



## Pharma & Cosmetics

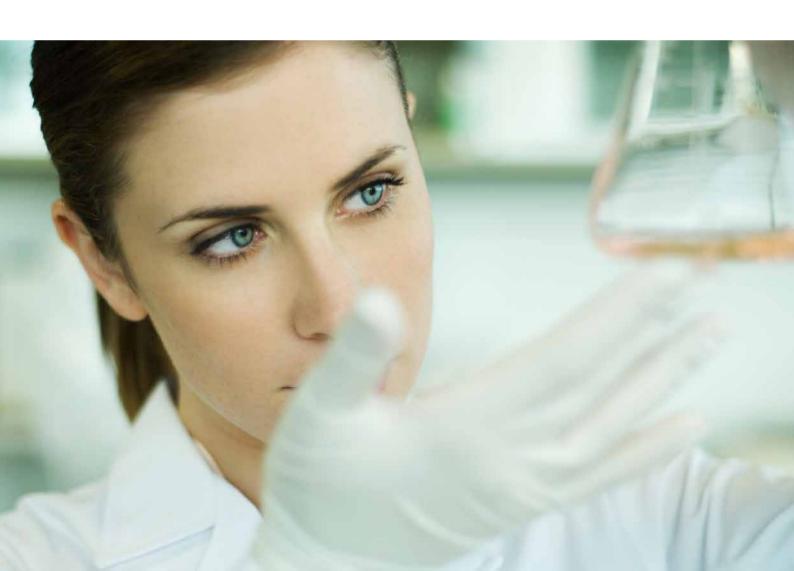
The comprehensive Machine Portfolio

# PHARMA & COSMETICS Your application — Our solutions

As a supplier of processing machines and systems for the cosmetics and pharmaceutical industries, NETZSCH has extensive experience in the areas of fine/ultrafine grinding, mixing, homogenization and dispersion.

Depending on the task, our comprehensive machine portfolio enables the customer to select from standardized machine models through to completely customized solutions, including the combination of different process technologies! Thus, NETZSCH provides the customer with the highest level of economic efficiency tailored to his specific needs, which means investment security for years to come.

To demonstrate the efficiency of our products, a variety of machine models is available for customer trials at our headquarters, as well as selected locations worldwide.



### MIXING AND HOMOGENIZATION

### KAPPAVITA® Homogenizing Mixer

- Rotor/stator homogenizing mixer for liquid and semi-solid products
- Vacuum- and pressure-tight / vacuum-tight design
- Batch sizes from 0.5 l to 10,000 l, other sizes upon request

#### GAMMAVITA® Premix Vessels

- Premix/phase mixers, melting vessel for low to medium viscosity products
- Pressure/vacuum-tight design
- Batch sizes from 2 l to 10,000 l, other sizes upon request

### LAMBDAVITA® Homogenizer

- Rotor/stator homogenizer
- Drive capacities from 5.5 kW to 210 kW
- Flow rates from 11 m³/h to 165 m³/h
- Stationary or mobile design

### Lambda Vita® Conti Homogenizer

- System with built-in LAMBDAVITA® rotor/stator homogenizer for a continuous production process
- Dosing of any number of formulation components
- Production output of 0.3 m³/h to 15 m³/h

### Омеда Vita® High-pressure Homogenizer

- High-pressure homogenizer up to 700 bar for the dispersion of fluid to highly-viscous suspensions and (nano) emulsions
- Batch sizes from 0.15 | to 10,000 |

### **EPSILONVITA** Inline Disperser

- Efficient dispersing of powder into liquids by a rotor/stator principle
- Effective powder suction guarantees a high production capacity
- Flow rate of 15 m³/h to 80 m³/h with typically 50 kg/h to 12,000 kg/h powder suction capacity













### ULTRAFINE AND WET GRINDING



### Agitator Bead Mill DeltaVITA®

- Agitator bead mill for the fine grinding of active ingredient suspensions into the nanometer range for pharmaceutical applications
- Batch sizes from 0.15 l to 4,000 l



### Agitator Bead Mill ALPHA®

- Agitator bead mill for the fine grinding of suspensions for cosmetics applications
- Batch sizes from 0.15 l to 10,000 l

### VACUUM DEAERATION

#### **DEAERATOR Vacuum Deaerator**

- Deaeration of fluid to highly-viscous products
- Deaeration according to the VTR Principle (Vacuum-Thin film-Rotation procedure)
- Throughput from 20 kg/h to 4,000 kg/h



### DRY GRINDING

### CONDUX® VITA Impact Mill

- Impact mill for the grinding of solids
- Interchangeable grinding elements, e.g. pin discs, for versatility

- Grinding finenesses from  $d_{50}$  20  $\mu$ m to 500  $\mu$ m  $(d_{99}$  30  $\mu$ m to 800  $\mu$ m) Throughput from approx. 0.1 kg/h to approx. 660 kg/h



### LABORATORY MACHINES



#### DELTAVITA 1

- DeltaVita® 1dual centrifugal mill
- Batch sizes from 2 ml to 125 ml
- Up to 40 samples in one run



#### DELTAVITA® 15 - 300

- Laboratory agitator bead mill for the fine grinding of active ingredient suspensions into the nanometer range for pharmaceutical applications
- Batch sizes from 0.15 l to 1 l
- Grinding chamber sizes of 15 ml, 50 ml, 150 ml and 300 ml available



#### DELTAVITA® MINI

- Laboratory agitator bead mill for the fine grinding of active ingredient suspensions into the nanometer range for pharmaceutical and cosmetics applications
- Batch sizes from 0.15 l to 0.5 l
- Grinding chamber sizes of 15 ml, 50 ml and 150 ml available



#### OMEGA® LAB

- Laboratory high-pressure homogenizer to 700 bar for the dispersion of fluid to highly-viscous suspensions and (nano) emulsions
- Batch sizes from 0.15 | to 10 |



### KAPPAVITA® HM 2 - HM 10

- Kappa Vita® model HM 2/5/10 laboratory/pilot plant mixer
- Batch sizes from 0.8 l to 10 l

### NETZSCH PLANT ENGINEERING

NETZSCH is an ISO 9001:2000 certified manufacturer. We work in accordance with the cGMP (Current Good Manufacturing Practice) guidelines of the FDA and build our systems in accordance with the current GAMP (Good Automated Manufacturing Practice). The NETZSCH machines designed for pharmaceuticals and cosmetics are constructed of special materials and comply with the strict requirements of the pharma sector and cosmetics industry. Every machine is subjected to rigorous testing, checked for compliance with the specifications and fully documented. Your success is very important to us. We take the utmost care in every phase – from machine design through production to individual customer service. NETZSCH offers integrated technical solutions to improve the productivity of the entire production process.

### System VITA®

At the heart of System VITA® plants are the KAPPAVITA®, DELTAVITA® or OMEGAVITA® dispersion machines, depending on the task at hand. They are supplemented by GAMMAVITA® premix vessels as pre-dispersion and/or charging tanks. Tailored to your application, this results in individual combinations of different technologies and machine types.



System VITA®, consisting of a KAPPAVITA® production tank and two GAMMAVITA® pre-phase tanks



System  $V_{ITA}$ °, comprising a  $D_{ELTA}V_{ITA}$ ° agitator bead mill and a  $G_{AMMA}V_{ITA}$ ° premix vessel

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. 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.

# Proven Excellence.

### Business Unit Grinding & Dispersing – The World's Leading Grinding Technology

NETZSCH-Feinmahltechnik | Germany NETZSCH Trockenmahltechnik | Germany

NETZSCH Vakumix | Germany

NETZSCH Lohnmahltechnik | Germany

NETZSCH Mastermix | Great Britain

NETZSCH FRÈRES | France

NETZSCH España | Spain

ECUTEC | Spain

NETZSCH Machinery and Instruments | China NETZSCH India Grinding & Dispersing | India

NETZSCH Tula | Russia

NETZSCH Makine Sanayi ve Ticaret | Turkey

NETZSCH Korea | Korea

**NETZSCH Premier Technologies | USA** 

NETZSCH Equipamentos de Moagem | Brazil

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