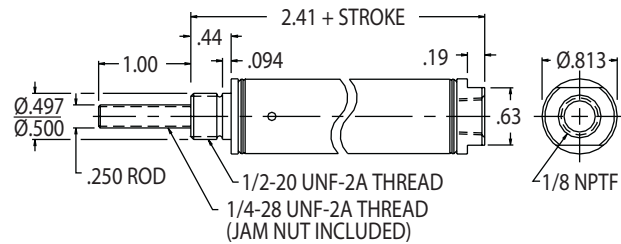
**Stroke Tolerance  $\pm .032$**

### 3/4" Bore Single Acting Spring Return **FM12263-001** 1/2" Stroke

- Bumpers
- 1/2" Thread Extension
- Mounting Nut Included

### 3/4" Bore Single Acting Spring Return **FM12263-01A** 1" Stroke

- Bumpers
- 1/2" Thread Extension
- Mounting Nut Included

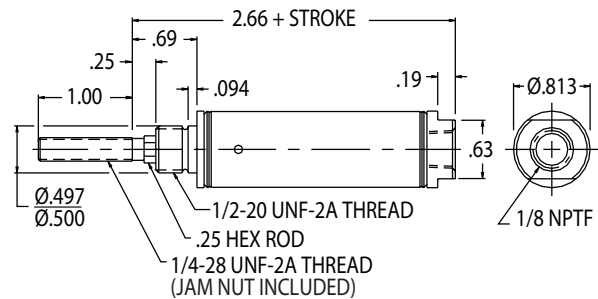


### 3/4" Bore Single Acting Spring Return **FM12264-001** 1/2" Stroke – Non-Rotating Rod

- Bumpers
- 1/2" Thread Extension
- Mounting Nut Included

### 3/4" Bore Single Acting Spring Return **FM12264-01A** 1" Stroke – Non-Rotating Rod

- Bumpers
- 1/2" Thread Extension
- Mounting Nut Included

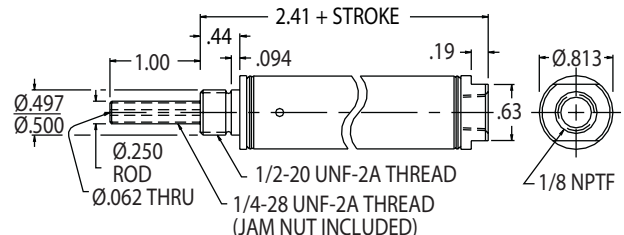


### 3/4" Bore Single Acting Spring Return **FM12265-001** 1/2" Stroke – Hollow Rod for air ejector applications

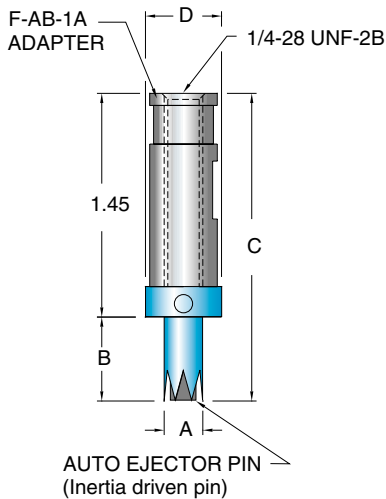
- Bumpers
- 1/2" Thread Extension
- Mounting Nut Included

### 3/4" Bore Single Acting Spring Return **FM12265-01A** 1" Stroke – Hollow Rod for air ejector applications

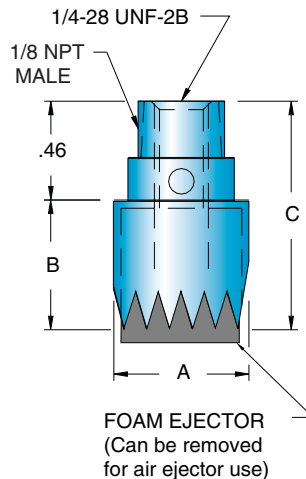
- Bumpers
- 1/2" Thread Extension
- Mounting Nut Included



Punch for Hole  
 Diameters 1/8" and 1/4"  
 shown below with  
 #F-AB-1A Adapter



Punch for Hole  
 Diameters 3/8" - 3/4"



## Benefits

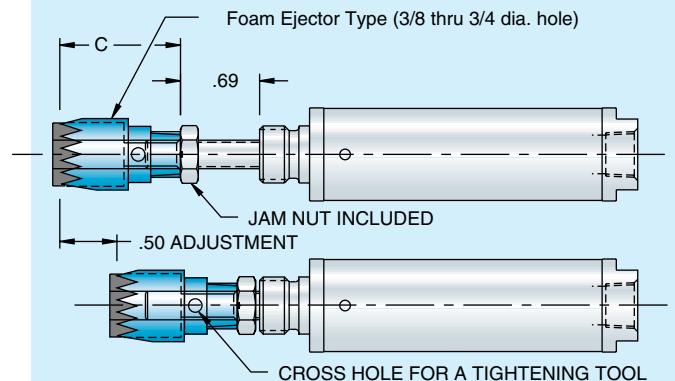
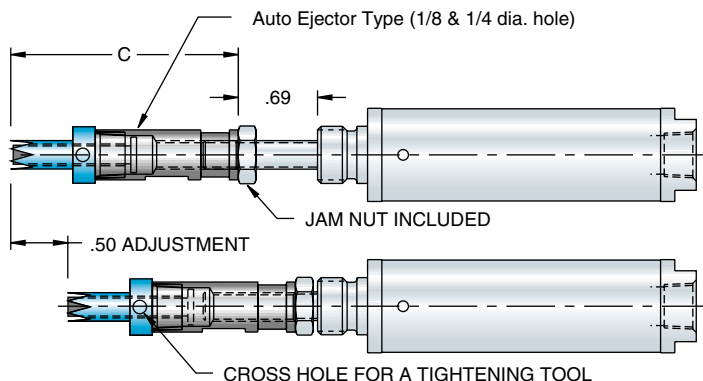
- Punches are replaceable without replacing cylinder.
- Punches are self sharpening, light weight plastic. Made from specially formulated material, these punches regularly outlast steel punches in most applications.
- Auto-Ejector is standard on 1/8" and 1/4" diameters.
- Foam ejector is standard on 3/8" to 3/4" diameters.
- Punch locations are adjustable along cylinder rod.
- Excellent for use in:
  - Linear Low Density Polyethylene Film (LLDPE)
  - Polyethylene film up to 3 mil thickness
  - Polypropylene film up to 1 mil thickness

Part #	Hole Dia.	A	B	C	D	Ejector Type	Adapter Required
F-PCN-18	1/8"	.125	.54	1.99	.44	Auto Ejector Pin	F-AB-1A
F-PCN-14	1/4"	.250	.54	1.99	.44	Auto Ejector Pin	F-AB-1A
F-PCN-38	3/8"	.375	.54	1.00	NA	Foam Ejector	None
F-PCN-716	7/16"	.437	.54	1.00	NA	Foam Ejector	None
F-PCN-12	1/2"	.500	.54	1.00	NA	Foam Ejector	None
F-PCN-916	9/16"	.562	.60	1.06	NA	Foam Ejector	None
F-PCN-58	5/8"	.625	.60	1.06	NA	Foam Ejector	None
F-PCN-34	3/4"	.750	.60	1.06	NA	Foam Ejector	None

Note:

1. Punch standard package quantity is 5 pieces.
2. Adapters are available individually, and are not supplied with the punch.
3. For air ejection applications, use hollow rod cylinders type FM12265.
4. Jam nuts are included with all "Hole Punch" cylinders.

## Cylinder and Punch Assemblies



# PFA Series

## Position Feedback Cylinders



### General Technical Data

The **PFA Series** is an economical pneumatic linear actuator that contains an internal Linear Resistive Transducer (LRT). It is ideal for applications where traditional magnetic position sensing is not acceptable. Additionally, the **PFA Series** is conducive where variations in cylinder stroke and speed are required or where an application calls for continuous position monitoring.

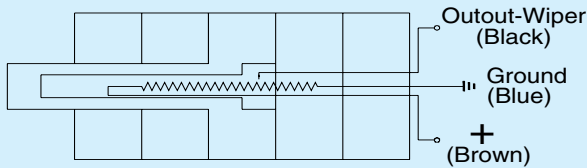
- Operating pressure: 150 psi max.
- Recommended Media: Filtered, clean, dry "non-condensing" compressed air. Do not apply any fluids that may be electrically conductive. Water-based fluids should not be used.

### Electrical Specifications

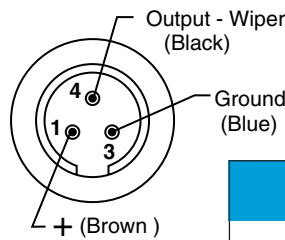
Electrical Resistance	1000 ohms (± 20%) per inch of stroke
Resolution	Infinite (limited by interfacing electronics)
Temperature Range	0° F to 160° F
Life Rating	500 million inches of travel on transducer
Linearity	±1% of stroke (or better)
Interface	6" cable with M8x1 Quick Connect
Signal Input	Typically 10 VDC
Maximum Speed	50 in/sec
Maximum Standard Stroke	18 inches (longer strokes available upon request)
Maximum Current	1 microamp required from the transducer

Note: Control Module Units sold separately can have scalable output of 4-20 mA or 0-10 VDC and input of 120 VAC or 12-24 VDC. See pages 58 and 59.

### LRT Circuit Diagram

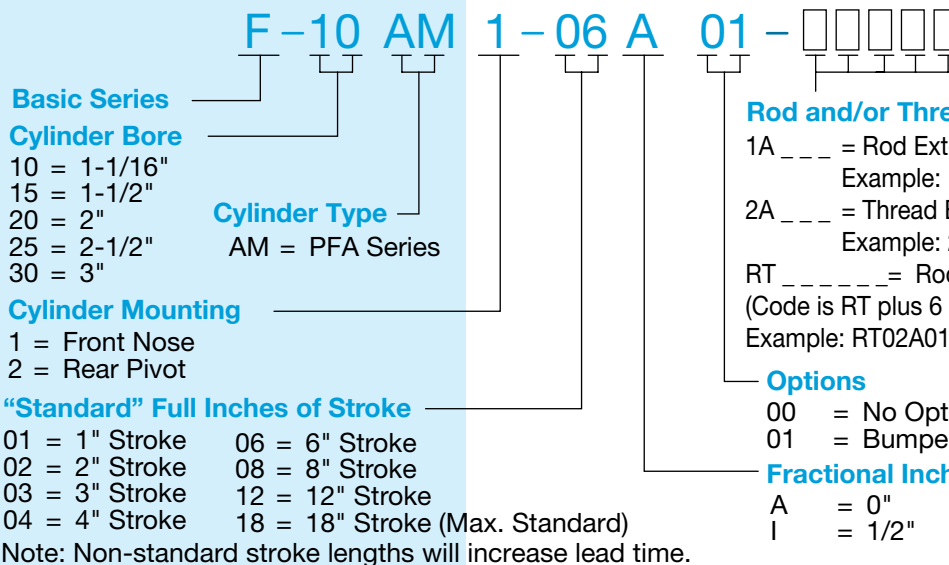


### Connector Pin Assignments



Cable Part Number	Description
F-SC6-001	3m (10') Non shielded
F-N99-1109	5m (16.4') Shielded

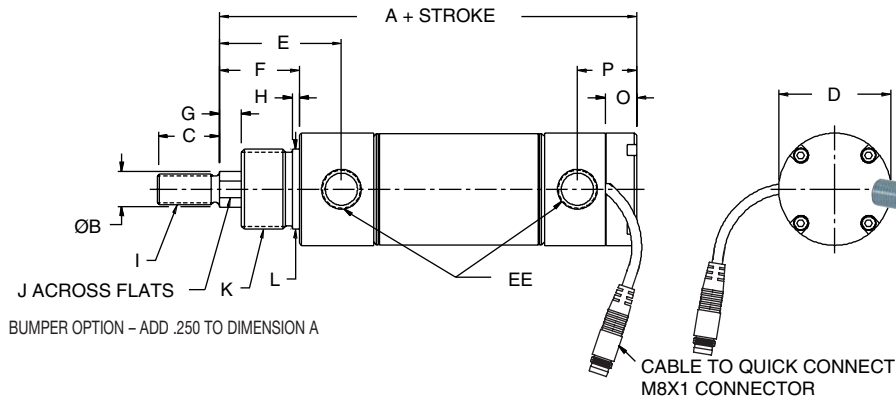
### How to Order Cylinder



Note: Non-standard stroke lengths will increase lead time.

Note that the **PFA Series** can integrate with some Fabco-Air slide products. Contact your local distributor or Fabco-Air engineering for details.

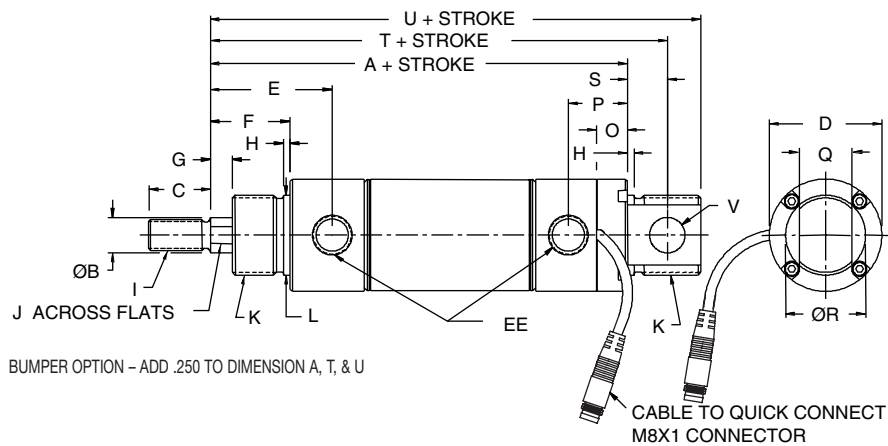




Front Nose Mount - 150 psi Max.  
**Cylinder Type AM1**  
 Rod wiper is standard.  
 Mounting nut is not included.



See page 63 for accessory details.



Rear Pivot Mount - 150 psi Max.  
**Cylinder Type AM2**  
 Rod wiper is standard.  
 Mounting nut is not included.  
 Pivot bushing NOT available.

**Note:**  
 Remove pivot mount attachment and rotate 90° to align pivot eye to ports.

See page 63 for accessory details.

## PFA Cylinder Dimensions

	1-1/16" Bore Bore Code 10	1-1/2" Bore Bore Code 15	2" Bore Bore Code 20	2-1/2" Bore Bore Code 25	3" Bore Bore Code 30
A	4.59	4.88	5.46	6.41	6.78
B	0.375	0.500	0.625	0.750	0.750
C	0.63	0.88	1.00	1.25	1.25
D	1.312	1.58	2.08	2.63	3.16
E	1.75	1.72	1.92	2.25	2.16
F	1.06	1.13	1.188	1.50	1.438
G	0.31	0.31	0.38	0.44	0.44
H	0.09	0.09	0.13	0.13	0.19
I	5/16-24 UNF	7/16-20 UNF	1/2-20 UNF	5/8-18 UNF	5/8-18 UNF
J	0.31	0.44	0.50	0.63	0.63
K	7/8-14 UNF	1 1/8-12 UNF	1 1/4-12 UNF	1 3/8-12 UNF	1 1/2-12 UNF
L	0.875	1.125	1.375	1.500	1.625
O	0.44	0.41	0.50	0.56	0.63
P	0.84	0.83	0.93	1.13	1.47
Q	0.38	0.63	0.75	0.88	0.88
R	0.875	1.125	1.375	1.500	1.625
S	0.47	0.56	0.56	0.75	0.81
T	5.06	5.44	6.02	7.16	7.59
U	5.34	5.91	6.46	7.78	8.22
V	0.250	0.375	0.375	0.500	0.500
EE	1/8 NPTF	1/4 NPTF	1/4 NPTF	3/8 NPTF	3/8 NPTF

## PFA Series – Position Feedback Digital Displays



### F-TDRO-40 Panel Meter 4 Digit 0.56" in a 1/8 DIN Case

An economical smart programmable meter with optional relay with isolated 4 to 20 mA and 0-10 VDC retransmission or control loop output capability for measurement and control applications.

#### Specifications

<b>Input Specs:</b>	IR03 Input Module
<b>A/D Converter:</b>	14 bit single slope
<b>Accuracy:</b>	±(0.05% of reading + 2 counts)
<b>Temp. Coeff.:</b>	100 ppm/°C (Typical)
<b>Warm Up Time:</b>	2 minutes
<b>Conversion Rate:</b>	10 conversions per second (Typical)
<b>Display:</b>	4 digit 0.56" Red LED display (Range – 1999 to 9999 counts)
<b>Polarity:</b>	Assumed positive. Displays – negative
<b>Decimal Selection:</b>	Front panel button selectable, X•X•X•X•
<b>Positive Overrange:</b>	Top segments of digital display flash
<b>Negative Overrange:</b>	Bottom segments of digital display flash
<b>Relay Output:</b>	Available combinations shown in "How to Order" page 59: 5Amp Form A is solid state; (optional) 10Amp Form C is mechanical.
<b>Analog Output:</b>	Isolated 16 bit user scalable mA or V
AIC (mA out) (opt)	4-20 mA @ 0 to 500 Ω max loop resistance
AIV (volts out) (opt)	0-10 DC @ 500 Ω or higher resistance
<b>Power Supply:</b>	AC/DC Auto sensing wide range supply
1–PS1 (std)	85-265 VAC/95-370 VDC @ 2.5W max 3.5W
2–PS2 (opt)	15-48 VAC/10-72 VDC @ 2.5W max 3.5W
<b>Operating Temp.:</b>	0 to 60°C
<b>Storage Temp.:</b>	-20 to 70°C
<b>Relative Humidity:</b>	95% (non-condensing)
<b>Case Dimensions:</b>	1/8 DIN, Bezel: 96x48mm (3.78"x1.89") Depth behind bezel: 117mm (4.61") Plus 11.8mm (0.47") for Right-angled connectors, or plus 20 mm (0.79") for straight-thru connector.
<b>Weight:</b>	6.5 oz., 8.5 oz. when packed

## Software Features

### F-TDRO-40

- Three-button programming from the front panel (UP, DOWN and PROGRAM buttons).
- Three front panel selectable ranges.
- Front panel selectable four-level brightness control of digital display, and setpoint LEDs.
- Up to four programmable setpoints.
- Relay activation can be selected to occur above (HI) or below (LO) each setpoint.
- Hysteresis setting for all four setpoints. Delay on make and delay on break for SP1 and SP2.
- Peak and Valley. View and Reset.



### F-TDBRO-40 101 Segment Bargraph 4 Digit 0.31" in a 9/64 DIN Case

Smart Tricolor digital bargraph with four fully programmable setpoints and optional relay with isolated 4 to 20 mA and 0-10 VDC retransmission or control loop output for monitoring measurement and control applications.

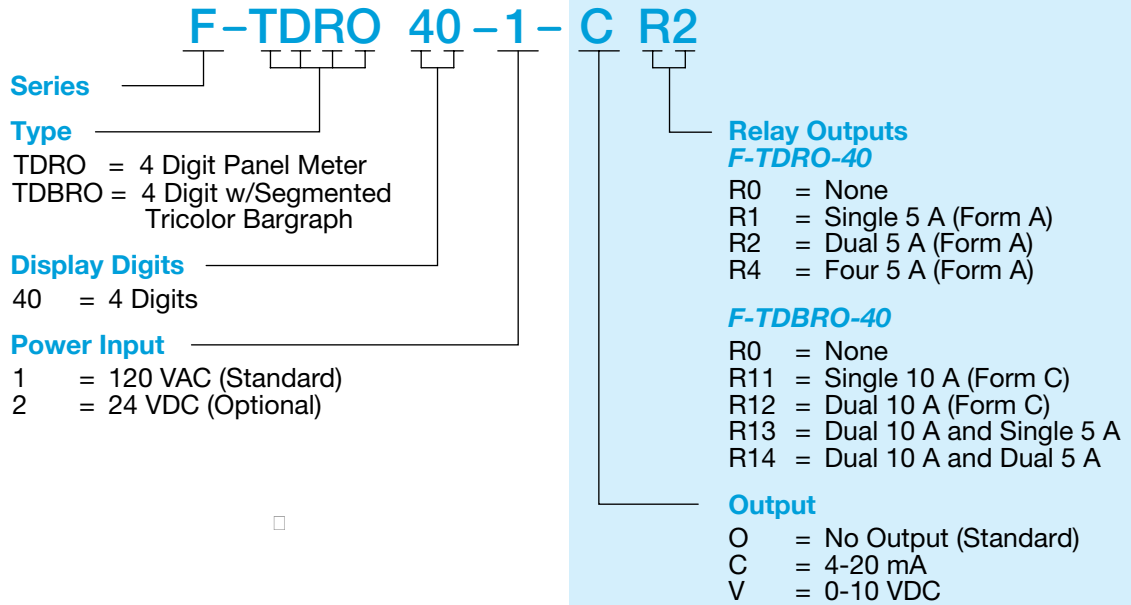
#### Specifications

<b>Input Specs:</b>	IR03 Input Module
<b>A/D Converter:</b>	14 bit single slope
<b>Accuracy:</b>	±(0.05% of reading + 2 counts)
<b>Temp. Coeff.:</b>	100 ppm/°C (Typical)
<b>Warm Up Time:</b>	2 minutes
<b>Conversion Rate:</b>	10 conversions per second (Typical)
<b>Digital Display:</b>	4 digit 0.31" LED red (Range – 1999 to 9999 counts)
<b>Bargraph Display:</b>	101 segment 4" tri-color vertical
<b>Polarity:</b>	Assumed positive. Displays – negative
<b>Decimal Selection:</b>	Front panel button selectable, X•X•X•X•
<b>Positive Overrange:</b>	Bargraph and Top segments of digital display flash
<b>Negative Overrange:</b>	First segment of Bargraph and Bottom segments of digital display flash
<b>Relay Output:</b>	Available combinations shown in "How to Order" page 59: 5Amp Form A is solid state; (optional) 10Amp Form C is mechanical.
<b>Analog Output:</b>	Isolated 16 bit user scalable mA or V
AIC (mA out)(opt)	4-20 mA @ 0 to 500 Ω max loop resistance
AIV (volts out)(opt)	0-10 DC @ 500 Ω or higher resistance
<b>Power Supply:</b>	AC/DC Auto sensing wide range supply
1–PS1 (std)	85-265 VAC/95-370 VDC @ 2.5W max 4.2W
2–PS2 (opt)	15-48 VAC/10-72 VDC @ 2.5W max 4.2W
<b>Operating Temp.:</b>	0 to 60°C
<b>Storage Temp.:</b>	-20 to 70°C
<b>Relative Humidity:</b>	95% (non-condensing)
<b>Case Dimensions:</b>	9/64 DIN, Bezel: 36Wx144Hmm Depth behind bezel: 148mm (5.83") Plus 18mm (0.7") connectors.
<b>Weight:</b>	9.5 oz., 12 oz. when packed

### F-TDBRO-40

- Digital display and the 101 segment bargraph can be independently scaled.
- Bargraph center zero function.
- Four programmable setpoints. (optional)
- Adjustable delay-on-make and delay-on-break time for setpoints 1 and 2.
- Relay activation can be selected to occur above (HI) or below (LO) each setpoint.
- Digital display blanking.
- Decimal point setting.
- Four-level brightness control of bargraph, digital display, and setpoint LEDs.

## How to Order Display



# Port Mounted Flow Controls



## Swivel, Brass Body Flow Controls

- Full 360° Swivel • Compact Size • Pre-applied thread sealant

### SPECIFICATIONS

- Male sizes:
  - #10-32, 1/8 NPT, 1/4 NPT
- Female NPT or instant tube connections:
  - 10-32, 1/8 NPT, 1/4 NPT,
  - 5/32" T, 1/4" T, 3/8" T
- Choice of controlled flow direction
  - Valve mount – Meter in
  - Cylinder mount – Meter out
- Operating pressure to 150 PSI (10 bar)
- Operating temperature: -25° to 250°F



PC1-K

PC2-A

PC4-K

See Dimensions on next page

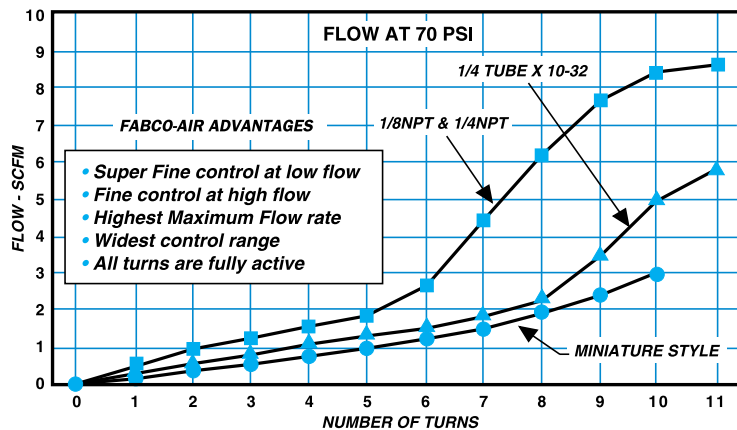
## Swivel, Molded Body Flow Controls

- Full 360° Swivel • Compact Size • Pre-applied thread sealant

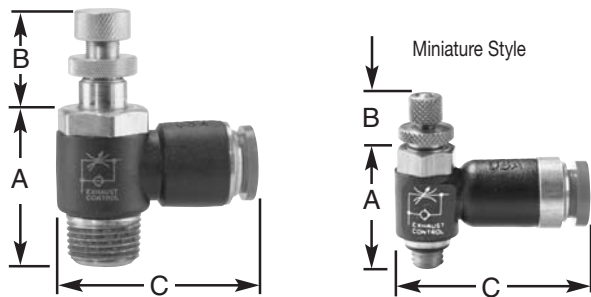
### SPECIFICATIONS

- Male sizes:
  - #10-32, 1/8 NPT, 1/4 NPT, 3/8 NPT
- Female instant tube connections:
  - 5/32" T, 1/4" T, 3/8" T
- Operating pressure to 150 PSI (10 bar)
- Operating temperature:
  - 0 to 160°F (-18°C to 70°C)
- High flow rates (see chart at right)
- Use with air or other inert gas only
- Not recommended for use with liquids
- Meter out only

FLOW CHARACTERISTICS OF FABCO-AIR VALVES

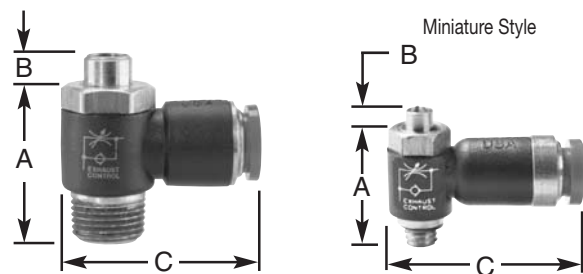


## How to Order Model Numbers & Dimensions



### KNOB ADJUSTABLE VALVES

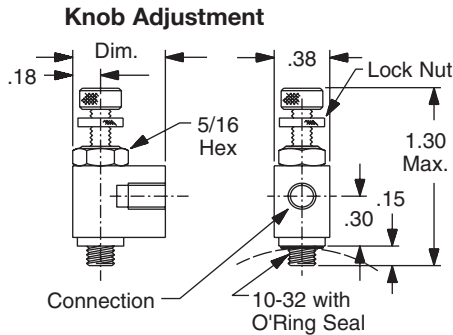
Model No.	Description	A	B max	C	Flow (Cv)
PK-82010	5/32 tubing x 10-32	0.68	0.45	1.08	0.05
PK-82012	5/32 tubing x 1/8 NPT	1.05	0.75	1.25	0.13
PK-82014	5/32 tubing x 1/4 NPT	1.17	0.75	1.37	0.13
PK-82040	1/4 tubing x 10-32	0.95	0.75	1.30	0.08
PK-82042	1/4 tubing x 1/8 NPT	1.05	0.75	1.30	0.13
PK-82044	1/4 tubing x 1/4 NPT	1.17	0.75	1.40	0.13
PK-82046	1/4 tubing x 3/8 NPT	1.38	0.92	1.75	0.27
PK-82064	3/8 tubing x 1/4 NPT	1.34	0.92	1.70	0.27
PK-82066	3/8 tubing x 3/8 NPT	1.38	0.92	1.75	0.27



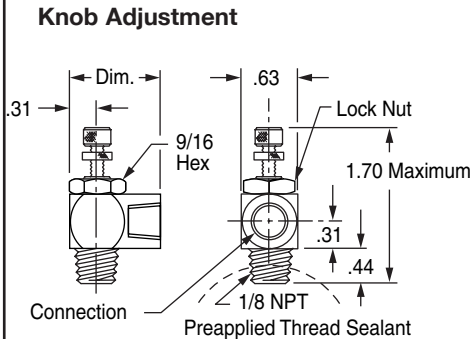
### RECESSED SCREW ADJUSTABLE VALVES

Model No.	Description	A	B max	C	Flow (Cv)
PR-82110	5/32 tubing x 10-32	0.68	0.11	1.08	0.05
PR-82112	5/32 tubing x 1/8 NPT	1.05	0.20	1.25	0.13
PR-82114	5/32 tubing x 1/4 NPT	1.17	0.20	1.37	0.13
PR-82140	1/4 tubing x 10-32	0.95	0.20	1.30	0.08
PR-82142	1/4 tubing x 1/8 NPT	1.05	0.20	1.30	0.13
PR-82144	1/4 tubing x 1/4 NPT	1.17	0.20	1.40	0.13
PR-82146	1/4 tubing x 3/8 NPT	1.38	0.28	1.75	0.27
PR-82164	3/8 tubing x 1/4 NPT	1.34	0.28	1.70	0.27
PR-82166	3/8 tubing x 3/8 NPT	1.38	0.28	1.75	0.27

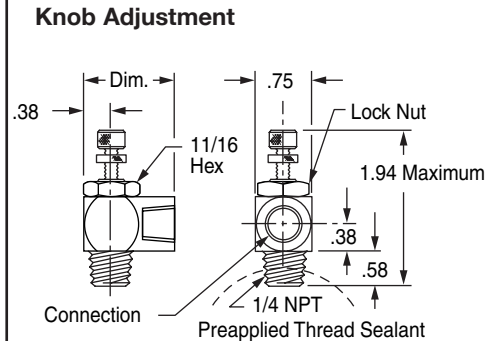
Size 1  
 10-32 Male Thread



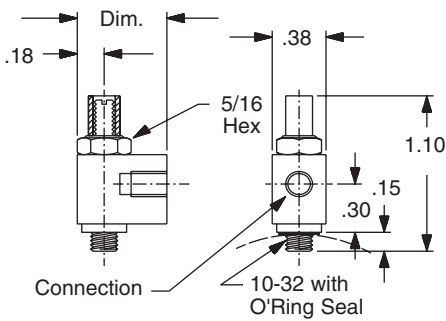
Size 2  
 1/8 NPT Male Thread



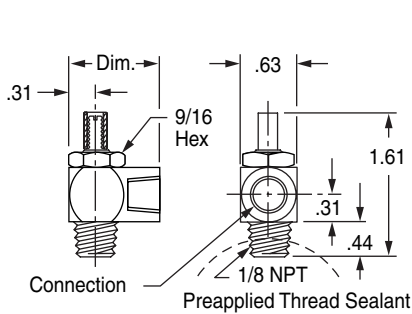
Size 4  
 1/4 NPT Male Thread



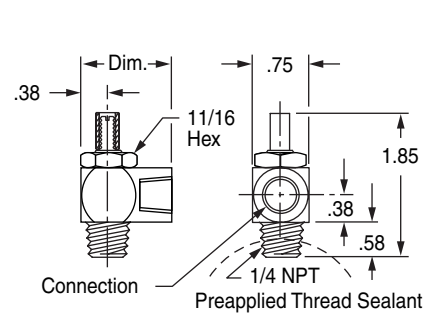
Screwdriver Adjustment



Screwdriver Adjustment



Screwdriver Adjustment



Flow Characteristics

Typical Free Flow Maximum

Supply Pressure	Flow Rate
60 psi	1.1 SCFM
100 psi	1.8 SCFM

Flow Characteristics

Typical Free Flow Maximum

Supply Pressure	Flow Rate
60 psi	10.4 SCFM
100 psi	16.0 SCFM

Flow Characteristics

Typical Free Flow Maximum

Supply Pressure	Flow Rate
60 psi	15.9 SCFM
100 psi	24.8 SCFM

Male Thread	Adjustment	Connection	Model Number		Dim.
			Valve Mount Meter In	Cylinder Mount Meter Out	
Size #1 #10-32	Knob	10-32 Tap	PV1-A	PC1-A	.63
		5/32" Tube	PV1-C	PC1-C	1.16
	Screwdriver	10-32 Tap	PV1-K	PC1-K	.63
		5/32" Tube	PV1-M	PC1-M	1.16
Size #2 1/8 NPT	Knob	1/8 NPT Tap	PV2-A	PC2-A	1.00
		5/32" Tube	PV2-C	PC2-C	1.65
		1/4" Tube	PV2-D	PC2-D	1.63
		1/8 NPT Tap	PV2-K	PC2-K	1.00
	Screwdriver	5/32" Tube	PV2-M	PC2-M	1.65
		1/4" Tube	PV2-N	PC2-N	1.63
Size #4 1/4 NPT	Knob	1/4 NPT Tap	PV4-A	PC4-A	1.25
		1/4" Tube	PV4-B	PC4-B	1.75
		3/8" Tube	PV4-C	PC4-C	2.00
		1/4 NPT Tap	PV4-K	PC4-K	1.25
	Screwdriver	1/4" Tube	PV4-L	PC4-L	1.75
		3/8" Tube	PV4-M	PC4-M	2.00

# Cylinder Accessories

## Magnetic Position Sensors



Temperature range: -4° to +176°F (-20° to +80C)

Magnetically operated reed switches and electronic sensors can be mounted anywhere along the length and circumference of the cylinder. A magnetic piston is required and is standard on Magnetic Interchange cylinders. Specify Magnetic Piston Option “-03” for other F-Series models or “-12” for 3-position models

Dovetail Style Sensors		Prewired 9 ft. Leadwire Part No.	Quick Disconnect* Part No.
Reed (No LED)	0-120 VDC/VAC, 0.5 Amp Max current, 10 Watt Max, 0 Voltage Drop	949-000-001	949-000-301
Reed (LED)	5-120 VDC/VAC, 0.03 Amp Max current, 4 Watt Max, 2.0 Voltage Drop	949-000-002	949-000-302
Electronic (LED)	Sourcing PNP 6-24 VDC, 0.20 Amp Max current, 0.5 Voltage Drop	949-000-031	949-000-331
Electronic (LED)	Sinking NPN 6-24 VDC, 0.20 Amp Max current, 0.5 Voltage Drop	949-000-032	949-000-332

\*Note: Quick disconnect styles are supplied with 6 inch pigtail with male connector. Order female cordsets separately from chart below.

- Encased in a plastic housing, dovetail style sensors are corrosion resistant. 45° wire outlet allows close mounting.
- Two methods of mounting are available: one is fastened to the cylinder barrel with a **band clamp** (not included with sensor – must be ordered separately); the second is an adhesive-backed **mounting rail** with twin dovetail slots.

F-Series cylinder with rail mounted dovetail sensors shown on one of Fabco-Air's linear slide products.

Sensor slides into extruded aluminum rail and is locked in place with a screw.

### Mounting Options

**Band Clamp Adapter for Dovetail Sensors**  
(Must be ordered separately)  
**Part No.** 900-300-000

**Dovetail Rail** as shown above (must be ordered separately). Order by **Part No. “ER – length”** where the length is known, or by **“ER – cylinder model no.”**  
Example: “ER-F-1062D02-04A-03”  
Model no. of cylinder allows factory to determine the length needed. (Estimated length for pricing purposes is “stroke + 1”)  
Supplied with double sided tape affixed.

**Application recommendations:**  
a) Clean cylinder body O.D. with acetone. Remove all oil from surface.

- b) Do not apply the rail over the crimped body edge.
- c) Double check positioning of the rail.
- d) High performance double sided tape offers convenient “peel and stick” but is very aggressive, giving you only one chance. Be careful!
- e) Remove protective film from tape and place rail in desired position.
- f) Firmly press the rail to cylinder body.

Alternatively, the extruded aluminum rail can be fastened using Loctite® U-05FL urethane adhesive or similar. Follow product manufacturer's recommendations for application.

Clamp on Style Sensors		Prewired 9 ft. Leadwire Part No.	Quick Disconnect* Part No.
Reed (LED)	5-120 VAC/VDC, 0.5 AMP Max, 10 Watt Max, SPST N.O. 3.5 voltage drop	9-2A197-1003	9-2A197-1303
Electronic (LED)	Sourcing, PNP, 6-24 VDC, 0.5 Amp Max, 1.0 voltage drop	9-2A197-1031	9-2A197-1331
Electronic (LED)	Sinking, NPN, 6-24 VDC, 0.5 Amp Max, 1.0 voltage drop	9-2A197-1032	9-2A197-1332

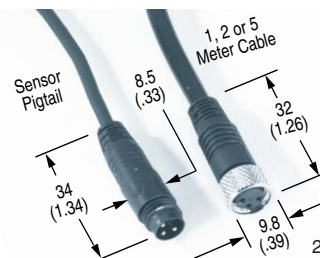
**Band Clamp for Clamp On Sensors**  
(must be ordered separately)  
**Part No.** 800-A00-000



Prewired style sensors are supplied with a 9 foot leadwire.

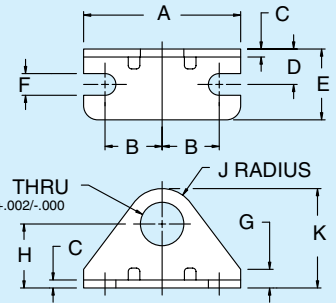
\*Quick disconnect style sensors are supplied with male connector as shown in this photo. Order female cordsets separately from the chart below.

Female Cordsets for Quick Disconnect Sensors	
Cordset Length	Part No.
1 Meter	CFC-1M
2 Meters	CFC-2M
5 Meters	CFC-5M



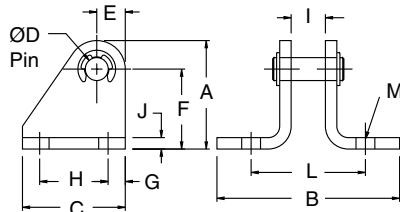
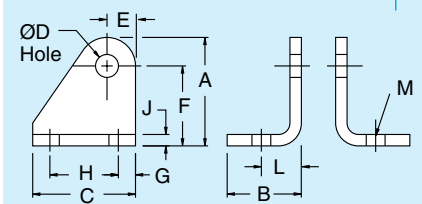
## Nose Mounting Brackets

A	B	C	D	E	F	G	H	I	J	K	Part #
1.00	.38	.063	.25	.38	.14	.13	.438	.251	.31	.75	F-M117001
1.00	.38	.063	.25	.38	.14	.13	.438	.376	.31	.75	F-M117002
1.38	.50	.094	.38	.69	.20	.13	.563	.438	.38	.83	F-M117003
1.38	.50	.063	.31	.63	.20	.13	.563	.376	.31	.88	F-M117004
1.88	.75	.125	.56	1.00	.26	.25	.813	.626	.56	1.38	F-M117005
1.63	.63	.094	.44	.75	.20	.19	.688	.501	.41	1.09	F-M117006
2.50	.94	.125	.75	1.50	.28	.63	1.000	.751	.75	1.75	F-M117007
3.00	1.13	.188	.88	1.50	.34	.75	1.250	1.032	.91	2.13	F-M117008
3.13	1.13	.250	1.00	1.63	.34	.63	1.500	1.376	1.00	2.50	F-M117009
3.75	1.44	.250	1.00	1.63	.34	.75	1.750	1.501	1.25	3.00	F-M117010
4.38	1.75	.250	1.00	1.63	.34	.89	1.890	1.626	1.25	3.14	F-M117011
2.75	1.06	.188	.81	1.44	.34	.38	1.250	1.126	.91	2.19	F-M117012
2.13	.78	.157	.66	1.16	.28	.32	1.000	.876	.75	1.75	F-M117013



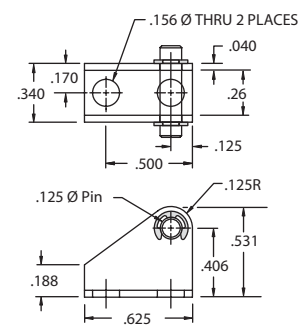
## Pivot Mounting Brackets

A	B	C	D	E	F	G	H	J	L	M	Part #
.77	.50	.75	.157	.20	.56	.13	.50	.063	.28	.20	F-M029002
1.19	.81	1.13	.250	.31	.88	.19	.75	.125	.44	.26	F-M029003
1.75	1.00	1.50	.375	.38	1.38	.25	1.00	.125	.63	.26	F-M029004
1.75	1.13	1.50	.500	.38	1.38	.25	1.00	.250	.69	.26	F-M029006



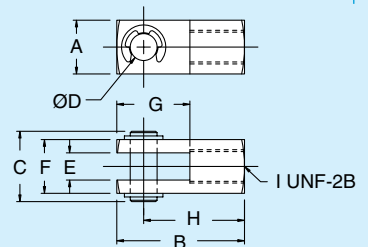
A	B	C	D	E	F	G	H	I	J	L	M	Part #
.77	1.34	.75	.157	.20	.56	.13	.50	.34	.063	.90	.20	F-M129002
1.19	2.00	1.13	.250	.31	.88	.19	.75	.38	.125	1.25	.26	F-M129003
1.75	2.88	1.50	.375	.38	1.38	.25	1.00	.63	.250	2.00	.26	F-M129005
1.19	2.12	1.13	.250	.31	.88	.19	.75	.50	.125	1.38	.26	F-M229003
1.75	3.00	1.50	.375	.38	1.38	.25	1.00	.75	.250	2.13	.26	F-M229005
2.25	3.88	1.75	.500	.50	1.75	.25	1.25	.88	.250	2.63	.26	F-M229006

**F-M129001 Price: \$2.85**



## Rod Clevises

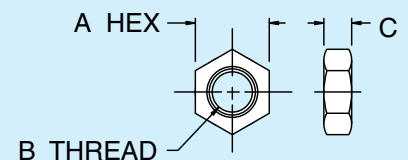
A	B	C	D	E	F	G	H	I	Part #
.31	.56	.53	.125	.13	.31	.38	.44	#5-40	F-M127001
.38	.94	.56	.188	.19	.38	.56	.75	#10-32	F-M127002
.50	1.19	.68	.250	.25	.50	.68	.94	1/4-28	F-M127003
.50	1.19	.68	.250	.25	.50	.68	.94	5/16-24	F-M127004
.75	1.69	1.03	.375	.38	.75	.94	1.31	7/16-20	F-M127005
.75	1.69	1.03	.375	.38	.75	.94	1.31	1/2-20	F-M127006
1.00	2.75	1.28	.500	.50	1.00	1.50	2.25	5/8-18	F-M127007



## Mounting Nuts & Rod Thread Nuts

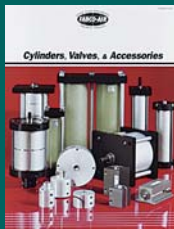
Part #	A	B	C
F-M18-004	.500	5/16-24	.19
F-M190001	.438	1/4-28	.16
F-M190002	.562	3/8-24	.22
F-M190003	.687	7/16-20	.25
F-M190004	.750	1/2-20	.31
F-M190005	.938	5/8-18	.38
F-M190006	1.125	3/4-16	.42
F-M190007	1.312	7/8-14	.48

Part #	A	B	C
F-M190008	1.500	1-14	.55
F-M190009	1.875	1 1/4-12	.50
F-M190012	2.062	1 3/8-12	.50
F-M190013	2.250	1 1/2-12	.50
F-M190015	1.688	1 1/8-12	.61
F-M19S005	.938	5/8-18	.38
F-M19S006	1.500	1-14	.55



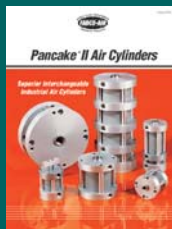
**FABCO-AIR**, Inc. ■ 3716 N.E. 49th Avenue ■ Gainesville FL 32609-1699 ■ Telephone (352) 373-3578  
■ Fax (352) 375-8024 ■ E-Mail [fabco@fabco-air.com](mailto:fabco@fabco-air.com) ■ Web Site <http://www.fabco-air.com>

## Fabco-Air Product Catalog Library



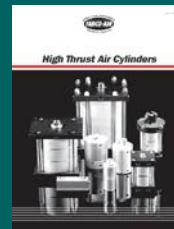
### **Cylinders, Valves & Accessories**

**Catalog CV9** 200 pages describe Pancake<sup>®</sup>, Square 1<sup>®</sup>, Longstroke<sup>™</sup>, Hi-Power<sup>™</sup> and Multi-Power<sup>®</sup> air cylinder lines. Also details valves, air-over-oil tanks, boosters, fittings and accessories.



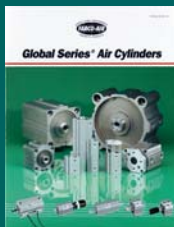
### **Pancake<sup>®</sup> II Cylinders Catalog Pan2-2**

The direct industrial interchange. High strength composite cylinder barrel. Rod bearing has higher load bearing capacity, lower friction & zero slip stick. Offered in four popular styles: Standard, Nonrotating, Multi-Power<sup>®</sup> and 3-Position.



### **New High Thrust Air Cylinders Catalog HP/MP**

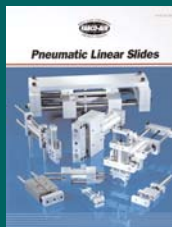
Details five families of powerful force multiplying cylinders. Get forces up to four times that of conventional cylinders. Bore sizes from 1/2" to 12".



### **Global Series<sup>™</sup> Air Cylinders Catalog GC-15**

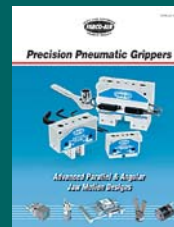
Block-type air cylinders featuring non-lube service to 150 psi.

- 10 bores: 12 - 100mm
- Strokes: 5 - 150mm
- NPT or metric ports
- Metric or inch rod thread and mounting.



### **Linear Slides Catalog LS-03**

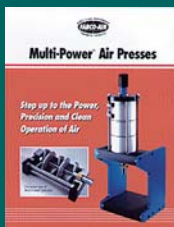
Broad line includes 6 families of linear slides, pick & place units, thrusters and thin parts placers. Cylinder bores: 5/16" to 4". Guide shafts 1/4" to 1-1/2".



### **Pneumatic Grippers Catalog GR-8**

- SPG & LPG parallel jaw motion with strokes from 1/4" to 24" and forces to 400 pounds @ 100 psi.

- GR & GS angular jaw styles with external open/close on-the-fly adjustment.



### **Multi-Power<sup>®</sup> Air Presses Catalog FP16**

Details the powerful line of precision, force-multiplying air presses and accessories. Light weight and portable, these units deliver forces to 11,000 pounds on shop air pressure!

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