



## *DELTAVITA® MINI* Laboratory Mill 微型实验室用研磨机

The Laboratory Mill for Pharmaceutical & Cosmetic Applications  
应用于制药和化妆品的实验室研磨机

PHARMA & COSMETICS  
制药和化妆品

a Business Field of NETZSCH  
Grinding & Dispersing  
耐驰研磨与分散业务领域

# DELTA VITA® MINI Laboratory Mill

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### Quality in every Detail 每一个细节的品质

NETZSCH offers industry-leading agitator bead mills for true comminution as well as wetting and dispersion of active ingredient particles in pharmaceuticals. With the grinding and dispersing system of the *DELTA-VITA*® series, reproducible nanoparticles with narrow particle size distributions can be produced.

NETZSCH提供行业领先的搅拌磨粉机，用于真正的粉碎以及润湿和分散药物中的活性成分颗粒。通过Delta Vita®系列的研磨和分散系统，可以生产具有窄粒度分布的可再生纳米颗粒。

Small-batch research and development is a key part of the process of developing new drugs. The market demands the ability to validate viability of processes without wasting scarce, expensive materials. NETZSCH delivers the solution. The NETZSCH *DELTA VITA*® MINI laboratory machines are ideal for carrying out tests for which only extremely small batches are required to obtain meaningful test results with minimal product loss in a short amount of time.

小批量研发是新药开发过程中的关键环节。市场需要能够在不浪费稀缺且昂贵材料的情况下验证工艺可行性的能力。（NETZSCH）提供了解决方案。Delta Vita® Mini 实验室设备非常适合进行仅需极少样品且要在短时间内获得有意义测试结果且产品损耗极小的测试。

### Technical Features

#### Grinding system with centrifugal separation system

带有离心分离系统的研磨系统

For the use of small grinding media 0.05 - 1.2 mm in diameter

适用于直径为 0.05 - 1.2 毫米的小型研磨介质的使用

Variable speed drive via frequency converter

通过变频器实现的变速驱动系统

Flexible operating mode – suitable for batch and circulation operation

灵活的操作模式—适用于单批量和循环操作

Various grinding chamber volumes – 15 ml, 50 ml and 150 ml

不同的研磨罐容量—15 毫升、50 毫升和 150 毫升

Optional grinding chamber designs made of NETZSCH-CeraM Z, NETZSCH-CeraM C, AISI 316 L or NETZSCH-CeraM N

研磨室设计可选用 NETZSCH-CeraM Z、NETZSCH-CeraM C、AISI 316 L 或 NETZSCH-CeraM N 材质制成。

Data acquisition system

有数据采集系统

Material certificates in accordance with 2.1 / 3.1 and sealing materials in accordance with FDA Standards

符合 2.1/3.1 规定的材料证书以及符合 FDA 标准的密封材料

Installation Qualification (IQ) and Operational Qualification (OQ)

安装确认 (IQ) 和运行确认 (OQ)

## DELTA VITA® MINI Laboratory Series Sizes

| Technical Data          |                   | DELTA VITA® 15 | DELTA VITA® 50 | DELTA VITA® 150 |
|-------------------------|-------------------|----------------|----------------|-----------------|
| Grinding chamber volume | ml                | 15             | 51             | 142             |
| Drive power             | kW                | 1.5            | 1.5            | 1.5             |
| Speed range             | min <sup>-1</sup> | 1 000 - 4 200  | 1 000 - 4 200  | 1 000 - 4 200   |
| Batch size (min – max)  | ml                | 35* - 150      | 97* - 300      | 200 - 500       |
| Grinding bead diameter  | mm                | 0.05 - 0.8     | 0.05 - 0.8     | 0.05 - 1.2      |

\* in closed batch mode



# Business Unit Grinding & Dispersing – 研磨与分散业务部门

## The World's Leading Grinding Technology 世界领先的研磨技术

NETZSCH-Feinmahltechnik GmbH  
Selb, Germany 德国

NETZSCH Trockenmahltechnik GmbH  
Hanau, Germany 德国

NETZSCH Vakumix GmbH Weyhe-  
Dreye, Germany 德国

NETZSCH Lohnmahltechnik GmbH  
Bobingen, Germany 德国

NETZSCH España, S.A.U.  
Terrassa/Barcelona, Spain 西班牙

AO NETZSCH Tula  
Tula, Russia 俄罗斯

NETZSCH Premier Technologies,  
LLC. Exton PA, USA 美国

NETZSCH Mastermix Ltd. Lichfield,  
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The NETZSCH Group is a mid-sized, family-owned German company engaging in the manufacture of machinery and instrumentation with worldwide production, sales, and service branches.

耐驰集团是一家规模中等、家族所有的德国企业，从事机械和仪器的制造业务，拥有遍布全球的生产、销售和售后服务机构。

The three Business Units – Analyzing & Testing, Grinding & Dispersing and Pumps & Systems – provide tailored solutions for highest-level needs. Over 3400 employees at 210 sales and production centers in 35 countries across the globe guarantee that expert service is never far from our customers.

三个业务部门—分析与测试、研磨与分散以及泵与系统——能够为最高级别的需求提供量身定制的解决方案。在全球 35 个国家的 210 个销售和生产中心，拥有约 3400 名员工确保了专业的服务始终紧邻客户身边。

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