



Pneumatic & Hydraulic Cylinders

Manufactured to Ford Specifications



NC-9

Ford Standard 250 PSI Heavy Duty Air Cylinders



27650 Groesbeck Highway * Roseville, Michigan 48066-2759
(586) 775-7211 * (800) 526-7968 * Fax: (586) 775-4545

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27650 Groesbeck Highway
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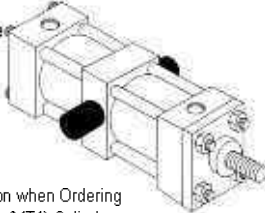
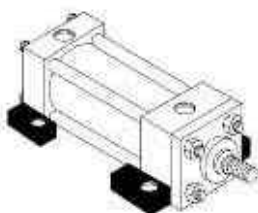
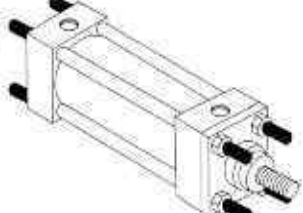
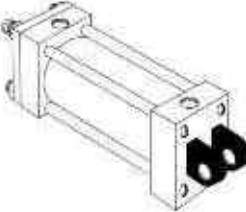
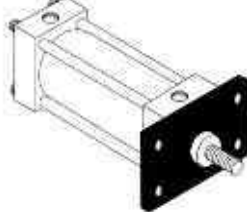
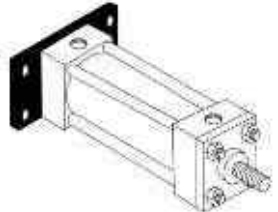
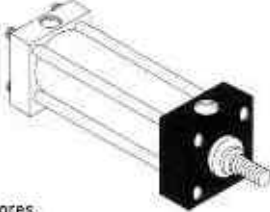
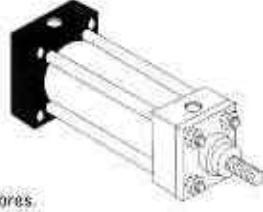
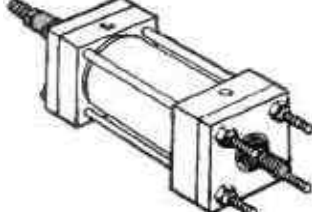
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Mounting Styles

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<p>Head Square Block (ME3)</p>  <p>Page 15</p> <p>For 8" and bigger bores.</p>	<p>Cap Square Block (ME4)</p>  <p>Page 15</p> <p>For 8" and bigger bores.</p>	<p>Double Rod Mount (MD**)</p>  <p>Page 16</p>



ORDERING PROCEDURE

WHEN ORDERING - SPECIFY :

- 1) **MODEL NO.** **DESCRIPTION**
 NC9 (MT4) - Intermediate Fixed Trunnion
 NC9 (MS2) - Side Lug Mount
 NC9 (MX1) - Tie Rods Extended Both Ends
 NC9 (MX2) - Tie Rods Extended Cap End
 NC9 (MX3) - Tie Rods Extended Head End
 NC9 (MP1) - Cap Fixed Clevis
 NC9 (MF1) - Head Rectangular Flange (1 1/2" - 6")
 NC9 (MF2) - Cap Rectangular Flange (1 1/2" - 6")
 NC9 (ME3) - Head Square (8" - 12")
 NC9 (ME4) - Cap Square (8" - 12")
 NC9 (MD) - Double Rod Cylinder



**PENINSULAR
CYLINDER CO.**

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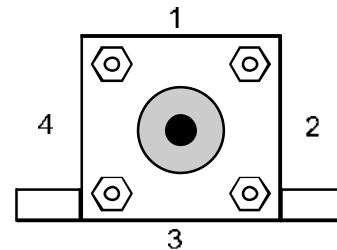
www.PeninsularCylinders.com
 Sales@PeninsularCylinders.com

Note: Consult Factory if the Cylinder needs to be Proximity Switch Ready

- 2) **Cylinder Bore & Stroke** (Customer Selected)
Piston Rod Diameter & Rod-End Style (Do not indicate in model number)
 (Only one Rod Diameter available per Bore Size - See Chart Below)

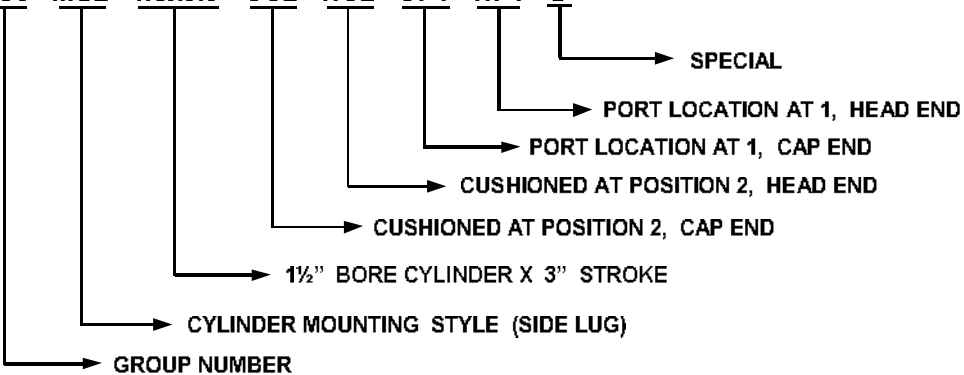
Bore Size	Rod Diameter MM	Thread LL
1 1/2", 2", 2 1/2"	1"	7/8" - 14
3 1/4"	1 3/8"	1 1/4" - 12
4", 5"	1 3/4"	1 1/2" - 12
6"	2"	1 3/4" - 12
8", 10", 12"	2 1/2"	2 1/4" - 12

- 3) **Cushion Location** (Must be Specified by Customer)
 "CC" Indicates Cap End Cushion
 "HC" Indicates Head End Cushion
 * Cushion Adjustment is available at position 1, 2, 3, or 4
 * Cushions should be specified for cylinders with strokes greater than 2.0"



- 4) **Port Location & Port Thread Size** (Must be Specified by Customer)
 "CT" Indicates Cap End Port
 "HT" Indicates Head End Port
 "P" Indicates NPTF (Standard).
 Ports available at positions 1, 2, 3, or 4.

Example: **NC9 - MS2 - 1.5x3.0 - CC2 - HC2 - CP1 - HP1 - S****



GROUP NUMBER

CYLINDER MOUNTING STYLE (SIDE LUG)

1 1/2" BORE CYLINDER X 3" STROKE

CUSHIONED AT POSITION 2, CAP END

CUSHIONED AT POSITION 2, HEAD END

PORT LOCATION AT 1, CAP END

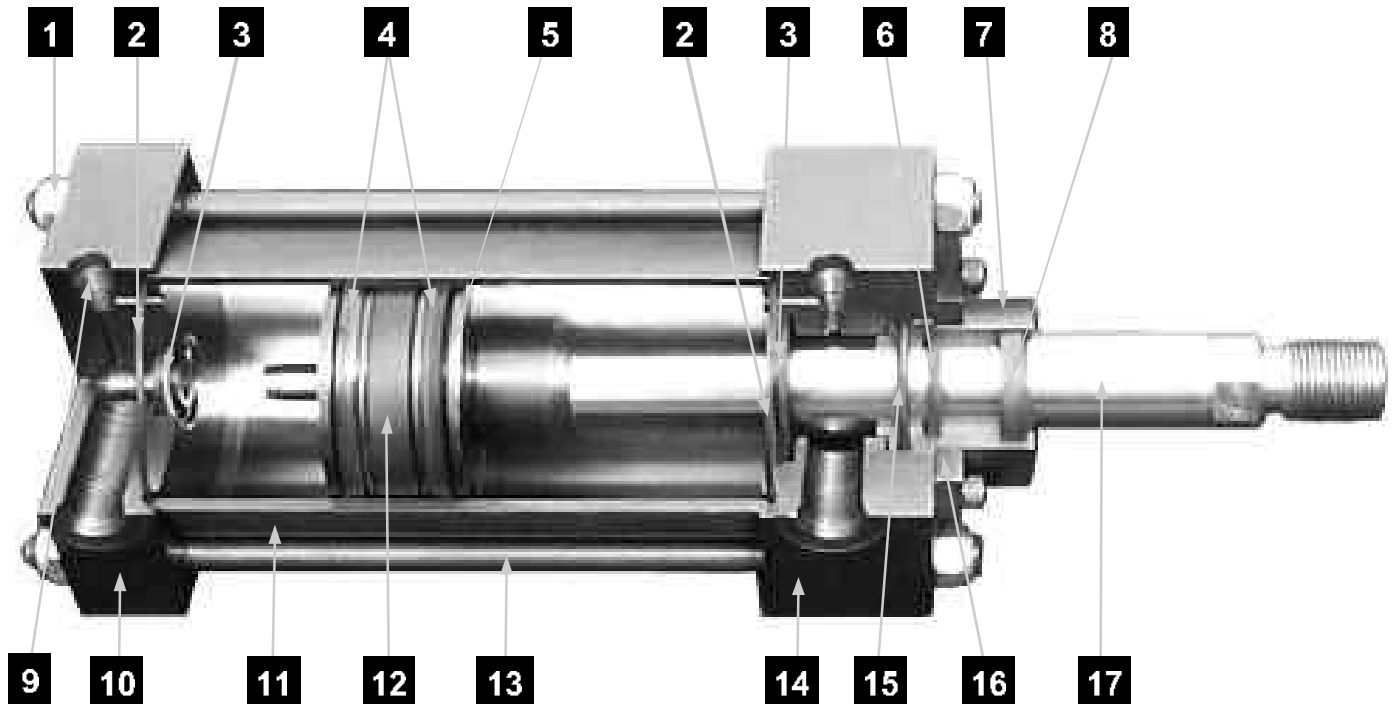
PORT LOCATION AT 1, HEAD END

SPECIAL

** When using "S" in model number, ALL non-standard dimensions must be specified **

NC9 CYLINDERS are built to Ford Motor Company Vehicle Operation Specifications. Any deviations from this Standard must be approved in writing by the Ford Motor Company.

NC9 Cylinder Parts List

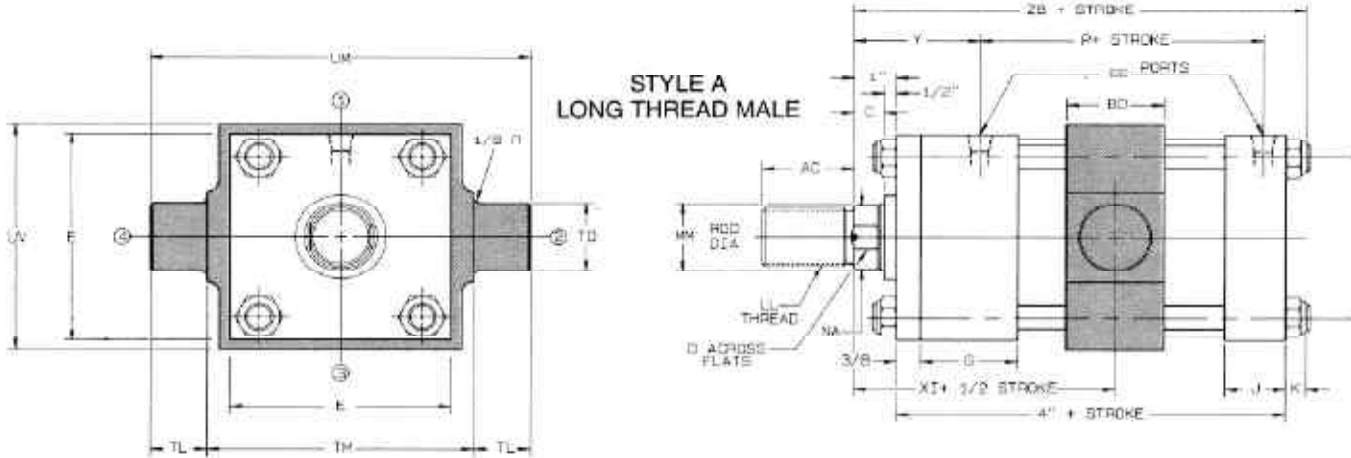


- | | |
|-----------------------|---|
| 1. Tie Rod Nut | 10. Cap End |
| 2. Tube O-Ring | 11. Cylinder Tube |
| 3. Cushion Seal | 12. Wear Band |
| 4. Piston U-Cups | 13. Tie Rod |
| 5. Piston | 14. Head |
| 6. Rod Seal | 15. Rod Cartridge O-Ring |
| 7. Rod Cartridge | 16. Rod Cartridge Retainer Plate |
| 8. Rod Wiper | 17. Piston Rod; Specify Rod End
Style & Diameter |
| 9. Cushion Adjustment | |

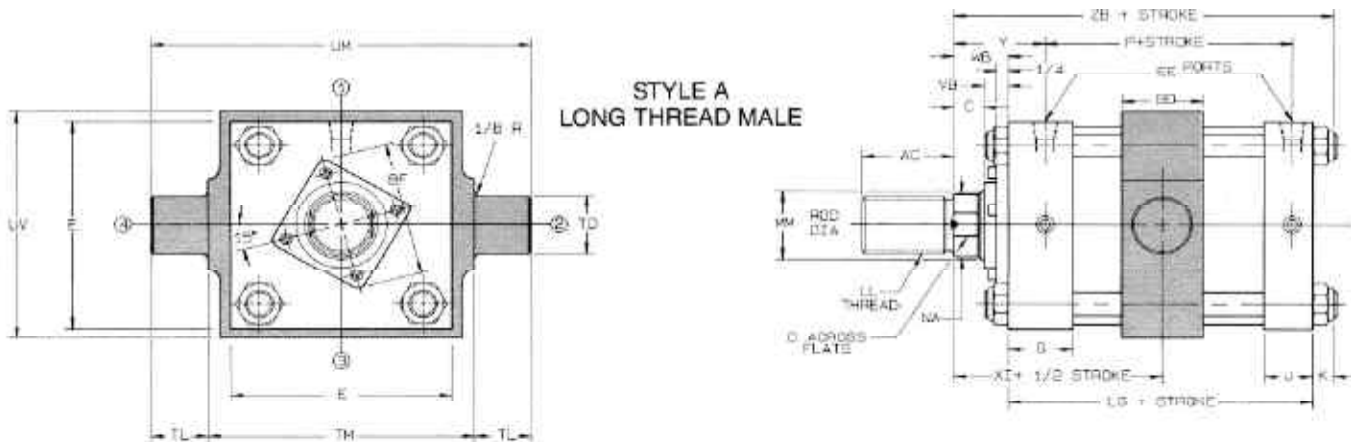
CENTER TRUNNION MOUNT

MT4 or T

1 1/2" BORE WITH 1" ROD



1 1/2" THRU 8" CYLINDER BORE

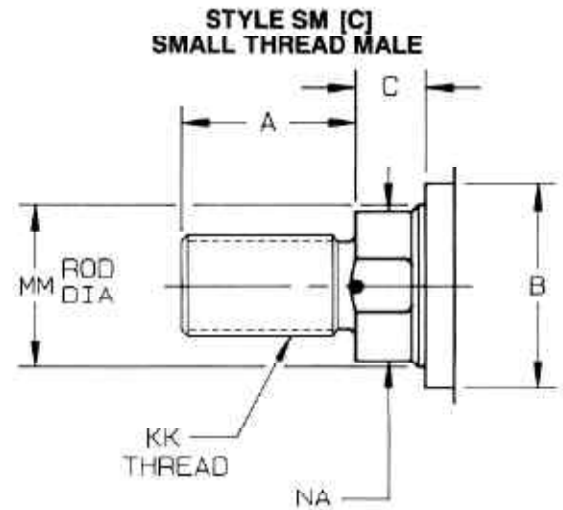
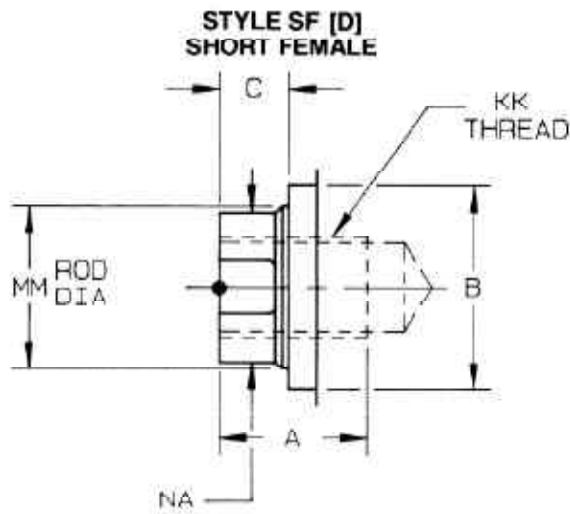


- Note: 1) See chart for minimum stroke
 2) XI Dimension may be specified by the customer. If not specified, the trunnion will be furnished mid-way between head and cap as illustrated.

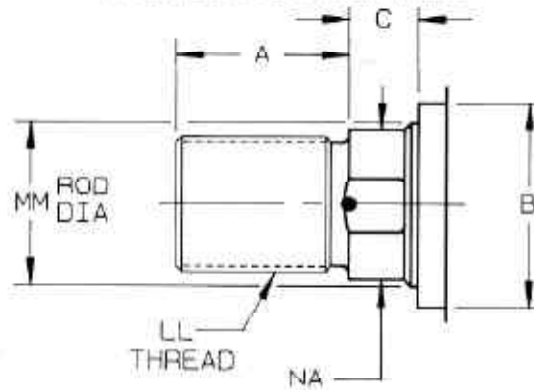
CYLINDER BORE INCHES	MINIMUM STROKE INCHES
2, 2 1/2 & 6	2
4	4
1 1/2, 3 1/4, 5 & 8	6

ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD SIZE

CYL. BORE	BD	E	EE (NPTF)	G	J	K	LG	P	TD ^{+ .001} _{-.000}	TL	TM	UM	UV
1 1/2	1 1/4	2	3/8	1 1/2	1	21/64	3 5/8	2 5/16	.999	1	2 1/2	4 1/2	2 1/2
2	1 1/2	2 1/2	3/8	1 1/2	1	23/64	3 5/8	2 5/16	.999	1	3	5	3
2 1/2	1 1/2	3	3/8	1 1/2	1	23/64	3 3/4	2 7/16	.999	1	3 1/2	5 1/2	3 1/2
3 1/4	2	3 3/4	1/2	1 3/4	1 1/4	15/32	4 1/4	2 11/16	.999	1	4 1/2	6 1/2	4 1/4
4	2	4 1/2	1/2	1 3/4	1 1/4	15/32	4 1/4	2 11/16	.999	1	5 1/4	7 1/4	5
5	2	5 1/2	1/2	1 3/4	1 1/4	39/64	4 1/2	2 15/16	.999	1	6 1/4	8 1/4	6
6	2 1/2	6 1/2	3/4	2	1 1/2	39/64	5	3 3/16	1.375	1 3/8	7 5/8	10 3/8	7
8	2 1/2	8 1/2	3/4	2	1 1/2	49/64	5 1/8	3 5/16	1.375	1 3/8	9 3/4	12 1/2	9 1/2



STYLE IM [B]
INTERMEDIATE THREAD MALE

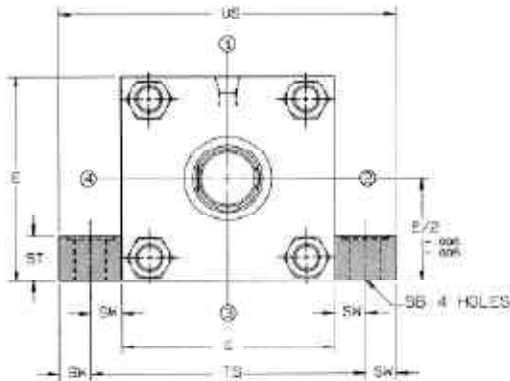


CYL. BORE	ROD DIA MM	THREAD		ROD END DIMENSIONS & MOUNT DIMENSIONS AFFECTED BY ROD SIZE											
		KK	LL	A	AC	B + .000 -.001	C	D	NA	BF	VB	WB	XI	Y	ZB
1 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1.968	5/8	1	3 1/16	1 7/8	4 61/64
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	—	—	—	3 7/16	2 1/4	5 21/64
2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1.968	5/8	1	3 1/16	1 7/8	4 63/64
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.468	7/8	1 3/8	3 7/16	2 1/4	5 23/64
2 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	2.468	5/8	1	3 1/8	1 7/8	5 7/64
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.468	7/8	1 3/8	3 1/2	2 1/4	5 31/64
3 1/4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.968	7/8	1 3/8	3 3/4	2 3/8	6 3/32
	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	2.968	1	1 5/8	4	2 5/8	6 11/32
4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.968	7/8	1 3/8	3 3/4	2 3/8	6 3/32
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	3.735	1 1/8	1 7/8	4 1/4	2 7/8	6 19/32
5	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.968	7/8	1 3/8	3 7/8	2 3/8	6 31/64
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	3.735	1 1/8	1 7/8	4 3/8	2 7/8	6 63/64
6	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.625	1	1 5/8	4 3/8	2 3/4	7 15/64
	2	1 1/2-12	1 3/4-12	2 1/4	3 1/2	2.624	7/8	1 11/16	1.953	4.312	1 1/8	2	4 3/4	3 1/8	7 39/64
8	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.625	1	1 5/8	4 7/16	2 3/4	7 33/64
	2 1/2	1 7/8-12	2 1/4-12	3	4 1/2	3.124	1	2 1/16	2.453	4.312	1 1/4	2 1/4	5 1/16	3 3/8	8 9/64

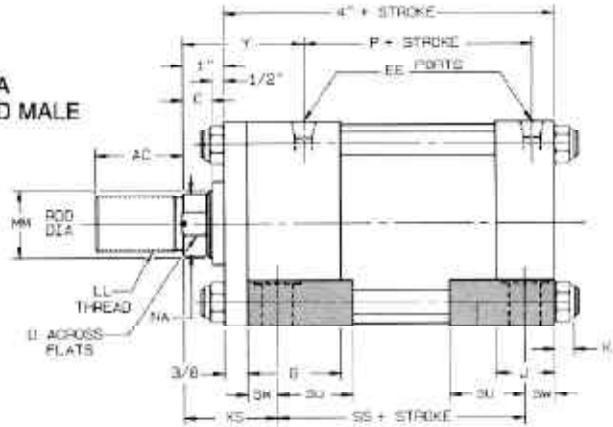
SIDE FOOT MOUNT

MS2 or F

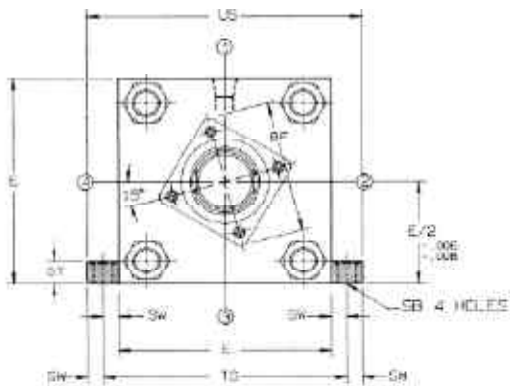
1 1/2" BORE WITH 1" ROD



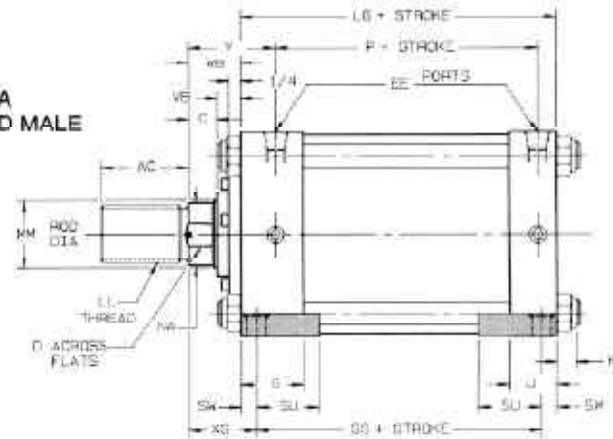
STYLE A
LONG THREAD MALE



1 1/2" THRU 8" CYLINDER BORE

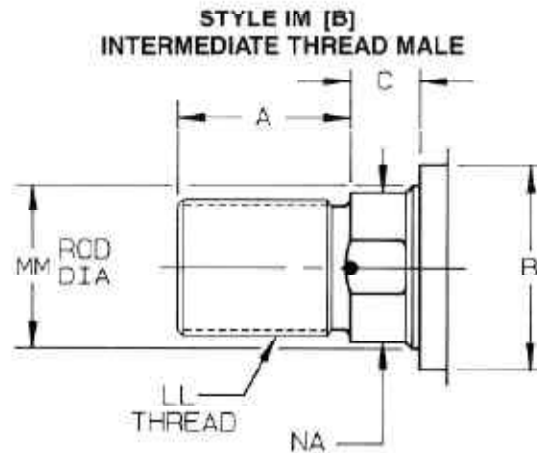
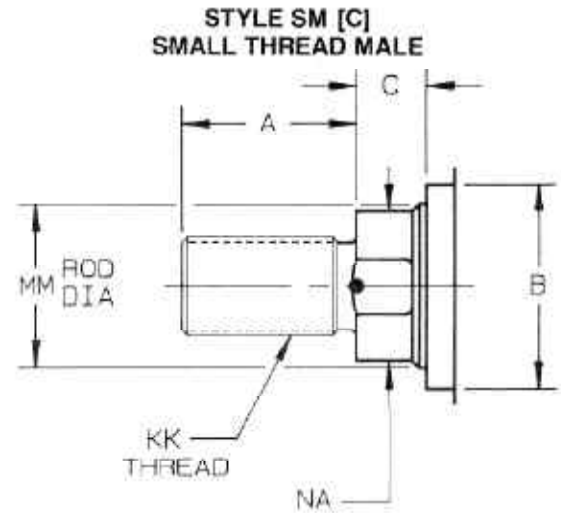
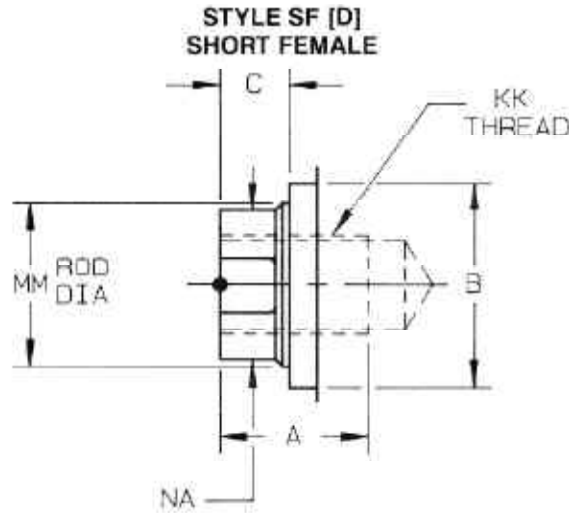


STYLE A
LONG THREAD MALE



ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD SIZE

CYL. BORE	E	EE (NPTF)	G	J	K	LG	P	SB	SS	ST	SU	SW	TS	US
1 1/2	2	3/8	1 1/2	1	21/64	3 5/8	2 5/16	7/16	2 7/8	1/2	15/16	3/8	2 3/4	3 1/2
2	2 1/2	3/8	1 1/2	1	23/64	3 5/8	2 5/16	7/16	2 7/8	1/2	15/16	3/8	3 1/4	4
2 1/2	3	3/8	1 1/2	1	23/64	3 3/4	2 7/16	7/16	3	1/2	15/16	3/8	3 3/4	4 1/2
3 1/4	3 3/4	1/2	1 3/4	1 1/4	15/32	4 1/4	2 11/16	9/16	3 1/4	3/4	1 1/4	1/2	4 3/4	5 3/4
4	4 1/2	1/2	1 3/4	1 1/4	15/32	4 1/4	2 11/16	9/16	3 1/4	3/4	1 1/4	1/2	5 1/2	6 1/2
5	5 1/2	1/2	1 3/4	1 1/4	39/64	4 1/2	2 15/16	13/16	3 1/8	1	1 9/16	11/16	6 7/8	8 1/4
6	6 1/2	3/4	2	1 1/2	39/64	5	3 3/16	13/16	3 5/8	1	1 9/16	11/16	7 7/8	9 1/4
8	8 1/2	3/4	2	1 1/2	49/64	5 1/8	3 5/16	13/16	3 3/4	1	1 9/16	11/16	9 7/8	11 1/4

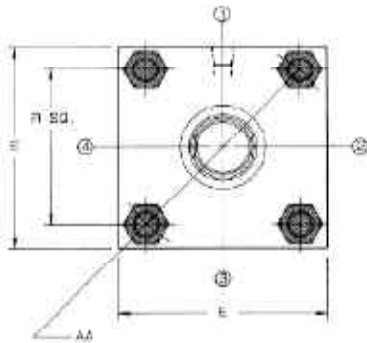


CYL BORE	ROD DIA	THREAD		ROD END DIMENSIONS & MOUNT DIMENSIONS AFFECTED BY ROD SIZE										
	MM	KK	LL	A	AC	B ^{+0.000} / _{-0.002}	C	D	NA	BF	VB	WB	XS	Y
1 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1.968	5/8	1	1 3/8	1 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	—	—	—	1 3/4	2 1/4
2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1.968	5/8	1	1 3/8	1 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.468	7/8	1 3/8	1 3/4	2 1/4
2 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	2.468	5/8	1	1 3/8	1 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.468	7/8	1 3/8	1 3/4	2 1/4
3 1/4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.968	7/8	1 3/8	1 7/8	2 3/8
	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	2.968	1	1 5/8	2 1/8	2 5/8
4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.968	7/8	1 3/8	1 7/8	2 3/8
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	3.735	1 1/8	1 7/8	2 3/8	2 7/8
5	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	2.968	7/8	1 3/8	2 1/16	2 3/8
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	3.735	1 1/8	1 7/8	2 9/16	2 7/8
6	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.625	1	1 5/8	2 5/16	2 3/4
	2	1 1/2-12	1 3/4-12	2 1/4	3 1/2	2.624	7/8	1 11/16	1.953	4.312	1 1/8	2	2 11/16	3 1/8
8	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.625	1	1 5/8	2 5/16	2 3/4
	2 1/2	1 7/8-12	2 1/4-12	3	4 1/2	3.124	1	2 1/16	2.463	4.312	1 1/4	2 1/4	2 15/16	3 3/8

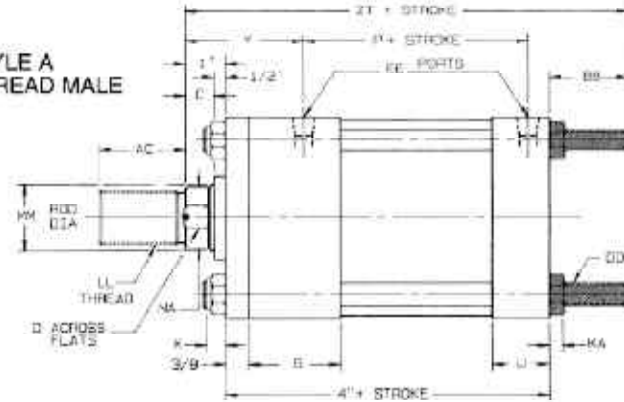
EXTENDED TIE ROD MOUNTS

MX* or EXT*

1 1/2 BORE WITH 1" ROD

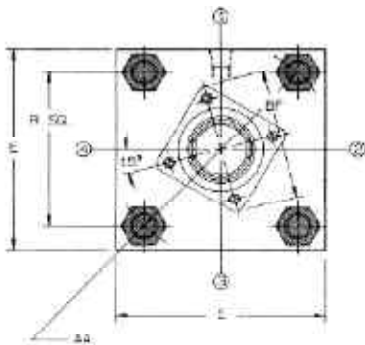


STYLE A
LONG THREAD MALE

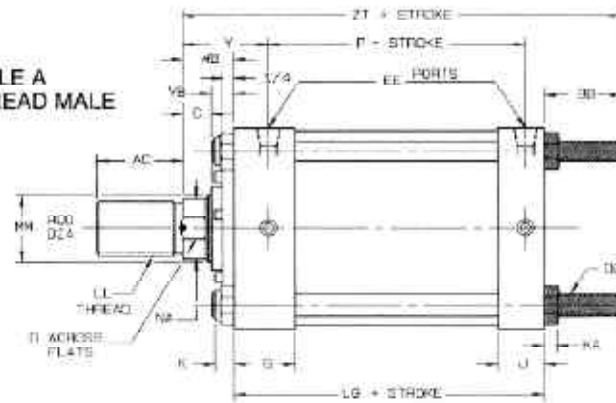


*MODEL MX1, TIE RODS EXTENDED BOTH ENDS
*MODEL MX2, TIE RODS EXTENDED CAP END
*MODEL MX3, TIE RODS EXTENDED HEAD END
*MODEL MX0, NO TIE RODS EXTENDED (SPECIAL)

1 1/2" THRU 8" CYLINDER BORE

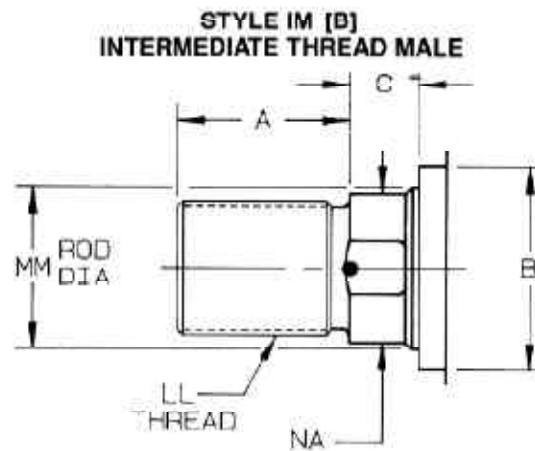
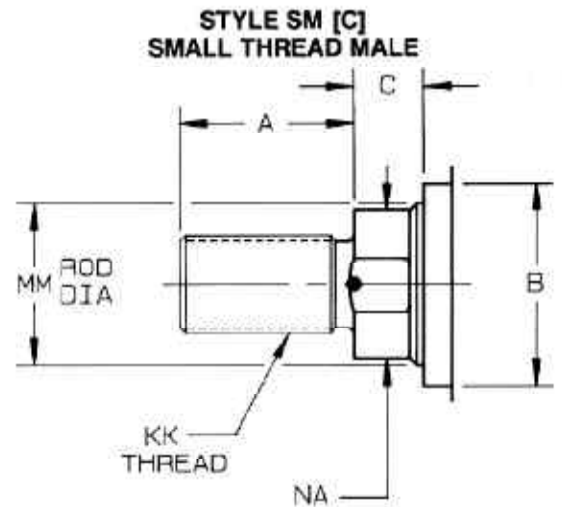
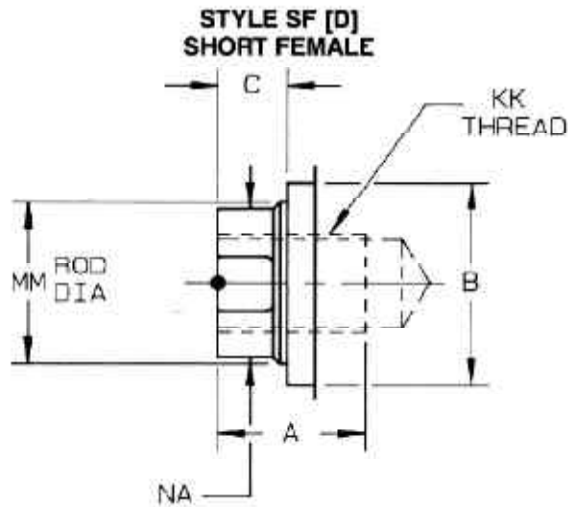


STYLE A
LONG THREAD MALE



ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD SIZE

CYL. BORE	AA	BB	DD	E	EE(NPTF)	G	J	K	KA	LG	P	R
1 1/2	2.02	1	1/4-28	2	3/8	1 1/2	1	21/64	7/32	3 5/8	2 5/16	1.43
2	2.6	1 1/8	5/16-24	2 1/2	3/8	1 1/2	1	23/64	17/64	3 5/8	2 5/16	1.84
2 1/2	3.1	1 1/8	5/16-24	3	3/8	1 1/2	1	23/64	17/64	3 3/4	2 7/16	2.19
3 1/4	3.9	1 3/8	3/8-24	3 3/4	1/2	1 3/4	1 1/4	15/32	21/64	4 1/4	2 11/16	2.76
4	4.7	1 3/8	3/8-24	4 1/2	1/2	1 3/4	1 1/4	15/32	21/64	4 1/4	2 11/16	3.32
5	5.8	1 13/16	1/2-20	5 1/2	1/2	1 3/4	1 1/4	39/64	7/16	4 1/2	2 15/16	4.10
6	6.9	1 13/16	1/2-20	6 1/2	3/4	2	1 1/2	39/64	7/16	5	3 3/16	4.88
8	9.1	2 5/16	5/8-18	8 1/2	3/4	2	1 1/2	49/64	35/64	5 1/8	3 5/16	6.44

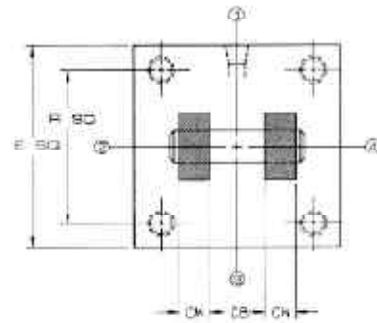
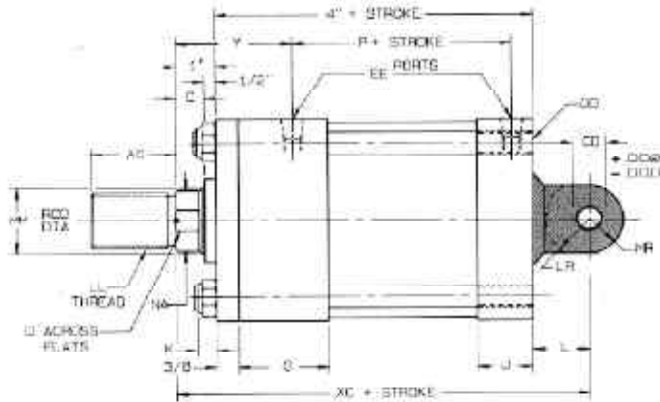


CYL. BORE	ROD DIA MM	THREAD		ROD END DIMENSIONS & MOUNT DIMENSIONS AFFECTED BY ROD SIZE										
		KK	LL	A	AC	B ^{+0.002}	C	D	NA	BF	VB	WB	Y	ZT
1 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	593	1.968	5/8	1	1 7/8	5 5/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	968	—	—	—	2 1/4	6
2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	593	1.968	5/8	1	1 7/8	5 3/4
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	968	2.468	7/8	1 3/8	2 1/4	6 1/8
2 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	593	2.468	5/8	1	1 7/8	5 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	968	2.468	7/8	1 3/8	2 1/4	6 1/4
3 1/4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	968	2.968	7/8	1 3/8	2 3/8	7
	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	2.968	1	1 5/8	2 5/8	7 1/4
4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	968	2.968	7/8	1 3/8	3 3/8	7
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	3.735	1 1/8	1 7/8	2 7/8	7 1/4
5	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	968	2.968	7/8	1 3/8	2 3/8	7 11/16
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	3.735	1 1/8	1 7/8	2 7/8	7 15/16
6	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.625	1	1 5/8	2 3/4	8 7/16
	2	1 1/2-12	1 3/4-12	2 1/4	3 1/2	2.624	7/8	1 11/16	1.953	4.312	1 1/8	2	3 1/8	8 11/16
8	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.625	1	1 5/8	2 3/4	9 1/16
	2 1/2	1 7/8-12	2 1/4-12	3	4 1/2	3.124	1	2 1/16	2.453	4.312	1 1/4	2 1/4	3 3/8	9 5/16

CLEVIS MOUNT

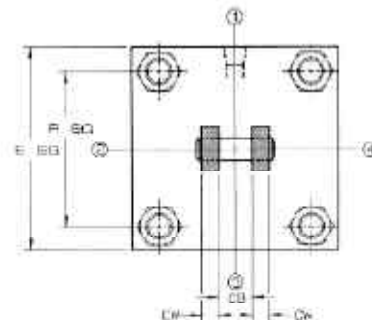
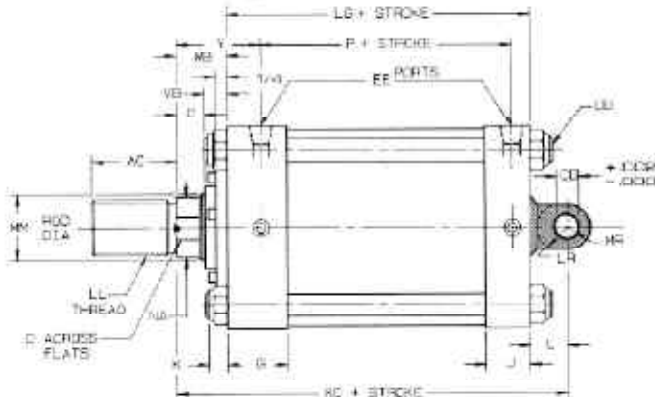
MP1 or C

STYLE A LONG THREAD MALE 1 1/2" BORE WITH 1" ROD



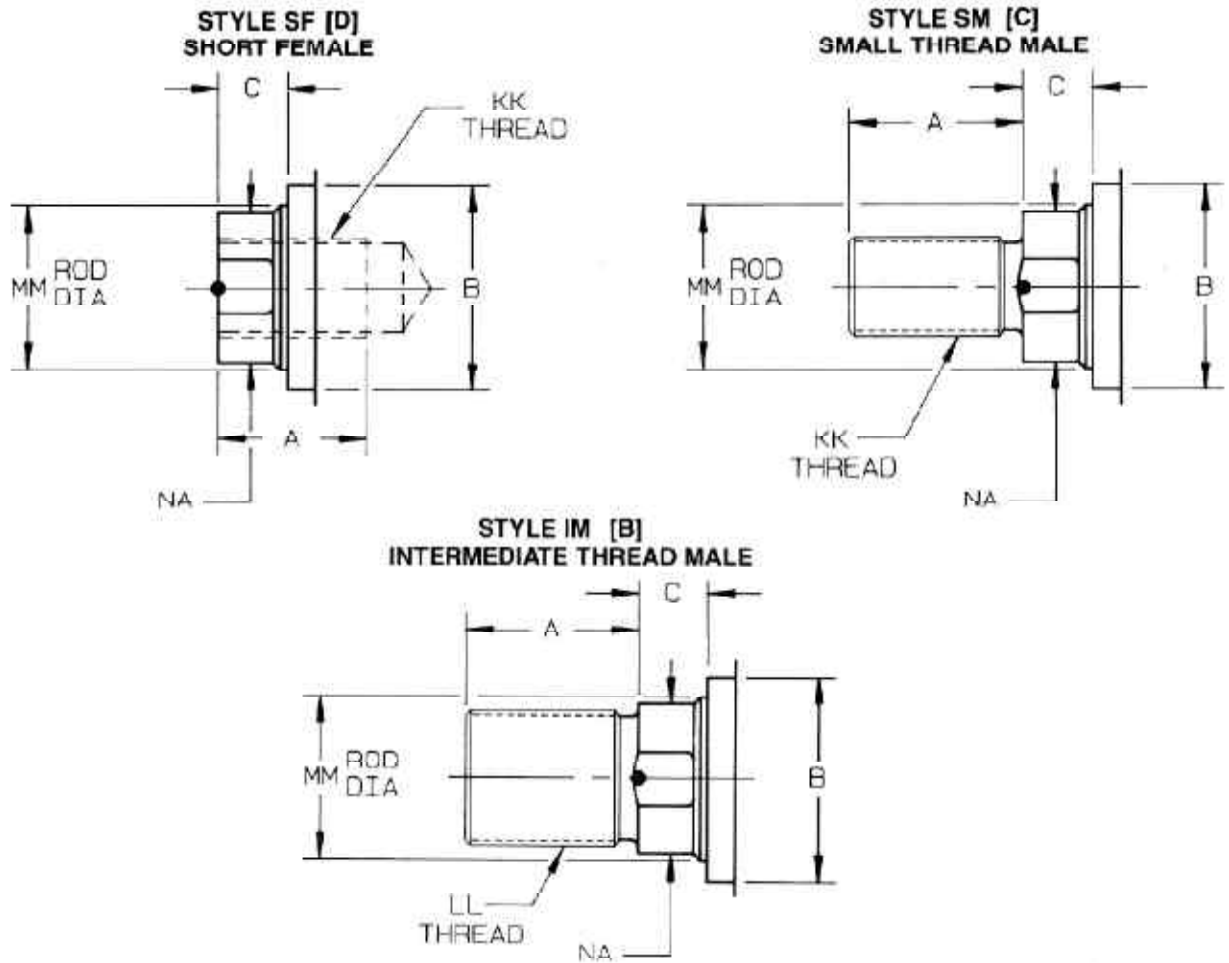
*1 1/2" BORE, 5/8" ROD AND 2" BORE, 5/8" AND 1" ROD HAVE THREADED-IN TIE RODS AS SHOWN ABOVE

STYLE A LONG THREAD MALE 1 1/2" THRU 8" CYLINDER BORE



ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD SIZE

CYL. BORE	CB	CD (HOLE)	CW	E	EE (NPTF)	G	J	K	L	LG	LR	P	MR
1 1/2	3/4	1/2	1/2	2	3/8	1 1/2	1	21/64	3/4	3 5/8	9/16	2 5/16	1/2
2	3/4	1/2	1/2	2 1/2	3/8	1 1/2	1	23/64	3/4	3 5/8	9/16	2 5/16	1/2
2 1/2	3/4	1/2	1/2	3	3/8	1 1/2	1	23/64	3/4	3 3/4	9/16	2 7/16	1/2
3 1/4	1 1/4	3/4	5/8	3 3/4	1/2	1 3/4	1 1/4	15/32	1 1/4	4 1/4	1	2 11/16	3/4
4	1 1/4	3/4	5/8	4 1/2	1/2	1 3/4	1 1/4	15/32	1 1/4	4 1/4	1	2 11/16	3/4
5	1 1/4	3/4	5/8	5 1/2	1/2	1 3/4	1 1/4	39/64	1 1/4	4 1/2	1	2 15/16	3/4
6	1 1/2	1	3/4	6 1/2	3/4	2	1 1/2	39/64	1 1/2	5	1 1/4	3 3/16	1
8	1 1/2	1	3/4	8 1/2	3/4	2	1 1/2	49/64	1 1/2	5 1/8	1 1/4	3 5/16	1

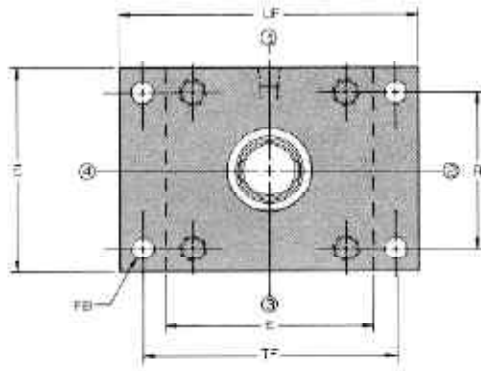


CYL. BORE	ROD DIA	THREAD		ROD END DIMENSIONS & MOUNT DIMENSIONS AFFECTED BY ROD SIZE									
	MM	KK	LL	A	AC	B ⁰⁰⁰ ₀₀₂	C	D	NA	VB	WB	XC	Y
1 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	5/8	1	5 3/8	1 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	—	—	5 3/4	2 1/4
2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	5/8	1	5 3/8	1 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	5 3/4	2 1/4
2 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	5/8	1	5 1/2	1 7/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	5 7/8	2 1/4
3 1/4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	6 7/8	2 3/8
	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	1	1 5/8	7 1/8	2 5/8
4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	6 7/8	2 3/8
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	1 1/8	1 7/8	7 3/8	2 7/8
5	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	7 1/8	2 3/8
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	1 1/8	1 7/8	7 5/8	2 7/8
6	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	1	1 5/8	8 1/8	2 3/4
	2	1 1/2-12	1 3/4-12	2 1/4	3 1/2	2.624	7/8	1 11/16	1.953	1 1/8	2	8 1/2	3 1/8
8	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	1	1 5/8	8 1/4	2 3/4
	2 1/2	1 7/8-12	2 1/4-12	3	4 1/2	3.124	1	2 1/16	2.453	1 1/4	2 1/4	8 7/8	3 3/8

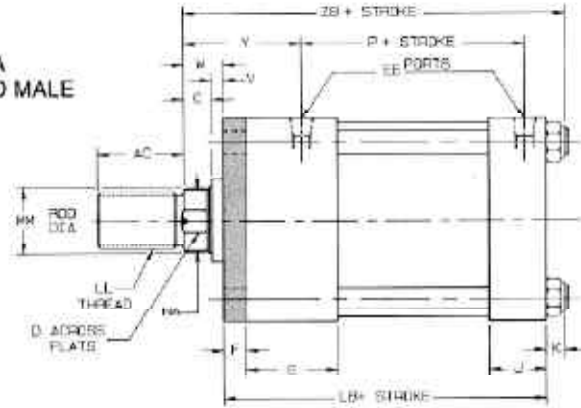
ROD END FLANGE MOUNT

MF1 or R

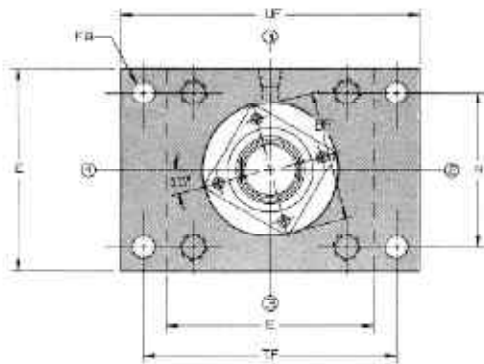
1 1/2" BORE, BOTH RODS & 2" BORE, 1" ROD ONLY



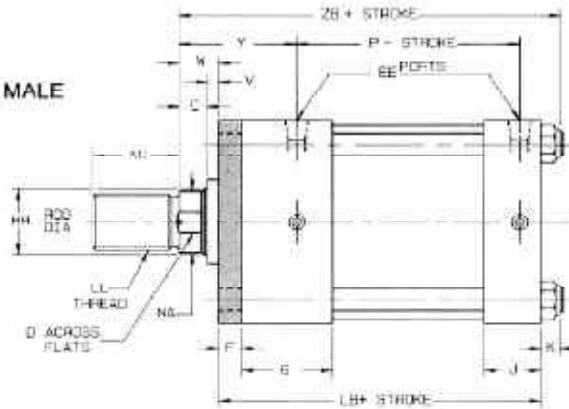
STYLE A
LONG THREAD MALE



2" BORE, 5/8" ROD ONLY, THRU 6" BORE

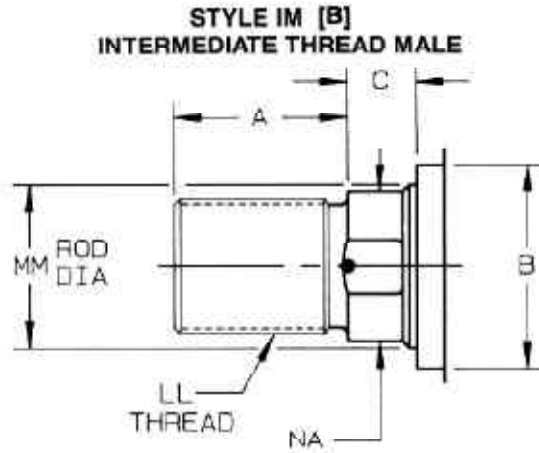
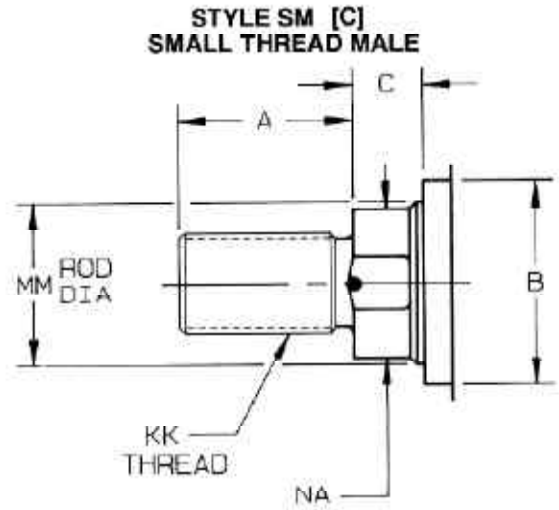
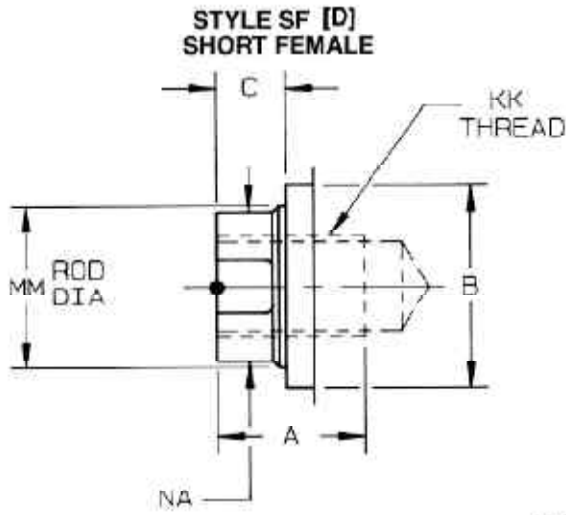


STYLE A
LONG THREAD MALE



ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD SIZE

CYL. BORE	E	EE (NPTF)	F	FB	G	J	K	LB	P	R	TF	UF
1 1/2	2	3/8	3/8	5/16	1 1/2	1	21/64	4	2 5/16	1.43	2 3/4	3 3/8
2	2 1/2	3/8	3/8	3/8	1 1/2	1	23/64	4	2 5/16	1.84	3 3/8	4 1/8
2 1/2	3	3/8	3/8	3/8	1 1/2	1	23/64	4 1/8	2 7/16	2.19	3 7/8	4 5/8
3 1/4	3 3/4	1/2	5/8	7/16	1 3/4	1 1/4	15/32	4 7/8	2 11/16	2.76	4 11/16	5 1/2
4	4 1/2	1/2	5/8	7/16	1 3/4	1 1/4	15/32	4 7/8	2 11/16	3.32	5 7/16	6 1/4
5	5 1/2	1/2	5/8	9/16	1 3/4	1 1/4	39/64	5 1/8	2 15/16	4.10	6 5/8	7 5/8
6	6 1/2	3/4	3/4	9/16	2	1 1/2	39/64	5 3/4	3.3/16	4.88	7 5/8	8 5/8

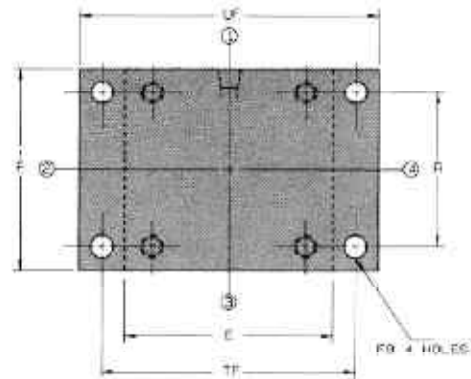
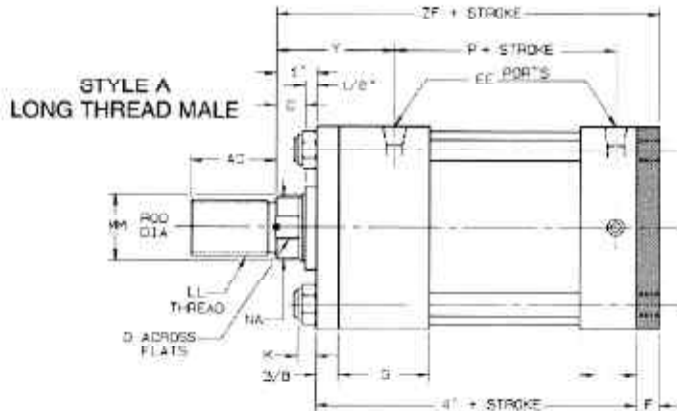


CYL. BORE	ROD DIA	THREAD		ROD END DIMENSIONS & MOUNT DIMENSIONS AFFECTED BY ROD SIZE									
	MM	KK	LL	A	AC	B ^{+ .005} - .015	C	D	NA	V	W	Y	ZB
1 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1/4	5/8	1 7/8	4 51/64
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	1/2	1	2 1/4	5 21/64
2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1/4	5/8	1 7/8	4 53/64
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	1/2	1	2 1/4	5 23/64
2 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	1/4	5/8	1 7/8	5 7/64
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	1/2	1	2 1/4	5 31/64
3 1/4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	1/4	3/4	2 3/8	6 3/32
	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3/8	1	2 5/8	6 11/32
4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.868	1/4	3/4	2 3/8	6 3/32
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	1/2	1 1/4	2 7/8	6 19/32
5	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	1/4	3/4	2 3/8	6 31/64
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	1/2	1 1/4	2 7/8	6 63/64
6	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	1/4	7/8	2 3/4	7 15/64
	2	1 1/2-12	1 3/4-12	2 1/4	3 1/2	2.624	7/8	1 11/16	1.953	3/8	1 1/4	3 1/8	7 39/64

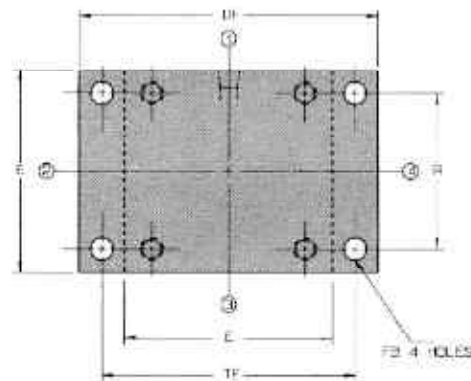
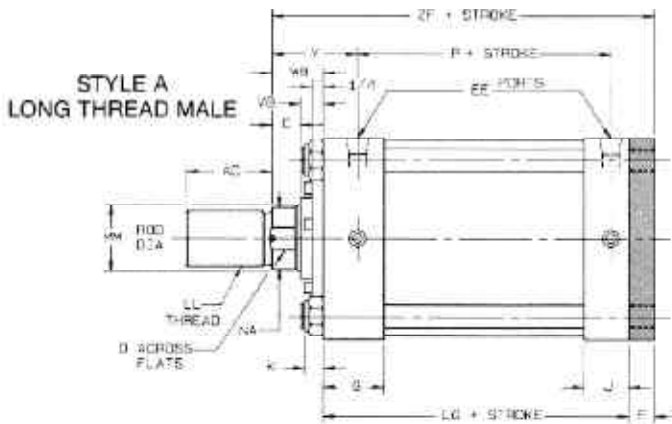
CAP END FLANGE MOUNT

MF2 or B

1 1/2" BORE WITH 1" ROD

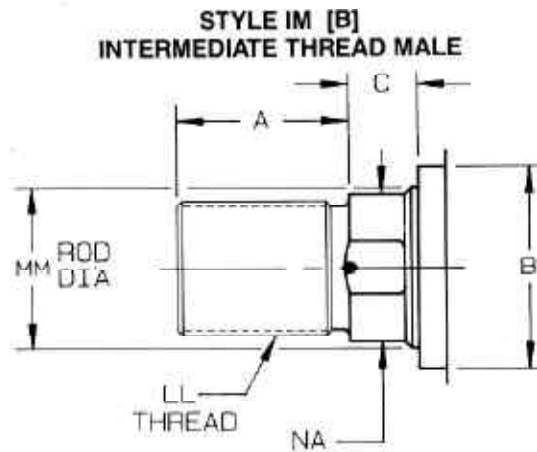
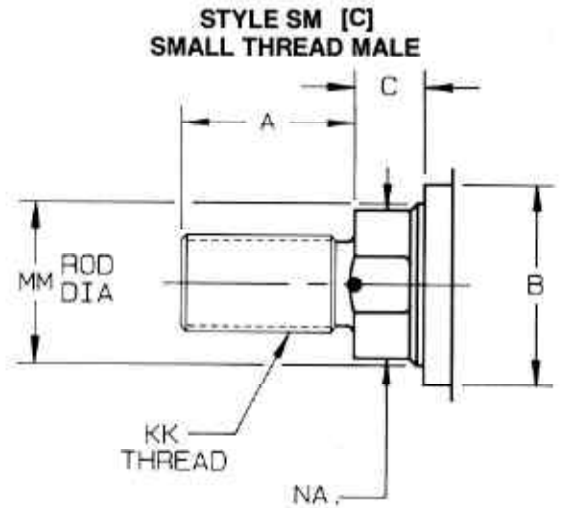
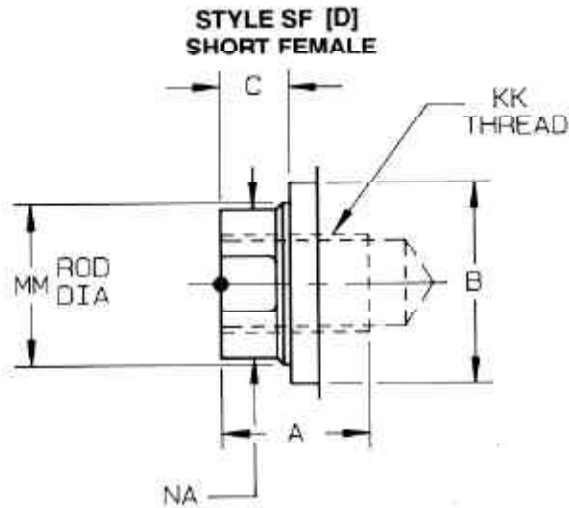


1 1/2" THRU 8" CYLINDER BORE



ENVELOPE AND MOUNTING DIMENSIONS NOT AFFECTED BY ROD SIZE

CYL. BORE	E	EE (NPTF)	F	FB	G	J	K	LG	P	R	TF	UF
1 1/2	2	3/8	3/8	5/16	1 1/2	1	21/64	3 5/8	2 5/16	1.43	2 3/4	3 3/8
2	2 1/2	3/8	3/8	3/8	1 1/2	1	23/64	3 5/8	2 5/16	1.84	3 3/8	4 1/8
2 1/2	3	3/8	3/8	3/8	1 1/2	1	23/64	3 3/4	2 7/16	2.19	3 7/8	4 5/8
3 1/4	3 3/4	1/2	5/8	7/16	1 3/4	1 1/4	15/32	4 1/4	2 11/16	2.76	4 11/16	5 1/2
4	4 1/2	1/2	5/8	7/16	1 3/4	1 1/4	15/32	4 1/4	2 11/16	3.32	5 7/16	6 1/4
5	5 1/2	1/2	5/8	9/16	1 3/4	1 1/4	39/64	4 1/2	2 15/16	4.10	6 5/8	7 5/8
6	6 1/2	3/4	3/4	9/16	2	1 1/2	39/64	5	3 3/16	4.86	7 5/8	8 5/8

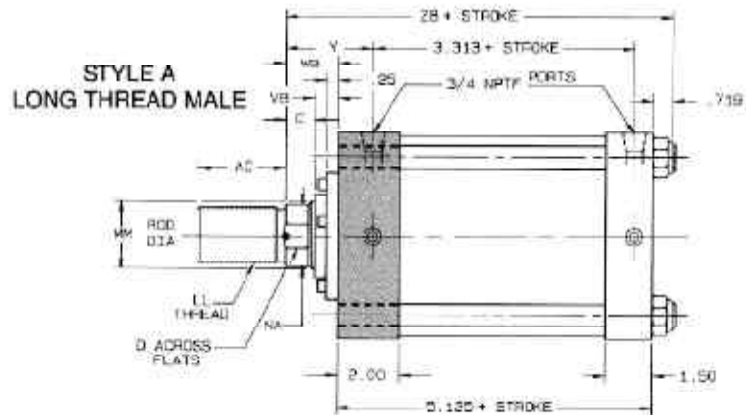
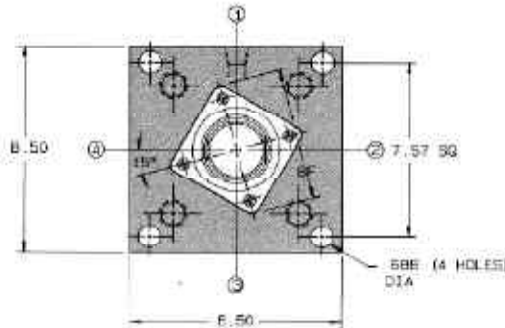


CYL. BORE	ROD DIA	THREAD		ROD END DIMENSIONS & MOUNT DIMENSIONS AFFECTED BY ROD SIZE									
	MM	KK	LL	A	AC	B ^{+0.000} _{-0.002}	C	D	NA	VB	WB	Y	ZF
1 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	5/8	1	1 7/8	5
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	—	—	2 1/4	5 3/8
2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	5/8	1	1 7/8	5
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	2 1/4	5 3/8
2 1/2	5/8	7/16-20	1/2-20	3/4	1 1/8	1.124	3/8	1/2	.593	5/8	1	1 7/8	5 1/8
	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	2 1/4	5 1/2
3 1/4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	2 3/8	6 1/4
	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	1	1 5/8	2 5/8	6 1/2
4	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	2 3/8	6 1/4
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	1 1/8	1 7/8	2 7/8	6 3/4
5	1	3/4-16	7/8-14	1 1/8	1 7/8	1.499	1/2	7/8	.968	7/8	1 3/8	2 3/8	6 1/2
	1 3/4	1 1/4-12	1 1/2-12	2	3	2.374	3/4	1 1/2	1.703	1 1/8	1 7/8	2 7/8	7
6	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	1	1 5/8	2 3/4	7 3/8
	2	1 1/2-12	1 3/4-12	2 1/4	3 1/2	2.624	7/8	1 11/16	1.953	1 1/8	2	3 1/8	7 3/4

ROD END SQUARE MOUNT

8 bore, ME3 or R

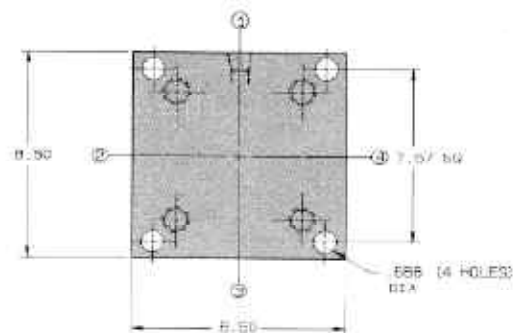
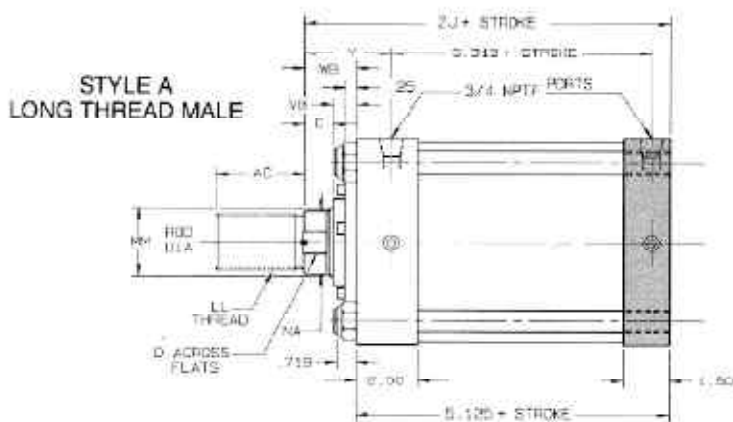
8" BORE, ALL RODS



CAP END SQUARE MOUNT

8 bore, ME4 or B

8" BORE, ALL RODS



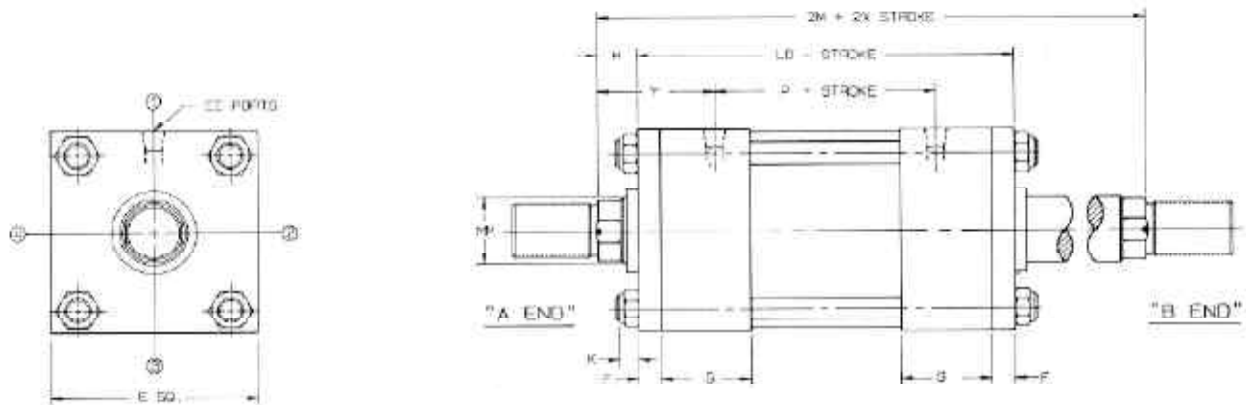
HEAD END DIMENSIONS AND MOUNTING DIMENSIONS AFFECTED BY ROD SIZE

CYL. BORE	MM ROD DIA	KK	LL	A	AC	B ^{+0.00} / _{-0.02}	C	D	NA	BF	VB	WB	Y	ZB	ZJ
8	1 3/8	1-14	1 1/4-12	1 5/8	2 1/2	1.999	5/8	1 1/8	1.343	3.025	1	1 5/8	2 3/4	7 33/64	6 3/4
	2 1/2	1 7/8-12	2 1/4-12	3	4 1/2	3.124	1	2 1/16	2.453	4.312	1 1/4	2 1/4	3 3/8	8 9/64	7 3/8

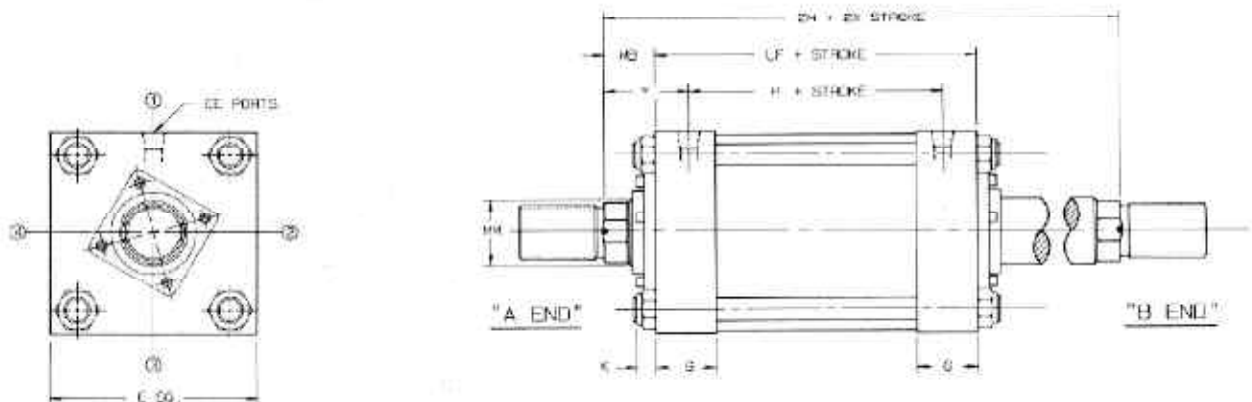
DOUBLE ROD CYLINDER

MD**

TIE ROD RETAINED CARTRIDGE STYLE



REMOVABLE CARTRIDGE STYLE



NOTE 1: TIE ROD RETAINED CARTRIDGE RETAINER USED ON 1 1/2" BORE, 1" OVERSIZED ROD, ALL MOUNTS, AND ON 1 1/2" BORE 5/8" ROD AND 2" BORE 1" ROD, MDF1 AND MDF5 MOUNTS. ALL OTHER BORE/ROD/MOUNTS USE REMOVABLE CARTRIDGE RETAINER.

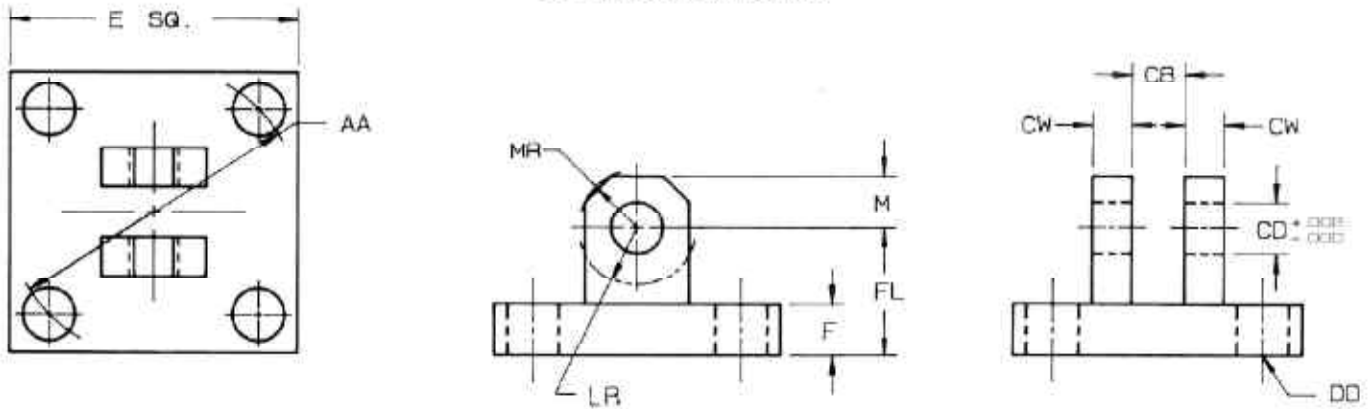
NOTE 2: BASIC DIMENSIONS FOR DOUBLE ROD CYLINDERS WITH STANDARD RODS ARE SHOWN ON THIS PAGE. FOR SPECIFIC MOUNTING DIMENSIONS REFER TO SINGLE ROD CYLINDER PAGES. EXCEPTION IS MDS2 "SS" DIMENSION WHICH INCREASES BY THE DIFFERENCE OF "G - J".

ENVELOPE AND MOUNTING DIMENSIONS

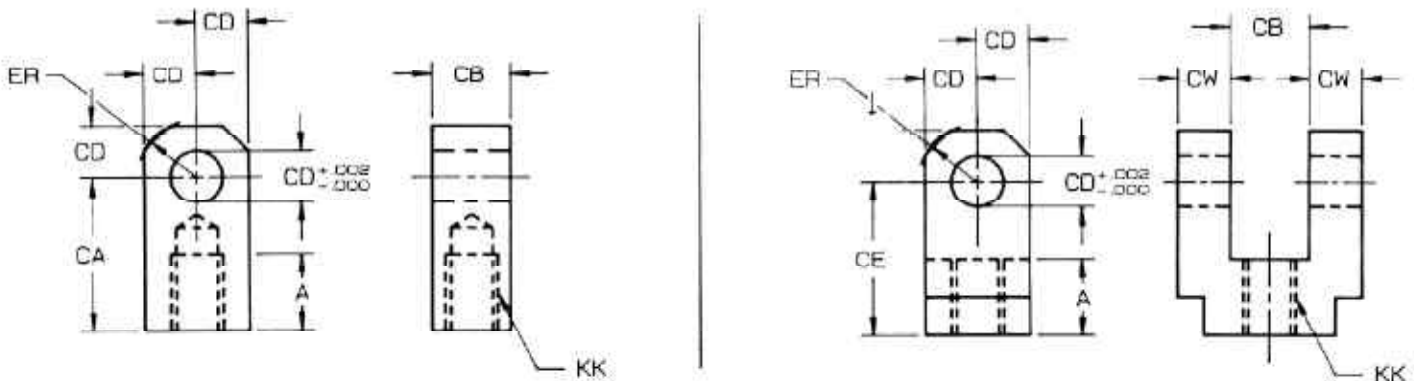
CYL. BORE	MM ROD DIA	E	EE (NPT)	F	G	K	Y	W	WB	P	LF	LD	ZM
1 1/2	5/8	2	3/8	3/8	1 1/2	21/64	1 7/8	5/8	1	2 5/16	4 1/8	4 7/8	6 1/8
2	5/8	2 1/2	3/8	3/8	1 1/2	23/64	1 7/8	5/8	1	2 5/16	4 1/8	4 7/8	6 1/8
2 1/2	5/8	3	3/8	3/8	1 1/2	23/64	1 7/8	5/8	1	2 7/16	4 1/4	5	6 1/4
3 1/4	1	3 3/4	1/2	5/8	1 3/4	15/32	2 3/8	3/4	1 3/8	2 11/16	4 3/4	6	7 1/2
4	1	4 1/2	1/2	5/8	1 3/4	15/32	2 3/8	3/4	1 3/8	2 11/16	4 3/4	6	7 1/2
5	1	5 1/2	1/2	5/8	1 3/4	39/64	2 3/8	3/4	1 3/8	2 15/16	5	6 1/4	7 3/4
6	1 3/8	6 1/2	3/4	3/4	2	39/64	2 3/4	7/8	1 5/8	3 3/16	5 1/2	7	8 3/4
8	1 3/8	8 1/2	3/4	3/4	2	49/64	2 3/4	7/8	1 5/8	3 5/16	5 5/8	7 1/8	8 7/8

MOUNTING ACCESSORIES

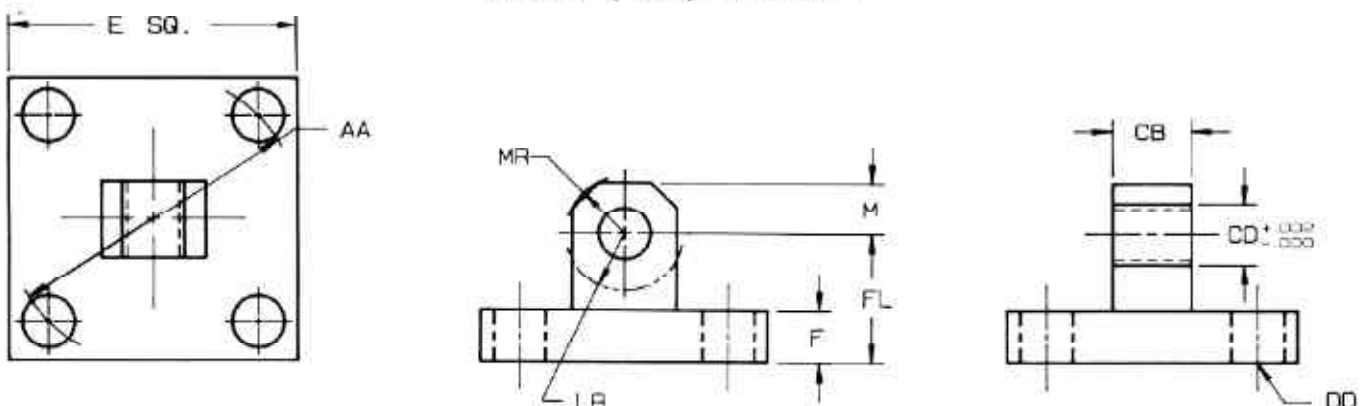
CLEVIS BRACKET

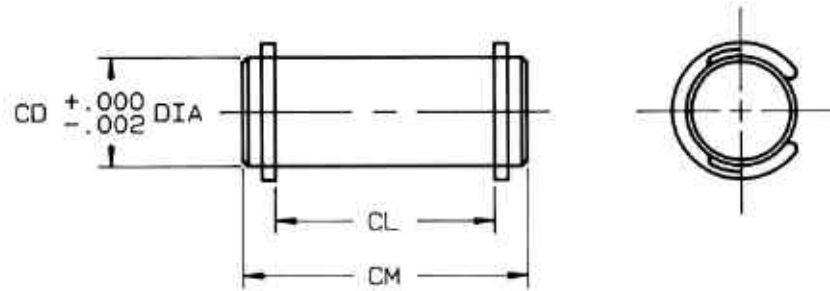


ROD EYE/ROD CLEVIS



PIVOT (EYE) BRACKET





CLEVIS BRACKET

Part No.	FORD NO.	E	F	M	AA	CB	CD	CW	DD	FL	LR	MR
C1150-78	NC9-3204	3	3/8	1/2	2.9	3/4	1/2	1/2	13/32	1 1/8	5/8	9/16
C1200-78	NC9-3205	4 1/2	5/8	3/4	4.6	1 1/4	3/4	5/8	17/32	1 7/8	7/8	13/16
C1400-78	NC9-3206	5	3/4	1	5.4	1 1/2	1	3/4	21/32	2 1/4	1 3/16	1 3/32

ROD EYE

ROD CLEVIS

ROD EYE	FORD NO.	A	CA	CB	CD	CE	CW	ER	KK	ROD CLEVIS	FORD NO.
C1150-65G	NC9-3304	3/4	1 1/2	3/4	1/2	1 1/2	1/2	1/2	7/16-20	C1150-86	NC9-3401
C1150-65	NC9-3304	3/4	1 1/2	3/4	1/2	1 1/2	1/2	1/2	1/2-20	C1150-86G	NC9-3401
C1200-65	NC9-3305	1 1/8	2 1/16	1 1/4	3/4	2 3/8	5/8	3/4	3/4-16	C1200-86	NC9-3402
C1200-65I	NC9-3305	1 1/8	2 1/16	1 1/4	3/4	2 3/8	5/8	3/4	7/8-14	C1200-86G	NC9-3402
C1400-65	NC9-3306	1 5/8	2 13/16	1 1/2	1	3 1/8	3/4	1	1-14	C1400-86	NC9-3403
*	NC9-3306	1 5/8	2 13/16	1 1/2	1	3 1/8	3/4	1	1 1/4-12	C1400-86G	NC9-3403
C1600-65	NC9-3307	2	3 7/16	2	1 3/8	4 1/8	1	1 3/8	1 1/4-12	C1600-86	NC9-3404
C1600-65I	NC9-3307	2	3 7/16	2	1 3/8	4 1/8	1	1 3/8	1 1/2-12	C1600-86G	NC9-3404
C1800-65	NC9-3308	2 1/4	4	2 1/2	1 3/4	4 1/2	1 1/4	1 3/4	1 1/2-12	C1800-86	NC9-3405
*	NC9-3308	2 1/4	4	2 1/2	1 3/4	4 1/2	1 1/4	1 3/4	1 3/4-12	C1800-86G	NC9-3405
*	NC9-3309	3	5	2 1/2	2	5 1/2	1 1/4	2 5/32	1 7/8-12	*	NC9-3406
*	NC9-3309	3	5	2 1/2	2	5 1/2	1 1/4	2 5/32	2 1/4-12	*	NC9-3406

PIVOT PIN

SNAP RING TYPE

PIVOT (EYE) BRACKET

PART NO.	FORD NO.	E	F	M	AA	CB	CD	DD	FL	LR	MR	PART NO.	FORD NO.	CD	CL	CM
C1150-76	NC9-3201	2 1/2	3/8	1/2	2.30	3/4	1/2	13/32	1 1/8	5/8	9/16	C1150-66G	NC9-3310	1/2	1.91	2.16
C1200-76	NC9-3202	3 1/2	5/8	3/4	3.60	1 1/4	3/4	17/32	1 7/8	7/8	13/16	C1200-66G	NC9-3311	3/4	2.72	3.00
C1400-76	NC9-3203	4 1/2	3/4	1	4.60	1 1/2	1	21/32	2 1/4	1 3/16	1 3/32	C1400-66G	NC9-3312	1	3.03	3.31

* Consult Factory for Price and Delivery