

KORSCH

X5

SINGLE-SIDED
MAXIMIZED

X 5

Delivers maximum performance in a compact footprint

A single-sided rotary press featuring the hallmark KORSCH flexibility, optimized for the fastest changeover times and significantly increased production output. Its accessibility and ergonomic design set new standards, and the fully integrated control cabinet ensures a minimal footprint.

We offer two configurations for the X 5, both based on a shared platform: SFP (Single-Function Platform), is ideally suited for the production of single-layer tablets. MFP (Multi-Function Platform), with its quickly interchangeable conversion kits, enables flexible and sustainable upgrades and retrofits for both single- and multi-layer tablet production.



Intuitive Controls with Smart-Touch HMI

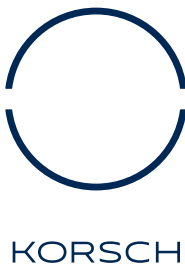
The state-of-the-art control system offers an intuitive interface, supported by comprehensive on-board help and numerous multi-media support files for operation, maintenance, and troubleshooting procedures.

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 X 5 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 compression 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.



The Ergonomic Design Enhances Ease of Operation



The X 5 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.



Optimal access for cleaning



Flexible machine layout



Tool-free assembly/disassembly



Minimal vibration

X 5 SFP

Dedicated Single-Layer
High-Speed Production



X 5 SFP

Offering a 100 kN pre and main compression capability, a maximum press speed of 120 rpm, and an extended feeder length, the X 5 SFP is geared for high-speed production, with a maximum output of 518,400 single-layer tablets per hour. Adjustable upper and lower compression dwell bars between pre and main compression extend compression dwell time and permit higher tablet hardness at high press speeds.



Maximum output for a single-sided tablet press



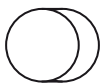
Long feeder filling length



Feeder seal design for maximum yields



Industry 4.0 ready



X 5 MFP

High-Speed Production
with Maximum Flexibility



X 5 MFP

Offering single-layer, bi-layer, and tri-layer capability in a single machine, and an exchangeable turret design, the X 5 MFP can produce a tablet of any size and shape with a maximum output of 518,400 single-layer tablets per hour, 259,200 bi-layer tablets per hour, and 216,000 tri-layer tablets per hour. The modular feeders, compression stations, and cam courses permit the press to be reconfigured for every application using an innovative, patented design.



Open software architecture



Dies or segments



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

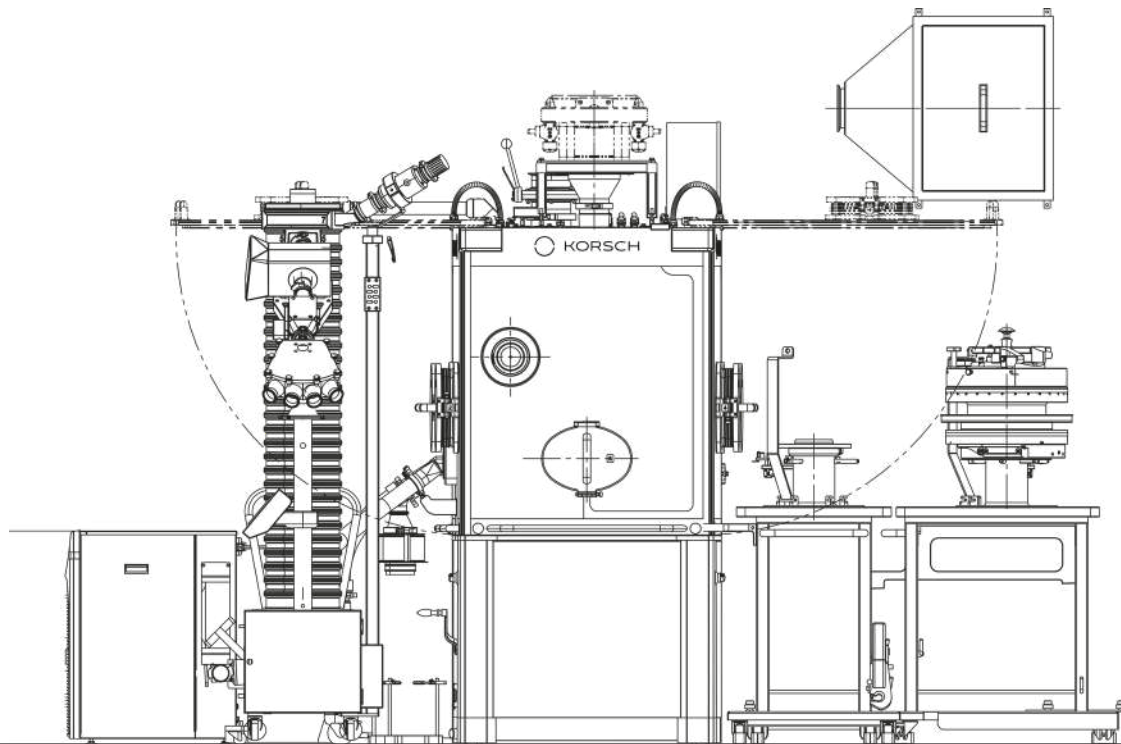
Integrated Machine Layout

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 X 5

Description		Turret with Dies			
Punch Stations	Number	58	52	43	35
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, 1 st and 2 nd Layer	kN	20	20	20	20
Max. Tablet Diameter	mm	11	13	16	25
Max. Filling Depth, 1 st Layer	mm	18	18	18	22
Max. Filling Depth, 2 nd and 3 rd 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	417,600	374,400	309,600	210,000
Max. Tablet Output, Bi-Layer	tabs./h	208,800	187,200	154,800	105,000
Max. Tablet Output, Tri-Layer	tabs./h	174,400	156,000	129,000	84,000
Pitch Circle Diameter	mm	490	490	490	490
Max. Tablet Thickness	mm	8.5	8.5	8.5	8.5
Machine Net Weight	kg	5,000	5,000	5,000	5,000
Machine Dimensions	L x W x H	1,950 x 1,238 x 2,169 mm identical for all versions			
Total Connected Electrical Load	kVA	35	35	35	35
Average Power Consumption	kW	8 - 12	8 - 12	8 - 12	8 - 12

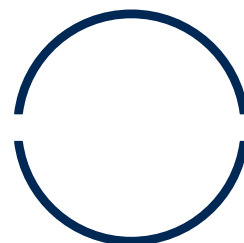
Description		Turret with Segments		
Punch Stations	Number	72	54	42
Tooling	EU/TSM	D12	B	D
Main Compression Force	kN	100	100	100
Precompression Force	kN	20/100	20/100	20/100
Tamping Force, 1 st and 2 nd Layer	kN	20	20	20
Max. Tablet Diameter	mm	11	16	25
Max. Filling Depth, 1 st Layer	mm	18	18	22
Max. Filling Depth, 2 nd and 3 rd 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	518,400	388,800	252,000
Max. Tablet Output, Bi-Layer	tabs./h	259,200	194,400	126,000
Max. Tablet Output, Tri-Layer	tabs./h	216,000	162,000	100,800
Pitch Circle Diameter	mm	490	490	490
Max. Tablet Thickness	mm	8.5	8.5	8.5
Machine Net Weight	kg	5,000	5,000	5,000
Machine Dimensions	L x W x H	1,950 x 1,238 x 2,169 mm identical for all versions		
Total Connected Electrical Load	kVA	35	35	35
Average Power Consumption	kW	8 - 12	8 - 12	8 - 12

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.

www.korsch.com

KORSCH Global Service Network

Europe
Near East
Africa

Phone: +49 30 43576-300
service@korsch.de

America

Phone: +1-800-KORSCH-1
service@korschamerica.com

Eastern Asia
South-East Asia

Phone: +49 30 43576-300
service@korsch.de

Southern Asia

Phone: +91 98 19004298
service@korschindia.com