



TC Series Cylinders

Bimba's Telescoping TC series provides a robust 2-stage telescoping motion profile with strokes up to 60" standard.



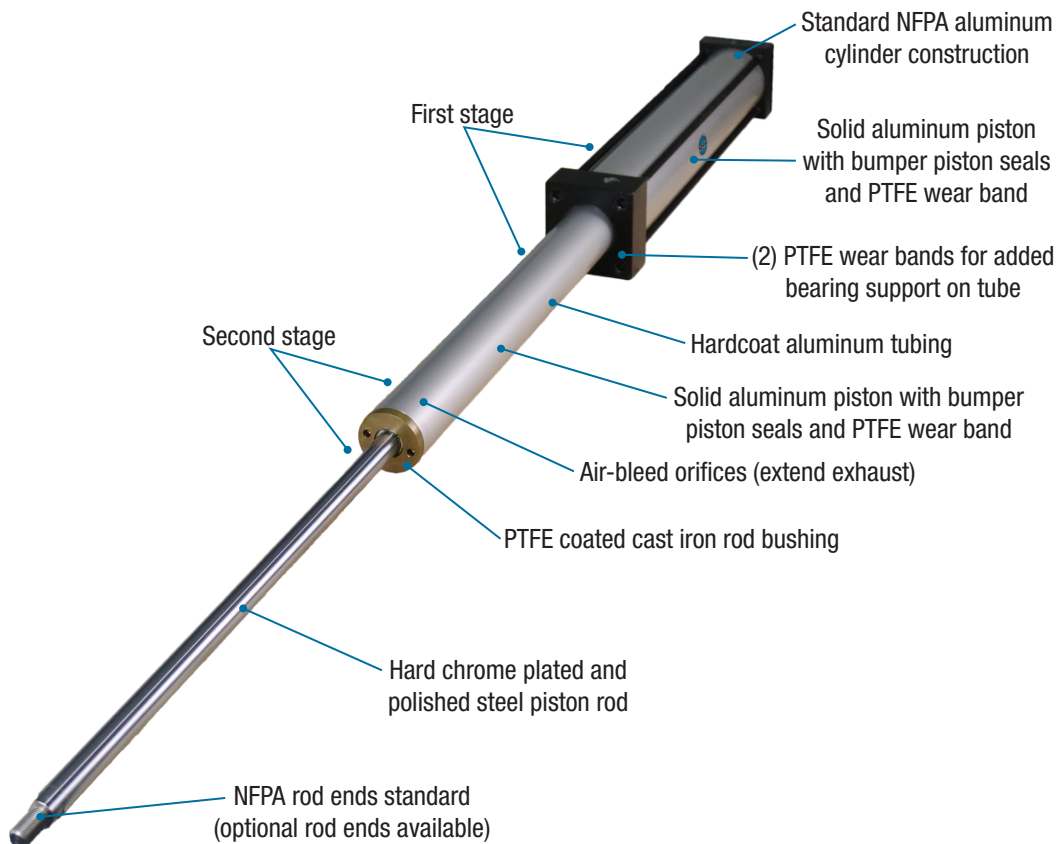
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TC Series 2-Stage Telescoping Cylinder



Benefits

- > Three effective bore sizes: 0.75", 1.50" and 2.50"
- > Strokes up to 60" (depending on mounting)
- > 2-Stage Telescoping
- > Space saving design
- > 100% double action
- > Reliable operation
- > Rated for non-lube service
- > Standard NFPA mounting
- > Internal bumpers at each stage

Cylinder Stroke	Space Saving Design Stroke Examples For 1.50" Bore		
	Standard NFPA Cylinder	Telescoping Cylinder	Space Savings
12"	16.625"	10.750"	35.34%
18"	22.625"	13.750"	39.23%
24"	28.625"	16.750"	41.48%
30"	34.625"	19.750"	42.96%
36"	40.625"	22.750"	44.00%
42"	46.625"	25.750"	44.77%
48"	52.625"	28.750"	45.37%
54"	58.625"	31.750"	45.84%
60"	64.625"	34.750"	46.23%

Note: cylinders are made to any stroke.

Design Tips

- > Cylinders are designed to support the unit's weight only, and not intended for side-Load applications. All Loads should be guided and supported.
- > For proper speed control, use "meter-in" type flow control devices.
- > In high cycle speed applications, external shock absorbers should be used at end of strokes.

Operating Pressure

125 PSI Air

Operating Temperature

-20°F to 200°F (-29°C to 93°C)

How to Order

TC - MS4 - 1.50 x 10 - 2S - KK2 - SSA

Series	
TC	125 PSI Air

Bore	Stroke
0.75"	0" to 60" Made-To-Order
1.50"	
2.50"	

Stages	
2S	Two Stage

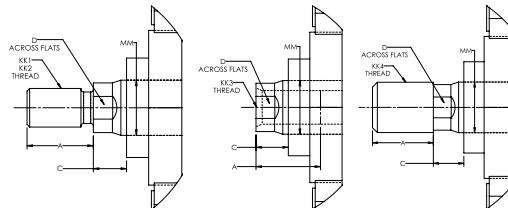
Options	
A	Extended Piston Rod Thread (Example: A=2)
C	Extended Piston Rod (Example: C=3)
KK2	Large Male Rod Thread
KK3	Female Rod Thread
KK3S	Studded Piston Rod (KK3 With Stud, Loctite In Place)
KK4	Full Diameter Male Rod Thread
MPR	Magnetic Piston for Reed or Solid State Switches Bimba Models R10, RAC, and MSS. Note: magnet is only on 1st stage and will only detect the position off one stage.
OS	1" Piston Rod (Available on 2.50" Bore only)
OP	Optional Port Location (Example: OP=3 and 7)
SSA	Stainless Steel Piston Rod, Tie Rods, Nuts & Fasteners
SSF	Stainless Steel Fasteners
SSN	Stainless Steel Sleeve Nuts
SSR	Stainless Steel Piston Rod
SST	Stainless Steel Tie Rods & Sleeve Nuts
XX	Special Variation (Specify XX=)

NFPA Mounts	
BASEBAR	Side Lug Mount (Non-NFPA)
MF1	Front Flange
MF2	Rear Flange
MP1	Rear Pivot Clevis
MP2	Rear Pivot Clevis
MP4	Rear Pivot Eye
MS1	Front & Rear Angles
MS4	Bottom Tapped Holes (1.50" - 8.00" Bore)
MT2	Rear Trunnion
MX0	No Mount

Style 1 & 2
KK1 & KK2

Style 3
KK3

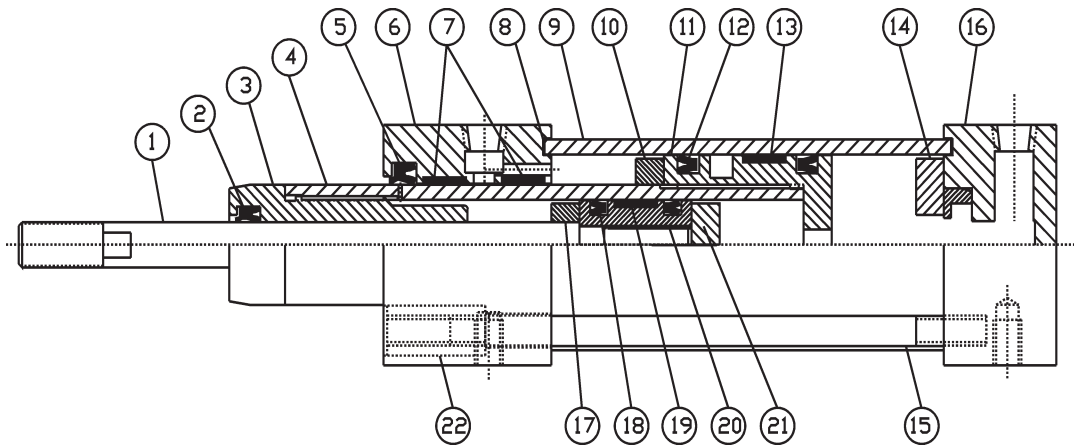
Style 4*
KK4



Bore	Rod Diameter (MM)	Standard				Optional				C
		Style 1 - Male		Style 2 - Male		Style 3 - Female		Style 4 - Male*		
		KK1	A	KK2	A	KK3	A	KK4	A	
0.75	0.375	—	—	—	—	10-32	0.750	3/8-24	0.750	0.375
1.50 & 2.50	0.625	7/16-20	0.750	1/2-20	0.750	7/16-20	0.750	5/8-18	0.750	0.375
2.50	1.000	3/4-16	1.125	7/8-14	1.125	3/4-16	1.125	1-14	1.125	0.500

*Style 4 (KK4) is standard thread on 0.75" bore.

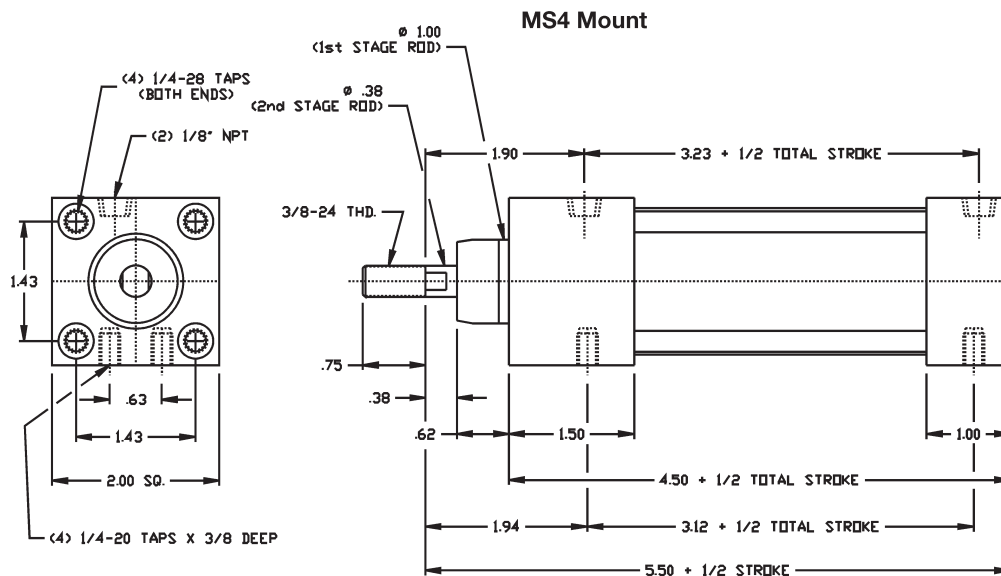
TC Series 0.750" Bore – Construction



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|--------------------------|----------------------------|----------------------------|
| 1. 0.375" Rod Piston | 9. 1.500" Tube | 17. 0.750" Head Bumper |
| 2. Rod Seal | 10. 1.500" Head Bumper | 18. 0.750" Piston Seal (2) |
| 3. Rod Bushing | 11. 1.500" Piston | 19. PTFE Wear Band |
| 4. 0.750" ID Tube | 12. 1.500" Piston Seal (2) | 20. 0.750" Piston |
| 5. Rod Seal | 13. PTFE Wear Band | 21. 0.750" Cap Bumper |
| 6. Aluminum Head | 14. 1.500" Cap Bumper | 22. Sleeve Nut (4) |
| 7. PTFE Wear Bands (2) | 15. Tie Rod (4) | |
| 8. 1.500" Tube Seals (2) | 16. Aluminum Cap | |

Cylinder Force Comparison Chart (At 100 PSI)

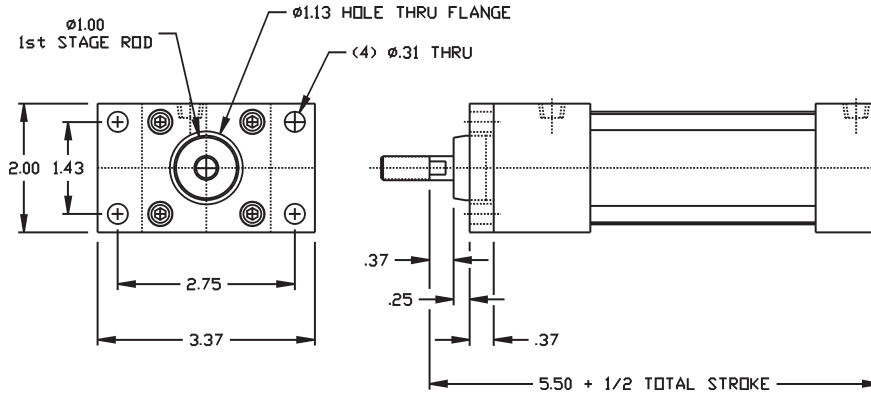
Type	Stroke	1st Stage	2nd Stage
2-Stage Telescoping	Push	176 lbs	44 lbs
	Pull	98 lbs	33 lbs
Standard 0.75" Bore	Push	44 lbs	N/A
	Pull	33 lbs	N/A



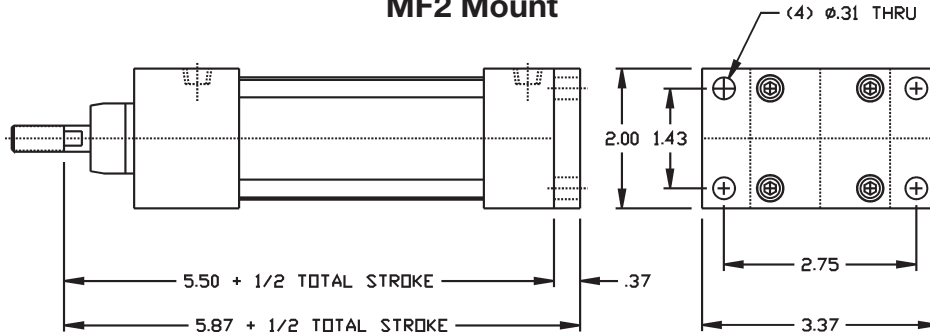
How To Specify

TC Series Dimensions – Base Mounts (Strokes 0” To 36”)

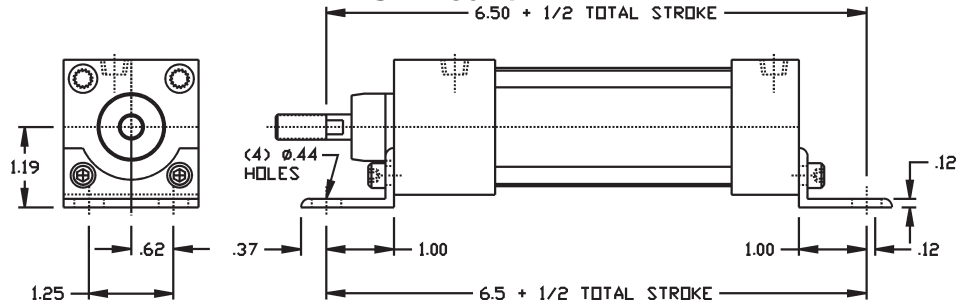
MF1 Mount



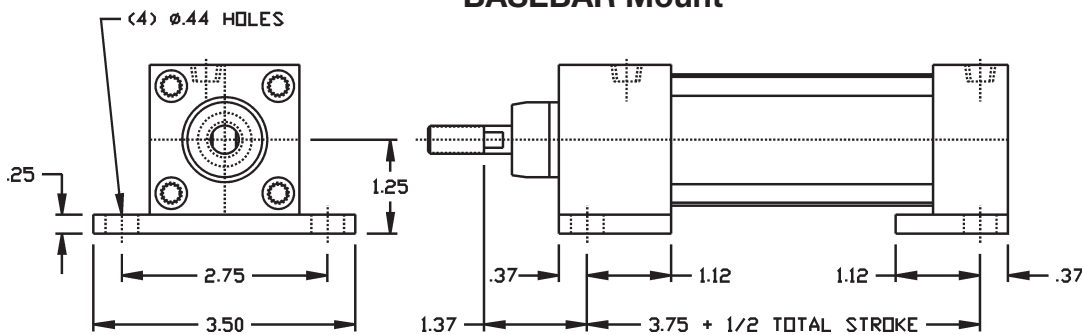
MF2 Mount



MS1 Mount

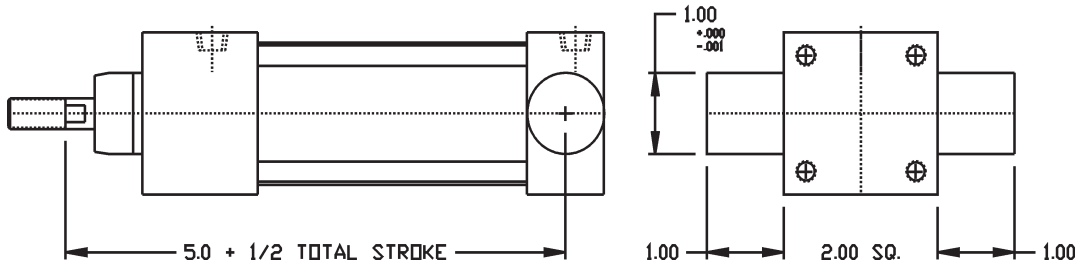


BASEBAR Mount

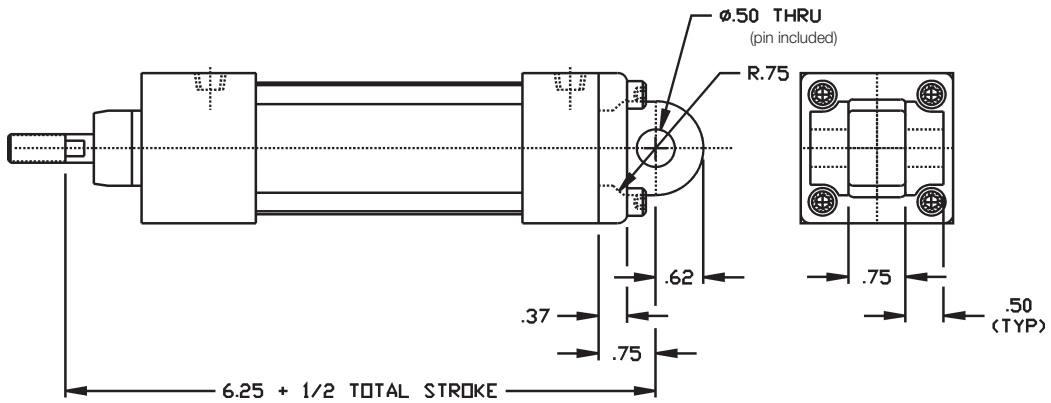


TC Series Dimensions: Pivot Mounts (Strokes 0" To 24")

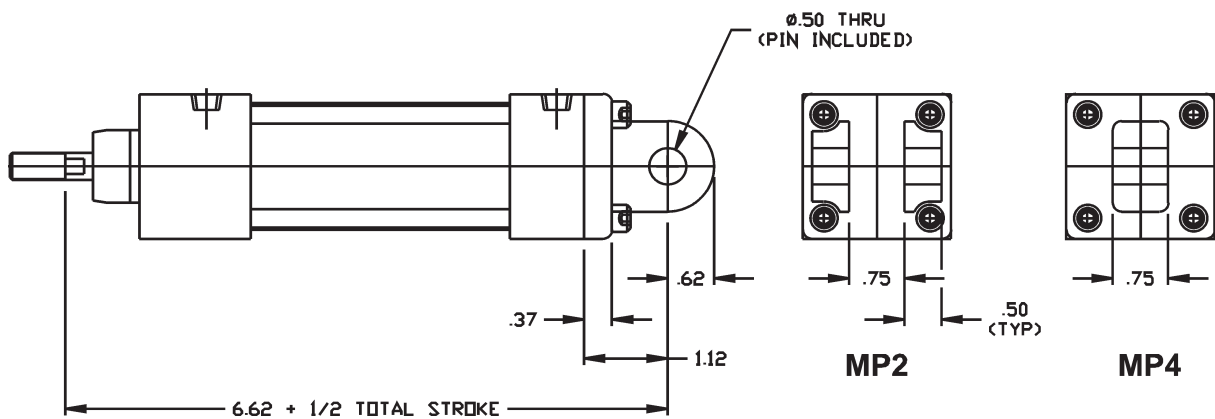
MT2 Mount



MP1 (Cast Bolt On) Mount

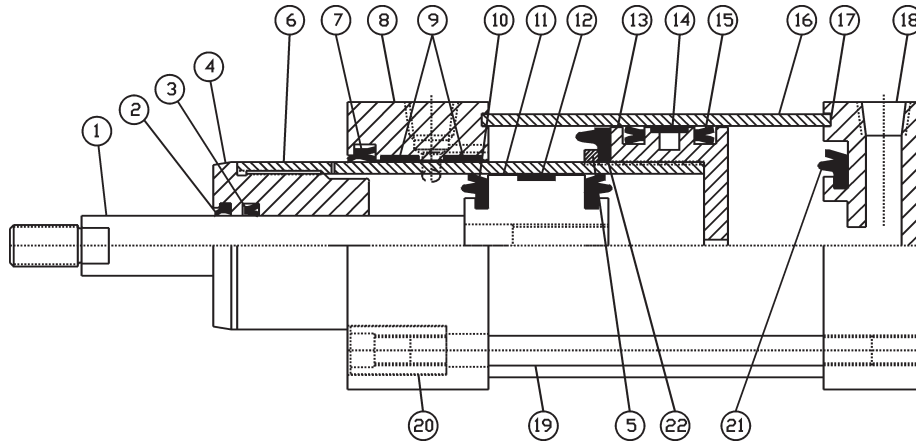


MP2 & MP4 (Cast Bolt On) Mount



How To Specify

TC Series 1.500' Bore – Construction

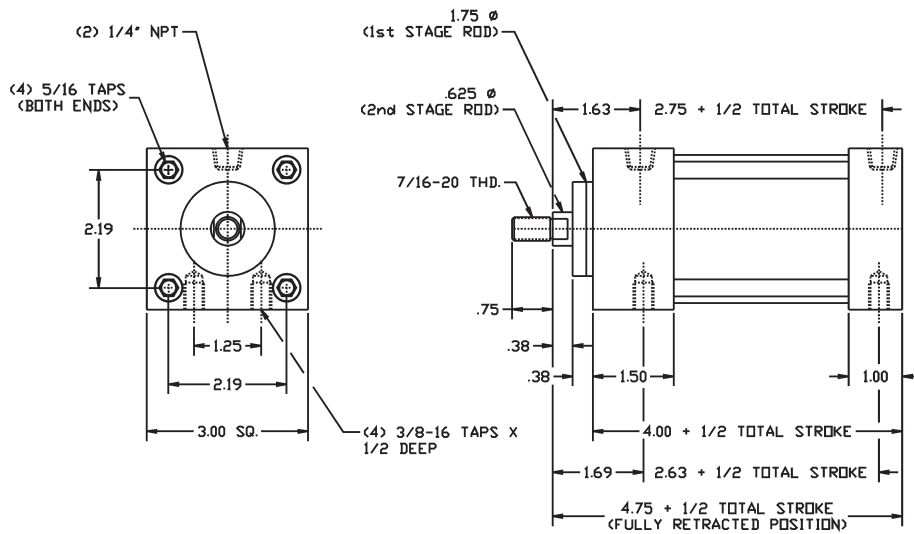


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|-----------------------------|--|-------------------------------|
| 1. 0.625" Piston Rod | 9. PTFE Wear Band (2) | 16. 2.500" Tube |
| 2. Rod Wiper | 10. 1.500" Bumper
Piston Seals (2) | 17. Tube Seals (2) |
| 3. Rod Seal | 11. 1.500" OD Piston | 18. Aluminum Cap |
| 4. Rod Bushing | 12. PTFE Wear Band | 19. Tie Rods (4) |
| 5. Bumper Retainer | 13. 2.500" OD Piston | 20. Sleeve Nut (4) |
| 6. 1.750" OD Tube | 14. PTFE Wear Band | 21. 2.500" Cap Bumper |
| 7. Rod Wiper/Seal | 15. 2.500" Piston Seal (2) | 22. 2.500" Head Bumper |
| 8. Aluminum Head | | |

Cylinder Force Comparison Chart (At 100 PSI)

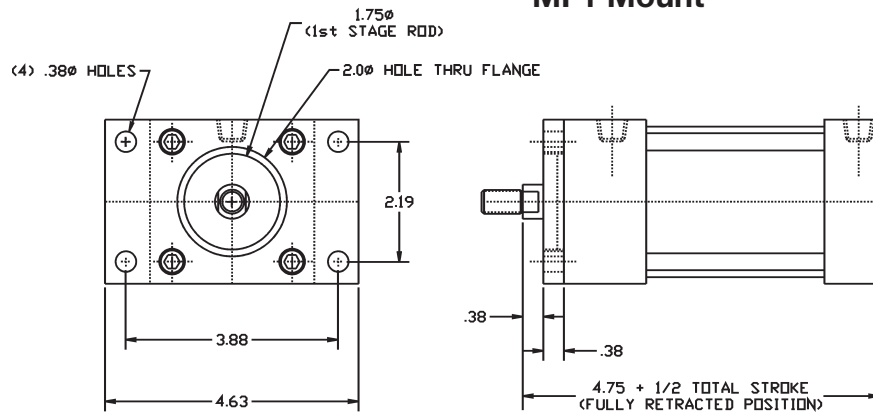
Type	Stroke	1st Stage	2nd Stage
2-Stage Telescoping	Push	490 lbs	176 lbs
	Pull	250 lbs	146 lbs
Standard 1.50" Bore	Push	176 lbs	N/A
	Pull	146 lbs	N/A

MS4 Mount

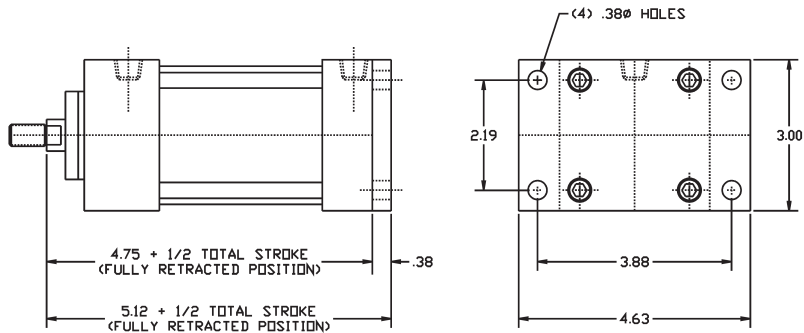


TC Series Dimensions: Base Mounts (Strokes 0" To 60")

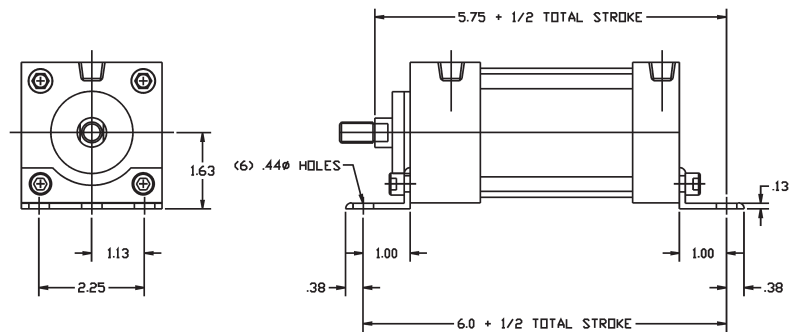
MF1 Mount



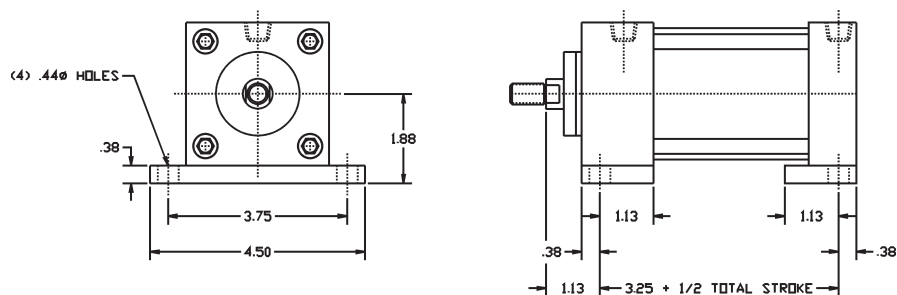
MF2 Mount



MS1 Mount



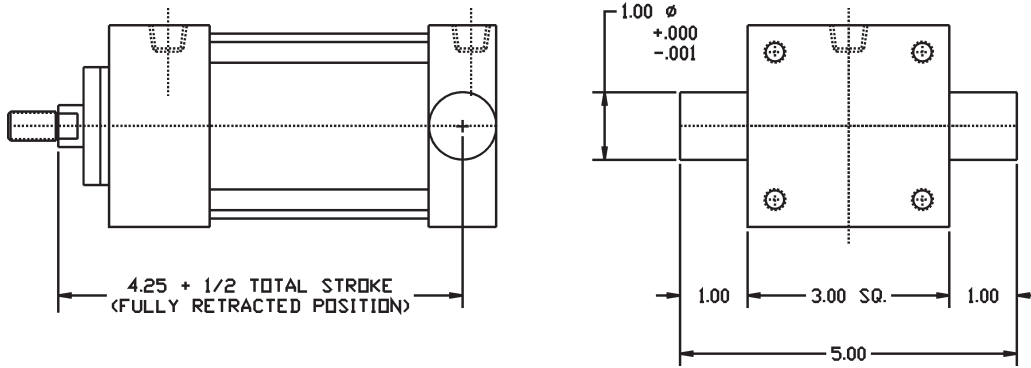
BASEBAR Mount



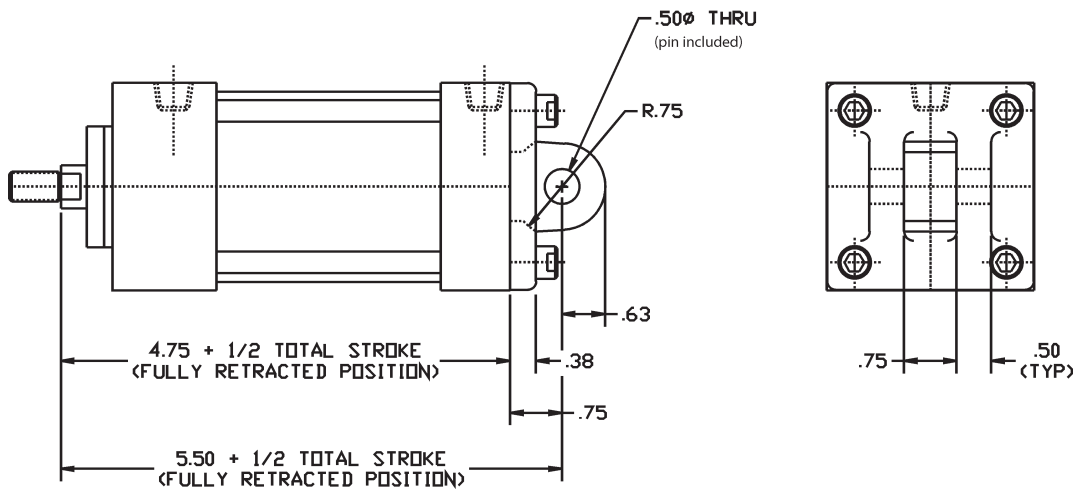
How To Specify

TC Series Dimensions: Pivot Mounts (Strokes 0" To 36")

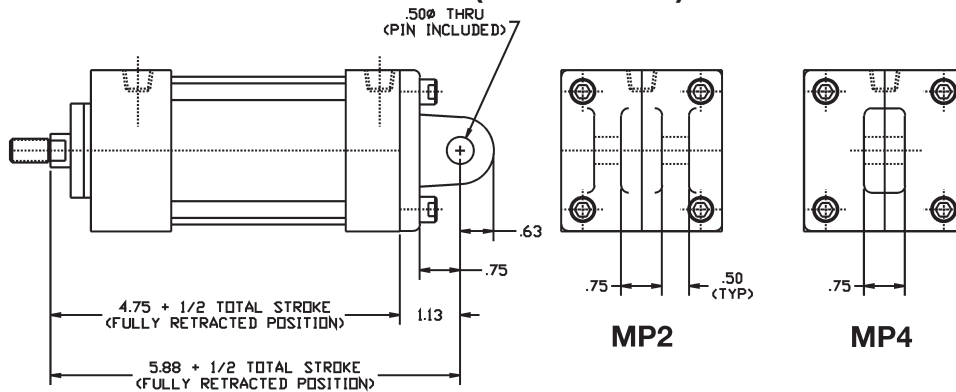
MT2 Mount



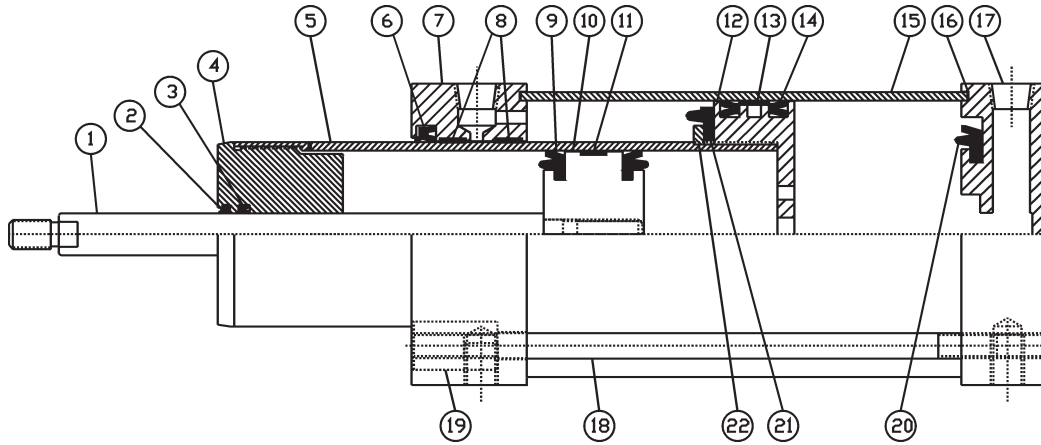
MP1 (Cast Bolt On) Mount



MP2 & MP4 (Cast Bolt On) Mount



TC Series 2.500" Bore – Construction

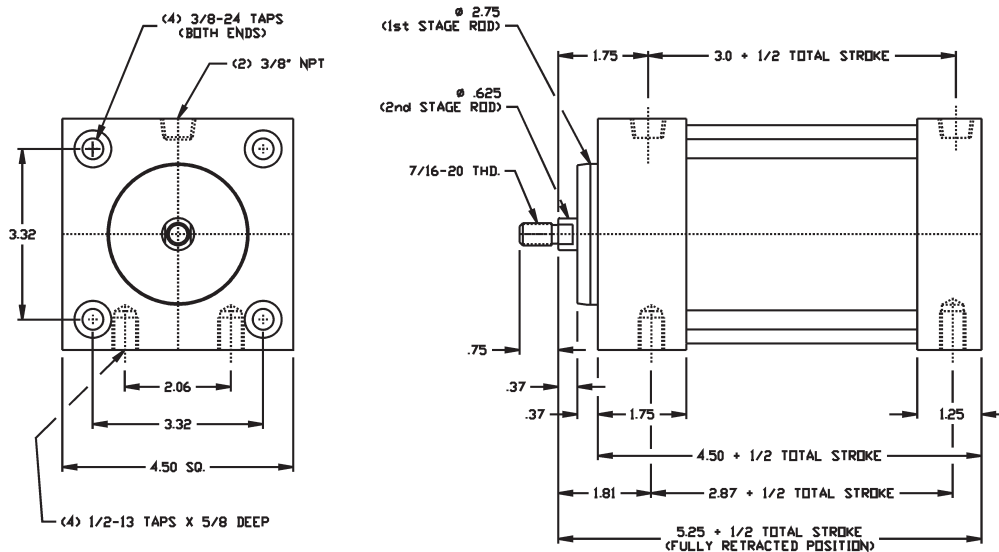


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|------------------------------|---|---------------------------------|
| 1. 0.625" Piston Rod | 9. 2.500" Bumper
Piston Seals (2) | 16. 4.00" Tube Seals (2) |
| 2. Rod Wiper | 10. 2.500" Piston | 17. Aluminum Cap |
| 3. Rod Seal | 11. PTFE Wear Band | 18. Tie Rods (4) |
| 4. Rod Bushing | 12. 4.00" Piston | 19. Sleeve Nut (4) |
| 5. 2.500" OD Tube | 13. PTFE Wear Band | 20. Bumper Piston Seal |
| 6. Rod Wiper/Seal | 14. 4.00" Piston Seal (2) | 21. Bumper Piston Seal |
| 7. Aluminum Head | 15. 4.00" OD Tube | 22. Bumper Retainer |
| 8. PTFE Wear Band (2) | | |

Cylinder Force Comparison Chart (at 100 PSI)

Type	Stroke	1st Stage	2nd Stage
2-Stage Telescoping	Push	1256 lbs	490 lbs
	Pull (0.625" Rod)	662 lbs	460 lbs
	Pull (1.000" Rod)	662 lbs	412 lbs
Standard 2.50" Bore	Push	490 lbs	N/A
	Pull	460 lbs	N/A

MS4 Mount



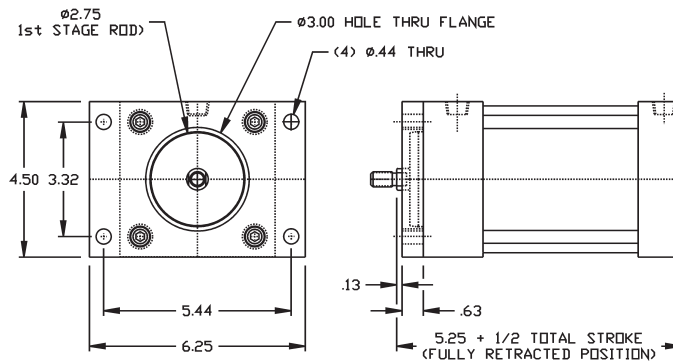
How To Specify

TC Series Dimensions: Base Mounts (Strokes 0" To 60")

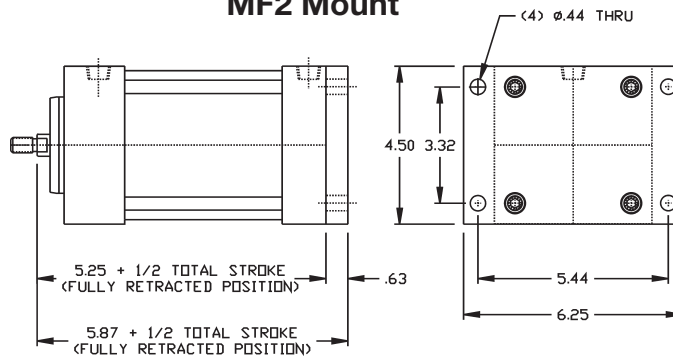
TC SERIES NFPA TELESCOPING CYLINDERS

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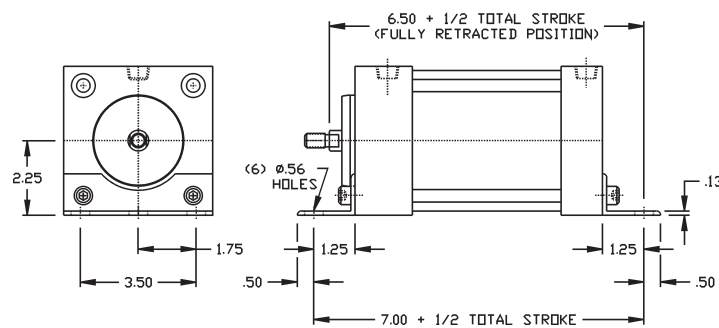
MF1 Mount



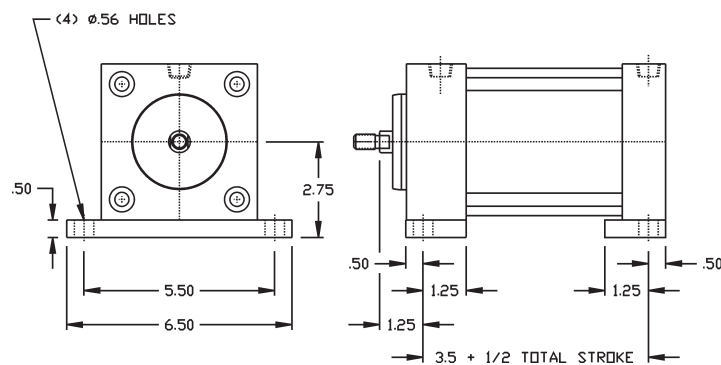
MF2 Mount



MS1 Mount

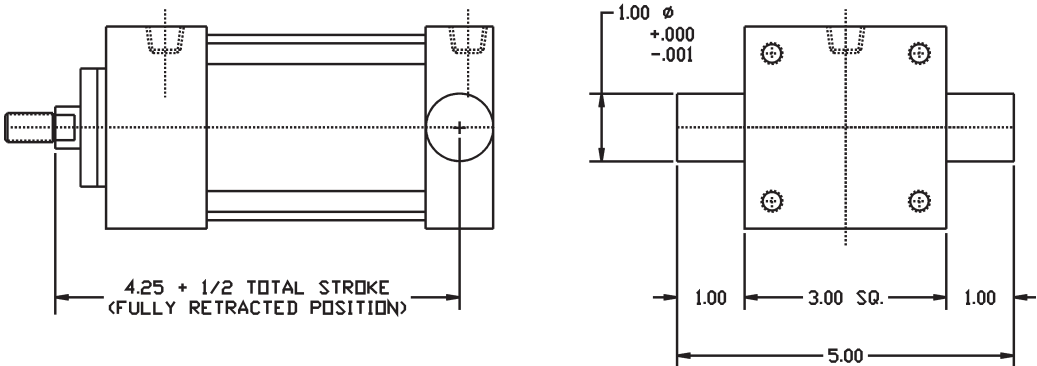


BASEBAR Mount

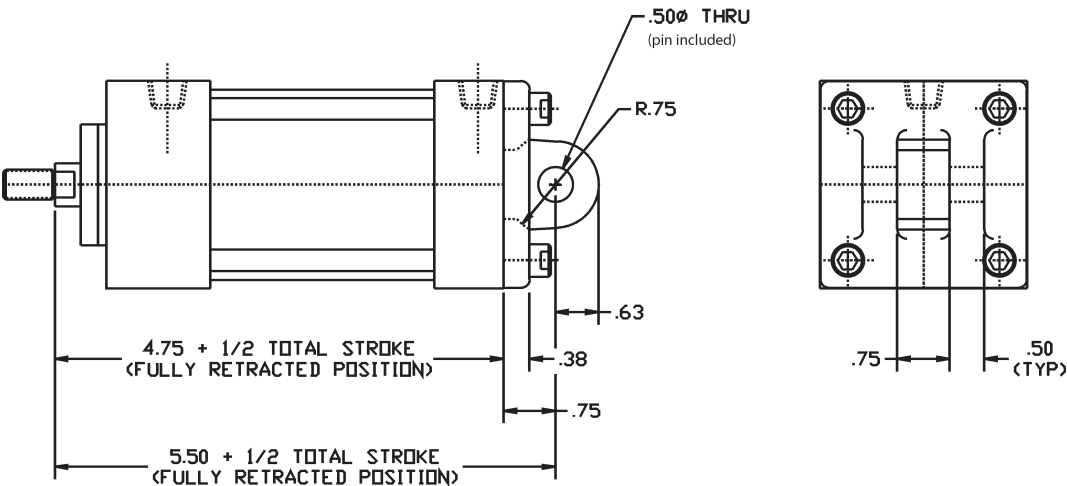


TC Series Dimensions: Pivot Mounts (Strokes 0" To 36")

MT2 Mount



MP1 (Cast Bolt On) Mount



MP2 & MP4 (Cast Bolt On) Mount

