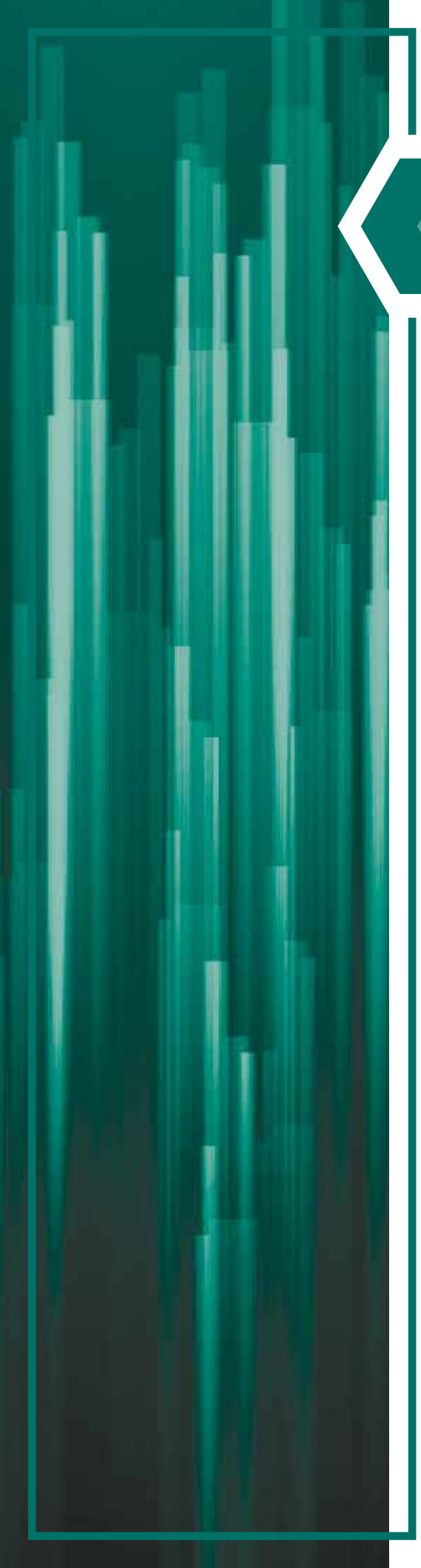
NETZSCH

Proven Excellence.

NETZSCH *DeAearator* Vacuum Deaerator

Deaeration Technology for your Application

Business Unit
GRINDING & DISPERSING



Deaeration Technology fo

Air and gas bubbles can lead to unwanted losses in the quality of liquids or pasty products, for example through the oxidation of reactive components. They can even contribute to oxidation by reactive components. With greases in particular, the lubricating film can tear, printing inks lose their gloss and coatings become inhomogeneous, porous and leaky.

But there is a solution: the NETZSCH Vacuum *DeAerator*, which continuously removes micronized gas bubbles from liquids of different viscosities.

The advantages of the NETZSCH Vacuum *DeAerator* are clear: deaerated products are generally more chemically stable and have a longer shelf life. The NETZSCH *DeAerator* effectively and reliably removes disruptive air and gas bubbles, allowing you to significantly improve the quality of your end products and achieve maximum product stability and reliability.

Rely on the NETZSCH Vacuum *DeAerator* and benefit from the following advantages::

- improved product quality: remove disruptive air and gas bubbles from your liquids to prevent loss of quality and achieve the highest standards.
- chemical stability: aeration of your product leads to better chemical stability and longer shelf life.
- homogeneous coatings: achieve a uniform, non-porous and dense coating for optimal appearance and improved functional properties.
- brilliant print results: your printing inks have a glossy sheen, resulting in impressive and appealing printed products
- smooth packaging processes: consistent product density avoids problems during packaging and ensures an efficient and trouble-free process.
- increased grinding efficiency: in bead mills, the grinding efficiency is significantly increased when deaerated products are used.

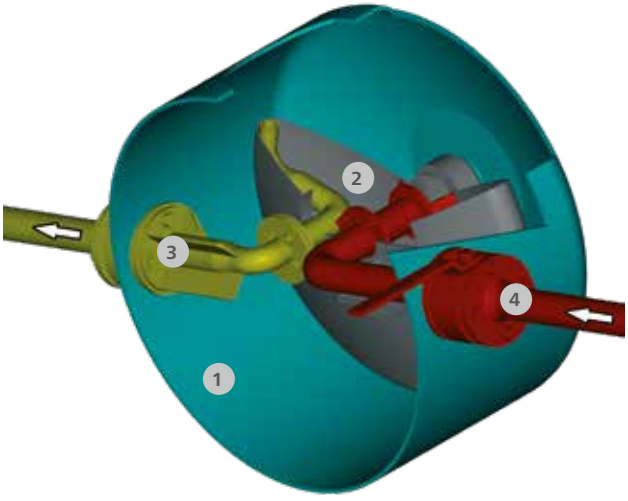
r your Application

The Operating Principle

With the NETZSCH Vacuum *DeAerator*, it is easy to continuously deaerate free-flowing products. Even micronized gas and air inclusions are removed from liquids of various viscosities or from viscous masses and pastes with this machine. The continuous mode of operation places high technical demands on the product feed and on the manifold with an outlet that is as leak-free as possible. The machines can be integrated into systems both in passage operation from interchangeable tanks and in inline operation. The possible throughput rates depend on the one hand on the size and on the other hand are strongly influenced by the product viscosity.

The underlying operating principle of the NETZSCH Vacuum *DeAerator* is the so-called Vacuum Thin film Rotation (VTR) principle.

- The product is drawn in by the vacuum in the deaeration chamber (1) and directed to the center of the rotating plate.
- The thin layer of product on the rotating deaeration plate (2) is continuously deaerated.
- Centrifugal force affects the discharge of the product through an outlet pipe (3).
- The residence time of the product within the deaeration chamber (and thus the throughput) is influenced by non-return flaps and valves (4).



Advantages

- High throughput rates
- Flexible batch sizes
- Minimal product loss
- Fast, uncomplicated cleaning
- Low maintenance
- Simple operation
- Compact design
- Product-wetted parts made of stainless steel

Options

- Explosion-proof design
- All stainless-steel construction
- Level monitoring
- Integration into process sequences

AT A GLANCE

Machine Sizes

Model	*DeAerator* Type DA 302	*DeAerator* Type DA 602
Height [mm]	approx. 1 500	approx. 1 800
Width [mm]	approx. 1 100	approx. 1 300
Depth [mm]	approx. 1 000	approx. 1 400
Drive power [kW]	4.2	18.5
Vacuum pump [kW]	1.1	3
Product flow rate [l/h]	approx. 200 - 2 000	approx. 500 - 10 000
Vacuum pump flow rate [m^3/h]	40	100

The machines can be used for the deaeration of small amounts of product from portable containers as well as for large batches in continuous operation.

DeAerator Type DA 302

DeAerator Type DA 602

EXAMPLES OF DIFFERENT APPLICATIONS

Industrial use of the Vacuum DeAerator

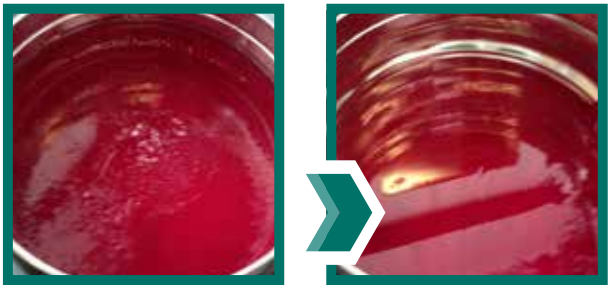
FOOD INDUSTRY

- Mustard
- Ketchup
- Chocolate pastes
- Spicy marinades
- Coffee extracts
- Soft cheeses
- Fruit juice concentrates
- Beverages
- Spreads

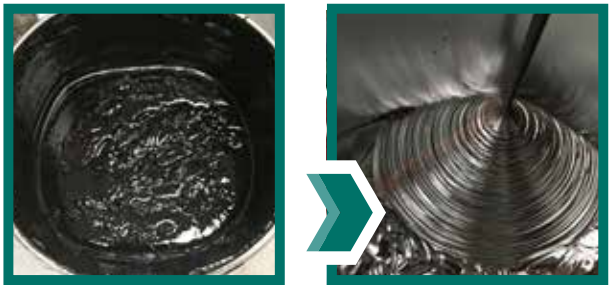
PHARMACEUTICAL & COSMETICS INDUSTRY

- Active ingredient patches
- Dental products
- Hospital foods
- Cosmetics
- Ddishwashing products
- Soaps and shampoos

Product Examples



Flexo-ink before and after deaeration



Heat-set before and after deaeration

CHEMICALS INDUSTRY

- Coil coatings
- Printing inks
- Floor coatings
- Coatings for food packaging
- Pigment pastes
- Paper coatings
- Varnishes
- Sealants
- Adhesives
- Lubricants

AGRICULTURAL CHEMICALS

- Pesticides
  - Herbicides
  - Fungicides
  - Insecticides
- Liquid fertilizers
- Biologic products

Cosmetic cream before and after deaeration

Grease before and after deaeration

The NETZSCH Group is an owner-managed, international technology company with headquarters in Germany. The Business Units Analyzing & Testing, Grinding & Dispersing and Pumps & Systems represent customized solutions at the highest level. More than 4 000 employees in 36 countries and a worldwide sales and service network ensure customer proximity and competent service.

Our performance standards are high. We promise our customers Proven Excellence – exceptional performance in everything we do, proven time and again since 1873.

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