



ZETA MAGNETIC AGITATORS

Your solution for aseptic mixing

ZETA MAGNETIC AGITATORS

A VERSATILE PRODUCT FAMILY FOR A BROAD RANGE OF APPLICATIONS



WIDE PRODUCT RANGE FOR A VARIETY OF MIXING TASKS

Discover our impressive portfolio of bottom-mounted, top-mounted, and side-entry magnetic agitators, all of which represent highly refined solutions for your production processes. With cutting-edge designs expertly tailored to meet your specific mixing needs, our agitators ensure exceptional reliability and seamless production.

STANDARD PORTFOLIO & HIGHLY CUSTOMIZED SOLUTIONS

Our customers enjoy the best of both worlds: an established product portfolio as well as tailor-made solutions. With our incessant research and development, we continue to break new grounds, pushing the boundaries of magnetic mixing technology towards increasingly complex stirring tasks in ever larger volumes.

ZETA magnetic agitators are suitable for Ex-zone applications.

BOTTOM MOUNTED AGITATORS

FREE UP SPACE ON THE TANK LID

BOTTOM MOUNTED

Bottom-mounted magnetic agitators are state of the art for low-viscosity liquids in pharmaceutical and biotechnology production. ZETA bottom-mounted magnetic agitators prove themselves particularly in special and demanding agitating tasks. Bioreactors with ZETA bottom-mounted magnetic agitators guarantee safe process control over long periods of time and can be used with vessels up to 30,000 liters. Using a bottom-mounted agitator also frees up space on the tank lid for sensors, valves, and sight glasses.

BMRF Series

- Bioreactor agitators for bacterial fermentation and mammalian cell cultures
- Application-specific multiple impeller design

BMRT Series

- Agitators for hygienic and sterile process tanks in pharma and food production
- Magnetic impeller with run-dry capability

High Speed Mixers

- Medium-shear multi-purpose mixer

High Shear Mixers

- Production of emulsions and suspensions



TOP MOUNTED / SIDE ENTRY AGITATORS

SPECIAL APPLICATIONS FOR YOUR DEMANDS



TOP MOUNTED

ZETA has established a system for top-mounted magnetic agitators and further developed it for new applications in large vessels (for example: 12,000 L glucose mixing vessel).

AMRi Series

- Internally mounted magnetic coupling
- High stability even with inclined agitator shaft

AMRe Series

- Externally mounted magnetic coupling

SIDE ENTRY

Depending on the customer's wishes and requirements, side entry agitators are a further option we offer.

RETROFIT PROJECTS

STATE-OF-THE-ART EQUIPMENT AND SUPPORT

RETROFIT

We've got you covered - whether it's equipping new vessels or bioreactors with ZETA's cutting-edge magnetic agitators, or retrofitting your existing plant by replacing conventional, mechanical sealed agitators. With our unmatched expertise, our engineers will ensure the success of your projects.

MIXING & MORE: WE OFFER COMPREHENSIVE SERVICES

As your competent partner, we offer comprehensive support for all your issues in the field of mixing processes and agitator technology.

This includes:

- Mixing studies in TechCenter ZETA
- Bioreactor characterizations
- kLa measurements
- CFD studies
- Studies for dismantling and installation
- Maintenance staff training



YOUR BENEFITS

The agitator is the heart of every bioreactor and process vessel in liquid processes. It is subject to significant challenges in terms of mixing time, shear forces and hygienic design.



MAGNETIC MIXING TECHNOLOGY HAS MANY ADVANTAGES

Magnetic agitators are particularly suitable for aseptic processes: the driving force is transmitted via magnetic fields, the impeller, in the sterile interior of the reactor vessel, is not coming into physical contact with the motor. The decisive advantage is that the risk of contamination being introduced via the sealing system is eliminated. Thereby, the implementation of Annex 1 of the EU GMP Guide to Sterile Manufacturing requirements is facilitated.

- No micro-contamination – no product loss
- Lower complexity, lower risk for error, lower installation and automation efforts
- Less downtime for maintenance
- No energy-consuming lubrication by steam condensate necessary
- Reduced operation costs

WITH ZETA AS YOUR PARTNER, YOU BENEFIT FROM:

- Many years of experience in engineering and technology development
- Highly innovative approaches to provide flexible, customized, GMP-compliant solutions
- Ample product range for a variety of mixing processes
- Solutions for special and complex mixing tasks and large vessel volumes

DESIGN FEATURES & TOOLS

Being the result of many years of experience and know-how in process engineering, ZETA magnetic agitators are designed and manufactured to meet the highest standards of sterile design and reliability.



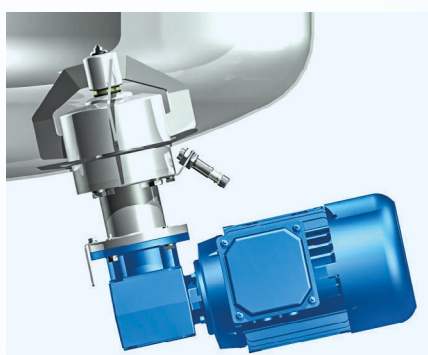
Weld-in flange



Plug-in flange



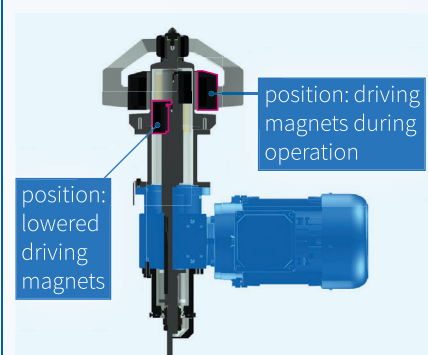
Large plug-in flange



Impeller rpm monitoring for a safe operation



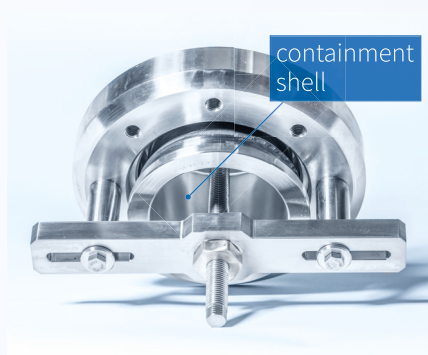
Different gear motor configurations available (like stainless steel or Ex)



Lowering device (options available)



Patented bearing bush



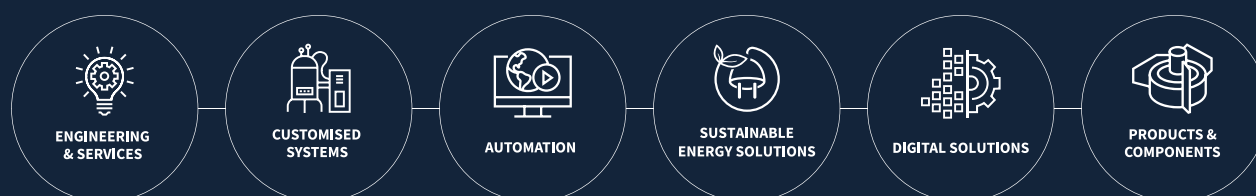
Extractor tool to remove (plug-in) containment shell



Mixing head demounting tools (options available)

INNOVATIVE SOLUTIONS FOR OUR CUSTOMERS

EVOLUTION OF TECHNOLOGY



ZETA Business Activities

EPCM contractor
Plant engineering
HVAC, cleanroom & BMS/EMS design
Decarbonization
Automation
Digitalisation
Qualification
Maintenance & Upgrades
Research & Development

Customer Benefits

Ultra-fast projects & faster time to market
End-to-end solutions from a single source
Customized solutions
GMP-/FDA-Compliance
Deep process understanding
Experience in complex biologics
High process reliability
Scale-up capabilities
Own innolab ZETA TechCenter

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