C-Series

Air Operated
Large Bore Cylinders
8" to 20" Diameter

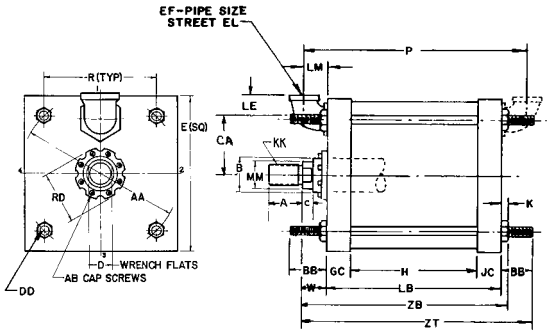
- Cylinder piston rod is case-hardened to 47-56 Rockwell C to prevent accidental dents from falling objects.
- Piston rod surface is protected from scratches by hard chrome plate.
- Rod material is 90,000 to 110,000 P.S.I. yield to help absorb shock loads due to high cylinder speeds.
- Piston rod is honed to 5 to 10 micro inch finish so that rod seal rides on perfect sealing surface.
- Teflon dirt wiper cleans the piston rod and prevents dust and dirt from entering the cylinder.
- To prevent rusting due to storage, shut-down, or moisture in compressed air, the cylinder tube is chrome plated on the I.D.
- Every air cylinder is factory tested.
- Teflon seals used at tubing ends.

Miller FLUID POWER

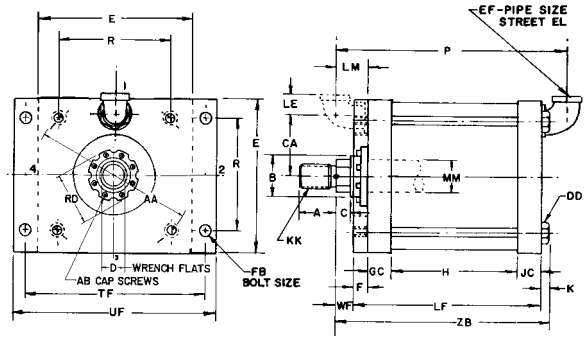
C-SERIES

Miller FLUID POWER

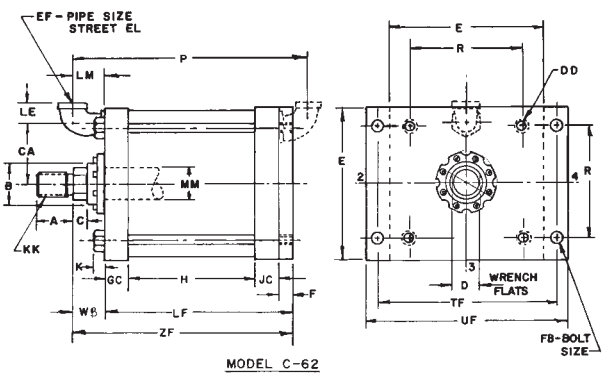
LARGE BORE (8" to 20") CYLINDER DIMENSIONS



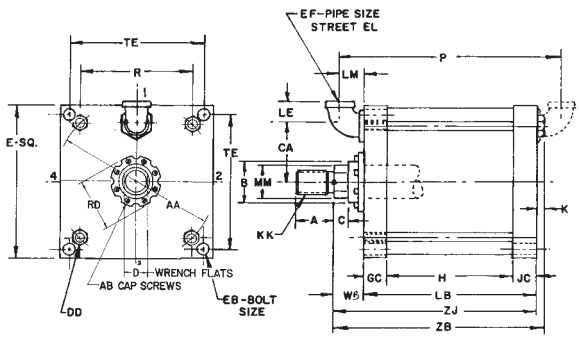
MODEL
- C-50 — TIE RODS NOT EXTENDED BEYOND NUTS
- C-51 — TIE RODS EXTENDED BOTH ENDS (SHOWN)
- C-52 — TIE RODS EXTENDED CAP END
- C-53 — TIE RODS EXTENDED HEAD END
- C-54 — TWO TIE RODS EXTENDED — BOTH ENDS



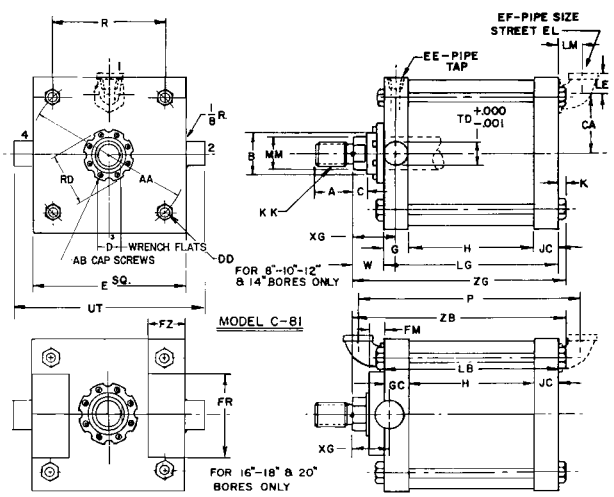
MODEL C-61



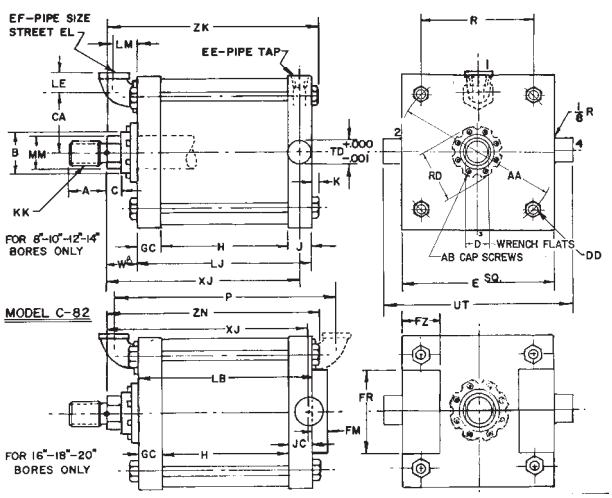
MODEL C-62



MODEL C-63 — MTG. HOLES IN HEAD
MODEL C-64 — MTG. HOLES IN CAP



MODEL C-81



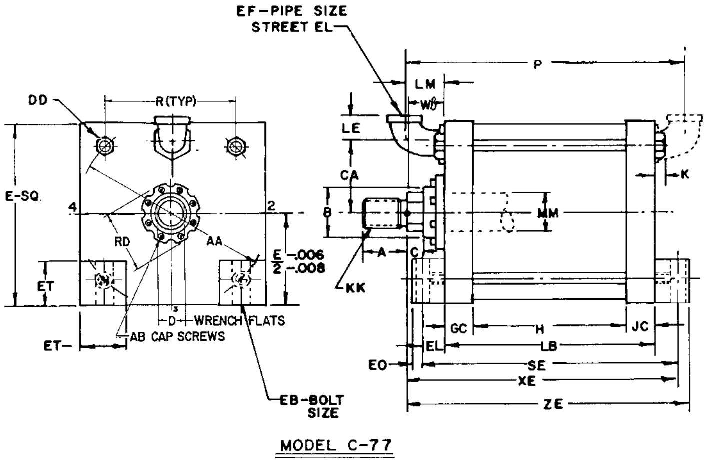
MODEL C-82

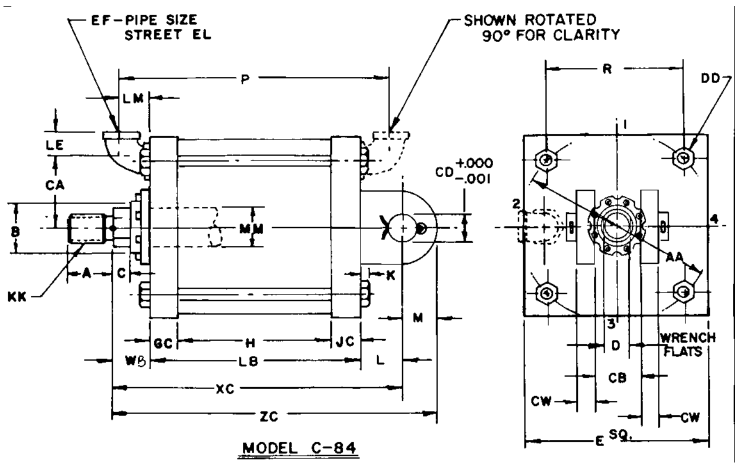
CYLINDER BORE DIMENSIONS

BORE SIZE	AA	BB	CA	CB	CD	CW	DD	E	EB	EE	EF	EL	EO	ET	F	FB	FM	FR	FZ	GC	G	JC	J	K	L	LE	LM	M
8	9.1	2 5/16	3	1 1/2	1	3/4	5/8-18	8 1/2	5/8	3/4	1 1/4	1 1/8	5/8	1.990	3/4	5/8	-	-	-	1	2	1	1 1/4	9/16	1 1/2	1 3/4	1 3/4	1
10	11.2	2 11/16	3 7/8	2	1 3/8	1	3/4-16	10 5/8	3/4	1	1 1/2	1 5/16	5/8	2.635	7/8	3/4	-	-	-	1 1/4	2 1/4	1 1/4	2	11/16	2 1/8	1 15/16	2	1 3/8
12	13.3	2 11/16	4 5/8	2 1/2	1 3/4	1 1/4	3/4-16	12 3/4	3/4	1	2	1 5/16	5/8	3.280	7/8	3/4	-	-	-	1 1/4	2 1/4	1 1/4	2	11/16	2 1/4	2 1/4	2 1/2	1 3/4
14	15.4	3 3/16	4 11/16	2 1/2	2	1 1/4	7/8-14	14 3/4	7/8	1 1/4	2 1/2	1 1/2	3/4	3.780	1	7/8	-	-	-	1 1/2	2 3/4	1 1/2	2 1/4	13/16	2 1/2	2 11/16	2 7/8	2
16	17.7	3 5/8	6 1/16	2 1/2	2	1 1/4	1-14	17	1	-	2 1/2	1 5/8	7/8	4.410	1	1	3/4	10 11/32	4 1/4	1 1/2	-	1 1/2	-	7/8	2 1/2	2 11/16	2 7/8	2
18	20.0	4 1/8	6 15/16	3	2 1/2	1 1/2	1 1/8-12	19	1 1/8	-	3	1 13/16	1	4.790	1	1 1/8	1	11 3/8	4 3/4	1 3/4	-	1 3/4	-	1	3	3 1/8	3 1/2	2 1/2
20	22.1	4 1/2	6 15/16	3	2 1/2	1 1/2	1 1/4-12	21	1 1/4	-	3	2	1 1/8	5.300	1	1 1/4	3/4	12 5/8	5 1/4	2	-	2	-	1 1/4	3	3 1/8	3 1/2	2 1/2

BORE SIZE	R	TD	TE	TF	TL	UF	UT
8	6.44	1 3/8	7.57	10 7/8	1 3/8	12 1/8	11 1/4
10	7.92	1 3/4	9.40	13 1/8	1 3/4	14 1/2	14 1/8
12	9.40	1 3/4	11.10	15 1/4	1 3/4	16 5/8	16 1/4
14	10.90	2	12.87	17 7/16	2	19	18 3/4
16	12.52	2	14.85	19 15/16	2	21 3/4	21
18	14.14	2 1/2	16.69	22 1/8	2 1/2	24 1/8	24
20	15.63	2 1/2	18.46	24 5/16	2 1/2	26 1/2	26

BORE SIZE	ADD STROKE						
	H	LB	LF	LG	LJ	P	SE
8	1 9/16	3 9/16	4 5/16	4 9/16	4 1/16	7 1/16	5 13/16
10	1 11/16	4 3/16	5 1/16	5 3/16	4 15/16	8 3/16	6 13/16
12	1 11/16	4 3/16	5 1/16	5 3/16	4 15/16	9 3/16	6 13/16
14	1 15/16	4 15/16	5 15/16	6 3/16	5 11/16	10 11/16	7 15/16
16	2 3/16	5 3/16	6 3/16	-	-	10 15/16	8 7/16
18	2 7/16	5 15/16	6 15/16	-	-	12 15/16	9 9/16
20	2 11/16	6 11/16	7 11/16	-	-	13 11/16	10 11/16



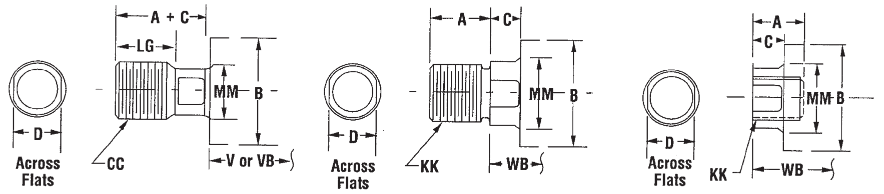


PISTON ROD END STYLES

Style No. 1
Threaded on Full Diameter

Style No. 2 Standard
Threaded on Turndown Section

Style No. 4
Short Rod End-Internal Threads



PISTON ROD AND BORE DIMENSIONS

													ADD STROKE											
BORE	ROD DIA.	A	B (-.001 to -.003)	C	D	WB	AB	CC	KK	RD (MAX.)	WF	XG	XC	XE	XJ	ZB	ZC	ZE	ZF	ZG	ZJ	ZK	ZN	ZT
8	1 3/8	1 5/8	2.000	5/8	1 1/8	1 5/8	1/4-28	1 3/8-12	1-14	2.967	7/8	2 13/16	6 11/16	6 5/16	5	5 3/4	7 11/16	6 15/16	5 15/16	6 3/4	5 3/16	6 1/4	-	7 1/2
	1 3/4	2	2.375	3/4	1 1/2	1 7/8	1/4-28	1 3/4-12	1 1/4-12	3.467	1 1/8	3 1/16	6 15/16	6 9/16	5 1/4	6	7 15/16	7 3/16	6 3/16	7	5 7/16	6 1/2	-	7 3/4
	2	2 1/4	2.625	7/8	1 11/16	2	1/4-28	2-12	1 1/2-12	3.717	1 1/4	3 3/16	7 1/16	6 11/16	5 3/8	6 1/8	8 1/16	7 5/16	6 5/16	7 1/8	5 9/16	6 5/8	-	7 7/8
	2 1/2	3	3.125	1	2 1/16	2 1/4	1/4-28	2 1/2-12	1 7/8-12	4.249	1 1/2	3 7/16	7 5/16	6 15/16	5 5/8	6 3/8	8 5/16	7 9/16	6 9/16	7 3/8	5 13/16	6 7/8	-	8 1/8
10	1 3/4	2	2.375	3/4	1 1/2	1 7/8	1/4-28	1 3/4-12	1 1/4-12	3.467	1	3 1/8	8 3/16	7 3/8	5 13/16	6 3/4	9 9/16	8	6 15/16	7 3/4	6 1/16	7 1/2	-	8 3/4
	2	2 1/4	2.625	7/8	1 11/16	2	1/4-28	2-12	1 1/2-12	3.717	1 1/8	3 1/4	8 5/16	7 1/2	5 15/16	6 7/8	9 11/16	8 1/8	7 1/16	7 7/8	6 3/16	7 5/8	-	8 7/8
	2 1/2	3	3.125	1	2 1/16	2 1/4	1/4-28	2 1/2-12	1 7/8-12	4.249	1 3/8	3 1/2	8 9/16	7 3/4	6 3/16	7 1/8	9 15/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
	3	3 1/2	3.750	1	2 5/8	2 1/4	1/4-28	3-12	2 1/4-12	4.749	1 3/8	3 1/2	8 9/16	7 3/4	6 3/16	7 1/8	9 15/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
	3 1/2	3 1/2	4.250	1	3	2 1/4	1/4-28	3 1/2-12	2 1/2-12	5.249	1 3/8	3 1/2	8 9/16	7 3/4	6 3/16	7 1/8	9 15/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
	4	4	4.750	1	3 3/8	2 1/4	5/16-24	4-12	3-12	5.936	1 3/8	3 1/2	8 9/16	7 3/4	6 3/16	7 1/8	9 15/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
12	2	2 1/4	2.625	7/8	1 11/16	2	1/4-28	2-12	1 1/2-12	3.717	1 1/8	3 1/4	8 7/16	7 1/2	5 15/16	6 7/8	10 3/16	8 1/8	7 1/16	7 7/8	6 3/16	7 5/8	-	8 7/8
	2 1/2	3	3.125	1	2 1/16	2 1/4	1/4-28	2 1/2-12	1 7/8-12	4.249	1 3/8	3 1/2	8 11/16	7 3/4	6 3/16	7 1/8	10 7/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
	3	3 1/2	3.750	1	2 5/8	2 1/4	1/4-28	3-12	2 1/4-12	4.749	1 3/8	3 1/2	8 11/16	7 3/4	6 3/16	7 1/8	10 7/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
	3 1/2	3 1/2	4.250	1	3	2 1/4	1/4-28	3 1/2-12	2 1/2-12	5.249	1 3/8	3 1/2	8 11/16	7 3/4	6 3/16	7 1/8	10 7/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
	4	4	4.750	1	3 3/8	2 1/4	5/16-24	4-12	3-12	5.936	1 3/8	3 1/2	8 11/16	7 3/4	6 3/16	7 1/8	10 7/16	8 3/8	7 5/16	8 1/8	6 7/16	7 7/8	-	9 1/8
14	2 1/2	3	3.125	1	2 1/16	2 1/4	1/4-28	2 1/2-12	1 7/8-12	4.249	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
	3	3 1/2	3.750	1	2 5/8	2 1/4	1/4-28	3-12	2 1/4-12	4.749	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
	3 1/2	3 1/2	4.250	1	3	2 1/4	1/4-28	3 1/2-12	2 1/2-12	5.249	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
	4	4	4.750	1	3 3/8	2 1/4	5/16-24	4-12	3-12	5.936	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
	4 1/2	4 1/2	5.250	1	3 7/8	2 1/4	5/16-24	4 1/2-12	3 1/4-12	6.436	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
	5	5	5.750	1	4 1/4	2 1/4	5/16-24	5-12	3 1/2-12	6.936	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
	5 1/2	5 1/2	6.250	1	4 5/8	2 1/4	5/16-24	5 1/2-12	4-12	7.436	1 1/4	3 13/16	9 11/16	8 11/16	6 7/8	8	11 11/16	9 7/16	8 3/16	9 1/4	7 3/16	8 3/4	-	10 3/8
16	2 1/2	3	3.125	1	2 1/16	2 1/4	1/4-28	2 1/2-12	1 7/8-12	4.249	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
	3	3 1/2	3.750	1	2 5/8	2 1/4	1/4-28	3-12	2 1/4-12	4.749	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
	3 1/2	3 1/2	4.250	1	3	2 1/4	1/4-28	3 1/2-12	2 1/2-12	5.249	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
	4	4	4.750	1	3 3/8	2 1/4	5/16-24	4-12	3-12	5.936	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
	4 1/2	4 1/2	5.250	1	3 7/8	2 1/4	5/16-24	4 1/2-12	3 1/4-12	6.436	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
	5	5	5.750	1	4 1/4	2 1/4	5/16-24	5-12	3 1/2-12	6.936	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
	5 1/2	5 1/2	6.250	1	4 5/8	2 1/4	5/16-24	5 1/2-12	4-12	7.436	1 1/4	2 9/16	9 15/16	9 1/16	7 1/8	8 5/16	11 15/16	9 15/16	8 7/16	-	7 7/16	-	8 3/16	11 1/16
18	3	3 1/2	3.750	1	2 5/8	2 1/4	1/4-28	3-12	2 1/4-12	4.749	1 1/4	2 5/8	11 3/16	10	7 13/16	9 3/16	13 11/16	11	9 3/16	-	8 3/16	-	9 3/16	12 5/16
	3 1/2	3 1/2	4.250	1	3	2 1/4	1/4-28	3 1/2-12	2 1/2-12	5.249	1 1/4	2 5/8	11 3/16	10	7 13/16	9 3/16	13 11/16	11	9 3/16	-	8 3/16	-	9 3/16	12 5/16
	4	4	4.750	1	3 3/8	2 1/4	5/16-24	4-12	3-12	5.936	1 1/4	2 5/8	11 3/16	10	7 13/16	9 3/16	13 11/16	11	9 3/16	-	8 3/16	-	9 3/16	12 5/16
	4 1/2	4 1/2	5.250	1	3 7/8	2 1/4	5/16-24	4 1/2-12	3 1/4-12	6.436	1 1/4	2 5/8	11 3/16	10	7 13/16	9 3/16	13 11/16	11	9 3/16	-	8 3/16	-	9 3/16	12 5/16
	5	5	5.750	1	4 1/4	2 1/4	5/16-24	5-12	3 1/2-12	6.936	1 1/4	2 5/8	11 3/16	10	7 13/16	9 3/16	13 11/16	11	9 3/16	-	8 3/16	-	9 3/16	12 5/16
	5 1/2	5 1/2	6.250	1	4 5/8	2 1/4	5/16-24	5 1/2-12	4-12	7.436	1 1/4	2 5/8	11 3/16	10	7 13/16	9 3/16	13 11/16	11	9 3/16	-	8 3/16	-	9 3/16	12 5/16
20	3	3 1/2	3.750	1	2 5/8	2 1/4	1/4-28	3-12	2 1/4-12	4.749	1 1/4	2 7/8	11 15/16	10 15/16	8 5/16	10 3/16	14 7/16	12 1/16	9 15/16	-	9 15/16	-	9 11/16	13 7/16
	3 1/2	3 1/2	4.250	1	3	2 1/4	1/4-28	3 1/2-12	2 1/2-12	5.249	1 1/4	2 7/8	11 15/16	10 15/16	8 5/16	10 3/16	14 7/16	12 1/16	9 15/16	-	9 15/16	-	9 11/16	13 7/16
	4	4	4.750	1	3 3/8	2 1/4	5/16-24	4-12	3-12	5.936	1 1/4	2 7/8	11 15/16	10 15/16	8 5/16	10 3/16	14 7/16	12 1/16	9 15/16	-	9 15/16	-	9 11/16	13 7/16
	4 1/2	4 1/2	5.250	1	3 7/8	2 1/4	5/16-24	4 1/2-12	3 1/4-12	6.436	1 1/4	2 7/8	11 15/16	10 15/16	8 5/16	10 3/16	14 7/16	12 1/16	9 15/16	-	9 15/16	-	9 11/16	13 7/16
	5	5	5.750	1	4 1/4	2 1/4	5/16-24	5-12	3 1/2-12	6.936	1 1/4	2 7/8	11 15/16	10 15/16	8 5/16	10 3/16	14 7/16	12 1/16	9 15/16	-	9 15/16	-	9 11/16	13 7/16
	5 1/2	5 1/2	6.250	1	4 5/8	2 1/4	5/16-24	5 1/2-12	4-12	7.436	1 1/4	2 7/8	11 15/16	10 15/16	8 5/16	10 3/16	14 7/16	12 1/16	9 15/16	-	9 15/16	-	9 11/16	13 7/16

PRESSURE RATINGS — MILLER LARGE BORE CYLINDERS

The Model C Series Cylinder has a maximum air operating pressure of 250 P.S.I.

TOP QUALITY ASSURED

The Miller Large Bore Cylinders are manufactured to the same precision high quality standards as the famous Miller Heavy Duty Air Cylinders.

WHERE TO USE

MILLER large bore cylinders are ideal for many applications where high thrust is required from low operating pressure. They are commonly used as valve operators with air. The extra large street elbow ports make the Model C air operated cylinder ideal for counterbalancing. Combined with an air surge tank, the Model C provides smooth, safe counterbalancing of heavy moving machinery.

CUSHIONING

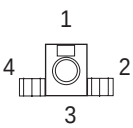
Because of the street elbow port location the C series cylinders cannot be furnished with cushions on rod end or cap end. Cushioning of double acting cylinders can easily be accomplished through the use of externally mounted decelerating valves.

HOW TO ORDER

How to Order Example: C-84B2N-01200-01600-0200-N110

C - 84 B 2 N -- 0 12.00 - 016.00 - 02.00- N 1 1 0

Series	Mounting Style	Bushing	Rod End Style	Cushions **	Bore Dia.	Stroke	Rod Dia.	Port Type	Port Location Head End	Port Location Cap End	Modified
C DC (D= Dbl. Rod End)		Rod Bearing	2(Std) 4	N= Non-Cushioned				N= NPT	1 2 3 4	1 2 3 4	0= Standard 9= Modified (See* Below)



For other modification requirements, contact Miller Fluid Power application engineering department.

Miller Fluid Power
800 N. York Road
Bensenville, IL 60106
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