



AMO - ВЫСОКОСКОРОСТНАЯ МАГНИТНАЯ МЕШАЛКА

PRODUCT DESCRIPTION

The Aerrex magnetic mixer high speed 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.

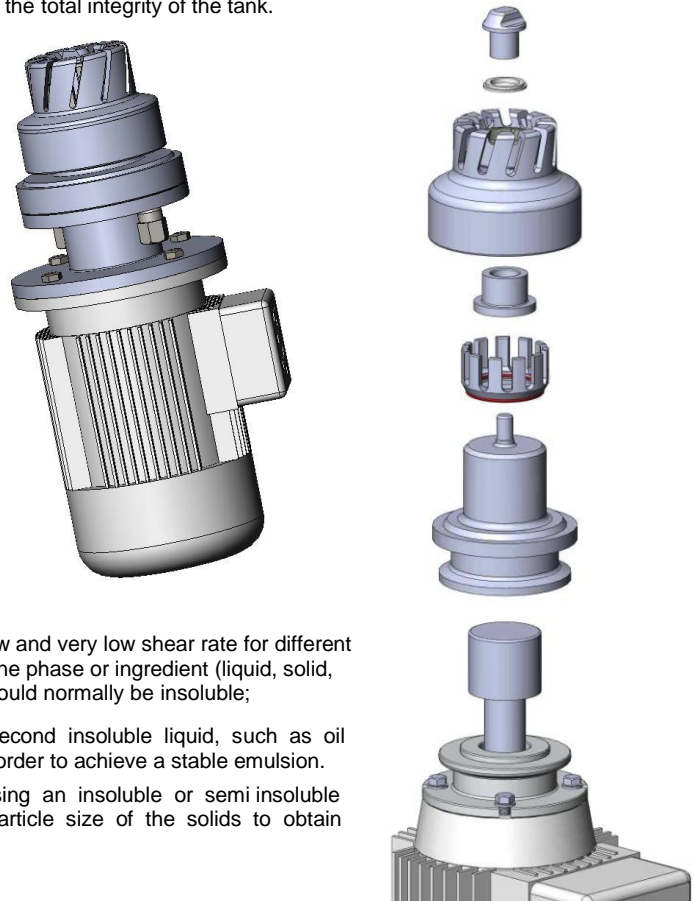
The vessel shell is not penetrated and there are no mechanical seals or stuffing boxes; this minimized cross-contamination risk and also prevent toxic or high value media from leaking out of the vessel and thereby challenge the sterility of the vessel and its contents.

Suitable for viscosities up to 800 cps the Aerrex AMO-Magnetic Mixer High Speed offers great flexibility.

Bottom mounting also leaves the top of the vessel clear for easy vessel access.

PRINCIPLE OF OPERATION

The Aerrex Magnetic Mixer High Speed 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

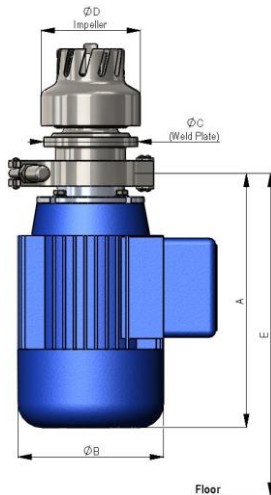
- speed range 500 to 3000 rpm using an inverter, depending on the size of vessel and impeller-head small volumes can be achieved; (looking from the top, impeller always must rotate *clockwise*).
- all product contact part are made in 1.4404 or 1.4435;
- all surfaces that come into contact with the product are easily cleaned in place;
- aseptic design;
- The 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.

Type	Volume range	Motor Power rating	Weight	Impeller Diameter	Weld plate Diameter / thickness
AMO-04-AC	10 – 150 litres	250 w – 0,33 hp	5 Kg	Ø 74 mm	Ø 70 x10 mm
AMO-08-AC	150 – 600 litres	0,75 kw – 1,00 hp	16 Kg	Ø 107 mm	Ø 125 x 23 mm
AMO-20-AC	600 – 2.500 litres	2,20 kw – 2,95 hp	45 Kg	Ø 164 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 High Speed 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...

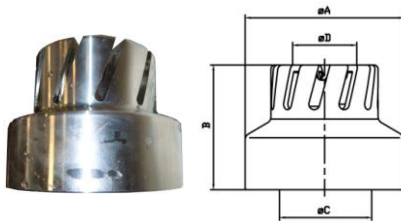


Nominal Dimensions in mm



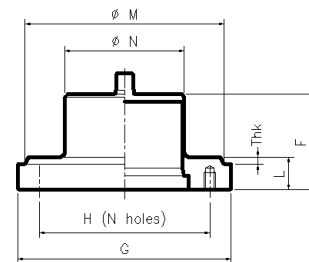
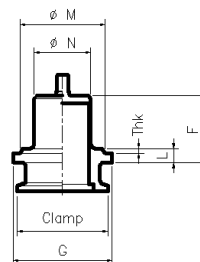
Type	A mm	Ø B motor	Ø D impeller	E mm	Ø G weld plate
AMO-04-AC Complete	200	Ø 110 mm	Ø 74 mm	280	Ø 70 mm
AMO-08-AC Complete	280	Ø 140 mm	Ø 107 mm	360	Ø 125 mm
AMO-20-AC Complete	320	Ø 180 mm	Ø 164 mm	400	Ø 185 mm

Impeller dimensions



Item code	A mm	B mm	Ø C Weld plate	Ø D static bearing	Weight Kg	Compatible mixer type
OM4/4-T	74	59	Ø 43	22	0,850	TM04-AC
OM8/4-T	107	81	Ø 67	28	1,800	TM08-AC
OM20/4-T	164	95	Ø 127	40	3,200	TM20-AC

Weld 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	67	70	10	-	-	2"	60	40	0,500
MM8/9/1-T	67	125	23	95	8 x M8	-	115	64	1,900
MM20/9/1-T	71	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 independently 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

WELD PLATE

Surface roughness	Ra<0,5 micron or better manually polished or manually polished + electro polished
design pressure	-1 to +10 bar(g)
design tempereure	-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.

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.

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

Speed sensor	a magnetic proximity sensor can be fitted onto weld plate to measure the rotation of the impeller
sensor type	PNP, Voltage 24V DC, degree of protection IP67
tempereure range	-10 to +125°C

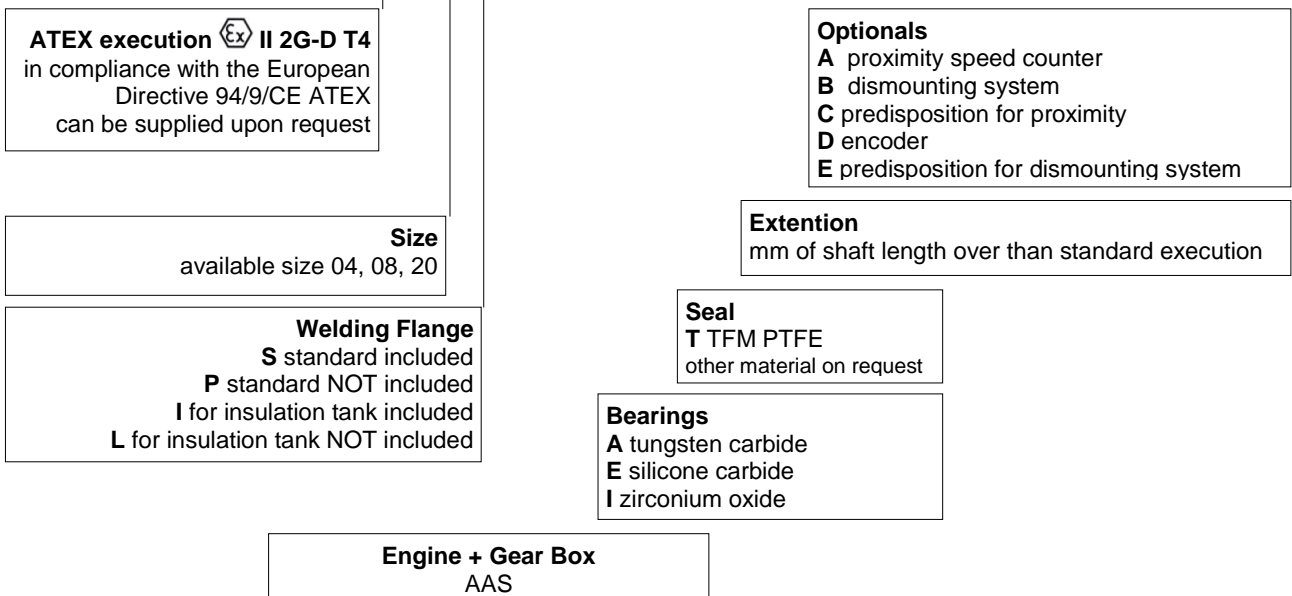
ATEX execution II 2G-D T4

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

Ordering information

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

AMO A -08 P AAS -A T 050 -E -1A



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@erreinox.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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