



Tablet Press

P2020

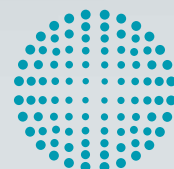
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TECHNOLOGY



COMPETENCE

SERVICE



**FETTE
COMPACTING**
be efficient

Fette Compacting – be efficient!



Tradition and knowledge

Fette Compacting, founded in 1908, is the world's leading provider of integrated solutions for industrial tablet production. The product portfolio offered by the technological and global market leader has been supplemented to include highly efficient capsule filling machines. The company specializes in high-performance machines for the pharmaceutical industry. The company's head office and global control centre is in Schwarzenbek near Hamburg. Fette Compacting is represented across the globe in more than 40 countries.

Fette Compacting is the only manufacturer of tablet presses, capsule filling machines and tableting tools, operating a global competence network with five fully-equipped and digitally-networked Competence Centers in Germany, the USA, Brazil, India and China. Here customers employees are trained and can perform basic and product trials together with Fette Compacting experts. They can acquire the sort of practical know-how that enhances production safety.



TECHNOLOGY stands for everything we offer in production technology – from tablet presses and capsule filling machines through Process Equipment to tableting tools and format parts.

SERVICE covers all the services related to machines, Process Equipment and installations such as spare parts supply, plant modernization and technical field service department.

COMPETENCE is the overarching idea behind all our process-related services. This includes training, product trials, application and Performance Consulting as well as engineering.



Fette Compacting is part of the LMT Group – a medium-sized, family-owned group of companies. The group also includes LMT Tools, a leading manufacturer of precision tools for industrial processing of construction materials, and the LMT Finance & Shared Services, which is responsible globally for the company's central functions.

Fette Compacting recognized the opportunities for internationalization at an early stage. The company has been represented by its own subsidiary company in China since 2004.

All the machines are made in accordance with German standards, and satisfy the specifications of the American FDA (Food and Drug Administration) regulation authority, as well as the requirements of the international cGMP (Current Good Manufacturing Practices). Fette Compacting delivers installations with computer-supported controller that meet the requirements of Title 21 CFR Part 11 (Code of Federal Regulations of the FDA) for electronic documentation.

Complete solution for your tablet production

We are specialized in high-performance machines for the pharmaceutical industry. Our range of products and services includes tablet presses, from laboratory to small, medium and large batches. Furthermore Fette Compacting offers mono-, bi- and triple-layer tablet presses. For high potent application we also have Containment and WIP machines in our product portfolio.

We are also offering tableting tools and process equipment as well as maintenance, training and consulting.

Our global service network are close to our customers. And our experienced international service team are able to offering various services to meeting the different requirements from our customers. During the start up phase, we offer installation, commissioning service, operation and maintenance training. During the production phase, we offer the calibration, maintenance, repair and spare parts service.

+ Format flexibility



SERVICE

+ Start up phase

- Installation service
- Commissioning service
- Operation and maintenance training

+ Production phase

- Calibration service
- Maintenance
- Repair service
- Spare parts

+ Highlights

- Global service network, close service to customer
- Rich experienced international service team
- Provide customer preventive services guide

The P2020 – high quality
for middle batches





The P2020 – with comparatively low investment costs it produces reliable large amounts in a known quality.

Production concentrated on fundamental economic principles, where complex technology is unnecessary, is the focus of an increasing number of products and manufacturing situations. Such conditions require – and allow – production machines to be completely cost-oriented.

The P2020 is a direct implementation of this approach. At Fette Compacting we have been ruthless in designing a tablet press which satisfies one point: 100 % economic viability. In spite of this basic requirement, it is Fette Compacting’s goal to maintain our unmatched standards for productivity, precision and operating security – in short, reliability.

Support for your tablet production

We are always present where our customers are, and where they need our support.

We have five Competence Centers in Germany, India, China, Brazil and the USA, and these allow us to make comprehensive consultation, training and product trials possible.

Here again, we are starting with ourselves, and orienting ourselves around international standards. This begins with the guidelines for Good Manufacturing Practice (GMP), and extends through to standards for Technical Safety Management (TSM) or those of the European Union (EU). In fact our product tools even surpass these.

This is a central topic, and one for which we have achieved a lot through the development of the Competence Centers. For example, we can now offer a wide range of training courses, and these are almost identical in different parts of the world.

In other words, a pharmaceutical concern that produces globally can train its machine operatives everywhere, and knows that every worker has the same know-how.

Our service consultants actively approach customers, working together with them to see how they can optimize production.

Fette Compacting has several thousand contacts with customers globally every day in the support context alone. Each of these contacts is important to us!

Continuous improvement

Fette Compacting always pays attention to the latest developments in the pharmaceutical industry and customer needs, constantly upgrades and optimizes our P Series, provides customers with higher quality products and services.

FEATURES	BENEFITS
+ VME-bus controlled, user-friendly, high-performance rotary press	+ Excellent price/performance ratio
+ Exchangeable turrets	+ Rapid format changeover results in high annual yields
+ Productive, precise, safe and robust	+ Continuous use
+ Pressure and filling depth adjusted by servo motor	+ Outstanding format and production flexibility
+ Wide range of accessories and process equipment	+ Can be adapted for a wide range of production requirements
+ Perfect overall design of machine and terminal	+ Easy to handle and operate
+ High-quality standard Fette Compacting components	+ Conform to GMP and FDA
+ Optional online weight measure equipment	+ High automation level reduce man-power and increase tablets quality

Performance
and quality





Upgrade Features

- + Design & functionality
- + Full stainless steel terminal, easy to clean
- + Optimized dust collection system
- + Metal handle for easy cleaning and durability
- + System integration of deduster and in process control
- + On-line tablet weight monitor & control function
- + MES system support

Structure

- + Modular design with enclosed compression area to avoid the risk of cross-contamination, in compliance with cGMP regulations
- + High operating safety
- + Robust design ensure consistent accuracy even over long periods of high pressure
- + Quick-connect for easy disassembly of components, easy for maintenance and repair
- + Full accessibility to the compression zone – double layer window flaps on all four sides

Exchangeable Turret

- + Turret is made in Germany, super precision
- + High level of format flexibility
- + High output by selecting the suitable turrets according to different product size
- + Unique turrets can be interchanged with cams and tools
- + Significant reduction of down-time by using extra turret complete with cams and toolings
- + Rich options for turret changing are available

Fill-O-Matic

- + Unique three chamber filling system, more than 40 years experience on it
- + Metering wheels can increase powder flowability and uniform density
- + Filling wheels and dosing wheels can precisely fill and dose powder
- + Different options for products with poor flowability, and reduce the product loss

Compression station

- + Main compression roller and pre-compression roller are same size (250 mm, exchangeable)
- + All compression roller are independent mounted, each can offer no more than 100 KN force
- + Roller is made in Germany with special material and technology, longer lifetime

Tablet discharge

- + Each discharge chute includes good tablet channel and reject tablet channel
- + Optional air sorting system, reject single tablet precisely, reduce the product loss
- + Optional sampling gate, easy to take sample and check tablet quality

Electronic control

- + Equipped with advanced VME-bus control system and top class electrical parts, faster and more stable
- + Professional software developed by Fette Compacting, verified by a lot of customers including many MNCs
- + Ergonomical HMI consisting of a large touch screen, screen-guided interface simplify the operation
- + Structured diagnostic messages for troubleshooting
- + Support FDA 21 CFR Part 11





Optional accessories and process equipment



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The quality requirements for tablet production are constantly increasing. Process equipment from Fette Compacting ensures that your production fully complies with the applicable regulations and effectively reduces the workload of your staff. Extensive automation of all process steps reduces manual intervention and provides for excellent tablet quality.

Your advantages: more reliability, high quality and efficiency in tablet production.

Weightmaster 6.2P

- + Fully automatic measurement of tablet weight
- + Automatic feedback to Fette Compacting tablet press with stop function
- + Precise monitoring of tablet weight within freely adjustable stop limits
- + Documented tablet inspection results in your batch report
- + 21 CFR Part 11 compliant operation via the operator and password management on the Fette Compacting HMI (Human Machine Interface)
- + GMP-compliant design



Handling system



Deduster stand-alone or with metal detector

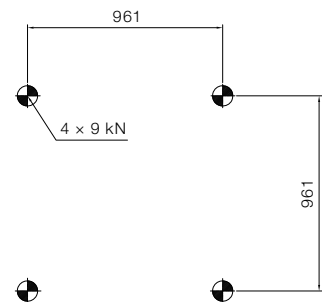
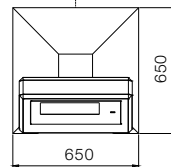
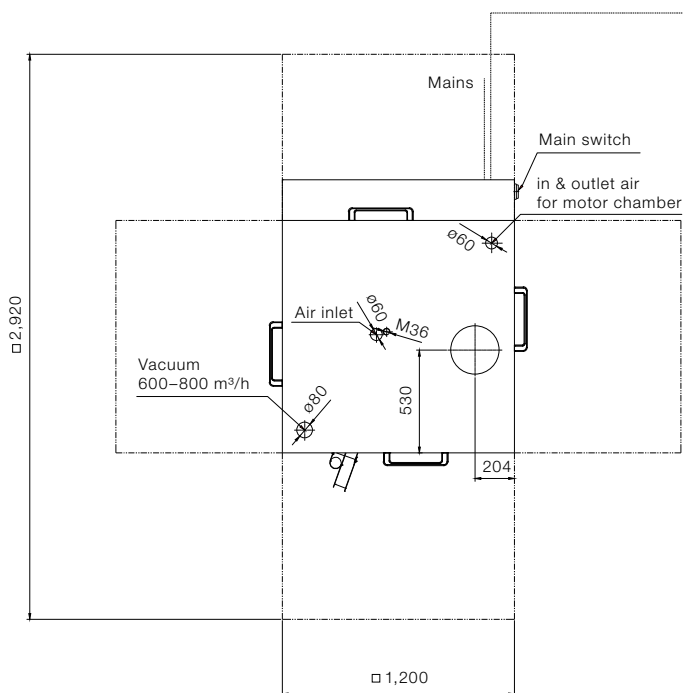
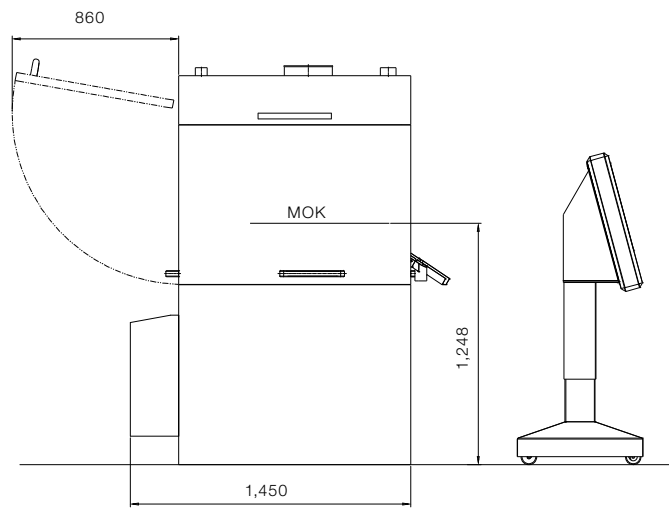
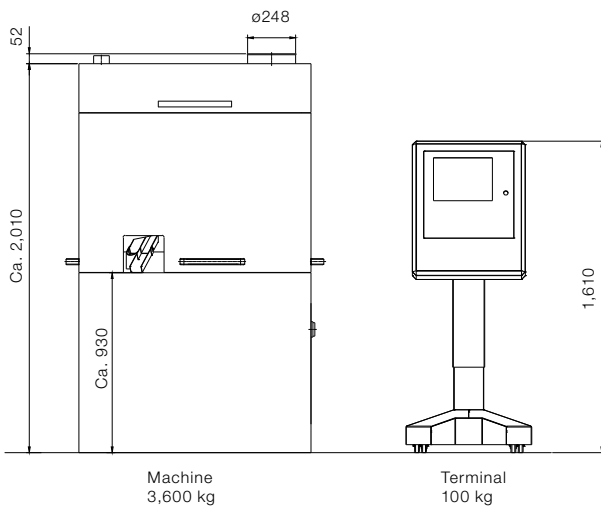


PKB-II



Tableting Tools

Dimensions



Foundation loading

Main
380-520 V ~50-60 Hz

Connection
4 x 6 mm² - on floor
4 x 10 mm² - cable conduit

Die (D)		D	D	D	D
Number of punch stations		47	43	36	30
Punch type		EU19 FS/EU19 BBS	EU19 FS/EU19 TSM 19 BB	EU19 FS/EU19 TSM 19 B	EU1"/EU1"-441 TSM 1" D
Tablet output/h	min.	42,300	38,700	32,400	27,000
	max.	338,400	309,600	259,200	180,000
Max. compression force	kN	100*	100	100	100
Max. pre-compr. force	kN	100*	100	100	100
Max. tablet diameter	mm	11	13	16	25
Max. filling depth	mm	18	18	18	18**
Max. tablet thickness	mm	8.5	8.5	8.5	8.5
Pitch circle diameter	mm	410	410	410	410
Die table rotation speed	min ⁻¹ min.	15	15	15	15
	min ⁻¹ max.	120	120	120	100
Die diameter	mm	22	24	30.16	38.1
Die height	mm	22.22	22.22	22.22	23.8
Punch shaft diameter	mm	19	19	19	25.35
Punch length Upper/lower punch	mm	133.6	133.6 (133.35)	133.6 (133.35)	133.6 (133.35)
Upper punch insertion depth	mm	1–4	1–4	1–4	1–4
Dimensions	mm	1,200 × 1,450 × 2,010			
Weight		Tablet press approx. 3,600 kg, operating terminal 100 kg			
Electrical supply parameters		Operating voltage 380–520 V, 50/60 Hz, power consumption 13 kW			

Theoretical values or technical limits: These can vary in practice, according to product and application.

Tablet thickness is a size dependent on product and can strongly vary.

* Limited by punch properties up to 70 kN

** Special filling depth available on request

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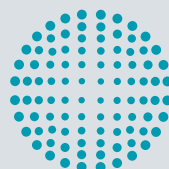
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