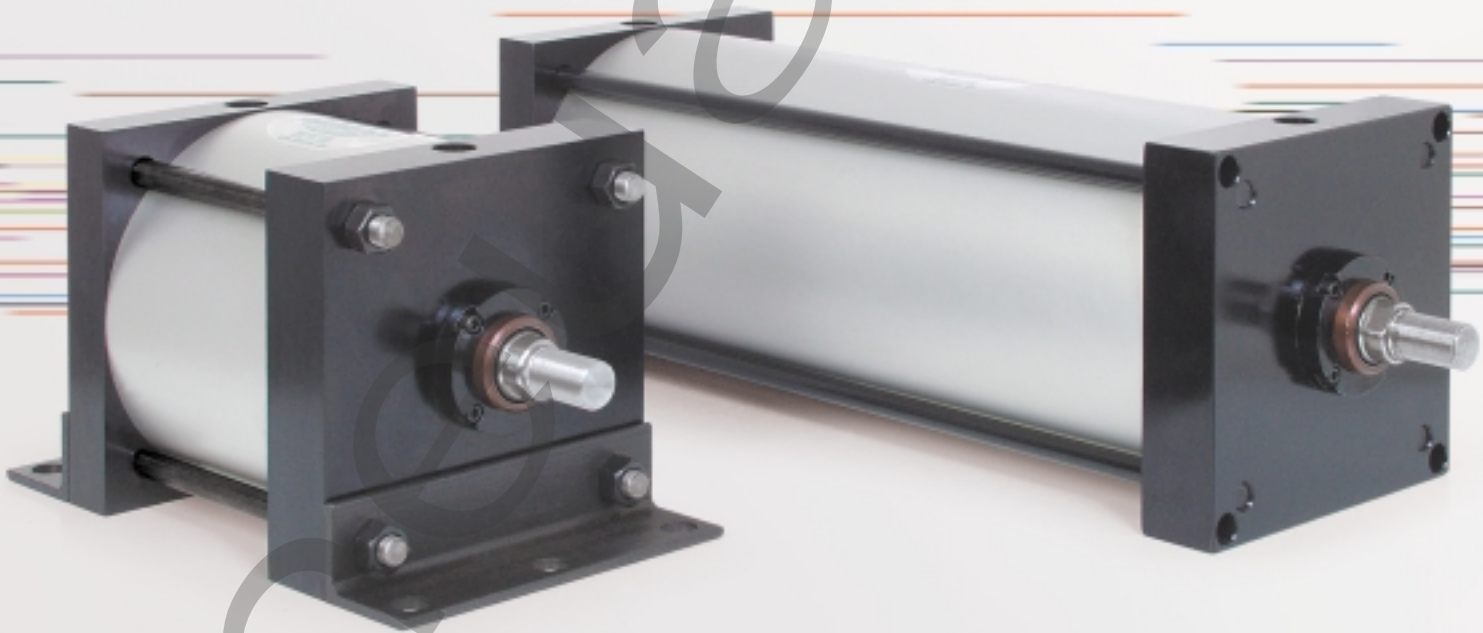


ORDER
ONLINE



Cylinders



Large Bore A Series
NFPA Interchangeable Cylinder Line

We're everywhere you need us to be!



Large Bore A Series

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Large Bore A Series NFPA Interchangeable



The **Large Bore A Series** is an NFPA Interchangeable cylinder line that is designed and built to excel in the most demanding applications. The Large Bore A Series encompasses many of the proven design features of the A Series.

Tube

The 8" bore **tube** is hard coat anodized aluminum. The hard coating is an electro-chemical process, which produces a very dense surface of aluminum oxide. This surface has extreme hardness (60 RC.), excellent wear and corrosion resistance, and a low coefficient of friction. The 10", 12", and 14" bores use a honed, chrome plated steel tube.

End Caps

The **end caps** are accurately machined from (6061-T6) solid aluminum bar stock. They are anodized for corrosion resistance. Additionally, a recess on the piston-mating surface (at both ends) enables the air to work on a larger piston area for effortless breakaway.

Rod Bushing

The 8" bore includes a graphite filled, cast iron **rod bushing**. The 10", 12", and 14" bores are equipped with a bronze bushing. Both bushing types are extra long in length. The added length adds superior alignment and support of the piston rod as well as provides maximum load bearing support. Both bushing materials offer an excellent bearing surface for a hard chrome plated piston rod.

Rod Seal

The carboxylated nitrile with Teflon® compound **rod seal** is self-lubricating and durable. The rounded lip design ensures proper sealing and long life.

Rod Wiper

The standard **rod wiper** construction is a highly durable polyurethane.

Piston Rod

High strength steel (100,000 psi minimum yield) **piston rod** has a ground, polished, and chrome plated surface. This surface provides maximum life for both the rod bushing and the seals.

Bushing Retainer

The **bushing retainer** allows cartridge removal (cylinder repair) without complete disassembly.

Tie Rods

The **tie rods** are 100,000 psi minimum yield steel for maximum holding power. The threads are roll formed for superior strength and engagement.

Piston Seal

The **piston seal** is a carboxylated nitrile with Teflon® compound making it self-lubricating. The "T" seal with back-up ring configuration is standard on the 8" bore design. A lip seal configuration is used on 10", 12", and 14" bores. Both seal types prevent rolling and are designed to seal at all pressures.

Wear Band

The **wear band** is a stable, lubricating strip located on the piston. We separated the load bearing points by locating the wear band at the rear of the piston. This maximizes column strength at full extension.

Piston

The solid aluminum alloy **piston** is strong and durable. On the 10", 12", and 14" bores we use a nylon locking insert nut to attach the piston to the piston rod. This enables piston rod disassembly if necessary.



Cushion Seal

The floating **cushion seal** design enables rapid stroke reversal by providing instantaneous full flow to the piston. Each cushion has a flush, retained adjustment needle.

Tube End Seal

The **tube end seals** are compression type and reusable.

Ports

Our enhanced **port** design enables the cylinder to work more efficiently. Through the use of precise machining depths and tool shape, we are able to smooth the flow path into and out of the cylinder.

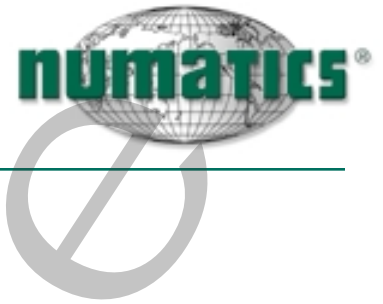
Teflon® is a registered trademark of DuPont™. For detailed information regarding the properties of Teflon®, please call 1-800-441-0573.

Standard Specifications:

- Meets NFPA specifications
- Bore sizes from 8" through 14"
- Piston rod diameters from 1-3/8" through 2-1/2"
- Nominal pressure rating is 250 psi air
- Standard temperature -10°F to 165°F (-23°C to 74°C)
- NPTF ports
- Flexible port and cushion location
- Multitude of mounting options



Large Bore A Series
NFPA Interchangeable

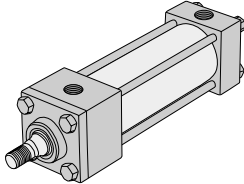


Standard Large Bore A Series Mounts

Centerline Mounts

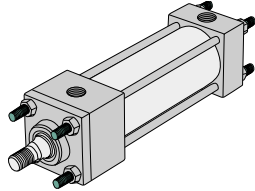
X0 Mount

Basic No Mount



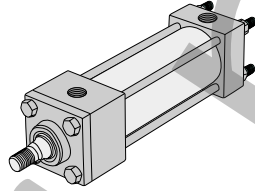
X1 Mount

Extended Tie Rods – Both Ends



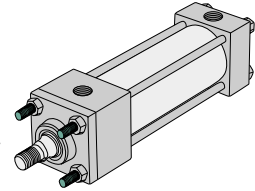
X2 Mount

Extended Tie Rods – Cap End



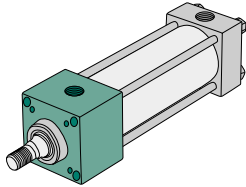
X3 Mount

Extended Tie Rods – Head End



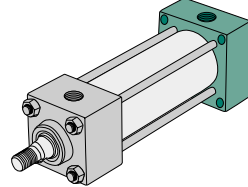
E3 Mount

Head Square Mount



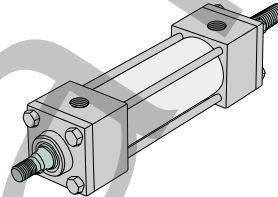
E4 Mount

Cap Square Mount



DA Mount

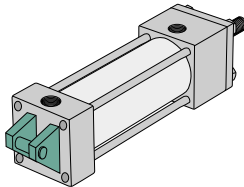
Double Rod End



Pivot Mounts

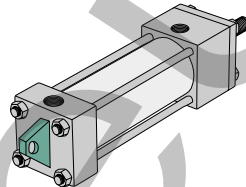
P1 Mount

Fixed Clevis



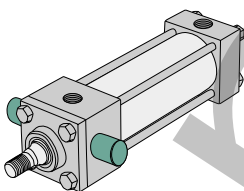
P3 Mount

Fixed Eye



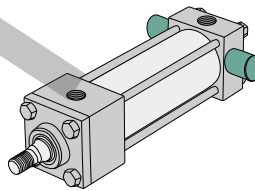
T1 Mount

Head Trunnion



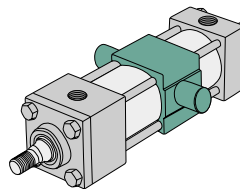
T2 Mount

Cap Trunnion



T4 Mount

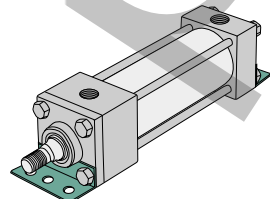
Intermediate Trunnion



Foot Mounts

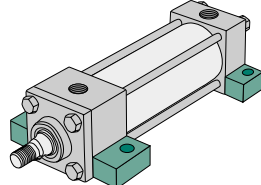
S1 Mount

Angle Mount



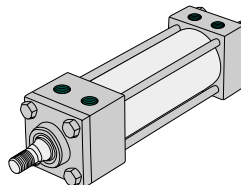
S2 Mount

Side Lugs



S4 Mount

Bottom Tapped





Large Bore A Series
NFWA Interchangeable



How to Order

E3 A W - 06 A 1 F - C AA 0

Mount

- E3 = Head Square Mount
- E4 = Cap Square Mount
- P1 = Fixed Clevis
- P3 = Fixed Eye
- S1 = Angle Mount
- S2 = Side Lug Mount
- S4 = Bottom Tap
- X0 = Basic No Mount
- X1 = Extended Tie Rods Both Ends
- X2 = Extended Tie Rod Cap
- X3 = Extended Tie Rod Head
- T1 = Head Trunnion
- T2 = Cap Trunnion
- T4 = Mid Trunnion*
- U3 = Spherical Mount
- * Specify "Xl" length.

Type

- A = Large Bore A Series
NFWA Interchangeable

Bore

- W = 8"
- X = 10"
- Y = 12"
- B = 14"

Full Inches of Stroke

- 00 = 0" Stroke
- 01 = 1" Stroke
- 02 = 2" Stroke
- 03 = 3" Stroke
- 99 = 99" Stroke
- NOTE: Consult factory for strokes greater than 99".

Fractional Inches of Stroke

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

Magnet

- 0 = No Magnet
- 2 = Magnet

Options

- AA = No Option
- DA = Double Rod
- MA = Metallic Rod Scraper
- 1A* = Rod Extension
- 2A* = Thread Extension
- 3A = Studded Rod End
- 4A* = Stop Tube
- CT = Composite Tube
- AT = Aluminum Tube (Standard on 8")
- SA = Stainless Steel Rod
- SS = Stainless Steel Rod and Tie Rods
- ST = Stainless Steel Tie Rods
- *Must specify length.

Cushions

Position	1	2	3	4
No Cushion	A	A	A	A
Head and Cap	B	C	D	E
Head Only	F	G	H	J
Cap Only	K	L	M	N

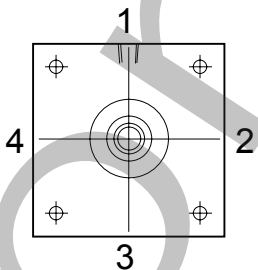
Ports

Position	3/4"	1"	1 1/4"
1	F	G	1
2	L	M	2
3	R	S	3
4	X	Y	4

Rod End Codes

- 1 = #1 Standard Rod Diameter
- 2 = #2 Standard Rod Diameter
- 3 = #3 Standard Rod Diameter
- 4* = Special Standard Rod Diameter
- 5* = Special Oversize Rod Diameter
- 6 = #1 Oversize Rod Diameter
- 7 = #2 Oversize Rod Diameter
- 8 = #3 Oversize Rod Diameter
- A = #1 Second Oversize Rod Diameter
- B = #2 Second Oversize Rod Diameter
- C = #3 Second Oversize Rod Diameter
- * Must specify threads.

Cylinder Orientation



Ports Normally in Position 1

Ports are normally located in position 1.

Cushions are normally located in position 2.

NOTE: Ports -

8" Bore-standard port size is 3/4" NPTF.

10" & 12" Bore-standard port size is 1" NPTF, smaller port sizes available.

14" Bore-standard port size is 1 1/4" NPTF, smaller port sizes available.

Rod End Styles, Diameters and Threads

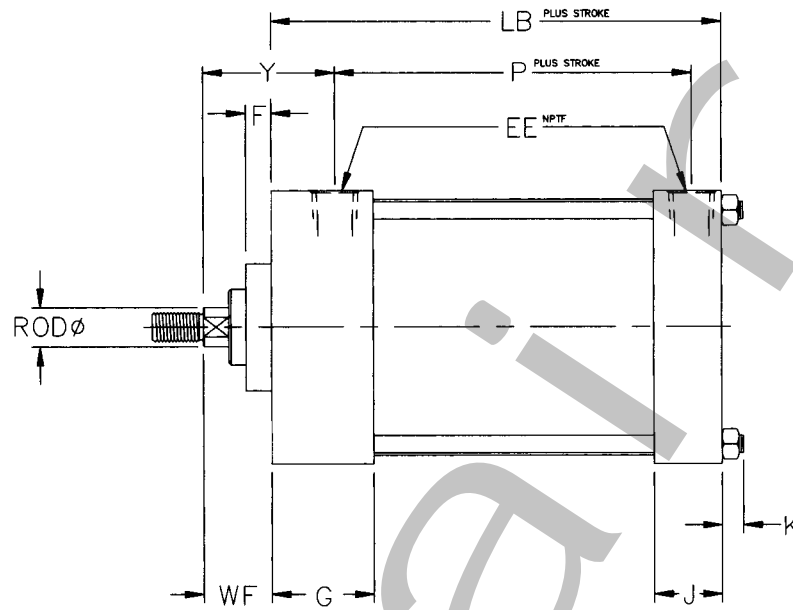
DIAMETER	STYLE #1 STANDARD MALE	STYLE #2 OPTIONAL MALE	STYLE #3 OPTIONAL FEMALE
1.38	1-14	1 1/4-12	1-14
1.75	1 1/4-12	1 1/2-12	1 1/4-12
2.00	1 1/2-12	1 3/4-12	1 1/2-12
2.50	1 7/8-12	2 1/4-12	1 7/8-12



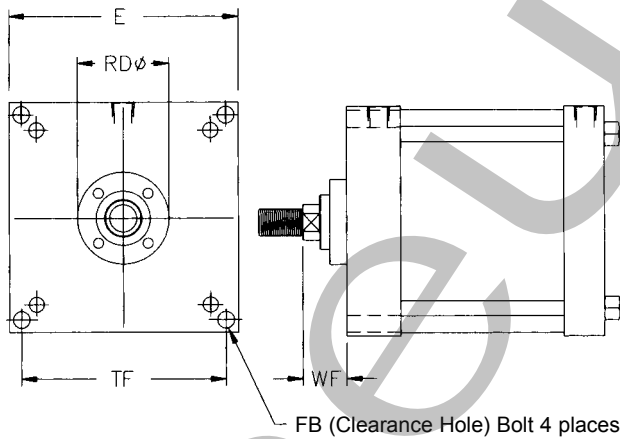
Large Bore A Series
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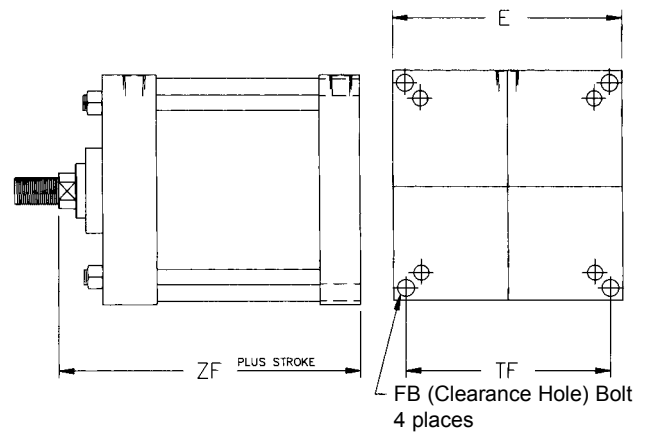
Basic Mount Cylinder



Mount Code X0 NFPA MX0



Mount Code E3 NFPA ME3



Mount Code E4 NFPA ME4

Dimensions

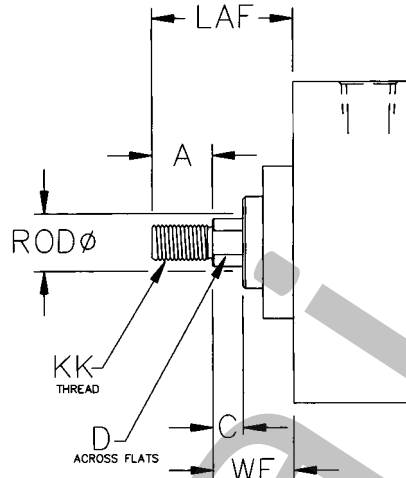
BORE	ROD	E	EE	F	FB	G	J	K	LB	P	RD	TF	WF	Y	ZF
8"	1.375	8.500	0.750	0.630	0.630	2.000	1.500	0.630	5.125	3.250	3.130	7.580	1.630	2.810	6.750
	1.750	8.500	0.750	0.750	0.630	2.000	1.500	0.630	5.125	3.250	3.790	7.580	1.880	3.060	7.000
10"	1.750	10.630	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.130	5.500	9.400	1.880	3.130	8.250
	2.000	10.630	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.130	5.500	9.400	2.000	3.250	8.380
12"	2.500	10.630	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.130	5.500	9.400	2.250	3.500	8.630
	2.000	12.750	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.630	5.500	11.100	2.000	3.250	8.880
14"	2.500	12.750	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.630	5.500	11.100	2.250	3.500	9.130
	2.500	14.750	1.250	0.750	0.880	2.750	2.250	0.880	8.125	5.500	5.500	12.870	2.250	3.810	10.380



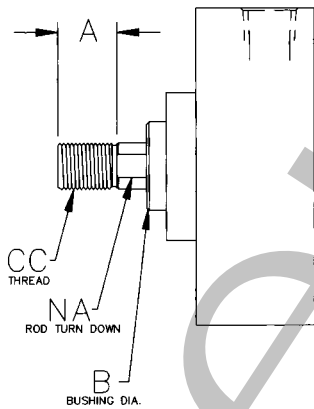
Large Bore A Series
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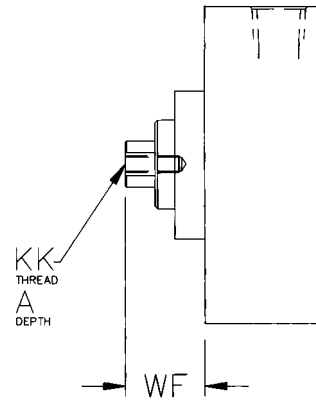
Standard and Optional Rod Ends



Style #1 (Standard Male)



Style #2 (Optional Male)



Style #3 (Optional Female)

Dimensions

BORE	ROD*	KK(1)	CC(2)	KK(3)	A	B	C	D	NA	LAF	WF
8"	1.375	1-14	1 1/4-12	1-14	1.625	2.000	0.630	1.130	1.310	3.250	1.630
	1.750	1 1/4-12	1 1/2-12	1 1/4-12	2.000	2.380	0.750	1.500	1.690	3.880	1.880
10"	1.750	1 1/4-12	1 1/2-12	1 1/4-12	2.000	3.120	0.750	1.500	1.690	3.880	1.880
	2.000	1 1/2-12	1 3/4-12	1 1/2-12	2.250	3.120	0.880	1.750	1.940	4.250	2.000
12"	2.500	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.120	1.000	2.060	2.440	5.250	2.250
	2.000	1 1/2-12	1 3/4-12	1 1/2-12	2.250	3.120	0.880	1.750	1.940	4.250	2.000
14"	2.500	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.120	1.000	2.060	2.440	5.250	2.250
	2.500	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.120	1.000	2.060	2.440	5.250	2.250

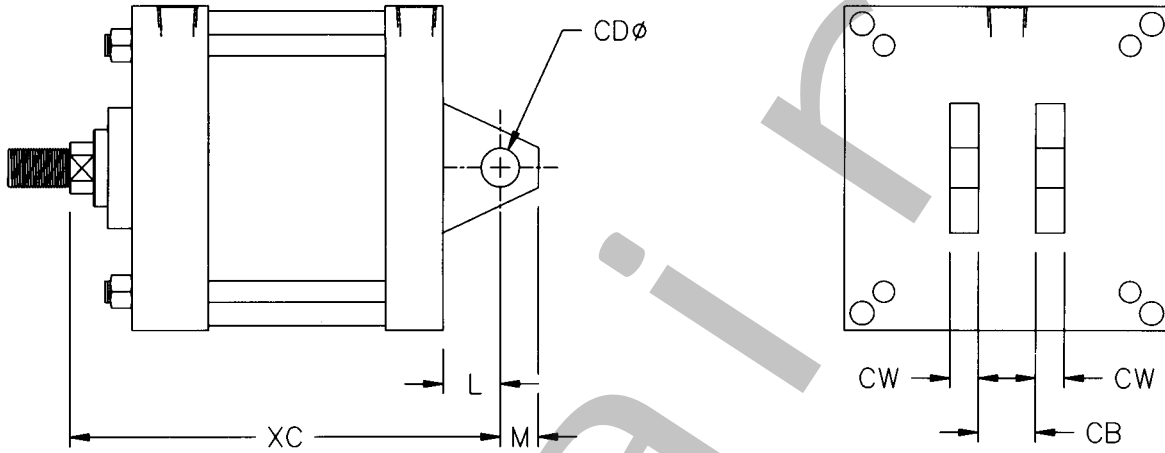
*Other rod sizes available. Consult factory for details.



Large Bore A Series
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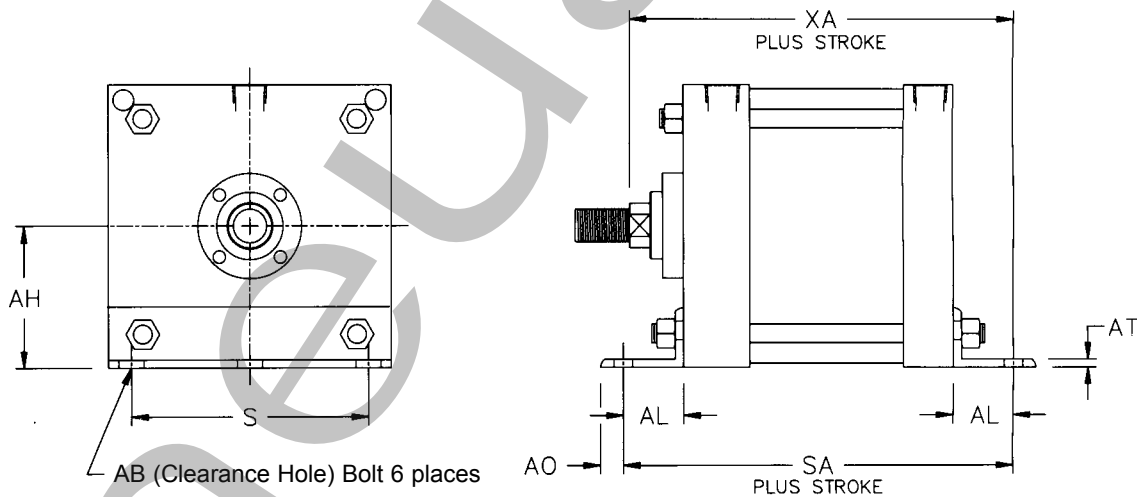


Clevis and Angle Mount



Mount Code P1

NFPA MP1



Mount Code S1

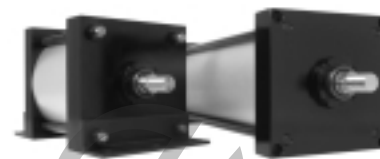
NFPA MS1

Dimensions

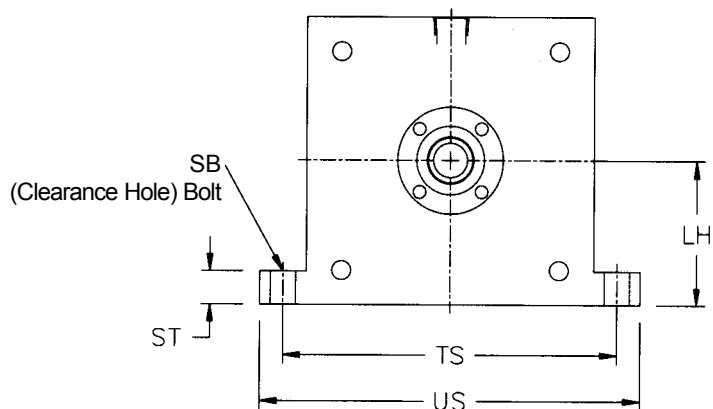
BORE	ROD	AB	AH	AL	AO	AT	CB	CD	CW	L	M	S	SA	XA	XC
8"	1.375	0.750	4.250	1.810	0.690	0.250	1.500	1.000	0.750	1.500	1.000	7.130	8.750	8.560	8.250
	1.750	0.750	4.250	1.810	0.690	0.250	1.500	1.000	0.750	1.500	1.000	7.130	8.750	8.810	8.500
10"	1.750	1.000	5.310	2.130	0.880	0.250	2.000	1.375	1.000	2.130	1.380	8.880	10.630	10.380	10.380
	2.000	1.000	5.310	2.130	0.880	0.250	2.000	1.375	1.000	2.130	1.380	8.880	10.630	10.500	10.500
12"	2.500	1.000	5.310	2.130	0.880	0.250	2.000	1.375	1.000	2.130	1.380	8.880	10.630	10.750	10.750
	2.000	1.000	6.380	2.130	0.880	0.380	2.500	1.750	1.250	2.250	1.750	11.000	11.130	11.000	11.130
14"	2.500	1.000	6.380	2.130	0.880	0.380	2.500	1.750	1.250	2.250	1.750	11.000	11.130	11.250	11.380
	2.500	1.250	7.380	2.440	1.060	0.380	2.500	2.000	1.250	2.500	2.000	12.630	13.000	12.810	12.880



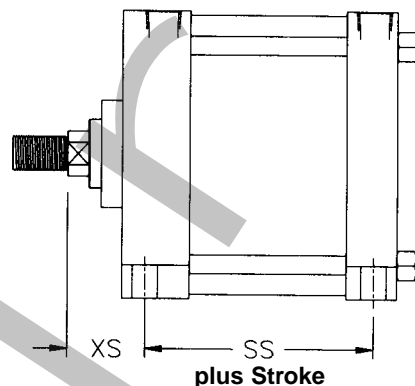
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Side Lug and Bottom Tap Mount

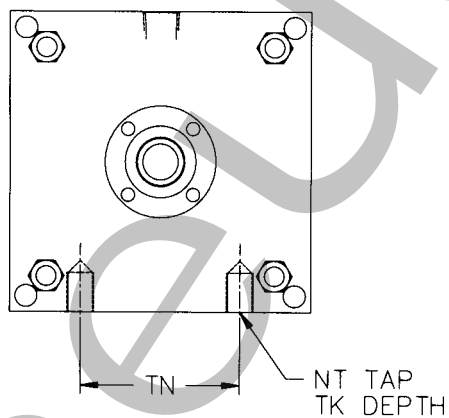


Mount Code S2

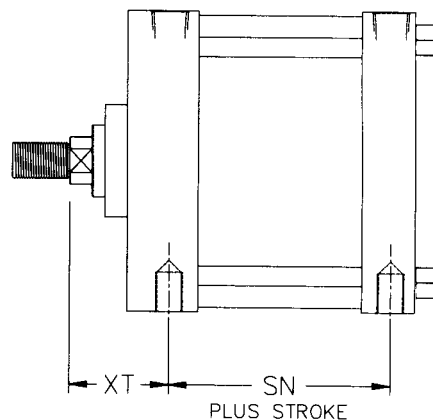


NFPA MS2

NOTE: Use this "drawing" below as well. Note on the drawing below, the drawing is the only change the letter call outs will remain the same.



Mount Code S4



NFPA MS4

Dimensions

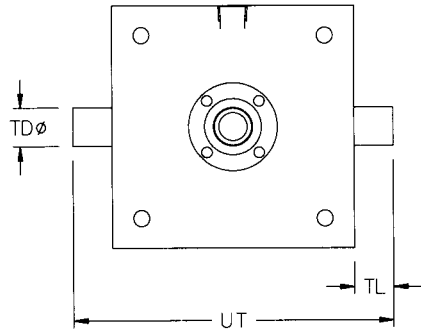
BORE	ROD	LH	NT	SB	SN	SS	ST	TK	TN	TS	US	XS	XT
8"	1.375	4.250	3/4-10	0.750	3.250	3.750	1.000	1.130	4.500	9.880	11.250	2.310	2.810
	1.750	4.250	3/4-10	0.750	3.250	3.750	1.000	1.130	4.500	9.880	11.250	2.560	3.060
10"	1.750	5.313	1/8	1.000	4.130	4.630	1.250	2.000	5.500	12.380	14.130	2.750	3.130
	2.000	5.313	1/8	1.000	4.130	4.630	1.250	2.000	5.500	12.380	14.130	2.880	3.250
	2.500	5.313	1/8	1.000	4.130	4.630	1.250	2.000	5.500	12.380	14.130	3.130	3.500
12"	2.000	6.375	1/8	1.000	4.630	5.130	1.250	2.000	7.250	14.500	16.250	2.880	3.250
	2.500	6.375	1/8	1.000	4.630	5.130	1.250	2.000	7.250	14.500	16.250	3.130	3.500
14"	2.500	7.375	1 1/4-7	1.250	5.500	5.880	1.500	2.500	8.380	17.000	19.250	3.380	3.810



Large Bore A Series
NFPA Interchangeable

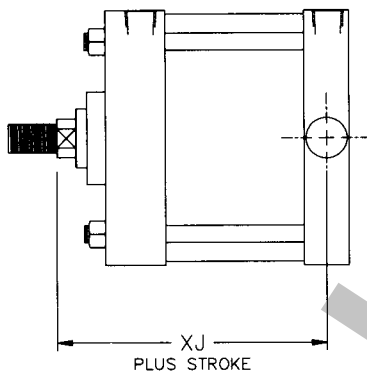
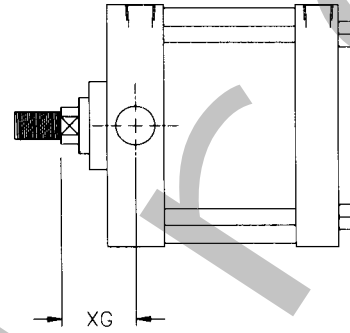


Trunnion Mounts



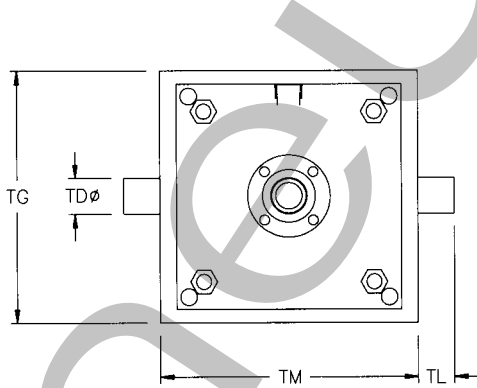
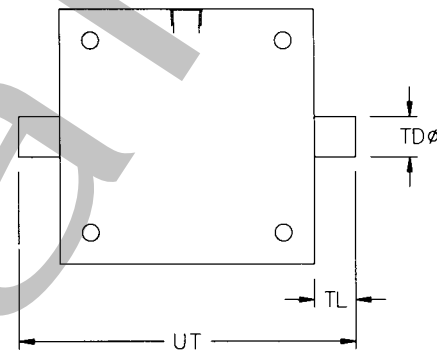
Mount Code T1

NFPA MT1



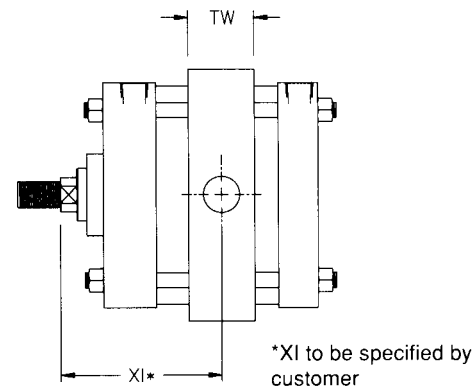
Mount Code T2

NFPA MT2



Mount Code T4

NFPA MT4



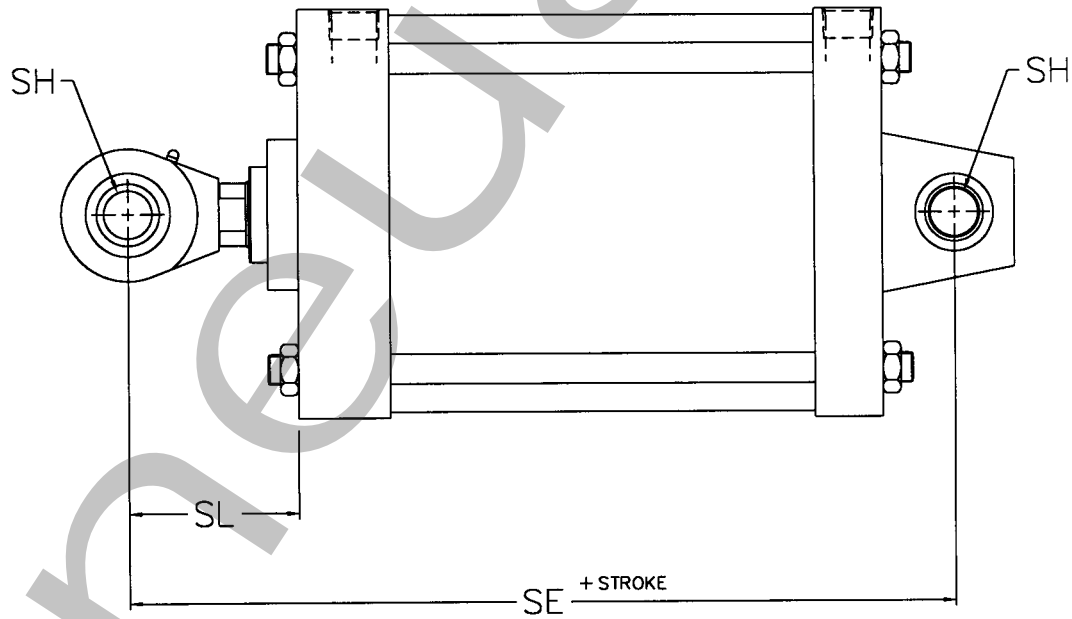
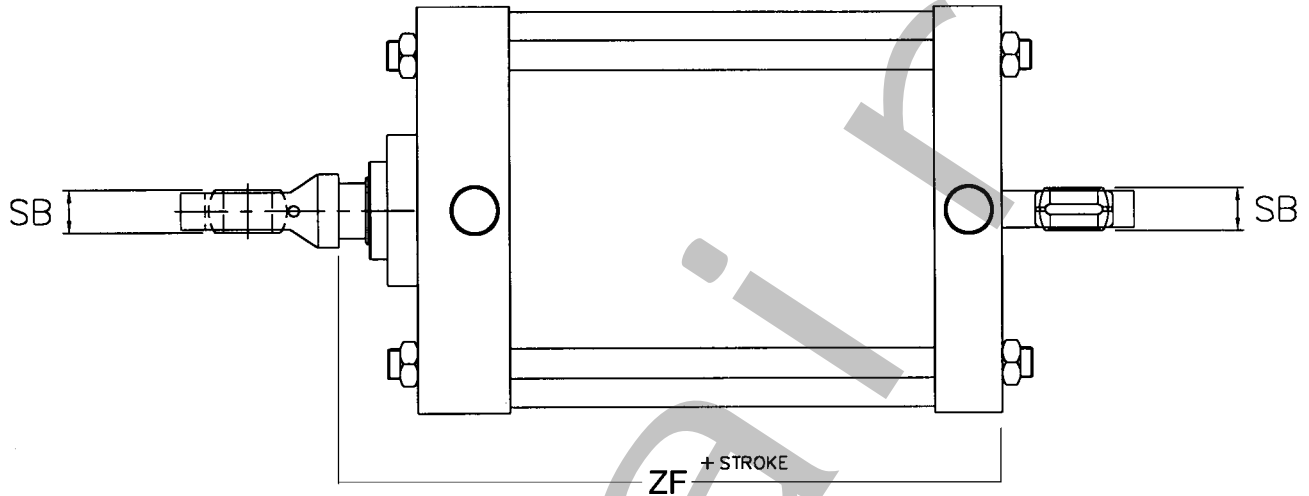
NOTE: All Large Bore A Series trunnion mounts are on pice machined steel.

Dimensions

BORE	ROD	TD	TG	TL	TM	TW	UT	XG	XI (MIN.)	XJ
8"	1.375	1.375	9.500	1.380	9.750	2.500	11.250	2.630	4.880	6.000
	1.750	1.375	9.500	1.380	9.750	2.500	11.250	2.880	5.130	6.250
10"	1.750	1.750	11.750	1.750	12.000	3.000	14.130	3.000	5.630	7.250
	2.000	1.750	11.750	1.750	12.000	3.000	14.130	3.130	5.750	7.380
12"	2.500	1.750	11.750	1.750	12.000	3.000	14.130	3.380	6.000	7.630
	2.000	1.750	13.750	1.750	14.000	3.000	16.250	3.130	5.750	7.880
14"	2.500	1.750	13.750	1.750	14.000	3.000	16.250	3.380	6.000	8.130
	2.500	2.000	16.000	2.000	16.250	3.500	18.750	3.630	6.750	9.250



Spherical Mount



Dimensions

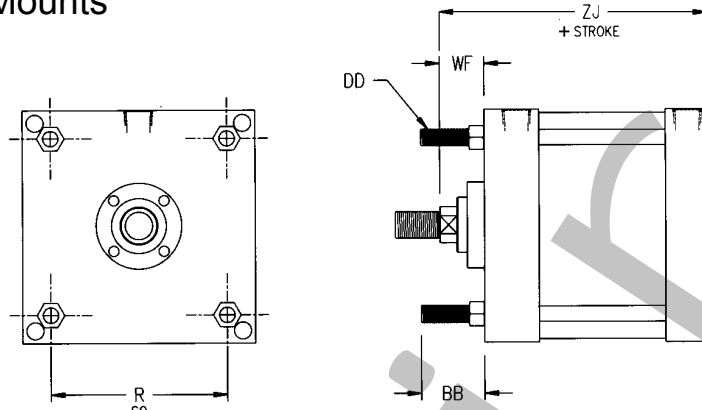
BORE	ROD	SH	SB	SL	SE
8"	1.375	1.000	0.875	3.500	10.130
	1.750	1.000	0.875	3.750	10.380
10"	1.750	1.375	1.188	4.000	12.500
	2.000	1.375	1.188	4.130	12.630
12"	2.500	1.375	1.188	4.380	12.880
	2.000	1.750	1.531	4.500	13.630
14"	2.500	1.750	1.531	4.750	13.880
	2.500	2.000	1.750	5.000	15.630



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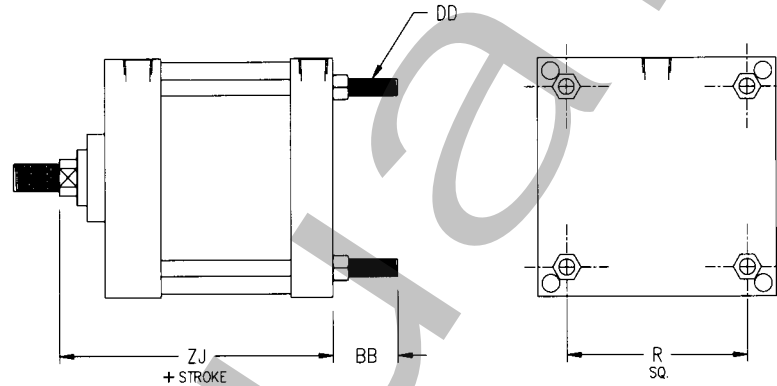


Extended Tie Rod Mounts



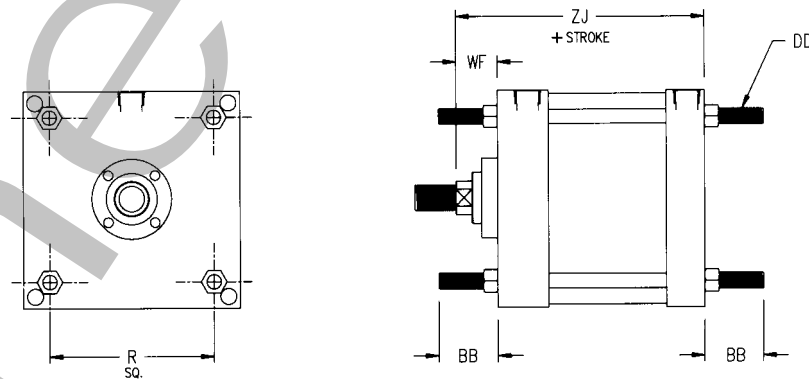
Mount Code X3

NFPA MX3



Mount Code X2

NFPA MX2



Mount Code X1

NFPA MX1

Dimensions

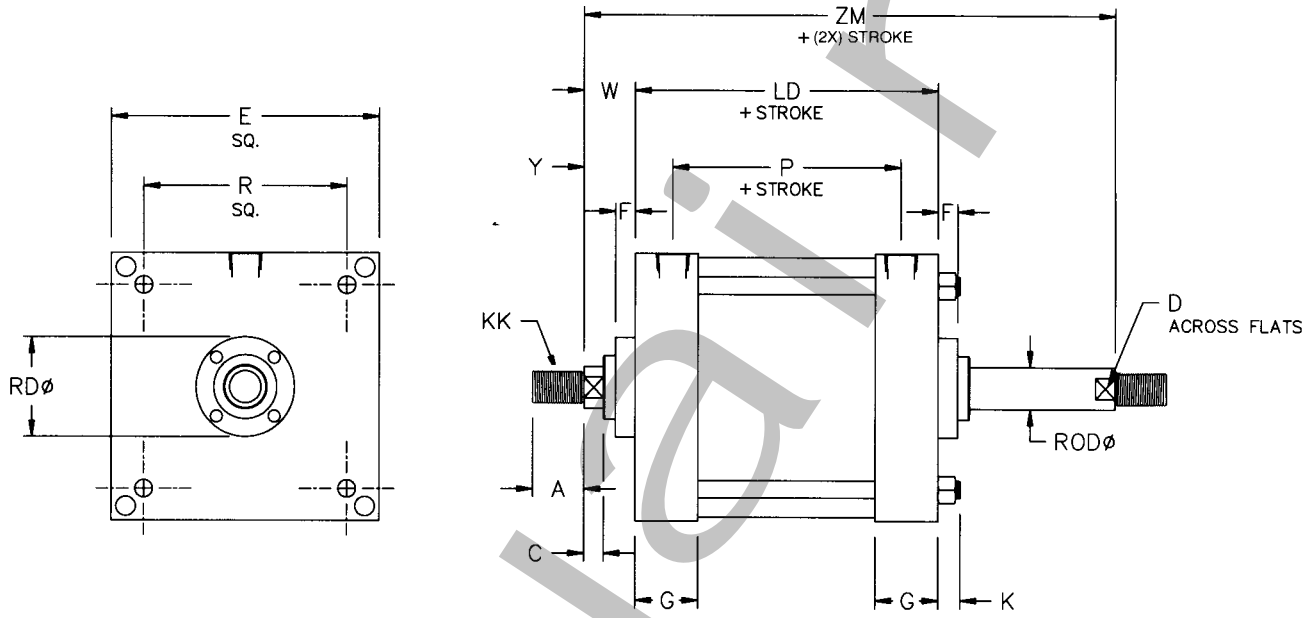
BORE	ROD	BB	DD	R	WF	ZJ
8"	1.375	2.310	5/8-18	6.440	1.630	6.750
	1.750	2.310	5/8-18	6.440	1.880	7.000
10"	1.750	2.690	3/4-16	8.060	1.880	8.250
	2.000	2.690	3/4-16	8.060	2.000	8.380
12"	2.500	2.690	3/4-16	8.060	2.250	8.630
	2.000	2.690	3/4-16	9.410	2.000	8.880
14"	2.500	2.690	3/4-16	9.410	2.250	9.130
	2.500	3.190	7/8-14	10.900	2.250	10.380



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Double Rod End



Order as "DA" Option NFPA MDX0

Dimensions

BORE	ROD	A	C	D	E	F	G	K	KK	LD	P	R	RD	W	Y	ZM
8"	1.375	1.630	0.630	1.130	8.500	0.63	2.000	0.630	1-14	5.630	3.250	6.440	3.130	1.630	2.810	8.880
	1.750	2.000	0.750	1.500	8.500	0.750	2.000	0.630	1 1/4-12	5.630	3.250	6.440	3.790	1.880	3.060	9.380
10"	1.750	2.000	0.750	1.500	10.630	0.750	2.250	0.750	1 1/4-12	6.630	4.130	8.060	5.500	1.880	3.130	10.380
	2.000	2.250	0.880	1.750	10.630	0.750	2.250	0.750	1 1/2-12	6.630	4.130	8.060	5.500	2.000	3.250	10.630
12"	2.500	3.000	1.000	2.060	10.630	0.750	2.250	0.750	1 7/8-12	6.630	4.130	8.060	5.500	2.250	3.500	11.130
	2.000	2.250	0.880	1.750	12.750	0.750	2.250	0.750	1 1/2-12	7.130	4.630	9.410	5.500	2.000	3.250	11.130
14"	2.500	3.000	1.000	2.060	12.750	0.750	2.250	0.750	1 7/8-12	7.130	4.630	9.410	5.500	2.250	3.500	11.630
	2.500	3.000	1.000	2.060	14.750	0.750	2.750	0.880	1 7/8-12	8.630	5.500	10.900	5.500	2.250	3.810	13.130



Large Bore A Series NFPA Interchangeable



Stop Tube Data

- Step 1 - Determine which mount below corresponds to your application.
- Step 2 - Determine the value of "L" from Table 1 below. Then find "L" dimension in Table 2 and read across to determine the required stop tube length.
- Step 3 - Add the stop tube length to the original "L" value from Step 2. This is the corrected "L". If the corrected "L" still falls within the same range as the original "L" then this is the required stop tube length. Otherwise, use this number in Table 2 to determine the second stop tube length.
- Step 4 - Add the second stop length to the original "L". If this value falls within the same range then the second stop tube length is the required length. Otherwise, repeat Step 4.

NOTE: Specify the effective stroke and the stop tube length when ordering.

Example:

- Step 1: 10" bore cylinder, 1 3/4 diameter rod, P1 mount, 82 inch stroke
From catalog, XC = 10.375
From table 1, "L" = XC = (2 x Stroke)
- Step 2: From Table 1, "L" = 10.375 = 164 + 174.375 inches
From Table 2, when "L" = 174.375, stop tube length = 14 inches
- Step 3: Corrected "L" = 14 + 174.375 = 188.375 inches
From Table 2, when "L" = 188.375, stop tube length = 15 inches
- Step 4: New corrected "L" = 15 + 174.375 = 189.375 inches
From Table 2, when "L" = 189.375, stop tube length = 15 inches

The stop tube length from Step 3 and 4 are the same, therefore, 15 inches is the required stop tube length.

Table 1

MOUNT CODE	"L" (INCHES)
E3*	4 x (W + Stroke)
E4*	4 x (WF + Stroke)
P1 & U3	XC + (2 x Stroke)
S1*	4 x (WF + Stroke)
S2*	4 x (WF + Stroke)
S4*	4 x (WF + Stroke)
X3*	4 x (WF + Stroke)
X2*	4 x (WF + Stroke)
X1*	4 x (WF + Stroke)
T1	XG + Stroke
T2	XJ + (2 x Stroke)
T3	XI + Stroke

* "L" given is for an unsupported rod end. If rod end is supported with a guide less than 1" in width, divide "L" by 4. If rod end is supported with a guide greater than 1" in width, divide "L" by 8.

For P1 mount, "L" assumes that the rod extends and the cylinder pivots with the rod. Multiply "L" by four so the rod extends and the cylinder does not pivot with the rod.

Table 2

"L" (INCHES)	STOP TUBE LENGTH (INCHES)
0-40	0
41-50	1
51-60	2
61-70	3
71-80	4
81-90	5
91-100	6
101-110	7
111-120	8
121-130	9
131-140	10
141-150	11
151-160	12
161-170	13
171-180	14
181-190	15
191-200	16
201-210	17
211-220	18
221-230	19
231-240	20
241-250	21
251-260	22
261-270	23
271-280	24
281-290	25
291-300	26
301-310	27

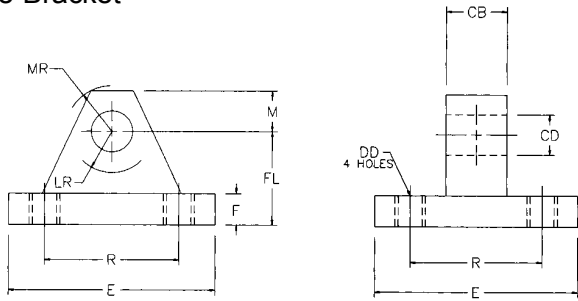


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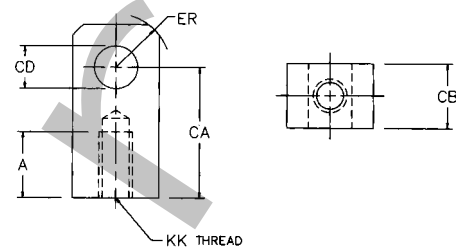


Accessories

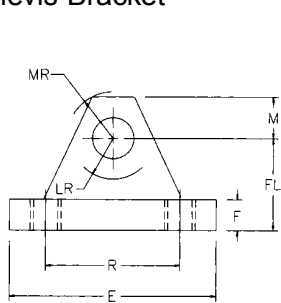
Eye Bracket *



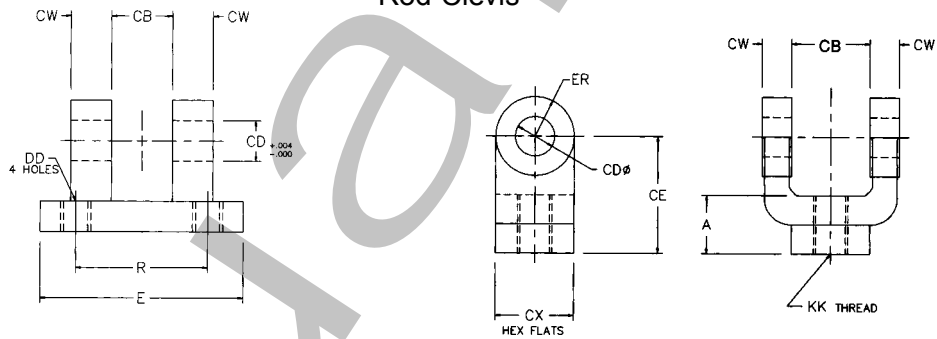
Rod Eye *



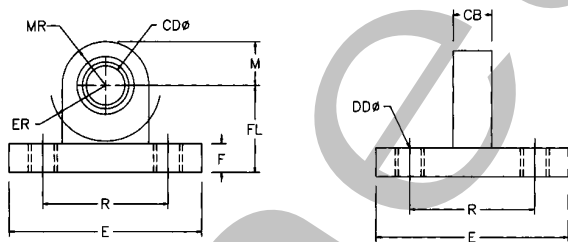
Clevis Bracket *



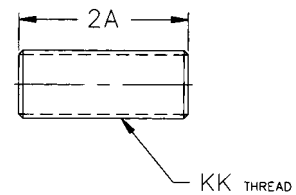
Rod Clevis *



Spherical Eye Assembly *



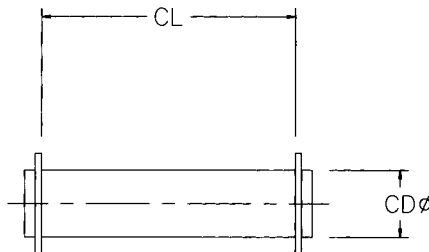
Rod Stud



NOTE: Assembly includes bracket and two spacers.

* Order pivot pin separately

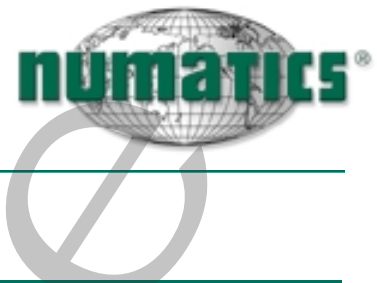
Pivot Pin



Included with mount codes P1 and U3



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Accessories

Clevis Bracket

PART NO.	CB	CD	CW	DD	E	F	FL	LR	M	MR	R
A500-003	1.500	1.000	0.750	5/8-18	4.500	0.750	2.250	1.250	1.000	1.125	3.250
N29-1006	2.000	1.375	1.000	5/8-18	5.000	0.875	3.000	1.875	1.375	1.750	3.810
N29-1005	2.500	1.750	1.250	7/8-14	6.500	0.875	3.125	2.000	1.750	1.875	4.950
N29-1004	2.500	2.000	1.250	1-14	7.500	1.000	3.500	2.125	2.000	2.125	5.750
N29-1002	3.000	2.500	1.500	1 1/8-12	8.500	1.000	4.000	2.625	2.500	2.500	6.590

Eye Bracket

PART NO.	CB	CD	DD	E	F	FL	LR	M	MR	R
A500-103	1.500	1.000	0.656	4.500	0.750	2.250	1.500	1.000	1.250	3.250
A500-104	2.000	1.375	0.656	5.000	0.875	3.000	2.125	1.375	1.625	3.810
A500-105	2.500	1.750	0.906	6.500	0.875	3.125	2.250	1.750	2.125	4.950
A500-106	2.500	2.000	1.062	7.500	1.000	3.500	2.500	2.000	2.438	5.750
N30-1004	3.000	2.500	1.188	8.500	1.000	4.000	3.000	2.500	3.000	06.59

Rod Clevis

PART NO.	A	CB	CD	CE	CW	CX	ER	KK
A500-305	1.625	1.500	1.000	3.125	0.750	1.500	1.000	1-14
A500-306	2.000	2.000	1.375	4.125	1.000	2.000	1.375	1 1/4-12
A500-307	2.250	2.500	1.750	4.500	1.250	2.375	1.750	1 1/2-12
N27-1001	2.250	2.500	1.750	4.500	1.250	2.375	1.750	1 3/4-12
A500-308	3.000	2.500	2.000	5.500	1.250	2.938	2.000	1 7/8-12
A500-309	3.500	3.000	2.500	6.500	1.500	3.500	2.500	2 1/4-12

Rod Eye

PART NO.	A	CA	CB	CD	ER	KK
A500-204	1.625	2.813	1.500	1.000	1.188	1-14
A500-205	2.000	3.438	2.000	1.375	1.563	1 1/4-12
A500-206	2.250	4.000	2.500	1.750	2.000	1 1/2-12
N26-1004	2.250	4.000	2.500	1.750	2.000	1 3/4-12
N26-1003	3.000	5.000	2.500	2.000	2.500	1 7/8-12
N26-1002	3.500	5.813	3.000	2.500	2.813	2 1/4-12

Spherical Eye Bracket

PART NO.	CB	CD	DD	E	F	FL	LR	M	MR	R
N30-1005	1.000	1.000	0.656	4.500	0.750	2.250	1.500	1.375	1.375	3.250
N30-1006	1.375	1.375	0.656	5.000	0.875	3.000	2.125	2.000	2.000	3.810
N30-1003	1.500	1.750	0.906	6.500	0.875	3.125	2.250	2.125	2.125	4.940
N30-1007	1.750	2.000	1.032	7.500	1.000	3.500	2.500	2.375	2.375	5.750

Rod Stud

PART NO.	2A	KK
A500-T01	3.250	1-14
N82-1009	4.000	1 1/4-12
N82-1010	1.500	1 1/2-12
N82-1011	6.000	1 7/8-12

Pivot Pin

PART NO.	CD	CL
A500-403	1.000	3.125
A500-404	1.375	4.125
A500-405	1.750	5.125
A500-406	2.000	6.125
N131-1003	2.500	6.188



Large Bore A Series
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Repair and Seal Kits

BORE	ROD DIAMETER	REPAIR KIT*		SEAL KIT**	
		NON-CUSHIONED	CUSHIONED	NON-CUSHIONED	CUSHIONED
8"	1-3/8	K90-W01	K90-W11	K91-W01	K91-W11
	1-3/4	K90-W05	K90-W15	K91-W05	K91-W15
10"	1-3/4	K90-X01	K90-X11	K91-X01	K91-X11
	2	K90-X05	K90-X15	K91-X05	K91-X15
	2-1/2	K90-X09	K90-X19	K91-X09	K91-X19
12"	2	K90-Y01	K90-Y15	K91-Y01	K91-Y11
	2-1/2	K90-Y05	K90-Y19	K91-Y05	K91-Y19
14	2-1/2	K90-B01	K90-B11	K91-B01	K91-B11

*Repair Kit: Includes bushing and all internal cylinder seals.

**Seal Kit: includes internal cylinder seals.

Pneumatic