

The Future of Tableting

Product Portfolio





RoTab T 3.0



Futorque[®] X



**From feasibility to R&D
and small-scale production**

Futorque[®] iQ

The three pillars of modern tableting



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 bilayer 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.

Futorque[®] **iQ**

With the all-new Futorque[®] iQ, 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 tool exchange within seconds and a replaceable compression chamber for external cleaning.

Tablet development has never been so easy.



The Future of Tableting

New
model
2022!



Futorque[®] iQ

Ultra-compact tablet press



The new standard for small scale and R&D

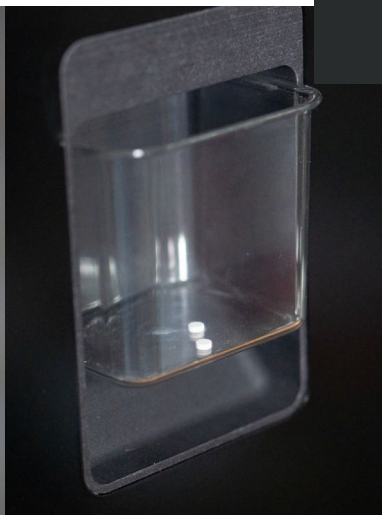
Futorque® iQ

Futorque® iQ is designed for R&D and individual tablet producers and 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 futorque® iQ enables CDMOs to speed up their powder-to-tablet process and API-producer to concentrate on their core business again: The development of new and better medication!

Futorque iQ 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

Convenient removable
tablet container in
the front



Software

User experience

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

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

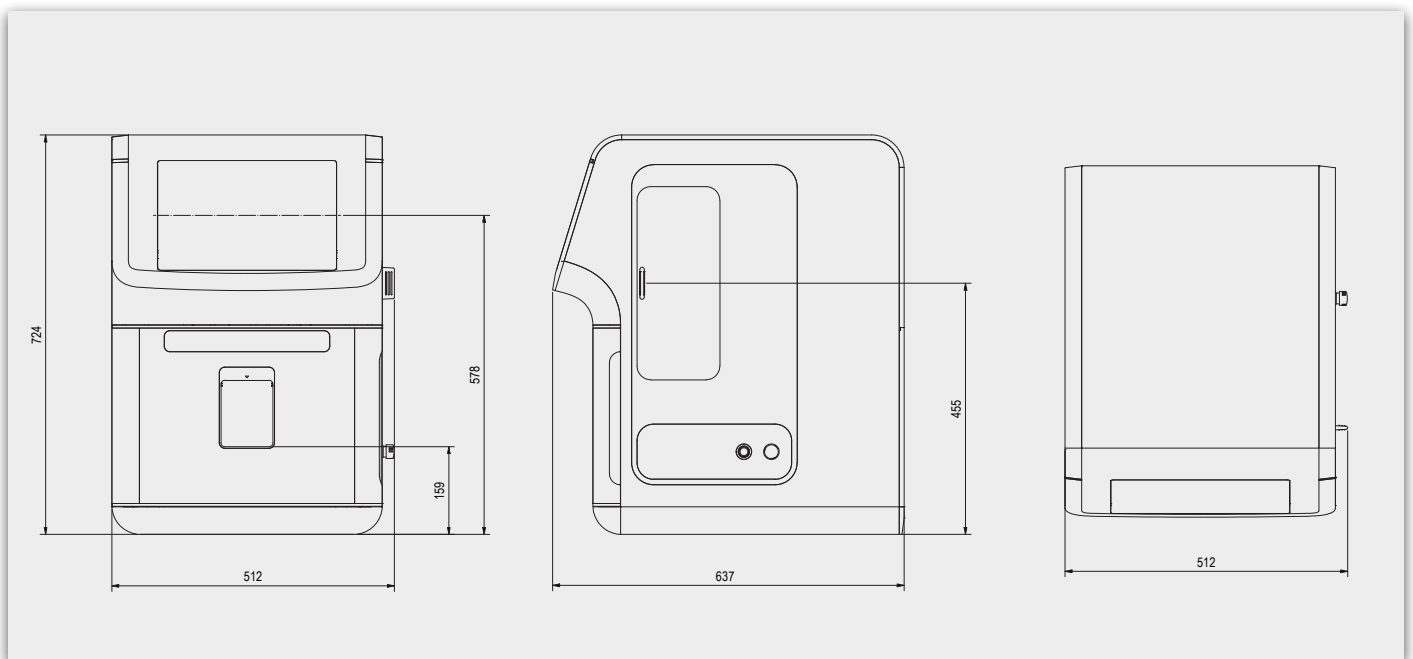
The software elaborates all critical API blend parameters, generates a Heckel-Plot fully automatic, and offers effortless trial documentation.

	Production	R&D
Fully automatic gravimetric dosing	●	●
Mono and bilayer tablets	●	●
Trilayer (option)	●	●
Heckel Plot	X	●
Punch-force displacement	X	●
Ejection force monitoring	●	●
NIR probe (option)	●	●

Graphical display and evaluation



Technical data



Technical Data Futorque IQ	Basic
Max tablet diameter	4-22mm
Number of possible tablet sizes per punch tool	1
Tablet layers (number of different layers per tablet)	up to 3
Tablet weight range	20-1,250 mg
Max. tablet production capacity**	2-3/min
Automatic product identification	Standard
Max. compression force	20(30) KN
Power supply	230V, 3 phases, 50/60Hz, 2kW
Dimensions	724 x 512 x 637mm
Weight	70kg

* Vario-version available from approx. Q4/2022, pre-orders accepted
 ** depending on product and tablet properties



reddot design award



FUTORQUE X1



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 produc-
tion. Its most innovative opera-
ting software makes tableting
a completely new experience.
Benefits include an intuitive
operator control interface via an
18.5" BECKHOFF screen, including
remote operation via smart-
phone devices.

The optional FlexAdapt turret
system (EU and IPT B and D)
offers the highest format flexi-
bility and lightning-fast change-
over times without changing the
turret.

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

Futorque® X features:

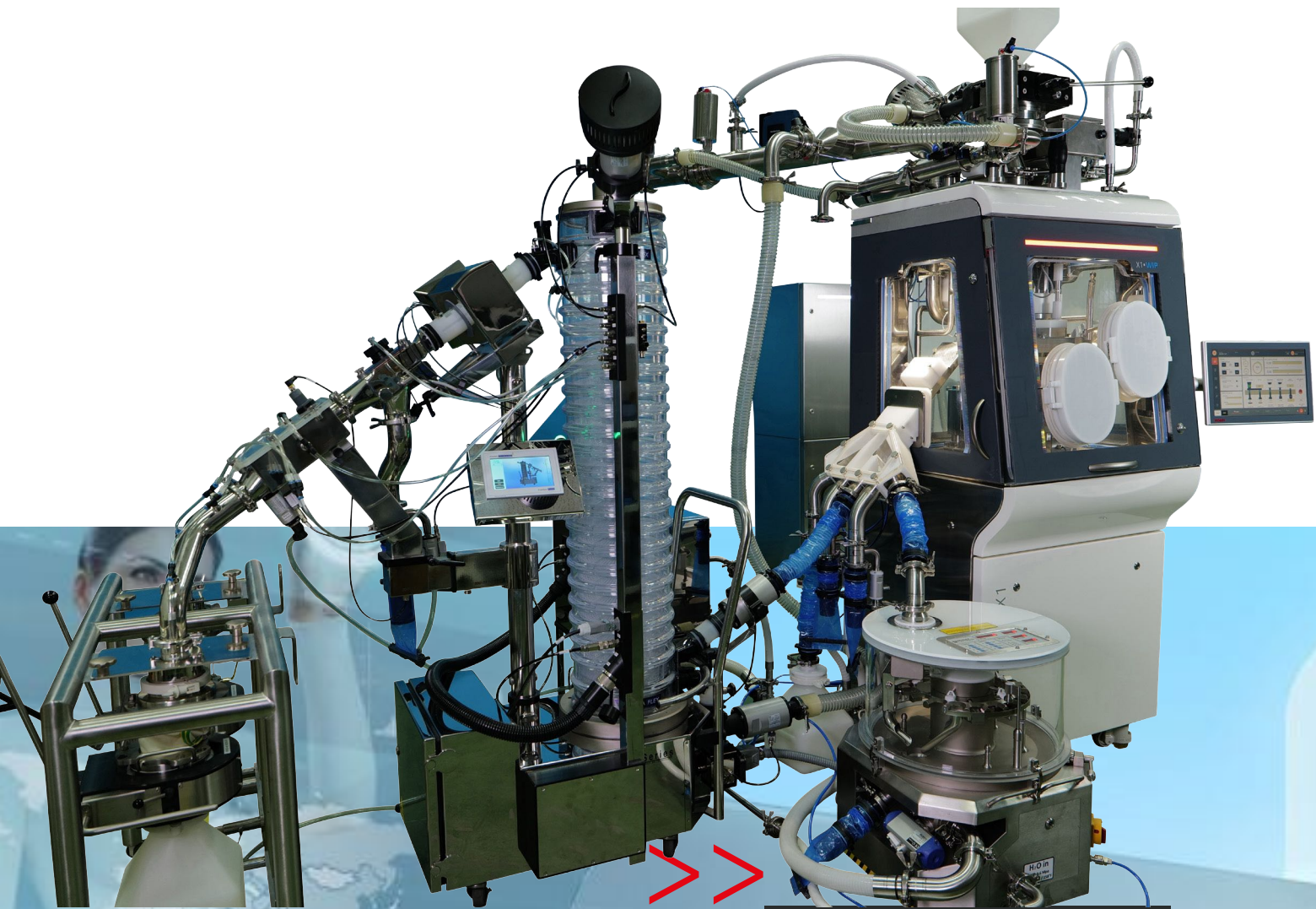
- 130,000 tabs/h tabs/h system performance with full R&D capability
- EasyOP control software on a 18.5" multi-touch display
- Modular design with containment option
- FlexAdapt turret system (optional)
- High torque servo motor
- ... and much more!



2022 model with
optional bilayer
functionality



OEB 3 and OEB 5 Containment versions



Futorque® X

OEB 3 and OEB 5 versions

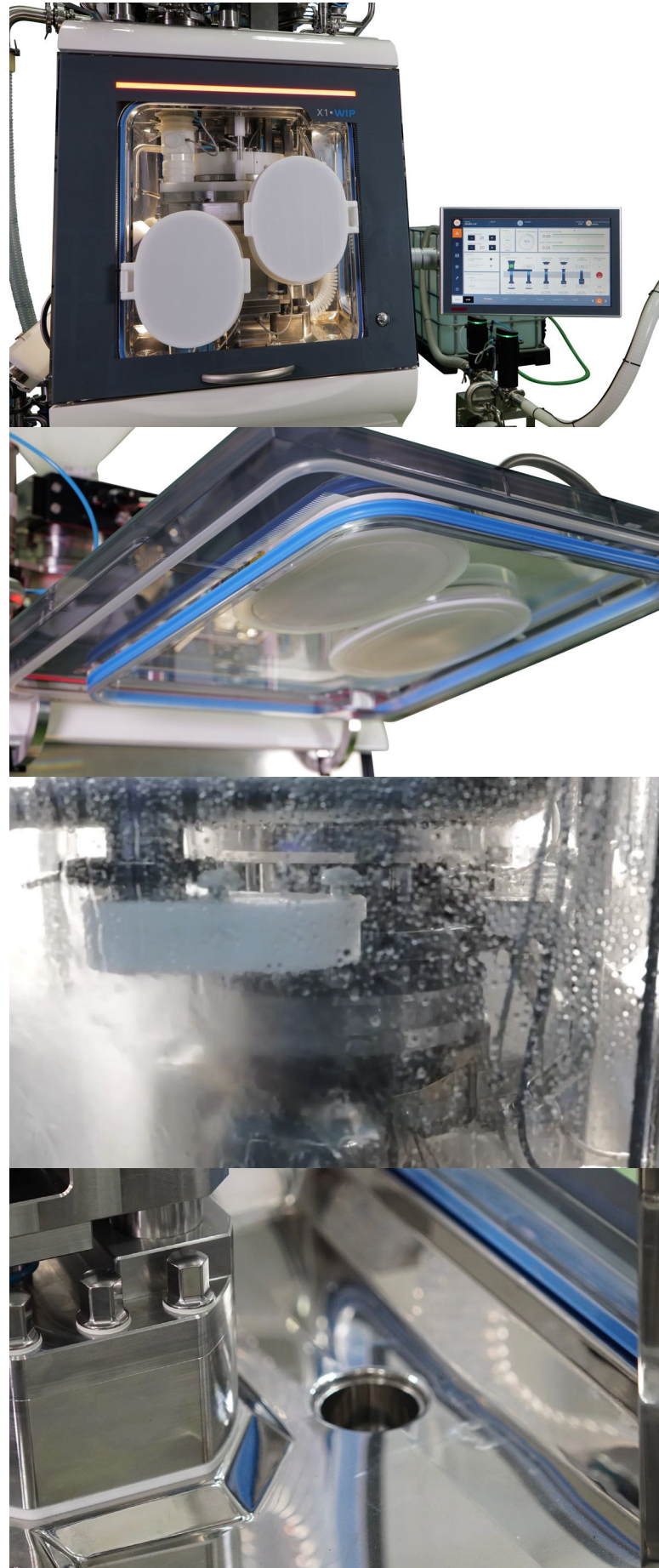
Futorque® X contained versions

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

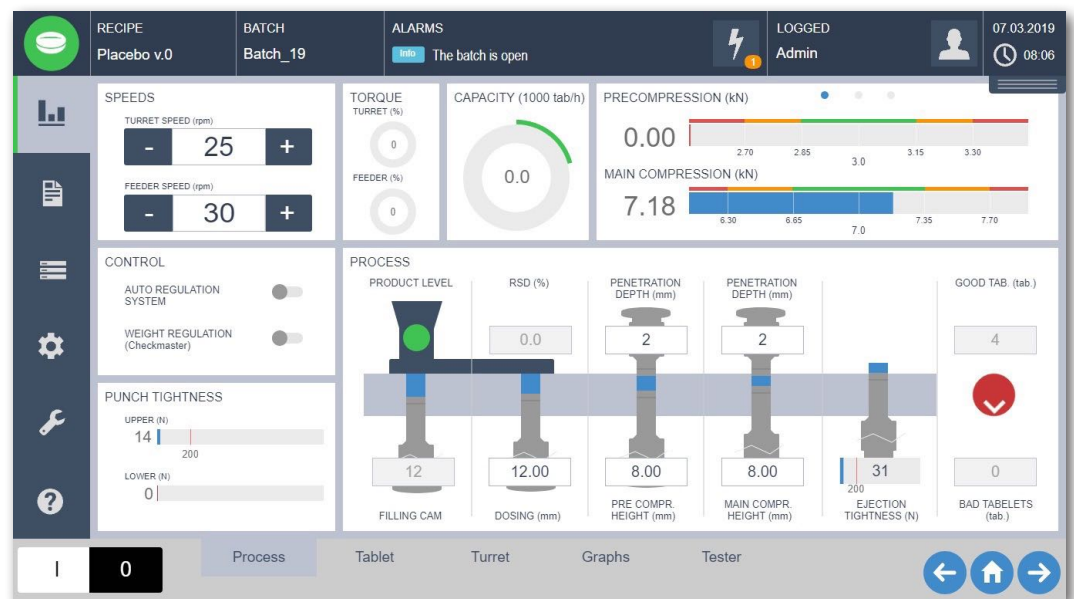
The Futorque® X's uniquely programmed HMI, featuring "operation by process" (visual process control), makes operating a complex pharmaceutical machine a totally new, intuitive experience. Its multi-gesture functionality is based on the one used for operating modern smartphones and tablets, and makes software navigation easy.

Parameter changes due to machine settings are shown on display in real-time.

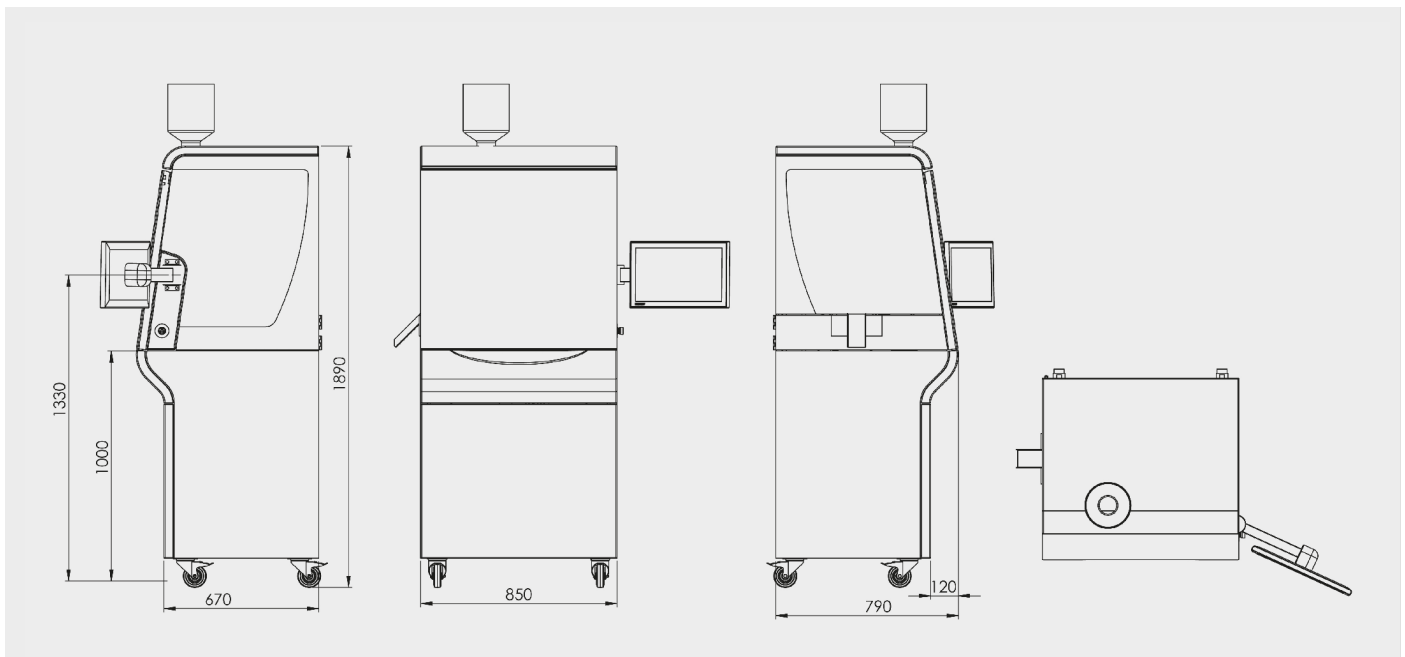
The control software's comprehensive safety system and optional remote monitoring and control via a smartphone app mean the Futorque® X is one of the most operator-friendly tablet presses in its class.

	R&D	R&D Plus
Pre compression	●	●
Main compression	●	●
Ejection force	●	●
Tablet take-off force	X	●
Punch-force displacement	X	●
Punch tightness	X	●
Ready for IPC (SOTAX or Krämer)	●	●
remote control app	●	●

Graphical display and evaluation



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	1350kg			
Measurements (L x W x H)	850 x 790 x 1890mm			
Elictrical 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.

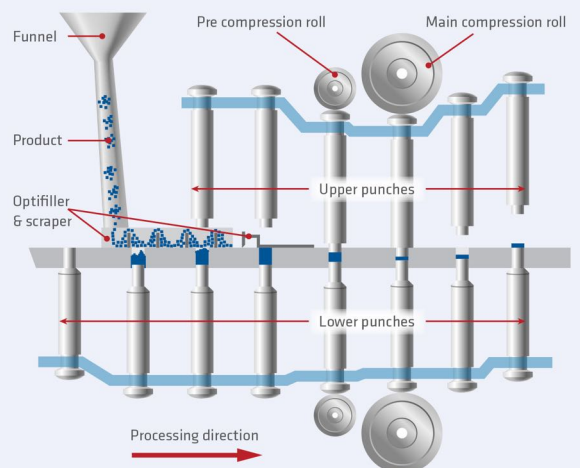
The cGMP-conform design enables easy validation and enables the production of small tablet batches and pre-clinical studies.

RoTab T 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!

3.0 features:

- 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

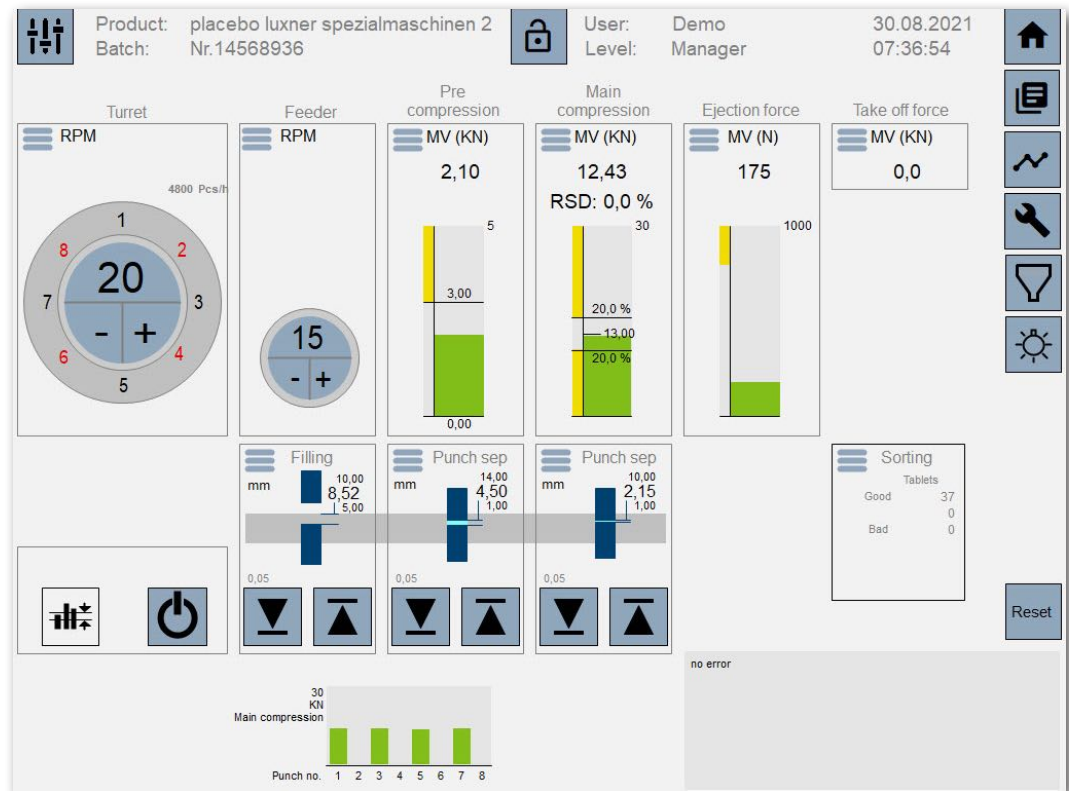
User experience

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.

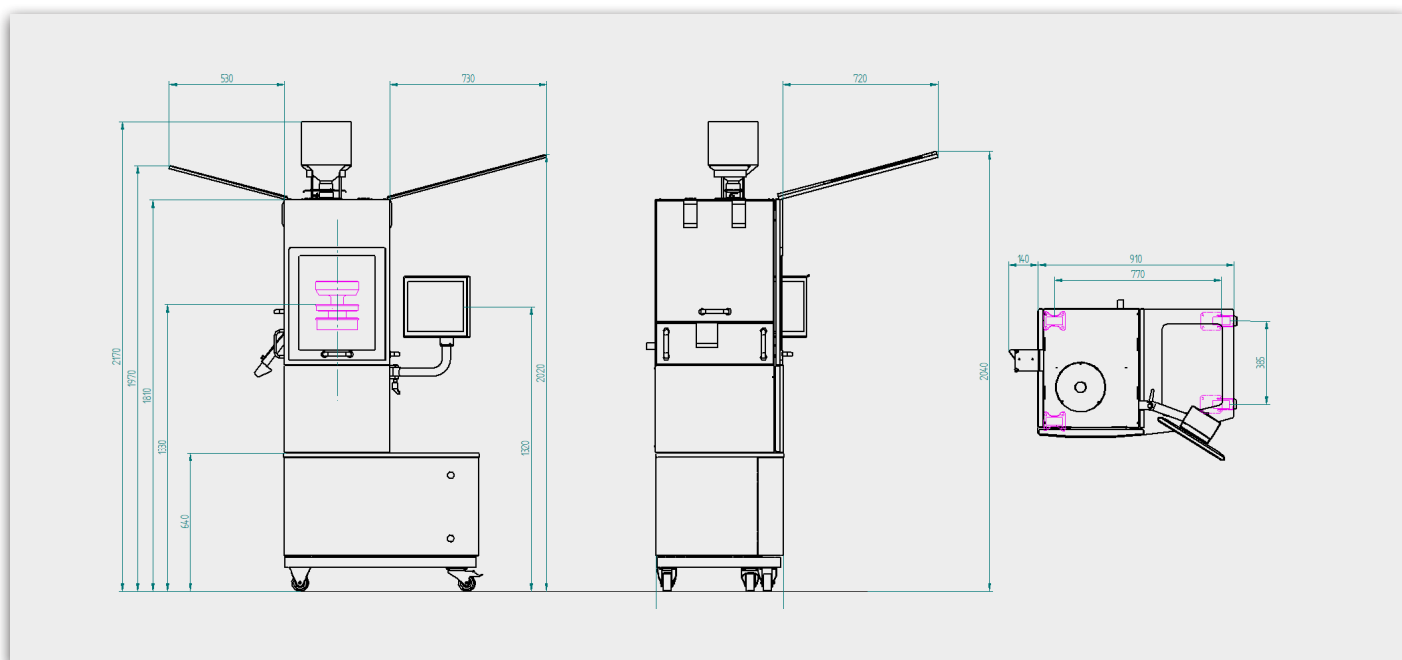
The wide range of instrumentations allows a nearly perfect simulation of production machines on a laboratory scale. All options for instrumentation are listed in the table.

	R&D	R&D Plus
Initial compression	●	●
Pre compression	●	●
Main compression	●	●
Ejection force	●	●
Tablet take-off force	X	●
Punch-force displacement	X	●
Punch tightness	X	●

Graphical display and evaluation



Technical data



Technical Data RoTab T	B-10	D-8	B/D-4	FlexAdapt X-8
Max tablet diameter	16mm	25mm	16/25mm	25mm
Number of punch stations	10	8	4/4	8
Tableting 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	420kg			
Measurements (L x W x H)	1200 x 600 x 1790mm			
* outer diameter				
** depending on product				

The Future of Tableting

Contact



kg-pharma AB

Björnholmsvägen 4,
SE-184 92 Åkersberga / Stockholms län
Sweden

We combine German engineering
with Swedish sustainability

Sweden T +46 (0)844 6884-90
Germany T +49 (0)40 6094 5619-0
F +49 (0)40 6094 5619-9

E info@kg-pharma.com
W www.kg-pharma.com