



UNIVERSAL MILLS

REKORD 224-630 GMP-CUBE



PRODUCT EXAMPLES

Food:

- proteins
- starch
- sugar
- salts
- ingredients

Pharmaceutical:

- active pharmaceutical ingredients
- dry herbal extracts
- cell culture feed
- cellulose
- supplements



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REKORD 224–630 GMP





UNIVERSAL MILLS

The high-performance mills series REKORD 224–630 GMP in hygienic design is dedicated to GMP production processes in pharma & food. Ability for easy dismantling and efficient cleaning is a key feature of these versatile mills, responding to the requirements for validated hygienic processes. The customized grinding elements in precise, dust-proof and pressure-shock resistant housings are dead-space-free and made of specially alloyed, polished steels. All sealing systems are compliant to pharma- and food production standards. The mills are custom configured by product, target grain size and capacity requirements with flexible grinding elements, drives and sensors. The monolithic, sealed GMP-CUBE body is protecting the drive, sensors and periphery and is a statement for precise, robust quality.

KEY FEATURES OF REKORD 224-630 GMP UNIVERSAL MILLS:

- modular systems for high flexibility in grinding elements and material handling
- circumferential / impact speed up to 200 m/s
- mill housings in precise, dust proof and robust design (GMP-CUBE)
- material in contact with product is stainless steel AISI 316L ($R_a \leq 0,8 \mu\text{m}$)
- for cryogenic milling and inertisation
- 10 bar pressure shock resistant in all design sizes
- variable speed adjustment for PSD variation
- long running, low-maintenance systems
- remote-maintenance ready
- with certified ATEX protection systems
- full IQ/OQ/PQ validation

CONFIGURATION

Mill type	Grinding elements	Application
Pin mill No sieve insert, pins made of stainless steel or hard metal. Operation can be Rotor/Stator and counter-rotating: Rotor/Rotor		High degree of required fineness with already low feed grain size. Recommended for brittle crystallin materials in pharma, chemical, foodstuff production
Turbo mill with various options for sieve inserts and an optional grinding track		High degree of required fineness with medium feed grain size. Recommended for fibrous, crystalline, heat-sensitive materials with low fat content.
Beater mill with sieve grate, grinding ring and optional grinding track		Medium required fineness with coarse feed grain size. Recommended for hard and fibrous materials, e.g. cocoa, coffee and a number of building materials.
Ripple disc mill with rotor und stator		Medium required fineness with coarse feed grain size. Recommended for fibrous materials, e.g. crops, cellulose, herbal feed.

The mills are equipped with automated pedestal body lubrication, temperature and vibration monitoring. The customer specific layout is defined based on [milling trials](#) and production targets.



TECHNICAL DATA

Design size/ model	REKORD 224	REKORD 315	REKORD 450	REKORD 630	REKORD 630-2SSt
Max. drive power (kW)	15	37	75	160	160
Rotor size (mm)	224 (8.8")	315 (12.4")	450 (17.7")	630 (24.8")	630 (24.8")
Max. circumferential speed (m/s)	210	210	180	180	180
Max. capacity (kg/h)	200	800	> 1.000	> 2.000	> 5.000

COMPONENTS (selection)



pre-crushing



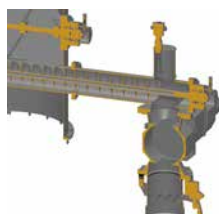
dosing



pneumatic conveying



filter separator



discharge



buffer container with agitator

OPTIONS

Request a mill layout for your specific grinding application. Expect from us a customized solution based on our versatile modular systems. We will support you by integrating the mill into your production environment. Ask us for custom-fit modules for product feeding and discharge from the mill, stirred buffering, weighing, metal separators and sieves, bag handling as well as pneumatic transport solutions to and from the mill including cyclone filter and separation systems.

FULL SERVICE

Optimize the operational performance of your system with our dedicated maintenance services. We warrant short term availability of original spare parts throughout the life time of your mill.

Milling trials
& Analysis

Project planning
& Engineering

Manufacturing
& Installation

Training
& Commissioning

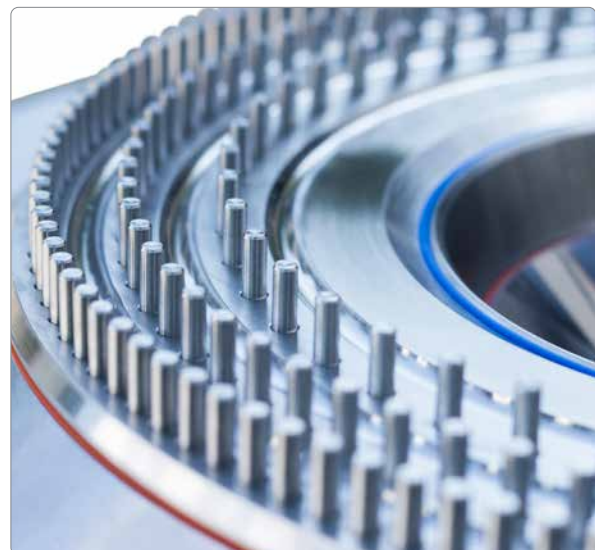
Maintenance
& Service



REKORD 315 GMP fine grinding system for cell culture feed



REKORD 630 GMP fine grinding system for lactose



Pin grinding element REKORD 315-GMP