Loepfe

Operating Manual
YarnMaster® PRISMA

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Original manual

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1 About this document

1.1 Purpose of this document

This document guides you through the operation of the product using the software. Explanations of menus, buttons and displays can also be accessed via the help button on the user interface.

If you have any uncertainties or questions, please contact the supplier.

1.2 Validity

This document applies to:

- YarnMaster® PRISMA DM
- YarnMaster® PRISMA DMF
- YarnMaster® PRISMA DMFP

1.3 Applicable documentation

An instruction manual is available in addition to this manual.

2 Safety

2.1 Qualified personnel

Unqualified personnel cannot recognize risks and therefore endanger themselves and others.

- Only use trained and qualified personnel for the activities specified in these instructions.
- Define and publicize the respective responsibilities for the activities and train the personnel regularly.

2.2 Electric shock

Failure to observe the 5 electrotechnical rules may result in serious injury and electric shock.

- Disconnect.
- Secure against restart.
- Secure absence of voltage.
- Ground and short-circuit.
- Cover or isolate adjacent live parts.

2.3 Electromagnetic compatibility

This equipment is intended for use in an industrial environment. Electromagnetic compatibility in other environments cannot be guaranteed due to conducted and radiated interference.

This equipment is not intended for use in residential areas and may not provide adequate protection for radio reception in such environments.

2.4 Unexpected start-up

If the machine starts up unexpectedly, people may be seriously injured or die.

- Before carrying out any maintenance work, secure the machine against restarting.
- Only switch the machine back on when all safety devices are working and nobody is in the danger zone.

2.5 Description of symbol

Warning symbols

General warning symbol

Electric voltage warning

Flammable substances warning

Hot surfaces warning

Prohibition symbols

Switched on mobile phones not permitted

Operation with long hair not permitted

Instruction symbols

Disconnect power plug

Disconnect before maintenance or repair (disconnect power supply)

Ground before using

ESD symbol

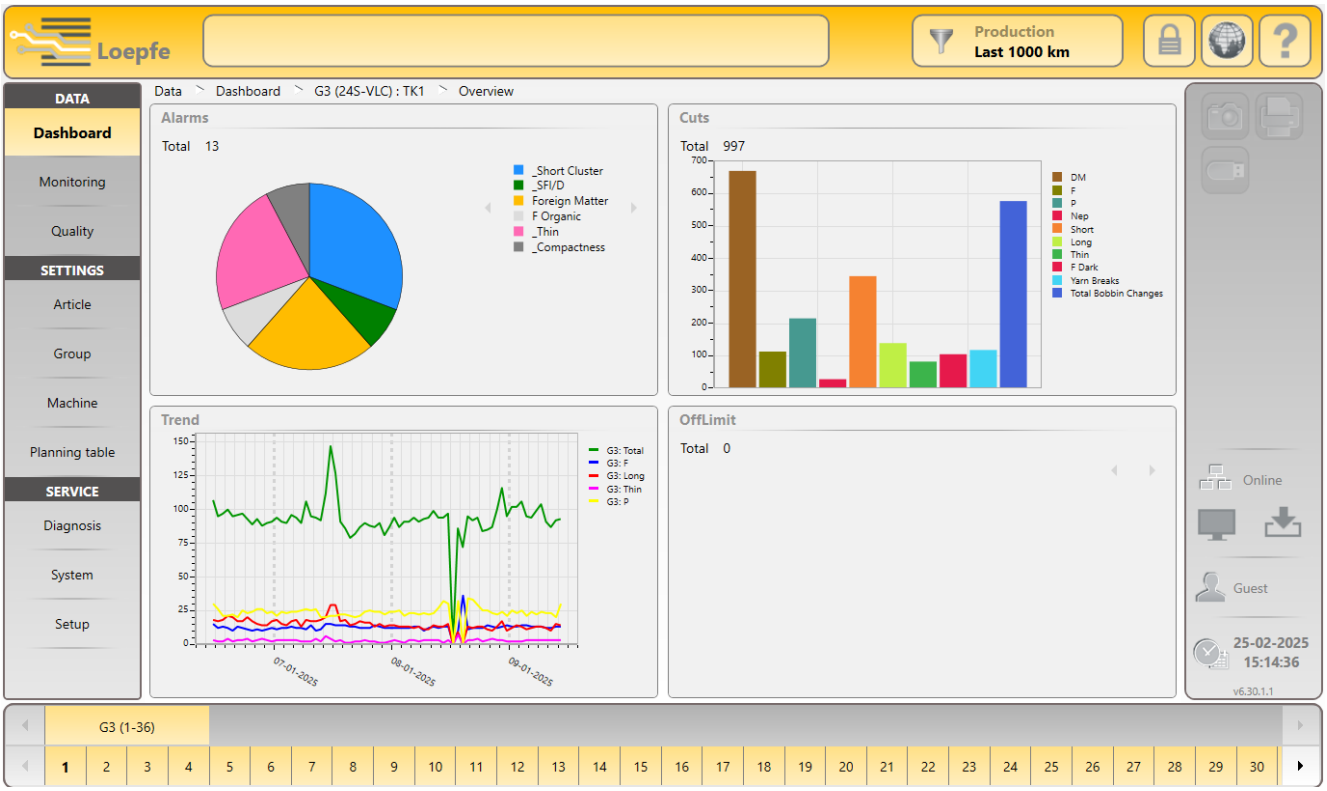
Electrostatically sensitive components

3 General user interface information

3.1 LZE screen

The Loepfe Central Unit (LZE = Loepfe Zentral-Einheit) controls and monitors all sensors connected to it. With the LZE, the quality characteristics for yarn defect cleaning are defined and the data from yarn cleaning, production and quality control, are collected, evaluated and stored.

Depending on the access rights of the current user certain menus, screens and buttons may be hidden or only available for viewing.

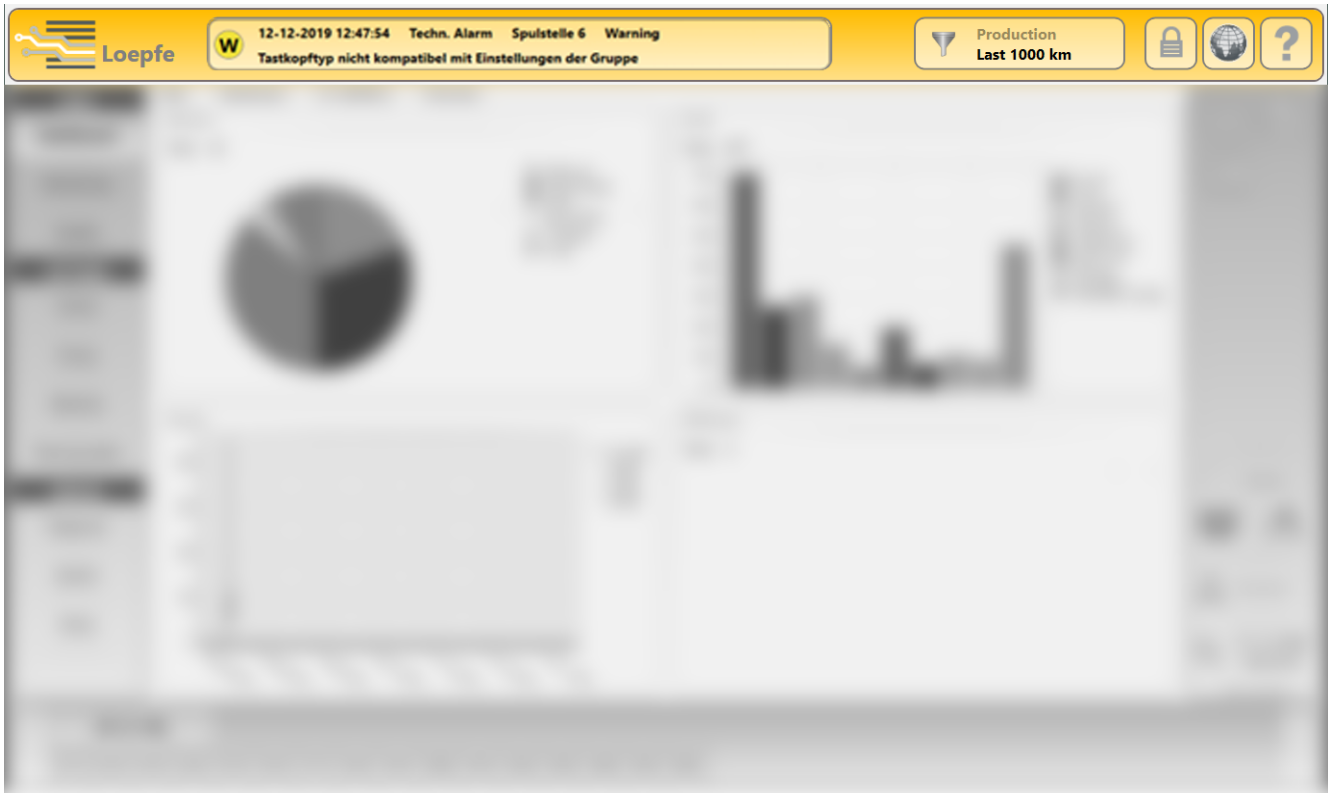


Location	Selection	Description
LZE Screen	TOP MENU	■ Displays messages, alarms and errors. ■ Contains buttons for settings. ■ Contains object for filtering.
	LEFT MENU	Contains submenus for data, settings and service.
	CENTRAL AREA	■ Displays navigation path. ■ Displays system and sensor information. ■ Contains objects for monitoring and controlling the system.
	RIGHT MENU	■ Contains tool buttons. ■ Displays connection, user status, system time and software version.
	BOTTOM MENU	Contains buttons to select group, sensing head or article.

3.1.1 TOP MENU

TOP MENU overview

The TOP MENU screen displays the last messages, user login, data selection filter, language and help button.



Location	Icon	Selection	Description
TOP MENU		Loepfe Logo	Switches between Loepfe and Savio GUI (only LZE-6 Faceless) to control Loepfe sensing heads or Savio winding machine.
		Last Message	■ Displays an alarm level symbol. ■ Displays last message warning. ■ Opens a window with the last 20 messages.
		Data Selection Filter	Enables filter settings to display monitoring and classification data according to selected options.
		User Login	■ Changes user to: – Guest (low level for view only) – Operator (mid-level to start or stop processes) – Foreman (mid-level to apply major settings) ■ Enables change of password. ■ Enables user logout to guest level.
		Languages	Changes menu language.

Location	Icon	Selection	Description
	?	Info	■ Contains a calculator. ■ Contains a textile unit calculator. ■ Provides an online help.

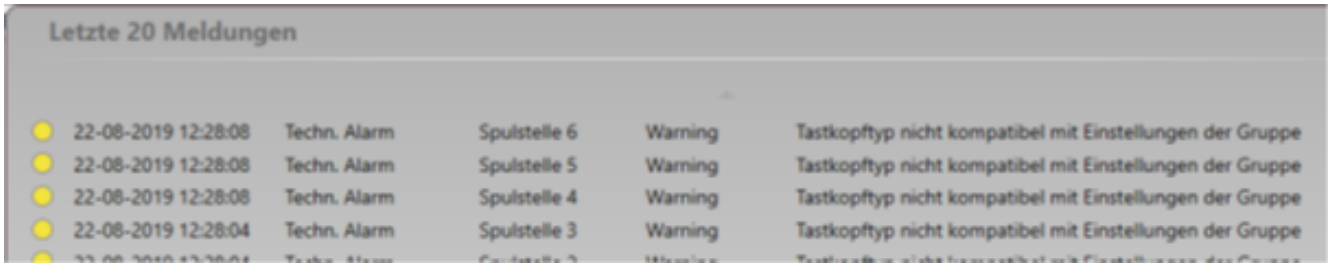
Alarm level symbol

The Alarm level symbols indicate the escalation level of the displayed messages.

Symbol	Alarm Level	Description
W	Warning	Warning without need for intervention.
E	Error	Error with need for intervention.
A	Alarm	Alarm with need for intervention.
F	Fatal	Fatal error prevents further use of software and cannot be confirmed by guest, operator or foreman.

Last 20 messages

This window displays a list of the last 20 messages and indicates the alarm level of each message.



Location	Selection	Description
Last Message	Last 20 messages	Displays a list of the last 20 messages with the following topics: ■ Date and time ■ Type of event ■ Spindle number ■ Alarm level ■ Reason for message.

Data selection filter

With the data selection filter can be defined which yarn length (in km), which yarn quantity (in kg) or which time period (e.g. shift) is taken into account in the evaluation.

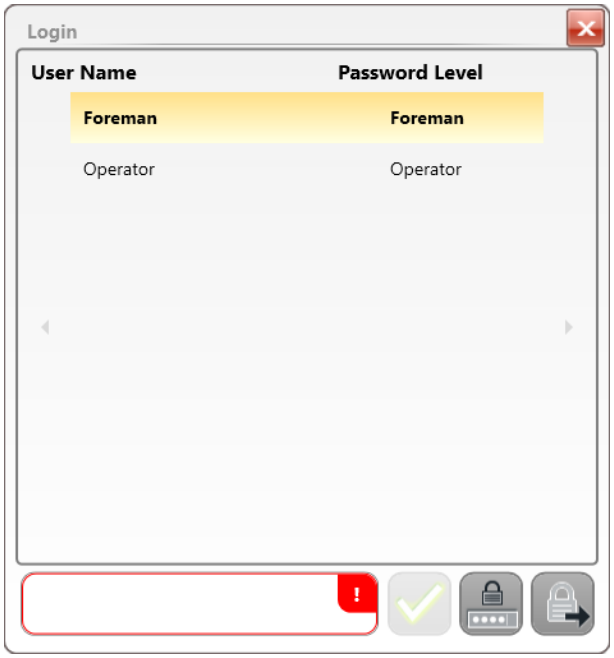
The default monitoring length is 100 km. This value can be changed here:

- SETTINGS > Group > Group No > Overview > Data Acquisition > Window Length
- SETTINGS > Machine > Default Data Acquisition > Window Length

Location	Selection	Description
Production	First 100 km (1000 km)	Displays data of the first 100 km (1000 km) wound yarn for a selected group or spindle.
	Last 100 km (1000 km)	Displays data of the last 100 km (1000 km) wound yarn for a selected group or spindle.
	Cone	Displays data of each individual cone.
Current Shift	Absolute	Displays data from the beginning of current shift.
	/ 100 km	Displays data per 100 km of current shift.
	/ kg	Displays data per kg of current shift.
Previous Shift	Shift Cycle 1-5	■ Displays data per 100 km or per kg, depending on basic settings. ■ On of the last five shifts can be taken into account.

User login

Each user level has its own authorization to make settings on the system. This dialog can be used to create users and assign their authorizations.



Location	Icon	Selection	Description
Login		List of users	■ Displays a list of users and their password level. ■ Indicates selected user with a yellow highlight.
		Input field	Enables input of password for selected user.
		Save or Confirm	Confirms entry from input field.
		Change Password	Opens a window to change password for selected user.
		Logout	User logout to guest level.

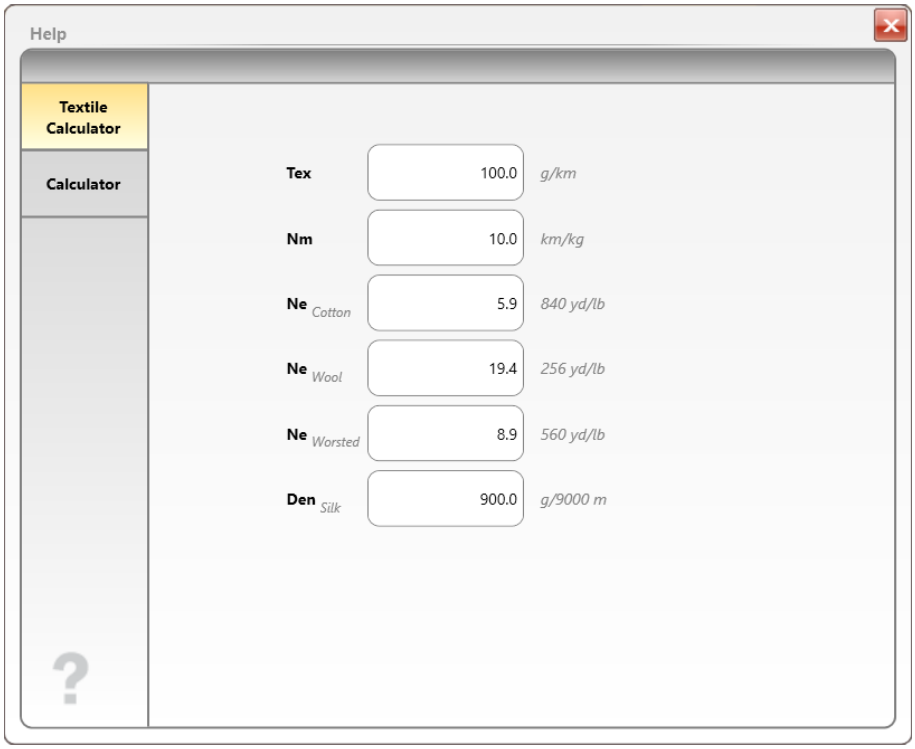
Language

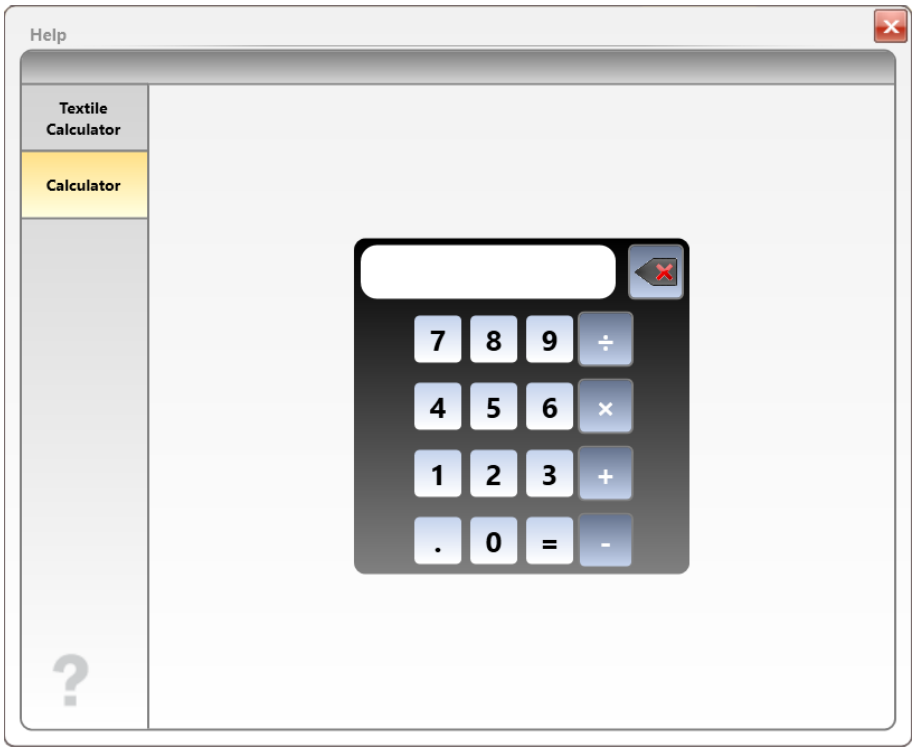
The user interface of the LZE provides several languages. With this dialog the languages can be changed.

Location	Selection	Description
TOP MENU	Language	Sets system language.

Info

The Info button calls the online help and some useful calculation tools. The online help shows information about all input options and data visualizations for each screen of the user interface.





Location	Selection	Description
Info	Textile Calculator	Converts yarn counts from one unit to another.
	Calculator	Opens a calculator.
	Help	Contains an online help.

3.1.2 LEFT MENU

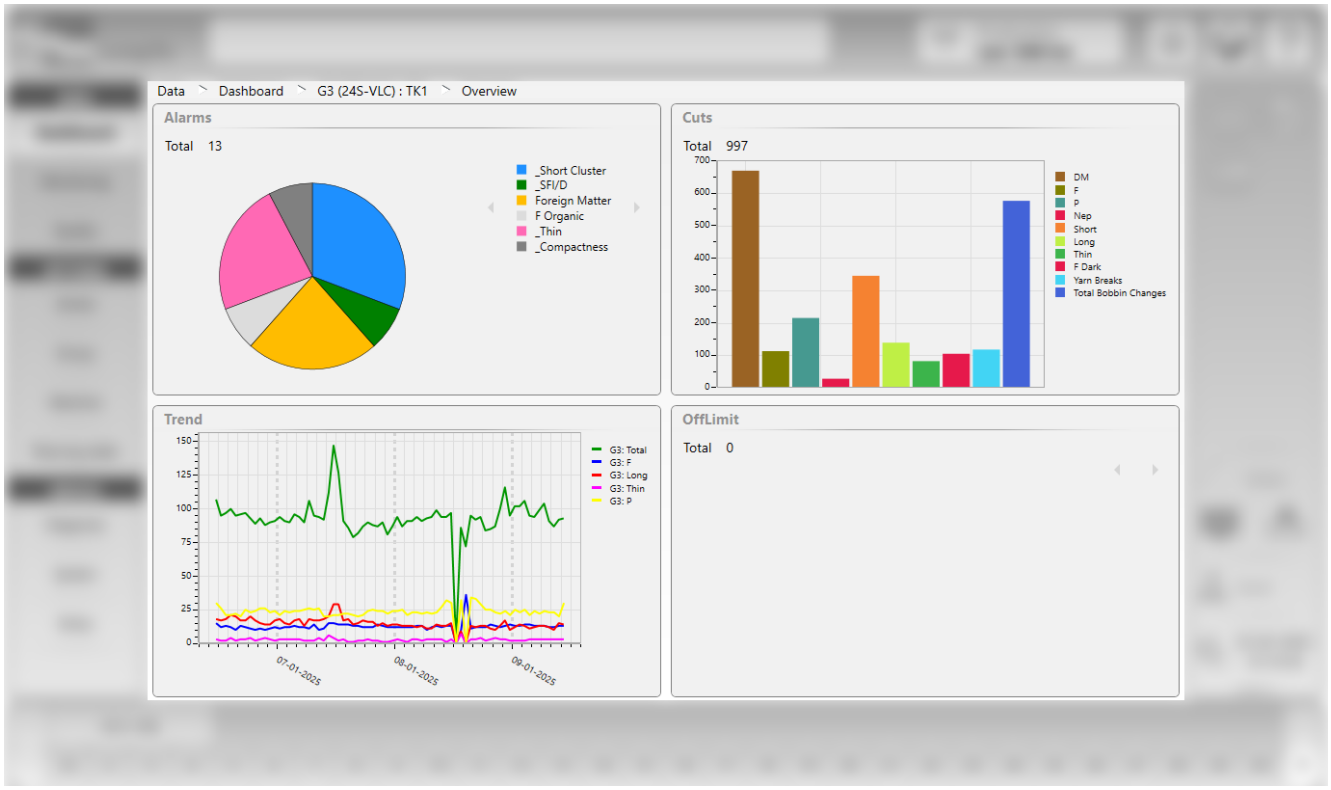
The LEFT MENU contains the article and group management with different display and setting options. In addition, system and machine settings can be made here.

Location	Selection	Description
DATA	Dashboard	■ Displays a summary of alarms and events for a selected group or sensing head depending on the filters set in data selection filter. ■ Displays a trend for up to 5 clearing parameters.
	Monitoring	■ Displays cutting data and alarms for a selected group or sensing head depending on the filter set in the data selection filter.
	Quality	■ Displays online IPI, Laboratory data, classification data for NSLT, splice, FF and PP for a selected group or sensing head depending on the filter set in the data selection filter.
SETTINGS	Article	■ Enables setting of article properties. ■ Adds or removes articles.
	Group	■ Enables group settings. ■ Adds or removes groups.
	Machine	Contains objects to change machine settings.
SERVICE	Diagnosis	Contains objects for diagnosis: users, processes and sensing heads.
	System	■ Contains objects for information, settings and back-up of system. ■ Enables maintenance access.

Location	Selection	Description
	Setup	■ Contains objects for basic network, software and system settings. ■ Enables user management and system reset.

3.1.3 CENTRAL AREA

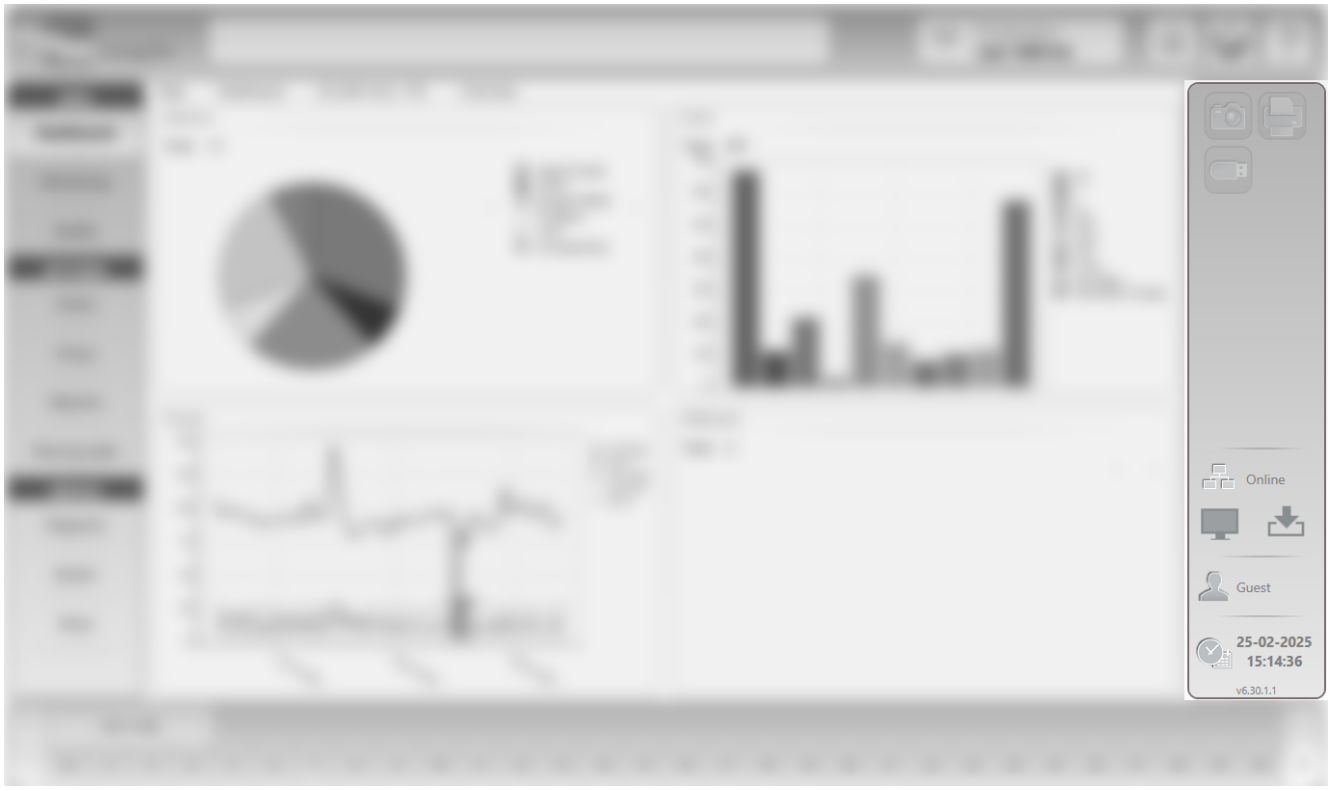
All information is displayed in the CENTRAL AREA. This can be lists, diagrams or dialog windows. A navigation path is also displayed at the upper left edge of the screen.



Location	Selection	Description
CENTRAL AREA	Navigation Path	Displays menu path of current view or workspace.
		Area to display windows, charts, lists and other information from LZE.

3.1.4 RIGHT MENU

The RIGHT MENU contains context-sensitive function keys. These are activated or deactivated depending on the situation and user level. Some function keys only appear when there is a use for them.

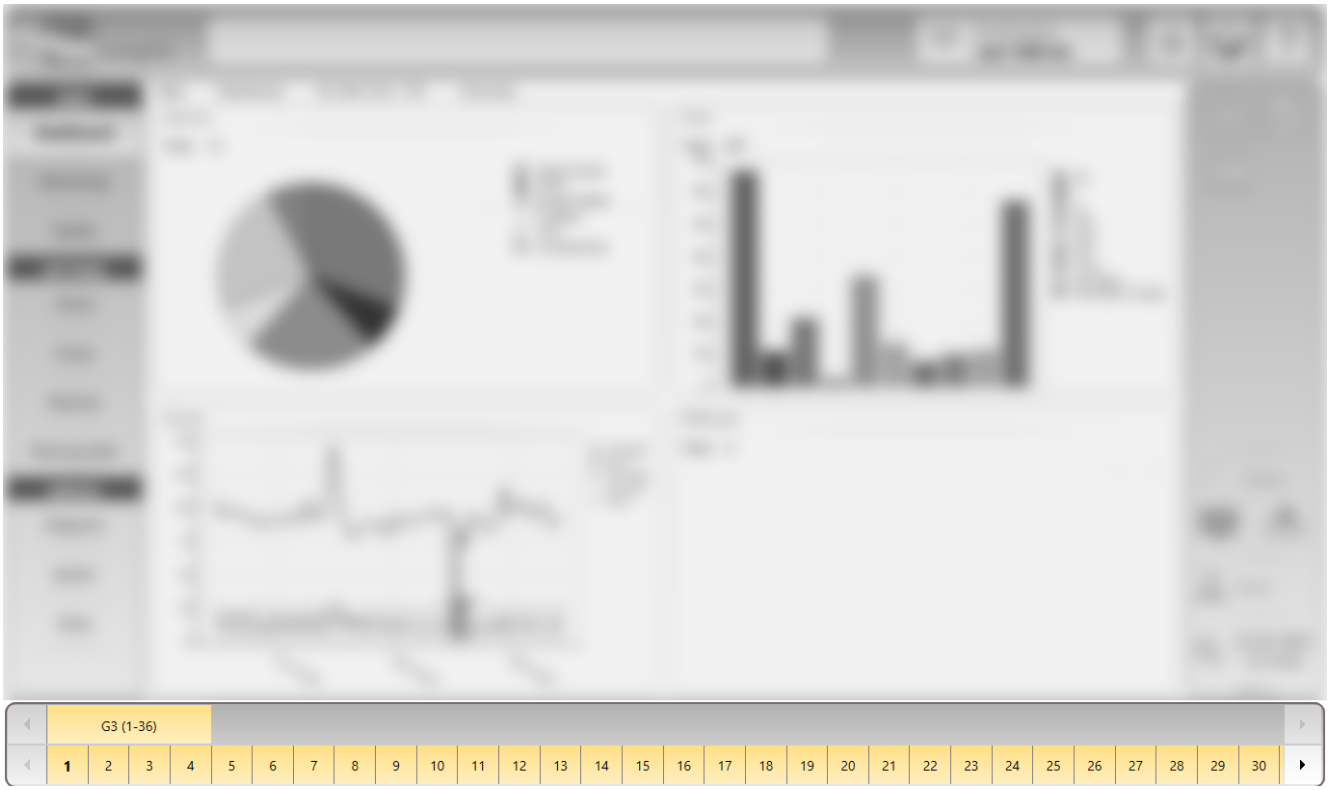


Location	Icon	Selection	Description
RIGHT MENU		Printscreen	Takes a screenshot and saves it as XPS-file on USB stick.
		Reports	Generates a report and saves it as XPS-file on USB stick. ■ Available in menu DATA: – Dashboard – Monitoring – Quality – Current shift – Previous shift ■ Available in menu SERVICE: – Diagnosis – System – Setup
		Import or Export Data	■ Imports data from USB stick to LZE. ■ Exports data from LZE to USB stick.
		Connection	Indicates status of connection.

Location	Icon	Selection	Description
		Remote Access	Indicates if connection to MillMaster TOP is established or not.
		MillMaster Settings	Indicates if data from MillMaster is available or not.
		Current User	Displays current user level.
		Date / Time	Displays date and time.
		Software Version	Displays current version of LZE software.

3.1.5 BOTTOM MENU

Depending on the current view or workspace groups, sensing heads and articles are listed in the BOTTOM MENU. Selected items are shown with a yellow highlight and a bold font.

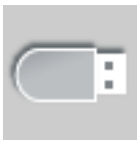


Location	Selection	Description
BOTTOM MENU	Group	■ Selects a group to be evaluated. ■ Indicates selected group with a yellow highlight.
	TK	■ Selects a sensing head to be evaluated. ■ Indicates selected sensing head with a yellow highlight.
	Article	■ Selects an article to be evaluated. ■ Indicates selected article with a yellow highlight.
	Scroll buttons	Scrolls through groups, sensing heads or articles.

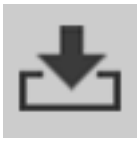
3.1.6 Function Keys

This list gives an overview of all symbols and function keys that are used in the user interface of the LZE.

Icon	Description
	Data selection filter
	Info
	Select language
	Save or confirm
	Exit or discard
	Edit mode
	Step backward
	Step forward
	Add (article or group)

Icon	Description
	Delete (article or group)
	Start group
	Stop group
	Copy (article or settings)
	Adjust (group or sensing head)
	Print screen
	Configuration report
	Load or save data from or to USB stick
	AutoCorrect
	Enable autostart

Icon	Description
	Disable autostart
	Coordinates table
	Add user
	Delete user
	User logout
	Change password
	Download or import
	Network is online
	Network is offline
	Remote access online

Icon	Description
	Remote access offline
	MillMaster data available
	MillMaster data not available
	Current user level
	Date and time
	Restart
	Delete (point setting)

3.1.7 Abbreviations, terms and definitions

This list contains abbreviations and subject-specific terms.

Abbreviation	Term	Definition
LZE	Loepfe Zentral-Einheit	Loepfe name for control unit
NSLT	Neps, Short, Long, Thin	Fault type name
F	Foreign Matter	Fault type name
P	Polypropylene	Fault type name
SFI/D	Surface Index / Diameter	Fault type name
IPI	Imperfection Index	Fault type name

3.2 Overview of DATA menu with submenus

Location	Selection	Description
Dashboard	Alarms	■ Displays alarms of selected group or sensing head. ■ Navigates to monitoring overview.
	Cuts	■ Displays cutting events of selected group or sensing head. ■ Navigates to monitoring overview.
	Trend	■ Displays a trend of defined group or sensing head. ■ Navigates to Quality > Trend.
	OffLimit	■ Displays OffLimit events of selected group or sensing head. ■ Navigates to monitoring overview.

Location	Selection	Description
Monitoring		Selects and displays events in a bar chart:
	Cuts	Cuts
	NSLT	Neps, Short, Long and Thin
	OffCount	OffCount
	SFI/D	SurFace Index / Diameter
	Splice	Splice
	Foreign Matter	Foreign matter
	Special	Special
	OffStandard Alarms	OffStandard alarms
	Bobbin Startup Alarms	Bobbin startup alarms
	OffLimit Alarms	OffLimit alarms
	Class Alarms	Class alarms
	IPI Alarms	IPI (imperfection index) alarms
	Length Limit Alarms	Length limit alarms
	Length	Wound length
	Last Cut	Last cut

Location	Selection	Description
Quality	NSLT	Opens DM-class window
	Foreign Matter	Opens F-class window
	Splice	Opens splice-class window
	Polypropylene	Opens P-class window
	Trend	Opens trend settings and display window
	LabPack IPI	Selects and displays events of LabPack IPI in a bar chart.
	LabPack SFI	Selects and displays events of LabPack SFI in a bar chart.
	Length	Selects and displays events of Length in a bar chart.

3.3 Overview of SETTINGS menu with submenus

Location	Selection	Description
Article	Article List	■ Displays a list of articles. ■ Adds or deletes articles. ■ Sorts articles by column title. ■ Indicates selected article with a yellow highlight. ■ Indicates whether article is applied to an active group with a green highlight.
Group	Group List	■ Displays a list of groups. ■ Enables fine adjustment. ■ Starts or stops a group. ■ Adds or deletes groups. ■ Sorts groups by column title. ■ Indicates selected group with yellow highlight. ■ Indicates whether group is running with green highlight.
Machine	Shift Calendar	Edits beginning and duration of each shift for each day of the week.
	Base Settings	Edits basic settings of winding machine.
	Default Group Settings	Edits default parameters of group.
	Default Data Acquisition	Sets default window length (km) in which data is collected.

3.4 Overview of SERVICE menu with submenus

Location	Selection	Description
Diagnosis	TK Information	■ sensing head information ■ sensing head alarm
	TK Parameter	General parameter
	Last Cut	List of last 20 cuts
	Event (History)	List of last events
	Test Mode	Test mode settings
	TK Commands	List of sensing head commands
	User Activity	List of last changes applied by Foreman

Location	Selection	Description
System	System Information	List of system information
	Log Profile	Log profile settings
	Firmware Update	■ Information about firmware archive ■ Update progress window ■ Starts system backup wizard ■ List of updates for each sensing head
	LZE Software Update	Available for Loepfe Service only
	System Backup	Starts system backup wizard
	System Restore	Available for Loepfe Service only
	Maintenance/ Service	Available for Loepfe Service only

Location	Selection	Description
Setup	Network	■ Hostname setting ■ LAN 1 (WLAN) settings ■ LAN 2 settings
	Software Options	Information about LZE and additional software packs
	Reports	Shift report settings
	User Management	Edit user level settings
	Factory Reset	Available for Loepfe Service only
	Restart	LZE software restart
	Date/Time	Date and time setting
	Alarm Message Settings	Enable/Disable certain alarms

3.5 TK display

Codes appear on the display of the sensor heads that provide information on operation, errors and alarms.

General TK (Sensing Head) States

- -	■ Yarn runs between +/-5% difference ■ If difference is over +/-5%, the line moves up [+] or down [-]
8.8.	Startup after reset
. .	Zeroing (ECR)
PS	Wait for parameter from spindle
PC	Wait for parameter from Central Unit (LZE)
PA	Splindle locked, group not started
Ad	Adjust
do	Doffing
UF	UpdateTK firmware

System Cuts

	Cut request from spindle
	Zeroing error
	Cut by user (TK button)
	F brightness regulator limit
	Adjust cut
	Cut failed
	M range regulator limit
	Adjust failed
	Sensing head configuration changed by LZE
	Spindle power fail
	Internal firmware error

Textile Alarms

- The display starts flashing and shows the reason for the cut.
- The respective spindle is stopped.
- The faulty yarn is automatically removed from the package, max. 80 m.
- The respective bobbin is ejected, depending on the machine setting and the machine type.

	Bobbin startup alarm cut
	Class alarm cut
	Offlimit alarm cut
	IPI alarm cut

Technical Alarms

Clean Measuring Slot

AL 10	There is still yarn and/or yarn remains in the measurement channel.	■ Check measurement channel. ■ Check knife.
AL 20	Zeroing failed (D ECR)	5 failed zeroing cycles by o 1 cut. ■ Clean sensors. ■ Replace sensing head.
AL 21	Zeroing failed (M ECR)	
AL 22	Zeroing failed (F ECR)	
AL 23	Yarn detected in D channel	Clean measurement channel.
AL 24	Yarn detected in M channel	
AL 25	Yarn detected in F channel	

Repeat Adjustment

AL 30	Adjustment failed Faulty bobbin or soiled measuring field	■ Repeat with new bobbin. ■ Clean D sensor. ■ Repeat adjustment. ■ Clean D sensor of all sensing heads in group. ■ Repeat adjustment.
AL 31	Adjustment outside the limit Threshold value exceeded	Repeat adjustment with new bobbin.

Contact Loepfe Support

AL 40	F-sensor activated but not detected	■ Change the settings of the sensing head type of the group. ■ Replace sensing head.
AL 41	P-sensor activated not detected	
AL 42	Sensing head temperature above limit	■ Reset alarm. ■ Press TK test button. ■ Replace sensing head.
	Sensing head I²C temperature over 85 °C	
AL 43	I²C blocked. Fatal error on internal	
	I²C serial bus	
AL 44	DRV knife reel failed	
	Input signal of knife reel is missing	
AL 45	Sensing head incompatible	
	At least one TK hardware component is not compatible with firmware	
AL 46	Knife not available	
	Knife not configured in Flash or CLPD	
	Loose connector to knife	

Contact OEM or Loepfe Support

AL 50	DRV knife power supply failed. Threshold exceeded.	■ Reset alarm. ■ Press TK test button. ■ Replace sensing head.
AL 51	DRV external voltage supply failed. % V power supply limit exceeded.	
AL 52	NTP (drum) signal check failed. 10 s NTP signal not detected during running with yarn.	
AL 53	Spindle does not respond. After a cut, spindle does not respond for 15 s	

D/M Sensor Cuts

NSL Cuts in Display Mode: Type		
n	Nep	0.1 cm – 0.5 cm 0 – 50 cm
S	Short	0.5 cm - 8 cm
L	Long	8 cm - 128 cm
t	Thin	1 cm - 128 cm
n -	Nep	unclassified
S -	Short	unclassified
L -	Long	unclassified
t -	Thin	unclassified

NSL Cuts in Display Mode: Class

n0	n4	N0-N4		**Nep** class
A0	A4	A0-A4	0.5cm - 1cm	**Short** class
b0	b4	B0-B4	1 cm - 2 cm	
C0	C4	C0-C4	2 cm - 4 cm	
d0	d4	D0-D4	4 cm - 8 cm	
C0	d.0	C00-D00		
E		E	8 cm - 128 cm	**Long** class
F	F0	F and F0	8 cm - 31 cm	
F0	G0	F00 and G00		
G	G0	G and G0	32 cm - 128 cm	
b1.	b2.	B1-B2	1 cm - 2 cm	**Thin** class
C0.	C2.	C0-C2	2 cm - 4 cm	
d0.	d2.	D0-D2	4 cm - 8 cm	
H0	H2	H0-H2	12 cm - 32 cm	
I0	I2	I0-I2	32 cm - 128 cm	

Compactness Cuts

CP	Compactness +
CP.	Compactness -

Splice Cuts

	Slice cut nep	
	Splice cut short	
	Splice cut long	
	Splice cut thin	
	Splice accumulation cut	

Cluster Cuts (Accumulation of Yarn Faults)

	Nep cluster	1 m - 80 m
	Short cluster	1 m - 80 m
	Long cluster	1 m - 80 m
	Thin cluster	1 m - 80 m

Special Cuts

	Bunch cut
	Upper arm cut
	Drum wrap cut
	Drum wrap event

Yarn Count Cuts

	Short count +	1 m - 10 m
	Short count -	1 m - 10 m
	Off count +	1 m - 50 m
	Off count -	1 m - 50 m

Core Yarn Cuts		
nc	Missing core	2 m - 50 m
cc	Offcentric core	0.2 m - 50 m
Length Limit (Count, SFID, Offcolor)		
LL	Length limit cut	
Surface Index Cuts		
SF	SFI/D + (Surface Index)	10 m - 80 m
SF.	SFI/D - (Surface Index)	10 m - 80 m
c	Short SFI/D +	0 m - 10 m
c.	Short SFI/D -	0 m - 10 m

F Sensor Cuts

Display Mode: Type		Display Mode: Class		
FF	Dark foreign matter	S1 S4	D S1 - D S4	0.1 cm - 1 cm
		I1 I4	D I0 - D I4	1 cm - 2 cm
		R1 R4	D R0 -D R4	2 cm - 4 cm
		01 04	D 00 - D 04	4 cm - 12.8 cm
F.F	Organic foreign matter	S.1 S.4	O S.1 - O S.4	0.1 cm - 1 cm
		I.1 I.4	O I.0 - O I.4	1 cm - 2 cm
		R.1 R.4	O R.0 -O R.4	2 cm - 4 cm
		0.1 0.4	O 0.0 - O 0.4	4 cm - 12.8 cm
FF.	Bright foreign matter	S1. S4.	B S1 - B S4	0.1 cm - 1 cm
		I1 I4	B I0 - B I4	1 cm - 2 cm
		R1. R4.	B R0 -B R4	2 cm - 4 cm
		01. 04.	B 00 - B 04	4 cm - 12.8 cm

Special F Cuts			
FC	F cluster dark	Accumulated foreign matter or dirty and oiled parts of yarn	1 m - 80 m
FC.	F cluster bright		
OF	F offcolor dark	Shade variation of yarn color	1 m - 50 m
OF.	F offcolor brigt		

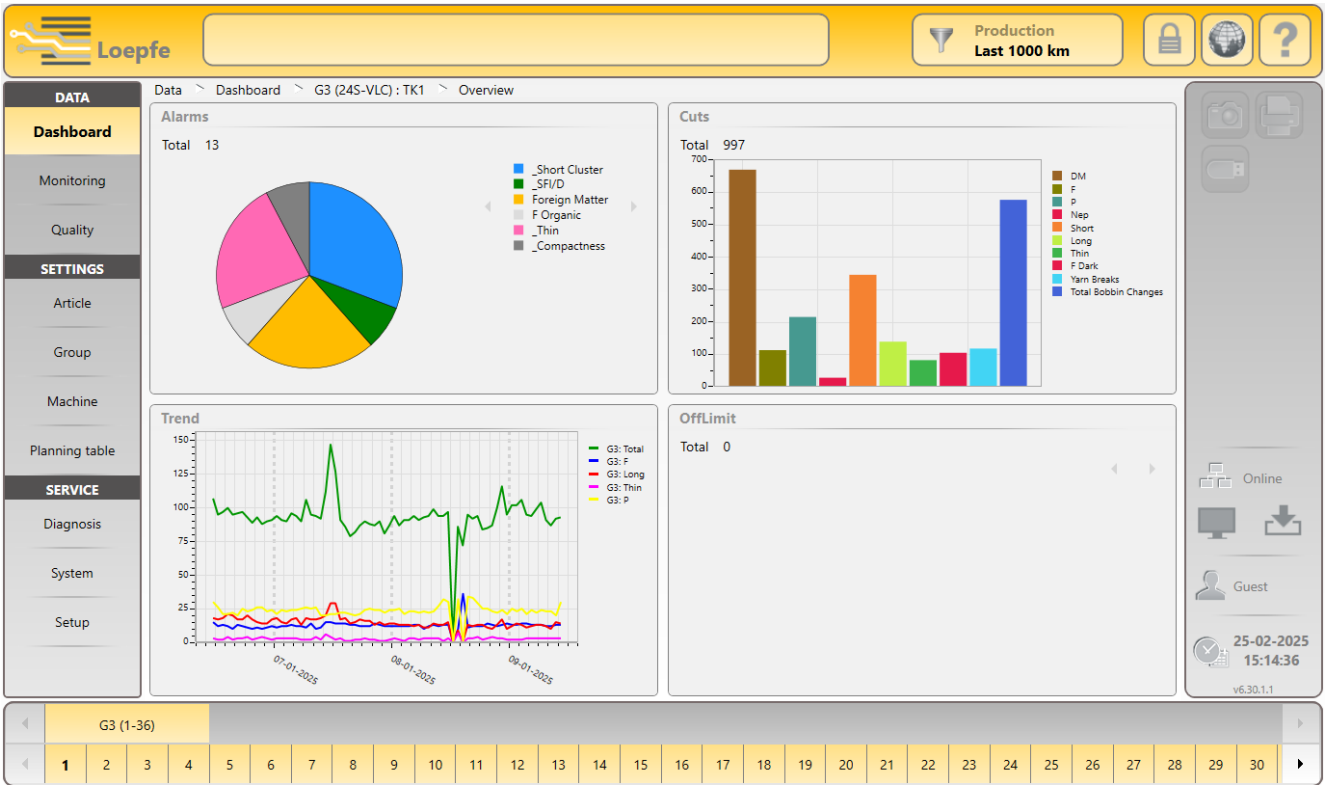
P Sensor Cuts

Display Mode: Type		Display Mode: Class			
PP	Synthetic foreign matter cut	P1	P5	P1 - P5	0.1 cm - 1cm
		01	05	01 - 05	1 cm - 2 cm
		L1	L5	L1 - L5	2 cm - 4 cm
		Y1	Y5	Y1 - Y5	4 cm - 8 cm

4 DATA menu

4.1 Dashboard overview

The dashboard overview screen displays a summary of alarms and events for a selected sensing head or group, depending on the filter set in the data selection filter. Each summary of alarms or events can be tapped to navigate to monitoring overview or trend setting.

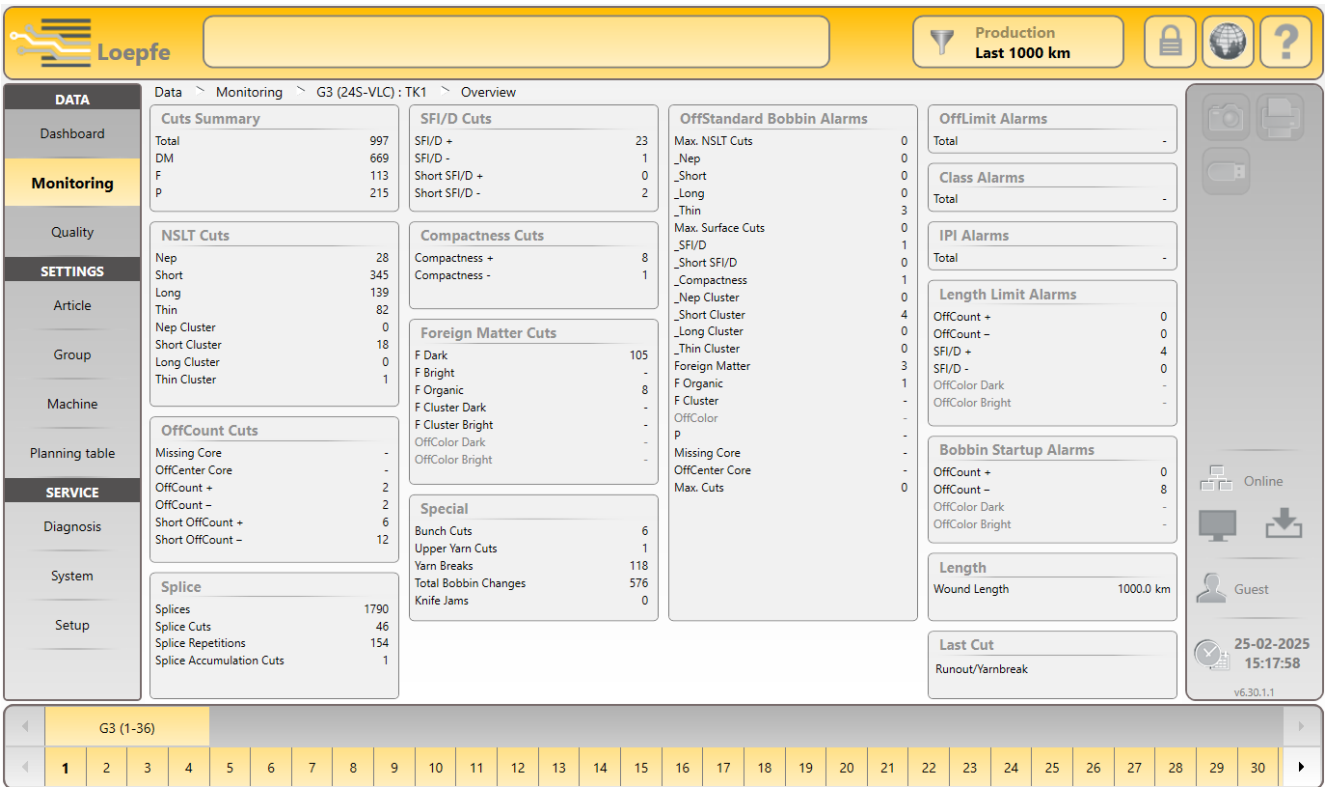


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Dashboard Overview		Alarms	For a selected group or sensing head and depending on the Data Selection Filter: ■ Displays total number of alarms. ■ Displays the distribution of cutting alarms in a pie chart. ■ Navigates to monitoring overview when tapped.
		Cuts	For a selected group or sensing head and depending on the data selection filter: ■ Displays total number of cutting events. ■ Displays the distribution of cutting events in a bar chart. ■ Navigates to monitoring overview when tapped.
		Trend	■ Displays a trend graph for up to 5 clearing parameters. ■ Navigates to Quality > Trend when tapped.

Location	Icon	Selection	Description
		OffLimit	■ Displays total numbers of OffLimit events. ■ Navigates to monitoring overview when tapped.
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

4.2 Monitoring overview

The monitoring overview screen displays a summary of events and alarms for a selected sensing head or group, depending on the filter set in the data selection filter. Each clearing or alarm can be tapped to display the data in a bar chart.

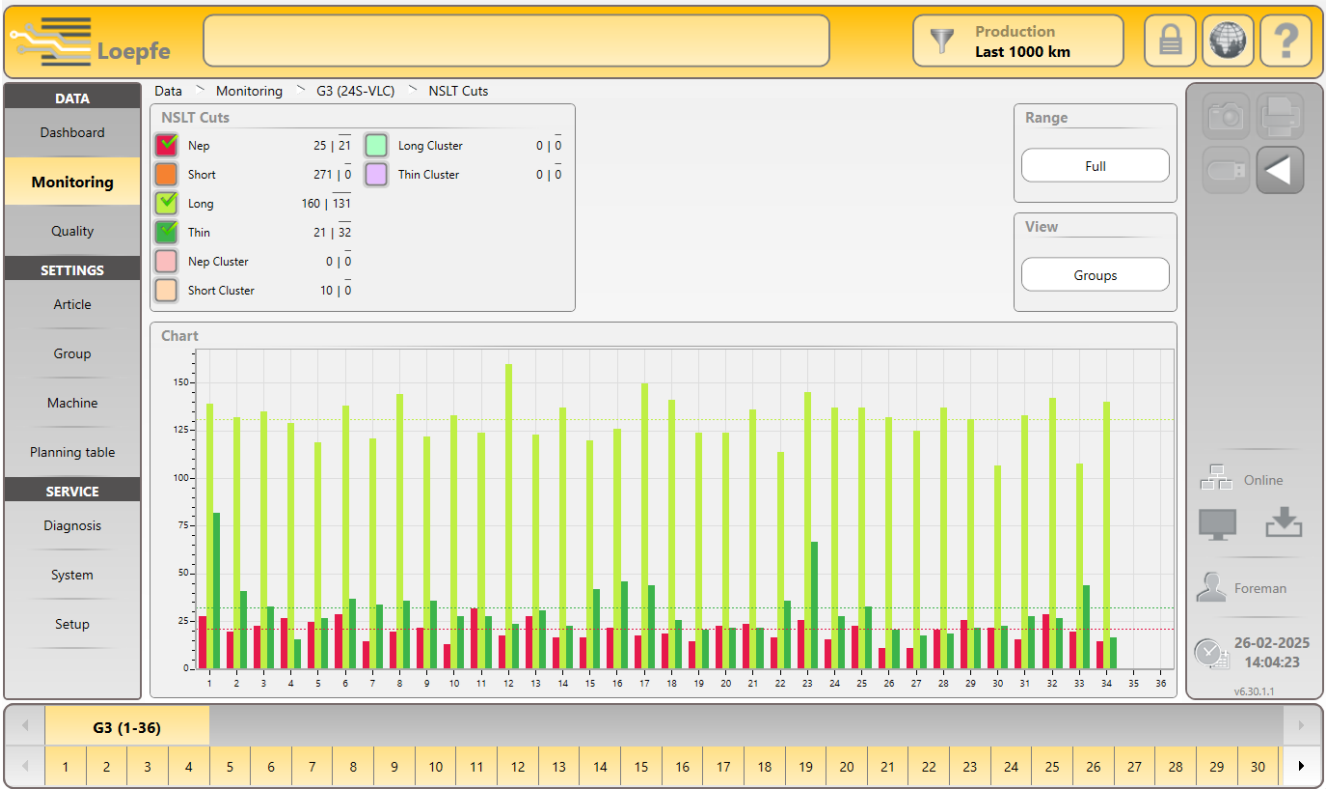


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Monitoring Overview (left side)		Cuts Summary	For a selected Group or sensing head and depending on the Data Selection Filter: ■ Lists a summary of corresponding events. ■ Opens a bar chart to display selected events when tapped.
		NSLT	
		OffCount	
		SFI/D	
		Splice	
		Foreign Matter	
		Special	
Monitoring Overview (right side)		Alarms	For a selected group or sensing head and depending on the data selection filter: ■ Lists a summary of corresponding alarms. ■ Opens a bar chart to display selected events when tapped.
		Bobbin Startup Alarms	

Location	Icon	Selection	Description
		OffLimit Alarms	
		Class Alarms	
		IPI Alarms	
		Length Limit Alarms	
		Length	
		Last Cut	■ Navigates to SERVICE > Diagnosis > TK > Last Cut when tapped. ■ Displays a list of last cutting events.
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

4.3 Bar chart

The LZE software can display most of its data in bar charts. In all cases, the settings of the bar charts are very similar.



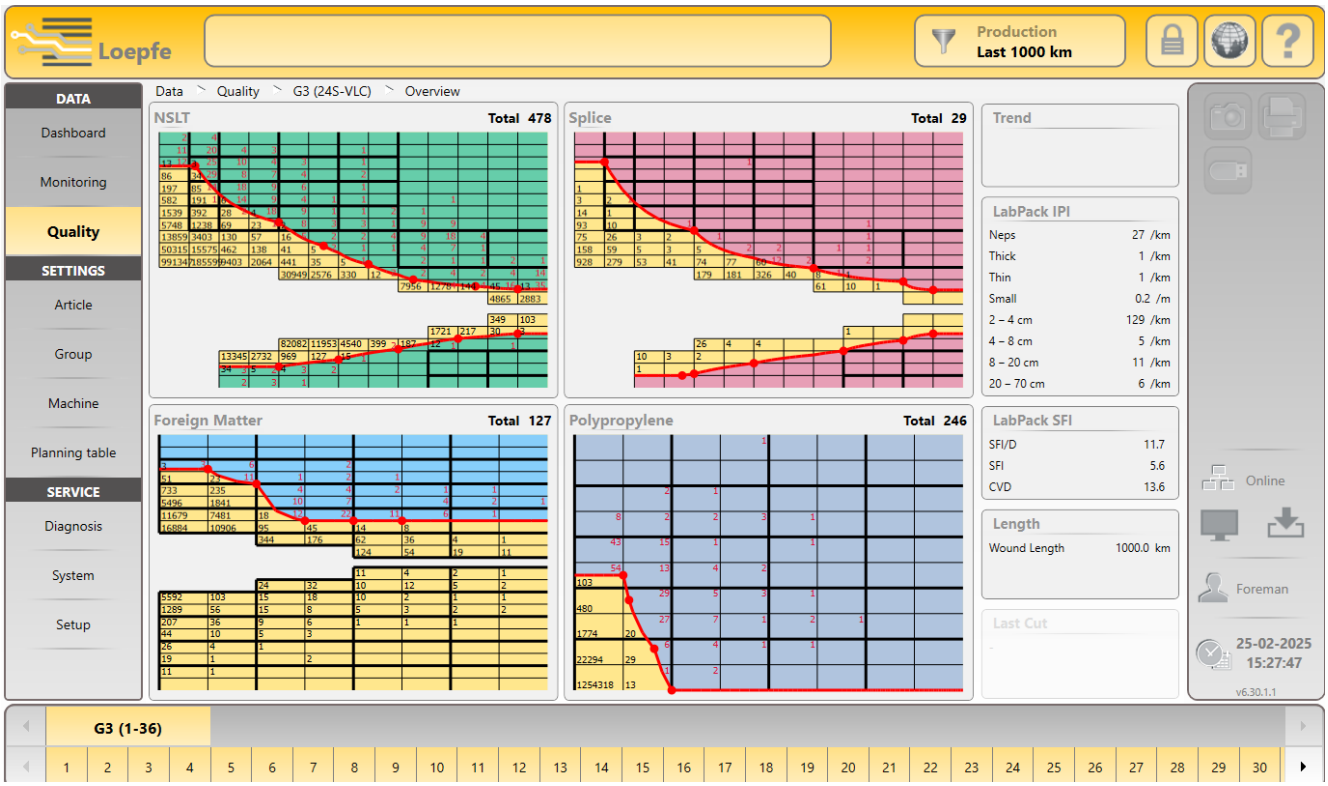
Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
			■ Selects type of events to be displayed in the bar chart. ■ For a selected group or sensing head and depending on the data selection filter: – Lists total number of events. – Lists an average value for the events.
		Chart	Displays selected events in the bar chart. ■ **X-axis**: Sensing head number ■ **Y-axis**: Number of events or yarn quality data ■ **Dashed line**: Average value.
		Range	Scales the range of Y-axis: ■ **Full**: from zero to highest value of displayed group. ■ **Optimized**: from lowest to highest value of displayed group. ■ **Relative**: negative and positive deviation of values of sensing head from mean value. ■ **Percentage**: negative and positive deviation of values of sensing head from mean value. In percent.

Location	Icon	Selection	Description
		View	■ **Groups**: Displays all sensing heads of selected group. ■ **Machine**: Displays all sensing heads of machine.
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

4.4 Quality

4.4.1 Quality overview

The quality overview screen displays the most important clearings and events for a selected sensing head or group, depending on the filter set in the data selection filter. Each clearing or event can be tapped to show more details or to display the data in a bar chart.

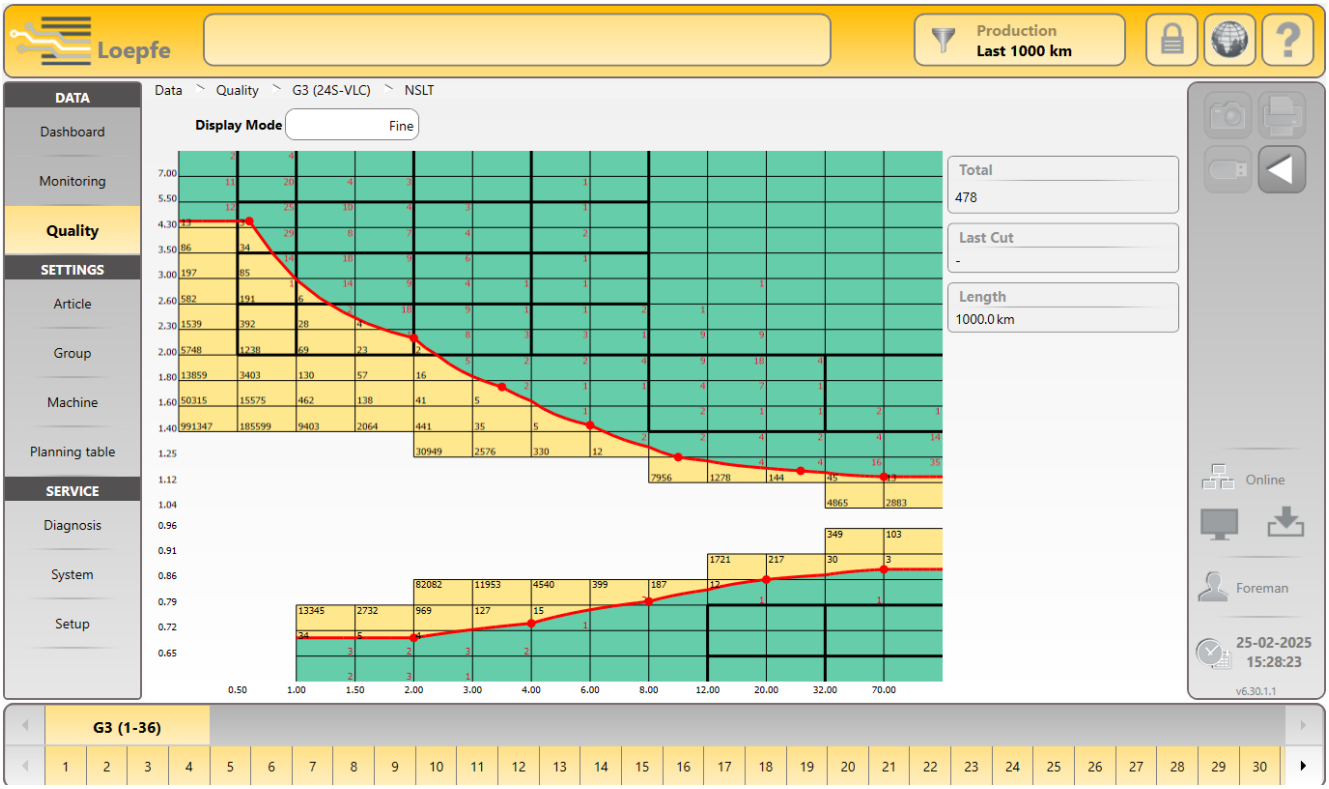


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
		NSLT	■ For a selected group or sensing head and depending on the data selection filter: – Lists total number of NSLT events. – Displays clearing curve with number of events caused by NSLT. ■ Navigates to clearing curve for detailed information when tapped.
		Foreign Matter	■ For a selected group or sensing head and depending on the data selection filter: – Lists total number of foreign matter events. – Displays clearing curve with number of events caused by foreign matter and organic matter. ■ Navigates clearing curve for detailed information when tapped.
		Splice	■ For a selected group or sensing head and depending on the data selection filter:

Location	Icon	Selection	Description
			– Lists total number of splice events. – Displays clearing curve with number of events caused by splices. ■ Navigates to clearing curve for detailed information when tapped.
		Polypropylene	■ For a selected group or sensing head and depending on the data selection filter: – Lists total number of polypropylene events. – Displays clearing curve with number of events caused by polypropylene. ■ Navigates to clearing curve for detailed information when tapped.
		Trend	Navigates to trend settings screen to select events or alarms to be displayed in a trend diagram.
		LabPack IPI	■ For a selected group or sensing head and depending on the data selection filter: – Lists a summary of IPI events. ■ Navigates to LabPack IPI screen to select events to be displayed in a bar chart.
		LabPack SFI	■ For a selected group or sensing head and depending on the data selection filter: – Lists a summary of SFI/D and SFI values. ■ Navigates to LabPack SFI screen to select values to be displayed in a bar chart.
		Length	■ For a selected group or sensing head and depending on the data selection filter: – Lists wound length. ■ Navigates to length screen to select events to be displayed in a bar chart.
BOTTOM MENU			Selects a group or a single sensing to be evaluated.

4.4.2 NSLT

The NSLT screen displays in a matrix the neps, short, long and thin events for a selected sensing head or group, depending on the filter set in the data selection filter. The clearing curve defines the boundary between events that have been cut (red numbers) and events that remain in the yarn (black numbers).

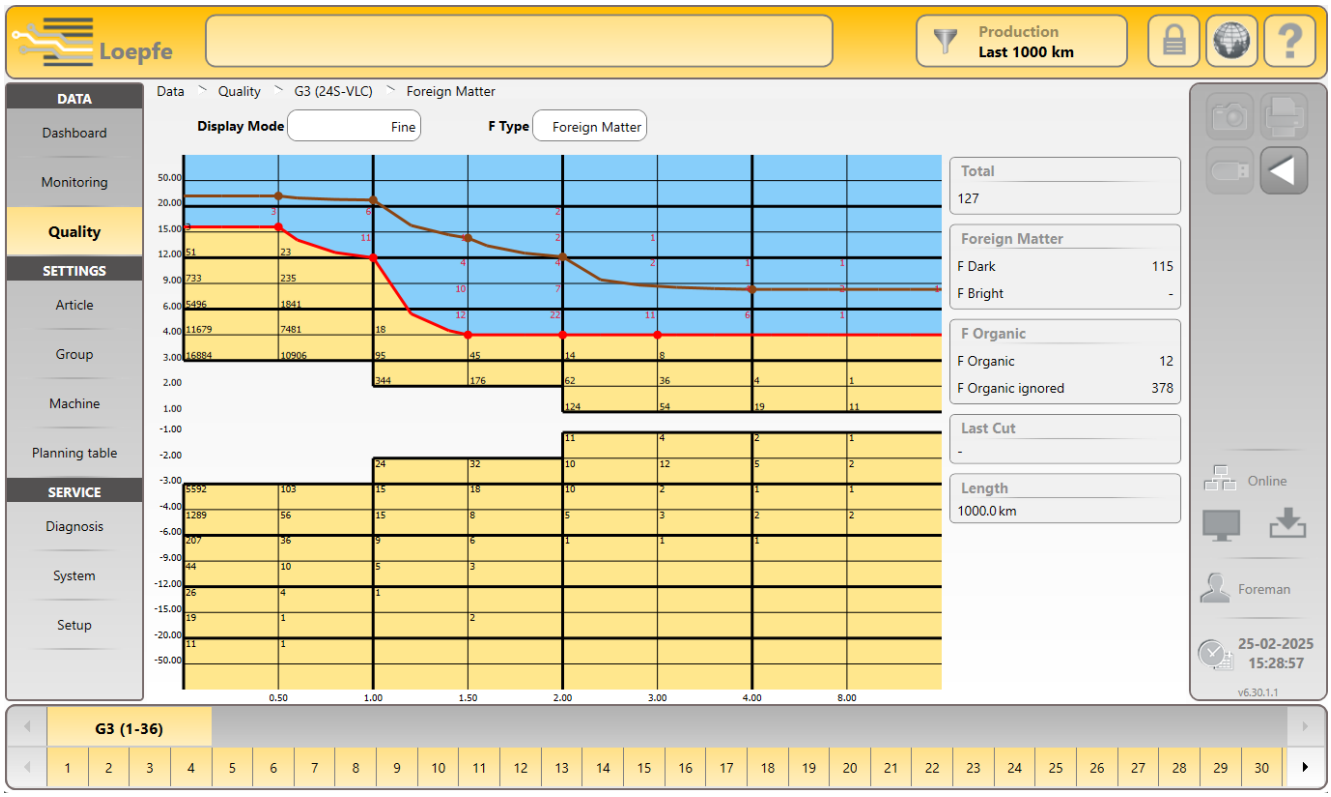


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
NSLT		Display Mode	Changes representation of measurements in the matrix. ■ **Fine**: Displays classification data in fine classes. ■ **Coarse**: Displays classification data in coarse classes. ■ **Scatter Plot**: Graphic representation of fault clusters in a heat map (for groups only).
		Classification Data in matrix	Displays number of events (cuts and/or faults) in corresponding classes for set length. ■ **Red**: Number of faults that have been cut. ■ **Black**: Number of faults that remain in the yarn.
		Total	Displays total number of cutting events in all classes for the set length.
		Last Cut	■ Displays the last cutting event for a selected sensing head according to cutting type and fault classification. ■ Navigates to Diagnosis > TK > Last Cut and displays a list of all cuts with their specific data.
		Length	Displays wound length according to data selection filter.

Location	Icon	Selection	Description
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects group or a single sensing head to be evaluated.

4.4.3 Foreign matter

The foreign matter screen displays in a matrix the foreign matter events for a selected sensing head or group, depending on the filter set in the data selection filter. The clearing curve defines the boundary between events that have been cut (red numbers) and events that remain in the yarn (black numbers).

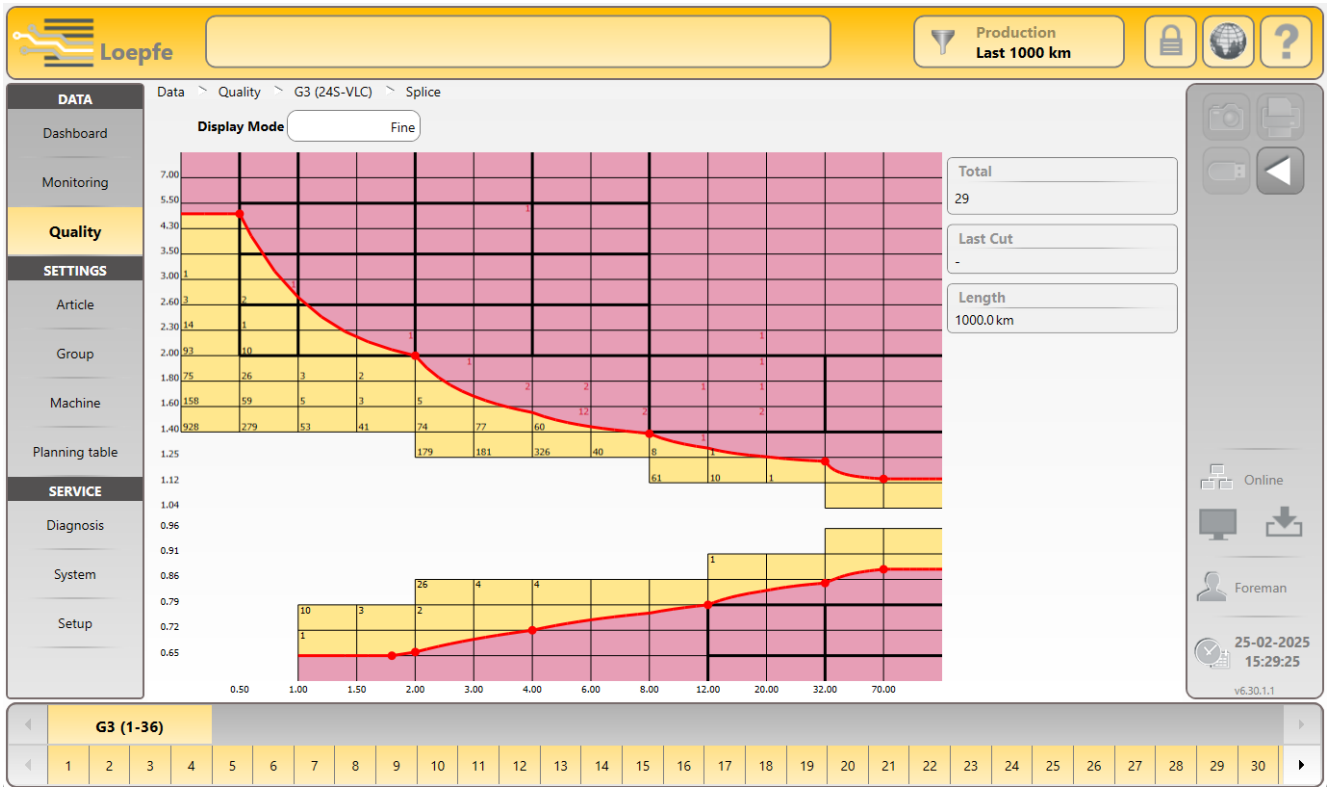


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Foreign Matter		Display Mode	Changes representation of measurements in the matrix. ■ **Fine**: Displays classification data in fine classes. ■ **Coarse**: Displays classification data in coarse classes. ■ **Scatter Plot**: Graphic representation of fault clusters in a heat map (for groups only). ■ **Color Distribution**: Displays colors of cuts as a bar chart.
		F Type	Changes F type and enables respective curve settings. ■ Foreign matter ■ F organic
		Classification Data in matrix	Displays number of events (cuts and/or faults) in corresponding classes for set length. ■ **Red**: Number of events that have been cut. ■ **Black**: Number of events that remain in yarn.
		Total	Displays total number of cutting events in all classes for set length.

Location	Icon	Selection	Description
		Foreign Matter	Displays number of foreign matter cuts. ■ **F Dark**: in raw-white yarn. ■ **F Bright**: in dyed or dark yarn.
		F Organic	Displays number of events for the following: ■ **F Organic**: F organic cuts. ■ **F Organic ignored**: intentionally ignored and saved F cuts.
		Last Cut	■ Displays the last cutting event for a selected sensing head according to cutting type and fault classification. ■ Navigates to Diagnosis > TK > Last Cut and displays a list of all cuts with their specific data.
		Length	Displays wound length according to data selection filter.
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

4.4.4 Splice

The splice screen displays in a matrix the splice events for a selected sensing head or group, depending on the filter set in the data selection filter. The clearing curve defines the boundary between events that have been cut (red numbers) and events that remain in the yarn (black numbers).

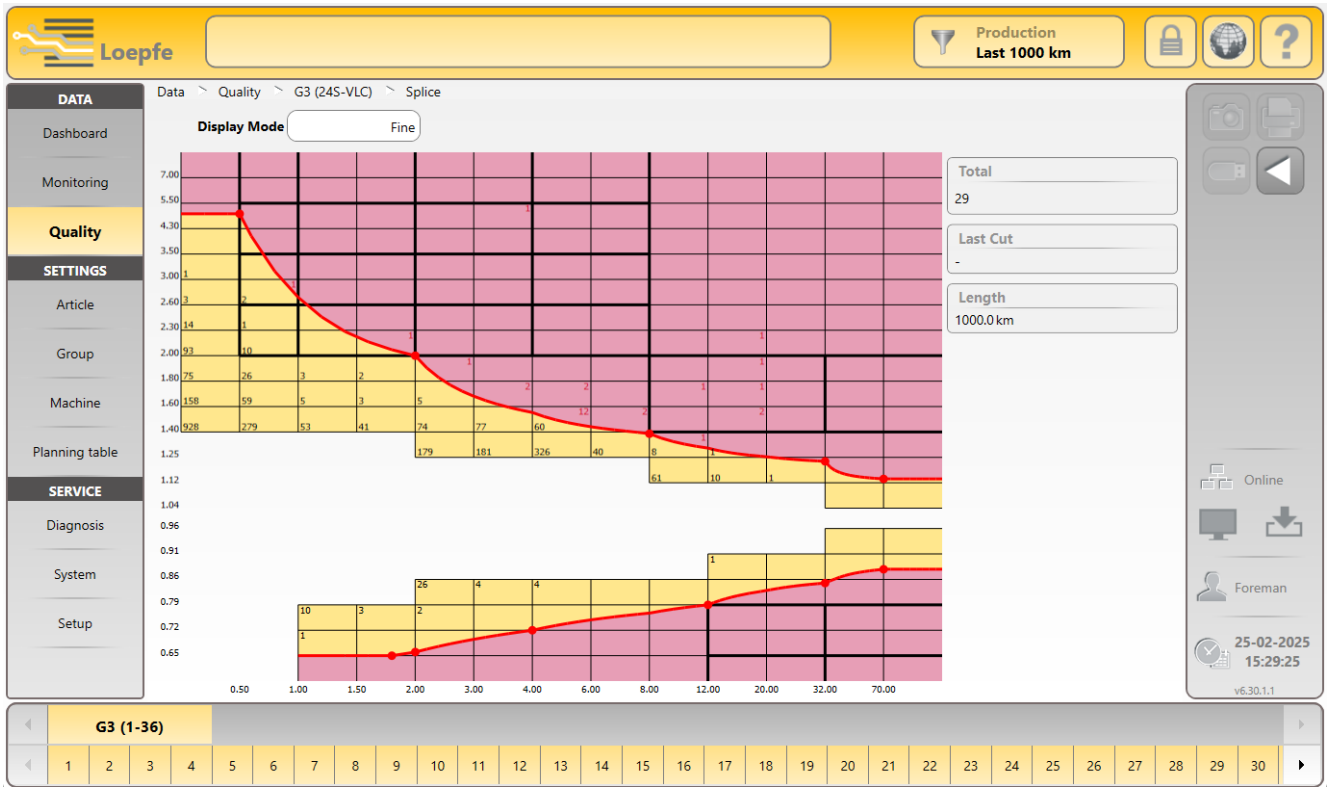


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Splice		Display Mode	Changes representation of measurements in the matrix: ■ **Fine**: Displays classification data in fine classes. ■ **Coarse**: Displays classification data in coarse classes. ■ **Scatter Plot**: Graphic representation of fault clusters in a heat map (For Groups only).
		Classification Data in matrix	Displays number of events in corresponding classes for set length: ■ **Red**: number of faults that have been cut. ■ **Black**: number of faults that remain in the yarn.
		Total	Displays total number of cutting events in all classes for the set length.
		Last cut	■ Displays last cutting event for a selected sensing head according to cutting type and fault classification. ■ Navigates to Diagnosis > TK > Last Cut and displays a list of all cuts with their specific data.
		Length	Displays wound length according to data selection filter.

Location	Icon	Selection	Description
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects group or a single sensing head to be evaluated.

4.4.5 Polypropylene

The polypropylene screen displays the polypropylene events for a selected sensing head or group, depending on the filter set in the data selection filter. The clearing curve defines the boundary between events that have been cut (red numbers) and events that remain in the yarn (black numbers).



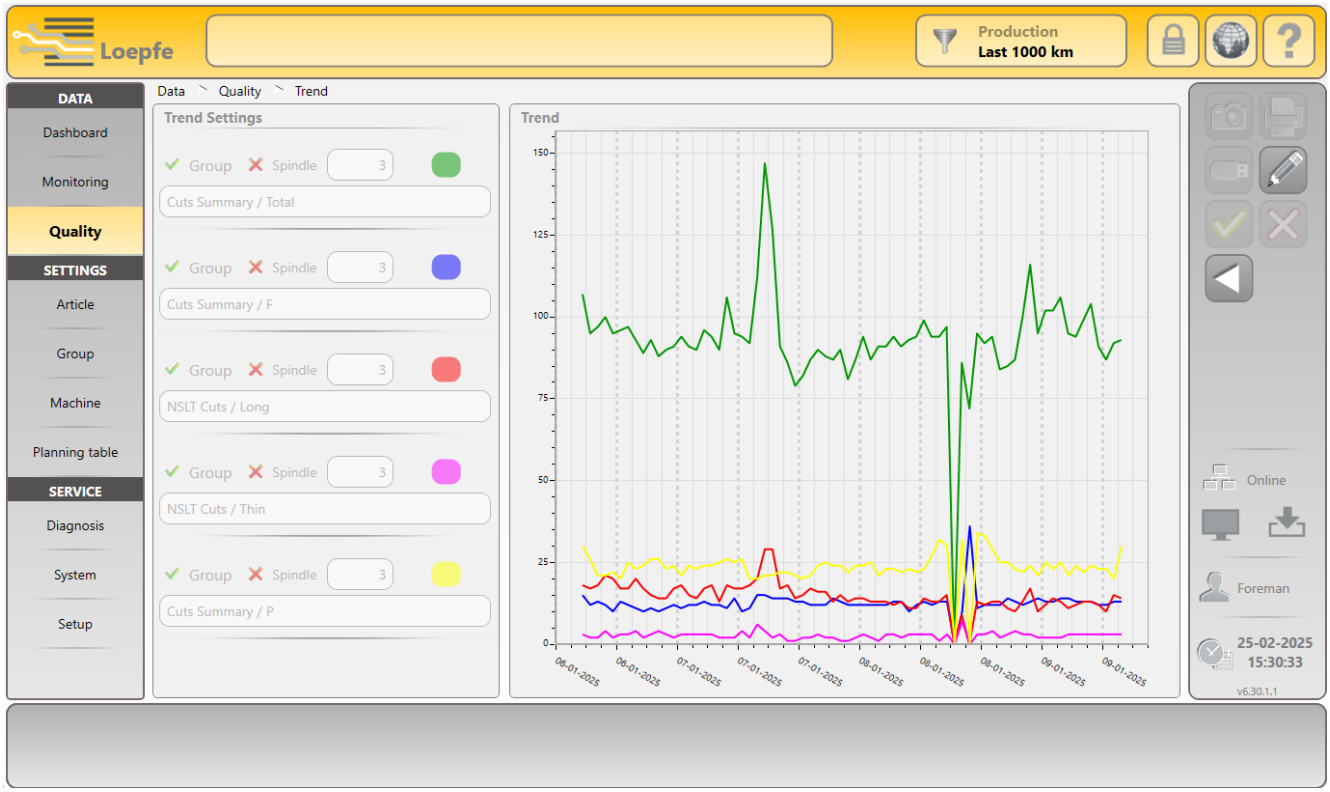
The X-axis (horizontal) represents the reference length of the signal, the accuracy of which decreases with the length of the physical defect, as the triboelectric charge decreases with a high frequency of occurrence. The Y-axis (vertical) represents the difference in triboelectric charge intensity between the materials.

Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Polypropylene		Display Mode	Changes representation of measurements in the matrix: ■ **Fine**: Displays classification data in fine classes. ■ **Coarse**: Displays classification data in coarse classes. ■ **Scatter Plot**: Graphic representation of fault clusters in a Heat Map (for groups only).
		Classification Data in matrix	Displays number of events in corresponding classes for set length: ■ **Red**: number of faults that have been cut. ■ **Black**: number of faults that remain in the yarn.
		Total	Displays total number of cuts in all classes for the set length.

Location	Icon	Selection	Description
		Last cut	■ Displays last cutting event for a selected sensing head according to cutting type and fault classification. ■ Navigates to Diagnosis > TK > Last Cut and displays a list of all cuts with their specific data.
		Length	Displays wound length according to data selection filter.
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects Group or a single sensing head to be evaluated.

4.4.6 Trend

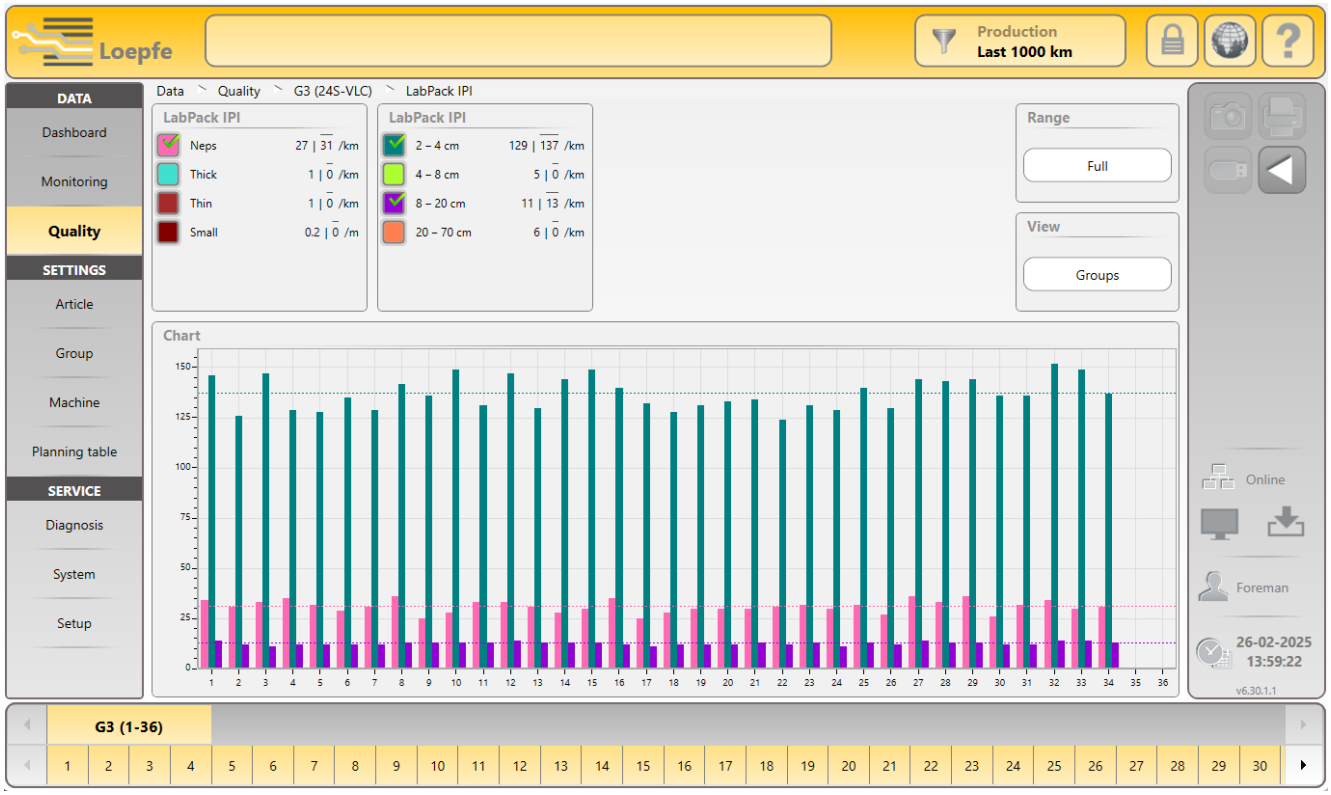
The Trend screen displays the trend graph for up to five events or alarms for a selected sensing head or group, depending on the filter set in the data selection filter. The events or alarms to be displayed as a trend graph can be selected separately.



Location	Icon	Selection	Description
Trend		Trend Settings	■ Selects up to 5 events or alarms to be displayed as a trend graph. ■ Selects a group or a sensing head to be displayed as a trend graph. ■ Selects color to be assigned to trend graph.
		Trend	Displays trend graph.
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits Edit Mode and discards last changes.

4.4.7 LabPack IPI

The LabPack IPI screen displays events associated with the imperfection index for a group or the complete machine, depending on the filter set in the data selection filter. The events to be shown in the bar chart can be selected separately.

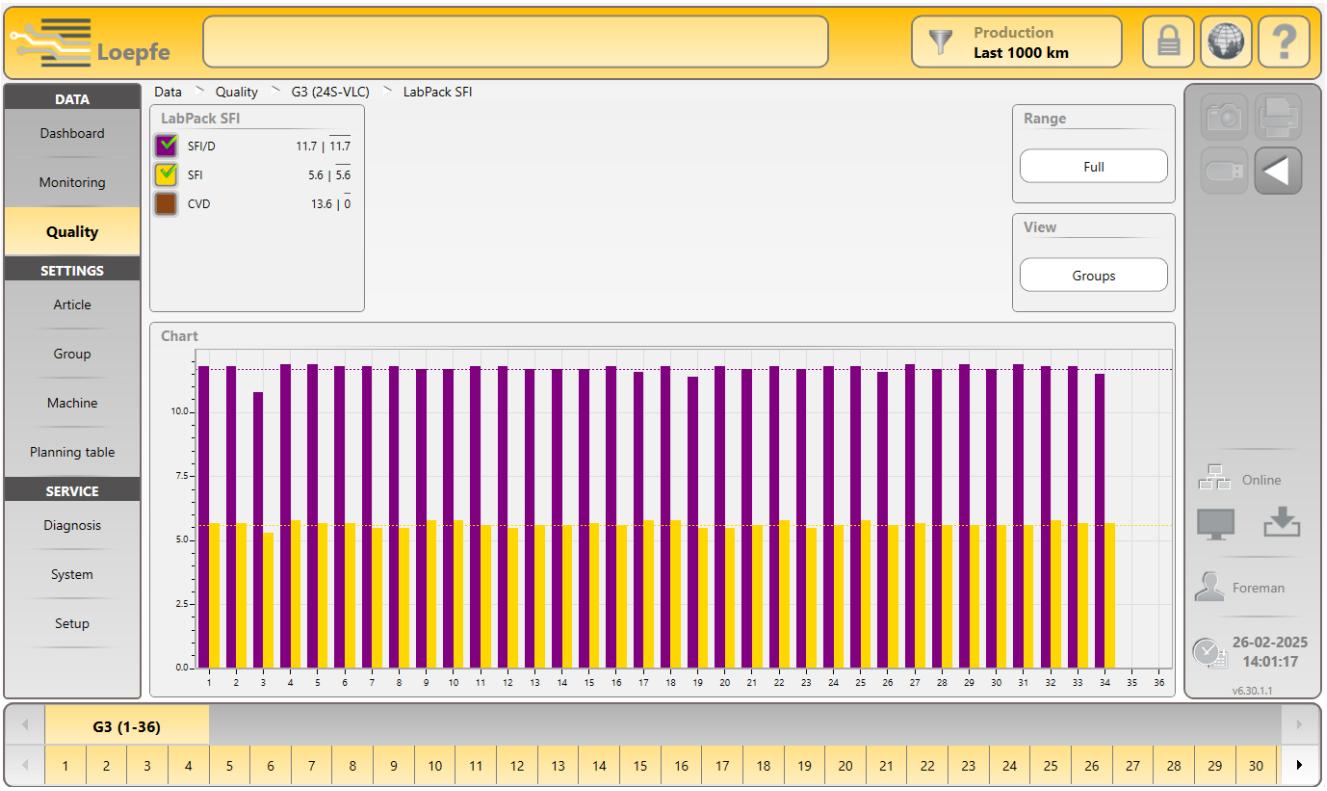


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
LabPack IPI		LabPack IPI	Selects parameter to be shown in bar chart.
		Chart	Displays selected parameters: ■ **X-axis**: Sensing head number ■ **Y-axis**: Number of events
		Range	Scales the range of Y-axis to: ■ **Full**: From zero to highest value of displayed group. ■ **Optimized**: From lowest to highest value of displayed group. ■ **Relative**: Negative and positive deviation of values of sensing head from mean value. ■ **Percentage**: Negative and positive deviation of values of sensing head from mean value. In percent.
		View	■ **Groups**: Displays all sensing heads of selected group. ■ **Machine**: Displays all sensing heads of machine.

Location	Icon	Selection	Description
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

4.4.8 LabPack SFI

The LabPack SFI screen displays events associated with the surface index for a group or the complete machine, depending on the filter set in the data selection filter. The events to be shown in the bar chart can be selected separately.

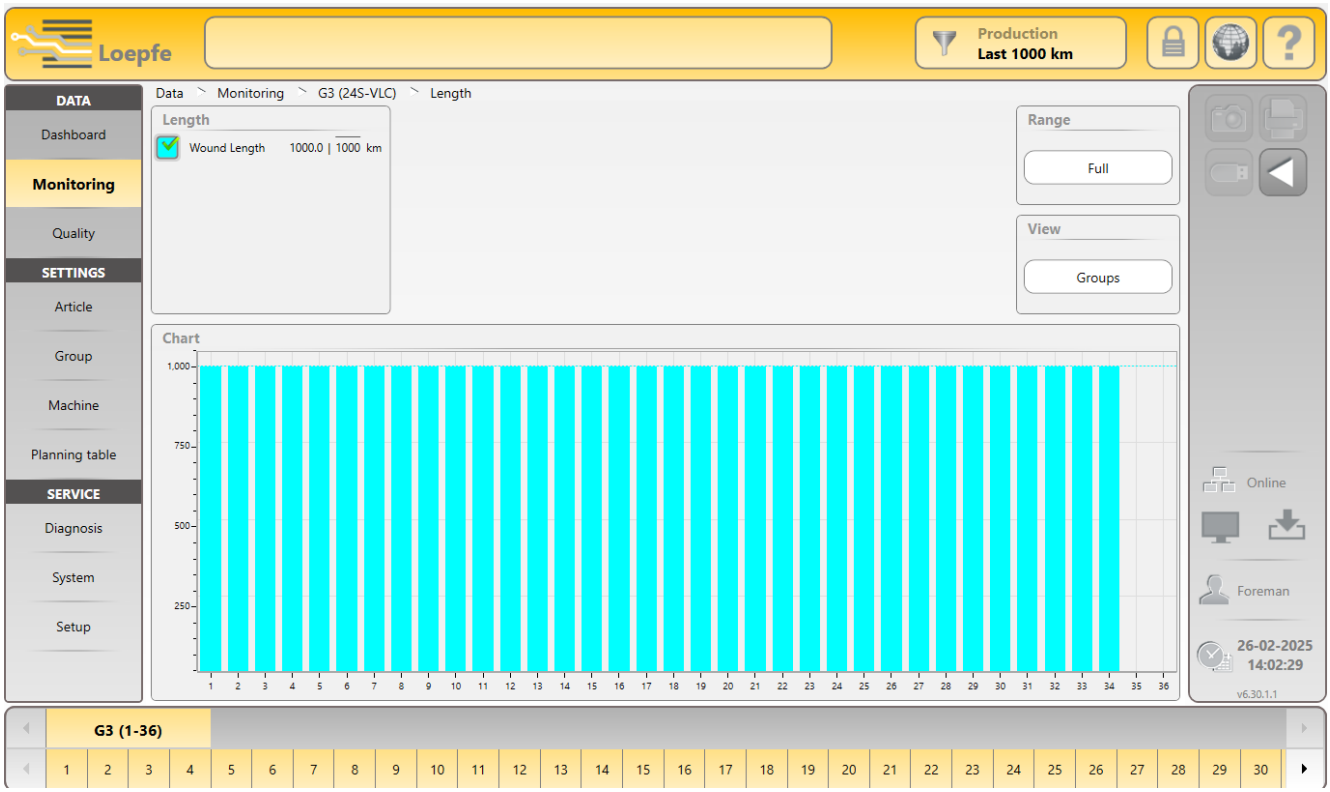


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
LabPack SFI		LabPack SFI	Selects parameter to be shown in bar chart.
		Chart	Displays selected parameters: ■ **X-axis**: Sensing head number ■ **Y-axis**: Yarn values
		Range	Scales the range of Y-axis to: ■ **Full**: From zero to highest value of displayed group. ■ **Optimized**: From lowest to highest value of displayed group. ■ **Relative**: Negative and positive deviation of values of sensing head from mean value. ■ **Percentage**: Negative and positive deviation of values of sensing head from mean value. In percent.
		View	■ **Groups**: Displays all sensing heads of selected group. ■ **Machine**: Displays all sensing heads of machine.

Location	Icon	Selection	Description
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

4.4.9 Length

The length screen displays the wound length for a group or the complete machine in a bar chart, depending on the filter set in the data selection filter.



Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Length		Length	Selects parameter to be shown in bar chart.
		Chart	Displays selected parameters: ■ **X-axis**: Sensing head number ■ **Y-axis**: Wound length in km
		Range	Scales the range of Y-axis: ■ **Full**: From zero to highest value of displayed group. ■ **Optimized**: From lowest to highest value of displayed group. ■ **Relative**: Negative and positive deviation of values of sensing head from mean value. ■ **Percentage**: Negative and positive deviation of values of sensing head from mean value. In percent.
		View	■ **Groups**: Displays all sensing heads of selected group. ■ **Machine**: Displays all sensing heads of machine.
RIGHT MENU		Step Back	Navigates to previous window.

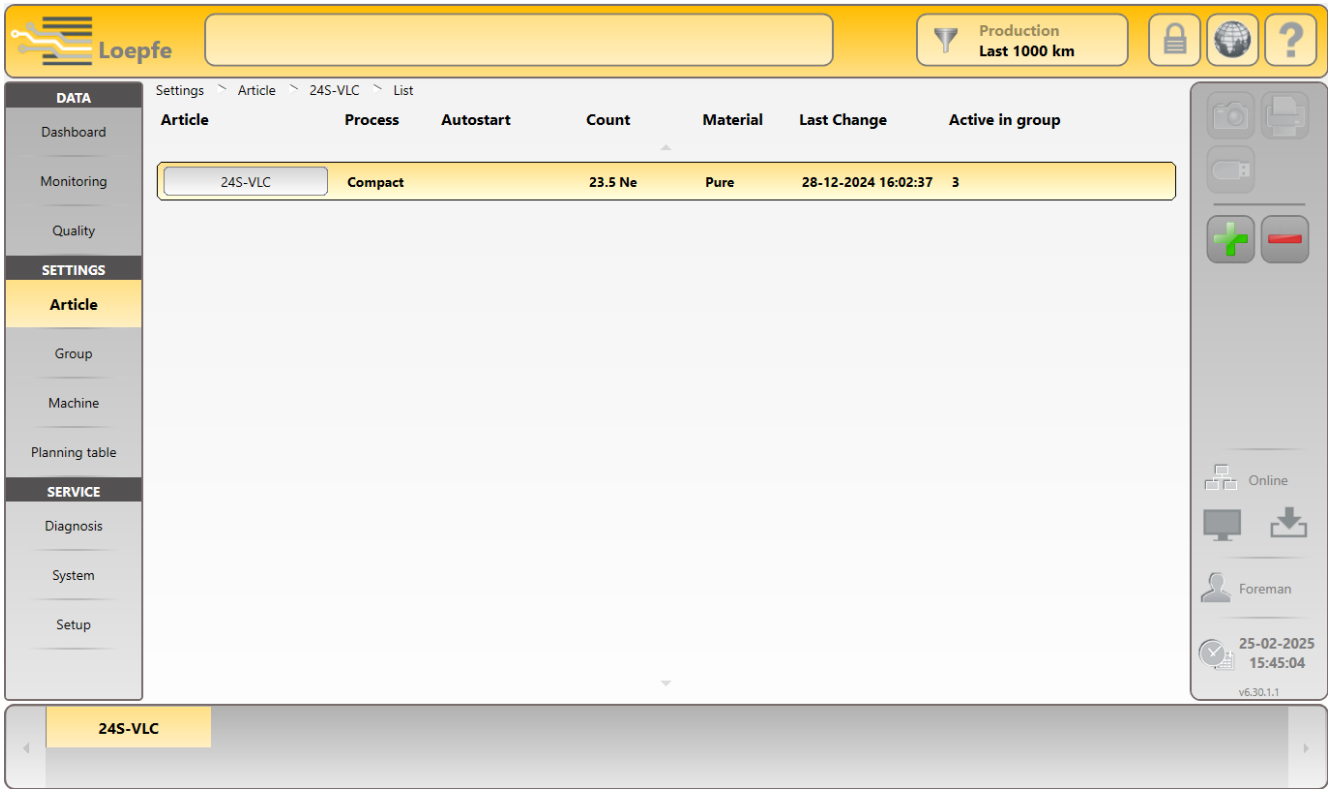
Location	Icon	Selection	Description
BOTTOM MENU			Selects a group or a single sensing head to be evaluated.

5 Article settings

5.1 Article list

An article is a set of parameters to which the yarn is cleared. An article can be assigned to a group with a single sensing head or a number of sensing heads.

The article list screen displays the articles that are available in the LZE. Articles can be added or deleted here.

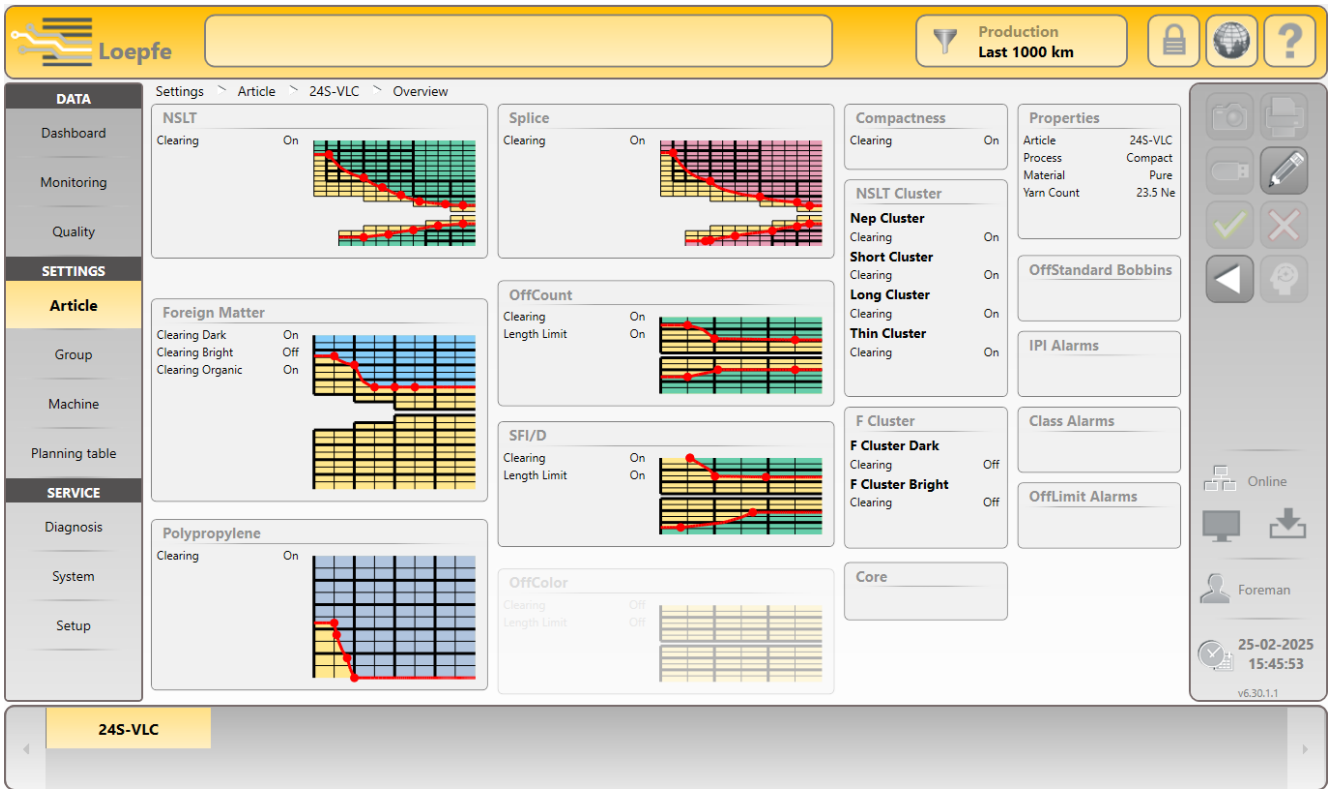


Location	Icon	Selection	Description
Article List			■ Displays a list of articles with information about: – Article name – Process – Yarn parameters – Cleaning mode auto or else – Count material – Last change – Being active in a specific group ■ The selected article is highlighted in yellow. ■ A green highlight indicates that the article is applied to an active group.
		Article buttons	Navigates to article overview.
		Column Titles	Sorts article list according to column title.

Location	Icon	Selection	Description
RIGHT MENU		Add Article	Starts a wizard to add a new article.
		Delete Article	Deletes an article.
BOTTOM MENU			■ Displays all articles. ■ Selects an article. ■ The selected article is highlighted in yellow.
		Scroll buttons	Scrolls through list of articles.

5.2 Article overview

The article overview screen displays a summary of clearing limits and alarm settings for a selected article. Each summary of clearing limits can be tapped to see more details and to apply changes.



Location	Icon	Selection	Description
Overview		NSLT Foreign Matter Polypropylene Splice OffCount SFI/D OffColor Compactness NSLT Cluster F Cluster OffLimit Alarms Class Alarms IPI Alarms OffStandard Bobbins Core Properties	■ Displays clearing curves and parameters for a selected article. ■ Navigates to corresponding clearing curve to change article settings. If required with the help of the edit option. ■ Clearing curves or alarms that have changed are highlighted in yellow.

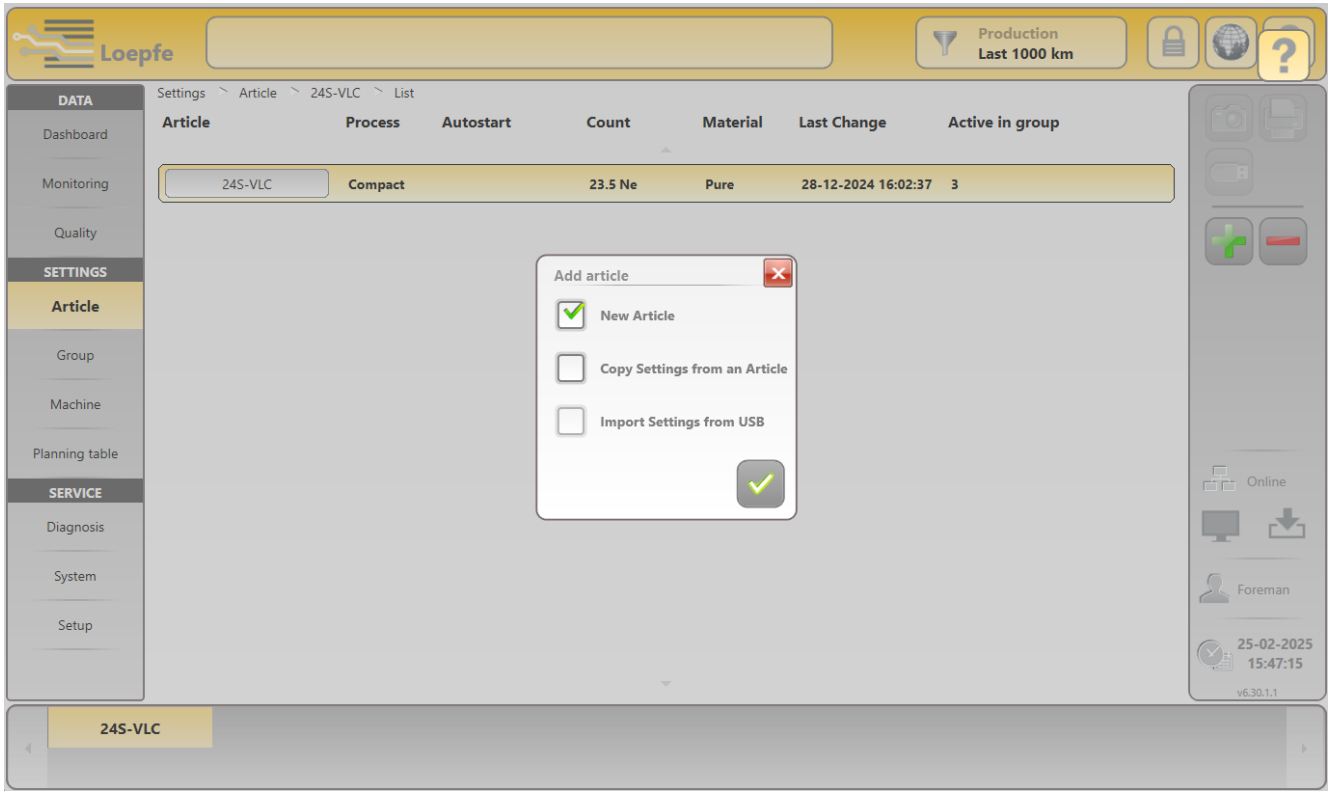
Location	Icon	Selection	Description
RIGHT MENU		Edit	Enables Edit Mode for selected clearing.
		Save or Confirm	■ Saves current settings. ■ Applies all changes to highlighted clearing curves and parameters.
		Exit or Discard	Exits edit mode and discards last changes.
		Step Back	Navigates to article list
		Enable Autostart	■ Enables autostart mode. ■ Selects clearing curve(s) to run in autostart mode. ■ Indicates clearing curves that have autostart assigned with blue highlight. Clearing curve assigned with autostart is highlighted in blue.
		Disable Autostart	Disables autostart mode for all clearing curves.
BOTTOM MENU			■ Displays a list of all articles ■ The selected article is highlighted in yellow.
		Scroll buttons	Scrolls through list of articles.

5.3 Add article

5.3.1 Add article scenarios

An article can be added in three ways:

1. Start article setting from scratch with optional autostart function
2. Start article setting with a copy of an existing article
3. Start article setting with an import of an article from a USB stick.

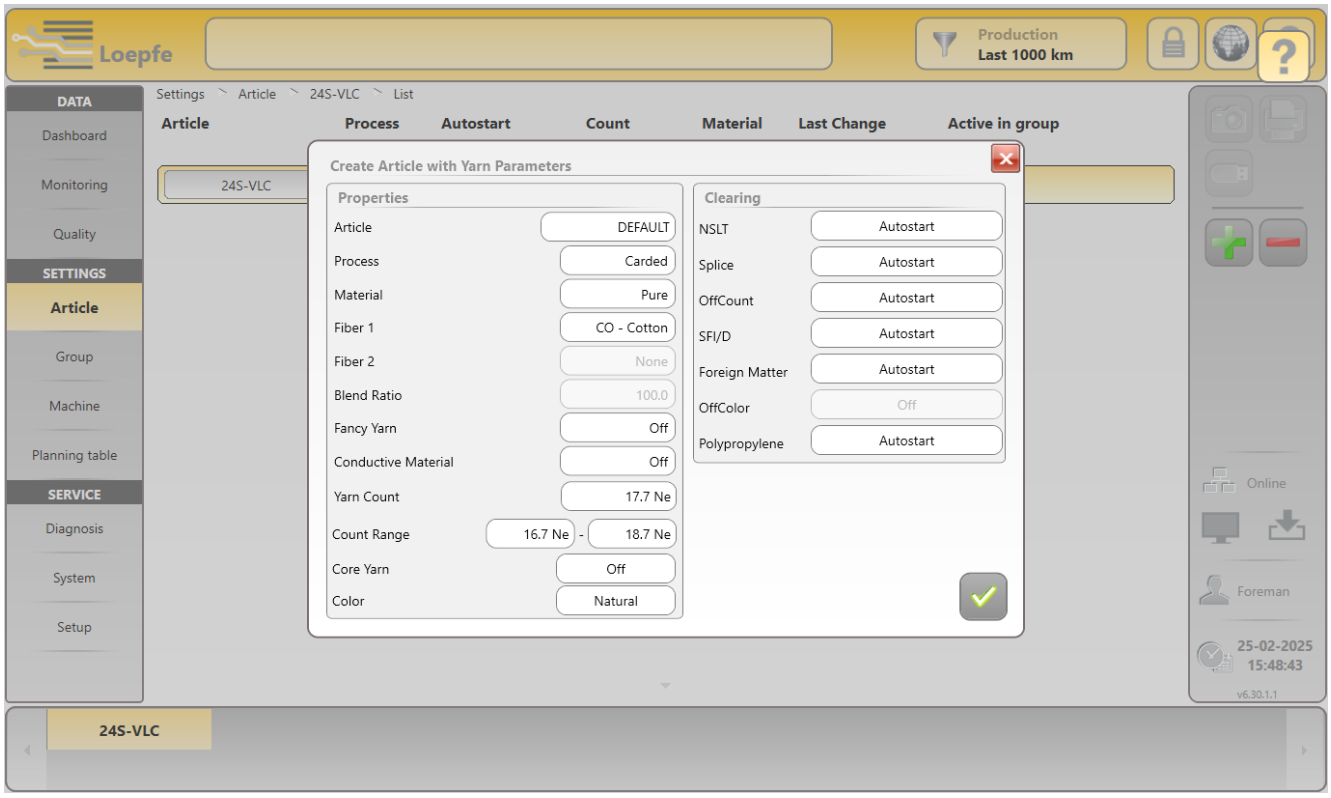


Location	Icon	Selection	Description
Add Article		New Article	Starts article settings with basic parameters and optional autostart function.
		Copy Settings from an Article	Provides a copy of an article and navigates to article overview where clearing parameters can be edited.
		Import Settings from a USB stick	Imports article settings from a USB stick.
		Save or Confirm	Saves or confirms current settings or selections.

5.3.2 New article

New article with autostart

An new article can be created from scratch by editing a list of basic yarn parameters and adjusting the clearing curves manually or with the help of the autostart function. If autostart is selected the parameters will be adjusted automatically during the first 100 km. If autostart is deselected default clearing curves are given. In this case the clearing curves can be adjusted by editing the parameters.

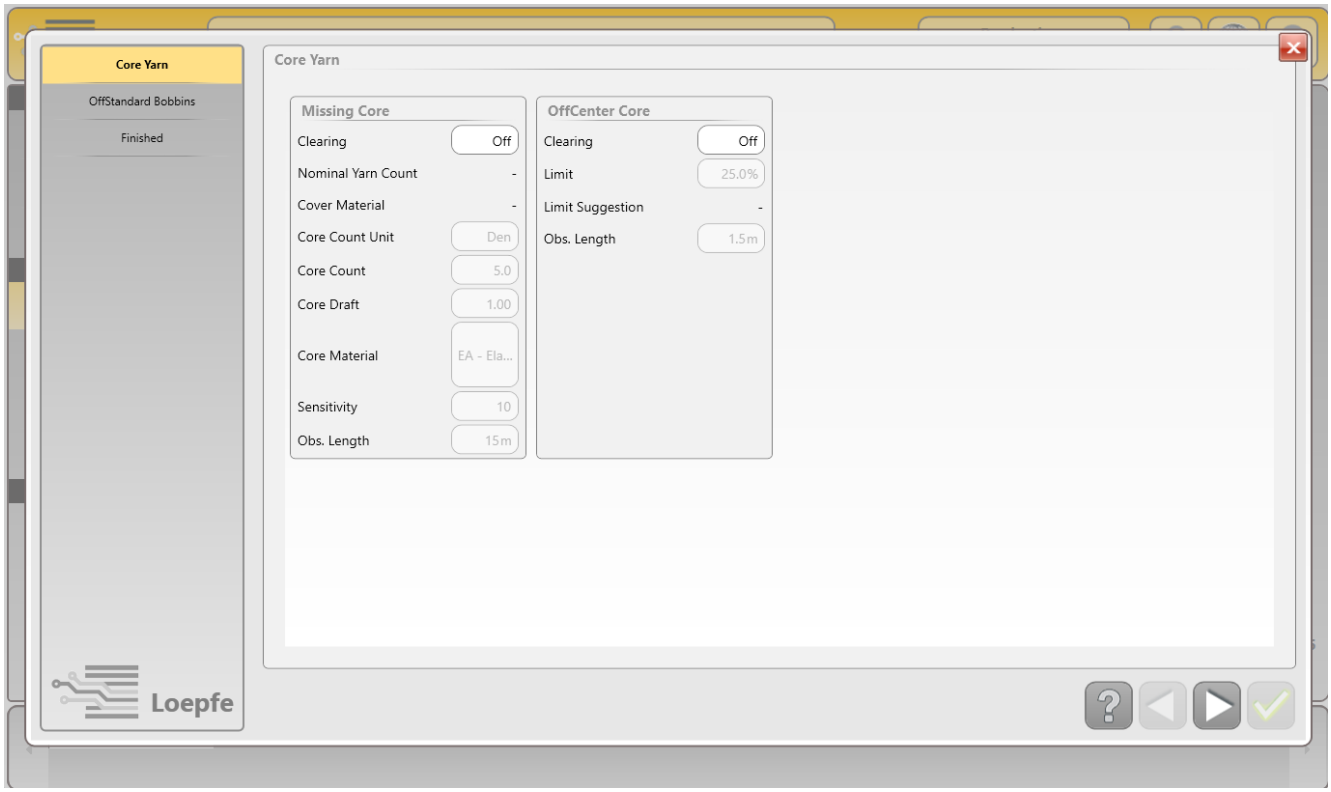


Location	Icon	Selection	Description
Create Article with Yarn Parameters		Properties	Sets article properties such as name and basic yarn parameters.
		Clearing	Sets parameter for the listed clearing types with of the following methods: ■ **Autostart**: clearing parameters will be adjusted automatically within the first 100 km. ■ **Normal**: clearing parameters can be set manually. ■ **Off**: clearing will not be applied. ■ **Top 9**: NSLT curve to clear top 9 classes. ■ **Top 12**: NSLT curve to clear top 12 classes. ■ **Top 16**: NSLT curve to clear top 16 classes. ■ **Convert Zenit+**: converts Zenit+ NSLT setting to Prisma NSLT Due to the different resolution of YarnMaster® PRISMA compared to previous generations of YarnMaster® clearers, the number of events in each classification and the clearing curve is not comparable. Always check that the yarn quality

Location	Icon	Selection	Description
			complies with the quality requirements if the settings have been adopted from previous generations of YarnMaster® clearers. ■ **Open** ■ **Sensitive**
		Save or Confirm	Saves or confirms current settings or selections.

Wizard core yarn

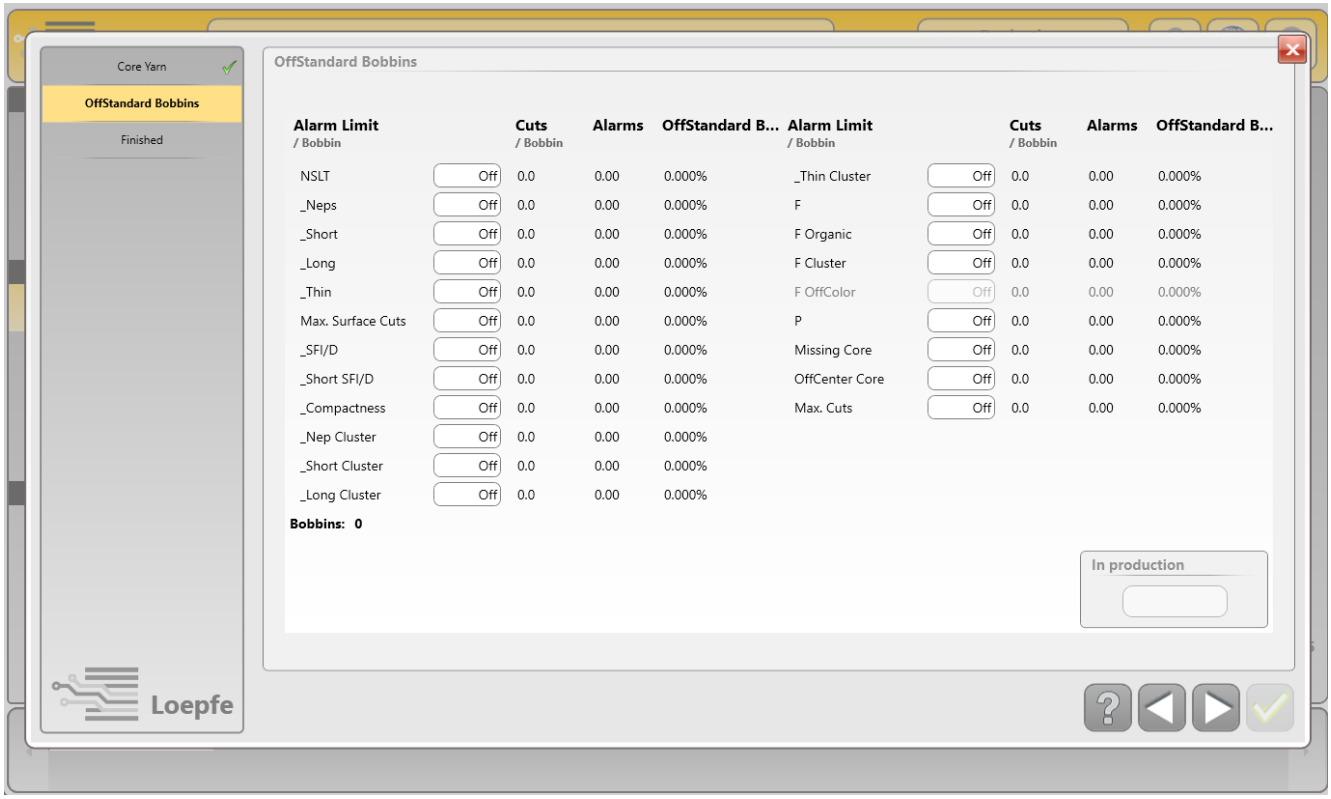
The core yarn screen is a part of the article creation wizard and enables missing core clearing and OffCenter clearing. In both menus basic yarn and clearing parameters can be set.



Location	Icon	Selection	Description
Core Yarn		Missing Core	■ Toggles missing core clearing on or off. ■ Sets parameters for missing core clearing.
		OffCenter Core	■ Toggles OffCenter core clearing on or off. ■ Sets OffCenter core limit. ■ Sets observation length.
		Navigation arrows	Navigates to next window.

Wizard OffStandard bobbins

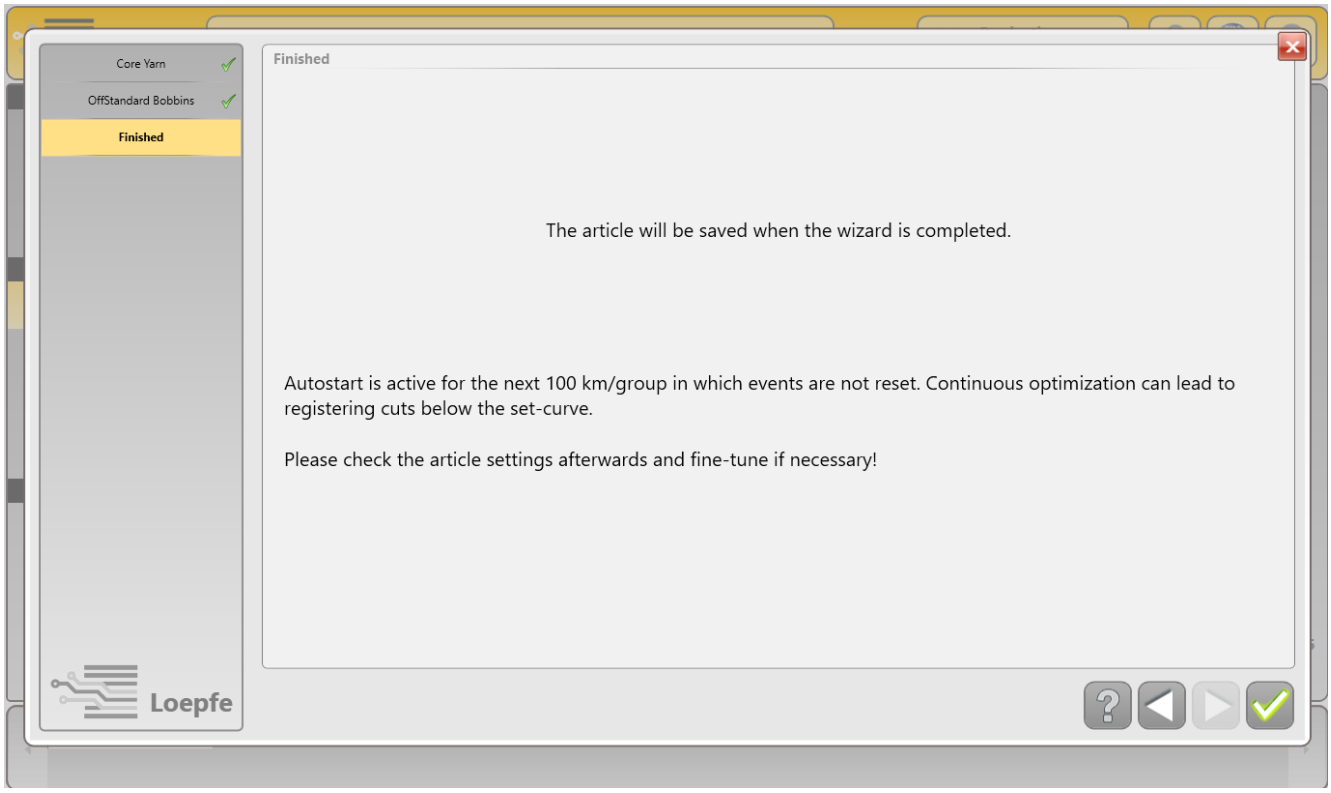
The OffStandard bobbin screen is a part of the article creation wizard and enables the setting of alarm limits for bobbins. It provides a menu where a maximum allowed number of repetitions for each cut type can be defined.



Location	Icon	Selection	Description
OffStandard Bobbins			Sets alarm limit for maximum allowed number of repetitions for each individual cut type per bobbin.
		Bobbins	Displays total number of bobbin changes per selected filter and group.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		Navigation arrows	Navigates to previous or next window.

Wizard Finished

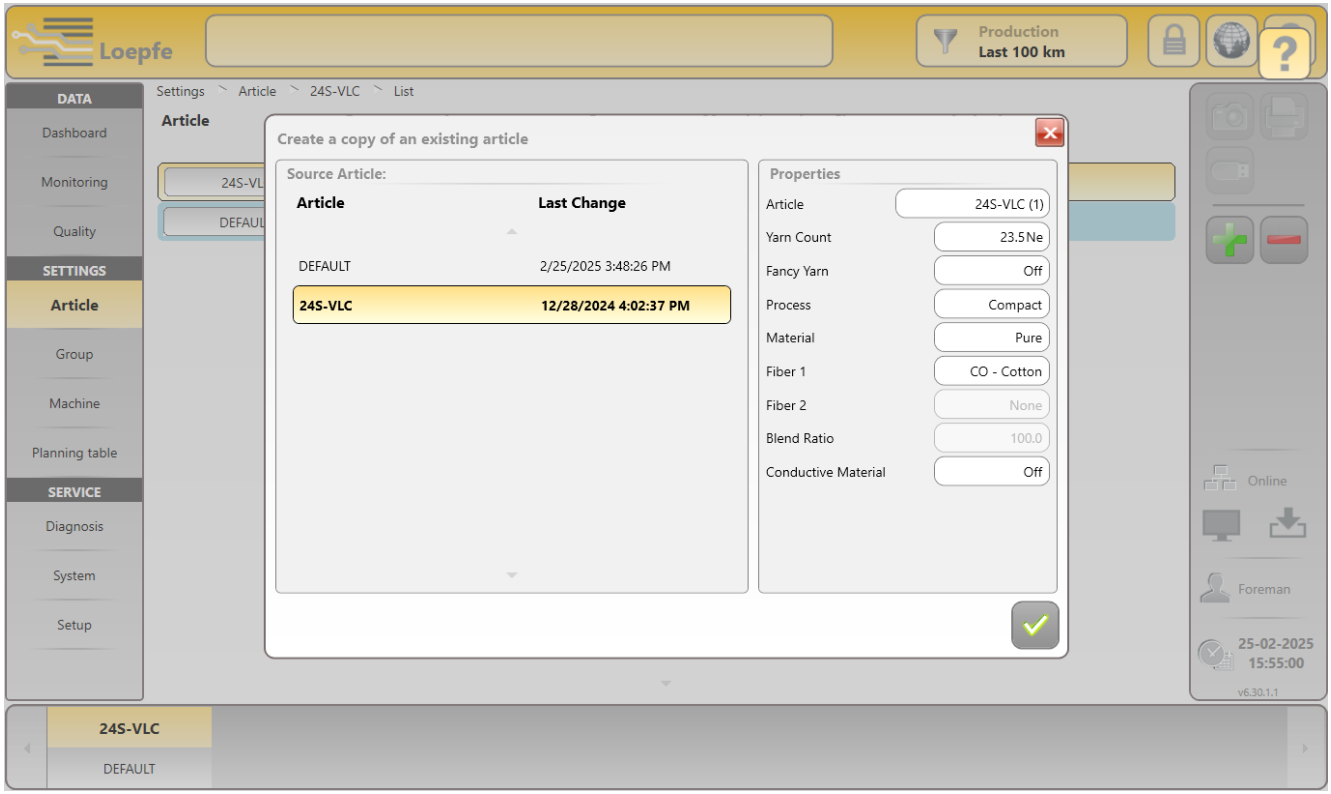
The Finished screen is the end of the article creation wizard and saves all settings as a new article.



Location	Icon	Selection	Description
Finished		Navigation arrow	Navigates to previous or next window.
		Save or confirm	Ends wizard, saves article and displays article overview.

5.3.3 Copy settings from article

This screen provides a list of all articles that are available in the LZE. An article can be selected and its basic yarn parameters can be edited if required before it is saved as a new article.



Location	Icon	Selection	Description
Create a copy of an existing Article		Source Article	Displays a list of articles that can be copied.
		Properties	Enables setting of article properties such as name and basic yarn parameters.
		Save or Confirm	Saves or confirms current settings or selections.

5.3.4 Import settings from USB

The import settings from USB screen provides a list of all articles that are available on the USB Stick. An article can be selected and its basic yarn parameters can be edited if required before it is saved as a new article to the LZE.

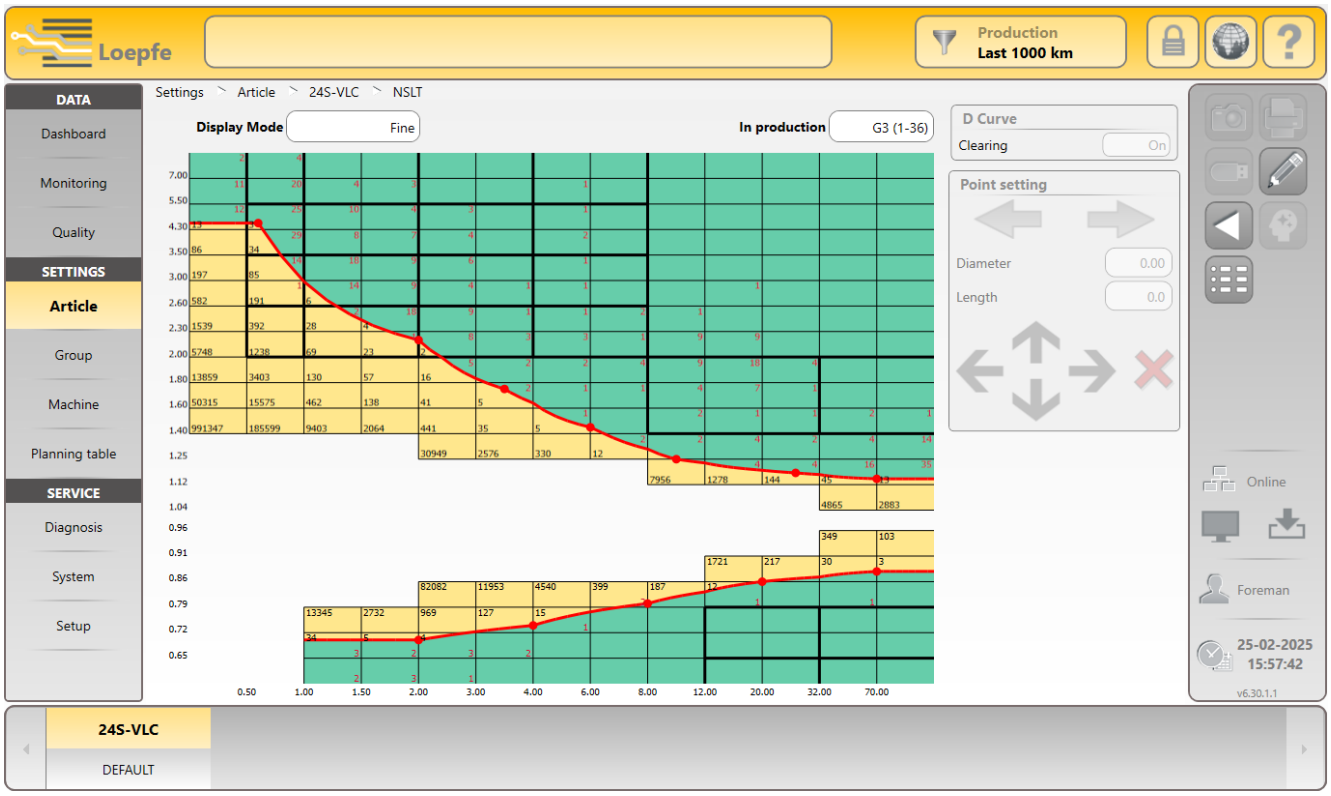
Location	Icon	Selection	Description
Import Article Settings		Article Settings	■ Displays a list of articles that can be imported from a USB stick. ■ Selects an article to be imported. ■ Indicates selected article with a yellow highlight.
		Properties	Enables setting of article properties such as name and basic yarn parameters.
		Download or import	Imports settings of article.

5.4 Edit article

5.4.1 Basic settings / tools

Clearing curves matrix

The clearing curve defines the boundary between events that remain in the yarn and those that are to be removed. The LZE software displays clearing curves in a matrix that is divided in fine and coarse classes:

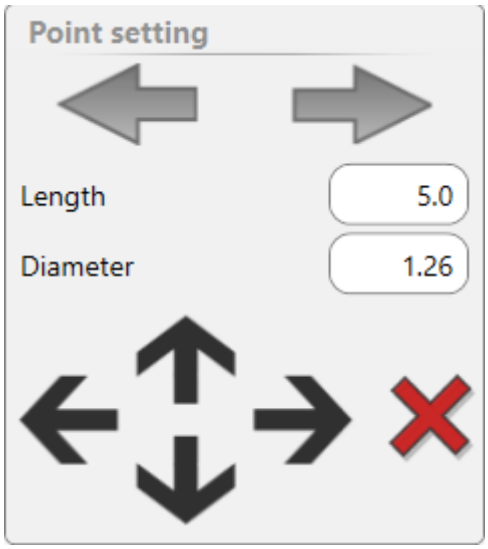


Location	Icon	Selection	Description
TOP MENU		Data selection filter	Selects filter settings to be applied to the evaluation.
Central area	Matrix		Area within clearing curve: ■ Events in this area will remain in yarn. ■ Number of events are listed in black color.
			Area outside clearing curve: ■ Events in this area will be cleared. ■ Number of events are listed in red color.
			Points in curve: ■ Setting points in clearing curve.
			Light-framed boxes: ■ Fine classes (207).

Location	Icon	Selection	Description
			Bold-framed boxes: ■ Coarse classes (23).
			X-axis [cm]: ■ Length of yarn fault.
			Y-axis [multiple of diameter]: ■ Yarn thickness.
	Point setting		Adds, deletes and moves setting points in clearing curve.
BOTTOM MENU			Selects group to be evaluated.

Point settings

Clearing curves can be adjusted by moving, adding or deleting setting points. A setting point can be selected by tapping, a new setting point can be added by tapping the curve between two existing setting points. Each clearing curve has a specific number of setting points.

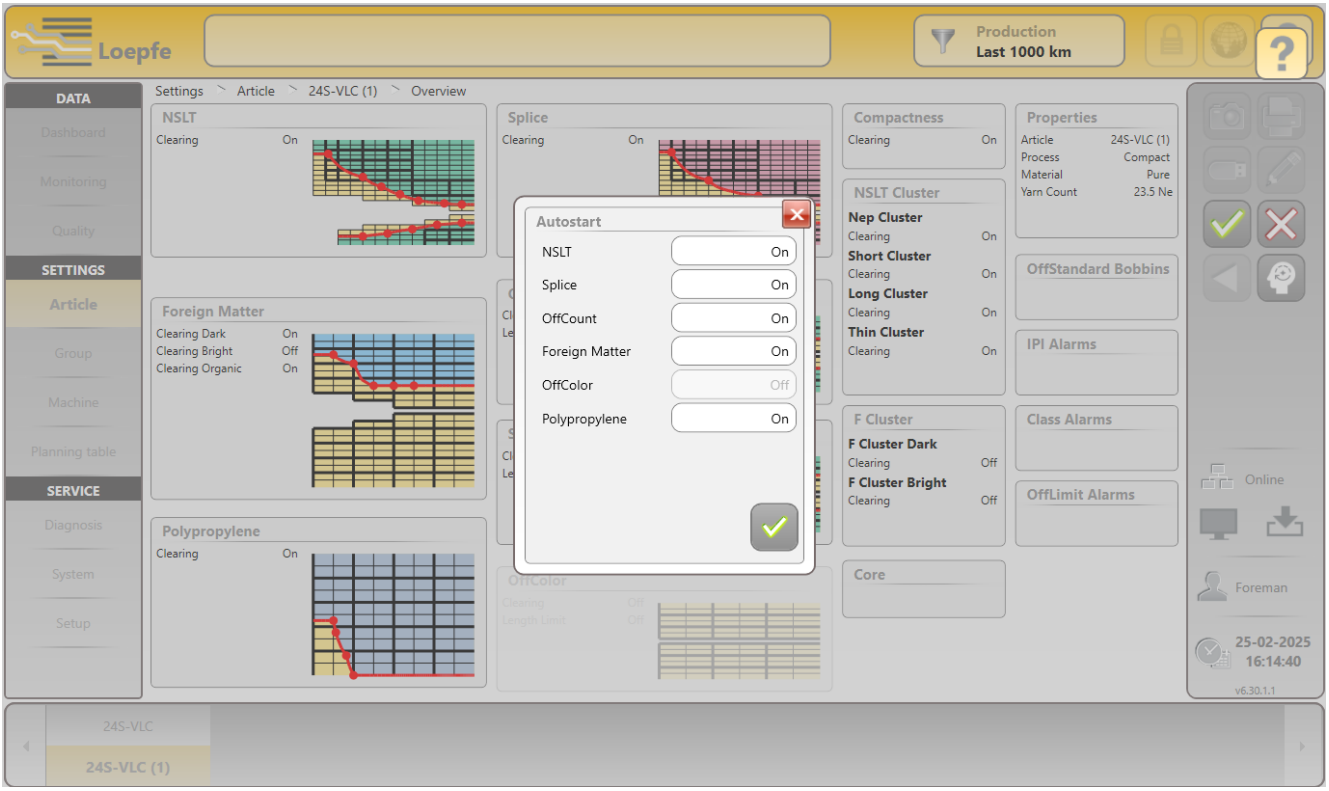


Location	Icon	Selection	Description
Point setting		Grey left and right arrows	Jumps from one setting point to previous or next.
		Length	Sets length (X-axis value).
		Diameter	Sets diameter (Y-axis value).
		Black directional arrows	Moves setting point in corresponding direction.
		Cross	Deletes setting point.

5.4.2 Autostart

New autostart list

With the autostart function, the system supports the user in creating an article. During the first 100 km, the yarn is analyzed and the system adjusts the parameters every 5 km. At the end of this auto configuration, the clearing curve is available to the user for manual fine adjustments, if required.

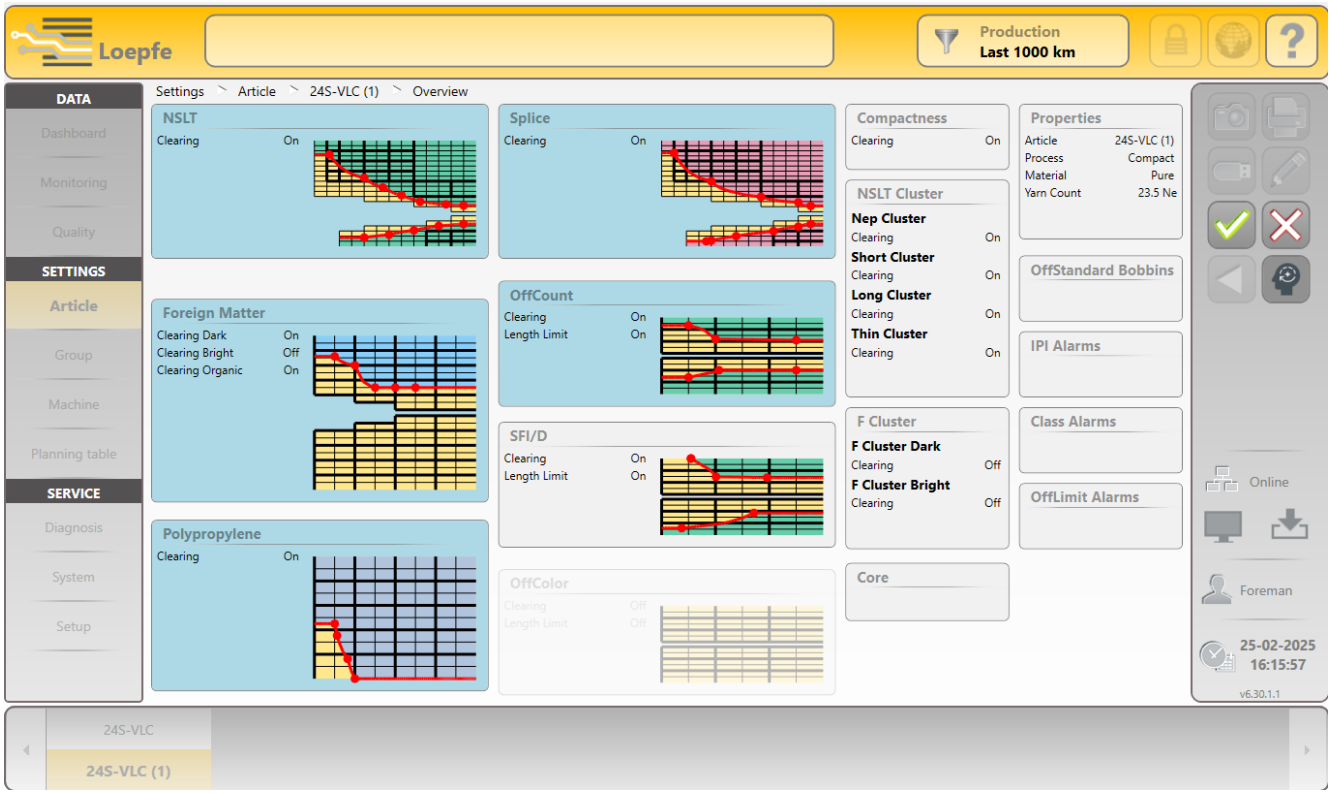


Location	Icon	Selection	Description
Autostart		NSLT Splice OffCount SFI/D Foreign Matter OffColor Polypropylene	Toggle autostart on or off for selected clearing.
		Save or Confirm	Saves or confirms current settings or selections.

Toggle Autostart on/off

If the autostart function is activated, the curve adjusts continuously. The autostart is completed after the first 100 km wound yarn per group.

The autostart function can be used both when creating a new article and during operation. If autostart is switched on during operation, the user will be asked if the clearing parameters of the current article should be overwritten.



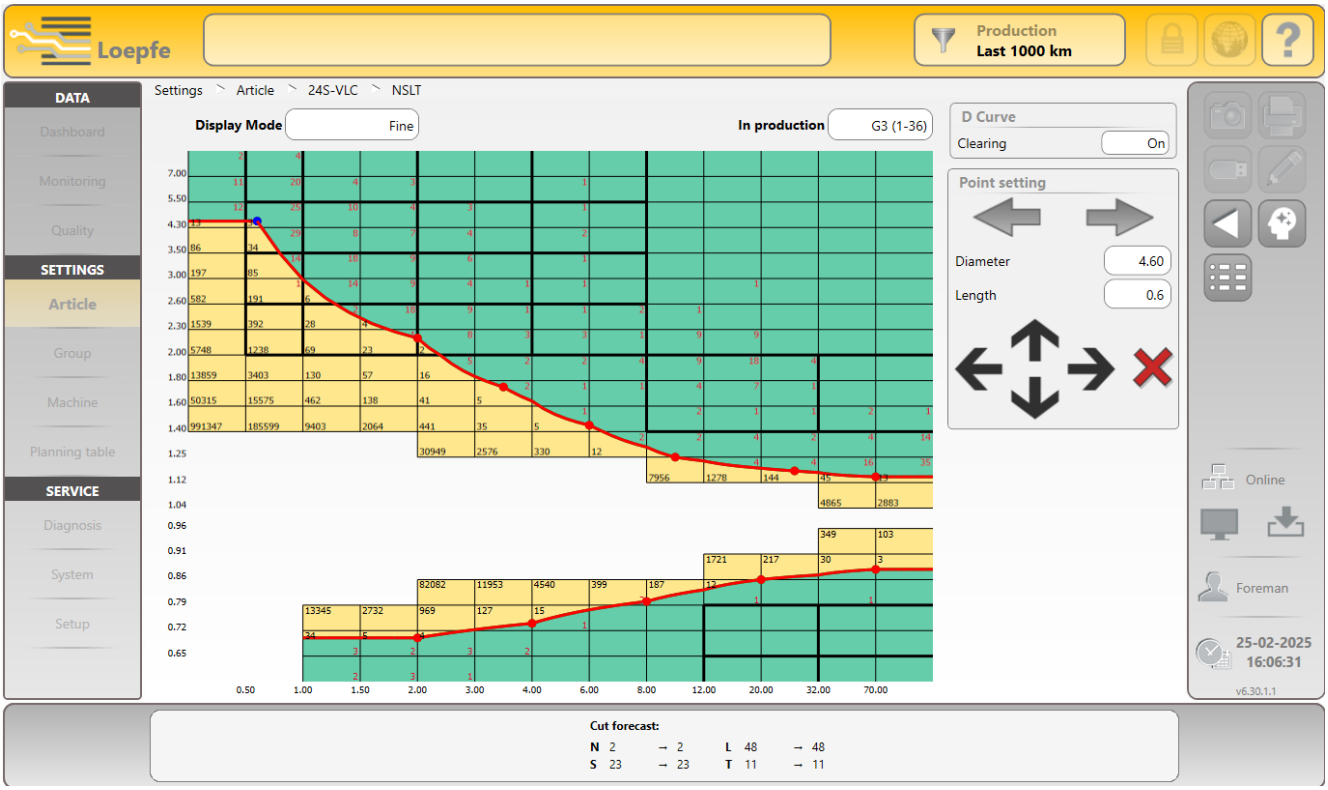
Location	Icon	Selection	Description
Autostart		NSLT Foreign Matter Polypropylene Splice OffCount SFI/D OffColor NSLT Cluster F Cluster OffLimit Alarms Class Alarms IPI Alarms OffStandard Bobbins Core Properties	■ Toggle autostart on or off for selected clearing. ■ Clearing curves highlighted in blue are ready for autostart.

Location	Icon	Selection	Description
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.
		Disable Autostart	■ Indicates enabled autostart. ■ Autostart can be disabled.
		Enable Autostart	■ Indicates disabled autostart. ■ Autostart can be enabled.

5.4.3 Edit article scenarios

Adjust clearing curve in the matrix

The clearing curve defines the boundary between events that remain in the yarn and those that are removed. The LZE software displays clearing curves in a matrix that is divided in fine and coarse classes. In all cases, adjusting the curves is very similar. In this case the NSLT curve is used as an example to describe the tools used to adjust the clearing curve:

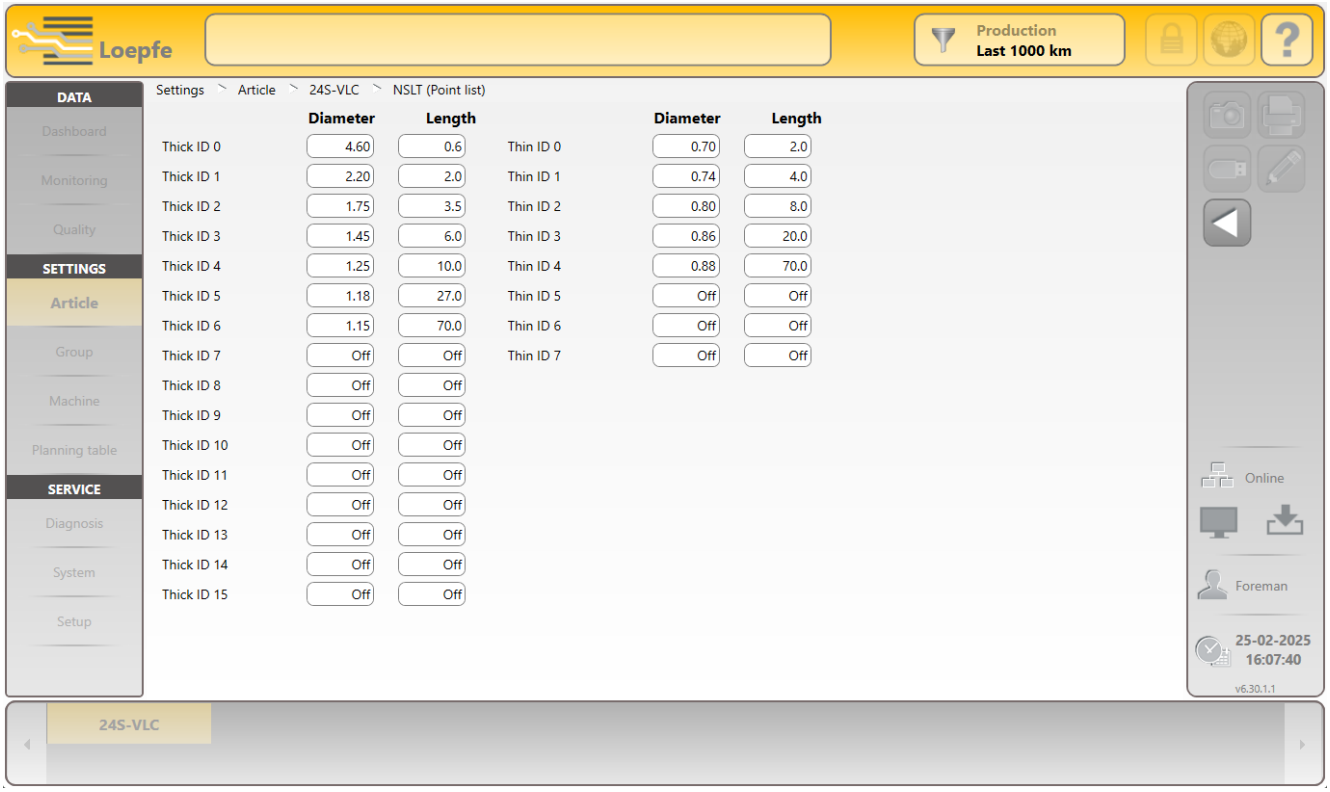


Location	Icon	Selection	Description
Central area		Display Mode	Changes representation of measurements in the matrix.
		In Production	■ Indicates whether article is currently being used in production. ■ Displays Group to which article is assigned.
		Matrix	■ Displays current clearing curve (green). ■ Displays new clearing curve (red).
		Point setting	Adjusts setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Navigates to previous window.
		AutoCorrect	Enables AutoCorrect mode to adjust clearing curve with a sensitivity slider.

Location	Icon	Selection	Description
		Coordinates table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Shows the actual cuts of NSLT. If the setting of the calculation curve is changed, the cut forecast shows the calculated (theoretical) increase (red) or decrease (green) of the cuts to be expected after changing the settings.

Set numerical values in the coordinate table

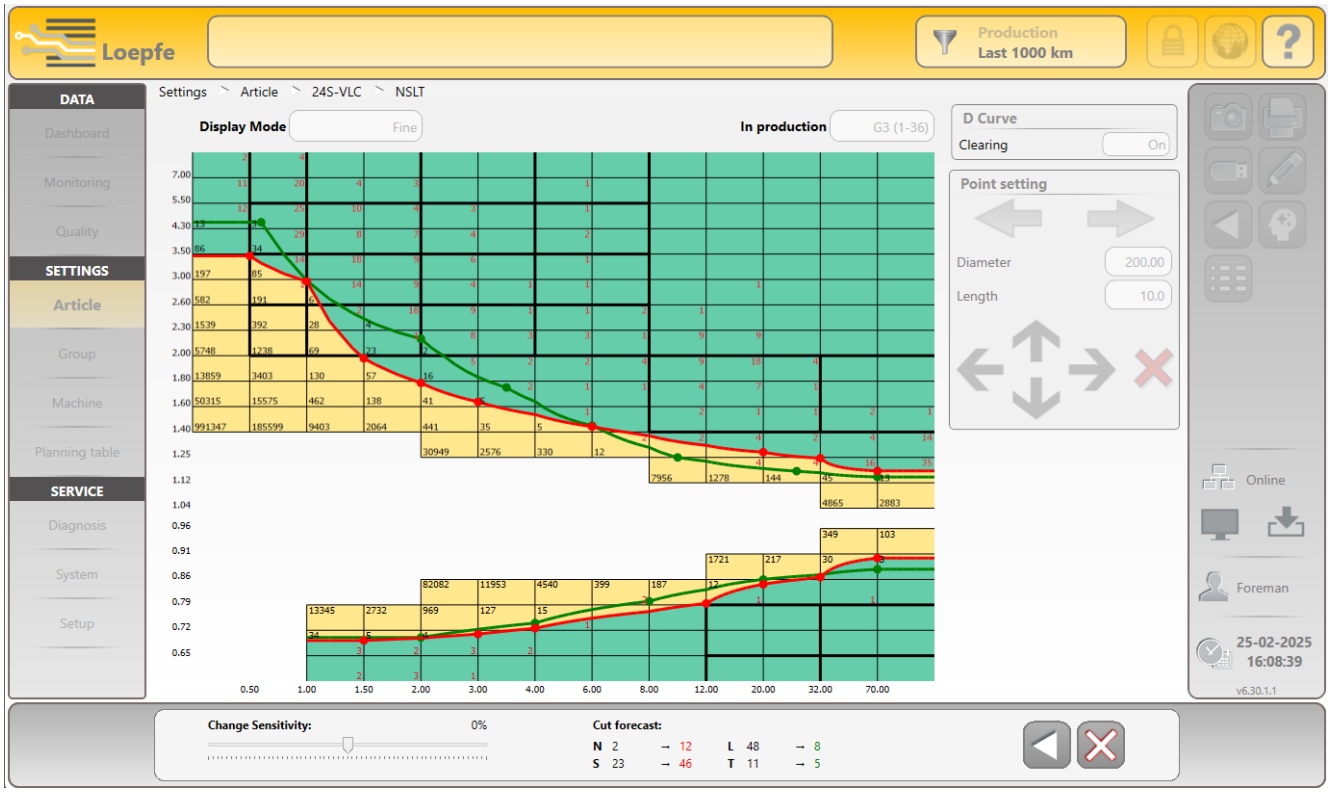
Clearing curves are defined by setting points. These setting points can be set with numerical values in the coordinates table. As an example, the NSLT coordinates table is shown:



Location	Icon	Selection	Description
NSLT (Point list)		Thick ID 0 - 15	■ Sets numerical values for diameter and length. ■ Adds and deletes setting points.
		Thin ID 0 - 7	■ Sets numerical values for diameter and length. ■ Adds and deletes setting points.
RIGHT MENU		Step Back	Navigates to previous window.

Autocorrect

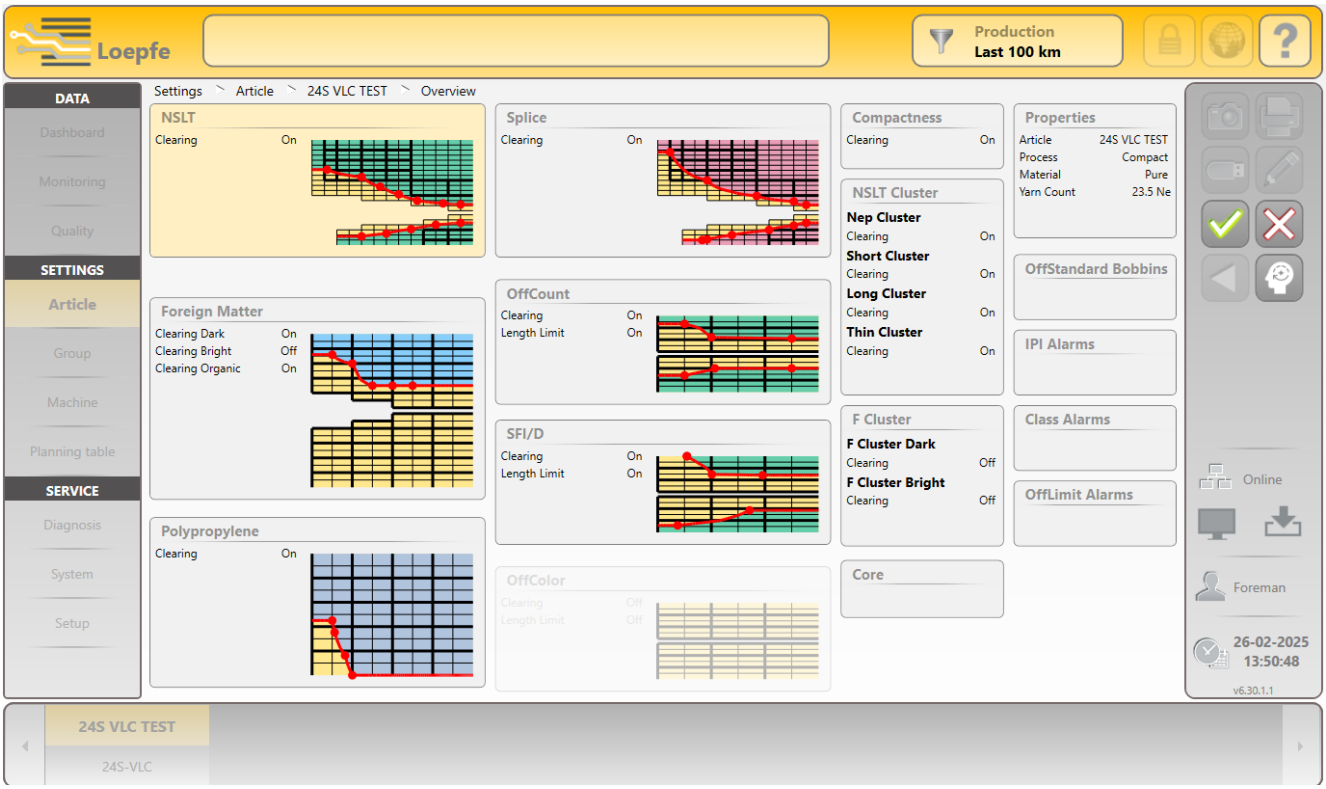
The autocorrect mode allows fine adjustment of the clearing curve after the first 100 km wound yarn per group. The clearing curve can be adjusted by using the sensitivity slider in the BOTTOM MENU or using the point setting tool. As an example, the NSLT autocorrect mode is shown:



Location	Icon	Selection	Description
BOTTOM MENU		Change Sensitivity	Adjusts complete NSLT clearing curve with a slider in a range between -30% and +30%.
		Cut forecast	Displays NSLT cut forecasts depending on the set sensitivity.
		Step back	Confirms adjustments and returns to previous screen.
		Exit or Discard	Exits autocorrect mode and discards last changes.

Confirm and save changes

All changed parameters of the article are highlighted in yellow. They are only accepted after confirmation with "Save/Confirm".



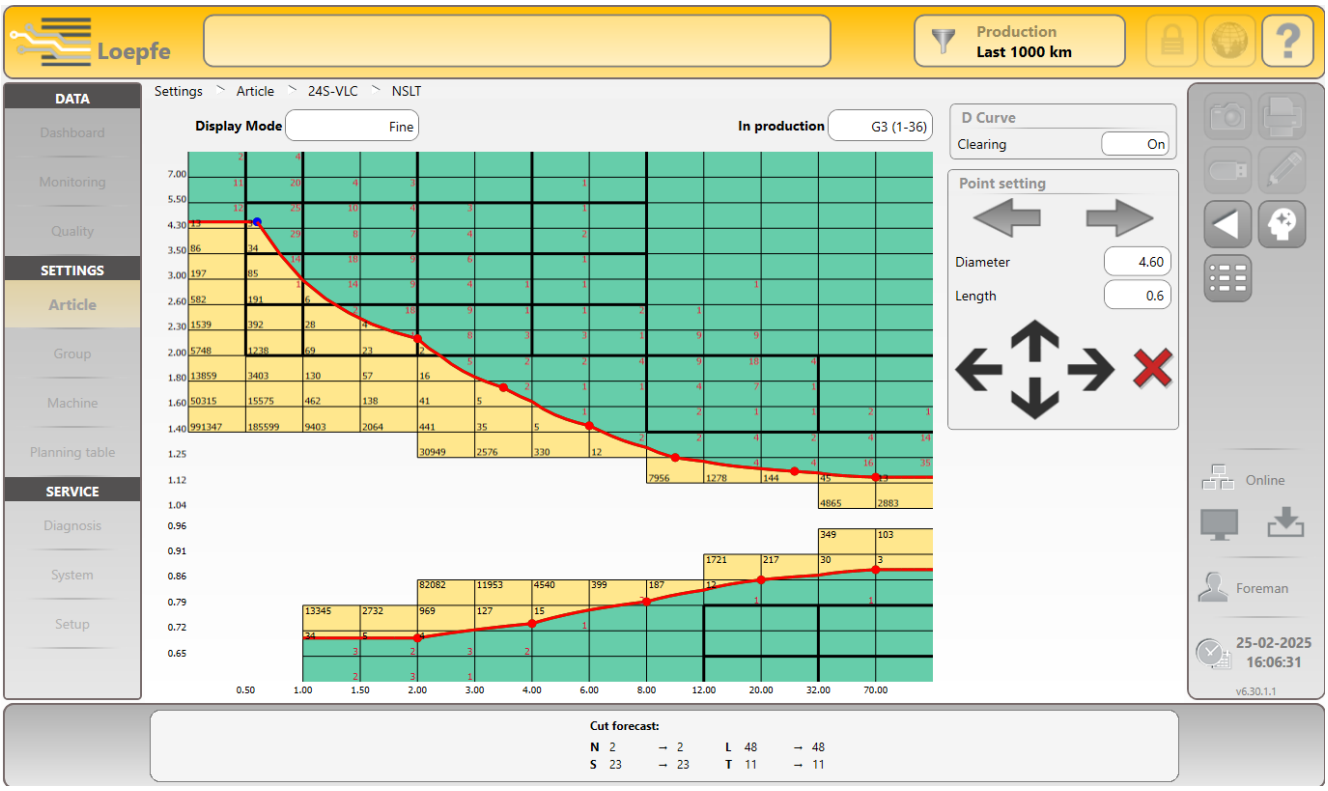
Location	Icon	Selection	Description
Overview		NSLT Foreign Matter Polypropylene Splice OffCount SFI/D OffColor NSLT Cluster F Cluster OffLimit Alarms Class Alarms IPI Alarms OffStandard Bobbins Core Properties	Indicates edited yarn settings with a yellow highlight.
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.

Location	Icon	Selection	Description
		Exit or Discard	Exits edit mode and discards last changes.

5.4.4 Clearing curves and alarms

NSLT

The NSLT screen enables nep, short, long and thin clearing for a selected article. The clearing curve can be adjusted as described in point setting. In the BOTTOM MENU the expected numbers of cuts after the adjustment of the clearing curve is shown.

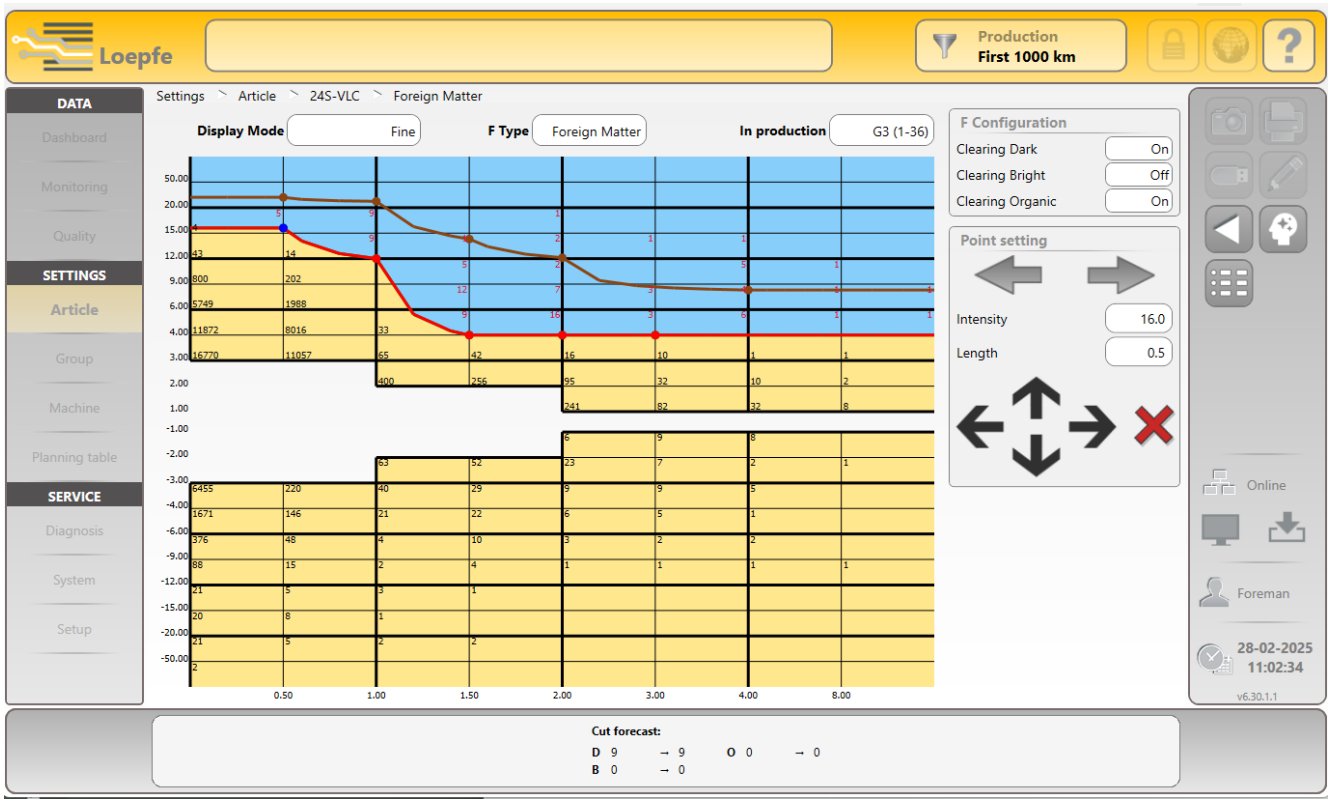


Location	Icon	Selection	Description
NSLT		Display Mode	Changes representation of events in the matrix.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		NSLT Curve	Toggles NSLT curve clearing on or off.
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.
		Autocorrect	Enables autocorrect mode for current clearing curve.

Location	Icon	Selection	Description
		Coordinates Table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting clearing curve.

Foreign matter

The foreign matter screen enables dark, bright and organic clearing for a selected article. The clearing curve can be adjusted as described in point setting. In the BOTTOM MENU the expected number of cuts after the adjustment of the clearing curve is shown.

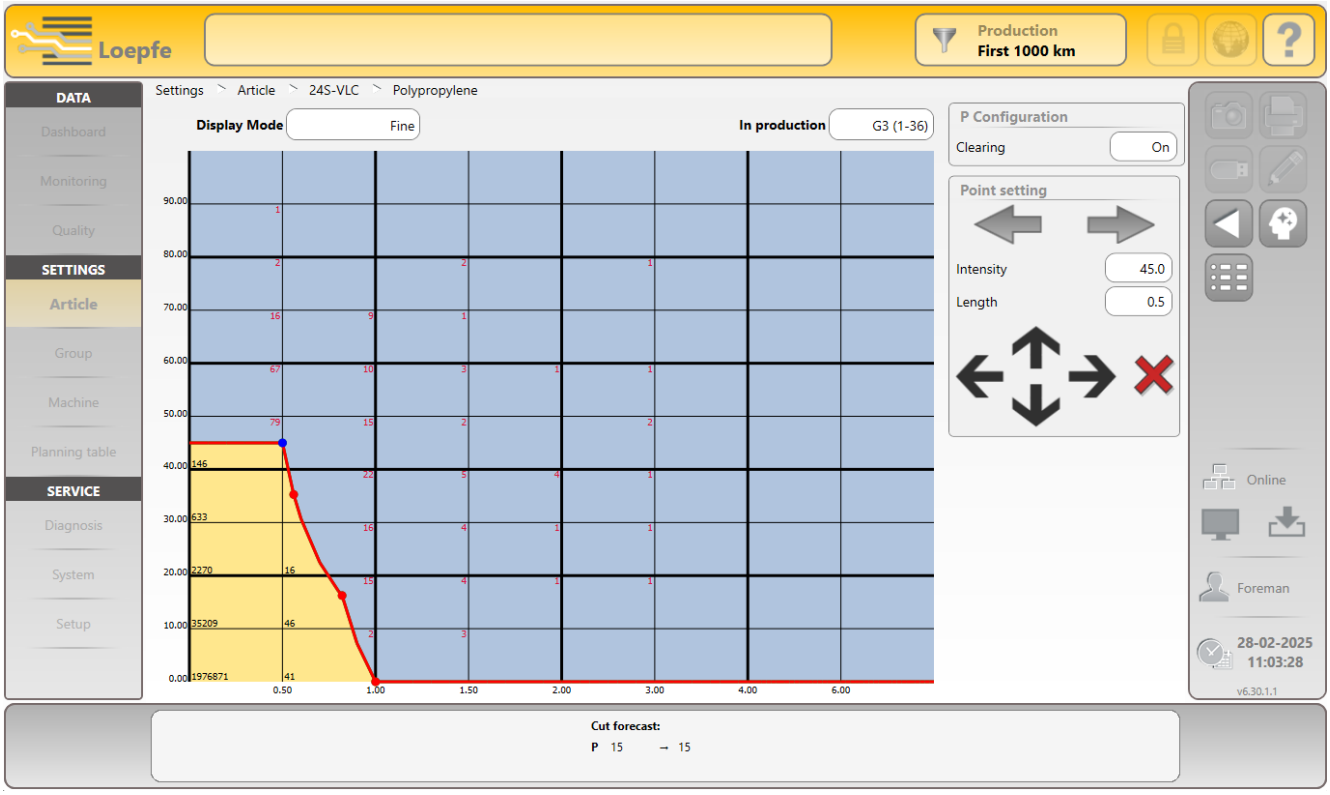


Location	Icon	Selection	Description
Foreign Matter		Display Mode	Changes representation of events in the matrix.
		F Type	Changes F type when clearing dark and clearing organic is enabled.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		F Configuration	Toggles on or off: ■ Clearing dark ■ Clearing bright ■ Clearing organic
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.

Location	Icon	Selection	Description
		Autocorrect	Enables autocorrect mode for current clearing curve.
		Coordinates Table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting of the clearing curve.

Polypropylene

The polypropylene screen enables P configuration clearing for a selected article. The clearing curve can be adjusted as described in point setting. In the BOTTOM MENU the expected number of cuts after the adjustment of the clearing curve is shown.



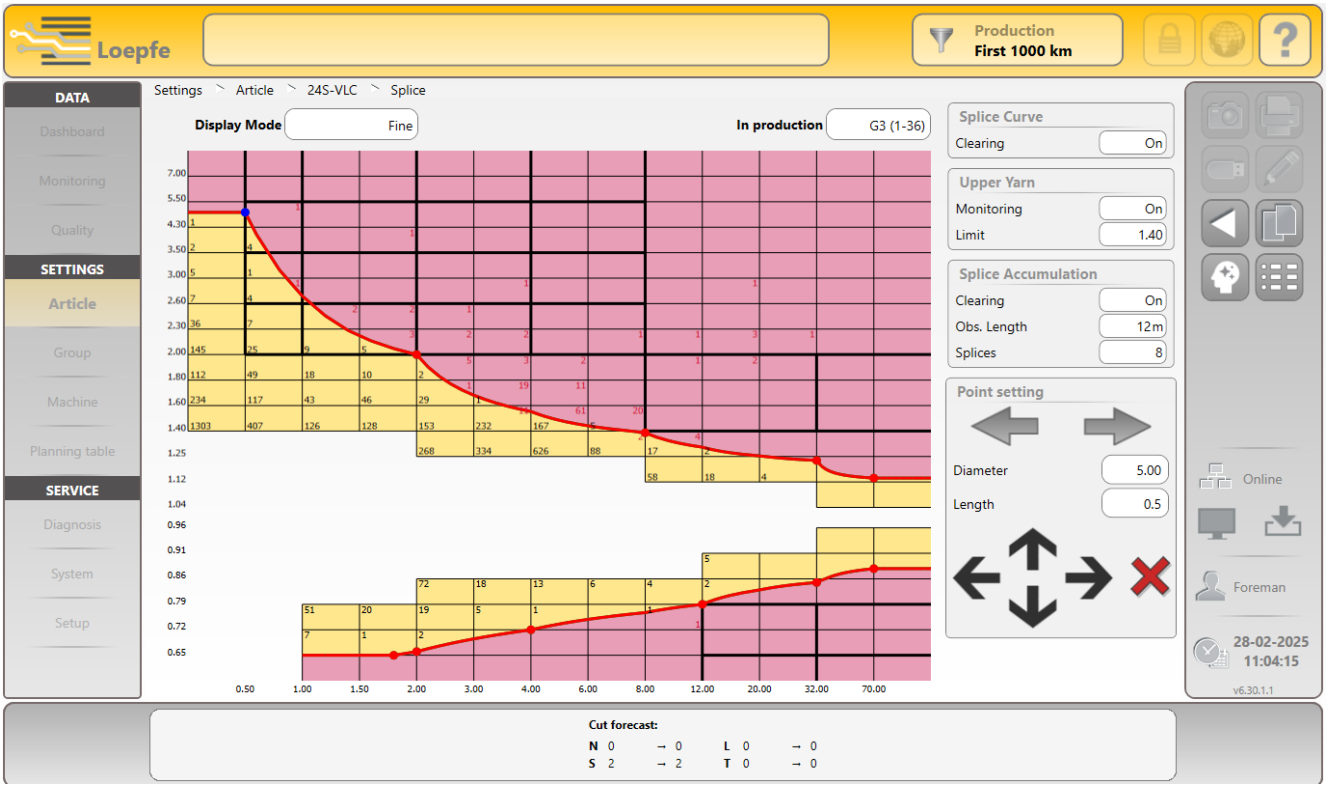
The X-axis (horizontal) represents the reference length of the signal, the accuracy of which decreases with the length of the physical defect, as the triboelectric charge decreases with a high frequency of occurrence. The Y-axis (vertical) represents the difference in triboelectric charge intensity between the materials.

Location	Icon	Selection	Description
Polypropylene		Display Mode	Changes representation of measurements in the matrix.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		P Configuration	Toggles P curve clearing on or off.
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.
		Autocorrect	Enables autocorrect mode for current clearing curve.

Location	Icon	Selection	Description
		Coordinates Table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting clearing curve.

Splice

The splice screen enables splice curve clearing, Upper yarn monitoring and splice accumulation clearing for a selected article. The clearing curve can be adjusted as described in point setting. In the BOTTOM MENU the expected number of cuts after the adjustment of the clearing curve is shown.

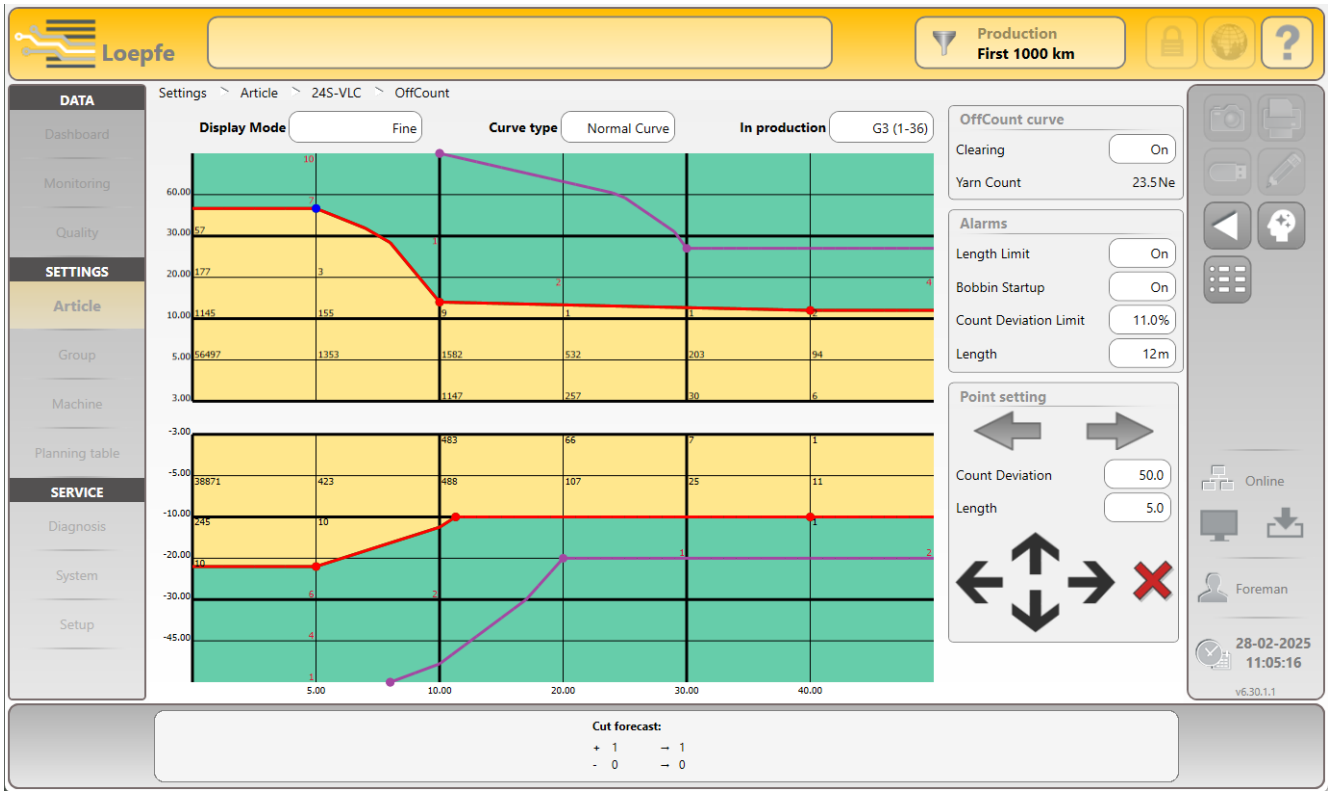


Location	Icon	Selection	Description
Splice		Display Mode	Changes representation of measurements in the matrix.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		Splice Curve	Enables/disables splice curve clearing.
		Upper Yarn	■ Toggles monitoring on or off. ■ Sets limit.
		Splice Accumulation	■ Toggles splice accumulation clearing on or off. ■ Sets observation length. ■ Sets number of splices.
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.

Location	Icon	Selection	Description
		Autocorrect	Enables autocorrect mode for current clearing curve.
		Copy	Copies NSLT channel settings to splice channel.
		Coordinates Table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting of the clearing curve.

OffCount

The OffCount screen enables OffCount Curve clearing for a selected article. The clearing curve can be adjusted as described in point setting. In the BOTTOM MENU the expected number of cuts after the adjusting the clearing curve is shown.

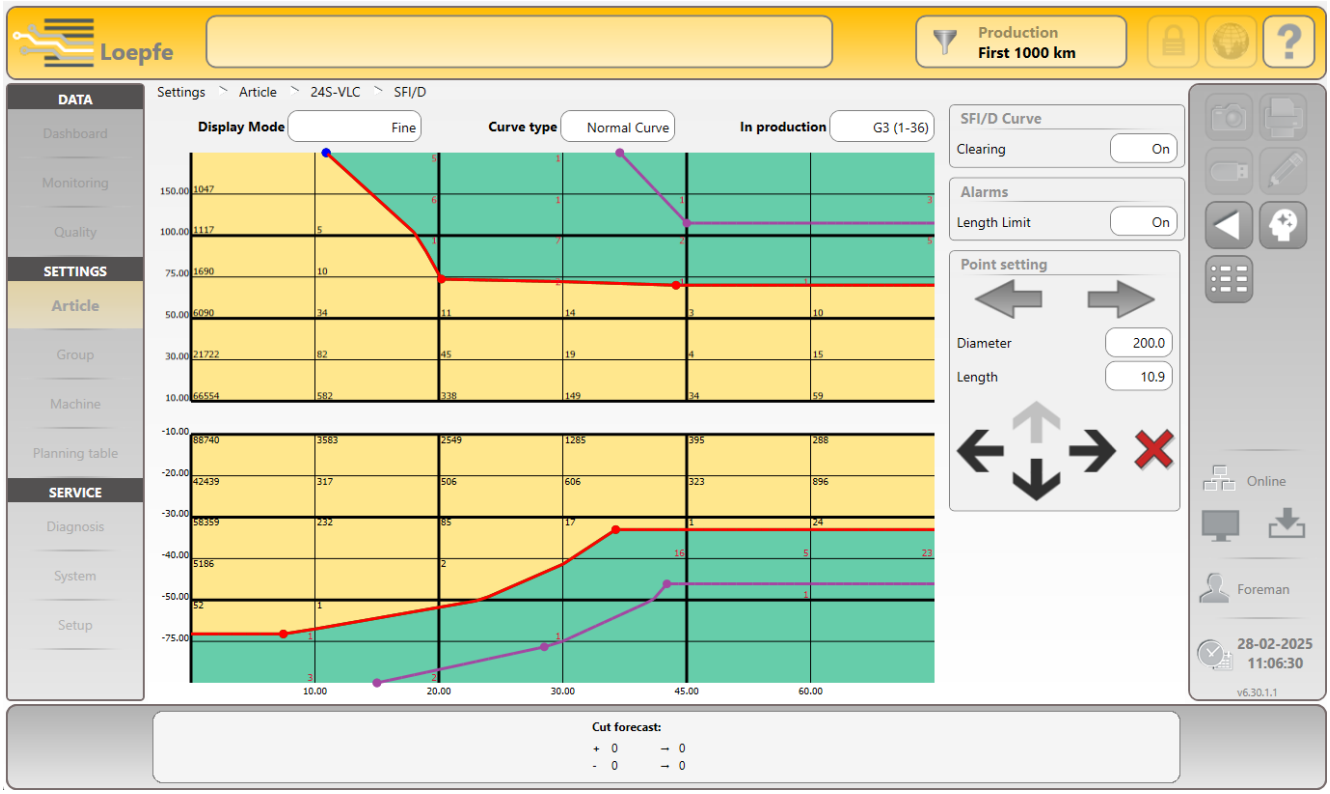


Location	Icon	Selection	Description
OffCount		Display Mode	Changes representation of measurements in the matrix.
		Curve Type	Selects curve type when length limit alarm is enabled.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		OffCount Curve	Toggles OffCount curve clearing on or off.
		Alarms	■ Toggles length limit alarm on or off. The length limit alarm is an additional curve that can be placed above the clearing curves in the matrix. If the intensity of the OffCount fault and the length reach the limit of the curve, the length limit alarm is triggered and the bobbin is rejected. ■ Toggles bobbin startup alarm on or off. If the yarn count deviation within the first <set length> of the bobbin exceeds the set limit, the bobbin startup alarm is triggered and the bobbin is rejected. – Sets count deviation limit of bobbin startup. – Displays length of bobbin startup.

Location	Icon	Selection	Description
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.
		Autocorrect	Enables autocorrect mode for current clearing curve.
		Coordinates Table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting the clearing curve.

SFI/D

The surface index / diameter curve clearing is an optional feature for the LZE software. It enables SFI/D clearing for a selected article. The clearing curve can be adjusted as described in Point setting. In the BOTTOM MENU the expected number of cuts after the adjusting of the clearing curve is shown.



Location	Icon	Selection	Description
SFI/D		Display Mode	Changes representation of events in the matrix.
		Curve Type	Selects curve type when length limit alarm is enabled.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		SFI/D Curve	Toggles SFI/D curve clearing on or off.
		Alarms	Toggles length limit alarm on or off.
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.
		Autocorrect	Enables autocorrect mode for current clearing curve.

Location	Icon	Selection	Description
		Coordinates Table	Sets numerical values for setting points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting clearing curve.

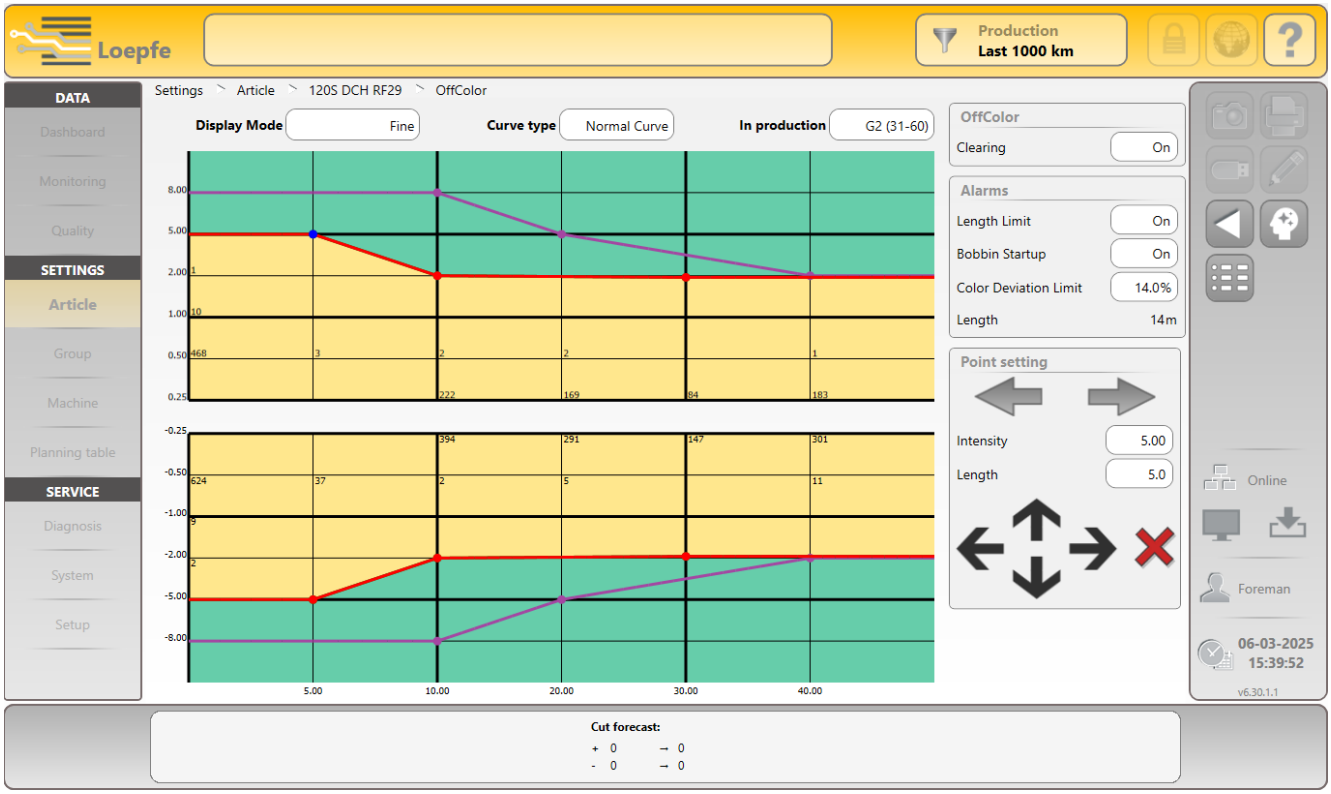
Compactness

The Compactness screen enables compactness clearing for a selected article.

Location	Icon	Selection	Description
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		Compactness	■ Toggles compactness clearing on or off. ■ Measurement sets the used signal. ■ Observation length. ■ Limit positive: To detect faults with diameter increase. ■ Limit negative: To detect faults with diameter decrease.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.

OffColor

The OffColor screen enables OffColor clearing for a selected article. The clearing curve can be adjusted as described in point setting. In the BOTTOM MENU the expected number of cuts after the adjustment of the clearing curve is shown.

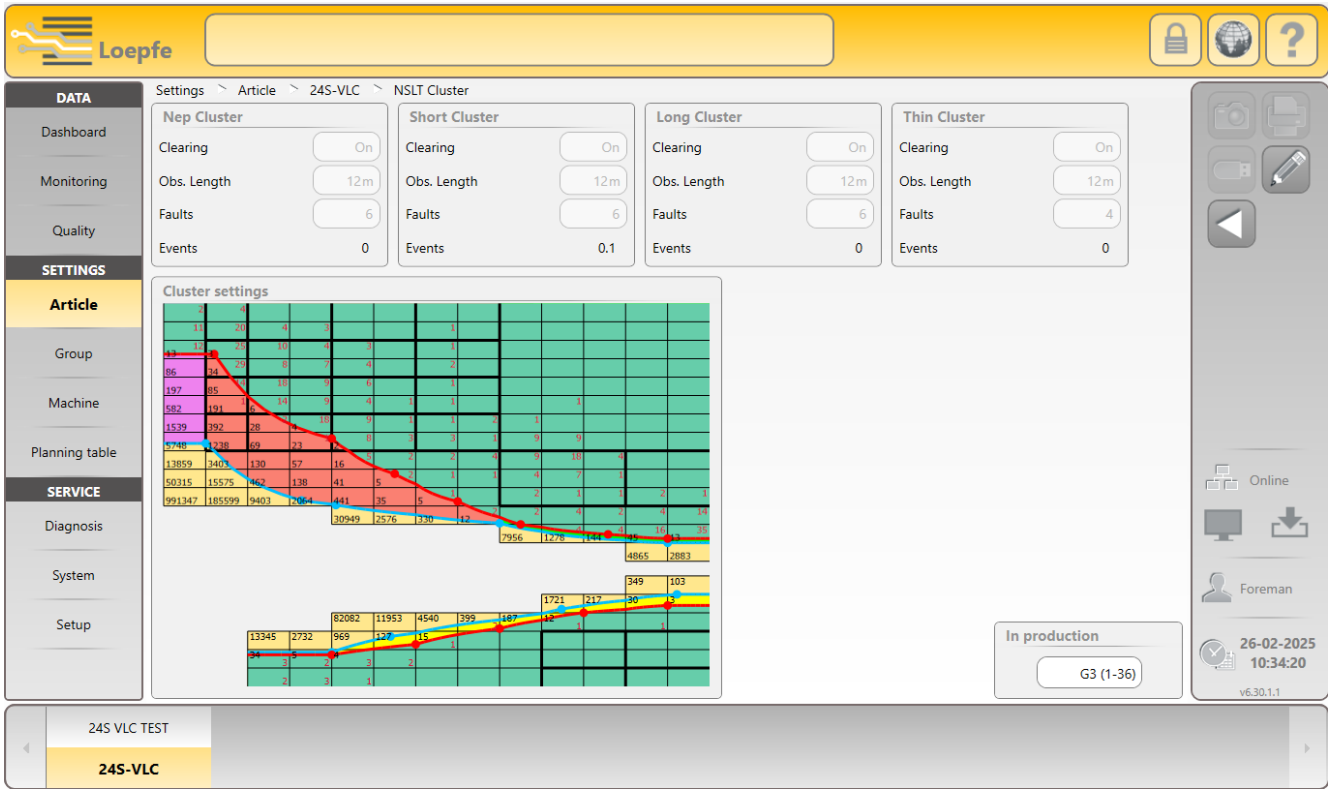


Location	Icon	Selection	Description
OffColor		Display Mode	Changes representation of measurements in the matrix.
		Curve Type	Selects curve type when length limit alarm is enabled.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		OffColor Curve	Toggles OffColor curve on or off.
		Alarms	■ Toggles length limit alarm on or off. The length limit alarm is an additional curve that can be placed above the clearing curves in the matrix. If the intensity of the OffColor fault and the length reach the limit of the curve, the length limit alarm is triggered and the bobbin is rejected. ■ Toggles bobbin startup alarm on or off. If the yarn color deviation within the first <set length> of the bobbin exceeds the set limit, the bobbin startup alarm is triggered and the bobbin is rejected. – Sets color deviation limit of bobbin startup. – Displays length of bobbin startup.

Location	Icon	Selection	Description
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables Edit Mode.
		Step back	Adapts changes and navigates to article overview window.
		Autocorrect	Enables Autocorrect Mode for current clearing curve.
		Coordinates Table	Sets numerical values for Setting Points.
BOTTOM MENU		Cut forecast	Calculates number of events that are likely to occur after adjusting clearing curve.

NSLT cluster

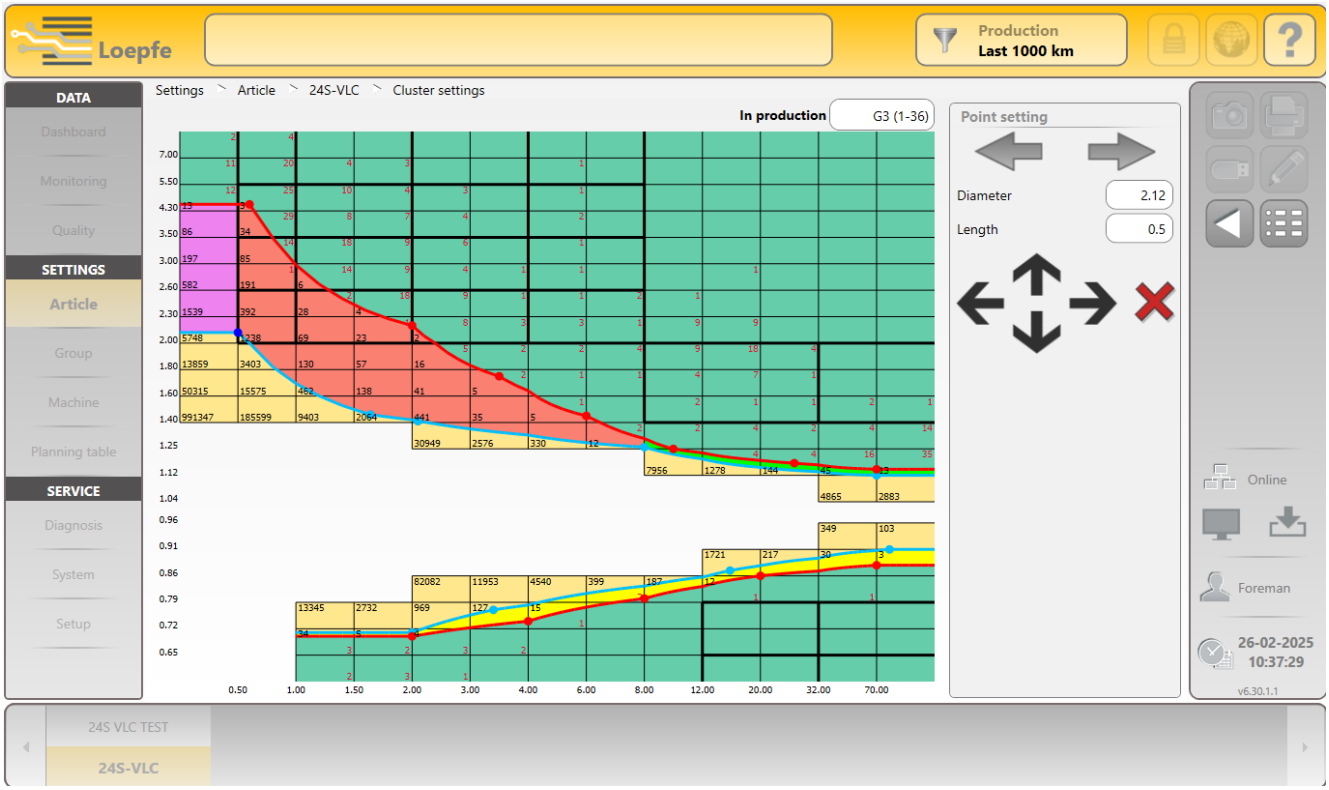
The NSLT cluster screen enables nep cluster, short cluster, long cluster or thin cluster clearing for a selected article. For each clearing the observation length and the maximum numbers of faults can be set.



Location	Icon	Selection	Description
NSLT Cluster		Nep Cluster Short Cluster Long Cluster Thin Cluster	For each N, S, L or T cluster: ■ Toggles cluster clearing on or off. ■ Sets observation length. ■ Sets permissible number of faults for set observation length. ■ Displays number of events.
		Cluster settings	■ Matrix with clearing curve. ■ Navigates to Cluster settings. ■ Purple = Nep Cluster field. ■ Red = Short Cluster field. ■ Green = Log Cluster field. ■ Yellow = Thin Cluster field.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.

Cluster settings

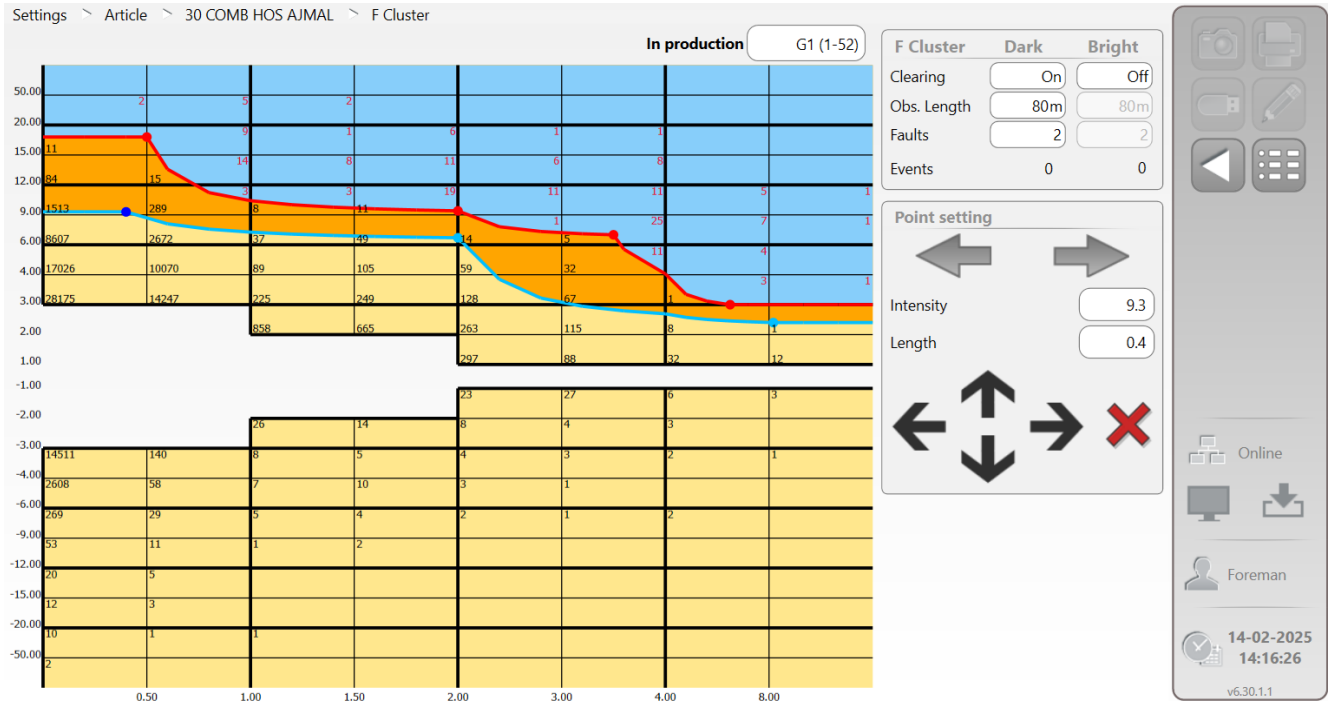
The cluster settings screen enables adjustment of the NSLT clearing curve for a selected article. The clearing curve can be adjusted as described in point setting.



Location	Icon	Selection	Description
Cluster settings		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.
		Coordinates Table	Sets numerical values for setting points.

F cluster

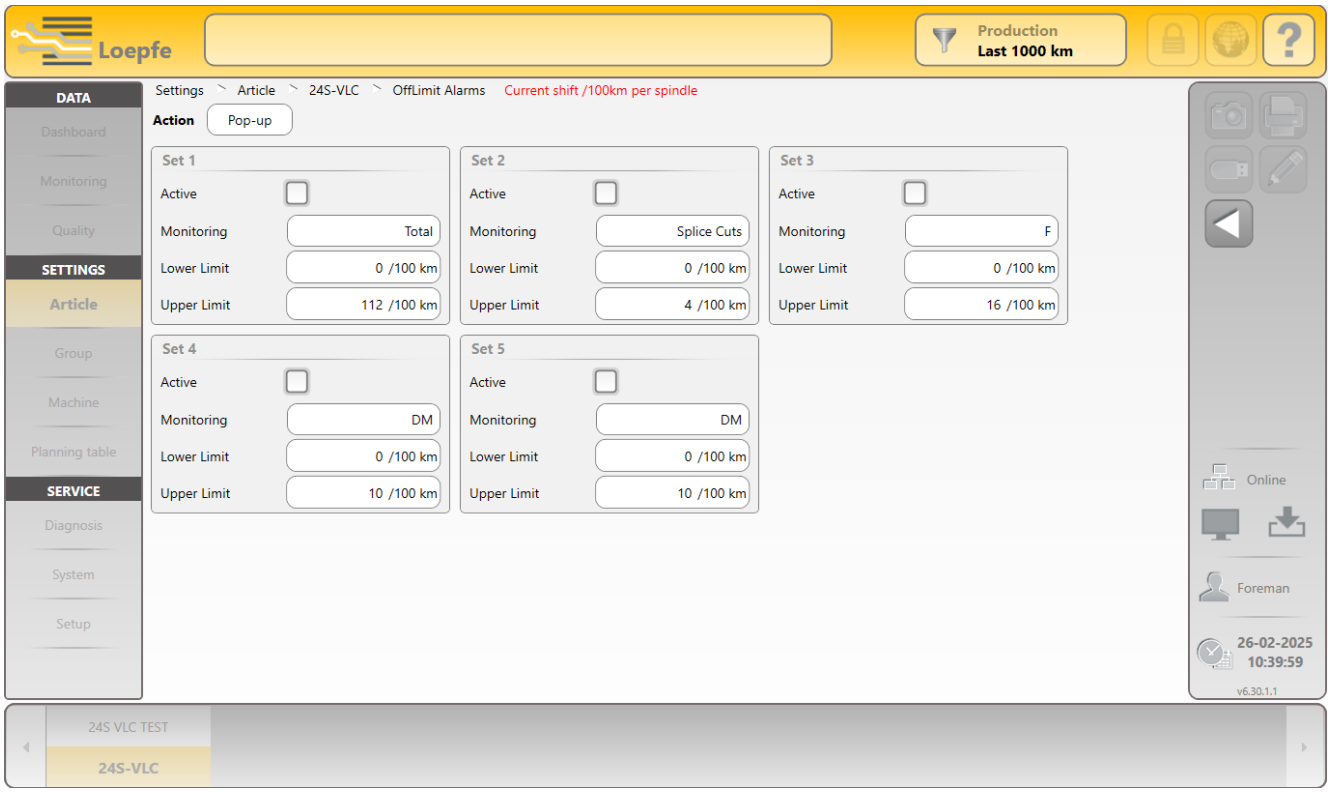
The F cluster screen enables F cluster dark clearing and F cluster bright clearing for a selected article. For each clearing the observation length and the maximum number of faults can be set. In the BOTTOM MENU the expected number of cuts after the adjustment of the clearing curve is shown.



Location	Icon	Selection	Description
F Cluster		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		F Cluster Dark F Cluster Bright	■ Toggles (corresponding) clearing on or off. ■ Sets observation length. ■ Sets number of allowed faults. ■ Displays (number of) events.
		Point Setting	Sets, edits and deletes setting points in clearing curve.
RIGHT MENU		Edit	Enables Edit Mode.
		Step Back	Adapts changes and navigates to article overview window.
		Coordinates Table	Sets numerical values for setting points.

OffLimit alarms

The OffLimit alarms screen offers up to 5 sets of specific OffLimit alarms for a selected article. For each alarm set, the cut type and its upper and lower limits can be defined. It can also be defined how the LZE should react if a limit is reached in one of the sets.

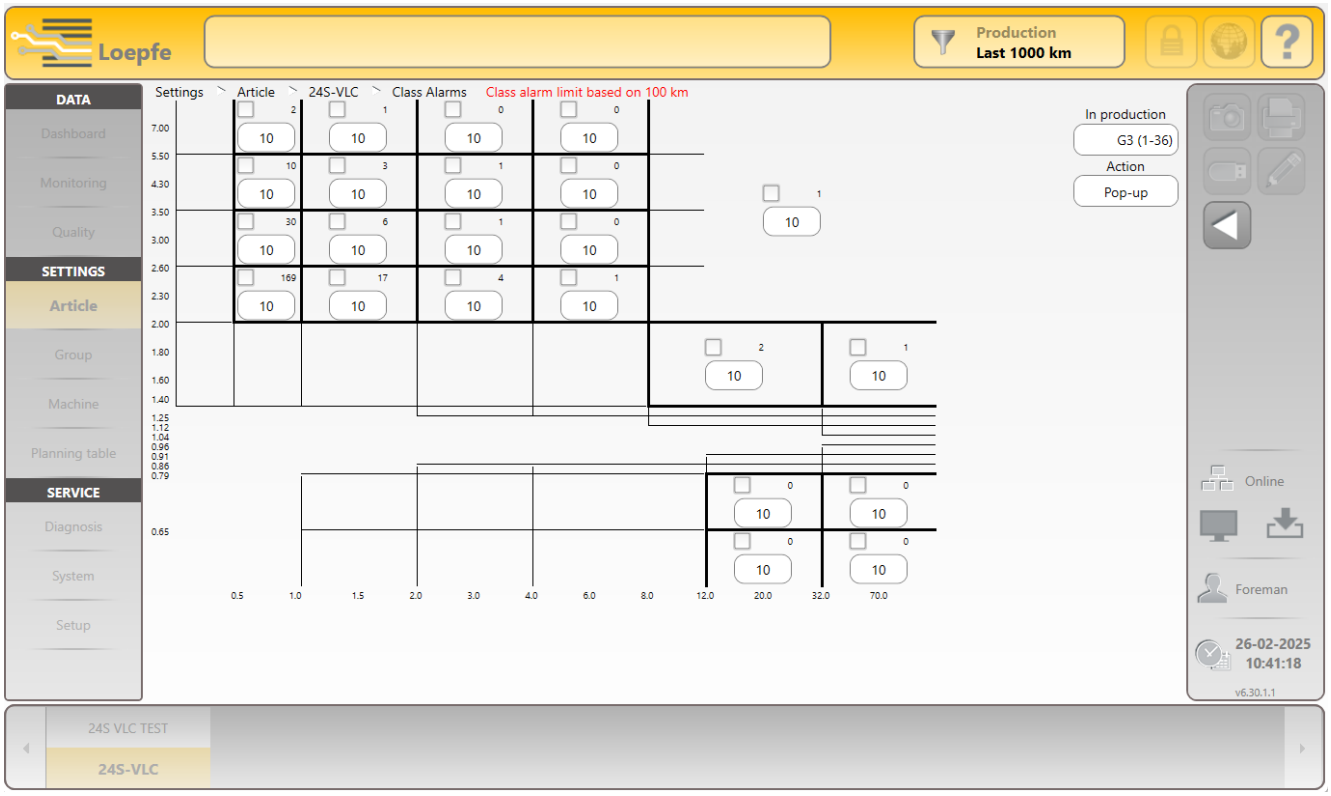


Location	Icon	Selection	Description
OffLimit Alarms		Action	Selects how LZE should react to this alarm.
		Set 1 - 5	■ Toggles up to 5 sets of OffLimit alarms on or off. ■ Selects type of monitoring for each set. ■ Sets lower and upper limit for each set.
RIGHT MENU		Edit	Enables edit mode.
		Step back	Adapts changes and navigates to article overview window.

Class alarms

The Class alarms screen enables the setting of the class alarm limits for a selected article. Up to 23 classes can be selected to be observed. For each selected class, an upper limit of events can be set. It can also be defined how the LZE should react if a class alarm limit is reached.

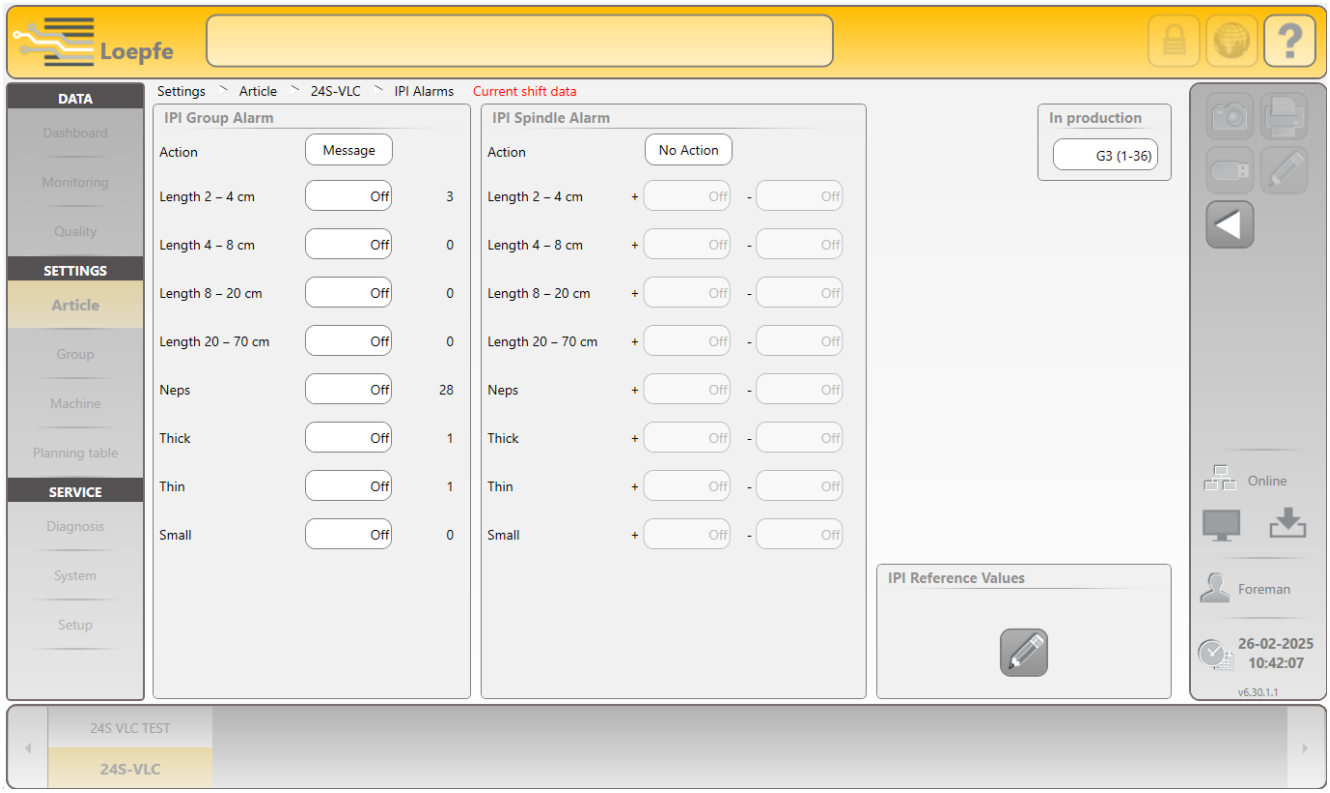
Remark: the Class alarm limit is based on 100 km.



Location	Icon	Selection	Description
Class Alarms		Matrix	■ Toggles class alarms on or off. ■ Sets class alarm limits.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		Action	Selects how LZE should react to this alarm.
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.

IPI alarms

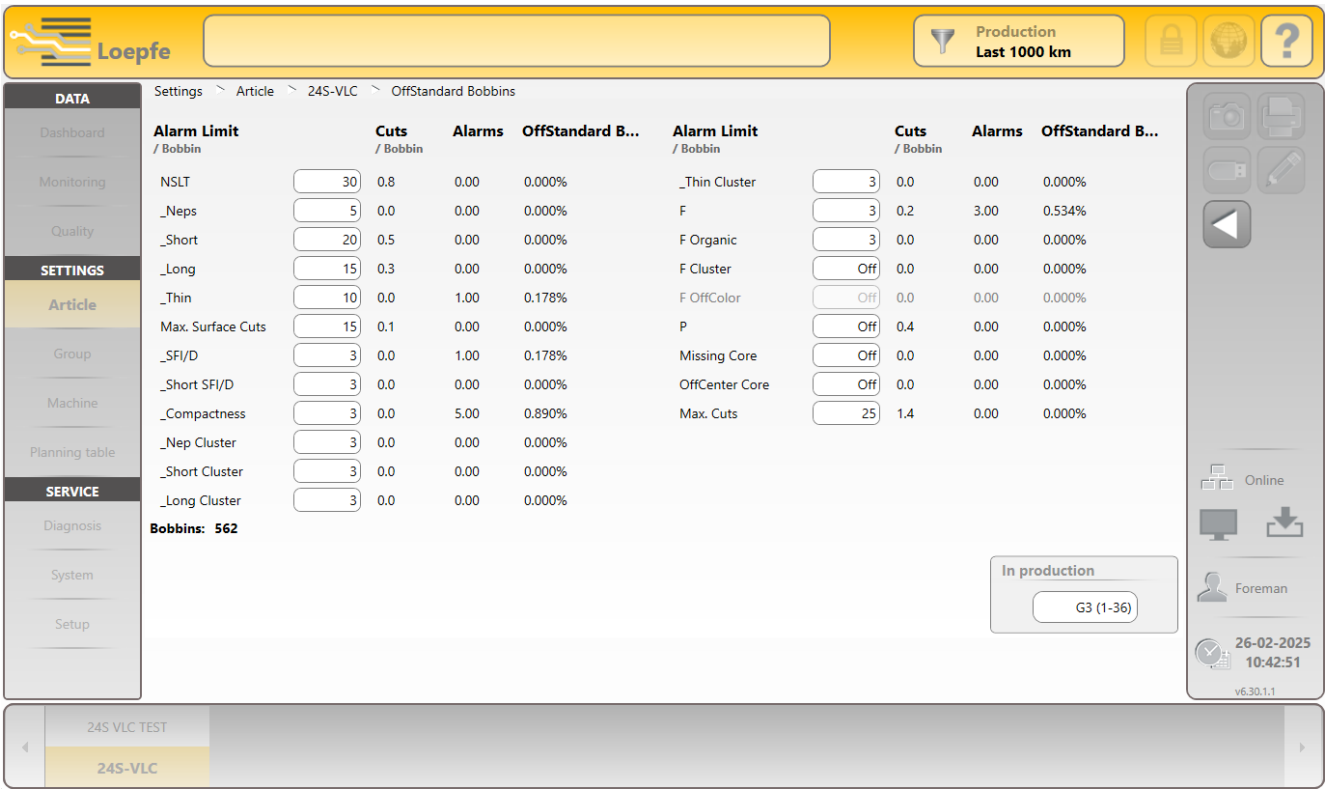
The IPI alarms screen enables IPI group alarms or IPI spindle alarms for a selected article. For each alarm can be defined how the LZE should respond when an event occurs (message, pop-up or block). The length limits for IPI events can also be edited here.



Location	Icon	Selection	Description
IPI Alarms		IPI Group Alarms	Sets limits for up to 8 NSLT yarn parameter.
		IPI Spindle Alarms	Sets difference (+) and difference (-) for up to 8 NSLT yarn parameter.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		IPI Reference Values	Sets IPI reference values for: ■ Neps +200% ■ Thick Places +50% ■ Thin Places -50%
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.

OffStandard bobbins

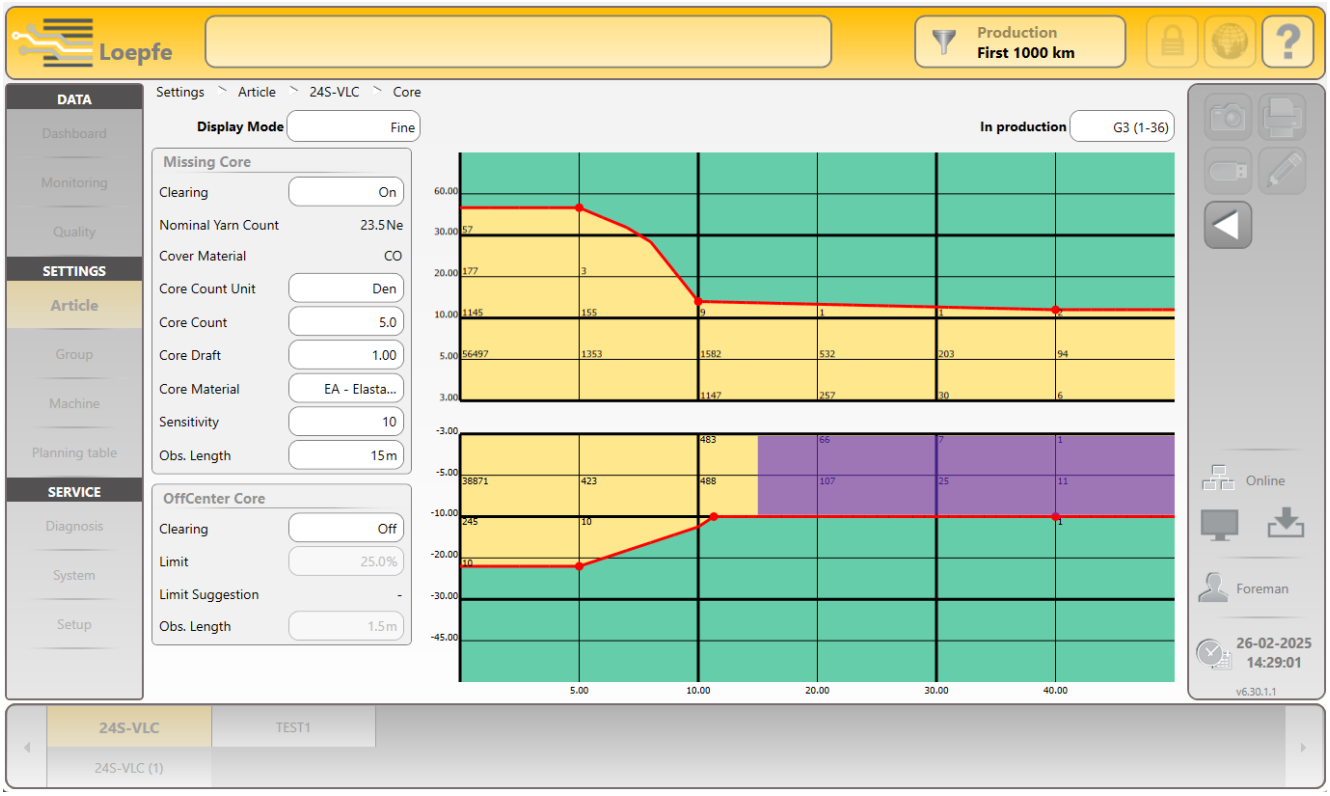
The OffStandard bobbins screen enables the setting of alarm limits for bobbins. It provides a menu where a maximum allowed number of repetitions for each cut type can be defined.



Location	Icon	Selection	Description
OffStandard Bobbins			Sets alarm limit for maximum allowed number of repetitions for each individual cut type per bobbin.
		Bobbins	Displays total number of bobbin changes per selected filter and group.
		In production	■ Indicates whether article is currently being used in production. ■ Displays Group to which article is assigned.
RIGHT MENU		Edit	Enables edit Mode.
		Step Back	Adapts changes and navigates to article overview window.

Core

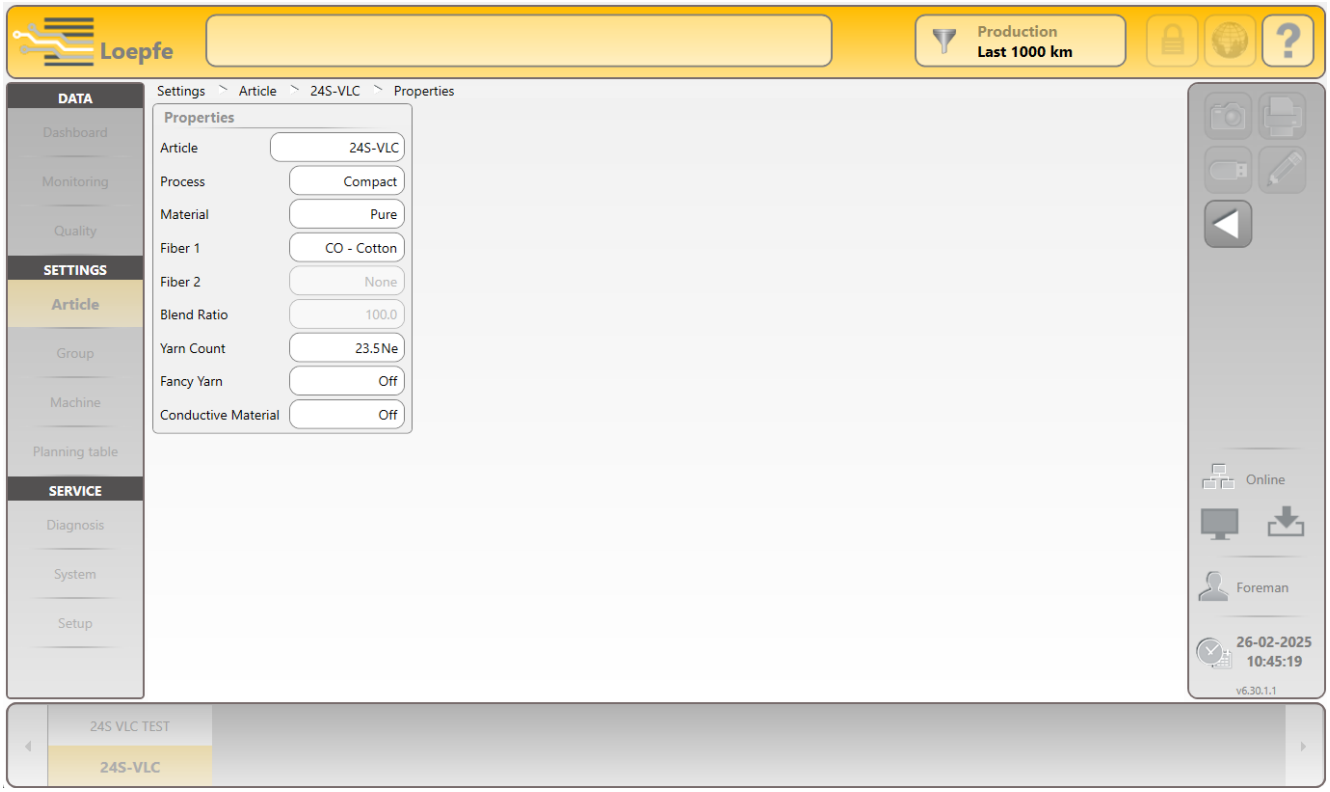
The core screen enables missing core clearing or OffCenter core clearing for a selected article. For both clearings basic parameters can be set in corresponding menus.



Location	Icon	Selection	Description
Core		Display Mode	Changes representation of measurements in the matrix.
		In production	■ Indicates whether article is currently being used in production. ■ Displays group to which article is assigned.
		Missing Core	■ Toggles missing core clearing on or off. ■ Displays yarn parameters. ■ Sets yarn parameters.
		OffCenter Core	■ Toggles OffCenter core clearing on or off. ■ Sets OffCenter core limit. ■ Sets observation length.
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.

Properties

The properties screen provides a menu to edit the name of the article and to set basic parameters of the yarn for a selected article.

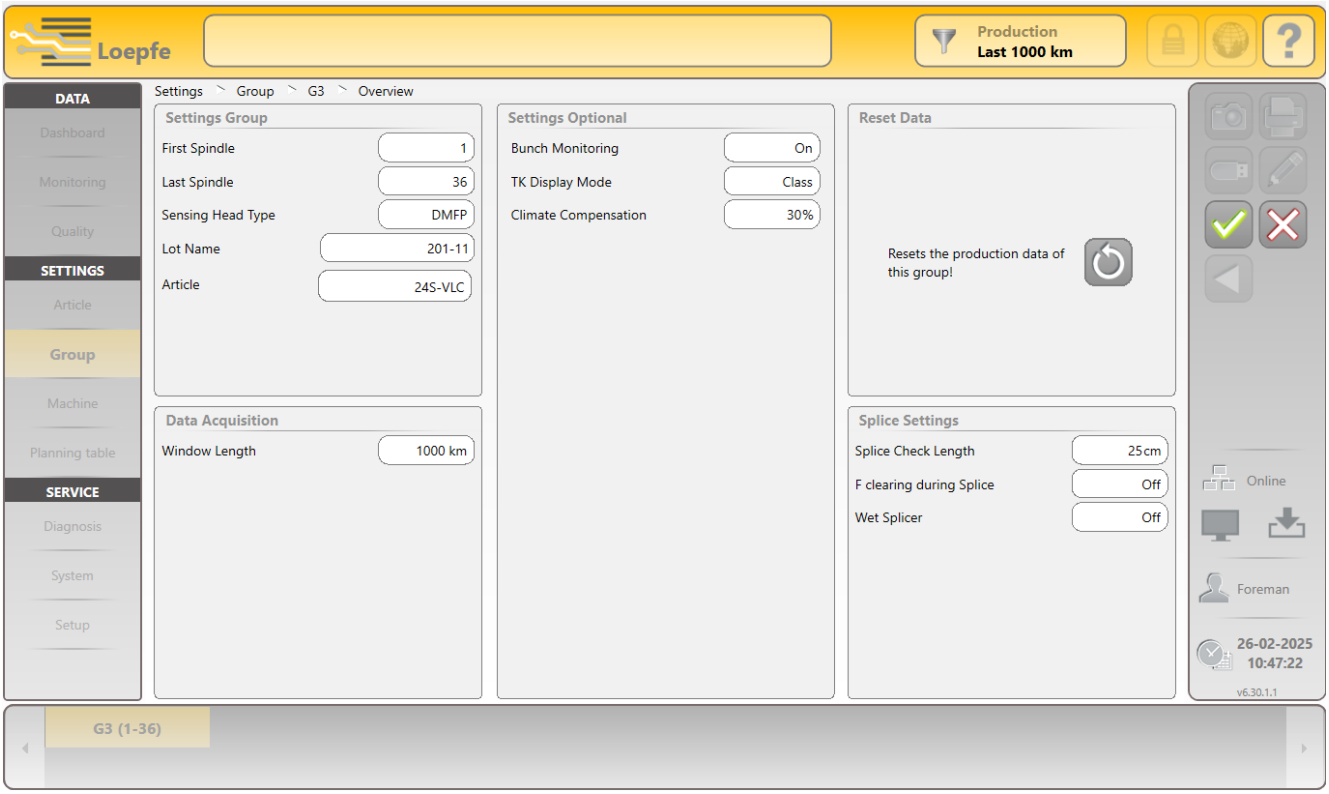


Location	Icon	Selection	Description
Properties		Properties	Sets basic yarn parameters.
RIGHT MENU		Edit	Enables edit mode.
		Step Back	Adapts changes and navigates to article overview window.

6 Group settings

6.1 Group overview and edit

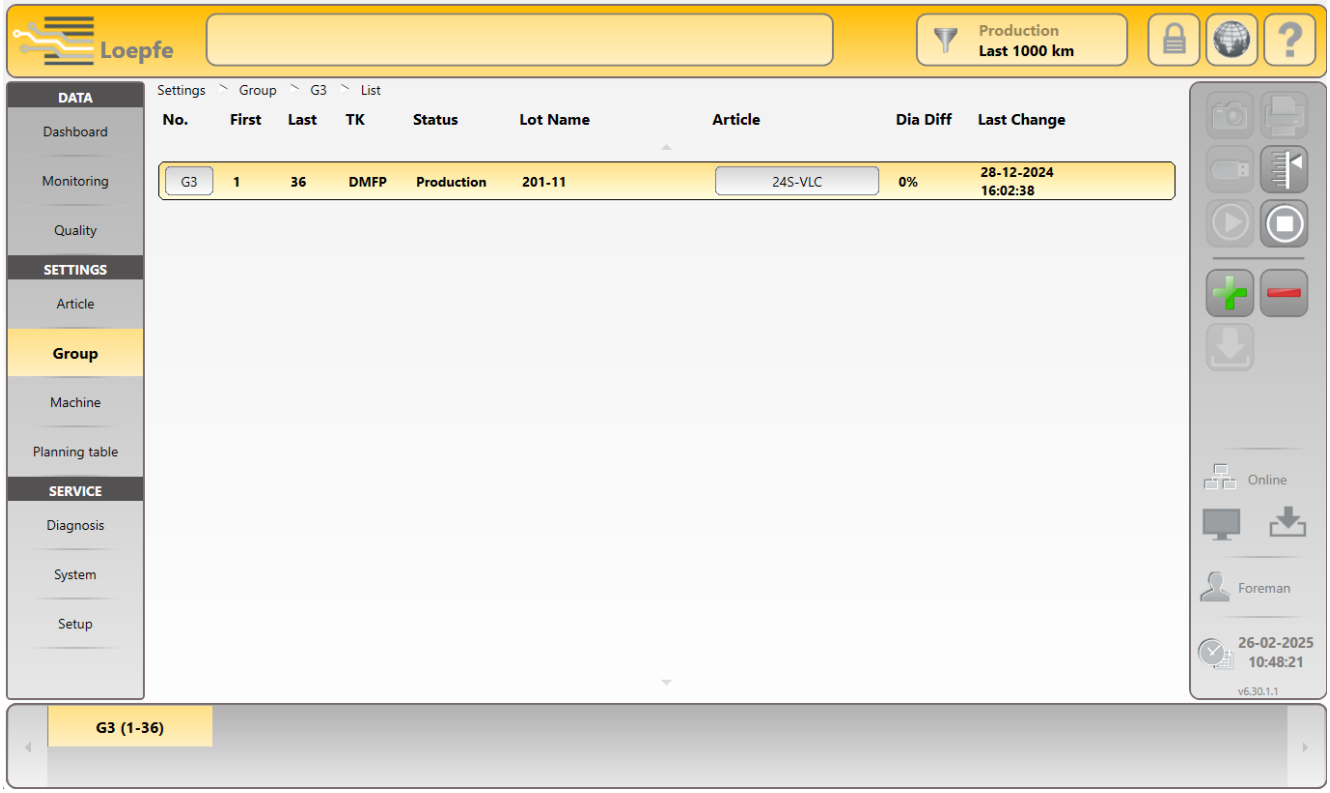
The group overview screen displays information about the selected group such as spindle range, type of sensing head or widow length for data acquisition. All settings can also be edited here.



Location	Icon	Selection	Description
Overview		Settings Group	Edits basic group settings.
		Settings Optional	Edits optional settings.
		Reset Data	Resets production data of this group.
		Data Acquisition	Sets windows length for data acquisition.
		Splice Settings	Edits settings for splice.
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.

6.2 Group list

The group list screen provides an overview of all groups that are defined in the LZE. It shows which article is assigned to a specific group. Groups can be added or removed here.



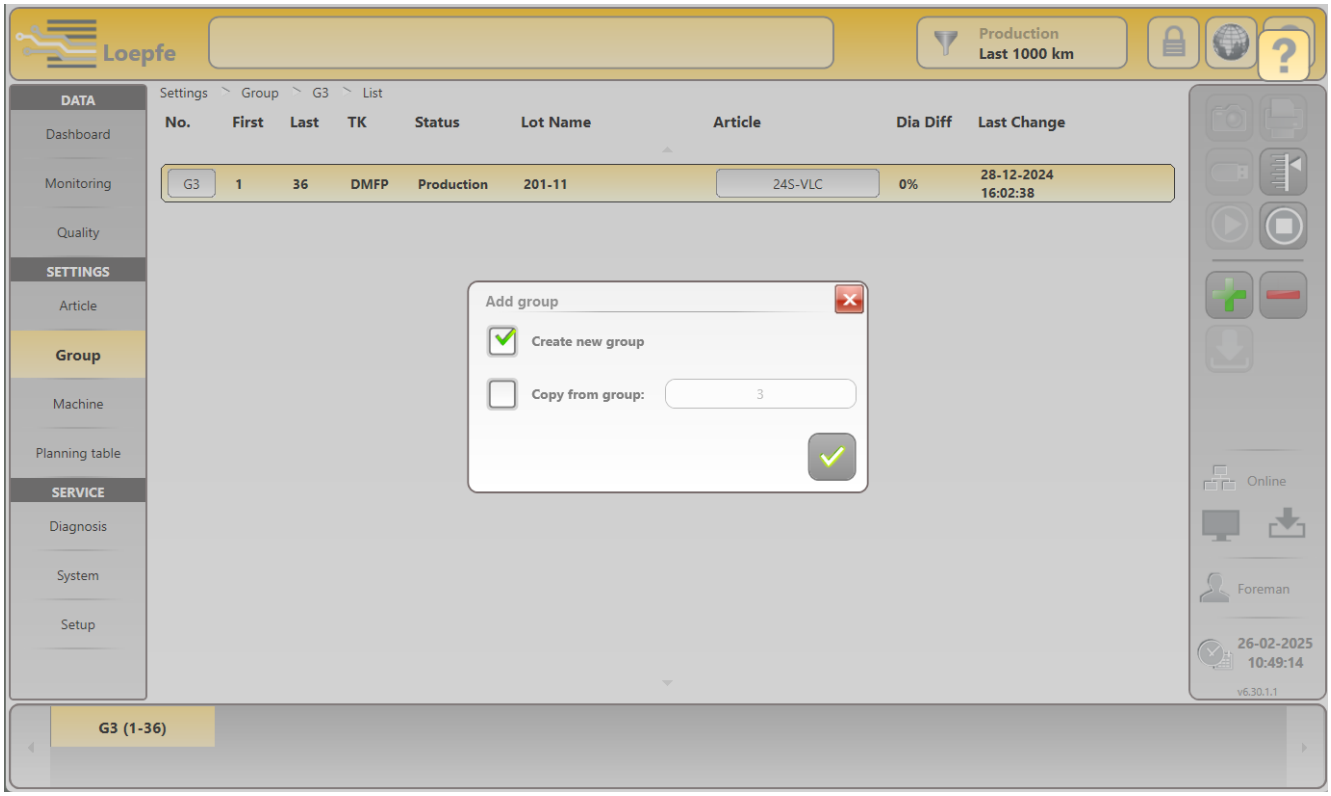
Location	Icon	Selection	Description
Group List			■ Displays a list of groups with information about: – group No. – First sensing head in listed group. – Last sensing head in listed group. – Type of sensing head (TK) used in group. – Status if group is in production or defined. – Lot Name = name of the group. – Assigned article for this group. – Dia Diff. = diameter deviation from group average in % – Last Change. ■ Indicates selected group with yellow highlight. ■ Indicates whether group is running with green highlight.
		Group button	Navigates to group overview and enables group settings.
		Article button	Navigates to article overview.
		Column title	Sorts group list according to column title.
RIGTH MENU		Adjust Group	Adjusts group. A new reference value is formed for the currently wound yarn (zeroing).

Location	Icon	Selection	Description
		Start Group	Start a selected group.
		Stop Group	Stops a selected group.
		Add Group	Adds a new group.
		Delete Group	Deletes a group.
BOTTOM MENU			■ Displays all groups. ■ Selects an article. ■ Indicates selected article with a yellow highlight.
		Scroll buttons	Scrolls through list of articles.

6.3 Add group

A group can be added in two ways:

1. Start group setting by editing parameters that are predefined in the default group settings.
2. Start group setting with a copy of an existing group.

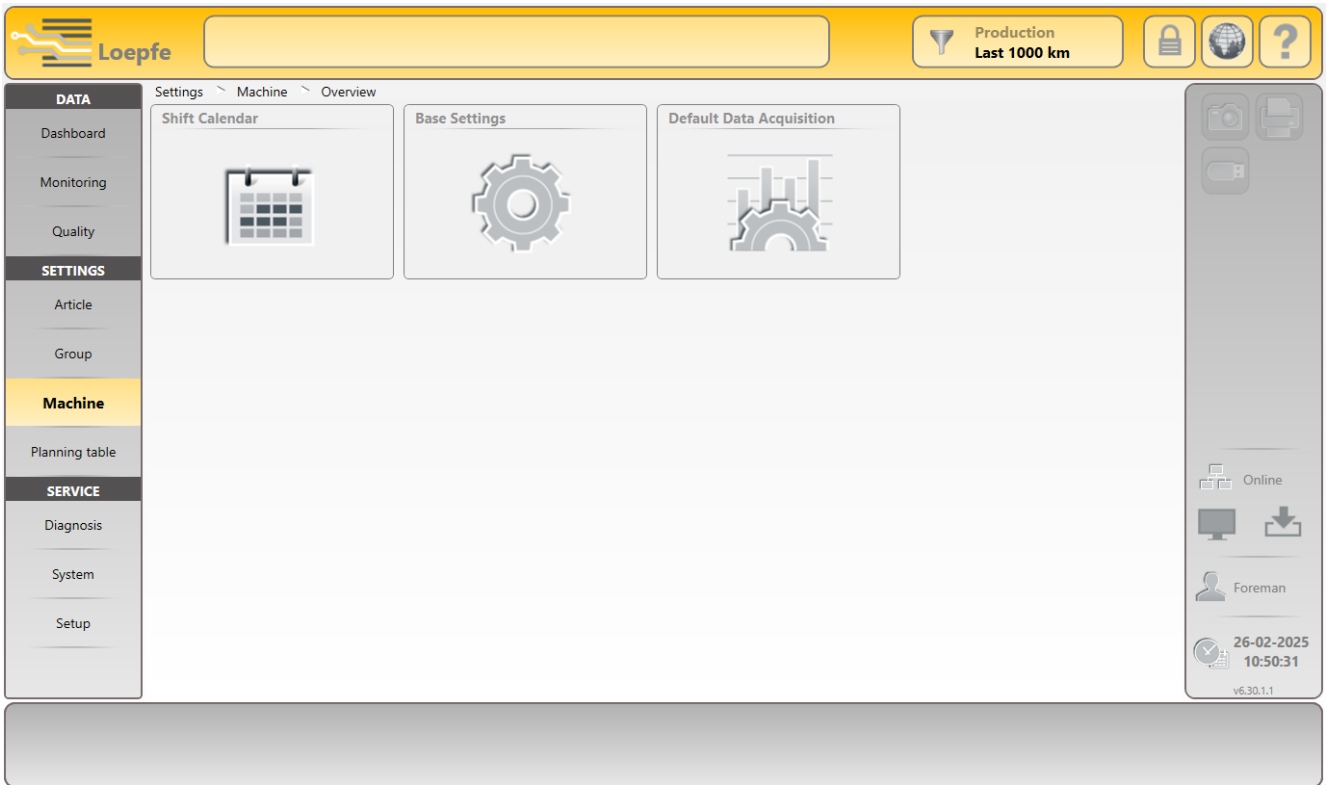


Location	Icon	Selection	Description
Add Group		Create new Group	Navigates to the group overview and enables settings for a new group.
		Copy from Group	Selects a group to copy parameters from and navigates to the group overview to adjust parameters.
		Save or Con-firm	Saves or confirms current settings or selections.

7 Machine settings

7.1 Machine overview

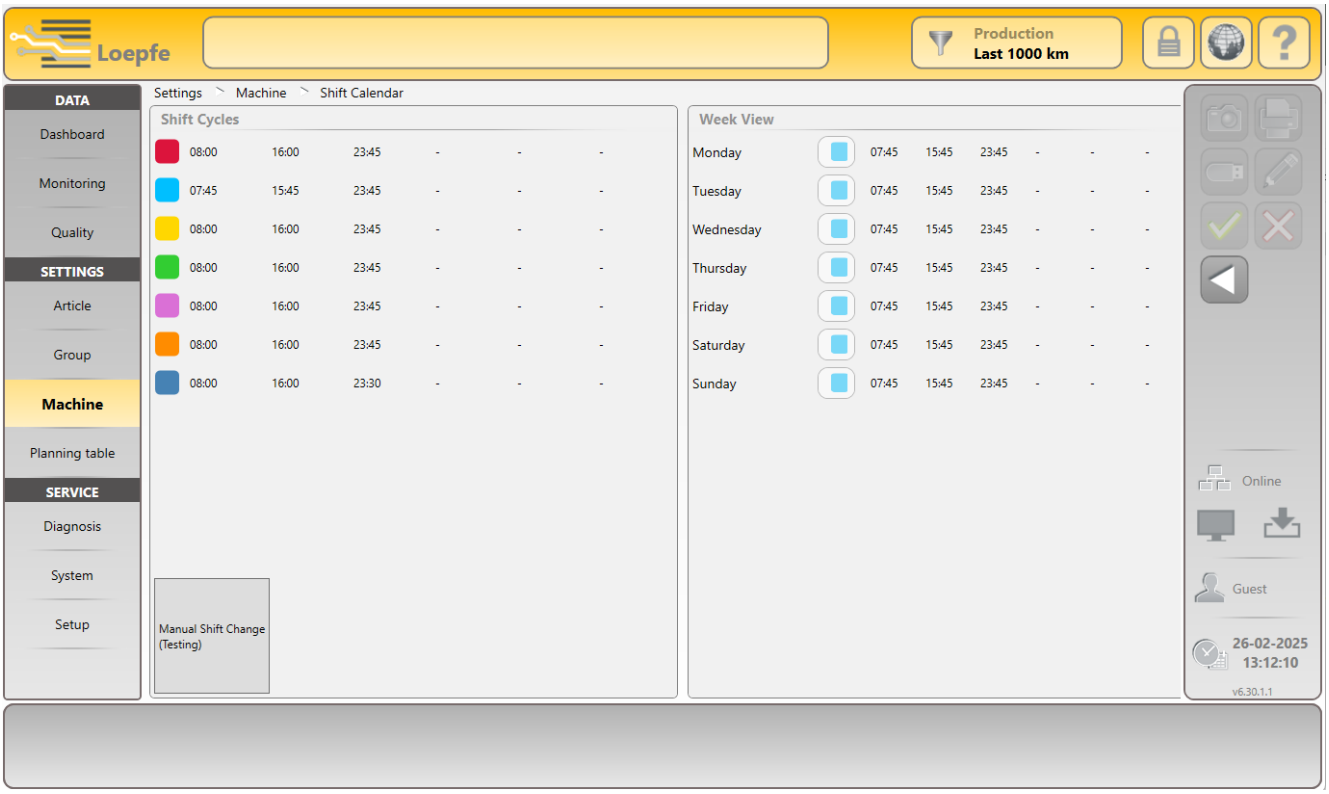
The machine overview screen contains modules to edit basic settings of the machine. In addition the shift calendar, default group settings and the window length for the default data acquisition can be set here.



Location	Selection	Description
Machine Overview	Shift Calendar	Edits beginning and duration of each shift for each day of the week.
	Base Settings	Edits basic settings of winding machine.
	Default Data Acquisition	Sets default window length in which data is collected. 100 km or 1000 km can be set. 100 km is the default setting.

7.2 Shift calendar

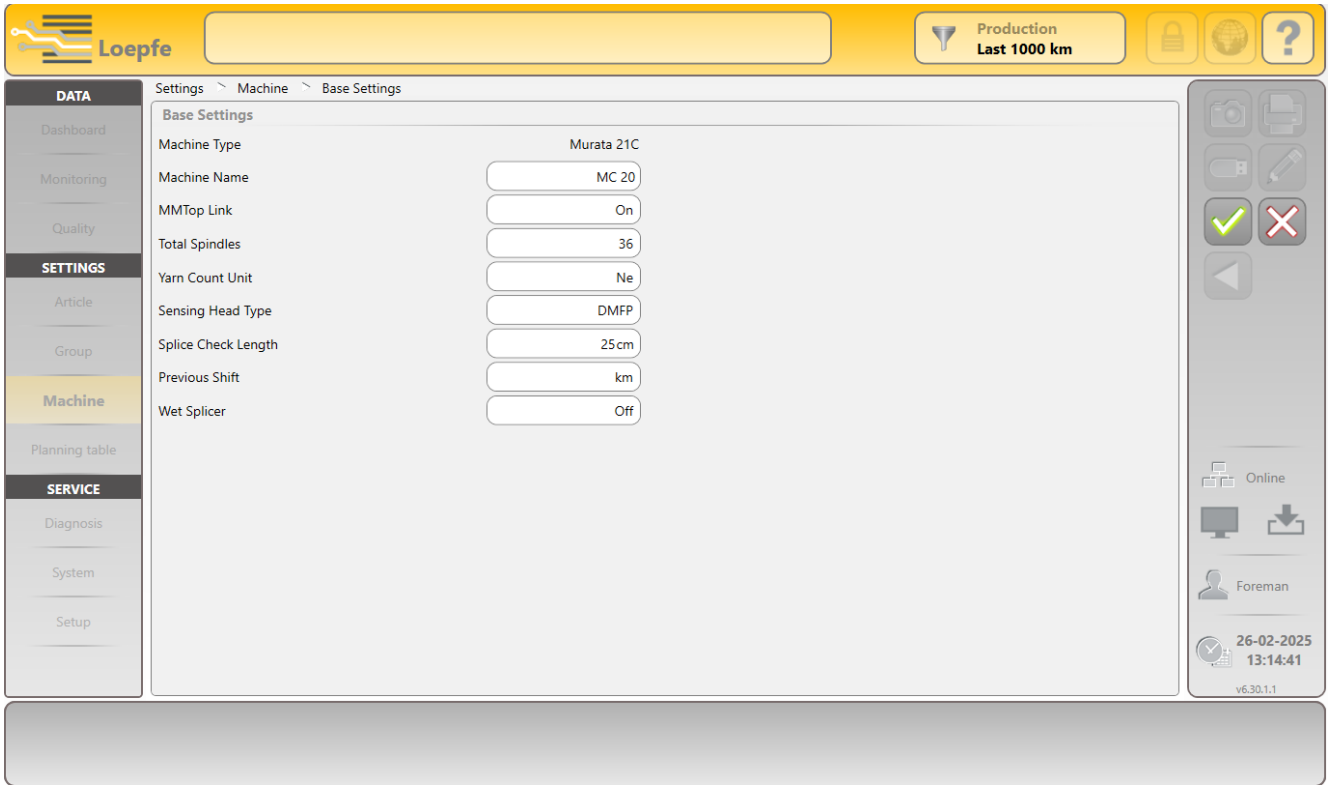
The shift calendar screen contains modules to edit basic settings of the machine.



Location	Icon	Selection	Description
Shift Calendar		Shift Cycles	Edits beginning and duration of each shift for each day of the week.
		Week View	Assigns a shift to a day of the week by selecting the corresponding color.
		Manual Shift Change	Testing
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.

7.3 Base settings

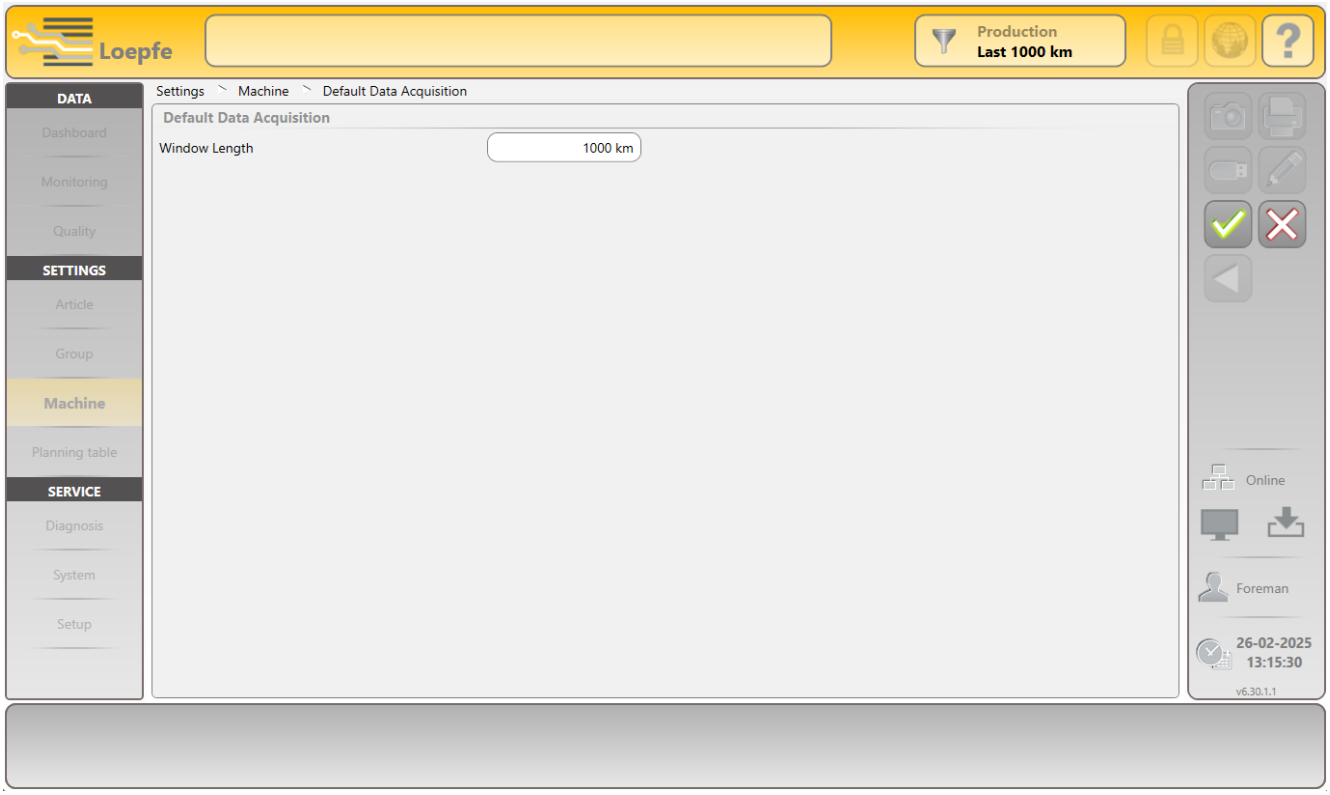
The base settings screen provides a menu to edit basic settings like machine name, total number of spindles or if wet splicers are used.



Location	Icon	Selection	Description
Base Settings		Base Settings	Edits basic settings for winding machine.
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.

7.4 Default data acquisition

The default data acquisition screen allows to choose the default window length between 100 km and 1000 km.



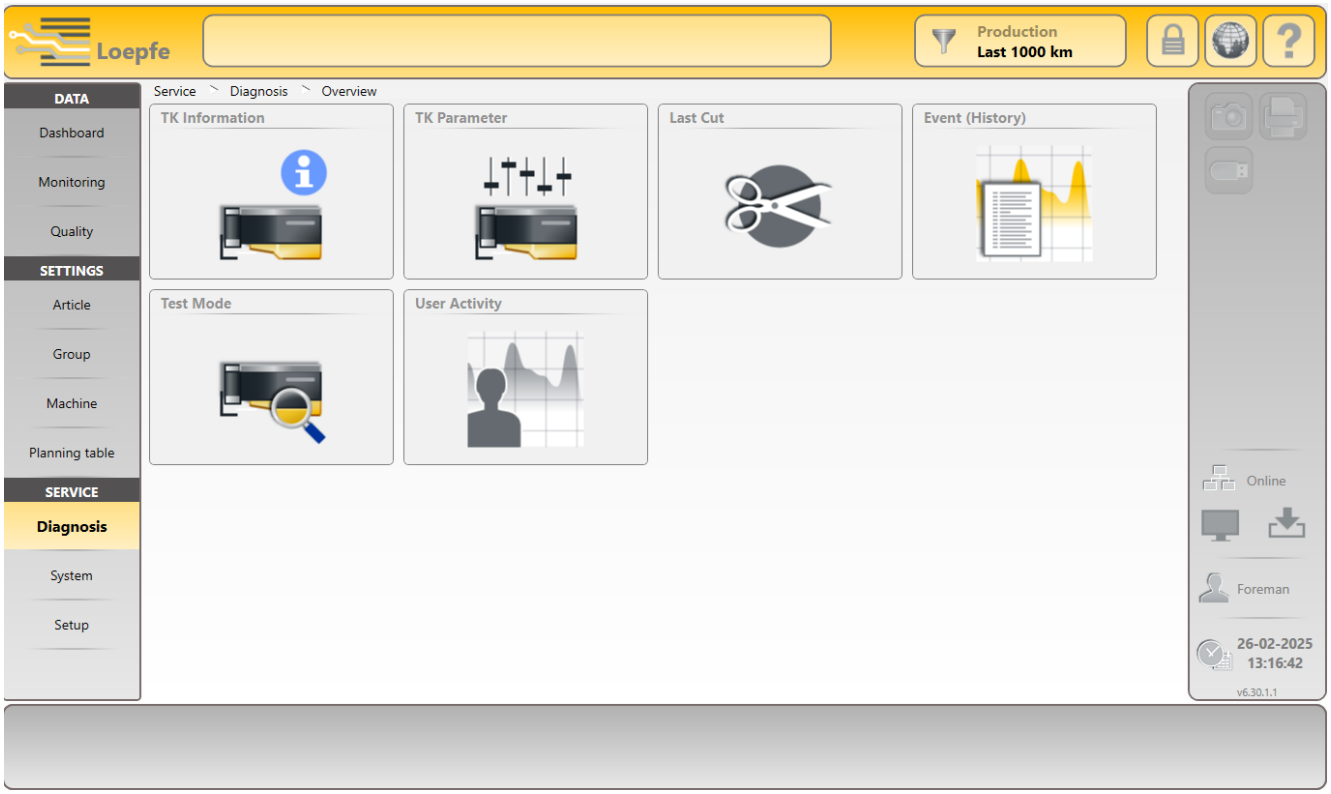
Location	Icon	Selection	Description
Default Data Acquisition		Default Data Acquisition	Sets default window length (km) in which data is collected.
RIGHT MENU		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.

8 SERVICE menu

8.1 Diagnosis

8.1.1 Diagnosis overview

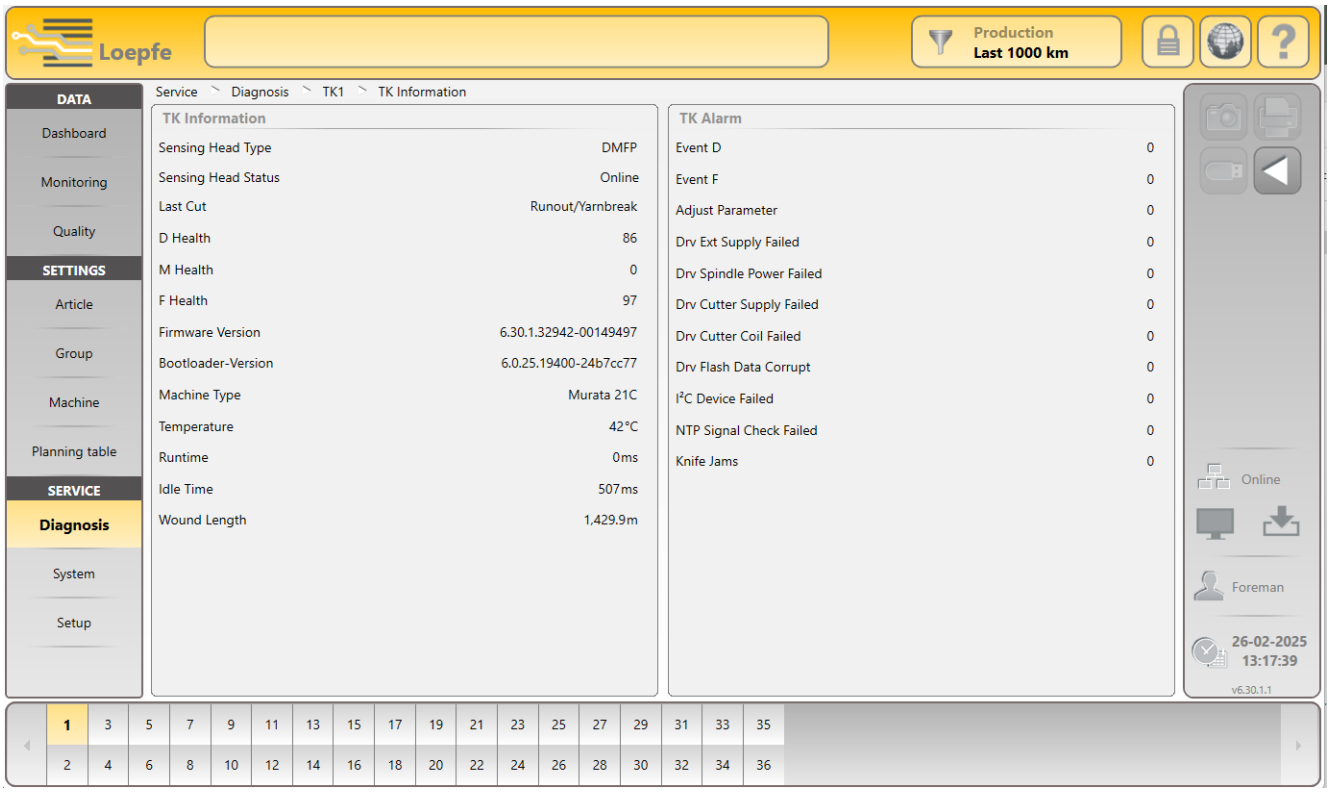
The diagnosis overview screen contains information about the sensing heads, last events or user activity. The test mode can also be activated here.



Location	Selection	Description
Diagnosis Overview	Sensing head Information	Displays information about sensing head.
	Sensing head Parameter	Displays sensing head parameters.
	Last Cut	Displays a list of last cutting events.
	Event (History)	Displays a list of last events.
	Test Mode	Contains objects to perform a test mode.
	User Activity	Displays a list of last user activities.

8.1.2 TK information

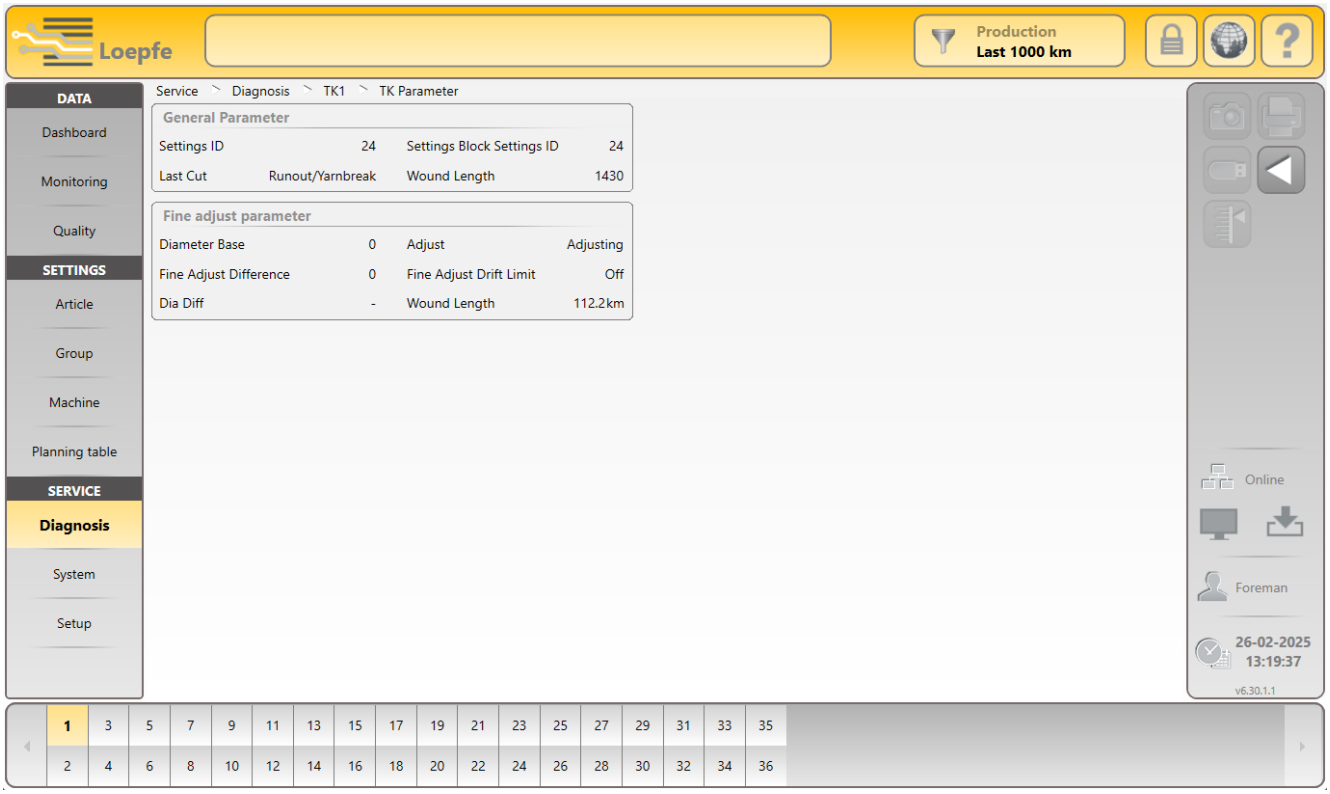
The TK information screen provides information about each selected sensing head and shows a list of alarms that have occurred in the sensing head.



Location	Icon	Selection	Description
TK Information		TK Information	Displays a list of information about selected sensing head.
		TK Alarm	Displays a list of alarms coming directly from the sensing head.
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			■ Selects an sensing head to be displayed. ■ Indicates selected sensing head with a yellow highlight.
		Scroll Buttons	Scrolls through list of sensing heads.

8.1.3 TK parameter

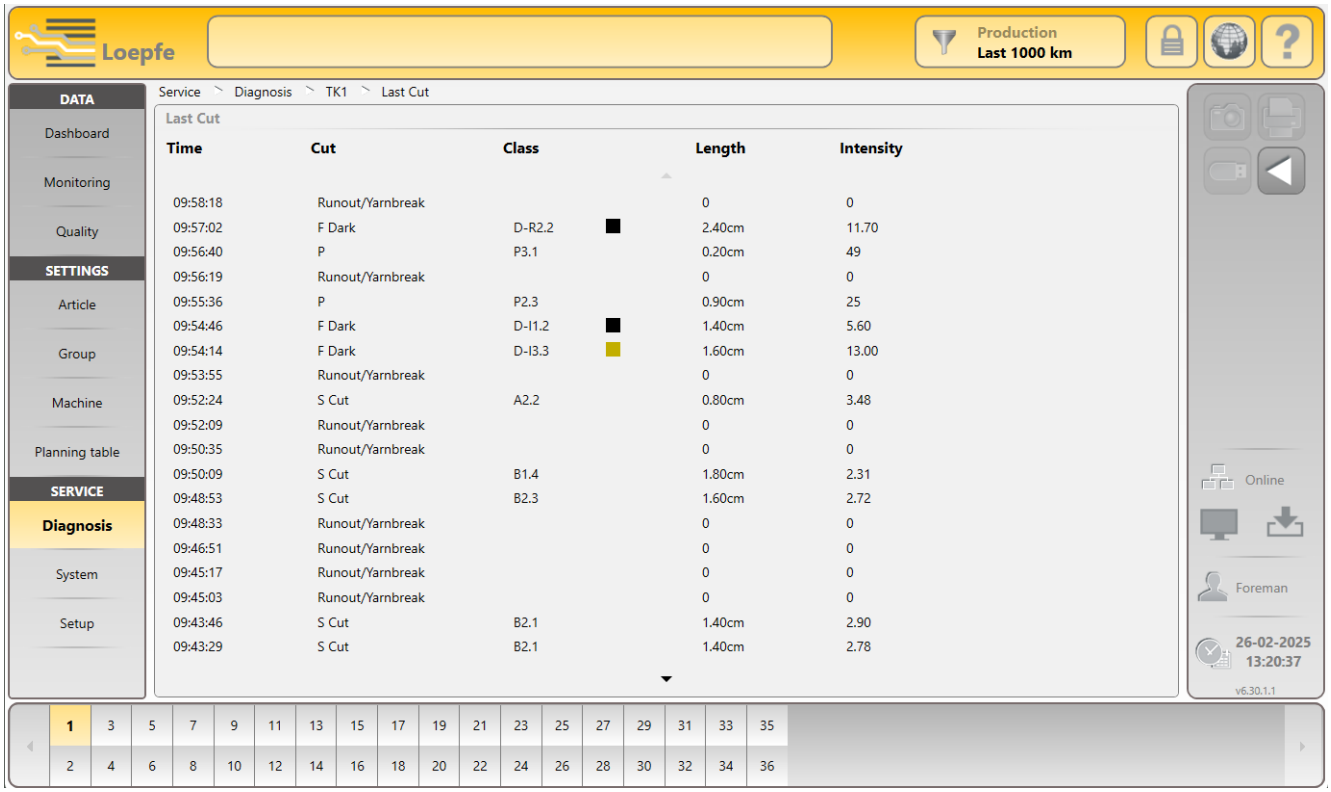
The TK parameter screen provides information about each selected sensing head and shows a list of alarms that have occurred in the sensing head.



Location	Icon	Selection	Description
TK Parameter		General Parameter	Displays general parameters of selected sensing head.
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			■ Selects an sensing head to be displayed. ■ Indicates selected sensing head with a yellow highlight.
		Scroll Buttons	Scrolls through list of sensing heads.

8.1.4 Last cut

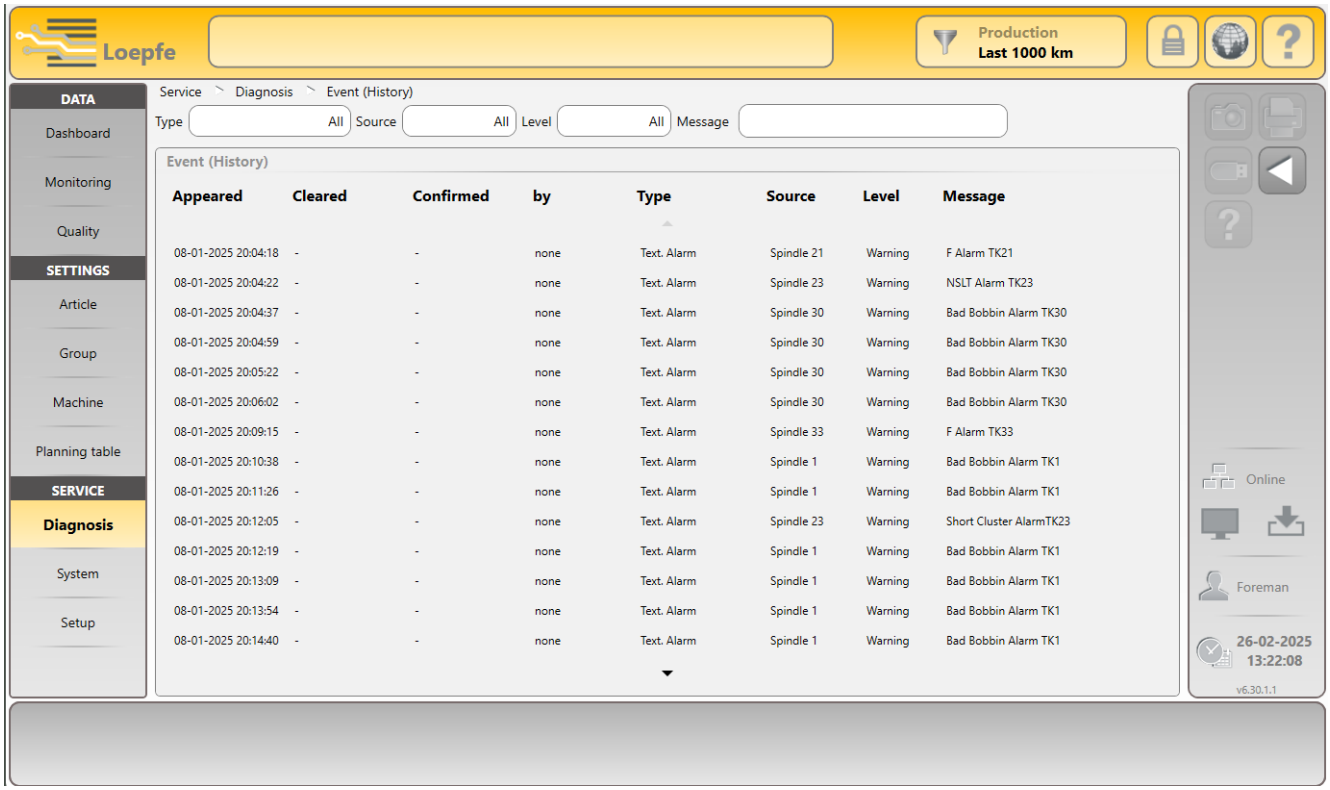
The last cut screen provides a list of the last cutting events for each selected sensing head.



Location	Icon	Selection	Description
Last Cut		Last Cut	Displays a list of last 20 cuts for selected sensing head.
RIGHT MENU		Step Back	Navigates to previous window.
BOTTOM MENU			■ Selects a sensing head to be displayed. ■ Indicates selected sensing head with a yellow highlight.
		Scroll Buttons	Scrolls through list of sensing heads.

8.1.5 Event (history)

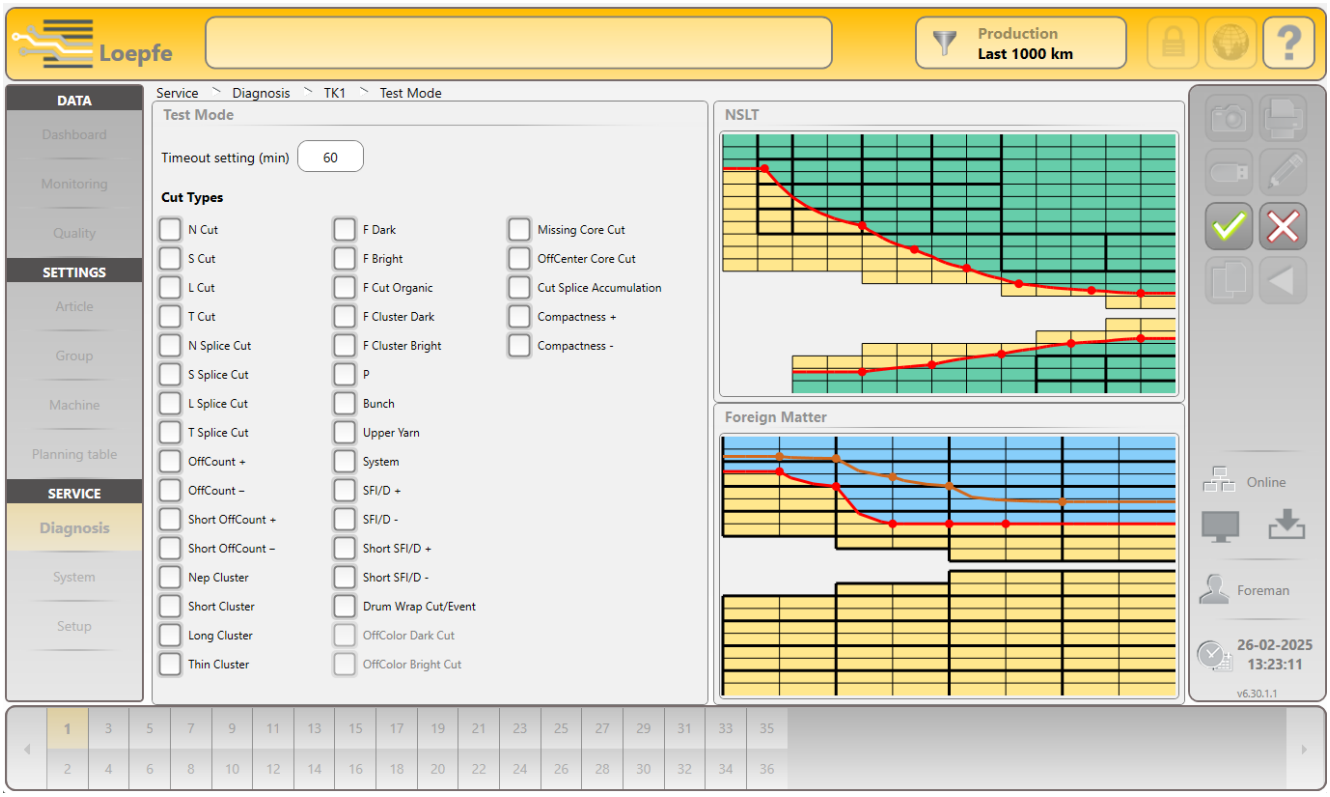
The event (history) screen provides a list of the last alarms and notes. The events can be filtered and sorted for a better overview.



Location	Icon	Selection	Description
Event (History)		Type	Filters types of alarms or notes.
		Source	Filters sources of LZE or sensing head.
		Level	Filters levels of information, warnings, Alarms etc.
		Message	Filters the messages in the list according to the typed character string.
		Column Title	Sorts list according to column title.
RIGHT MENU		Step Back	Navigates to previous window.

8.1.6 Test mode

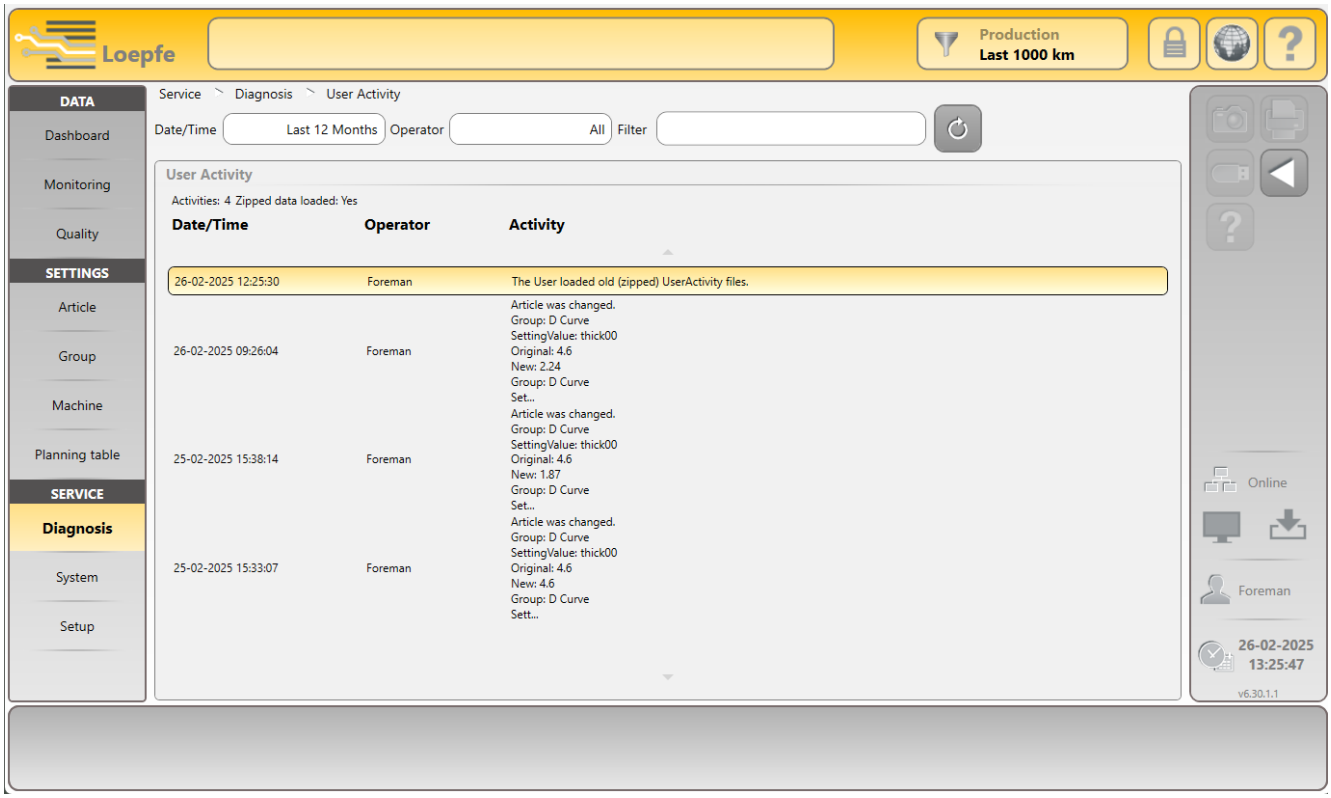
The test mode screen provides a list of cutting types to be checked. One or more cutting types, NSLT classes or foreign matter classes can be selected for the evaluation.



Location	Icon	Selection	Description
Test Mode		Timeout (min)	Opens a list to select timeout for test mode.
		Cut Types	Selects cut types to be checked in test mode.
		NSLT	Opens an input window to select yarn fault classes to be evaluated in test mode.
		Foreign Matter	Opens an input window to select yarn fault classes to be evaluated in test mode.
RIGHT MENU		Copy	Contains a button to copy test mode settings.
		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.
BOTTOM MENU			■ Selects an sensing head to be displayed. ■ Indicates selected sensing head with a yellow highlight.
		Scroll Buttons	Scrolls through the list of sensing heads.

8.1.7 User activity

The user activity screen provides a list of the last user activities. The list can be filtered by date/time, operator or text string so that the desired information can be found more quickly.

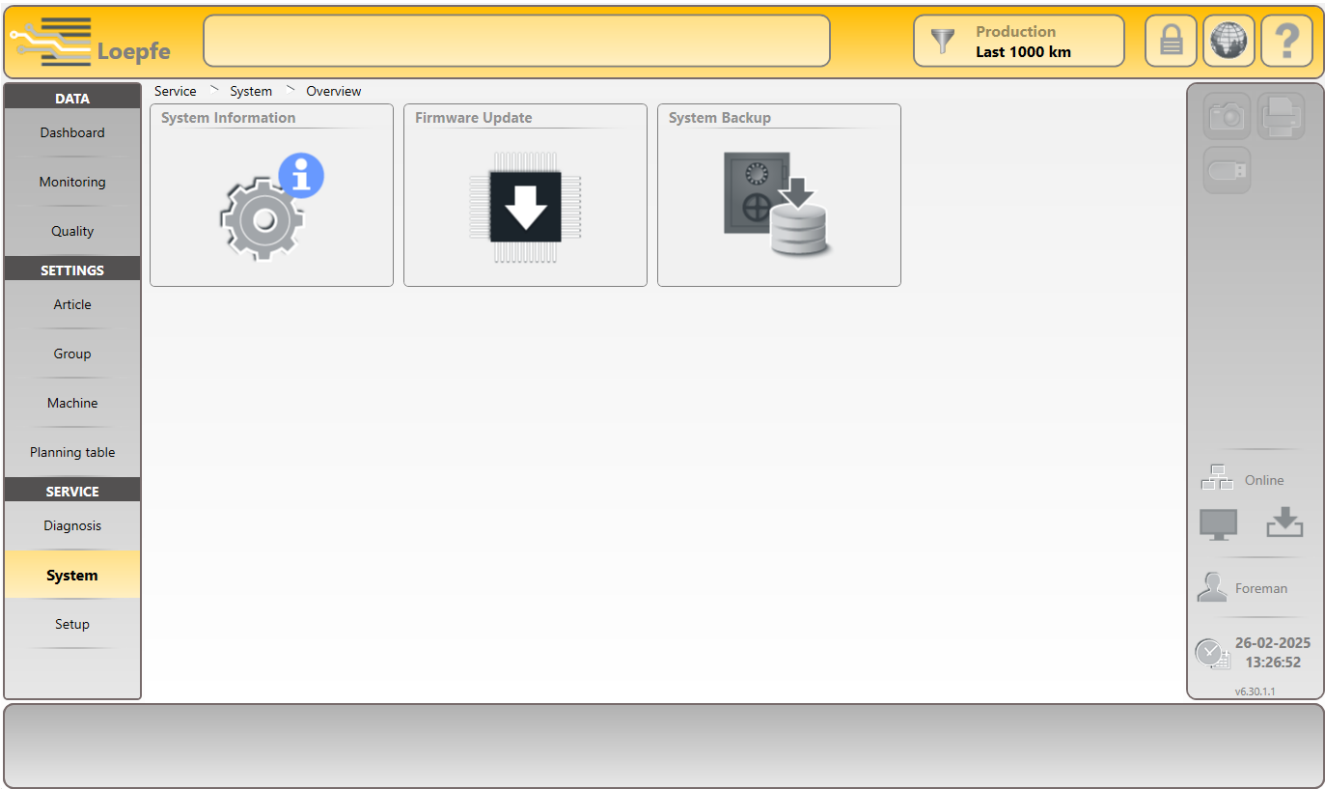


Location	Icon	Selection	Description
User Activity		Date and Time	Filters user activity list to selected time period.
		Operator	Filters user activity list to selected operator.
		Filter	Filters user activity list to typed character string.
		Column Title	Sorts user activity list according to column title.
RIGHT MENU		Step Back	Navigates to previous window.
		Info	Displays the full text of user activity in a pop-up window.

8.2 System

8.2.1 System overview

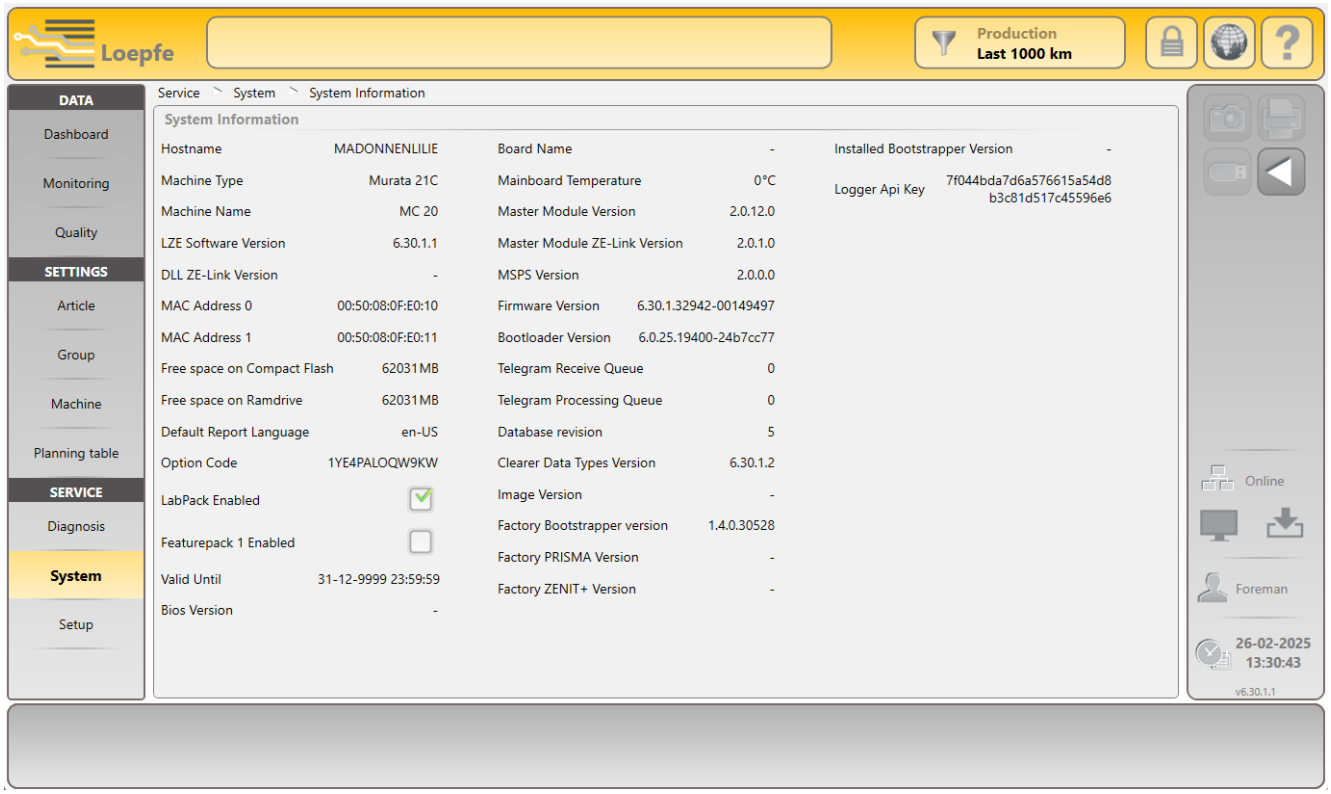
The system overview screen provides access to system information, maintenance and service. Updates and backups can be created and the system can be restored.



Location	Selection	Description
System Overview	System Information	Displays system information.
	Firmware Update	Enables a firmware update.
	System Backup	Starts a wizard to create a backup of system configuration.

8.2.2 System information

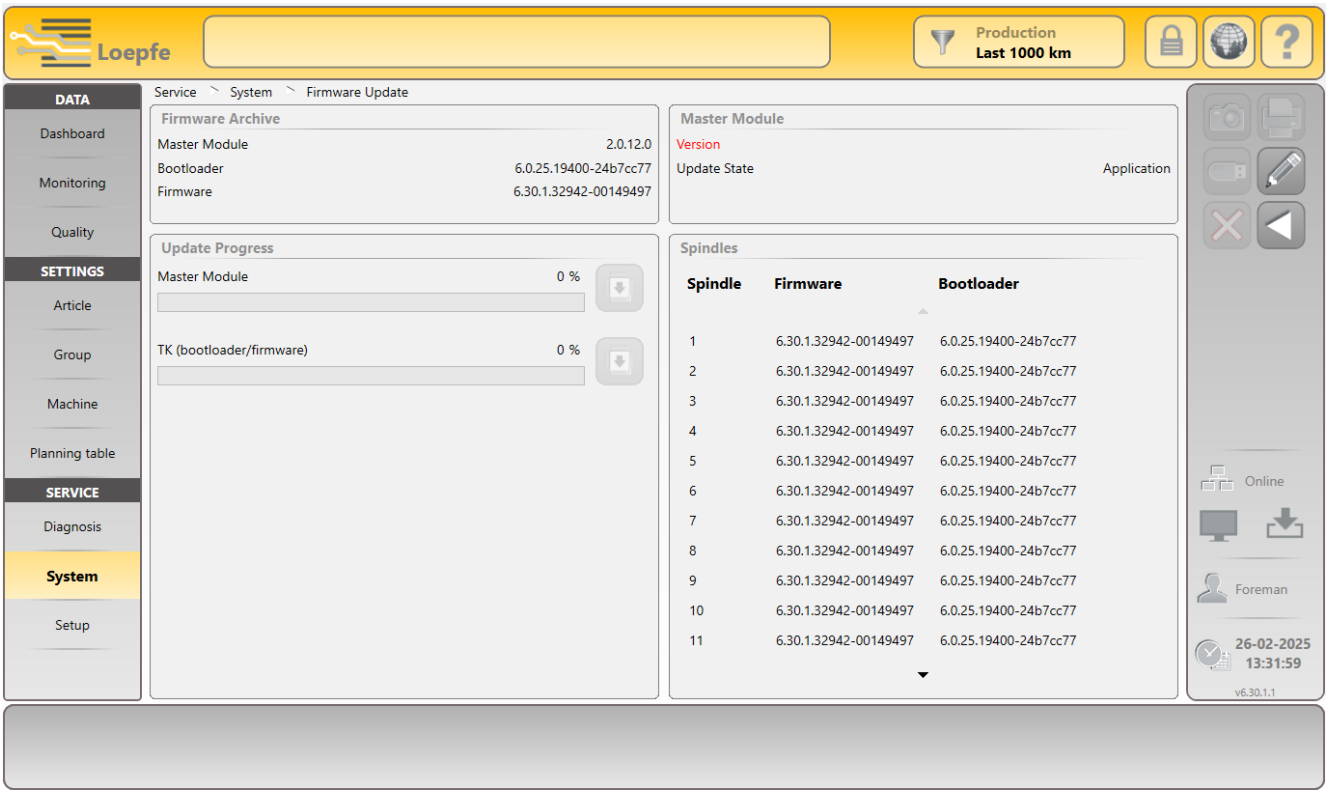
The system information screen provides system information and shows whether optional software extensions are enabled.



Location	Icon	Selection	Description
System Information		System Information	Displays an overview of system information about hardware and software.
RIGHT MENU		Step Back	Navigates to previous window.

8.2.3 Firmware update

The firmware update screen provides menus to perform a firmware update of the master module or the sensing heads.

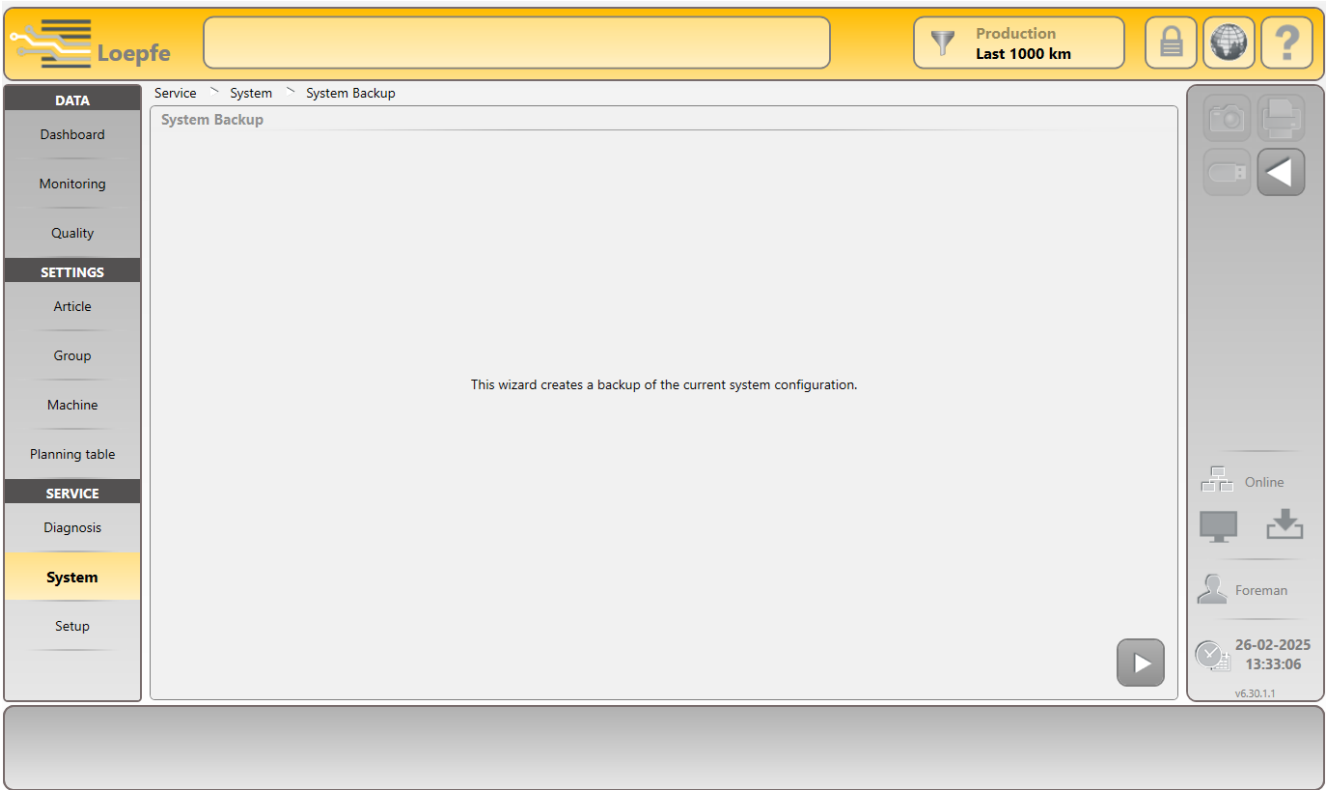


Location	Icon	Selection	Description
Firmware Update		Firmware Archive	Displays serial number of: ■ Master module ■ Bootloader ■ Firmware
		Master Module	Displays master module online state.
		Update Progress	Displays Update progress for: ■ Master module ■ TK (bootloader/firmware)
		Firmware-Update	Starts Update for: ■ Master module ■ TK (bootloader/firmware)
		Spindles	Displays version of firmware and bootloader for each spindle.
RIGHT MENU		Edit	Enables edit mode to start update for: ■ Master module ■ TK (bootloader/firmware)

Location	Icon	Selection	Description
		Exit or Discard	Exits edit mode and discards latest changes.
		Step Back	Navigates to previous window.

8.2.4 System backup

The system backup screen provides a wizard to perform a system backup.

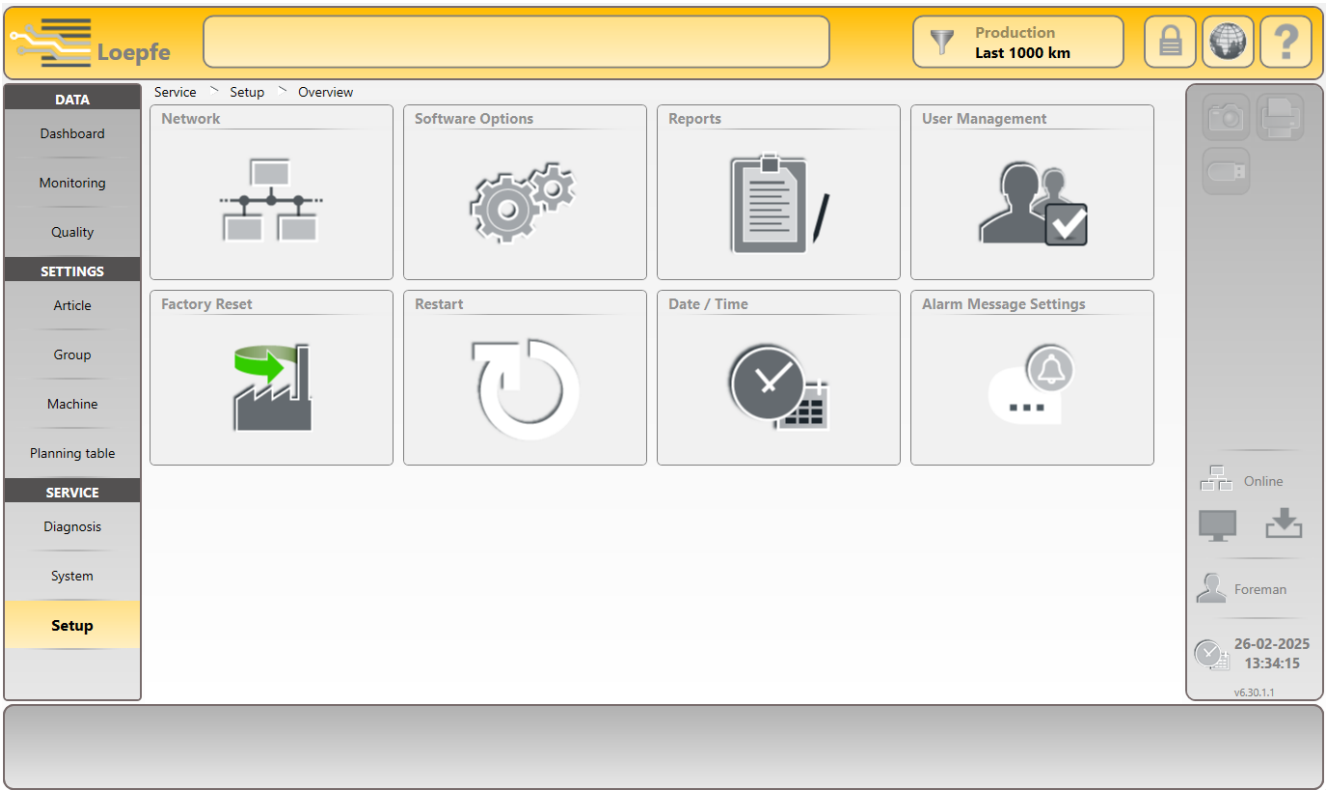


Location	Icon	Selection	Description
System Backup			Starts a wizard to create a backup of system configuration.
		Step Forward	Starts backup and saves it in internal memory.
RIGHT MENU		Step Back	Navigates to previous window.

8.3 Setup

8.3.1 Setup overview

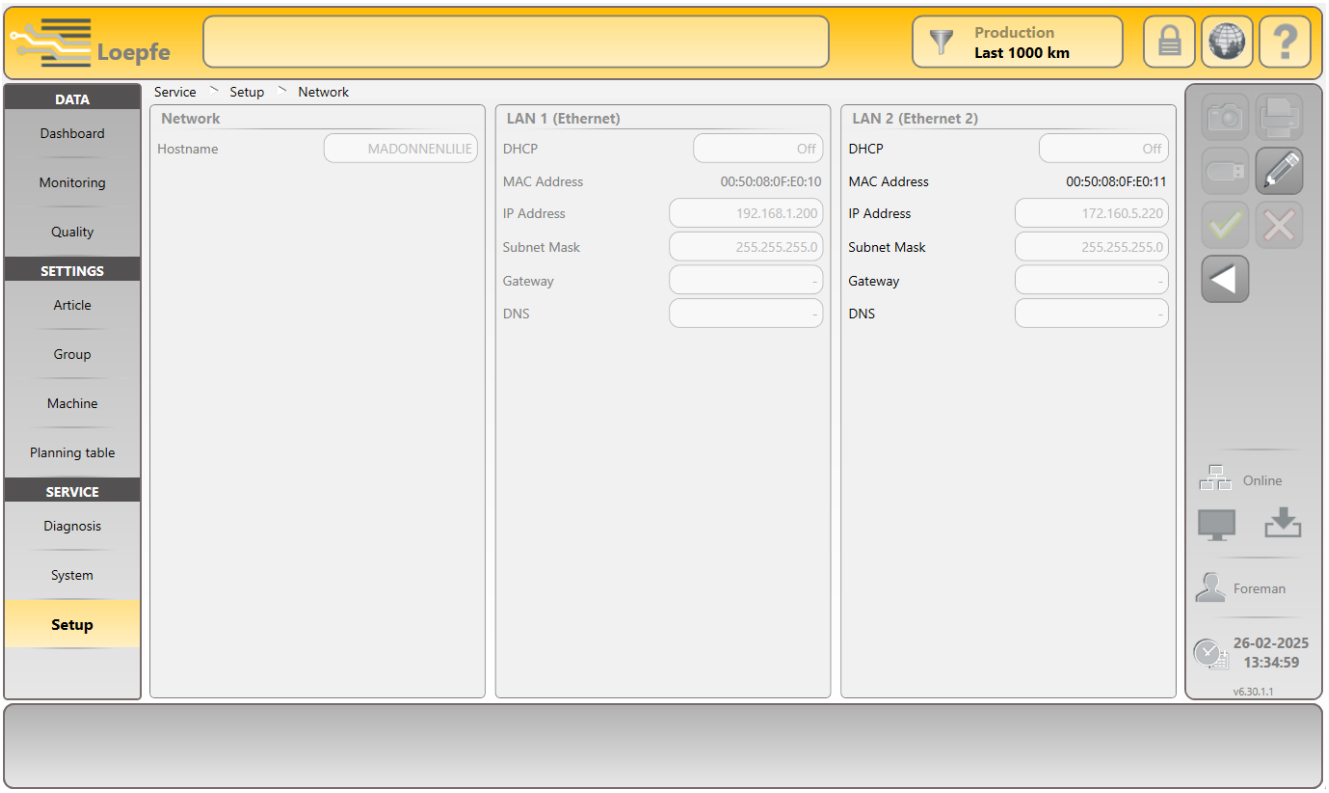
This screen provides access to setup information, user management, reports and alarm settings. A factory reset or software restart can be initiated. Furthermore, date and time can be set.



Location	Selection	Description
Setup Overview	Network	■ Displays network settings. ■ Edits network settings.
	Software Options	■ Displays information about LZE software and additional software packages. ■ Edits option code.
	Reports	■ Sets values for complete shift report. ■ Sets values for Intermediate shift report.
	User Management	■ Adds or deletes users. ■ Sets or changes passwords.
	Factory Reset	Requires password level service.
	Restart	Restarts LZE software.
	Date and Time	Sets date and time.
	Alarm Message Settings	Toggles several alarms on or off.

8.3.2 Network

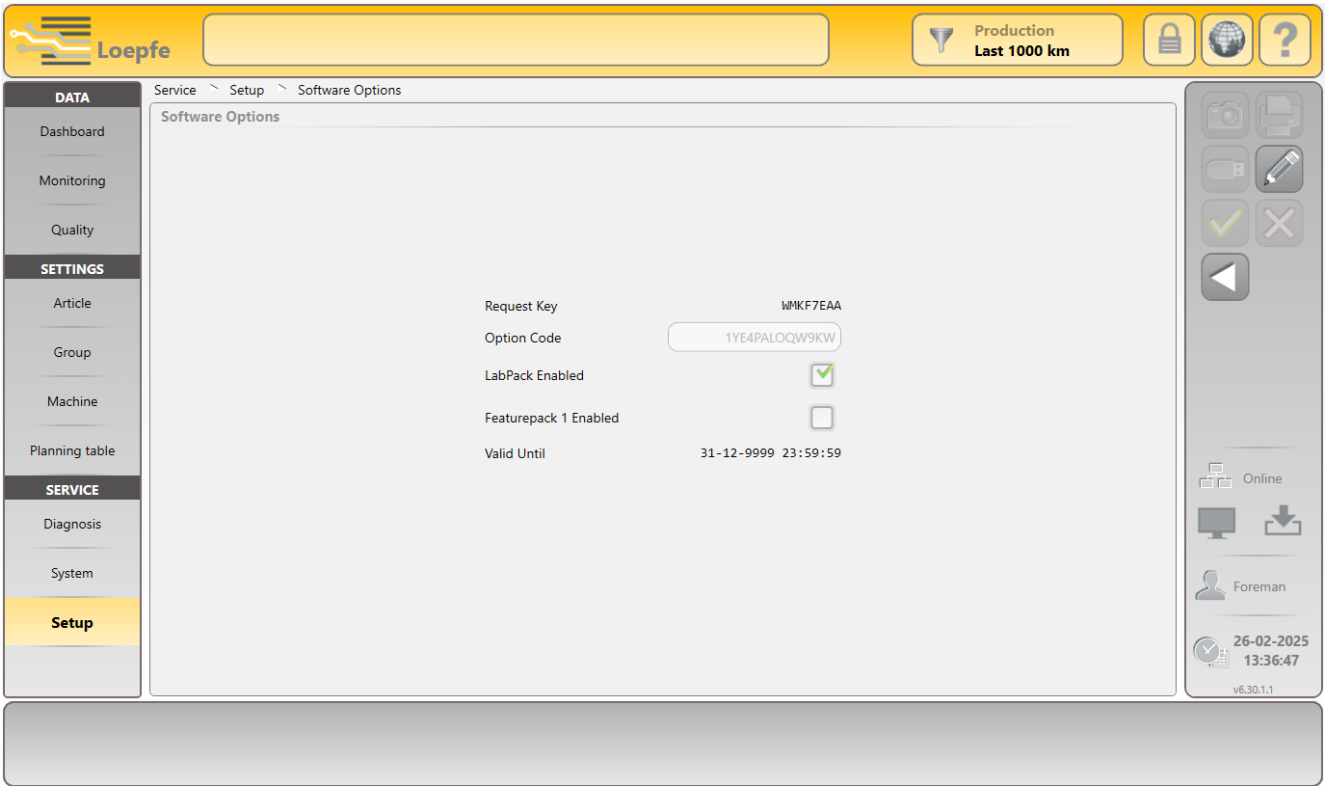
The network screen contains menus to apply LAN or WLAN connections or to edit the settings of the network. For some features password level service is required.



Location	Icon	Selection	Description
Network		Network	Displays hostname.
		LAN 1	Requires password level service.
		LAN 2	Displays network settings for LAN 2 (MillMaster Top).
RIGHT MENU		Edit	Enables edit mode.
		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.
		Step Back	Navigates to previous window.

8.3.3 Software options

The software options screen enables the integration of optional software features.

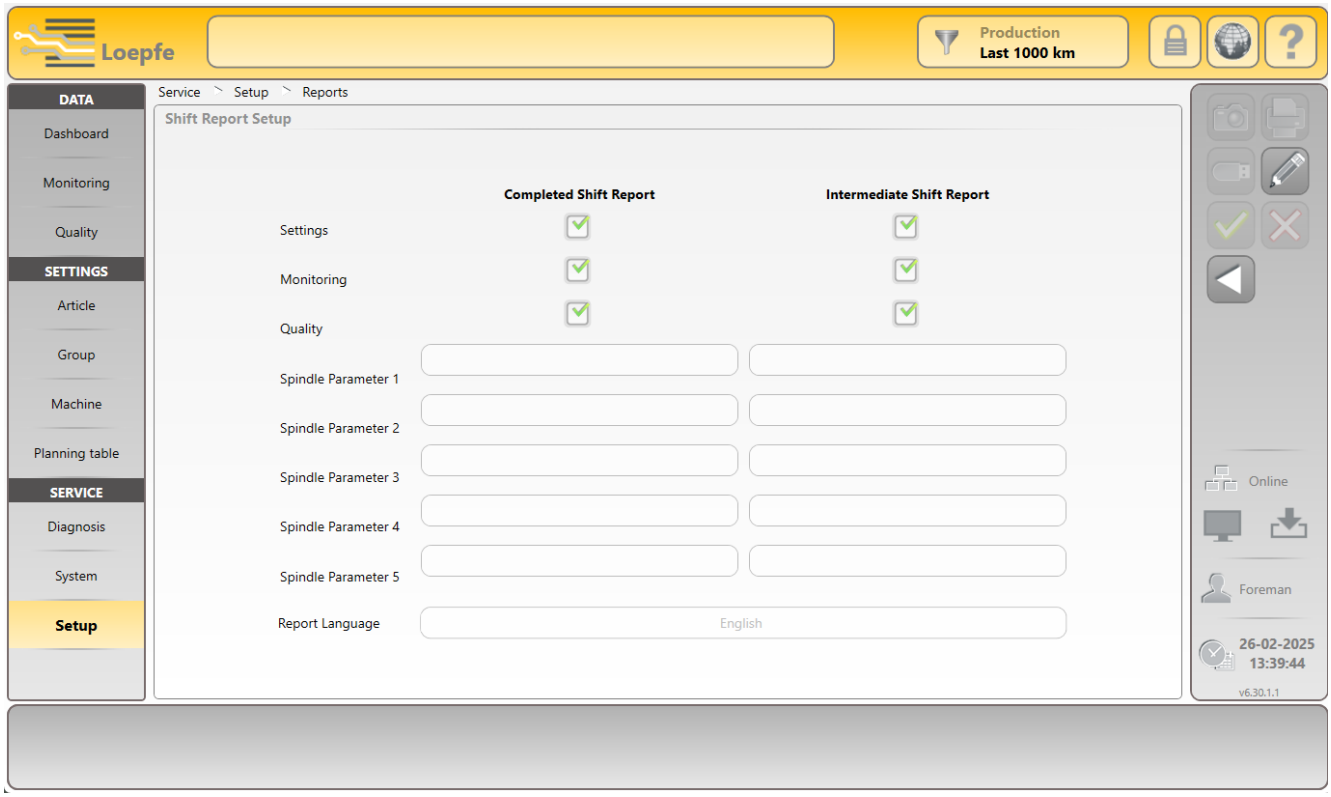


Location	Icon	Selection	Description
Software Options		Request Key	Request key to request option code.
		Option Code	Unlocks the options LabPack or featurepack 1.
		LabPack Enabled	Indicates whether LabPack option is available. ■ SFI/D clearing and classification – SFI/D short – SFI/D long ■ SFI surface index ■ Imperfections – IPI and IPI alarm
		Featurepack 1 Enabled	Indicates whether featurepack 1 option is available. ■ OffColor – Dark – Bright
		Valid Until	Displays until when LZE software is valid.
RIGHT MENU		Edit	Enables edit mode.
		Save or Confirm	Saves or confirms current settings or selections.

Location	Icon	Selection	Description
		Exit or Discard	Exits edit mode and discards last changes.
		Step Back	Navigates to previous window.

8.3.4 Reports

The reports screen generates a complete shift report or an intermediate shift report. It enables the option to include information about settings, monitoring or quality data.

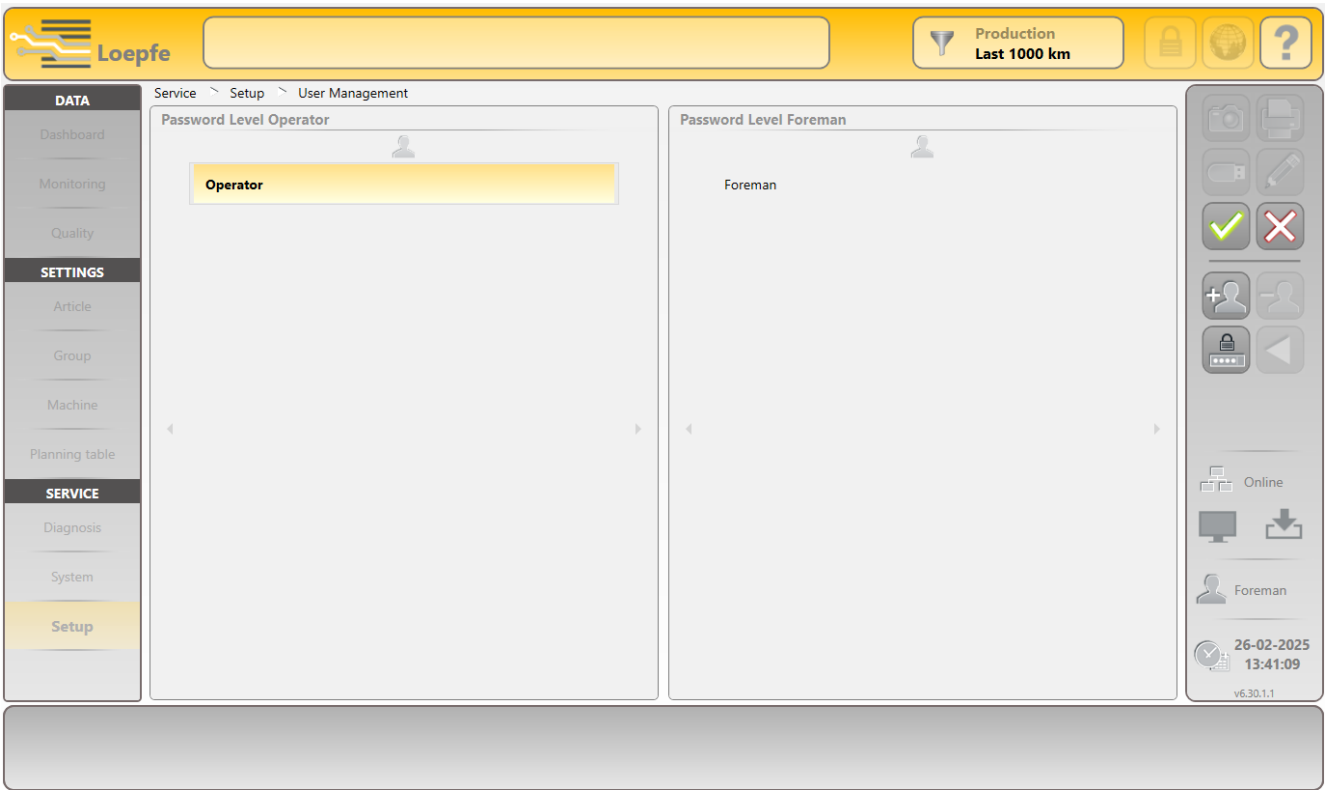


Location	Icon	Selection	Description
Shift Report Setup		Settings	Includes or excludes information about settings in shift report.
		Monitoring	Includes or excludes monitoring information in shift report.
		Quality	Includes or excludes quality information in shift report.
		Spindle Parameter 1-5	Opens a list of yarn cut or alarm types to be included in shift report.
		Auto Generate Intermediate Report	Toggles automatic generation of an intermediate report on or off.
		Report Language	Opens a list of languages for report.
RIGHT MENU		Edit	Enables edit mode.
		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.

Location	Icon	Selection	Description
		Step Back	Navigates to previous window.

8.3.5 User management

The user management screen enables the option to add or remove users, change passwords and distribute access rights.

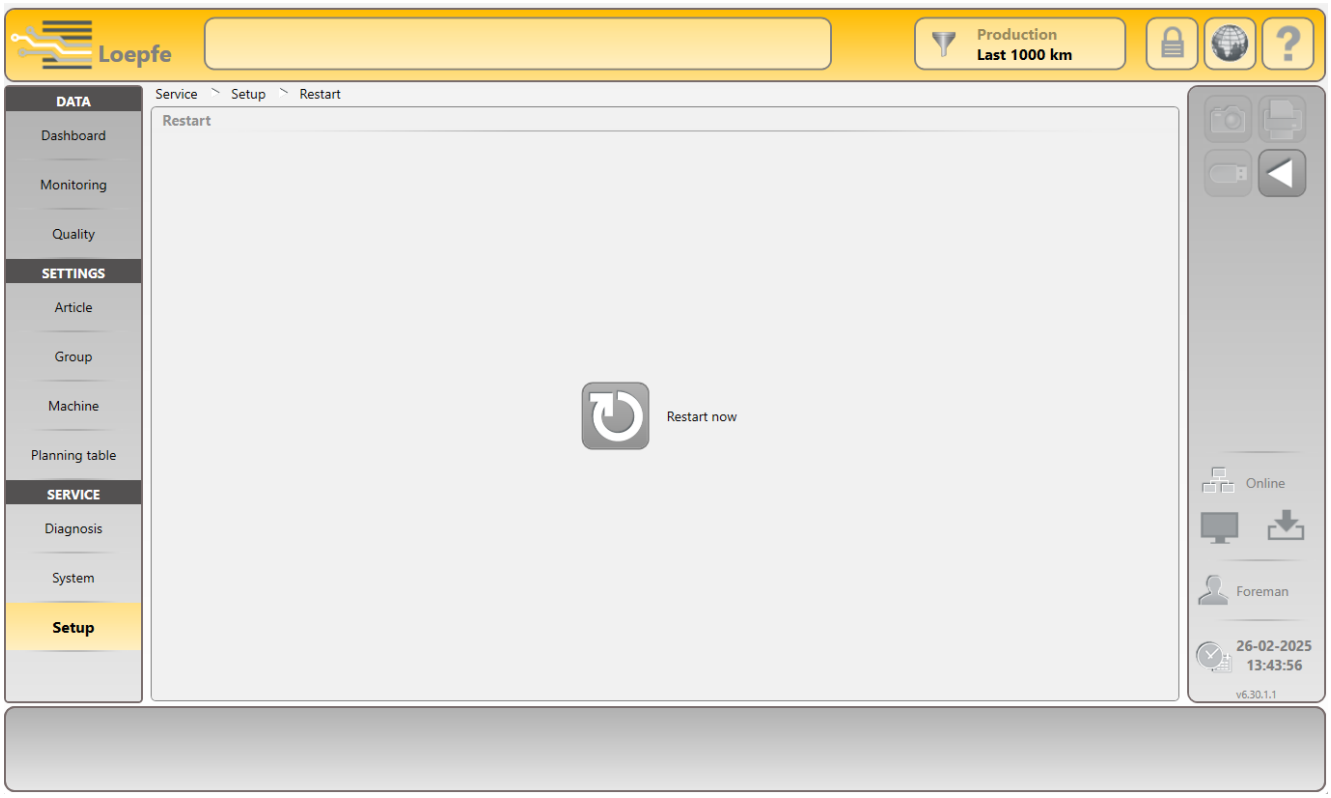


Location	Icon	Selection	Description
User Management		Password Level Operator	Displays a list of users with operator level.
		Password Level Foreman	Displays a list of users with foreman level.
RIGHT MENU		Edit	Enables edit mode.
		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.
		Add User	Selects password level.
		Delete User	Deletes selected user.

Location	Icon	Selection	Description
		Change Password	Changes password of selected user.
		Step Back	Navigates to previous window.

8.3.6 Restart

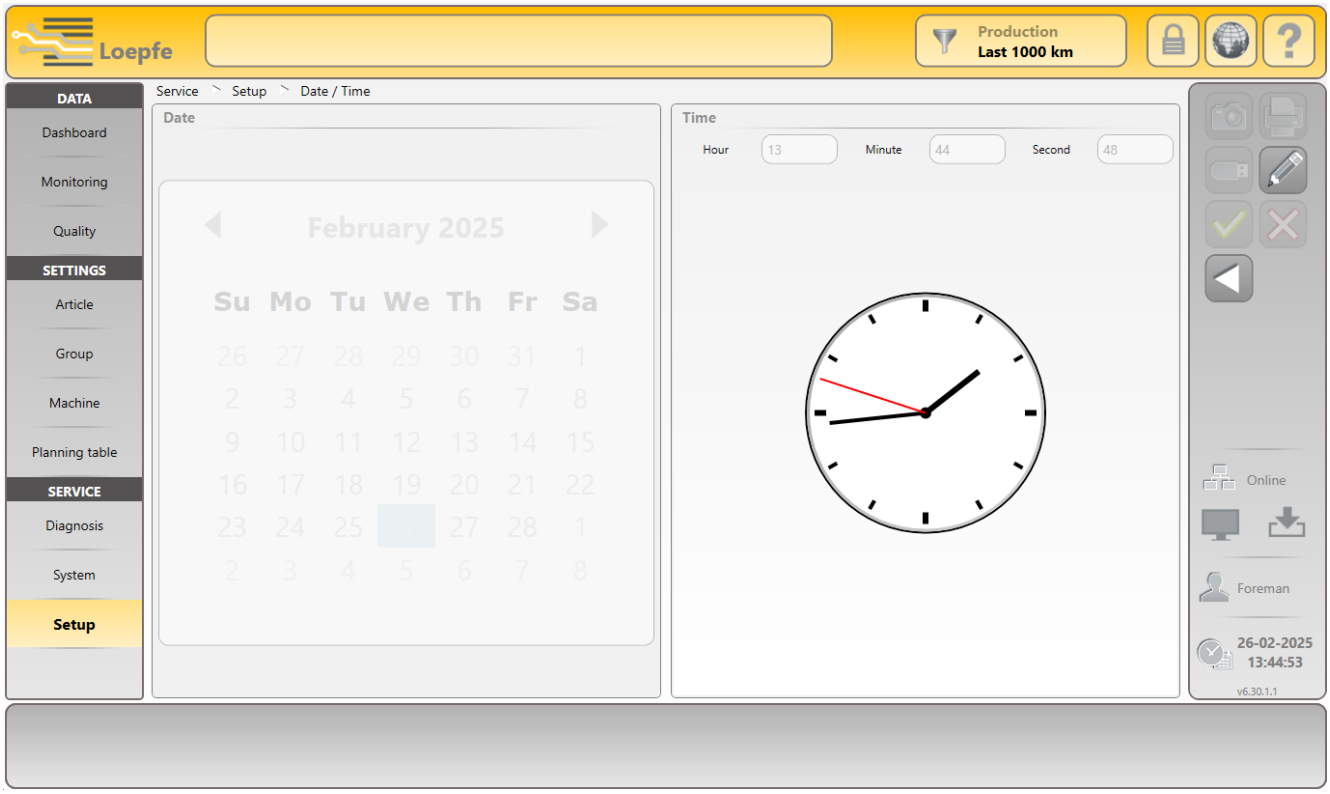
The restart screen enables the restart of the LZE.



Location	Icon	Selection	Description
Restart		Restart	Restarts LZE software.
RIGHT MENU		Step Back	Navigates to previous window.

8.3.7 Date/Time

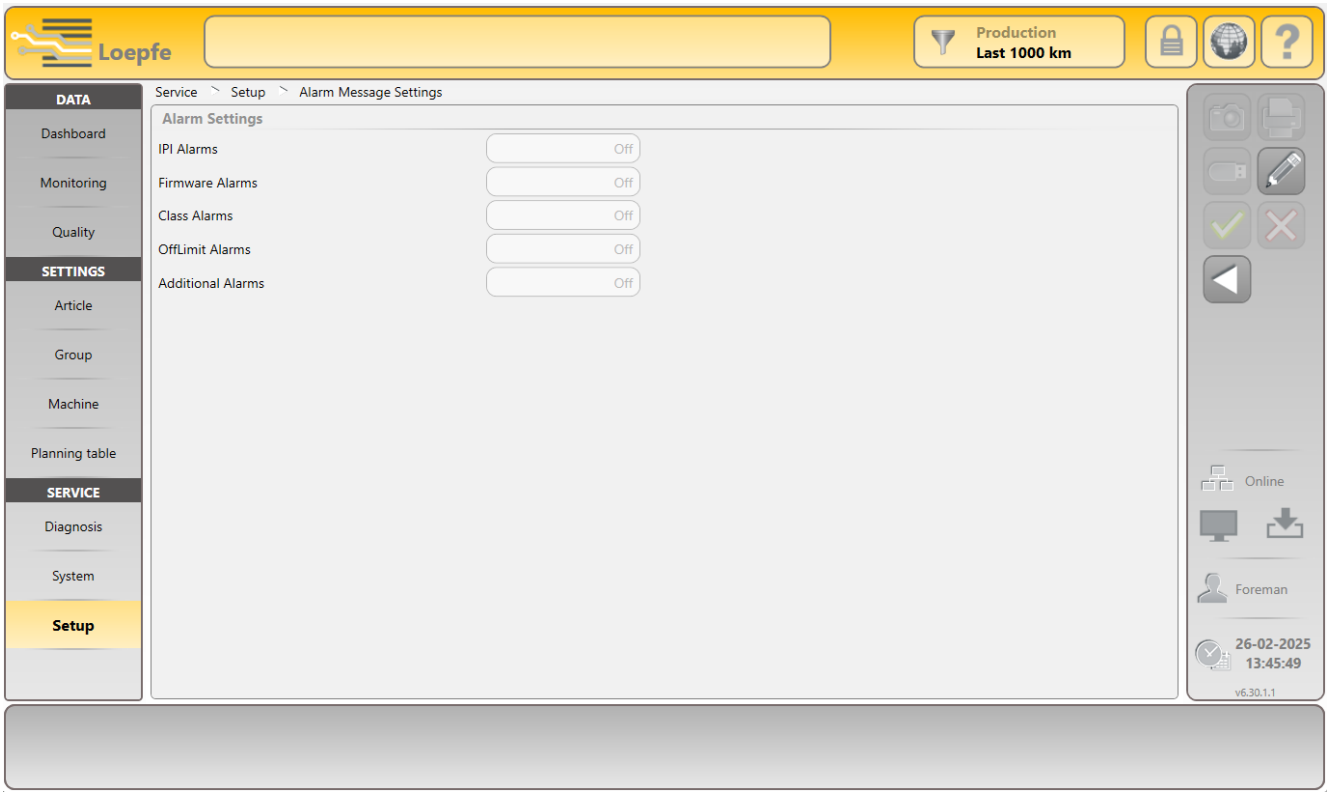
The date and time screen offers the option to set date and time of the LZE.



Location	Icon	Selection	Description
Date/Time		Date	Displays current date.
		Time	Displays current time.
RIGHT MENU		Edit	Enables edit mode.
		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.
		Step Back	Navigates to previous window.

8.3.8 Alarm message settings

The alarm message settings screen contains a menu to change general settings for system-wide alarms.



Location	Icon	Selection	Description
Alarm Message Settings		Alarm Settings	Toggles on or off: ■ IPI alarms ■ Firmware alarms ■ Class alarms ■ OffLimit alarms ■ Additional alarms
RIGHT MENU		Edit	Enables edit mode.
		Save or Confirm	Saves or confirms current settings or selections.
		Exit or Discard	Exits edit mode and discards last changes.
		Step Back	Navigates to previous window.

Notes

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