kg-pharma
THE FUTURE OF TABLETING

The Future of Tableting

2018
with major
Futorque X-1
performance upgrade

reddot award 2015
honourable mention

The three pillars
of modern tableting:

Futorque X-1 *- the all-new flagship with a system performance of up to 130,000 tablets/h, a brillant 18.5“ multi-touch-display and a „control-by-process“ software bringing 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 X-1 the leader in it’s field.*

RoTab Bilayer *- the most versatile rotary bilayer tablet press on the market, with mono- and bilayer tablet capabilities, easy to use software making bilayer tableting a great experience. With it’s first layer auto-sampling and easy change to monolayer mode the RoTab Bilayer brings the highest level of flexibility to R&D.*

RoTab T *- the monolayer R&D tablet press, with capability of using all standard tool formats on one turret (FlexAdapt system). At a weight of just 450 kg and a width suitable to pass any standard door it is a completely mobile unit and can easily be transported to any operation area.*

Futorque X-1

Flexible for the future!

reddot award 2015
honourable mention

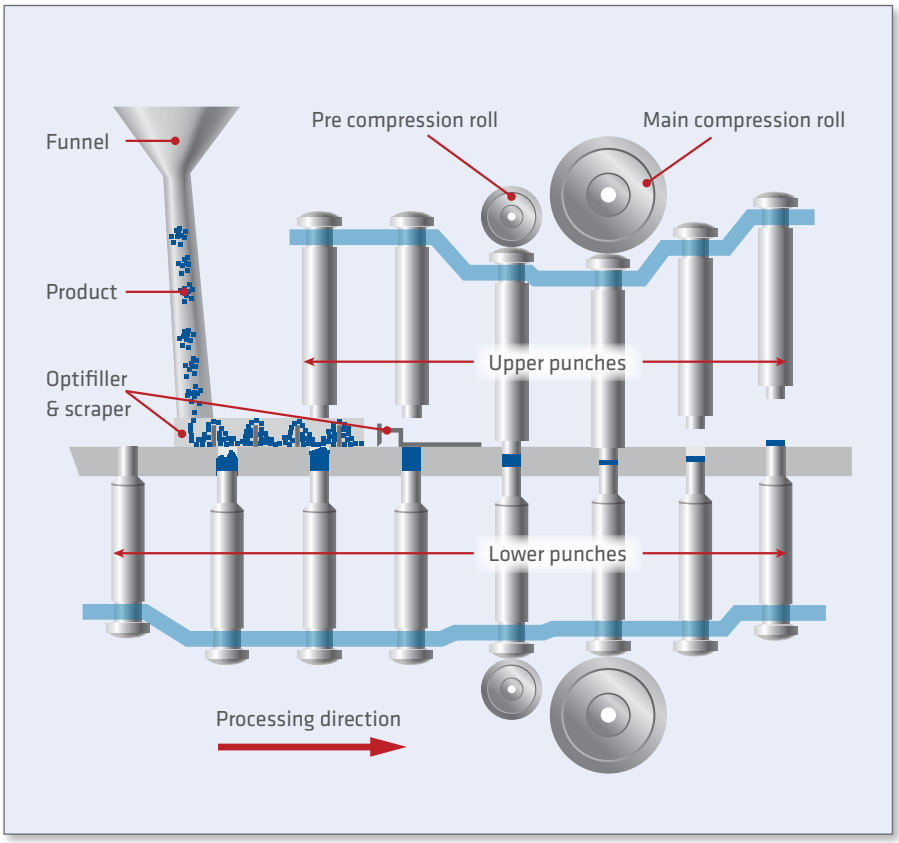
Red Dot Award 2015 - Design meets functionality

The all-new kg-pharma flagship:
Futorque X-1 (for up to 130,000 tabs/h)

Perfectly engineered to meet both R&D and pilot scale production it's most innovative operating software makes tableting a completely new experience. Benefits include an intuitive operator control interface via a 18.5" BECKHOFF screen including remote operation via smart phone devices.

The optional FlexAdapt turret system (EU and IPT B and D) offers highest format flexibility and lightning fast changeover times without the necessity of changing the turret.

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



Futorque X-1 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
- high torque servo motor

... and much more!

Software

The Futorque X-1'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, based on that used for operating modern smartphones and tablets, makes software navigation easy.

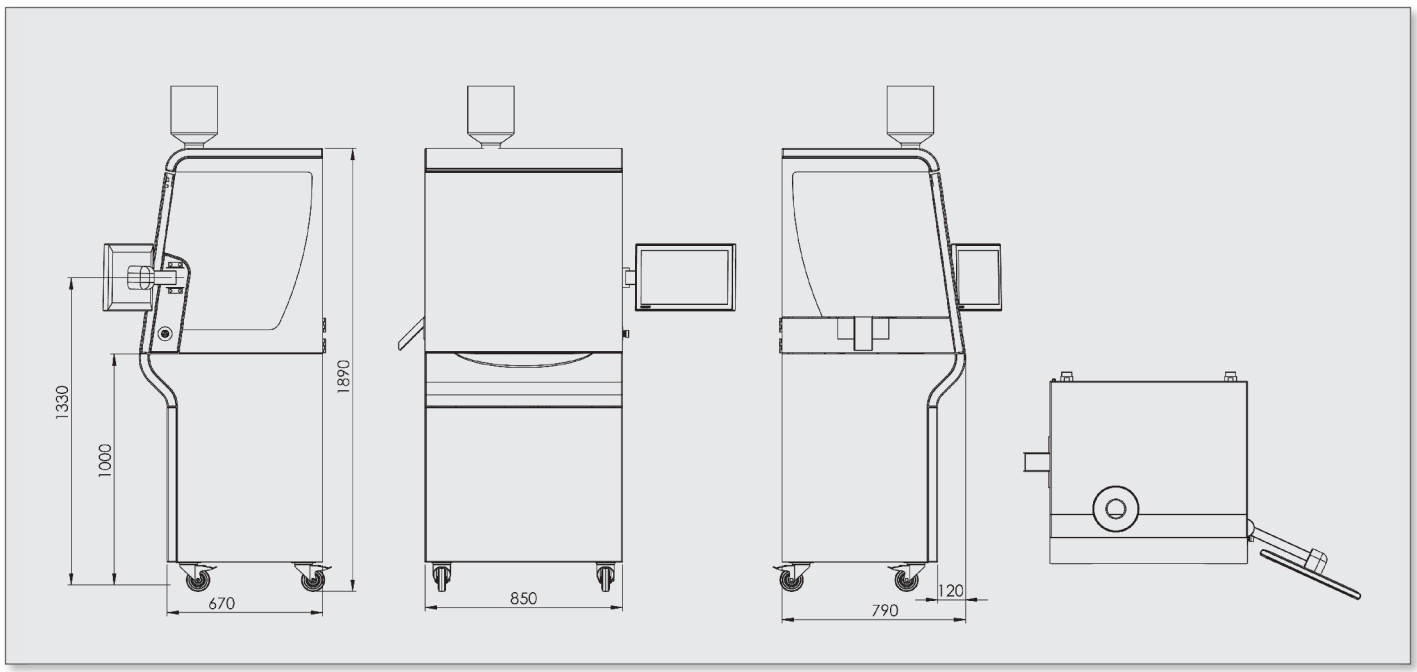
Parameter changes due to machine settings are shown on the display in real time.

The control software's comprehensive safety system and optional remote monitoring and control via smartphone app mean the Futorque X-1 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 X1	B-18	D-14	Combi B/D-8	FlexAdapt X-14
Number of punch stations	18	14	8+8	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	2,4-57,600	4,2-100,800
Max. filling depth	20 mm			
Max force main compression	80 kN			
Max force precompression	20 kN			
Pitch circle diameter	240 mm			
Turret revolutions	5-120 RPM			
Upper punch insertion depth	2 (option: 1-4) mm			
Net Weight	1,320 kg			
Measurements (L x W x H)	850 x 790 x 1,890 mm			
Electrical supply parameters	Operating voltage 400 – 480 V, 3 phase, 50/60 Hz, power consumption 10 kW			

RoTab Bilayer

The key to bilayer tablet development!

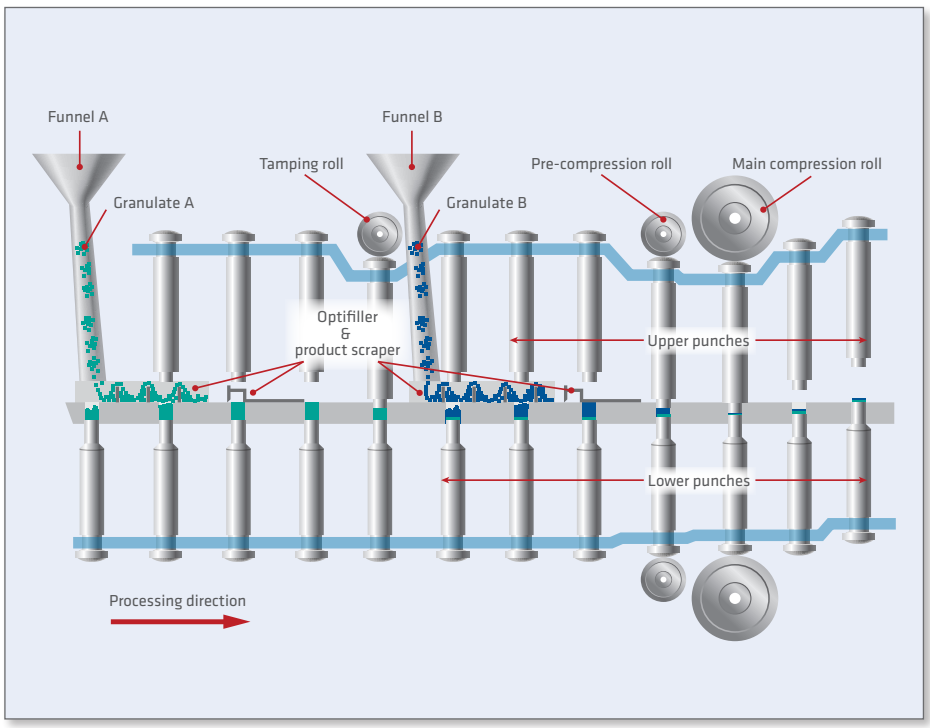
Bilayer tablet press

Development of bilayer tablets belongs to the most challenging tasks in tableting technology.

Best results can only be achieved with a perfect interaction of compression forces, dosing and formulation.

Two separate filling stations, three roller stations, the precise load cells and the direct compression force measurement method, make the **RoTab Bilayer** the most innovative high performance bilayer tablet press for R&D development.

The cGMP-conform design is dedicated to small space requirements.



RoTab Bilayer features:

- single and bilayer tablet production
- automatical tablet weight regulation by filling depth
- stepless RPM adjustment for die table and Optifiller
- servo-driven roller stations
- servo-driven tablet hardness adjustment
- automatical punch lubrication with adjustable interval

... and much more!

Software

Our Bilayer software contains production functionality as standard and is modular designed. It can be upgraded with additional R&D functions at any time.

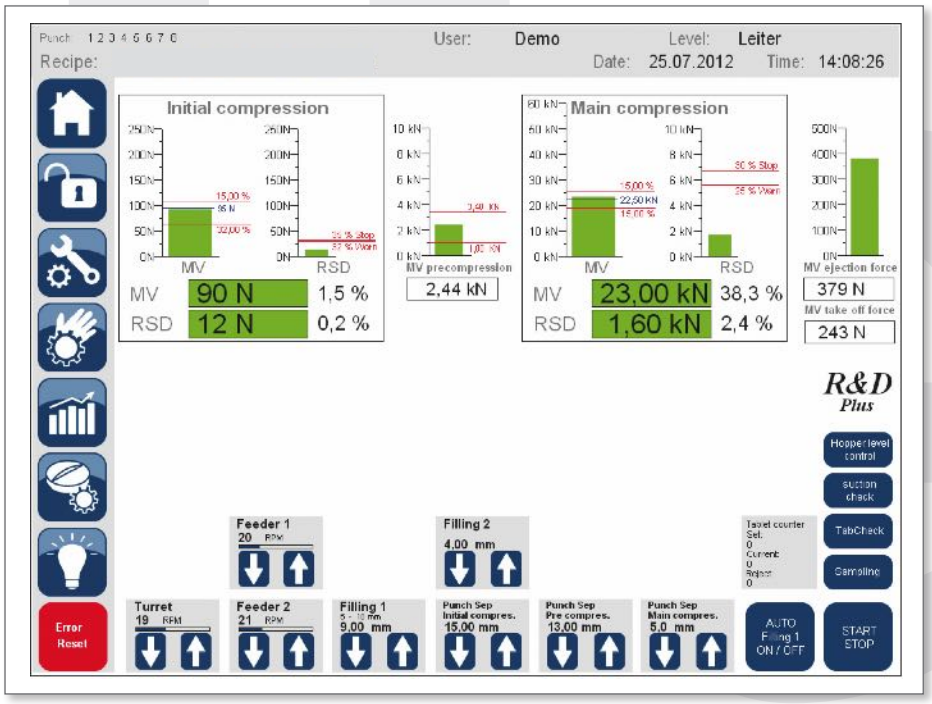
An advanced industrial PC-system with 15“ touch-screen, ergonomically mounted on a telescope columne, guarantees precise results and fast graphical evaluations.

The wide range of instrumentations allows a nearly perfect simulation of mono and bilayer tablet production in laboratory and pilot 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



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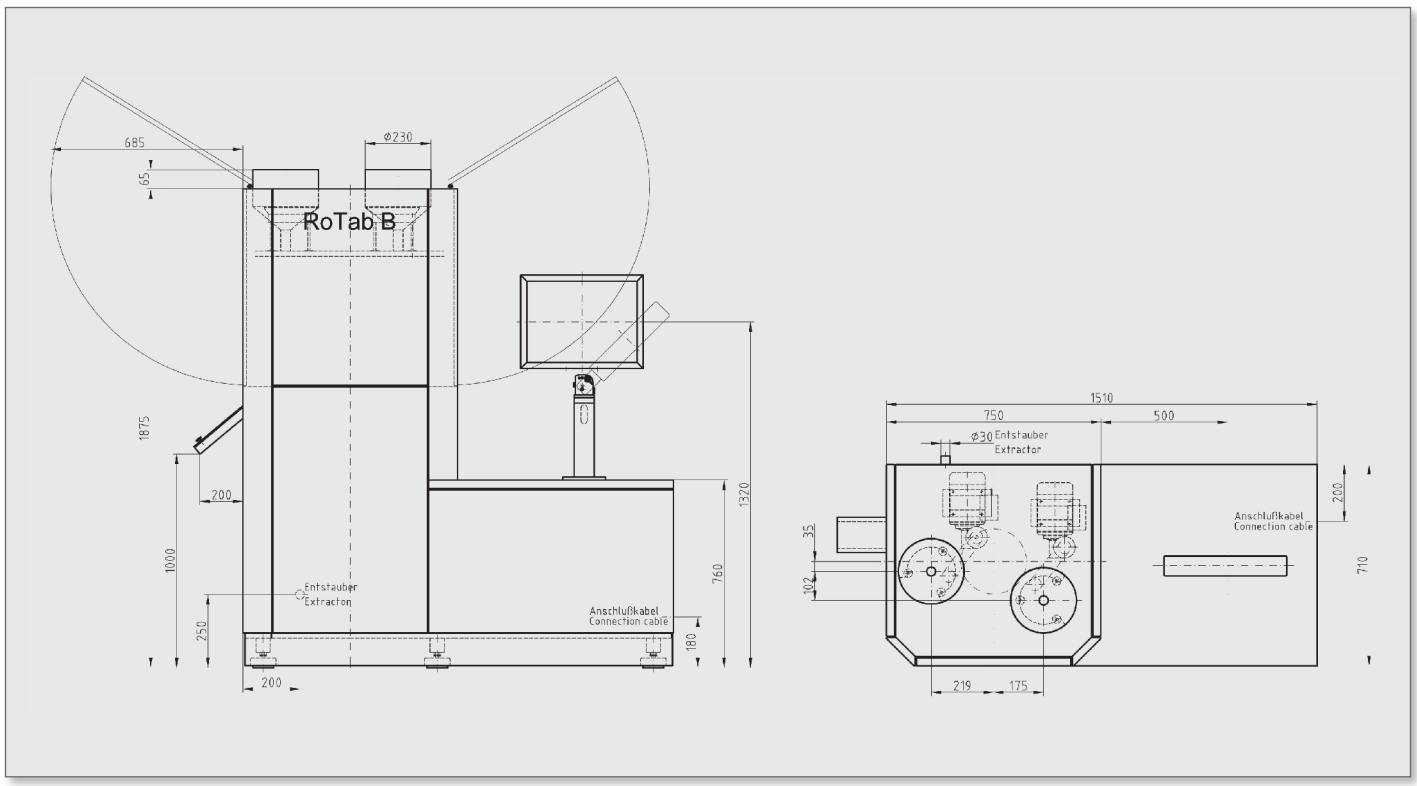


Technical data RoTab Bilayer	B-20	D-16	B/D-8	FlexAdapt X-16
Max. tablet diameter	16 mm	25 mm	16/25 mm	25 mm
Number of punch stations	20	16	8/8	16
Tools (EU or IPT standard)	B – 30.16*	D – 38.1*	B/D	BBS/BB/B/D
Max. fill depth 1st layer	12 mm			
Max. fill depth 2nd layer	10 mm			
Max. pre and main compression 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 (L x W x H)	1510 x 710 x 1875 mm			

*outer die diameter, **for single layer operation, depending on product

RoTab T

Advantage through innovation in tabletting technology!

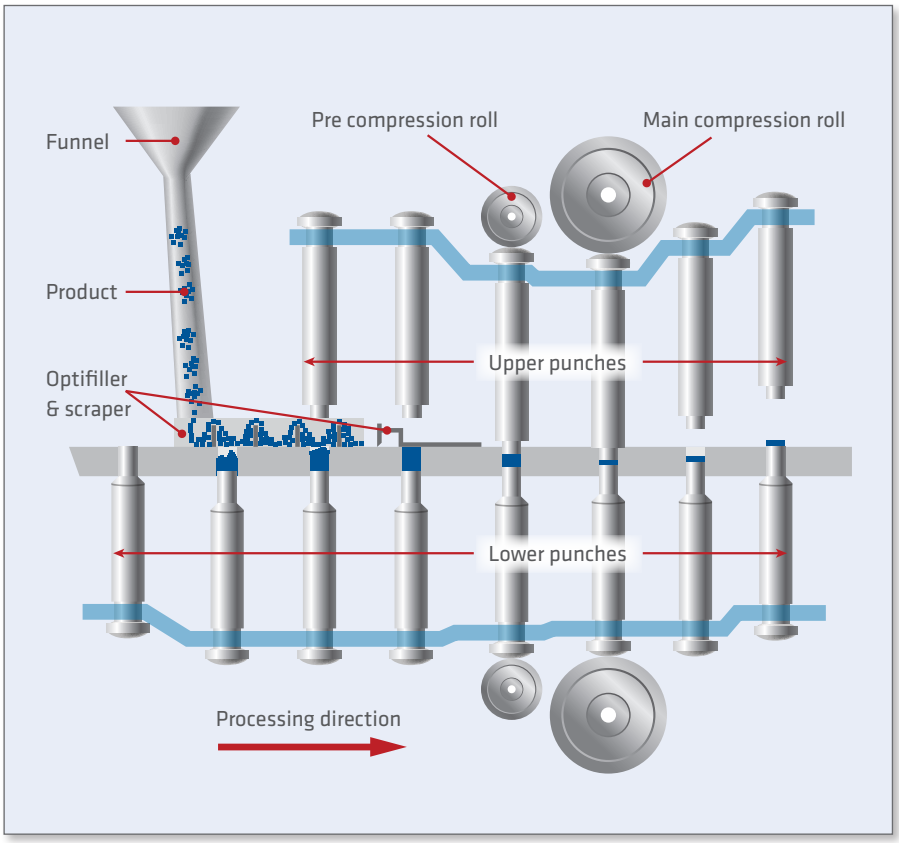
Tablet press made in Germany

Tableting technology nowadays does not merely mean R&D or optimizing of formulations in the pharmacy, but also cost reduction and scale-up.

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

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

The cGMP-conform design enables easy validation and allows 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!

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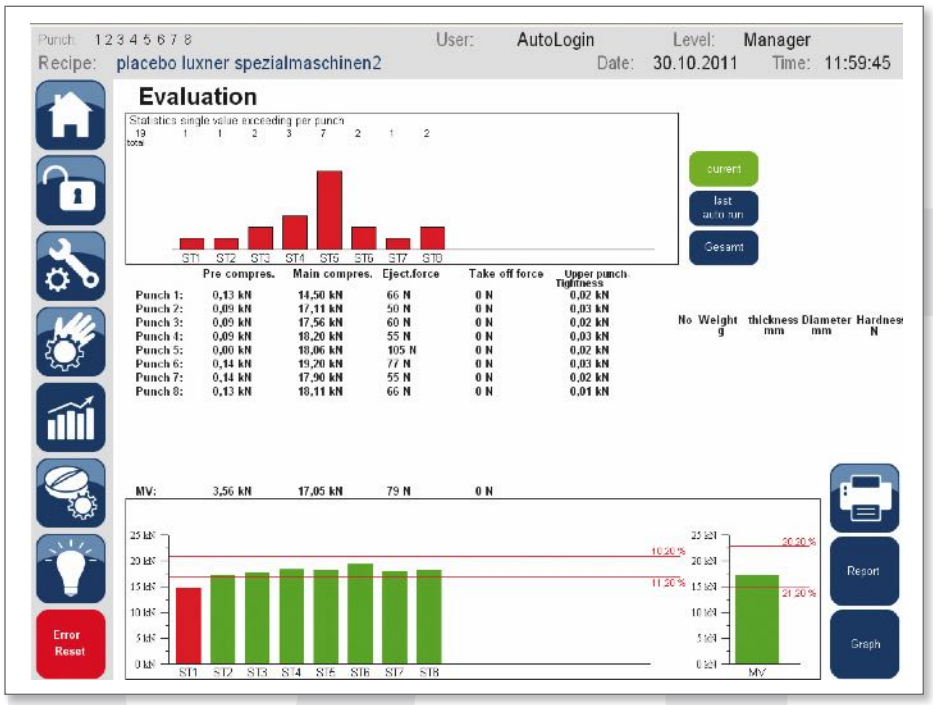
The wide range of instrumentations allows a nearly perfect simulation of production machines in laboratory scale.

All options for instrumentation are listed in the table.

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

Graphical display and evaluation



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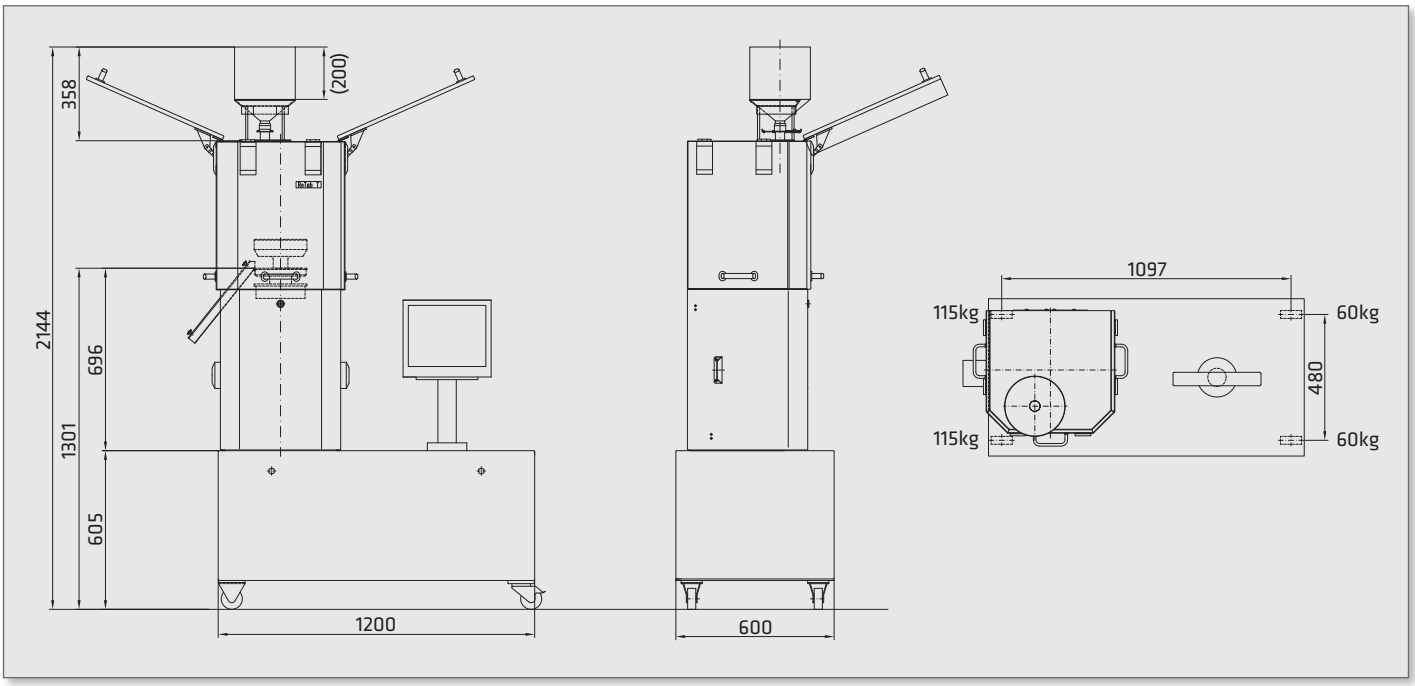

Technical Data RoTab T	B-10	D-8	B/D-4	FlexAdapt X-8
Max. tablet diameter	16 mm	25 mm	16/25 mm	25 mm
Number of punch stations	10	8	4/4	8
Tabletting tools (EU standard)	B – 30.16*	D – 38.1*	B/D	B/BB/BBS/D
Max. filling depth	20 mm			
Max. precompression	2 (10) kN			
Max. main compression	60 kN			
Upper 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 die diameter, **depending on product

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