



AML

IN-LINE MAGNETIC HOMOGENIZER



1. PRODUCT DESCRIPTION

AML - IN-LINE MAGNETIC HOMOGENIZER

Designed complying with FDA rules for pharmaceutical and biotechnology industries. The major advantage is that enables to homogenize the liquid without the need of an extra pump outside the tank for recirculating the fluid. 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 external 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

The device has to be installed at the bottom of the vessel. 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 rotor head is running by a drive unit externally mounted. Inside the rotor head there is a ring of special magnets encapsulated in a 316L ss housing. The stator come, also, in unique piece from a round bar.



2. PERFORMANCE

• **Emulsifying:** the process of dispersing one liquid into a second insoluble liquid, such as oil dispersed in water. Producing a small particle size necessary in order to achieve a stable emulsion.

• **Dissolving/Downsizing:** dissolving application by dispersing an insoluble or semi insoluble solid into a liquid, whilst downsizing is often desired to reduce the particle size of the solids to obtain a stable suspension.

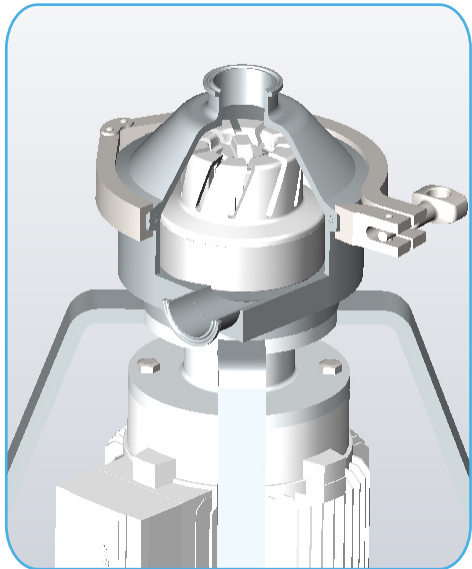
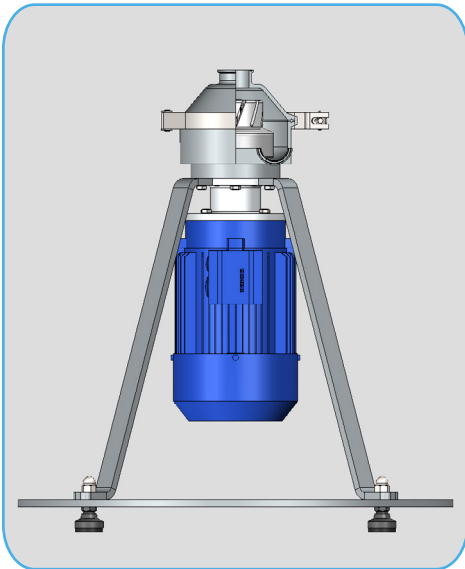
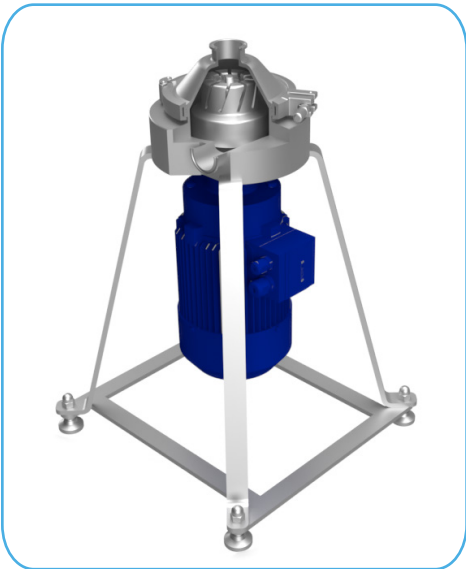
• **Suspending:** dispersing of solid particles into a liquid.

• **Pumping:** no need of extra pump for recirculating the fluid inside the tank: AML is providing the needed pressure head while homogenizing the liquid.



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

3. MAIN FEATURES

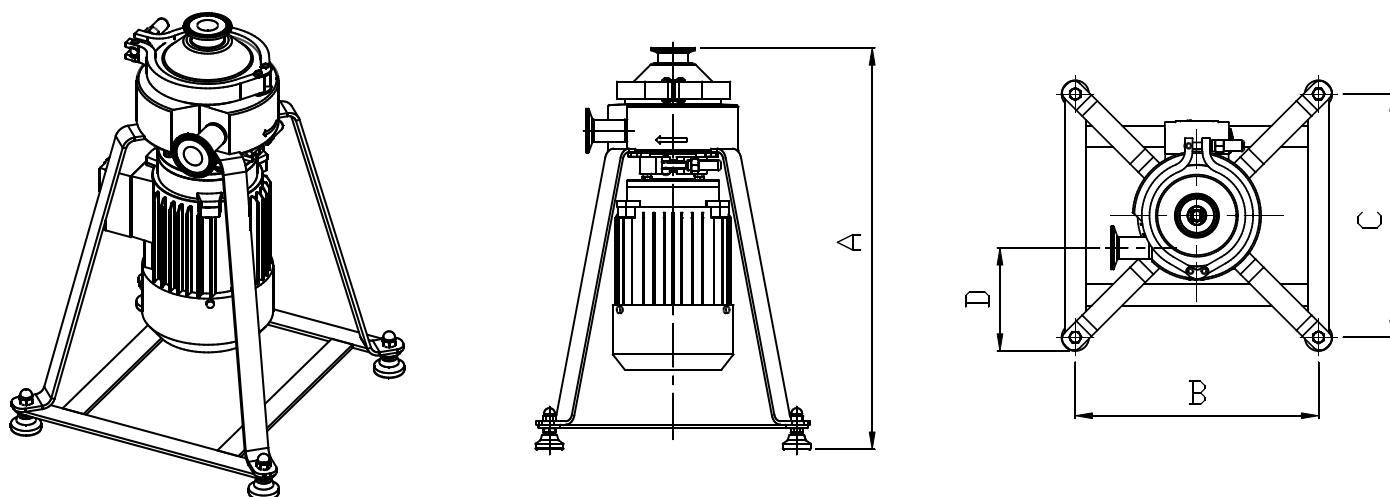


- 1. Speed range 500 to 3000 rpm using an inverter [*], depending on the size of vessel and impeller-head, small volumes can be achieved
- 2. Looking from the top, impeller always must rotate clockwise
- 3. All product contact parts are made in 1.4404 or 1.4435
- 4. All wetted surfaces are easily cleanable in place
- 5. Aseptic design
- 6. The rotor head runs on a special grade tungsten carbide bearing that has been manufactured under controlled conditions to achieve the correct size, grain structure and hardness

TYPE	Volume range	Motor Power rating	Weight	Impeller Diameter
AML-04	10 - 150 L	0.55 Kw - 0.75 hp	17 Kg	Ø 74 mm
AML-08	150 - 600 L	2.20 Kw - 2.99 hp	42.5 Kg	Ø 109 mm
AML-20	600 - 2500 L	7.50 Kw - 10.2 hp	115 Kg	Ø 164 mm

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4. NOMINAL DIMENSIONS IN mm



STANDARD	A mm	B mm	C mm	D mm
AML-04	462	284	284	120
AML-08	625	380	380	157
AML-20	788	509	509	180

5. GENERAL INFORMATION

MATERIAL WETTED PARTS

Impeller	stainless steel AISI 316L - 1.4404 or 1.4435
Static bearing	tungsten Carbide
Dinamic bearing	tungsten Carbide
O-Ring	FDA and USP Class VI

MOTOR DATA

Voltage	230/400V AC- 50Hz and 460/480V AC- 60Hz
Number of poles	2 except Atex execution which have 4 poles
Protection index	IP 55
Certified	CE/cCSAus, IEC, CEI/UNEL
Thermistor	1 (PTC, 150°C)

OPTIONAL ACCESSORIES

Bearings	Silicon Carbide, Zirconium Oxide
Extension	different lengths extensions available on request

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