



TECHNICAL SPECIFICATIONS

- Diameters agitator blade 1.600 -1.800 mm
- Agitator mounting on vibration bearings mounted on a mounting bracket
- Robust gear unit with no disturbing running noises
- Multiple bearing drive shaft in oil bath running
- Wall and ceiling installation possible
- Unsurpassed mixing performance

FERMENTER AGITATOR – WALL INSTALLATION

MAMMUT RF3

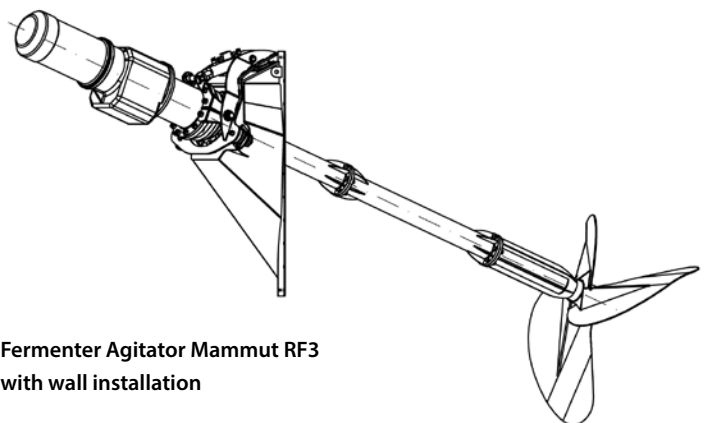
Infinitely variable and easy-to-use hydraulic adjustment system. The fermenter agitator type Mammut convinces in practical use, even with high dry substance content, with an unsurpassed agitation performance.

This agitator was specially developed to provide a strong, slow and at the same time gentle mixing action. Due to the layout of the drive unit, there are no electrical components and gear units into the fermenter. The very robust construction of the agitator guarantees reliable operation.

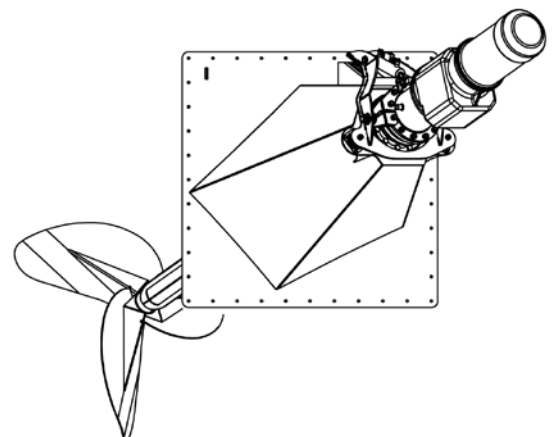
The agitator is mounted on a bearing supported vibration frame, which is equipped with special compensators.

The infinitely variable inclination adjustment of the agitator is carried out by a hydraulic unit, so that an optimal adjustment of the agitator to the fermenter substrate is possible.

The agitator is installed without wear-free bottom or counter bearing in the fermenter.



Fermenter Agitator Mammut RF3
with wall installation



FERMENTER AGITATOR – CEILING INSTALLATION

MAMMUT RF3

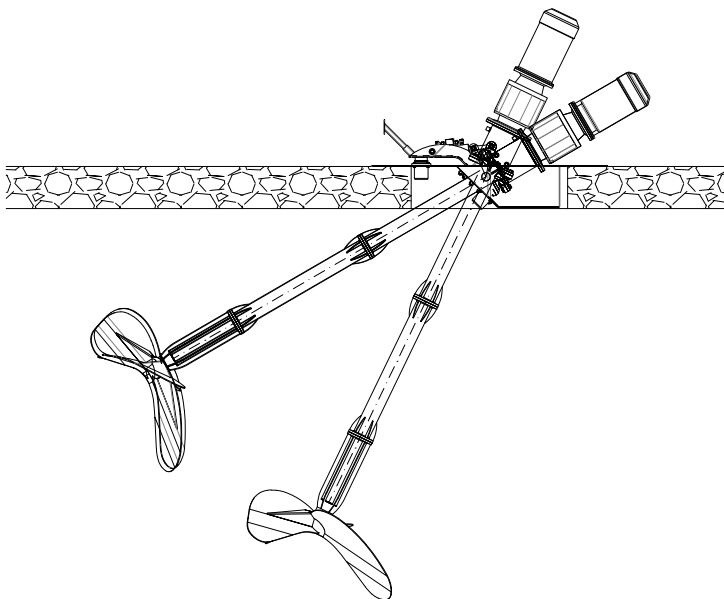
The MAMMUT ceiling mounted fermenter agitator has the same characteristics as the MAMMUT wall-mounted type. Infinitely variable and easy-to-use hydraulic adjustment system.

The fermenter agitator type MAMMUT convinces in practical use with an unsurpassed agitation performance even with high dry substance content. This agitator was specially developed to provide a strong, slow and at the same time gentle agitating action through the ceiling of the fermenter. Due to the layout of the drive unit, there are no electrical components and gear units into the fermenter.

The very robust construction of this agitator ensures reliable operation. The agitator is installed directly on the vessel ceiling or on a raised mounting surface.

The infinitely variable inclination adjustment of the agitator is carried out by a hydraulic unit, so that an optimal adjustment of the agitator to the fermenter substrate is possible.

The agitator is installed without wear-free bottom or counter bearings in the fermenter.



TECHNICAL SPECIFICATIONS

- Diameters agitator blade 1.600 -1.800 mm
- Special mounting plate for existing tank openings
- Robust gear unit with no disturbing running noises
- Recessed installation variant
- Unsurpassed mixing performance
- Individual installation variants
- Agitator blades as pressure and suction blades
- Optionally with removable agitator blades



AGITATOR FOR FERMENTER, SECONDARY FERMATION AND FINAL STORAGE TANKS

MAMIX

The PAULMICHL agitator type MAMIX can be used in fermenters, secondary fermentation tanks and final storage tanks. The special feature of this agitator is that its design is a combination of our long proven fermenter agitator type MAMMUT and agitator MULTIMIX.

The agitator is constructed from a mounted vibration frame, which is equipped with special compensators.

The multi-reinforced agitator shaft with a standard length of 6.50 m is an integral part. This allows a further range into the tank and enables even stronger substrates to be optimally stirred. Additional lengths of 5 - 7.25 m are optionally available on request.

The infinitely variable inclination adjustment of the agitator is carried out by a hydraulic unit, so that an optimal adjustment of the agitator to the fermenter substrate is possible. The MAMIX is equipped with a 1.200 mm agitator blade as standard.



TECHNICAL SPECIFICATIONS

- Agitator with motor-gear unit
- 22,0 kW drive power
- Robust gear unit with no disturbing running noises
- Drive shaft 5.0 - 7.25 m
- Agitator mounting on vibration bearings mounted on a mounting bracket.
- Agitator blade diameter 1.200 mm as suction and pressure blades
- Wall and ceiling installation possible

AGITATOR FOR FERMENTER, SECONDARY FERMEN- TATION, FINAL STORAGE TANKS AND MIXING PITS

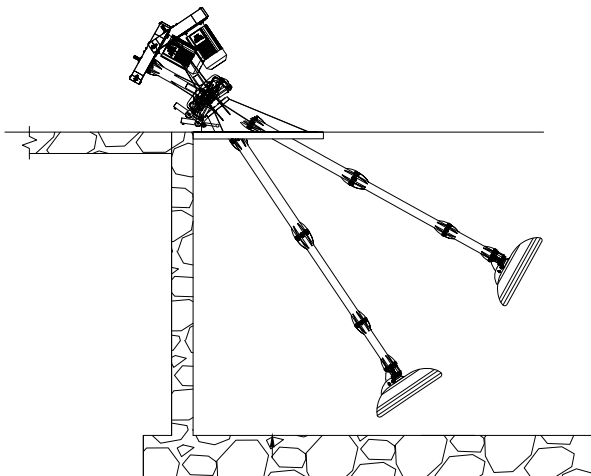
MULTIMIX

The PAULMICHL agitator, Type Multimix, can be used in fermenters, secondary fermentation tanks and final storage tanks. A special feature of the Multimix agitator is the multiple reinforcement of the agitator shaft with a standard installation length of 6.50 m. Other lengths are optionally available on request. The standard horizontal and vertical hydraulic adjustment device is supplied as part of the standard equipment, along with a manual pump and a control unit.

As an option, the PAULMICHL - Multimix agitator can be supplied with a fully automatic filling level adjustment system which is controlled from the central control of the biogas plant. This feature makes it possible for the Multimix to homogenize the complete tank despite changing levels. In spite of an agitator blade diameter of 1200 mm with a capacity of 22.0 kW, the PAULMICHL-Multimix agitator ensures a low-noise but nevertheless powerful transmission by means of the toothed belt (gear wheel) drive.

A further advantage of the agitator is the very stable and robust construction which ensures very reliable use. In addition, due to the layout of the drive unit, the agitator itself contains no electrical components and no gear unit inside the tank. This allows very easy access to the drive elements of the agitator.

Due to the use of a high-quality sealing unit on the mounting plate of the tank, it is possible to operate the Multimix agitator in secondary fermentation tanks at various heights. The SIC/SIC sealing on the agitator is monitored by means of an oil expansion chamber.



TECHNICAL SPECIFICATIONS

- Powerful but nevertheless low-noise transmission by means of toothed (gear wheel) belt drive.
- 22.0 kW drive power in standard version optional 15.0 - 18.5 kW
- High-quality sealing unit
- Mechanical seal SIC/SIC
- Agitator blade diameter 1200 mm
- Agitator for fermenter secondary fermentation tank and final storage tank
- Almost the entire contents of the tank can be homogenized despite changing levels
- Solid construction
- Easily accessible drive elements



TECHNICAL SPECIFICATIONS

- Agitator blade diameter 600 - 840 mm, material thickness 8.00 mm
- Agitator mounting with anti-vibration bearings, fixed to an installation bracket
- Powerful but nevertheless low-noise transmission by means of toothed (geared) belt drive
- Drive shaft with multiple ball bearings running in an oil bath
- High quality agitator shaft seal with SIC/SIC mechanical seal
- Oil expansion chamber for monitoring sealing
- Very robust scraping knife for long-term quietness while the agitator is in use
- Wall and ceiling installation with standard or custom-made mounting plate
- User-friendly hydraulic adjustment system

AGITATOR FOR FERMENTER AND SECONDARY FERMENTATION TANKS

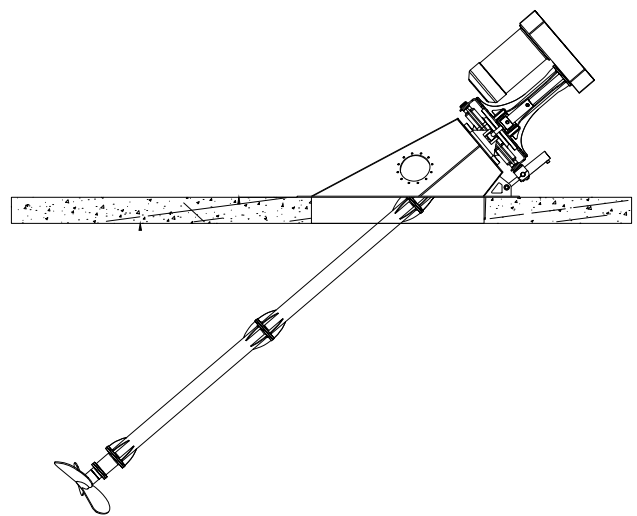
BG500

The PAULMICHL agitator BG500 has an infinitely variable and easy-to-use hydraulic adjustment system. Due to this, an optimal positioning of the agitator in relation to the substrate of the tank is possible, even if the level in the secondary fermentation tanks or gas-tight final storage tanks changes. For use in high-pressure tanks in particular, this adjustment device is second to none.

With an agitator-blade diameter of 600 – 840 mm, the BG500 provides a powerful but nevertheless low-noise transmission by means of a toothed (gear wheel) belt drive. As an option, the agitator can be supplied with a universal joint shaft drive-through for use with tractor drive.

The agitator BG500 is used to mechanically and powerfully support the homogenization process in fermenters, mainly in the solid entry area. Due to the use of a high-quality sealing unit on the mounting plate of the tank, it is possible to operate the agitator in secondary fermentation tanks at various heights. The sealing on the agitator can also be monitored by means of an oil expansion chamber. The highquality sealing on the agitator's shaft with the SIC/SIC mechanical seal is also a feature of the BG500.

The standard piping for the PAULMICHL agitator BG500 has an overall length of approx. 5.00 m. On request a shorter or longer version can be supplied. In addition, a very robust scraping knife ensures long-term quietness during agitator operation.



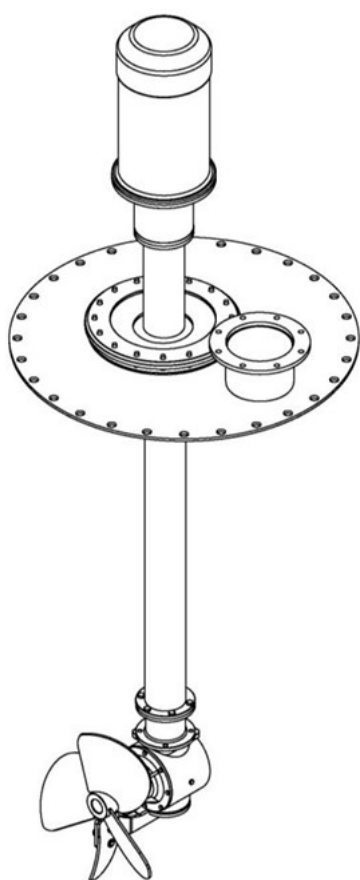
ADDITIONAL AGITATOR FOR FERMENTER

BG500-V

WITH MOTOR AND GEAR UNIT COMBINATION

The agitator BG 500-V for mechanical and powerful support in fermenters is mainly used as an additional agitator for tanks which are only equipped with one agitator.

The agitator is assembled according to individual need, with either a standard installation plate or a custom-made one for an existing ceiling opening. The agitator can also be supplied with an extensive range of additional equipment such as the motor-gear unit combination and the inspection window and much more. The multiple reinforcement of the gear unit guarantees reliable operation when demands are higher.



TECHNICAL SPECIFICATIONS

- Motor size from 9.0 - 15.0 kW
- Agitator blade diameter 500 - 840 mm, material thickness 8.00 mm
- Standard version in stainless steel
- Robust angular gear for deflection into a horizontal pushing force
- Optional additional equipment with motor-gear unit
- Special versions for use in different tank systems



AGITATOR FOR STORAGE TANKS AND MIXING PITS

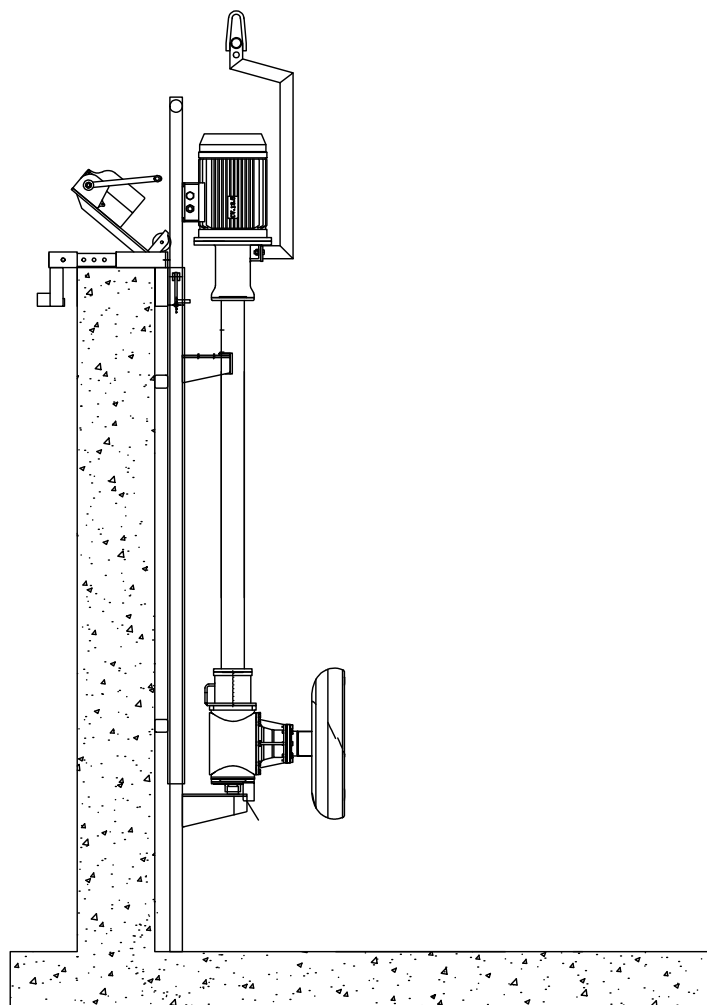
VR-AGITATOR

The PAULMICHL VR agitator is used in storage tanks and mixing pits with a high proportion of foreign bodies. The agitator is attached to a stainless steel guide rail, which is dowelled to the tank wall. A special feature of the VR agitator is the infinitely variable height adjustment by means of a rope winch, as well as the lateral adjustment option, thus achieving an efficient agitating performance. The deflection into a horizontal pushing force is done by a robust angular gear.



TECHNICAL SPECIFICATIONS

- Motor size from 9.0 - 15.0 kW
- Standard version in stainless steel
- Robust angular gear for deflection into a horizontal pushing force
- Height adjustable by means of rope winch
- Installation and removal with filled container
- Special versions for use with coated tanks



AGITATORS FOR SECONDARY FERMENTATION AND FINAL STORAGE TANKS

SUBMERSIBLE MIXER TYPE TMR/PTR

PAULMICHL submersible mixers are preferably used in secondary fermentation tanks and final storage tanks, or for mechanical powerful support. The installation can be done using the standard lowering device for open final storage tanks. For use in closed tanks, the installation is done by means of a gastight wall or ceiling lead-through.

The PAULMICHL agitator design as well as the ATEX-design range from 0.75 kW to 18.5 kW.

With an agitator-blade diameter of 181 mm – 1000 mm and an increased distance to the wall, a high thrust power is generated.

In addition, a reliable use of the PAULMICHL-submersible motor-driven agitator is guaranteed by means of the flow enhancing construction of the motor and the motor support bracket, as well as the high-quality SIC/SIC sealing unit and a drive unit with robust planetary gearing.

Furthermore, thermal monitoring of the agitator is facilitated by an integrated temperature sensor.

The extensive product range of wall and ceiling leadthroughs facilitates use in fermenters and secondary fermentation tanks. The reliable cable routing of the agitator unit guarantees a long service life and reliable use.



TECHNICAL SPECIFICATIONS

- Motor size from 0,75 kW – 18,5 kW
- Agitator blade diameter 181 – 1000 mm
- Agitator blade design with self-cleaning profiling
- Drive unit with robust planetary gearing
- High-quality sealing unit with SIC/SIC mechanical seal
- IP68 protection class
- Thermal monitoring of the agitator facilitated by an integrated temperature sensor
- Special motor cabling with a reinforced cable insulation for double protection against damage
- Reliable cable routing through cable conduits
- Robust plastic cable brackets



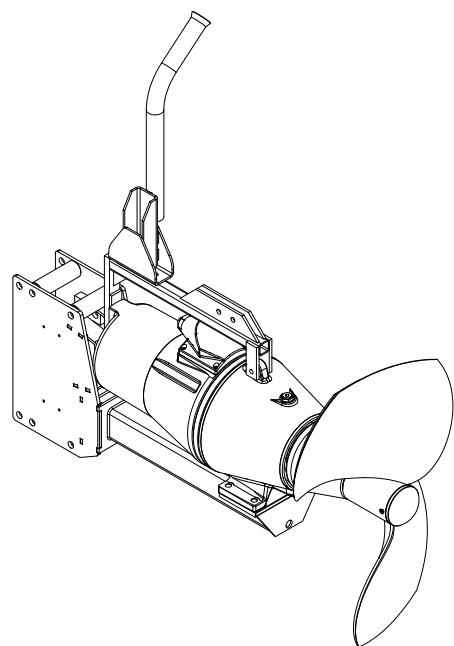
AGITATORS FOR SECONDARY FERMENTATION TANKS AND FINAL STORAGE TANKS

SUBMERSIBLE MIXER TYPE OMPG

The submersible mixers of the OMPG series are powerful mixers for increased requirements such as tanks with a large volume and media with difficult substrates. They can be used flexibly in liquid manure technology and biogas plants and are particularly suitable for the homogenization of liquid manure and biogas substrate.

Due to the large dimensioned two-blade agitator blades with a diameter of 800 mm to 850 mm, as well as the horizontal and vertical adjustability, the agitator achieves an extremely high agitating performance and an efficient mixing effect. The submersible mixer is therefore mainly used in secondary fermentation tanks and final storage. In closed tanks, they are installed with a gas-tight wall or ceiling lead-through. Our delivery programme includes the power ratings from 11.0 to 18.5 kW, as well as the optional ATEX version.

The agitator is equipped with a 12 m motor cable, a highquality SIC/SIC mechanical seal and a robust planetary gear, which guarantees a long service life of the agitator. The agitator is controlled by a leakage sensor.



TECHNICAL SPECIFICATIONS

- Motor size from 11,0 kW – 18,5 kW
- Agitator blade diameter 800 mm – 850 mm
- Agitator blade design with self-cleaning profiling
- Drive unit with robust planetary gearing
- High-quality sealing unit with SIC/SIC mechanical seal
- IP68 protection class
- Thermal monitoring of the agitator facilitated by an integrated temperature sensor
- Special motor cable with reinforced cable sheath
- Reliable cable routing through cable conduits
- Cast motor housing with 2K epoxy coating