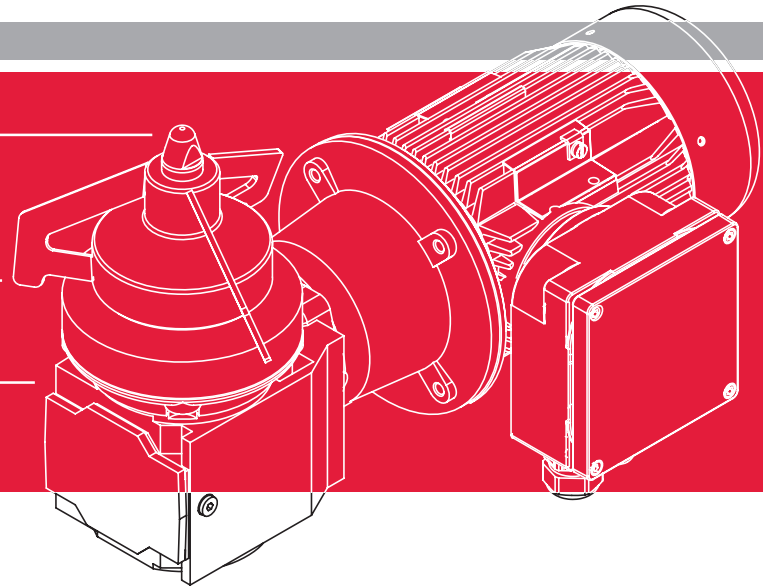


## Stirring technology

### Magnetic stirrer MRW



## planetroll® magnetic stirrer MRW for highest demands: Homogenization, dissolution and dispersion – without a sealing system

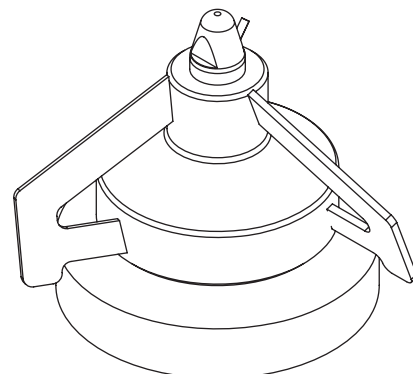
### The decisive advantages

- Equipped with a speed sensor, therefore applicable to ATEX zone 1 and 2
- Simple, quick cleaning
- Operation is almost maintenance-free
- Overload protection
- Total separation of stirrer drive unit from the product
- Possibility of low-shear stirring
- Space-saving due to mounting on container bottom
- No strain on the container cover
- Mixing from residual quantities
- Easily removable drive unit

### The properties

- The high-quality planetroll® magnetic stirrer MRW was developed specifically to meet the challenges of sterilization technology.
- Its exceptional characteristic is the separation of the drive unit from the product area.
- Another advantage of this system is its cost effectiveness due to its almost free maintenance.

Stirring element (example) with magnetic stirrer rotor



» picture 1

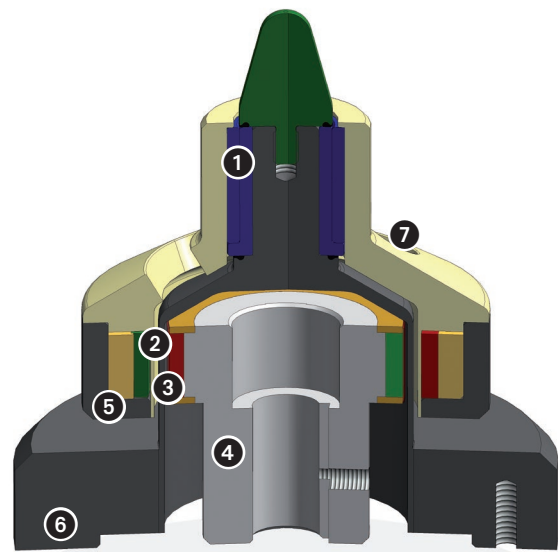


## NON-ATEX EXECUTION OR ATEX EXECUTION

### The special technology

- What makes the bottom magnetic stirrer particularly efficient is the completely contact-free rotation of the stirring element through magnetic fields.
- In the absence of a rotating drive shaft through the container wall, a seal between the drive shaft and the container wall is not required.
- Depending on size, the contact-free magnetic coupling enables a torque transmission of 1-75 Nm.
- The system is suitable for CIP and SIP due to its execution in compliance with GMP and the FDA.
- The off-center stirrer assembly means that baffles are unnecessary.
- With their baffle-free execution, magnetic stirrers are successfully used for homogenizing volumes of up to 40 m<sup>3</sup>.
- The mixing head can be adjusted to individual tasks so that various geometries are available, including impellers, propellers, and disk stirrers.
- The magnetic stirrer can be equipped with an optional speed sensor. It prevents the carried torque of the magnetic coupling from being exceeded.

- 1 Ceramic bearing (SSIC)
- 2 Permanent magnets (Sm2Co17)
- 3 Gap casing
- 4 Internal rotor
- 5 External rotor (material 1.4571)
- 6 Gap casing flange (welded in or bolted on)
- 7 Cleaning bore



» picture 2

### Industries

- Because of its low-shear agitation and trouble-free cleaning and sterilization, the planetroll® magnetic stirrer MRW is popular in sensitive fields, including high-tech areas like biotechnology and digester construction.
- The magnetic stirrer system represents the state of the art in pharmacies as well as cosmetics.
- Bottom magnetic stirrers are also increasingly being used in the luxury and general food industries as well as in fine chemistry.

