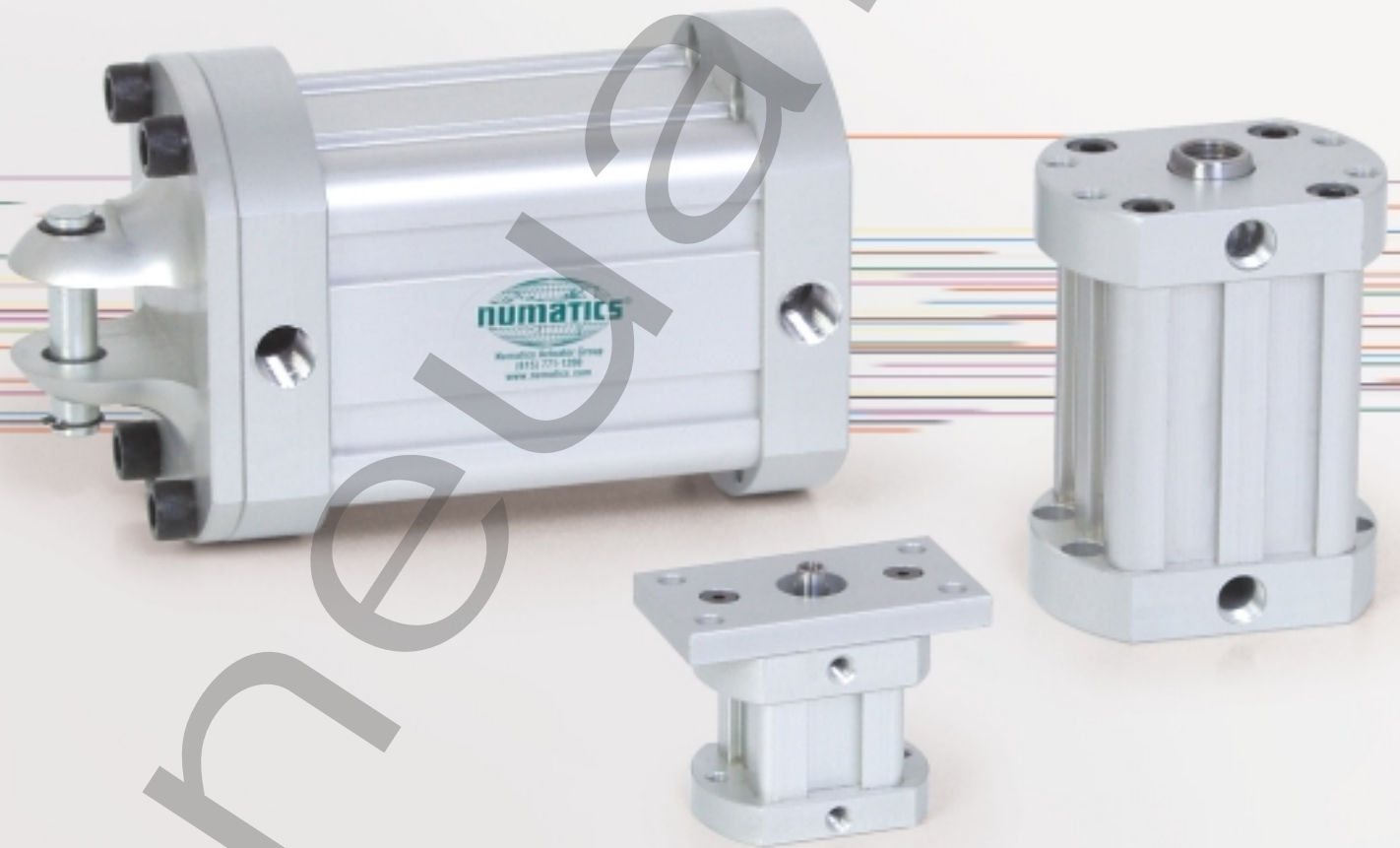


ORDER
ONLINE



Cylinders



C Series
Compact Cylinder Line

We're everywhere you need us to be!

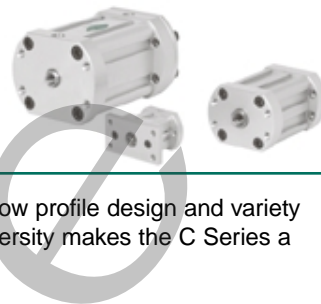


C Series

Features and Benefits	3-20
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C Series Rugged Compact



The **C Series** is a robust compact cylinder line that is designed to fit tight space requirements. The low profile design and variety of mounting options makes this cylinder line extremely popular. Furthermore, its unique style and diversity makes the C Series a one of a kind compact cylinder line.

Tube

The **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. Additionally, profile tubing is standard on 3/4" through 2-1/2" bore sizes (3" and 4" bores are the tie rod configuration). The profile tubing has a custom dovetail groove on all sides for trouble-free switch and accessory mounting.

End Caps

The **end caps** are accurately machined from 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 C Series includes a sintered bronze **rod bushing** for maximum load bearing support.

Rod Seal

The quad ring **rod seal** ensures proper sealing even at low pressures.

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.

Piston Seal

The quad ring **piston seal** ensures proper sealing even at low pressures.

Piston

The solid aluminum alloy **piston** is strong and durable.

Tie Rods

The **tie rods** (3" and 4" only) are 100,000 psi minimum yield steel for maximum holding power. The threads are roll formed for superior strength and engagement.

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.

Mounting Holes

The dual purpose **mounting holes** allow use of through bolts or threaded-in attachments.

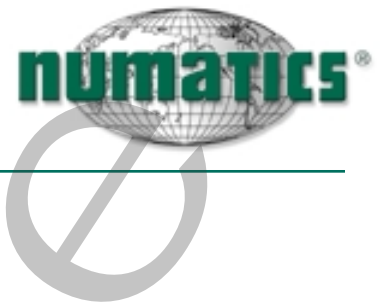


Standard Specifications:

- Variety of mounts
- Bore sizes from 3/4" through 4"
- Piston rod diameters from 1/4" to 1"
- Nominal pressure rating is 250 psi air
- Standard temperature -10°F to 165°F (-23°C to 74°C)
- All aluminum construction
- NPTF ports
- Flexible port locating



C Series
Rugged Compact



How to Order

P1 C L - 04 A 1 B - A AA 0 04 A

Leave blank unless using MU or BK option.

Mount

- F1 = Front Flange
- F2 = Rear Flange
- P1 = Fixed Clevis
- P2 = Detachable Clevis
- P3 = Fixed Eye
- P4 = Detachable Eye
- R3 = Round Head and Cap
- S2 = Foot Mount
- S4 = Bottom Tapped
- X0* = Basic-No Mount

*S4 mount is standard on 3/4" and 1 1/8" bore.

Type

- C = Compact Cylinder Line

Bore

- C = 3/4"
- G = 1-1/8"
- K = 1-1/2"
- L = 2"
- M = 2-1/2"
- N = 3"
- R = 4"

Full Inches Of Stroke

- 00 = 0" Stroke
- 01 = 1" Stroke
- 02 = 2" Stroke
- 03 = 3" Stroke
- 20 = 20" Stroke

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"

Rod End Code

- 1* = #1 Standard Rod Diameter
- 2 = #2 Standard Rod Diameter
- 3 = #3 Standard Rod Diameter
- 4 = Special Standard Rod Diameter (must specify threads)
- 5 = Special Oversize Rod Diameter (must specify threads)
- 6 = #1 Oversized Rod Diameter
- 7 = #2 Oversized Rod Diameter
- 8 = #3 Oversized Rod Diameter

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"

Full Inches of Stroke

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

Magnet Piston

- 0 = No Magnet
 - 2* = Reed Magnet & Wear Band
 - 4* = Electronic Switch Magnet (Order switches separately)
- *Adds to OAL of cylinder.

Options

- AA = No Options
- BA = Bumpers, Both Ends
- KA = Stroke Adjuster
- DA = Double Rod End
- NA = Nickel Plated
- SA = Stainless Steel Rod
- SE** = Spring Extend
- SR** = Spring Retract
- SS = Stainless Steel Rod and Tie Rods (3 and 4 Bores)
- ST = Stainless Steel Tie Rods (3 and 4 Bores)
- VA = Viton Seals
- 1A = Rod Extension
- 2A = Thread Extension
- WA = Wear Band
- MU = Multiposition Cylinder
- BK = Back to Back Cylinder
- TD = Tandem Cylinder
- ** 2" Stroke Maximum

Cushions

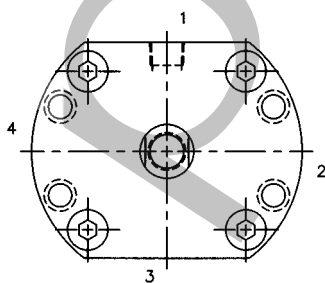
- A = No Cushions

Ports

Position	#10-32	1/8"	1/4"
1	A	B	C
2	G	H	I
3	M	N	O
4	S	T	U

NOTE: 1/8" and 1/4" ports can affect AOL of cylinder. See page 5 for details.

Cylinder Orientation

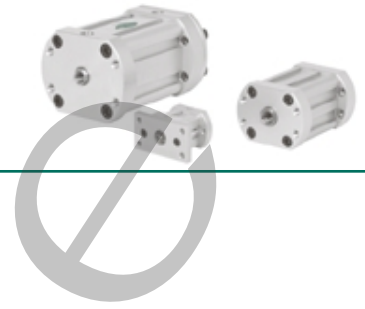


Ports Normally in Position 1

Rod End Styles, Diameters and Threads

BORE	DIAMETER	STYLE #1 STANDARD MALE	STYLE #2 OPTIONAL FEMALE	STYLE #3 STANDARD FEMALE
3/4	.250	#8-32	N/A	#8-32
1 1/8	.500	1/4-28	5/16-24	1/4-28
1 1/2	.625 .750	7/16-20 1/2-20	3/8-24 N/A	7/16-20 1/2-20
2	.625 .750	7/16-20 1/2-20	N/A N/A	7/16-20 1/2-20
2 1/2	.625 .750	7/16-20 1/2-20	N/A N/A	7/16-20 1/2-20
3	1.000	3/4-16	5/8-18	3/4-16
4	1.000	3/4-16	N/A	3/4-16

*NOTE: Style #1 Male rods are studded female rods



How to Order continued

Reed Switch

For Reed switch adders use the adders on the wear band option chart. The minimum stroke on all bores is 1/16".

Bumper Option

Durable urethane bumpers may be added to the head and cap. This would increase the overall cylinder length and the lengthwise mounting dimensions of the 1 1/2" bore through the 4" bore cylinders by 1/8". For bumpers on the 3/4" bore and the 1 1/8" bore, please consult factory.

Order as "BA" Option

Length Adders When Ordering a Switch

BORE	MIN. STROKE "SENSE ONE END"	MIN. STROKE "SENSE BOTH ENDS"	LENGTH ADDER
3/4	1/2	1/2	0.300
1-1/8	1/2	1/2	0.300
1-1/2	7/16	7/16	0.313
2	7/16	7/16	0.313
2-1/2	1/4	3/8	0.375
3	1/4	3/8	0.500
4	1/8	5/16	0.500

Reed Switch - For Reed Switch use the adders on the wearband option chart. The minimum stroke on all bores is 1/16", not available in 3/4" and 1-1/8" bore size.

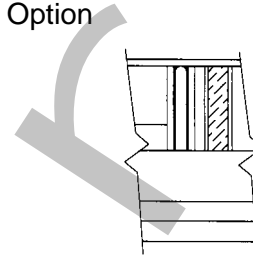
Notes on Ordering:

Ports - Full flow 10-32 ports are standard on 3/4" and 1 1/8" bore Compact Series. If you want 1/8" NPTF ports, overall lengths will increase by 7/16" due to a thicker head and cap. Full flow 1/8" NPTF ports are standard and 1/4" NPTF ports are not available on 1 1/2" and 2" bore sizes. Full flow 1/4" NPTF ports are standard on 2 1/2" through 4" bore sizes. Smaller ports are available.

Specials - Various special configurations are available: consult factory. Metric rod threads and "G" ports are available by special order.

Multiple Options - For multiple options, please consult the factory for "combination" option codes.

Figure 1.
Wear Band Option



Side load and misalignment are major factors that can cause premature failure of the rod bushing and piston, the two load bearing points on a cylinder.

The Wear Band option separates the load bearing points by locating the wear band at the rear of the piston assembly, to give maximum column strength even at full extension (Fig. 1).

The wear band is a stable, lubricating strip placed far back on the piston. Its width and placement serve to locate piston load at the optimum point.

Order as "WA" Option or by putting a "2" in the magnetic piston code

Dimensions

BORE	LENGTH ADDER*
3/4"	1.050
1-1/8"	0.925
1-1/2"	0.937
2"	0.937
2-1/2"	1.000
3"	0.750
4"	0.875

* Add this to the dimensions shown on following pages for overall cylinder length and lengthwise mounting dimensions.

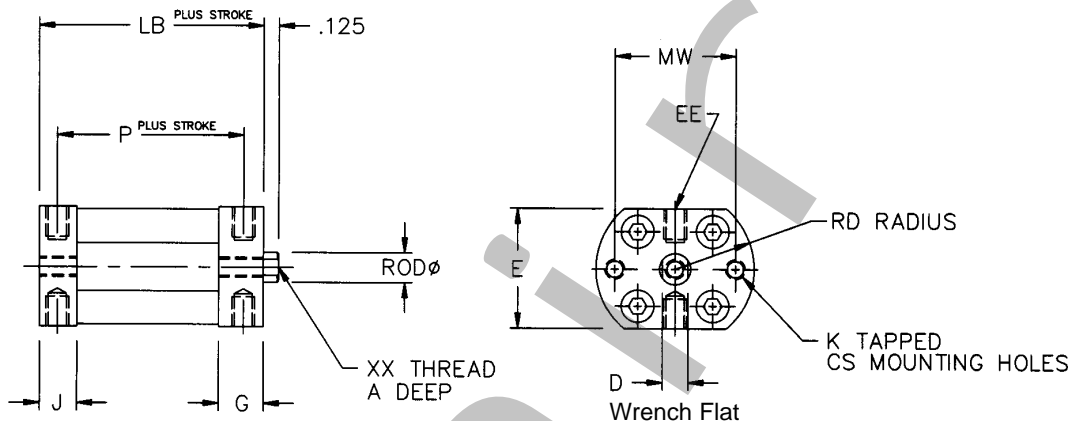


C Series
Rugged Compact



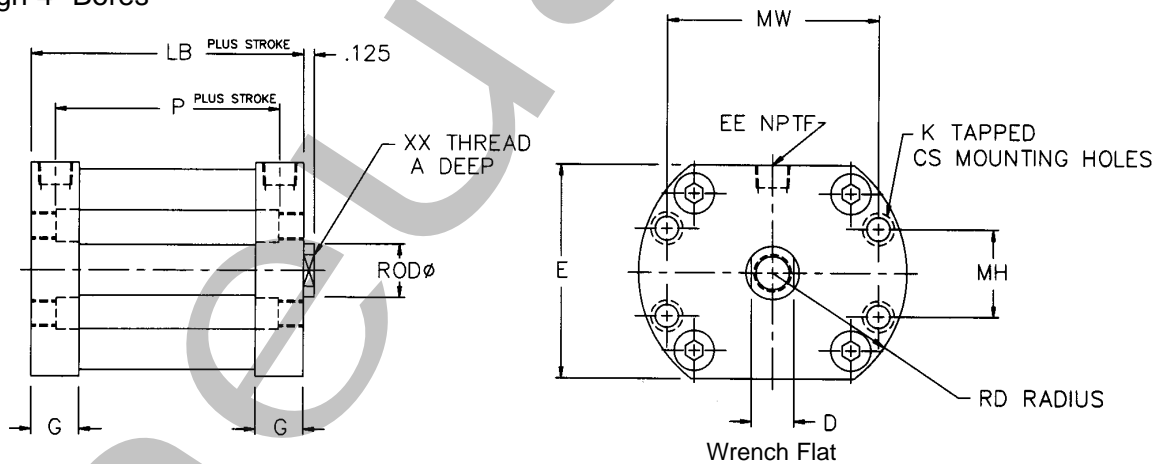
Basic Compact Series Cylinders

3/4" and 1 1/8" Bores



Mount Code S4 (Standard)

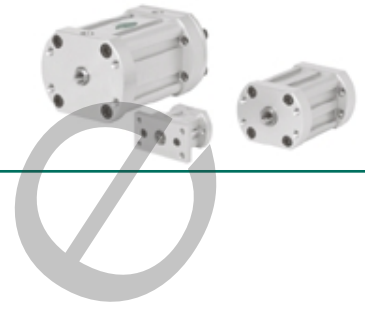
1 1/2" Through 4" Bores



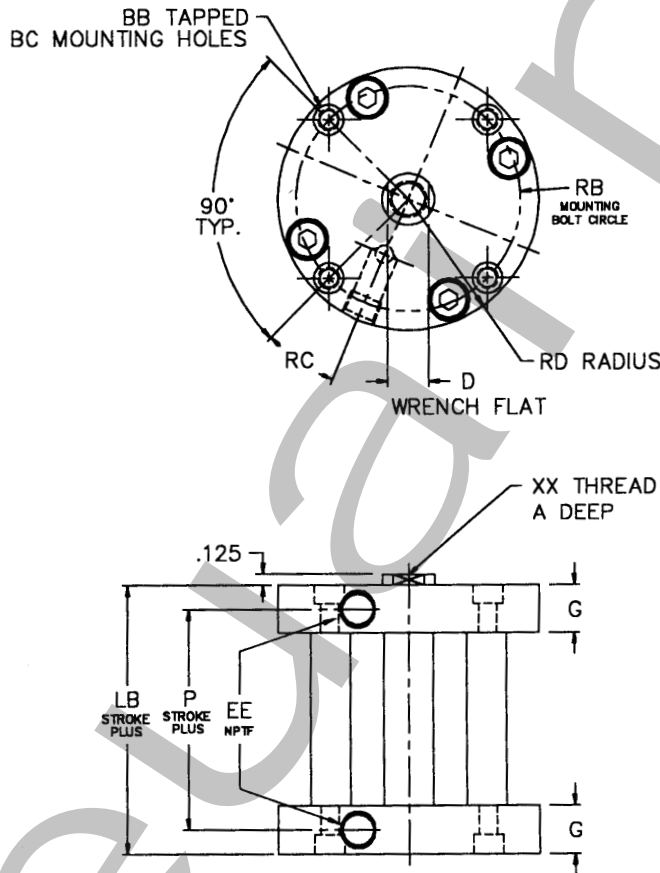
Mount Code XO

Basic Cylinder Dimensions

BORE	ROD	A	CS	D	E	EE+	G	J	K	LB	MH	MW	P	RD	XX
3/4"	0.250	0.375	#5	0.212	1.250	#10-32	0.406	0.343	#8-32	0.950	N/A	1.375	0.638	0.844	#8-32
1-1/8"	0.500	0.375	#6	0.375	1.750	#10-32	0.406	0.343	#10-32	0.950	N/A	1.793	0.638	1.125	1/4-28
1-1/2"	0.625	0.500	#10	0.500	2.000	1/8	0.625	N/A	1/4-28	1.438	.770	2.114	0.875	1.313	7/16-20
1-1/2"	0.750	0.750	#10	0.625	2.000	1/8	0.625	N/A	1/4-28	1.438	.770	2.114	0.875	1.313	1/2-20
2"	0.625	0.500	1/4	0.500	2.500	1/8	0.625	N/A	5/16-24	1.438	1.029	2.483	0.875	1.575	7/16-20
2"	0.750	0.750	1/4	0.625	2.500	1/8	0.625	N/A	5/16-24	1.438	1.029	2.483	0.875	1.575	1/2-20
2-1/2"	0.625	0.500	1/4	0.500	3.000	1/4	0.750	N/A	5/16-24	1.750	1.363	2.922	1.063	1.875	7/16-20
2-1/2"	0.750	0.750	1/4	0.625	3.000	1/4	0.750	N/A	5/16-24	1.750	1.363	2.922	1.063	1.875	1/2-20
3"	1.000	0.875	1/4	0.875	3.500	1/4	0.750	N/A	5/16-24	1.875	1.585	3.399	1.188	2.125	3/4-16
4"	1.000	0.875	5/16	0.875	4.500	1/4	0.750	N/A	3/8-24	1.875	2.060	4.418	1.188	2.750	3/4-16



Round Head and Cap Mount



Mount Code R3

Basic Cylinder Dimensions

BORE	ROD	A	BB	BC	D	EE+	G	LB	P	RB	RC	RD	XX
3/4"	0.250	0.375	#10-32	#6	0.212	#10-32	0.406	1.013	0.638	1.219	35°	0.750	#8-32
1-1/8"	0.500	0.375	#10-32	#6	0.375	#10-32	0.406	1.013	0.638	1.688	20°	1.000	1/4-28
1-1/2"	0.625	0.500	1/4-28	#10	0.500	1/8	0.625	1.438	0.875	2.188	21°	1.313	7/16-20
1-1/2"	0.750	0.750	1/4-28	#10	0.625	1/8	0.625	1.438	0.875	2.188	21°	1.313	1/2-20
2"	0.625	0.500	1/4-28	#10	0.500	1/8	0.625	1.438	0.875	2.688	22°	1.563	7/16-20
2"	0.750	0.750	1/4-28	#10	0.625	1/8	0.625	1.438	0.875	2.688	22°	1.563	1/2-20
2-1/2"	0.625	0.500	5/16-24	1/4	0.500	1/4	0.750	1.750	1.063	3.250	25°	1.875	7/16-20
2-1/2"	0.750	0.750	5/16-24	1/4	0.625	1/4	0.750	1.750	1.063	3.250	25°	1.875	1/2-20
3"	1.000	0.875	5/16-24	1/4	0.875	1/4	0.750	1.875	1.188	3.781	21°	2.125	3/4-16
4"	1.000	0.875	3/8-24	5/16	0.875	1/4	0.750	1.875	1.188	4.938	21°	2.750	3/4-16

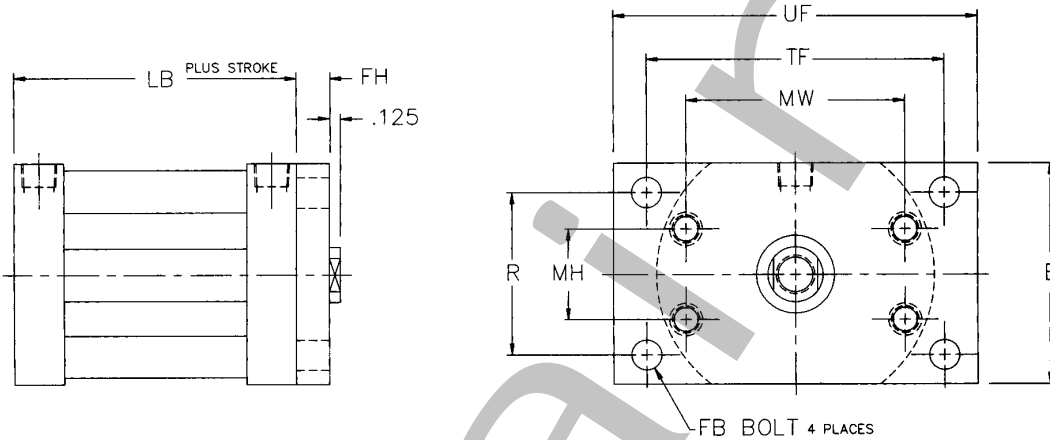


C Series
Rugged Compact



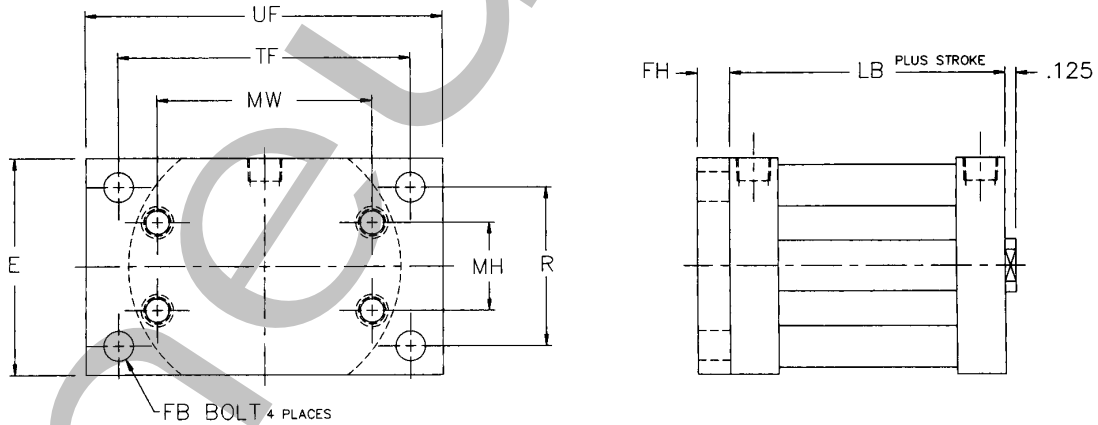
Flange Mounts

Front Flange



Mount Code F1

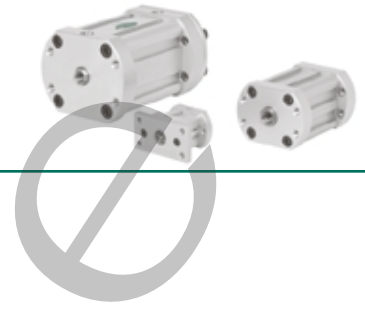
Rear Flange



Mount Code F2

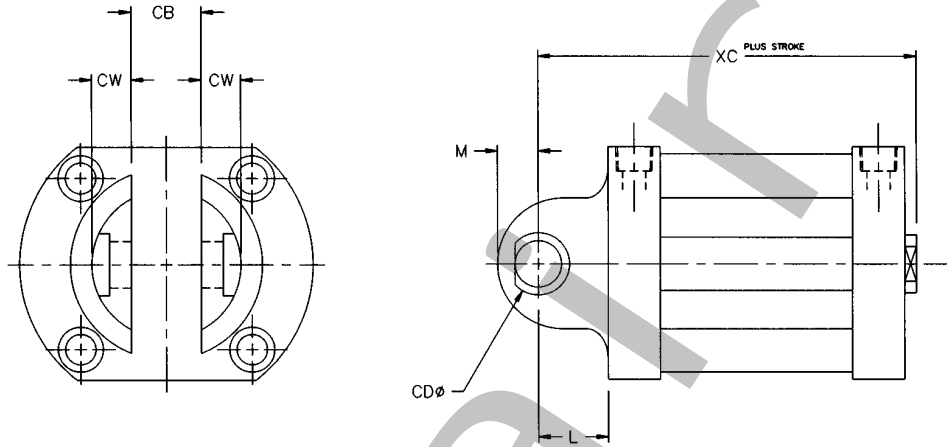
Dimensions

BORE	E	FB	FH	LB	MH	MW	R	TF	UF
3/4"	1.250	#8	.250	.950	N/A	1.375	.813	1.813	2.250
1-1/8"	1.750	#10	.250	.950	N/A	1.793	1.282	2.250	2.750
1-1/2"	2.000	5/16	.375	1.438	.770	2.114	1.430	2.750	3.375
2"	2.500	3/8	.375	1.438	1.029	2.483	1.840	3.375	4.125
2-1/2"	3.000	3/8	.375	1.750	1.363	2.922	2.190	3.875	4.625
3"	3.500	5/16	.438	1.875	1.585	3.399	2.625	4.375	5.000
4"	4.500	7/16	.625	1.875	2.060	4.418	3.320	5.438	6.250



Clevis Mounts

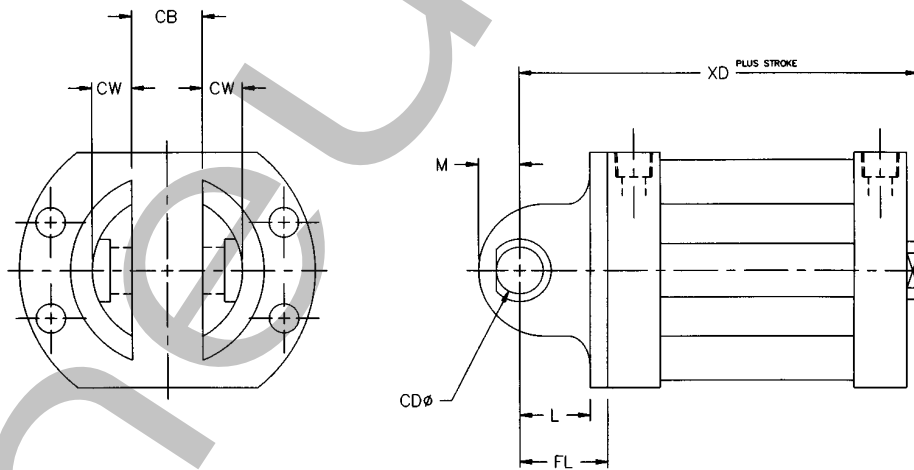
Fixed Clevis



Mount Code P1

NOTE: Includes clevis pin.

Detachable Clevis



Mount Code P2

NOTE: Includes clevis pin.

Dimensions

BORE	CB	CD	CW	FL	L	M	XC	XD
3/4"	0.375	0.188	0.302	0.688	0.500	0.474	N/A	1.763
1-1/8"	0.375	0.188	0.302	0.688	0.500	0.474	N/A	1.763
1-1/2"	0.750	0.375	0.424	0.813	0.625	0.438	2.188	2.375
2"	0.750	0.375	0.424	0.938	0.750	0.438	2.313	2.500
2-1/2"	0.750	0.375	0.424	1.000	0.750	0.500	2.625	2.875
3"	1.000	0.625	0.553	1.313	1.063	0.625	3.063	3.313
4"	1.000	0.625	0.553	1.688	1.438	0.625	3.438	3.688

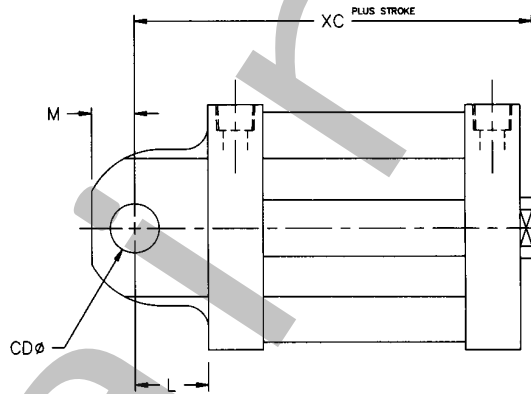
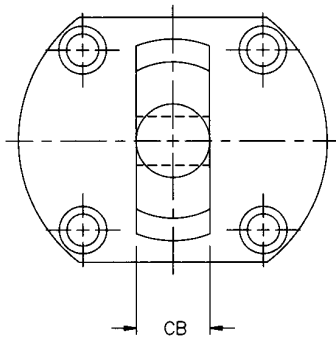


C Series
Rugged Compact



Eye Mounts

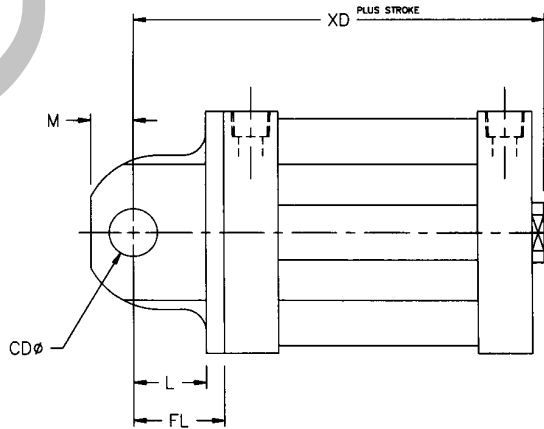
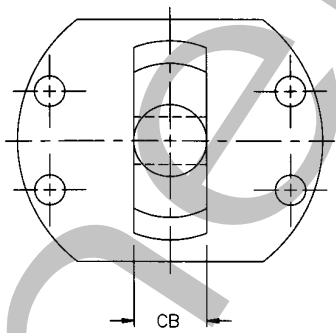
Fixed Eye



Mount Code P3

NOTE: Includes clevis pin.

Detachable Eye



Mount Code P4

NOTE: Includes clevis pin.

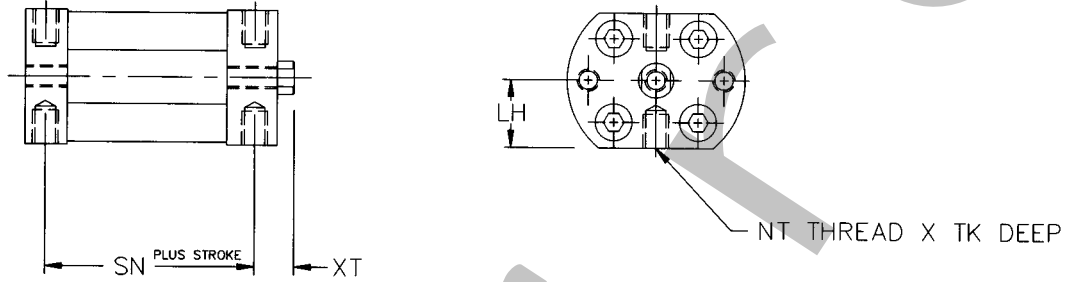
Dimensions

BORE	CB	CD	FL	L	M	XC	XD
3/4"	0.375	0.188	0.688	0.500	0.490	N/A	1.763
1-1/8"	0.375	0.188	0.688	0.500	0.490	N/A	1.763
1-1/2"	0.750	0.375	0.813	0.625	0.438	2.188	2.375
2"	0.750	0.375	0.938	0.750	0.438	2.313	2.500
2-1/2"	0.750	0.375	1.000	0.750	0.500	2.625	2.875
3"	1.000	0.625	1.313	1.063	0.625	3.063	3.313
4"	1.000	0.625	1.688	1.438	0.625	3.438	3.688



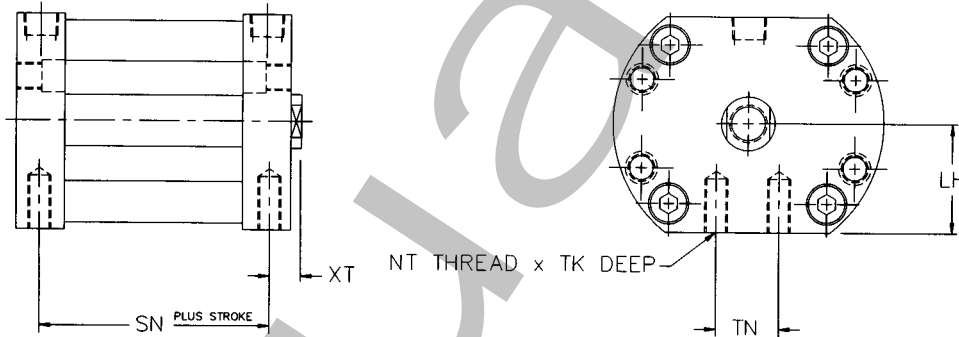
Bottom Mounts

3/4" And 1 1/8" Bores - Bottom Tapped (Standard)



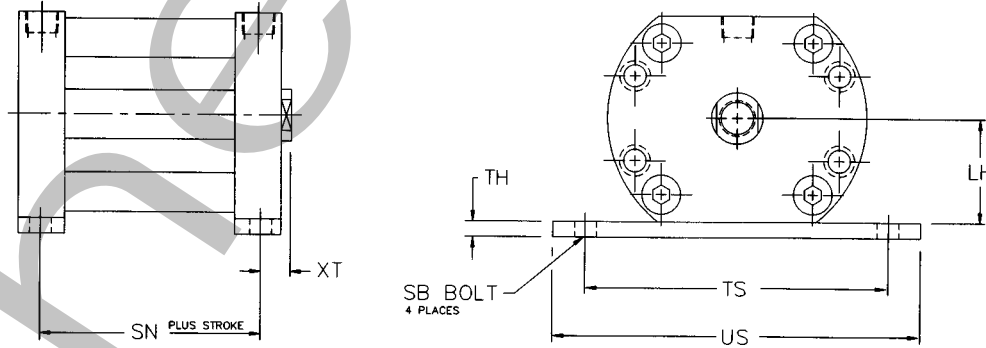
Mount Code S4 (Standard)

1 1/2" Through 4" Bores - Bottom Tapped



Mount Code S4

1 1/2" Through 4" Bores - Base Bar Mount



Mount Code S2

Dimensions

BORE	LH	NT	SB	SN	TH	TK	TN	TS	US	XT
3/4"	0.625	#10-32	N/A	0.638	N/A	0.250	N/A	N/A	N/A	0.293
1-1/8"	0.875	#10-32	N/A	0.638	N/A	0.250	N/A	N/A	N/A	0.293
1-1/2"	1.000	1/4-28	1/4	0.813	0.250	0.375	0.625	2.875	3.375	0.438
2"	1.250	1/4-28	1/4	0.813	0.250	0.375	0.750	3.375	3.875	0.438
2-1/2"	1.500	5/16-24	5/16	1.000	0.250	0.500	1.125	4.000	4.375	0.500
3"	1.750	5/16-24	5/16	1.125	0.375	0.500	1.625	4.500	4.875	0.500
4"	2.250	3/8-24	3/8	1.125	0.375	0.750	1.625	5.750	6.250	0.500

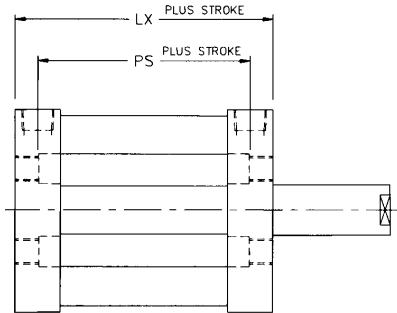


C Series
Rugged Compact



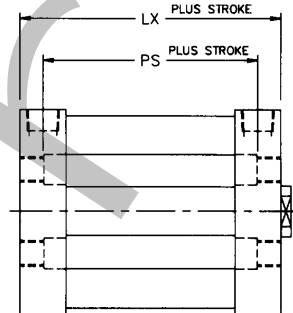
Single Acting Cylinders

Spring Extend



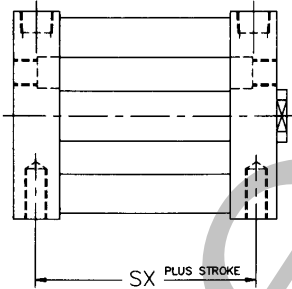
Order as "SE" option

Spring Return

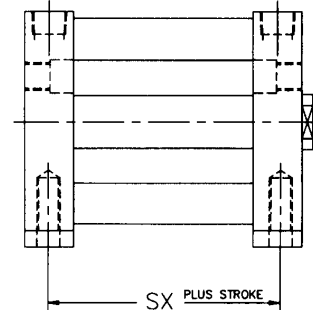


Order as "SR" option

Bottom Tapped with SE or SR option



Base Bar Mount with SE or SR option



Mount Code S4

Mount Code S2

(Consult factory for strokes greater than 2")

Dimensions

BORE	"STROKES UP TO 1"					"STROKES OVER 1" UP TO 2"				
	LX	PS	SX	XV	XY	LX	PS	SX	XV	XY
3/4"	1.950	1.638	1.638	N/A	2.763	2.950	2.638	2.638	N/A	3.763
1-1/8"	1.950	1.638	1.638	N/A	2.763	2.950	2.638	2.638	N/A	3.763
1-1/2"	2.688	2.125	2.063	3.438	3.625	3.938	3.375	3.313	4.688	4.875
2"	2.813	2.250	2.188	3.688	3.875	4.188	3.625	3.563	5.063	5.250
2-1/2"	3.125	2.438	2.375	4.000	4.250	4.500	3.813	3.750	5.375	5.625
3"	3.375	2.688	2.625	4.563	4.813	4.875	4.188	4.125	6.063	6.313
4"	3.375	2.688	2.625	4.938	5.188	4.875	4.188	4.125	6.438	6.688

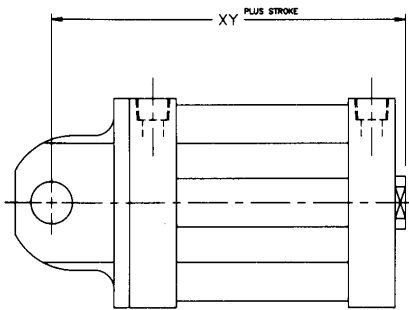


C Series
Rugged Compact



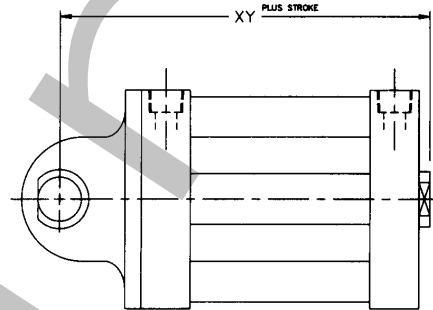
Single Acting Cylinders continued

Detachable Eye with SE or SR option



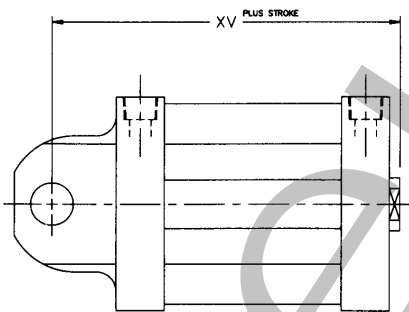
Mount Code P4

Detachable Clevis with SE or SR option



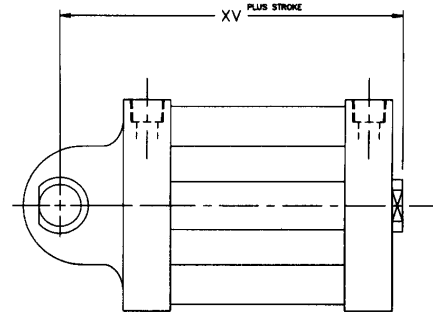
Mount Code P2

Fixed Eye with SE or SR option



Mount Code P3

Fixed Clevis with SE or SR option



Mount Code P1

(Consult factory for strokes greater than 2")

Dimensions

BORE	"STROKES UP TO 1"					"STROKES OVER 1" UP TO 2"				
	LX	PS	SX	XV	XY	LX	PS	SX	XV	XY
3/4"	1.950	1.638	1.638	N/A	2.763	2.950	2.638	2.638	N/A	3.763
1-1/8"	1.950	1.638	1.638	N/A	2.763	2.950	2.638	2.638	N/A	3.763
1-1/2"	2.688	2.125	2.063	3.438	3.625	3.938	3.375	3.313	4.688	4.875
2"	2.813	2.250	2.188	3.688	3.875	4.188	3.625	3.563	5.063	5.250
2-1/2"	3.125	2.438	2.375	4.000	4.250	4.500	3.813	3.750	5.375	5.625
3"	3.375	2.688	2.625	4.563	4.813	4.875	4.188	4.125	6.063	6.313
4"	3.375	2.688	2.625	4.938	5.188	4.875	4.188	4.125	6.438	6.688



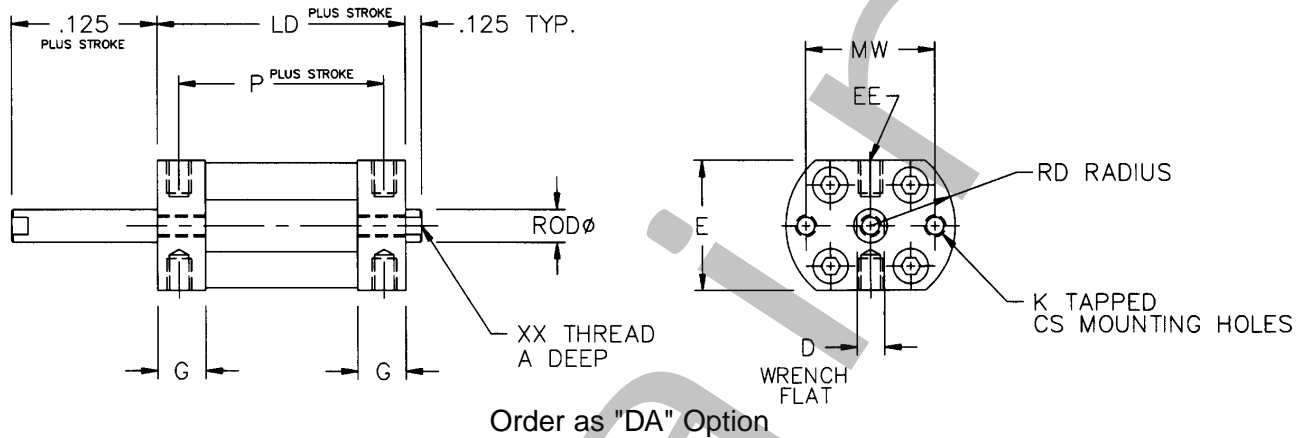
C Series
Rugged Compact



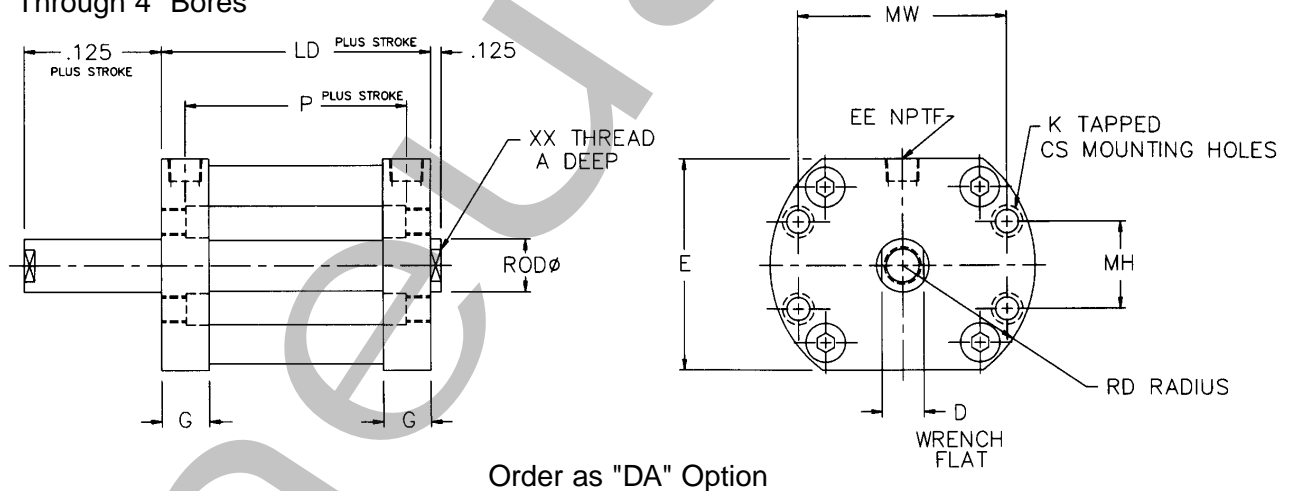
Double Rod Cylinders

This configuration has a piston rod which extends out both ends of the cylinder. It is also called a through rod cylinder.

3/4" and 1 1/8" Bores



1 1/2" Through 4" Bores



Basic Cylinder Dimensions

BORE	ROD	A	CS	D	E	EE+	G	K	LD	MH	MW	P	RD	XX
3/4"	0.250	0.375	#5	0.212	1.250	#10-32	0.406	#8-32	1.013	N/A	1.375	0.678	0.844	#8-32
1-1/8"	0.500	0.375	#6	0.375	1.750	#10-32	0.406	#10-32	1.013	N/A	1.793	0.678	1.125	1/4-28
1-1/2"	0.625	0.500	#10	0.500	2.000	1/8	0.625	1/4-28	1.438	0.770	2.114	0.875	1.313	7/16-20
1-1/2"	0.750	0.750	#10	0.625	2.000	1/8	0.625	1/4-28	1.438	0.770	2.114	0.875	1.313	1/2-20
2"	0.625	0.500	1/4	0.500	2.500	1/8	0.625	5/16-24	1.438	1.029	2.483	0.875	1.575	7/16-20
2"	0.750	0.750	1/4	0.625	2.500	1/8	0.625	5/16-24	1.438	1.029	2.483	0.875	1.575	1/2-20
2-1/2"	0.625	0.500	1/4	0.500	3.000	1/4	0.750	5/16-24	1.750	1.363	2.922	1.063	1.875	7/16-20
2-1/2"	0.750	0.750	1/4	0.625	3.000	1/4	0.750	5/16-24	1.750	1.363	2.922	1.063	1.875	1/2-20
3"	1.000	0.875	1/4	0.875	3.500	1/4	0.750	5/16-24	1.875	1.585	3.399	1.188	2.125	3/4-16
4"	1.000	0.875	5/16	0.875	4.500	1/4	0.750	3/8-24	1.875	2.060	4.418	1.188	2.750	3/4-16

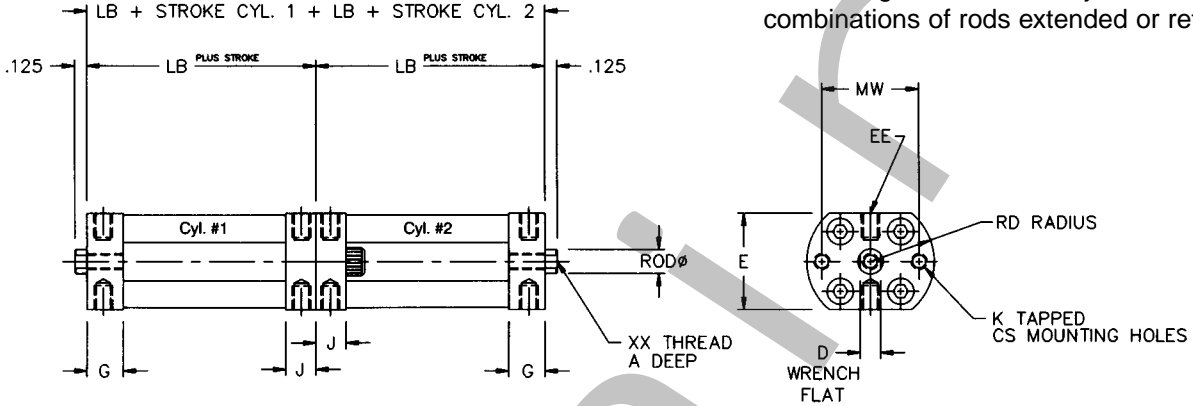


C Series
Rugged Compact



Back to Back Cylinders

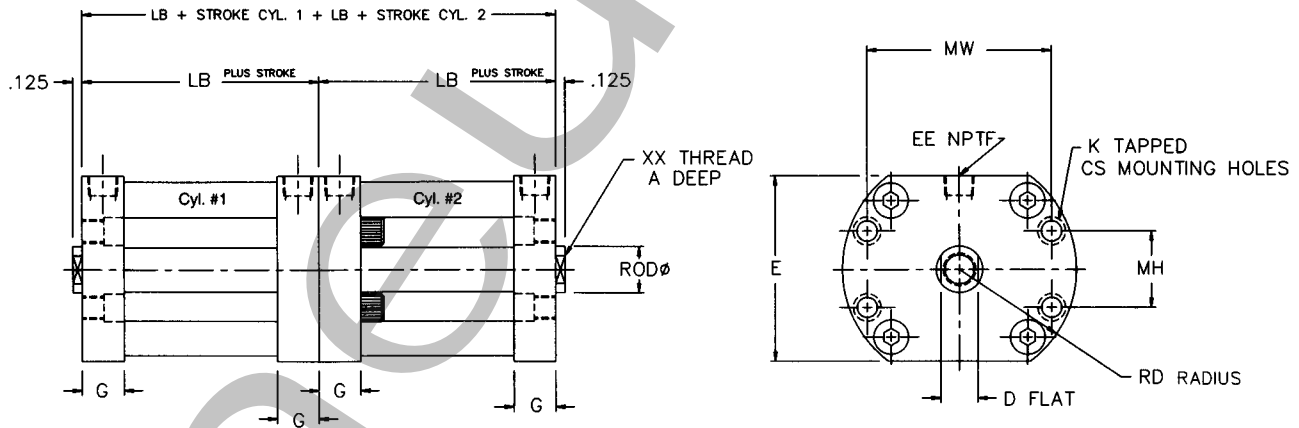
3/4" and 1 1/8" Bores



This configuration is two cylinders mounted back to back. Each cylinder can be operated independently. The cylinders can have the same stroke or different strokes. This configuration enables you to have four combinations of rods extended or retracted.

Consult factory for ordering.

1 1/2" Through 4" Bores



Basic Cylinder Dimensions

BORE	ROD	A	CS	D	E	EE	G	J	K	LB	MH	MW	RD	XX
1-1/8"	0.500	0.375	#6	0.375	1.750	#10-32	0.406	0.343	#10-32	0.950	N/A	1.793	1.125	1/4-28
1-1/2"	0.625	0.500	#10	0.500	2.000	1/8	0.625	N/A	1/4-28	1.438	0.770	2.114	1.313	7/16-20
1-1/2"	0.750	0.750	#10	0.625	2.000	1/8	0.625	N/A	1/4-28	1.438	0.770	2.114	1.313	1/2-20
2"	0.625	0.500	1/4	0.500	2.500	1/8	0.625	N/A	5/16-24	1.438	1.029	2.483	1.575	7/16-20
2"	0.750	0.750	1/4	0.625	2.500	1/8	0.625	N/A	5/16-24	1.438	1.029	2.483	1.575	1/2-20
2-1/2"	0.625	0.500	1/4	0.500	3.000	1/4	0.750	N/A	5/16-24	1.750	1.363	2.922	1.875	7/16-20
2-1/2"	0.750	0.750	1/4	0.625	3.000	1/4	0.750	N/A	5/16-24	1.750	1.363	2.922	1.875	1/2-20
3"	1.000	0.875	1/4	0.875	3.500	1/4	0.750	N/A	5/16-24	1.875	1.585	3.399	2.125	3/4-16
4"	1.000	0.875	5/16	0.875	4.500	1/4	0.750	N/A	3/8-24	1.875	2.060	4.418	2.750	3/4-16

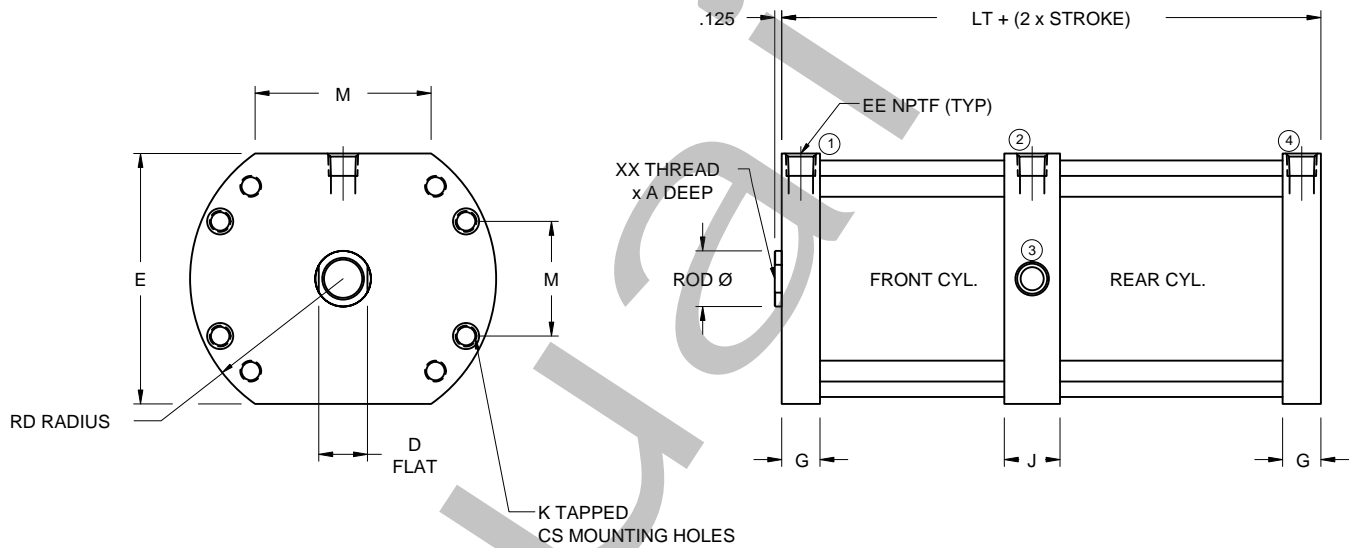


C Series
Rugged Compact



Tandem Cylinders

This configuration provides nearly twice the force of an equivalent basic double acting cylinder. Two pistons are attached to a common piston rod. Ports 2 and 4 are pressurized to nearly double the extend force. Ports 1 and 3 are pressurized to double the retract force.



Basic Cylinder Dimensions

BORE	ROD	A	CS	D	E	EE	G	J	K	LT	MH	MW	RD	XX
1-1/2"	0.625	0.500	#10	0.500	2.000	1/8	0.625	0.688	1/4-28	2.313	0.770	2.114	1.313	7/16-20
1-1/2"	0.750	0.750	#10	0.625	2.000	1/8	0.625	0.688	1/4-28	2.313	0.770	2.114	1.313	1/2-20
2"	0.625	0.500	1/4	0.500	2.500	1/8	0.625	0.688	5/16-24	2.313	1.029	2.483	1.575	7/16-20
2"	0.750	0.750	1/4	0.625	2.500	1/8	0.625	0.688	5/16-24	2.313	1.029	2.483	1.575	1/2-20
2-1/2"	0.625	0.500	1/4	0.500	3.000	1/4	0.750	0.813	5/16-24	2.313	1.363	2.922	1.875	7/16-20
2-1/2"	0.750	0.750	1/4	0.625	3.000	1/4	0.750	0.813	5/16-24	2.313	1.363	2.922	1.875	1/2-20
3"	1.000	0.875	1/4	0.875	3.500	1/4	0.750	0.813	5/16-24	3.063	1.585	3.399	2.125	3/4-16
4"	1.000	0.875	5/16	0.875	4.500	1/4	0.750	0.813	3/8-24	3.063	2.060	4.418	2.750	3/4-16

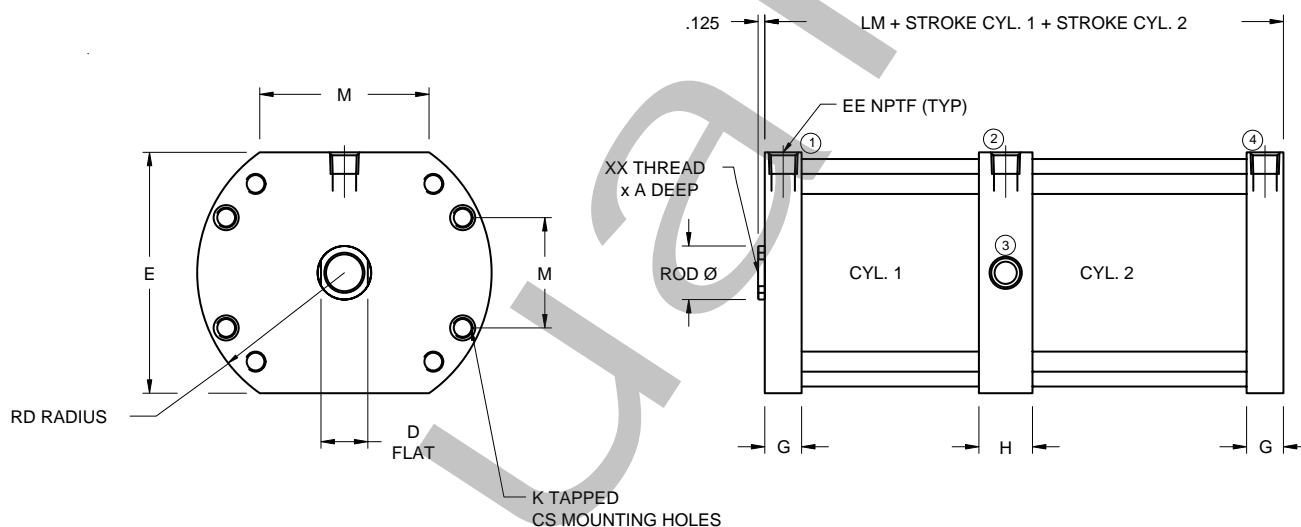


C Series
Rugged Compact



Multi-Position Cylinders

Multi-position cylinders look similar to tandem cylinders. However, in this cylinder the rear and front piston rods are separate. The stroke from full retract to the intermediate extend point is set by the stroke of cylinder #2. The total stroke for full retract to full extend is set by the stroke of cylinder #1. Full extend or retract is achieved by pressurizing ports 1 and 2 respectively with ports 3 and 4 vented. An intermediate position is achieved by pressurizing port 4 with the other ports vented or by pressurizing both ports 1 and 4. With 1 and 4 pressurized, the rod is more positively held in the intermediate position.



Basic Cylinder Dimensions

BORE	ROD	A	CS	D	E	EE	G	H	K	LM	MH	MW	RD	XX
1-1/2"	0.625	0.500	#10	0.500	2.000	1/8	0.625	0.875	1/4-28	2.500	0.770	2.114	1.313	7/16-20
1-1/2"	0.750	0.750	#10	0.625	2.000	1/8	0.625	0.875	1/4-28	2.500	0.770	2.114	1.313	1/2-20
2"	0.625	0.500	1/4	0.500	2.500	1/8	0.625	0.875	5/16-24	2.500	1.029	2.483	1.575	7/16-20
2"	0.750	0.750	1/4	0.625	2.500	1/8	0.625	0.875	5/16-24	2.500	1.029	2.483	1.575	1/2-20
2-1/2"	0.625	0.500	1/4	0.500	3.000	1/4	0.750	1.000	5/16-24	3.000	1.363	2.922	1.875	7/16-20
2-1/2"	0.750	0.750	1/4	0.625	3.000	1/4	0.750	1.000	5/16-24	3.000	1.363	2.922	1.875	1/2-20
3"	1.000	0.875	1/4	0.875	3.500	1/4	0.750	1.125	5/16-24	3.375	1.585	3.399	2.125	3/4-16
4"	1.000	0.875	5/16	0.875	4.500	1/4	0.750	1.125	3/8-24	3.375	2.060	4.418	2.750	3/4-16

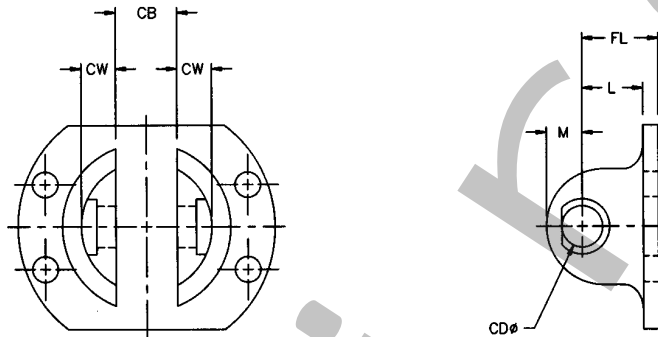


C Series
Rugged Compact



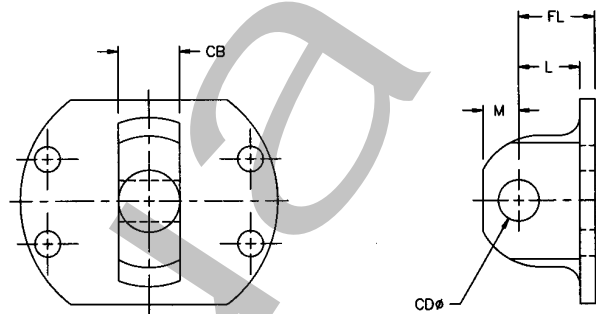
Accessories

Clevis Bracket

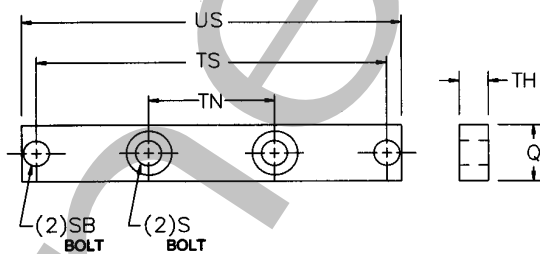


Note: Only two mounting holes on the 3/4" and 1-1/8" bore sizes.

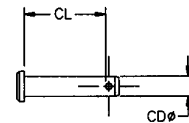
Eye Bracket



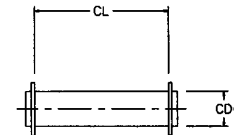
Base Bar



Clevis Pins - 3/4" and 1 1/8" Bores *



Clevis Pins - 1 1/2" Through 4" Bores *



* Included with P1, P2, P3 and P4 mounts

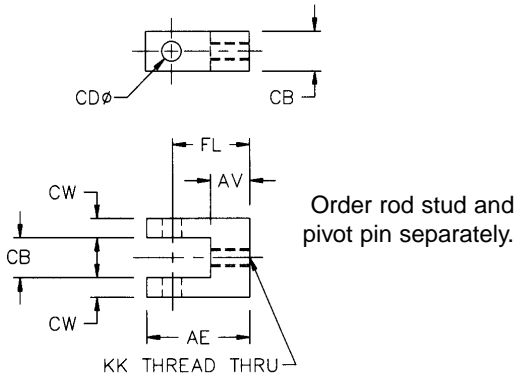
Dimensions

BORE	CLEVIS KIT	EYE KIT	PIVOT PIN	CB	CD	CL	CW	FL	L	M CLEVIS	M EYE	Q	S	SB	TH	TN	TS	US
3/4"	C600-C05	C600-C06	N131-1014	0.375	0.188	1.100	0.302	0.688	0.500	0.474	0.490	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1-1/8"	C600-G05	C600-G06	N131-1014	0.375	0.188	1.100	0.302	0.688	0.500	0.474	0.490	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1-1/2"	C600-K05	C600-K06	N131-1000	0.750	0.375	1.500	0.424	0.813	0.625	0.438	0.438	0.625	1/4	1/4	0.250	0.625	2.875	3.375
2"	C600-L05	C600-L06	N131-1000	0.750	0.375	1.500	0.424	0.938	0.750	0.438	0.438	0.625	1/4	1/4	0.250	0.750	3.375	3.875
2-1/2"	C600-M05	C600-M06	N131-1000	0.750	0.375	1.500	0.424	1.000	0.750	0.500	0.500	0.750	5/16	5/16	0.250	1.125	4.000	4.375
3"	C600-N05	C600-N06	N131-1001	1.000	0.625	2.125	0.553	1.313	1.063	0.625	0.625	0.750	5/16	5/16	0.375	1.625	4.500	4.875
4"	C600-R05	C600-R06	N131-1001	1.000	0.625	2.125	0.553	1.688	1.438	0.625	0.625	0.750	3/8	3/8	0.375	1.625	5.750	6.250

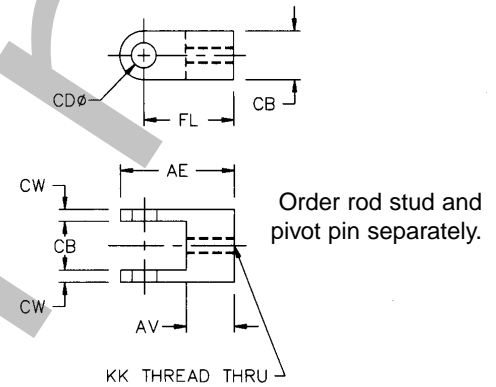


Accessories

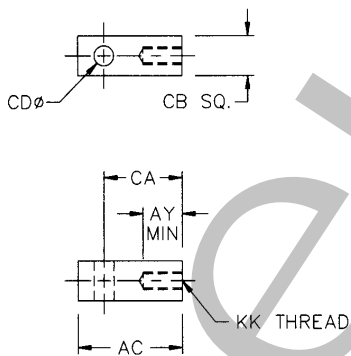
Rod Clevis - 3/4" and 1 1/8" Bores



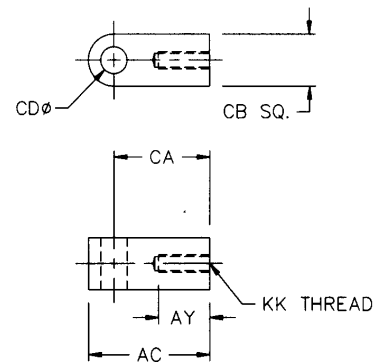
Rod Clevis - 1 1/2" Through 4" Bores



Rod Eye - 3/4" and 1 1/8" Bores



Rod Eye - 1 1/2" Through 4" Bores



Dimensions

BORE	EYE	CLEVIS	AC	AE	AV	AY	AZ	CA	CB	CD	CL	CW	FL	KK
3/4"	C500-706	C500-606	0.938	0.938	0.375	0.375	0.750	0.750	0.375	0.188	0.750	0.188	0.750	#8-32
1-1/8"	B500-708	B500-608	0.938	0.938	0.375	0.375	0.750	0.750	0.375	0.188	0.750	0.188	0.750	1/4-28
1-1/2"	C500-701	C500-601	1.093	1.375	0.600	0.375	0.875	0.718	0.750	0.375	1.125	0.188	1.000	7/16-20
1-1/2"	C500-702	C500-602	1.093	1.375	0.600	0.375	1.125	0.718	0.750	0.375	1.125	0.188	1.000	1/2-20
2"	C500-701	C500-601	1.093	1.375	0.600	0.375	0.875	0.718	0.750	0.375	1.125	0.188	1.000	7/16-20
2"	C500-702	C500-602	1.093	1.375	0.600	0.375	1.125	0.718	0.750	0.375	1.125	0.188	1.000	1/2-20
2-1/2"	C500-701	C500-601	1.093	1.375	0.600	0.375	0.875	0.718	0.750	0.375	1.125	0.188	1.000	7/16-20
2-1/2"	C500-702	C500-602	1.093	1.375	0.600	0.375	1.125	0.718	0.750	0.375	1.125	0.188	1.000	1/2-20
3"	C500-703	C500-603	1.500	2.188	0.750	0.500	1.375	1.000	1.000	0.625	1.500	0.250	1.688	3/4-16
4"	C500-703	C500-603	1.500	2.188	0.750	0.500	1.375	1.000	1.000	0.625	1.500	0.250	1.688	3/4-16

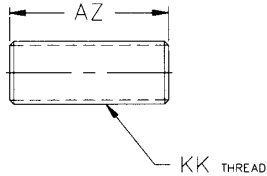


C Series
Rugged Compact

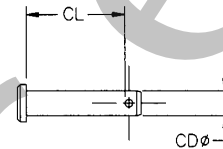


Accessories continued

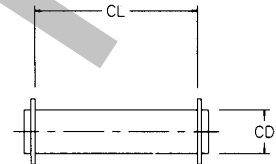
Rod Stud



Clevis Pins - 3/4" and 1 1/8" Bores



Clevis Pins - 1 1/2" Through 4" Bores



Dimensions

BORE	ROD STUD	PIVOT PIN	AC	AE	AV	AY	AZ	CA	CB	CD	CL	CW	FL	KK
3/4"	C500-506	C500-406	0.938	0.938	0.375	0.375	0.750	0.750	0.375	0.188	0.750	0.188	0.750	#8-32
1-1/8"	C500-508	C500-406	0.938	0.938	0.375	0.375	0.750	0.750	0.375	0.188	0.750	0.188	0.750	1/4-28
1-1/2"	C500-502	C500-403	1.093	1.375	0.600	0.375	0.875	0.718	0.750	0.375	1.125	0.188	1.000	7/16-20
1-1/2"	C500-503	C500-403	1.093	1.375	0.600	0.375	1.125	0.718	0.750	0.375	1.125	0.188	1.000	1/2-20
2"	C500-502	C500-403	1.093	1.375	0.600	0.375	0.875	0.718	0.750	0.375	1.125	0.188	1.000	7/16-20
2"	C500-503	C500-403	1.093	1.375	0.600	0.375	1.125	0.718	0.750	0.375	1.125	0.188	1.000	1/2-20
2-1/2"	C500-502	C500-403	1.093	1.375	0.600	0.375	0.875	0.718	0.750	0.375	1.125	0.188	1.000	7/16-20
2-1/2"	C500-503	C500-403	1.093	1.375	0.600	0.375	1.125	0.718	0.750	0.375	1.125	0.188	1.000	1/2-20
3"	C500-505	C500-404	1.500	2.188	0.750	0.500	1.375	1.000	1.000	0.625	1.500	0.250	1.688	3/4-16
4"	C500-505	C500-404	1.500	2.188	0.750	0.500	1.375	1.000	1.000	0.625	1.500	0.250	1.688	3/4-16

Repair and Seal Kits

NOTE: Must specify cylinder part number when ordering a C Series repair kit.

BORE	ROD DIAMETER	C SERIES SEAL & REPAIR KITS		C SERIES DOUBLE ROD
		REPAIR KIT	SEAL KIT	REPAIR KIT
3/4"	1/4	C90-C01	C91-C02	C90-C05
1-1/8"	1/2	C90-G01	C91-G06	C90-G101
1-1/2"	5/8	C90-K01	C91-K01	C90-K101
	3/4	C90-K05	C91-K02	C90-K105
2"	5/8	C90-L01	C91-L01	C90-L101
	3/4	C90-L05	C91-L05	C90-L105
2-1/2"	5/8	C90-M01	C91-M01	C90-M101
	3/4	C90-M05	C91-M05	C90-M105
3"	1	C90-N02	C91-N01	C90-N101
4"	1	C90-R02	C91-R01	C90-R101

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

**Seal Kit: Includes internal cylinder seals.