

Operating Software FEC series

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1. General

1.1. Introduction

The capsule filling machine and its accessories were constructed according to the best available technology in conformance with the recognized safety rules and standards. Incorrect operation can result in damage to the capsule filling machine and endanger people.

This information is intended to be read, understood and followed in every respect by those responsible for using the capsule filling machine and its accessories.

The capsule filling machine and its accessories can only be used safely and without error if the responsible persons have read and followed the entire content of these operating instructions. This applies in particular to the safety instructions.

These operating instructions relate exclusively to the capsule filling machine and its accessories described herein.

We reserve the right to make any technical changes to the illustrations and information in these operating instructions that might be needed to improve the capsule filling machine and its accessories.

Storing the operating instructions

The complete operating instructions must be stored carefully and always kept with the capsule filling machine as they are part of the product.

They should always be kept in the vicinity of the capsule filling machine so that they are available, when required, to everyone working with the machine.

Warranty and technical support

To guarantee fault-free operation, these operating instructions must be read carefully before commissioning. We accept no liability for damage and interruptions that might result from failure to follow these operating instructions.

Observe all safety instructions and hazard warnings in these operating instructions!

If you have any problems, please contact our customer service or spare parts department, or one of our agencies who will be happy to assist you.

1.2. Options

Options represent the standardised electrical, mechanical and software functions of the machine.

Each machine is configured according to machine specification (MAL), which also reflects the purchase agreement. The machine specification includes options that are distinguished in:

- Sales options (e.g. 01.222 or 04.100)
- Software options (e.g. A536 or 536)

A software option can have different characteristics, which are defined in each case by the additional specification of K factors.

Depending on the electrical and mechanical configuration of the machine, the software options are activated or deactivated.

A list of all activated (released) software options can be displayed at the operator terminal (HMI).

→ Therefore, also see section "Activated options" in the Operating instructions software.



NOTICE

The documentation consists of generic documents and does not correspond to the machine specification, but describes all important functions and components of the machine.

Accordingly, the machine may not contain all the functions and components described.

1.3. Operator's duty of care

The operator of the capsule filling machine and its accessories must ensure that

- the capsule filling machine and its accessories are used only for the intended use at all times.
- the capsule filling machine and its accessories are in perfect condition and full working order at all times.
- all safety notes and warnings attached to the capsule filling machine and its accessories are legible and are not removed.
- the capsule filling machine and its accessories are assembled and operated in accordance with these operating instructions only by qualified and authorized personnel.
- these personnel are regularly informed of all the necessary rules concerning safety at work and environmental protection.
- the necessary protective equipment for assembly, operating, maintenance and repair personnel is available in sufficient quantities, is in perfect condition and is worn.

- the operating instructions are always in a legible condition and are available in their entirety at the capsule filling machine's place of use.
- all the instructions in the commissioning instructions are carried out while transporting the machine.

1.4. Copyright

Fette Engineering GmbH retains the copyright to these instructions.

These instructions are intended for personnel who work on the capsule filling machine. They contain specifications and technical drawings which must not be copied or distributed, in whole or in part, or sold or passed on without authorization to other parties for the purposes of competition.

The data processing programs used and the associated program descriptions are also subject to copyright as appropriate.

Unless otherwise specified, when upgrading or replacing existing programs, the buyer undertakes to destroy the previous versions, any copies thereof and the replaced documentation.

They must not be passed on to third parties.

1.5. Contact

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2. Safety

2.1. Safety instructions



DANGER!

All the safety instructions from the operating instructions are to be followed. These include

- the summarized safety notes from the “safety instructions”,
- the section-specific safety notes and
- the embedded warning instructions.

3. Notes on the dialogs



NOTE

The images shown are provided merely for illustrative purposes and are intended as to supplement the text content.
The actual display on the operator terminal may differ in individual cases, depending on the selected options.

Explanation of the symbols used:

- **[Button]** – this button appears on the touchscreen and is labeled accordingly.
- **“Button”** – this button appears on the touchscreen and is identified by a corresponding symbol.

4. Operator unit

The operator unit consists of the operator computer in the control cabinet and the operator terminal.

4.1. User terminal

The operator enters input for the machine at the user terminal. The input is entered using the keyboard or directly on the terminal's touchscreen interface.

Certain functions can also be selected directly using the function keys.



Fig. 1 User terminal

1. User terminal
2. Touchscreen interface
3. Function keys
4. Keyboard
5. Start and Stop buttons
6. Emergency stop button

There is also a USB port on the side of the terminal.

4.1.1. Monitor / keyboard unit

The user terminal incorporates a monitor/keyboard unit with function keys, additional buttons for starting and stopping the machine and an emergency stop button. The keyboard is based on the "Fette design", i.e. it is a QWERTY keyboard with German special characters.

Locking the keyboard

Press "CTRL + SHIFT + DEL" to lock or unlock the user terminal keyboard. This is useful when cleaning the monitor and keyboard, for example.

Keystroke volume

Press "CTRL+ SHIFT + F11/F12" to change the volume of the keystrokes.

4.1.2. Function key assignment

The function keys are assigned as follows:

F1	Help
F2	Start page (Home)
F3	Parameter list
F4	Batch manager
F5	Process graphic (general)
F6	Recipe list
F7	Print
F8	Weightmaster
F9	- unassigned -
F10	- unassigned -
F11	- unassigned -
F12	Revolver plate inching mode (single cycle: station => station)

5. Touchscreen interface

5.1. Screen elements

Structure of the main screen:



Fig. 2 Main screen

1. Header

The header contains some or all of the following data:

- Pending diagnosis
- Date and time
- Current recipe
- Logged-in operator
- Current batch
- Main function buttons
- Production data, such as good and reject capsules, cycle time and remaining runtime.
- Current menu path
- Machine type and machine number
- Capsule type / class
- Run type

2. Main part

This part displays the dialogs, graphics and tables for the current production run.

3. Main menu

The main menu is used to call up further sub-menus and their functions.

5.2. Main screen

The operator computer starts up automatically when the machine is switched on. The first dialog on the operator terminal is the main menu. The other dialogs are accessed from here. The header is always visible.

The following sub-menus can be accessed from the main menu:

- Reports
- Functions
- Graphic
- Settings
- System information

The functions in the sub-menus differ according to the machine configuration.

5.2.1. Header



Fig. 3 Header

1. Current menu navigation position
2. Good and reject capsule display
3. Machine ON/OFF display (rotates)
4. Remaining runtime/runtime and cycle time
5. Machine type and machine number
6. Capsule size
7. Run type

The buttons in the header perform the following functions:

“Diagnoses line”

- Displays the number of diagnoses / last diagnosis no. / text / index
- Calls up the list of current diagnoses

“Date and time”

- Displays the date and time
- Call up the dialog for setting the date and time

[Recipe]

- Displays the currently set recipe
- Calls up the recipe management dialog

[Operator]



- Displays the currently logged-in operator
- Operator login or logout

[Batch]

- Displays the current batch
- Calls up the batch manager dialog



Navigation: Back

Press the Forward or Back button to switch between the most recently selected main screen dialogs.



Navigation: Forward

Press the Forward or Back button to switch between the most recently selected main screen dialogs.



Home

Press this button to return to the main menu.
(Program start status)



Teleservice

Press this button to open the teleservice.



Process views

Calls up the process views.



Time manager

Calls up the Time manager.



Light

Switches the machine lighting on / off.



Run type
Selects the run type.

5.2.2. Menu

Press a main menu option to open the corresponding sub-menu.

Any menu options that are not currently available will be greyed out and may have one of the following symbols.



Operator does not have authorization



Not possible on this machine



Not in this run type



Not while machine is running

Click to display a note text with the necessary level or possible run types on the diagnosis line.

5.3. Operator login and logout

5.3.1. Login/Logout

The operator logs in and out by pressing the corresponding symbol on the screen header.



Login/Logout button

Login

- Press the Login symbol to open the Login window (→ **Fig. 4**):



Fig. 4 Login

1. Operator
 2. Password
- [Delete] button – To delete the input.
 - [OK] button – To confirm the input.

Log in operator:

- Enter operator
- Enter password
- Press [Enter]
When the [Enter] button is pressed, the operator level and the [Change password] button are displayed.
The operator name is displayed in the header and overwrites the previous operator, if one was logged in.
Only one operator may be logged in at a time.
- Press the [OK] button to close the window.
- [Change password] button – To create a new password.

5.3.2. Creating a new password

To create a new password, from the Login dialog:

- Press the [Change password] button.
Two additional input boxes open. (→ **Fig. 5**)



Fig. 5 Creating a new password

1. Input line for a new password
 2. Confirmation line for the new password
- Press the [Enter] button – the new password is adopted.
 - Press the [OK] button – the window closes.

5.4. Recipe list

The saved recipes are listed in the recipe list.

To call up the recipe list:

- Press the **[Recipe]** button

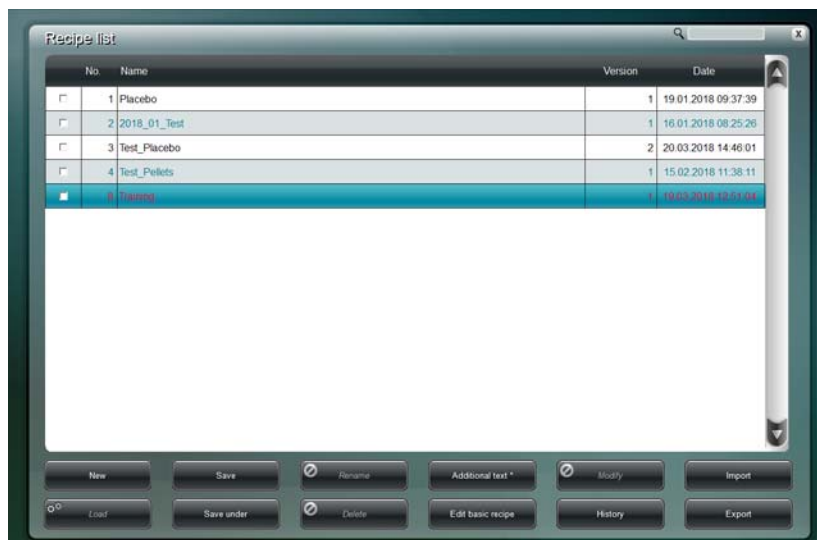


Fig. 6 Recipe list

- “No.”: Consecutive number of the recipe
- “Name”: Name of the recipe
- “Version”: Version number of the recipe
- “Date”: Date and time at which the current version was saved

Select an entry from the list directly on screen or use the arrow keys on the keyboard.

Several recipes can be selected at the same time using the **checkboxes**

Buttons for managing recipes

- [New]
- [Load]
- [Save]
- [Save as]
- [Rename]
- [Delete]
- [Additional text]

- [Edit basic recipe]
- [Edit]
- [History]
- [Import]
- [Export]

5.4.1. Managing recipes

Create new recipe

To create a new recipe:

- Press the [Recipe] button
- Press the [New] button
- The machine needs basic settings for a new recipe. Enter the recipe name in the next dialog.
- When you confirm the name, the recipe is created and loaded at the first free place in the recipe list.
The Recipe Editor opens so you can edit the parameters.
- Press [Save] to apply the entries in the Recipe Editor or press [Cancel] to discard.

Load recipe

To load a recipe from the recipe list:

- Press the [Recipe] button
- Select a recipe from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Load] button
The selected recipe is loaded into RAM.

Save recipe

To save the current settings for the recipe in RAM to the selected position in the list:

- Press the [Recipe] button
- Press the [Save] button
The current version of the recipe is saved.



NOTE

Version control

If changes are made to a recipe and the recipe is saved without any changes to the name, then another version of the recipe with a version number is automatically created in the recipe list.

Save recipe as ...

To save the current settings for the recipe in RAM to a new position in the list by entering a new name:

- Press the [Recipe] button
- Press the [Save as] button
An input box opens for the recipe name.
- Press [OK] to confirm the recipe name you have entered.
The current settings are saved at a new position in the recipe list under the recipe name that you entered.
- If you do not want to make any changes, press [ESC] to cancel the operation without saving.

Rename recipe

To rename a recipe:

- Press the [Recipe] button
- Select a recipe from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Rename] button
An input box opens for the new recipe name.
- Enter the recipe name
- Press [OK] to confirm the recipe name you have entered.
The window closes and the new recipe name is accepted for the selected recipe.
- If you do not want to make any changes, press [ESC] to cancel the operation.

Delete recipe

The active recipe cannot be deleted.

To delete a recipe:

- Press the [Recipe] button
- Select a recipe from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Delete] button and confirm the prompt.
The selected recipe is deleted from the list.

Edit recipe

The active recipe can only be edited in the parameter list.

To edit a non-active recipe:

- Press the [Recipe] button
- Select a recipe from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Edit] button
The Recipe Editor opens so you can edit the parameters.
Press [Save] to apply the input or press [Cancel] to discard.

Edit basic recipe

The operator can enter parameter setpoints that will be applied for every new recipe that is created.

To edit the basic recipe:

- Press the [Recipe] button
- Select [Edit basic recipe]
The Recipe Editor window opens.
- Press [Save] to apply the input or press [Cancel] to discard.

The input can be changed at any time. To do this, open the recipe for editing.

Import recipe

Select [Recipe] / [Import] to load a previously exported recipe (e.g. from another machine) from another drive.

Export recipe

Select [Recipe] / [Export] to save a recipe as an (external) file to another drive.

Additional text

Select [Recipe] / [Additional text] to create a text containing various descriptions for the recipe.

5.4.2. Recipe editor

The recipe editor is used to edit a non-active recipe.

To call up the recipe editor:

- Tap on the [Recipe] button.
- Select a non-active recipe.
- Press the [Edit] button.
The recipe editor opens.



No.	Parameter		Set A	Min A	Max A
1	Capsules per hour	x 1000	XXX	XXX	XXX
2	Rotary disk cycle time	time	120		
3	Idle time	ms	292		
4	Switching time	ms	208		
14	Good production	x 1000	0.000		
15	Rejected production	Qty	XXX	XXX	XXX
17	Weight control limit	%	0.0		
22	Capsule weight: Mean value	mg	0.0		
23	Capsule weight: Mean max. deviation	%	0.0		
24	Capsule weight: s-ref	%	0.00		
26	Capsule length	mm	21.7		
27	Capsule volume	ml	0.65		
28	Empty capsule weight	mg	96		
29	Capsule body height	mm	18.4		
30	Capsule body diameter	mm	7.34		
32	Control mode		0		
35	Capsule magazine		3		
37	CFC: Max. number of faulty capsules	Qty	1		
40	Capsule bed height 1 filling slide	mm	0		
41	Capsule bed height 2 filling slide	mm	0		
44	Filling cone fill level alarm delay	s	0		
46	Sorting fork end position	mm	36.1		
49	Extraction vacuum	mPa	0.0		

Fig. 7 Recipe editor single rotary machine



No.	Parameter		Set A	Set B	Min A	Max A	Min B	Max B
1	Capsules per hour	x 1000	XXX	XXX	XXX	XXX	XXX	XXX
2	Rotary disk cycle time	time	120	XXX			XXX	XXX
3	Idle time	ms	292	XXX			XXX	XXX
4	Switching time	ms	208	XXX			XXX	XXX
14	Good production	x 1000	0.000	XXX			XXX	XXX
15	Rejected production	Qty	XXX	XXX	XXX	XXX	XXX	XXX
17	Weight control limit	%	0.0	0.0				
22	Capsule weight: Mean value	mg	100.0	100.0				
23	Capsule weight: Mean max. deviation	%	5.0	5.0				
24	Capsule weight: s-ref	mm	5.00	5.00				
26	Capsule length	mm	21.7	XXX			XXX	XXX
27	Capsule volume	ml	0.65	XXX			XXX	XXX
28	Empty capsule weight	mg	96	XXX			XXX	XXX
29	Capsule body height	mm	18.4	XXX			XXX	XXX
30	Capsule body diameter	mm	7.34	XXX			XXX	XXX
32	Control mode		0	XXX			XXX	XXX
35	Capsule magazine		3	3				
37	CFC: Max. number of faulty capsules	Qty	1	XXX			XXX	XXX
40	Capsule bed height 1 filling slide	mm	0	0				
41	Capsule bed height 2 filling slide	mm	0	0				
44	Filling cone fill level alarm delay	s	0	0				
46	Sorting fork end position	mm	39.0	39.0				
49	Extraction vacuum	mPa	0.0	XXX			XXX	XXX

Fig. 8 Recipe editor double rotary machine

- “No.”: Parameter number
- “Parameter”: Parameter name and parameter unit
- “Set values A”: Set values entered for side A
- “Set values B”: Set values entered for side B (only at the double rotary machine)
- “Min. A”: Minimum input limit for side A
- “Max. A”: Maximum input limit for side A
- “Min. B”: Minimum input limit for side B (only at the double rotary machine)
- “Max. B”: Maximum input limit for side B (only at the double rotary machine)

Save recipe

Tap on the [Save] button to save the recipe.

Check recipe

Tap on the [Check] button to check the recipe for consistency.

Tap on the [Time manager] button to call up the Time manager dialog. This is used to view and, if necessary, to graphically edit the travel time parameters that were calculated automatically (after entering the cycle time).

Tap on the [Capsule type manager] to call up the Capsule type manager dialog. Here parameter values can be applied for the saved capsule types to the recipe.

Use the [Check Assistent] button to call up the Check Assistent dialog. The parameter limit values can be entered here.

Press the [History] button to display the previous versions of a recipe.

Press the [Min/Max] button to display the appropriate minimum and maximum values.

Press the [Cancel] button to cancel the created recipe without saving it.

5.5. Batch management

The saved batches are listed in the Batch manager.

To call up the batch manager:

- Press the **[Batch]** button



Fig. 9 Batch manager

- “Batch number”: number selected when the batch was created
- “Batch name”: name selected when the batch was created
- “Recipe name”: the active recipe when the batch was created
- “Batch start date”: date and time when the batch was created
- “Batch end date”: date and time when the batch was ended

Buttons

- [Finish batch]
- [Create new batch]
- [Delete]
- [Import (XML)] (Option 650)
- [Export (XML)] (Option 650)
- [Export (PDF)]
- [Export (CSV)] (Option 650)
- [Report filter]
- [Create report]

5.5.1. Manage batch

Create new batch

A new batch can only be created if there are no more active batches.
To create a new batch:

- Press the [Batch] button
- Press the [Create new batch] button
An input box opens.

- Enter the batch number and press [OK] to confirm. Another input window opens.
- Enter the batch name and press [OK] to confirm. The batch is loaded and is displayed in the Batch manager.
- Press [ESC] to end the operation early.



NOTE

When you create a new batch, the current recipe is not changed.

Finish batch

To finish the current batch:

- Press the [Batch] button
- Press the [Finish batch] button

Delete batch

The batch currently in use cannot be deleted.

To delete a batch:

- Press the [Batch] button
- Select the batch from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Delete] button

Additional text

Select [Batch] / [Additional text] to create a text for the batch.

Import (XML) (option 650)

Select [Import] to import a batch.

Export (PDF) (default)

Select [Export (PDF)] to export a batch as a PDF file.

Export (CSV) (option 650)

Select [Export (CSV)] to export a batch as a CSV file.

Export (XML) (option 650)

Select [Export (XML)] to export a batch as a XML file.

Report filter

Select [Report filter] to set a filter for creating the batch report.

Create report

Select [Create report] to create the current batch report for the current batch.

6. Process graphic

The process graphics are used to switch individual stations and functions on and off and to set the most important parameters associated with the station.

Tapping on a symbol opens the parameter list, while tapping a parameter opens the corresponding parameter dialog.

The parameter fields with green backgrounds show the current set value, while the gray fields show the current actual value of the parameter.



Link to the associated dialog

Tap on this symbol to open the corresponding dialog.



Controls:

Green: Station is switched on.

Black: Station is switched off.

Yellow: Station is partly switched off.

Buttons in the process graphics menu bar toggle between the individual process graphics. The buttons that are displayed depend on the machine configuration. For example, if there is no pellet station installed, the corresponding button is not displayed.

The button with the green background shows the currently selected process graphic.

General overview (single rotary machine)



To call up the **general overview** which is used to make the basic settings.

General overview (double rotary machine)



To call up the **general overview** which is used to make the basic settings.

Production overview (single rotary machine)



To call up the **production overview** containing the most important production-related settings.

Production overview (double rotary machine)



To call up the **production overview** containing the most important production-related settings.

Process graphics (single rotary machine)



Tap on the [S] button to display the stations.

Process graphics for side A (double rotary machine)



Tap on the [A] button to display the respective **side A** stations.

Process graphics for side B (double rotary machine)



Tap on the [B] button to display the respective **side B** stations.

Process graphic for the capsule feeder



To call up the process graphic for the **capsule feeder**.

Process graphic for capsule separation / rejection of non-separated capsules



To call up the process graphic for the **capsule separation / rejection of non-separated capsules**.

Process graphic for the pellet station



To call up the process graphic for the **pellet station**.

Process graphic for the tamping station



To call up the process graphic for the **tamping station**.

Process graphic for the closing station



To call up the process graphic for the **closing station**.

Process graphic for the capsule discharge station (eject capsules / clean / capsule discharge)



To call up the process graphic for the **capsule discharge station**.

6.1. Process graphic: general overview

The general overview is used to make basic settings for the machine that cannot be assigned to individual stations.



Fig. 10 General overview

The overview comprises:

- "Rotary disk": general parameters
- "General": general parameters
- "Capsule data": displays the currently set capsule type
- "Operating all stations": switches all stations on/off

- "Operating all stations: Only A": switches all stations on side A on/off (only at the double rotary machine)
- "Operating all stations: Only B": switches all stations on side B on/off (only at the double rotary machine)

6.2. Process graphic: Production overview

The production overview is used to make the most important production-related settings.

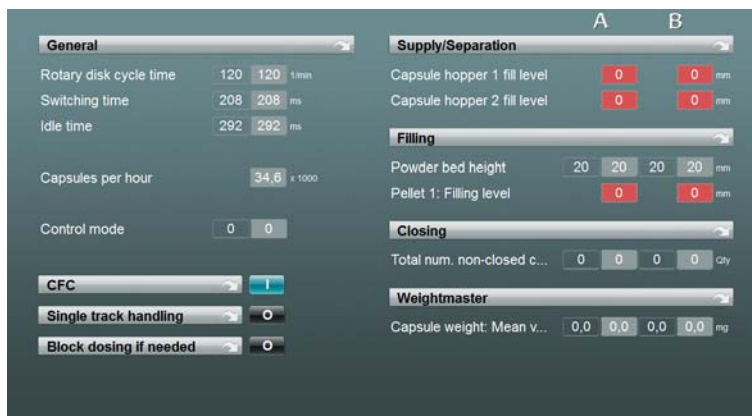


Fig. 11 Production overview

The overview comprises controls and a few important parameters:
(Side A and B are only displayed at double rotary machines):

- "General": general production-related parameters
- "CFC": switches the Capsule Flow Control on / off (option)
- "Single track check": switches the single track check on / off (option)
- "Block dosing": Switches the "Block dosing" function on / off (option)
- "Feeding / separation": feeding parameters
- "Fill": dosing unit(s) parameters
- "Close": closing station parameters
- "Weightmaster": Weightmaster parameters

6.3. Process graphic: capsule feeder

The capsule feeder process graphic is used to switch the capsule feeder or just the capsule magazine on and off and to set the most important parameters for the feeder.



Fig. 12 Capsule feeder

- "Station working": switches the capsule feeder station on / off
- "Load magazine 1": loads capsule magazine row 1
- "Load magazine 2": loads capsule magazine row 2
- "Enable magazine 1": uses capsules from magazine 1
- "Enable magazine 2": uses capsules from magazine 2
- "Storage container": a few important parameters concerning the filling cone
- "CFC": switches the CFC function on / off (option)

6.4. Process graphic: capsule separation / rejection of non-separated capsules

This process graphic is used to switch the capsule separation on and off and to set the most important parameters for the capsule separation.

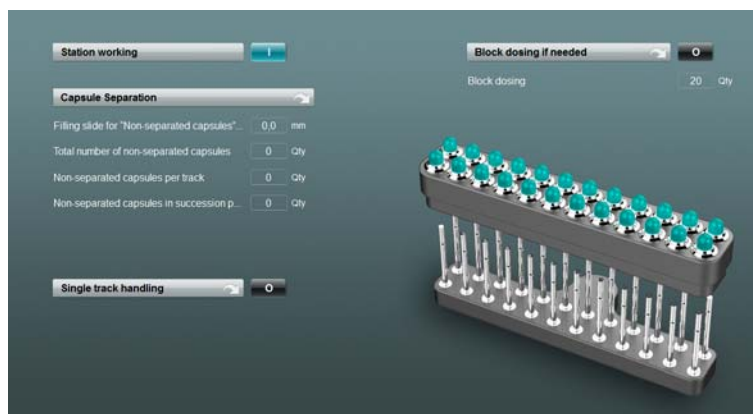


Fig. 13 Process graphic for capsule separation / rejection of non-separated capsules

- "Station working": switches capsule separation station on / off
- "Capsule separation": a few important parameters concerning the capsule separation

- "Single track check": switches single track check on / off (option)
- "Block dosing": switches the "Block dosing" function on / off (option)

Single track check (option)

The single track check option allows individual tracks to be deactivated. Capsules on this track will not be separated, filled or closed and are not included in the statistics. The track in the magazine needs to be mechanically locked for this purpose.

Simply tap the individual tracks to deactivate them. Inactive tracks are displayed in red. Active tracks are displayed in green.

Block dosing (option)

If this function is active, the dosing for this capsule holder is blocked at the dosing station for the number of non-separated capsules per capsule holder as set in parameter 65. The capsules are directed into the reject channel.

6.5. Process graphic: Pellet station

The pellet station process graphic is used to switch the pellet station or the vibrator (option) on and off and to set the most important parameters for the pellet station.

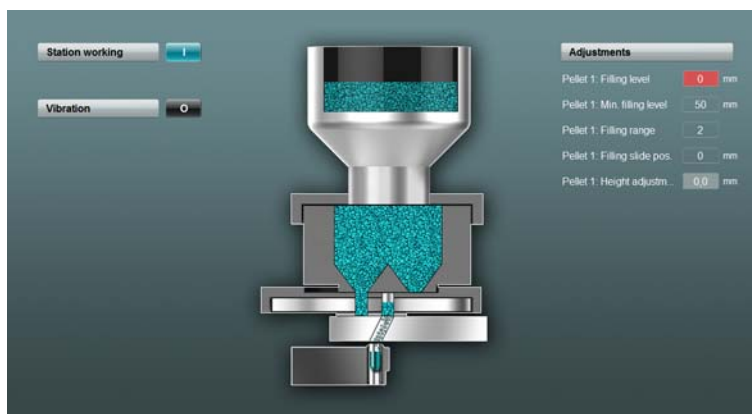


Fig. 14 Process graphic for the pellet station

- "Station working": switches the pellet station on/off
- "Vibrate": switches the vibrator of the pellet station on/off (option)
- "Settings": pellet station parameter

6.6. Process graphic: tamping station

The tamping station process graphic is used to switch the tamping station or just the dosing disk, the lift of the compression unit or the product feeder on and off and to set the most important parameters for the tamping station.

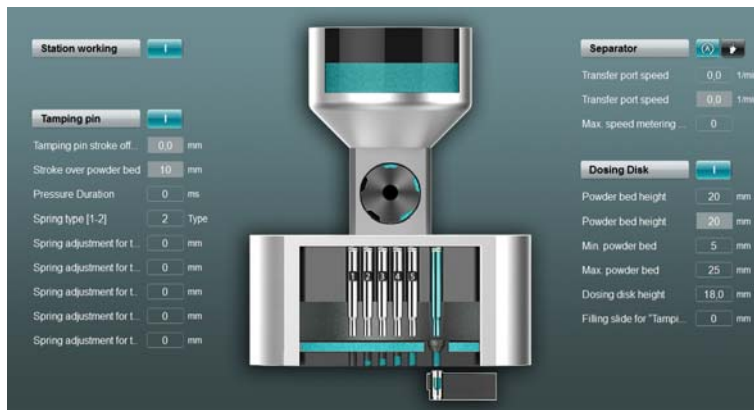


Fig. 15 Process graphic for the tamping station

- "Station working": switches the tamping station on / off
- "Tamping station": switches the lifting drives of the compression unit on / off
- "Metering drum": switches the drive for the metering drum on / off (automatic mode / manual mode)
- "Dosing disk": switches the rotary drive on / off

6.7. Process graphic: Closing station

The closing station process graphic is used to switch the closing station on and off and to set the most important parameters for the closing station.

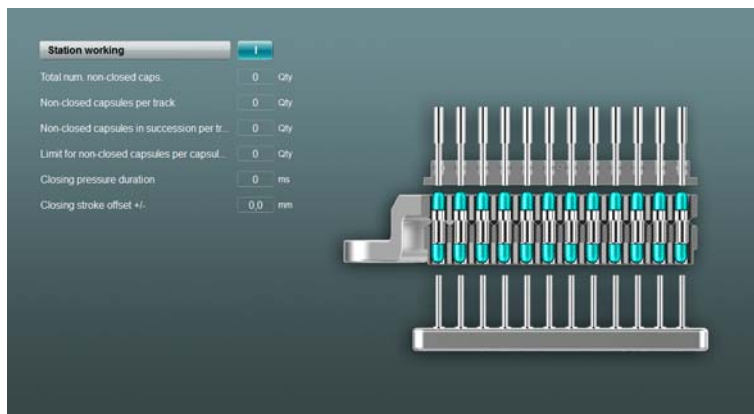


Fig. 16 Process graphic for the closing station

- "Station working": switches the closing station on / off

6.8. Process graphic: Capsule discharge station

This process graphic is used to switch the capsule discharge station on and off and to set the most important parameters for the discharge.

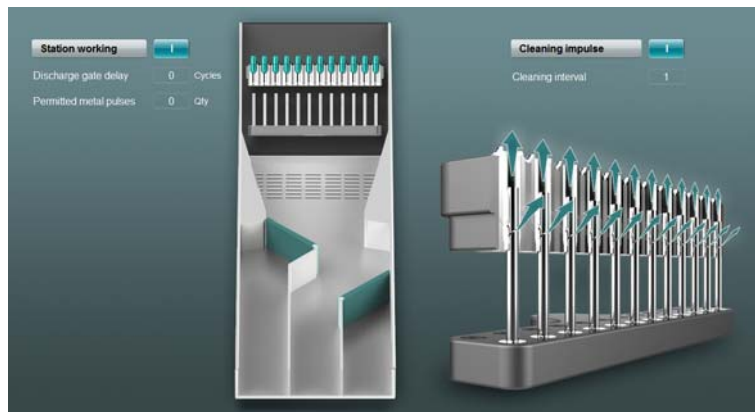


Fig. 17 Process graphic for the capsule discharge station

- "Station working": switches the capsule discharge station on/off
- "Cleaning pulse": switches the cleaning pulse for cleaning the capsule holders on/off

7. Reports

7.1. Event report

The event report lists all the events such as diagnoses and modifications in the order in which they occurred. The event report is independent of any batches. A [Current batch report] can be created for a batch.

To call up the event report:

- Open the submenu [Reports]
- Select menu [Event report]



Fig. 18 Event report

The list contains the following information:

- Date / time at which the event occurred.
- Event type



Modification



Stop diagnosis



Warning diagnosis



Gone diagnosis



Deactivated stop diagnosis



Diagnoses which prevent the start of the machine

- Diagnosis or event element
- Description of the event

The list can be filtered with the following buttons to show only the corresponding event types:

- [Modification]
- [Stop diagnoses]
- [Warning diagnoses]
- [Gone diagnoses]
- [Deactivated diagnoses]

Other buttons and their functions:

- Press [Delete] to delete batch-independent events. When an event is deleted, an entry appears in the event report.
- Select [Edit comment] to create comments about the individual events. Comments are displayed on the event line.
- Select [Report filter] to open the dialog for setting the report filter. This allows to filter individual diagnoses (see also the “Report Filter” section).

7.2. Current diagnoses

All immediately pending diagnoses are displayed in the Current diagnoses overview.

To call up the report:

- Open the [Reports] submenu.
- Select menu item [Current diagnoses].

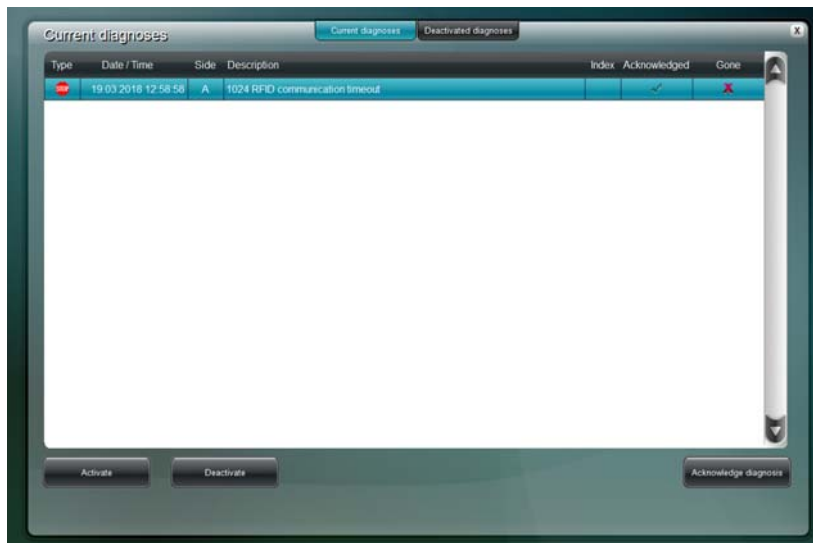


Fig. 19 Current diagnoses

The diagnosis list contains the following information:

- Diagnosis *type*



Diagnosis that prevents start



Stop diagnosis



Warning diagnosis



Deactivated stop diagnosis



Deactivated warning diagnosis

- *Date / time*, at which the diagnosis occurred
- *Side*: on which the diagnosis occurred (only at double rotary machines)
- *Description*: diagnosis number and description
- Index
- *Acknowledged* diagnosis
- *Gone* diagnosis

Buttons

- [Activate],
- [Deactivate] or

- [Acknowledge diagnosis]
Therefore, see also section → "**Activating, deactivating and acknowledging diagnoses**".

7.2.1. Activating, deactivating and acknowledging diagnoses

Activating diagnoses

To activate diagnoses:

- Open the [Reports] sub-menu
- Select the [Current diagnoses] or [Deactivated diagnoses] option
- Press the [Activate] button
An input box opens.
- Enter the diagnosis number
- Press [OK]
The window closes, the diagnosis is activated and is removed from the "Deactivated diagnoses" report.
- Press [ESC] to close the input box without making any changes.

Deactivating diagnoses

To deactivate diagnoses:

- Open the [Reports] sub-menu
- Select the [Current diagnoses] or [Deactivated diagnoses] option
- Press the [Deactivate] button
An input box opens.
- Enter the diagnosis number
- Press [OK]
The window closes, the diagnosis is deactivated and is added to the "Deactivated diagnoses" report.
- Press [ESC] to close the input box without making any changes.



IMPORTANT!

Only authorized personnel should be allowed to deactivate their own diagnoses.

Deactivating a stop diagnosis converts it to a warning diagnosis. As a result, the capsule filling machine will no longer be stopped with this diagnosis.

Acknowledging diagnoses

To acknowledge diagnoses:

- Open the [Reports] sub-menu
- Select the [Current diagnoses] option
- Select the diagnosis from the list

- Press the [Acknowledge diagnosis] button
The diagnosis is identified as acknowledged in the list by a green tick.



NOTE

If the capsule filling machine is stopped by an emergency stop, the diagnosis must be acknowledged before the machine can restart.
It is also possible to configure the additional stop diagnoses for which an acknowledgement is required.

7.3. Deactivated diagnoses

Deactivating a diagnosis allows the stop function to be changed to a warning function.



IMPORTANT!

Only authorized personnel should be allowed to deactivate their own diagnoses.

To call the report:

- Open the [Reports] sub-menu
- Select the [Deactivated diagnoses] option

A list of all deactivated diagnoses is displayed.

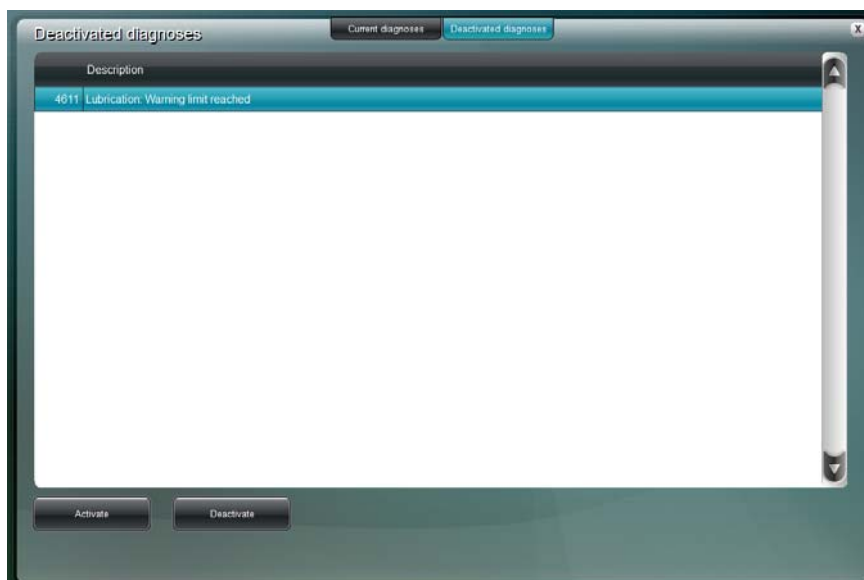


Fig. 20 Deactivated diagnoses

- Diagnosis number
- Description of the diagnosis

Buttons

- [Activate] or
- [Deactivate]
see → **“Activating, deactivating and acknowledging diagnoses”** section.



NOTE

The [Level management] / [Functions] dialog contains a “Deactivate diagnosis” function which is used to set the minimum operator authorization level needed to deactivate diagnoses authorized for the operator.

Select [Level management] / [Diagnoses] to define the operator authorization level needed to deactivate this diagnosis.

If an operator does not have the necessary minimum operator level, he will be unable to deactivate any diagnoses, not even those that were set with an operator level lower than his own.

7.4. Current batch report

To call up the batch report:

- Open the [Reports] submenu.
- Select menu item [Current batch report]

The current batch report is loaded.

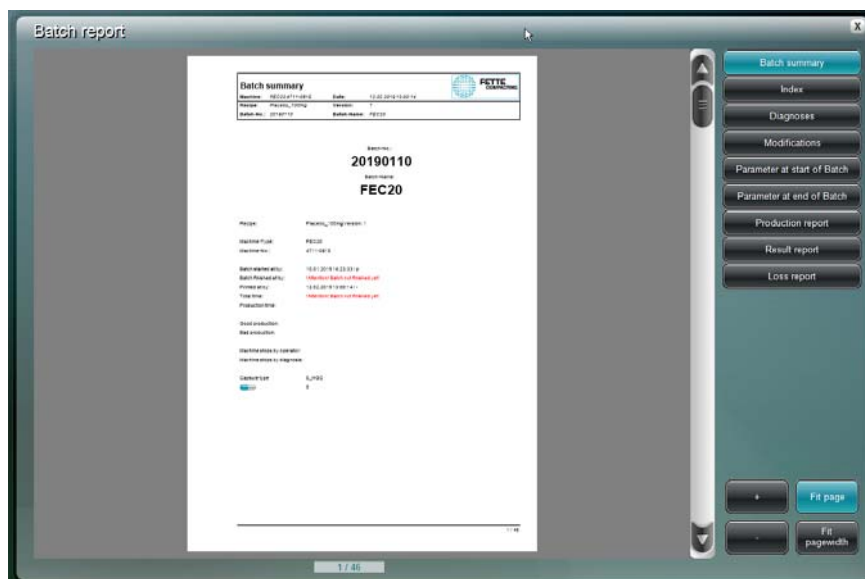


Fig. 21 Current batch report

The batch report entails the summarised data of a batch:
Depending of the report filter contains the batch report:

- Batch summary:
Batch number, batch name, batch recipe, machine type, batch no., date etc.
- Table of contents

- Diagnosis report
List of diagnoses occurred
- Change report:
Contains all changes which occurred during a running batch.
- Parameter at the start of the batch
- Parameter at the end of the batch
- Production report
(production report for side A and B only for double rotary machines):
Statistics for opened, filled and closed capsules
- Event report:
Capsule statistics
- Loss report:
Details about good production, bad production: Capsules in setup run, reject capsules in standard run.

7.5. List of note texts

This displays all the note texts that have occurred since the operator computer was started. A note text is displayed on the diagnosis line in the header. In contrast to the diagnosis, the note text has a colored background and is only displayed briefly (approx. 3 seconds). If the function to which the text refers or a status remains active for longer, the note text will be repeated.

There are three types of note text, each with different background colors:

- Error - red
- Note - yellow
- Information - blue

Note texts provide information on operating the machine and on the status of the machine functions.

To call up the list:

- Open the [Reports] sub-menu.
- Select the [List of note texts] option.

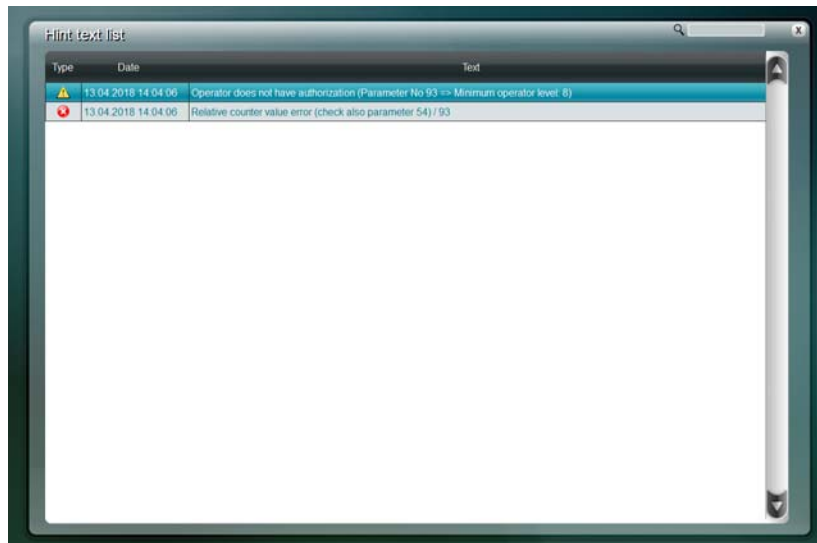


Fig. 22 List of note texts

The list contains the following information:

- "Type": type of note



Error



Warning



Information

- "Date": date and time at which the note occurred
- "Text": description of the note

8. Functions

8.1. Parameter list

To call up the parameter list:

- Open the submenu [Functions].
- Select menu item [Parameter list].

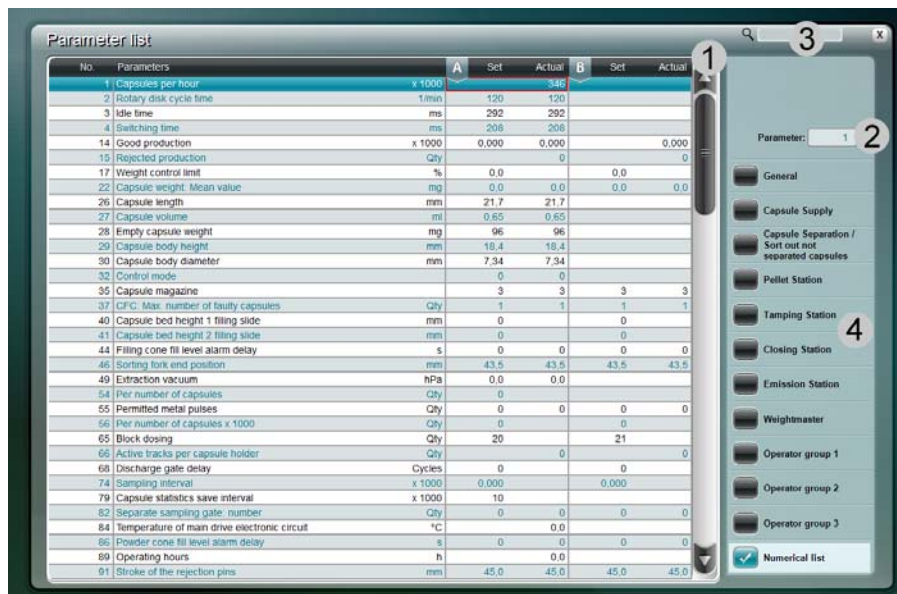
The buttons on the right-hand pane each open a parameter group that contains parameters associated with the station.

Pressing the image in a process graphic will also call up the corresponding parameter group.

There are groups that can be compiled by the customer. The first of these groups is always the first to be displayed after the main menu.

The numerical list displays the complete parameter list in numerical order. The parameter number can be entered directly at any time. Parts of a parameter text or of a unit can also be entered in the search box.

Currently not relevant parameters are hidden (if a station is not installed, for example, or an option is not active).



No.	Parameters		A	Set	Actual	B	Set	Actual
1	Capsules per hour	x 1000			346			
2	Rotary disk cycle time	1/min		120	120			
3	Idle time	ms		292	292			
4	Switching time	ms		208	208			
14	Good production	x 1000		0,000	0,000			0,000
15	Rejected production	Qty			0			0
17	Weight control limit	%		0,0	0,0		0,0	0,0
22	Capsule weight, Mean value	mg		0,0	0,0		0,0	0,0
26	Capsule length	mm		21,7	21,7			
27	Capsule volume	ml		0,65	0,65			
28	Empty capsule weight	mg		96	96			
29	Capsule body height	mm		18,4	18,4			
30	Capsule body diameter	mm		7,34	7,34			
32	Control mode			0	0			
35	Capsule magazine			3	3		3	3
37	C/F.C. Max. number of faulty capsules	Qty		1	1		1	1
40	Capsule bed height 1 filling slide	mm		0	0			
41	Capsule bed height 2 filling slide	mm		0	0			
44	Filling cone fill level alarm delay	s		0	0		0	0
46	Sorting tank end position	mm		43,5	43,5		43,5	43,5
49	Extraction vacuum	hPa		0,0	0,0			
54	Per number of capsules	Qty		0	0		0	0
55	Permitted metal pulses	Qty		0	0		0	0
56	Per number of capsules x 1000	Qty		0	0			
65	Block dosing	Qty		20			21	
66	Active tracks per capsule holder	Qty			0			0
68	Discharge gate delay	Cycles		0	0			
74	Sampling interval	x 1000		0,000			0,000	
79	Capsule statistics save interval	x 1000		10				
82	Separate sampling gate, number	Qty		0	0		0	0
84	Temperature of main drive electronic circuit	°C			0,0			
86	Powder cone fill level alarm delay	s		0	0		0	0
89	Operating hours	h			0,0			
91	Stroke of the rejection pins	mm		45,0	45,0		45,0	45,0

Fig. 23 Parameter list

- *No.*: Parameter number
- *Parameter*: Parameter designation including unit
- *Set value*: Set fields in which the set values for the parameters are entered. (Side A and B are only displayed at double rotary machines)
- *Actual value*: Actual fields containing the fed back parameter values from the machine.

(Side A and B are only displayed at double rotary machines)

1. Navigation bar for scrolling through the parameter list
2. Parameter search box
3. Text search box
4. Parameter groups



NOTICE

To call up a parameter description, highlight the parameter in the parameter list and press function key [F1] - Help.

8.1.1. Changing parameter set values

Parameter set values are changed by using the parameters dialog.

Here the parameter set values can be set if:

- the operator is logged in.
Exception: Parameters with operator level “0” can be changed even without logging in.
- the operator’s operator level authorises him to make the change (see the “Level management” section).

The appearance of the parameters can change.

- If a parameter has a set value on both sides, both values are displayed in the dialog box.
- It is always possible to enter a comment and sometimes it is mandatory. Depending on the configuration, it may be necessary to confirm by entering the user name and password.
- Confirmation based on the “two-man rule” is possible, i.e. the input must be confirmed by two operators.
- There is a special dialog for selection parameters.
- Press the [F1] key to show the parameter description.

To call up the parameter dialog:

- Open submenu [Functions]
- Select menu item [Parameter list]
- Highlight the parameter
- Press the [Enter] button

The following settings can be optionally configured in the “Level management” menu:

- Operator level
- Mandatory comment
- Authentication

- Authentication (“two-man rule”)



Fig. 24 Parameter dialog with comment and authentication

1. Parameter number and designation
2. Current set value
3. Input limits
Input outside these limits is not possible.
4. Enter set value
5. Authentication
6. Authentication by second operator (“two-man rule”)
7. Comment box
If this field is configured for this parameter, the operator must add a comment after changing the parameter.
8. Selection box / keyboard
9. Parameter description

Press the [Comment] button to add a comment concerning the change.

Press the [OK] button to accept the input. Press the [ESC] button on the terminal to exit the box without accepting the changes.

8.1.2. Configuring parameter lists

Lists of various parameters can be called up using the buttons on the right.

There are lists that can be compiled by the customer.

Configuration of parameter lists

Adding parameters to a parameter list:

- Open the [Functions] sub-menu.

- Select the [Parameter list] option
- Select parameter
- Drag the highlighted parameter into the parameter list
The parameter is now added to the parameter list.
You can also use [CTRL] + [C] / [CTRL] + [V] to copy and paste the parameters to the corresponding list.

Removing parameters from a parameter list:

- Open the [Functions] sub-menu.
- Select the [Parameter list] option
- Select the desired parameter list from the menu line. For example, press [Operator group 1].
- Highlight the parameter by touching it in the list.
- Drag the highlighted parameter from the parameter list.
The parameter is now removed from the parameter list.
The parameter can also be removed with [CTRL] + [X].

8.2. Production tracking

To call up the production tracking:

- Open the [Functions] submenu.
- Select menu item [Production tracking].

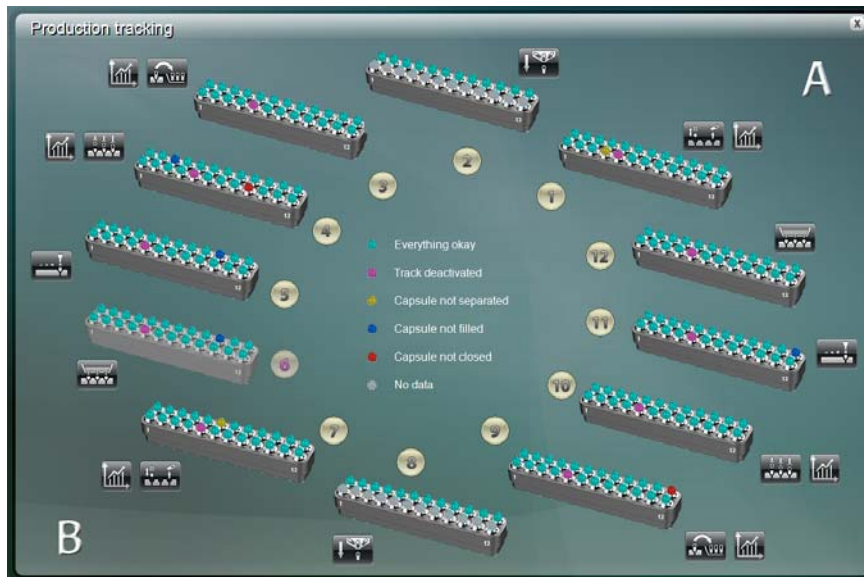


Fig. 25 Production tracking

The production tracking displays the capsule status of the individual capsule holders in real time.

Capsule status of each track and row:

- Turquoise: Everything okay
- Magenta: Track deactivated

- Yellow: Capsule not separated
- Blue: Capsule not filled
- Red: Capsule not closed
- Grey: No data available

The numbers 1 - 9 at the single rotary machine and 1 - 12 (side A / B) at the double rotary machine indicate the positions of the capsule holders.

The process graphic buttons can be used to jump directly to the individual process graphics.

Use the Statistics icon to jump directly to the capsule statistics.

8.2.1. Switch capsule holder to active / inactive

Capsule holder status:

- Black number - capsule holder active
- Magenta number - capsule holder inactive

To switch a capsule holder to active or inactive:

- Tap on the number beside the capsule holder.
The "Switch capsule holder to active/inactive" dialog opens
- Select [Yes] to switch an active capsule holder to inactive or an inactive capsule holder to active.
- Select [No] to cancel the dialog.
- Press [Comment] to open a comment box for entering a comment.

8.3. Capsule statistics

In the capsule statistics menu, the separation and closing rates can be displayed for each track of an individual capsule holder in relation to a specified time span while the machine is in setup or standard run.

To call up the capsule statistics:

- Open the [Functions] menu.
- Select the following path: [Capsule statistics], [Separation rate], [Closing rate] or [History].

In the capsule statistics menu for the separation and closing rate, the numbers 1 - 9 at the single rotary machine and 1 - 12 (side A / B) at the double rotary machine indicate the positions of the capsule holders.



Fig. 26 Capsule statistics

1. Key of the coloured markings for separation and closing rate
Default setting:
 - Turquoise: 100% - 99.80%
 - Yellow: 99.79% - 99.50%
 - Red: 99.49% - 0%
2. Reference period of the shown rates: <30 minutes, <60 minutes, <180 minutes, batch
3. Selection of separation or closing rate
4. Selection setup or standard run
5. Selection of the capsule holders including their position numbers

Tapping on a limit value (max.% - min.%) in the key of the coloured markings for separation and closing rate (1) opens an input box where the selected value can be changed.

8.4. MIRA View

This user interface contains functions for installing and removing the dosing units (tamping station or pellet station), for referencing drives and sensors and for lubrication.

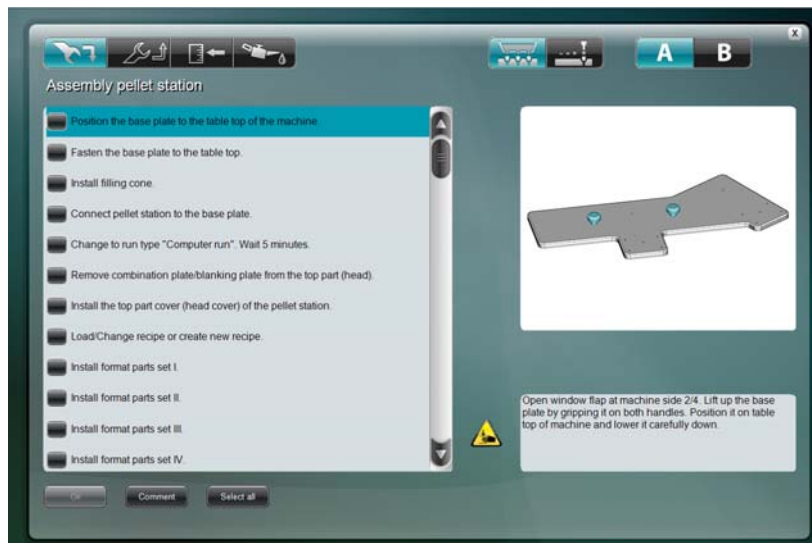


Fig. 27 MIRA View



In the MIRA view, these buttons (from left to right) are used to switch between the following functions:

- Dosing units installation
- Dosing units removal
- Referencing of drives and sensors
- Lubrication



In the MIRA view, these buttons are used to switch between side A and side B (only at double rotary machines).

8.4.1. Dosing station installation

This dialog describes and works through the installation of a dosing station.

Call up the “Installation” dialog:

- Open the [Functions] sub-menu.
- Under the [MIRA View] option, select [Installation].



Press this button to switch between tamping station and pellet station.



Fig. 28 Tamping station installation

- [OK]
Once all the activities have been ticked off, press [OK] to confirm that the dosing station installation is complete.
- [Comment]
Use this button to add a comment for each activity.
- [Select all]
Press the [Select all] button to tick off all the activities.
- [Cancel]
Cancels installation of the dosing station.

There are instructions for installing the dosing station on the left of the screen. The order in which the activities should be carried out is the order shown in the list. Highlight an activity to display a more detailed description at the bottom right and a picture at the top right.

The tick in the box before each activity confirms that it has been carried out.

For some activities it may be necessary to move drives, for example, or to release or apply the clamping system. This is done using the buttons that are shown on the right of the screen.

8.4.2. Removal of the dosing stations

This dialog describes and works through the removal of a dosing station and format-specific parts.

Call up the “Removal” dialog:

- Open the [Functions] sub-menu.
- Under the [MIRA View] option, select [Removal].

The dialog structure and description are similar to the “Installation of the dosing stations and format-specific parts” screen.

8.4.3. Reference drives

The “Referencing” dialog is used to check, move to and reference current drive positions.

It displays all the drives that are present in the machine.

Possible actions are:

- select drives for referencing,
- move drives to park position,
- move drives to a position,
- release the drive’s brake,
- and read the actual values for the drives.

Call up the “Referencing” dialog:

- Open submenu [Functions]
- Select [Referencing] under menu item [MIRA View]
- Select the “Drives” button from the dialog.



In the referencing dialog, these buttons are used to switch between the drives and sensors. From left to right the following can be selected:

- Drives
- Sensors



Fig. 29 Overview of all the drives in the referencing overview

1. Selection of the drive to be referenced
Select the drive to be referenced by pressing the corresponding drive symbol on the screen. The button for the selected drive changes to turquoise and the drive designation appears on the bottom line.
 2. Actual value display for the drive
 3. Designation of the selected drive
- [Reference selected drive]
A dialog opens for referencing the selected drive (see below).
 - [Selected drive to park position]
Moves the selected drive to a defined park position.
 - [Move selected drive to cleaning position]
Moves the selected drive to a defined cleaning position.
 - [Move selected drive]
The selected drive can be moved to a desired position.
 - [Release brake]
Releases the brake of the selected drive.

Reference drive

- Select the drive to be referenced.
- Press the [Reference selected drive] button.
Another dialog opens.

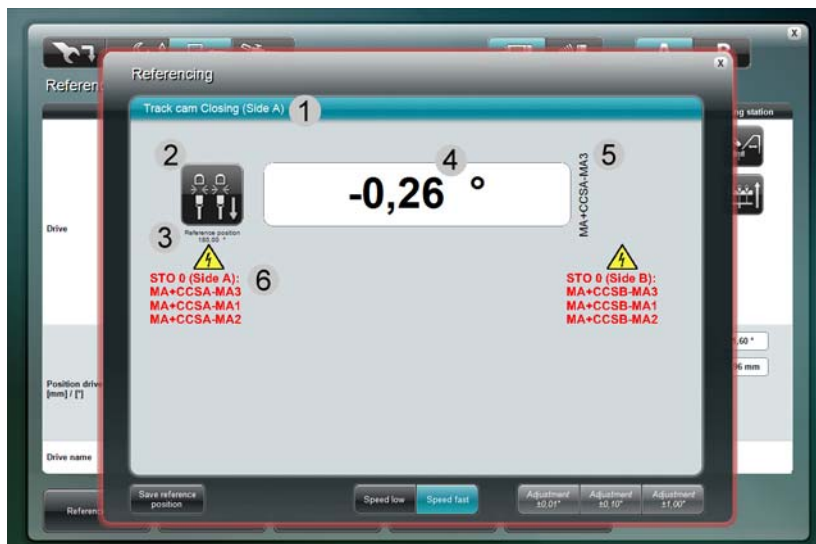


Fig. 30 Referencing the selected drive

1. Selected drive
2. Selected drive icon
3. Reference position

4. Current position of the drive
5. Reference designator for the drive
6. Safety note: The STO “Safe Torque Off” safety function is switched off for the listed drives during referencing.
 - [Save reference position]
Saves the drive’s current position as the reference position.
 - [Drive to reference position]
Moves the drive to the currently saved reference position.
 - [Speed low] / [Speed fast]
These button are used to set the drive to a slow or fast travelling speed.
 - [Adjustment $\pm 0.01\text{mm}$] / [Adjustment $\pm 0.10\text{mm}$] / [Adjustment $\pm 1.00\text{mm}$]
The [Adjustment $\pm 0.01\text{mm}$] / [Adjustment $\pm 0.10\text{mm}$] / [Adjustment $\pm 1.00\text{mm}$] buttons are used to assign fixed increments (1 mm / 0.1mm / 0.01mm) by which the drive moves when a button is pressed on the hand-held terminal.



IMPORTANT!

Risk of collision!
Incorrect drive reference positions can result in damage to the machine.

8.4.4. Reference sensors

The “Reference sensors” dialog is used to check current values and reference positions of the sensors and to reference the sensors.

Possible actions are:

- select sensors for referencing
- read actual and reference values

Call up the “Referencing” dialog:

- Open the [Functions] sub-menu.
- Under the [MIRA View] option, select [Referencing]
- Select the “Sensors” button from the dialog.



In the Referencing screen, these buttons are used to switch between the drives and sensors. From left to right the following can be selected:

- Drives
- Sensors



Fig. 31 Overview of all the sensors in the referencing overview

1. Selection of the sensor to be referenced
Select the sensor to be referenced by pressing the corresponding sensor symbol on the screen. The button for the selected sensor changes to turquoise and the sensor designation appears on the bottom line.
 2. Display of the actual and reference values for the sensor
 3. Designation of the selected sensor
- [Reference sensor]
A dialog opens for referencing the selected sensor.

Reference sensor

- Select the sensor to be referenced.
- Press the [Reference selected drive] button.
Another dialog opens.

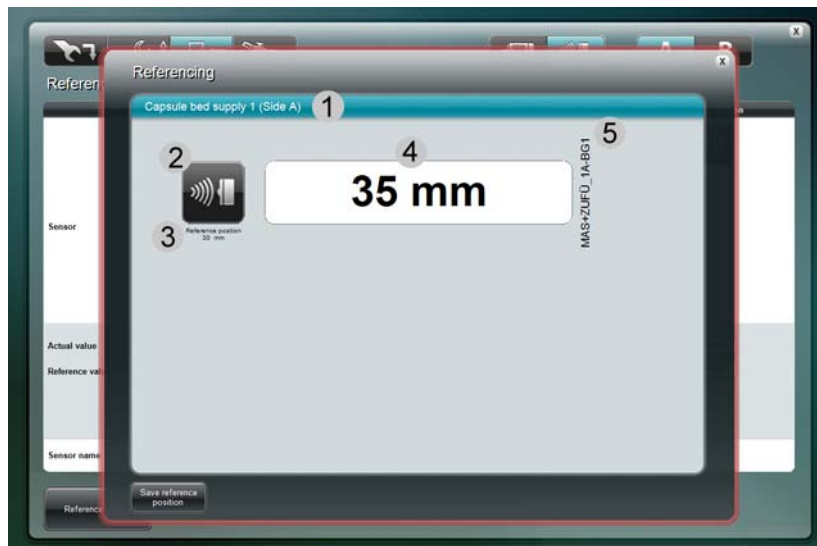


Fig. 32 Referencing of the selected sensor

1. Selected sensor
 2. Selected sensor icon
 3. Reference position
 4. Current value of the sensor
 5. Reference designator for the sensor
- [Save reference position]
Saves the current value of the sensor as the reference position.

8.4.5. Lubrication

The "Lubrication" dialog is used to confirm lubrication of the drives. It displays all the existing drives in the machine.

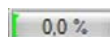
To call up the "Lubrication" dialog:

- Open the [Functions] submenu.
- Under the [MIRA View] option, select menu item [Lubrication].



Fig. 33 Overview of all the drives in the lubrication overview

1. Overview of all the existing drives in the machine
2. Status displays of the drives that can be lubricated



The colored status bar is a visual indication of the remaining run-time from the last to the next lubrication interval; the bar moves from 0.0% (bar colour green) to 100% (bar color red). The warning limit for the lubrication interval can be entered in parameter 176.

<i>"Drive number"</i>	Number of the drive
<i>"Run-time/interval [h]"</i>	Current operating time since the last lubrication in hours / next lubrication time (set interval)
<i>"Lubrication [days]"</i>	Elapsed days from the last to the next lubrication time
<i>"Lubricated on"</i>	Last lubrication date

3. Designation of the selected drive

Lubricate drive

- Select the drive to be lubricated by tapping on the corresponding drive symbol on the screen.

The button for the selected drive changes to turquoise. Drive buttons in gray require no lubrication and can thus not be selected.

- Tap on the [Lubricate drive] button. Another dialog opens.



Fig. 34 Lubrication of the selected drive

1. Selected drive
 2. Actual position of the drive [mm]
 3. Lubrication position of the drive [mm]
 4. Reference designator for the drive
- [Drive to lubrication position]
Moves the drive to the currently saved lubrication position.
 - [Confirm lubrication]
Confirm the lubrication operation.
 - [Drive to park position]
Moves the drive to the currently saved park position.

8.5. Peripheral devices

The periphery of a capsule filling machine consists of optionally connected peripheral devices such as the empty capsule conveyor, product feeder and capsule polisher. A dialog can be called up for each of peripheral device.

To call up the dialog of a peripheral device:

- Open the submenu [Functions].
- Select a peripheral device under menu item [Peripherals].
The dialog of the respective peripheral device is opened.

The peripheral device can be switched on and off via buttons in automatic mode or manual mode.

If necessary, periphery-relevant parameters are shown. The set values of these parameters can be changed in the corresponding dialog of the respective peripheral device. Therefore, see also section

→ "Changing parameter set values" in the Operating instruction software.

8.6. Time Manager

In the Time Manager, cycle, switch and idle times are visualised. The position and duration of the individual movements can be seen as a function of each other by means of the displayed bars.

The individual times can be set and optimised via dialogs. The respective parameter dialog opens by tapping on either the respective buttons or the displayed bars.

To call up the Time Manager dialog:

- Open the [Functions] submenu.
- Select menu item [Time Manager].



Fig. 35 Time Manager

- [Switch time]: shows the switch time of the machine; actual and set values
- [Idle time]: shows the idle time of the machine; actual and set values
- [Rotary disk cycle time]: shows the cycle speed rotary disk of the machine; actual and set values
- [Reinitialise]: Re-initialising of the travel times in relation to a default cam plate. This button can be used to restore the travel times for the current set cycle in relation to a default cam plate, if the switching and / or idle times have been changed.
- “Rotary disk”: Display of the switching and idle time of the machine
- “Duration / ms”: The buttons can be used to set the times displayed as bars. The currently set times are displayed numerically.
- [Reset]: Backup record will be kept for changed values as long as the Time Manager is opened. These records are shown as a red digit above the button. By pressing the [Reset] button, the previously recorded value, now shown as red digit, will be used again.

Depending on the configuration of the dosing unit(s) the corresponding times for the current recipe are displayed:

- Duration of the horizontal movement of the bottom dosing plate at the pellet station
- Duration of the 60° rotation of the dosing disk at the tamping station
- Duration of the downward movement, pressure duration time, duration of the upward movement of the tamping pin
- Duration of the downward movement, closing pressure duration, duration of the upward movement of the lower closing pins

At the double rotary machine, the times on side A and B can be synchronised via the chaining icon. If the chaining function is not active (icon is greyed out), the times can be set independently from one another.

9. Graphic

9.1. Process graphic

See section “Process graphic”.

9.2. Weightmaster graphic

To select the Weightmaster dialog:

- Open the [Graphic] sub-menu
- Select the [Weightmaster] option



Fig. 36 Weightmaster graphic (Side A and B are only displayed at double rotary machines)

1. **Trend** display for the sample means
2. **Distribution** of the individual values within the sample selected under point 1
3. **Individual values** from the sample selected under point 1
4. List of parameters
Overview of all the associated parameters. Select using the buttons at the bottom of the screen.
5. Displays the associated parameters and histograms for the full capsule weights.
6. Displays the parameters and histograms for the empty capsule weights.
7. Displays the associated parameters and histograms for the capsule individual weights 1 (only if 2 dosing stations are used).
8. Displays the associated parameters and histograms for the capsule individual weights 2 (only if 2 dosing stations are used).
9. Displays a list of the parameters needed to set up the **Weightmaster**.

Other buttons:

- [Sample Full]
→ “Manual sampling”.
- [Sample Empty]
→ “Manual sampling”.
- [Sample 1] – (only if 2 dosing stations are used)
→ “Manual sampling”.
- [Sample 2] – (only if 2 dosing stations are used)
→ “Manual sampling”.
- [Sampling cancellation]
[Sampling cancellation] cancels the sample that is in progress.
- [Sampling continuation]
If the Weightmaster triggers a Stop diagnosis (because a limit is exceeded, for example), the sample may be resumed after restarting the machine by pressing the [Sampling continuation] button.
- [Auto T-limits]
[Auto T-limits] automatically sets the preset tolerances.
- [Manual]
Opens the instruction manual for the Weightmaster in PDF format.

9.2.1. Sampling

9.2.1.1. Automatic sampling

Parameter 74 is used to set a sampling interval. This interval determines the number of capsules after which the machine takes a sample.

If the machine was stopped during sampling, the sample is delayed by 30 seconds after the machine is restarted.

If parameter 74 is set to “0”, no sample is taken.

9.2.1.2. Manual sampling

Manual samples may be taken to check

- the full capsule weight
- the empty capsule weight
- individual weight 1 (only if two dosing units are installed)
- individual weight 2 (only if two dosing units are installed)

To take a manual sample, call up the Weightmaster graphic:

- Open the [Graphic] sub-menu.
- Select the [Weightmaster] option.

Sample for the full capsule weight – [Sample Full]

Press the [Sample Full] button to start manual sampling for the full capsule weight. If there are two dosing units installed, this comprises the two individual weights from dosing units 1 and 2.

Start sampling:

- Press the [Sample Full] button.

Empty capsule weight sample – [Sample Empty]

Press the [Sample Empty] button to start manual sampling for the empty capsule weight. The capsules to be weighed will not be filled.

Start sampling:

- Press the [Sample Empty] button.

Individual weight 1 sample – [Sample 1]

Press the [Sample 1] button to start manual sampling for individual weight 1. The capsules to be weighed will only be filled at dosing unit 1.

Start sampling:

- Press the [Sample 1] button.

Individual weight 2 sample – [Sample 2]

Press the [Sample 2] button to start manual sampling for individual weight 2. The capsules to be weighed will only be filled at dosing unit 2.

Start sampling:

- Press the [Sample 2] button.

9.3. Check Assistant (option)

The check assistant facilitates the input of parameter limit values for measuring and regulating systems such as Weightmaster and Accura-C.

- The set limit values are depicted graphically and the absolute values which were calculated from the relative values are shown.
- The set values of a parameter block can be copied to other parameter blocks via the copy function.
- Changed values of a parameter block are indicated via a red LED light.



Fig. 37 Check Assistant

1. Selection parameter blocks
2. Parameter settings
3. Graphical depiction of limit values
4. Copy function
5. Storing of set parameter values

9.4. Trend view

The trend view displays the relevant parameters of a batch and their progress. The parameters displayed can be selected via the configuration menu. Only the data of a batch are stored.



Fig. 38 Trend view

10. Configuration

10.1. General configuration

Various configurations can be set up using the [General configuration] option.

To select:

- Press the [Configuration] button to call up the sub-menu
- [General configuration] option



Fig. 39 General configuration

The following settings are possible:

Select language

- **HMI**
This sets the language for the touchscreen interface.
- **Reports**
This sets the language for the created reports.

Select default printer

- **Select printer**
This selects the default printer for the application. To use it, press the [Print] button or select "Print" and then the [Print] button.

Auto-logout settings

- **Logout time / s**
This sets the time after which the operator is logged out if he does not select an action on the screen.
The time is entered in seconds. A value of 0 means that auto-logout is deactivated.

[Set temporarily] – The button does not save the setting. This means that the old settings will be loaded once more when the HMI is restarted. It can be useful to temporarily deactivate auto-logout for maintenance work, for example.

[Save permanently] – The button saves the auto-logout time to the configuration and this will be loaded when the system is restarted.

Settings for the Print function key

The [Print] button can be used on many different pages to print out the content. A print dialog opens and the operator can choose between “Print PDF” and “Send to default printer”. The selected settings are saved. This menu can be switched off by selecting the third option “Save settings and do not display this dialog again”.

The following screens currently support printing using the [Print] button:

- Recipe list
- Recipe editor
- Batch list
- Batch report
- Parameter list
- Level management
- Event report
- Current diagnoses
- Deactivated diagnoses
- Operator list
- Capsule type manager

All the PDF documents are saved to the path specified for “Import/Export” PDF print-outs.

Export / Import

This is used to specify various export and import paths. They can either be entered manually directly in the text box or the button after the text box can be pressed to select the path from the Directory Explorer.

When you exit the screen, all the paths entered are checked again. If a path entered does not exist, an error message appears and the operator can decide whether to discard or correct the change.

- **Recipe data**
Exported recipes are saved to this path. For an import, a File Explorer always opens at the location that was entered here as the import path. This can be changed in Explorer, but it is only in this window that it is saved permanently.
- **Batch data**
When the Export button in the batch list is pressed, the path shown here is used. If XML or CSV files are exported, a File Explorer opens and a different path can be selected. If a PDF report is exported, this path is used directly. Automatic batch reports have an extra destination drive.

For an import (XML only), the File Explorer again opens at the specified path.

- **PDF printouts**
All PDF printouts that are generated by pressing the [Print] button are saved to this destination folder. All the screenshots that are generated with the [Shift]+[Print] shortcut keys are also saved here.
- **Machine configuration**
[Export] / [Import] – This is used to export and import the entire machine configuration or just a part of it.

Configuration files: This saves the table folder from c:\Fette\. The configuration can only be imported onto the machine from which it was exported.

Level functions: The level settings for the HMI functions are saved here.

Level parameters: The settings that were made for the parameters in the “Configuration / Level management / Parameters” window are saved here.

Level diagnoses: The settings that were made for the diagnoses in the “Configuration / Level management / Diagnoses” window are saved here.

Operator data: All the users known to the HMI are saved here with their names, last known password (encrypted) and level.

When imported, the operators are only entered in the database. To create operators in the local Windows version or domain, they must be entered manually and directly in Windows or the domain or entered using the operator manager in the HMI.

10.2. Operator management

The operator management allows to create, edit or delete operators by using operator data such as password and operator level.

By using the operator management the following functions can be selected:

- Create a new operator
- Add a locally signed in operator as new operator
- Edit operator data
- Delete an operator



NOTICE

In order to edit the operator data in the operator management, operator level 9 is required.

To call up the operator management menu:

- Open submenu [Configuration]
- Select menu item [Operator management]



Fig. 40 Operator management

The operator list is displayed in the dialog. It contains all operators created as well as their respective operator levels.

Buttons:

- [Create new operator]
- [Add existing operator]
- [Edit operator]
- [Delete operator]

The following sections contain a detailed description of the corresponding button functions.

10.2.1. Create new operator

Press button [Create new operator] to add new operators to the operator list.

- Open submenu [Configuration]
- Select menu item [Operator management]
- Press button [Create new operator]

Dialog *Operator data* is displayed.



Fig. 41 Operator data

Use the dialog to enter the *Operator data* for each new operator:

- *Operator*: Enter the name of the operator.
- *Level*: Enter operator level.
- *New Password*: Enter new password.
- *Repeat password*: Enter new password again.
- *Password expired*: Tick the box, if you want to activate the function “Password expired”.

Once the function “Password expired:” is activated, the operator must change the corresponding password after the next login. The login itself will be executed by using the old password. Afterwards the operator is requested to enter a new password.

Save current settings:

- The current settings are stored by using the [Save] button, i.e. the entered changes are stored, the new operator is added to the operator list and registered at the Windows system or the Windows group management.
- Press button [Cancel] to finish the process without any changes.



NOTICE

The security settings for the operators are realised in the local Windows system or the customer domain. Here, the password guidelines, account settings and user properties, e.g. password age, length and complexity (passwords should consist of letters, numbers and special characters), can be configured. The Visual software uses the direct Windows functionality for operator and password management.

10.2.2. Add existing operator

In order to assign an operator level to an operator which is already known to the Windows system and to add this operator to the operator list, press button [Add existing operator].

- Open submenu [Configuration]
- Select menu item [Operator management]
- Press button [Add existing operator]

Dialog *Operator data* is displayed.

Change the settings as follows:

- *Operator*: Enter the operator or rather user which is already known to the Windows system.
- *Level*: Enter operator level.
- The settings are stored by using the [Save] button and the Windows user is added as operator to the operator list.
- Press button [Cancel] to finish the process without any changes.

10.2.3. Edit operator data

The operator management allows to edit the data of an existing operator. Therefore:

- Open submenu [Configuration]
- Select menu item [Operator management]
- Select operator from operator list
- Press button [Edit operator]

Dialog *Operator data* is displayed (see also the “Create new operator” section).

Edit the *Operator data* for the selected operator in the dialog as desired:

- *Operator*: Enter operator, if required.
- *Level*: Enter operator level, if required.
- *New password*: Enter new password, if required.
- *Repeat password*: Enter new password again, if required.
- *Password expired*: Tick the box, if you want to activate the function.

Save current settings:

- The settings are stored by using the [Save] button and the new operator data are accepted.
- Press button [Cancel] to finish the process without any changes.

10.2.4. Delete operator

By activating the function “Delete operator”, the operator level of the selected operator is automatically set to “0” and the operator is deleted from the operator list. However, the deleted operator remains stored at the Windows system and can be re-used under menu item „Add existing operator“.

Open the operator management to delete the desired operator(s):

- Open submenu [Configuration]
- Select menu item [Operator management]
- Select operator from operator list
- Press button [Delete operator]
- Answer safety query “Delete selected operator?”
Press button [Yes] to delete the operator from the operator list.
Press button [No] to finish the process without any changes.

10.3. Level management

All the important functions, parameters and diagnoses can be configured with respect to:

- Operator level
- Mandatory comment
- Authentication
- Authentication (four eyes principle)

The settings made here can be exported and imported via the [General configuration] screen. They can be printed out (as a PDF or sent straight to a printer) by pressing the "Print" function key [F7].

To call up [Level management]:

- Open the [Configuration] sub-menu
- Select the [Level management] option
- Press the [Functions], [Parameters] or [Diagnoses] button

To save changes:

- Press the [Save] button at the top of the screen

You can use the “Search” function at the top right of the page to search through the currently displayed table.



NOTE

The scope of functions and the functions, parameters and diagnoses that can be configured depend on which software version is installed and which options are activated.

Operator level 9 is needed to edit in the operator manager.

If the operator level is set to “0”, the function may be used or the parameter changed even if the operator has not logged in.

10.3.1. Level management: Functions



No.	Description	Level	Question No.	Security query	Comment	Signature	4 Eyes
1	Change into computer run	6	220169	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Change into test run	8	220171	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Change into setup run	8	220173	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Change into standard run	5	220175	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Change into standard run without active batch	8	220301	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Start capsule filler	8	220396	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Change language	8	100033	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Configure standard printer	8	100035	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Export/Import machine configuration	8	100037	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Set date/time	9	100039	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Run test functions	8	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Auto-Logoff setting	8	100123	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Single track handling	8	160121	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	Reference drive	8	220385	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Turn filling device	8	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Confirm lubrication	8	220397	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	Move drive to reference position	8	220393	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	Perform zero balance	8	220205	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Finish batch	8	220207	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	Create new batch	8	220209	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	Deactivate diagnosis	8	270012	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **No.:** A consecutive number for the executed function. The function number is permanently assigned.
- **Description:** A short text that describes the function.
- **Level (only with option 718):** This sets the minimum level that the operator needs to execute the function. Level 0 means that no operator needs to be logged in.
- **Question-No. (only with option 507):** Here the text number(s) represent(s) the question(s) that are asked before the function is executed. Multiple questions are separated by semicolons.
- **Prompt (only with option 507):** If this check box is ticked, a confirmation prompt (safety query) is displayed before the function is executed.
- **Comment (only with option 507):** If this check box is ticked, the operator must enter a comment before the function is executed. This comment is displayed in the HMI event report and the batch report.
- **Signature (only with options 507 and 718):** If this check box is ticked, the logged-in operator must enter his password before the function is executed.
- **Two—man rule (only with options 507 and 718):** If this check box is ticked, a second operator with the necessary level, in addition to the logged-in operator, must enter his name and password before the function is executed.

10.3.2. Level management: Parameters and diagnoses

Level management: Parameter



No.	Description	Level	Comment	Signature	4 Eyes
1	Capsules per hour	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Rotary disk cycle time	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Idle time	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Switching time	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Good production	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Rejected production	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Weight control limit	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Capsule weight: Mean value	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Capsule weight: Mean max. deviation	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Capsule weight: s-rel	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	Capsule length	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
27	Capsule volume	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	Empty capsule weight	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
29	Capsule body height	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	Capsule body diameter	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
32	Control mode	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Capsule magazine	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	CFC: Max. number of faulty capsules	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Capsule bed height 1 filling slide	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Capsule bed height 2 filling slide	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Filling cone fill level alarm delay	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- *No.:* The parameter number, which can also be found in the parameter list.
- *Description:* A short text that describes the parameter.
- *Level (only with option 718):* The operator level that is needed to make a change. Level 0 means that no operator needs to be logged in to make a change.
- *Comment (only with option 507):* If this box is ticked, the operator must enter a comment before the set value is changed. This comment is displayed in the HMI event report and the batch report.
- *Signature (only with options 507 and 718):* If this box is ticked, the logged-in operator must enter his password as confirmation before the set value is changed.
- *Two—man rule (only with options 507 and 718):* If this box is ticked, a second operator with the necessary level must enter his operator name and password as confirmation before the set value is changed.

Level management: Diagnoses



No.	Description	deac.	Level	quit	Level
1015	Connection operator computer <-> machine computer interrupted	<input checked="" type="checkbox"/>	8	<input checked="" type="checkbox"/>	-1
1016	Weightmaster transfer error	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1017	Process timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1018	No HMI connected	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1020	Timeout in communication process with machine computer	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1021	Recipe check timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1022	Operator management timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1023	Report creation timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1024	RFID communication timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1026	Weightmaster communication timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1027	OCIF-OPC communication timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1028	FetteStartup timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1029	FetteHousekeeperService timeout	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1030	RFID communication error	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1031	FetteEtherCATCommunicator <-> EtherCAT master connection wa...	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1054	Error in country-specific system settings	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1055	Watchdog parameter: Set value not set	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1060	Warning limit for database data segment [%]	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1061	Stop limit for database data segment [%]	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1062	Warning limit for database log segment [%]	<input type="checkbox"/>	8	<input type="checkbox"/>	-1
1063	Stop limit for database log segment [%]	<input type="checkbox"/>	8	<input type="checkbox"/>	-1

- **No.:** The diagnosis number.
- **Description:** A short text for the diagnosis which also appears in the list of current and deactivated diagnoses.
- **Deac.:** The diagnosis may be deactivated if this box is ticked. There are some diagnoses that cannot be deactivated for safety reasons. In these cases, the column is grayed out and cannot be used.
- **Level (only with option 718):** The operator level that is needed to deactivate the diagnosis. Level 0 means that no operator needs to be logged in. -1 means that the diagnosis cannot be deactivated. There are some diagnoses that cannot be deactivated for safety reasons. For these diagnoses, the column cannot be used.
- **Ack:** The diagnosis must be acknowledged if this box is ticked. There are some diagnoses that must be acknowledged for safety reasons. In these cases, the column is grayed out and cannot be used.
- **Level (only with option 718):** The operator level that is needed to acknowledge the diagnosis. Level 0 means that no operator needs to be logged in. -1 means that the diagnosis does not have to be acknowledged. There are some diagnoses that must be acknowledged for safety reasons. For these diagnoses, this column cannot be used.

10.4. Report filter

The report filter is used to set various filters for the event and batch reports. This is used to determine the information that appears in the report. The filters that are applied are displayed in the batch report.

To call up the report filter:

- Select the [Configuration] sub-menu
- Open the [Report filter] option



Fig. 42 Report filter

1. Event report filter
2. Batch report filter
3. Automatic batch report filter

- Here you can either accept the filter set for the batch report or define your own filter for the automatic batch report.

10.5. Date and time

The [Date / Time] menu option is used to set the date and time.

To set the date and time:

- Open the [Configuration] sub-menu
- Select the [Date / Time] option

In the dialog that opens, use the arrow keys to enter:

- the date in Month, Year and Day format
- the time in Hours and Minutes.
- Press [OK] to confirm your input.
The time and date are accepted.
- Press [ESC] to discard the input.

10.6. Activated options

The machine operating software is standard software that cannot be changed by the user. There are, however, various software options that can be activated or deactivated in order to adapt the software to the machine's electrical and mechanical design.

This function is used to display all the options that are currently activated on the machine.

To select the Activated options dialog:

- Open the [Configuration] sub-menu
- Select the [Activated options] option

10.7. Lock desktop

The [Configuration] menu contains a [Lock desktop] option. This function locks the Windows desktop to prevent it being used by unauthorized persons.

The Windows desktop is automatically locked when the system starts up (only if this option is active).

To unlock the desktop, select the

- [Configuration] menu option, then select
- [Unlock desktop].

The operator level needed to unlock the desktop is set to 9 by default.

10.8. Capsule type management


The capsule type management is used to enter and save different capsule types. The saved capsule types can be used in recipes.

Capsule types are manufacturer- and material-dependent versions of the so-called capsule classes.

To call up the capsule type management:

- Open submenu [Configuration]
- Select menu item [Capsule type management]

A list of all saved capsule types is displayed.



Name	Producer	Len / mm	Vol / ml	Tare / mg	Body-Len / mm	Body-Dia / mm	
0_HGC	0	21.7 (21.4 - 22.0)	0.66 (0.60 - 0.70)	96 (89 - 103)	18.4 (18.1 - 18.7)	7.34 (7.29 - 7.39)	
00_HGC	00	23.3 (22.9 - 23.7)	0.90 (0.80 - 1.00)	118 (111 - 125)	20.2 (19.7 - 20.7)	8.18 (8.06 - 8.28)	
1_HGC	1	Herst-Name	19.4 (19.0 - 19.8)	0.48 (0.43 - 0.53)	76 (71 - 81)	16.6 (16.1 - 17.1)	6.63 (6.53 - 6.73)
2_HGC	2	Herst-Name	18.0 (17.6 - 18.4)	0.36 (0.32 - 0.40)	61 (56 - 66)	15.3 (14.8 - 15.8)	6.07 (5.97 - 6.17)
3_HGC	3	Herst-Name	15.9 (15.5 - 16.3)	0.27 (0.24 - 0.30)	48 (43 - 53)	14.0 (13.6 - 14.4)	5.57 (5.47 - 5.67)
4_HGC	4	Herst-Name	14.3 (13.9 - 14.7)	0.19 (0.16 - 0.22)	38 (33 - 43)	12.2 (11.8 - 12.6)	5.05 (4.95 - 5.15)

Buttons: New, Copy, Rename, Additional text*, Modify, Import, Load, Delete, Parameter, Export

Fig. 43 Capsule type management

- “*Name*”: Name of the capsule type
- “*Capsule size*”: Size of the capsule type (capsule class)
- “*Manufacturer*”: Manufacturer of the capsule type
- “*Length / mm*”: Length of the capsule in mm — standard value (min. ...max.)
- “*Volume / ml*”: Volume of the capsule in ml — standard value (min. ...max.)
- “*Tare / mg*”: Tare weight of the capsule in mg — standard value (min. ...max.)
- “*Body L. / mm*”: Body length in mm — standard value (min. ...max.)
- “*Body Dia. / mm*”: Body diameter in mm — standard value (min. ...max.)

Select an entry from the list directly on screen or use the arrow keys on the keyboard.

Buttons for managing capsule types:

- [New]
- [Load]
- [Copy]
- [Rename]
- [Delete]
- [Additional text*]
- [Parameter]
- [Edit]
- [Import]
- [Export]

10.8.1. Capsule-type dependent parameter

Some of the parameters can be adapted to the respective capsule type in use in order to correct possible deviations from individual manufacturers or special materials.

Editing parameters:

- Select the capsule type from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Parameter] button.
The shown dialog appears.
- The set values of the displayed parameters can be selected directly from the list and be set to a between the min.- and max. value.
- The settings are stored by using the [Save] button or discarded by using the [Cancel] button.



No.	Parameter	Set	Min.	Max.
46	Sorting fork end position	43,5	43,5	44,0
91	Stroke of the rejection pins	45,0	45,0	45,0
321	Closing stroke of upper closing pins	4,0	4,0	20,0
322	Closing stroke of lower closing pins	37,2	37,2	40,0

Fig. 44 Capsule-type dependent parameter

- “No”: Parameter number
- “Parameter”: Parameter designation including unit
- “Set value”: Parameter set value
- “Capsule”: Pre-determined set value for the respective capsule class
- “Min.”: Minimum set value
- “Max.”: Maximum set value

10.8.2. Managing capsule types

Create new capsule type

To create a new capsule type:

- Press the [New] button
 The “Create new capsule type” dialog opens. Enter the capsule type parameters here.
- Enter the name, capsule class and the manufacturer of the capsules.
 Recommendation for the designation of the capsule type name: Manufacturer_Material_Capsule class.
- Enter the required parameters in the dialog and press [Save] to confirm. The new capsule type is added to the list.
- Press [Close] to discard the input.

Load capsule type

To load a capsule type from the capsule type management:

- Select the capsule type from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Load] button

The selected capsule type is added to the current recipe.

It may be necessary to adapt the recipe.

Copy capsule type

To copy a capsule type from the capsule type management:

- Select the capsule type from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Copy] button
An input box opens for the capsule type name.
- Enter the name for the copied capsule type and press [OK] to confirm.
Recommendation for the designation of the capsule type name: Manufacturer_Material_Capsule class.
The copied capsule type is saved at a new position in the capsule type management under the entered name.

Rename capsule type

To rename a capsule type from the capsule type management:

- Select the capsule type from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Rename] button.
An input box opens for the capsule type name.
- Enter the new name for the capsule type and press [OK] to confirm.
Recommendation for the designation of the capsule type name: Manufacturer_Material_Capsule class.
The dialog closes and the new capsule type name is accepted for the selected capsule type.

Delete capsule type

To delete a capsule type:

- Select the capsule type from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Delete] button.
The selected capsule type is deleted from the list.

Additional text

Select [Additional text] to create a text containing various descriptions for the capsule type.

Edit capsule type

To edit a capsule type:

- Select the capsule type from the list directly on screen or use the arrow keys on the keyboard.
- Press the [Edit] button
The “Edit capsule type” dialog opens. Edit the capsule type parameters here.
- Change the parameters in the dialog and press [Save] to confirm. The changes are applied to the list.
- Press [Close] to discard all changes.

Import capsule type

Select [Import] to load a capsule type from another drive or another machine.

Export capsule type

Select [Export] to save a capsule type from another drive or another machine.

11. Systeminfo

11.1. Systeminfo operator computer

The systeminfo [operator computer] provides diverse information on the operator computer installed:

- Installed software versions on the operator computer
- Windows information
- Database information
- Network information
- Computer information
- Temperature display

Calling up the information on the operator computer:

- Open menu [Systeminfo]
- Select menu item [Operator computer]

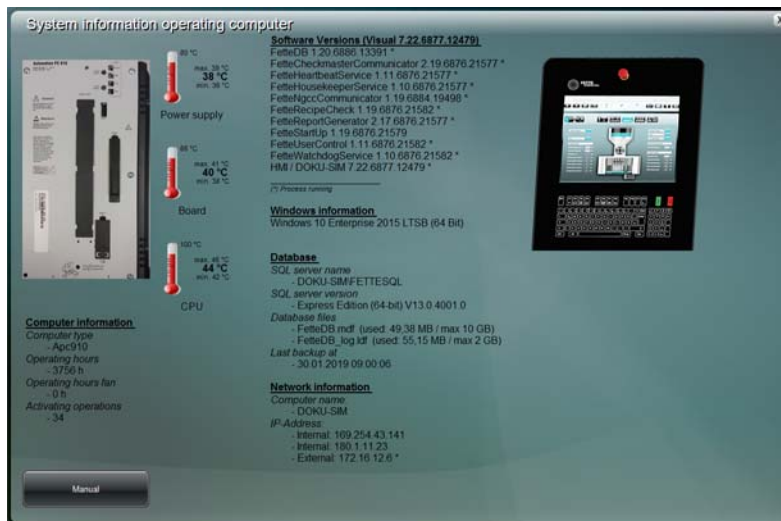


Fig. 45 Systeminfo operator computer

11.2. Systeminfo machine computer

The systeminfo [Machine computer] contains the following information:

- Operational data
- Software and hardware information

Calling up the information on the machine computer:

- Open menu [Systeminfo]
- Select menu item [Machine computer]



Fig. 46 Systeminfo machine computer

11.3. Systeminfo PNOZ

The systeminfo [PNOZ] displays the inputs and outputs of the PNOZ safety switching device.

Calling up information on the safety switching device:

- Open menu [Systeminfo]
- Select menu item [PNOZ]

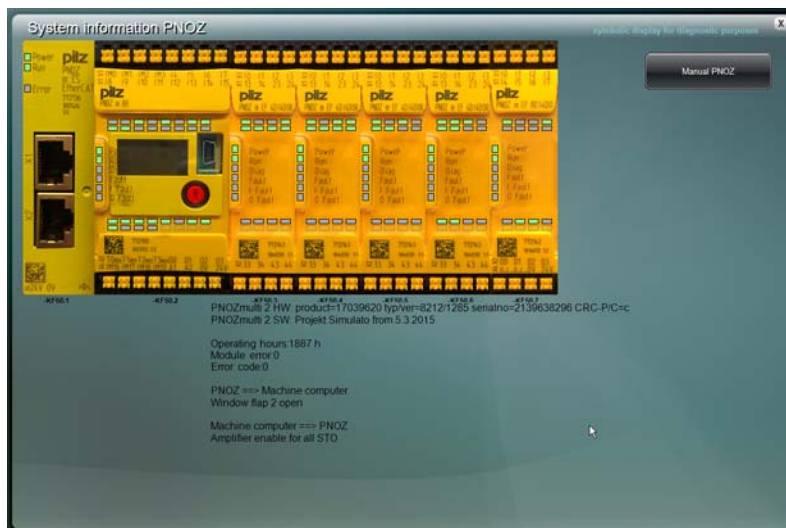


Fig. 47 Systeminfo PNOZ

11.4. Systeminfo machine

The systeminfo [Machine] provides diverse information on the capsule filling machine installed.

The dialog contains the following data:

- Information on the machine
- Temperature display for coolant, control cabinet, power cabinet and main drive
- Informationen on RFID format-specific part recognition (option)
Magazine: ID-No. (set value of parameter 35)
Dosing disk: ID-No. (set values of parameters 260, 256)

To call up the machine information:

- Open menu [Systeminfo].
- Select menu item [Machine].



Fig. 48 Systeminfo machine

- [Details RFID]: Opens the dialog with detailed information on the RFID data.
- [Reset RFID]: Resets the RFID channels.

12. Backup and recovery

12.1. Data carrier image

After the commissioning of the machine, every six months during operation and after Windows and software updates, an image of the data carrier (hard disk, SSD) should be saved.

For this purpose, Fette Compacting supplies a preconfigured, bootable USB stick with each machine. This USB stick contains the "Clonezilla" program for creating and playing back images.



NOTICE

The supplied USB stick is configured for a specific machine and can only be used with that machine.

12.1.1. Creating an image

1. Switch off the machine at the main switch.
2. Insert the provided USB stick into a USB port on the operator computer in the control cabinet.



NOTICE

The USB port at the operator terminal is not suitable for restoring an image.



NOTICE

No other external storage media may be connected to the operator computer during image restoration. Remove any other external storage media prior to the image creation.

3. Switch on the capsule filling machine via the main switch. Then tap and hold the "Inch rotor" button on the key pad during the startup phase of the operator computer. The operator computer starts from the USB stick.



NOTICE

When using a standard keyboard, press and hold [F11].

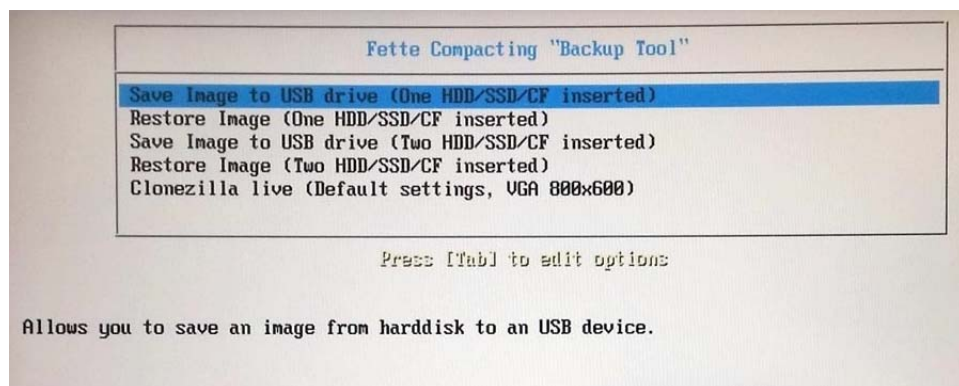
- The boot menu is displayed. Use the arrow keys to select the USB stick from the list, for a USB stick pre-configured by Fette Compacting mostly "SanDisk SanDisk Ultra PMAP", and confirm by tapping on [Enter].



NOTICE

Do not select entries with an "UEFI:" in front!

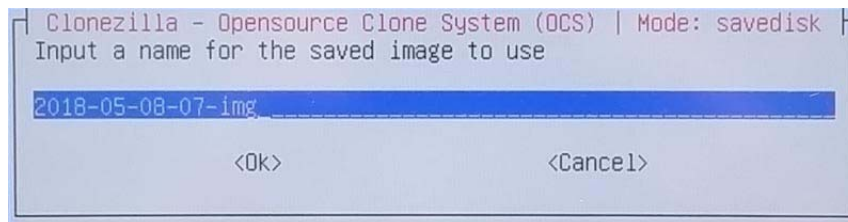
- The "Backup Tool" is displayed. Use the arrow keys to select the first entry "Save Image to USB (One HDD/SSD/CF inserted)" from the list and confirm by tapping on [Enter].



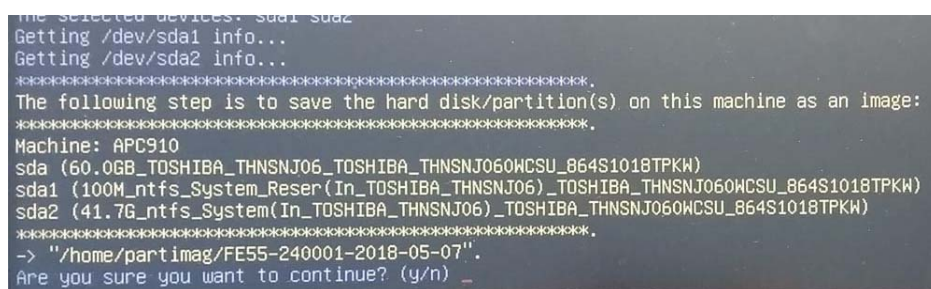
6. Enter an unambiguous name for the image in the input dialog and confirm by tapping on [Enter].

The default image name is: YYYY-MM-DD-HH-img.


- YYYY = Year
- MM = Month
- DD = Day
- HH = Hour



7. Confirm the safety query by tapping on the [Y] button on the keyboard and confirm by tapping on [Enter].



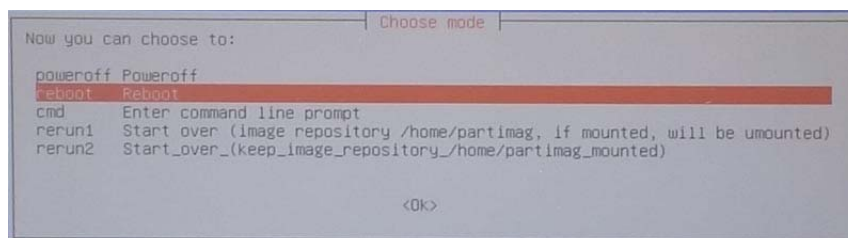
8. The image is saved on the USB stick in the "backup" folder.



NOTICE

The backup procedure can take up to 30 minutes.

9. Restart the operator computer: Use the arrow keys to select the "Reboot" entry from the list and confirm by tapping on [Enter].



10. Remove the USB stick from the machine.

12.1.2. Restoring an image

In order to restore a backed up image to the operator computer, the image on the USB stick must be located in the "backup" folder.

1. Switch off the machine at the main switch.
2. Insert the provided USB stick which containst the image into a USB port on the operator computer in the control cabinet.



NOTICE

The USB port at the operator terminal is not suitable for restoring an image.



NOTICE

No other external storage media may be connected to the operator computer during image restoration. Remove any other external storage media prior to the image creation.

3. Switch on the capsule filling machine via the main switch. Then tap and hold the "Inch rotor" button on the key pad during the startup phase of the operator computer.
The operator computer starts from USB stick.



NOTICE

When using a standard keyboard, press and hold [F11].
Remove all external storage media before image creation.

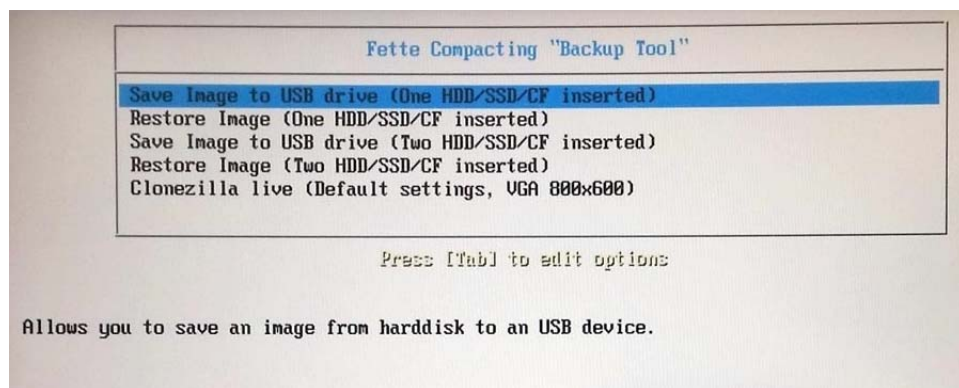
- The boot menu is displayed. Use the arrow keys to select the USB stick from the list, for a USB stick pre-configured by Fette Compacting mostly "SanDisk SanDisk Ultra PMAP", and tap the [Enter] button.



NOTICE

Do not select entries with an "UEFI:" in front!

- The "Backup Tool" is displayed. Use the arrow keys to select the second entry "Restore Image (One HDD/SSD/CF inserted)" from the list and confirm by tapping on [Enter].



- Select the image on the USB stick and tap on the [Enter] button.
- Select the data carrier to which the image is to be copied and confirm with [Enter].
- Confirm the two safety queries one after another by tapping on the [Y] button on the keyboard and confirm with [Enter].



NOTICE

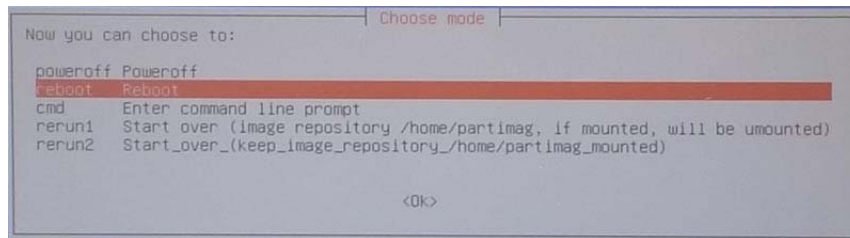
This step deletes all data and programs on the selected data carrier!



NOTICE

The playback of the image can take up to 15 min.

- Restart the operator computer: Use the arrow keys to select the "Reboot" entry from the list and confirm by tapping on [Enter].



- Remove the USB stick from the machine.

12.1.3. Creating a bootable USB stick

The program "UsbStick.exe", which is installed on the operator computer, is used to create a bootable USB stick.

- Insert a blank USB stick into a USB port on the operator computer in the control cabinet.



NOTICE

The USB port at the operator terminal is not suitable for creating a bootable USB stick.



NOTICE

The USB stick should have at least 16 Gigabyte of memory space (preferably 64 Gigabyte).

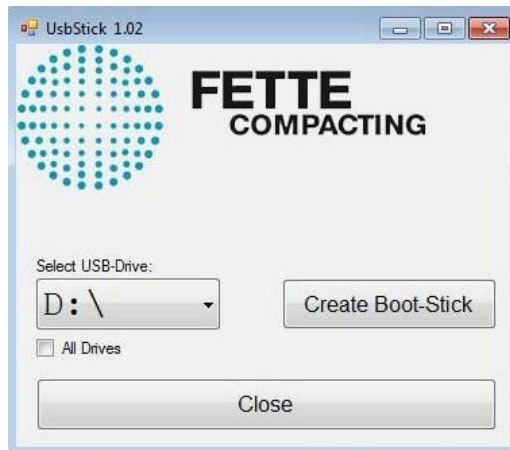
- Open the Windows start menu and tap on the [Create USB stick] button.



NOTICE

If the link is not displayed in the start menu, the program "UsbStick.exe" can be found in the directory c:\Fette\Tools\.

3. Select the connected USB stick from the drop-down menu "Select USB-Drive:", then press the [Create Boot-Stick] button.



NOTICE

If the USB stick is not shown in the drop-down menu, tick menu item "All Drives" and repeat this step.



NOTICE

This step deletes all data and programs from the selected data carrier! Make sure you have selected the correct USB stick!

4. Confirm the safety query by tapping the [Yes] button.
The creation of a bootable USB stick starts and ends after a few minutes without further notice.

12.2. Database backup

During database backup, all settings and production data are saved.

12.2.1. Configuring the automatic database backup

At commissioning, the machine is configured in such a way that an automatic backup of the database with all settings and production data is carried out once a day.



NOTICE

The name of the backup is supplemented by the day of the week. Therefore, the number of database backups is limited to seven.

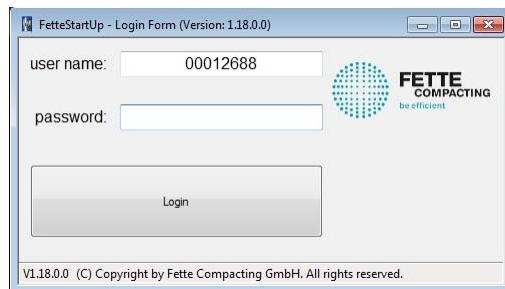


NOTICE

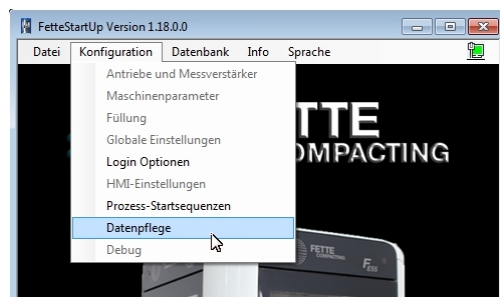
The backup should first be stored on the local data carrier (hard disk, SSD) of the operator computer and then retrieved by a backup server in the network.

The configuration of the automatic database backup can be checked and changed with the "FetteStartUp" program.

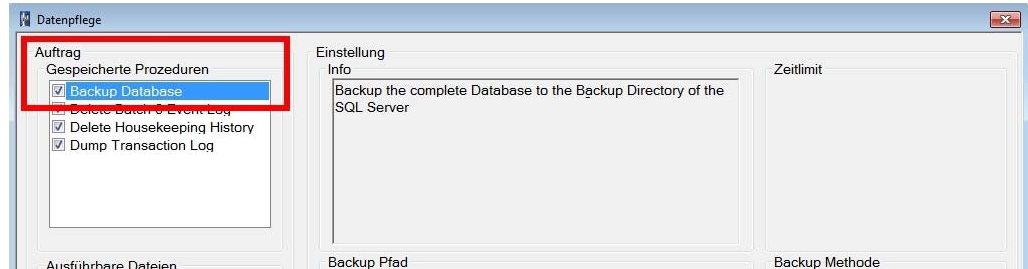
1. Open up the Windows start menu and tap on the [FetteStartUp] button.
2. Tap on the [Login] button.
It is not necessary to enter a password.



3. Open the "Configuration" menu and tap on the [Data maintenance] button.

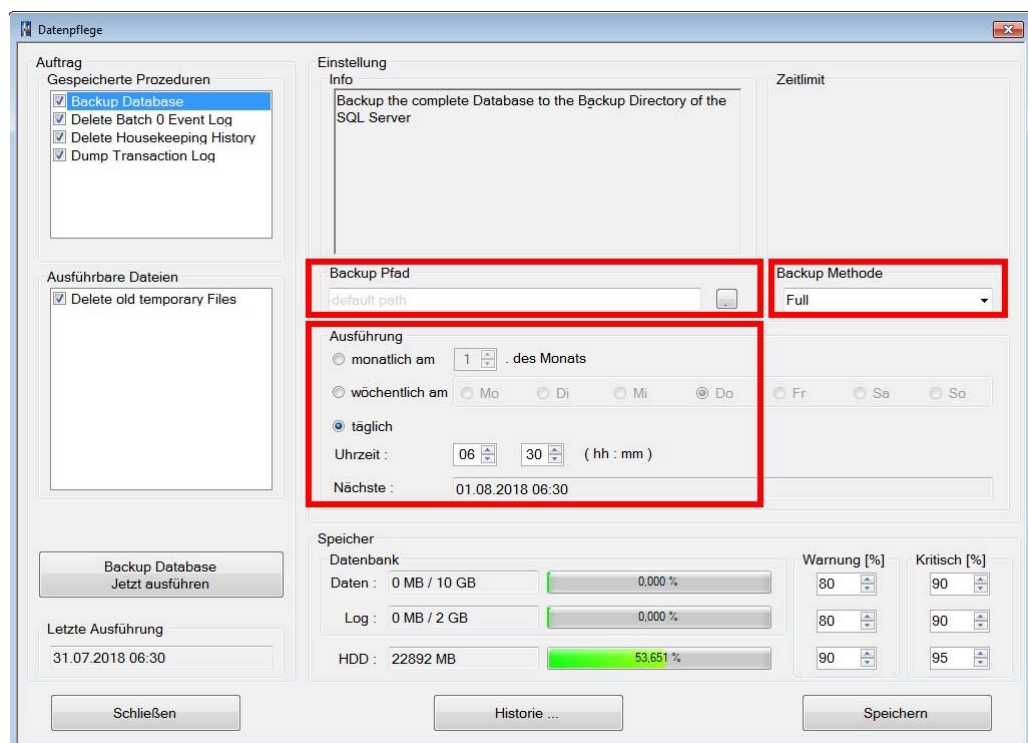


4. Dialog "Data maintenance" is displayed. Use the path "Order > Saved procedures" to make changes to the configuration. Then tap on the "Backup database" entry.



5. The following parameters can be set:

- "Backup path": Select the storage location of the backup file.
- "Backup method" Specify a complete or differential backup procedure.
- "Execution": Specify the cycle of the process execution for the database backup. If possible, select a time when the machine is at standstill.

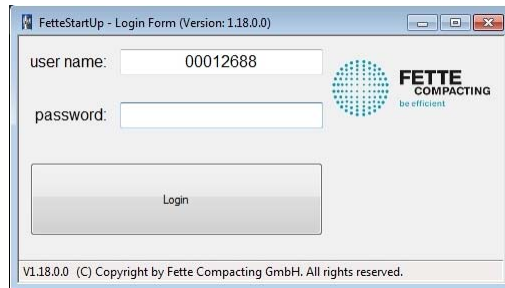


6. Tap on the [Save] button, to adopt the changes.

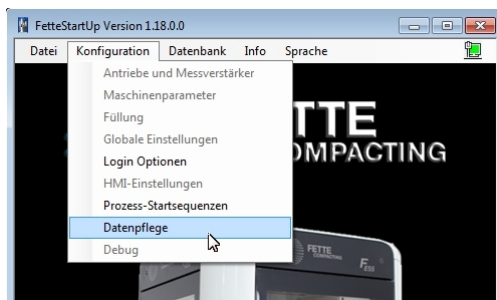
12.2.2. Manual database backup with FetteStartUp

1. Open the Windows start menu and tap on the [FetteStartUp] button.

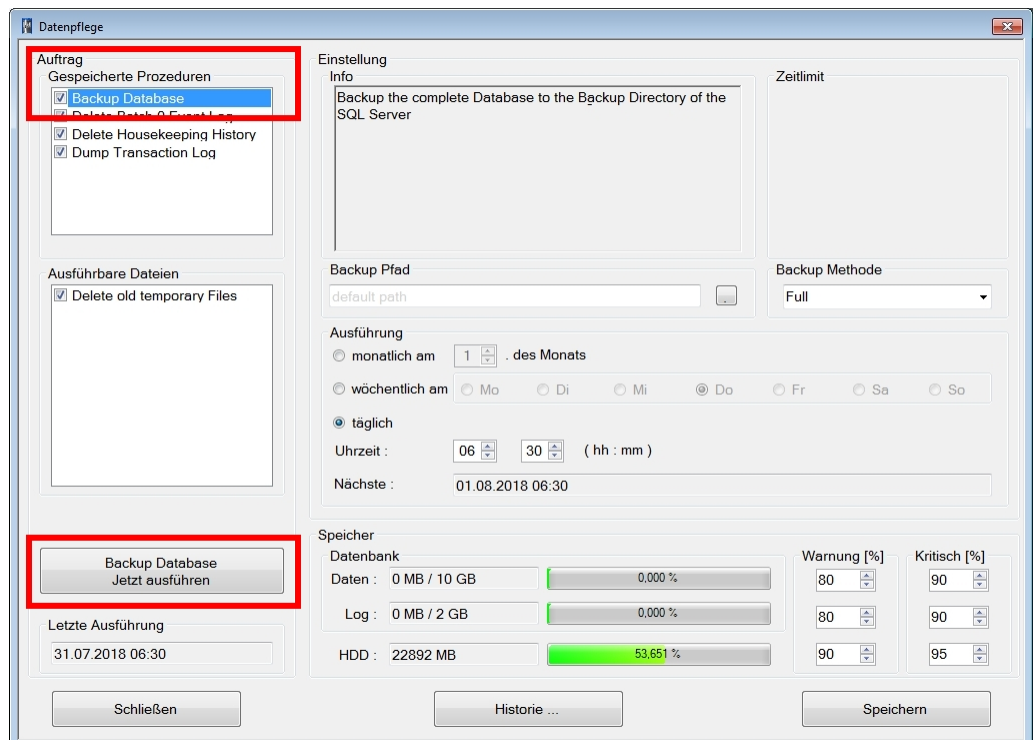
2. Tap on the [Login] button.
It is not necessary to enter a password.



3. Open the "Configuration" menu and tap on the [Data maintenance] button.



4. Dialog "Data maintenance" is displayed. Under the path "Order > Saved procedures", tap on the entry "Backup database". Then tap on the [Backup database Execute now] button to start the manual backup procedure.




5. If the database backup was successful, the time in the field "Last execution" changes.
The backup file has been saved to the directory selected in the "Backup path".

12.2.3. Manual database backup with FetteSoftwareDistribution

Fette Compacting supplies a preconfigured bootable USB stick with each machine. This USB stick contains the "FetteSoftwareDistribution" program.


1. Insert the supplied USB stick into a USB port on the operator computer in the power cabinet.



NOTICE

The USB port at the operator terminal is not suitable for a database backup.

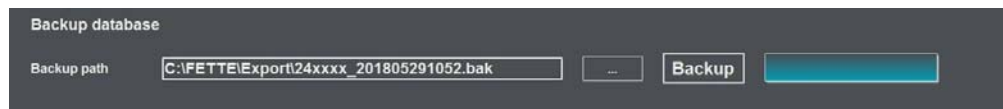
2. Open the "Start.cmd" file in the root directory of the USB stick and start the "FetteSoftwareDistribution" program.



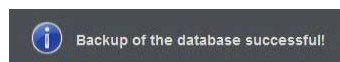
NOTICE

The supplied USB stick is configured for a specific machine and can only be used with that machine.

3. Open the "Maintenance" menu and tap on the [Backup/Restore] button.
4. Under "Backup path", select a directory for the database backup and tap on the [Backup] button to start the backup procedure.
The database backup starts and the progress bar on the right-hand pane indicates the progress of the storage procedure.



5. A successful database backup is confirmed by the following notice.
This notice disappears after a short while.



12.2.4. Restoring of the database with FetteSoftwareDistribution

Fette Compacting provides a preconfigured bootable USB stick with each machine. This USB stick contains the "FetteSoftwareDistribution" program.

The database backup to be played back on the operator computer must be stored on the USB stick.

1. Insert the provided USB stick containing the database backup into a USB port on the operator computer in the control cabinet.



NOTICE

The USB port at the operator terminal is not suitable for restoring a database backup.

2. Open the "Start.cmd" file in the root directory of the USB stick and start the "FetteSoftwareDistribution" program.



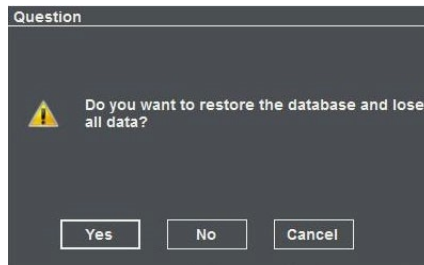
NOTICE

The supplied USB stick is configured for a specific machine and can only be used with that machine.

3. Open the "Maintenance" menu and tap on the [Backup/Restore] button.
4. Under "Select backup file", select the database backup and tap on the [Restore] button to start the restoration of the database.



5. Confirm the safety query by tapping the [Yes] button.



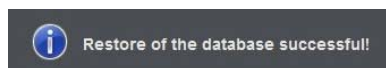
The database backup is played back on the operator computer.



NOTICE

All data from the existing database is overwritten with data from the database backup.

6. A successful database recovery is confirmed by the following notice. This notice disappears after a short while.



12.3. Database maintenance and memory cleanup

In order to make optimum use of the memory space of the operator computer, completed production data (batches) should be exported and then deleted from the database. In addition, the event report should be cleaned up regularly.

12.3.1. Clean up batch files

In order to keep the memory requirement of the database as small as possible, completed production data (batches) should be exported and then deleted from the database.



NOTICE

Any maintenance work on the database must only be carried out when the machine is at standstill.

1. Login at the operator terminal.
2. Tap on [Batch] button in the header.
3. Mark the batch files to be exported with a tick in the left column.
→ Therefore, see also section "User interface > Batch management"
4. Tap on the [Export (XML)] button.
The batch files are exported into the indicated directory (see also section → "Configuration > General Configuration").
5. Tap the [Delete] button.
All marked batch files are deleted.
6. Confirm safety query with "Yes", if required.
7. Close the "Batch management" dialog.

12.3.2. Deleting the event report

Each event occurring at the machine is recorded in the event report. The event file therefore grows steadily and must be cleaned up regularly.



NOTICE

Any maintenance work on the database must only be carried out when the machine is at standstill.

1. Login at the operator terminal.
2. Tap on the [Reports] button in the main menu and then tap on the [Event report] button. Therefore, see also section
→ "Reports > Event report"
3. Tap on the [Delete] button.
4. Confirm safety query with "Yes", if required.

5. Specify up to which date the entries in the event report are to be deleted and confirm with [OK].

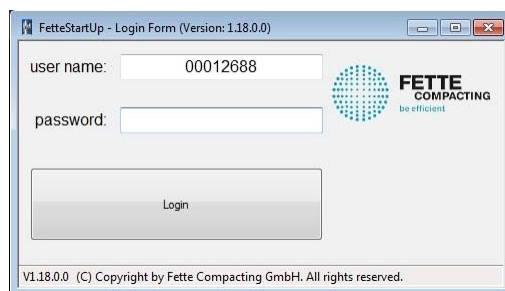


6. Close the "Event report" dialog.

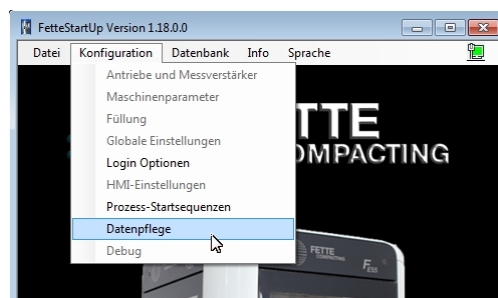
12.3.3. Database maintenance - configure processes

The "FetteStartUp" program can be used to check and change processes for the data cleanup.

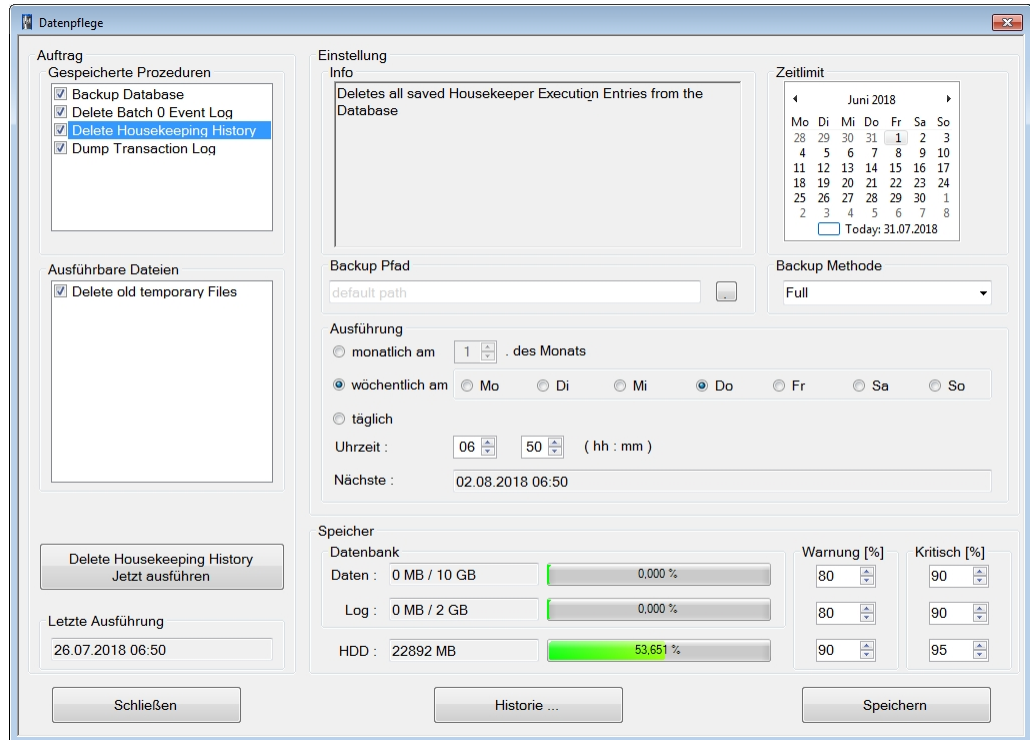
1. Open the Windows start menu and tap on the [FetteStartUp] button.
2. Tap on the [Login] button.
It is not necessary to enter a password.



3. Open the "Configuration" menu and tap on the [Data maintenance] button.



- The "Data maintenance" dialog is displayed. Tap on the desired entry under menu item "Saved procedures" or "Executable files". The configuration of the selected process is displayed.



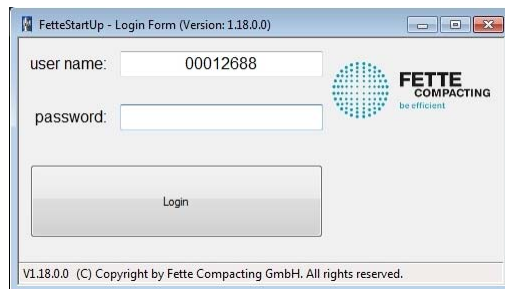
The following settings can be made:

- "Time limit": Set a date limit. All files created before the set date will be deleted (this only applies to deletions).
 - "Backup path": Select the backup memory location (this only applies to data backups).
 - "Backup method": Specify complete or differential backup procedures (this only applies to backup procedures).
 - "Execution": Specify the cycle of the process execution and the time.
- Tap on the [Save] button to save the settings.
 - Tap on the "... execute now" button to start the process immediately.
 - Close the "Data maintenance" dialog.

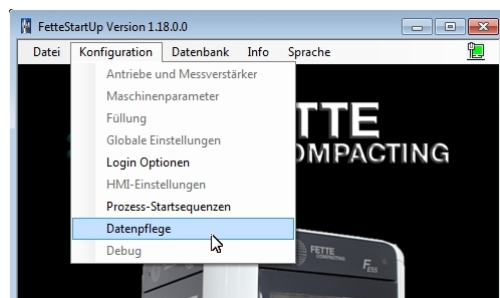
12.3.4. Define warning thresholds memory usage

The "FetteStartUp" program can be used to set warning thresholds for the memory usage of the operator computer and the database.

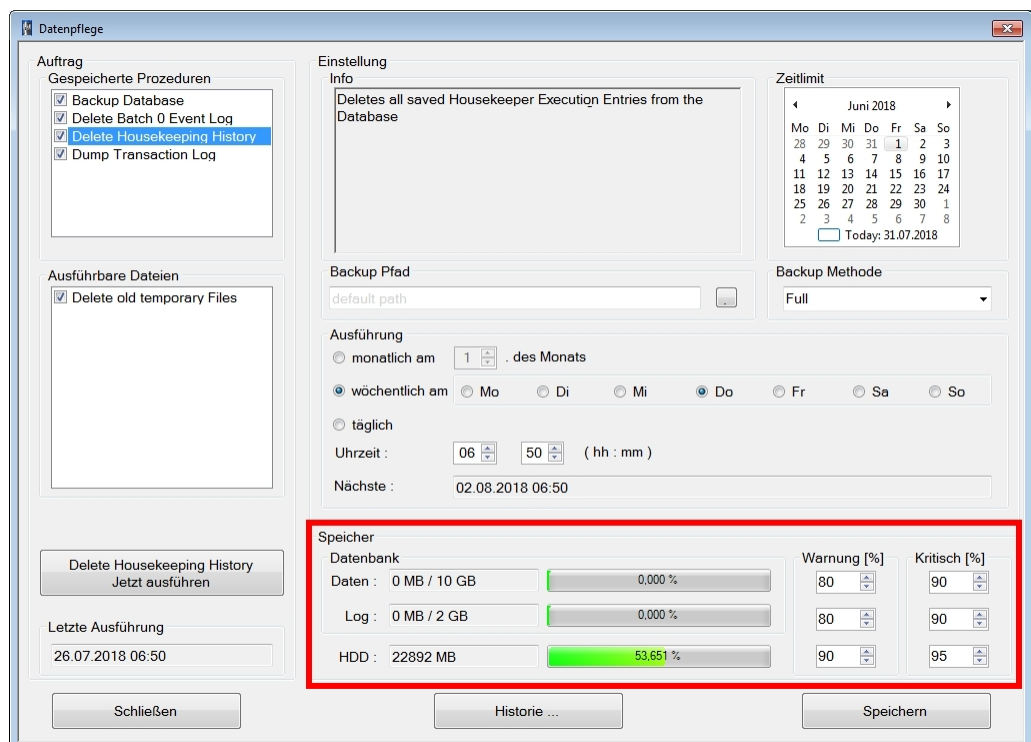
- Open the Windows start menu and tap on the [FetteStartUp] button.
- Tap on the [Login] button.
It is not necessary to enter a password.



- Open the "Configuration" menu and tap on the [Data maintenance] button.



- The "Data maintenance" dialog is displayed. Use the "Memory" menu to enter the desired percentage values in the text fields or set them with the arrow keys. Tap on the [Save] button to save the settings. Upon reaching the warning threshold, the respective diagnosis is displayed on the operator terminal.



- Close the "Data maintenance" dialog.

Visual 7 help texts

1. **Parameter**
2. **Diagnoses**