



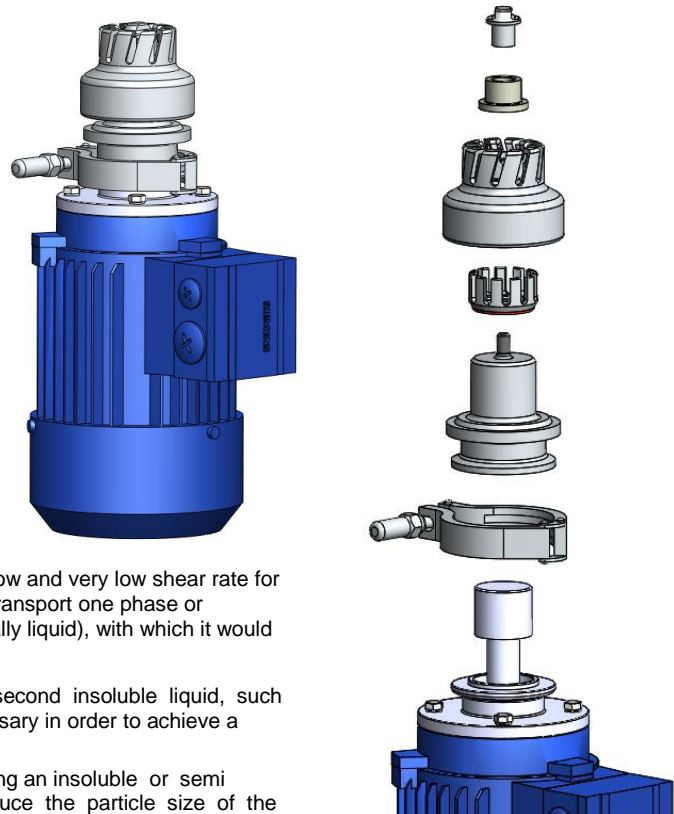
AMO - MAGNETIC HOMOGENIZER

PRODUCT DESCRIPTION

The Aerrex magnetic homogenizer are designed complying with FDA rules for pharmaceutical and biotechnology industries. The most obvious advantage of the magnetic mixer is that enables the total integrity of the tank. The vessel shell is not penetrated and there are no mechanical seals or stuffing boxes; this minimized cross-contamination risk and also prevent toxic or high value media from leaking out of the vessel and thereby challenge the sterility of the vessel and its contents. Suitable for viscosities up to 800 cps the Aerrex AMO-Magnetic homogenizer offers great flexibility. Bottom mounting also leaves the top of the vessel clear for easy vessel access.

PRINCIPLE OF OPERATION

The Aerrex magnetic homogenizer has a driven mixer that can be removed quickly and easily. A major advantage when sterilizing the vessel in an autoclave or when sharing a single drive units mechanism between vessels. A machined pad is welded into the bottom of the vessel (usually offset from a central bottom outlet valve). The impeller head is running by a drive unit mounts externally. Machined directly from a solid raw bar, inside the impeller head there is a ring of special magnets encapsulated in AISI 316L stainless steel housing. The stator come, also, in unique piece from a round bar.



PERFORMANCE

The geometry of the impeller allows an excellent axial pumping flow and very low shear rate for different applications, especially for Homogenizing that mean to transport one phase or ingredient (liquid, solid, gas) into a main continuous phase (typically liquid), with which it would normally be insoluble;

- EMULSIFYING: the process of dispersing one liquid into a second insoluble liquid, such as oil dispersed in water. Producing a small droplet size is necessary in order to achieve a stable emulsion.
- DISSOLVING or down sizing applications, dissolving is dispersing an insoluble or semi insoluble solid into a liquid. Down sizing is often desired to reduce the particle size of the solids to obtain a stable suspension.
- SUSPENDING is dispersing of solid particles into a liquid.

MAIN FEATURES

- speed range 500 to 2800 rpm using an inverter, depending on the size of vessel and impeller-head small volumes can be achieved; (looking from the top, impeller always must rotate *clockwise*).
- all product contact part are made in 1.4404 or 1.4435;
- all surfaces that come into contact with the product are easily cleaned in place;
- aseptic design;
- The rotor head runs on a special grade tungsten carbide that has been manufactured under controlled conditions to achieve the correct size, grain structure and hardness.

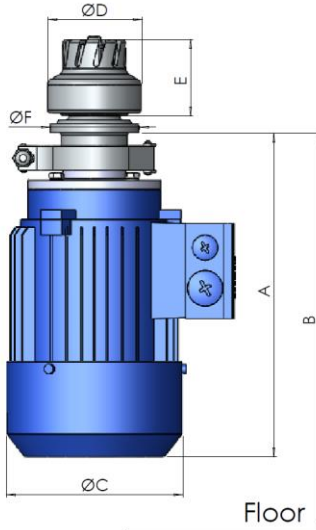
Type	Volume range	Motor Power rating	Weight	Impeller Diameter	Weld plate Diameter / thickness
AMO...04-AC	010 – 150 litres	0,55 Kw – 0,75 hp	05 Kg	Ø 075 mm	Ø 070 x 10 mm
AMO...08-AC	150 – 600 litres	2,20 Kw – 2,99 hp	16 Kg	Ø 110 mm	Ø 125 x 23 mm
AMO...20-AC	600 – 2500 litres	7,50 Kw – 10,2 hp	45 Kg	Ø 165 mm	Ø 185 x 23 mm

- The mixing capacities above are based on aqueous like products with a density of 1.000 Kg/m³ and a viscosity of 1cp.
- AMO Homogenizer Mixer can also be combined with a standard AMT mixer to achieve a variety of powerful results, such as collapsing vortex to prevent foaming, increased agitation, maintained suspensions at low levels etc...

Aerre Inox s.r.l.



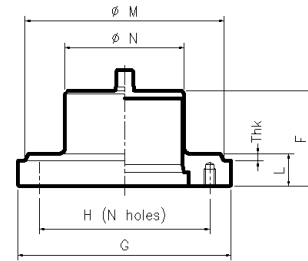
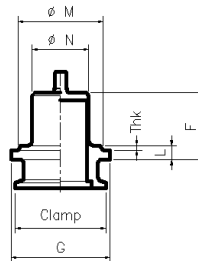
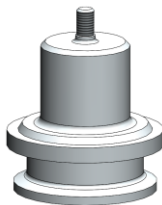
Nominal Dimensions in mm



STANDARD	A mm	B mm	Ø C motor	Ø D impeller	E mm	Ø F welding plate
AMO-04-AC Complete	255	335	140	075	59	070
AMO-08-AC Complete	340	400	175	110	83	125
AMO-20-AC Complete	470	550	260	165	103	185

ATEX VERSION	A mm	Ø C motor
AMOA04-AC Complete	300	140
AMOA08-AC Complete	390	180
AMOA20-AC Complete	475	260

Welding plate dimensions



Thk: to be defined during purchase order phase

Item No	F mm	G mm	L mm	H holes C/L	holes qty x dia	Clamp	Ø M Tank hole	Ø N	Weight kg
MM4/9/1-T	47	070	10	-	-	2"	060	040	0,500
MM8/9/1-T	67	125	23	095	8 x M8	-	115	064	1,900
MM20/9/1-T	70	185	23	160	9 x M8	-	175	124	3,550

Surface roughness: Ra<0,5 micron or better, manually polished or manually polished + electro polished
Material: stainless steel AISI 316L- 1.4404 or 1.4435 for round bar and blade plates, static female and dynamic male bearings in tungsten Carbide

In Compliance with: the weld plate is classified in Europe, for PED Directive 97/23/EC Category IV and approved by Notified Body

Non-standard executions available on request: Welding plate with bigger different thickness, shaft extension for vessel with jacket or thermal insulation, and also to ship the plate in dependently from the mixer, in order to accommodate customer requests.



General information

MATERIAL WETTED PARTS

Weld plate	stainless steel AISI 316L- 1.4404 or 1.4435
Impeller	stainless steel AISI 316L- 1.4404 or 1.4435
Static bearing	Tungsten Carbide
Dinamic bearing	Tungsten Carbide
Disk / 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)

WELDING PLATE

Surface roughness Ra<0,5 micron or better manually polished or manually polished + electro polished

design pressure -1 to +10 bar(g)

design tempereature -80 to +200°C

in compliance with the weld plate is classified in Europe, for the weld plate is classified in Europe, for PED Directive 97/23/EC Category IV and approved by Notified Body

labelling for full traceability purposes each weld plate is individually marked with item and heat No.

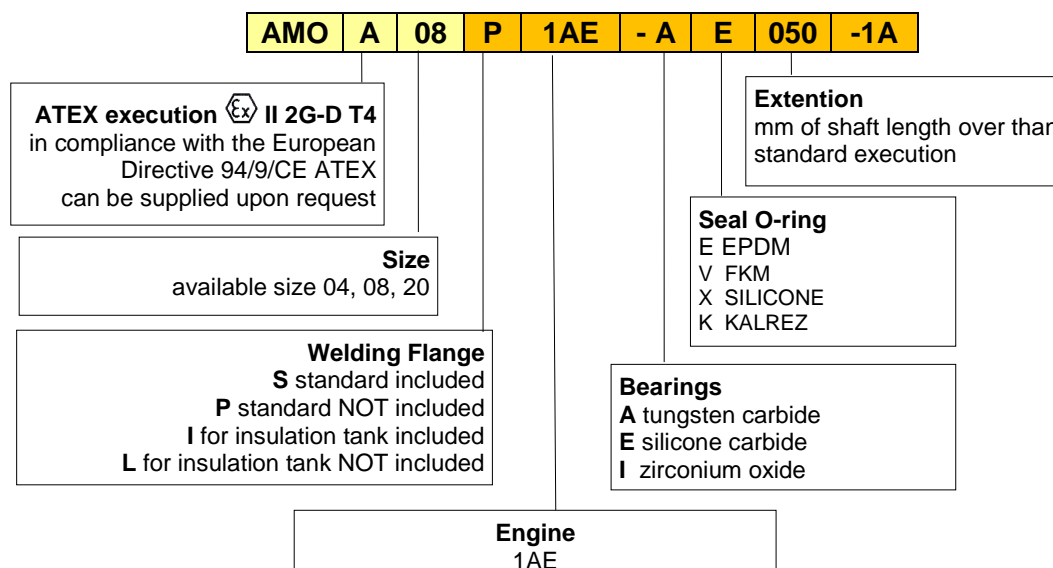
ATEX execution II 2G-D T4

in compliance with the European Directive 94/9/CE ATEX available on request

Warning : the assembled Mixer may have different design temperature and / or pressure limits. The weakest component in the assembled product determines the maximum design temperature and pressure limits.

Ordering information

To specify the part completely, start with the product description and select the additional options as shown below:



General information

- Weld plate and impeller in stainless steel AISI 316L -1.4435 as standard for size TM04, 08 other sizes in 1.4404
- Temperature probe PTC as standard

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.

Aerre Inox s.r.l.

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