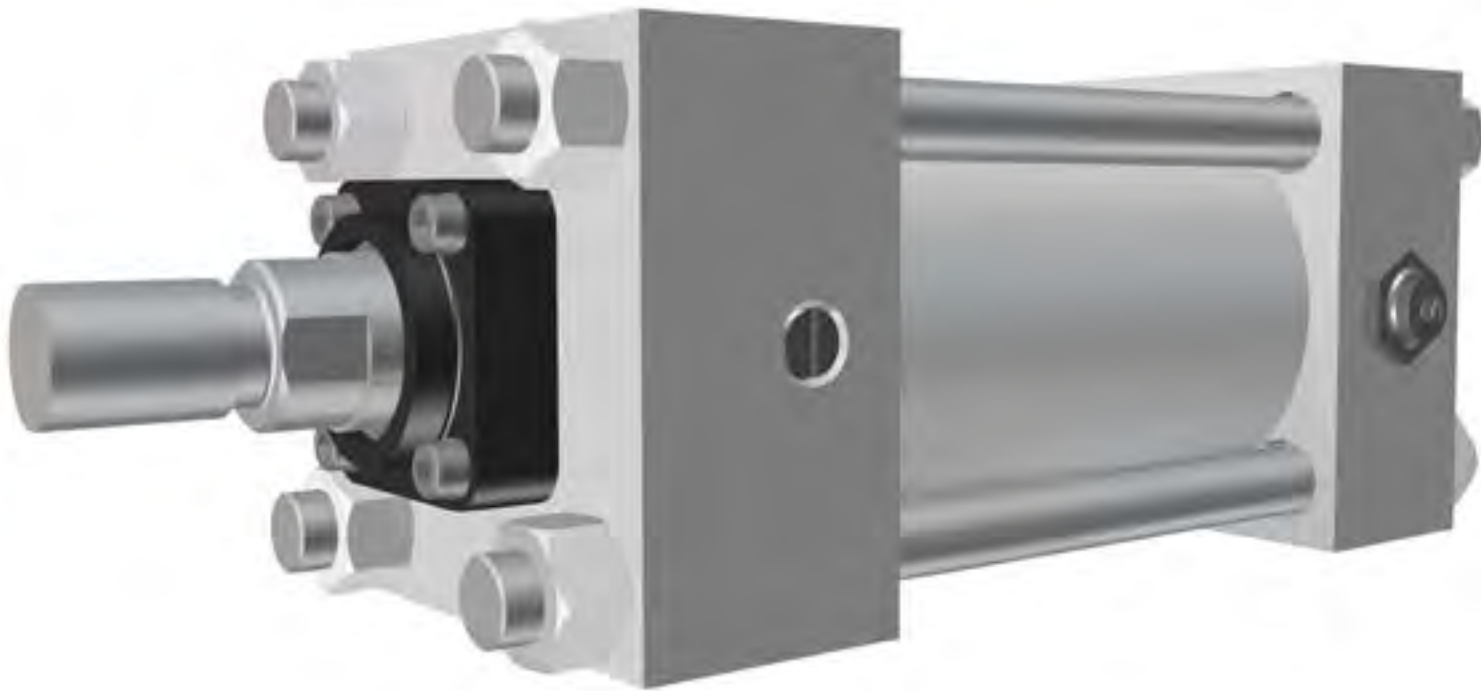


# Class 6

## Intermediate Pressure Square-Head Cylinders

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## HOW TO ORDER

### YOU CAN HELP ENSURE PROMPT PROCESSING OF YOUR ORDER BY INCLUDING ALL OF THE FOLLOWING REQUESTED INFORMATION:

1. Quantity required.
2. Operating medium: Series P6 or H6.  
P for pneumatic and H for hydraulic.
3. Bore size.
4. Stroke length in inches.
5. Type of mounting (NOPAK Model or NFPA STD. style).
6. Type of cushioning:  
 NN = non-cushioned  
 NA = cushioned blind end  
 AN = cushioned rod end  
 AA = cushioned both ends
7. Piston rod diameter and type of rod threading - specify Type 1, 3, 4, 5, 6 or 7. See page 130.

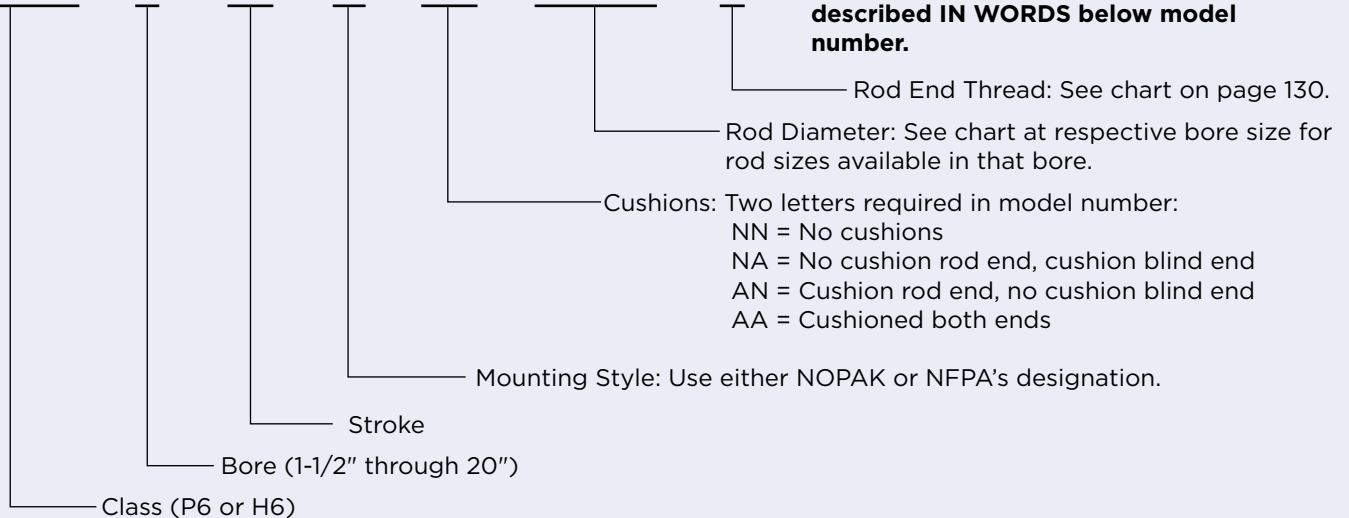
### ALSO SPECIFY:

1. Position of cylinder ports and cushion adjustment screws, if other than standard. Standard positions are:  
 National pipe thread inlets - position 1  
 Ball check - position 2  
 Cushion adjustment - position 4
2. Extreme high or low operating or ambient temperatures.
3. Type of hydraulic fluid if other than standard petroleum base oil.
4. Any unusual operating conditions.

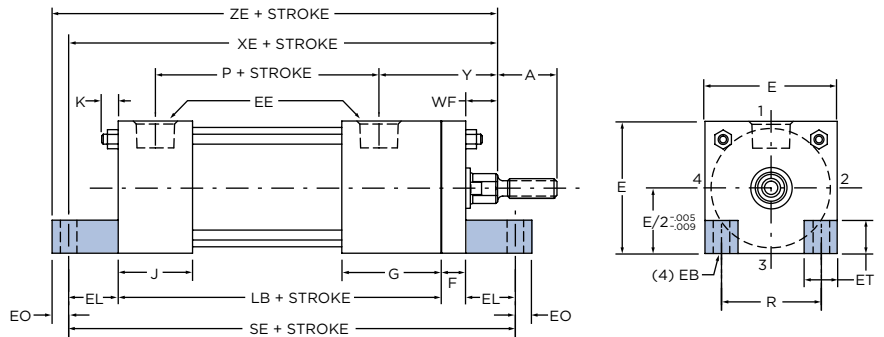
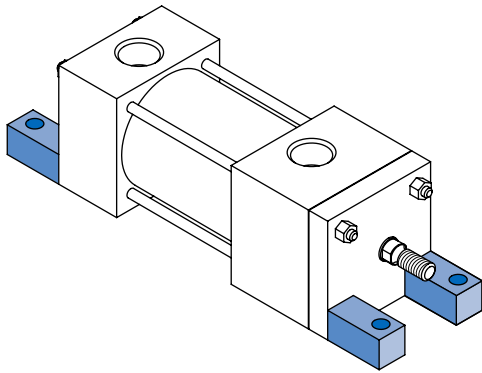
### ORDERING CODE EXAMPLE

**CLP6 - 8 x 18 - A - ΔΔ - 1-3/8 - 4**

**Any special requirements should be described IN WORDS below model number.**

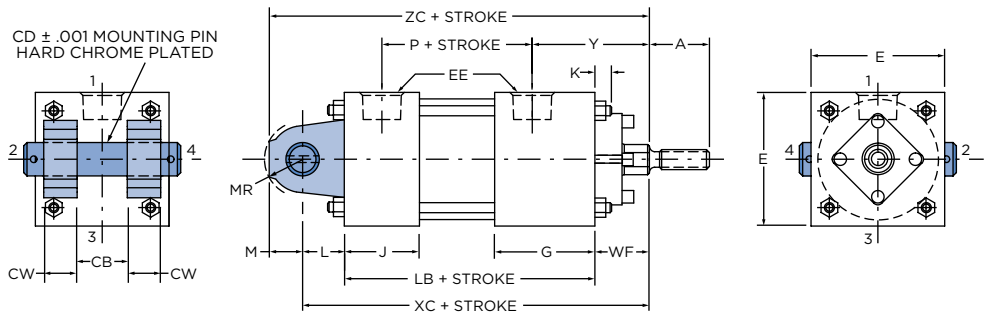
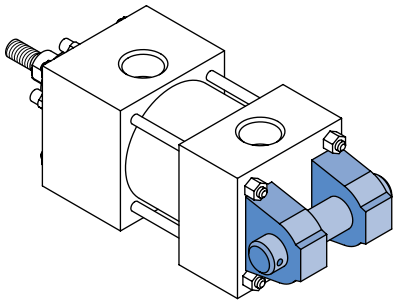


**MODEL AL (NFPA STD. MS7)**

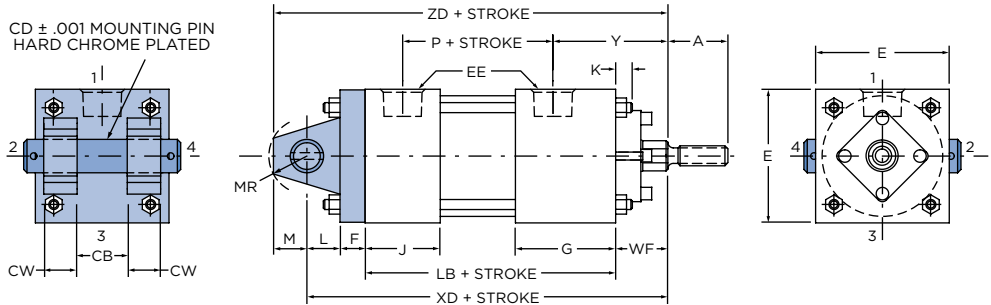
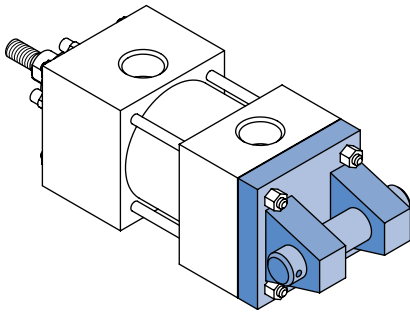


Model AL 1-1/2" diameter through 6" diameter cylinders furnished with head plates. 8" diameter through 14" diameter cylinders use (4) bolt glands as shown on page 108.

**MODEL E (NFPA STD. MP1)▲**



**MODEL HE (NFPA STD. MP2)▲**



▲ = See Table A on page 125 for bore and rod combinations using head plates with threaded bronze glands.

**Table 1** These dimensions are constant regardless of rod diameter or stroke.

For double rod end cylinders Model AL: subtract dimension J from dimension G and add to dimension SE + stroke.

For 1-1/2" through 6" bore: also add dimension F. See pages 126-129.

Double rod end models are designated by letter "X" preceding the model identification. See page 126.

• = Dimensions refer to bolt diameter.

BORE DIA.	E	F		G	J	K	L	M	R	CB	CD	CW	EB•	EE	EL	EO	ET	MR
		AL	HE															
1-1/2	2	3/8	3/8	1-1/2	1-1/8	1/4	3/4	1/2	1.43	3/4	1/2	1/2	1/4	3/8	3/4	1/4	1/2	5/8
2	2-1/2	3/8	3/8	1-1/2	1-1/8	3/8	3/4	1/2	1.84	3/4	1/2	1/2	5/16	3/8	15/16	5/16	19/32	5/8
2-1/2	3	3/8	3/8	1-1/2	1-1/8	5/16	3/4	1/2	2.19	3/4	1/2	1/2	5/16	3/8	1-1/16	5/16	3/4	5/8
3-1/4	3-3/4	5/8	5/8	1-3/4	1-1/4	7/16	1-1/4	3/4	2.76	1-1/4	3/4	5/8	3/8	1/2	7/8	3/8	29/32	7/8
4	4-1/2	5/8	5/8	1-3/4	1-1/4	7/16	1-1/4	3/4	3.32	1-1/4	3/4	5/8	3/8	1/2	1	3/8	1-1/8	7/8
5	5-1/2	5/8	5/8	1-3/4	1-1/4	1/2	1-1/4	3/4	4.1	1-1/4	3/4	5/8	1/2	1/2	1-1/16	1/2	1-11/32	7/8
6	6-1/2	3/4	7/8	2	1-1/2	9/16	1-1/2	1	4.88	1-1/2	1	3/4	1/2	3/4	1	1/2	1-9/16	1-1/4
8	8-1/2	3/4	7/8	2	1-1/2	5/8	1-1/2	1	6.44	1-1/2	1	3/4	5/8	3/4	1-1/8	5/8	2	1-1/4

# END LUG AND CLEVIS MOUNT CYLINDERS

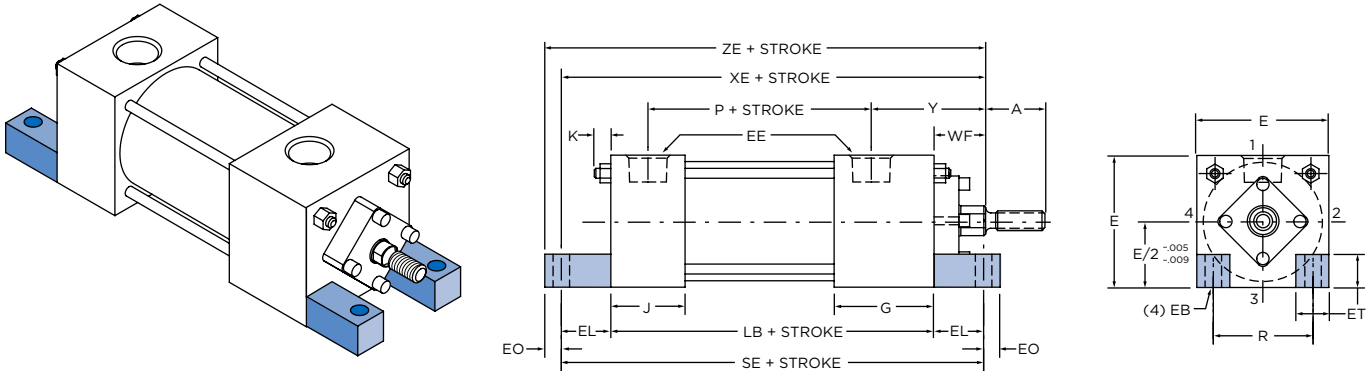
1-1/2" THROUGH 8" DIAMETER

**Table 2** The dimensions given on this table are affected by the piston rod diameter and the stroke.

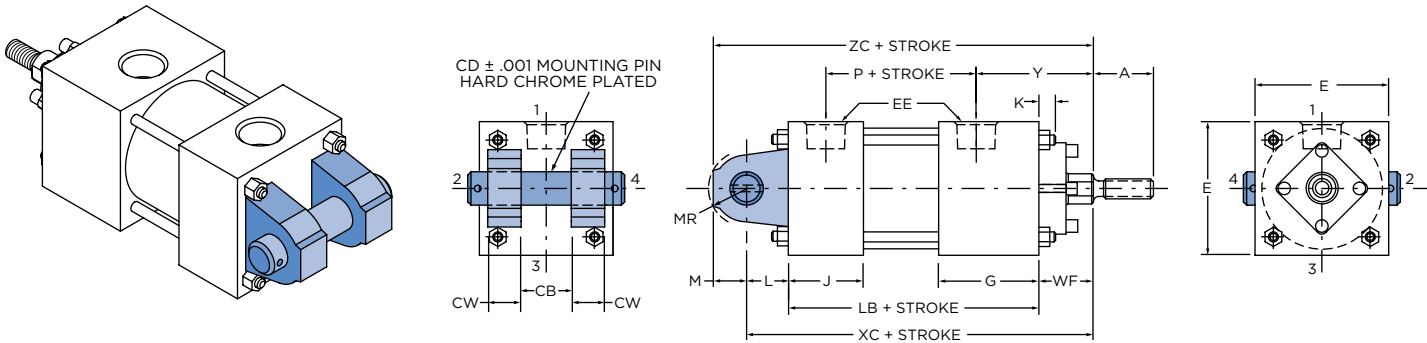
• = For piston rod dimensions see page 130.

BORE DIA.	ROD MM•	A	P	W	Y	LB	SE	WF	XC	XD	XE	ZC	ZD	ZE
1-1/2	5/8	3/4	2-1/8	5/8	1-15/16	3-5/8	5-1/2	1	5-3/8	5-3/4	5-3/8	5-7/8	6-1/4	5-5/8
	1	1-1/8	2-1/8	1	2-5/16	3-5/8	5-1/2	1-3/8	5-3/4	6-1/8	5-3/4	6-1/4	6-5/8	6
2	5/8	3/4	2-1/8	5/8	1-15/16	3-5/8	5-7/8	1	5-3/8	5-3/4	5-9/16	5-7/8	6-1/4	5-7/8
	1	1-1/8	2-1/8	1	2-5/16	3-5/8	5-7/8	1-3/8	5-3/4	6-1/8	5-15/16	6-1/4	6-5/8	6-1/4
	1-3/8	1-5/8	2-1/8	1-1/4	2-9/16	3-5/8	5-7/8	1-5/8	6	6-3/8	6-3/16	6-1/2	6-7/8	6-1/2
2-1/2	5/8	3/4	2-1/4	5/8	1-15/16	3-3/4	6-1/4	1	5-1/2	5-7/8	5-13/16	6	6-3/8	6-1/8
	1	1-1/8	2-1/4	1	2-5/16	3-3/4	6-1/4	1-3/8	5-7/8	6-1/4	6-3/16	6-3/8	6-3/4	6-1/2
	1-3/8	1-5/8	2-1/4	1-1/4	2-9/16	3-3/4	6-1/4	1-5/8	6-1/8	6-1/2	6-7/16	6-5/8	7	6-3/4
	1-3/4	2	2-1/4	1-1/2	2-13/16	3-3/4	6-1/4	1-7/8	6-3/8	6-3/4	6-11/16	6-7/8	7-1/4	7
3-1/4	1	1-1/8	2-1/2	3/4	2-1/2	4-1/4	6-5/8	1-3/8	6-7/8	7-1/2	6-1/2	7-5/8	8-1/4	6-7/8
	1-3/8	1-5/8	2-1/2	1	2-3/4	4-1/4	6-5/8	1-5/8	7-1/8	7-3/4	6-3/4	7-7/8	8-1/2	7-1/8
	1-3/4	2	2-1/2	1-1/4	3	4-1/4	6-5/8	1-7/8	7-3/8	8	7	8-1/8	8-3/4	7-3/8
	2	2-1/4	2-1/2	1-3/8	3-1/8	4-1/4	6-5/8	2	7-1/2	8-1/8	7-1/8	8-1/4	8-7/8	7-1/2
4	1	1-1/8	2-1/2	3/4	2-1/2	4-1/4	6-7/8	1-3/8	6-7/8	7-1/2	6-5/8	7-5/8	8-1/4	7
	1-3/8	1-5/8	2-1/2	1	2-3/4	4-1/4	6-7/8	1-5/8	7-1/8	7-3/4	6-7/8	7-7/8	8-1/2	7-1/4
	1-3/4	2	2-1/2	1-1/4	3	4-1/4	6-7/8	1-7/8	7-3/8	8	7-1/8	8-1/8	8-3/4	7-1/2
	2	2-1/4	2-1/2	1-3/8	3-1/8	4-1/4	6-7/8	2	7-1/2	8-1/8	7-1/4	8-1/4	8-7/8	7-5/8
	2-1/2	3	2-1/2	1-5/8	3-3/8	4-1/4	6-7/8	2-1/4	7-3/4	8-3/8	7-1/2	8-1/2	9-1/8	7-7/8
5	1	1-1/8	2-3/4	3/4	2-1/2	4-1/2	7-1/4	1-3/8	7-1/8	7-3/4	6-15/16	7-7/8	8-1/2	7-7/16
	1-3/8	1-5/8	2-3/4	1	2-3/4	4-1/2	7-1/4	1-5/8	7-3/8	8	7-3/16	8-1/8	8-3/4	7-11/16
	1-3/4	2	2-3/4	1-1/4	3	4-1/2	7-1/4	1-7/8	7-5/8	8-1/4	7-7/16	8-3/8	9	7-15/16
	2	2-1/4	2-3/4	1-3/8	3-1/8	4-1/2	7-1/4	2	7-3/4	8-3/8	7-9/16	8-1/2	9-1/8	8-1/16
	2-1/2	3	2-3/4	1-5/8	3-3/8	4-1/2	7-1/4	2-1/4	8	8-5/8	7-13/16	8-3/4	9-3/8	8-5/16
	3	3-1/2	2-3/4	1-5/8	3-3/8	4-1/2	7-1/4	2-1/4	8	8-5/8	7-13/16	8-3/4	9-3/8	8-5/16
	3-1/2	3-1/2	2-3/4	1-5/8	3-3/8	4-1/2	7-1/4	2-1/4	8	8-5/8	7-13/16	8-3/4	9-3/8	8-5/16
6	1-3/8	1-5/8	3-1/8	7/8	2-13/16	5	7-3/4	1-5/8	8-1/8	9	7-5/8	9-1/8	10	8-1/8
	1-3/4	2	3-1/8	1-1/8	3-1/16	5	7-3/4	1-7/8	8-3/8	9-1/4	7-7/8	9-3/8	10-1/4	8-3/8
	2	2-1/4	3-1/8	1-1/4	3-3/16	5	7-3/4	2	8-1/2	9-3/8	8	9-1/2	10-3/8	8-1/2
	2-1/2	3	3-1/8	1-1/2	3-7/16	5	7-3/4	2-1/4	8-3/4	9-5/8	8-1/4	9-3/4	10-5/8	8-3/4
	3	3-1/2	3-1/8	1-1/2	3-7/16	5	7-3/4	2-1/4	8-3/4	9-5/8	8-1/4	9-3/4	10-5/8	8-3/4
	3-1/2	3-1/2	3-1/8	1-1/2	3-7/16	5	7-3/4	2-1/4	8-3/4	9-5/8	8-1/4	9-3/4	10-5/8	8-3/4
8	1-3/8	1-5/8	3-1/4	-	2-13/16	5-1/8	7-3/8	1-5/8	8-1/4	9-1/8	7-7/8	9-1/4	10-1/8	8-1/2
	1-3/4	2	3-1/4	-	3-1/16	5-1/8	7-3/8	1-7/8	8-1/2	9-3/8	8-1/8	9-1/2	10-3/8	8-3/4
	2	2-1/4	3-1/4	-	3-3/16	5-1/8	7-3/8	2	8-5/8	9-1/2	8-1/4	9-5/8	10-1/2	8-7/8
	2-1/2	3	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8
	3	3-1/2	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8
	3-1/2	3-1/2	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8
	4	4	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8
	4-1/2	4-1/2	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8
	5	5	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8
5-1/2	5-1/2	3-1/4	-	3-7/16	5-1/8	7-3/8	2-1/4	8-7/8	9-3/4	8-1/2	9-7/8	10-3/4	9-1/8	

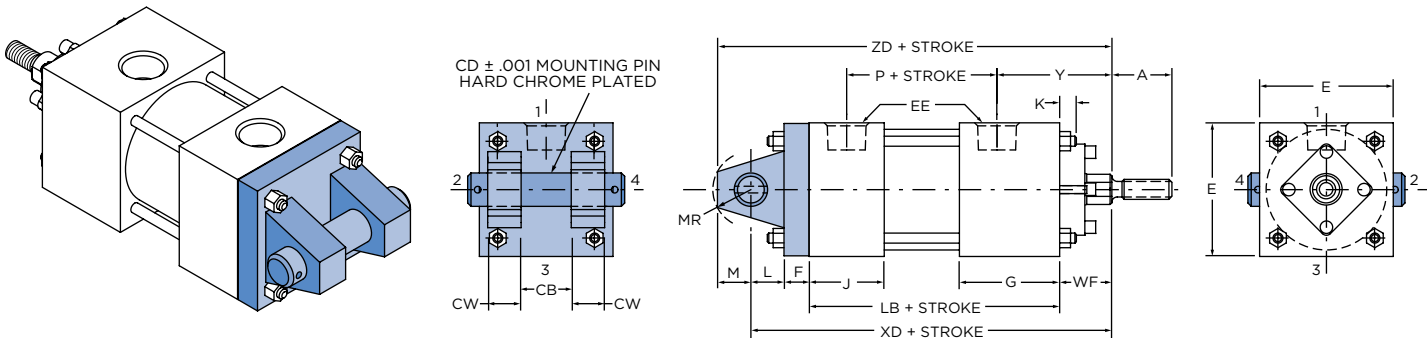
**MODEL AL (NFPA STD. MS7) 10" THROUGH 14" DIAMETER**



**MODEL E (NFPA STD. MP1) 10" THROUGH 20" DIAMETER**



**MODEL HE (NFPA STD. MP2) 10" DIAMETER**



**Table 1** These dimensions are constant regardless of rod diameter or stroke.

For double rod end cylinders Model AL: subtract dimension J from dimension G and add to dimension SE + stroke. See pages 126-129. Double rod end models are designated by letter "X" preceding the model identification. See page 126.

• = Dimensions refer to bolt diameter.

BORE DIA.	E	F	G	J	K	L	M	R	CB	CD	CW	EB•	EE	EL	EO	ET	MR
10	10-5/8	7/8	2-1/4	2	3/4	2-1/8	1-3/8	7.92	2	1-3/8	1	3/4	1	1-5/16	1-5/16	2-5/8	1-5/8
12	12-3/4	-	2-1/4	2	3/4	2-1/4	1-3/4	9.4	2-1/2	1-3/4	1-1/4	3/4	1	1-5/16	1-11/16	3-3/8	2
14	14-3/4	-	2-3/4	2-1/4	7/8	2-1/2	2	10.9	2-1/2	2	1-1/4	7/8	1-1/4	1-1/2	2	3-7/8	2-3/8
16	17-1/2	-	3	3	1	2-1/2	2	-	2-1/2	2	1-1/4	-	1-1/2	-	-	-	2-3/8
18	19-1/2	-	3-7/16	3-7/16	1-1/8	3	2-3/4	-	3	2-1/2	1-1/2	-	1-1/2	-	-	-	3
20	21-3/4	-	3-15/16	3-15/16	1-1/4	3-1/4	2-3/4	-	3	3	1-1/2	-	2	-	-	-	3-1/4

# END LUG AND CLEVIS MOUNT CYLINDERS

10" THROUGH 20" DIAMETER

**Table 2** The dimensions given on this table are affected by the piston rod diameter and the stroke.

• = For piston rod dimensions see page 130.

BORE DIA.	ROD MM•	A	P	Y	LB	SE	WF	XC	XD	XE	ZC	ZD	ZE
10	1-3/4	2	4	3-3/16	6-3/8	9	1-7/8	10-3/8	11-1/4	9-9/16	11-3/4	12-5/8	10-7/8
	2	2-1/4	4	3-5/16	6-3/8	9	2	10-1/2	11-3/8	9-11/16	11-7/8	12-3/4	11
	2-1/2	3	4	3-9/16	6-3/8	9	2-1/4	10-3/4	11-5/8	9-15/16	12-1/8	13	11-1/4
	3	3-1/2	4	3-9/16	6-3/8	9	2-1/4	10-3/4	11-5/8	9-15/16	12-1/8	13	11-1/4
	3-1/2	3-1/2	4	3-9/16	6-3/8	9	2-1/4	10-3/4	11-5/8	9-15/16	12-1/8	13	11-1/4
	4	4	4	3-9/16	6-3/8	9	2-1/4	10-3/4	11-5/8	9-15/16	12-1/8	13	11-1/4
	4-1/2	4-1/2	4	3-9/16	6-3/8	9	2-1/4	10-3/4	11-5/8	9-15/16	12-1/8	13	11-1/4
	5	5	4	3-9/16	6-3/8	9	2-1/4	10-3/4	11-5/8	9-15/16	12-1/8	13	11-1/4
12	2	2-1/4	4-1/2	3-5/16	6-7/8	9-1/2	2	11-1/8	-	10-3/16	12-7/8	-	11-7/8
	2-1/2	3	4-1/2	3-9/16	6-7/8	9-1/2	2-1/4	11-3/8	-	10-7/16	13-1/8	-	12-1/8
	3	3-1/2	4-1/2	3-9/16	6-7/8	9-1/2	2-1/4	11-3/8	-	10-7/16	13-1/8	-	12-1/8
	3-1/2	3-1/2	4-1/2	3-9/16	6-7/8	9-1/2	2-1/4	11-3/8	-	10-7/16	13-1/8	-	12-1/8
	4	4	4-1/2	3-9/16	6-7/8	9-1/2	2-1/4	11-3/8	-	10-7/16	13-1/8	-	12-1/8
	4-1/2	4-1/2	4-1/2	3-9/16	6-7/8	9-1/2	2-1/4	11-3/8	-	10-7/16	13-1/8	-	12-1/8
	5	5	4-1/2	3-9/16	6-7/8	9-1/2	2-1/4	11-3/8	-	10-7/16	13-1/8	-	12-1/8
14	2-1/2	3	5-1/2	3-13/16	8-1/8	11-1/8	2-1/4	12-7/8	-	11-7/8	14-7/8	-	13-7/8
	3	3-1/2	5-1/2	3-13/16	8-1/8	11-1/8	2-1/4	12-7/8	-	11-7/8	14-7/8	-	13-7/8
	3-1/2	3-1/2	5-1/2	3-13/16	8-1/8	11-1/8	2-1/4	12-7/8	-	11-7/8	14-7/8	-	13-7/8
	4	4	5-1/2	3-13/16	8-1/8	11-1/8	2-1/4	12-7/8	-	11-7/8	14-7/8	-	13-7/8
	4-1/2	4-1/2	5-1/2	3-13/16	8-1/8	11-1/8	2-1/4	12-7/8	-	11-7/8	14-7/8	-	13-7/8
	5	5	5-1/2	3-13/16	8-1/8	11-1/8	2-1/4	12-7/8	-	11-7/8	14-7/8	-	13-7/8
16	2-1/2	3	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
	3	3-1/2	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
	3-1/2	3-1/2	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
	4	4	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
	4-1/2	4-1/2	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
	5	5	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
	5-1/2	5-1/2	5-7/8	3-15/16	9-1/4	-	2-1/4	14	-	-	16	-	-
18	3-1/2	3-1/2	6	4-3/8	10-1/4	-	2-1/4	15-1/2	-	-	18	-	-
	4	4	6	4-3/8	10-1/4	-	2-1/4	15-1/2	-	-	18	-	-
	4-1/2	4-1/2	6	4-3/8	10-1/4	-	2-1/4	15-1/2	-	-	18	-	-
	5	5	6	4-3/8	10-1/4	-	2-1/4	15-1/2	-	-	18	-	-
	5-1/2	5-1/2	6	4-3/8	10-1/4	-	2-1/4	15-1/2	-	-	18	-	-
20	4	4	7-1/8	4-9/16	11-3/4	-	2-1/4	17-1/4	-	-	20	-	-
	4-1/2	4-1/2	7-1/8	4-9/16	11-3/4	-	2-1/4	17-1/4	-	-	20	-	-
	5	5	7-1/8	4-9/16	11-3/4	-	2-1/4	17-1/4	-	-	20	-	-
	5-1/2	5-1/2	7-1/8	4-9/16	11-3/4	-	2-1/4	17-1/4	-	-	20	-	-