

“We enjoy making product
for your needs.”

WWW.MOTIONCONTROLSLLC.COM
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262-673-9255 262-673-9554 fax
2008



Series K Cylinder

Design Features

Non-Metallic Bearings

A specially compounded reinforced Teflon material is used for the piston and rod bearings, assuring low friction characteristics. Bearing assembly is easily removed for quick replacement.

Non-Lube Operation

Long life K cylinders are specifically designed for non-lube Operation.

Cushions

High energy absorption poppet type adjustable cushions are available as a standard option. Cushion adjusting screw is normally located in position No. 2.

Piston Rod

Hard chrome plated steel, ground and polished. Two wrench flats standard on all bore sizes. Small male national fine threads are standard. All other threads available as options.

Tubing

Hard coated I.D. aluminum for corrosion resistance and low friction.

Seals

All dynamic seals are self-adjusting Buna-N U-cups.

End Caps

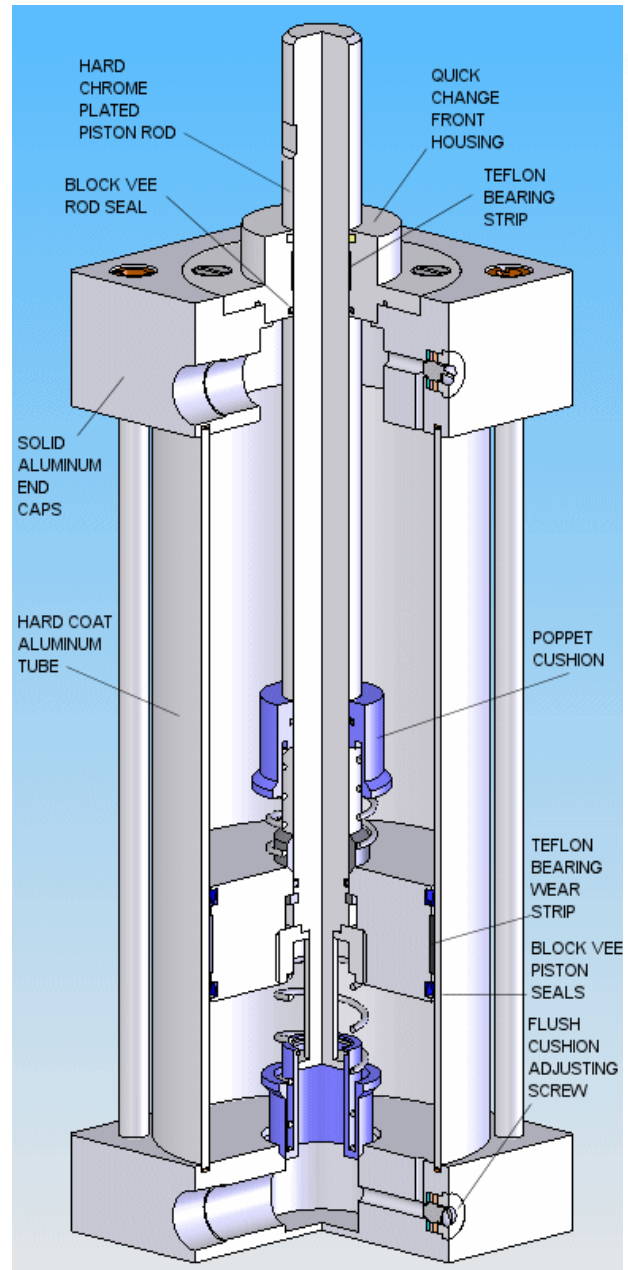
Machined high strength aluminum alloy.

Pressure Rating

250 PSI air or “non-shock” hydraulic.

Temperature

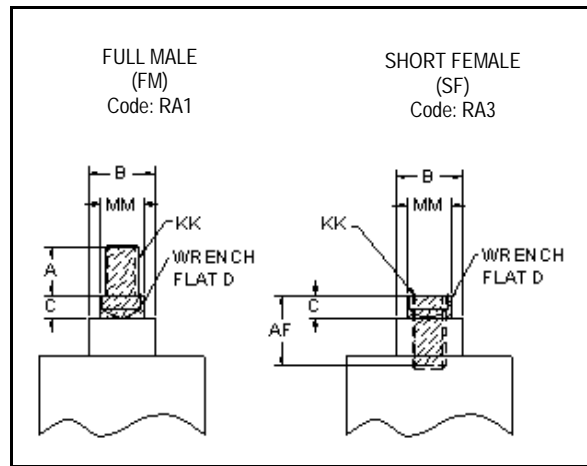
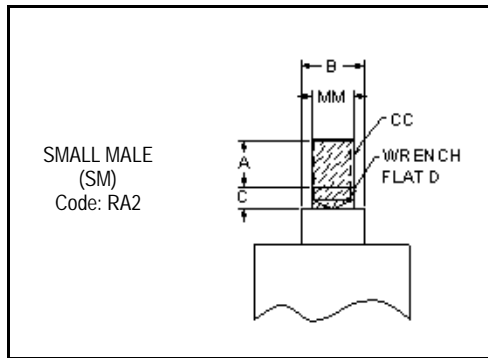
Operating temperature range from a minimum of 10° F (-12° C) to a maximum of 200° F (93° deg C).



| THEORETICAL FORCES OF CYLINDERS MULTIPLY FACTORS TIMES AIR PRESSURE | | | |
|--|--------------|-------------------------|-------------------------|
| BORE | ROD DIAM. | PUSH POWER FACTOR | PULL POWER FACTOR |
| 1-1/2 | 5/8 | 1.76 | 1.46 |
| | 1 | | 0.97 |
| 2 | 5/8 | 3.14 | 2.84 |
| | 1 | | 2.35 |
| 2-1/2 | 5/8 | 4.90 | 4.60 |
| | 1 | | 4.12 |
| 3-1/4 | 1 | 8.29 | 7.50 |
| | 1-3/8 | | 6.80 |
| 4 | 1 | 12.56 | 11.77 |
| | 1-3/8 | | 11.07 |
| 5 | 1 | 19.62 | 18.83 |
| | 1-3/8 | | 18.13 |
| 6 | 1-3/8 | 28.26 | 26.77 |
| | 1-3/4 | | 25.51 |
| 8 | 1-3/8 | 50.24 | 48.75 |
| | 1-3/4 | | 47.49 |

CUSHIONS

Standard cushion for the Motion Controls LLC. Series K Cylinder is 1" and it can be fine tuned by turning the adjusting screw located in position #2. This cushion adjustment screw varies the orifice of a needle valve and controls the rate of cushioning to satisfy most requirements. However when quick deceleration of heavy loads must be provided by cushioning alone, a standard cushion may not be adequate, even with the needle valve set for full restriction.



| BORE | ROD | ROD | A | -001 | ROD ENDS | | | |
|-------|-------|------|-------|-------|----------|-------|----------|-----------|
| | DIAM. | DIA. | AD | -003 | C | D | CC | KK |
| | MM | CODE | AF | B | CD | D | (FM) | (SM & SF) |
| 1-1/2 | 5/8 | 1 | 3/4 | 1.125 | 3/8 | 1/2 | 5/8-18 | 7/16- 20 |
| | 1 | 2 | 1-1/8 | 1.500 | 1/2 | 7/8 | 1-14 | 3/4-16 |
| 2 | 5/8 | 1 | 3/4 | 1.125 | 3/8 | 1/2 | 5/8-18 | 7/16- 20 |
| | 1 | 2 | 1-1/8 | 1.500 | 1/2 | 7/8 | 1-14 | 3/4-16 |
| 2-1/2 | 5/8 | 1 | 3/4 | 1.125 | 3/8 | 1/2 | 5/8-18 | 7/16- 20 |
| | 1 | 2 | 1-1/8 | 1.500 | 1/2 | 7/8 | 1-14 | 3/4-16 |
| 3-1/4 | 1 | 1 | 1-1/8 | 1.500 | 1/2 | 7/8 | 1-14 | 3/4-16 |
| | 1-3/8 | 2 | 1-5/8 | 2.000 | 5/8 | 1-1/8 | 1 3/8-12 | 1-14 |
| 4 | 1 | 1 | 1-1/8 | 1.500 | 1/2 | 7/8 | 1-14 | 3/4-16 |
| | 1-3/8 | 2 | 1-5/8 | 2.000 | 5/8 | 1-1/8 | 1 3/8-12 | 1-14 |
| 5 | 1 | 1 | 1-1/8 | 1.500 | 1/2 | 7/8 | 1-14 | 3/4-16 |
| | 1-3/8 | 2 | 1-5/8 | 2.000 | 5/8 | 1-1/8 | 1 3/8-12 | 1-14 |
| 6 | 1-3/8 | 1 | 1-5/8 | 2.000 | 5/8 | 1-1/8 | 1 3/8-12 | 1-14 |
| | 1-3/4 | 2 | 2 | 2.375 | 3/4 | 1-1/2 | 1 3/4-12 | 1-1/4-12 |
| 8 | 1-3/8 | 1 | 1-5/8 | 2.000 | 5/8 | 1-1/8 | 1 3/8-12 | 1-14 |
| | 1-3/4 | 2 | 2 | 2.375 | 3/4 | 1-1/2 | 1 3/4-12 | 1-1/4-12 |

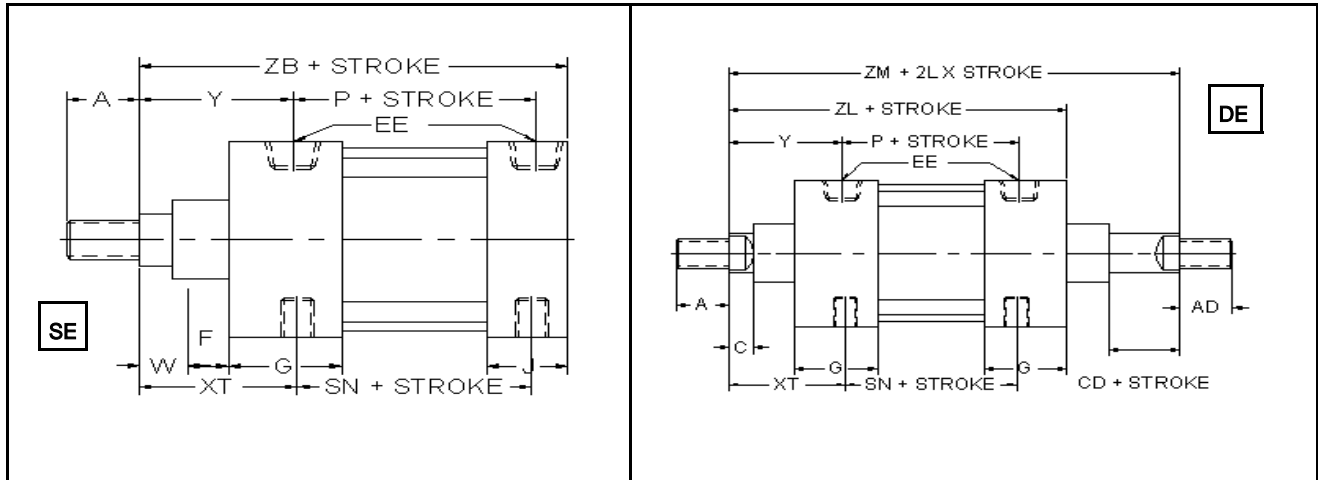


Series K Cylinder

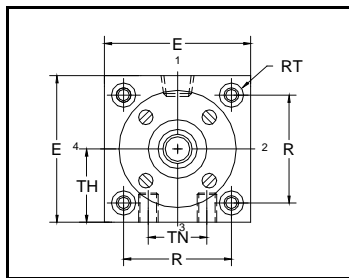


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FLUID POWER COMPONENTS & SYSTEMS



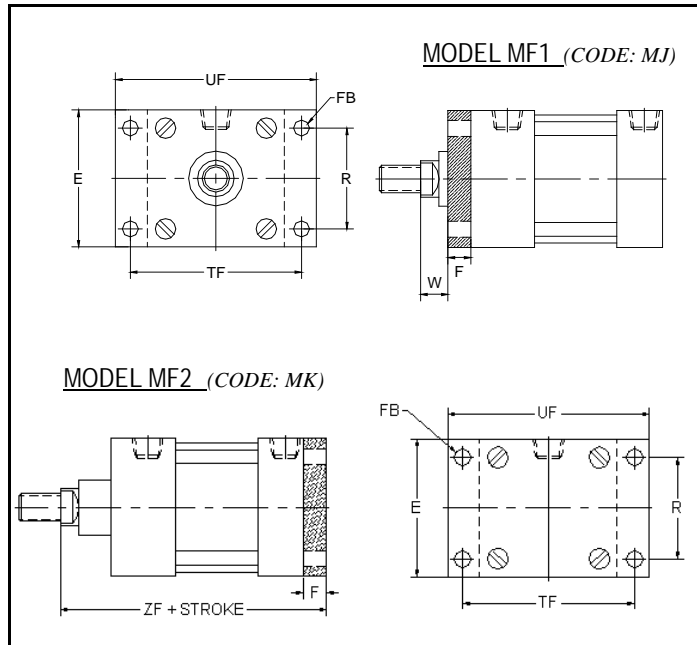
| BASIC SINGLE END CYLINDER DIMENSIONS | | | | | | | | | | | | | |
|--------------------------------------|-------|-------|-------|-------|-----|-------|----------------|-----|-------|-------|---------|---------|-------|
| ROD | | NPTF | | | | | | | | | | | |
| BORE | DIAM. | P | G | J | F | SN | NT | EE | A | W | Y | XT | ZB |
| 1-1/2 | 5/8 | 2-1/8 | 1-1/2 | 1 | 3/8 | 2-1/4 | 1/4-20 X 17/64 | 3/8 | 3/4 | 5/8 | 2 | 1-15/16 | 4-5/8 |
| | 1-1/8 | | | | | | | | 1 | 2-3/8 | 2-5/16 | 5 | |
| 2 | 5/8 | 2-1/8 | 1-1/2 | 1 | 3/8 | 2-1/4 | 5/16-18 X 3/8 | 3/8 | 3/4 | 5/8 | 2 | 1-15/16 | 4-5/8 |
| | 1-1/8 | | | | | | | | 1 | 2-3/8 | 2-5/16 | 5 | |
| 2-1/2 | 5/8 | 2-1/4 | 1-1/2 | 1 | 3/8 | 2-3/8 | 3/8-16 X 1/2 | 3/8 | 3/4 | 5/8 | 2 | 1-15/16 | 4-3/4 |
| | 1-1/8 | | | | | | | | 1 | 2-3/8 | 2-5/16 | 5-1/8 | |
| 3-1/4 | 1 | 2-1/2 | 1-3/4 | 1-1/4 | 5/8 | 2-5/8 | 1/2-13 X 3/4 | 1/2 | 1-1/8 | 3/4 | 2-1/2 | 2-7/16 | 5-5/8 |
| | 1-3/8 | | | | | | | | 1 | 2-3/4 | 2-11/16 | 5-7/8 | |
| 4 | 1 | 2-1/2 | 1-3/4 | 1-1/4 | 5/8 | 2-5/8 | 1/2-13 X 3/4 | 1/2 | 1-1/8 | 3/4 | 2-1/2 | 2-7/16 | 5-5/8 |
| | 1-3/8 | | | | | | | | 1 | 2-3/4 | 2-11/16 | 5-7/8 | |
| 5 | 1 | 2-3/4 | 1-3/4 | 1-1/4 | 5/8 | 2-7/8 | 5/8-11 X 15/16 | 1/2 | 1-1/8 | 3/4 | 2-1/2 | 2-7/16 | 5-7/8 |
| | 1-3/8 | | | | | | | | 1 | 2-3/4 | 2-11/16 | 6-1/8 | |
| 6 | 1-3/8 | 3 | 2 | 1-1/2 | 3/4 | 3-1/8 | 3/4-10 X 1-1/8 | 3/4 | 1-5/8 | 7/8 | 2-7/8 | 2-13/16 | 6-5/8 |
| | 1-3/4 | | | | | | | | 2 | 1-1/8 | 3-1/8 | 3-1/16 | 6-7/8 |
| 8 | 1-3/8 | 3-1/8 | 2 | 1-1/2 | 3/4 | 3-1/4 | 3/4-10 X 1-1/8 | 3/4 | 1-5/8 | 7/8 | 2-7/8 | 2-13/16 | 6-3/4 |
| | 1-3/4 | | | | | | | | 2 | 1-1/8 | 3-1/8 | 3-1/16 | 7 |



| END CAP DIMENSIONS | | | | | |
|--------------------|-------|---------|-------|----------------|---------|
| BORE | E | TN | TH | RT | R |
| 1-1/2 | 2 | 5/8 | 1 | 1/4-28 X 5/16 | 1-7/16 |
| 2 | 2-1/2 | 7/8 | 1-1/4 | 5/16-24 X 3/8 | 1-27/32 |
| 2-1/2 | 3 | 1-1/4 | 1-1/2 | 5/16-24 X 7/16 | 2-3/16 |
| 3-1/4 | 3-3/4 | 1-1/2 | 1-7/8 | 3/8-24 X 12 | 2-49/64 |
| 4 | 4-1/2 | 2-1/16 | 2-1/4 | 3/8-24 X 12 | 3-21/64 |
| 5 | 5-1/2 | 2-11/16 | 2-3/4 | 1/2-20 X 9/16 | 4-7/64 |
| 6 | 6-1/2 | 3-1/4 | 3-1/4 | 1/2-20 X 9/16 | 4-7/8 |
| 8 | 8 1/2 | 4 1/2 | 4 1/4 | 5/8-18 X 9/16 | 6 7/16 |

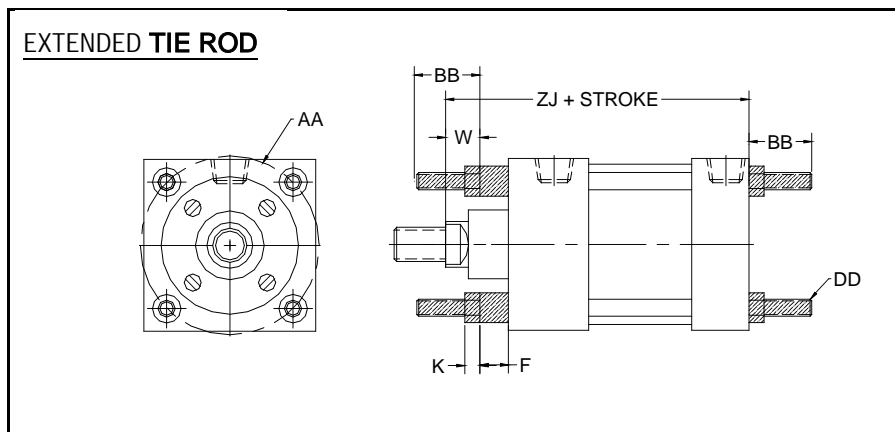
| BASIC DOUBLE END CYLINDER DIMENSIONS | | | | | | | | | | | | |
|--------------------------------------|-------|-------|-------|-------|-----|-------|-------|---------|-----|-------|-------|--|
| ROD | | A | | C | | NPTF | | | | | | |
| BORE | DIAM. | SN | G | AD | CD | P | Y | XT | EE | ZM | ZL | |
| 1-1/2 | 5/8 | 2-1/4 | 1-1/2 | 3/4 | 3/8 | 2-1/8 | 2 | 1-15/16 | 3/8 | 6-1/8 | 5-1/8 | |
| | 1 | | | 1-1/8 | 1/2 | | 2-3/8 | 2-5/16 | | 6-7/8 | 5-1/2 | |
| 2 | 5/8 | 2-1/4 | 1-1/2 | 3/4 | 3/8 | 2-1/8 | 2 | 1-15/16 | 3/8 | 6-1/8 | 5-1/8 | |
| | 1 | | | 1-1/8 | 1/2 | | 2-3/8 | 2-5/16 | | 6-7/8 | 5-1/2 | |
| 2-1/2 | 5/8 | 2-3/8 | 1-1/2 | 3/4 | 3/8 | 2-1/4 | 2 | 1-15/16 | 3/8 | 6-1/4 | 5-1/4 | |
| | 1 | | | 1-1/8 | 1/2 | | 2-3/8 | 2-5/16 | | 7 | 5-5/8 | |
| 3-1/4 | 1 | 2-5/8 | 1-3/4 | 1-1/8 | 1/2 | 2-1/2 | 2-1/2 | 2-7/16 | 1/2 | 7-1/2 | 6-1/8 | |
| | 1-3/8 | | | 1-5/8 | 5/8 | | 2-3/4 | 2-11/16 | | 8 | 6-3/8 | |
| 4 | 1 | 2-5/8 | 1-3/4 | 1-1/8 | 1/2 | 2-1/2 | 2-1/2 | 2-7/16 | 1/2 | 7-1/2 | 6-1/8 | |
| | 1-3/8 | | | 1-5/8 | 5/8 | | 2-3/4 | 2-11/16 | | 8 | 6-3/8 | |
| 5 | 1 | 2-7/8 | 1-3/4 | 1-1/8 | 1/2 | 2-3/4 | 2-1/2 | 2-7/16 | 1/2 | 7-3/4 | 6-1/8 | |
| | 1-3/8 | | | 1-5/8 | 5/8 | | 2-3/4 | 2-11/16 | | 8-1/4 | 6-3/8 | |
| 6 | 1-3/8 | 3-1/8 | 2 | 1-5/8 | 5/8 | 3 | 2-7/8 | 2-13/16 | 3/4 | 8-3/4 | 7-1/8 | |
| | 1-3/4 | | | 2 | 3/4 | | 3-1/8 | 3-1/16 | | 9-1/2 | 7-3/8 | |
| 8 | 1-3/8 | 3-1/4 | 2 | 1-5/8 | 5/8 | 3-1/8 | 2-7/8 | 2-13/16 | 3/4 | 8-7/8 | 7-1/4 | |
| | 1-3/4 | | | 2 | 3/4 | | 3-1/8 | 3-1/16 | | 9-3/8 | 7-1/2 | |





| FLANGE MOUNTING | | | | | | | | |
|-----------------|-------|-----|---------|--------------|------|---------|-------|----------------|
| BORE | E | F | R | W | FB | TF | UF | ZF |
| 1-1/2 | 2 | 3/8 | 1-7/16 | 5/8 1 | 5/16 | 2-3/4 | 3-3/8 | 5 5-3/8 |
| 2 | 2-1/2 | 3/8 | 1-27/32 | 5/8 1 | 3/8 | 3-3/8 | 4-1/8 | 5 5-3/8 |
| 2-1/2 | 3 | 3/8 | 2-3/16 | 5/8 1 | 3/8 | 3-7/8 | 4-5/8 | 5-1/8 5-1/2 |
| 3-1/4 | 3-3/4 | 5/8 | 2-49/64 | 3/4 1 | 7/16 | 4-11/16 | 5-1/2 | 6-1/4 6-1/2 |
| 4 | 4-1/2 | 5/8 | 3-21/64 | 3/4 1 | 7/16 | 5-7/16 | 6-1/4 | 6-1/4 6-1/2 |
| 5 | 5-1/2 | 5/8 | 4-7/64 | 3/4 1 | 9/16 | 6-5/8 | 7-5/8 | 6-1/2 6-3/4 |
| 6 | 6-1/2 | 3/4 | 4-7/8 | 7/8 1-1/8 | 9/16 | 7-5/8 | 8-5/8 | 7-3/8 7-5/8 |

Conforms to NFPA Type MF1 or MF2 mount cylinders. Furnished as a separate modular mounting kit, complete with flange and four mounting screws to attach to head end for MF1 front flange mount or cap end for MF2 mount.



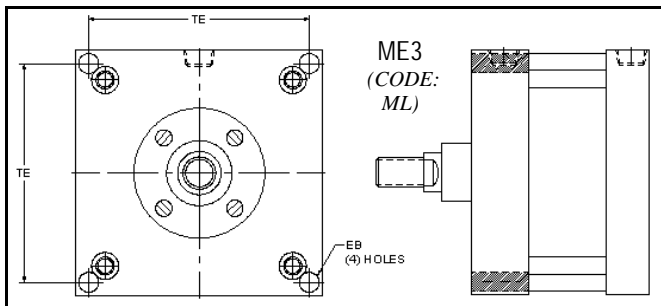
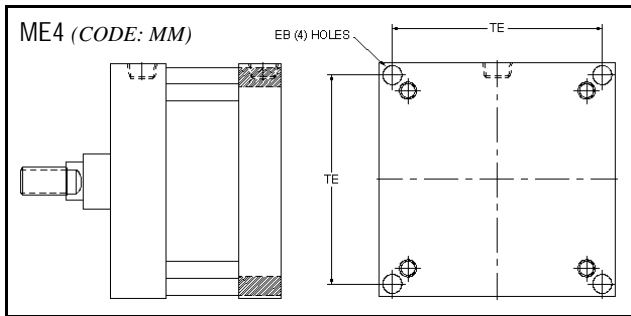
Conforms to NFPA Type X1 mount cylinders. Furnished as a separate modular mounting kit with four tie rod extension studs. Two kits should be ordered for X1 mounting.
X1 - All extended (CODE MN)
X2 - Rear extended (CODE MO)
X3 - Front extended (CODE MP)
X4 - Two each end extended (CODE MR)

| EXTENDED TIE ROD MOUNTING | | | | | | | |
|---------------------------|-----|-------|---------|---------|-------|-------|-----|
| BORE | W | AA | BB | DD | ZJ | K | F |
| 1-1/2 | 5/8 | 2.032 | 1 | 1/4-28 | 4-5/8 | 7/32 | 3/8 |
| 2 | 5/8 | 2.598 | 1-1/8 | 5/16-24 | 4-5/8 | 17/64 | 3/8 |
| 2-1/2 | 5/8 | 3.092 | 1-1/8 | 5/16-24 | 4-3/4 | 17/64 | 3/8 |
| 3-1/4 | 3/4 | 3.911 | 1-3/8 | 3/8-24 | 5-5/8 | 21/64 | 5/8 |
| 4 | 3/4 | 4.706 | 1-3/8 | 3/8-24 | 5-5/8 | 21/64 | 5/8 |
| 5 | 3/4 | 5.810 | 1-13/16 | 1/2-20 | 5-7/8 | - | 5/8 |
| 6 | 7/8 | 6.893 | 1-13/16 | 1/2-20 | 6-5/8 | - | 3/4 |
| 8 | 7/8 | 9.103 | 2.322 | 5/8-18 | 6-3/4 | - | 3/4 |



Series **K** Cylinder

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| FLANGE MOUNTING | | |
|-----------------|---------|-------|
| Bore | TE | EB |
| 8 | 7-37/64 | 21/32 |

Cylinder conforms to NFPA Type ME3 or ME4 mount cylinders. Cylinders ordered with this mounting style will be supplied with four flange holes drilled in either the head end for ME3 mounting or the cap end for ME4 mounting.

| FIXED CLEVIS MOUNTING MP1 (Code: MG) | | | | | | | | |
|--------------------------------------|-------|-------|-----|-------|-------|-----|-------|-------|
| ROD | | | CD | | | | | |
| BORE | DIA. | L* | M | CB | ±.001 | CW | XC* | ZC* |
| 1-1/2 | 5/8 | 3/4 | 1/2 | 3/4 | .500 | 1/2 | 5-3/8 | 5-7/8 |
| | 1 | | | | | | 5-3/4 | 6-1/4 |
| 2 | 5/8 | 3/4 | 1/2 | 3/4 | .500 | 1/2 | 5-3/8 | 5-7/8 |
| | 1 | | | | | | 5-3/4 | 6-1/4 |
| 2-1/2 | 5/8 | 3/4 | 1/2 | 3/4 | .500 | 1/2 | 5-1/2 | 6 |
| | 1 | | | | | | 5-7/8 | 6-3/8 |
| 3-1/4 | 1 | 1-1/4 | 3/4 | 1-1/4 | .750 | 5/8 | 6-7/8 | 7-5/8 |
| | 1 3/8 | | | | | | 7-1/8 | 7-7/8 |
| 4 | 1 | 1-1/4 | 3/4 | 1-1/4 | .750 | 5/8 | 6-7/8 | 7-5/8 |
| | 1 3/8 | | | | | | 7-1/8 | 7-7/8 |
| 5 | 1 | 1-1/4 | 3/4 | 1-1/4 | .750 | 5/8 | 7-1/8 | 7-7/8 |
| | 1 3/8 | | | | | | 7-3/8 | 8-1/8 |
| 6 | 1 3/8 | 1-1/2 | 1 | 1-1/2 | 1.000 | 3/4 | 8-1/8 | 9-1/8 |
| | 1 3/4 | | | | | | 8-3/8 | 9-3/8 |
| 8 | 1 3/8 | 1-1/2 | 1 | 1-1/2 | 1.000 | 3/4 | 8-1/4 | 9-1/4 |
| | 1 3/4 | | | | | | 8-1/2 | 9-1/2 |

Conforms to NFPA Type MP1 & MP2 mount cylinders. Furnished as a separate modular mounting kit, complete with clevis bracket, four mounting screw, pin and two snap-rings.

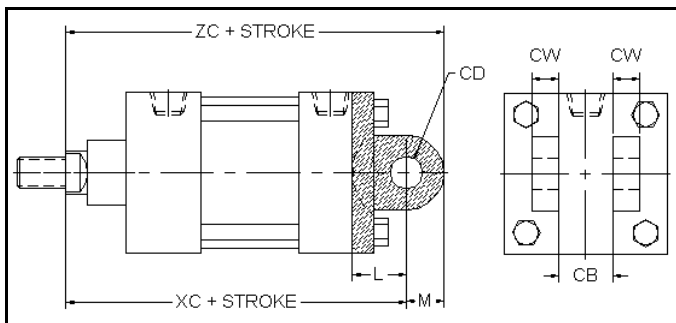
MP2 ADDERS:

Add 3/8 inch for 1-1/2, 2, 2-1/2 bore.

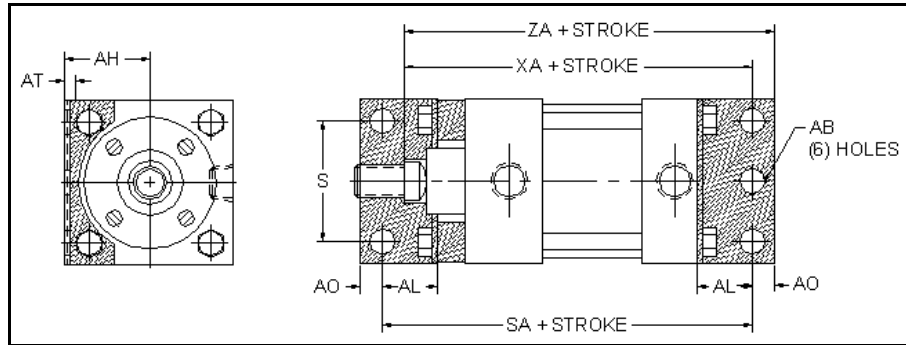
Add 5/8 inch for 3-1/4, 4, 5 bore.

Add 3/4 inch for 6 inch bore.

Not available on 8 inch bore.



Conforms to NFPA Type MS1 mount cylinders. Furnished as a separate modular mounting kit, complete with two angle brackets, two short screws for attachment to cap end, two long screws and bushing for attachment to head end.

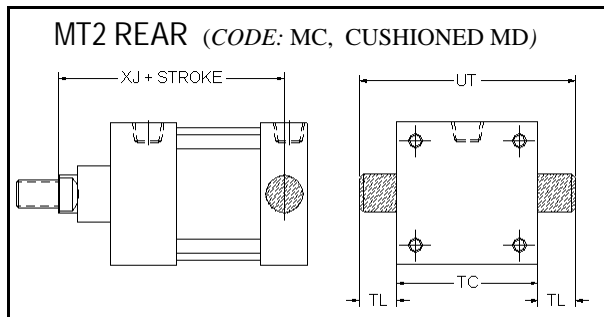
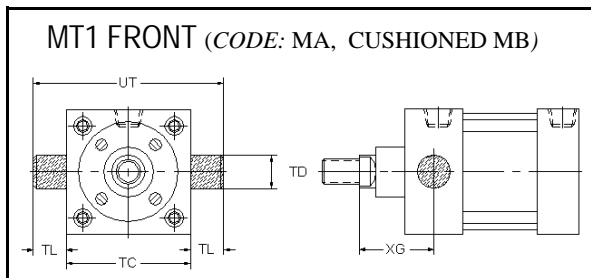


| SINGLE END ANGLE MOUNTING MS1 (Code: S1) | | | | | | | | | | |
|--|-------|-------|---------|---------|-------|------|-------|---------|-------|-------|
| BORE | AB | S | AH | AL | AO | AT | SA | XA | ZA | ** |
| 1-1/2 | 7/16 | 1-1/4 | 1-3/16 | 1 | 3/8 | 1/8 | 6 | 5-5/8 | 6 | 7/8 |
| | | | | | | | | 6 | 6-3/8 | |
| 2 | 7/16 | 1-3/4 | 1-7/16 | 1 | 3/8 | 1/8 | 6 | 5-5/8 | 6 | 7/8 |
| | | | | | | | | 6 | 6-3/8 | |
| 2-1/2 | 7/16 | 2-1/4 | 1-5/8 | 1 | 3/8 | 1/8 | 6-1/8 | 5-3/4 | 6-1/8 | 7/8 |
| | | | | | | | | 6-1/8 | 6-1/2 | |
| 3-1/4 | 9/16 | 2-3/4 | 1-15/16 | 1-1/4 | 1/2 | 1/8 | 7-3/8 | 6-7/8 | 7-3/8 | 1-1/8 |
| | | | | | | | | 7-1/8 | 7-5/8 | |
| | | | | | | | | 7-1/8 | 7-5/8 | |
| 4 | 9/16 | 3-1/2 | 2-1/4 | 1-1/4 | 1/2 | 1/8 | 7-3/8 | 6-7/8 | 7-3/8 | 1-1/8 |
| | | | | | | | | 7-1/8 | 7-5/8 | |
| 5 | 11/16 | 4-1/4 | 2-3/4 | 1-3/8 | 5/8 | 3/16 | 7-7/8 | 7-1/4 | 7-7/8 | 1-1/8 |
| | | | | | | | | 7-1/2 | 8-1/8 | |
| 6 | 13/16 | 5-1/4 | 3-1/4 | 1-3/8 | 5/8 | 3/16 | 8-1/2 | 8 | 8-5/8 | 1-1/4 |
| | | | | | | | | 8-1/4 | 8-7/8 | |
| 8 | 13/16 | 7-1/8 | 4-1/4 | 1-13/16 | 11/16 | 1/4 | 8-3/4 | 8-9/16 | 9-1/4 | 1/2 |
| | | | | | | | | 8-13/16 | 9-1/2 | |

**

Add to SA, XA and ZA dimensions on double rod end cylinders.

Furnished as an integral part of end caps conforming to NFPA dimensions.



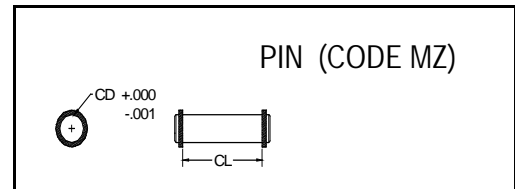
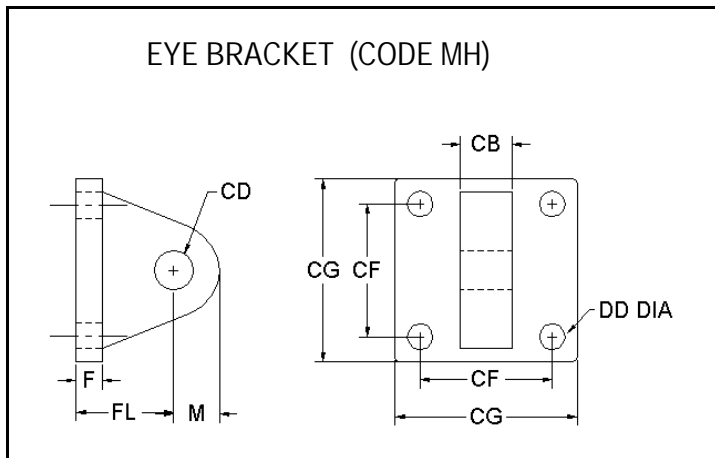
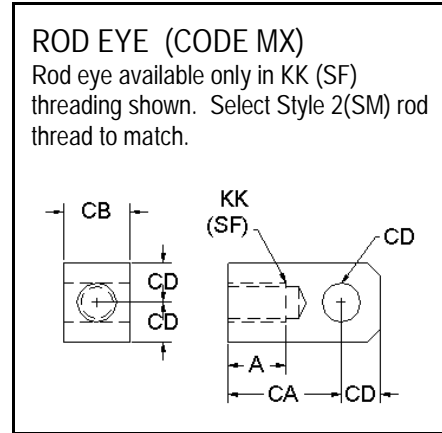
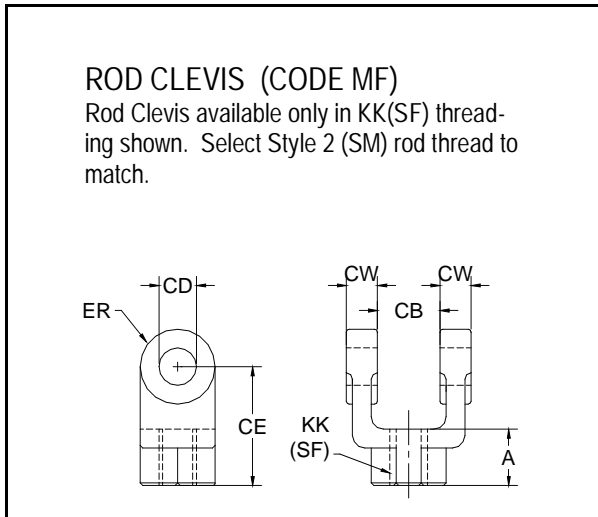
| TRUNNION MOUNTING | | | | | | |
|-------------------|-------|-------|-------|--------|-------|-------|
| BORE | TC | TD | TL | UT | XG | XJ |
| | | ±.001 | | | | |
| 1-1/2 | 2 | 1.000 | 1 | 4 | 1-3/4 | 4-1/8 |
| | | | | | 2-1/8 | 4-1/2 |
| 2 | 2-1/2 | 1.000 | 1 | 4-1/2 | 1-3/4 | 4-1/8 |
| | | | | | 2-1/8 | 4-1/2 |
| 2-1/2 | 3 | 1.000 | 1 | 5 | 1-3/4 | 4-1/8 |
| | | | | | 2-1/8 | 4-1/2 |
| 3-1/4 | 3-3/4 | 1.000 | 1 | 5-3/4 | 2-1/4 | 5 |
| | | | | | 2-1/2 | 5-1/4 |
| 4 | 4-1/2 | 1.000 | 1 | 6-1/2 | 2-1/4 | 5 |
| | | | | | 2-1/2 | 5-1/4 |
| 5 | 5-1/2 | 1.000 | 1 | 7-1/2 | 2-1/4 | 5 |
| | | | | | 2-1/2 | 5-1/4 |
| 6 | 6-1/2 | 1.375 | 1-3/8 | 9-1/4 | 2-5/8 | 5-7/8 |
| | | | | | 2-7/8 | 6-1/8 |
| 8 | 8-1/2 | 1.375 | 1-3/8 | 11-1/4 | 2-5/8 | 5-7/8 |
| | | | | | 2-7/8 | 6-1/8 |



Series **K** Cylinder



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 262-673-9255 262-673-9554 fax
 2008



| CYLINDER BORE | ROD DIA. | ACCESSORY DIMENSIONS | | | | | | | | | | | | | |
|-----------------|----------|----------------------|-----|-------|---------|-------|-------|-------|---------|-------|-------|-----|-----|--------|-------|
| | | A | F | M | CA | CB | CD | CE | CF | CG | CL | CW | DD | ER | FL |
| 1-1/2, 2, 2-1/2 | 5/8 | 3/4 | 3/8 | 1/2 | 1-1/2 | 3/4 | 1/2 | 1-1/2 | 1-5/8 | 2-1/2 | 1-3/4 | 1/2 | 3/8 | 9/16 | 1-1/8 |
| 3-1/4, 4, 5 | 1 | 1-1/8 | 5/8 | 3/4 | 2-1/16 | 1-1/4 | 3/4 | 2-3/8 | 2-35/64 | 3-1/2 | 2-1/2 | 5/8 | 1/2 | 13/16 | 1-7/8 |
| 6 | 1-3/8 | 1-5/8 | 3/4 | 1 | 2-13/16 | 1-1/2 | 1 | 3-1/8 | 3-1/4 | 4-1/2 | 3 | 3/4 | 5/8 | 1-3/32 | 2-1/4 |
| 8 | 1-3/4 | 2 | 7/8 | 1-3/8 | 3-1/2 | 2 | 1-3/8 | 4-1/8 | 3-13/16 | 5 | 4 | 1 | 5/8 | 1-3/8 | 3 |

| | | KK(SF) | ACCESSORY DIMENSIONS | | | |
|-----------------|----------|------------------|----------------------|-------------|----------------|---------|
| CYLINDER BORE | ROD DIA. | ROD & EYE THREAD | EYE BRACKET P/N | ROD EYE P/N | ROD CLEVIS P/N | PIN P/N |
| 1-1/2, 2, 2-1/2 | 5/8 | 7/16-20 | 6830 | 6799 | 8402 | 6843 |
| 3-1/4, 4, 5 | 1 | 3/4-16 | 6996 | 6995 | 8403 | 6994 |
| 6 | 1-3/8 | 1-14 | 7641 | 7555 | 8404 | 7643 |
| 8 | 1-3/4 | 1-1/4 - 12 | 21074 | 21075 | 21071 | 21073 |



SERIES K ORDERING INFORMATION

| | SPECIFIC INFORMATION | CODE | K | 1000 | 250 | SE | SL1 | RA2 | Options |
|---|---|--------------------|---|------|-----|----|-----|-----|---------|
| SERIES | K SERIES CYLINDER | K | | | | | | | |
| ROD SIZE | 5/8" ROD | 0625 | | | | | | | |
| | 1" ROD | 1000 | | | | | | | |
| | 1 3/8" ROD | 1375 | | | | | | | |
| | 1 3/4" ROD | 1750 | | | | | | | |
| BORE SIZE | 1.5" BORE | 150 | | | | | | | |
| | 2.0" BORE | 200 | | | | | | | |
| | 2.5" BORE | 250 | | | | | | | |
| | 3.25" BORE | 325 | | | | | | | |
| | 4.0" BORE | 400 | | | | | | | |
| | 5.0" BORE | 500 | | | | | | | |
| END STYLE | SINGLE END | SE | | | | | | | |
| | DOUBLE END | DE | | | | | | | |
| STROKE | SPECIFY STROKE LENGTH IN DECIMALS | SL | | | | | | | |
| ROD END STYLE | SINGLE END | | | | | | | | |
| | FULL MALE THREAD "A" END | RA1 | | | | | | | |
| | REDUCED MALE THREAD "A" END (STANDARD) | RA2 | | | | | | | |
| | FEMALE THREAD "A" END | RA3 | | | | | | | |
| | DOUBLE END (SUPPLY BOTH FOR DE) | | | | | | | | |
| | FULL MALE THREAD "D" END | RD1 | | | | | | | |
| | REDUCED MALE THREAD "D" END (STANDARD) | RD2 | | | | | | | |
| FEMALE THREAD "D" END | RD3 | | | | | | | | |
| ADDITIONAL OPTIONS (NOT ALL SHOWN) | FRONT (HEAD) CUSHION | FC | | | | | | | |
| | REAR (CAP) CUSHION | RC | | | | | | | |
| | STOP TUBE (SPECIFY LENGTH) | ST | | | | | | | |
| | STAINLESS STEEL ROD | SS | | | | | | | |
| | REAR (CAP) CLEVIS DETACHABLE MP1 | MG, MG(P2), MG(P4) | | | | | | | |
| | EYE BRACKET (NOT NFPA, FOR MP1) | MH | | | | | | | |
| | ROD CLEVIS | MF | | | | | | | |
| | CLEVIS PIN AND RETAINERS | MZ | | | | | | | |
| | FRONT (HEAD) TRUNION MT1 | MA | | | | | | | |
| | FRONT TRUNION CUSHIONED (MT1) | MB | | | | | | | |
| | REAR TRUNION (MT1) | MC | | | | | | | |
| | REAR TRUNION CUSHIONED (MT1) | MD | | | | | | | |
| | FRONT FLANGE | MJ | | | | | | | |
| | REAR FLANGE | MK | | | | | | | |
| | MAGNETIC PISTON | SP | | | | | | | |
| | METALLIC ROD WIPER | MW | | | | | | | |
| | VITON SEALS | VS | | | | | | | |
| | ROD MODIFICATION | RM | INCLUDE SPECIFIC DETAILS, PROVIDE DRAWING IF ABLE | | | | | | |
| | SIDE ANGLE MOUNT S1 | MI | | | | | | | |
| | SIDE LUG MOUNT S2 | MV | | | | | | | |
| TIE ROD EXTENSION | MN (X1), MO (X2), MP (X3), MR (X4) | | | | | | | | |
| SIDE LUG MOUNT | MV | | | | | | | | |

