



AMS – MAGNETIC MIXER

PRODUCT DESCRIPTION

Designed complying with FDA rules for pharmaceutical and biotechnology industries. The major advantage is that enables the total integrity of the tank. The transmission with magnetic torque avoids the occurrence of cross contamination between product and external environment, a typical problem of the use of devices with mechanical seals (shafts, seals and other equipment). Suitable for high viscosities, offers great flexibility. The bottom mounting allows to keep clear the tank from any other body, such as shafts from the top and baffles, thus easing vessel access, cleaning and maintenance.

PRINCIPLE OF OPERATION

A machined pad is welded into the bottom of the vessel (usually offset respect to the central axis). This design allows to dismount the drive unit and to sterilize the tank in an autoclave, meanwhile the same drive unit can be installed and operated in another vessel. The impeller head is running by a drive unit externally mounted. Inside the impeller head there is a ring of special magnets encapsulated in a 316L ss housing. The blades are made by working a unique piece of forged bar, creating an integral impeller head.



PERFORMANCE

The geometry of the impeller allows an excellent axial pumping flow and a medium shear rate for different applications (looking from the top, impeller always must rotate *clockwise*):

- Mixing, dilution, maintaining in suspension...
- Speed range 400 to 1.450 rpm using an inverter (*). Depending on the size of vessel and impeller-head, levels of agitation can change from vigorous to gentle.
- Recommended for difficult mixing of powder in a liquid.
- Small volumes can be achieved.
- All product contact parts are made in 1.4435 or 1.4404.
- The impeller head runs on a special grade tungsten carbide that has been manufactured under controlled conditions to achieve the correct size, grain structure and hardness.
- The blade shape and profile has been designed to optimize agitation levels and to direct a proportion of the cleaning fluid through the head.

(*) suggested range working speed can be achieved exceeding or decreasing 50Hz frequency.

Type	Volume range Vigorous / Gentle	Motor Power rating	Impeller Diameter	Weld plate Diameter/Thickness
AMS-02-P1BS- # @ -1B	5 - 10 L	0,18 Kw	Ø 60 mm	Ø 60 x10 mm
AMS-04- P1BS- # @ -1B	10 - 50 L	0,37 Kw	Ø 74 mm	Ø 70 x10 mm
AMS-06- P1BS- # @ -1B	50 – 150 L	0,75 Kw	Ø 88 mm	Ø 85 x15 mm
AMS-08- P1BS- # @ -1B	150 – 500 L	1,50 kw	Ø 109 mm	Ø 125 x 23 mm
AMS-12- P1BS- # @ -1B	300 – 2.000 L	2,20 kw	Ø 126 mm	Ø 150 x 23 mm
AMS-20- P1BS- # @ -1A	1.000 – 3.000 L	4,00 kw	Ø 164 mm	Ø 185 x 23 mm
AMS-32- P1BS- # @ -1A	2.000 – 6.000 L	7,50 kw	Ø 209 mm	Ø 250 x 30 mm
AMS-64- P1BS- # @ -1A	3.000 – 20.000 L	18,5 kw	Ø 209 mm	Ø 350 x 50 mm

- The mixing capacities above are based on aqueous like products with a density of 1.000 Kg/m³ and a viscosity of 1cp.
- Typical applications for “Gentle mixing” are where solid are held in suspension or where powders easily dissolve into the liquid.
- Typical applications for “Vigorous mixing” are where a vortex is required for blending of powders into a liquid.

Get the information you need and more at: info@aerreinox.it

In the interests of development and improvement of the product, we reserve the right to change the specifications without prior notice.

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