

Levitated Magnetic Mixer

Alfa Laval MM UltraPure, Magnetic Mixer

Application

Alfa Laval magnetic mixers offer effective mixing for applications with high demands on hygienic and aseptic design.

Working principle

The patented levitated bearing makes the mixer fully drainable and able to run dry without wear or particle generation. The performance ranges from low shear mixing at around 10 rpm to high intensity mixing with vortex at up to 600 rpm. For mixing tasks the range covers from 30 liters to 25000 liters of nominal batch size.

Standard design

The Alfa Laval MM UltraPure mixer consists of a weld plate and a mixer unit incl. gear drive. The weld plate is ordered and delivered separately to enable early preparation of the mixer installation. The mixer must be controlled by a VFD unit matched perfectly with the mixer as available in the ordering leaflet. The VFD is pre-programmed for optimum performance.



TECHNICAL DATA

Product wetted surface finish: Ra <0.5 µm Mech. polish
 Option: Ra <0.5 µm and Electro polished
 Working pressure: -1 to 7 bar (g)

Voltage and frequency

AC motors: 3x205/355V, 50Hz
 AC VFD: 240/120 V, 48-62Hz

Protection class

AC motors: IP66
 AC VFD stand alone: IP66
 AC VFD enclosure unit: IP20

Motor sizes

MM 338-4/6: 0.37 kW
 MM 434-8/10/12: 1.1 kW

Certificates

- Standard delivery includes:
- 3.1 Materials Certificates, EN10204 for all product wetted parts
 - USP Class VI <88> certificates for Zirconia YTZP and ISOLAST 9501
 - FDA Declaration of conformity for elastomers and ceramics
 - USDA-H1 conformity statement (FDA) for gear drive oil
 - TSE declaration (Transmissible Spongiform Encephalopathy) / ADI declaration (Animal Derived Ingredients)
 - USP Class VI <88> certificates on request for Silicon Carbide parts

PHYSICAL DATA

Materials

Impeller and Weld Plate: AISI 316L (UNS S31603)
 Drive rotor and distance piece: AISI 316L (UNS S31603)
 Motor and Gearbox: ANSI / NSF 51 compliant paint
 Male Bearing: Zirconia YTZP
 Male Bearing Gasket: ISOLAST 9501 (Perfluro Elastomer)
 Female Bearing: Silicone Carbide
 Gearbox oil: USDA-H1

Temperature

Product mixing (10 – 600 rpm): max. 90°C
 CIP (max 50 rpm): max. 95°C
 SIP (0 rpm): max. 150°C

Weight

MM 338: 12 kg
 MM 434: 30 kg