



# HIGH PRESSURE MOTOR VALVES

## PISTON BALANCED

### APPLICATIONS:

For discharge of liquid or gas from vessels, separators, treaters, knockouts and other similar liquid accumulators.

For back pressure or pressure reducing applications with pressure pilots.

### FEATURES:





- Compact design
- Soft seat with metal to metal backup
- Valve travel indicator
- Field reversible topworks
- Teflon packed stuffing box
- Bubble tight shut-off
- Piston balanced seat assembly

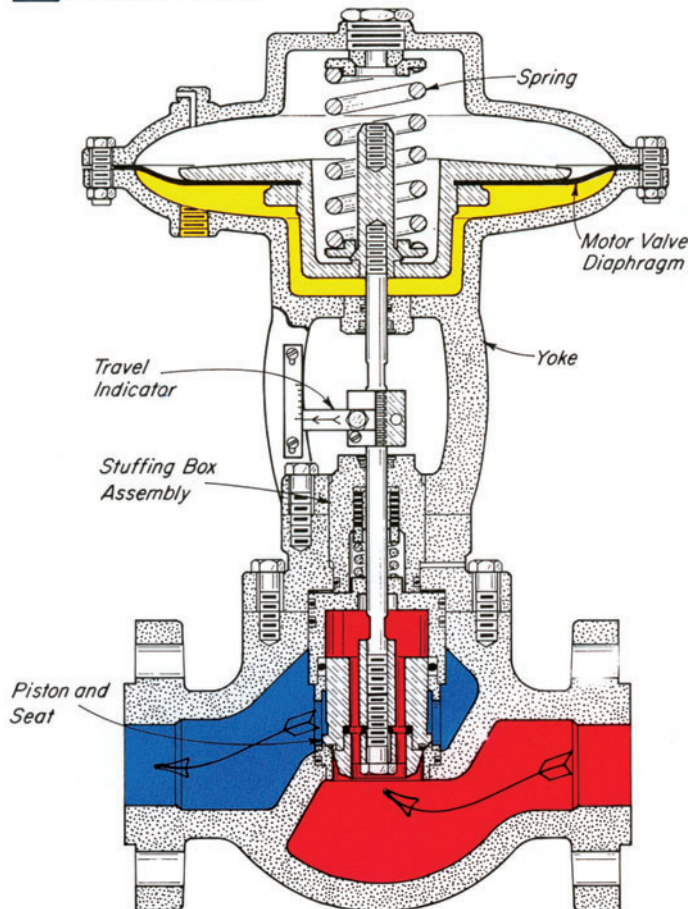
### TOPWORKS:

Unless otherwise specified, all HPMV's will be furnished with ductile topworks, steel topworks available for 2". Specify when ordering.

Effective diaphragm area:

- 2" HPMV PB - 65 square inches
- 3" HPMV PB - 100 square inches
- 4" HPMV PB - 100 square inches
- 6" HPMV PB - 120 square inches
- 8" HPMV PB - 120 square inches

-  Motor Valve Diaphragm Assembly
-  Motor Valve Diaphragm Pressure
-  Upstream Pressure
-  Downstream Pressure



### SPRINGS:

HPMV springs are available for diaphragm pressures of 15, 20, and 30 psig in the 2" valve and 30 psig in the 3" and 4" valve.

Unless otherwise specified, all PISTON BALANCED HPMV's will be furnished with 30 lb. springs.

Top Adjusting Screw may be adjusted to vary the spring tension slightly; this affects pressure required to actuate valve.

### STEM TRAVEL:

- 2" HPMV PB - 3/4" nominal
- 3" HPMV PB - 1 3/8" nominal
- 4" HPMV PB - 1 3/4" nominal
- 6" HPMV PB - 2 1/2" nominal
- 8" HPMV PB - 2 1/2" nominal

### ACTUATOR WORKING PRESSURE:

- 15-30 psig normal (see spring ranges)
- 45 psig maximum

### WORKING PRESSURE:

- 2" HPMV PB - 1500, 4000 psig
- 3" HPMV PB - 1500 psig
- 4" HPMV PB - 1500 psig
- 6" HPMV PB - 1500 psig
- 8" HPMV PB - 1500 psig

### INNER VALVE SIZES:

- 2" HPMV PB - 1 1/2" & 2" Equal Percentage
- 3" HPMV PB - 2" & 3" Equal Percentage
- 4" HPMV PB - 4 3/8" Equal Percentage
- 6" HPMV PB - 6 3/4" Equal Percentage
- 8" HPMV PB - 8 1/2" Equal Percentage

### STANDARD TRIM SPECIFICATIONS:

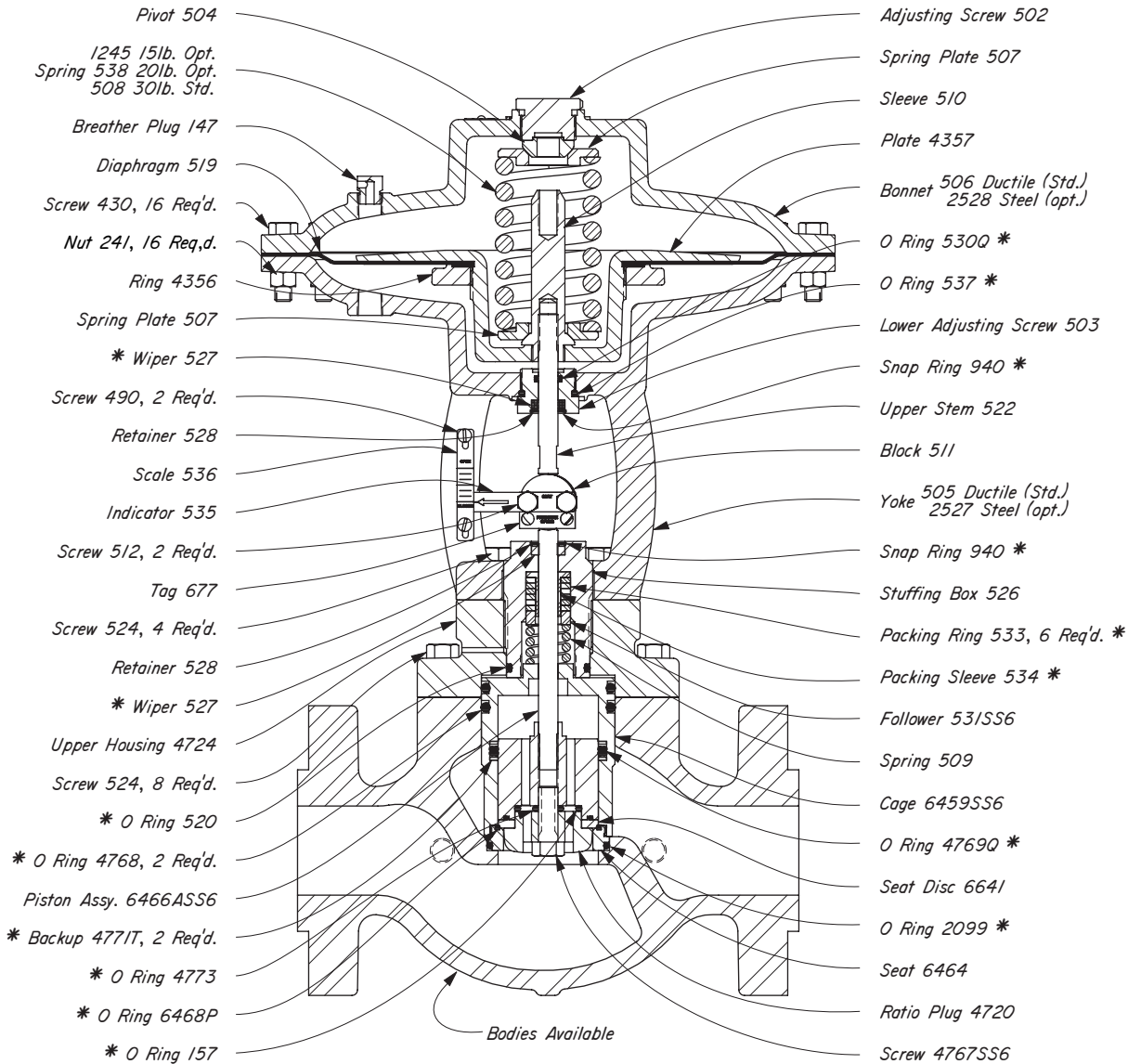
- 316 stainless steel cage
- D-2 tool steel valve plug assembly
- D-2 tool steel seat
- Polyurethane seal with Metal-to-Metal back-up (Other material available on request)



# HIGH PRESSURE MOTOR VALVES



## PISTON BALANCED 2" STEEL BODY DUCTILE TOPWORKS



BODY TYPE	SCREWED ‡			FLANGED		
	SIZE	BODY	W.P.	SIZE	BODY	ANSI CLASS
THRU	2"	4813	1500 psig	2"	4712	600 RF
	2"	4764	4000 psig	2"	4713	600 RTJ
				2"	4714	1500 RF
				2"	4715	1500 RTJ
				3"	4871	600 RF
				3"	4872	600 RTJ

‡ 2" NPT ANSI THREADS

### THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	VALVE	MAX W.P.	KIT
EFG	2" SCRD.	2150 SMT PB 2 IV	1500	RUR
EFH	2" SCRD.	2400 SMT PB 2 IV	4000	RUR
EFI	2" FLGD.	2150 FMT PB 600 RF- 2 IV	1480	RUR
EFJ	2" FLGD.	2150 FMT PB 600 RTJ- 2 IV	1480	RUR
EFK	2" FLGD.	2150 FMT PB 1500 RF- 2 IV	3705	RUR
EFL	2" FLGD.	2150 FMT PB 1500 RTJ- 2 IV	3705	RUR
EFM	3" FLGD.	3150 FMT PB 600 RF- 2 IV	1480	RUR
EFO	3" FLGD.	3150 FMT PB 600 RTJ- 2 IV	1480	RUR

†For working pressure vs. working temperature of these flanges see ANSI B16.5.

### NOTES:

All standard HPMV's have a Cat. No. Seats, stems, cages, stuffing boxes and valve bodies are available in 316 stainless steel. Inner valves can be made from a wide selection of materials. Specify when ordering.

Dimensions refer to E1:100.3

For BOTTOM WORKS only refer to Bulletin No. E105357

For TOP WORKS only refer to Bulletin No. E106025

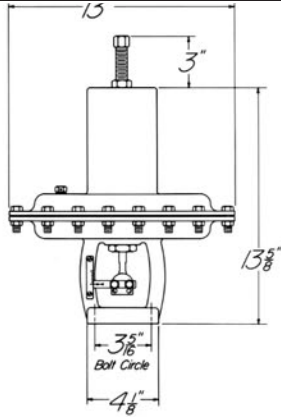
\*These are recommended spare parts and are stocked as repair kits.

# HIGH PRESSURE MOTOR VALVES

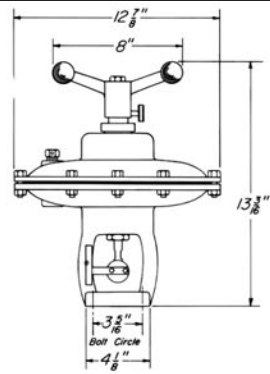
## 2" HPMV DIMENSIONS



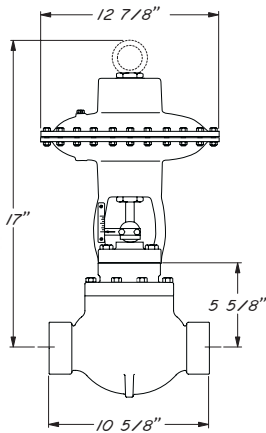
2" -65 TOPWORKS



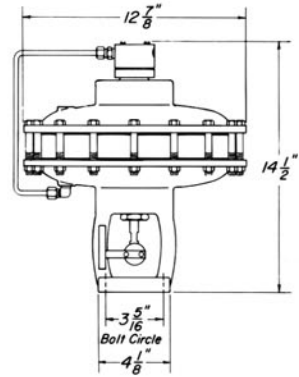
2" MVP TOPWORKS



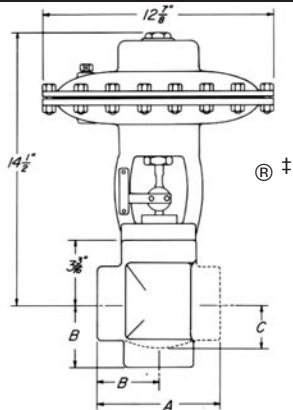
2" HPMV PB



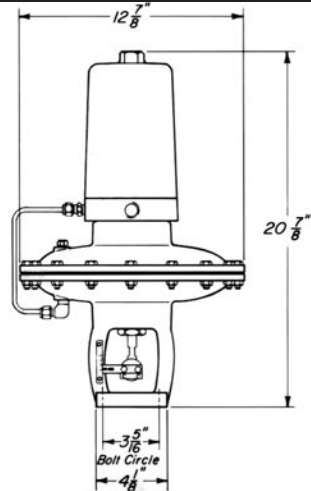
2" PVP TOPWORKS



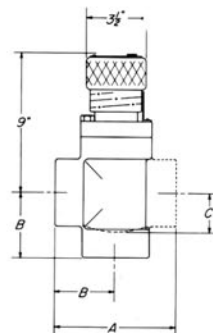
2" HPMV



2" EPVP TOPWORKS



2" SMVA/T TOPWORKS



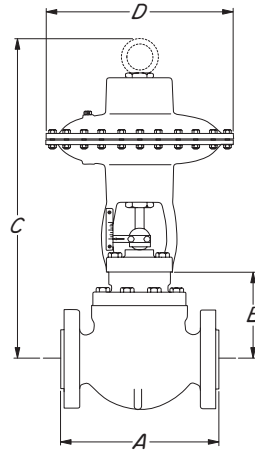
VALVE MODEL No.	TYPE OF CONNECTION SCREWED		
	A	B	C
2100	6 5/16"	3 1/4"	2"
2200	6 9/16"	3 3/8"	2 1/8"
2400	6 7/8"	3 1/2"	2 1/4"

All dimensions are in inches.  
Flanged body dimensions available on request.



# HIGH PRESSURE MOTOR VALVES

## FLANGED BODY DIMENSIONS



	SIZE	BODY STYLE	A	B	C	D
STANDARD	1"	150RF	7 1/4"	1 15/16"	10 1/2"	9 1/8"
		150RTJ	7 5/8"	1 15/16"	10 1/2"	9 1/8"
		300RF	7 3/4"	1 15/16"	10 1/2"	9 1/8"
		300RTJ	8 1/8"	1 15/16"	10 1/2"	9 1/8"
		600RF	8 1/4"	1 15/16"	10 1/2"	9 1/8"
		600RTJ	8 1/4"	1 15/16"	10 1/2"	9 1/8"
		1500RF	10 3/4"	1 15/16"	10 1/2"	9 1/8"
		1500RTJ	10 3/4"	1 15/16"	10 1/2"	9 1/8"
	2"	150RF	10 1/4"	3 3/16"	14 1/2"	12 7/8"
		150RTJ	12 3/8"	3 3/16"	14 1/2"	12 7/8"
		300RF	10 1/2"	3 3/16"	14 1/2"	12 7/8"
		300RTJ	11 1/8"	3 3/16"	14 1/2"	12 7/8"
		600RF	11 1/4"	3 3/16"	14 1/2"	12 7/8"
		600RTJ	11 3/8"	3 3/16"	14 1/2"	12 7/8"
1500RF		12 1/4"	3 3/16"	14 1/2"	12 7/8"	
1500RTJ		12 3/8"	3 3/16"	14 1/2"	12 7/8"	
PISTON BALANCED	2"	150RF	10 1/4"	5 5/8"	17"	12 7/8"
		300RF	10 1/2"	5 5/8"	17"	12 7/8"
		600RF	11 1/4"	5 5/8"	17"	12 7/8"
		1500RF	12 1/4"	5 5/8"	17"	12 7/8"
		1500RTJ	12 3/8"	5 5/8"	17"	12 7/8"
	3"	150RF	12 5/16"	7 1/4"	27"	15 3/4"
		300RF	12 1/2"	7 1/4"	27"	15 3/4"
		600RF	13 1/4"	7 1/4"	27"	15 3/4"
		600RTJ	13 3/8"	7 1/4"	27"	15 3/4"
	4"	150RF	13 7/8"	11"	30"	15 3/4"
		300RF	14 1/2"	11"	30"	15 3/4"
		600RF	15 1/2"	11"	30"	15 3/4"
	6"	150RF	17 3/4"	11 3/16"	34 1/2"	20 7/16"
		300RF	18 5/8"	11 3/16"	34 1/2"	20 7/16"
		600RF	20"	11 3/16"	34 1/2"	20 7/16"
	8"	600RF	24"	11 9/32"	34 1/2"	20 7/16"