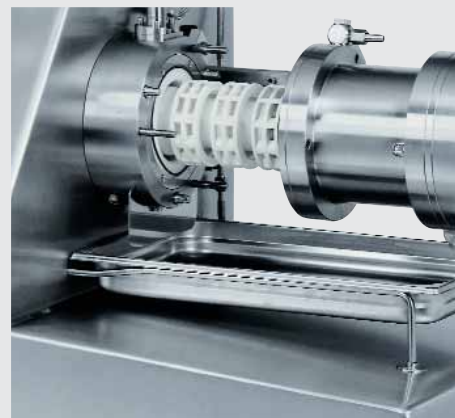


DYNO[®]-MILL NPM *Nano Performance Mill*

The new dimension
in wet ultrafine grinding
and dispersion



WAB – the expert in wet ultrafine grinding and dispersion

For decades WAB has been the unchallenged specialist in dispersion and grinding technology with its world-famous DYNO®-MILL. The exacting requirements for the final product also place extreme demands on the quality and wear resistance of the mills.

The new **Nano Performance Mill**, the DYNO®-MILL NPM, is used for continuous dispersion and wet grinding of low viscous to viscous products in the micron and nanometer ranges. The unique grinding bead separation system permits the use of ultrafine grinding beads from 0.05 – 0.2 mm, and the patented DYNO® Accelerators ensure stable processing even at maximum throughput rates.



Ultrafine wet grinding and dispersion for the most demanding requirements

Features of the DYNO®-MILL NPM – Nano Performance Mill

- Patented DYNO® Accelerators ensure powerful hydraulic movement of the grinding beads and guarantee high and uniform energy input for low viscous to viscous products
- Ideal for continuous and discontinuous operation with constant efficiency and achievement of the narrowest possible particle size ranges
- Guaranteed long service life and nonmetallic grinding with the use of high-quality ceramic components (SiC, ZrO₂)
- Low power consumption (kWh/kg product) thanks to efficient energy input
- Low process volume and ideal cooling properties permit processing of heat-sensitive products
- Gentle hydrodynamic processing
- Easy operation, recording of operating data and guaranteed reproducibility with the modern WAB-VIEW process control system
- Extremely simple cleaning with small quantities of fluids and ease of handling with low operation and maintenance costs thanks to the smooth design of the grinding chamber.

Nothing but the best | for your products and performance



Top quality comes from the use of high-grade materials

Maximum quality requirements, metal-free grinding/dispersion, high wear resistance and long service life mean that only the best materials are used in the DYNO®-MILL NPM. High-strength yttria/zirconia ceramic materials and silicon carbide are used for wear parts which come in contact with the product.

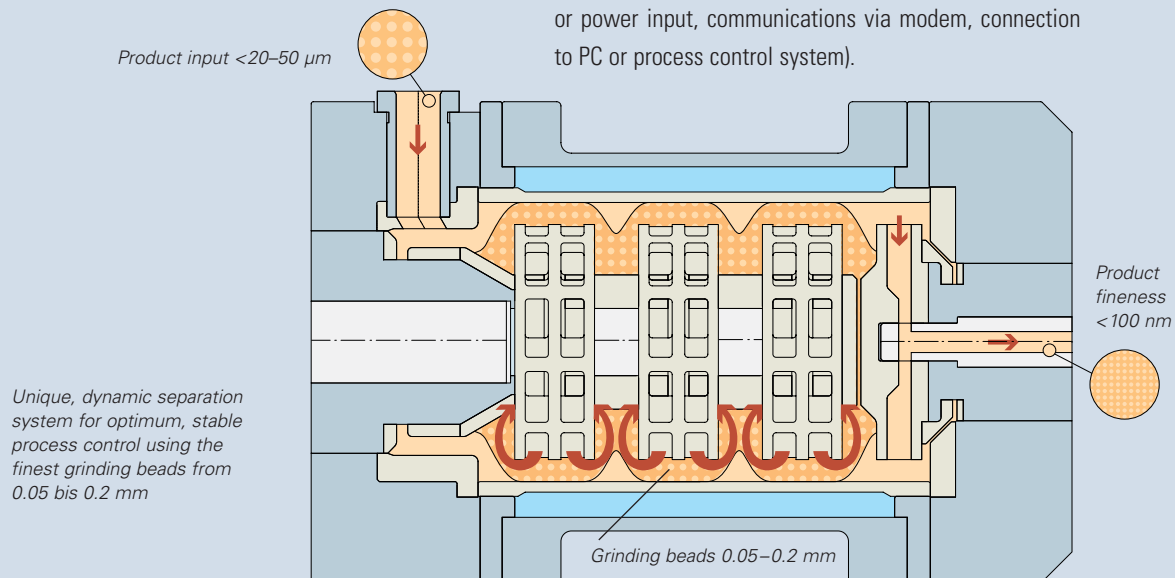
Ease of handling with low operating and maintenance costs

The DYNO®-MILL NPM is well engineered and can be

perfectly adapted to accommodate all user requirements. Operation, cleaning and opening for service are extremely simple. The components have smooth surfaces and are designed for easy access, enabling cleaning with the smallest possible quantities of solvents/fluids.

WAB VIEW: modern process control guarantees reproducibility

In addition to clear, simple operation of the mill, the WAB VIEW control guarantees that all process parameters can be monitored. The PLC control is modular and extendible (data acquisition, process control via product temperature or power input, communications via modem, connection to PC or process control system).



TECNICAL DATA

TYPE	GRINDING CHAMBER VOLUME l	CAPACITY RANGE l/h	MILL DRIVE kW	SEPARATOR DRIVE kW	GRINDING BEADS Ø mm	COOLING WATER CONSUMPTION l/h	WEIGHT kg	DIMENSIONS L/W/H mm
NPM Pilot	2.0	10–100	7.5–11.0	2.0	0.05–0.2	≤1,000	900	1,400x700x1,700

New products and applications |

thanks to the latest grinding technology

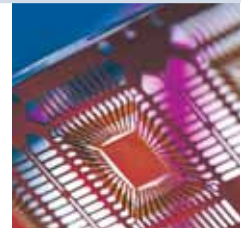


The ultramodern grinding technology of the DYN0®-MILL NPM sets new standards in countless branches of industry. The following is a small selection.

■ Pharmacology	Dissolution of active ingredients, cancer therapy	■ Paints and printing inks	Transparency and gloss
■ Cosmetics	Absorption (UV protection)	■ Dental fillings	Homogeneity
■ Surfaces	Extreme hardness, self-cleaning	■ Microelectronics, semiconductors	Conductivity, barrier effects
■ Coatings	Nonstick properties, corrosion protection	■ Microbiology	Microbiocide function
■ Life science	Bioactive surfaces	■ Ceramics	Surface activity
■ Pigments	Color intensity, brilliance	■ Batteries, catalysts	Capacity
■ Ink jet ink	Colorfastness and lightfastness	■ Biotechnology	Cell disruption
■ Automobile paints	Scratch resistance, colour effects	■ Agricultural chemistry	Effectiveness

Test the performance of the future

You can experience the future live in our pilot plant: test the DYN0®-MILL NPM and let yourself be surprised by its amazing capacity. We will be pleased to arrange an appointment for you as well as to support you with process engineering advice and services.



WAB global: our service and sales network

With over 40 sales and service locations, our global network is ready to serve our customers with competent advice and support, always guaranteeing fast response and hence the shortest possible outage times. In addition to the extensive stores at our headquarters, our subsidiaries in Germany and France as well as most sales and service locations maintain extensive spares.

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