

KORSCH

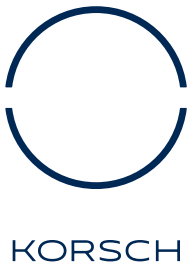
XL 400

THE MOST
FLEXIBLE
TABLET PRESS

XL 400

One Common Platform Two Machine Models

The XL 400 offers a new level of innovation and advancement, while maintaining the flexibility that is the hallmark of the XL 400 design. The common platform offers the option to choose between a single-layer only (SFP), and a single and multi-layer tablet press (MFP). Flexible conversion kits permit a quick and easy change between different MFP configurations. All key components, including turrets, feeders, and cams are fully interchangeable with the 3rd generation XL 400.



The Ergonomic Design Enhances Ease of Operation



The XL 400 leverages the combination of form and function to maximize performance. There is unrestricted access to the compression zone due to the ability to fully open the windows on three sides (without corner columns), allowing for easy and ergonomic changeover.

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 400 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.



Optimal access
for cleaning



Flexible machine layout



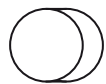
Tool-free assembly/
disassembly



Minimal vibration

XL 400 SFP

Maximum Efficiency
for Single-Layer Production



XL 400 SFP

Offering a 100 kN pre and main compression capability, a maximum press speed of 120 rpm, and an extended feeder length, the SFP is geared for high-speed production, with a maximum output of 338,400 single-layer tablets per hour. An ergonomic and accessible design permits the fastest changeover of any machine in its class. Thanks to its ergonomic design and unique accessibility, the XL 400 can be cleaned and retooled quickly and easily.



Precise control through
IO-Link communication



Industry 4.0 ready



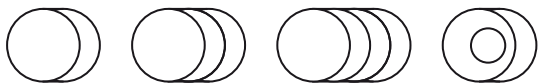
Open architecture



Dies or segments

XL 400 MFP

Maximum Flexibility



XL 400 MFP

Offering single-layer, bi-layer, tri-layer, and tablet-in-tablet capability in a single machine, and an exchangeable turret design, the XL 400 MFP can produce a tablet of any size, shape, and format. The modular feeders, compression stations, and cam courses permit the press to be reconfigured for every application using an innovative, patented design.



Integrated cooled
electrical cabinet



Advanced torque drive



Contamination free
machine base and
multi-function column



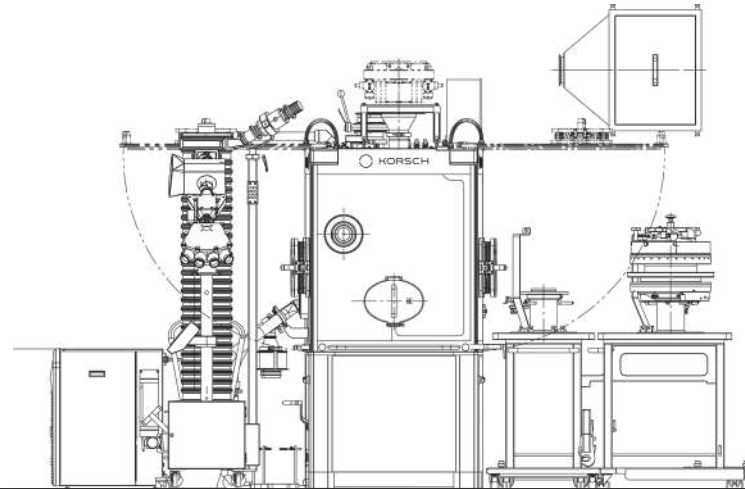
Clean and transparent
design concept

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.

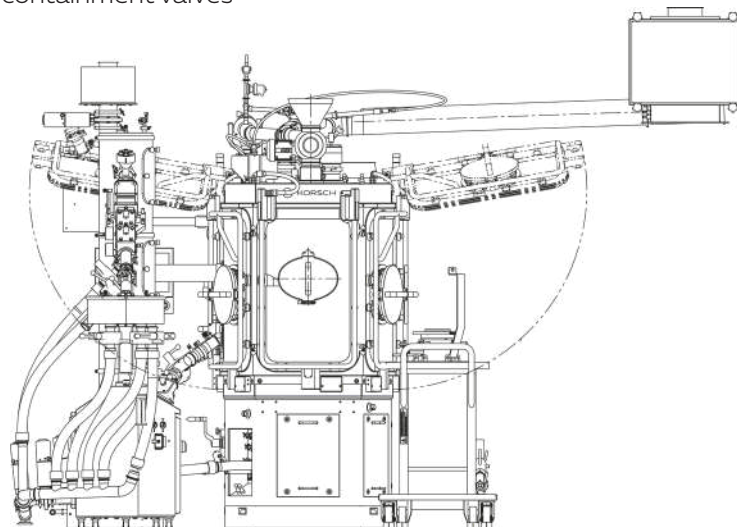
DryCon® Execution

- 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



Integrated Machine Layout

The multi-function column is located at the rear of the machine, and it includes the electrical cabinet, the dust extraction, and main energy supplies.

The water-cooled torque drive and electrical cabinet do not require ambient air and permit a completely sealed machine exterior preventing cross-contamination and heat transfer into the production area.

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.



Technical Data XL 400

Description		Turret with Dies			
Punch Stations	Number	47	44	35	29
Tooling	EU/TSM	BBS	BB	B	D
Main Compression Force	kN	100	100	100	100
Precompression Force	kN	20/100	20/100	20/100	20/100
Tamping Force, 1st and 2nd Layer	kN	20	20	20	20
Max. Tablet Diameter	mm	11	13	16	25
Max. Filling Depth, 1st Layer	mm	18	18	18	22
Max. Filling Depth, 2nd and 3rd Layer	mm	10	10	10	10
Turret Speed, Single-Layer	rpm	5 - 120	5 - 120	5 - 120	5 - 100
Turret Speed, Bi-Layer	rpm	5 - 60	5 - 60	5 - 60	5 - 50
Turret Speed, Tri-Layer	rpm	5 - 50	5 - 50	5 - 50	5 - 40
Max. Tablet Output, Single-Layer	tabs./h	338,400	316,800	252,000	174,000
Max. Tablet Output, Bi-Layer	tabs./h	169,200	158,400	126,000	87,000
Max. Tablet Output, Tri-Layer	tabs./h	141,000	132,000	105,000	69,600
Pitch Circle Diameter	mm	410	410	410	410
Max. Tablet Thickness	mm	8.5	8.5	8.5	8.5
Machine Net Weight	kg	4,300	4,300	4,300	4,300
Machine Dimensions	L x W x H	1,941 x 1,199 x 2,162 mm identical for all versions			
Total Connected Electrical Load	kVA	30	30	30	30
Average Power Consumption	kW	4 - 8	4 - 8	4 - 8	4 - 8

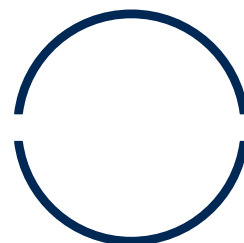
Description		Turret with Segments		
Punch Stations	Number	63	45	36
Tooling	EU/TSM	D12	B	D
Main Compression Force	kN	100	100	100
Precompression Force	kN	20/100	20/100	20/100
Tamping Force, 1st and 2nd Layer	kN	20	20	20
Max. Tablet Diameter	mm	11	16	25
Max. Filling Depth, 1st Layer	mm	18	18	22
Max. Filling Depth, 2nd and 3rd Layer	mm	10	10	10
Turret Speed, Single-Layer	rpm	5 - 120	5 - 120	5 - 100
Turret Speed, Bi-Layer	rpm	5 - 60	5 - 60	5 - 50
Turret Speed, Tri-Layer	rpm	5 - 50	5 - 50	5 - 40
Max. Tablet Output, Single-Layer	tabs./h	453,600	324,000	216,000
Max. Tablet Output, Bi-Layer	tabs./h	226,800	162,000	108,000
Max. Tablet Output, Tri-Layer	tabs./h	189,000	135,000	86,400
Pitch Circle Diameter	mm	410	410	410
Max. Tablet Thickness	mm	8.5	8.5	8.5
Machine Net Weight	kg	4,300	4,300	4,300
Machine Dimensions	L x W x H	1,941 x 1,199 x 2,162 mm identical for all versions		
Total Connected Electrical Load	kVA	30	30	30
Average Power Consumption	kW	4 - 8	4 - 8	4 - 8

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.



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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