

HOMOGENIZING MIXER HM-series



PMS HOMOGENIZING MIXER® provides high-shear agitation to moderately low-viscosity fluids. The homogenizing mixer is used to prepare suspension or emulsion. The test result obtained from laboratory unit assures a reliable scale-up to the larger production units.

Our range stretches from laboratory model of 1 liter up to production model of 500 liters working capacity.

Theory of Operation

Suspension can be prepared by using mixing tank fitted with PMS HOMOGENIZING MIXER®. The system must be operated with the homogenizing mixer's impeller being submerged in the product. As viscosity and/or density increases, the volume that the homogenizing mixer will be able to handle effectively will decrease.

The principle of operation is that high-speed rotor draws products from the bottom of the homogenizing mixer and ejects them peripherally through perforated stationary ring in a continuous flow basis. Thus, resulting in high degree of homogenizing and dispersing altogether in single process. The operation can rapidly and repeatedly reduce particle size to the very finest emulsion.

Application:

- Pharmaceuticals
- Cosmetics
- Body Care Products
- Food
- Chemical

Benefit:

- cGMP Compliance
- Economical and Efficient
- Consistent and Repeatable process
- Scale-up from R&D to production
- Compact and Mobile
- Easy to operate, clean and maintenance

Technical Data:

		HM 3 (Lab)	HM 50	HM 100	HM 200	HM 500
Working Capacity*	L	01.map	30-50	50-100	100-200	300-500
Driving Unit	KW	0.10	0.75	1.5	2.2	4.00
Speed		Variable	Fixed	Fixed	Fixed	Fixed
Head Diameter	mm	50	120	150	200	230
Machine Width	mm	250	700	800	1,35	1,2
Machine Depth	mm	290	800	900	920	1,1
Machine Height	mm	700	1,7	2	2,1	2,5
Hydraulic Head Lifting		No	Yes	Yes	Yes	Yes

Note:

* Working capacity depends on product viscosity.

Standard:

- Contact part made of stainless steel 304
- Movable Stand, made of painted carbon steel, with four nylon casters
- Fixed speed motor, except model HM 3 (Lab)
- Hydraulic jack for homogenizing mixer head lifting for model HM 50 – HM 500
- Electrical controller unit and Safety equipments

Options:

- Contact part made of stainless steel 316
- Movable stand made of stainless steel 304
- Explosion-proof motors
- Variable Speed motor with inverter control unit
- Product Container with or without heating jacket
- Special homogenizing head to cope with higher viscosity product.
- Special loading/unloading equipments or special loading/unloading height
- Validation Document: Installation Qualification (IQ)/ Operational Qualification (OQ)