

ALWAYS OFFERING  
QUICK DELIVERY  
OF QUALITY  
BUILT PRODUCTS

*Pneumatic*  
**Cylinders & Couplers**  
INC.

Aluminum and Stainless Steel  
Cylinders and Accessories

# **R SERIES**

## **Stainless Steel Repairable Pneumatic Cylinders**

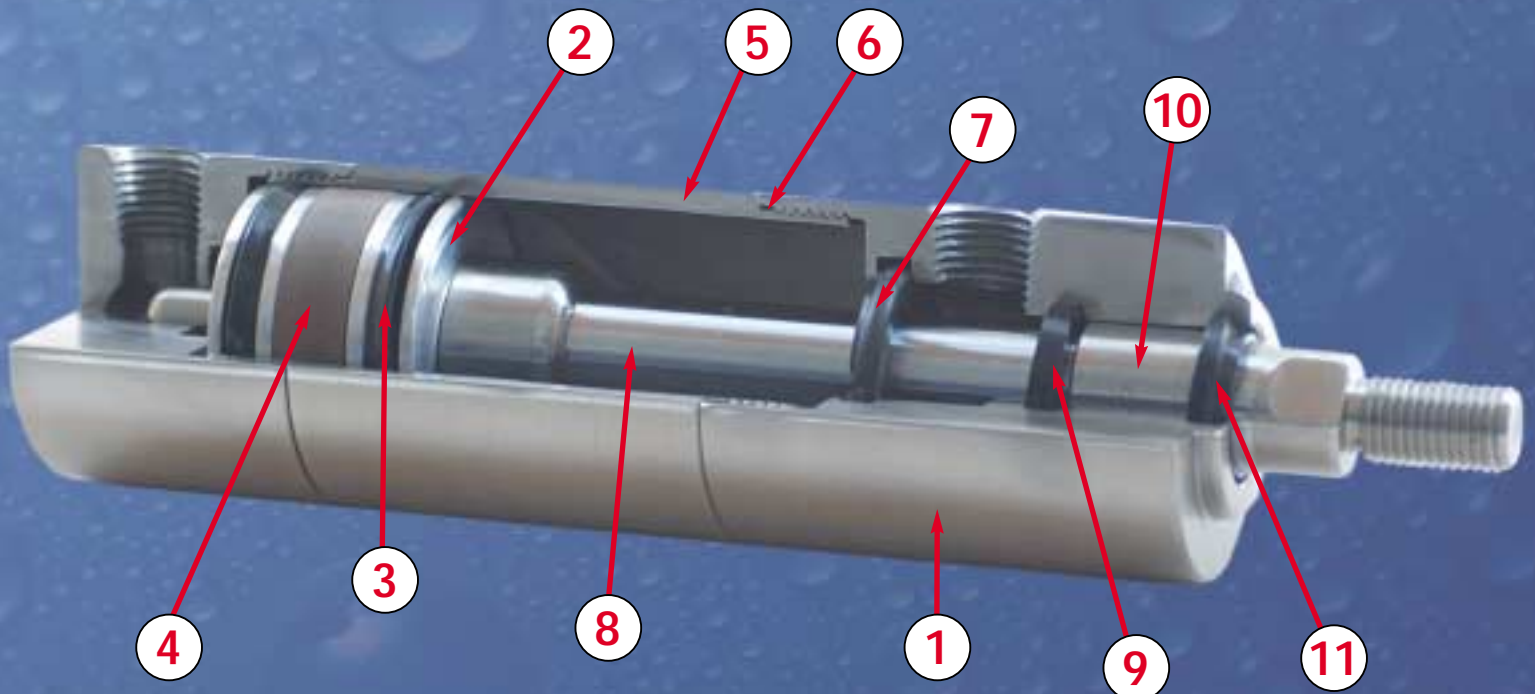
- 1-1/8" Thru 4" Bores
- 170 P.S.I. Pneumatic
- 18" Stroke Maximum
- Compact Round Design
- Non-Lube Service



*Washdown cylinders for the food, chemical  
and pharmaceutical industries.*

Made in the U.S.A.

# YOUR TOTAL PNEUMATICS

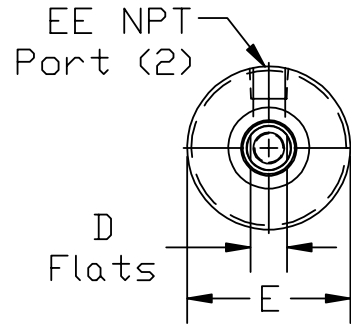
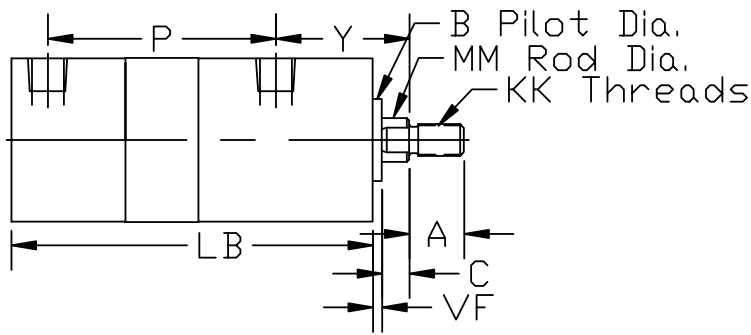


- 1** End caps are precision machined from 303 series stainless steel.
- 2** Pistons are machined from aluminum alloy for reduced weight. Magnets are available for use with proximity switches. A stainless steel piston is optional.
- 3** Piston seals are lip type nitrile and are pressure activated and wear compensating for long life.
- 4** Wear strip of Teflon and graphite compound for improved wear and side load resistance is standard.
- 5** Tubing is 300 series stainless steel with a precision honed I.D. and polished O.D.
- 6** Nitrile o-ring tube seal.
- 7** Floating cushion seals optional.
- 8** Piston rod material is 303 stainless steel. The O.D. is ground and polished and has a .0005" minimum thickness hard chrome plated surface.
- 9** Rod seal is urethane incorporating a rounded dynamic sealing lip for reduced friction and longer seal life.
- 10** Rod bushing is a self lubricating PTFE-based stainless steel bearing.
- 11** Rod wiper is AN type urethane which aggressively removes foreign material from the piston rod and extends rod seal life.

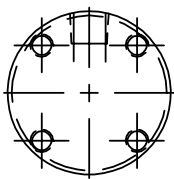
Bore	A	B	BB	C	CB	CC	CD	CW	D	DD	E	EE	F	FB	FF	KK
1-1/8	0.75	0.75	0.25	0.25	0.50	5/16"-24	0.25	N/A	0.31	#10-32	1.38	1/8"	0.25	0.22	3/8"-24	1/4"-28
1-1/2	0.75	1.13	0.38	0.38	0.75	1/2"-20	0.50	0.50	0.50	1/4"-28	1.75	1/4"	0.38	0.31	5/8"-18	7/16"-20
2	0.75	1.13	0.50	0.38	0.75	1/2"-20	0.50	0.50	0.50	5/16"-24	2.25	1/4"	0.38	0.38	5/8"-18	7/16"-20
2-1/2	0.75	1.13	0.50	0.38	0.75	1/2"-20	0.50	0.50	0.50	5/16"-24	2.75	1/4"	0.38	0.38	5/8"-18	7/16"-20
3-1/4	1.13	1.50	0.63	0.50	1.25	7/8"-14	0.75	0.63	0.81	3/8"-24	3.75	3/8"	0.63	0.44	1"-14	3/4"-16
4	1.13	1.50	0.63	0.50	1.25	7/8"-14	0.75	0.63	0.81	3/8"-24	4.50	3/8"	0.63	0.44	1"-14	3/4"-16
Bore	L	LB	M	MM	P	R	RE	TF	UF	VF	W	XC	XX	Y	ZB	ZF
1-1/8	0.44	3.25	0.31	0.38	1.86	1.00	0.71	2.00	2.50	0.13	0.13	4.07	1/4"-28	1.32	3.63	3.88
1-1/2	0.75	4.13	0.63	0.63	2.40	1.43	1.03	2.75	3.38	0.13	0.13	5.38	7/16"-20	1.73	4.63	5.00
2	0.75	4.13	0.63	0.63	2.40	1.84	1.31	3.38	4.13	0.13	0.13	5.38	7/16"-20	1.73	4.63	5.00
2-1/2	0.75	4.25	0.63	0.63	2.52	2.19	1.52	3.88	4.63	0.13	0.13	5.50	7/16"-20	1.73	4.75	5.13
3-1/4	1.25	5.00	0.88	1.00	2.69	2.76	1.86	4.69	5.50	0.13	0.00	6.88	3/4"-16	2.41	5.63	6.25
4	1.25	5.00	0.88	1.00	2.69	3.32	2.30	5.44	6.25	0.13	0.00	6.88	3/4"-16	2.41	5.63	6.25

# TIC CYLINDER CHOICE

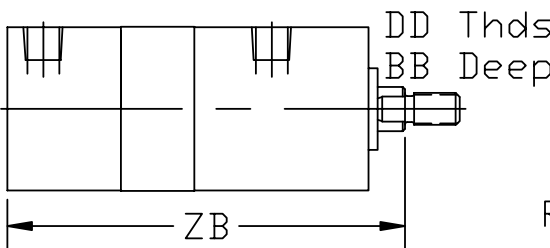
## MXO BASIC



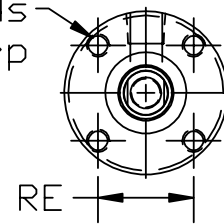
## MRC TAPPED CAP



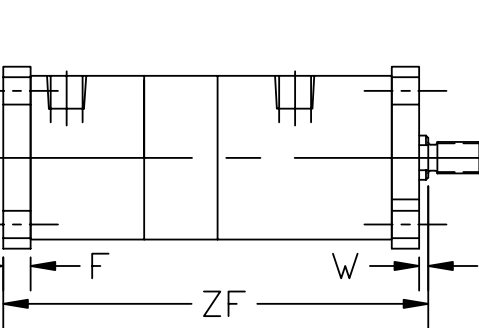
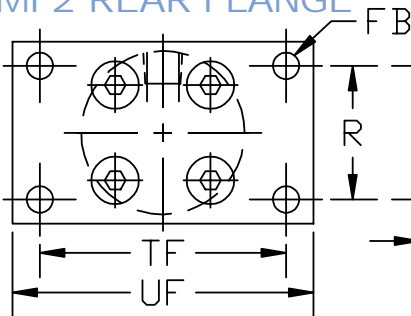
## MRB TAPPED BOTH



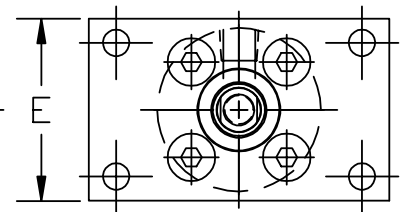
## MRH TAPPED HEAD



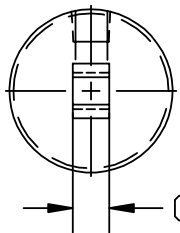
## MF2 REAR FLANGE



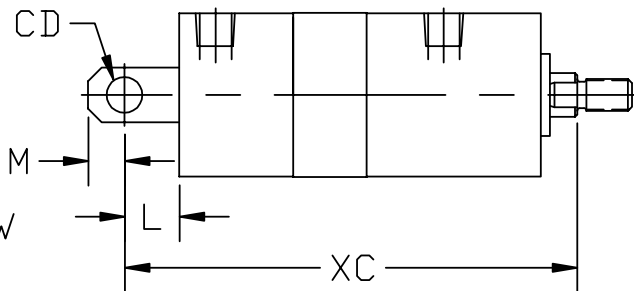
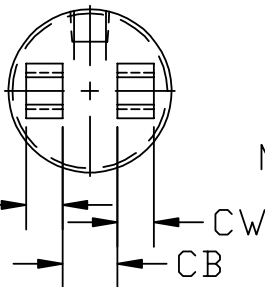
## MF1 FRONT FLANGE



## MP3 EYE\*

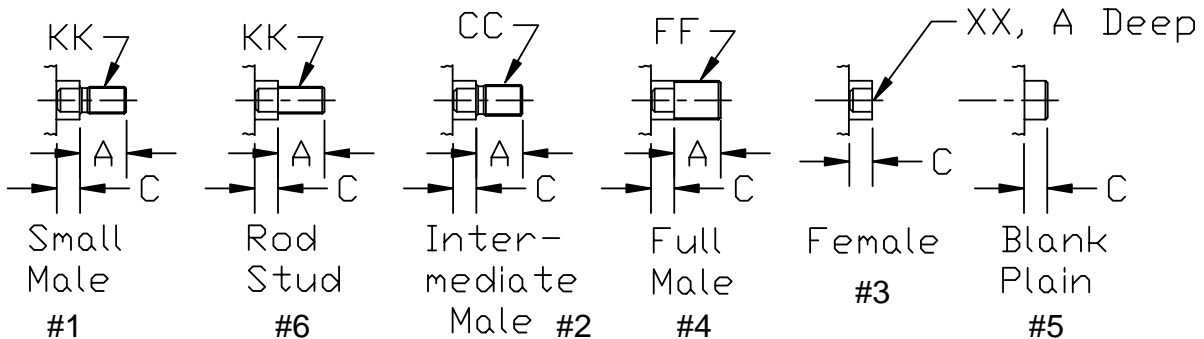


## MP1 CLEVIS\*



\* Pin Included with MP3 & MP1

## ROD ENDS



# How To Order

## Cylinder Ordering Table Numbers

**R 2 0 D 0 5 . 0 0 2 F 1 F F B 1 MP**

Reference Table Number:

**1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Options**

Example: Series R - 2" Bore - 5/8" Rod - 5" Stroke - Intermediate Male Rod Thread  
Front Flange MF1 - Fixed Cushion Head and Fixed Cushion Cap - 1/4" NPT ports - Ports Pos# 1  
Magnetic Piston

TABLE 1	
Series	
R	Round Body

TABLE 2 & 3			
Bore		Bore	
12	1-1/8"	25	2-1/2"
15	1-1/2"	32	3-1/4"
20	2"	40	4"

TABLE 4	
Rod Diameter	
B	3/8"
D	5/8"
E	1"

TABLE 5, 6, 7, 8 & 9	
Stroke	
Stroke shown in two place decimal ie: 02.00 = 2" Stroke	

TABLE 10	
Rod End	
1	Small Male
2	Intermediate Male
3	Female
4	Full Male
5	Blank/Plain Rod Stud
6	Rod Stud

### PORT POSITIONS

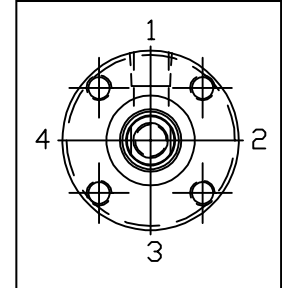


TABLE 11 & 12 Mount			
F1	MF1 Head Rectangular Flange	RC	Tapped Cup
F2	MF2 Cap Rectangular Flange	RH	Tapped Head
P1	MP1 Cap Fixed Clevis	RB	Tapped Both
P3	MP3 Cap Fixed Eye	X0	MX0 Basic Cylinder

TABLE 13	
Head Cushion	
A	No Cushion
F	Fixed Cushion

TABLE 14	
Cap Cushion	
A	No Cushion
F	Fixed Cushion

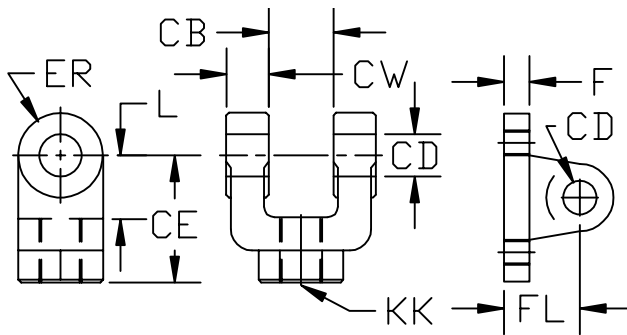
TABLE 15	
Port Size	
A	1/8" NPT
B	1/4" NPT
C	3/8" NPT

TABLE 16	
Port Location	
1	Side 1
2	Side 2
3	Side 3
4	Side 4

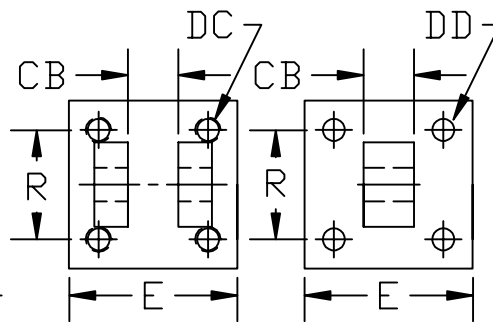
OPTIONS			
AO	Air/Oil Piston Seal	MS	Magnetic Rod Scraper
BS	Bumper Piston Seals	PP	Poly-Pak Piston and Rod Seals
DR	Double Rod	UC	Urethane Bumper Cap End
LF	Low Friction Seals	UH	Urethane Bumper Head End
MP	Magnetic Piston	VS	High Temperature Seals

## ACCESSORIES

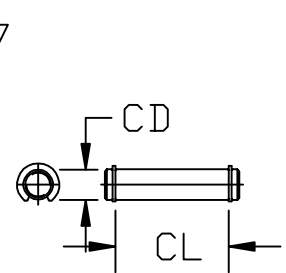
### ROD CLEVIS



### CLEVIS



### EYE



### PIVOT PIN

Pivot Dia.	CB	CD	CE	CL	CW	DC	DD	E	ER	F	FL	KK	L	R
1/4"	0.50	0.25	0.88	0.94	0.19	1/4"-28	0.20	1.50	0.38	0.25	0.88	3/8"-24	0.50	1.13
1/2"	0.75	0.50	1.50	1.88	0.50	3/8"-24	0.41	2.50	0.50	0.38	1.13	7/16"-20	0.75	1.63
3/4"	1.25	0.75	2.38	2.75	0.63	1/2"-20	0.53	3.50	0.75	0.63	1.88	3/4"-16	1.25	2.56

## SWITCH INFORMATION

Part#	Sensor Type	Switching Logic	Output	Operating Voltage	Switching Current	Power Rating	Voltage Drop	Shock/Vibration	Protection Circuit
CUCSR1-3-XX*	Reed Switch	Normally Open	-	5-240V DC/AC 50/60Hz	1 Amp Max.	30 Watts	3.5V Max.	30G/9G	MOV
CUCSR4-3-XX*	Reed Switch	Normally Open	TRIAC	24-240V AC 50/60Hz	4 Amp Max 25 Amp inrush	100 Watts	1.0V @ 1.5A	30G/9G	MOV
CUCSP-3-XX*	MR* Sensor	Normally Open	PNP Sourcing	5-30V DC	1 Amp Max.	30 Watts	1.5V @ 0.5A Max.	50G/9G	Reverse Polarity
CUCSN-3-XX*	MR* Sensor	Normally Open	NPN Sinking	5-30V DC	1 Amp Max.	30 Watts	1.5V @ 0.5A Max.	50G/9G	Reverse Polarity

Operating Frequency - 1000 Hz, Temperature Range - 14 to 176° F (-10 to 80° C), Enclosure Circuit - IP 67 (NEMA 6)  
All cables are 118" (3m) long. \* MR = Magnetostrictive All switches are rated for wash down applications.

\* "XX" = Bore Designator: 1-1/8" - 11, 1-1/2" & 2" - 15, 2-1/2" & 3-1/4" - 25, 4" - 40. Example 2" bore Reed = CUCSR1-3-15