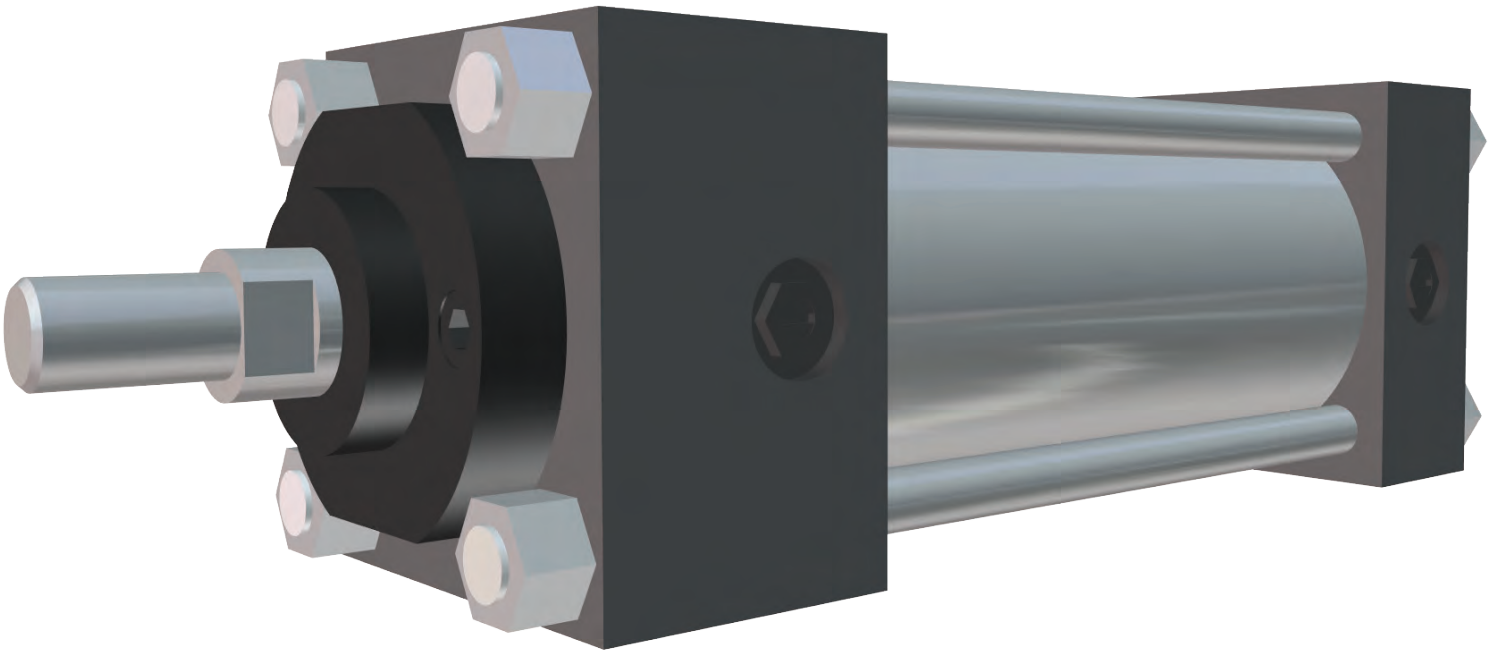
Class 5A

Low Pressure NFPA Aluminum Cylinders



GHN NOPAK

First in Manufacturing. Engineered to Last.

ORDERING CODE EXAMPLE

CL5A - 4.00 x 12.00 - E* - AA - 1.00 - 4 - OPT

CLASS	
5A	250 PSI AIR ALUMINUM

Bore
1.50
2.00
2.50
3.25
4.00
5.00
6.00
8.00
10.00
12.00

STROKE
UP TO 120"

MODEL	
D	MF1 - FRONT FLANGE
C	MF2 - REAR FLANGE
DG	ME3 - FRONT MOUNTING HOLES
CJ	ME4 - REAR MOUNTING HOLES
E	MP1 - FIXED REAR CLEVIS
HE	MP2 - DETACHABLE REAR CLEVIS
E4	MP4 - DETACHABLE REAR EYE
AP	MS1 - ANGLE PLATE
A	MS2 - FOOT MOUNT
S	MS4 - SIDE TAPPED HOLES
FR	MT1 - FRONT TRUNNION
FB	MT2 - REAR TRUNNION
F	MT4 - INTERMEDIATE TRUNNION
H	MX0 - NO MOUNT
T	MX1 - EXTENDED TIE RODS (BOTH ENDS)
TB	MX2 - EXTENDED TIE RODS (CAP END)
TR	MX3 - EXTENDED TIE RODS (ROD END)

ROD DIAMETER
SEE CHART AT RESPECTIVE BORE SIZE FOR ROD SIZES AVAILABLE

ROD END THREAD (SEE CHART PAGE 75)	
1	FULL MALE THREAD
3	INTERMEDIATE MALE
4	SMALL MALE (STANDARD)
5	FEMALE THREAD
6	PLAIN END (NO THREADS)
7	ROD COUPLER END
9	STUDDED

CUSHIONS	
NN	NO CUSHIONS
AA	CUSHIONED BOTH ENDS
NA	NO CUSHION ROD END CUSHIONED BLIND END
AN	CUSHIONED ROD END NO CUSHION BLIND END

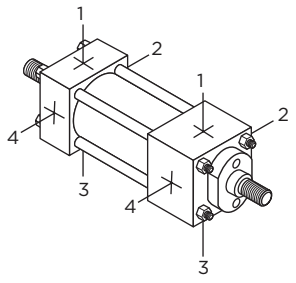
OPTIONS (CALL OUT BELOW CYLINDER DESCRIPTION)
TYPE B SEALS - FLUOROCARBON
DIM. WF - ROD EXTENSION
DIM. A - EXTENDED ROD THREAD
EMS-201: ELECTROLESS NICKEL PLATING (SEE PAGE 92)
MAGNETIC PISTON
METALLIC ROD SCRAPER
OPTIONAL PORT LOCATIONS
STAINLESS STEEL PISTON ROD
STAINLESS STEEL TIE RODS
STAINLESS STEEL TIE ROD NUTS
STAINLESS STEEL FASTENERS
STAINLESS STEEL ALL: INCLUDES PISTON ROD, TIE RODS, TIE ROD NUTS AND FASTENERS
STAINLESS STEEL CUSHION NEEDLES
STOP TUBE - SPECIFY STOP TUBE LENGTH, EFFECTIVE STROKE AND TOTAL STROKE

* **FOR DOUBLE ROD END CYLINDERS**, ADD AN "X" BEFORE THE MODEL IDENTIFICATION (EXAMPLE: XA, XD, XFR).

STANDARD PORT AND CUSHION ADJUSTMENT POSITIONS

- PORTS - POSITION 1
- CUSHION ADJUSTMENT - POSITION 2

NOTE: When optional port locations are ordered, specify both port locations, even if one port is in the standard location.

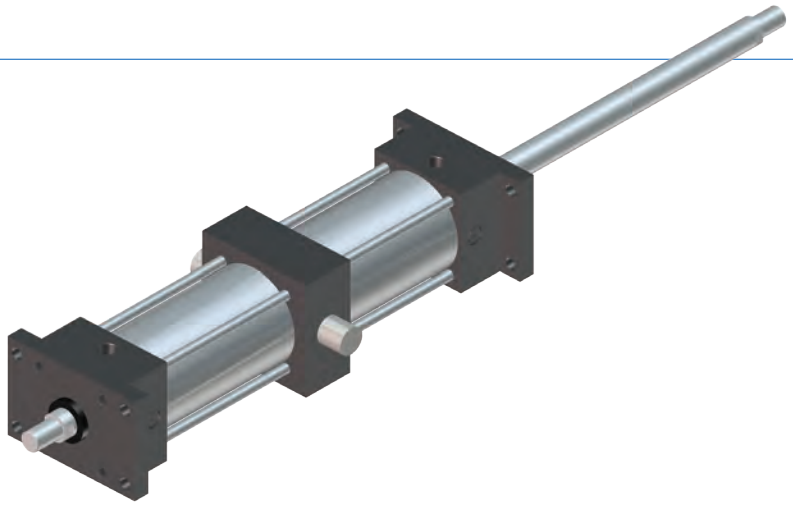


COMBINATION MOUNTS

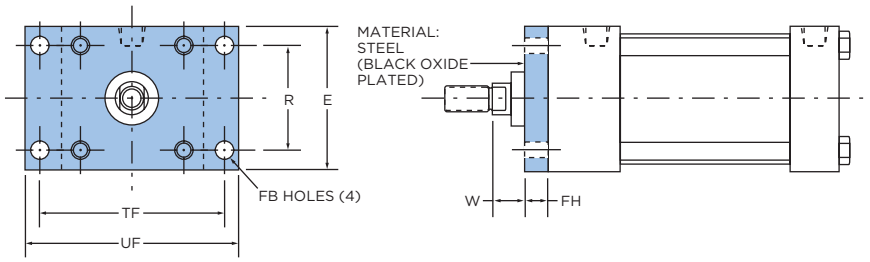
Cylinders can be ordered with a combination of mounts for added design flexibility.

HOW TO ORDER:

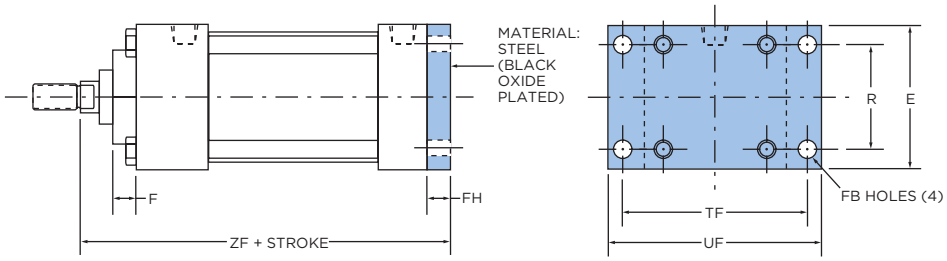
Combination mount part numbers can be constructed by adding a dash (-) in between the desired mounts in the part number. Consult factory for more information.



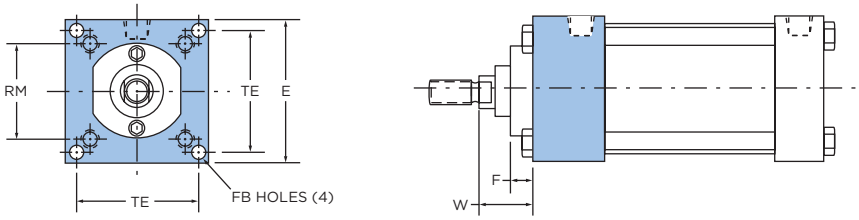
MODEL D (NFPA MF1) 1.50"– 6.00" BORES



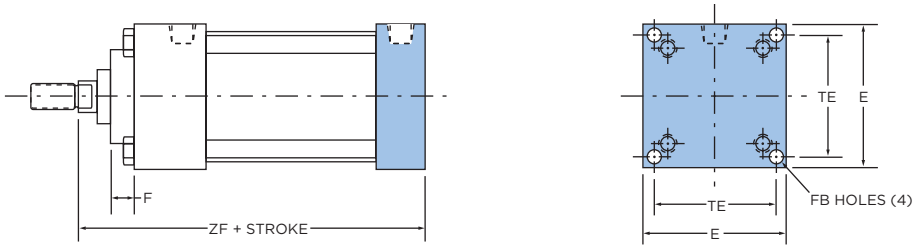
MODEL C (NFPA MF2) 1.50"– 6.00" BORES



MODEL DG (NFPA ME3) 8.00"–12.00" BORES



MODEL CJ (NFPA ME4) 8.00"–12.00" BORES



BASIC DIMENSIONS

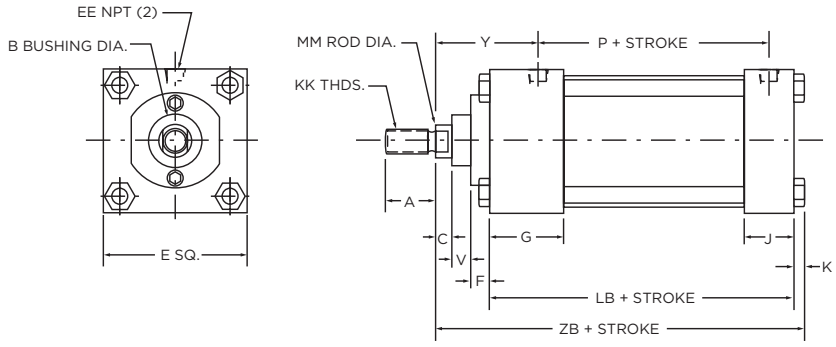


Table 1 BASIC DIMENSIONS STANDARD & OVERSIZE RODS

BORE	ROD DIAMETER	A	B	C	EE	G	J	K	KK	LB	MM	P	V	Y	ZB
1.50	0.63	0.750	1.125	0.375	0.375	1.500	1.000	0.250	7/16-20	3.625	0.625	2.375	0.250	1.875	4.875
	1.00	1.125	1.500	0.500	0.375	1.500	1.000	0.250	3/4-16	3.625	1.000	2.375	0.500	2.250	5.250
2.00	0.63	0.750	1.125	0.375	0.375	1.500	1.000	0.313	7/16-20	3.625	0.625	2.375	0.250	1.875	4.938
	1.00	1.125	1.500	0.500	0.375	1.500	1.000	0.313	3/4-16	3.625	1.000	2.375	0.500	2.250	5.313
2.50	0.63	0.750	1.125	0.375	0.375	1.500	1.000	0.313	7/16-20	3.750	0.625	2.500	0.250	1.875	5.063
	1.00	1.125	1.500	0.500	0.375	1.500	1.000	0.313	3/4-16	3.750	1.000	2.500	0.500	2.250	5.438
3.25	1.00	1.125	1.500	0.500	0.500	1.750	1.250	0.375	3/4-16	4.250	1.000	2.750	0.250	2.375	6.000
	1.38	1.625	2.000	0.625	0.500	1.750	1.250	0.375	1-14	4.250	1.000	1.375	0.375	2.625	6.250
4.00	1.00	1.125	1.500	0.500	0.500	1.750	1.250	0.375	3/4-16	4.250	1.000	2.750	0.250	2.375	6.000
	1.38	1.625	2.000	0.625	0.500	1.750	1.250	0.375	1-14	4.250	1.000	1.375	0.375	2.625	6.250
5.00	1.00	1.125	1.500	0.500	0.500	1.750	1.250	0.438	3/4-16	4.500	1.000	3.000	0.250	2.375	6.313
	1.38	1.625	2.000	0.625	0.500	1.750	1.250	0.438	1-14	4.500	1.000	1.375	0.375	2.625	6.563
6.00	1.38	1.625	2.000	0.625	0.750	2.000	1.500	0.438	1-14	5.000	1.375	3.250	0.375	2.750	7.063
	1.75	2.000	2.375	0.750	0.750	2.000	1.500	0.438	1-1/4-12	5.000	1.750	3.250	0.500	3.000	7.313
8.00	1.38	1.625	2.000	0.625	0.750	2.000	1.500	0.563	1-14	5.125	1.375	3.375	0.375	2.750	7.313
	1.75	2.000	2.375	0.750	0.750	2.000	1.500	0.563	1-1/4-12	5.125	1.750	3.375	0.500	3.000	7.563
10.00	1.75	2.000	2.375	0.750	1.000	2.250	2.000	0.688	1-1/4-12	6.375	1.750	4.313	0.500	3.063	8.938
	2.00	2.250	2.625	0.875	1.000	2.250	2.000	0.688	1-1/2-12	6.375	2.000	4.313	0.375	3.188	9.063
12.00	2.00	2.250	2.625	0.875	1.000	2.250	2.000	0.688	1-1/2-12	6.875	2.000	4.813	0.375	3.188	9.563
	2.50	3.000	3.125	1.000	1.000	2.250	2.000	0.688	1-7/8-12	6.875	2.500	4.813	0.500	3.438	9.813

Table 2 MODELS D, C, DG AND CJ FLANGE MOUNT DIMENSIONS

BORE	ROD DIAMETER	E	F	FB	FH	R	RM	TE	TF	UF	W	ZF
1.50	0.63	2.000	0.375	0.313	0.375	1.438	–	–	2.750	3.375	0.625	5.000
	1.00	2.000	0.375	0.313	0.375	1.438	–	–	2.750	3.375	1.000	5.375
2.00	0.63	2.500	0.375	0.375	0.375	1.848	–	–	3.375	4.125	0.625	5.000
	1.00	2.500	0.375	0.375	0.375	1.848	–	–	3.375	4.125	1.000	5.375
2.50	0.63	3.000	0.375	0.375	0.375	2.188	–	–	3.875	4.625	0.625	5.125
	1.00	3.000	0.375	0.375	0.375	2.188	–	–	3.875	4.625	1.000	5.500
3.25	1.00	3.750	0.625	0.438	0.625	2.766	–	–	4.688	5.500	0.750	6.250
	1.38	3.750	0.625	0.438	0.625	2.766	–	–	4.688	5.500	1.000	6.500
4.00	1.00	4.500	0.625	0.438	0.625	3.328	–	–	5.438	6.250	0.750	6.250
	1.38	4.500	0.625	0.438	0.625	3.328	–	–	5.438	6.250	1.000	6.500
5.00	1.00	5.500	0.625	0.563	0.625	4.100	–	–	6.625	7.625	0.750	6.500
	1.38	5.500	0.625	0.563	0.625	4.100	–	–	6.625	7.625	1.000	6.750
6.00	1.38	6.500	0.625	0.563	0.750	4.875	–	–	7.625	8.625	0.875	7.375
	1.75	6.500	0.625	0.563	0.750	4.875	–	–	7.625	8.625	1.125	7.625
8.00	1.38	8.500	0.625	0.688	N/A	N/A	3.500	7.570	N/A	N/A	1.625	6.750
	1.75	8.500	0.625	0.688	N/A	N/A	3.500	7.570	N/A	N/A	1.875	7.000
10.00	1.75	10.625	0.625	0.813	N/A	N/A	3.500	9.400	N/A	N/A	1.875	8.250
	2.00	10.625	0.750	0.813	N/A	N/A	5.000	9.400	N/A	N/A	2.000	8.375
12.00	2.00	12.750	0.750	0.813	N/A	N/A	5.000	11.100	N/A	N/A	2.000	8.875
	2.50	12.750	0.750	0.813	N/A	N/A	5.000	11.100	N/A	N/A	2.250	9.125