



Bühler understands the many variants and complexities of spice processing and the need to competitively deliver a product that not only meets global food safety standard but the high standards of consumers too.

Our comprehensive portfolio of process engineered high-capacity processing machines and on-site services are engineered to deliver customised solutions renowned for performance, yield and efficiency superiority - delivering unprecedented levels of quality on both whole and ground spices with maximum retention of spice natural colours and aroma.

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# Product Feature.

# Adding value at each process stage.

### Separator Classifier - MTRA/MTRB with Aspiration

- Able to remove a wide variety of impurities based on size, shape and specific density
- Maximum yield. An accurate and efficient cleaning solution minimum loss of good product
- Fast product changeovers designed with flexibility to process a range of different seed spices

### Optical Sorting - SORTEX A MultiVision™

- Exceptional sorting performance removes subtle light and dark colour defects, spots, damaged or blemished grains and foreign materials and seeds
- PROfile<sup>™</sup> (shape recognition) technology detects shape difference and many other harder to remove defects
- Available with up to 5 modules for a flexible sorting configuration

### **Grinding - Hammer Mill DFZC & Roller Mill MDDP**

Minimum rise in product temperatures during grinding prevents the loss of precious aroma from spices

- Uniform and fine granulation in a single pass, delivers high quality ground spices
- Excellent aspiration and air filtration system ensures comfortable working conditions and a cleaner plant environment

## Sterilization - Controlled Condensation Pasteurising System (CCP)

- Approved 5 log reduction in Salmonella, resulting in high levels of food safety and longer shelf life
- Pressure controlled process, allowing temperature treatment of 80 to 120°C. An optimum process control ensures maximum repeatability and reproducibility of the sterilisation process
- The system can Pasteurize or Sterilize a variety of product forms like powdered, whole and in-shell spices and at the same time offers preservation of the valuable flavour, colour and texture of the spices at optimum levels









# Quality. Safety. Performance.









# Quality – Preserving the natural goodness of the spices

Designed to retain the natural vivid colours and aroma of spices, Bühler spice processing solutions are engineered to deliver a gentle process throughout the processing line avoiding high temperatures and harsh mechanical treatment.

# Performance – Reliable and consistent output with minimum operation costs

The spice processing industry is highly competitive with each processor seeking to deliver a value added product whilst keeping operation costs to a minimum. At Bühler, each process stage is optimised to deliver energy-efficient lines, reducing operation costs with no compromise on machine performance and consistent

end-product quality. We offer customised solutions to meet the needs of spice processors with solutions that spans from well-engineered plant layouts, highly efficient cleaning, grading and optical sorting solutions to grinding and sterilisation systems.

# Safety – Meeting global food safety and environmental standards

Bühler spice processing plants are engineered to meet the strictest food safety and hygiene standards, globally. Machine solutions and each process is designed with no need for contact with either raw or end-product. Aspiration and air-filtration systems are also strategically placed into a Bühler spice plant for safer working conditions.

### Bühler Spice Grinding Application Mill - complete spice processing demonstration and testing facility.

Located in Bühler Bangalore, the new spice application lab stretches over four floors and houses a fully automated set-up for spice grinding product demonstrations.

### Key benefits

- Fully automated, complete spice grinding mill available for product demonstrations and trials.
- 2. A wide range of applications: Including whole red chillies, cumin, coriander, fennel and many other seed spices.
- Real-time results: Customers are able to check on granulation, colour and aroma.
- Cleaning systems, sterilisation units and optical sorting stations are available to offer customers a complete scope for spice processing.



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