

FREWITT 

# FLEXMILL

PMC-160 CRYO



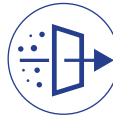
WE  
CARE  
ABOUT  
MILLING

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# PMC-160 CRYO



**FREWITT, world leader in powder size reduction technologies, presents FlexMill PMC-160 Cryo, dedicated to the pharmaceutical, chemical, battery, and food product industries.**

The PMC-160 Cryo is a high-performance pin mill designed for pulverizing hard or crystalline, elastic or fibrous, and heat sensitive products to a particle size down to D90 of 10  $\mu\text{m}$  thanks to the direct injection of liquid Nitrogen in the milling chamber. Ideal for processing small-scale laboratory batches of 50 g to 2 kg or work in continuous mode up to 30 kg/h. The PMC-160 lends itself to be used in lab, pilot, or production scale. The device's compact design facilitates an easy integration and a quick set-up in any laboratory as well as an integration into production lines or isolators.

## SUITABLE FOR THE FOLLOWING INDUSTRIES:



Pharmaceutical



Battery



Chemical



Food

## PERFORMANCE

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

## INNOVATION

Due to its extraordinary versatility and high performance, this mill can be used in many demanding milling processes, whether for achieving optimum particle size distribution, milling temperature-sensitive products, or potentially explosive substances.

## SAVINGS

Enhanced return on investment and lower cost of ownership. With its low level of consumption, the PMC-160 is the best solution for combining micronization and cost saving.

## ADVANTAGES

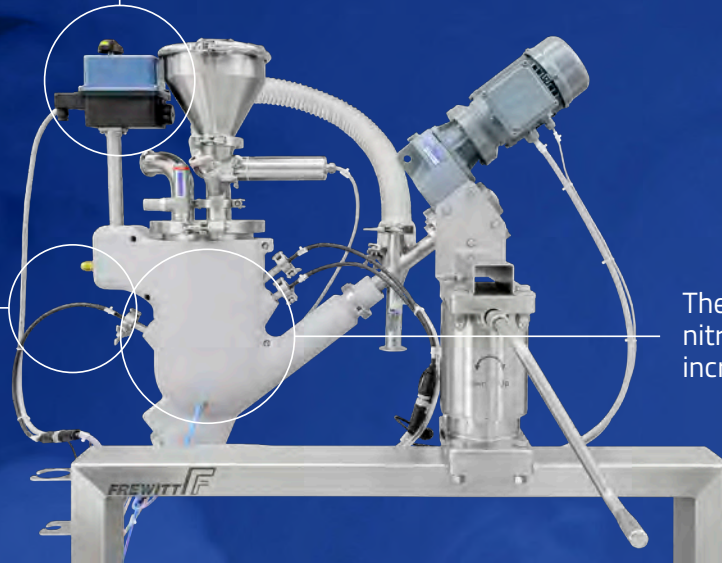
- Scalable to Frewitt Lab Scale / Production Scale Pin Mill systems
- Compact assembly for easy in-line integration
- Flexibility of modular arrangement
- Easy top-down cleaning (easy disassembly for easy cleaning)
- Reduced product contact surface areas
- Less energy consumption



Automatic regulation of the liquid nitrogen supply to guarantee the immersion of the product at -195°C

Management of nitrogen consumption ensured by automated and secure control

Thermal insulation to prevent nitrogen evaporation and increase operator safety



### PROCESS CHARACTERISTICS



**End fineness**  
Down to D 90 < 8 µm



**Throughput**  
Up to 30 kg/h



**Product temperature range**  
-80°C to +60°C



**Rotor speed**  
Ultra high speed

### EXECUTIONS



#### Standard

- Pharma execution GMP/FDA
- Fully automated system
- Integrated dosing system
- Integrated cooling system
- Inline process
- Mobile cart with lifting device



#### Optional

- ATEX
- WIP cleaning
- Controlled milling under inerted atmosphere
- Specific custom tooling
- 21 CFR part 11/ GAMP 5
- Flexible arrangement
- Automatic LN2 control
- Anti-vault stirrer for entry funnel
- Pressure and temperature sensors

### 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	1950 mm
Width	950 mm
Height	1800 mm
Weight	600 kg



WORLDWIDE PRESENCE



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