KORSCH

STYL'ONE Nano

BENCHTOP COMPACTION SIMULATOR

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Benchtop Compaction Simulator

The STYL'ONE Nano is a tabletop compaction simulator designed for in-depth material characterization (e.g. API, excipients) and single-layer tablet formulation development providing data-driven insights and deep understanding of powder tableting behavior.

Versatility

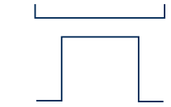
Its powerful drive technology, advanced instrumentation, and intuitive software, typically reserved for the pharmaceutical R&D environments, make it an ideal solution for hospital pharmacies, university practical training, and academic research.

Beyond the supply of state-of-the-art machinery, KORSCH's global Innovation Center network of scientists and process experts provides continuous training and consultancy to help you maximize the performance and value of your equipment.

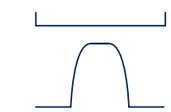
FLEXIBLE COMPRESSION PROFILES

Innovative Drive Technology

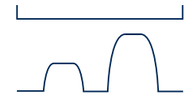
V-shape



Small rotary press



Extended dwell time



Small rotary press

Thanks to its powerful lower punch drive system and advanced instrumentation, the STYL'ONE Nano precisely controls punch displacement, enabling the execution of a wide range of compression cycles, including V-shape, extended dwell-time, and generic small rotary press profiles with pre- and main compression.

Each process parameter - such as compression speed, dosage height, and precompression ratio - is independently defined within a recipe via an intuitive software interface.

- Easy mounting & cleaning
- V-shape & extended dwell-time
- Pre- & main compression
- Target solid fraction

POWERFUL DATA ACQUISITION SYSTEM

Invaluable Data
Collection

The STYL'ONE Nano is equipped with a powerful data acquisition system capable of recording multiple signals from both upper and lower punches, including pre- and main compression forces, punch displacement, and ejection force. In addition, the instrumented die captures maximum and residual die wall pressures, enhancing material characterization and formulation understanding.

External devices such as tablet testers or scales can be connected to automatically collect additional data - including hardness, weight, and dimensions - supporting comprehensive reporting and graphical analysis.

- Product & process parameters
- Pre- & main compression force and punch displacement
- Ejection force & die wall pressure
- Fast design of experiment (DoE) execution

EFFICIENT DATA ANALYSIS

Decisions Based
on Data

Data generated by the STYL'ONE Nano is computed and analyzed using proprietary, user-friendly software that simplifies and streamlines data analysis and interpretation.

A comprehensive range of USP<1062> graphs - including manufacturability, tabletability, compressibility, and compactibility - enables straightforward comparison of different products and processes. More in-depth analysis through customized plots allows detailed evaluation of parameters such as compaction energy, porosity, ejection stress, elastic recovery, and more (e.g. Heckel analysis).

Both raw and processed data can be exported to customer local networks or cloud environments for modeling purposes and remain easily accessible for remote review via a viewer license.

- Invaluable information with minimal material quantity
- In-depth material & formulation understanding
- Viewer license for remote data analysis
- R&D reporting

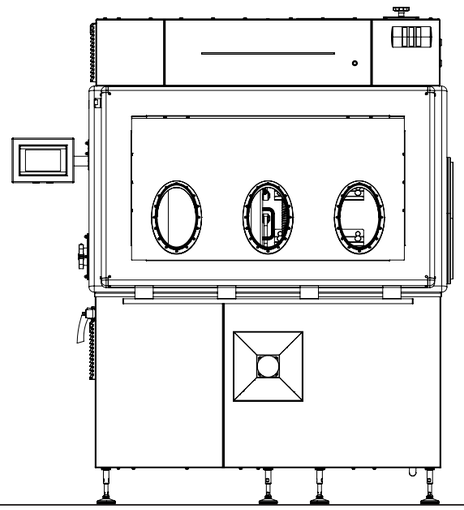
CONTAINMENT EXECUTIONS

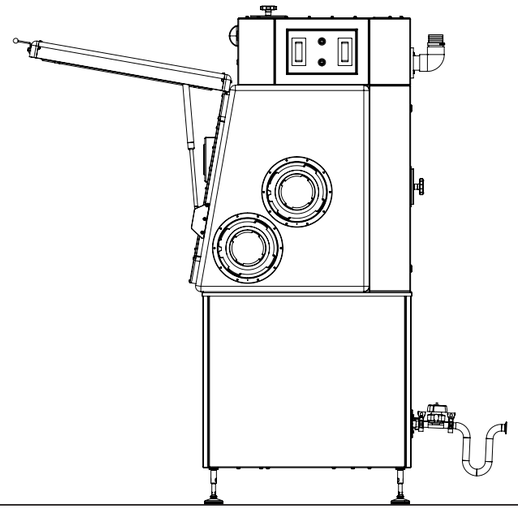
Maximized Operator Safety with OEB 4/5 Isolator Solutions

Special executions are available to facilitate integration of the STYL'ONE Nano into a downflow booth, including a special door and rotating base. The STYL'ONE Nano WipCon® includes negative pressure monitoring, interlocked doors, and customizable transfer ports such as pass-through boxes, rapid transfer ports, or continuous liners, along with formal SMEPAC testing for containment level certification.

WipCon® Execution

- OEB 4/5 containment level
- Wash-in-Place containment
- Integration in an isolator
- Cleaning recipe with integrated vacuum cleaner and spraying system
- Large space to integrate a tablet tester or scale





Technical Data STYL'ONE Nano

Description		
Punch Station		1
Tablet Format		Single-layer, mini-tablets, core rod
Tool Type		EU / TSM B+D, EU-1-441 and non-standard
Die Type		BBS, BB, B, D and non-standard
Feeding Mode		Manual, gravity, paddle
Max. Production Output	tabs./h	1,500
Max. Tablet Diameter	mm	19 (B), 25 (D) (contact us for larger formats)
Max. Die Filling Height	mm	21 (B), 23 (D)
Upper Punch Insertion Depth	mm	3
Max. Precompression Force	kN	50
Max. Main Compression Force	kN	50
Load Application		Lower punch
Compression Mode		Force or displacement driven
Lower Punch Velocity	mm/s	90
Lower Punch Acceleration	mm/s^2	8,000
Dwell Time	ms	2 - 3,000
Power Supply Voltage		230 V 1-Phase 50/60 Hz or 220 V 3-Phase 50/60 Hz
Peak Power	W	3,600
Electric Protection	A	16 (Type C)
Fault Current Protection / Leakage current	mA	30
Compressed Air	Bars L/min (nominal)	6 10
Weight	kg	255

Technical modifications reserved

KORSCH tablet presses and compaction simulators meet all fundamental requirements of the Machinery, ATEX, EMC, and Ecodesign Directives, as well as current GMP and FDA regulations. KORSCH tablet presses and compaction simulators are delivered with CE marking and comply with the requirements of 21 CFR Part 11.

Peripheral equipment belonging to the machine also complies with these regulations. The technical specifications included in this document represent optimal parameters and are dependent on product quality and machine settings. The maximum compression force varies in relation to tablet/punch size, and output; the maximum output in relation to material, tablet/punch size, and compression force. The average electrical power consumption depends on the production parameters.

KORSCH

Focused on Tablets, Driven by Innovation

Specialization makes the difference: For over 100 years, we have focused on what we love and do best: tableting!

Experience is key: Thousands of successfully completed projects form the foundation of the largest and most innovative product portfolio in the industry.

We offer the perfect solution and expertise for a wide range of requirements: from special presses for R&D, to rotary presses for scale-up operations and medium batch production, all the way to high-performance presses for 24/7 operation.

Our tablet presses are successfully in use worldwide every day, supported by a global team of specialists in service, process optimization, and sales.

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