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A close-up, low-angle shot of a blue industrial grinding machine. Several grinding wheels with a fine grid pattern are visible, arranged in a row. The machine is illuminated from the side, creating strong highlights and deep shadows. The background is dark, emphasizing the metallic components.

FLEXIBLE  
GRINDING  
SOLUTIONS  
FOR YOUR  
PRODUCTS

# EXPERTISE

## FOR GOOD GRINDERS

Although pod- and capsule-based products are becoming increasingly popular, the vast majority of coffee consumed worldwide is still supplied by the mass market of ground coffee for filter preparation. Accurate

must have the least possible influence on the coffee and its sensitive aromatic substances and guarantee constant, low ground coffee temperatures. Our grinding expertise is solidly based on our passion for coffee, our more than

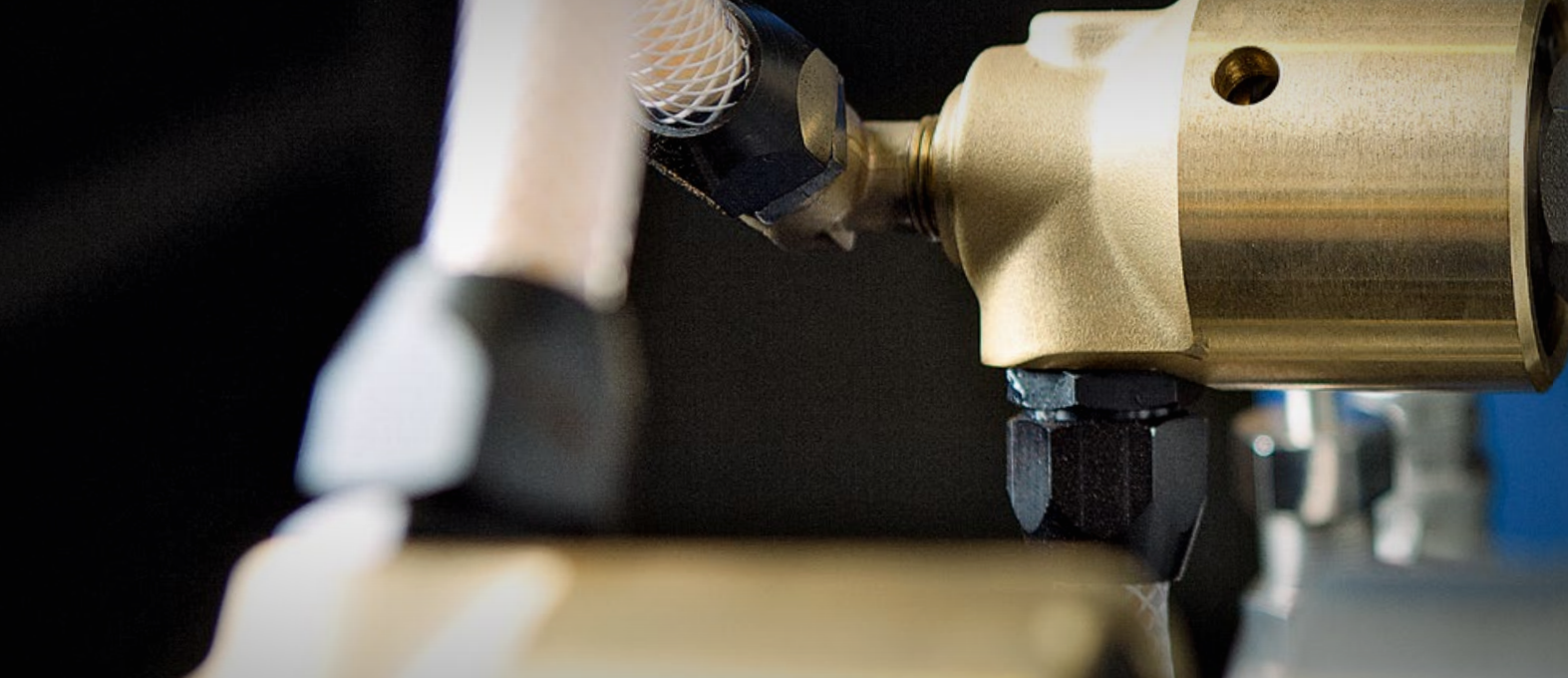


and uniform grinding – no matter for which end product – influences not only the sensory result and thus consumer enjoyment of the coffee but also the quality and homogeneity of ground coffee produced on an industrial scale.

Moreover, the grinder makes a decisive contribution to the reproducibility of the product as the grinding process

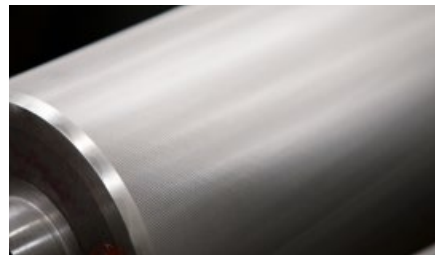
145 years of experience in machine and plant construction and decades of development work together with our customers.

These are the mainstays of our globally unique solution expertise for roasting machines and the basis for our first-class grinding solutions, which are used in over 1,000 applications.



## GRINDERS FOR EVERY APPLICATION

No matter what kind of ground coffee you produce – be it coarse ground for instant coffee or filter coffee, espresso or ultrafine, pods or capsules – we have the right grinder for you. From the pre-crusher to the three-stage special grinder, our product portfolio includes a wide range of industrial grinding solutions, providing you with maximum flexibility when making your choice. Our product range is modular, allowing us to cater for absolutely every need. Our compact one-, two- or three-stage grinders all work according to the gradual grinding principle, are highly economical and achieve capacities of up to 4,000 kg/h. Efficient cleaning systems to prevent product deposits, special protective mechanisms to keep foreign bodies from entering the grinding gap, large, water-cooled grinding rolls and the rugged design of our grinders ensure trouble-free and low-wear continuous operation, a long ser-

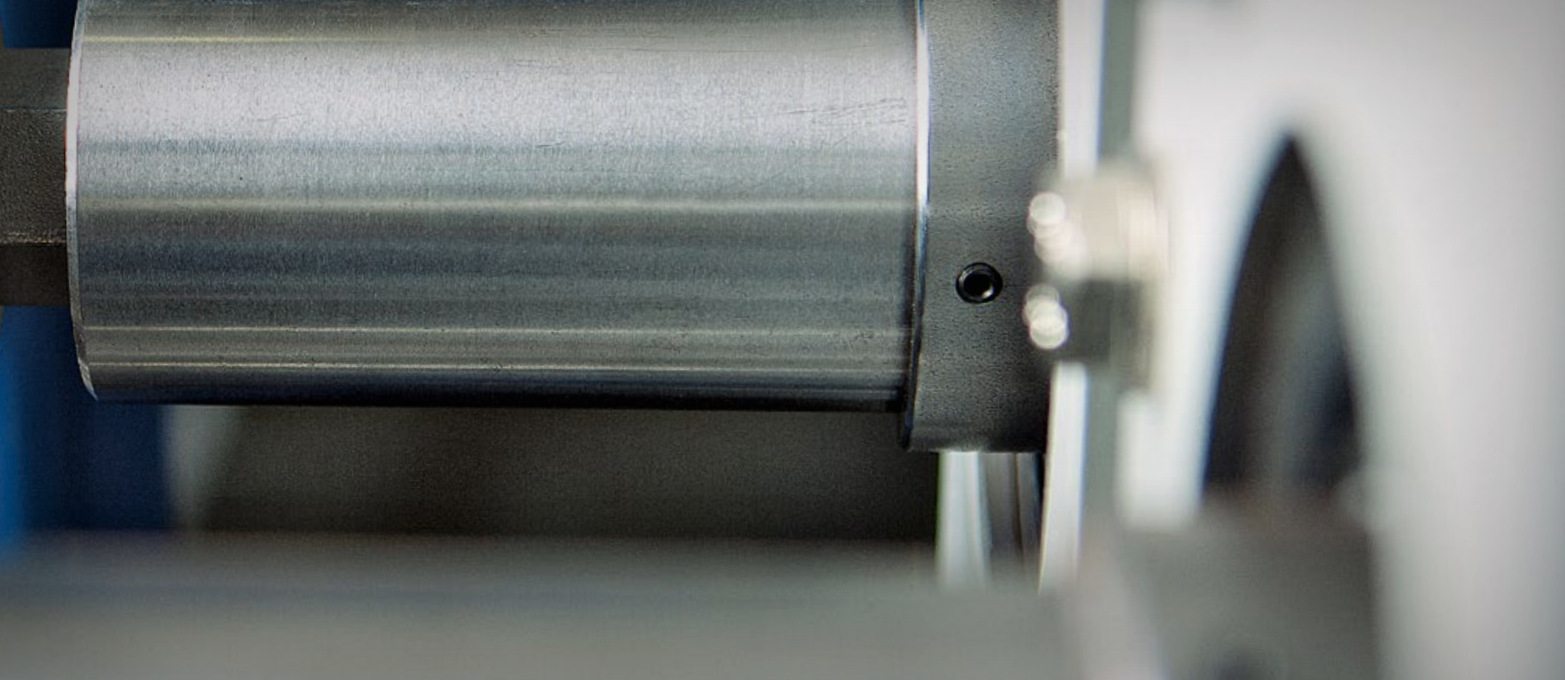


vice life and low life cycle costs. Our computer-controlled grinders allow for convenient remote control of settings such as the grinding gap, either via a touch panel or via the PILOT PLANT Excellence central plant control system.

## FLEXIBILITY AND AVAILABILITY

Hardness of the beans and residual moisture vary depending on the different coffees. The coffee industry therefore needs high-performance grinding solutions that can be used for different applications and recipes when processing heterogeneous coffee types and roasts. Above all, state-of-the-art grinders should be flexible, deliver con-






sistent results and also guarantee the highest degree of process stability during the production process.

PROBAT grinders are equipped with frequency-controlled motors, allowing the grinding roller speed for each grinding gear to be controlled perfectly to suit the desired end product. The adjustable performance of the integrated densifier achieves a degree of densification of approximately 30% or more depending on the coffee type processed.

Top materials and excellent craftsmanship are par for the course in PROBAT grinders to guarantee reliability during continuous operation. Special deflectors with extremely smooth surfaces prevent product deposits. The easily accessible cleaning openings are convenient and user-friendly. The use of split bearing housings to allow quick replacement of the grinding rolls and the large number of carry-over parts highlight the sophistication of the design. This makes our

grinders exceedingly easy to maintain and ensures high availability. The enclosed, dust-tight construction of the grinders ensures reduced CO<sub>2</sub> release. For special applications, an optional CO<sub>2</sub> suction system is available.





**FURTHER FEATURES AND STRENGTHS OF PROBAT GRINDERS AT A GLANCE:**

- Constant, uniform feeding of the pre-crushing rolls thanks to frequency-controlled feeder
- Specially designed roll corrugation for ideal, uniform particle sizes
- Infinitely adjustable grinding gap
- Consistent and reproducible grinding results
- Constant, low ground coffee temperatures
- Maximum availability, low wear, low maintenance
- Optimum density adjustment due to integrated densifier
- Homogeneous intermixing and comminuting of chaff
- Separator to remove magnetic foreign particles from the product flow
- Display of the effective value of the grinding gap
- Multiple reconditioning of the grinding rolls by PROBAT possible
- Optional densifier for additional densification of the ground coffee



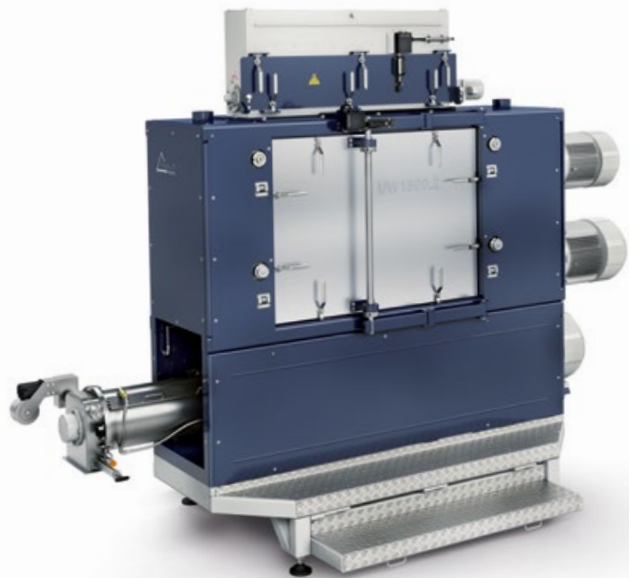
# RELIABLE PRODUCTIVITY

## FOR YOUR INDUSTRIAL REQUIREMENTS

### STANDARD TWO-STAGE GRINDERS UP TO 4,000 KG/H

During continuous operation, quality is the decisive factor for life cycle, reproducibility, throughput rate and service life. When you, the customer, need solutions for your industrial product, your first choice will always be a supplier who delivers premium quality. And that is exactly what we offer you, because our grinders are tailored to the needs of your product. Whether for filter coffee or espresso, our grinders provide maximum process stability and guaranteed output to the very highest standard due to their exceedingly rugged design, their high degree of flexibility and throughput rates of up to 4,000 kg/h.

This excellent quality standard makes our grinders typical high-performance, low-wear PROBAT products, guaranteeing a long service life even under full load, which is, after all, what they are designed for. Top performance, highest



availability, trouble-free continuous operation: Experience new realms of efficiency and productivity and enjoy the reassuring feeling promised by our standard grinders with their long service lives and their low life cycle costs.

Our new standard two-stage grinders are available with grinding rolls in three lengths: 500, 1,000 and 1,500 mm.



## PERFORMANCE DATA

Type	Grinding degree for filter coffee	Grinding degree for espresso
UW500.2	1,400 kg/h	600 kg/h
UW1000.2	2,700 kg/h	1,100 kg/h
UW1500.2	4,000 kg/h	1,700 kg/h



# FLEXIBLE INDIVIDUALITY

## FOR YOUR SPECIAL REQUIREMENTS

### **SPECIAL TWO- AND THREE-STAGE GRINDERS UP TO 2,750 KG/H**

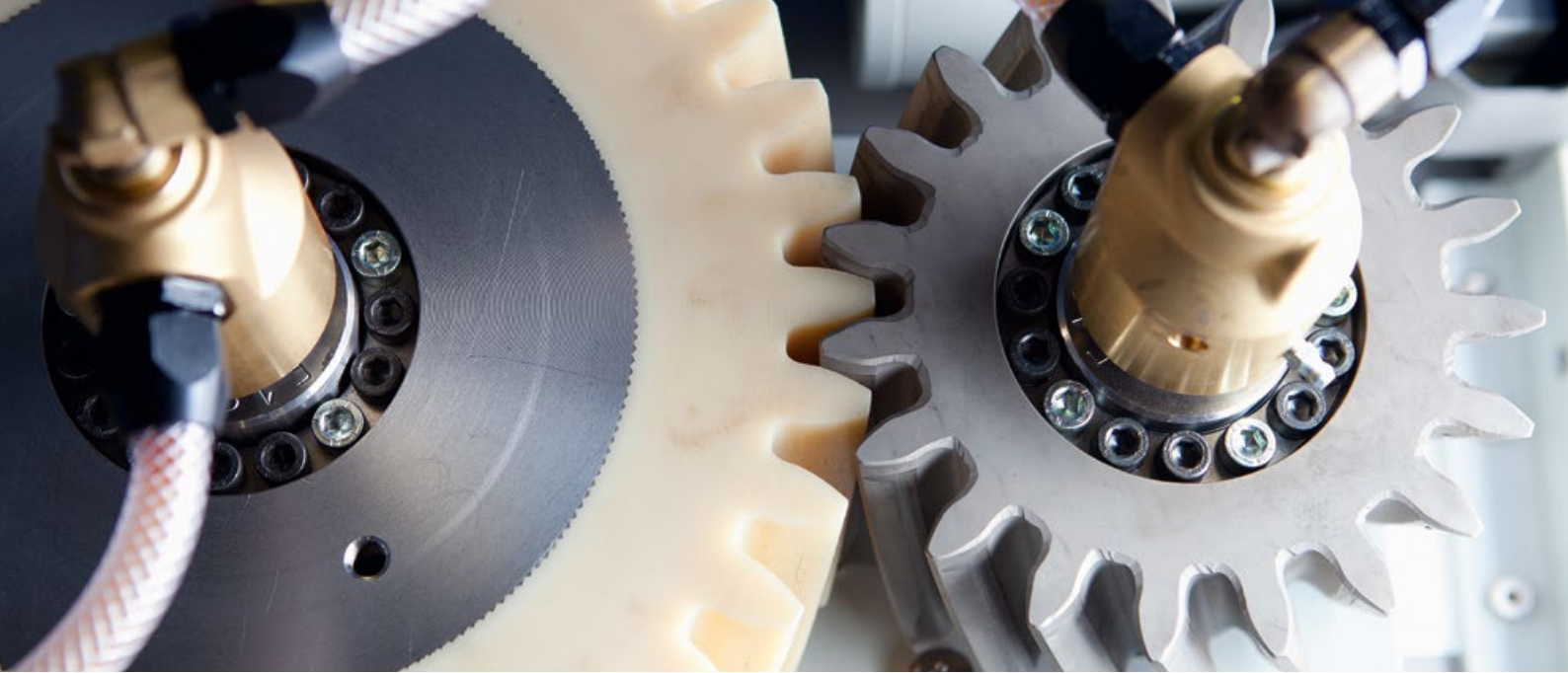
The latest generation of special grinders with an innovative drive concept is equipped with a variable number of independently driven grinding gears for maximum flexibility during the ongoing process. To allow for even greater individuality, the rotational speeds of the special grinders independently driven rolls can be controlled separately to specifically influence the particle size distribution. These grinders therefore meet the most specific requirements for capsule-based products and ultrafine coffee grinds. In addition, the modular grinder concept allows the number of grinding stages to be selected which is best suited to the product specification.

The new PROBAT special grinders are in a class of their own, not only due to their standard features but also due to their functionality and the numerous available options. Thus, the motor-driven

grinding gap adjustment with zero-point calibration guarantees a constant grinding gap and even compensates for roller wear. Coffee bean chaff can be effectively removed from the product flow using a suction system. In addition, a second outlet allows the discharge of non-densified coffee.

The special multistage grinders are available with grinding rolls in three lengths: 300, 600 and 900 mm.





## PERFORMANCE DATA

Type	Grinding degree for filter coffee	Grinding degree for espresso	Superfine grinding degree
UW300.2	550 kg/h	400 kg/h	–
UW300.3	850 kg/h	600 kg/h	300 kg/h
UW600.2	1,600 kg/h	600 kg/h	–
UW600.3	2,000 kg/h	1,300 kg/h	650 kg/h
UW900.2	2,500 kg/h	1,000 kg/h	–
UW900.3	2,750 kg/h	1,900 kg/h	950 kg/h