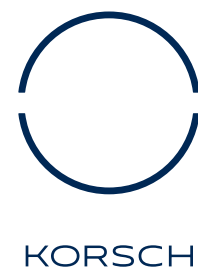KORSCH

XL 100

RESEARCH
TABLET PRESS

XL 100

KORSCH

Production Scale Performance in a Development Scale Machine

The XL 100 is a powerful tool for production development, scale-up, and clinical batch production. Fully portable, the XL 100 offers specialized components which are specifically intended to permit development with minimal material quantities. Offering a 10 kN pre and 60 kN main compression capability, a maximum press speed of 120 rpm, and a comprehensive data acquisition and analysis system (only Pro version), the XL 100 offers extreme versatility in a robust small-scale machine. The exchangeable turret allows the use of tool sizes BB, B, and D.

Intuitive Controls with Smart-Touch HMI

The state-of-the-art control system offers an intuitive interface, supported by comprehensive on-board help and numerous multi-media support files for operation, maintenance, and troubleshooting procedures.

At its core, a fully integrated SIEMENS control system merges PLC and motion controls in a single platform. Its open architecture, which allows unrestricted data access, is key to enabling Industry 4.0. Additionally, it provides extensive diagnostic support – including remote access.

PharmaControl® – Press Force Control System

The XL 100 uses the proven PharmaControl® press force control system to monitor individual compression forces and to provide precise tablet weight control. The Smart-Touch HMI displays average and single forces on each punch station in real time.

The optional single-tablet rejection system will reliably reject an individual tablet from a known punch station across the full speed range and build a reject log which may be viewed in real time and included in the electronic batch report.

Low Noise and Vibration due to Patented Design

The combination of compression roller stations and an isolated carrier plate eliminates all vibrations from the headpiece and the machine base. As a result, noise emissions are reduced to below 80 dB(A), and no vibrations are transmitted to individual machine components or to the floor.

PharmaResearch Data Acquisition and Analysis

PharmaResearch is a Windows-based system that offers data acquisition and analysis for press force and punch displacement data. The PharmaResearch system is available in an integrated execution for the XL 100 Pro. The system displays press force waveforms in real time and permits on-demand data collection. The system can collect and analyze data locally or send it to a networked SQL server for centralized data storage and analysis.

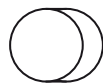|			
Precise and fast press force controll	8-stations mixed turret: 4-stations B and 4-stations D	Includes production-grade features	Minimal vibration

XL 100

XL 100

The XL 100 may be instrumented for the measurement of precompression force, main compression force, ejection force, and take off force, to permit product development parameters to be evaluated and stored. Combined with our compression force based tablet weight control system and single tablet rejection it can be configured to perfectly meet our customer's needs. The mixed turret, allowing B and D size tooling to be used on the same turret to maximize the flexibility during new product development. The optional automatic punch lubrication is the base for the production of larger batches.

⊕ Strong and robust portable design
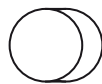
⊕ Comprehensive instrumentation

⊕ Wide variety of feeders and hoppers

⊕ Open software architecture

XL 100 Pro

XL 100 Pro

The XL 100 Pro offers an enhanced controls system based on our production machines. The XL 100 Pro is ideal for clinical batch production and provides a CFR 21 compliant operator login, product recipes, electronic audit trails, and batch data reporting. All critical press parameters are displayed and may be adjusted in real time.

⊕ Data acquisition and analysis (XL 100 Pro)

⊕ Convenient turret rotation for re-tooling

⊕ Fast change capability

⊕ Optimal access for cleaning

Technical Data XL 100

Description		Turret with Segments		
Punch Stations	Number	12	10	8
Tooling	EU/TSM	BB	B	D
Main Compression Force	kN	60	60	60
Precompression Force	kN	10	10	10
Max. Tablet Diameter	mm	13	16	25
Max. Filling Depth	mm	18	18	18
Turret Speed	rpm	20 – 120	20 – 120	20 – 60
Max. Tablet Output	tabs./h	86,400	72,000	29,000
Pitch Circle Diameter	mm	118	118	118
Max. Tablet Thickness	mm	8	8	8
Machine Net Weight	kg	860	860	860
Machine Dimensions	L x W x H	1,355 x 690 x 1,959 mm identical for all versions		
Total Connected Electrical Load	kVA	4.5	4.5	4.5

Technical modifications reserved

KORSCH tablet presses meet all fundamental requirements of the Machinery, ATEX, EMC, and Ecodesign Directives, as well as current GMP and FDA regulations. KORSCH tablet presses 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.
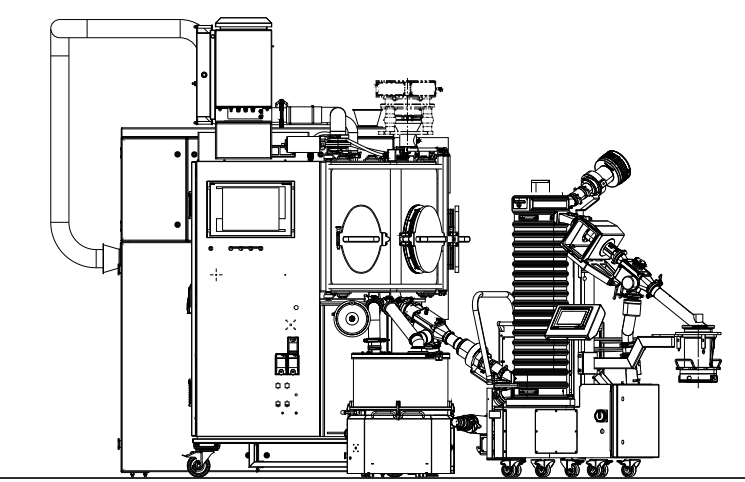
The technical specifications included in this document represent optimal parameters and are dependent on product quality and machine settings. The maximum compression force varies in relation to tablet/punch size, and output; the maximum output in relation to material, tablet/punch size, and compression force. The average electrical power consumption depends on the production parameters.

Containment Solutions

As a system provider KORSCH offers customized, fully integrated containment solutions, including related peripherals and make/break connections, with centralized negative pressure control and dust collection system. KORSCH coordinates all utility interfaces, including but not limited to integration with centralized dust collection systems, supply water, and waste drain connection.
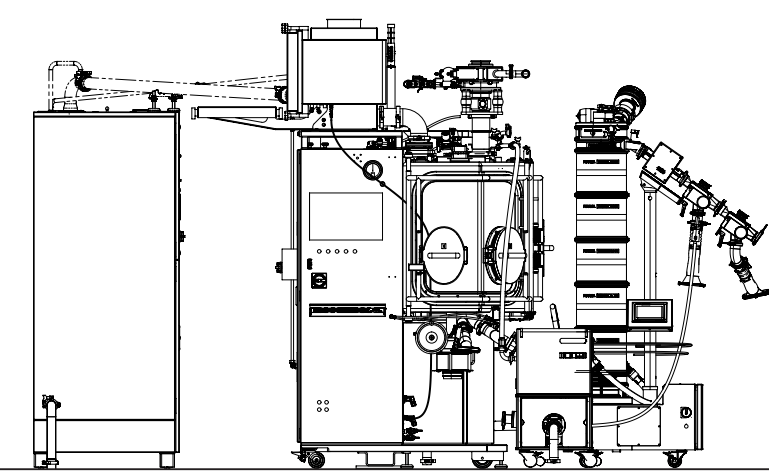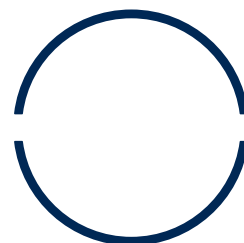
DryCon® Execution

- · OEB 3/4
- · Ergonomic placement of glove ports and RTP permits contained access to the compression zone
- · Negative pressure control and integrated vacuum wand for dry cleaning
- · KORSCH misting allows the bonding of surface dust with purified water
- · Eliminates requirements for PPE in production
- · Formal SMEPAC testing for containment level certification

WipCon® Execution

- · OEB 5
- · Isolator with extra working space
- · Recipe driven wash–in–place capability
- · Turnkey system with fully integrated peripherals and containment valves
- · Maximum layout flexibility

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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