

### **SPIRAL JET MILL: AS 200 II BASELINE**

Your access to the fine world





# >> EUROPEAN SAFETY STANDARDS >> 100% MADE IN GERMANY >> INTERNATIONAL PHARMACEUTICAL STANDARDS

Produce high-quality products at an attractive price. Improve your machine park with the new spiral jet mill AS 200 II BASELINE.

## HIGH-END POWDER PRODUCTION

### Spiral Jet Mill AS 200 II Baseline for ultrafine micronisation

Hosokawa Alpine has been setting the standards in the field of micronising and dispersing of APIs for decades and became the preferred supplier of the big international pharma companies when it comes to milling technology and especially spiral jet mills.

The spiral jet mill AS 200 II Baseline is designed to combine a well-known and proven technology with high economic efficiency. The design focuses on basic GMP requirements and standardised modules, realised with high usability and clever design solutions. All parts that come into contact with the product are cGMP-compliant and therefore perfectly suited for the pharmaceutical industry.

The AS 200 II Baseline is available at an extremely attractive price range – compatible with your local market needs.

#### KEY FEATURES OF THE NEW AS 200 II BASELINE

- > State-of-the-art design results in superior usability
- cGMP design allows good cleanability with all relevant parts in AISI 316 L and FDA approval
- > Plug-and-play design for immediate use after delivery
- Simple retrofitting of various dosing elements: lance, screw (optional), dosing channel (optional) or manual feed
- Pneumatically controllable vibratory plate to react flexibly to product characteristics and reduce operating noise
- Innovative filter concept with several optional filter types
- > Compact control system with expansion options
- Universal voltage connection of 3x230 V or 3x400 V (heavy current), 50 Hz or 60 Hz
- > Compact design, attractive costs





AWA ENGINEERED, MANUFACTURED & ASSEMBLED in GERMANY



## **MAXIMUM FLEXIBILITY**

Various options depending on your requirements

### **1** MATERIAL DOSING: FLUIDISING INJECTOR LANCE AND OTHER OPTIONS

- > Perfect for easy-to-handle products
- The dosing lance sucks products into the mill
- > Accurate and reliable mass flow rates of 5 40 kg/h
- > Easy to operate and to clean
- > Lower dust and noise emissions
- Optional: dosing screw for accurate feeding of products with poor-flow characteristics. Upon request with aspiration filter for contained product feed.
- > Optional: dosing channel

### 2 CONTROL PANEL WITH ILLUMINATED KEYS

- > Easy to operate
- > Visual feedback on system availability

### **3** MICRONISATION: ALPINE SPIRAL JET MILL

- Proven Alpine design reduces the number of parts and allows quick assembly and perfect cleaning results
- > Ergonomic design
- Modern, upright mill design enables easy opening of the mill for inspection and cleaning.
- All parameters at a glance with the clear working panel, easily and precisely adjustable
- Exchangeable inserts reduce maintenance costs and allow the processing of difficult products

### **4** CYCLONE PRODUCT SEPARATION

- Product separation is done by a proven Alpine high-performance cyclone
- > No textile filters in contact with the product
- > Product collection in a stainless-steel drum
- Product changeover in shortest time and high product recovery



### **S PRODUCT FILTER: INNOVATIVE FILTER CONCEPT WITH DEMAND-ORIENTED FILTER TYPES**

- > Standard version with an aspirator without filter
- > Automatically cleaned filter for continuous production
- Semi-batch filter: for higher product yields with small to medium batch sizes
- > Small-batch filter for production of small batches
- High flexibility: Depending on the individual requirements, filters can be purchased as an option. In this way, the system can be optimally equipped for all batch sizes.

### 6 ASPIRATOR

- > Filter bag manually cleanable
- > Simple and dust-tight attachment of product collecting bin
- Process gas is filtered in an aspirator with integrated dust collection, HEPA filter and exhaust fan



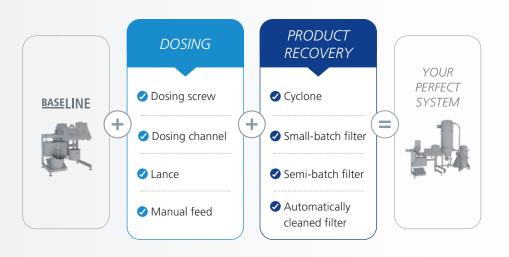


# FOR YOUR PERFECT SYSTEM

All configuration options at a glance

### >>> FLEXIBLE BASELINE SET-UP

The Alpine Baseline concept includes many options for a complete and compact milling unit. Several dosing and product recovery alternatives can be individually combined to create your custom-fit system – flexibly, quickly, and in a resource-saving manner.





### **TECHNICAL SPECIFICATIONS**

#### TECHNICAL DATA

Chamber diameter	200 mm
Gas pressure range	2–8 bar (g)
Fineness range $d_{50}$	1–40 µm
Nominal gas flow	150–200 Nm³/h
Dimensions (l/w/h) (Base unit)	1.2x0.8x1.3 m
Power supply	Three-phase current, 230–400 V; 2.2 kW

#### **REFERENCE PRODUCTS**

Product	End fineness	Throughput
Celecoxib	90% < 23 μm	33 kg/h
Nifedipine	90% < 2.4 μm	8 kg/h
Progesterone	90% < 9 µm	20 kg/h
Diosmin	90% < 4 µm	8 kg/h
Omeprazole	99% < 5 μm	3 kg/h
Cosmetic powder	90% < 10 μm	15 kg/h

Do you want to explore the potential of this solution? Feel free to contact us! **pharma@alpine.hosokawa.com** 

### ACCESSORIES

Scale up your production with various additional options

### FEED EVERY PRODUCT

When screw feeding is the preferred solution for a particular task, the system can be modified to a conventional feeding arrangement with a double-screw feeder.

- > Injector lance is converted into an open hopper
- > Screw feeder can be placed on the installation table
- > 12-litre hopper with integrated bridge breaker
- > Manual speed adjustment mechanism

#### **RECOVER THE ENTIRE BATCH**

Reverse jet filters are the alternative where the efficiency of a cyclone separator is insufficient and a single collection point for the micronised material is the preferred solution.

- Cylindrical bag filter with conical product outlet into stainless steel drum
- > Continuous pulse jet cleaning for interruption-free production
- > Drum can be exchanged without interrupting production

#### SCALE DOWN YOUR MACHINE TO R&D

First attempts with new substances with low product quantities make it possible to find the right settings with only small quantities. With a modification package, the system can be equipped to process small product quantities of one hundred grams only.

- > Manual product feeding into an open injector hopper
- Special small-volume nozzle ring
- Product separation directly downstream of the mill in a filter bag integrated into a stainless steel container





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