



MB **PM-Series Shakers** use *permanent magnet technology* and the voice coil principle to create vibration. These general-purpose shakers are heavy duty, industrial-quality equipment with a proven track record of lasting ten, fifteen, even over twenty years in demanding applications. You can buy “*bargain basement*” shakers or you can invest in MB **PM-Shakers** that will provide you with years of dependable, reliable, and consistent testing. Choose from five different sizes -- depending on your needs -- with maximum sine force ratings of 25, 50, 100, 250 or 500 pounds.

The **PM25A**, **PM50A**, and **PM100A** Shakers all have ½" stroke and a 2.7" diameter mounting table. The **PM250HP** and **PM500HP** Shakers each have 2" of stroke and a 4.1" diameter mounting table.



## PERFORMANCE RATINGS

*\* Rated output with forced air cooling; Derate 50% for natural convection cooling*

Description	PM25A	PM50A	PM100A	PM250HP	PM500HP
Force Output	25 pounds Pk*	50 pounds Pk*	100 pounds Pk*	250 pounds Pk*	500 pounds Pk*
Displacement	0.5" Pk-Pk	0.5" Pk-Pk	0.5" Pk-Pk	2" Pk-Pk	2" Pk-Pk
Velocity	70 in/sec Pk	70 in/sec Pk	70 in/sec Pk	60 in/sec Pk	60 in/sec Pk
Acceleration (bare table)	50 g Pk	80 g Pk	106 g Pk	80 g Pk	80 g Pk
Frequency Range	DC-10,000 Hz	DC-10,000 Hz	DC-7000 Hz	DC-3500 Hz	DC-3000 Hz
Cooling	8 scfm @3" H <sub>2</sub> O	13 scfm @3" H <sub>2</sub> O	26 scfm @12" H <sub>2</sub> O	80 scfm @30" H <sub>2</sub> O	80 scfm @30" H <sub>2</sub> O
Coil Current & Resistance	4 amps; 2.7 ohms	8.5 amps; 1.3 ohms	8 amps; 2.6 ohms	40 amps; 0.21 ohms	38 amps; 0.5 ohms
Suspension Stiffness	75 lbs/in	75 lbs/in	75 lbs/in	40 lbs/in	40 lbs/in
Stray Field - 1" over center	< 20gauss	< 7 gauss	< 8 gauss	< 40 gauss	< 20 gauss
DC Centering				Drives 25 lbs to 1" Pk-Pk with 20% force derating	Drives 50 lbs to 1" Pk-Pk with 20% force derating

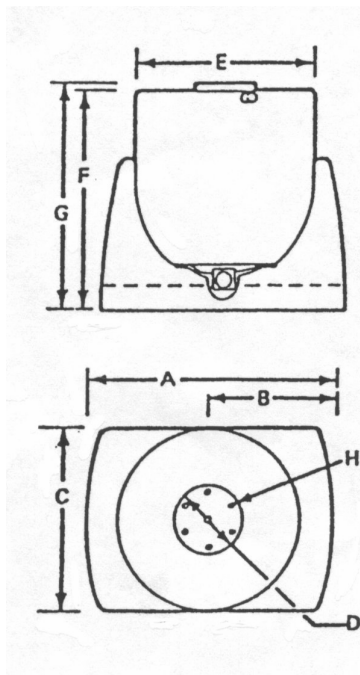
# MECHANICAL SPECIFICATIONS

Description	PM25A	PM50A	PM100A	PM250HP	PM500HP
Mounting Surface Bolt Holes	Six 10-32 threaded holes at 60° on 2.25" bolt circle (+ center)	Six 10-32 threaded holes at 60° on 2.25" bolt circle (+ center)	Six 10-32 threaded holes at 60° on 2.25" bolt circle (+ center)	Six ¼x28 threaded holes at 60° on 3.50" bolt circle (+ center)	Six ¼x28 threaded holes at 60° on 3.50" bolt circle (+ center)
Moving Element Diam.	2.70"	2.70"	2.70"	4.10"	4.10"
Base Footprint	10" x 7.5"	10" x 7.5"	10" x 7.5"	18" x 14"	18" x 14"
Body Diameter	7"	7"	7"	14¼"	14¼"
Height (to table top)	7½"	9½"	13½"	17¼"	20¼"
Moving Element Axial Resonance	8200 Hz	8000 Hz	6000 Hz	3000 Hz	2800 Hz
Weight, Moving Element	0.50 pounds	0.62 pounds	0.94 pounds	2.6 pounds	5.0 pounds
Weight, Exciter	38 pounds	55 pounds	80 pounds	250 pounds	420 pounds
Weight, Base	7 pounds	11 pounds	15 pounds	25 pounds	25 pounds
Base Type	2-position; rigid	2-position; rigid	2-position; rigid	trunnion	Trunnion
Trunnion Base	optional	optional	optional	standard	Standard
Cooling Connections	0.5" NPT	0.5" NPT	0.5" NPT	2.0" port	2.0" port

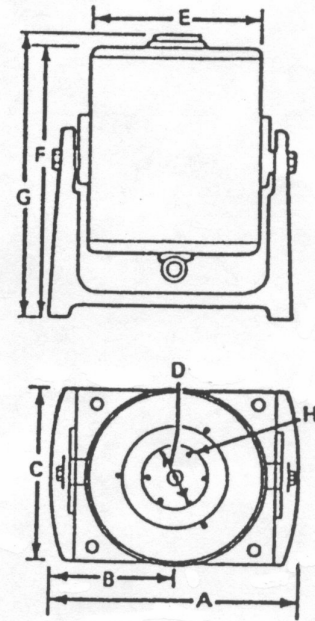
(Ratings & Specifications subject to change without notice 05/97)

## DIMENSIONS

### PM SHAKERS 25A / 50A / 100A



### PM SHAKERS 250HP / 500HP



Dimensions	A	B	C	D	E	F	G	H	Cooling
<b>PM25A</b>	10"	5"	5 ½"	2.25"	7-3/8"	7-7/32"	7-15/32"	10-32	½ NPT connection for cooling air 8 CFM at 3" H <sub>2</sub> O
<b>PM50A</b>	10"	5"	7 ½"	2.25"	7-3/8"	9-7/32"	9-15/32"	10-32	½ NPT connection for cooling air 13 CFM at 4" H <sub>2</sub> O
<b>PM100A</b>	10"	5"	7 ½"	2.25"	7-3/8"	13-7/32"	13-15/32"	10-32	½ NPT connection for cooling air 26 CFM at 12" H <sub>2</sub> O
<b>PM250HP</b>	18"	9"	14"	3.50"	14 ¼"	16-5/8"	17-3/16"	¼ - 28	2" connection for cooling air 80 CFM
<b>PM500HP</b>	18"	9"	14"	3.50"	14 ¼"	19-3/4"	20-5/16"	¼ - 28	2" connection for cooling air 80 CFM