



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. The performance ranges from low shear mixing at around 10 rpm to high intensity mixing with vortex at up to 600 rpm. Depending on the mixer task 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. The VFD is pre-programmed for optimum performance.

Any brand of locally sourced VFD may be used under observation of the mixer manual



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

Please contact Alfa Laval for details

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

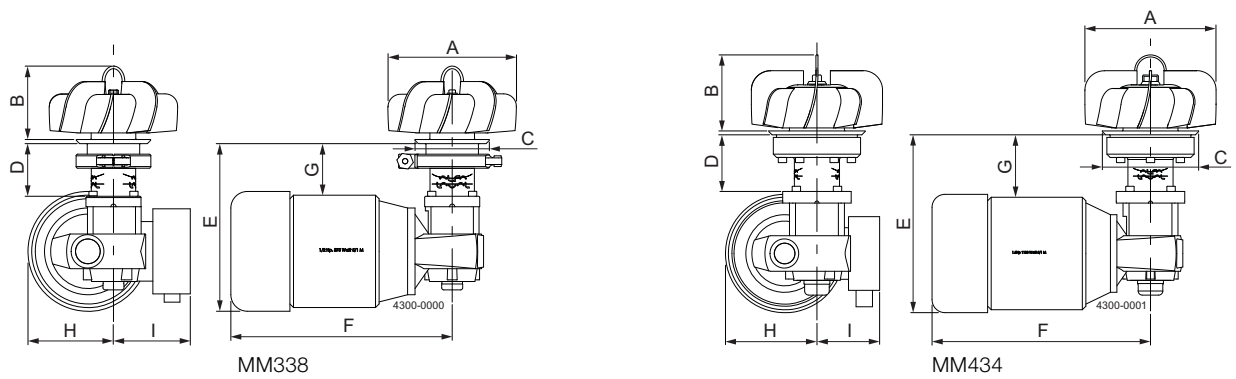
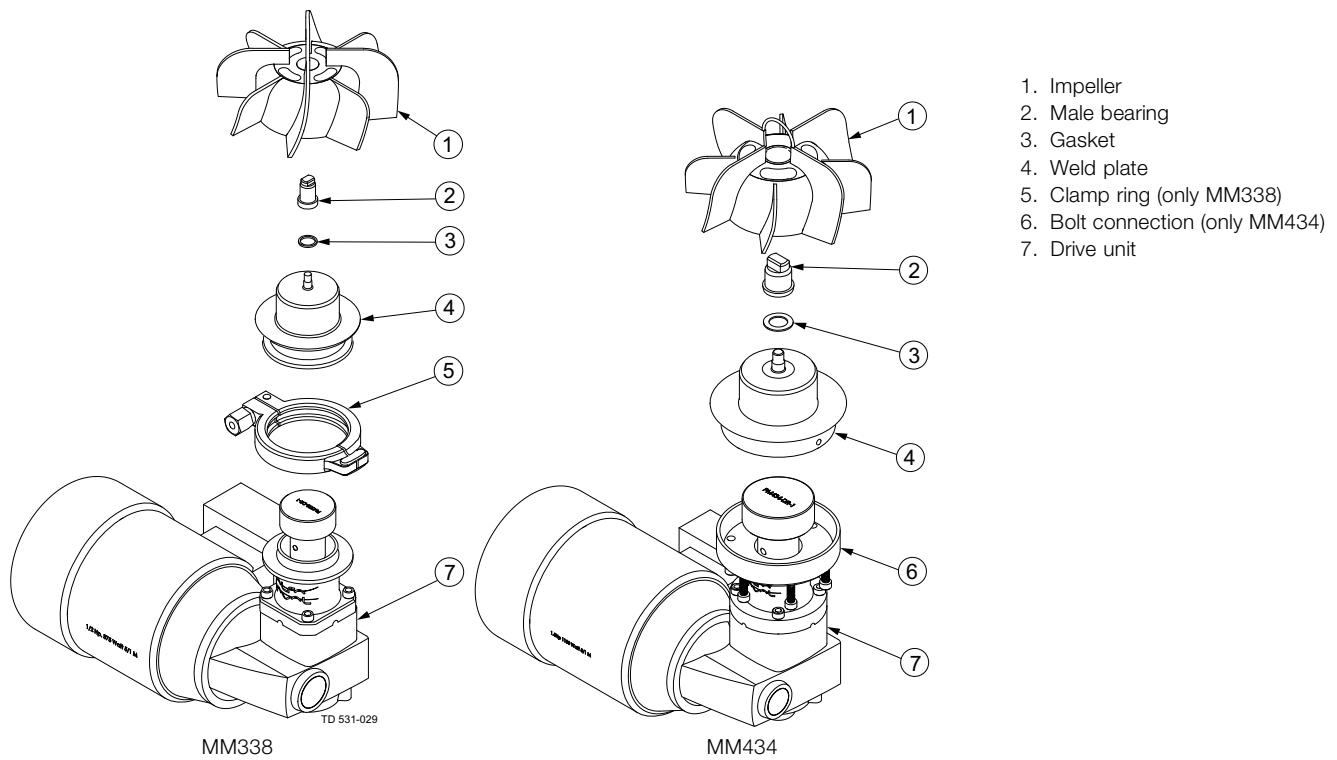
Impeller and Weld Plate: AISI 316L (UNS S31603)
 Drive rotor and distance piece: AISI 316L (UNS S31603)
 Motor and Gearbox: ANSI / NSF 51 compliant paint
 Male Bearing: Zirconia YTZP
 Male Bearing Gasket: ISOLAST 9501 (Perfluoro Elastomer)
 Female Bearing: Silicone Carbide
 Gearbox oil: USDA-H1

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

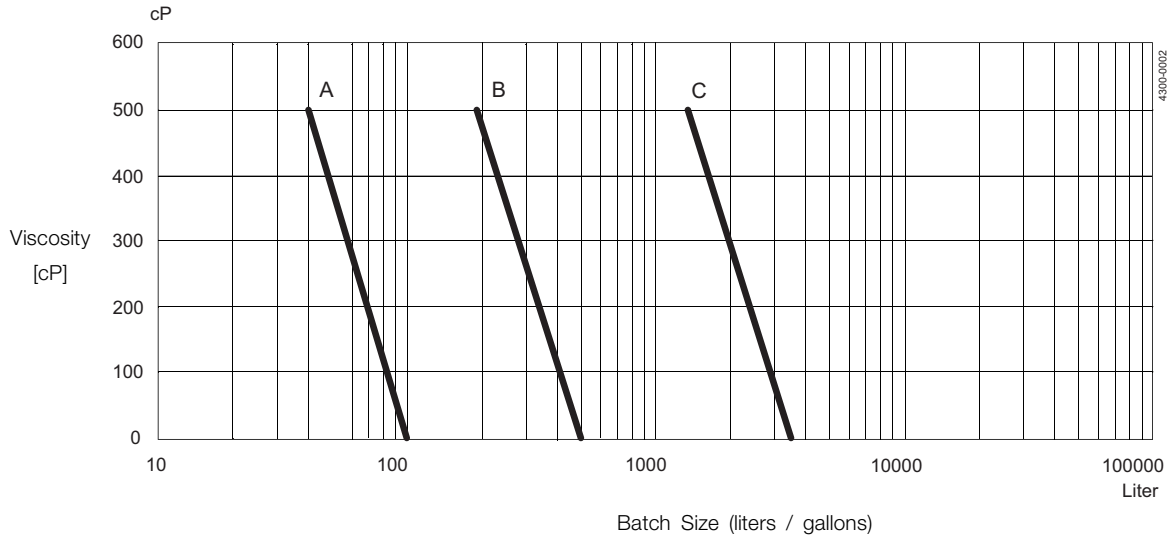


| Dimensions (mm) | MM 338-4 | MM 338-6 | MM 434-8 | MM 434-10 |
|-----------------|----------|----------|----------|-----------|
| A | 102 | 155 | 203 | 254 |
| B | 89 | 89 | 118 | 183 |
| C | 90 | 90 | 149 | 149 |
| D | 64 | 64 | 88 | 88 |
| E | 203 | 203 | 275.1 | 275.1 |
| F | 268 | 268 | 338 | 338 |
| G | 62.5 | 62.5 | 96.6 | 96.6 |
| H | 103.5 | 103.5 | 141.5 | 141.5 |
| I | 93 | 93 | 97 | 97 |

Machine Selection

This chart is valid for machine selection under the following conditions:

- Liquid / liquid mixing
- Mixture viscosity less than 500 cP
- Tank height to diameter ratio (h/d) between 1 and 1.5
- For storage tanks volumes up to 25000 are possible. Please contact Alfa Laval



| A | B | C |
|------------------|------------------|--------------------|
| MM 338-4 600 RPM | MM 338-6 550 RPM | MM 434-8 390 RPM |
| | | *MM 434-10 185 RPM |

*For gentle product treatment

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

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How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.