

# NETZSCH

Proven Excellence.



## *MICROSERIES & MINISERIES*

The Flexible Smalls for the Finest

CHEMICAL INDUSTRY

| a Business Field of  
NETZSCH Grinding & Dispersing





# Foresight

Nanotechnology increasingly enters many fields of application. Only those who have the possibility to use nanotechnology can preserve their chances for the future.

Due to the improved centrifugal separation system the use of smallest grinding media is possible in the laboratory mills of the *MICRO-* and *MINISERIES*. This technology guarantees wet grinding to the nanometer range. You are investing into the future.



# Lab Mills *MICRO*SERIES & *MINI*SERIES

## Cost & Time Savings

For tests with machines of the *MICRO*- and *MINI*SERIE you only need small product quantities. Due to small product batches it is possible to make many tests with significant test results and minimum product losses within a short time. You save development costs and time for your product.

## Handling

The *MICRO*- and *MINI*SERIE were designed for simple operation, shortening the time expenditure with the machine. The swiveling grinding chamber facilitates filling and emptying the grinding chamber with grinding media, ensuring simple, easy and fast batch changeover.



Working position



Filling position



Emptying position

## Convertability

Both machine series can be changed over to the smaller or bigger volume and therefore become extremely flexible for the product batch quantities to be processed.

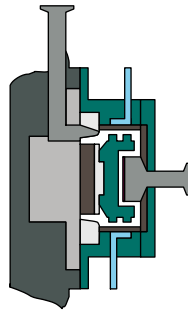
The possible change over from the most flexible all-round laboratory mill *LABSTAR* to the grinding chamber designs of the *MINI*- or the smaller *MICRO**SERIES*.



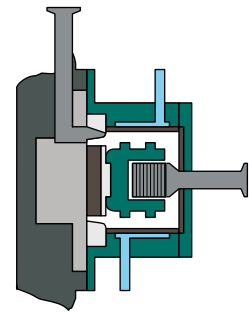
Grinding chamber of the *MICROSERIES*



Grinding chamber of the *MINISERIES*



Conversion kit to *MICROSERIES*



Conversion kit to *MINISERIES*

## Materials

Both machine series are available in three different material designs for improved quality. We offer the optimal solution for your demand.

*MICROFER* and *MINIFER* all grinding chamber parts of stainless steel.

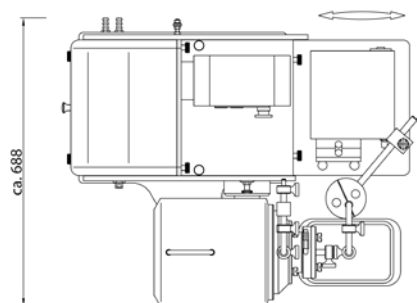
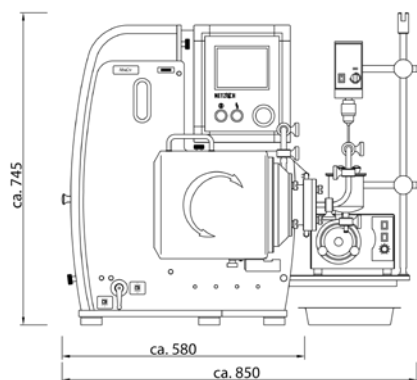
*MICROPUR* and *MINIPUR* for metal free fine grinding of water-based products, all grinding chamber parts are of *NELAST*.

*MICROCER* and *MINICER* for metal free fine grinding of solvent-based products, all grinding chamber parts are of *NETZSCH-CERAM Z* or *NETZSCH-CERAM N*.



# Lab Mills *MICRO*SERIES & *MINI*SERIES

## Technical Data



Dimensions of the *MICRO*- & *MINI*SERIES

	<i>MICRO</i> SERIES	<i>MINI</i> SERIES
Drive power [kW]	1.5	1.5
Speed range [min <sup>-1</sup> ]	1,000 - 4,200	1,000 - 4,200
Grinding media diameter [mm]	0.05 - 0.8	0.05 - 2.0
Required grinding media volume [ml]	50	140
Batch size circulation operation [ml]	140 - 500	250 - 500
Batch size discontinuous operation [ml]	75 - 80	135 - 140



## Mode of operation

With the machines of the *MICRO-* and *MINISERIES* you have the possibility to run different modes of operation.


- Continuous pass operation
- Continuous circulation operation
- Enclosed batch operation

This versatility reduces further investment in laboratory mills.

## Applications

- Organic pigments
- Inorganic pigments
- Inkjet ink
- Life science
- High tech products: color filter, polishing agents for electronic parts, ITO ...
- Electrical ceramic
- Technical ceramics
- Nanoapplications:
  - LCD (liquid crystal display)
  - MLCC (multi layer ceramic capacitor)





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 3,800 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.

## 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

NETZSCH-Feinmahltechnik GmbH  
Sedanstraße 70  
95100 Selb  
Germany  
Tel.: +49 9287 797 0  
Fax: +49 9287 797 149  
[info.nft@netzsch.com](mailto:info.nft@netzsch.com)

**NETZSCH®**

[www.netzsch.com](http://www.netzsch.com)