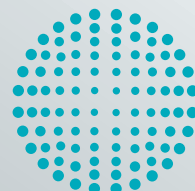




efficiency

**F10i**

Flexible and dust-tight  
next-generation tablet production



**FETTE  
COMPACTING**  
be efficient



## **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.

# “Digital-Ready”: The next level of efficiency



**FETTE**  
COMPACTING

**The i Series from Fette Compacting has stood for ultra-efficient and flexible tablet production for decades. The new i Series now offers even more options thanks to numerous innovations. Clean, system compatible and “digital-ready” – from the dust-tight equipment to the connection to the “Pharmaceutical production 4.0”. The i Series is the next-generation of tablet production.**

## **Technological platform**

Fette Compacting has collaborated with its customers to develop the new generation as a technological platform on which the electrical and mechanical components are based. The special feature is that the components of relevance for validation remain largely unchanged. Accordingly, the i Series retains all features which make it so valuable for customers. In combination with the machine, efficiency<sup>1</sup> means that the user continues to retain everything that makes his production so successful today – but with even greater efficiency and more possibilities.

## **Flexible single rotary tablet press**

The F10i is the first machine in the new i Series: an efficient single rotary tablet press for small batches. Producers can swiftly adapt the tablet press to various requirements, with or without containment. Flexibility and versatility are ensured by a handling arm in particular which supports the operator when changing the turrets, and a mechanical manual turret clamping system. This makes the F10i perfectly equipped for future production requirements.



# efficiency **i**

The most important features  
at a glance:

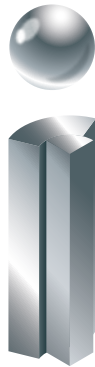


## Innovative

**Containment Guard –  
dust-tight system design**

**RFID operator login**

**TRI.EASY Multi-flexible  
dust-tight tablet chute**



## Integrative

**Cross-generation  
system compatibility**

**SmartInterface**  
by Fette Compacting

**New HMI software**

**Uniform interface for  
process equipment**



## Intuitive

**Fast and intuitive  
cleaning**

**HMI software  
with operating support**

**Assistance systems  
for easy operation**



## Intelligent

**SmartInterface**  
by Fette Compacting

**location-independent machine  
monitoring**

**Process and  
production reliability  
thanks to RFID**

**Recipe-specific,  
reproducible  
hardware settings**

Innovative





**Clean production: from dust-tight to containment**

Containment is becoming a core issue for production due to the increased use of new pharmaceuticals, including Active Pharmaceutical Ingredients (API). "Dust-tight" will become the minimum standard for pharmaceutical machines for the foreseeable future. The F10i already features consistent dust-tight design even in its most standard version. For all users who require containment, the Containment Guard-option provides a suitable solution.



**Containment Guard\* – dust-tight system design**

**50% less shrouding parts, with a reduction of 70% surfaces to be cleaned**

Most efficient and fastest cleaning ever

Savings in costs due to significantly shorter cleaning cycles and machine is ready for production in far less time.

Cleaning effort associated with production areas is considerably reduced by dust-tight connecting elements between the machine and process equipment

Maximum operator protection

**TRI.EASY – High-performance, multi-format tablet chute with dust-tight design**

Wide range of applications from mini-tabs to effervescent tablets

**Extremely compact machine with small switching cabinet**

Also suitable for small rooms

\* The containment package is required for active substances

**RFID operator login**

**Operator login by using RFID technology**

Easy access for faster processes and machine operation

Time savings as no manual entries are required

**Maximum security in the management of the operators**

Login for operating and service technicians for various tasks

**Various operating authorizations can be defined**

21 CFR Part 11 compliant



**TRI.EASY Multi-flexible dust-tight tablet chute**

**Compact housing**

Efficient cleaning of components

**Safe and extremely fast sorting of bad tablets and sample tablets**

Optimal, fast switching processes without tablets being jammed or destroyed

**Poka Yoke principle and geometrical similarity of components**

Fail-safe, easy and fast assembly and dismantling

**LED status display of track positions**

Operating mode is apparent at all times

**Safety-oriented track drive system with e-drives and end-position damping**

Reliable switching processes with end-position confirmation



# Integrative







### System-compatible set-up to IoT and MES

For several years, the i Series has been distinguished by its cross-generation system compatibility. The same applies to the F10i. Practically all products with contact to the system assemblies remain unchanged despite its innovative design. Thanks to the possibility of system integration, the new tablet press can be perfectly integrated in existing production environments. The F10i also features technical connectivity for state-of-the-art production environments, up to “Pharmaceutical production 4.0”.

## SmartInterface by Fette Compacting

### Machine real-time monitoring

24/7 access to data, documentation and machine real-time monitoring by mobile devices (tablet, smartphone, PC etc.)

Digital value-added function for easier handling and process acceleration

Key performance indicator (KPI) dashboard

Individual and simultaneous monitoring of various parameters

Identical look and feel of the SmartInterface and user interface (Human-Machine Interface, HMI)

Display of changed process parameters compared to standard settings

Easy storage of non-executable documents (e.g. SOPs in PDFs, JPGs etc.) on the machine via mobile device

Instructions / messages can be sent to the machine-HMI

Automatic detection of process equipment certified by Fette Compacting



## Cross-generation system compatibility

### A smart interface for the unified process equipment via Ethernet connection

Automation in one hand and control of all process devices

Easy monitoring and steering of process equipment

### Standard interface for the process equipment

Fast and easy machine set-up for production



Intuitive



**Easy handling with tactile HMI and wizard**

An ultra-modern human machine interface (HMI) supports the user in the form of intuitive control, monitoring and documentation of the machine and process-equipment via a terminal with tactile feedback. At the software level, an assistant for workflows (workflow operation wizard) provides support in the safe and error-free implementation of standard operating procedures (SOPs). Intuitive handling of the F10i also includes extremely simplified cleaning processes.

**Fast and intuitive cleaning**

**Optimized design of the components**

Intelligent cable management significantly reduces cleaning efforts, and simplifies handling

**HMI software with operating support**

**New 19" "Touch Only" machine operation**

Country-specific keyboard layouts possible

**Unique tactile feedback**

Touch-sensitive keys for start-, stop and special functions with feedback for easy operability

**Ultra-vision screen display**

For maximum contrast even in poor lighting conditions

**Microsoft Windows embedded operating system**

Future-proof operating system

**SQL server database**

Real-time intelligence

**Assistance systems for easy operation**

**Fette Compacting visual software with wizard functions**

Easy and fast operation of the tablet press even for inexperienced operators

**Self-explanatory assistance systems for example Checkmaster**

**HMI operation**

Intuitive operation thanks to self-explanatory pictograms and symbols

**Operating errors are practically eliminated**



Intelligent





### Optimized processes with SmartInterface and RFID

The path to intelligent production in the future is paved in particular by the new SmartInterface offered by Fette Compacting. The key component is represented by server-based, real-time monitoring enabling the user to monitor his production processes via mobile end devices. Users can download batch logs at any time and are always on top of the production parameters. In order to further improve process reliability and avoid set-up errors, the F10i also features an RFID option.

### Process and production safety through RFID

#### **TRI.EASY RFID filling cam query**

Automatic detection of filling cams which match the product

Increase of efficiency and user-friendliness as well as simplification of the operation by fast and fail-safe adjustment of the machine

#### **TRI.EASY RFID-monitored air sorting with air curtains**

Reproducible and correct settings for all products

Coding element monitoring and display in the event of incorrect installation of mechanical parts

Extensive time savings thanks to Poka Yoke principle

Cost savings through fast and easy efficient set-up of the machine

Process stability

#### **TRI.EASY turret**

Self-identification of the most important turret parameters

### Recipe-specific and reproducible hardware settings

#### **All pneumatic settings can be made with scales from a central operator panel**

Process reliability and fail-safe handling

Faster set-up and reduced set-up times

Scale values can be saved in the recipe

#### **Fill-O-Matic height adjustment with scale rings**

Easier handling of components

Optimized settings independent of operator

Error avoidance through fail-safe adjustment

Reduced product loss and improved yields thanks to optimal and consistently reproducible settings

Increased machine availability through saved settings in the recipe

Consistent tablet quality thanks to constant settings





# CONTAINMENT GUARD

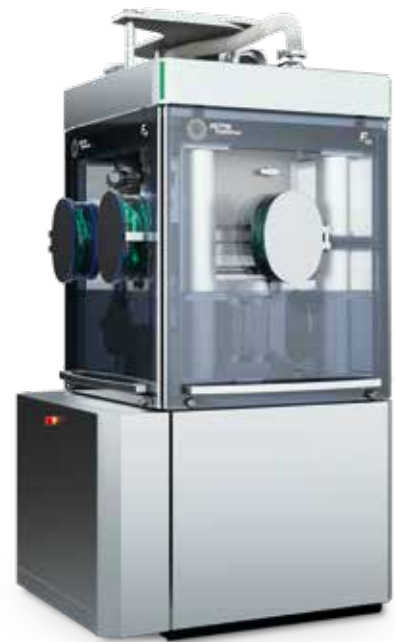


**The F10i Containment is the perfect machine for small batches and active substances.**

Maximum operator protection is the essential feature of the containment system offered by Fette Compacting. Maximum operator safety during tableting can only be achieved by appropriate technological solutions and largely automated manufacturing of tablets. A tablet press must compress powder and granulate safely and efficiently.

The tableting process is fully automated. Containment is continuous – from filling the machine to the removal of tablets. In case of a machine stop, it must be possible for the operator to access the tablet press manually from each side without compromising containment.

Glove ports in the window flaps are the most important feature for ensuring this. The Fette Compacting containment system has been developed with maximum operating and system safety in mind. All glove ports and window flaps are integrated in the safety control system where they are also monitored. The possibility of an operating error is practically eliminated.



**Cleaning-optimized press room**

Reduced dust exposure thanks to optimized press room design

No dust outside the machine

All parameters can be set from the HMI

Tablet chute and press room have a dust-tight design

**New window flaps**

Double safety barrier system

Window flap sensors for opening and closing

Manual and fail-safe locking of the window flaps

Maximum safety provided by operator-level monitoring

Access to containment controls for authorized users only

Logging of all operator entries and log changes

Sensor for monitoring under-pressure situations

Display of switchable extraction units

Switchable between extraction system in the machine and extraction hose

Audio and visual safety information in case of a leak

Individual monitoring system for each glove port

**Glove ports**

Safety sensor in each glove port

Ergonomic design

Possibility of changing punches and/or filling cams under containment conditions

**No dust released during manufacturing or preparation for cleaning / Interaction under containment conditions possible without interrupting containment**

No special protective suits necessary during production / Savings in time and money

**No contact with active products**

Operators protected from impurities and contamination

**Dust-tight press room within the machine**

Safe manufacturing environment

**Fail-safe machine operation and control**

Maximum operator safety during the entire production process, reduced costs during operation

# Technical Data

<b>Die (D) / Segments (S)</b>		D	D	D	D
<b>Number of punch stations</b>		32	30	24	20
<b>Punch type</b>		EU19 EU19 FS® TSM19 BBS	EU19 EU19 FS® FS19® TSM19 BB	EU19 EU19 FS® FS19® TSM19 B	EU1" EU1"-441 TSM1" D
<b>Tablet output</b> units/hour	min.	48,000	45,000	36,000	30,000
	max.	230,400	216,000	172,800	120,000
<b>Max. compression force 1*</b>	kN	80	80	80	80
<b>Max. compression force 2*</b>	kN	80	80	80	80
<b>Max. tablet diameter</b>	mm	11	13	18	25
<b>Max. filling depth**</b>	mm	18	18	18	18
<b>Pitch circle diameter</b>	mm	280	280	280	280
<b>Turret rotation speed</b> min.	min <sup>-1</sup>	25	25	25	25
<b>Turret rotation speed</b> max.	min <sup>-1</sup>	120	120	120	100
<b>Die diameter</b>	mm	22	24	30.16	38.1
<b>Die-/segment height</b>	mm	22.225	22.225	22.225	23.8
<b>Punch shaft diameter</b>	mm	19	19	19	25.35
<b>Punch length</b> Upper/lower punch	mm	133.6 (133.35)	133.6 (133.35)	133.6 (133.35)	133.6 (133.35)
<b>Upper punch insertion depth</b>	mm	1–4	1–4	1–4	1–4
<b>Dimensions</b> L x W x H	mm	925 x 1,112 x 1,875 ***			
<b>Weight</b>	kg	Tablet press approx. 2,100 kg ****, Operating terminal 90 kg			
<b>Electrical supply parameters</b>		Operating voltage 400–480 V, frequency 50/60 Hz, power consumption 9 kW			

\* limited by punch properties

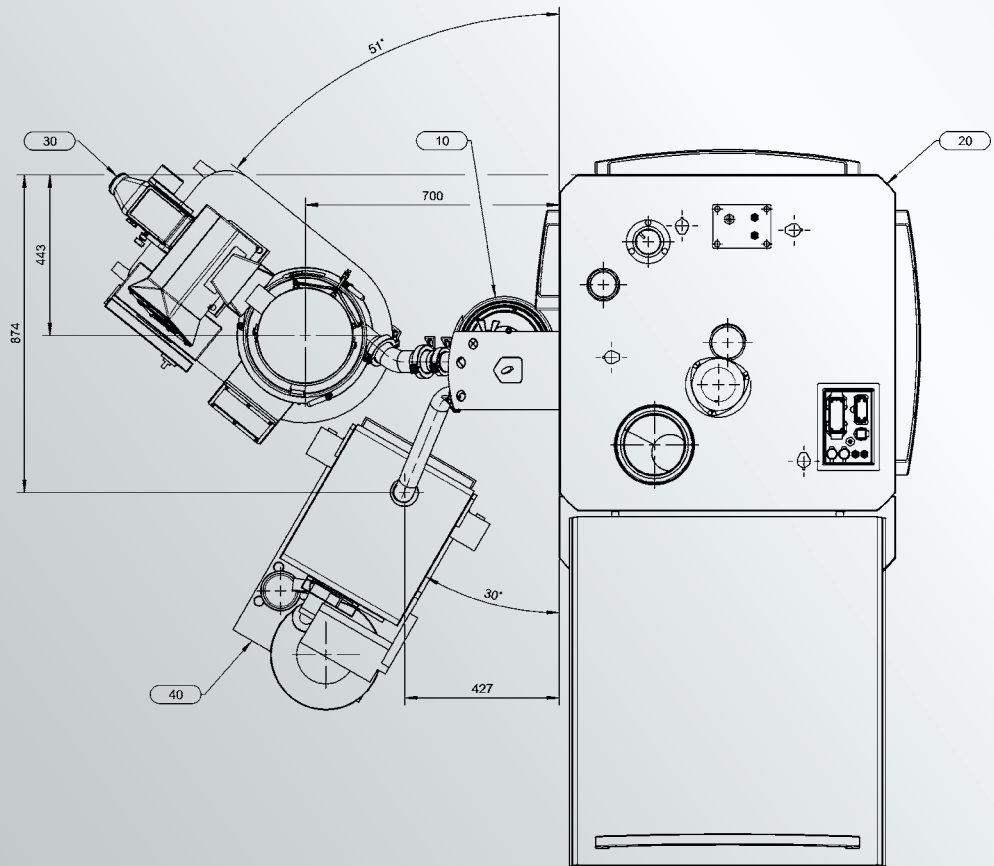
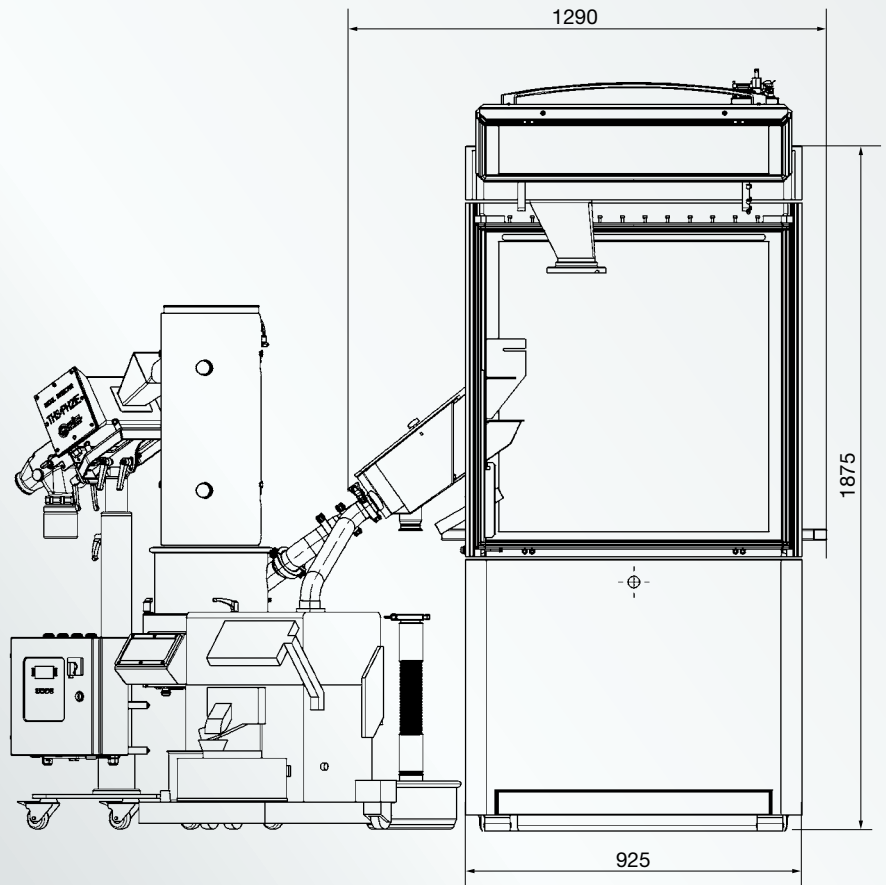
\*\* special filling depth available on request

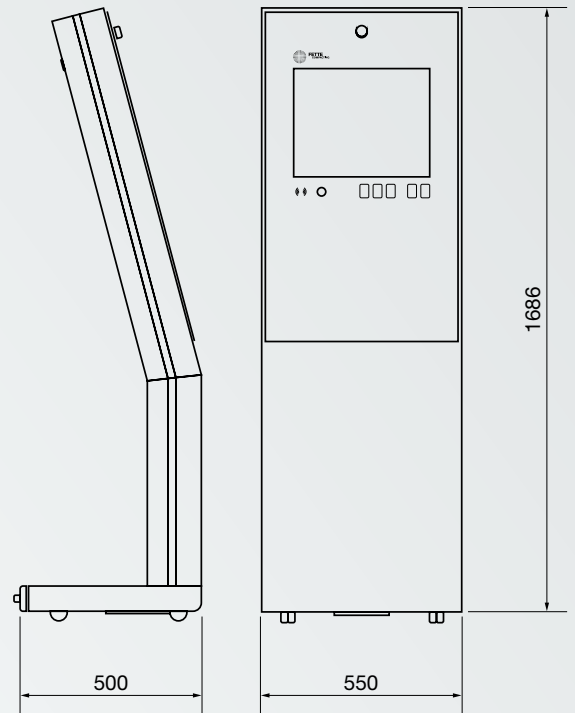
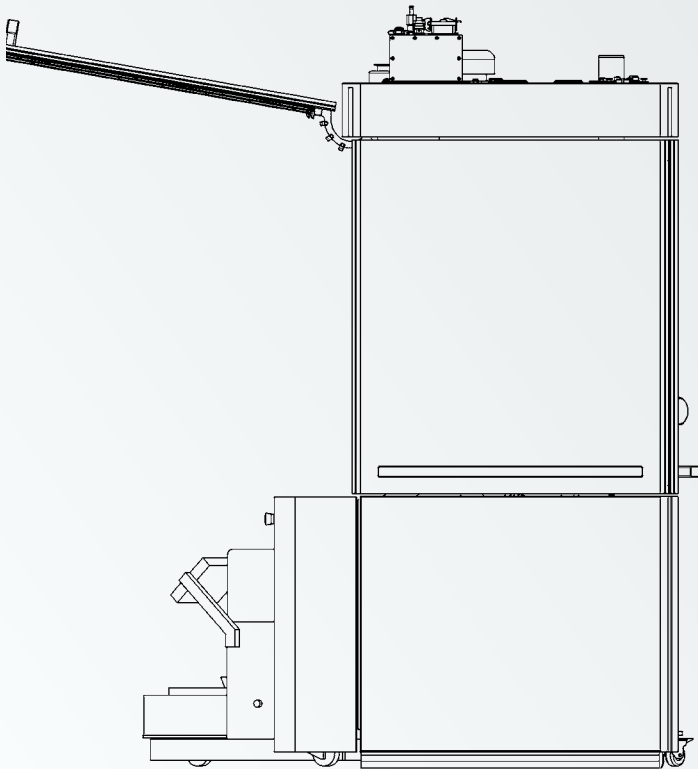
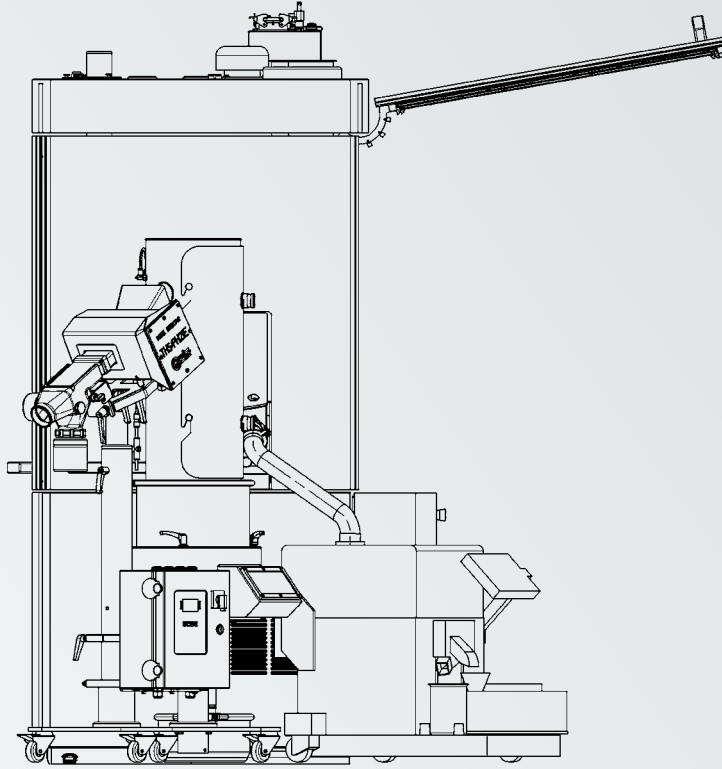
\*\*\* dimensions may vary depending on option

\*\*\*\* weight may vary depending on option



	S	S	S	S
	45	30	24	21
	FS12®	EU19 EU19 FS® FS19® TSM19	EU1" TSM1"	EU1"-441
	67,500	45,000	36,000	31,500
	324,000	216,000	144,000	126,000
	33	80	80	80
	33	80	80	80
	11	18	25	25
	20	20	20	20
	280	280	280	280
	25	25	25	25
	120	120	100	100
	-	-	-	-
	25	25	25	25
	12	19	25.35	25.35
	133.6	133.6 (133.35)	133.6 (133.35)	133.6
	1-4	1-4	1-4	1-4





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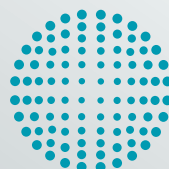
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