



# 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 250 rpm. Depending on the mixer task the range covers from 30 liters to 10000 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)  
 - WFI . . . . . 2 to 7 bar (g)

Note: Ensure liquid is below boiling temperature

### Voltage and frequency

- 3x332-575V, 60Hz (Canada)
- 3x230-400V, 50Hz (ROW)

### Protection class

AC motors: . . . . . IP66  
 AC VFD stand alone: . . . . . IP66

### Motor sizes

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

### Option

Extended Flange version for Insulated tanks.

### PHYSICAL DATA

#### Materials

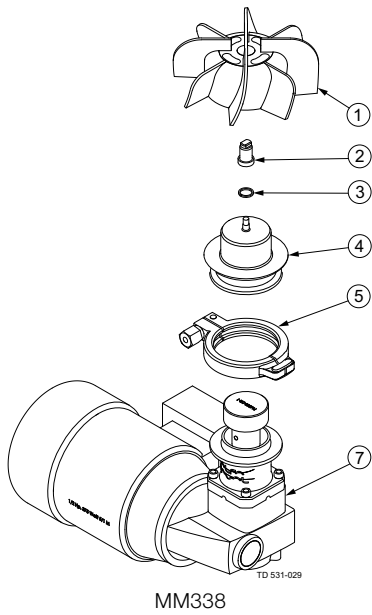
Impeller and Weld Plate: . . . . . AISI 316L (UNS S31603)  
 Drive rotor and distance piece: . . . . . AISI 316L (UNS S31603)  
 Motor and Gearbox: . . . . . ANSI / NSF 51 compliant paint  
 Male Bearing: . . . . . Zirconia YTZP  
 Male Bearing Gasket: . . . . . ISOLAST 9516 (Perfluoro Elastomer)  
 Female Bearing: . . . . . Silicone Carbide  
 Gearbox oil: . . . . . USDA-H1

#### Temperature

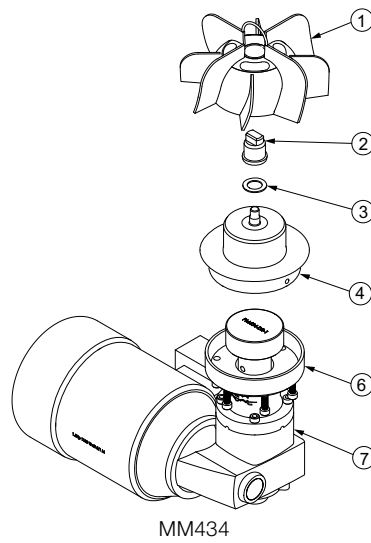
Product mixing (10 – 250 rpm): . . . . . max. 90°C  
 - WFI with pressure: . . . . . max. 60°C  
 CIP (max 50 rpm): . . . . . max. 95°C  
 SIP (0 rpm): . . . . . max. 150°C

#### Weight

MM 338: . . . . . 12 kg  
 MM 434: . . . . . 30 kg

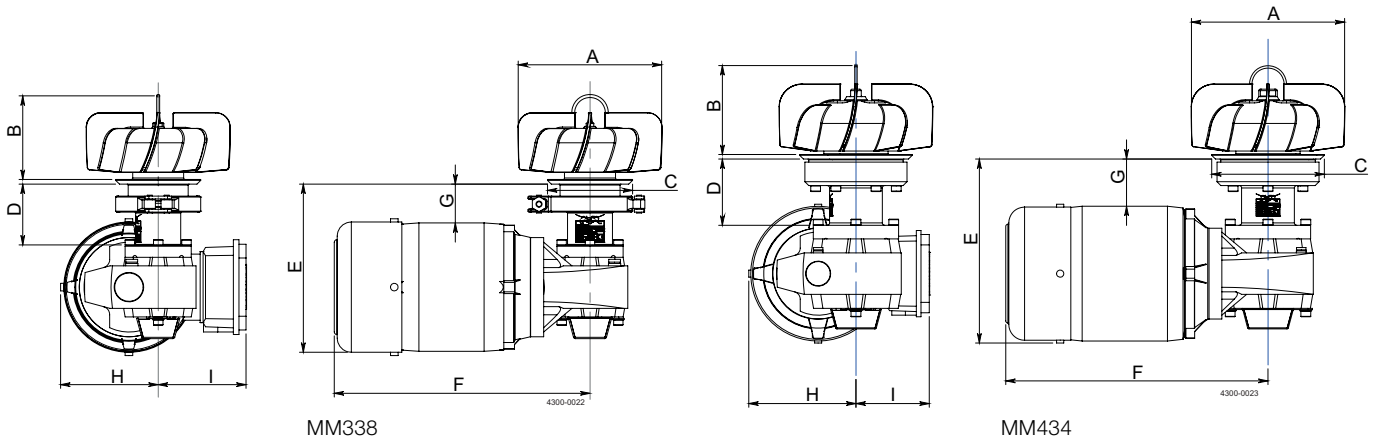


MM338



MM434

1. Impeller
2. Male bearing
3. Gasket
4. Weld plate
5. Clamp ring (only MM338)
6. Bolt connection (only MM434)
7. Drive unit



MM338

MM434

Dimensions (mm)	MM 338-4		MM 338-6		MM 434-8		MM 434-10	
	Standard	Extended flange	Standard	Extended flange	Standard	Extended flange	Standard	Extended flange
A	102	102	155	155	203	203	254	254
B	89	89	89	89	118	118	183	183
C	90	90	90	90	149	149	149	149
D	64	114	64	114	87	137	87	137
E	177	227	177	227	243	293	243	293
F	270	270	270	270	347	347	347	347
G	41	91	41	91	62	112	62	112
H	103.5	103.5	103.5	103.5	141.5	141.5	141.5	141.5
I	93	93	93	93	97	97	97	97

### Machine Selection

Machine selection: Contact Global Technical Support, Tank Equipment

### Certificates

Standard delivery includes:

- 3.1 Materials Certificates, EN10204 for all product wetted parts
- USP Class VI <88> certificates for Zirconia YTZP and ISOLAST 9516
- 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

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**How to contact Alfa Laval**

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