



Fette Compacting
P Series

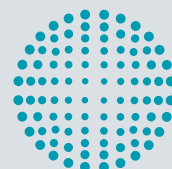
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TECHNOLOGY



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.

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.



EFFICIENCY GUIDE

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 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.

P Series: Perfect combination of efficiency and quality

Combining cost-orientation with precision, quality and safety was the guiding principle during development of the P1010, P2020 and P3030 tablet presses manufactured by Fette Compacting in Nanjing. All three machines comply with the regulatory requirements in accordance with cGMP and FDA, are easy to operate and permit flexible production as well as fast format changes. Thanks to a wide range of process equipment, the plants can be optimally adapted to customer requirements. Production output by the P2020 single rotary tablet press accounts for more than 300,000 tablets per hour. With more than a million tablets per hour, the P3030 double rotary tablet press is the efficient machine in its price class. P1010, the latest member of P Series with output more than 200,000 tablets per hour, is ideally suitable for small batch production of mono-layer tablets.

P1010





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, main compression station can offer no more than 80* 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

* Subject to product properties



P2020





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



P3030





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

- + Two tablet discharge chutes
- + Each discharge chute includes good tablet channel and reject tablet channel
- + Optional first-layer sampling system and sampling gate, easy to check tablet quality
- + 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



Technical Data

P1010					
Die (D)		D	D	D	D
Number of punch stations		32	30	24	20
Punch type		EU19 FS/EU19 TSM19 BBS	EU19 FS/EU19 TSM19 BB	EU19 FS/EU19 TSM19 B	EU1"/EU1"-441 TSM 1" D
Tablet output/h	min.	28,800	27,000	21,600	18,000
	max.	230,400	216,000	172,800	120,000
Max. compression force	kN	80*	80*	80*	80*
Max. pre-compr. force	kN	60	60	60	60
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	280	280	280	280
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 (133.35)	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	900 × 1,163 × 1,888			
Weight		Tablet press approx. 2,000 kg, operating terminal approx. 100 kg			
Electrical supply parameters		Operating voltage 380 – 480 V, 50/60 Hz, power consumption 10 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.

* Subject to product properties

** Special filling depth available on request

Optional accessories and process equipment

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

P2020					
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

P3030

Die (D)		D	D	D	D
Number of punch stations		79	73	61	49
Punch type		EU19 FS/EU19 BBS	EU19 FS/EU19 TSM19 BB	EU19 FS/EU19 TSM19 B	EU1"/EU1"-441 TSM 1" D
Tablet output/h	min.	142,200	131,400	109,800	88,200
	max.	1,004,880	700,800	585,600	470,400
	bi-layer max.	502,440	350,400	292,800	235,200
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	680	680	680	680
Die table rotation speed	min ⁻¹ min.	15	15	15	15
	min ⁻¹ max.	106	80	80	80
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 (8***)	1–4 (8***)	1–4 (8***)	1–4 (8***)
Dimensions	mm	1,370 × 1,620 × 2,073			
Weight		Tablet press approx. 4,800 kg, operating terminal 100 kg			
Electrical supply parameters		Operating voltage 380 – 520 V, 50/60 Hz, power consumption 16 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; *** Bi-layer

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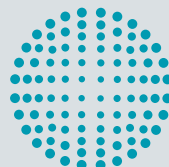
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