

# **Functions and operation**

Wirtgen Performance Tracker (WPT)

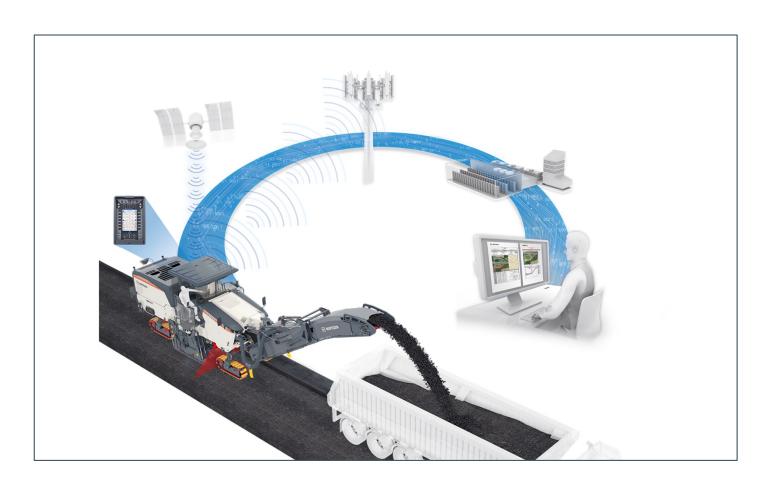


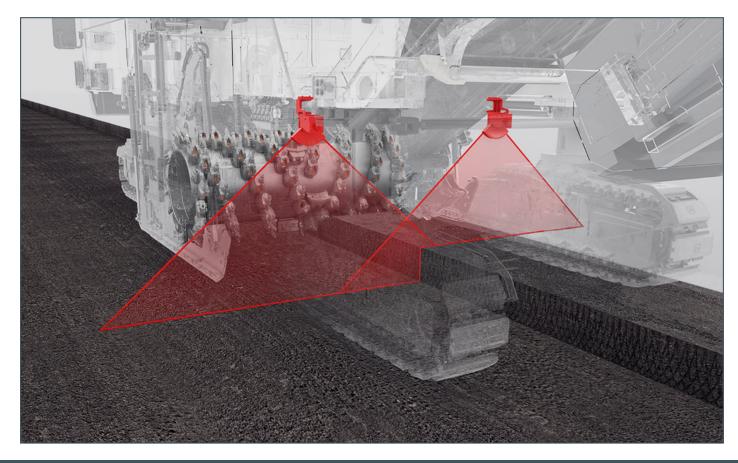


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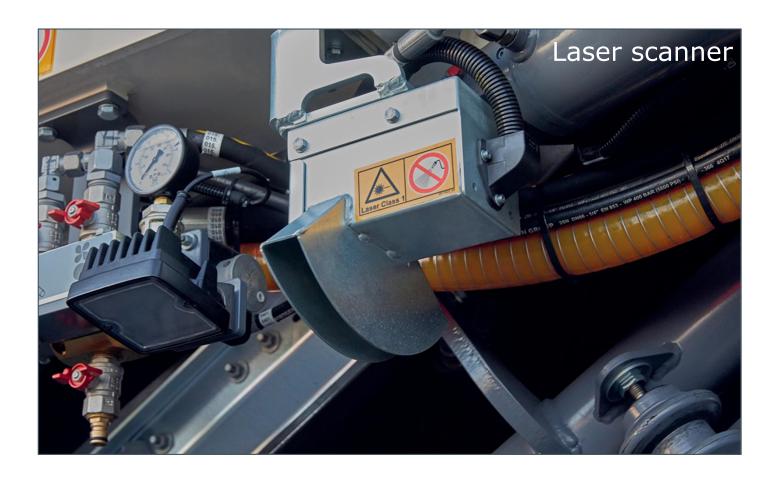
## **Presentation of the components**







### **Presentation of the components**





## **Presentation of the components**





### Content

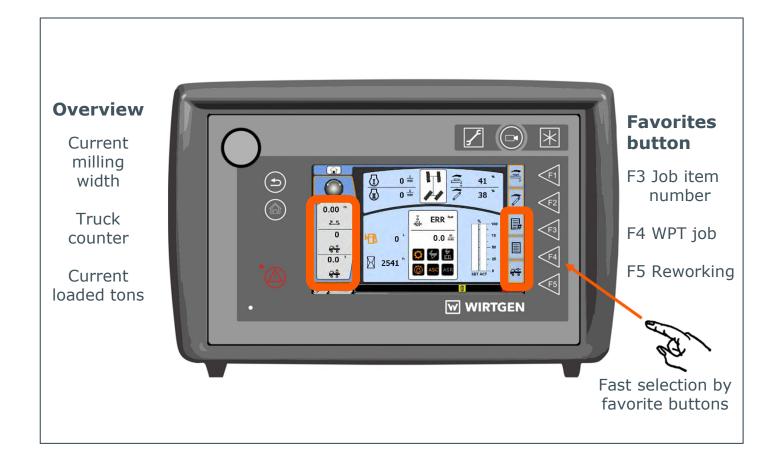
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### Menu selection WPT/Menu 6. WPT

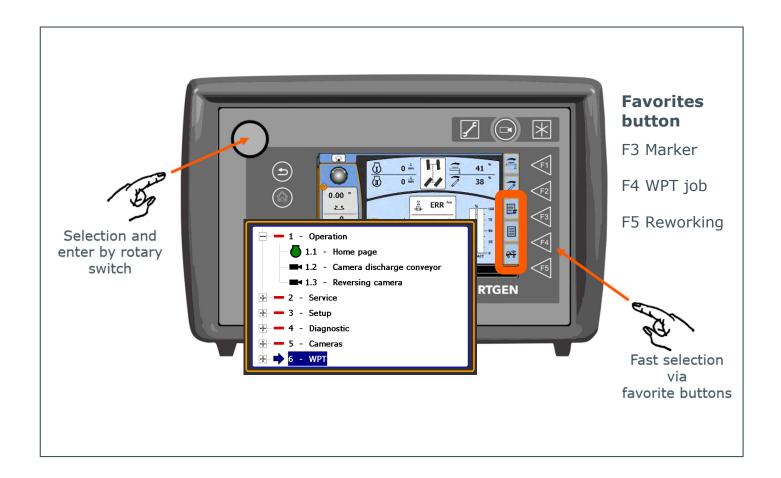




### Menu selection WPT/Menu 6. WPT

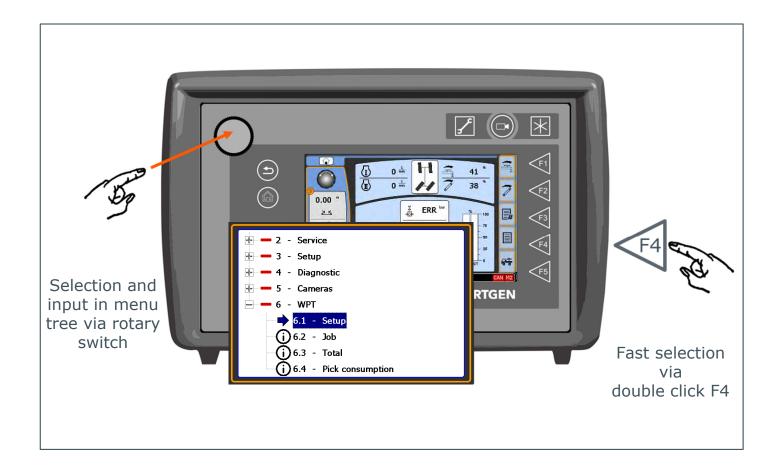


### Menu selection WPT/Menu 6. WPT

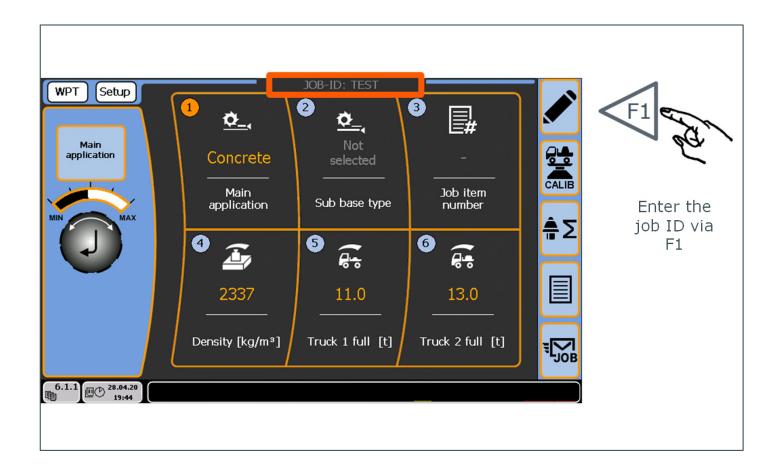




### Menu selection WPT/6.1 WPT Setup



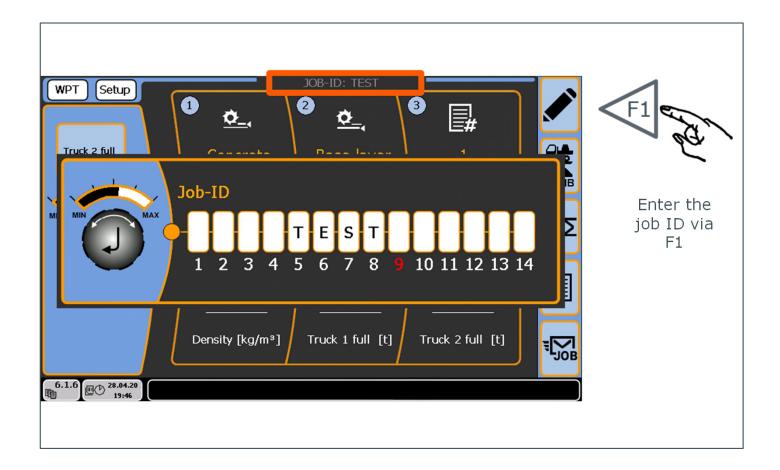
Setting of job parameters



Setting a customer specific order number

- The job ID can be changed as often as required **until the job is completed**
- The **last entry** is included in the e-mail and the report





Setting a customer specific order number

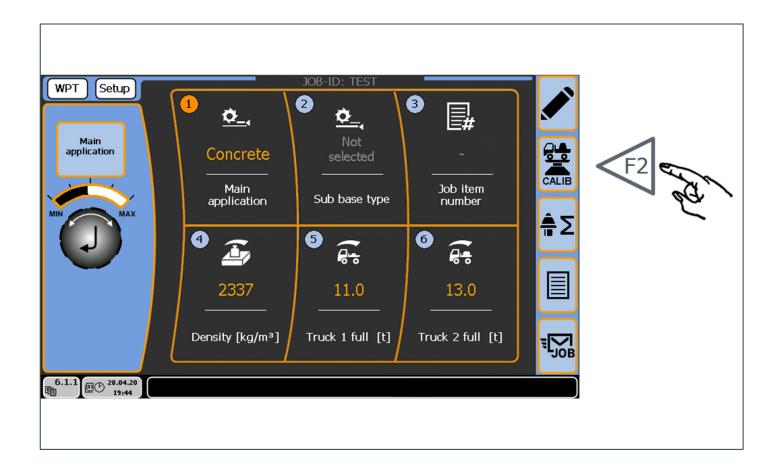
- The job ID can be changed as often as required **until the job is completed**
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Setting a customer specific order number

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- The **last entry** is included in the e-mail and the report



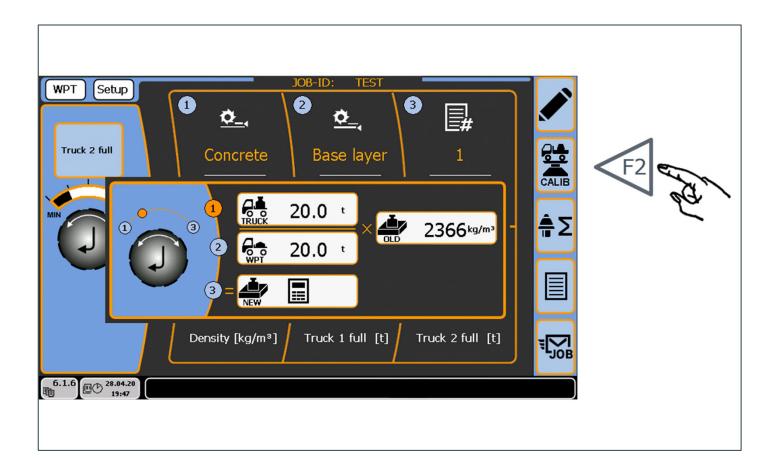


Selection of the density calculator

Note down the truck load calculated by WPT-System for a particular (first) truck. This should be done when the machine is doing a full cut.

The actual value of the Level Pro system must be correct so that the correction of the density calculator is not inaccurate.





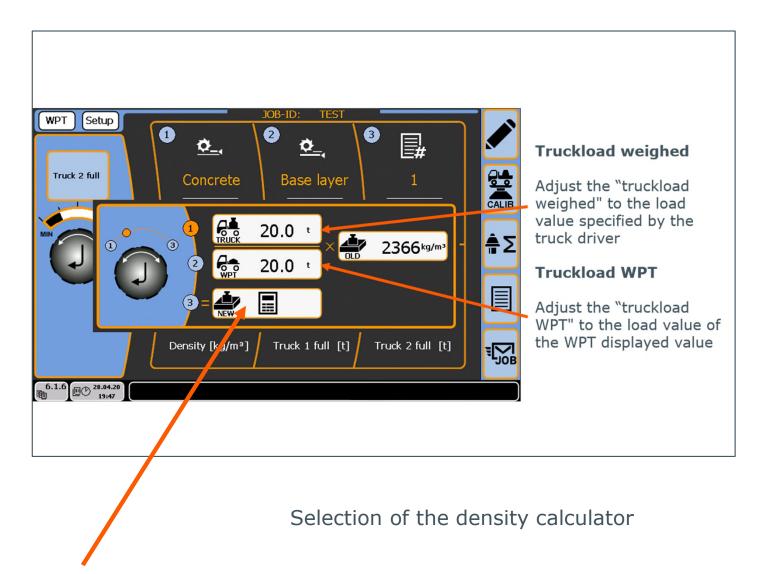
Selection of the density calculator

Note down the truck load calculated by WPT-System for a particular (first) truck. This should be done when the machine is doing a full cut.

The actual value of the Level Pro system must be correct so that the correction of the density calculator is not inaccurate.





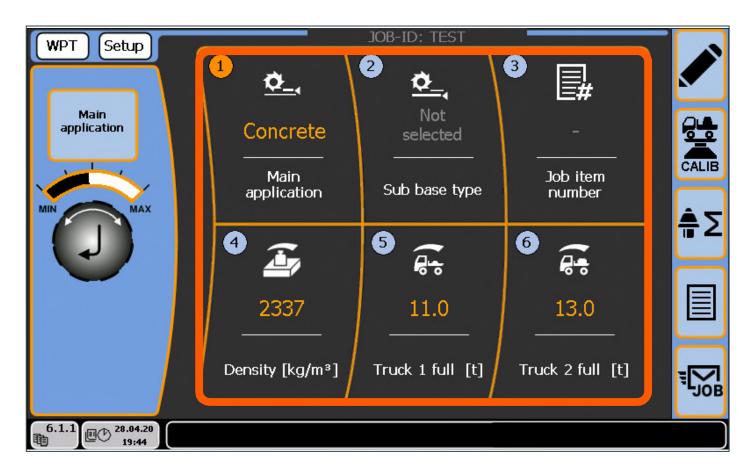


Select new to take over the calculated value of the density.

Press the button to take over the calculated value of the density. The density value is saved with the selected main application.



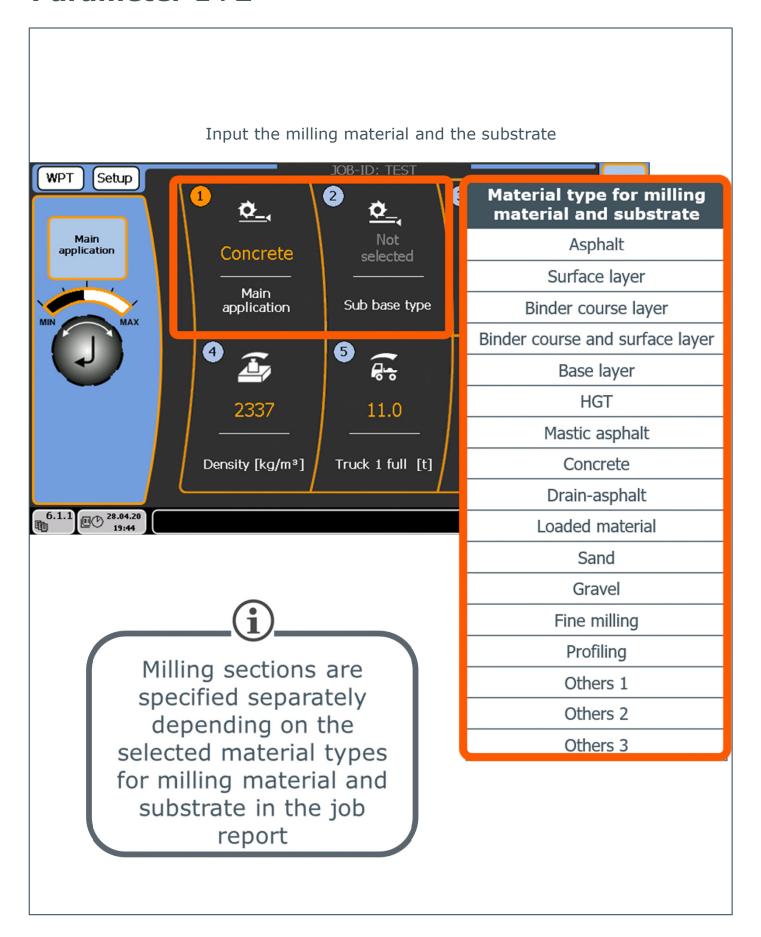
#### Menu selection WPT/6.1 WPT Setup/ Parameter 1-6



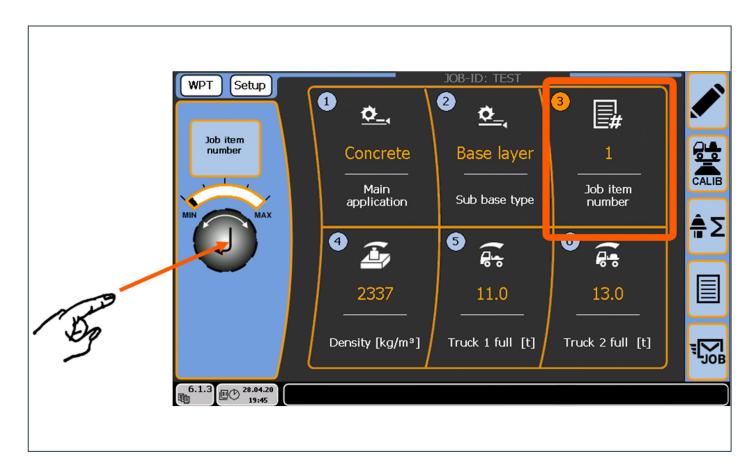
Parameter overview			
No.	Parameter	Unit	Description
1	Main application	-	Type of milling application
2	Sub base type	-	Type of substrate
3	Job item number	No.	Selection of the job item number
4	Density	kg/m³	Density of the milling material
5	Truck 1 full	t	Threshold 1 maximum truck load
6	Truck 2 full	t	Threshold 2 maximum truck load



#### Menu selection WPT/6.1 WPT Setup/ Parameter 1+2



#### Menu selection WPT/6.1 WPT Setup/ Parameter 3



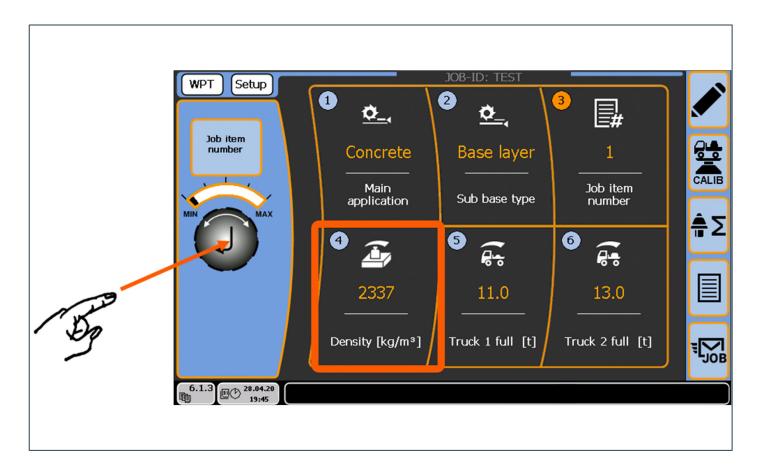
Selection of the job item number



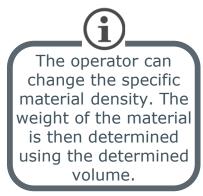
Individual possibility of the construction site sections to separate



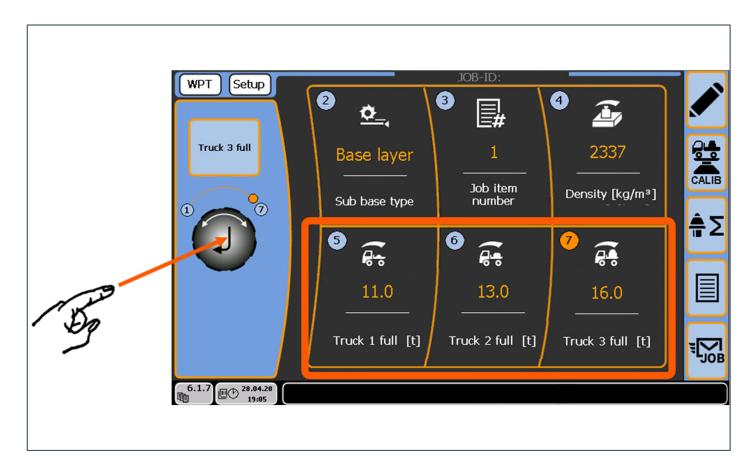
#### Menu selection WPT/6.1 WPT Setup/ Parameter 4



Specifying density specific to each material



#### Menu selection WPT/6.1 WPT Setup/ Parameter 5+6+7



Enter a warning threshold of loaded tons





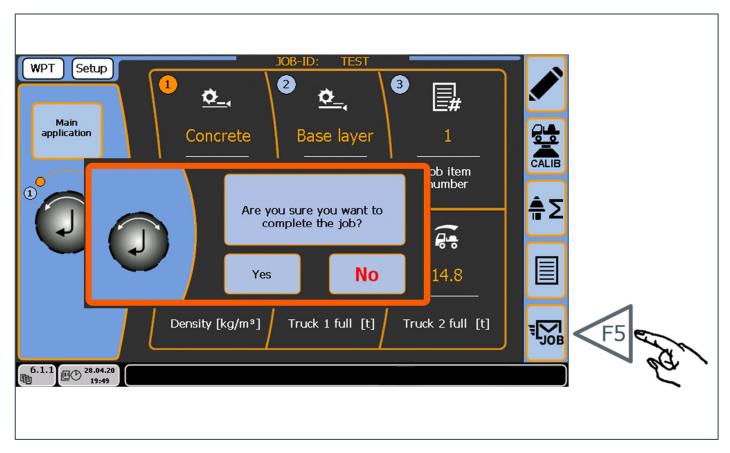


Manual completion and sending of a job

#### F5 Job - Reset:

- Completion of the current job by pressing the F5-key
  - > Zeroing of all job-specific parameters
  - > Start of evaluation and report generation





Manual completion and sending of a job

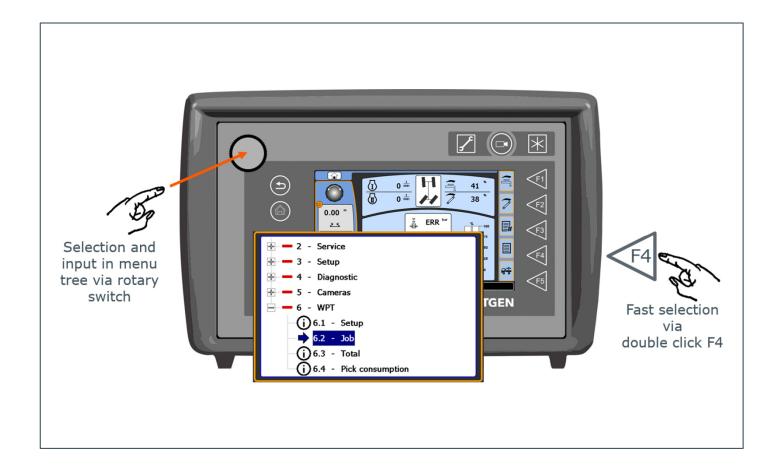
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  - Start of evaluation and report generation



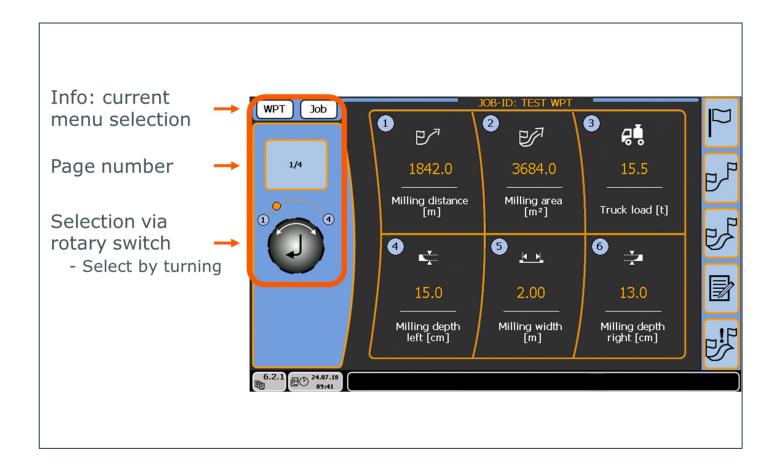


### Menu selection WPT/6.2 WPT job



Overview of current job data

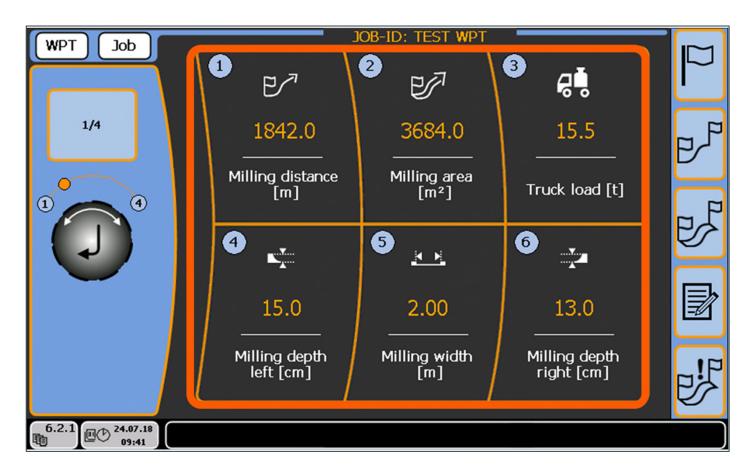
### Menu selection WPT/6.2 WPT job/Features



Optimized menu navigation



#### Menu selection WPT/6.2 WPT job/ Parameter 1-6



Parameter overview			
No.	Name	Unit	Description
1	Distance	m	Milling distance in current job
2	Area	m²	Milling area in current job
3	Load trucks	t	Current truck loading
4	Milling depth left	cm	Current milling depth left
5	Milling width	m	Current milling width
6	Milling depth right	cm	Current milling depth right

#### Menu selection WPT/6.2 WPT job/ Parameter 7-12



	Parameter overview			
No.	Name	Unit	Description	
7	Number of trucks	pcs	Number of trucks in current job	
8	Volume	m³	Milled volume in the current job	
9	Weight	t	Milled weight in the current job	
10	Counter marker	pcs	Number of set markers	
11	Difficulty	m	Marking of special track section	
12	Addition	m²	Marking of additional milled sections	

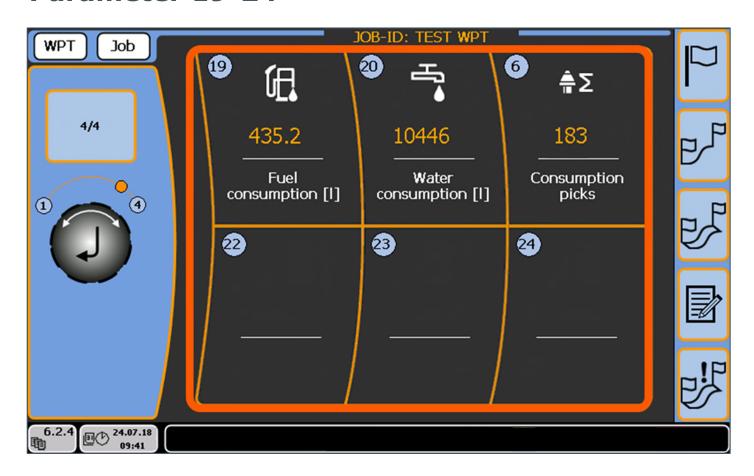


#### Menu selection WPT/6.2 WPT job/ Parameter 13-18



Parameter overview			
No.	Name	Unit	Description
13	Refinish	m²	Reworking of certain sections in current job
14	Start date	dd:mm:yyyy	Start of date in current job
15	Start time	hh:mm	Start of time in current job
16	Job duration	hh:mm	Duration of current job
17	Milling time	hh:mm	Duration of particular milling time
18	Idle time	hh:mm	Duration of machine downtime (no worktime)

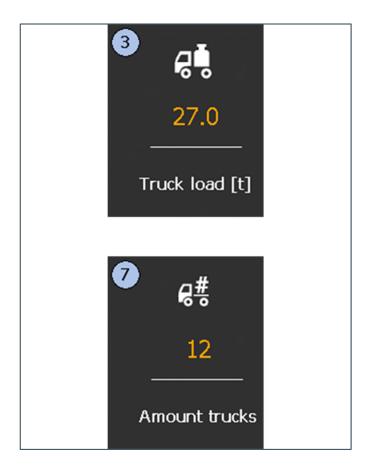
### Menu selection WPT/6.2 WPT job/ Parameter 19-24

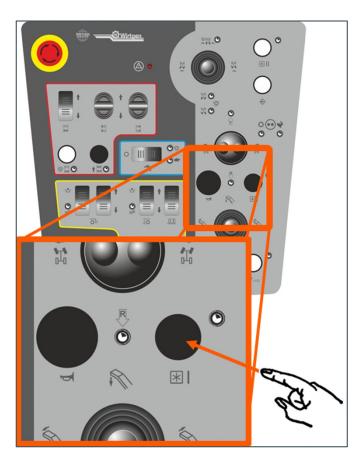


Parameter overview			
No.	Name	Unit	Description
19	Diesel consumption	L	Diesel consumption in the current job
20	Water consumption	L	Water consumption in the current job
21	Pick consumption	pcs	Number of picks consumed
22		-	
23		-	
24		-	



### Menu selection WPT/6.2 WPT job/Truck reset



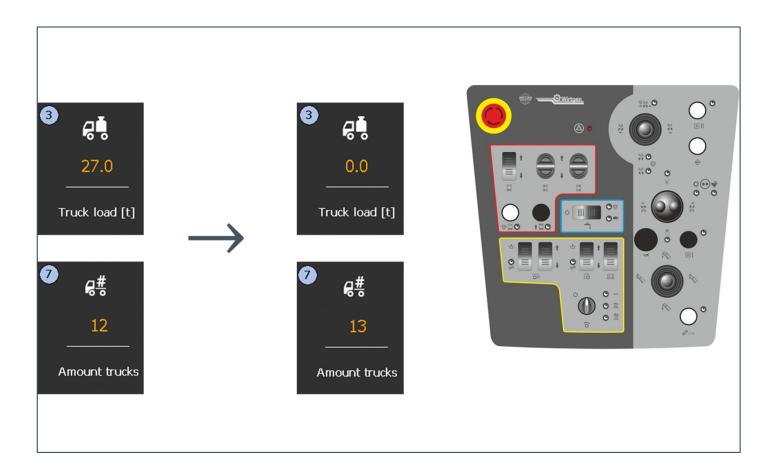


- Current truck load = 27 t
- Number of trucks = 6

Press 1..2..3s



### Menu selection WPT/6.2 WPT job/Truck reset



- Current truck load = 0
- Number of truck = +1



#### Menu selection WPT/6.2 WPT job/Features



Optimized handling of favorite buttons

F1: Marker

F2: Difficulty

F3: Addition

F4: WPT setup

F5: Rework

### Menu selection WPT/6.2 WPT job/Marker



Counter of special features using markers







### Menu selection WPT/6.2 WPT job/Marker



Counter of special features using markers





Marker inactive



Marker active (3s)

#### Menu selection WPT/6.2 WPT job/Difficulty



Marking of track sections of "Difficulty"







#### Menu selection WPT/6.2 WPT job/Difficulty



Marking of track sections of "Difficulty"

Peculiarities which marked with a difficulty, are listed separately in the job report



"Difficulty" inactive



"Difficulty" active

#### Menu selection WPT/6.2 WPT job/Addition



#### Marking of additions





Addition inactive



Addition active



## Menu selection WPT/6.2 WPT job/Addition



#### Marking of additions





Addition inactive



Addition active

#### Menu selection WPT/6.2 WPT job/Refinish



Start and stop additional/unplanned work





Refinish inactive



Refinish active



#### Menu selection WPT/6.2 WPT job/Refinish



Start and stop additional/unplanned work





Refinish inactive



Refinish active

### Menu selection WPT/6.2 WPT job/Job



Fast selection WPT job

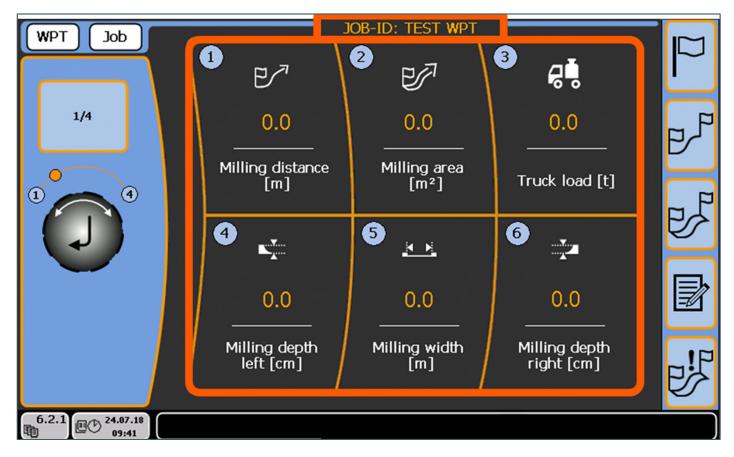




Job data



#### Menu selection WPT/6.2 WPT job/Functions

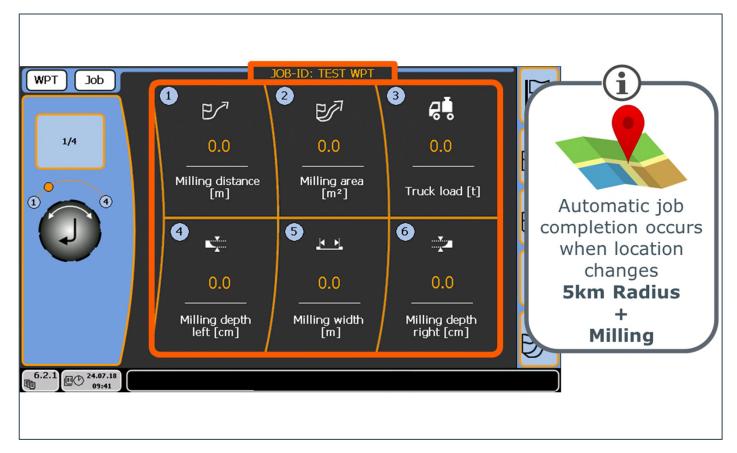


Manual completion and sending of a job

#### F5 Job - Reset:

- Completion of the current job by pressing the F5-key
  - Zeroing of all job-specific parameters
  - Start of evaluation and report generation
  - > Initialize a new job

#### Menu selection WPT/6.2 WPT job/ Setup functions



Manual completion and sending of a job

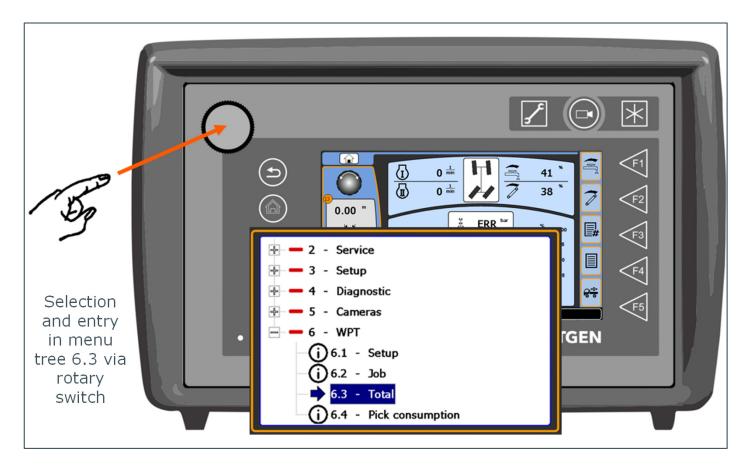
#### F5 Job - Reset:

- Completion of the current job by pressing the F5-key
  - Zeroing of all job-specific parameters
  - > Start of evaluation and report generation
  - > Initialize a new job





#### Menu selection WPT/6.3 WPT total



Overview of all job data

#### Menu selection WPT/6.3 WPT total/ Parameter 1-6



Parameter overview				
No.	Name	Unit	Description	
1	Distance	m	Total milling section of all previous jobs	
2	Area	m²	Total milling area of all previous jobs	
3	Volume	m³	Total milling volume of all previous jobs	
4	Weight	Т	Total weight (milling material) of all previous jobs	
5	Number of trucks	pcs	Total number of trucks	
6	Pick consumption	pcs	Total consumption picks	

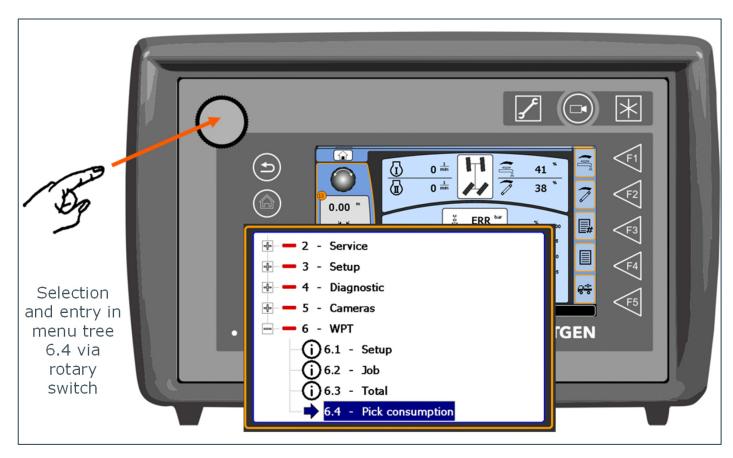


#### Menu selection WPT/6.3 WPT total/ Parameter 7-12



Parameter overview				
No.	Name	Unit	Description	
7	Job duration	h	Total duration of all jobs	
8	Milling time	h	Total milling time of all jobs	
9	Diesel consumption	L	Total consumption diesel	
10	Water consumption	L	Total consumption water	
11	-	-	-	
12	-	-	- -	

#### Menu selection WPT/6.4 Pick consumption



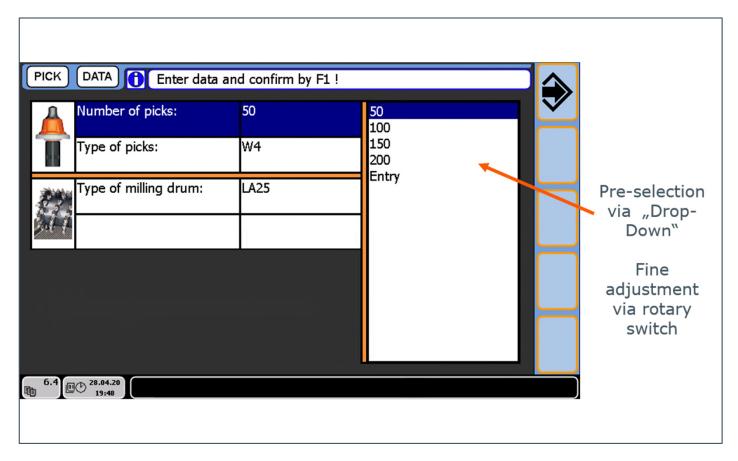
Entry of changed picks





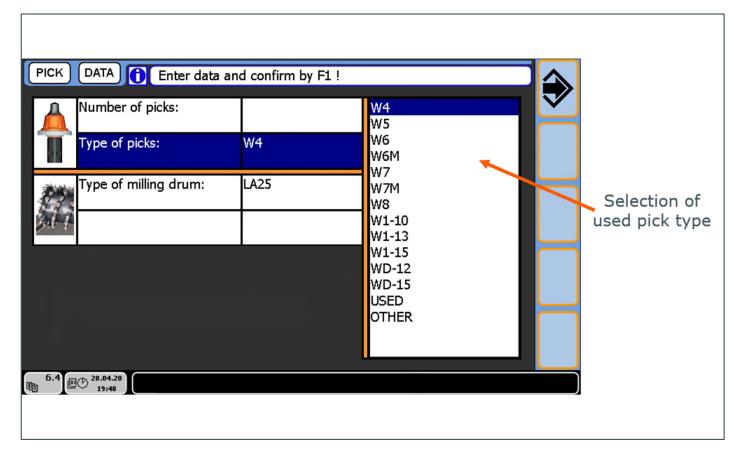


All the picks entered are indicated later in the job report

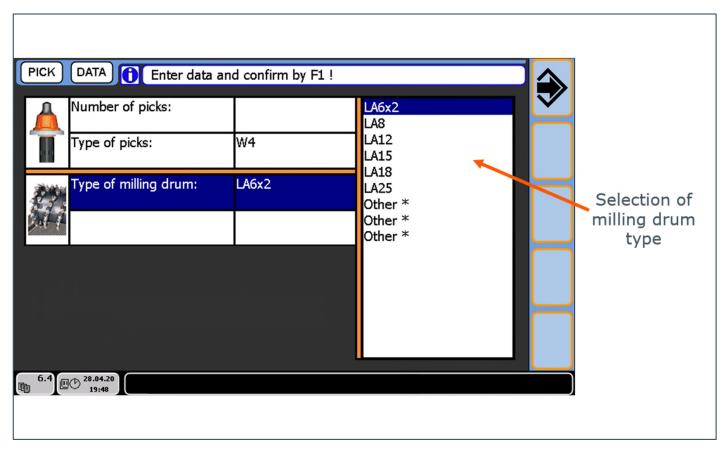


Entry of number of changed picks





Entry of pick type of choice

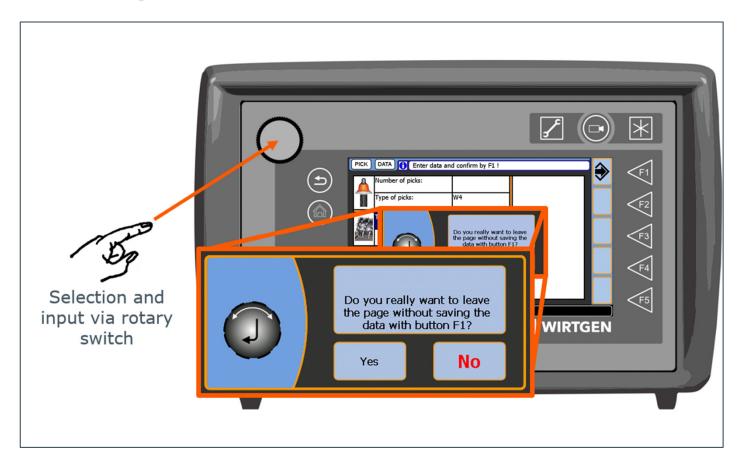


Entry of milling drum type of choice





Confirmation and saving of selected pick parameters



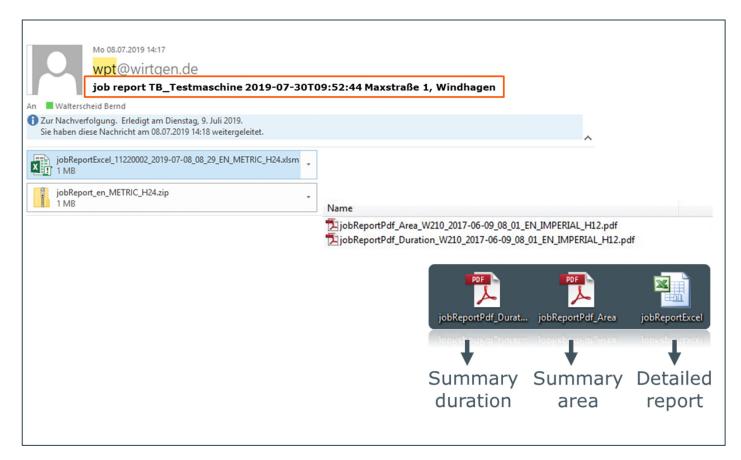
A finish without saving must be confirmed separately



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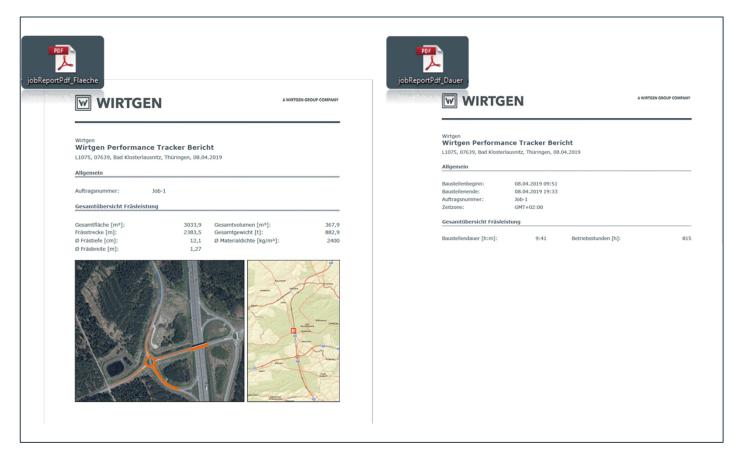
#### WPT job report/E-Mail, layout and functions



- Machine name, date, construction site start time, location and order number are displayed in the email title
- In addition to the detailed Excel job report, the email also contains a ZIP file with two PDF files, that contains a summary of area and time results



#### WPT job report/PDF, layout and functions



The two pdf-files contain a **summary** of the **job milling area** and **time duration** results

#### WPT Job report/PDF, layout and functions/ Excel, layout and function





In addition to the PDF files, the e-mail contains a detailed

**Excel Job-Report** 







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## Fault messages/WPT error messages



Display of warnings and error messages

## Fault messages/WPT error messages



Receipt of warnings and error messages

## Fault messages/WPT error messages

Failure No.	Possible warnings and error messages	Activities
621	WPT: Error laser scanner left WPT: Error laser scanner right	WPT is inaccurate! Hand measurement required! Restart, switch ignition off / on Check the LED status on the laser scanner and switch For further diagnosis, see manual instruction Wirtgen Service!
	WPT: GPS sensor error	WPT is inaccurate! Hand measurement required! Restart, switch ignition off / on Check the LED status on the GPS sensor For further diagnosis, see manual instruction Wirtgen Service!
	WPT: Laser scanner left is contaminated WPT: Laser scanner right is contaminated	WPT will be inaccurate! Clean at the next stop! (truck change)
913	WPT: Overall system fault	WPT out of order! Hand measurement required! Switch off ignition for 2 minutes (restart) Check LED status of telematics and switch For further diagnosis, see manual instruction Wirtgen Service!
914	WPT: Automatic job completion failure	No GPS position available! The job cannot be ended automatically! Finish job manually if necessary!





#### Fault messages/WPT error messages/ GPS sensor error





Smart 6 GNSS Receiver

Smart 2 GNSS Receiver



#### The red LED lights up

The power supply is switched on



#### The yellow LED lights up

The GNSS receiver is looking for available satellites to determine ist position.

Check that there is a sufficient line of sight to the sky without obstruction by buildings, trees or canopies.

#### The yellow LED lights up

The satellite receiption is sufficient.



#### The green LED flashes

The GNSS receiver calculates the current position.

#### The green LED lights up

The GNSS receiver is ready for operation.

The Smart 6 receiver has three different colored status LEDs.

The Smart 2 receiver has one LED that displays the status in three different colors.

### Fault messages/WPT-Help



To get to the FAQ's follow the setup menu to the point 3.12.3 WPT-Help



## Fault messages/WPT-Help



Scan the QR-Code with a mobile device



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#### Cleaning advice/Laser scanner



- Regular inspection of the scanner (1-2 days)
- Cleaning according to the degree of dirtiness
- 1) Open the housing cover
- 2) Moisture cleaning of scanner covers (damp cloth...)
- No direct cleaning by water jet and/or high-pressure cleaner





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#### **Best Practices/Operator/Before first cut**

- Cleaning of Scanners
- Enter <u>JOB-ID</u> **important!** If the ignition is turned off before the first cut is made the job id will be lost.
- Select job-Item number (optional)
- If cutting materials other than asphalt: adjust main application (the main application also changes the material density for more accurate truck load values)
- Cutting multiple layers: adjust main application accordingly, e.g. "top layer", "binder layer", "base layer"
- Adjust the LevelPro-Actual Values accordingly to compensate for pick wear (i.e. when LevelPro set-value is 2", your real cutting depth is 2", accuracy of WPT directly depends on LevelPro-Values)

#### **Best Practices/Operator/While cutting**

- Use LevelPro in automatic mode whenever possible
- Use side plates or scanner in front of the cutter whenever possible
- Pick wear can influence the accuracy of the WPT system. Cutting with a -0.1 or 0.1 will give a different reading for the calculation. Repeat calibration / adjustment of LevelPro.
- When loading material: Use truck counter to reset truck loads and count trucks
- Select/change job-Item number (optional and if applicable)
- If cutting materials other than asphalt: adjust main application (default value for material density will be adjusted automatically)
- Cutting multiple layers: adjust main application accordingly, e.g. "top layer", "binder layer", "base layer"
- Cleaning and loading of pre-cut material: adjust main application to "refinish": area will not be added to total area and length.



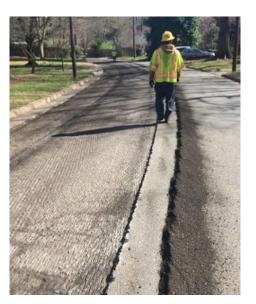


#### **Best Practices/Operator/Cutting Edges**

Cutting edges must be clearly visible









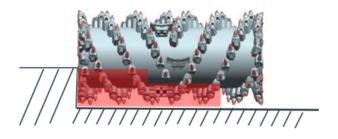




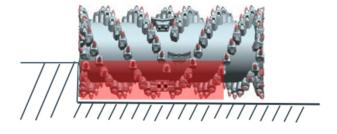
# **Best Practices/Operator/Cutting Edge** conditions

Avoid as much as possible cutting multiple edges













# **Best Practices/Office – Initial Setup of WPT- Recipient**

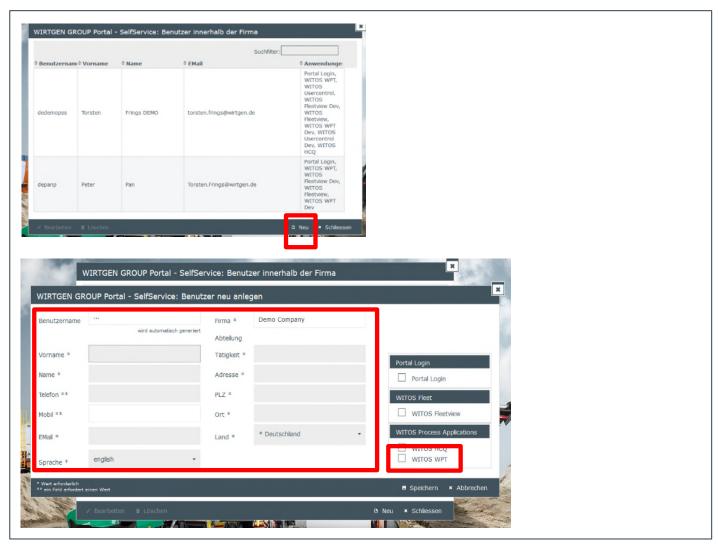
Create a separate e-mail account for your WPT-reports, e.g. <a href="mailto:wpt-reports@your-organization.com">wpt-reports@your-organization.com</a>

(recommended in order not to overload existing e-mail accounts with the reports)

■ Create separate WITOS WPT user for your WPT-reports in WITOS (ask your company admin)



# Best Practices/Office - Creating a WPT report recipient in the Wirtgen Group portal - SelfService (new WITOS user)

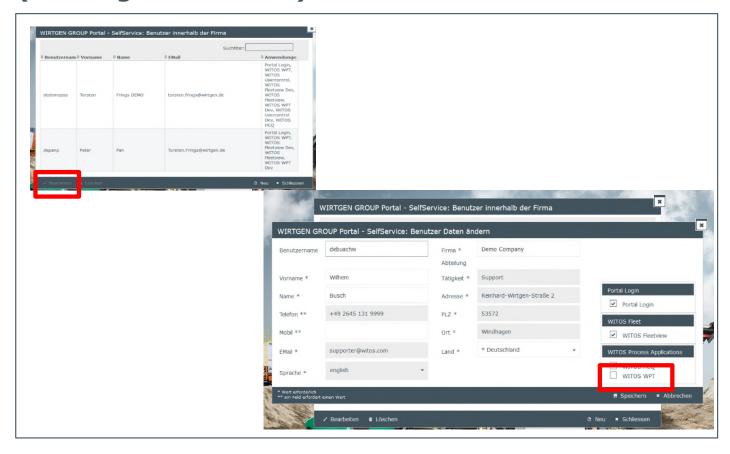


- Select the button "New" (Neu) in SelfService
- Fill in mandatory fields with user data and set the email address for receiving the report accordingly e.g. wpt@your-organization.de
- Set authorisation (check) for WITOS WPT
- For further information see also the manual SelfService (available via WITOS Support)





# Best Practices/Office - Creating a WPT report recipient in the Wirtgen Group portal - SelfService (existing WITOS user)



- Select the "Edit" (Bearbeiten) button in SelfService
- Set e-mail address for report receipt accordingly e.g. <a href="mailto:wpt@your-organization.de">wpt@your-organization.de</a>
- Set authorisation (check) for WITOS WPT
- For further information see also the manual SelfService (available via WITOS Support)

# **Best Practices/Office – Configuration of WITOS-WPT-User in WITOS User Control**

set the role Milling PM to "read" > set email-address accordingly, > e.g. wpt-reports@your-organization.com set the time format accordingly > set the units system accordingly > set the Language accordingly > Benutzername Vollständiger Name 31.12.2030 24 Std. 12 Std. (AM/PM Gültig bis Zeit-Anzeige TT.MM.JJJJ Sprache Datum-Format Metrisch Imperial Einheitensystem Debitor 0004049679 Wirtgen GmbH Händler Niederlassung Rolle Milling PM read role for MIL PM -

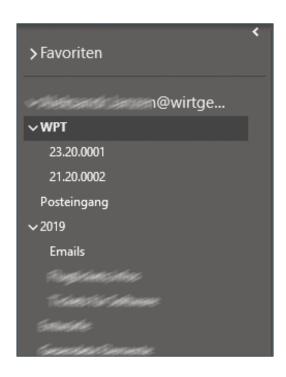
If the WPT user has also enabled WITOS Fleet View, these settings can also be made directly in the corresponding WITOS menu





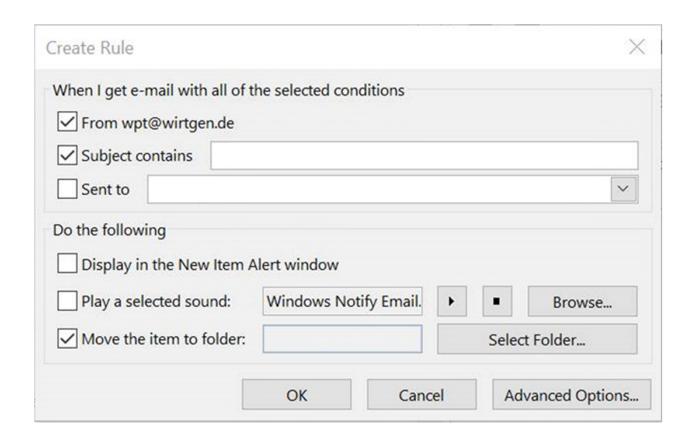
# **Best Practices/Office – Initial Setup of E-mail Client**

- Create separate folder for your WPT-reports in your e-mail client
- Create separate subfolders for each WPT-machine within the WPT folder, e.g. outlook



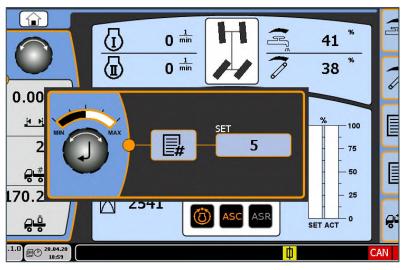
# **Best Practices/Office – Initial Setup of E-mail Client**

Define rules to automatically sort incoming WPT-emails into the corresponding machine subfolder. One rule for each machine.



#### **Best Practices/Office – prior to job start**

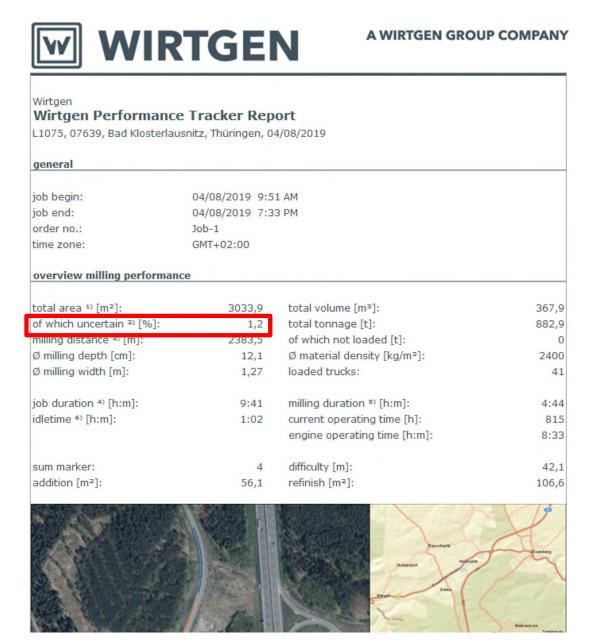




- Provide job-ID, project number or other adequate identifier for job to operator (this information can be entered on the machine and will show up in the e-mails subject line)
- Provide job-item list to operator (the job item can be selected at machine operator interface and will show up in the WPT-Excel report)

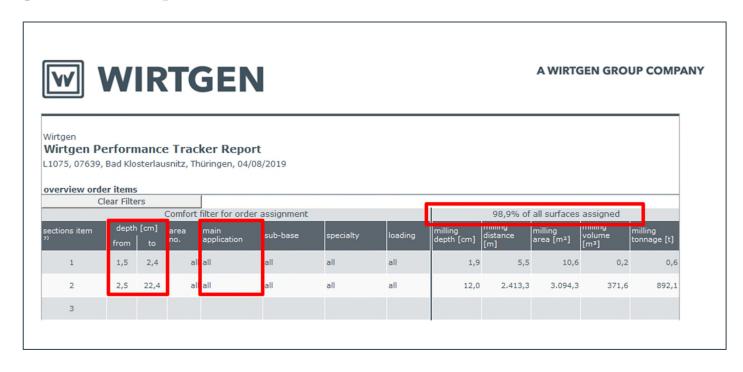
# **Best Practices/Office – process reports (after job finish)**

Check value for uncertain area (sheet overview, see below): values > 5% may indicate more inaccurate WPT-measurements. Check milling depth or if in doubt ask operator.





# **Best Practices/Office – process reports (after job finish)**



- Open Excel-Report (sheet order items) and assign job area to job (section) items by using the depth filter or the main application filter
- ▶ Check the overall percentage of assigned surfaces
- Save the Excel-File on your file system

This training document is not a substitute for technical documentation (instruction manual, safety instruction and spare parts catalogue). It is not subject of the technical modification service. All technical instructions for description, operation, maintenance, etc. are taken by the instruction

manual, the safety manual or the spare parts list.

#### **Publisher**

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