

ConiWitt 150-200-250

*The new conical sieve mill with upgraded process characteristics
for the pharmaceutical, food industry and fine chemicals*

ConiWitt 150-200-250

Excellent for industrial processes and laboratory applications

Conical sieve mills are particularly well suited for disagglomeration and sizing of granular products.

The ConiWitt conical sieve mill has a radically new design, which considerably increases efficiency. It sets new benchmarks with regard to modularity handling and maintenance in dry powder as well as wet powder milling, plus it delivers more performance at lower costs.

The advantages are obvious

- The larger active sieve surface results in a significantly higher flow rate.
- The ingenious design reduces the number of moving parts to a minimum. Thanks to tri-clamp connections, the lightweight milling head can be removed from the shaft quickly and easily.
- This means: quick and easy cleaning and maintenance, and high operational availability at lower operating costs.

A broader use spectrum

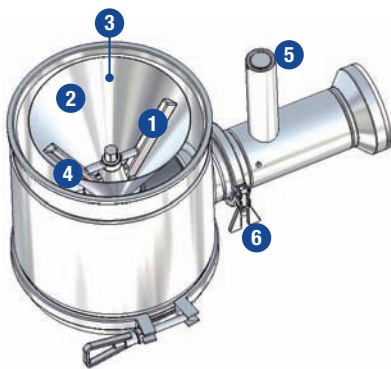
With the three sizes 150, 200, and 250, the ConiWitt covers a wide range of user needs.

It can be operated as a stand-alone system or it can be easily integrated into production facilities.

The ConiWitt is ideal for the demanding production requirements of the pharmaceutical, food, and fine chemicals industry.



The ConiWitt milling process



- 1 Rotor arms with round or square cross-sections
- 2 Assortment of sieve inserts
- round openings
- square openings
- rasps
- 3 Vertical, uninterrupted product flow thanks to the down-driven design
- 4 No mechanical contact between sieve and rotor
- 5 Safety prompt for the in-feed funnel (cable inside)
- 6 Detachable head

The ConiWitt consists of the milling head, a conical sieve, and the rotor.

The rotary motion of the rotor causes the product to flow through the sieve. The design of the ConiWitt and the effective forces are suited for the disagglomeration and processing of dry and wet powders.

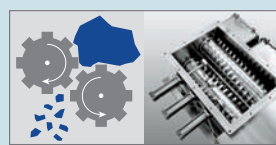
Milling forces



Comminution in conical sieve mills is achieved primarily by shearing and comminution of the particles between the rotor and the sieve surface.

The ConiWitt is part of Frewitt's complete line of mills.

Final products with particle sizes between 30 cm and 50 µm can be processed.



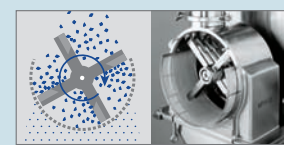
30 cm 2 cm
Crusher
CCD-450
CC-310



5 cm 250 µm
Oscillating sieve mill
MF-Lab
MF-3
MF-6
MF-8



2 cm 150 µm
Conical sieve mill
TC-Lab
ConiWitt-150
ConiWitt-200
ConiWitt-250

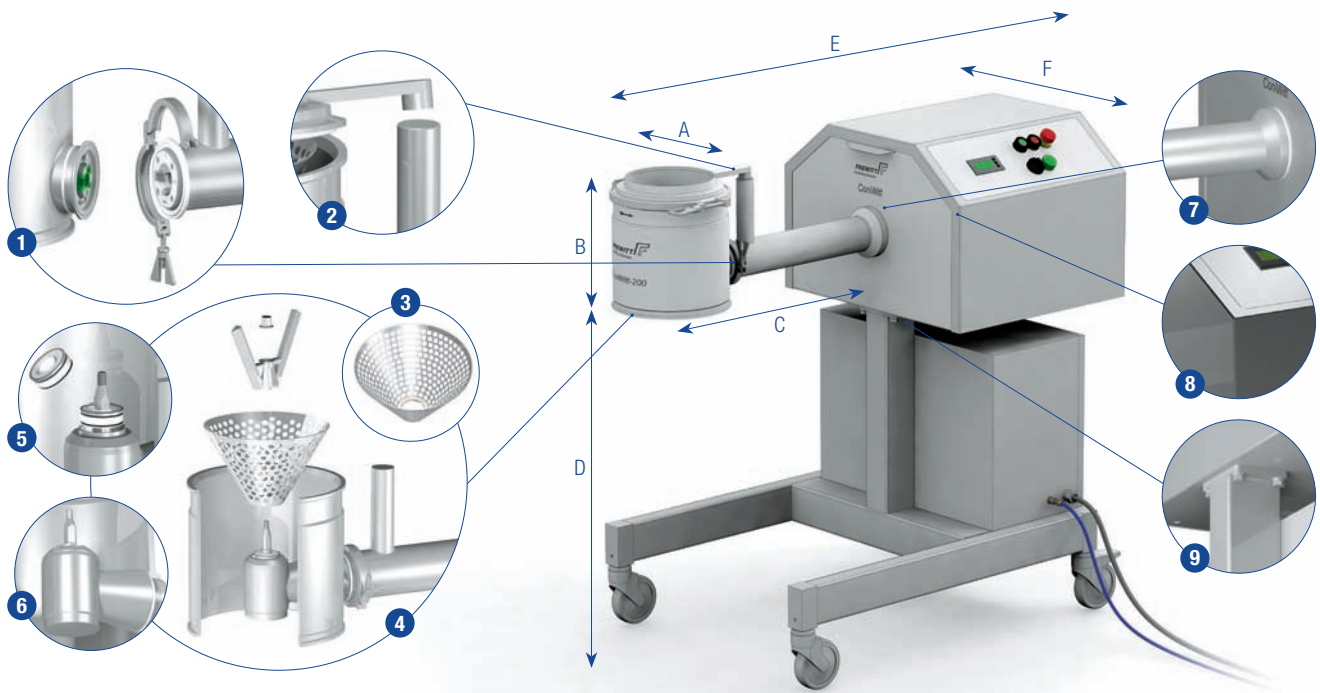


1 cm 50 µm
Hammer mill
HammerWitt-Lab
MFH-6
MFH-15

Particle size

30 cm 15 cm 1.5 cm 1.5 mm 50 µm

The ConiWitt in detail



The ConiWitt at a glance

- 1 Lightweight milling head, easily detachable with tri-clamp connections
- 2 Safety prompt (standard), no outside cables
- 3 Conical sieve (assortment of inserts with round/square openings, rasps)
- 4 Easy handling, quick installation
- 5 Lip seal easily replaced with gearbox closed
- 6 Bottom welded down-driver
- 7 Easy to clean – arm with no outside cables
- 8 Hood without screws
- 9 Easy to attach
- Rotor (square cross section for dry milling, round cross-section for wet milling)
- Life-time guaranteed shaft lip seal
- Approved for inside use in ATEX Zone 0/20
- Can be installed through a wall, with the motor in the machine room

Installation	B	C	D	E	F	A - INFEED (ISO 2852)	A - DISCHARGE (ISO 2852)
ConiWitt-150	250	600	920	1295	653	DN 150	DN 150
ConiWitt-200	314	650	920	1391	653	DN 200	DN 250
ConiWitt-250	372	650	920	1493	786	DN 250	DN 300

Advantages

Ergonomic and easy to use

- Modular, compact design.
- Rotor and sieve easy to change.
- Mobile base on request.
- Lightweight, detachable milling head.
- Head interchangeable between the ConiWitt-150 and the ConiWitt-200 with the same motor-arm construction.
- The «Error Proof System» guarantees correct installation and removal of the rotor and sieve.

Cleaning according to the strictest health standards

- Milling head autoclavable.
- The milling head is made from AISI-316L stainless steel. The polished, even surfaces allow the product to flow through without friction and without leaving residues.
- The ConiWitt complies with both the «Washing in Place» (WIP) and «Cleaning in Place» (CIP) standards.
- Quick, safe cleaning possible thanks to inside cables.

Less maintenance and greater workplace safety

- The lip seal can be changed in only 15 minutes with the gearbox closed.
- Efficient after-sales service.
- Quick delivery service of spare parts.
- Approved for ATEX Zone 0/20 inside, Zone 1/21 outside.





Significantly higher performance

- The active sieve surface of the ConiWitt exceeds that of comparable sieve mills by as much as 25%.
- A significantly higher flow rate is achieved without modifying the milling chamber size.
- The ConiWitt is available with the optional pivotable milling head.
- Base with optional height adjustment.
- The dead surface of the sieve floor is very small and there is therefore no danger of the product overheating.

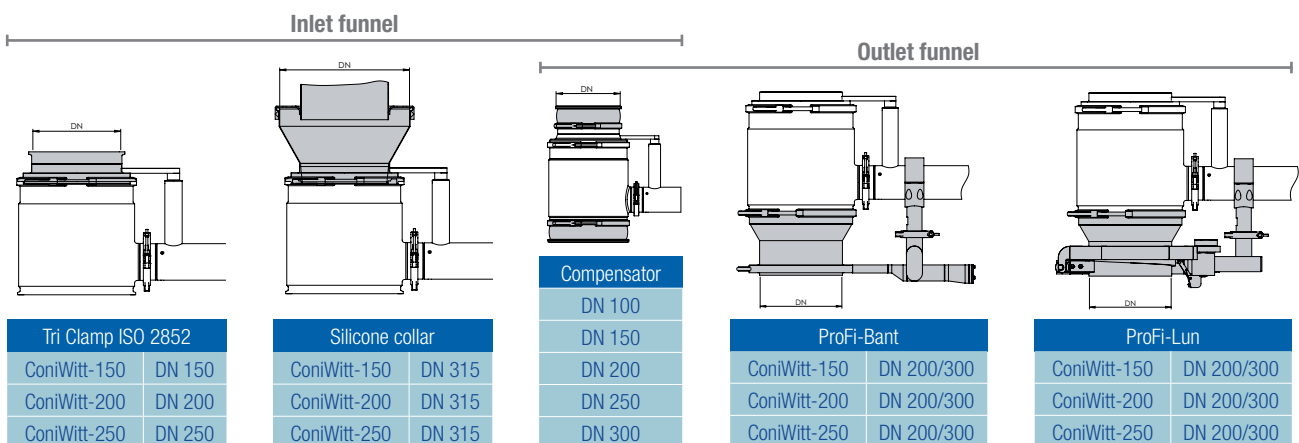


	Flowrate*	Voltage	Rotor speed	Power	Net weight
ConiWitt-150	500-1500 kg/h	400 V - 50 Hz	max. 2400 min-1	4.0 kW	~ 160 kg
ConiWitt-200	1000-2300 kg/h	400 V - 50 Hz	max. 1800 min-1	4.0 kW	~ 170 kg
ConiWitt-250	2000-4000 kg/h	400 V - 50 Hz	max. 1500 min-1	5.5 kW	~ 220 kg

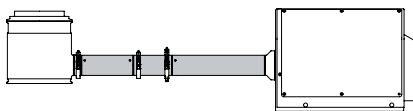
* Flowrate is depending on product characteristics and particle size.

Execution	Parts in contact with the product	Parts not in contact with the product
Material	1.4435 / 1.4404 (AISI-316L)	1.4301 / 1.4305 (AISI-304)
Seals	FDA compliant plastics (EPDM / PTFE)	Various plastics
Surface	Funnel Ra ≤ 0.8 µm, polished / head Ra ≤ 0.4 µm, polished	Ra ≤ 1.4 µm, polished
Weld seams	Ground and polished	Treated and brushed
Rotor	Dry milling rotor: with 2 arms with square arm profile / wet milling: rotor with 2 arms with round arm profile	
Conical sieve / rasp	Round openings Ø 0.5 mm – 10 mm diam. / square openings □ 3.0 mm – 10 mm / rasp 1.1 mm – 8.0 mm	
Distance Rotor / sieve	No mechanical contact (metal abrasion)	

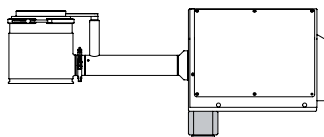
Options for custom-made solutions



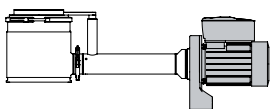
Midsection for arm extension



Swivel joint



Bare Bone



Available upgradeable

- Bottom (standard), top, or side mounting possible
- ATEX T3, T4, Zone 0/20 inside, Zone 1/21 outside
- Swivel mechanism for head
- Optional Hammer mill-head available
- Enables installation through a wall, with the motor on the other side in the machine room
- Upgradeable with the HammerWitt-Lab head
- Easily installed on elevator column



A particle sizing system for universal use

The ConiWitt is ideal for industrial applications as well as lighter duty laboratory work.

Thanks to its modular design, this conical sieve mill can be easily integrated in powder handling installations of all sizes.

Regardless of the field of application: operating the ConiWitt is intuitive, and the ingenious construction of the milling chamber module simplifies maintenance considerably. Thus even relatively inexperienced personnel will master this conical sieve mill quickly.



ConiWitt-150 with pneumatic feed and Profi-Bant. Installed through the wall.



ConiWitt body with optional «HammerWitt-Lab» hammer mill head for fine milling in kilo-sized quantities.



From production to R&D, there are three different available milling head sizes: ConiWitt-150, 200, 250.



ConiWitt integrated on a mobile lift column from Servolift.



ConiWitt-200 integrated in a powder handling installation, with discharge, dosing, and inliner unit.



ConiWitt with High Containment valves on lift column.

Thanks to its modular design, you can integrate the ConiWitt anywhere easily and quickly. Call us, and discuss your application with us.



worldwide presence

References

Arena Pharmaceutical GmbH
 Bayer Schering AG
 BASF Orgamol SA
 Boehringer Ingelheim GmbH
 Ciba Spezialitätenchemie AG
 Cilag AG

Clariant Produkte AG
 F. Hoffmann-La Roche AG
 Firmenich SA
 Grünenthal GmbH
 Hobako AG
 Lonza AG

Merck & Cie KG
 Nestlé SA
 Novartis Consumer Health SA
 Pfizer
 Pharmasynthese
 Sanofi Aventis

Sanofi Chimie
 Siegfried LTD
 UCB Farchim SA
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