

FOR THE MOST DEMANDING OF REQUIREMENTS



*Agitator technology for
the biotech industry*



incl. Pharma

PRG



EXONDER[®]
A World of High Quality Products

EXCELLENT QUALITY, FIRST-CLASS ADVICE: **THE PERFECT MIX FOR YOUR SUCCESS**

More than 40 years of experience, innovative technologies and excellent service: this mix has turned PRG into one of the world's leading suppliers of agitator technology, agitators and agitator systems.

With the highest precision and state-of-the-art production methods, we develop and produce agitating machines and systems for you. You can not only rely on the quality of our products, but also on our extensive consulting expertise: in-depth knowledge of the industry and a sound understanding of processes ensure that we always provide you with the optimum technical solution for your requirements – whether you are a plant planner for large industrial applications or a medium-sized company.

We carry out a test run of all our agitators at the factory to check the functionality and technical details. This allows you to commission our agitator technology on site very promptly. The agitators we use impress with their durability and maximum system availability. In addition, our service technicians are available to you flexibly for service assignments. This ensures short response times for maintenance and servicing issues.

Quality and precision down to the smallest detail – this is what customers worldwide from a wide range of industries rely on.



FOOD



NEW FOOD



COSMETICS



BIOGAS



PHARMA



BIOTECH



CHEMICALS

HIGHEST PRECISION: **FROM THE DEVELOPMENT** **TO THE AGITATOR**



Highest level of consulting expertise



Wide range of products...



... for the best mixing results

AGITATORS FROM PRG: AS INDIVIDUAL AS YOUR PRODUCTS

To ensure you always achieve the best stirring result for your products, we offer you a wide range of highly developed agitator types. Special designs are also possible.

All of the agitators we offer are freely configurable and available for all common installation situations. This enables seamless integration into your processes. You can trust us to always provide you with the best technical solution for your production processes.

Do you have an unusual product or special requirements? No problem. Our internal development department will create special designs for you.

As diverse as our agitators are: they are all characterised by excellent material quality and maximum cost-effectiveness. Our exceptional production depth enables us to manufacture the majority of the required agitator components independently or process them in-house. This enables us to implement your wishes with the greatest possible flexibility.

At the same time, we guarantee precision and quality down to the smallest detail. It is a matter of course for us that, when manufacturing our products, we always comply with the applicable legal requirements and your in-house factory standards.

**So whatever you have
in mind: we will build
the right agitator
for you!**



HIGH-TECH FOR THE MOST DEMANDING APPLICATIONS

Biotech

Biotechnological processes have become an integral part of the development and production of innovative medicines and numerous other products. PRG offers high-performance agitators that enable maximum yield, can be adapted to your processes down to the last detail and can be used in all upstream and downstream processes.

Like our agitators for the pharmaceutical industry, our fermenter agitators also fulfil the highest standards of aseptic design. For example, the low-gap connection of between various impeller designs and the shaft ensures optimum hygiene and sterility at all times. Whether this refers to the upstream process, involving the fermentation of bacterial strains or cell cultures for the production of biomass, or the downstream process incorporating purification, filtration and the harvesting of metabolic products: Thanks to our excellent industry and process knowledge, we can provide comprehensive advice and supply agitator systems that are optimally suited to your requirements.

It goes without saying that we also base our design and realisation precisely on the process parameters you have defined.

Examples of end products:

Enzymes

Proteins

Vaccines

Innovative medicines

+ many other products



A HEALTHY MIX OF TECHNOLOGY AND EFFICIENCY

Pharma

From creams and ointments to liquid medicines or pharmaceuticals in tablet form, PRG offers its customers advanced agitator technology and tailor-made supply systems for a variety of pharmaceutical products.

Through innovative ideas and continual further development of our products we also contribute to making production processes even more effective and economical. For example, our MRF floating magnetic agitator for sterile processes currently has new, patented magnetic bearings in its evolutionary phase, offering even better energy efficiency and optimised performance.

Sterile designs and a low gap implementation in our agitators make for an aseptic design that meets the highest standards and enables uncomplicated CIP and SIP cleaning. We follow the recognised standards of the European Hygienic Engineering & Design Group (EHEDG) for structural and procedural layout. And naturally we fulfil the requirements of the FDA and EU Regulation 1935/2004.

Whether for large-scale industrial production or research purposes, PRG offers the perfect agitator solution for every requirement, ensuring the highest quality.

Examples of end products:

API production

Cough syrups

Pills

Dragees

Ointments

Lotions

Infusion solutions

+ many other products



YOUR REQUIREMENTS ARE OUR MOTIVATION

Agitators from PRG for the biotech industry: quality, precision and innovation, for the sustainable optimisation of your biotechnological processes.

An exceptionally high level of vertical integration enables us to manufacture or process the majority of the required agitator components ourselves – this allows us to realise your requirements with the greatest possible flexibility and at the same time, guarantee precision and quality down to the finest detail. The space-saving and energy-efficient drive technology used in our agitators, which are available in an asynchronous or servo design, is another factor that makes our products the first choice when it comes to efficiency, economy and maximum reliability.

We offer our customers a wide range of fermenter agitators that our engineers customise to the respective process parameters, down to the very last detail.

Certificates / conformities:

FDA **QA-report surface inspection**

Weld seam documentation **EG 1935/2004**

Inspection certificate acc. to DIN EN 10204 (3.1)

EHEDG-compliant **GMP-compliant**



AGITATORS FOR THE BIOTECH & PHARMA INDUSTRIES



Bacterial culture fermenter

- ✓ Dispersing, gassing, mass transfer
- ✓ Ensure high KLA values for optimum bacterial supply
- ✓ Sealing variants with double-acting mechanical seal and magnetic coupling
- ✓ Peripheral speed up to 7.5 m/s



Cell culture fermenter

- ✓ Dispersing, gassing, mass transfer
- ✓ Gentle treatment to prevent cell damage and optimise axial mixing at the same time
- ✓ Sealing variants with double-acting mechanical seal and magnetic coupling
- ✓ Peripheral speed up to 3.5 m/s



Magnetic agitator MRF
Bottom installation

- ✓ Possibility of dry running for up to 2 hours while the tank is being emptied
- ✓ Direct speed monitoring of the mixing head
- ✓ Easy maintenance and long service life thanks to a robust design
- ✓ Working volume up to 60,000 litres possible



Sterile designed impeller agitators

- ✓ Double-acting mechanical seal (gas and liquid locked)
- ✓ Sterile design of all agitator components with corresponding material certificates
- ✓ Customised impeller geometry and diameter ratios specifically for each process section

TAKE YOUR AGITATOR TECHNOLOGY TO A NEW LEVEL! **WE LOOK FORWARD TO RECEIVING YOUR INQUIRY**



Quality products made in Germany & India



PRG operates a certified quality management procedure
according to DIN EN ISO 9001/2015 and also holds
Ex certification according to Directive 2014/34/EU

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Management
System
ISO 9001:2015

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