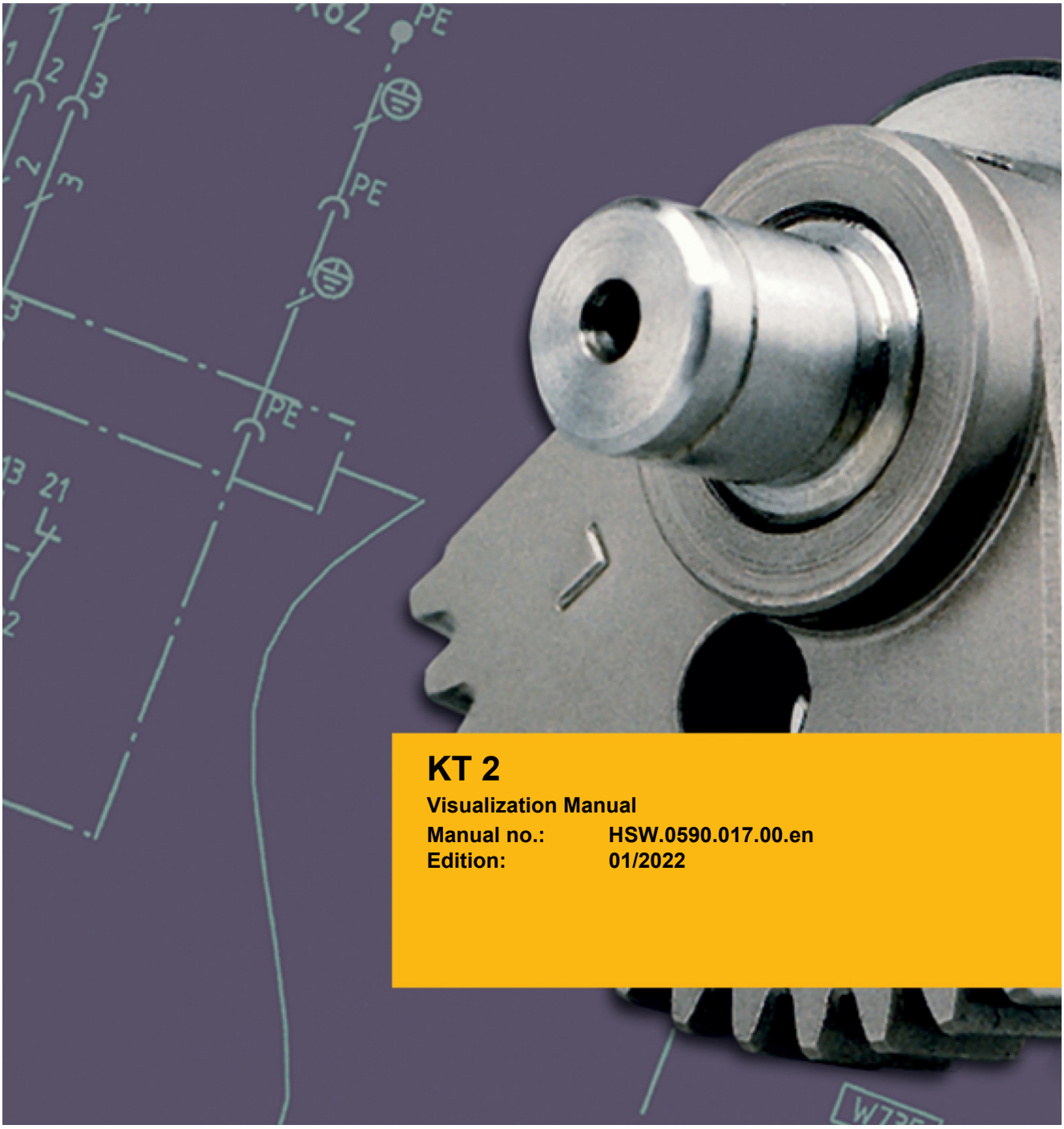
HAUNI
KÖRBER SOLUTIONS



KT 2

Visualization Manual

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SERVICE - MADE BY HAUNI

Translation of the original instructions

Hauni Maschinenbau GmbH
Hauni Richmond, Inc.
Sodim SAS

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About this manual

Persons to whom this manual applies

This manual is written as a ready reference work for process engineers, operators, service personnel and for staff setting up the machine / production line. It contains information on the operation and setting up of the line via the visualization system.

Information
Before setting the machine into operation for the first time, make absolutely sure you have read Chapter 1, "Safety", in the Operating Manuals for the individual machines.

Options

This manual also describes equipment which may differ from the equipment actually fitted on your machine. These descriptions are identified by the words option or optional. These can either be chargeable options or design-dependent equipment without any additional costs.

No claims may be derived from the information, illustrations and descriptions herein.

*** Documentation from subcontractors**

For further information on individual equipment from subcontractors, go to the relevant supplier’s home page and call up the appropriate documentation for the equipment. The exact designation of the equipment can be found by referring to the circuit diagrams or the equipment itself.

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1 Visualization system

The visualization system consists of an operator panel with touch-screen. It is fitted to a swivel arm.

Purpose

The visualization system serves as the central operating and display unit for the plant.

The visualization system has the following purposes:

- Operating the plant.
- Displaying operating states, production data and set-up data in screens.
- Displaying and managing information and fault messages Providing troubleshooting support.
- Displaying and adjusting parameters.
- Loading and saving setup data and control software

⚠ CAUTION

Coated monitor screen surface.
Damage to machinery possible.

Using hard or pointed objects to activate the screen surface (e.g. a screwdriver or ball-point pen) can destroy the sensor function.

1.1 General screen layout

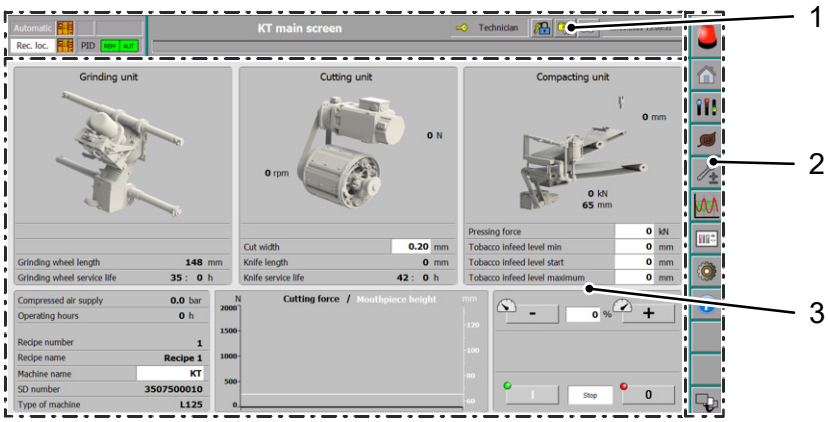


Fig. 1 Example screen *(KT2_Bildaufbau.v.00001.00.cgm)*

Screen explanation

(Fig. 1-1) Each screen consists of three sections:

(Fig. 1-1) Screen header

(Fig. 1-2) Menu bar (buttons for calling up screens)

(Fig. 1-3) Main section (the actual process display)

1.1.1 Screen header

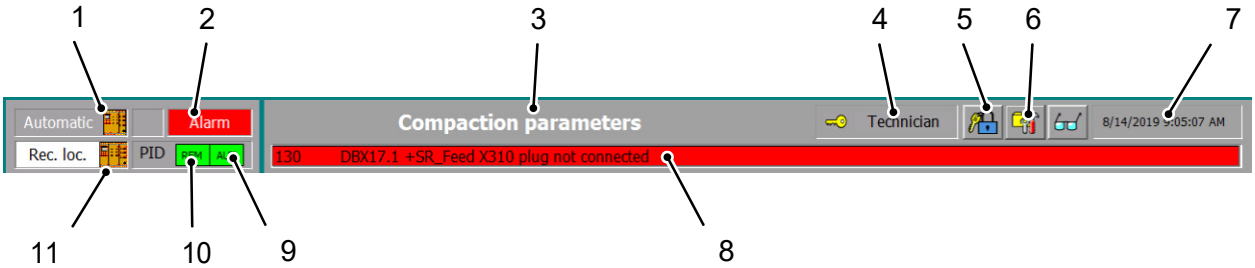


Fig. 2 Example of a screen header (KT4_Kopfzeile.v.00000.00.cgm)

Screen explanation

A screen header can contain the following display elements and buttons:

(Fig. 2-1)

Display field for the operating mode of the plant:

- **Off**
  The plant is switched off.
- **Manual**
  Manual mode is selected.
- **Automatic**
  Local automatic mode is selected (the plant is controlled via the operator panel on the cutter).
  – Grey background = plant not running
  – Green background = plant running
- **Automatic (optional)**
  Remote automatic mode is selected (plant is controlled by the supervisory control system).
  – Grey background = plant not running
  – Green background = plant running

Information
The operating mode is selected in the CONTROL PANEL screen (see section **"Screens for basic and auxiliary functions"** (↑ 5-1)).

(Fig. 2-2)

Display field for the status of the plant.

- **Message** (black text on yellow background).
  A warning or event message has been issued (plant continues to operate).
- **Alarm** (white text on red background).
  A fault has occurred (the plant stopped immediately or with a delay).
- **E-Stop** (yellow text on red background).

One of the emergency stop buttons was pressed (the plant was stopped).

- **Communication failure** (all fields flashing yellow/black).

  Connection to the control system interrupted.
- **PLC STOP** (all fields flashing yellow/black).

  The control system was switched to stop by the user or a fault in the program.

(Fig. 2-3) Name of current screen

(Fig. 2-4) Shows the currently logged-on user (password level)

- None
- Operator
- Supervisor
- Technician

(Fig. 2-5) Button to open the password input screen (see section **"The PASSWORD INSERTION (login) screen"**(↑ 2-1)).

To cancel the password access authority, tap the button again.

(Fig. 2-6) Button for calling up the SYSTEM SETTING screen (see section **"The SYSTEM SETTING screen"** (↑ 3-1)).

(Fig. 2-7) Indicates date and time.

(Fig. 2-8) The last fault that occurred is shown in this line (message line) in plain text.

(Fig. 2-9) Indication of the controller operating mode

- **AUT** (green background).

  Controller mode AUTOMATIC is selected. The correcting variable is calculated by the controller (normal operation).
- **MAN** (red background).

  Controller mode MANUAL is selected; the operator can enter a manual correcting variable.

Information
The controller mode can be changed in the controller screens (see section **"The CONTROLLER screen"** (↑ 9-1)).

(Fig. 2-10) Indication of the controller setpoint input source

- **REM** (green background).

  Setpoint selection source REMOTE has been selected; the controller setpoint is specified by the PLC (in normal operation).
- **LOC** (red background).

  Setpoint selection LOCAL is selected; the operator can enter a local controller setpoint in the controller screen.

Information
The controller setpoint selection source can be changed in the controller screens (see section **“The CONTROLLER screen”** (↑ 9-1)).

(Fig. 2-11)

Display field showing the recipe source (optional, if a higher-level recipe database is available).

- **Rec. rem. +**
  Recipe source is the higher-level recipe database.
- **Rec. loc. +**
  Recipe source is the operator panel on the cutter.

Information
The recipe source is preselected in the CONTROL PANEL screen (see section **“Screens for basic and auxiliary functions”** (↑ 5-1)).

1.1.2 Main section

This section shows the process displays.

Information
For details, see section **“Overview of screens”** (↑ 1-6) and the following sections.

1.1.3 Menu bar

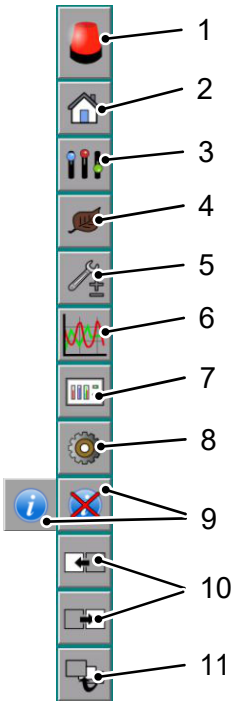


Fig. 3 Example of a menu bar (KT4_Menuleiste.v.00000.00.cgm)

Information
Some screens have a second menu bar.

This is called “inner menu bar” and is part of the corresponding process display.

Screen explanation

(Fig. 3-1)	Button for calling up the ALARM OVERVIEW screen (see section **“Alarm and message screens”** (↑ 10-1)).
(Fig. 3-2)	Button for calling up the MAIN SCREEN (see section **“The MAIN SCREEN”** (↑ 4-1)).
(Fig. 3-3)	Button for calling up the CONTROL PANEL screen (see section **“Screens for basic and auxiliary functions”** (↑ 5-1)).
(Fig. 3-4)	Button for calling up the CURRENT RECIPE screen (see section **“Screens for recipe management”** (↑ 6-1)).
(Fig. 3-5)	Button for calling up the BASIC PARAMETERS screen (see section **“Screens for setting subassemblies”** (↑ 7-1)).
(Fig. 3-6)	Button for calling up the TREND OVERVIEW screen (see section **“Trend displays”** (↑ 8-1)).
(Fig. 3-7)	Button for calling up the CONTROLLER screen (see section **“CONTROLLER screen”** (↑ 9-1)).
(Fig. 3-8)	Button for calling up the MACHINE MAINTENANCE screen (see section **“Screens for service and maintenance”** (↑ 11-1)).

(Fig. 3-9) Button to open and button to close the corresponding help screen.

The help screens explain all symbols, buttons, displays, etc. contained in the screen from which they are called up.

(Fig. 3-10) Buttons to go to the previous and next screen pages. (Only available if a screen has several pages.)

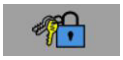
(Fig. 3-11) Button for returning to the previous screen.

1.2 Overview of screens

1.2.1 PASSWORD INSERTION / USER MANAGEMENT screens

Information
For a detailed description of these screens, see section **"The PASSWORD INSERTION (login) screen"** (↑ 2-1).

To call up the PASSWORD INSERTION screen, tap the button on the menu bar.

Tabs  and can be used to switch between the PASSWORD INSERTION (Login) and USER MANAGEMENT screens.

- The PASSWORD INSERTION screen is used for user login.
- The USER MANAGEMENT screen is used for user management.

  This screen can be used to change passwords and LOG OFF times and to set up new users.

1.2.2 The SYSTEM SETTING screen

Information
For a detailed description of this screen, see section **"The SYSTEM SETTING screen"** (↑ 3-1).

This screen is called up by tapping the button in the screen header; it is used for making system settings. From this screen you can run the following functions:

- Loading a CSV file for displaying the manuals
- Calling up the REPAIR SERVICE screen (optional)
- Deactivating the touchscreen function to clean the screen
- Ending the WINCC user program
- Language selection

- Setting date and time

1.2.3 Alarm and message screens

Information
For a detailed description of these screens see section **“Alarm and message screens”** (↑ 10-1)).

1.2.3.1 The ALARM OVERVIEW and HISTORICAL ALARM OVERVIEW screens

To call up the ALARM OVERVIEW screen, tap button on the menu bar.

Tabs and can be used to switch between the ALARM OVERVIEW and HISTORICAL ALARM OVERVIEW screens.

- The ALARM OVERVIEW screen only shows alarms, warnings and event messages the causes of which have not yet been eliminated or acknowledged.

  Tap the button to acknowledge all alarms, warnings and event messages displayed in the screen.
- The HISTORICAL ALARM OVERVIEW screen shows all alarms, warnings and event messages (even those whose causes have already been eliminated or acknowledged).

1.2.3.2 Graphical fault display (message screens)

Message screens are called up from the ALARM OVERVIEW and HISTORICAL ALARM OVERVIEW screens by selecting a message line and tapping the (loop in alarm) button.

The message screens display the alarms, warnings and event messages and information on how to eliminate the fault is given.

Information
For self-explanatory alarms, warnings and event messages, no message screen is provided.

1.2.3.3 DRIVE SYSTEM DIAGNOSIS screens

To call up the DRIVE SYSTEM DIAGNOSIS FAULTS screen tap the button on the inner menu bar.

Tabs and can be used to switch between the DRIVE SYSTEM DIAGNOSIS FAULTS and DRIVE SYSTEM DIAGNOSIS STATUSBITS screens.

- The DRIVE SYSTEM DIAGNOSIS FAULTS screen lists the pending fault messages which relate to the drives.

  In addition, drives can be activated and deactivated.

  This function is intended for the service technician, e.g. in order to deactivate a drive that was removed. The other drives can still be switched on for service purposes in manual mode.
- The DRIVE SYSTEM DIAGNOSIS STATUSBITS screen displays the states of the drives.

1.2.4 MAIN SCREEN screen

Information
For a detailed description of this screen, see section **“The MAIN SCREEN”** (↑ 4-1).

To call up this screen, tap the button on the menu bar. It is also displayed automatically after the plant has been switched on and the initialization time (Hauni logo is displayed) has elapsed.

This screen contains schematic representations of the subassemblies of the plant and the most important process values. The following functions can be executed from this screen:

- Changing the setpoint for the knife drum speed
- Starting/stopping the cutter

1.2.5 CONTROL PANEL and DIAGNOSIS screens

Information
For a detailed description of these screens see section **“Screens for basic and auxiliary functions”** (↑ 5-1).

CONTROL PANEL screen

To call up this screen, tap the button on the menu bar.

In this screen, the following functions can be carried out:

- Preselecting the operating mode (MANUAL / AUTOMATIC) and the type of operation (LOCAL / REMOTE) of the cutter
- Preselecting the recipe source (LOCAL / REMOTE)

- Starting/stopping the cutter
- Changing the setpoint for the knife drum speed
- Switching the compressed air supply on and off
- Starting and stopping the grinding-in program
- Starting and stopping the tobacco feed
- Starting and stopping run-empty mode

DIAGNOSIS screen

To call up this screen, tap a button in the CONTROL PANEL screen or one of the manual mode screens.

This screen shows all enable conditions for selecting the operating mode, starting the plant and other functions. Enable conditions that are not satisfied are shown in red text and can thus be identified.

1.2.6 CURRENT RECIPE and BASIC RECIPE screens

Information
For a detailed description of these screens, see section **“Screens for recipe management”**(↑ 6-1).

To call up the CURRENT RECIPE screen, tap button on the menu bar.

Tabs Current recipe and Basic recipe can be used to switch between the CURRENT RECIPE and BASIC RECIPE screens.

- In the CURRENT RECIPE screen, the current recipe is specified. The current recipe parameters can be changed.
- The BASIC RECIPE screen shows the basic recipes. Basic recipes can be changed and new basic recipes created.

1.2.7 Screens for setting subassemblies

Information
For a detailed description of these screens, see section **“Screens for setting subassemblies”** (↑ 7-1).

Separate screens for parameter setting and manual mode are provided for each subassembly.

- You can directly switch from the parameter screen for a subassembly to the corresponding manual mode screen.

  This enables fast entry of settings for the subassembly for manual mode.
- You can also switch directly between the parameter screens for various subassemblies or the manual mode screens for various subassemblies.

1.2.7.1 BASIC PARAMETERS / REMOTE CONTROL PARAMETERS screens

Information
For a detailed description of these screens see section **“Screens for system parameters”** (↑ 7-2).

To call up the system parameters screens, tap the button on the menu bar or tap button on the inner menu bar.

Tabs and can be used to switch between the BASIC PARAMETERS and REMOTE CONTROL PARAMETERS screens.

- In the BASIC PARAMETERS screen, the general plant parameters are specified.
- In the REMOTE CONTROL PARAMETERS screen, LOCAL mode can be preselected for individual functions and setting of setpoints, even if REMOTE operation is preselected for the entire plant.

1.2.7.2 KNIFE DRUM PARAMETERS / KNIFE DRUM MANUAL MODE screens

Information
For a detailed description of this screen, see section **“Knife drum screens”** (↑ 7-6).

To call up the screens for the knife drum, touch button on the inner menu bar.

Tabs and can be used to switch between the manual mode screen and the parameter screen.

- In the KNIFE DRUM MANUAL screen, the following functions can be run:
  - Releasing/applying the holding brake for the knife drum
- In the KNIFE DRUM PARAMETERS screen, the knife drum parameters are set (number of knives, unit for cut width).

1.2.7.3 COMPACTING UNIT PARAMETERS / COMPACTING UNIT MANUAL MODE screens

Information
For a detailed description of this screen, see section **“Compacting unit screens”** (↑ 7-9).

To call up the screens for the compacting unit, tap the button on the inner menu bar.

Tabs and can be used to switch between the manual mode screen and the parameter screen.

- In the COMPACTING UNIT MANUAL screen, the following functions can be executed:
  - Changing the compaction force setpoint at the mouthpiece
  - Preselecting forwards/backwards chain direction and starting/stopping the chain (start forwards = jog mode)
  - Raising/lowering the mouthpiece
- In the COMPACTING UNIT PARAMETERS screen, the parameters for the compacting unit are set (raising the mouthpiece during chain reversing (yes/no), chain reversing time, etc.).

1.2.7.4 SRB PARAMETERS / SRB MANUAL MODE screens

Information
For a detailed description of this screen, see section **“Compacting trough screens”** (↑ 7-14).

To call up the screens for the compacting trough, tap the

button on the inner menu bar.

Tabs and can be used to switch between the manual mode screen and the parameter screen.

- In the SRB MANUAL screen, the following functions can be executed (only if the equipment includes a compacting trough control system)
  - Changing the compacting trough speed setpoint
  - Starting the compacting trough (jog mode)
- In the SRB PARAMETERS screen, the configuration parameters for the compacting trough are set (fitted / not fitted, type)

1.2.8 Trend display

Information
For a detailed description of these screens, see section **“The TRENDS OVERVIEW screen”** (↑ 8-1)).

1.2.8.1 TRENDS OVERVIEW screen

To call up the TRENDS OVERVIEW screen, tap the button on the menu bar or the button on the inner menu bar.

This screen shows the progression of the process values during the last 15 minutes. The time range displayed cannot be changed.

1.2.8.2 Trend detail screens

To call up the current trend detail screens, tap the button on the inner menu bar.

Tabs and can be used to switch between the current and the historical detail screen for a trend.

- In the current trend detail screens you can zoom the time range and the value range displayed.
- The historical trend detail screens have the same layout as the current trend detail screens, but with the difference that the trend values archived in CSV files are displayed here. Older periods of time can therefore also be displayed. In 3-shift operation, the trend charts of approximately the last 30 days are stored.

1.2.9 The CONTROLLER screen

Information
For a detailed description of this screen, see section **“The CONTROLLER screen”** (↑ 9-1).

To call up this screen, tap the button on the menu bar.

This screen displays the current setpoint and actual value, the correcting variable and the controller trend for the tobacco level controller.

The controller modes can be selected. A local setpoint or a correcting variable can be specified.

To optimize the control circuit, the control parameters can be changed.

1.2.10 Screens for service and maintenance

Information
For a detailed description of these screens, see section **“Screens for service and maintenance”** (↑ 11-1)).

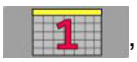
1.2.10.1 MACHINE MAINTENANCE screen

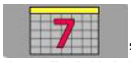
To call up this screen, tap button on the menu bar or button on the inner menu bar.

This screen shows the states of the doors and flaps, and the lamp test can be started.

1.2.10.2 DAILY / WEEKLY / MONTHLY / YEARLY MAINTENANCE WORK screens

To call up the DAILY MAINTENANCE WORK screen, tap the button on the inner menu bar.

Tabs 

, 

,

and

can be used to switch between the DAILY, WEEKLY, MONTHLY and YEARLY MAINTENANCE WORK screens.

These screens list which maintenance jobs are to be carried out at which intervals. Maintenance messages can be deactivated and intervals configured here.

1.2.10.3 CONVENTIONAL INTERFACE DIAGNOSIS screen

To call up this screen, tap the button on the inner menu bar.

This screen shows the input and output signals of the conventional interface (I/O signals and analogue signals).

1.2.10.4 The BUS INTERFACE DIAGNOSIS screen

To call up this screen, tap the button on the inner menu bar.

This screen show the input and output signals of the PROFIBUS DP or Ethernet interface.

1.2.10.5 CONSUMPTION DATA screens (optional)

To call up the CONSUMPTION DATA (ELECTRIC) screen, touch button on the inner menu bar.

The tab buttons and can be used to switch between the CONSUMPTION DATA 1 (ELECTRIC) and CONSUMPTION DATA 2 (COMPRESSED AIR) screens.

These optional screens display details about electrical voltage, current, power, power consumption and compressed air consumption.

2 Screens for logging in and management of users

Calling up

Tap the button in the screen header.

Tabs and can be used to switch between the PASSWORD INSERTION (Login) and USER MANAGEMENT screens.

2.1 The PASSWORD INSERTION (login) screen

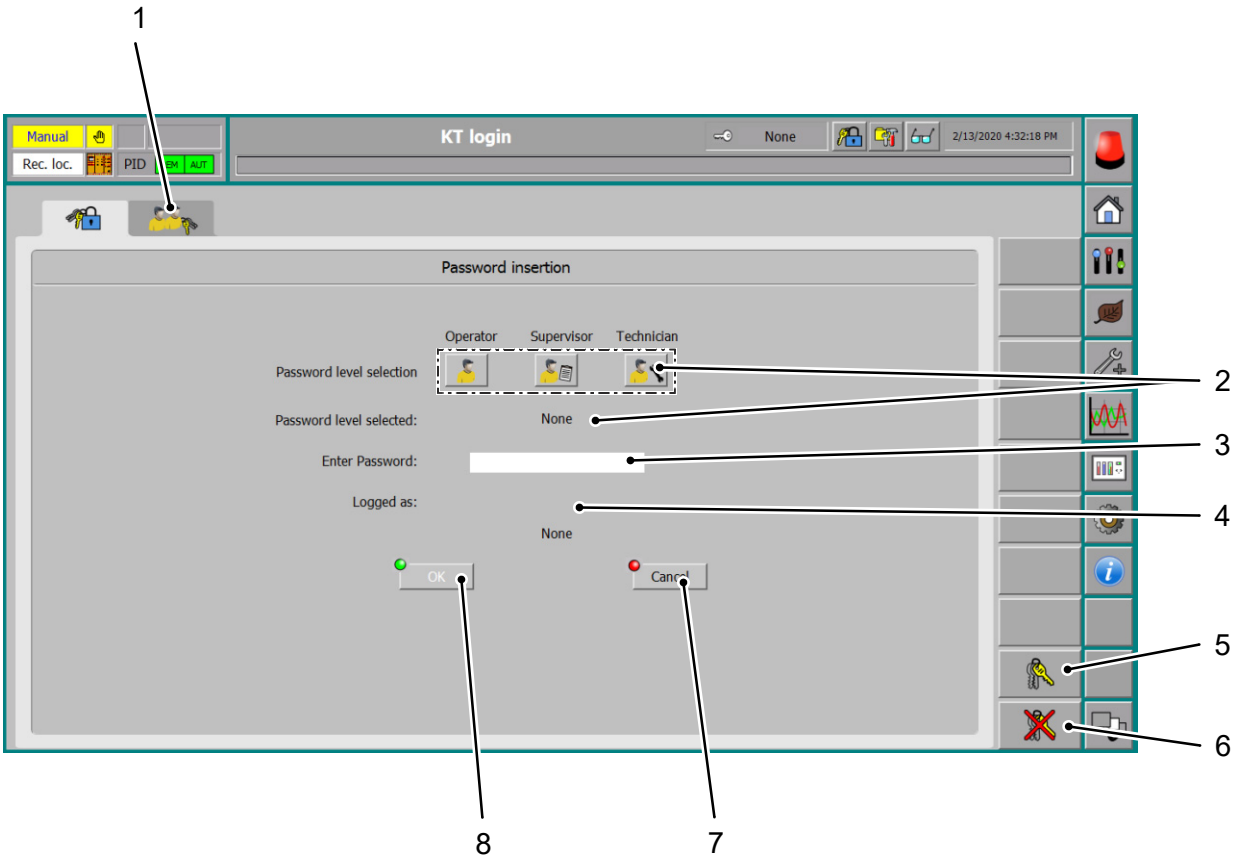


Fig. 1 Example password input dialog (KT_login.v.00000.00.cgm)

Calling up

- Tap the button in the screen header.

  or

- Tap the tab in the USER MANAGEMENT screen

Screen explanation

(Fig. 1-1) Button for calling up the USER MANAGEMENT screen (see section **"The USER MANAGEMENT screen"** (↑ 2-5))

(Fig. 1-2) Buttons for selecting the user.

- OPERATOR

- SUPERVISOR
- TECHNICIAN

The selected user is displayed in the PASSWORD LEVEL SELECTED line.

(Fig. 1-3) Field to enter the password

(Fig. 1-4) Displays the user currently logged in

(Fig. 1-5) Button for calling up the LOGIN system dialog box for free login (see section **"The LOGIN system dialog box"** (↑ 2-3))

(Fig. 1-6) Button for logging out off the logged-in user

(Fig. 1-7) Button for cancelling the login.

(Fig. 1-8) Button for checking the entered password

2.1.1 Logging a user in and out

Information
Only the following users can log in via the PASSWORD INSERTION screen: OPERATOR, SUPERVISOR, TECHNICIAN.

New users that are created in the USER MANAGEMENT screen can only log in via the LOGIN system dialog box.

Logging in a user

1. Tap the required user icon *(Fig. 1-2)*.
2. Enter the password

   After selecting the input field *(Fig. 1-3)*, a keyboard appears which can be used to enter the password. Confirm your input with ENTER.
3. Press the OK button *(Fig. 1-8)* to verify the entered password.

When the password entered is correct, the designation of the password level appears in the LOGGED AS *(Fig. 1-4)* line and in the screen header.

Logging out a user

To cancel a password authorization, either tap the button on the inner menu bar or the button in the screen header again.

After a user definable duration (e.g. 5 minutes), the user is automatically logged out again. This duration can be specified in the USER MANAGEMENT screen (see section **"Changing the log-off time"** (↑ 2-7)).

2.2 The LOGIN system dialog box

Information
The LOGIN system dialog box is required for a “free login”.

New users that have been created in the USER MANAGEMENT screen can also log in here.

Fig. 2 Example for a LOGIN system dialog (Login_system.v.00000.00.jpg)

Calling up

Tap button on the inner menu bar

The LOGIN system dialog appears automatically when a password-protected function is selected for which the logged on user is not authorized.

Logging in a user

1. Enter the user name, over writing the displayed user.
2. Enter the password and confirm your input with ENTER.
3. Confirm your login with the OK button.

2.3 Password hierarchy

Information
Normally there are three password levels (user groups):

User group	Authorizations
Operator	*Lowest access level.* Permits the following activities: • Calling up all screens • Selecting operating modes MANUAL / LOCAL AUTOMATIC / REMOTE AUTOMATIC (optional) • Selecting the recipe source LOCAL / REMOTE (optional) • Starting and stopping the plant in LOCAL mode • Controlling drives and valves in MANUAL mode • Changing recipe parameters • Acknowledging messages in the ALARM screen • Changing one's own password *Default password: Operator*
Supervisor	*Intermediate access level.* Same as for Operator plus: • Making changes to recipe management • Changing the plant, system and controller parameters • Language selection • Changing one's own and the lower-level password • Creating and changing master recipes in the BASIC RECIPE screen *Default password: Supervisor*
Technician	*Highest access level.* Same as for Supervisor plus: • Acknowledging and changing the maintenance schedule • Exiting the user program, shutting down Windows • Switching the data connection online or offline • Setting the date and time • Entering new users • Changing all passwords *Default password: Technician*
If no user is logged in, data can still be viewed but not edited.	

2.4 The USER MANAGEMENT screen

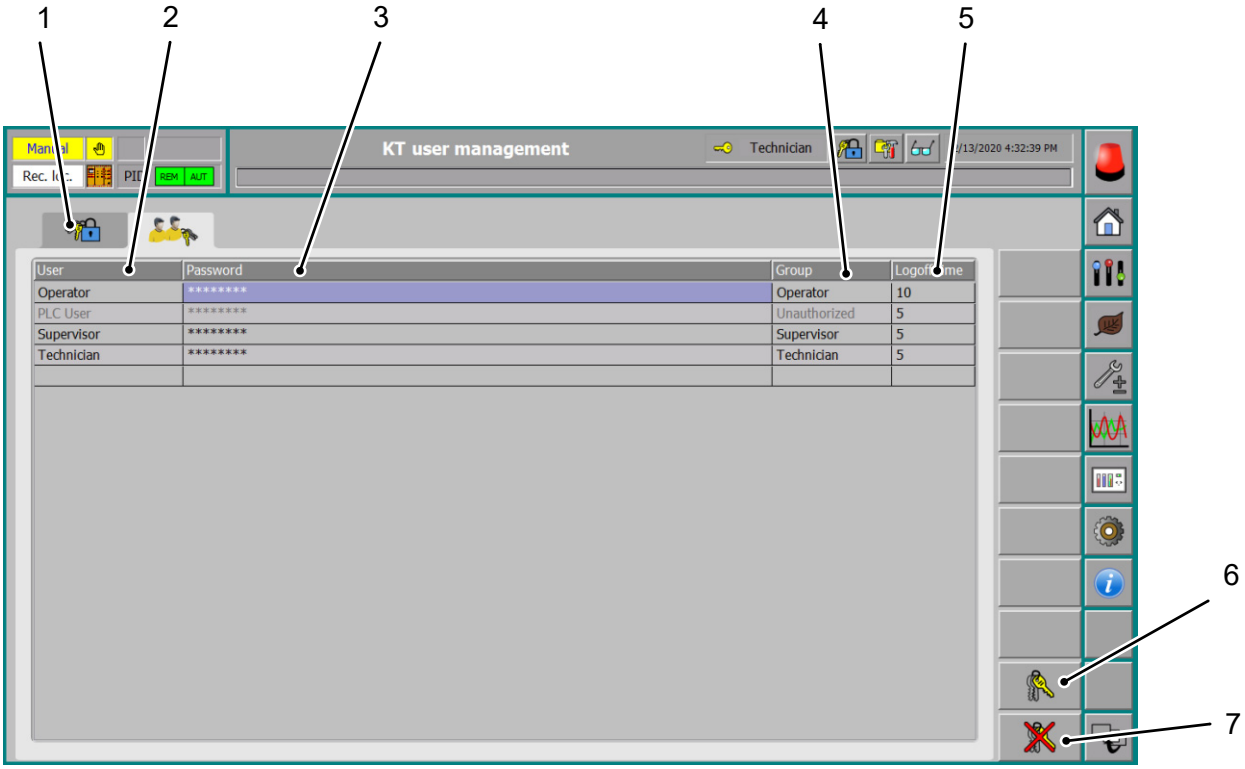


Fig. 3 Example of a USER MANAGEMENT screen (KT_usermanage.v.00000.00.cgm)

Calling up

Tap the tab in the PASSWORD INSERTION screen

Screen explanation

> **Information**
> Only the data accessible with the currently selected password level is displayed Higher password levels are not displayed.

(Fig. 3-1) Button for calling up the PASSWORD INSERTION screen (see section **"The PASSWORD INSERTION (login) screen"** (↑ 2-1)).

(Fig. 3-2) User display/input fields.

(Fig. 3-3) Password input fields.

(Fig. 3-4) Indication/input of user groups (password level) (see section **"Password hierarchy"** (↑ 2-3)).

(Fig. 3-5) Indication/input of the log-off times (see section **"Changing the log-off time"** (↑ 2-7)).

(Fig. 3-6) Button for calling up the LOGIN system dialog box for free login (see section **"The LOGIN system dialog box"** (↑ 2-3))

(Fig. 3-7) Button for logging out off the logged-in user

2.4.1 Changing passwords

Information
The logged-in users can usually only change their own password.

Optionally the logged-in user can be authorized to change lower-level passwords; otherwise only the user with the highest authorization can change any passwords.

Procedure

1. Tap the password you want to change *(Fig. 3-3)*.
   A keyboard will be displayed.
2. Enter the new password.
3. Press the ENTER button to confirm your input.

2.4.2 Adding a new user

Information
New users can be added only with authorization level TECHNICIAN.

Procedure

1. Tap the empty field in the USER column *(Fig. 3-2)*.
   A keyboard will be displayed.
2. Enter a new user name and confirm your input with ENTER.
3. Tap the empty field in the PASSWORD column *(Fig. 3-3)*.
   A keyboard will be displayed.
4. Enter a password of your choice, confirm your entry with the ENTER button.
5. Tap the empty field in the GROUP column *(Fig. 3-4)* to open the list of available user groups (password levels).
6. Select the user group (password level) with the required authorizations, confirm your selection with the ENTER button.
7. Tap the empty field in the LOG OFF TIME column *(Fig. 3-5)*.
   A keyboard will be displayed.
8. Enter the LOG OFF time (in minutes), confirm your entry with the ENTER button.

2.4.3 Changing the log-off time

Information
The log-off time is the time after which a password authorization is cancelled automatically.

Caution: When you enter a LOG OFF time of “0”, the password authorization will not be cancelled again automatically.

Procedure

1. Tap the LOG OFF TIME field *(Fig. 3-5)*.
   A keyboard will be displayed.
2. Enter the LOG OFF time (in minutes).
3. Press the ENTER button to confirm your input.

3 SYSTEM SETTING screen

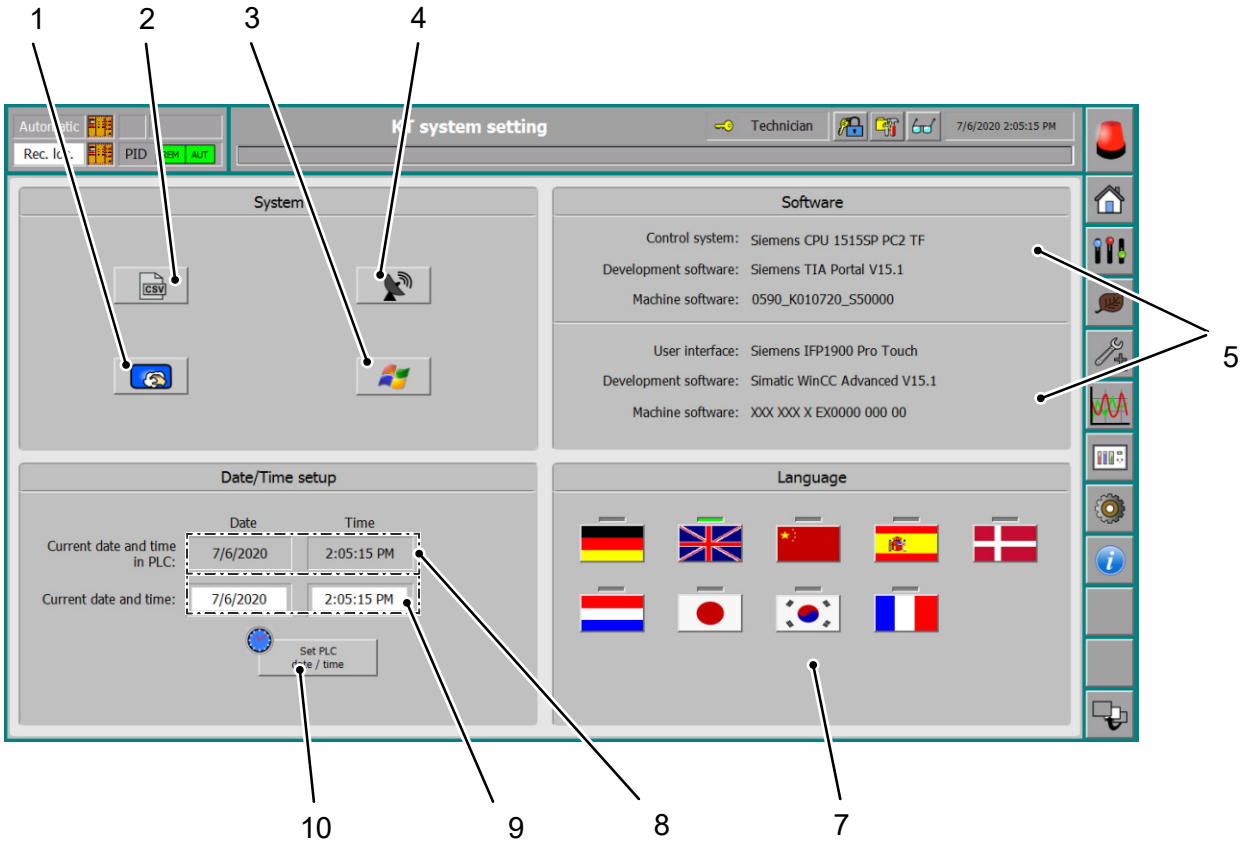


Fig. 1 Example of a SYSTEM SETTING screen (KT2_System_Set.v.00000.00.cgm)

Calling up Touch button in the header.

Explanation of illustration

(Fig. 1-1) Button to call up the CLEANING SCREEN screen (see chapter **"Cleaning the monitor screen"** (↑ 3-2)).

(Fig. 1-2) .

(Fig. 1-3) Button to end the WINCC user program.

(Fig. 1-4)

(Fig. 1-5) Display of the software used in the operator unit and the control system.

(Fig. 1-6) Buttons to change the language. The currently selected language is marked green.

(Fig. 1-7) Input fields to change the date and time (see chapter **"Changing date and time"** (↑ 3-2)).

(Fig. 1-8) Display for the date and time stored in the PLC (PLC = Programmable Logic Controller).

(Fig. 1-9) Input fields to change the date and time (see chapter **"Changing date and time"** (↑ 3-2)).

(Fig. 1-10) Button to save the new date and time entered.

3.1 Cleaning the monitor screen

NOTICE

By touching the monitor touchscreen functions can be initiated by accident.
Damage to machinery possible.

Always touch the CLEAN SCREEN button before cleaning the screen.

Procedure

1. Touch the CLEAN SCREEN button *(Fig. 1-3)*.
   All function fields of the touchscreen monitor are deactivated for approx. 30 seconds.
2. Clean the screen with a suitable cleaning agent and a soft cloth.

3.2 Changing date and time

Information
Date and time are displayed in the header of each screen page. The power supply for date and time has a buffer battery, so that the current date and time are retained even if the PLC is switched off.

Password

Date and time can only be entered or changed in this screen if the TECHNICIAN level password has been entered.

Entering the date

1. Touch the input field for changing the date *(Fig. 1-7)*.
2. Enter the new date.
3. Touch the ENTER button to confirm your entry.
4. Touch the SET PLC DATE / TIME button *(Fig. 1-8)* to transfer the changed date to the PLC control system.
   The new date is displayed in the CURRENT DATE AND TIME IN PLC area *(Fig. 1-6)*.

Entering the time

1. Touch the input field for changing the time *(Fig. 1-7)*.
2. Enter the new time.
3. Touch the ENTER button to confirm your entry.
4. Touch the SET PLC DATE / TIME button *(Fig. 1-8)* to transfer the changed time to the PLC control system.
   The new time is displayed in the CURRENT DATE AND TIME IN PLC area *(Fig. 1-6)*.

4 The MAIN SCREEN screen

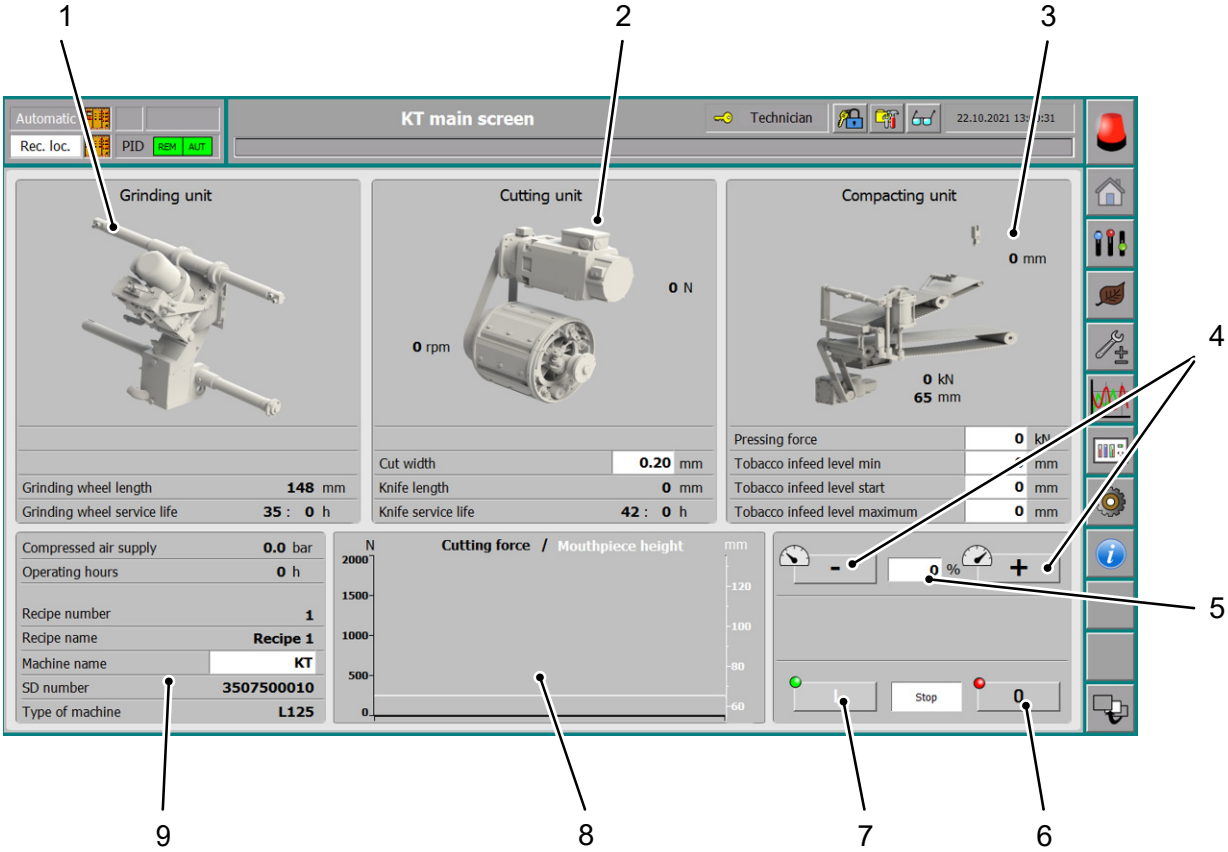


Fig. 1 Example of a MAIN SCREEN *(KT2_MainScreen.v.00001.00.cgm)*

Calling up

Tap button .

Password

The plant can be operated from the MAIN SCREEN only when LOCAL mode is selected and the user is logged on as OPERATOR.

Screen explanation

(Fig. 1-1) Schematic representation of the grinding unit (grinding wheel and traversing assembly) and indication of the process values for the subassembly (see section **"Grinding unit area"** (↑ 4-2)).

(Fig. 1-2) Schematic representation of the knife drum and indication of the process values for the subassembly (see section **"Cutting unit area"** (↑ 4-3)).

(Fig. 1-3) Schematic representation of the compactor unit and indication of the process values for the subassembly (see section **"Compactor unit area"** (↑ 4-4)).

(Fig. 1-4) Buttons to increment and decrement the knife drum speed setpoint.

(Fig. 1-5) Setpoint for the knife drum speed setpoint in % of the rated speed.

When you tap this field, a keyboard appears, with which you can change the setpoint.

(Fig. 1-6) Button for stopping the cutter.

> **Information**
> The compressed air remains switched on.

(Fig. 1-7) Button for starting the cutter.

(Fig. 1-8) Graphical representation of the cutting force and the tobacco level at the infeed during the past 15 minutes.

(Fig. 1-9) Displays the key data of the plant (see section **"Key data of the plant"** (↑ 4-5)).

4.1 Grinding unit area

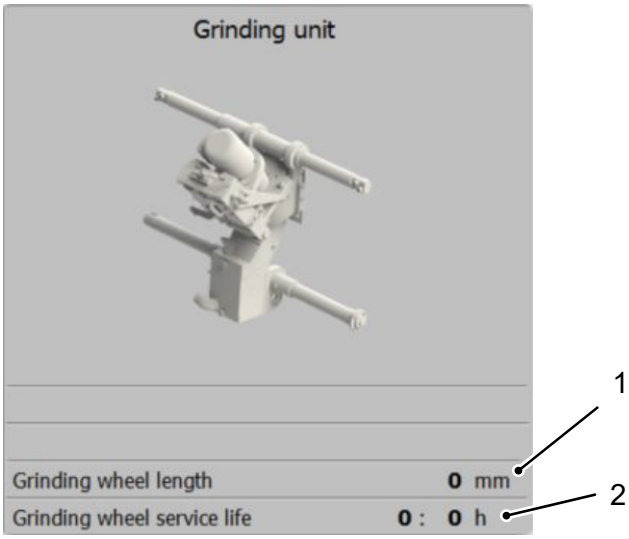


Fig. 2 MAIN SCREEN - Grinding unit area (KT2_Main_Grind.v.00000.00.cgm)

Screen explanation

(Fig. 2-1) Displays the current grinding wheel length

(Fig. 2-2) Displays the current grinding wheel service life

The grinding wheel service life indicates the current remaining service life of the grinding wheel. The value depends on the current cutter settings (speed and grinding wheel advance) and is decremented.

4.2 Knife drum area

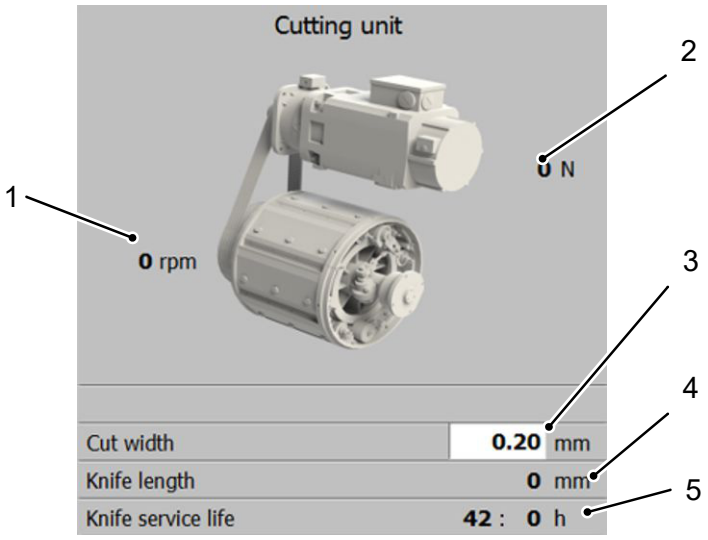


Fig. 3 MAIN SCREEN – Knife drum area (KT2_Main_knife.v.00001.00.cgm)

Screen explanation

(Fig. 3-1)	Current actual value of the knife drum speed
(Fig. 3-2)	Current actual value of the cutting force
(Fig. 3-3)	Cut width setpoint. The value corresponds to the tobacco advance at the mouthpiece per cut. When you tap this field, a keyboard appears, with which you can change the value. Valid range 0.1 to 3.0 mm.
(Fig. 3-4)	Displays the current knife length
(Fig. 3-5)	Displays the current knife service life The knife service life indicates the current remaining service life of the knives. The value depends on the current cutter settings (speed and knife advance) and is decremented.

4.3 Compactor unit area

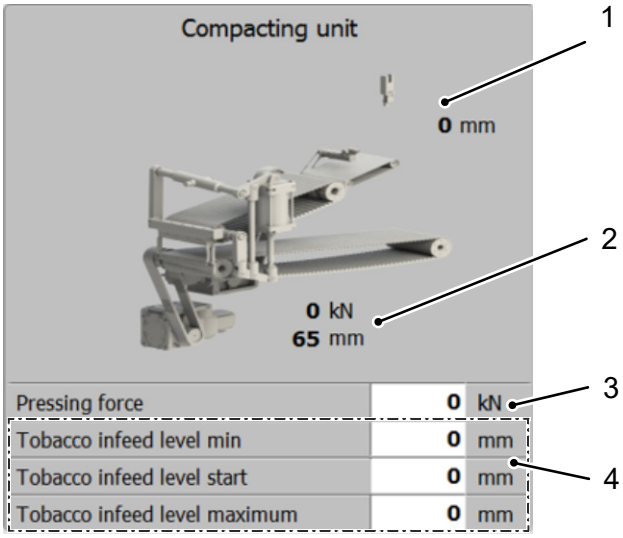


Fig. 4 MAIN SCREEN - Compactor unit area (KT2_Main_comp.v.00001.00.cgm)

Screen explanation

(Fig. 4-1) Current actual value of the tobacco level at the infeed

(Fig. 4-2) Current actual values for the compaction force at the mouthpiece and the mouthpiece height

(Fig. 4-3) Setpoint for the pressing force during compaction at the mouthpiece

When you tap this field, a keyboard appears, with which you can change the setpoint.

Valid range 2 to 58 kN.

(Fig. 4-4)

- Minimum tobacco level at the tobacco infeed
  When the level drops below this point, compaction stops.
- Setpoint for the start tobacco level at the tobacco infeed
  When this value is reached, compaction starts.
- Maximum tobacco level at the tobacco infeed
  When this level is reached, tobacco feed is interrupted.

When you tap one of these fields, a keyboard appears, with which you can change the value.

Valid range 0 – 999 mm

4.4 Key data of the plant

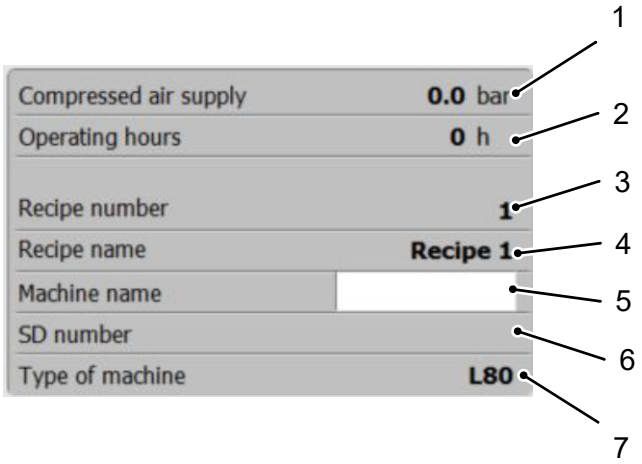


Fig. 5 MAIN SCREEN - Key data of the plant (KT2_Main_Data.v.00000.00.cgm)

Screen explanation

(Fig. 5-1)	Current actual value of the compressed air supply pressure
(Fig. 5-2)	Hours of operation elapsed since the last maintenance activity
(Fig. 5-3)	Number of the current recipe
(Fig. 5-4)	Name of the current recipe
(Fig. 5-5)	Machine name When you tap one of these fields, a keyboard appears, with which you can enter any text.
(Fig. 5-6)	Order number under which the cutter was delivered
(Fig. 5-7)	Type designation of the cutter

5 Screen for basic and auxiliary functions (CONTROL PANEL screen)

Calling up

Touch button .

Password

The plant can be operated from the CONTROL PANEL screen only when LOCAL mode has been preselected and the OPERATOR level password has been entered.

5.1 Display elements and buttons for the basic functions

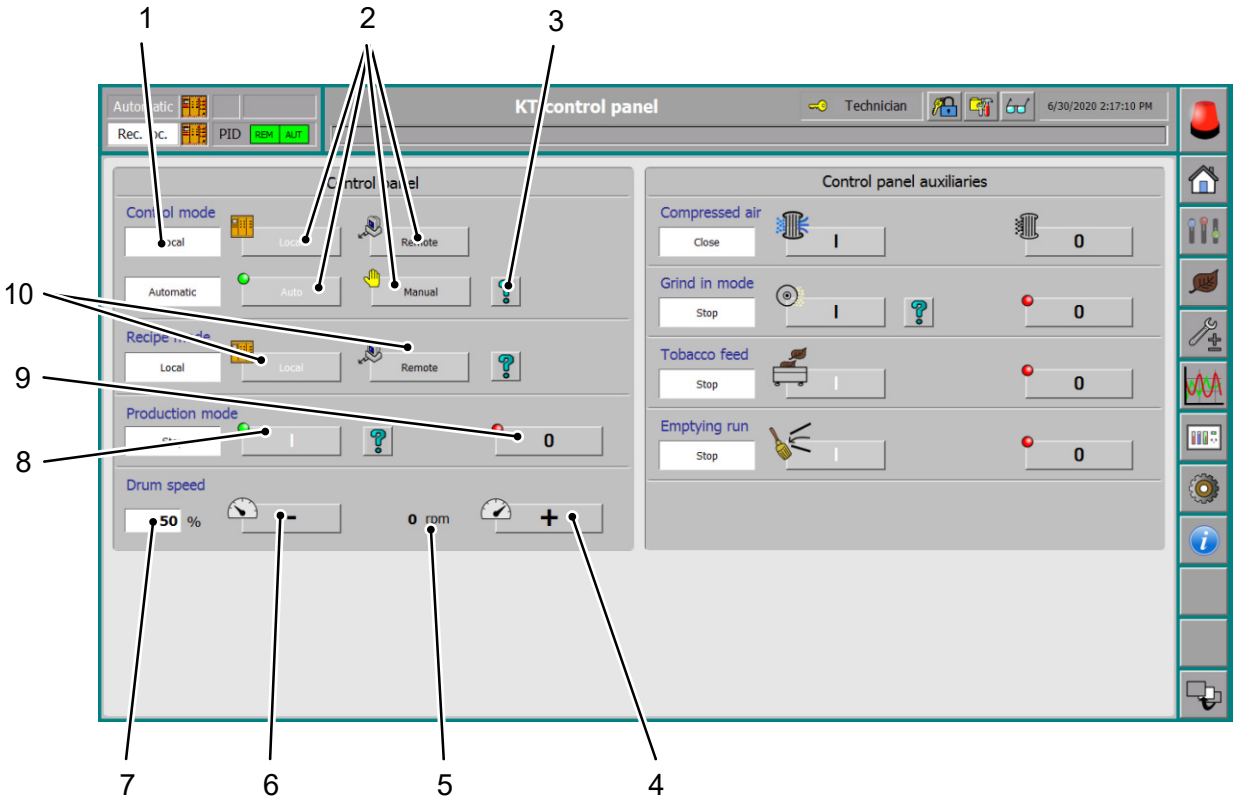


Fig. 1 Example of a CONTROL PANEL screen (basic functions) *(KT2_ContPanel.v.00000.00.cgm)*

Explanation of illustration

Information
A black text label in the button indicates that the function is enabled.

White text indicates that the function is not enabled. The cause can be determined in the relevant diagnosis window.

This screen can contain the following display elements and buttons for the basic functions:

(Fig. 1-1) Display fields for the preselected operating mode or the status of a function.

(Fig. 1-2) Buttons for preselecting the operating mode and the type of operation of the cutter:

- LOCAL

  The cutter is operated from the operator unit.

Information
All functions can only be performed via the local operator unit even if "REMOTE" was preselected in the REMOTE CONTROL PARAMETERS screen.

- REMOTE

  The cutter is operated from the higher-level line control system.

Information
Exception: functions for which "LOCAL" was preselected in the REMOTE CONTROL PARAMETERS screen can only be executed using the local operator unit.

- AUTO

  Automatic mode refers to the interdependent operation of several drives or components.

  The general interlocks, including those to the other, tobacco-discharging process sections, are active.

Information
Automatic mode must be selected for production.

- MANUAL

  Manual mode is a non-interlocked mode for individual operation of all motors and valves of the cutter.

  The drives and valves can be switched on and off individually in manual mode.

(Fig. 1-3) Buttons to call up the diagnosis screen (see chapter **"Diagnosis screen"** (↑ 5-4)).

(Fig. 1-4) Button to increment the knife drum speed setpoint

(Fig. 1-5) Current actual value of the knife drum speed in rpm

(Fig. 1-6) Button to decrement the knife drum speed setpoint

(Fig. 1-7) Setpoint for the knife drum speed in % of the rated speed

When you touch the field a keyboard is displayed via which you can change the setpoint.

(Fig. 1-8) Button to start the cutter

(Fig. 1-9) Button to stop the cutter

Information
The compressed air remains switched on.

(Fig. 1-10)

Button to preselect from where the recipe will be supplied.

- LOCAL
  The recipe is supplied by the operator unit of the cutter.
- REMOTE
  The recipe is supplied by the higher-level line control system.

Information
Exception: recipe parameters for which "LOCAL" has been preselected in the REMOTE CONTROL PARAMETERS screen can only be defined via the local operator unit.

5.2 Display elements and buttons for the auxiliary functions

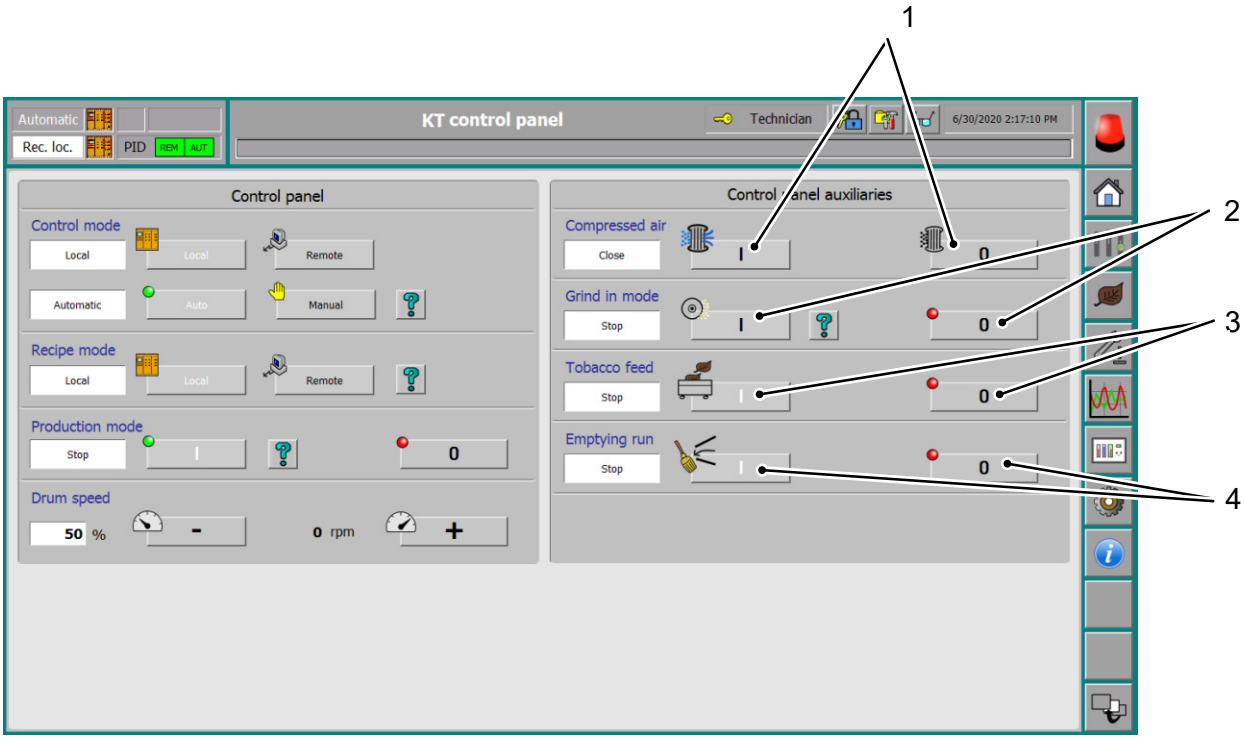


Fig. 2 Example of a CONTROL PANEL screen (auxiliary functions) *(KT2_ContPanel.v.00001.00.cgm)*

Explanation of illustration

> **Information**
> A black text label in the button indicates that the function is enabled.
>
> White text indicates that the function is not enabled. The cause can be determined in the relevant diagnosis window.

This screen can contain the following display elements and buttons for the auxiliary functions:

(Fig. 2-1) Buttons for starting and stopping the compressed air supply.

> **Information**
> When the compressed air supply is switched off, the cutter is also switched off.

(Fig. 2-2) Buttons for starting and stopping the grinding-in program.

(Fig. 2-3) Buttons for starting and stopping tobacco feed.

(Fig. 2-4) Buttons for starting and stopping run-empty mode.

5.3 Diagnosis screen

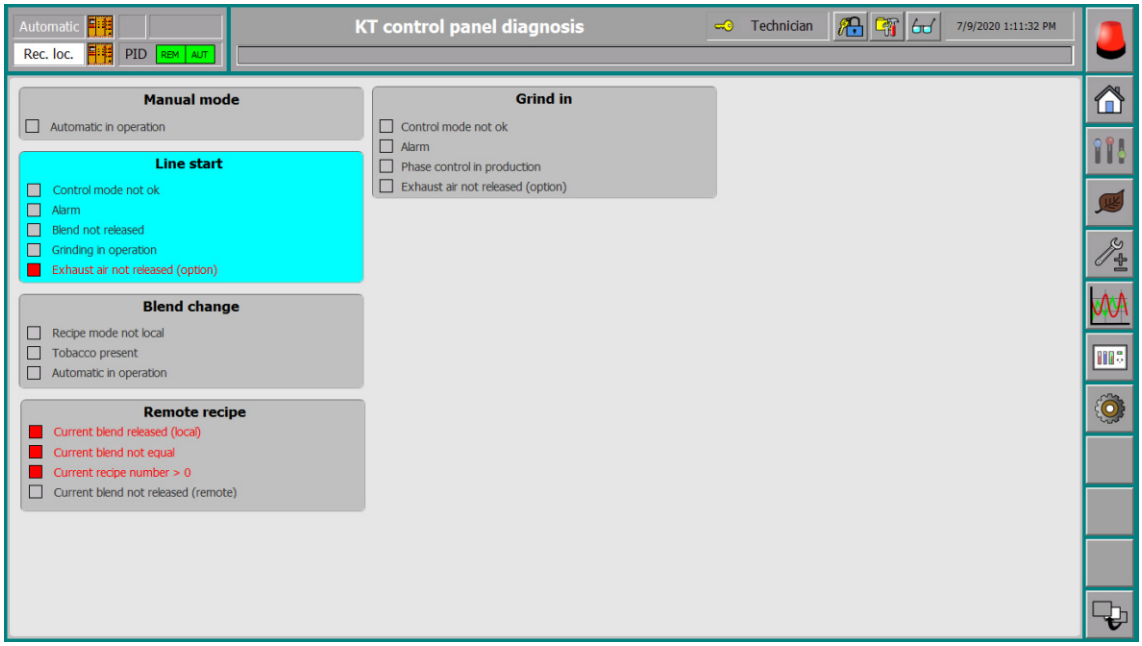


Fig. 3 Example of a diagnosis screen (KT2_Diagnosis.v.00000.00.cgm)

Calling up Touch a button .

Explanation of illustration The diagnosis screen lists all enable conditions for preselecting the operating mode, for starting the cutter or another function.

- Enable conditions that have not been fulfilled are displayed in red text. In addition, a red square appears to the left of the message.
- Enable conditions that have been fulfilled are displayed in black text.
- A blue background indicates the enable conditions belonging to the function for which the diagnosis screen was called up.

6 Screens for recipe management

6.1 The CURRENT RECIPE screen

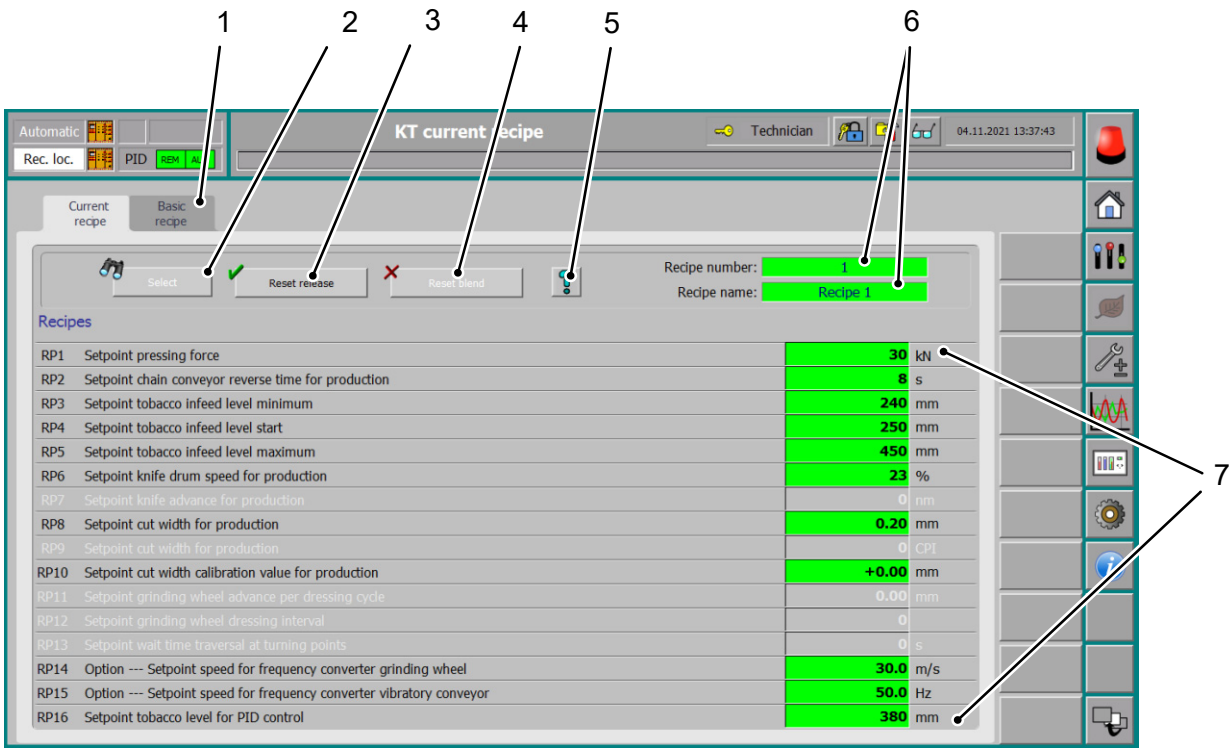


Fig. 1 Example of a CURRENT RECIPE screen (KT2_Cur_Recipe.v.00001.00.cgm)

Calling up

- Tap the button

  or

- Tap the Current recipe tab in the BASIC RECIPE screen.

Password

Inputs can be made in this screen only if the password for OPERATOR was entered and recipe source LOCAL is selected.

Screen explanation

> **Information**
> Black text indicates that the function is enabled.
>
> Grey text indicates that the relevant parameter is not available.

(Fig. 1-1) Calls up the BASIC RECIPE screen, in which the master data for the recipes are specified.

(Fig. 1-2) Button for calling up the RECIPE DIRECTORY screen to select a recipe (see section **"The RECIPE DIRECTORY screen"** (↑ 6-7)).

Calls up the RECIPE DIRECTORY screen, which lists all available recipes.

Select a recipe and tap the button to load the recipe and view it in the CURRENT RECIPE screen.

(Fig. 1-3) Button for enabling/disabling the current recipe.

When “RELEASE BLEND” is displayed in black text, you can enable the current recipe with this button.

When the blend has been enabled, the text “RESET RELEASE” appears. Tap this button to cancel the release again.

(Fig. 1-4) Resets the input made in this screen.

(Fig. 1-5) Buttons for calling up the diagnosis screen (see section **“The diagnosis screen”** (↑ 5-4)).

(Fig. 1-6) Identification data of the current recipe (RECIPE NUMBER, RECIPE NAME).

(Fig. 1-7) Indicates the recipe parameters (see section **“Explanation of recipe parameters”** (↑ 6-2)).

After the line start, all recipe parameters that apply to the blend are shown against a green background.

6.1.1 Creating and enabling a blend configuration

Procedure

1. Enter the OPERATOR level password.
2. Tap the SELECT button *(Fig. 1-2)* and load the current recipe from the recipe directory.
3. If necessary, change the recipe parameters (see section **“Changing recipe parameters”** (↑ 6-4)).
4. Tap the RELEASE BLEND button *(Fig. 1-3)* to release the current recipe.

   As long as the plant has not been started, the current recipe can be disabled again with button RESET RELEASE *(Fig. 1-3)*.

Information
The current recipe can only be edited when it is not enabled.

6.1.2 Explanation of recipe parameters

Information
When REMOTE operating mode is selected for the cutter and REMOTE has also been selected in the REMOTE CONTROL PARAMETERS screen, the recipe parameter is defined by the supervisory control system.

No.	Parameters	Meaning	Unit	Area
RP1	Setpoint pressing force	Compaction force setpoint for the mouthpiece.	kN	0 – 58
RP2	Setpoint chain conveyor reverse time for production	Time during which the compacting chains should to run in reverse after the tobacco cutter has stopped. When “0” is entered, reverse running is deactivated.	s	0 – 99
RP3	Setpoint tobacco infeed level minimum	Minimum tobacco level at the tobacco infeed. When the level drops below this point, compaction stops.	mm	0 – 999
RP4	Setpoint tobacco infeed level start	Setpoint for initial tobacco level at inlet. When this value is reached, compaction starts.	mm	0 – 999
RP5	Setpoint tobacco infeed level maximum	Maximum tobacco level at the tobacco infeed. When this level is reached, tobacco feed is interrupted.	mm	0 – 999
RP6	Setpoint knife drum speed for production	Knife drum speed setpoint when speed control is selected.	%	23 – 100
RP7				
RP8	Setpoint cut width for production	Cut width setpoint. The value corresponds to the tobacco advance at the mouthpiece per cut.	mm	0.1 – 3.0
RP9	Setpoint cut width for production	Cut width setpoint. The value corresponds to the tobacco advance at the mouthpiece per cut.	cpi	254 – 8
RP10	Setpoint cut width calibration value for production	Cut width calibration value setpoint. The calibration value calibrates the setpoint cut width to the measured cut width so that the displayed and measured values match.	mm	-0.09 to +0.09
RP11				
RP12				
RP13				

No.	Parameters	Meaning	Unit	Area
RP14	Optional -- Setpoint speed for frequency converter grinding wheel	Setpoint for the frequency converter of the grinding wheel drive. Note: This parameter is only active if the equipment includes grinding wheel speed adjustment.	m/s	20 – 30
RP15	Optional -- Setpoint speed for frequency converter vibratory conveyor	Setpoint for the frequency converter of the compacting trough drive. Note: This parameter is only active if the equipment includes compacting trough control.	Hz	47.5 to 53.5
RP16	Setpoint tobacco level for PID control	Setpoint for the tobacco level at the infeed. Note: This parameter only takes effect if “level control” mode is selected.	mm	50 – 800

6.1.3 Changing recipe parameters

Procedure

1. Enter the OPERATOR level password.
2. Tap the recipe parameter value to be changed.
   A yellow background indicates that the parameter value has been selected to change it.
3. Enter a new parameter value and confirm with ENTER.

Changes made to the current recipe are applied as soon as you press the ENTER key.

Information
All changes to the current recipe parameter apply only for this one blend. After the blend has been processed, the master data stored in the recipe memory is applied again.

Information
Some recipe parameters can also be changed in the MAIN SCREEN or in the manual mode screens. In this case, the values set in the current recipe are overwritten.

6.2 The BASIC RECIPE screen

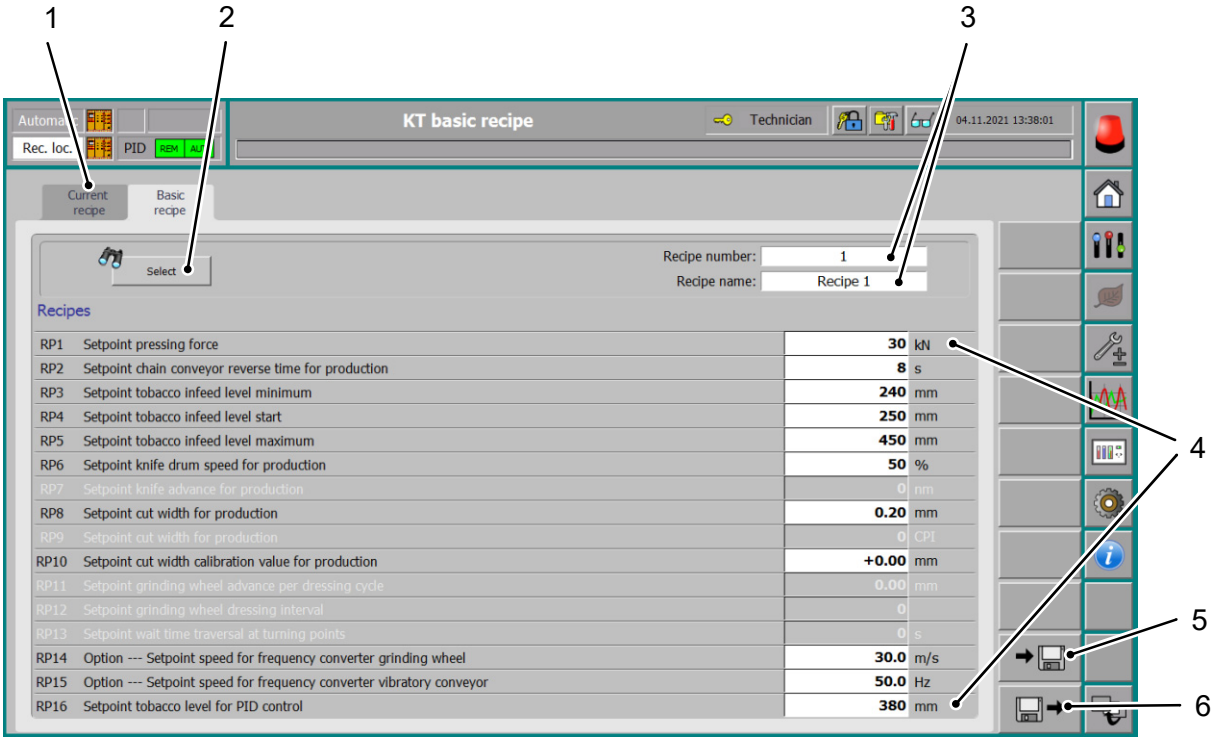


Fig. 2 Example of a BASIC RECIPE screen *(KT2_Bas_Recipe.v.00001.00.cgm)*

Calling up

- Tap the Basic recipe tab in the CURRENT RECIPE screen.

  or

- Tap button in the RECIPE DIRECTORY screen.

Password

Inputs can be made in this screen only if the password for SUPERVISOR was entered and recipe source LOCAL is selected.

Screen explanation

> **Information**
> Grey text indicates that the relevant parameter is not available.

(Fig. 2-1) Button for calling up the CURRENT RECIPE screen, in which the recipe parameters for the current blend can be viewed and changed.

(Fig. 2-2) Button for calling up the RECIPE DIRECTORY screen to select a recipe (see section **"The RECIPE DIRECTORY screen"** (↑ 6-7)).

(Fig. 2-3) Shows the number and name of the master recipe displayed.

(Fig. 2-4) List of recipe parameters.

> **Information**
> For a detailed explanation of the recipe parameters, see section **"Explanation of recipe parameters"** (↑ 6-2).

(Fig. 2-5) Saves a new or changed recipe. Tap this button after every recipe change.

(Fig. 2-6) Calls up a saved basic recipe record again. Any changes that have not been saved are overwritten with the original data.

6.2.1 Changing a basic recipe

Procedure

1. Enter the SUPERVISOR level password.
2. Select the LOCAL recipe source (see section **"Screens for basic and auxiliary functions"** (↑ 5-1)).
3. Tap the recipe parameter value to be changed.
4. Enter a new parameter value and confirm with ENTER.
5. Repeat steps 2 and 3 to change the next recipe parameter value.
6. When you have made all changes, tap button *(Fig. 2-5)* to save the changed recipe.

6.2.2 Creating a new basic recipe

Procedure

1. Enter the SUPERVISOR level password.
2. Select the LOCAL recipe source (see section **"Screens for basic and auxiliary functions"** (↑ 5-1)).
3. Tap the SELECT button *(Fig. 2-2)* and select the master recipe you wish to use as a basis for the new recipe (see section **"The RECIPE DIRECTORY screen"** (↑ 6-7)).
4. Tap input field RECIPE NUMBER.
5. Enter the new recipe number and confirm with ENTER.
6. Tap input field RECIPE NAME.
7. Enter the new recipe name and confirm with ENTER.
8. Tap the recipe parameters to be changed and enter the new values. Press ENTER to confirm.
9. When you have made all changes, tap button *(Fig. 2-5)* to save the changed recipe.

Information
The original recipe remains under its original recipe number and recipe name.

6.3 The RECIPE DIRECTORY screen

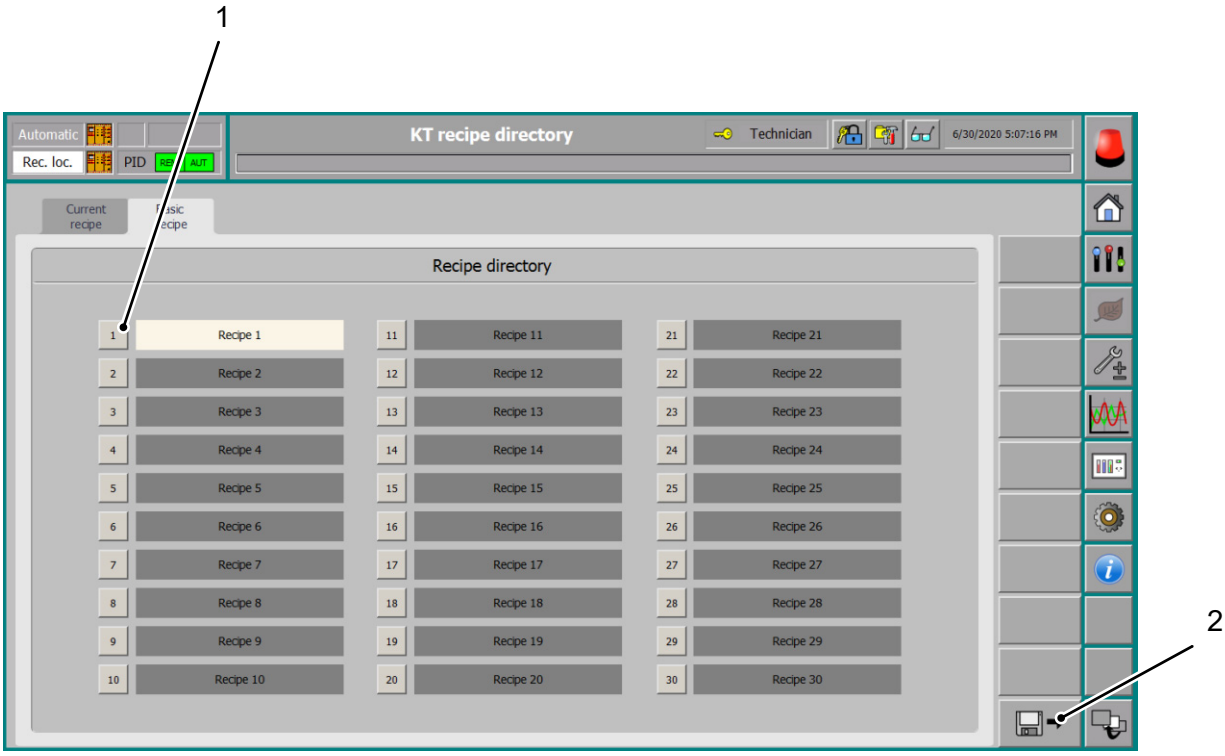


Fig. 3 Example of a RECIPE DIRECTORY screen (KT2_Recipe_Dir.v.00000.00.cgm)

Calling up

Tap the SELECTION button in the CURRENT RECIPE or BASIC RECIPE screen.

Information
This screen shows the recipe names allocated to the recipes numbers. Changes cannot be made in this screen.

Screen explanation

(Fig. 3-1) Recipe selection buttons.

(Fig. 3-2) Button for loading the selected recipe.

7 Screens for setting subassemblies

Separate screens for parameter setting and manual mode are provided for each subassembly.

Information
In the Manual mode screens, various functions can be operated manually.

Manual mode is not suitable for production!

Information
During manual operation, the operator must continually monitor the operated machine area for dangerous situations and immediately stop the function when a danger occurs. Alternatively, the danger zone can be cordoned off.

7.1 Changing parameter values

Procedure

1. Enter the TECHNICIAN level password.
2. Tap the parameter value to be changed.
3. Enter a new parameter value and confirm with ENTER.
4. Repeat steps 2 and 3 to change the next parameter value.
5. When you have made your changes, save the modified data record with the button.

7.2 Screens for system parameters

7.2.1 BASIC PARAMETERS screen

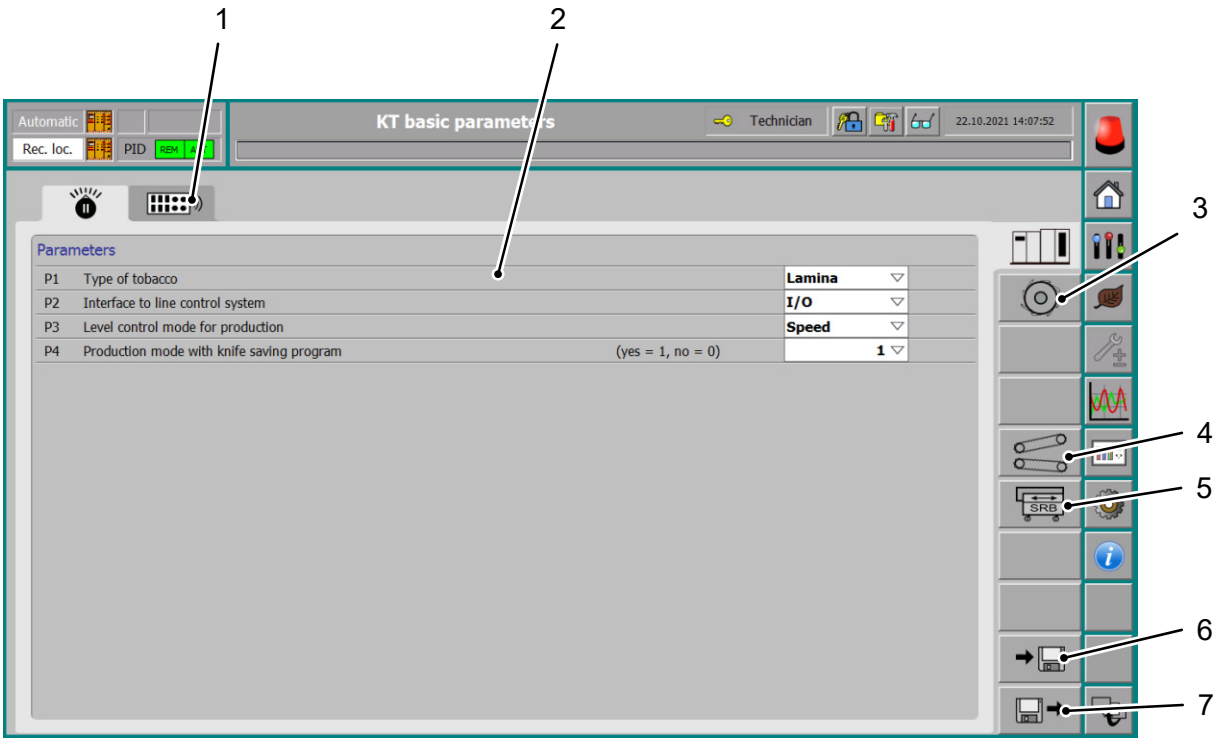


Fig. 1 Example of a BASIC PARAMETERS screen (KT2_BasicPara.v.00002.00.cgm)

Calling up

- Tap the button on the menu bar.
- Tap the button on the inner menu bar of the other parameter screens.
- Tap the tab on the REMOTE CONTROL PARAMETERS screen

Password

To make entries in this screen, you must be logged on as TECHNICIAN.

Screen explanation

(Fig. 1-1)	Button for calling up the REMOTE CONTROL PARAMETERS screen
(Fig. 1-2)	Displays the parameters (see section **"Explanation of displayed parameters"** (↑ 7-3))
(Fig. 1-3)	Button for calling up the KNIFE DRUM PARAMETERS screen
(Fig. 1-4)	Button for calling up the COMPACTING UNIT PARAMETERS screen
(Fig. 1-5)	Calls up the SRB PARAMETERS screen.

(Fig. 1-6) Button for saving the data record for the displayed parameters

(Fig. 1-7) Button for restoring an old, saved data record

Explanation of displayed parameters

No.	Parameters	Meaning
P1	Variety of tobacco	Select whether the cutter is to be used for lamina, stem or cloves. The selected setting is indicated by the text.
P2	Interface to supervisory control system	Select whether the cutter is operated via a conventional (I/O), PROFIBUS DP or Ethernet/PROFINET interface. • I/O: Conventional interface; digital inputs and outputs and 4-20 mA analogue signals. • BUS: PROFIBUS DP interface. • OpenCom: Ethernet interface with Hauni supervisory control system and open communication. • Ethernet: Customer-specific Ethernet interface. The selected setting is indicated by the text.
P3	Level control mode for production	Choose whether the cutter is operated in speed control mode (speed) or level control mode (level). The selected setting is indicated by the text.
P4	Production mode with knife saving program	Specify whether the cutter automatically stops when production is interrupted to conserve the knives. • 1 = yes The cutter stops. • 0 = no The cutter continues to run.

7.2.2 The REMOTE CONTROL PARAMETERS screen

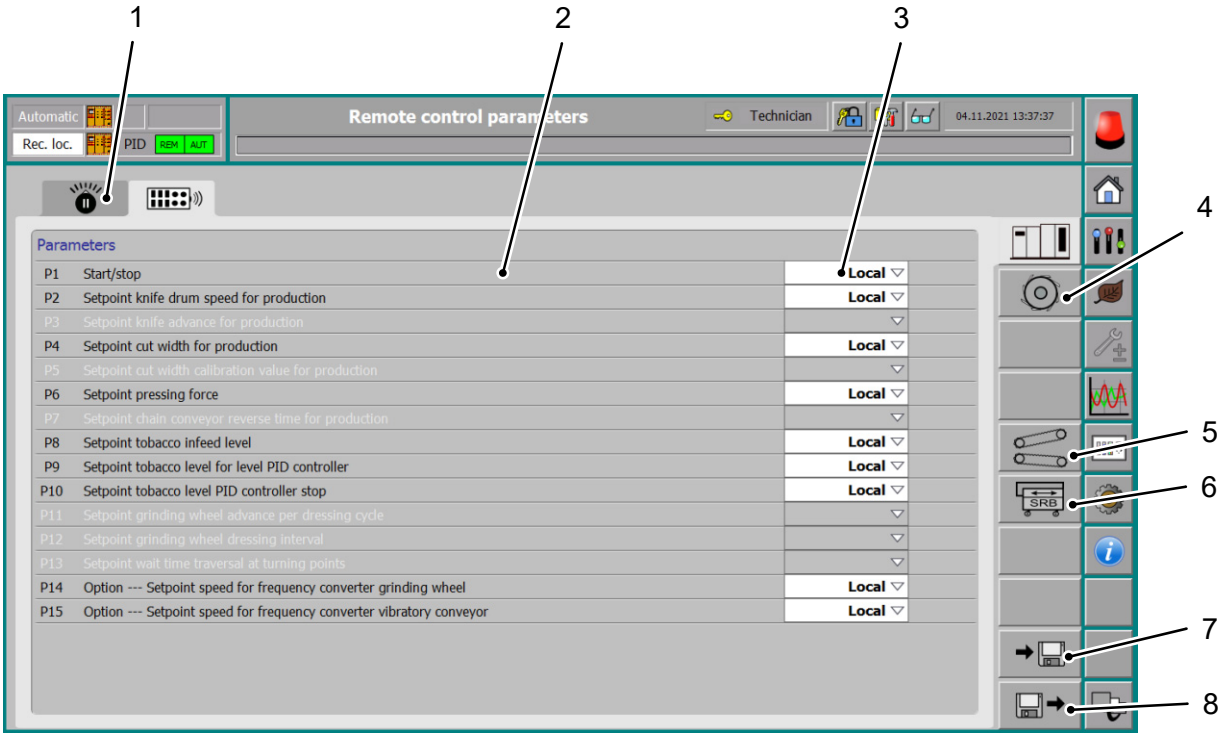


Fig. 2 Example of a REMOTE CONTROL PARAMETERS screen (KT2_RemotePara.v.00001.00.cgm)

Calling up Tap the tab in the BASIC PARAMETER screen

Password To make entries in this screen, you must be logged on as TECHNICIAN.

Screen explanation

> **Information**
> Grey text indicates that the relevant parameter is not available.

(Fig. 2-1) Calls up the BASIC PARAMETERS screen.

(Fig. 2-2) Displays the functions and setpoints (see section **"List of displayed functions and setpoints"** (↑ 7-5))

(Fig. 2-3) LOCAL / REMOTE selection fields

- LOCAL: Functions can be started and stopped only from the cutter operator panel. Setpoints, too, can be set only from the cutter operator panel.

  This is independent of the preselected cutter operating mode.
- REMOTE: Functions are started and stopped from the supervisory control system. Setpoints are also specified by the supervisory control system.

  This is possible only if REMOTE mode for the cutter has also been preselected in the CONTROL PANEL screen.

(Fig. 2-4)	Button for calling up the KNIFE DRUM PARAMETERS screen
(Fig. 2-5)	Button for calling up the COMPACTING UNIT PARAMETERS screen
(Fig. 2-6)	Calls up the SRB PARAMETERS screen.
(Fig. 2-7)	Button for saving the data record for the displayed parameters
(Fig. 2-8)	Button for restoring an old, saved data record

List of displayed functions and setpoints

In the corresponding selection field *(Fig. 2-3)* you can specify whether the relevant function or setpoint selection source is only the LOCAL or also the REMOTE system.

Information
Selecting REMOTE is possible only if REMOTE has also been preselected in the CONTROL PANEL screen for the cutter.

No.	Parameters
P1	Start/stop
P2	Setpoint knife drum speed for production
P3	
P4	Setpoint cut width for production
P5	Setpoint cut width calibration value for production *
P6	Setpoint pressing force
P7	Setpoint chain conveyor reverse time for production *
P8	Setpoint tobacco infeed level *
P9	Setpoint tobacco level for level PID controller ***
P10	Setpoint tobacco level PID controller stop * / ***
P11	
P12	
P13	
P14	Optional -- Setpoint speed for frequency converter grinding wheel **
P15	Optional -- Setpoint speed for frequency converter vibratory conveyor **

Information
Parameters marked * can be operated only if the interface is set to Bus, OpenCom or Ethernet in the BASIC PARAMETERS screen.

Parameters marked ** are displayed only if the cutter is equipped with the relevant optional frequency converter.

The parameter marked *** can only be operated when Level Control mode has been selected in the BASIC PARAMETERS screen.

7.3 Knife drum screens

7.3.1 KNIFE DRUM MANUAL MODE screen

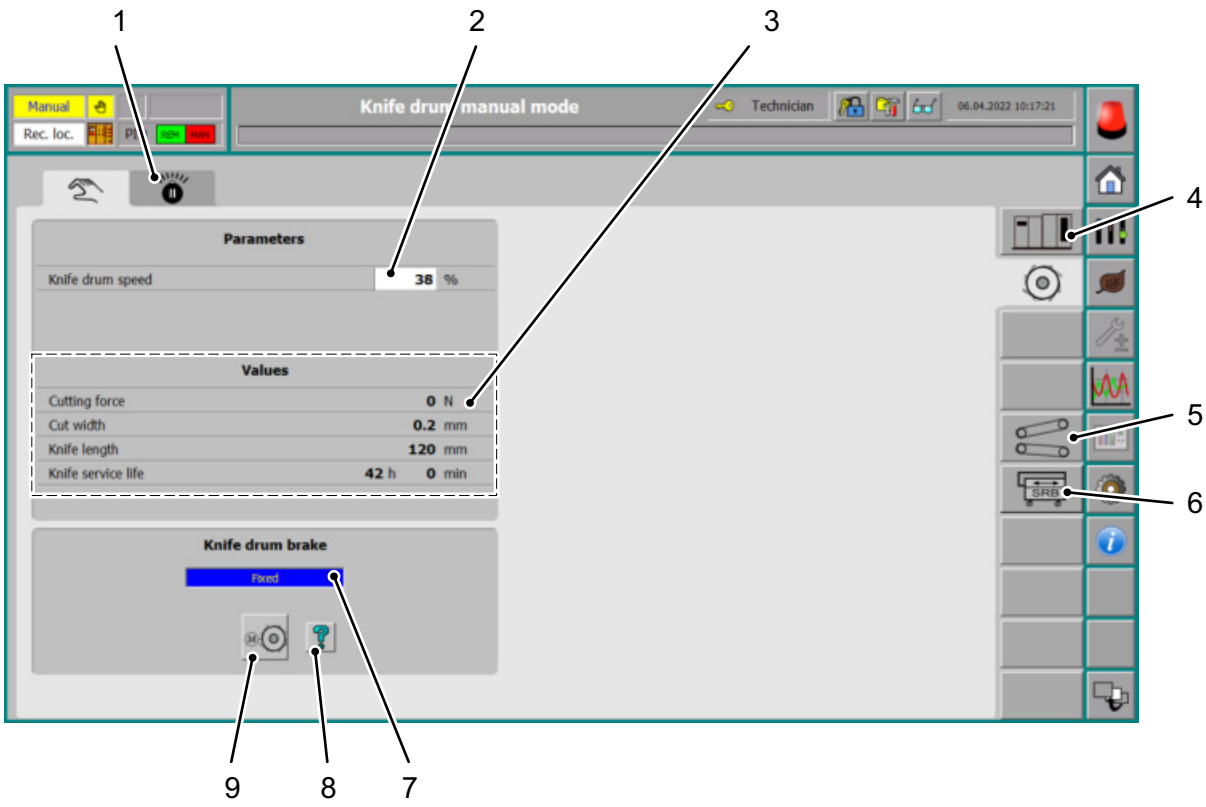


Fig. 3 Example of a KNIFE DRUM MANUAL MODE screen (KT2_KnifeMan.v.00000.00.svg)

Calling up

- Tap the button on the inner menu bar of one of the other manual mode screens.
- Touch button on the KNIFE DRUM PARAMETERS screen

Password

To make entries in this screen, you must be logged on as OPERATOR.

Screen explanation

(Fig. 3-1)	Button for calling up the KNIFE DRUM PARAMETERS screen
(Fig. 3-2)	Knife drum speed setpoint. When you tap this field, a keyboard appears, with which you can change the setpoint. Valid range 23 – 100 %.
(Fig. 3-3)	Displays the process values for the subassembly.
(Fig. 3-4)	Calls up the REMOTE PARAMETERS screen.
(Fig. 3-5)	Button for calling up the COMPACTING UNIT MANUAL MODE screen
(Fig. 3-6)	Button for calling up the SRB MANUAL MODE screen
(Fig. 3-7)	Displays the current status of the knife drum brake.
(Fig. 3-8)	Button for calling up the diagnosis screen (see section **“Diagnosis screen”** (↑ 5-4)).
(Fig. 3-9)	Button to apply/release the knife drum brake.

Information
The button is only enabled if the knife drum hood is closed and MANUAL mode is preselected.

Information
The holding brake can also be released/applied via the cutter head control console.

Brake operation from the operator panel and the cutter head control console are interlocked against each other.

7.3.2 KNIFE DRUM PARAMETERS screen

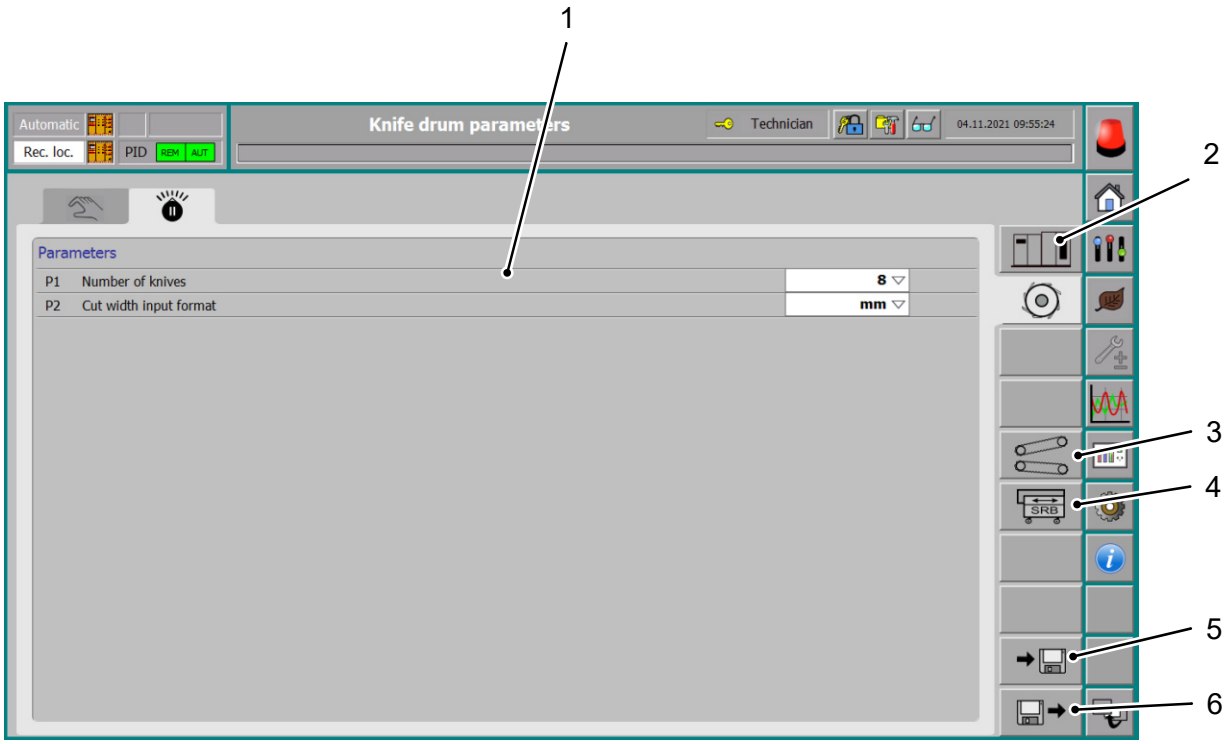


Fig. 4 Example of a KNIFE DRUM PARAMETERS screen (KT2_KnifePara.v.00001.00.cgm)

Calling up

- Tap the button on the inner menu bar of the other parameter screens.
- Touch tab button in the KNIFE DRUM MANUAL MODE screen

Password

To make entries in this screen, you must be logged on as TECHNICIAN.

Screen explanation

(Fig. 4-1)	Displays the parameters (see section **"Explanation of displayed parameters"** (↑ 7-9))
(Fig. 4-2)	Calls up the BASIC PARAMETERS screen.
(Fig. 4-3)	Button for calling up the COMPACTING UNIT PARAMETERS screen
(Fig. 4-4)	Calls up the SRB PARAMETERS screen.
(Fig. 4-5)	Button for saving the data record for the displayed parameters
(Fig. 4-6)	Button for restoring an old, saved data record

Explanation of displayed parameters

No.	Parameters	Meaning
P1	Number of knives	Choose the number of knives to be used on the cutter (2, 4 or 8). This parameter affects the minimum and maximum cut widths of the tobacco cutter. The selected setting is indicated by the text.
P2	Cut width input format	Toggling between cutting width entry and display in mm or cpi = cuts per inch The selected setting is indicated by the text.

7.4 Compacting unit screens

7.4.1 COMPACTING UNIT MANUAL MODE screen

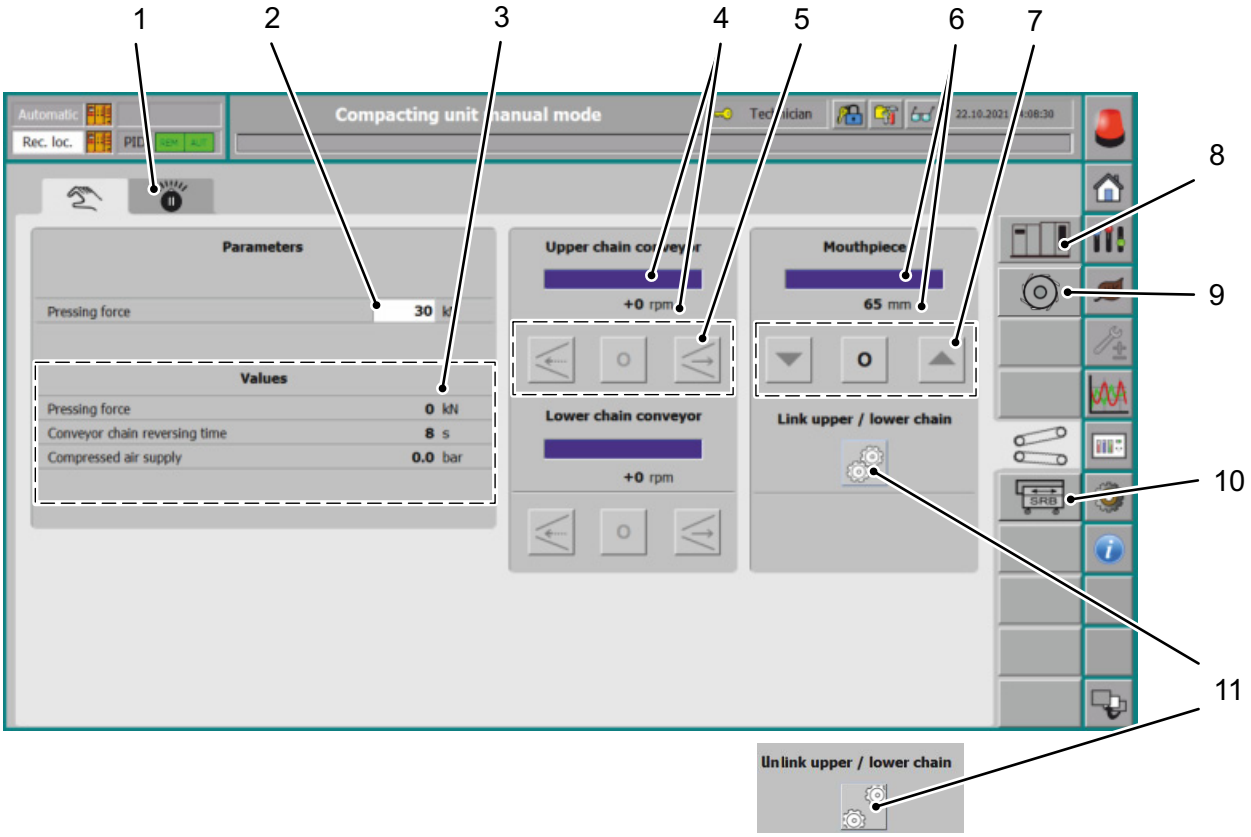
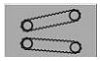


Fig. 5 Example of a COMPACTING UNIT MANUAL MODE screen (KT2_CompMan.v.00003.01.svg)

Calling up

- Tap the  button on the inner menu bar of one of the other manual mode screens.

- Tap the button on the COMPACTING UNIT PARAMETERS screen.

Password

To make entries in this screen, you must be logged on as OPERATOR.

Screen explanation

(Fig. 5-1) Button for calling up the COMPACTING UNIT PARAMETERS screen

(Fig. 5-2) Setpoint for the pressing force during compaction at the mouthpiece

When you tap this field, a keyboard appears, with which you can change the setpoint.

Valid range 2 to 58 kN.

(Fig. 5-3) Displays the process values for the subassembly.

(Fig. 5-4) Current status and speeds of the conveyor chains.

(Fig. 5-5) Buttons for operating the conveyor chains in manual mode:

- starts the conveyor chain forward in jog mode.
- o stops the conveyor chain (in reverse).
- starts the conveyor chain in reverse

(Fig. 5-6) Current status of the mouthpiece and current actual value of the mouthpiece height

(Fig. 5-7) Button for operating the mouthpiece in manual mode:

- lowers the mouthpiece
- o stops the mouthpiece movement
- raises the mouthpiece

(Fig. 5-8) Calls up the REMOTE PARAMETERS screen.

(Fig. 5-9) Button to call up the KNIFE DRUM MANUAL MODE screen

(Fig. 5-10) Button for calling up the SRB MANUAL MODE screen

(Fig. 5-11) Button for coupling/uncoupling the conveyor chain speeds:

- Electrical uncoupling of the lower and upper conveyor chain.

  After pressing this button, the upper and the lower conveyor chain can be moved individually in manual mode.

  The relevant display elements and buttons appear in the screen section for the conveyor chains *(Fig. 5-4)* and *(Fig. 5-5)*:

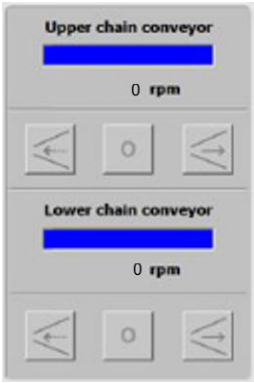


Fig. 6 Conveyor chain screen section - decoupled

(KT4_u_l_chain.v.00000.00.JPG)

- Electrical coupling of the lower and upper conveyor chain

  After pressing this button, the upper and the lower conveyor chain can be moved in combination in manual mode.

  The relevant display and button are shown in the screen section for the conveyor chains *(Fig. 5-4)* and *(Fig. 5-5)*:

Fig. 7 Conveyor chain screen section - coupled

(KT4_all_chain.v.00000.00.JPG)

7.4.2 COMPACTING UNIT PARAMETERS screen

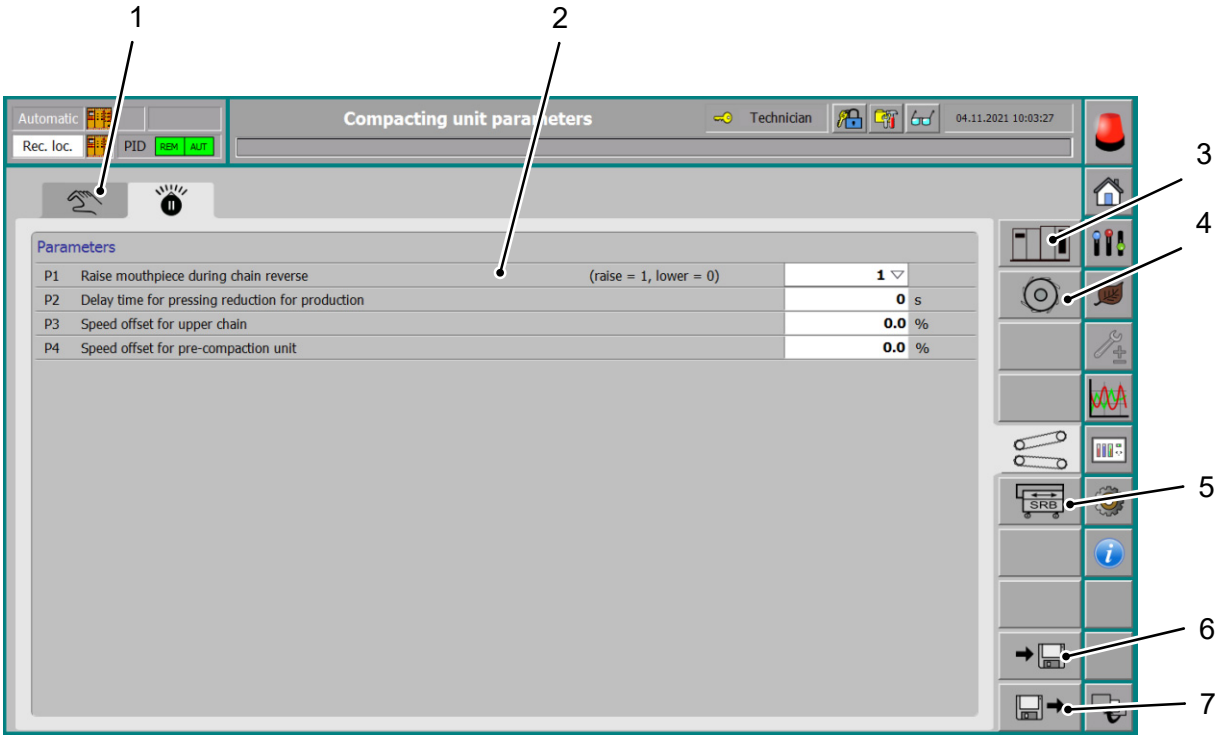


Fig. 8 Example of a COMPACTING UNIT PARAMETERS screen (KT2_CompPara.v.00001.00.cgm)

Calling up

- Tap the button on the inner menu bar of the other parameter screens.
- Tap the tab in the COMPACTING UNIT MANUAL MODE screen

Password

To make entries in this screen, you must be logged on as TECHNICIAN.

Screen explanation

> **Information**
> Grey text indicates that the relevant parameter is not available.

(Fig. 8-1)	Button for calling up the COMPACTING UNIT MANUAL MODE screen
(Fig. 8-2)	Displays the parameters (see section **"Explanation of displayed parameters"** (↑ 7-13))
(Fig. 8-3)	Calls up the BASIC PARAMETERS screen.
(Fig. 8-4)	Button for calling up the KNIFE DRUM PARAMETERS screen
(Fig. 8-5)	Calls up the SRB PARAMETERS screen.
(Fig. 8-6)	Button for saving the data record for the displayed parameters

(Fig. 8-7) Button for restoring an old, saved data record

Explanation of displayed parameters

No.	Parameters	Meaning	Unit	Area
P1	Raise mouthpiece during chain reverse	Determines whether the mouthpiece is raised when the chain is reversing (after a machine stop) or whether compression continues. • 1= chain is raised • 0 = chain remains lowered		
P2	Delay time for pressing reduction for production	Delay for pressure reduction after a conveyor chain stop during production.	s	0 – 99
P3	Speed offset for upper chain	Factor to adjust the speed of the upper chain to the production conditions.	%	0 – 10
P4	Speed offset for pre-compaction unit	Factor for adjusting the speed of the pre-compactor to the production conditions. Note: This parameter is only active when the tobacco cutter is equipped with a pre-compactor (L160, L125).	%	0 – 10

7.5 Compacting trough screens

7.5.1 The SRB MANUAL MODE screen

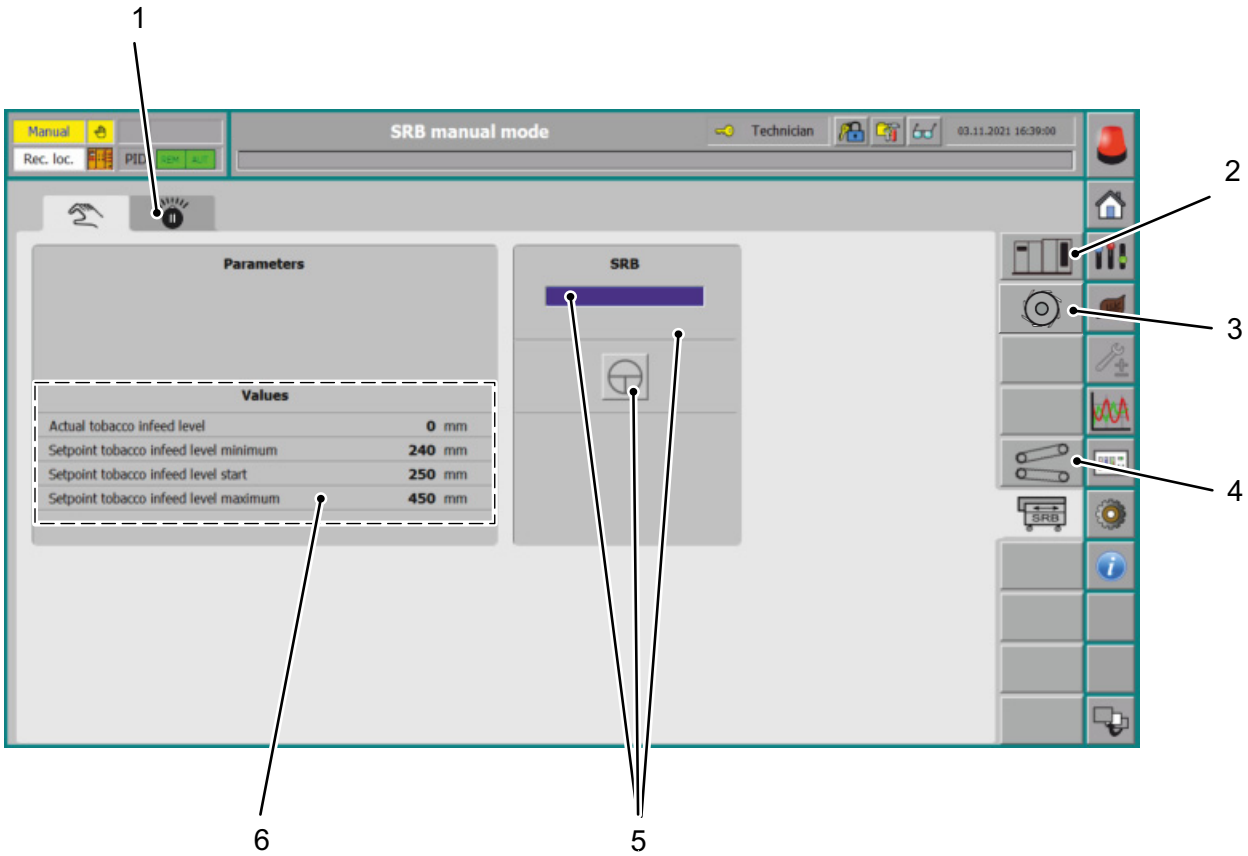


Fig. 9 Example of a SRB MANUAL MODE screen (KT2_SRBMan.v.00002.01.svg)

Calling up

- Tap the button on the inner menu bar of one of the other manual mode screens.
- Tap the button in the SRB PARAMETERS screen.

Password

To make entries in this screen, you must be logged on as OPERATOR.

Screen explanation

(Fig. 9-1)	Calls up the SRB PARAMETERS screen.
(Fig. 9-2)	Calls up the REMOTE PARAMETERS screen.
(Fig. 9-3)	Button to call up the KNIFE DRUM MANUAL MODE screen
(Fig. 9-4)	Button for calling up the COMPACTING UNIT MANUAL MODE screen
(Fig. 9-5)	Operating area for the compacting trough: • Displays the current drive status • Displays the current speed

- Button for starting the drive in jog mode

Note: This area is only visible if the equipment includes compacting trough control.

(Fig. 9-6) Displays the process values for the subassembly.

7.5.2 SRB PARAMETERS screen

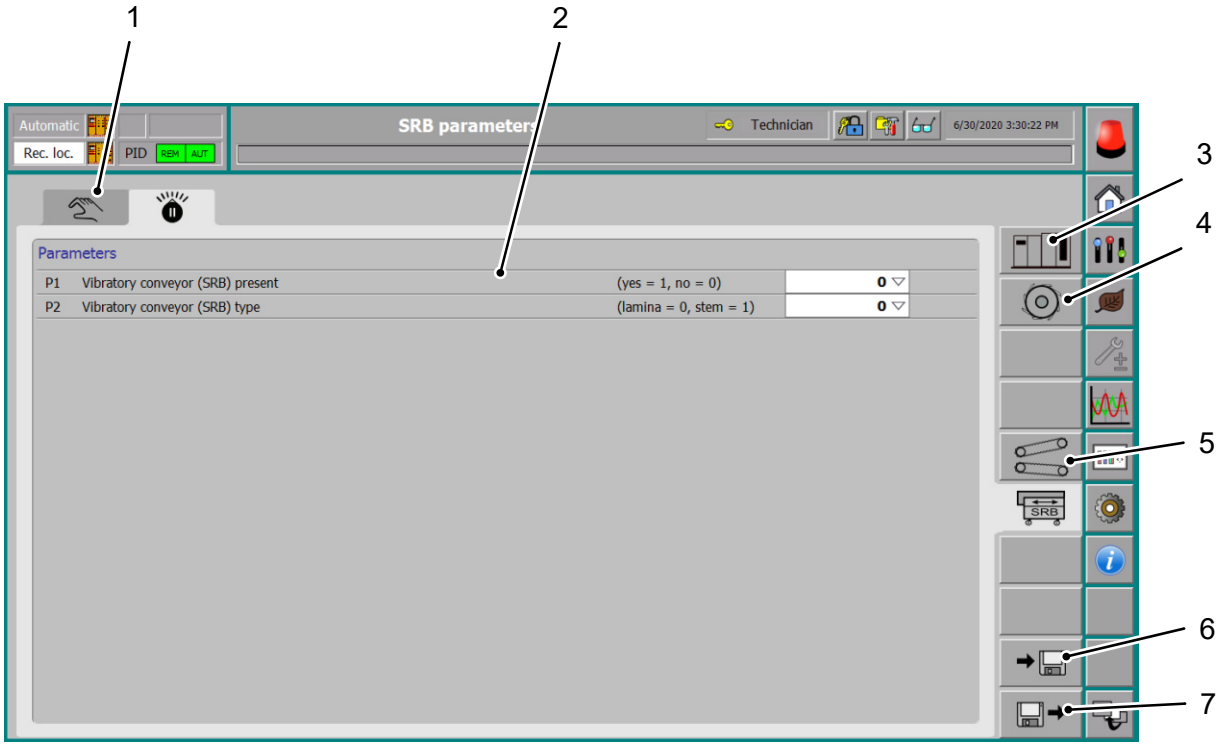


Fig. 10 Example of a SRB PARAMETERS screen (KT2_SRBPara.v.00000.00.cgm)

Calling up

- Tap the button on the inner menu bar of the other parameter screens.
- Tap the tab in the SRB MANUAL MODE screen.

Password

To make entries in this screen, you must be logged on as TECHNICIAN.

Screen explanation

(Fig. 10-1) Button for calling up the SRB MANUAL MODE screen

(Fig. 10-2) Displays the parameters (see section **"Explanation of displayed parameters"** (↑ 7-16))

(Fig. 10-3) Calls up the BASIC PARAMETERS screen.

(Fig. 10-4) Button for calling up the KNIFE DRUM PARAMETERS screen

(Fig. 10-5) Button for calling up the COMPACTING UNIT PARAMETERS screen

(Fig. 10-6)	Button for saving the data record for the displayed parameters
(Fig. 10-7)	Button for restoring an old, saved data record

Explanation of displayed parameters

No.	Parameters	Meaning
P1	Vibratory conveyor (SRB) present	Selection whether the cutter is equipped with a compacting trough (SRB) • 1 = “yes”; the cutter is equipped with a compacting trough (SRB). • 0 = “no”; the cutter is not equipped with a compacting trough (SRB).
P2	Vibratory conveyor (SRB) type	Selection whether the compacting trough (SRB) will be used for lamina or stems. • 0 = lamina • 1 = stems

8 Trend displays

Information
A trend shows the progression over time of process values.

8.1 TRENDS OVERVIEW screen

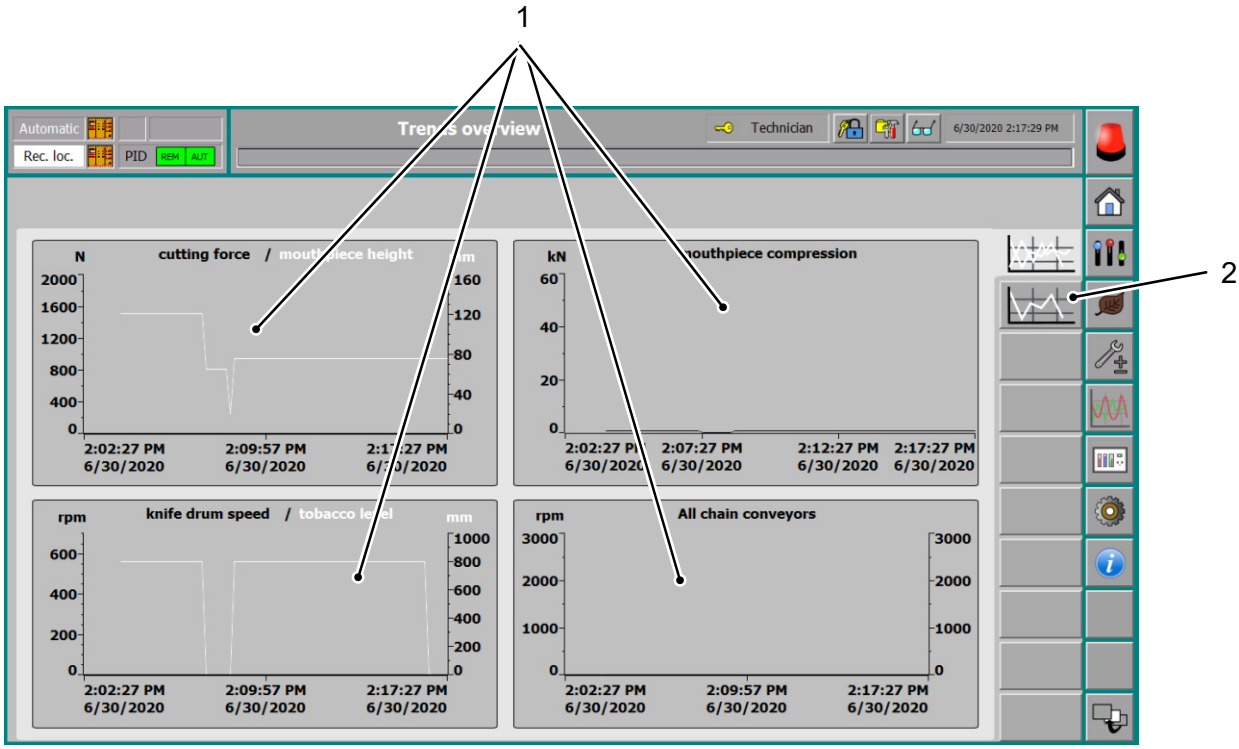
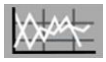


Fig. 1 Example of a TRENDS OVERVIEW screen (KT2_Trendueb.v.00000.00.cgm)

Calling up

Touch button on the menu bar or button  on the inner menu bar

Explanation of illustration

(Fig. 1-1) Displays of the current trends (actual values) over the past 15 minutes.

(Fig. 1-2) Button to call up the trend detail screens.

8.2 Current and historical trend detail screens

Information

- The current trend detail screens show the progression of process data over a period of time.
- The historical trend detail screens display the trend values archived in CSV files.

  This means that buttons ◀◀ and ▶▶ can be used to display older periods of time. In 3-shift operation, the trend charts of approximately the last 30 days are stored.

The layout and the colours used in the two screens are identical.

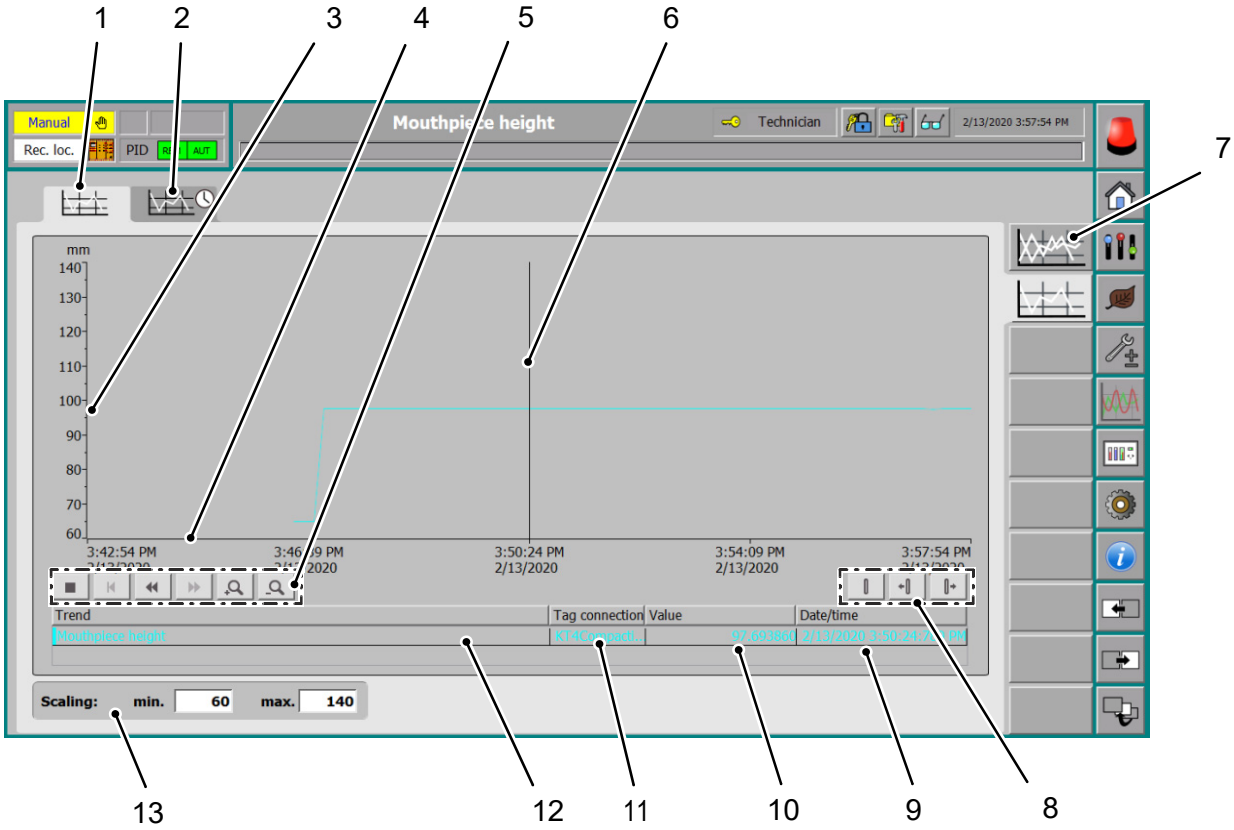


Fig. 2 Example of a trend detail screen (KT4_Trending.v.00000.00.cgm)

Calling up

Touch button on the inner menu bar.

The tab buttons and can be used to switch between the current trend detail screen and the historical trend detail screen.

Explanation of illustration

(Fig. 2-1)	Buttons to call up the current trend detail screen
(Fig. 2-2)	Buttons to call up the historical trend detail screen

(Fig. 2-3) Scale (Y axis) for the actual PV values

(Fig. 2-4) Time axis (X axis) for the period during which the trend curves displayed were recorded.

(Fig. 2-5) Buttons to change the time axis (X axis):

- ■ / ▶
  Touching button ■ interrupts updating of the trend display and the symbol on the button changes to ▶.
  Touch the button once more to update the trend display again.
- ⏮
  Takes you to the start of the trend display
- ◀◀
  Moves the time range displayed to the left
- ▶▶
  Moves the time range displayed to the right
- 🔍+
  Reduces the time range displayed
- 🔍-
  Increases the time range displayed

(Fig. 2-6) Ruler (display marker line)

- The ruler can be moved to any point within the time window by touching and dragging it with a finger.
- Alternatively, the ruler can be moved to the left or right by touching button ⇤▯ or ▯⇥ *(Fig. 2-8)*.

The numerical values of the points marked by the ruler are shown in the VALUE *(Fig. 2-11)* column in the lower table.

(Fig. 2-7) Button to call up the trend overview screen.

(Fig. 2-8) Buttons to control the ruler:

- ▯
  Touch the button to show or hide the ruler *(Fig. 2-6)*.
- ⇤▯
  Moves the ruler to the left.
- ▯⇥
  Moves the ruler to the right.

(Fig. 2-9) Displays the date and time at the points marked by the ruler *(Fig. 2-6)*.

(Fig. 2-10) Displays the numerical values at the points marked by the ruler *(Fig. 2-6)*.

(Fig. 2-11) Connection tag of the process values displayed.

(Fig. 2-12) Designation of the process values displayed.

(Fig. 2-13) Input fields for min. and max. scale end values (Y axis) *(Fig. 2-3)*.

When you touch a field a keyboard is displayed via which you can change the corresponding value.

9 CONTROLLER screen

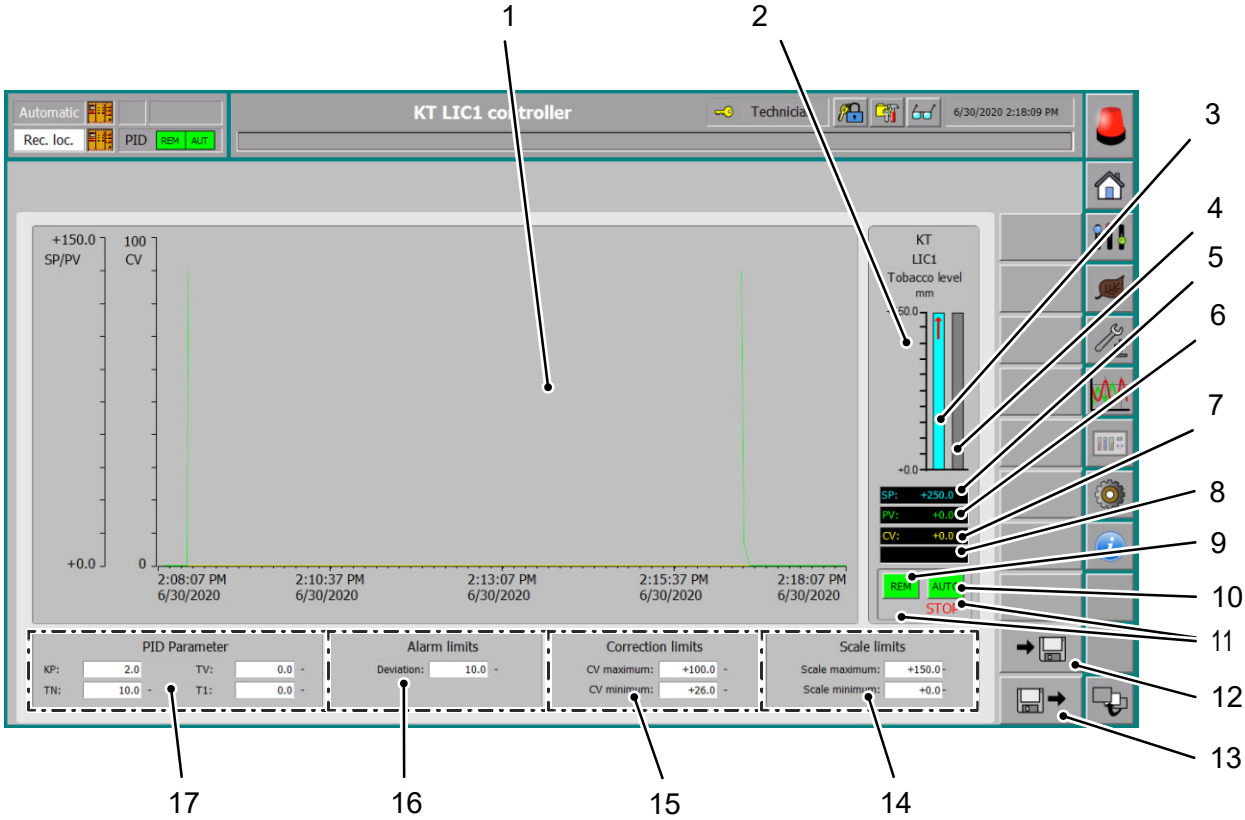


Fig. 1 Example of a controller screen (KT2_Regelbild.v.00000.00.cgm)

Calling up Touch button .

Password

- The controller mode and setpoint source preselection can be changed only if the OPERATOR level password has been entered.
- Changes to the control parameters can only be made if the TECHNICIAN level password has been entered.

Explanation of illustration

(Fig. 1-1) Trend displays for setpoint (blue), actual value (green) and correcting variable (yellow).

(Fig. 1-2) Scale for the bar display for setpoint and actual value with end of scale value and physical unit.

(Fig. 1-3) Setpoint SP as a blue bar graph, corresponding to the scale.

(Fig. 1-4) Actual value PV as a green bar graph, corresponding to the scale.

(Fig. 1-5) Setpoint SP as a digital display value in a physical unit.

When LOCAL setpoint preselection is set, a local setpoint can be specified here.

(Fig. 1-6) Actual value PV as a digital display value in a physical unit.

(Fig. 1-7)	Controller output (correcting variable) CV as a digital display value (0 - 100%). In the MANUAL controller mode, a manual correcting variable can be entered here.
(Fig. 1-8)	Controller output (correcting variable) CV as a yellow bar graph, corresponding to the 100% percentage display.
(Fig. 1-9) LOC / REM	LOCAL / REMOTE setpoint selection mode selected by the operator. Touch the LOC / REM button to change the setpoint preselection source. • Black REM on a green background: REMOTE setpoint preselection has been set; the controller setpoint is set after calculation by the PLC (normal operation). • Black LOC on a red background: LOCAL setpoint preselection has been set; the operator can specify a local controller setpoint in the SP field *(Fig. 1-5)*.
(Fig. 1-10) MAN / AUTO	Controller mode MANUAL / AUTOMATIC specified by the operator. Touch the MAN / AUTO field to change the controller mode. • Black AUTO, green background: Controller mode AUTOMATIC is preselected. The correcting variable is calculated by the controller (normal operation). • Black MAN on a red background: The MANUAL controller mode has been preselected; the operator can specify a manual correcting variable in the CV field *(Fig. 1-7)*.
(Fig. 1-11) MAN / STOP / LOC	If the controller mode is specified by the PLC control system, a suitable indicator is displayed: • Red MAN: The PLC control system has switched the controller to MANUAL mode. The current correcting variable is specified by the PLC control system. Switching to operator-MANUAL is permitted. • Red STOP: The PLC has switched the controller to STOP state. The correcting variable is set by the PLC. This status cannot be changed by the operator. • Red LOC: The PLC control system has switched the controller to setpoint LOCAL. The controller setpoint is specified by the PLC control system. Switching to operator-LOCAL is possible.
(Fig. 1-12) SAVE PARAMETERS	Button to save a new control parameter data record. See chapter **" Changing recipe parameters"** (↑ 9-4).
(Fig. 1-13) RESTORE PARAMETERS	Button to load an old, stored control parameter data record. See chapter **" Changing recipe parameters"** (↑ 9-4).
(Fig. 1-14)	Scaling limits (control parameters): • SCALE MAXIMUM

Upper scaling factor for the setpoint/actual display for the controller.

- SCALE MINIMUM

  Lower scaling factor for the setpoint/actual display for the controller.

(Fig. 1-15) Correction limits (control parameters):

- CV MAXIMUM

  Maximum output value of the correcting variable CV.
- CV MINIMUM

  Minimum output value of the correcting variable CV.

(Fig. 1-16) Alarm limits (control parameters):

DEVIATION: maximum permitted deviation between setpoint and actual value. If this value is exceeded, a message will be displayed.

(Fig. 1-17) Controller parameters (control parameters):

- KP = proportional gain of the controller.
- TN = integral action time of the controller.
- TV = derivative action time of the controller.
- T1 = controller delay.

9.1 Preselecting the controller mode / setpoint preselection

Information
For normal production, controller mode AUTOMATIC and REMOTE setpoint preselection should be selected.

The controller setpoints are calculated and specified by the PLC, taking the values stored as recipe parameters or machine parameters into account.

Preselecting the controller mode

1. Enter the OPERATOR level password.
2. To preselect MANUAL or AUTOMATIC mode, touch the MAN / AUTO button *(Fig. 1-10)*.
   - A black MAN on a red background indicates that MANUAL controller mode has been preselected.
   - A black AUTO on a green background indicates that the AUTOMATIC controller mode has been preselected.

Setting the setpoint selection mode

1. Enter the OPERATOR level password.
2. Touch the LOC / REM button *(Fig. 1-9)* to set the LOCAL or REMOTE setpoint preselection mode.
   - A black LOC on a red background indicates that the LOCAL setpoint preselection mode has been set.
   - A black REM on a green background indicates that the REMOTE setpoint preselection mode has been set.

9.2 Entering a manual correcting variable

Procedure

1. Enter the OPERATOR level password.
2. Preselect controller mode MANUAL
3. Touch the yellow input field for the correcting variable CV *(Fig. 1-7)*.
4. Enter the new correcting variable (input range 0 - 100%).
5. Touch the ENTER button to adopt the new correcting variable.

In MANUAL mode, the correcting variable takes effect immediately and is displayed in the controller screen as a numerical value in % and as a yellow horizontal bar graph.

9.3 Entering a local setpoint

Procedure

1. Enter the OPERATOR level password.
2. Set LOCAL setpoint preselection mode.
3. Touch the blue input field for the setpoint SP *(Fig. 1-5)*.
4. Enter a new setpoint.
5. Touch the ENTER key to confirm the new setpoint.

In AUTOMATIC controller mode with LOCAL setpoint preselection, the setpoint takes effect immediately and is shown as a numerical value and as a blue vertical bar on the controller screen.

9.4 Changing control parameters

Procedure

1. Enter the TECHNICIAN level password.
2. Touch the input field for the parameter to be changed (*(Fig. 1-14)* to *(Fig. 1-17)*).
3. Enter a new parameter value and confirm with ENTER.
4. Change the next parameter value; repeat steps 2. and 3. to do so.
5. When you have made all changes, save the modified data record by touching the SAVE PARAMETERS *(Fig. 1-12)* button.

Information
To retrieve a control parameter data record that has already been stored, touch the RESTORE PARAMETERS button *(Fig. 1-13)*. A window which allows you to select old control parameter records opens.

10 Alarm and message screens

10.1 The ALARM OVERVIEW and HISTORICAL ALARM OVERVIEW screens

Information

- The ALARM OVERVIEW screen only shows alarms, warnings and event messages the causes of which have not yet been eliminated or acknowledged.
- The HISTORICAL ALARM OVERVIEW screen shows all alarms, warnings and event messages (even those whose causes have already been eliminated or acknowledged).

The layout and the colours used in the two screens are almost identical.

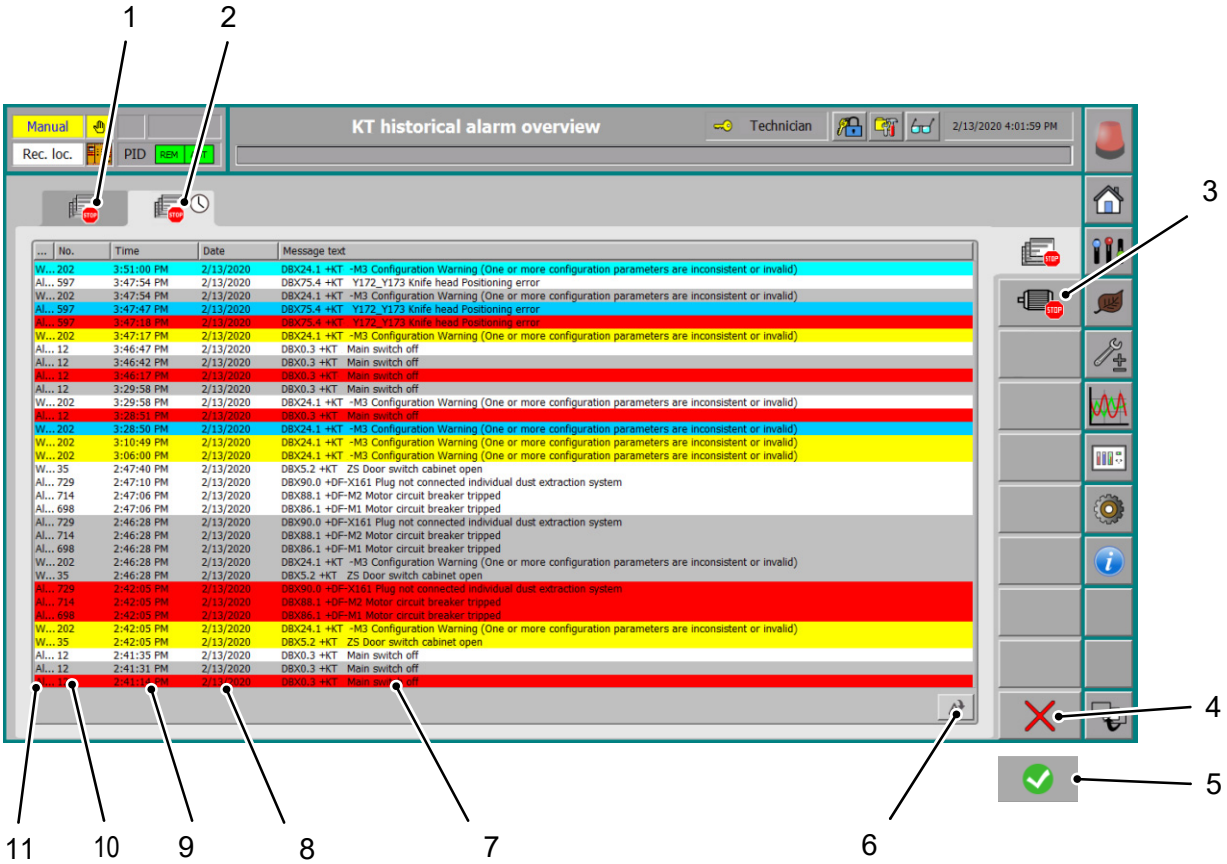


Fig. 1 Example of a HISTORICAL ALARM OVERVIEW screen (KT2_Alarm_over.v.00000.00.cgm)

Calling up

Tap button .

Buttons and can be used to switch between the ALARM OVERVIEW and HISTORICAL ALARM OVERVIEW screens.

Screen explanation

(Fig. 1-1)	Calls up the ALARM OVERVIEW screen.
(Fig. 1-2)	Button for calling up the HISTORICAL ALARM OVERVIEW screen
(Fig. 1-3)	Button for calling up the DRIVE SYSTEM DIAGNOSIS screen
(Fig. 1-4)	Button for deleting all acknowledged alarms, warnings and event messages (see section **"Acknowledging alarms, warnings and event messages"** (↑ 10-3)) *Note: This button is only available in the HISTORICAL ALARM OVERVIEW screen.*
(Fig. 1-5)	Button for acknowledging displayed alarms, warnings and event messages (see section **"Acknowledging alarms, warnings and event messages"** (↑ 10-3)) *Note: This button is only available in the ALARM OVERVIEW screen.*
(Fig. 1-6)	When you select a message line and tap the button, a message screen with a more detailed explanation of the alarm, warning or event message appears. This screen also provides information about how to eliminate the fault. *Note: For self-explanatory alarms, warnings and event messages, no message screen is provided and the button is greyed out.*
(Fig. 1-7)	Display of alarm, warning and message texts comprising the following information: • S7 address (data block) in which the alarm, warning or event message is saved (e.g. DBX604). • Location at which the fault occurred: **+** Location code of the affected component **-** Component code of the defective drive, sensor, actuator, etc. • Cause of fault in plain text.
(Fig. 1-8)	Shows the date on which the fault occurred.
(Fig. 1-9)	Shows the time at which the fault occurred.
(Fig. 1-10)	Shows the message number. Each alarm, warning and event message has a defined message number; this is also transferred to the higher-level control system via the bus interface.
(Fig. 1-11)	Shows the type of the fault: • **Alarm** = alarm causing immediate or delayed switch-off • **Warning** = warning or event message which does not cause switching off of the plant (If a warning is pending the plant cannot be started, if an event message is pending the plant can be started any time.)

10.1.1 Meaning of the colours

Black text on red background

A fault that generates an alarm (A) occurred in automatic mode

The alarm has not yet been acknowledged and the malfunction is still pending.

Black text on yellow background

A fault has occurred in automatic mode which has triggered a warning or event message.

The warning or event message has not yet been acknowledged and the fault is still pending.

Black text on blue background

The fault was rectified or disappeared by itself, but the alarm, the warning or the event message has not yet been acknowledged.

Black text on grey background

The alarm, the warning or the event message was acknowledged but the fault has not yet been remedied.

Black letters on a white background

The fault was rectified or disappeared by itself and the alarm, the warning or the event message was acknowledged.

Note: This display is only provided in the HISTORICAL ALARM OVERVIEW screen.

10.1.2 Acknowledging alarms, warnings and event messages

Tap the button in the ALARM OVERVIEW screen to acknowledge all alarms, warnings and messages displayed in the screen.

When an alarm, a warning or an event message was acknowledged and the cause was eliminated, it is cleared from the ALARM OVERVIEW screen. It can then still be viewed in the HISTORICAL ALARM OVERVIEW screen.

Tap button in the HISTORICAL ALARM OVERVIEW screen to delete all acknowledged alarms, warnings and messages displayed in the screen even if the cause still exists.

10.2 DRIVE SYSTEM DIAGNOSIS screens

10.2.1 DRIVE SYSTEM DIAGNOSIS (FAULTS) screen

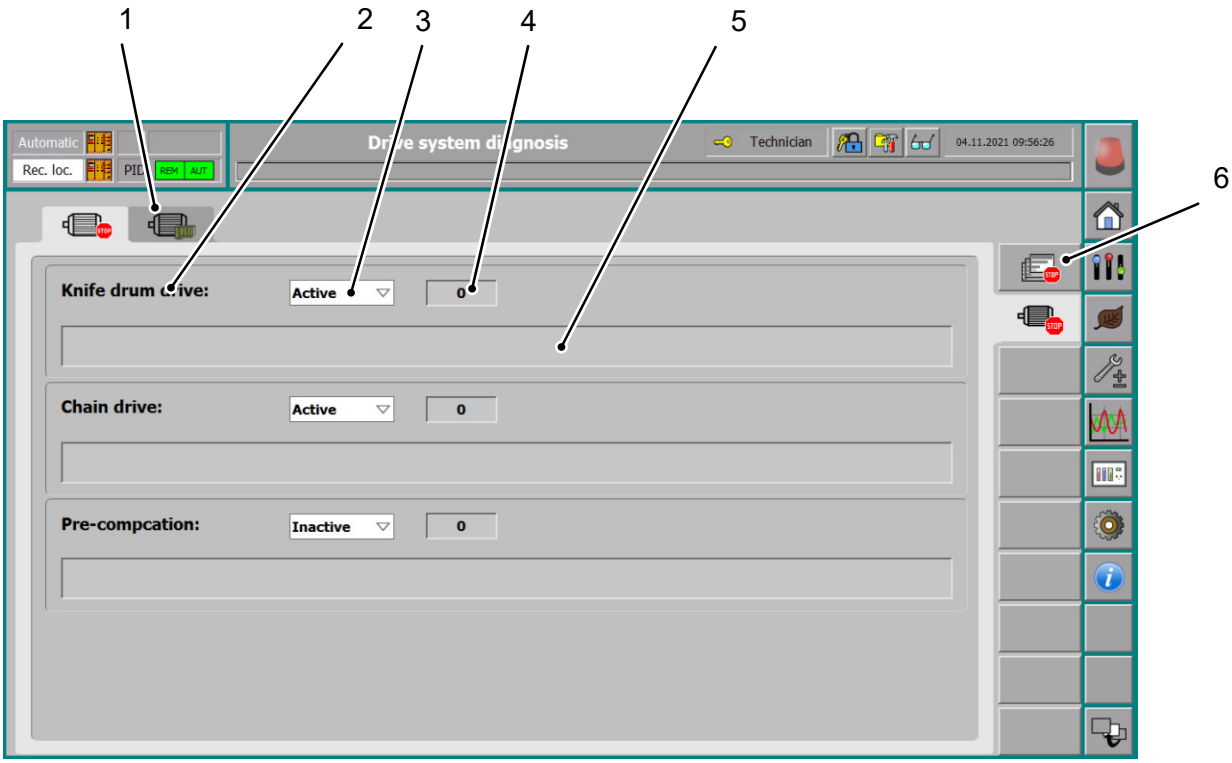


Fig. 2 Example of a DRIVE SYSTEM DIAGNOSIS (FAULTS) screen (KT2_Diag_Antr.v.00002.00.cgm)

Calling up

- Tap button on the inner menu bar
- Tap the tab in the DRIVE SYSTEM DIAGNOSIS (STATUSBITS) screen

Screen description

(Fig. 2-1)	Button for calling up the DRIVE SYSTEM DIAGNOSIS (STATUS-BITS) screen.
(Fig. 2-2)	Designation of the drive
(Fig. 2-3)	Selection field: Activate or deactivate the drive This function is intended for the service technician, e.g. in order to deactivate a drive that was removed. The other drives can still be switched on for service purposes in manual mode.
(Fig. 2-4)	Fault number of the drive
(Fig. 2-5)	Fault message of the drive
(Fig. 2-6)	Calls up the ALARM OVERVIEW screen.

10.2.2 DRIVE SYSTEM DIAGNOSIS (STATUSBITS) screen

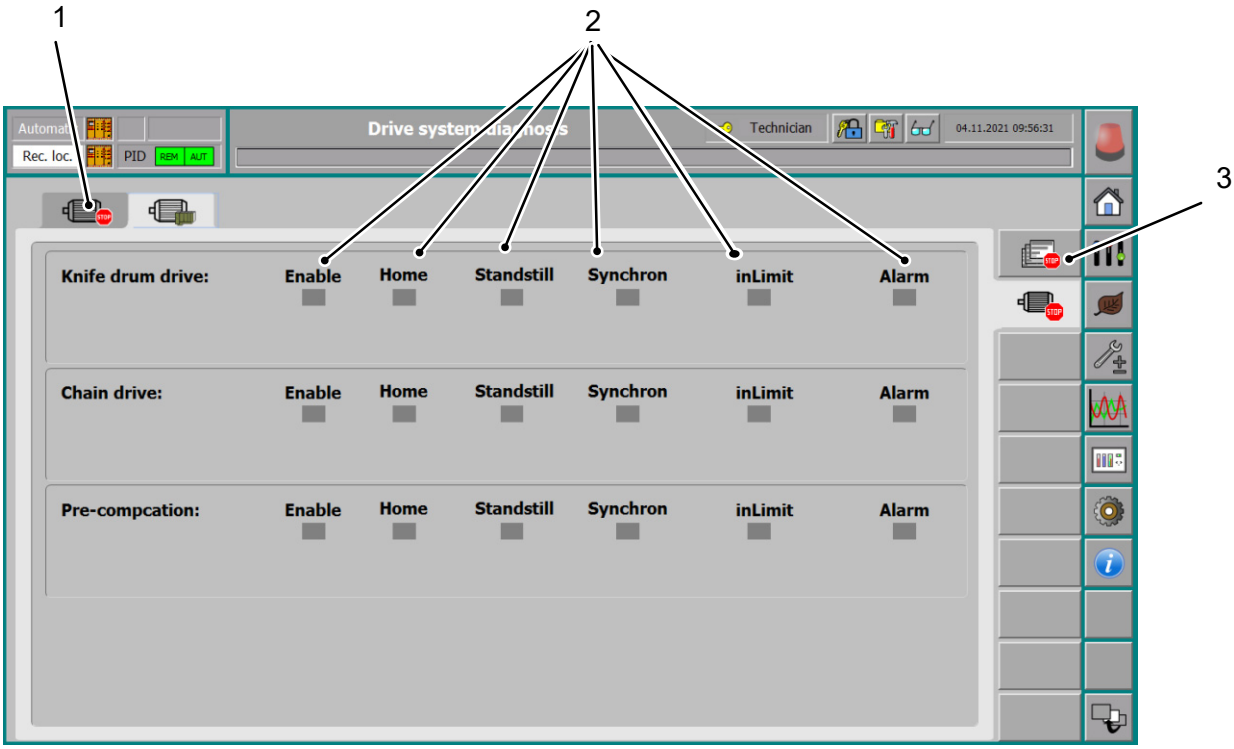


Fig. 3 Example of a DRIVE SYSTEM DIAGNOSIS (STATUSBITS) screen (KT2_Diag_Antr.v.00003.00.cgm)

Calling up

Tap the tab in the DRIVE SYSTEM DIAGNOSIS (FAULTS) screen

Screen description

(Fig. 3-1) Button for calling up the DRIVE SYSTEM DIAGNOSIS (FAULTS) screen

(Fig. 3-2) Status displays for the drives, the following statuses are shown:

- Enable
- Home
- Standstill
- Synchronous
- inLimit
- Alarm

The colours have the following meanings:

- Status indicator green: Condition fulfilled
- Status indicator grey: Condition not fulfilled

(Fig. 3-3) Calls up the ALARM OVERVIEW screen.

11 Screens for service and maintenance

11.1 MACHINE MAINTENANCE screen

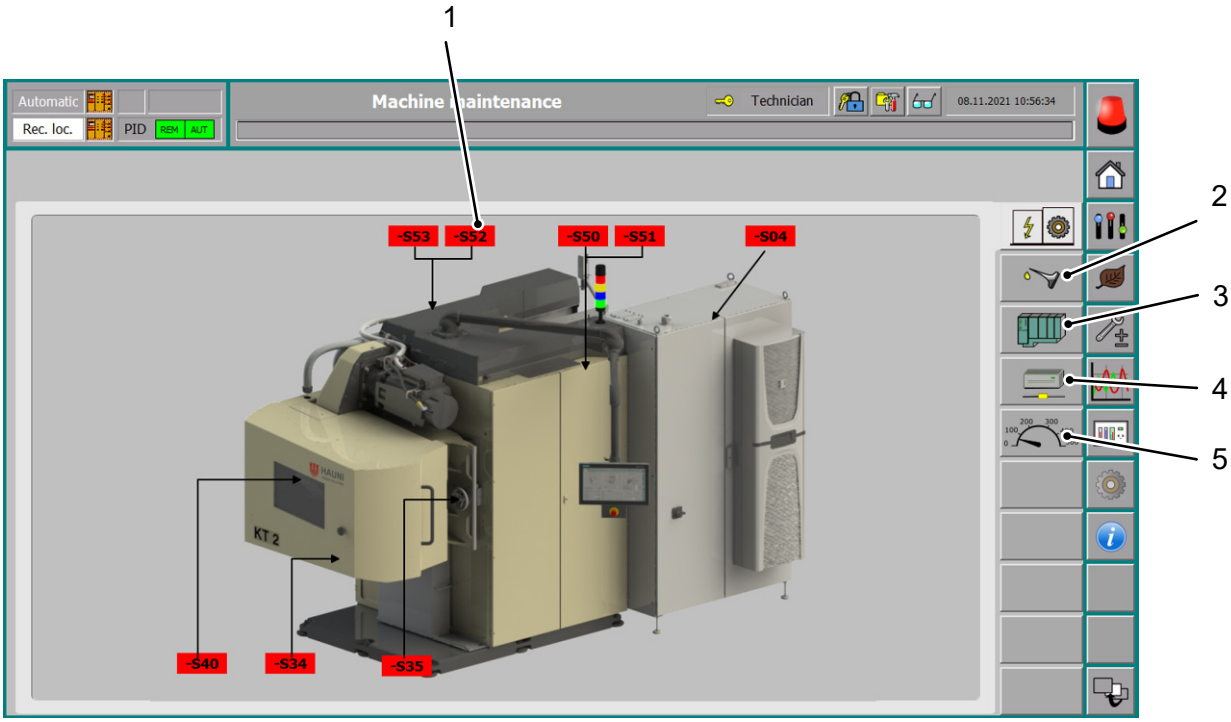


Fig. 1 MACHINE MAINTENANCE screen (KT2_Service.v.00001.00.cgm)

Calling up

- Tap button on the menu bar
- Tap button on the inner menu bar.

Screen explanation

(Fig. 1-1) Component codes of the safety limit switches on the doors and flaps of the cutter.

- Red component code: door/flap is open.
- White component code: door/flap is closed.

Switching on of the cutter is enabled only if all safety limit switches are closed.

(Fig. 1-2) Button for calling up the DAILY MAINTENANCE WORK screen

(Fig. 1-3) Button for calling up the CONVENTIONAL INTERFACE DIAGNOSIS screen

(Fig. 1-4) Button for calling up the INTERFACE DIAGNOSIS BUS screen

(Fig. 1-5) Calls up the CONSUMPTION DATA screen.

(Optional, only visible when the tobacco cutter is equipped with the consumption data acquisition function)

11.2 Maintenance schedule screens

Information
These screens show information on maintenance work. Maintenance messages can be deactivated and intervals configured here.

For detailed information and instructions regarding the maintenance work to be carried out refer to the Service Manual HWR.0592.xxx.xx.

11.2.1 DAILY MAINTENANCE WORK screen

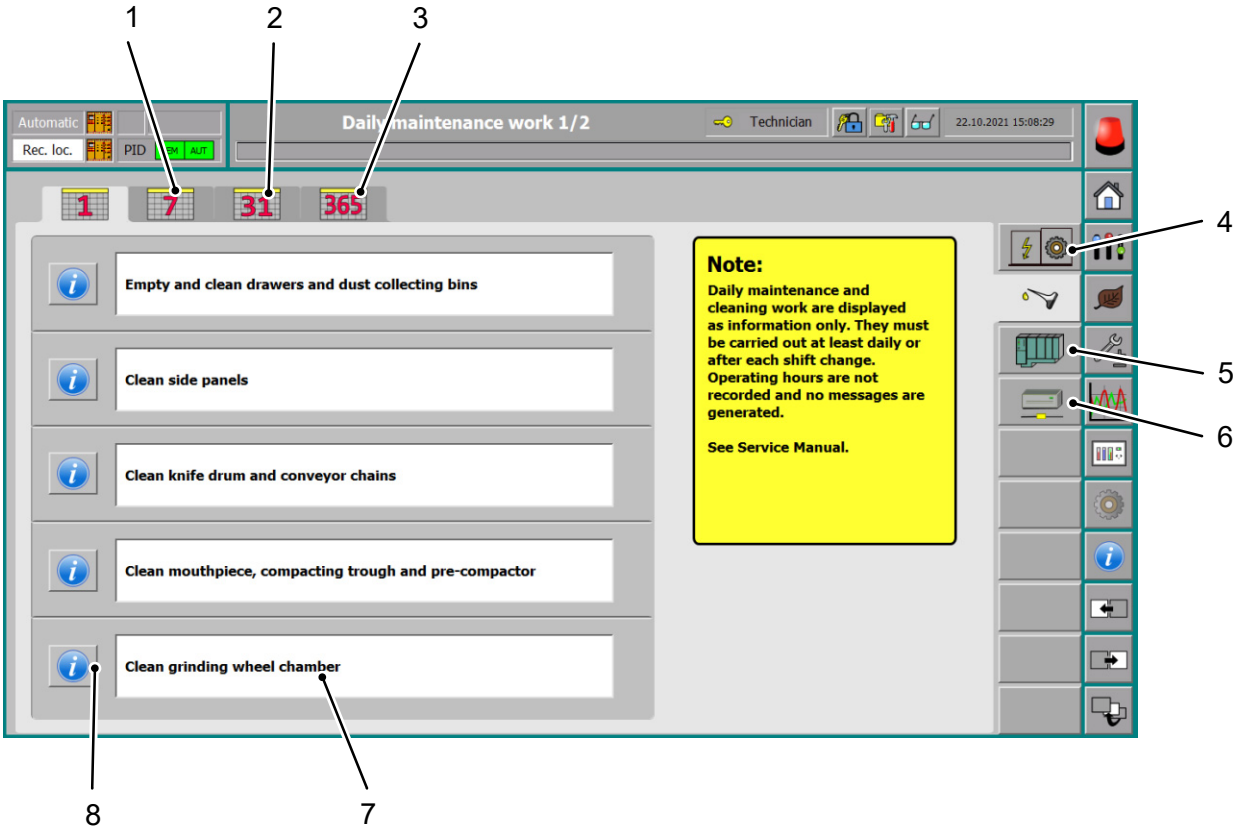
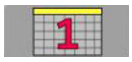


Fig. 2 Screen DAILY MAINTENANCE WORK (KT2_Wart_Tag.v.00001.00.cgm)

Calling up

- Tap button on the inner menu bar
- Tap the  tab in one of the other MAINTENANCE screens

Screen explanation

(Fig. 2-1)	Button for calling up the WEEKLY MAINTENANCE WORK screen
(Fig. 2-2)	Button for calling up the MONTHLY MAINTENANCE WORK screen
(Fig. 2-3)	Button for calling up the YEARLY MAINTENANCE WORK screen

(Fig. 2-4)	Button for calling up the REMOTE MACHINE MAINTENANCE screen
(Fig. 2-5)	Button for calling up the CONVENTIONAL INTERFACE DIAGNOSIS screen
(Fig. 2-6)	Button for calling up the INTERFACE DIAGNOSIS BUS screen
(Fig. 2-7)	Plain-text display of maintenance work to be carried out
(Fig. 2-8)	Button for calling up the corresponding screen with help/information about the maintenance tasks

Daily maintenance work

- Empty and clean all drawers and dustbins
- Clean grinder unit cover and steel belts
- Clean knife drum and conveyor chains
- Clean mouthpiece, compacting trough and pre-compactor
- Clean side panels
- Chain dust extractor: Empty the drawers (only required if the tobacco cutter is equipped with the optional chain dust extractor)

11.2.2 WEEKLY, MONTHLY and YEARLY MAINTENANCE WORK screens

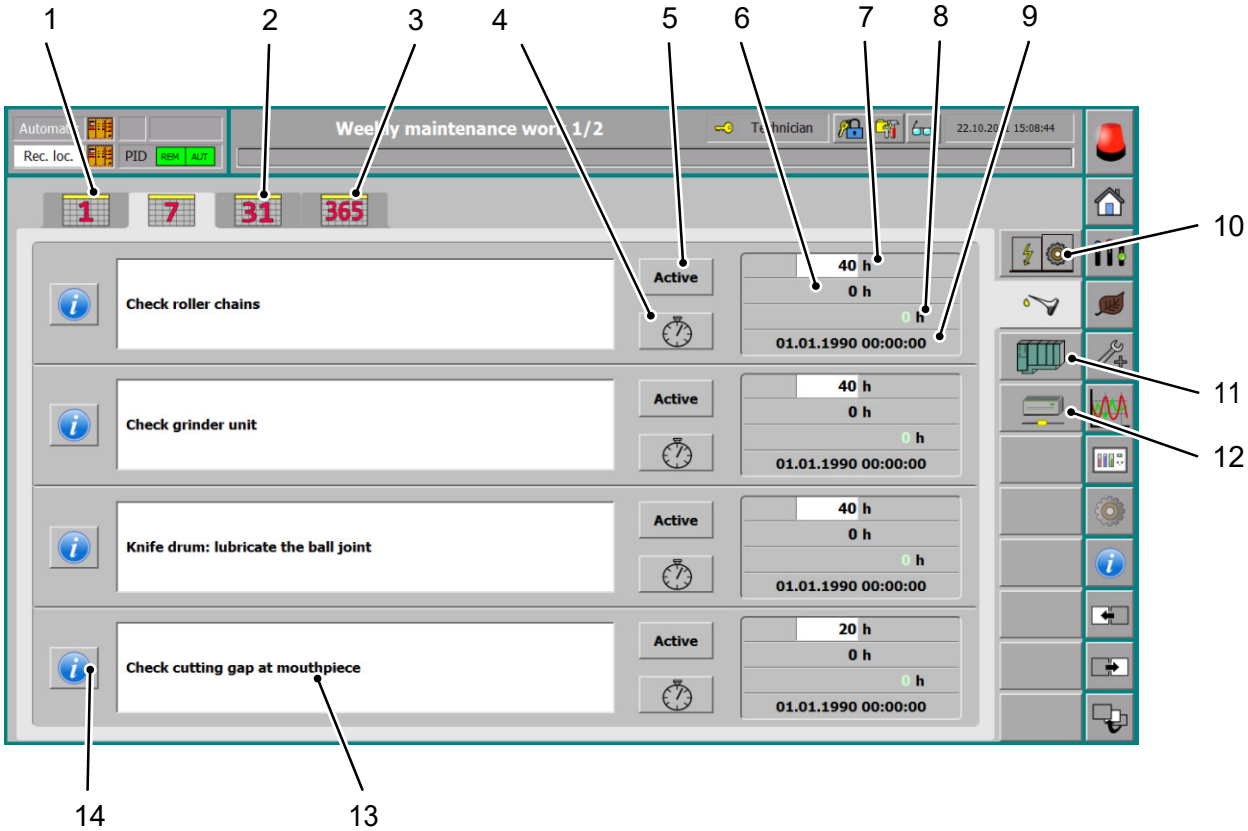
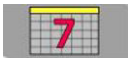


Fig. 3 Example of a WEEKLY MAINTENANCE WORK screen (KT2_Wart_Woche.v.00001.00.cgm)

Information
The layout of the WEEKLY, MONTHLY and YEARLY MAINTENANCE WORK screens is identical.

Calling up

Tap a  tab (WEEKLY MAINTENANCE WORK),

(MONTHLY MAINTENANCE WORK) or

(YEARLY MAINTENANCE WORK) in the other MAINTENANCE screens

Password

Entries can only be made in these screens if the TECHNICIAN level password has been entered.

Screen explanation

(Fig. 3-1) Button for calling up the DAILY MAINTENANCE WORK screen

(Fig. 3-2) Button for calling up the MONTHLY MAINTENANCE WORK screen

(Fig. 3-3) Button for calling up the YEARLY MAINTENANCE WORK screen

(Fig. 3-4)	Button for resetting the operating hours count *(Fig. 3-6)* and the date and time *(Fig. 3-9)* of the last maintenance. This button must be pressed after completing maintenance work.
(Fig. 3-5)	Selects whether a prompt appears when maintenance is due: • ACTIVE = an information message is displayed when the maintenance interval has expired. • INACTIVE = an information message is not displayed when the maintenance interval has expired.
(Fig. 3-6)	Indicates the operating hours since the last maintenance. Pressing the button *(Fig. 3-4)* resets the display to “0”.
(Fig. 3-7)	Input field to specify the intervals at which maintenance is due.
(Fig. 3-8)	Indicates the total hours of operation. This counter cannot be reset.
(Fig. 3-9)	Indicates date and time at which the maintenance work was last carried out. Pressing the button *(Fig. 3-4)* updates the date and time.
(Fig. 3-10)	Button for calling up the REMOTE MACHINE MAINTENANCE screen
(Fig. 3-11)	Button for calling up the CONVENTIONAL INTERFACE DIAGNOSIS screen
(Fig. 3-12)	Button for calling up the INTERFACE DIAGNOSIS BUS screen
(Fig. 3-13)	Plain-text display of maintenance work to be carried out
(Fig. 3-14)	Button for calling up the corresponding screen with help/information about the maintenance tasks

Weekly maintenance work

- Check roller chains
- Check grinder unit
- Lubricate ball joint on knife drum
- Check cutting slot at mouthpiece
- Check leafsprings on compacting trough
- Measuring/monitoring units
- Transparent panels, cleaning

Monthly maintenance work

- Check conveyor chains
- Check toothed belts of knife drum
- Check grinder unit
- Check compressed air unit
- Check cooling unit
- Check belt run of pre-compactor

- Chain dust extractor: Check filter cartridge (only required if the tobacco cutter is equipped with the optional chain dust extractor)

Yearly maintenance work

- Check gear unit oil level.
- Change the gear unit oil.
- Check knife drum.
- Replace the hood viewing window.
- Carry out general tobacco cutter overhaul.

11.3 CONVENTIONAL INTERFACE DIAGNOSIS screen

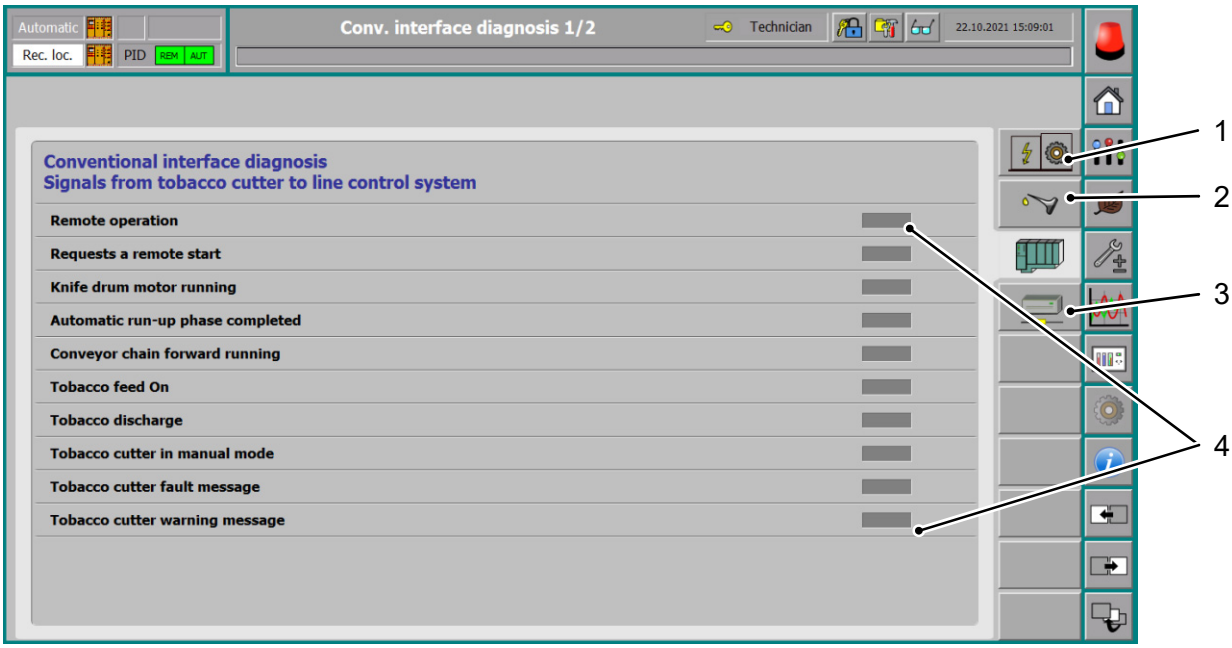


Fig. 4 Example of a CONVENTIONAL INTERFACE DIAGNOSIS screen (KT2_Diag_Konv.v.00001.00.cgm)

Calling up Tap button on the inner menu bar

Screen explanation

(Fig. 4-1) Calls up the MACHINE MAINTENANCE screen.

(Fig. 4-2) Button for calling up the DAILY MAINTENANCE WORK screen

(Fig. 4-3) Button for calling up the INTERFACE DIAGNOSIS BUS screen

(Fig. 4-4) Shows the status of the binary input and output signals of the conventional interface:

- Green: interface signal = “1”
- Grey: interface signal = “0”

Information
The CONVENTIONAL INTERFACE DIAGNOSIS screen has two pages:

- Page 1:
  Signals from tobacco cutter to SCS
- Page 2:
  Signals from SCS to tobacco cutter,
  "Simulation of the conventional interface" function (function only available if the TECHNICIAN level password has been entered).

11.3.1 Simulation of the conventional interface

NOTICE

This function is not an operating mode that can be used for the production process, it is intended for commissioning the tobacco cutter without an interface connection!
This function must be used only by trained persons.

If no hardware interface is available and the bus interface (PROFI-BUS/Ethernet) has not yet been set up, this function can be used to provide some signals via the cutter's operator panel.

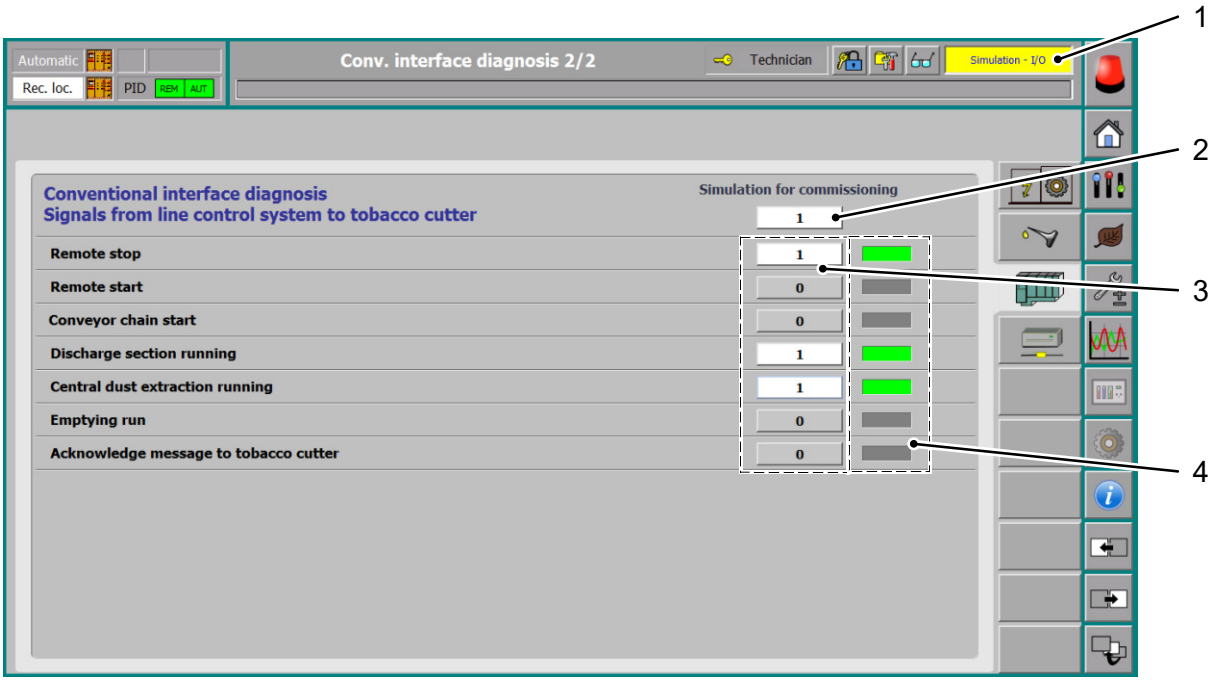


Fig. 5 Example of a CONVENTIONAL INTERFACE DIAGNOSIS screen (KT2_Diag_Konv.v.00002.00.cgm)

Password

This function is only available if the TECHNICIAN level password has been entered.

Screen explanation

(Fig. 5-1) This indicator signals that function “Conventional interface simulation” has been enabled.

(Fig. 5-2) Button to enable/disable function “Conventional interface simulation”.

- Indication “1”: function is enabled
- Indication “0”: function is disabled

(Fig. 5-3) Button for setting/resetting the interface signals.

- Indication “1”: interface signal is set
- Indication “0”: interface signal is reset

(Fig. 5-4) Shows the status of the binary output signals of the conventional interface:

- Green: interface signal = “1”
- Grey: interface signal = “0”

11.4 INTERFACE DIAGNOSIS BUS screen

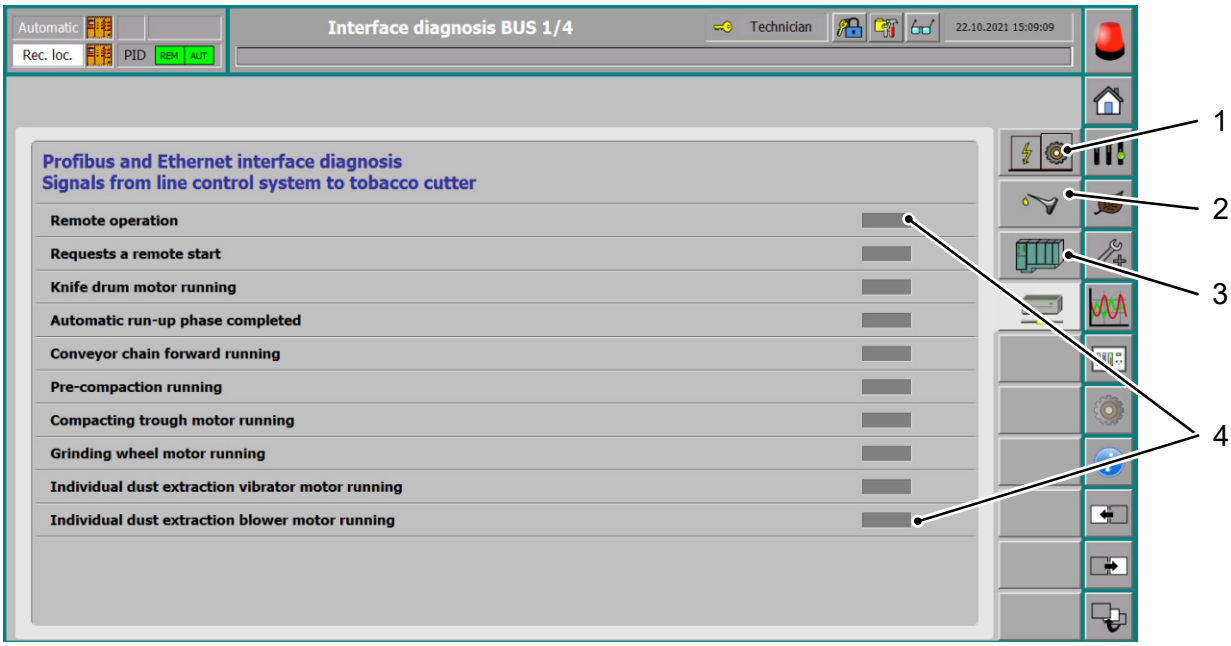


Fig. 6 Example of an INTERFACE DIAGNOSIS BUS screen *(KT2_Diag_Bus.v.00001.01.cgm)*

Calling up Tap button on the inner menu bar

Screen explanation

(Fig. 6-1) Calls up the MACHINE MAINTENANCE screen.

(Fig. 6-2) Button for calling up the DAILY MAINTENANCE WORK screen

(Fig. 6-3) Button for calling up the CONVENTIONAL INTERFACE DIAGNOSIS screen

(Fig. 6-4)

Shows the status of the binary input and output signals of all bus systems:

- Green: interface signal = “1”
- Grey: interface signal = “0”

Information
The INTERFACE DIAGNOSIS BUS screen has four pages:

- Pages 1 – 3:
  Signals from tobacco cutter to SCS
- Page 4:
  Signals from SCS to tobacco cutter,
  "Simulation of the bus interface" function (function only available if the TECHNICIAN level password has been entered).

Information
Grey text indicates that the corresponding signal is not available.

11.4.1 Simulation of the bus interface

NOTICE

This function is not an operating mode that can be used for the production process, it is intended for commissioning the tobacco cutter without an interface connection!
This function must be used only by trained persons.

If no hardware interface is available and the bus interface (PROFI-BUS/Ethernet) has not yet been set up, this function can be used to provide some signals via the cutter’s operator panel.

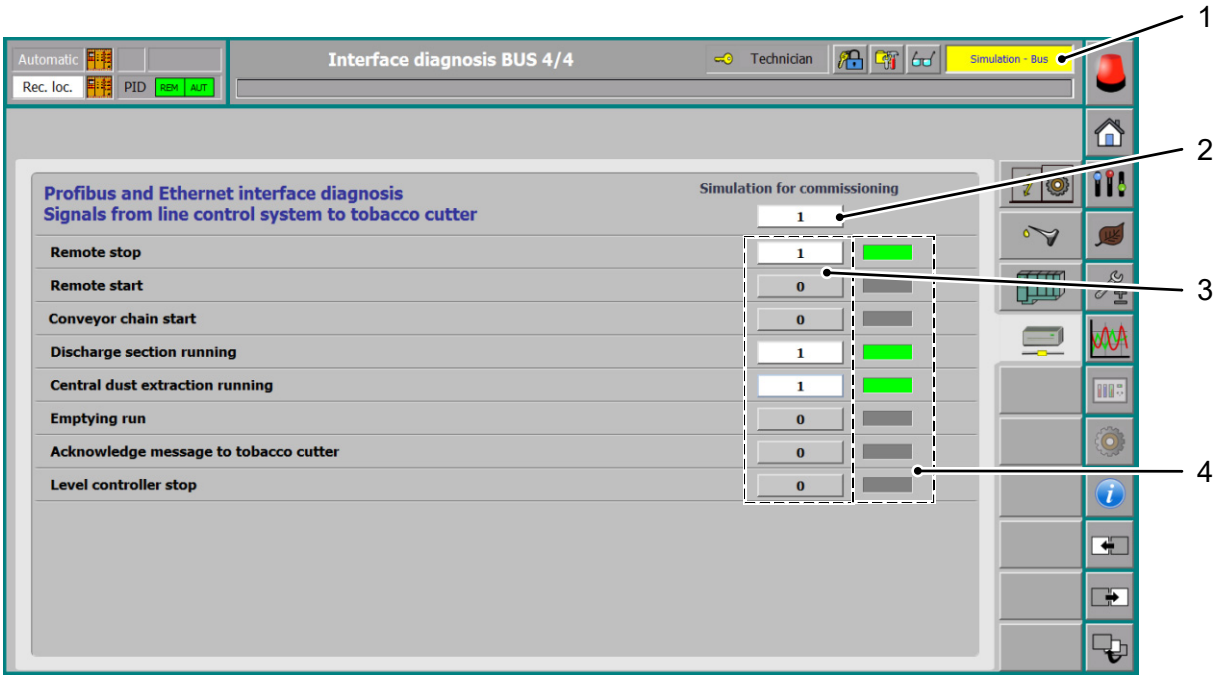


Fig. 7 Example of an INTERFACE DIAGNOSIS BUS screen (KT2_Diag_Bus.v.00002.00.cgm)

Password

This function is only available if the TECHNICIAN level password has been entered.

Screen explanation

(Fig. 7-1) This display signals that the "Simulation of the bus interface" function has been enabled.

(Fig. 7-2) Button to enable/disable the "Simulation of the bus interface" function.

- Indication “1”: function is enabled
- Indication “0”: function is disabled

(Fig. 7-3) Button for setting/resetting the interface signals.

- Indication “1”: interface signal is set
- Indication “0”: interface signal is reset

(Fig. 7-4) Shows the status of the binary output signals of the bus interface:

- Green: interface signal = “1”
- Grey: interface signal = “0”

11.5 Consumption data display (optional)

Information
These screens are only required if the tobacco cutter is equipped with the optional “consumption data acquisition” function.

11.5.1 CONSUMPTION DATA (ELECTRIC) screen

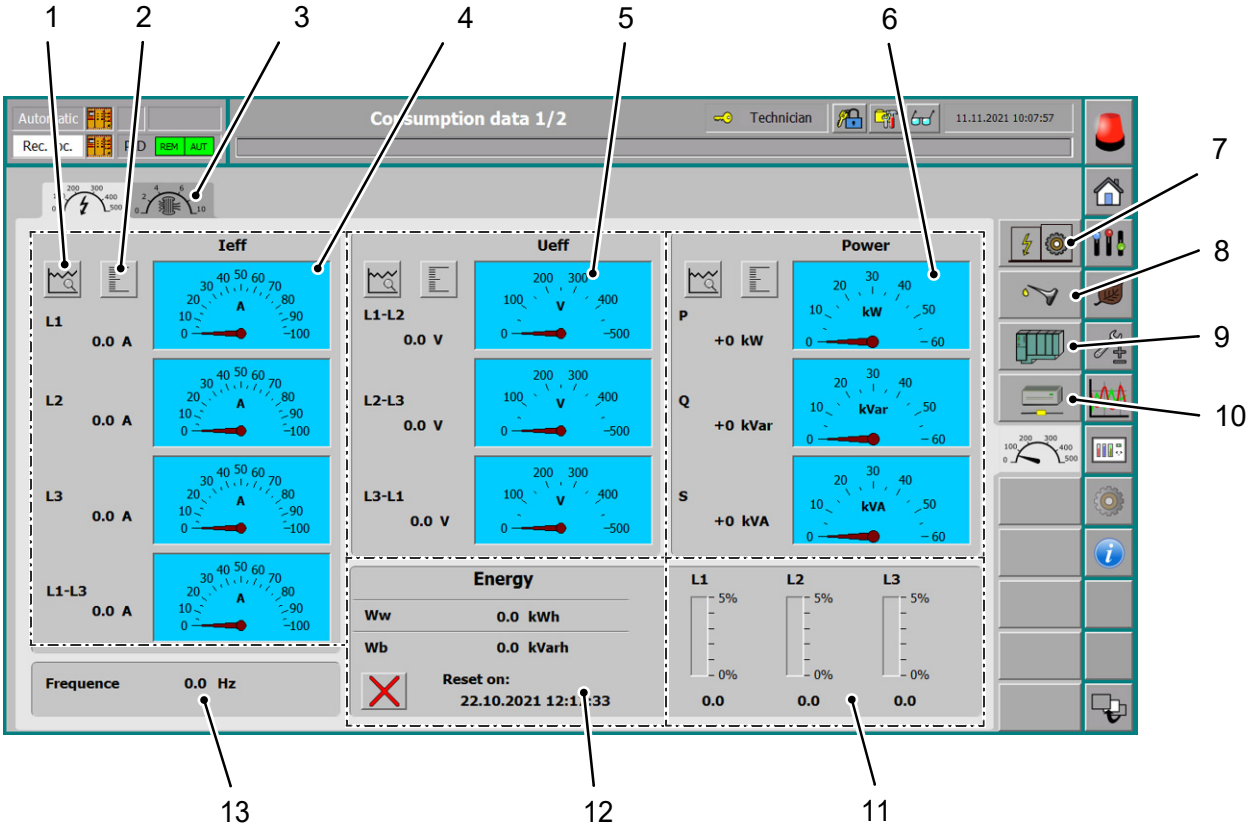


Fig. 8 Example of a CONTROL DATA (ELECTRIC) screen (KT2_Consum_El.v.00000.00.cgm)

Calling up

- Tap button on the inner menu bar
- Tap the tab in the CONSUMPTION DATA (COMPRESSED AIR) screen

Screen explanation

(Fig. 8-1) Buttons for calling up the consumption trend screens:

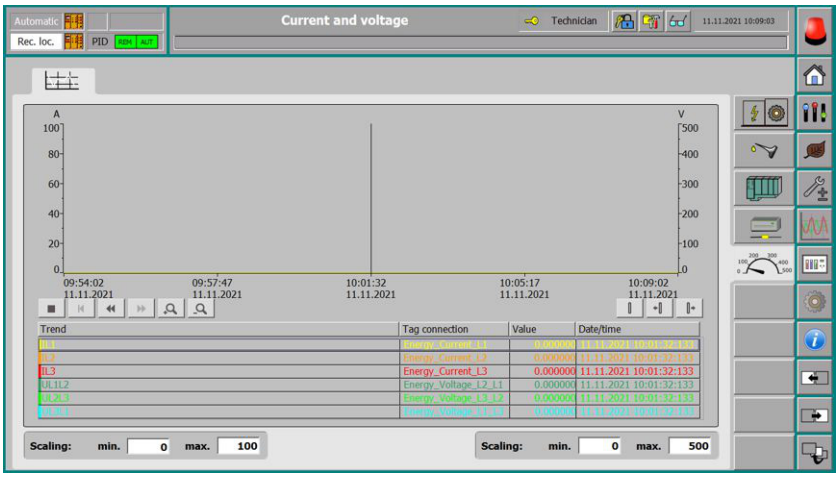


Fig. 9 Example of a current and voltage trend display

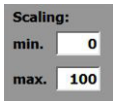
(KT2_Trend_I_U.m.00000.00.cgm)

Information

The consumption trend screens have the same layout as the default trend screens.

See also section **"Current and historic trend displays"** (↑ 8-2)

(Fig. 8-2) Buttons for calling up the input dialog boxes for the lower and upper scaling factors:



(Fig. 8-3) Button for calling up the CONSUMPTION DATA (COMPRESSED AIR) screen

(Fig. 8-4) Display area for the effective current values (I r.m.s.)

- L1, L2, L3 [A]
  Effective value of current in the individual phases of the power supply system
- L1-L3 [A]
  Effective value of current in the entire power supply system

(Fig. 8-5) Display area for the effective voltage values (U r.m.s.)

- L1-L2, L2-L3, L3-L1 [V]
  Effective value of voltage in the individual phases of the power supply system

(Fig. 8-6) Display area for power

- P [kW]
  Current active electrical power
- Q [kVar]
  Current reactive electrical power

	• S [kVA] Current apparent electrical power
(Fig. 8-7)	Calls up the MACHINE MAINTENANCE screen.
(Fig. 8-8)	Button for calling up the DAILY MAINTENANCE WORK screen
(Fig. 8-9)	Button for calling up the CONVENTIONAL INTERFACE DIAGNOSIS screen
(Fig. 8-10)	Button for calling up the INTERFACE DIAGNOSIS BUS screen
(Fig. 8-11)	Display area for THD (Total Harmonic Distortion) Proportion of harmonics in the individual phases of the power supply system. The lower the value the higher the mains quality.
(Fig. 8-12)	Display area for energy • Ww [kWh] Current active electrical energy = useful energy • Wb [kVarh] Current reactive electrical power • S [kVA] Current reactive electrical energy Pressing the button resets the values to “0”. Date and time of resetting are displayed.
(Fig. 8-13)	Displays the current mains frequency

11.5.2 The CONSUMPTION DATA (COMPRESSED AIR) screen

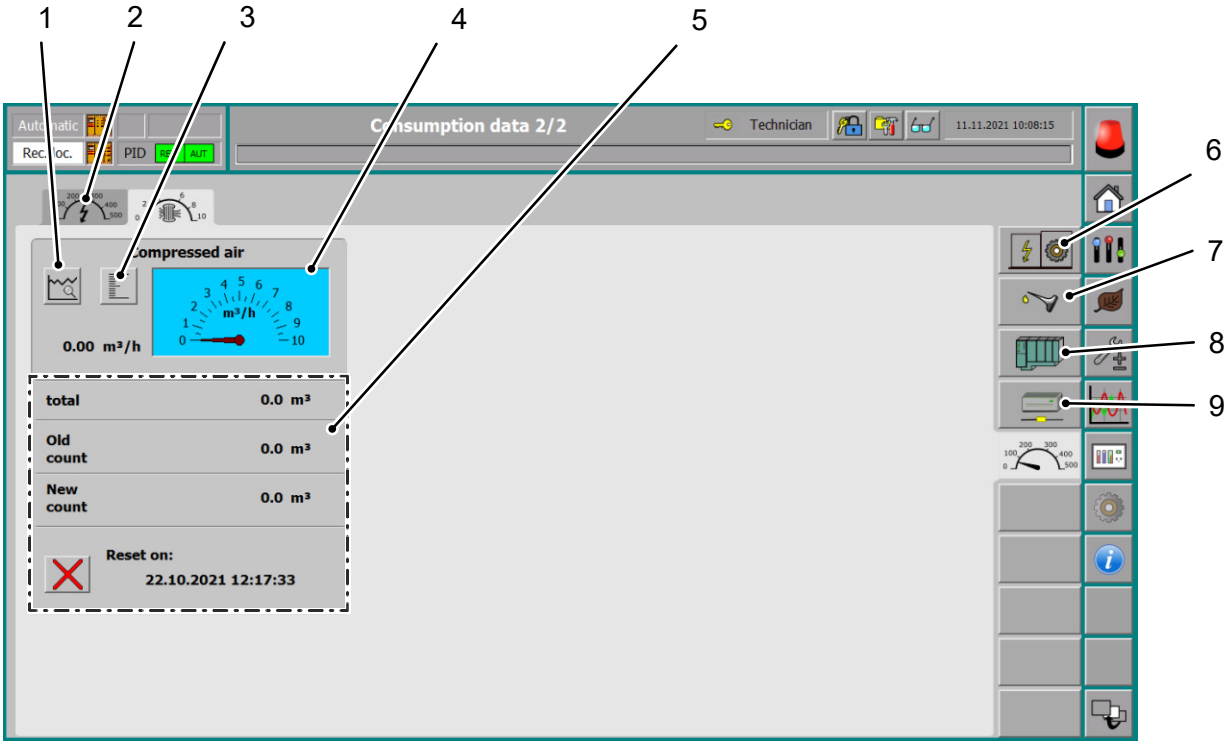


Fig. 10 Example of a CONSUMPTION DATA (COMPRESSED AIR) screen *(KT2_Consum_Air.v.00000.00.cgm)*

Calling up

Tap the tab in the CONSUMPTION DATA (ELECTRIC) screen

Screen explanation

(Fig. 10-1) Button for calling up the consumption trend display:

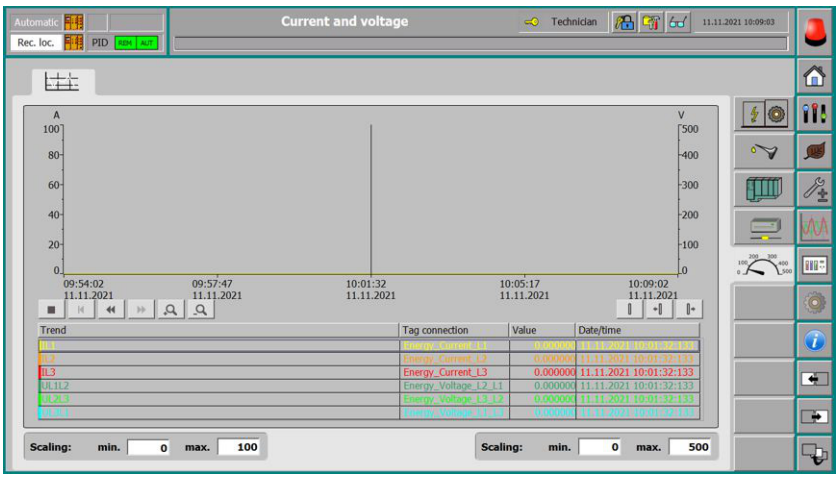


Fig. 11 Example of a current and voltage trend display

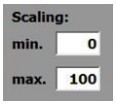
(KT2_Trend_I_U.m.00000.00.cgm)

Information
The consumption trend screens have the same layout as the default trend screens.

See also section **“Current and historic trend displays”** (↑ 8-2)

(Fig. 10-2) Button for calling up the CONSUMPTION DATA (ELECTRIC) screen

(Fig. 10-3) Button for calling up the input dialog box for the lower and upper scaling factor:



(Fig. 10-4) Displays the current compressed air throughput in m^3/h

(Fig. 10-5) Displays the compressed air consumption in m^3

- TOTAL
  Total compressed air consumption since commissioning of the machine.
- OLD COUNT
  Last compressed air consumption.
- NEW COUNT
  Current compressed air consumption since the last resetting.

  Tap button to transfer the NEW COUNT value to the OLD COUNT field and to reset NEW COUNT to “0”. Date and time of resetting are displayed.

(Fig. 10-6) Calls up the MACHINE MAINTENANCE screen.

(Fig. 10-7) Button for calling up the DAILY MAINTENANCE WORK screen

(Fig. 10-8) Button for calling up the CONVENTIONAL INTERFACE DIAGNOSIS screen

(Fig. 10-9) Button for calling up the INTERFACE DIAGNOSIS BUS screen

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