



kg-pharma
THE FUTURE OF TABLETING



Product Portfolio

The Future of Tableting

www.kg-pharma.com

About Us

Global specialist for R&D and small-scale production tablet presses from the Baltic Sea coast

The globally aligned company kg-pharma, founded 2006 in Hamburg, sees itself as a partner to the pharmaceuticals industry and other tablet producers.

kg-pharma offers tablet presses designed for R&D purposes and the production of small batches. Our machines focus on intuitive operation, mobility and ultimate production flexibility. A unique feature is the FlexAdapt rotor, which enables an effortless change of tablet shapes.

Today we are looking to many years of experience in the pharmaceutical industry.

Among our customers are the world's largest pharmaceutical companies.

**We combine the best
of German engineering
with Swedish sustainability!**



From feasibility to R&D and small-scale production



RoTab[®] T 3.0

Our bestseller, with more than 120 worldwide installed units, is now in its third version.

The monolayer R&D tablet press can use all standard tool formats on one turret (FlexAdapt system). It is completely mobile with a weight of just 450kg and a width suitable to pass any standard door. It can be transported easily to any operation area.



Futorque[®] X Series

The upgrade of our flagship tablet press **Futorque[®]** gives the latest version a single layer and two containment options: Smart-Clean (OEB 3) and WIP (OEB 5).

A brilliant 18.5" multi-touch-display and a „control-by-process“ software deliver a new intuitive operation experience. The most compact portable footprint, high torque servo drive as standard, advanced connection possibilities for external tablet tester, and high containment option make the Futorque the leader in its field.



PrivMed[®] X

With the all-new **PrivMed[®]X**, we bring a revolution to all R&D tableting sites worldwide. A fully automated ultra-compact tablet press (UTP) with an integrated high precision gravimetric dosing system.

It significantly reduces labor time for feasibility studies and micro batch production, combining powder dosing and tableting into one step. The software elaborates all critical API blend parameters, generates a fully automatic Heckel-Plot, and automizes trial documentation. Tablet tools can be changed in seconds and a replaceable compression chamber for external cleaning. Tablet development has never been so easy.



NEW in 2023



PrivMed® X

Ultra-compact tablet press (UTP)

The new standard for individual tablet production and R&D

PrivMed[®] X

PrivMed[®] X is designed for R&D and individual tablet production in pharmacies.

With the intuitive Software, compression parameters important for the respective active ingredient blend are elaborated and stored on an intelligent data storage system in the combined container / -dosing station. A Heckel plot option, punch force displacement and ejection force measurement wrap up your new tableting experience.

The PrivMed[®] X enables CDMOs to speed up their powder-to-tablet process and API producer to focus on their core business again: **The development of new and better medication!**

PrivMed[®] X features:

- Gravimetric controlled, fully automatic
- Production of customized tablets
- Precise dosing
- Several Active ingredients in one tablet
- Individual tablet shape
- Intuitive operation and user interface
- Full cGMP and FDA 21 CFR part 11 compliance

**Convenient removable
tablet container in the front**



Software

User Interface

The most intuitive software we have ever developed for a tablet press.

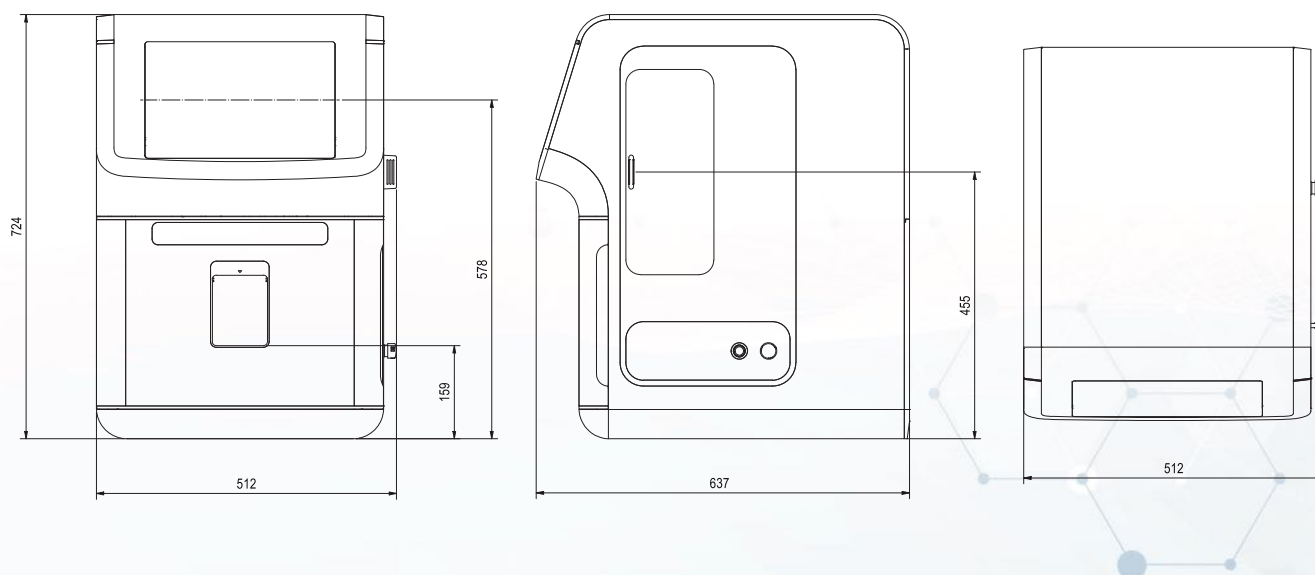
Highly functional, but easy to use with full online support for smooth working on R&D projects.

The software elaborates all critical API blend parameters, generates a Heckel-Plot fully automatic, and offers effortless trial documentation.

	Production	R&D	Graphical display and evaluation
Fully automatic gravimetric dosing	✓	✓	
Mono and bilayer tablets	✓	✓	
Trilayer (option)	✓	✓	
Heckel Plot	✗	✓	
Punch-force displacement	✗	✓	
Ejection force monitoring	✓	✓	
NIR probe (option)	✓	✓	



Technical Data



Technical Data PrivMed [®] X	Basic
Tablet diameter range	4-22 mm
Tablet weight range	20-1,250 mg
Tablet layers (number of different layers per tablet)	up to 3
Equivalent fill depths range	4-20 mm
Max. tablet production capacity*	2-3/min
Automatic product identification	Standard
Max. compression force	20(30) KN
Power supply	230V, 1 phase, 50/60Hz, 2kW
Dimensions	724 x 512 x 637 mm
Weight	75 kg

* depending on product and tablet properties



reddot design award

Futorque[®] X

The kg-pharma flagship.

Red Dot Award Design meets functionality

Futorque[®] X

The kg-pharma flagship: Futorque[®] X (for up to 130,000 tabs/h).

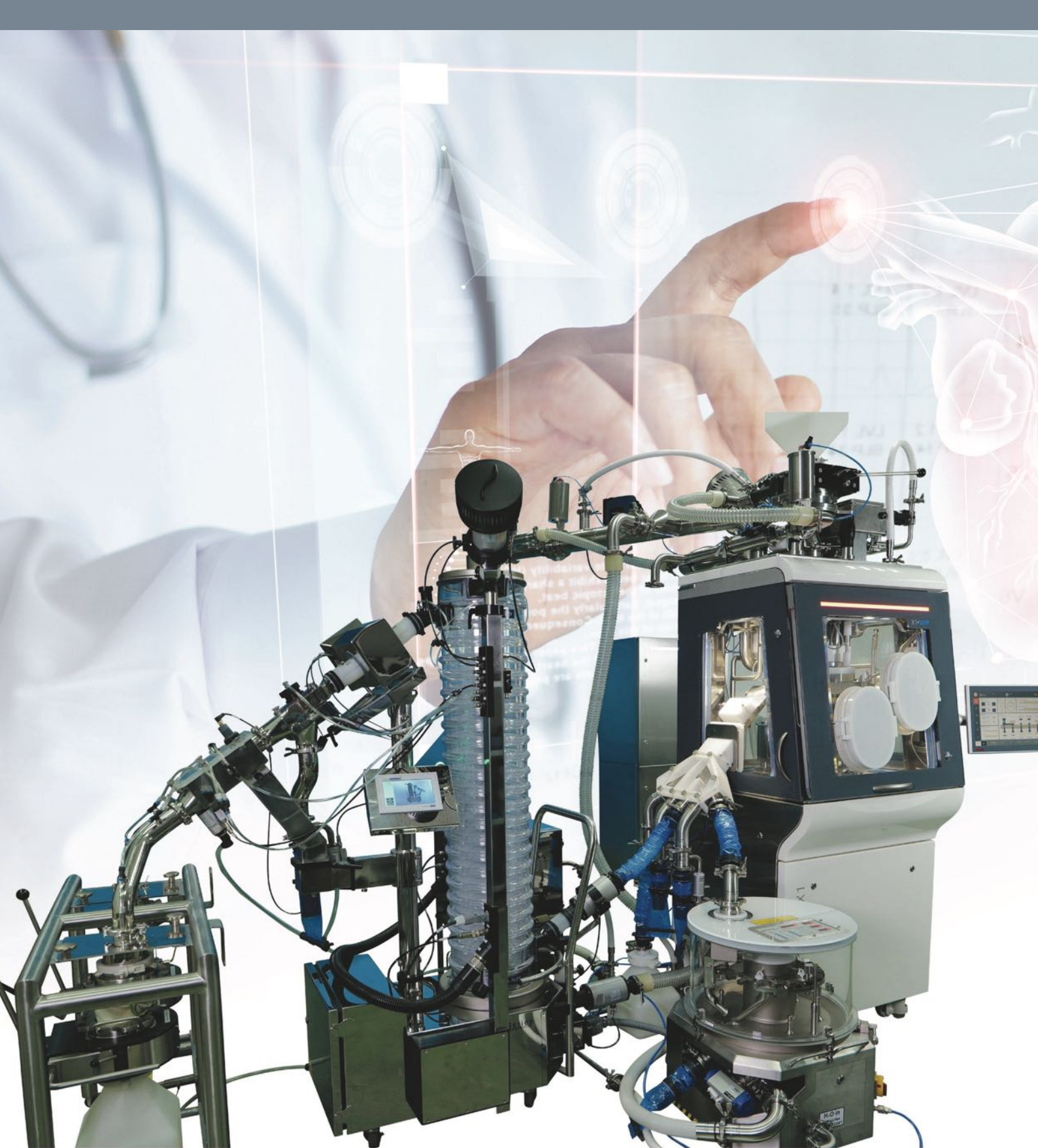
Perfectly engineered to meet both R&D and pilot-scale production. Its most innovative operating software makes tableting a completely new experience. Benefits include an intuitive operator control interface via an 18.5" BECKHOFF screen, including remote operation via smartphone devices. The optional FlexAdapt turret system (EU and IPT B and D) offers the highest format flexibility and lightning-fast changeover times without changing the turret.

This is innovation and built-in technology, to advance process development and manufacturing.

Futorque[®] X features:

- 130,000 tabs/h tabs/h system performance with full R&D capability
- EasyOP control software on a 18.5" multi-touch display
- Modular design with containment option
- FlexAdapt turret system (optional)
- High torque servo motor
- ... and much more!





Futorque[®] X

Containment versions

OEB 3 and OEB 5 versions

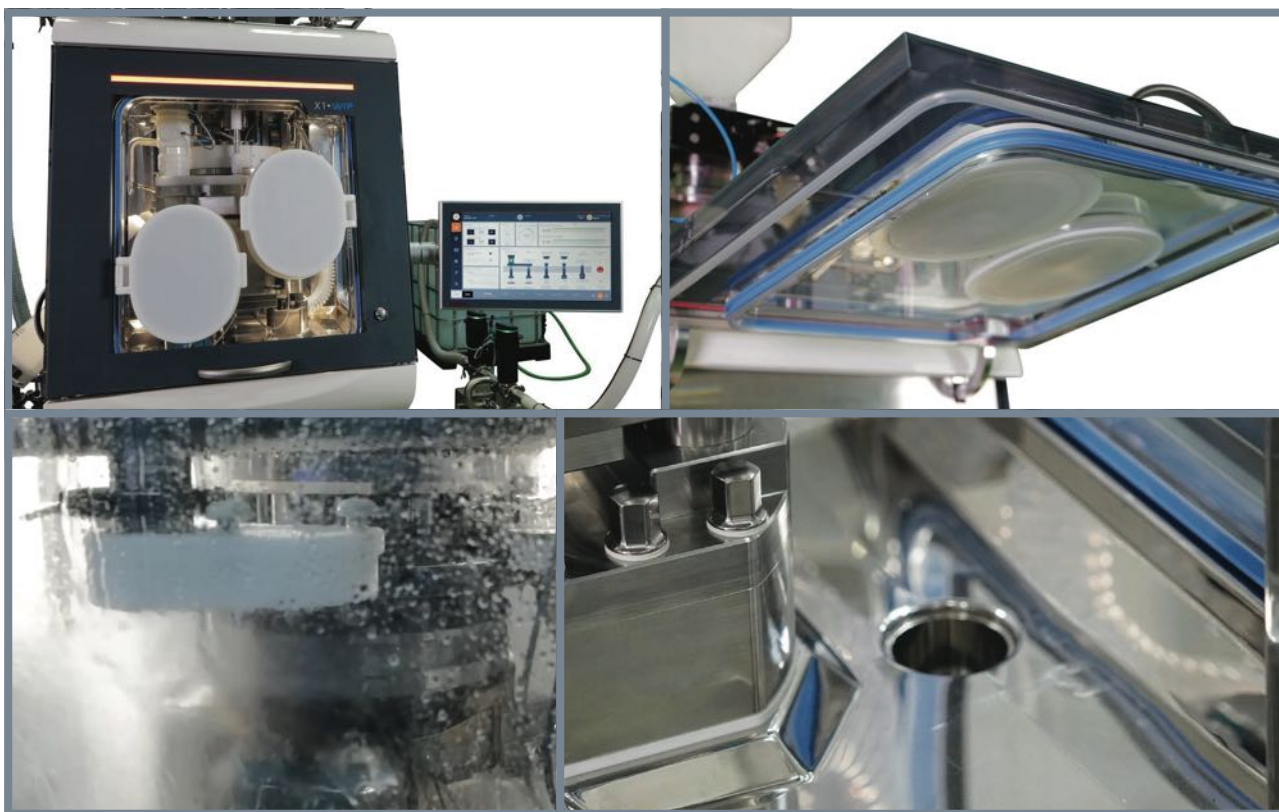
Futorque® X

Containment versions

Developing new and highly efficient APIs, especially hormonal or cancer treatment formulations, also brings challenges to handling products and protecting the operator from toxic dust exposure.

The **Futorque®** is available in a **SmartClean** version for projects up to OEB 3. This version allows a semi-wet cleaning by spraying water mist on the contaminated surfaces in the tablet compression compartment to bind residual dust. After this process, the machine windows can be opened safely, allowing a meticulously final cleaning.

The OEB 5 version, the highest containment class, has full **WIP** capability. After the production process, the tablet compression compartment can be fully washed down (WIP center controlled) as well as the peripheral devices.



Software

User Experience

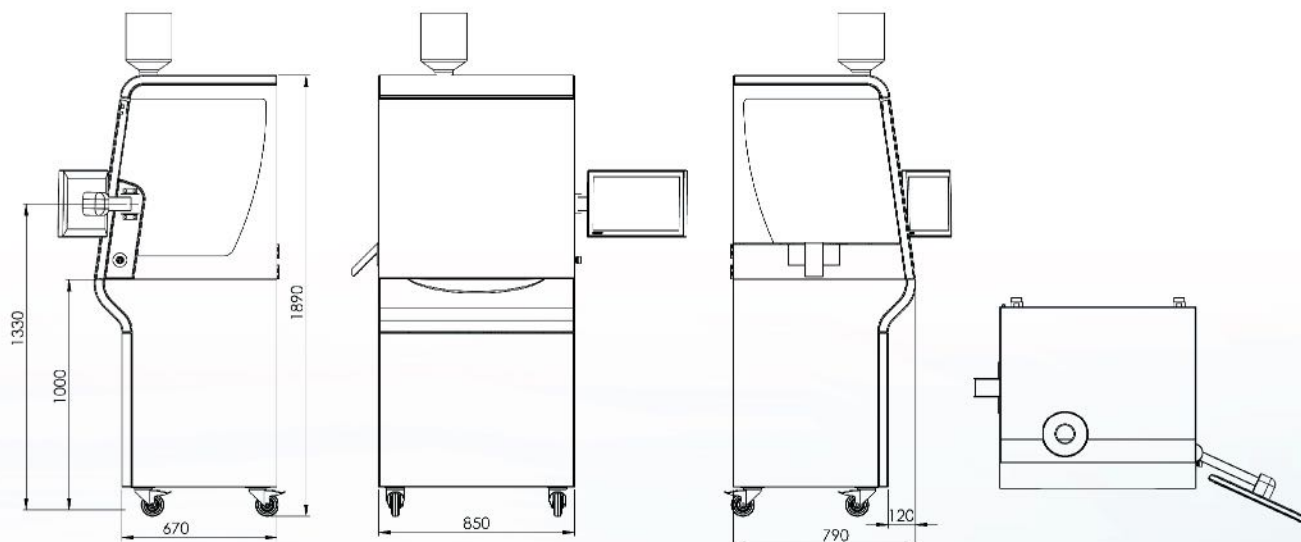
The **Futorque® X's** uniquely programmed HMI, featuring “operation by process” (visual process control), makes operating a complex pharmaceutical machine a totally new, intuitive experience.

Its multi-gesture functionality is based on the one used for operating modern smartphones and tablets, and makes software navigation easy. Parameter changes due to machine settings are shown on display in real-time. The control software’s comprehensive safety system and optional remote monitoring and control via a smartphone app mean the **Futorque® X** is one of the most operator-friendly tablet presses in its class.

	R&D	R&D Plus	Graphical display and evaluation
Pre compression	✓	✓	
Main compression	✓	✓	
Ejection force	✓	✓	
Tablet take-off force	✗	✓	
Punch-force displacement	✗	✓	
Punch tightness	✗	✓	
Ready for IPC (Sotax or Kramer)	✓	✓	
Remote Control App	✓	✓	



Technical Data



Technical Data Futorque® X	B-18	D-14	Combi B/D-7	FlexAdapt X-14
Number of punch stations	18	14	7+7	14
Punch format	EU(IPT) B	EU(IPT) D	EU(IPT) B/D	EU(IPT) B/D
Tablet output	5,4-129,600	4,2-100,800	2,1-50,400	4,2-100,800
Max. filling depth	20 mm			
Max force main compression	80 kN			
Max force compression	20 kN			
Pitch circle diameter	240 mm			
Turret revolutions	5-120 RPM			
Upper punch insertion depth	2 (option: 1-4) mm			
Net Weight	1,350 kg			
Measurements (L x W x H)	850 x 790 x 1890 mm			
Electrical supply parameters	Operating voltage 400 - 480V, 3 phase, 50/60Hz, power consumption 10 kW			



RoTab[®] T 3.0

Advantage through innovation in tableting technology!

R&D / Tablet Press Made in Germany

RoTab® T 3.0

Nowadays, tableting technology does not merely mean R&D or optimizing formulations in tableting development, but also cost reduction and scale-up.

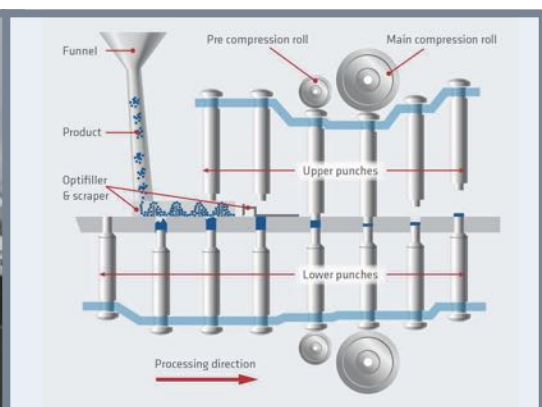
The new **RoTab® T 3.0** offers the highest degree of innovative performance in a compact design. With its mobile execution, the **RoTab® T 3.0** can be transported to any place and impresses with advanced instrumentation technology in combination with an industrial PC system.

Easy and fast cleanability allows high availability of the machine. Precise scale-up releases production machines from tableting trials.

The cGMP-conform design enables easy validation and enables the production of small tablet batches and pre-clinical studies.

RoTab® T 3.0 features:

- Automatical tablet weight regulation by filling depth
- Stepless RPM adjustment for die table and Optifiller
- Servo driven roller stations
- Optional servo driven tablet hardness adjustment
- Automatical punch lubrication with adjustable intervals
- ... and much more!
- Improved product and feeder tube for handling of bad flowing products
- All new software with highly intuitive operation by process
- Re-designed window flaps with improved dust tightness
- Even smaller footprint than the predecessor



Software

User Experience

Our R&D software contains production functionality as standard and is modular designed.

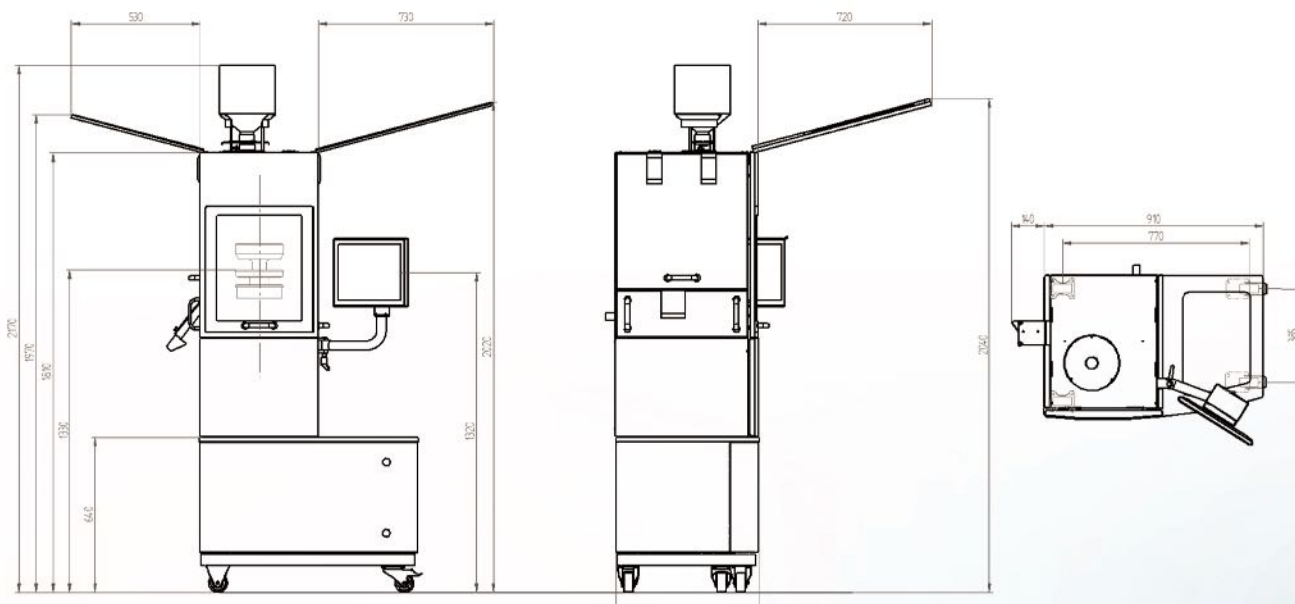
It can be upgraded with additional functions at any time. An advanced industrial PC-system with 15" touch-screen, ergonomically mounted on a telescope column, guarantees precise results and fast graphical evaluations.

The wide range of instrumentations allows a nearly perfect simulation of production machines on a laboratory scale. All options for instrumentation are listed in the table.

	R&D	R&D	Graphical display and evaluation
Initial compression	✓	✓	
Pre compression	✓	✓	
Main compression	✓	✓	
Ejection force	✗	✓	
Tablet take-off force	✗	✓	
Punch-force displacement	✗	✓	
Punch tightness	✓	✓	



Technical Data



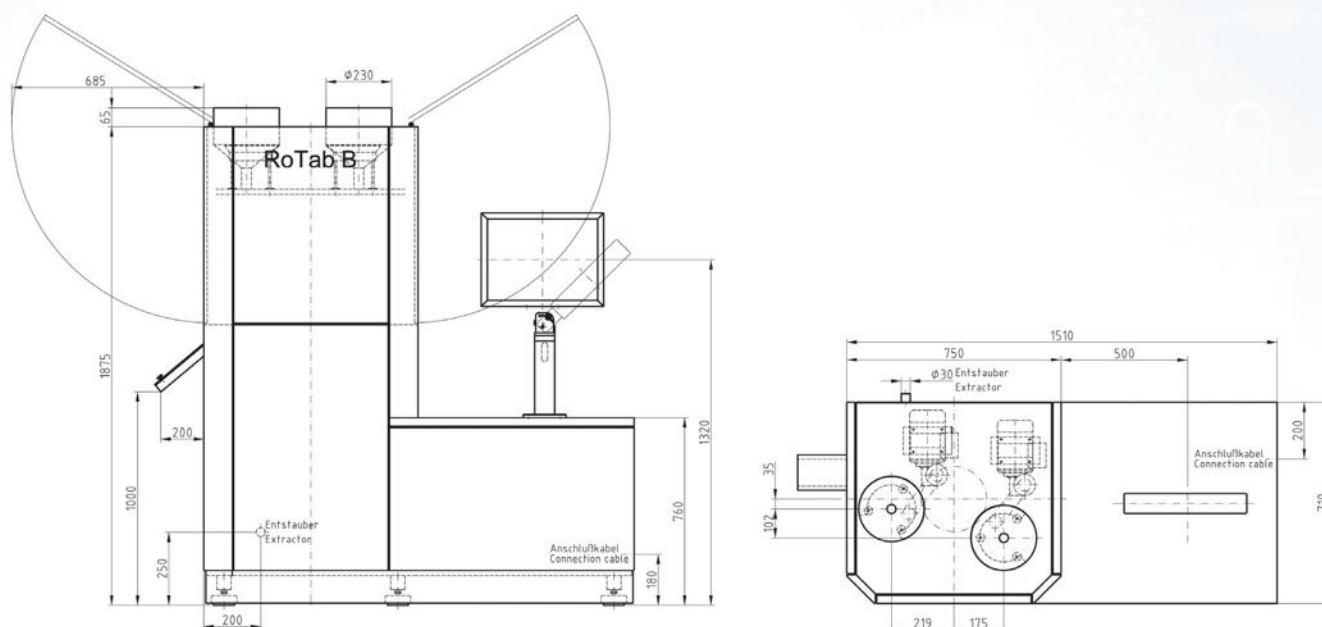
Technical Data RoTab®T	B-10	D-8	B/D-4	FlexAdapt X-8
Max tablet diameter	16 mm	25 mm	16/25 mm	25 mm
Number of punch stations	10	8	4/4	8
Tabletting tools (EU standard)	B - 30.16*	D - 38.1*	B/D	B/BB/BBS/D
Max. filling depth	20 mm			
Max precompression	2(10) kN			
Max main compression	60 kN			
Upper punch penetration	2-4 mm			
Max capacity in tablets/h	48,000**	38,400**	19,200**	38,400**
Power supply	3,5 kW			
Net Weight	420 kg			
Measurements (L x W x H)	1200 x 600 x 1790 mm			
* outer diameter				
** depending on product				



RoTab[®] Bilayer

The key to bilayer tablet development!

Technical Data



Technical data RoTab® Bilayer	B-20	D-16	B/D-8	FlexAdapt X-16
Max tablet diameter	16 mm	25 mm	16/25 mm	25 mm
Number of punch stations	20	16	8/8	16
Tools (EU or IPT standard)	B - 30.16*	D - 38.1*	B/D	BBS/BB/B/D
Max. fill depth 1st layer	12 mm			
Max. fill depth 2nd layer	10 mm			
Max. pre and main compression force	10/60 kN			
Penetration range upper punch	2 – 8 mm			
Max. capacity in tabs/h	18 – 48,000**	14.4 – 38,400**	7.2 – 19,200**	14.4 – 38,400**
Power supply	400-480 V, 3P+N, 50/60 Hz, 6.5 kW			
Weight	1,300 kg			
Measurements in mm (L x W x H)	1,510 x 710 x 1,875			

* outer die diameter

** for single layer operation, depending on product

Our Location

Head office

Sweden, Stockholm

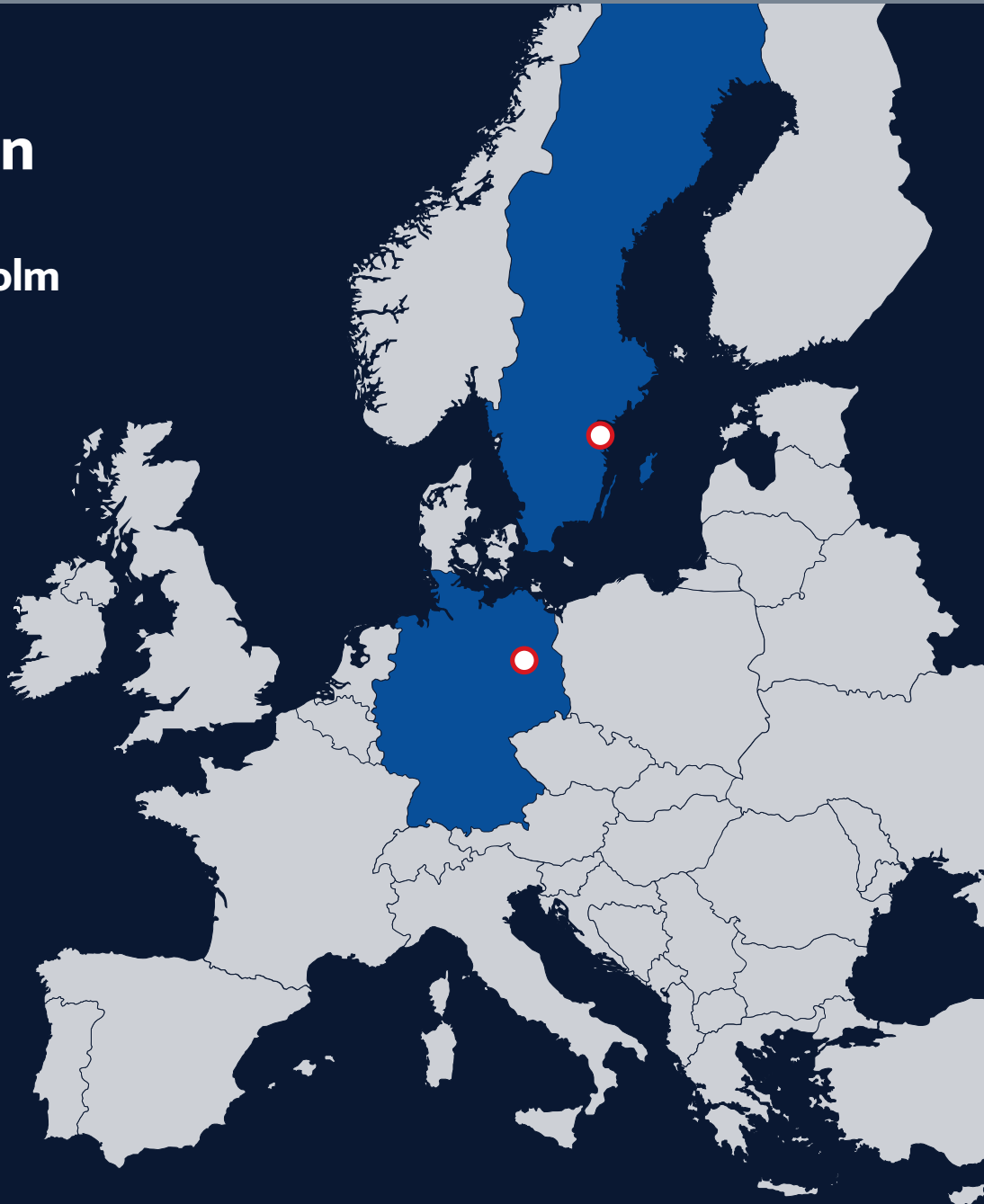
Production

Germany, Berlin

More than

120 customers

worldwide trust
in kg-pharma
tablet presses



kg-pharma
THE FUTURE OF TABLETING

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