

FREWITT 

FLEXMILL

CW-150 & CW-200

SW-200

HW-3 & HW-6



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CARE
ABOUT
MILLING

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FLEXMILL

CW, SW & HW

FREWITT, world leader in powder size reduction technologies, presents FlexMill, an innovative technology combining multiple milling processes in a single milling platform, dedicated to the pharmaceutical, chemical and food products industries.

3 PROCESSES - 5 MILLING HEADS - ONE SYSTEM

This innovative system is a unique multi-process platform. An unequalled flexibility and extraordinary performance allow for significant savings.

Owing to a design enabling the use of up to 5 different interchangeable milling heads on the same base module, FlexMill permits conical sieve milling, hammer milling, and controlled sifting operations – all with a sole compact platform.

SUITABLE FOR THE FOLLOWING INDUSTRIES:



Pharmaceutical



Battery



Chemical



Food

MODULARITY

A distinctly avant-garde, modular concept: FlexMill allows you to alternate, depending on your production requirements, between 5 milling heads for size specific crushing, fine grinding, de-agglomeration, or controlled sifting.

FLEXIBILITY

Incomparable versatility: FlexMill allows you to adapt your milling platform easily and quickly, to suit your current or future production requirements, regardless of your manufacturing environment or production site.

PERFORMANCE

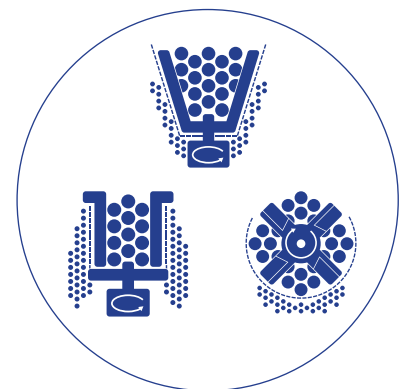
FlexMill proves its capabilities with the same degree of flexibility across the entire range of your processing needs, from small batch to large-scale production.

SAVINGS

Enhanced return on investment and lower cost of ownership: FlexMill integrates three milling processes into a single platform, allowing you to use up to 5 different heads and reduce investment costs by 70%!

FEATURES & ADVANTAGES

- 3 processes > 5 heads > 1 platform
- 5 milling heads, easily interchangeable on a single Tri-Clamp flange
- Enhanced milling capacity, from small batches to high volume production jobs with integrated scale-up factors
- Auto-detection of milling heads and auto-adjustment of associated speed ranges
- Intuitive colour touchscreen-based multifunction user interface
- Allows to reach internal zone 0/20 without inerting as well as an external ATEX zone 1/21 while remaining compact and mobile
- Available in a mobile version with integrated lifting system for ATEX zones 1 and 21
- Continuous monitoring of operation status with integrated diagnostics
- Integration and management of production formulas in the machine
- Real-time monitoring and reporting of process parameters
- CFR Part 11 functions integrated in the control module
- Available for products with MIE >1 mJ without inerting process



FLEXMILL CW-150 & CW-200

The FlexMill CW is a high-performance, high-quality conical sieve mill that is used for deagglomerating and sizing granular products to finenesses of up to 150 μm .

Thanks to its compact and modular design, the FlexMill CW is easy to integrate into complete process plants. With its extraordinary diversity and high performance, this conical sieve mill can be used in any demanding milling process, whether for achieving optimum grain size distribution or high flow rates, as well as for milling temperature-sensitive products, or potentially explosive substances.

SUITABLE FOR THE FOLLOWING INDUSTRIES:



Pharmaceutical



Battery



Chemical



Food

PROCESS CHARACTERISTICS



Throughput

FlexMill CW-150: 500-1500 kg/h
FlexMill CW-200: 1000-2500 kg/h
PowerMill CW-250: 2000-5000 kg/h



Particle size range

5cm \rightarrow 150 μm



Product temperature

range
-20°C to +60°C



Product density

up to 2 kg/dm³

ADVANTAGES

- Very broad scope of application ranging from all types of dry to wet and sensitive powders
- Diverse usage possibilities ranging from stand-alone and inline to integration in complete installations
- Clear GMP-capable concept for smooth, reproducible production including scale-up
- Allows to reach internal zone 0/20 without inerting as well as an external ATEX zone 1/21 while remaining compact and mobile
- High level of operational safety for containment requirements up to OEB 5 ($< 1 \mu\text{g}/\text{m}^3$)
- Easy and quick cleaning - Washing in place (WIP), CIP and SIP optionally available
- Ultimate production flexibility due to the modular design
- Versatile usage due to a large selection of milling elements, which can be changed easily and quickly
- Energy input is reduced and optimized, guaranteeing reduced heating of the product



FLEXMILL CW-150

FLEXMILL CW-200



TECHNICAL CHARACTERISTICS



Materials

AISI 316/316L - $R_a \leq 0.8 \mu\text{m}$
 AISI 304/304L - $R_a \leq 1.4 \mu\text{m}$
 EPDM/PTFE/Silicone

Interior
 Exterior
 In product contact, certified FDA



Dimensions & weight

Length	1305 mm
Width	860 mm
Height	1355 mm

EXECUTIONS



Standard

Pharma execution GMP/
 FDA
 Certified ATEX for zone
 0/20 and MIE range down
 to > 1 mJ



Optional

GMP capable
 WIP
 CIP
 SIP

FLEXMILL SW-200



The FlexMill SW-200 is a cylindrical sieve mill. Having a rotating sieve drum, it is well-suited for homogenizing and control-sieving granular products to a fineness down to 150 μm .

The FlexMill SW-200 rotating sieve drum brings substantial benefits. The centrifugal forces acting on the product and the two changeable stator arms gently and very efficiently convey the product through the sieve openings. Its compact and modular design allows easy integration in nearly all process flows.

SUITABLE FOR THE FOLLOWING INDUSTRIES:



Pharmaceutical



Battery



Chemical



Food

PROCESS CHARACTERISTICS



Throughput

FlexMill SW-200: 1000-15000 kg/h
PowerMill SW-250: 2000-25000 kg/h



Particle size range

up to 150 μm



Product temperature

range
-20°C to +60°C



Product density

up to 2 kg/dm³

ADVANTAGES

- Very broad scope of application ranging from all types of dry to wet and sensitive powders
- Diverse usage possibilities ranging from stand-alone and inline to integration in complete installations
- Clear GMP-capable concept for smooth, reproducible production including scale-up
- Allows to reach internal zone 0/20 without inerting as well as an external ATEX zone 1/21 while remaining compact and mobile
- High level of operational safety for containment requirements up to OEB 5 (< 1 $\mu\text{g}/\text{m}^3$)
- Easy and quick cleaning - Washing in place (WIP), CIP and SIP optionally available
- Ultimate production flexibility due to the modular design
- Versatile usage due to a large selection of milling elements, which can be changed easily and quickly
- Energy input is reduced and optimized, guaranteeing reduced heating of the product



FLEWMILL SW-200

TECHNICAL CHARACTERISTICS



Materials

AISI 316/316L - Ra ≤ 0.8 μm
 AISI 304/304L - Ra ≤ 1.4 μm
 EPDM/PTFE/Silicone

Interior
 Exterior
 In product contact, certified FDA



Dimensions & weight

Length	1305 mm
Width	860 mm
Height	1355 mm

EXECUTIONS



Standard

Pharma execution GMP/
 FDA
 HMI interface
 Mobile stand



Optional

GMP capable
 WIP
 CIP
 SIP
 MIE range down to > 1 mJ
 ATEX construction for zone 0/20

FLEXMILL HW-3 & HW-6



The FlexMill HW is a hammer mill that guarantees optimum milling results in the fine milling and pulverization of hard, crystalline, and fibrous products to fineness of up to 30 μm .

The FlexMill HW is used for laboratory applications, small batch production as well as for large capacity production. With its compact and modular design, it is easy to integrate in nearly any process flow. It is constructed to ensure optimum and reliable production in GMP and High Containment, even for very hard products.

SUITABLE FOR THE FOLLOWING INDUSTRIES:



Pharmaceutical



Battery



Chemical



Food

PROCESS CHARACTERISTICS



Throughput

FlexMill HW-3: up to 700 kg/h
FlexMill HW-6: up to 2000 kg/h
PowerMill MFH-15: up to 5000 kg/h



Particle size range

1cm \rightarrow 30 μm



Product temperature range

-20°C to +60°C



Product density

up to 2 kg/dm³

ADVANTAGES

- Very broad scope of application ranging from all types of dry to wet and sensitive powders
- Diverse usage possibilities ranging from stand-alone and inline to integration in complete installations
- Clear GMP-capable concept for smooth, reproducible production including scale-up
- High level of production safety thanks to certified ATEX construction for Zone 0/20 and a MIE range down to > 1 mJ
- High level of operational safety for containment requirements up to OEB 5 (< 1 $\mu\text{g}/\text{m}^3$)
- Easy and quick cleaning - Washing in place (WIP) optionally available
- Ultimate production flexibility due to the modular design
- Versatile usage due to a large selection of milling elements, which can be changed easily and quickly
- Rapid milling ensures low energy input and minimal temperature increase



FLEXMILL HW-3

FLEXMILL HW-6



TECHNICAL CHARACTERISTICS



Materials

AISI 316/316L - $R_a \leq 0.8 \mu\text{m}$
 AISI 304/304L - $R_a \leq 1.4 \mu\text{m}$
 EPDM/PTFE/Silicone

Interior
 Exterior
 In product contact, certified FDA



Dimensions & weight

Length	1400 mm
Width	860 mm
Height	1700 mm

EXECUTIONS



Standard

Pharma execution GMP/
 FDA
 Mobile stand
 HMI interface
 Volumetric dosing device



Optional

21 CFR PART 11 / GAMP 5
 Level / pressure /
 temperature sensors
 WIP
 Active inerting and O2
 monitoring
 ATEX 0/20 Int.

FRELIFT

Integrated mobile lifting system for Frewitt FlexMill range. The user has the option of docking the mill onto the mobile lifter, anywhere in the production area. The device can be brought to the desired height with a touch of a button, easily integrating into an existing or new system in an open or closed application.

SUITABLE FOR THE FOLLOWING INDUSTRIES:



Pharmaceutical



Battery



Chemical



Food

TECHNICAL CHARACTERISTICS



Materials

AISI 316/316L - $R_a \leq 0.8 \mu\text{m}$
AISI 304/304L - $R_a \leq 1.4 \mu\text{m}$
EPDM/PTFE/Silicone

Interior
Exterior
In product contact,
certified FDA



Dimensions & weight

Length	859 mm
Width	1568 mm
Height	1940 mm



PROCESS CHARACTERISTICS



ATEX
zones 1 and 21



Compatible
with FlexMill range



Lifting stroke
up to 3 m



WORLDWIDE PRESENCE



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