High Performance Vessel-Dissolver
Dissolving Mixer/Attachable Mixer

Versatile Technology for Individual Use in Industry
GRIESE has decades of experience in the development and construction of liquid mixers for open and closed vessels, designed for stirring, mixing and dispersing free-flowing, low to medium viscosity products.

Our proven product range for stationary vessel mixers is divided into:

**High Performance Vessel-Dissolver**
For wetting of solids in a liquid phase using a rapidly rotating dissolver-disc with speeds between 24-30 m/s.

**Dissolving Mixer**
Ideal for mixing liquids and dissolving powders, chips, pellets, etc. with circumferential speed of the agitator tool up to 15 m/s.

**Attachable Mixer**
Slow running agitator with speeds up to 3 m/s to prevent decantation, for setting colour mixes, circulation during degassing or for the processing of temperature-sensitive products.

The reliable, safe and economic operation of our liquid mixers in numerous industrial fields proves the quality of our machines and the flexibility of their application.

Together with our customers across various industries we are constantly working on new technologies and looking to improve steadily our existing products.

We will find the right solution for your requirements, whether it be a standard or customized configuration - from a single state-of-the-art machine to a fully integrated turnkey solution.

We are pleased to advise you.

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**System Benefits**

- Broad product range for all mixing, dispersing, dissolving and homogenization needs.
- Optimal set-up of the mixing tool and vessel geometry as well as adequate dimensioning of the drive power in accordance to the product properties.
- Cylindrical vessel with either a flat, conical bottom or a dished-end bottom, with outlet device for a complete discharge.
- Available with double jacket and double bottom for temperature sensitive applications.
- Higher product quality through optional vacuum operation and complete degassing of the product.
- Pressurization during the mixing process possible as well as to ease the discharge of the product.
- Vibration-free operation through rigid design and a large bearing clearance.
- Vessel cover with light and sight glass, as well as optional filler lid and supply connection as required.
- Ease of use and safe operation.
- Available with pressure or vacuum resistant high-pressure vessel cleaning system.
- Depending on requirements EX-protection available for all zones according to ATEX 94/9/EG.
- Safety standards in accordance with the current European Machinery Directives and safety standards.
- Simple maintenance and repairs.

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**Designed and Made in Germany**
Applications

There are many applications in the paints and lacquer, chemical, pharmaceutical, plastics processing and building chemical industry.

Typically used for the production of:

- Paints and lacquers
- Primers and inks
- Plastic coatings and pastes
- PVC and PU pastes
- Bitumen
- Sealants, etc.
Your Specialist for Mixing and Grinding Technologies

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**High Performance Vessel-Dissolver**

- Effective process for incorporating solids into products with viscosities up to 100,000 mPas.
- Vessel sizes up to 20,000 litres - though larger designs possible.
- Product specific use of mixing tools e.g. fine-toothed, rough-toothed, combi or multi-suction disc.
- GRIESER optimized process to suck in the product by vacuum below the product level.
  - Faster injection and incorporation of fillers leads to shorter mixing times and result in a gentle product treatment combined with a more efficient application of energy.
  - Lower particle size, as the filler agglomerates are broken up upon entry into the vessel by the expansion of trapped air. This immediately wets the primary particles.
  - Dust-free - as there is immediate contact with the liquid phase.
- Optional wall scraper ensures additional spacious recirculation of pasty and thixotropic products and constantly feeds the dissolver disc. Ideal for double jacket design as it increases the heat transfer and avoids potential separation of deposit at the inside vessel wall.

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**Dissolving Mixer**

- Classic method of dissolving raw materials into a liquid phase.
- Stationary vessels up to 50,000 litres - though larger designs are possible.
- Moderate, large-volume-recirculation through the use of a combi-disc, propeller or turbine as a mixing device.
- Designs are available with scrapers as with the High Performance Vessel-Dissolver.

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**Attachable Mixer**

- Economic solution in shape of an attachable mixer on a stationary storage tank.
- Tank sizes are between 1,000 and 50,000 litres - though other sizes are available.
- Gentle, large volume recirculation through mixer blades, anchor-, worm- or grid-stirrer.
Operation and Monitoring

Safety and ease of use are of great importance to us.

- All rotating parts are covered.
- Safety features in place for manual intervention through hand flap.
- Optional dust-free bagging with extractor.
- Display of process parameter: eg. power, speed, pressure, temperature, etc.
- Freely configurable machine monitoring with optional remote analysis for e.g. speed, torque, vibration, bearing-temperature, etc.
- Step-less speed control through use of frequency converters.
- Programmable mixing times on demand.
- PLC control with recipe management and connection to storage management systems.

Laboratory

GRIESEH has a well equipped laboratory at its Lampertheim site in Germany.

Here we offer the implementation of mixing experiments and the optimization of industrial processes. The results can be transferred to full-scale under real production conditions. Over decates we have established an extensive know-how in the areas of mixing and milling.

Our customers have the opportunity of borrowing a machine from our lab for a certain period of time, in order to study the advantages of our machines under their production conditions.

Service

We are your reliable, fast and professional partner for a variety of services and many companies are provided with maintenance services in six monthly or annual intervals. This also applies to any machines not manufactured by GRIESEH.

The results are documented in accordance with DIN ISO 9001:2008. With this methodology any necessary repairs are spotted on time and cost as well as downtime can be kept at a minimum.

Should an operational problem occur, we will be on hand to fix it within 24 hrs (within a 1,000 km radius). We supply all kinds of spare parts, including those from other manufactures. In addition we are also specialised to refurbish and rebuild you existing machinery.
A professional, fast and reliable partner for the

- Paint and lacquer industry
- Adhesive and sealant industry
- Building chemicals industry
- Chemical industry
- Pharmaceutical industry
- Food industry