



Instruction Manual

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ROWE ecoPrint

Large Format Printer

ROTH + WEBER GmbH
Betzdorfer Straße
D-57520 Niederdreisbach



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Document history

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List of abbreviations

Table 1: List of abbreviations

Abbreviation	Explanation
approx.	approximately
CAD	computer-aided design
CSA	Canadian Standards Association
DIN	German Standards Institute
EN	European standard
HTTPS	HyperText Transfer Protocol Secure
IEC	International Electrotechnical Commission
IECEE	IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components
ISO	International Organization for Standardization
LED	Light-emitting diode
LpA	A-weighted sound pressure level
n.a.	Not applicable
UL	Underwriters Laboratories
USB	Universal Serial Bus
VPN	Virtual Private Network
e.g.	For example



1 Introduction

1.1 Important information regarding this instruction manual

This instruction manual applies to the ROWE ecoPrint type Large Format Printer.

For simplification throughout the rest of this instruction manual, the term "Printer" will be used instead of the full phrase "Large Format Printer" and "ROWE" will be used instead of the full company name "ROTH + WEBER GmbH".

As the printer operator, the instruction manual will provide you with the information needed for the safe and efficient use of the printer.

Read this instruction manual carefully. Understanding this instruction manual is the prerequisite for proper use of the printer. Follow all directions and information provided, and comply fully with the safety information. Learn the instruction manual in full; do not rely on spotty information from a few chapters.

This instruction manual references other documents. Follow the content in these documents.

Some of the illustrations in this manual are for the purpose of technical clarification. The colors displayed may differ from the original colors.

Keep this manual with the printer so that it is always accessible.

If the instruction manual was provided in digital format, there is a need within your organization for a printed copy, and such a procedure is not a copyright infringement, make sure to print the hardcopy in color; some information is represented in color throughout the entire content of the manual.

1.2 Liability

Refer to the ROWE contractual terms for information regarding liability. The manufacturer will not be held liable for delays and damages resulting from a failure to comply with the instruction manual.

1.3 Warranty

Refer to the warranty information in the ROWE general terms and conditions, or in the specific contractual terms.



2 Safety information

The printer was designed and manufactured according to the state of the art and recognized rules of safety. For the safe use of the printer, read this instruction manual carefully and follow the information it contains. In addition, proper use of this instruction manual will enable you to benefit from the full range of features provided by this printer and avoid unnecessary problems.

A thorough understanding of the safety information and regulations is the basic prerequisite for safe and problem-free operation of the printer.

Therefore, read this section carefully before beginning any work with the printer. In addition, follow all safety information and warnings contained within the text in the following chapters. The manufacture is not liable for any failure to comply with the directions and warnings.

In addition to the directions in this instruction manual, follow all legal ordinances, in particular safety and accident prevention regulations.

2.1 Symbols in this instruction manual

The following symbols and color backgrounds appear in this instruction manual and the printer. Please pay attention to them. The following explains the meaning and appearance of the symbols used.

2.1.1 Information



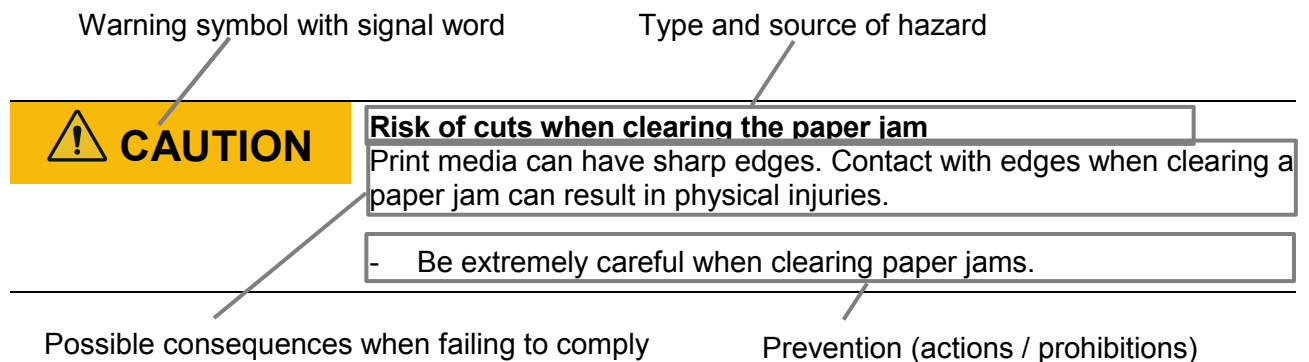
This symbol indicates useful recommendations, explanations, and additional information on handling the printer.



This symbol references a chapter in this instruction manual or other external documents / information.

2.1.2 Warnings

2.1.2.1 Warning configuration



Warning configuration



DANGER

DANGER

Indicates a dangerous situation. Failure to follow the safety information associated with this warning makes an accident resulting in death or serious injury highly likely.



WARNING

WARNING

Indicates a dangerous situation. Failure to follow the safety information associated with this warning could result in an accident resulting in death or serious injury.



CAUTION

CAUTION

Indicates a dangerous situation. Failure to follow the safety information associated with this warning could result in an accident. There is a risk of injury; however, death or serious injury is not possible.

NOTICE

NOTICE

Indicates a situation that could result in property damage. Failure to follow the safety information associated with this warning could result in an property damage. This signal word is not combined with a warning symbol.

2.1.2.2 Warning symbols

Warning symbols identify hazardous situations.



Hazard location warning

This warning symbol indicates a hazardous location for which there is no standardized pictogram. If the hazard is not immediately apparent, an additional sign with an explanation is added.



Electric shock warning

This symbol warns of hazardous locations due to voltage. The warning symbol is installed on electrical cabinets for example.



Burn warning





This symbol warns of hot surfaces. The warning symbol is installed on drives for example.

2.1.2.3 Labels

The following warnings are attached to the printer.





Warning label at position:

- Back cover

	 DANGER	 DANGER	 PELIGRO
	Risk of electric shock The contact with live parts may cause fatal injuries. Before removing the cover: - Switch off the printer. - Disconnect the plug.	Risque de décharge électrique Le contact avec des composants sous tension peut entraîner des blessures mortelles. Avant de déposer le couvercle: - Mettre l'imprimante hors tension. - Débrancher la prise.	Riesgo de descargas eléctricas El contacto con las partes con corriente puede causar lesiones fatales. Antes de retirar la tapa: - Apague la impresora. - Desconecte el enchufe.

Warning label at positions:

- Fuser cover
- Rear flap
- Fusing roller cover plate (*behind the waste toner cover)
- Toner unit engine cover plate (*behind the maintenance cover)

	 WARNING	 AVERTISSEMENT	 ADVERTENCIA
	Burn hazard Hot surfaces The contact with hot surfaces may cause considerable burns. Before removing the cover: - Switch off the printer. - Allow the printer to cool for 1 h.	Risque de brûlures Surfaces chaudes Le contact avec des surfaces chaudes peut entraîner des brûlures graves. Avant de déposer e couvercle: - Mettre l'imprimante hors tension. - Laisser l'imprimante refroidir pendant 1 heure.	Peligro de quemaduras Superficies calientes El contacto con las superficies calientes puede causar quemaduras graves. Antes de retirar la tapa: - Apague la impresora. - Deje enfriar la impresora durante 1 h.



2.2 Basic safety instructions



The basic safety instructions are the prerequisite for safety-oriented use of the printer. Use the basic safety instructions to provide safety training for your staff. By providing training on the basic safety instructions, you promote safer behavior by your staff, in turn enabling you to transfer responsibilities to them.

Intended use

Disregarding the intended use can result in significant property damage and personal injury.

- Use the printer exclusively as specified in section 3.2, "Intended use".
-

Qualified and trained personnel

Activities performed on the printer by unqualified, untrained staff can result in significant property damage and personal injury.

- Only qualified and trained personnel may perform activities on the printer.
-

Changes to the printer

The manufacturer's product liability applies exclusively to the original printer. Changes to the printer lead to new risks never assessed by the manufacturer. New risks can result in significant property damage and personal injury.

- Do not make any changes to the printer without the manufacturer's consent.
 - Do not manipulate the printer components.
-

Work areas

Messy areas represent an increased accident and injury risk for personnel.

- Always keep your work area and the area around the printer clean.
-



Mandatory reporting of printer abnormalities

Determining abnormalities with the printer but failing to report them immediately to the responsible department can result in significant property damage and personal injury.

- Always report abnormalities with the printer immediately to the appropriate department.
-

Entanglement hazard due to clothing, hair, and jewelry

Untied long hair, loose clothing, and jewelry could be drawn into the printer during printing. This entanglement can result in significant personal injury.

- Keep the entanglement hazard in mind when printing.
 - During printing, keep untied hair, loose clothing, and jewelry away from the printer's manual paper feed.
-

Removing parts secured with screws

Removing parts secured with screws (such as covers) can result in significant property damage and personal injury.

- Do not loosen screws.
 - Do not remove parts secured with screws.
-

Ventilation slots

Inserting objects through the ventilation slots into the printer can result in touching parts under voltage, short circuits, or fire.

- Do not insert any objects through the printer ventilation slots.
-

Service appointments

Failing to keep service appointments can result in significant property damage. ROWE will not be held liable for damages caused by missed service appointments.

- Make sure to keep all service appointments.
-



Power connection

Improperly connecting the printer to line power can result in significant property damage and personal injury.

- Operate the printer using the power values specified on the rating plate.
- Connect the printer to a grounded socket.
- Do not use extension cords, adapter plugs, or similar components when connecting to the power supply.
- Never grab the power cable with wet hands.
- Never place or lay objects on the power cable.
- Always keep the plug connection free of dust.
- Always use the power cable delivered with the printer.
- Do not damage or modify the power cable.
- Never use a damaged power cable. If the power cable is damaged, replace it with an original power cable, which you can purchase from your ROWE sales partner.
- When disconnecting the power cable, always pull the plug out of the socket. Do not pull on the power cable.
- Switch off the printer and disconnect the power plug if you will not be using the printer for more than 2 days.

Shutdown during unusual incidents

Failing to shut down the printer during unusual incidents can result in significant property damage.

- Turn off the printer, and disconnect the power plug from the socket, in the following cases:
 - If smoke is coming out of the printer or an unusual odor is detected.
 - If the printer is making unusual noises not heard during normal operation.
 - If metal items or liquids (except when used for regular cleaning and maintenance) get into the printer.
 - During a thunderstorm.
 - During a power failure
 - If the power cable or plug is damaged.
 - If the printer is not functioning normally.



2.3 Operator responsibilities

2.3.1 Safety regulations

The operator is required:

- to operate the printer properly, according to this manual, to prevent injuries and property damage to the printer. Do not operate the printer based on conjecture. The operator has to provide the instruction manual. Always refer to the instruction manual if there is any doubt when performing a procedure.
- to comply with all laws and regulations in their most current version regarding safe operation when setting up the printer.
- to provide lighting that complies with current laws.
- to provide a proper power connection (section 5.2).
- the stability (bearing load) of the floor at the installation site and along the transport routes under his responsibility has to be checked.

2.4 Instruction and training

Instruct your staff carefully. Inform your staff about laws and accident prevention regulations, and on the content of the instruction manual. Make sure your staff understand and follow this information.

Check staff on a regular basis to ensure they are aware of safety and the hazards associated in their work.

- Set a fixed program for providing employee training. Legal ordinances require training at least once per year, twice per year if you employ minors. Training should also be a part of initial orientation before starting work (e.g., for new hires, transfers, etc.).
- After vacation and other work breaks, instruction and training can ensure a safe resumption of activities.
- Document the content of training.
- Have participants confirm that they understand the training content.
- Keep these documents.

Section 2.4.1, "Sample form" contains an example of training subjects and a form for confirming instruction.



2.4.1 Sample training form

Training topics for employees			Large Format Printer
Example of topics to be covered:			
Safety			
Basic statutory provisions			
Accident prevention regulations			
Basic safety instructions			
Specialized safety instructions for operating the printer			
Safety guards on the printer			
Emergency measures			
Operating the printer			
New printer operator experiences since the last round of instruction			
New experiences with regard to input materials and aids since the last round of instruction			
Experiences with the printer			
Training confirmation			
No.	Last name	First name	Signature
1			
2			
3			
4			
5			
6			
Date		Training director	
Signature of training director			



3 Printer description

3.1.1 Summary

The printer is used for printing large format media. Roll goods are the standard medium for the printing process. The machine can typically be equipped with up to 6 rolls. Alternatively, the medium can be fed in manually as single sheets.

During the printing process, the medium passes through the following machine components:

- Medium feed
- Toner / developing unit
- Processing unit
- Fusing unit

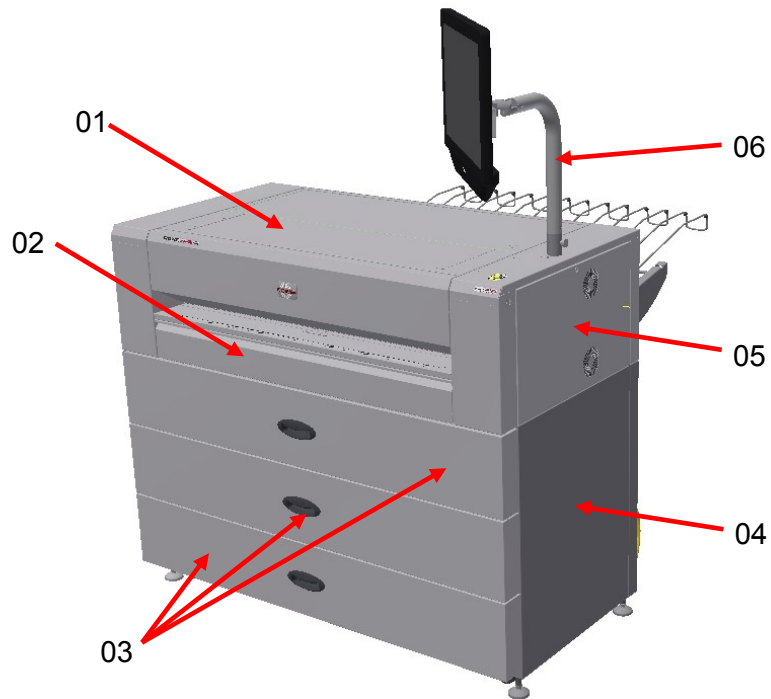
Finally, the printed medium is conveyed out of the machine (to the back as standard, or upward as an option using the factory-installed front delivery tray).

The machine is manufactured in the following basic versions :

Table 2: Basic versions

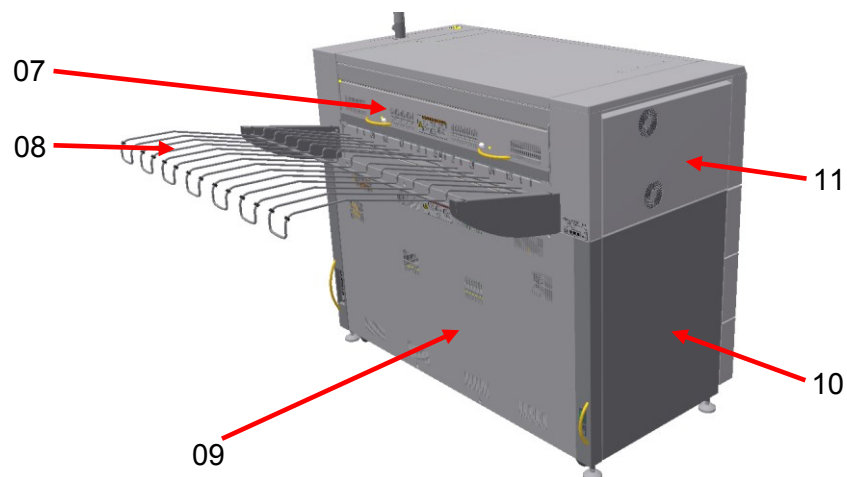
Type	Print speed	Number of rolls	Maximum number of rolls
ROWE ecoPrint i4	2.62 ips	2	3
ROWE ecoPrint i6	3.93 ips	2	4
ROWE ecoPrint i8	5.24 ips	4	4
ROWE ecoPrint i10	6.56 ips	4	4
ROWE ecoPrint i8L	5.24 ips	6	6
ROWE ecoPrint i10L	6.56 ips	6	6

3.1.2 Components



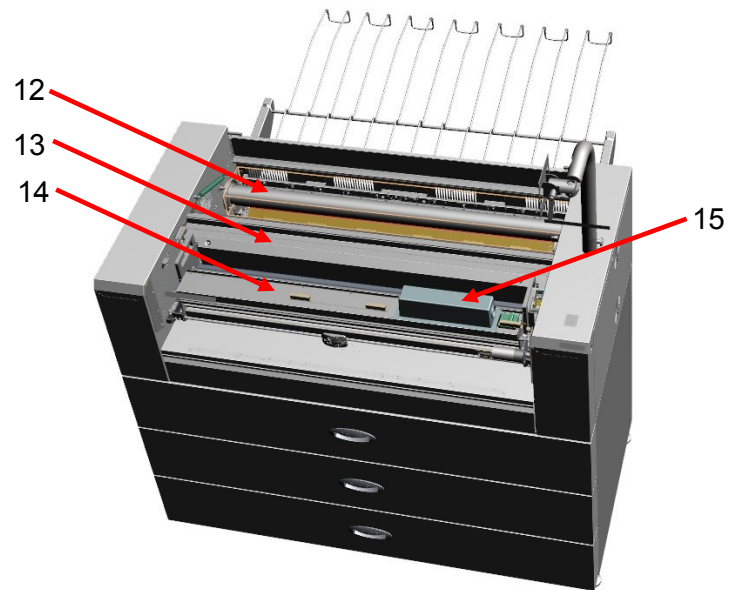
Front view

No.	Name	No.	Name
01	Top cover	04	Right side cover
02	Front cover	05	Maintenance cover
03	Drawers	06	Monitor holder



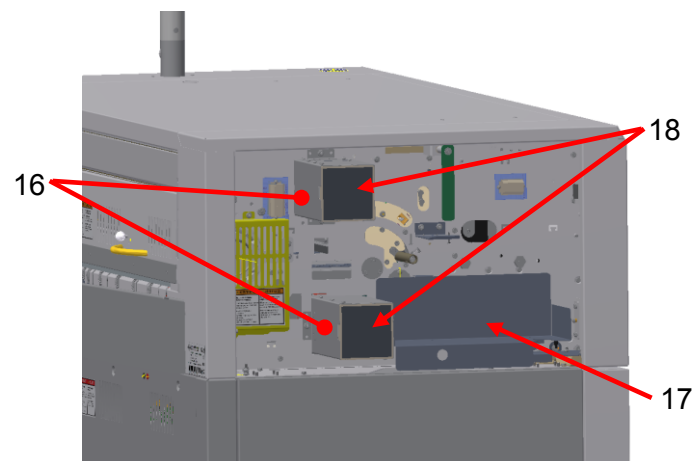
Back view

No.	Name	No.	Name
07	Rear cover	10	Left side cover
08	Rear delivery tray	11	Waste toner cover
09	Back cover	---	---



Top cover open

No.	Name	No.	Name
12	Fusing unit	14	Toner unit
13	Processing unit	15	Toner cartridge



Waste toner cover open

No.	Name	No.	Name
16	Fan	18	Ozone filter
17	Waste toner container	---	--



3.2 Intended use

The machine is used for printing large format media.

Only the media types and basis weights listed in the following table may be used in the machine:

Table 3: Media types permitted

Media type	Basis weight	Designation in the USA	Basis weight
Paper	60 g	Bond	16 lb
Paper	64 g	Bond	17 lb
Paper*	75 g	Bond	20 lb
Paper*	80 g	Bond	20 lb
Paper*	90 g	Bond	24 lb
Paper*	100 g	Bond	27 lb
Paper*	110 g	Bond	29 lb
Recycled Paper	80 g	Recycled Bond	20 lb
Transparent*	75 g	Transparent	20 lb
Transparent*	90 g	Transparent	24 lb
Transparent*	110 g	Transparent	29 lb
Film, Polyester	88 µm / 3.5 mil	Film, Polyester	88 µm / 3.5 mil
Film, Polyester	100 µm / 4 mil	Film, Polyester	100 µm / 4 mil
Vellum	75 g	Vellum	20 lb

The media types marked with * may be output on the ROWE front delivery tray.

Only the rolls listed in the following table may be used in the machine:

Table 4: Permissible roll parameters

	Minimum	Maximum
Roll width	279 mm / 11 inches	914 mm / 36 inches
Roll length	n.a.	175 m / 568 ft.

The maximum print length for manual feed is 200 m / 650 ft.

Uses that deviate from the intended use are considered misuse.



3.3 Reasonably foreseeable misuse

"Reasonably foreseeable misuse" refers to use of the printer in a manner not intended in the instruction manual, but that can result from easily foreseeable human behavior.

Reasonably foreseeable misuse:

- Employees may use media and rolls that differ from those specified in the "Intended use" section.
- The media used may not have the required properties (e.g., moisture, temperatures).
- Incorrect operating parameters can be set.
- Entries from the control area could result in conflicts with those on the printer.
- Employees can manipulate safety guards
- Employees can remove separating safety guards and operate the printer and its components.
- Staff can use consumable and wear and tear materials (e.g., toner cartridges and waste toner containers) that have not been released for use by the manufacturer.
- Unauthorized personnel can perform repair / maintenance activities.
- Employees can use non-original ROWE parts for repair / maintenance activities.
- Personnel can combine the machine with unsuitable third-party devices.
- Service appointments can be missed.

The items here are only a few examples of reasonably foreseeable misuse, and are not intended to represent a complete list. This list is based on the manufacturer's experience.



3.4 Qualifications required for using the printer



Personal injuries and property damage caused by unauthorized persons

Activities performed by unauthorized persons can result in significant property damage and personal injury.

- The following activities may only be performed by the manufacturer or an authorized factory representative:
 - Transport
 - Set-up
 - Installation
 - Connection
 - Start-up
 - Troubleshooting and error correction, unless permitted in section 4.8
 - Maintenance
 - Cleaning
 - Repairs
 - Decommissioning
 - Disassembly

Only use personnel who, through professional education, experience, and instruction have sufficient knowledge regarding:

- Safety regulations
- Accident prevention regulations
- Guidelines and recognized rules of technology (e.g., national standards)

The personnel deployed in this area should be restricted to persons who can be expected to perform their jobs in a reliable manner. Persons whose reactions may be impaired by drugs, alcohol, or medications, are not permitted.



The following target groups and qualifications have been defined in various areas for activities in and on the printer:

Table 5: Target groups

User groups	Task	Qualification	Associated documents
Professional staff level A	Transport, assembly, installation, start-up, retrofits, troubleshooting and error correction, cleaning, maintenance, decommissioning, disassembly, instructing operating personnel	ROWE employees	Transport instructions Service manual
Professional staff level B	Transport, assembly, installation, start-up, retrofits, troubleshooting and error correction, cleaning, maintenance, decommissioning, disassembly, instructing operating personnel	Authorized by ROWE	Transport instructions Service manual
Operating personnel (refer to section 3.4.1 for further information on operating personnel)	Operation (including removing jams, replacing rollers, toner cartridges, and waste toner containers)	Instructed by professional staff of the tasks being conveyed and the potential hazards of improper behavior.	Instruction manual
Children (aged 14 and younger)	not permitted		
Elderly (no longer able to work)	not permitted		

3.4.1 Operating personnel with disabilities

ROWE took special care to include operating personnel with disabilities when developing the printer. However, using operating personnel with disabilities requires careful, individualized consideration by the operator with respect to the person and workplace. The set of rules for places of work and social legislation valid for the installation site will provide detailed regulations.



4 Operation

4.1 Safety information

Printer in operationally reliable state

Operating the printer when it is not in an operationally reliable state can result in significant property damage and personal injury.

- Do not use the printer unless it is in an operationally reliable state.

4.2 Activities and qualifications

Table 6: Operation - activities and qualifications

Activity	Qualification
Operation	Operating personnel
Replacing toner cartridges	Operating personnel
Replacing the waste toner container	Operating personnel
Clearing paper jams	Operating personnel
Coordinating daily activities	Operating personnel (authorized by the operator)

4.3 Switching on and off

NOTICE

Material damage due to unreliable line voltage

Supplying the printer with unreliable line voltage can result in significant material damage.

- Only operate the printer using the line power specified on the rating plate.

4.3.1 Switch on

The main switch is located on the back of the printer. Turn on the printer by pressing the main switch. The internal controller starts automatically.

<div data-bbox="250 450 475 703"></div> <div data-bbox="284 710 445 770">On/Off switch Position "I"</div>	<div data-bbox="560 441 1091 474">1. Turn the On/Off switch to position "I".</div> <div data-bbox="608 508 896 542">The switch illuminates</div>
<div data-bbox="250 788 475 1093"></div> <div data-bbox="250 1099 480 1160">Operation LED and On/Off button</div>	<div data-bbox="608 779 1332 813">The blue operation LED in the control panel illuminates.</div>

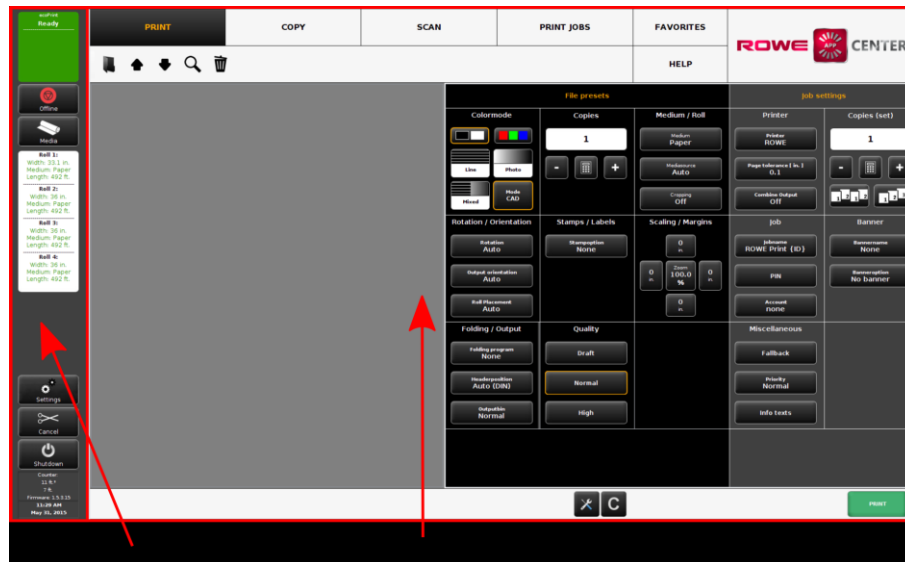
After switching on the system the start screen appears on the monitor.



Start screen



The ROWE PRINT APP starts automatically. Print processes can be started immediately (section 4.6). The left area of the screen contains the ROWE COCKPIT APP, providing information at all times on the printer status (section 4.4).



4.3.2 Shutdown

NOTICE

Material damage due to shutdown during print job in progress

Shutting down during a print job in progress can lead to a loss of data and operating system errors.

- Before shutting down, ensure that there are no print jobs in progress.

On/Off button



Operation LED

1. Press the On/Off button on the keypad for approx. 2 seconds.

The controller is shut down. The rollers rewind. The printer will not accept any additional print jobs.

i Pressing the on/off switch without shutting down first can lead to a loss of data and operating system errors.

2. Wait until the blue operation LED flashes.

i The blue operation LED begins to flash after approx. 1 minute.



On/Off button

3. To perform an immediate restart, press the green On/Off button.



On/Off switch
Position "0"

Notice

Shutting down the printer during a print job in progress can lead to a loss of data and operating system errors. Before shutting down the printer, make sure there are no print jobs in progress.

4. After the blue operation LED flashes, turn the On/Off switch to position "0".

i You must wait approx. 5 seconds after shutting down before restarting the printer.

4.4 The ROWE COCKPIT APP

The ROWE COCKPIT APP appears on the touchscreen in the left screen area. The ROWE COCKPIT APP is the central control element. The ROWE COCKPIT APP displays the most important printer and media status information. You can also access important printer functions directly.

The following status information is displayed in the ROWE COCKPIT APP:

- Current print status
- Current roll allocation: Media, widths and rest lengths
- Counter states (e.g., running meter)
- Software version
- Date and time

The ROWE COCKPIT APP provides direct access to the following functions:

- Switching the printer offline/online
- Configuring roll allocation
- Settings / configuration
- Canceling print jobs in progress
- Shutting down the printer
- Restarting the entire application



ROWE COCKPIT APP

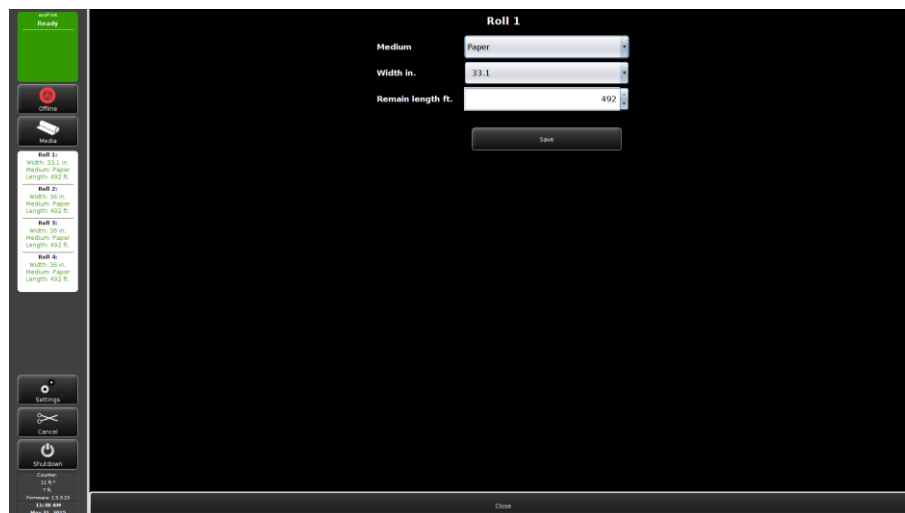
4.4.1 Media

Pressing the "Media" button in the ROWE COCKPIT APP opens the "Roll management" screen. You define the roll allocation for the printer in the Roll Management screen.



Screen - Roll Management

1. Press the button for the roll to be configured.



Screen - Establish Roll Allocation

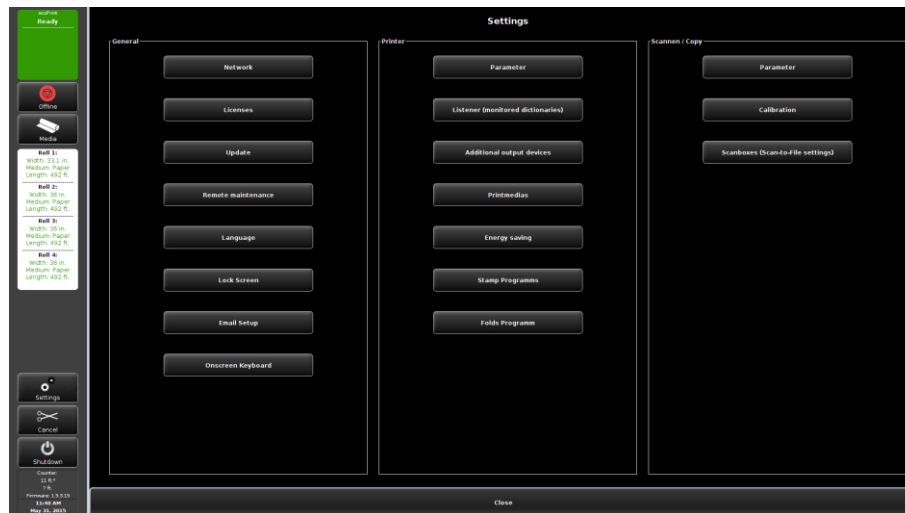
If the required options are not in the selection lists for the medium and/or width, these options can be defined in the resource settings (section 4.4.2.12).

4.4.2 Settings

Pressing the "Settings" button in the ROWE COCKPIT APP opens the settings menu. The settings menu provides you access to all printer settings and the software,



If you want to change settings log in as the administrator. The default password set at the factory is "admin". You can change the current password at any time.



Screen - Settings

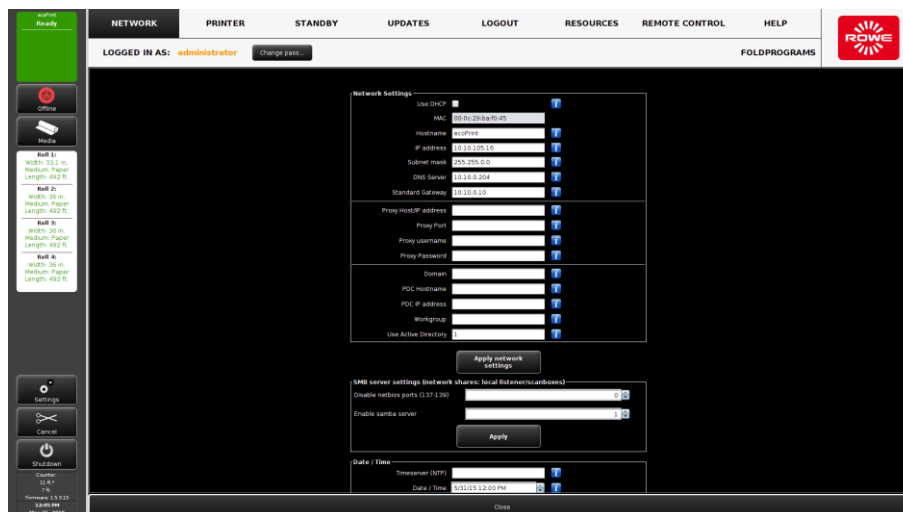
The settings are grouped in columns according to:

- General settings (e.g., network configuration)
- Printer settings
- Configuration options for the scanner (optional)



Refer to the ROWE Scan 450i manual for information on the scanner settings.

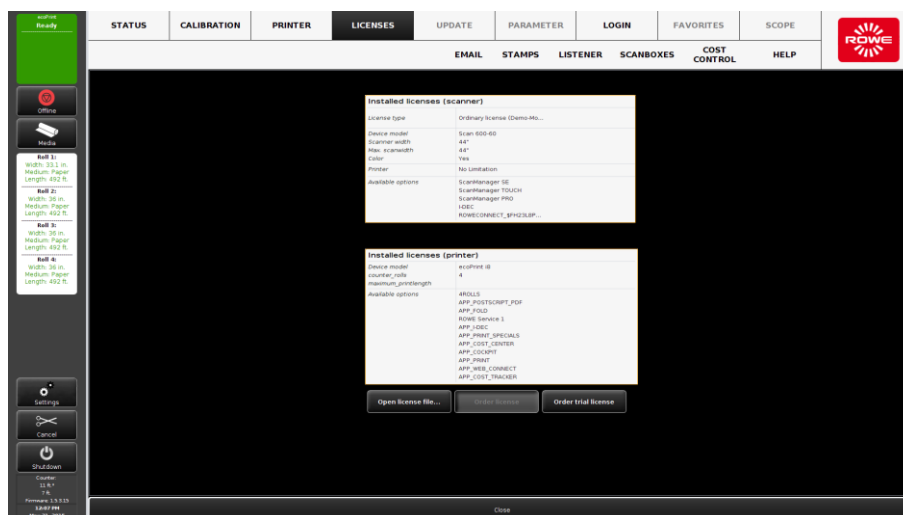
4.4.2.1 Network settings



Screen - Network settings

After pressing the "Network settings" button under "General" in the settings menu, you can modify or check network settings. Set the displayed parameters according to your network.

4.4.2.2 Licenses



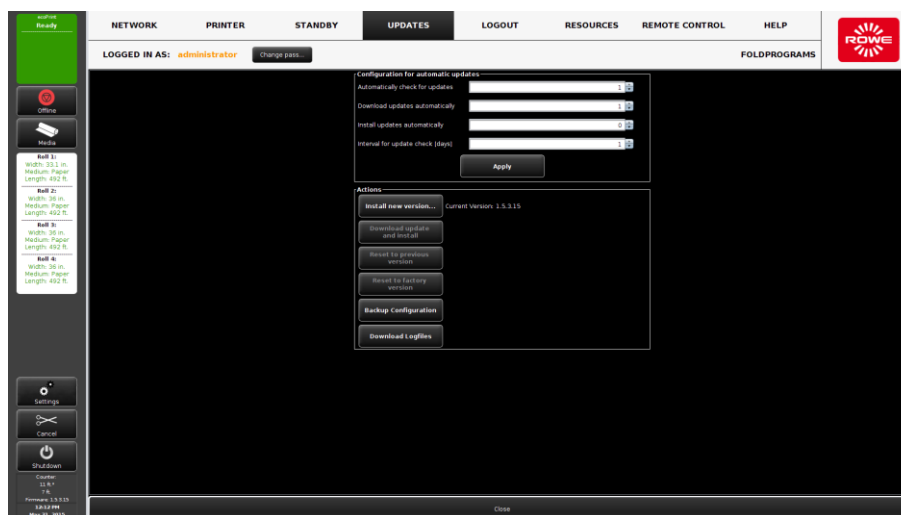
Screen - Licenses

The "Licenses" category lists the licenses (APPs) present on the printer. The display is divided into scanner and printer. The scanner area is not displayed if there is no scanner present.

Use the "Open license file" button to install a (new) license file (e.g., after you have subsequently purchased a license upgrade and have received a new license file).

To purchase a license upgrade, press the "Order license" button. The ConfigManager opens the ROWE website on your browser, where you can order the desired upgrades. Alternatively, you can contact ROWE support directly (e.g., if you do not have an Internet connection on your PC).

4.4.2.3 Updates

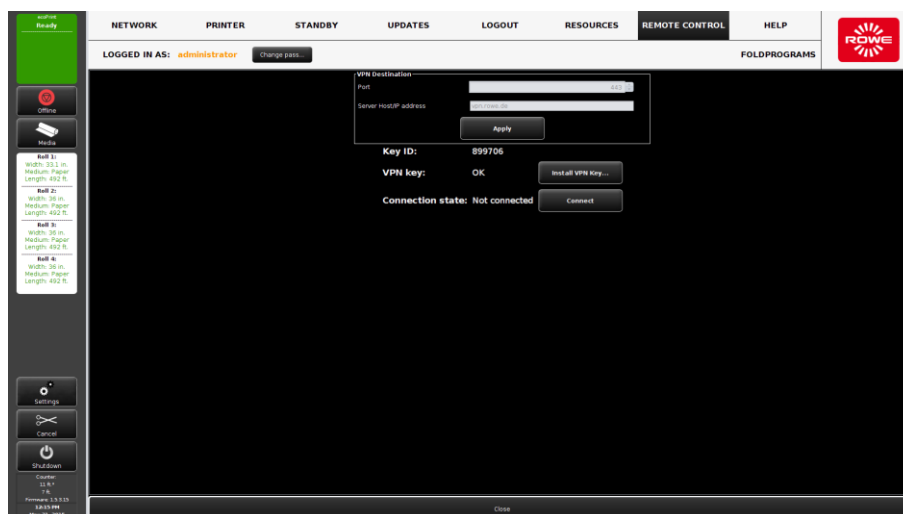


Screen - Updates

As soon as the printer can establish a connection to the Internet (see network configuration), you can automatically purchase software updates and install them in the background.

Alternatively, you can install an update yourself. The easiest way is to load a firmware file from a USB memory stick connected to the printer ("Install new version" button).

4.4.2.4 Remote control



Screen - Remote control

If you need support, you can establish a connection with ROWE support by pressing the "Connect" button under the Remote control category. The printer establishes an encrypted VPN connection (tunnel) to the ROWE Support Server (Port 443, HTTPS). The connection is extremely secure because it is encrypted. Because of the VPN tunnel, the printer is visible only to ROWE Support through the ROWE server. ROWE can then provide you with the best possible support.

4.4.2.5 Language

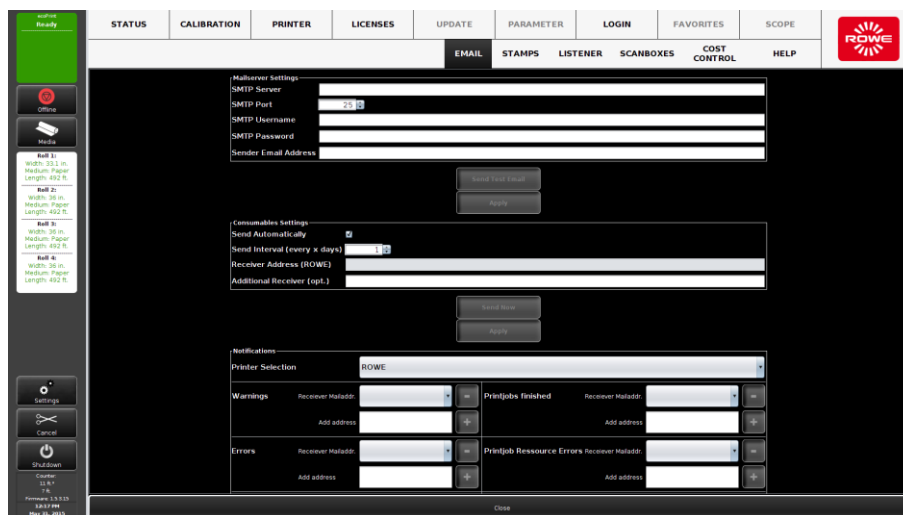
Press the "Language" button to set the language of user interface text.

4.4.2.6 Screen lock

Use the optional screen lock to control whether and if a screen saver is activated. If you want to secure access to the printer, you can require a user name and password to unlock the screen. Administrator rights are required to establish the screen lock.

4.4.2.7 E-mail notification

If desired, the ROWE ecoPrint System will send you status information per e-mail. The displayed options become available by selecting EMAIL.



Screen - E-mail notification settings

1. **Mail server settings:** In this section you configure the sending options for e-mails. For this, use a mail server (SMTP) available in your network.
2. If you have entered the required settings for your mail server under item 1, press the "Apply" button. You can send a test e-mail to test the settings. You will be requested to enter a recipient address to whom the test e-mail should be sent. If the test e-mail is delivered successfully, you can assume the settings are OK.
3. **Consumables settings:** If desired you can send the metered values (running meter counter / square meter counter) by mail. Optionally, these data can also be sent directly to ROWE. However, an authorized service person is required to configure the recipient address at ROWE.
4. **Notifications:** In this section you can set individual notifications for the printer. Enter one or more recipient addresses for every incident for which you want to be informed when it occurs. You can make these settings individually per output device (printer selection).

Operation	
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4.4.2.8 On-screen keyboard

When working on the printer touchscreen without an external keyboard, there are some user interfaces where it is helpful to display the integrated on-screen keyboard. In the COCKPIT select "Settings" → "On-screen keyboard". The keyboard opens over the current screen content, and you can operate the keyboard using the touchscreen. To close the keyboard, tap the "X" at the upper right corner of the keyboard.



On-screen keyboard

4.4.2.9 Parameters

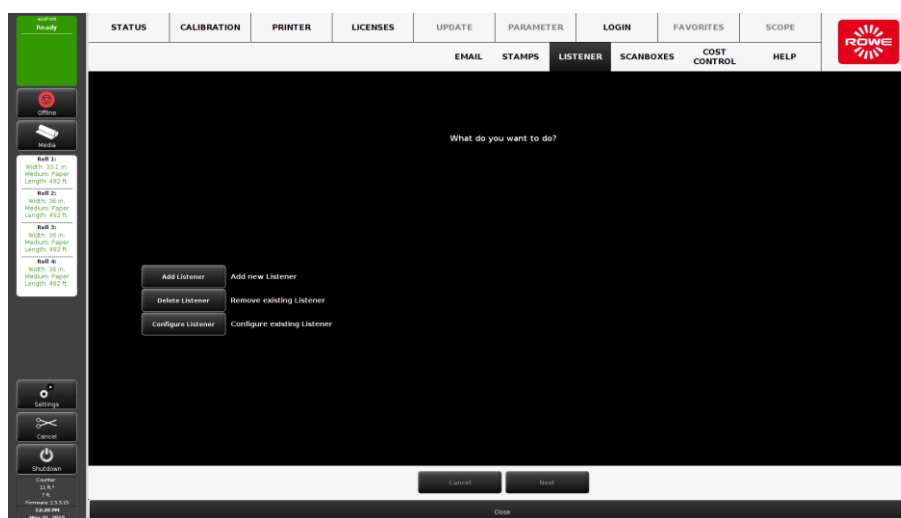
The "Parameters" section contains special printer-specific settings that only can be configured by ROWE service personnel.

4.4.2.10 Listener

Listeners enable you to easily output print jobs from the network on the printer. A listener is a service that monitors definable directories, and automatically retrieves and outputs files and print jobs from the definable directories.

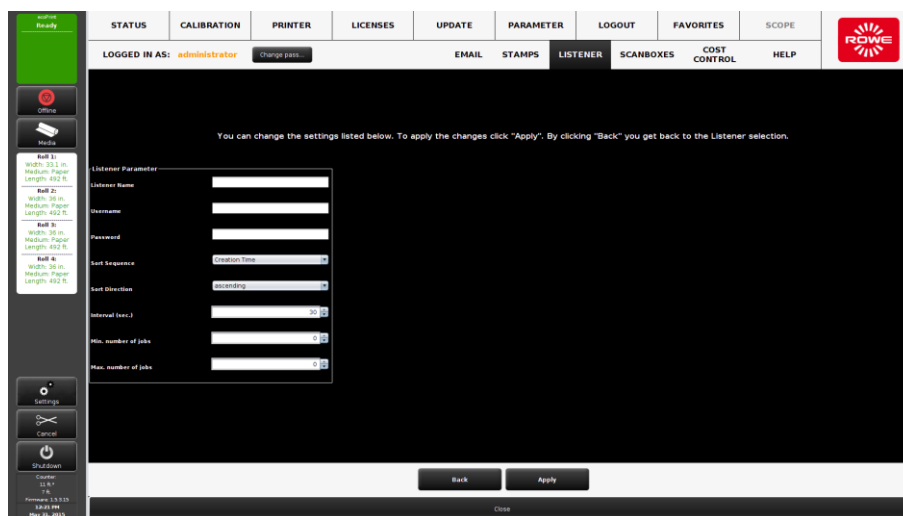
There are basically 2 types of listeners:

- *Local Listener*: The monitored directory is on the printer itself and can be reached from the network as a Windows® Share.
- *Remote Listener*: The monitored directory is located as a Windows® Share in the network on a host that can be reached by the printer.



Screen - Listener

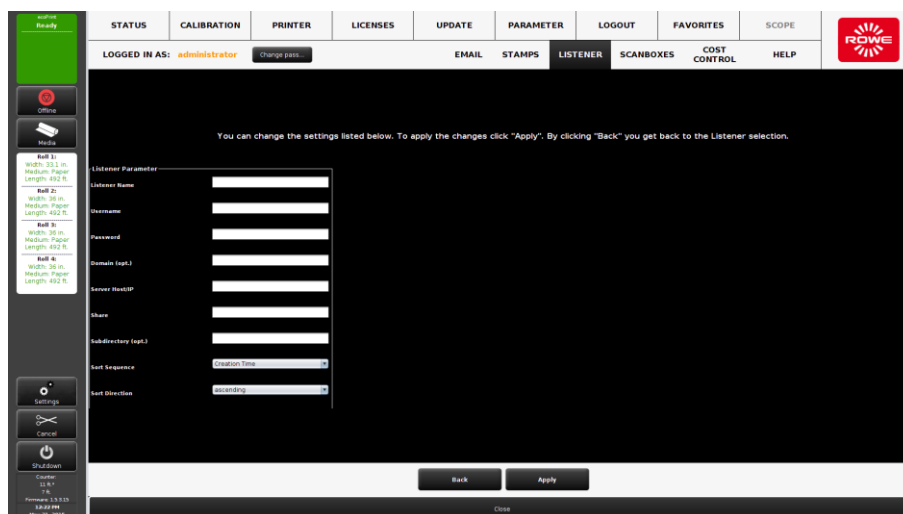
To configure listeners, press the "Listener" button in the Settings menu. The wizard shown above is displayed. Follow the directions and questions on screen to insert, delete, or change listeners.



Screen - Establishing a local listener

The parameters shown in the "Establishing a local listener" screen are available when establishing a local listener:

- **Listener name:** A freely-selectable name (or special characters)
This is the name by which the listener can then be accessed using Windows® Share, e.g., \\192.168.1.2\MyListener.
- **User name / Password (optional):** Access protection for the listener
- **Sort sequence:** Determines the output sequence if there are multiple print files in the directory at the same time.
- **Sort direction:** ascending or descending order of sort criteria
- **Interval:** The listener checks after <n> seconds if there are new files on the monitored directory.
- **Min. number of jobs:** The listener does not retrieve jobs from the directory until a minimum number is present (0: no restrictions).
- **Max. number of jobs:** The listener retrieves a maximum of <n> jobs per check.



Screen - Establishing a remote listener

The parameters shown in the "Establishing a remote listener" screen are available when establishing a remote listener:

- **Listener name:** A freely-selectable name (or special characters) The listener will then be identifiable under this name in the listener configuration.
- **User name/Password:** Enter the information required to access the network share.
- **Domain:** If the computer where the share is located is a member of a domain, enter the domain here.
- **Server Host/IP:** The IP address (or host name) of the computer where the share is located.
- **Share:** The share name
- **Subdirectory:** If the folder to be monitored is in a subdirectory of the share, enter the path here (multiple subdirectories are separated by "/").
- **Sort sequence:** Determines the output sequence if there are multiple print files in the directory at the same time.
- **Sort direction:** ascending or descending order of sort criteria
- **Interval:** The listener checks after <n> seconds if there are new files on the monitored directory.
- **Min. number of jobs:** The listener does not retrieve jobs from the directory until a minimum number is present (0: no restrictions).
- **Max. number of jobs:** The listener retrieves a maximum of <n> jobs per check.

**NOTICE****Deleting files**

Files to be printed that are successfully processed by the listener are then deleted from the listener directory.

- Make sure you do not accidentally share a remote listener containing data you do not need.



Listeners make it possible to realize and automate complex set processing (using ORDER files). A specification for this can be provided by ROWE support upon request.

Setting defaults for listener

To define print settings in advance when using a listener, configure a favorite in the ROWE PRINT APP. Give this favorite the name "Listener_<name of the listener>". Note the use of upper case and lower case ("Listener" with capital L) and the underscore. Use the exact name of the listener.

Example: You have a listener named "ROWE listener" and want to define or change the settings for this listener. Proceed as follows:

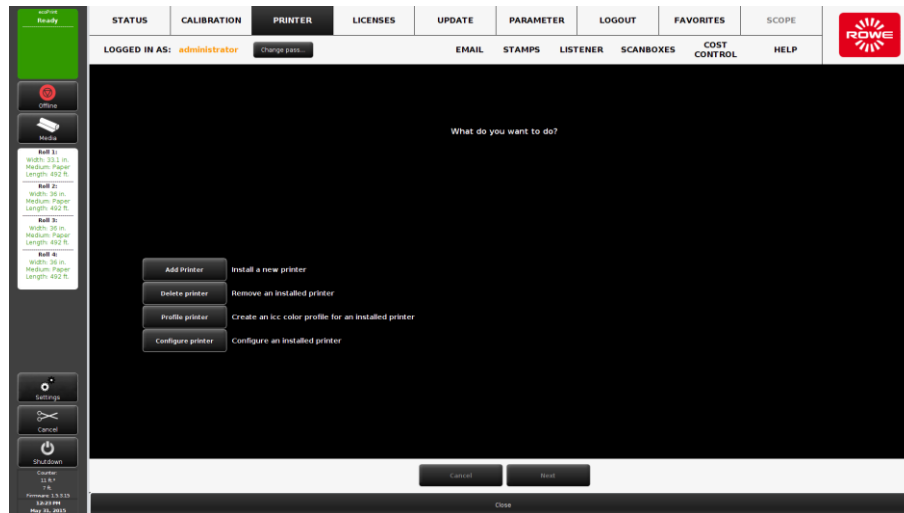
1. Open the ROWE PRINT APP.
2. Set all parameters as you would like to use them in the listener.
3. Press the "Favorites" button.
4. Press the "Save favorites..." button.
5. Enter the name "Listener_ROW listener" as the favorite name.
6. If asked whether you want to overwrite the favorite, confirm with "Yes".



The favorite you have created appears in the ROWE PRINT APP favorites, not the list of favorites because this is a special favorite.

4.4.2.11 Additional output devices

In the "Additional output devices" area you can establish control for additional printers in order to print or copy on them.



Screen – Establishing additional output devices

The wizard shown above corresponds to setting up a printer on the ROWE Scan 450i. Follow the instructions on screen.

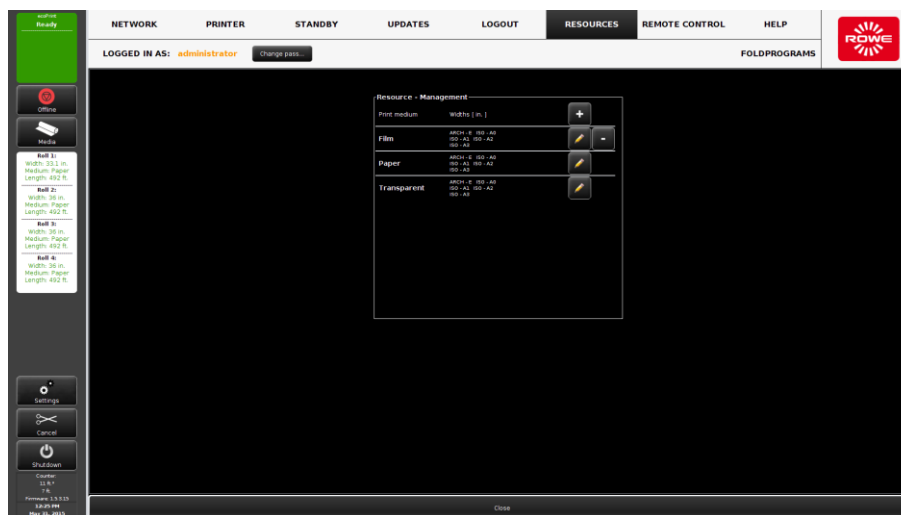


For additional information on the scanner refer to the ROWE Scan 450i manual.



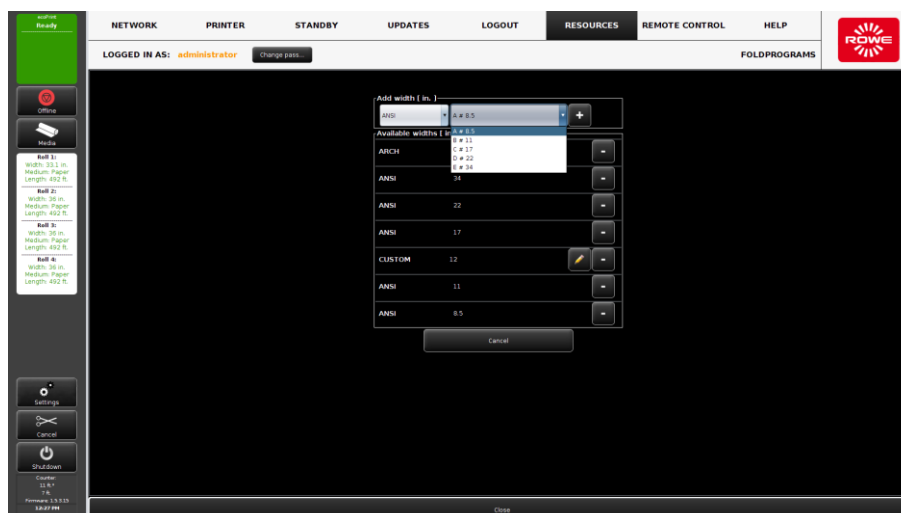
To print to an output device you need the respective print queue license. To copy to an output device you need the respective copy driver license. Before installation, check to make sure you have the respective license.

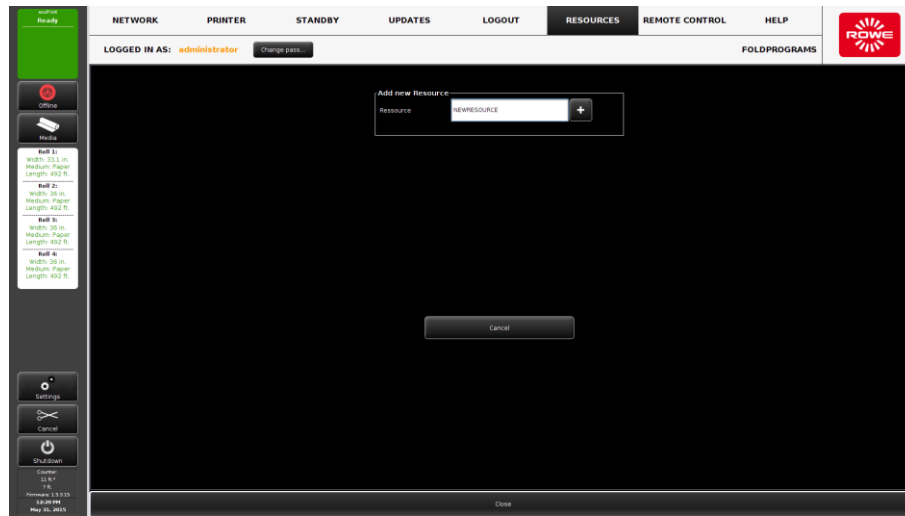
If you use special printer media, special paper types, or rolls with widths that differ from the default settings, you can make the settings [here](#).



The printer media menu shows you the media and roll widths in the system. You can use the resources listed here for the roll configuration in the Media menu (section 3.1).

- Add / delete a roll width for a medium
- Add / delete user-defined media (the preconfigured Paper and Transparent default media cannot be deleted)

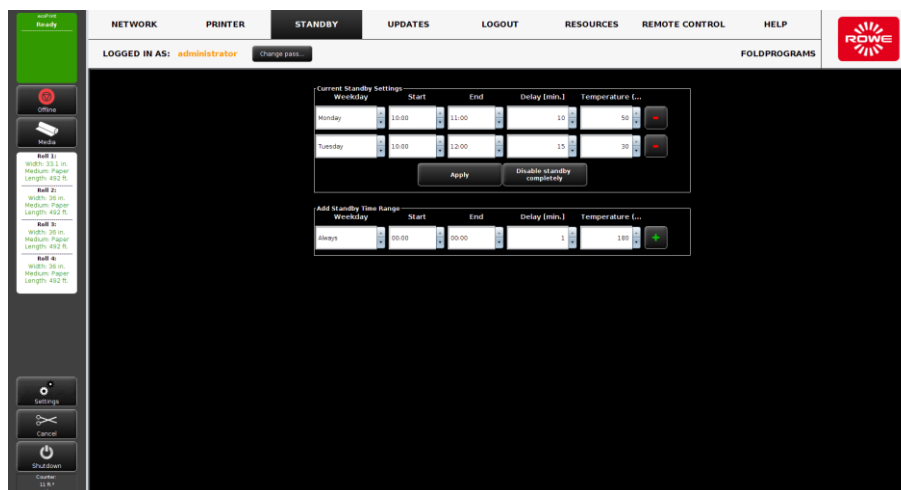




Screen – Add new resource

4.4.2.13 Printer energy option

The Printer column of the Settings menu contains the "Energy options" button, for the control of energy saving mode.



Screen – Printer energy option

Time periods can be defined for controlling energy consumption. During these times, the printer reduces the temperature of the fuser heater to a defined value. You can read the settings currently in use in the upper area. Delete the time periods individually using the minus button. Completely deactivate energy savings mode by pressing the "Disable standby completely" button. It is not necessary to delete all time periods separately using the minus button. Use the row at the bottom of the screen to enter new time periods. Press the Plus button to confirm the selected settings. If the selected time period overlaps with an existing time period, you will receive a warning message and the new period will not be accepted. If you want to select a setting that should always apply, selection the "always" option for "Weekday".

4.4.2.14 Stamping program

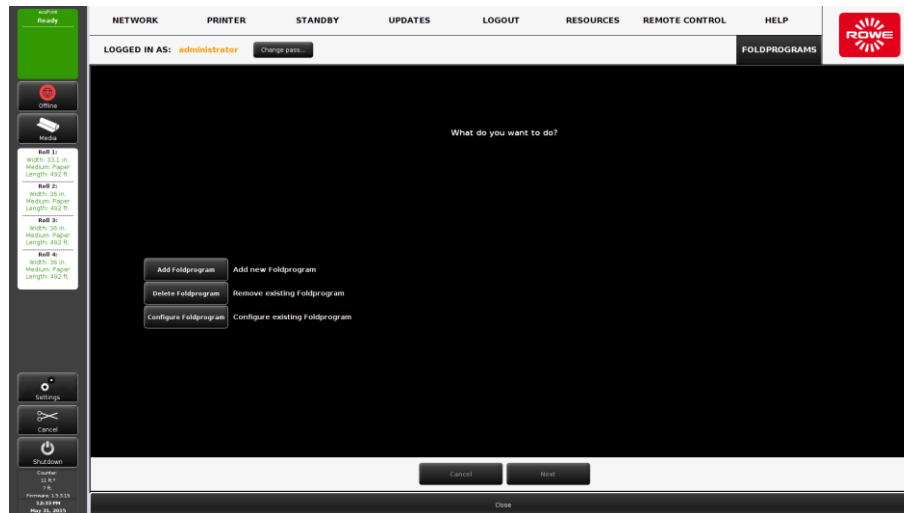


For additional information on the stamping programs refer to the ROWE Scan 450i manual.



4.4.2.15 Fold programs

If you are using a ROWE folding system, in the area displayed you can define and administer various fold settings as fold programs.

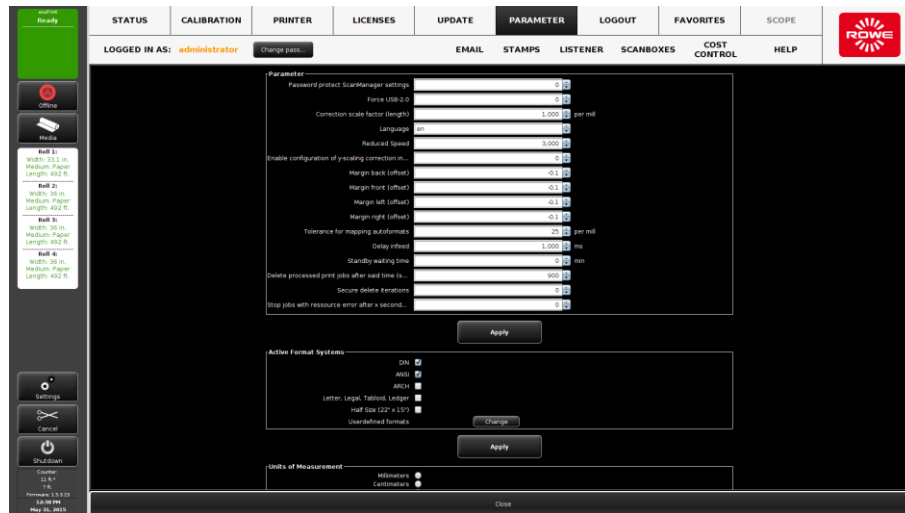


Screen – Administer fold programs

The operation is wizard-based. Follow the instructions on screen.

4.4.2.16 Scanner parameters

The "Parameter" button in the "Scanner area" can be selected when you have a combination device. Pressing the button takes you to the settings area displayed in the "Scanner parameters" screen.



Screen – Scanner parameters



Refer to the ROWE Scan 450i manual for the definition and detailed descriptions of the scanner parameters.

4.4.2.17 Scanner calibration



For information on scanner calibration refer to the ROWE Scan 450i manual.

4.4.2.18 Scanner boxes



For information on the scanner boxes refer to the ROWE Scan 450i manual.

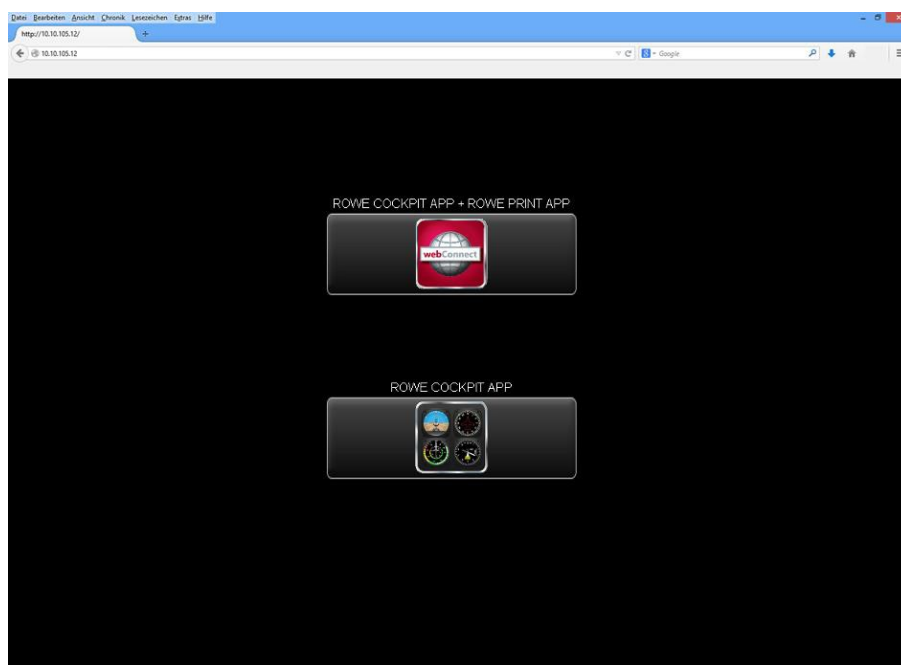
4.5 ROWE WEB CONNECT APP

Using the ROWE WEB CONNECT APP you can map important printer operating procedures via access through your company network. You will need a web browser with an installed Java run time environment (as a plug in).

This section describes how to use the ROWE WEB CONNECT APP software.

4.5.1 Access via web browser

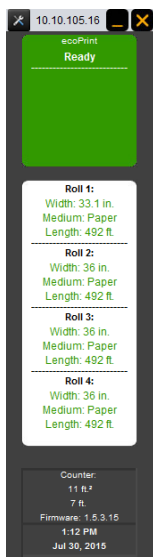
To access the ROWE WEB CONNECT APP you need a web browser. We recommend using Mozilla Firefox. The browser must have the Java runtime environment (JRE) as a plug in. The start page shown below opens after entering the IP address (or host name) of the printer in the Browser's address line.



ROWE WEB CONNECT APP start page

Press the "Web Connect" button to start the complete application (ROWE PRINT APP including ROWE COCKPIT APP). Press the lower button to load the ROWE COCKPIT APP.

The applet downloads once you press one of the buttons. A simplified version of the ROWE COCKPIT APP then starts.



The simplified version of the ROWE COCKPIT APP enables monitoring of printer status as well as roll configuration and consumables.

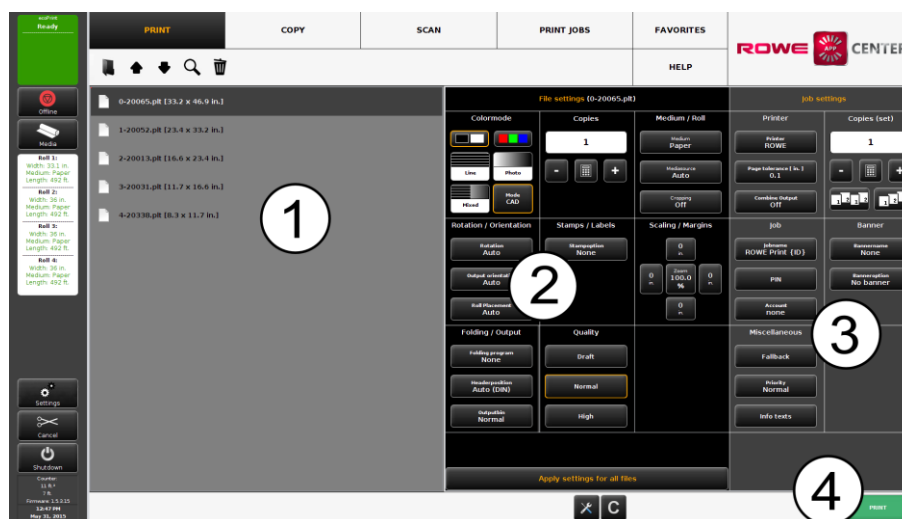
The ROWE PRINT APP can also be started in addition to the ROWE COCKPIT APP. The ROWE PRINT APP enables you to operate the printer from your workplace, the same as direct operation on the printer itself. Entering settings (section 4.4.1 and 4.4.2) is the only exception. These settings can only be made directly on the printer. The Cockpit window can be shifted and minimized in ROWE WEB CONNECT APP mode. You can also read the IP address of the printer to which you are connected in the title bar of the window.

4.6 ROWE PRINT APP

The ROWE PRINT APP is the main software application for using the printer. This section describes the efficient use of the printer in conjunction with the ROWE PRINT APP software.

4.6.1 ROWE PRINT APP

Using the ROWE PRINT APP ("Printing" work area) you can create comprehensive print jobs in the form of individual files, or complete sets with individual settings for each file.

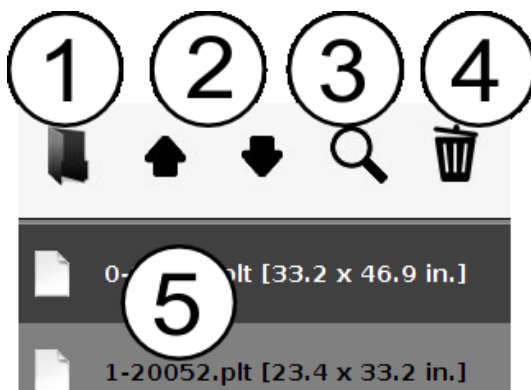


ROWE PRINT APP overview

The ROWE PRINT APP is divided into the following areas (see the ROWE PRINT APP overview):

1. **File list:** List of files that were added to a print job (section 4.6.1.1).
2. **File settings:** You can make settings (section 4.6.1.2) that will apply individually to the file marked in the list (1).
3. **Job settings:** These settings apply to all files in the print job (section 4.6.1.3).
4. **Action buttons:**
 - **Print:** Button to start the print job.
 - **C button:** Loads default settings for the PRINT APP.
 - **General settings** (section 4.6.1.4).

4.6.1.1 File list



File list

Use the file list to manage which files belong to a print job, and then view a preview.

1. *Add file(s)*: Add one or more files to the print job all at once. The files are output in the order shown in the list.
2. *Move file up/down in list*: You can subsequently change the print order by marking the file that you want to move in the list, and then pressing the appropriate arrow button.
3. *Preview*: This button opens a preview ("File preview" screen) of the file selected in the list (highlighted in dark gray). You can open the preview by double-clicking the corresponding entry in the list.
4. *Delete file(s)*: With this button you can remove one or more files from the list.
5. *Listing of files*: Various information is displayed in addition to the file name:
 - Dimensions in mm
 - Number of pages (for multi-page TIFF and PDF files)



Press and hold the Shift or CTRL key to mark multiple files in the list (as with Windows® Explorer).



Once you have clicked to mark a file, its settings are displayed in the File settings area (section 4.6.1.2).

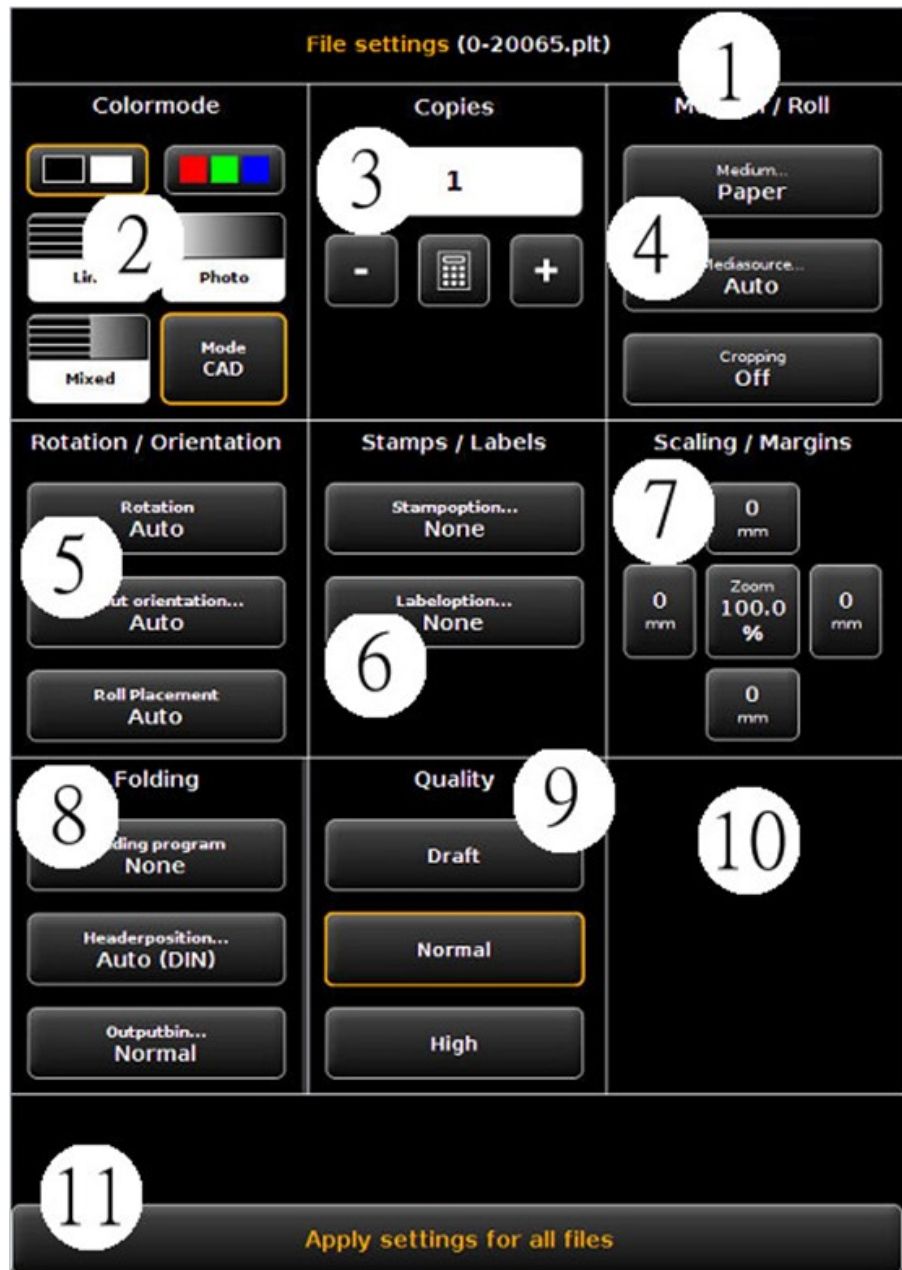


Screen - File preview

The file preview provides the following functions:

1. **Set header position:** Click the upper left, upper right, lower left, or lower right square to select the position where the header should be located. If the file is output on a ROWE printer and a fold program is set (assuming a folding machine is present), the file is turned automatically so that the header is above the fold and visible. For multi-page documents, the header position can only be set for the first page.
2. **Page selection** (available for multi-page TIFF and PDF files): Use the arrow buttons to scroll through the document pages in the preview. Alternatively, you can enter a specific page number in the text field and press Enter to jump to the page desired.
3. **Position in file list:** The position where the displayed document is located in the file list is shown here. The 1/3 in the example indicates that the document shown here is the first of 3 files that were output.
4. **File information:** Useful information about the displayed file is shown here: Dimensions, color mode, file format, and resolution.
5. **Scroll through file list:** Use the left/right arrows to switch the preview to the next / previous file.

4.6.1.2 File settings



Screen - File settings



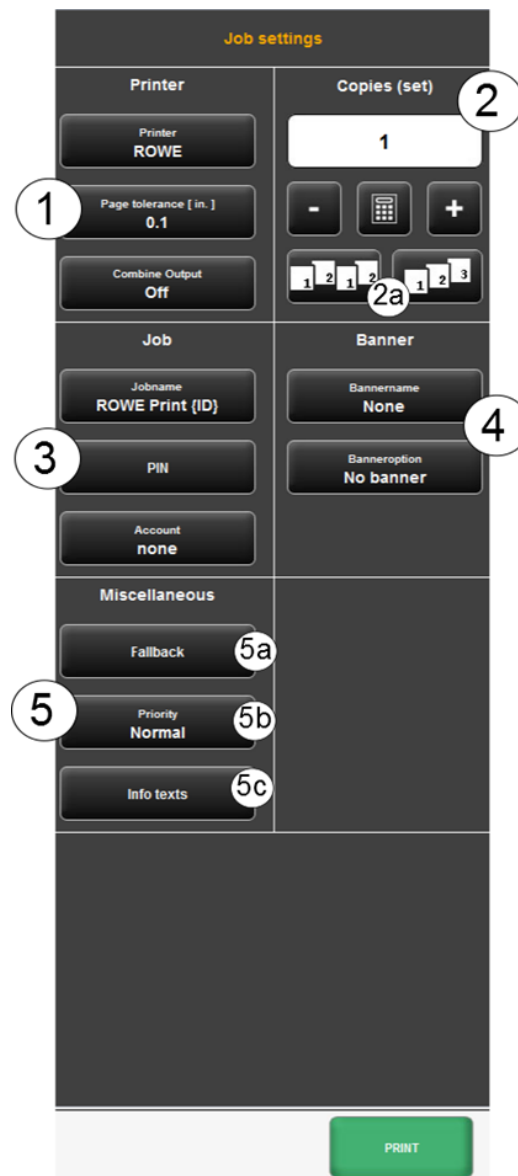
All settings made in the File settings area apply specifically to the file selected (marked) in the file list. If multiple files are marked in the list, the settings will be applied to all marked files. This enables you to define settings in larger sets that apply to many, but not all, files in the set with little effort.

1. *File name display*: For information, the name of the file for which the settings apply is displayed. The name shown corresponds to the name of the file marked in the file list. When multiple files are selected, only the name of the first file selected is shown for space reasons.
2. *Color mode*: Select the color mode to be output in the file. As with color mode and template type selection for scanning, there are special default settings available for frequently-used template types (e.g.: CAD, photo, line).
3. *Copies*: Number of copies of the selected file to be output.
4. *Medium/Roll*: Select the medium or roll. In addition, with the "Cropping" option you can select whether the white borders on the image should be cropped automatically.
5. *Rotation/Orientation*: Here you select whether the drawing should be rotated for output and whether you are working with portrait or landscape format.
6. *Stamp/Label*: Add stamps or labels.
7. *Scaling/Margins*
8. *Folding*: If output will take place on a ROWE printer with a folding machine, you can select a fold program. You can also define the quadrant where a text field should be located. If the fold program is active, the drawing will be turned so that the text field is on top. Use the "Auto" option to automatically determine the header position. In addition, you can also select where the printer should output the drawing. If a sorter is connected for example you can select the output bin.
9. *Quality*: Draft, normal, or high. This option is available only for output to an inkjet printer.
10. *Cut on/off*: Set whether the paper should be cut after a document is output. This option is available only for output to an inkjet printer.
11. *Apply settings for all files*: Here you can apply the current settings to all files in the file list with a single click.



For additional information refer to the ROWE Scan 450i manual.

4.6.1.3 Job settings



The screenshot shows the 'Job settings' screen with the following elements and callouts:

- 1**: Points to the 'Page tolerance [in.]' field, which is set to 0.1.
- 2**: Points to the 'Copies (set)' field, which is set to 1.
- 2a**: Points to the 'Combine Output' field, which is set to Off.
- 3**: Points to the 'Job' section, which includes 'Jobname' (ROWE Print (ID)), 'PIN', and 'Account' (none).
- 4**: Points to the 'Banner' section, which includes 'Bannername' (None) and 'Banneroption' (No banner).
- 5**: Points to the 'Miscellaneous' section, which includes 'Fallback' (5a), 'Priority' (Normal, 5b), and 'Info texts' (5c).

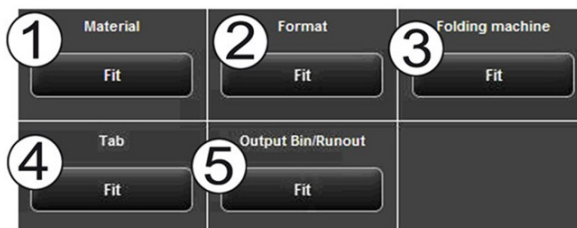
A green 'PRINT' button is located at the bottom right of the screen.

Screen - Job settings



The settings made in the "Job settings" screen apply to all files in a set, i.e., all files present in the file list.

1. *Printer*: Select the printer where the set should be output. Use the Page tolerance option to establish the percentage by which the document dimensions may be too large in order to still be output on smaller rolls.
2. *Set copies*: You define how often the complete set should be output.
 - 2a. *Sorting*: If you want to produce more than one set copy, you can use button (2a) to define how the output should be sorted. As default, the output is in the same sequence as if the set were individually output one after other. You can change the sorting so that copies of the 1st file are output, followed by copies of the 2nd file, etc.
3. *Job name/PIN/Account*:
 - *Job name*: You can assign a user-defined name for the print job so that the job can be found again in the job list.
 - *PIN*: Define a password or PIN for the job. The job is initially set to "paused" in the job list. The job is not output until you start the job in the job list and enter the correct PIN (also referred to as "follow me printing" or "secure printing").
 - *Account*: If you have the ACCOUNT APP, you can select the account used.
4. *Banner*: Select whether and which banner should be output. You can also establish the position of the banner.
5. *Miscellaneous settings*:
 - 5a. *Fallback*: See "Fallback" screen.
 - 5b. *Priority*: Set the job behavior in the print queue.
 - *Normal*: The job is ranked normally in the print queue
 - *Low*: All print jobs with higher priority go before this job.
 - *High*: Printing starts at the next possible moment.
 - *Paused*: The document will not be printed initially, it has to be started manually on the printer.
 - 5c. *Info texts*: see "Info texts" screen.



Screen - Fallback

With the fallback you define what should happen if a resource required for a print job is not available:

1. **Material:** Reaction to unavailable material (e.g., transparent medium).
 - *Fit:* The printer does not output the job; instead, it requests the required material through a message.
 - *Ignore:* The printer prints on the material that is available (e.g., paper instead of transparency).
2. **Format:** Printer reaction to the lack of a suitable roll format.
 - *Fit:* The printer does not output the job; instead, it requests the required roll format through a message.
 - *Larger:* The printer prints on the next larger format that is available (e.g.: ISO A0 instead of A1).
 - *Larger (when roll empty: fit):* If the proper medium was inserted but is empty, the medium is requested. Otherwise, the next larger inserted medium is output.
 - *Larger (Medium defined: fit):* If a proper medium is defined in the system but not inserted, it is requested. If a proper medium is not defined, the next largest, inserted medium is output.
3. **Folding machine:** Reaction to an unavailable folding machine
 - *Standard:* Use the standard reaction of the respective printer where the folding machine is located or should be located.
 - *Ignore:* The printer prints without folding.
4. **Tab:** Reaction to unavailable tabs if a fold program with tabs was selected.
 - *Fit:* The printer does not output the job; instead, it requests a new tab roll through a message.
 - *Ignore:* The selected fold program runs without affixing a tab.

5. *Output Bin/Runout* : Reaction to a full sorter delivery band or printer delivery tray (above or behind).
- *Standard*: Use the standard reaction of the respective printer where the sorter is located or should be located.
 - *Fit*: The printer does not output the job; instead, it requests that the delivery tray be cleared through a message.
 - *Ignore*: The printer outputs the job to the next free delivery tray.

Ident nb.	Drawing nb.	Comment
<input type="text"/>	<input type="text"/>	<input type="text"/>
Text		
<input type="text"/>		

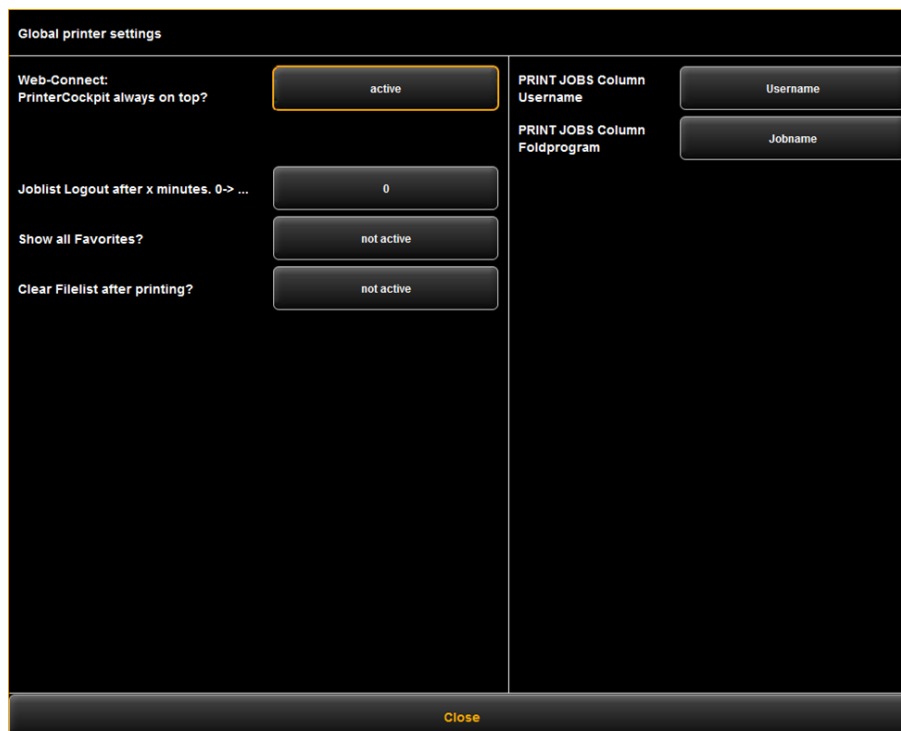
Screen - Info texts

Info texts: You can specify additional information on a print job here. The information is used to identify a job in the job list.



Info texts are planned as a future enhancement and at present have no impact.

4.6.1.4 Global PRINT APP settings



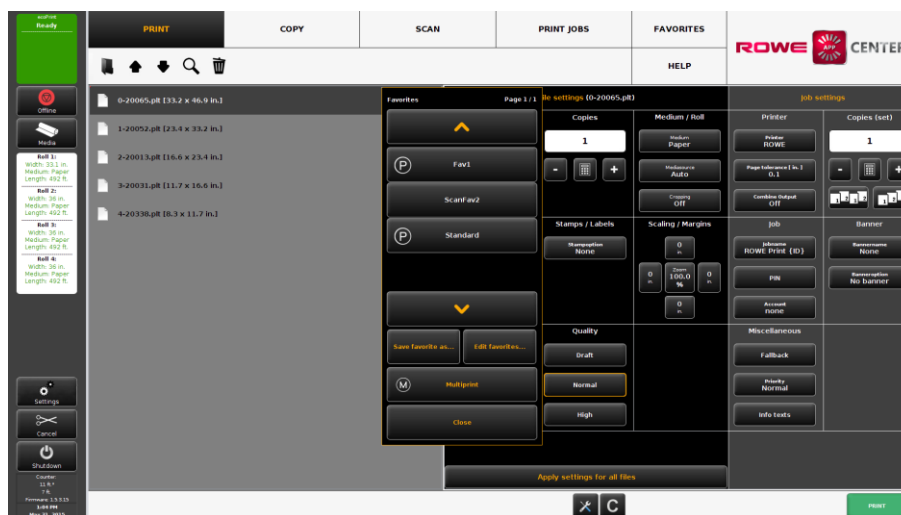
Screen - General settings

The general settings for the ROWE PRINT APP offer the following functions:

- *WEB CONNECT APP Printer cockpit always on top*: Establishes whether the ROWE COCKPIT window, when started over the WEB CONNECT APP, always remains in the foreground or can be minimized.
- *Joblist Logout after X minutes*: Timeout after which you are automatically logged out of the job list (if logged in as "joblistadmin" or "administrator").
- *Show all favorites*: If you want to change or check a special favorite (e.g., default settings for a listener), activate this option. The favorites in the favorites selection are displayed as well (requires a restart).
- *Clear file list after printing*: Establishes whether the file list should be cleared automatically after sending the print job.
- *Job list column user name/fold program*: Use this option to adapt the job list to user-defined requirements. For example, if you select "host name" for the "user name" column, the job list will always display the host name from which the job was generated instead of the user name.

4.6.1.5 Favorites

The ROWE PRINT APP offers a variety of settings that enable you to customize job order processing to individual requirements. Repeatedly using a large but manageable number of settings or combination of settings is a common use case. So that you do have to reset and customize each option every time, you can save settings that you have executed once as favorites. These settings can be reloaded with a just a few clicks and are always available.



Screen - Favorites

The list of favorites generally contains all favorites; i.e., in addition to the ROWE PRINT APP favorites, also those from the scanning area and for the ROWE COPY APP (copy area). The favorites belonging to the copy area are identified with a P.

If you load a favorite belonging to a APP that differs from the APP that is currently active, the system switches automatically to the different APP.

Use the "C" button at any time to load the default settings for the respective active area. These default settings are stored in the special favorites, which are not shown in the regular favorites list. If you want to change these default settings, save the settings desired as a favorite with the name "reset_print" for the ROWE PRINT APP, "reset_copy" for the ROWE COPY APP, or "reset_scan" for the ROWE SCAN APP. After saving, you will be asked for the administrator password for security reasons.

4.7 Toner and print media

This section describes how to refill paper and toner. It also explains how to configure the ROWE REST LENGTH DISPLAY.

4.7.1 Material

The printer is available in many configurations, from two rollers in a single drawer, three rollers in two drawers, up to a maximum of four rollers in two drawers.



Contact your authorized ROWE dealer for information on configurations that are available or can be retrofitted.

You can load print materials of different format and type in every roll chamber of the printer. The format and type of materials currently available are displayed in the roll menu.

NOTICE

Property damage due to incorrect settings

Newly inserted print material can result in significant property damage if the system is not informed of the format, type, and residual length of the material.

- After the new print material is inserted, inform the system regarding the format, type, residual length of the material (paper, transparent material, or polyester film).

The format, type, and residual length of the new print material have to be specified so that e.g., the following functions can work properly:

- Automatic material change function
- Auto-zoom and Auto-format
- Rest length display
- Automatic rotation



Media types and basis weights

Table 7: Media types and basis weights

Media type	Basis weight	Designation in the USA	Basis weight
Paper	60 g	Bond	16 lb
Paper	64 g	Bond	17 lb
Paper*	75 g	Bond	20 lb
Paper*	80 g	Bond	20 lb
Paper*	90 g	Bond	24 lb
Paper*	100 g	Bond	27 lb
Paper*	110 g	Bond	29 lb
Recycled Paper	80 g	Recycled Bond	20 lb
Transparent*	75 g	Transparent	20 lb
Transparent*	90 g	Transparent	24 lb
Transparent*	110 g	Transparent	29 lb
Film, Polyester	88 µm / 3.5 mil	Film, Polyester	88 µm / 3.5 mil
Film, Polyester	100 µm / 4 mil	Film, Polyester	100 µm / 4 mil
Vellum	75 g	Vellum	20 lb

The media types marked with * may be output on the ROWE front delivery tray.

Table 8: Roll parameters

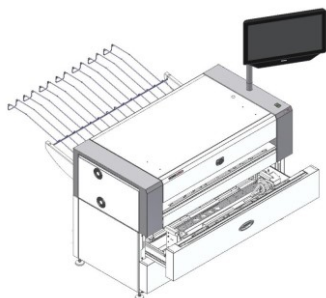
	Minimum	Maximum
Roll width	279 mm / 11 inches	914 mm / 36 inches
Roll length	n.a.	175 m / 568 ft.

The maximum print length for manual feed is 200 m / 650 ft.

4.7.2 ROWE INSERT ASSISTANT

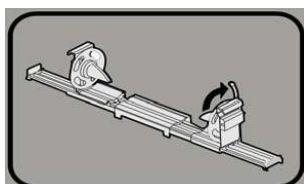
The ROWE INSERT ASSISTANT is the printer's media feed system. Paper rolls are changed easily, quickly, and ergonomically. The paper roll is configured without a roll core. The ROWE INSERT ASSISTANT ensures centered alignment of the roll.

4.7.2.1 Refilling paper



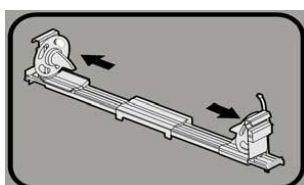
Opening the roll compartment

1. Open the respective drawer (as long as a print procedure is not active).



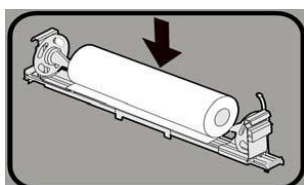
Releasing the lock on the ROWE insert assistant

2. Release the locking lever.



Sliding the ROWE insert assistant apart

3. Slide the ROWE insert assistant apart.
4. Remove the paper roller core if applicable and all residual paper from the paper roller magazine.

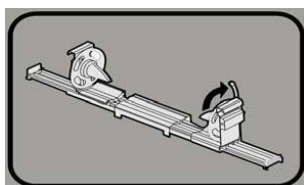


Inserting the roll in the ROWE INSERT ASSISTANT

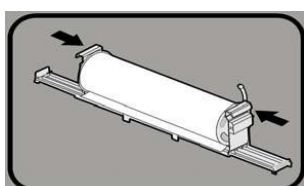
5. Insert the new roll.



If the roll diameter exceeds 6.61 in (> 492 ft), remove the recess plate from the center of the ROWE INSERT ASSISTANT. It is secured with two screws.

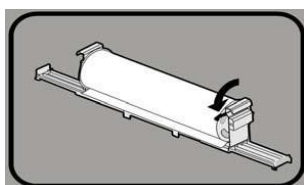


Removing the recess plate in the ROWE INSERT ASSISTANT



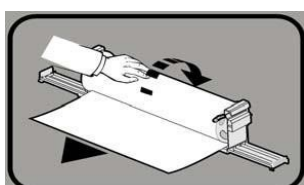
Sliding the ROWE INSERT ASSISTANT together

6. Slide the ROWE INSERT ASSISTANT together.



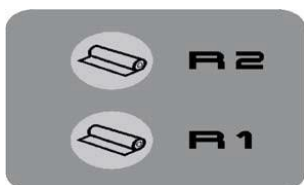
Closing the locking lever

7. Move the locking lever.



Inserting the paper into the feeder

8. Introduce the medium into the feeder.



Cut buttons for roll 1 and roll 2

9. Perform a correction cut for the respective roll by pressing the cut buttons on the right interior of the drawer.

- Press the button briefly to cut off a 1.97 in strip from the respective roll.
- If you press and hold the button the material will continue to unwind. Release the button to stop unwinding the material and initiate the cut.

Operation	
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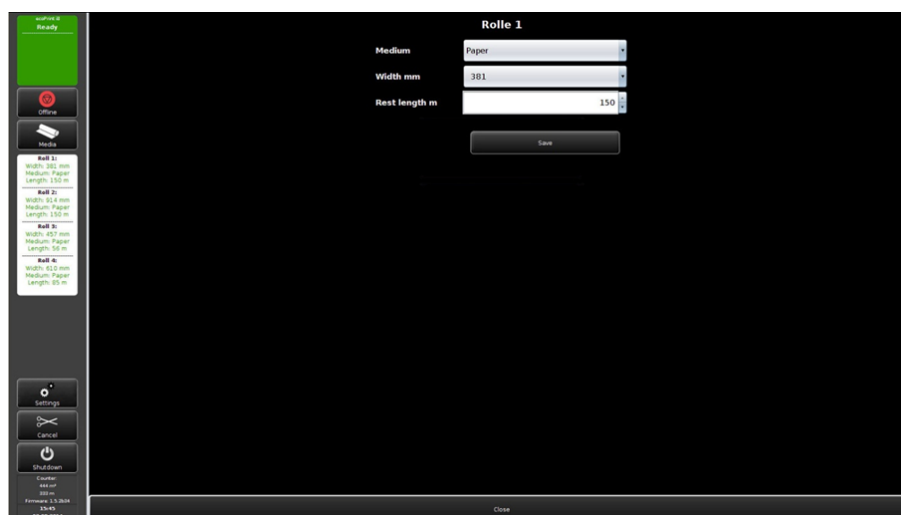
	<p>As soon as you insert a roll, the control automatically opens an area where you can define the material, width, and residual length.</p> <p>10. Enter the corresponding values here and confirm with "Save".</p>
--	---



Refer to section 4.4.1 for further information on managing media.



If settings are not entered the media menu closes automatically after a few seconds. You can open it again at any time by pressing the "Media" button and selecting the corresponding roll.



Screen - Configuring the newly inserted roll

Operation	
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4.7.3 ROWE REST LENGTH DISPLAY

The ROWE REST LENGTH DISPLAY informs you immediately of the rest lengths available on the inserted rolls. The system also detects automatically if the material on the roll is insufficient for printing the file.

Example: You want to print a 32.8 ft long drawing, but only have 16.4 ft of material on the roll. In this case, the system warns you automatically of the insufficient resources before starting printing. You thus save 16.4 ft of material that you can use for another job.



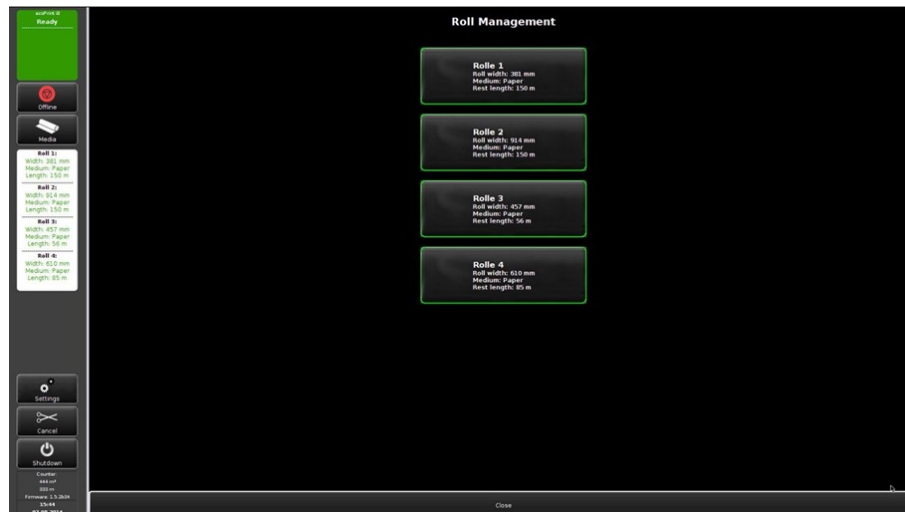
The ROWE REST LENGTH DISPLAY will only work this precisely if the roll length was set previously. Each time a roll is inserted, the rest length meter resets to the initial value that was set. Check the rest length value each time you change rolls and adapt the value to the roll inserted.

Notice: Not every 492 ft roll delivers exactly 492 ft. Note the tolerances of your paper supplier.

4.7.3.1 Establishing the roll rest length

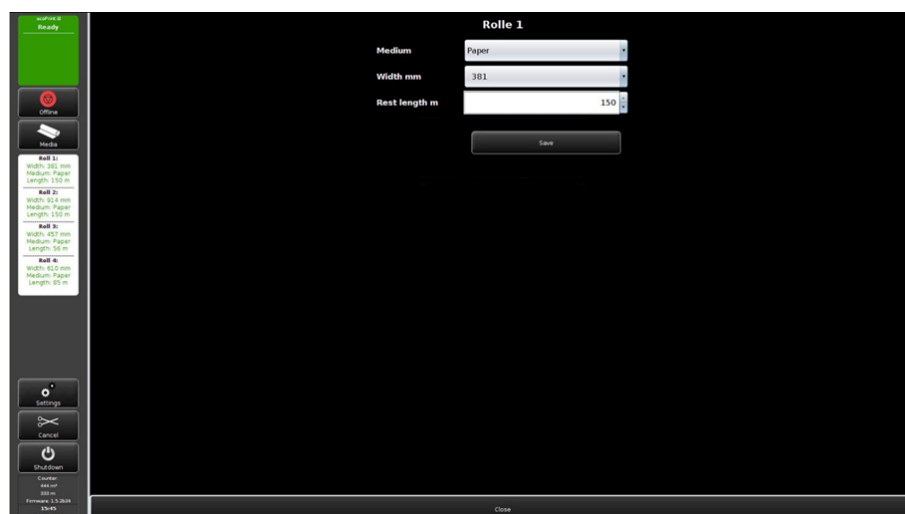
You can adapt the rest length of a roll at any time.

1. Open the media menu with the "Media" button and select the required roll.



Screen - Roll menu

2. Set the residual length required and confirm by pressing "Save".



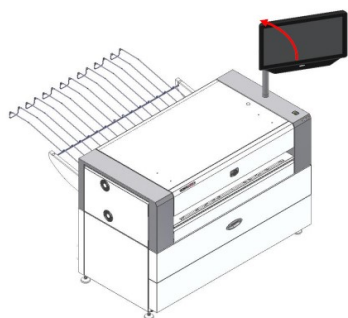
Screen - Adapt roll allocation

4.7.4 Filling toner

When the toner concentration is low, the "toner warning" message appears on the monitor (the upper left status field on the monitor turns orange). When the "toner warning" appears a new toner cartridge should be inserted; otherwise, the print quality will fall as the number of print jobs increases.

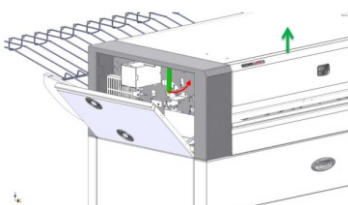
If you fail to heed the warning and continue printing jobs the toner in the cartridge will be fully spent. The "Toner empty" message is displayed (the upper left status field on the monitor turns red). The printer stops and no additional print jobs will be output. Incoming print jobs are saved to the job list. Toner cartridge replacement is required.

1. Press the Offline button in the control panel to switch the printer offline. "Offline" appears in the display.



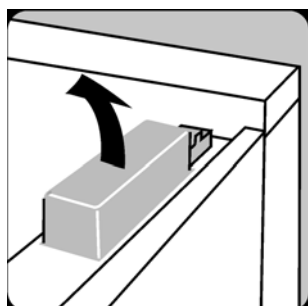
Moving the monitor away from the top cover area

2. Move the monitor to the side to prevent damaging it when opening the top cover.



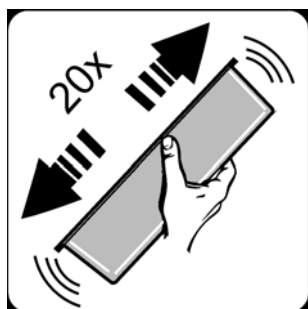
Opening the top cover

3. Unlock the top cover. Open the cover on the left side and pull the green lever forward. The top cover opens. The toner cartridge is located under the cover.



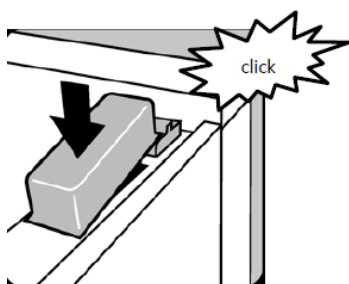
Removing the old toner cartridge

4. Remove the old toner cartridge. To do this pull the green attachment block back and remove the cartridge.



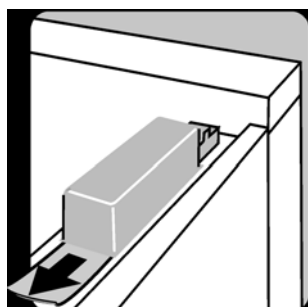
Shaking the new cartridge

5. Before inserting the new cartridge shake it at least 20 times.



Inserting the new cartridge

6. First, place the new cartridge to the left in the cartridge receptacle, then press the cartridge down until the cartridge audibly locks into the green attachment block.



Removing the sealing strip

7. After the cartridge locks in remove the sealing strip.

8. Close the top cover.
The top cover must audibly lock in.

The printer now automatically starts a short initialization phase to restore the original toner concentration. The printer status then changes to "ready".



After removing the empty cartridge check the toner status in the reservoir box. Do not insert a new cartridge if there is sufficient toner available. In this case request authorized service personnel from ROWE.

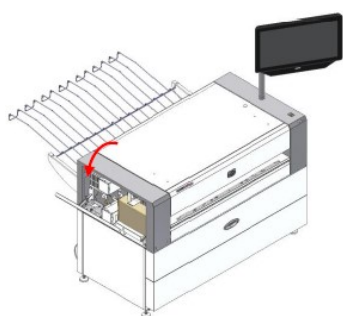


Check the fill level of the waste toner container each time you replace a toner cartridge, and replace it as needed. In all cases, replace the waste toner container after every second cartridge replacement. The waste toner container is created from the outer toner cartridge packaging.

4.7.5 Replacing the waste toner container

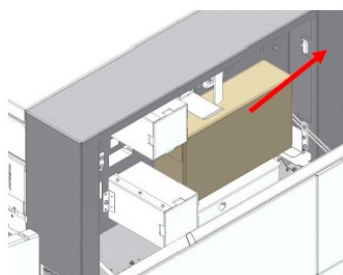
The toner packaging unit contains two cartridges. The waste toner container is made from the toner cartridge packaging. Replace the waste toner container with the packaging unit once the second cartridge from the package has been inserted in the machine. Because the toner is environmental toner, the waste toner container can be disposed of in the conventional disposal system. To replace the waste toner container, proceed as follows :

1. Press the Offline button in the control panel to switch the printer offline.
"Offline" appears in the display.



Opening the left side cover

2. Open the left side cover on the printer.
The waste toner container is located behind the cover.



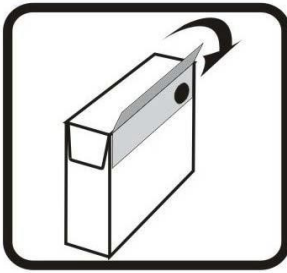
Removing the waste toner container

3. Carefully remove the waste toner container.



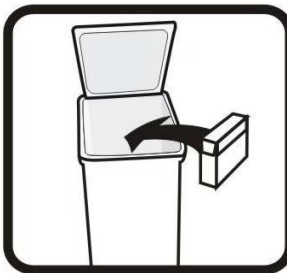
Removing the protective film from the adhesive strip

4. On the upper flap of the old waste toner container, remove the protective film from the adhesive strip.



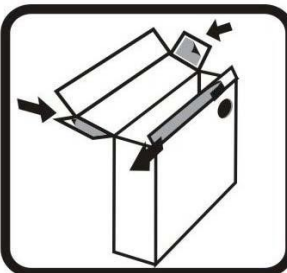
Closing the waste toner container

5. Press the top flap of the waste toner container down to close the fill opening.



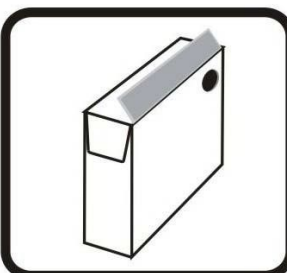
Waste toner container disposal

6. After you have close the waste toner container, dispose of it.



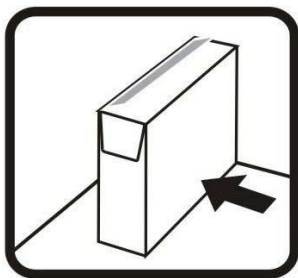
Removing the protective film from the adhesive strips

7. Make sure that both toner cartridges have been removed from the toner package. Then on the sides and lower edge remove the protective film from the adhesive strip.



Closing the lid of the waste toner cartridge

8. Close the lid of the waste toner cartridge. Bend the upper flap down and make sure that the protective film on the adhesive strip is not removed.



Inserting the waste toner container

9. With its opening facing forward, slide the waste toner container into its holder in the left compartment.

i Make sure the waste toner tube is in the opening of the waste toner container, otherwise it can result in problems with the waste toner cleaning unit.

10. Press the Online button in the control panel to report the printer as "ready". The printer starts automatically and performs a few print jobs. The original toner concentration has been reestablished.

4.7.6 Storing toner cartridges

Mandatory compliance is required for the following when storing toner cartridges:

- Only store the toner cartridges in their original containers.
- The storage temperature may not exceed 104 °F.
- Store the toner cartridges in a dry location.
- Protect the toner cartridges from sunlight.
- Keep out of reach of children.
- Keep the toner cartridges away from food and drink, as well as pet food.

4.7.7 Clearing paper jams



CAUTION

Risk of cuts when clearing the paper jam

Print media can have sharp edges. Contact with edges when clearing a paper jam can result in physical injuries.

- Be extremely careful when clearing paper jams.

The printer has been designed such that paper jams should not occur with proper paper rolling and correct paper feeding.

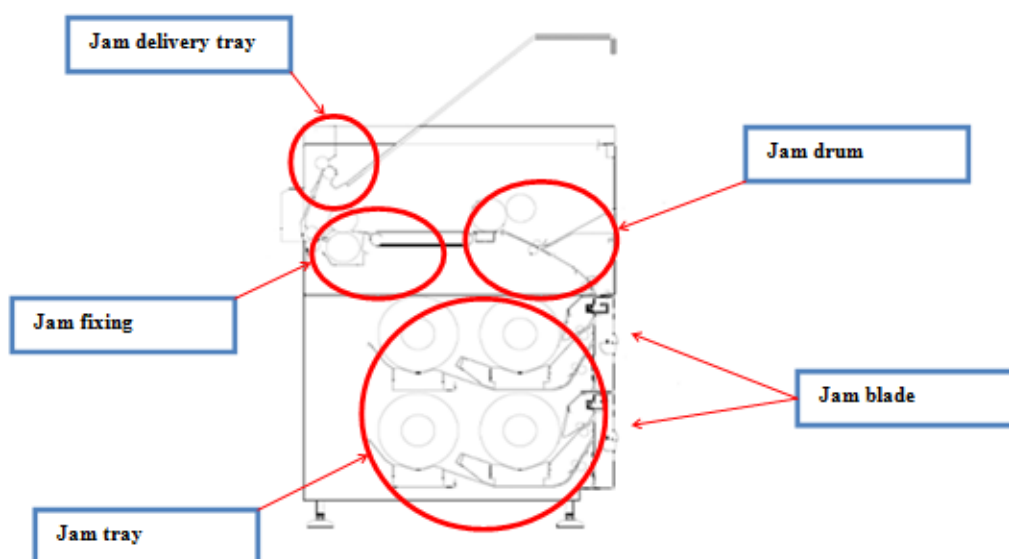
A static check of the paper route takes place each time the printer is switched on. During printing, the paper's route is monitored dynamically. If the start of the paper does not reach its destination by the calculated time, a corresponding status message is displayed.

The printer reacts to a jam by:

- Shutting down the drive
- Triggering a cut
- Retracting the paper rolls in the drawers

In some areas the machine has an automatic paper clearing function. Small scraps of paper may have to be removed manually.

Paper jams can occur in the following areas:



Cross-section of the printer

NOTICE

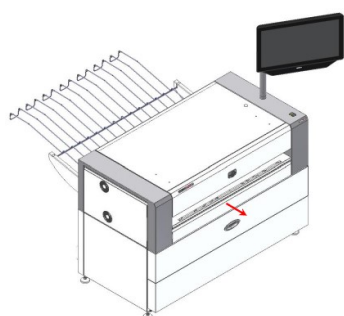
Damage to the monitor by opening or tilting covers, or grates
Opening or tilting covers, or grates can damage the monitor.

- Make sure the monitor is out of the way before opening or tilting covers, or grates.

4.7.7.1 Jam blade, Jam tray

A jam in the blade and tray areas can often be traced back to a faulty paper front edge (kink).

To clear the jam proceed as follows :

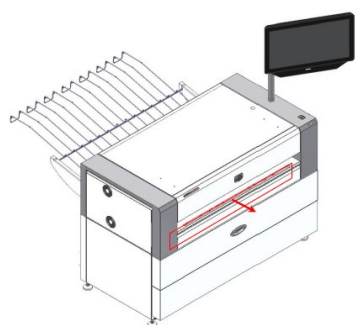


Opening the drawer

1. Open the respective drawer.

2. Roll up the paper roll completely.

3. Remove any remaining paper from the blade area.



Opening the front cover

4. Open the front cover and remove any remaining paper. Then close the front cover.

5. After all paper has been removed, feed in the paper roll again.

6. Make a correction cut by pressing the Cut button.

7. Close the drawer.

4.7.7.2 Jam drum

The drum area is monitored by sensors. The "Jam drum" message indicates that print medium was not separated correctly from the drum. In this case a cut is performed automatically and the paper is returned to the roll drawer. The printer attempts to automatically transport the paper out. If this is not possible, proceed as follows :

1. Open the front cover
2. Carefully pull the jammed medium out of the printer.
3. Close the front cover.
4. Start a new print job.

4.7.7.3 Jam fixing , jam delivery

If there is a jam in the fixing area a cut is performed automatically and the paper is returned to the roll drawer. The printer attempts to automatically transport the paper out. If this is not possible, check whether the beginning of the paper is visible at the printer delivery mechanism. If the beginning of the paper is visible at the printer delivery mechanism, you can pull the paper out towards the back. If the paper is not visible, proceed as follows:



WARNING

Risk of burns from touching the fuser roller

Depending on the medium, the fuser temperature in the delivery area can be between 302°F and approx. 392°F. Contact with a fuser roller can result in severe burns.

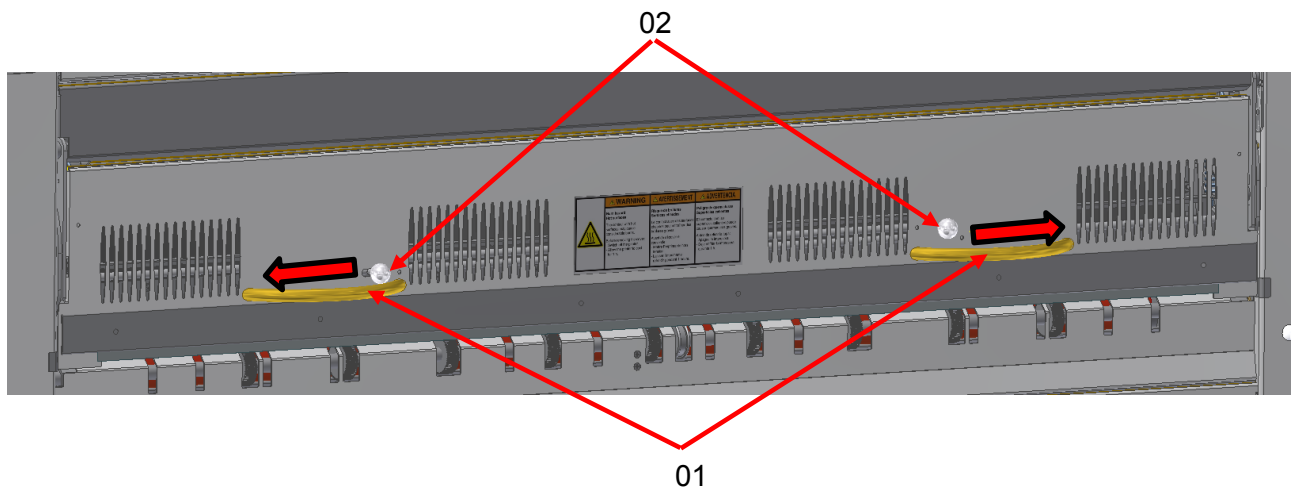
- Be extremely careful when clearing paper jams from this area.
- Open the rear cover and let the printer cool at least 60 minutes before beginning to clear the paper jam.



There are 2 versions of delivery area cover depending on the printer type. The process for clearing paper jams, depending on the version, is described on the following pages.

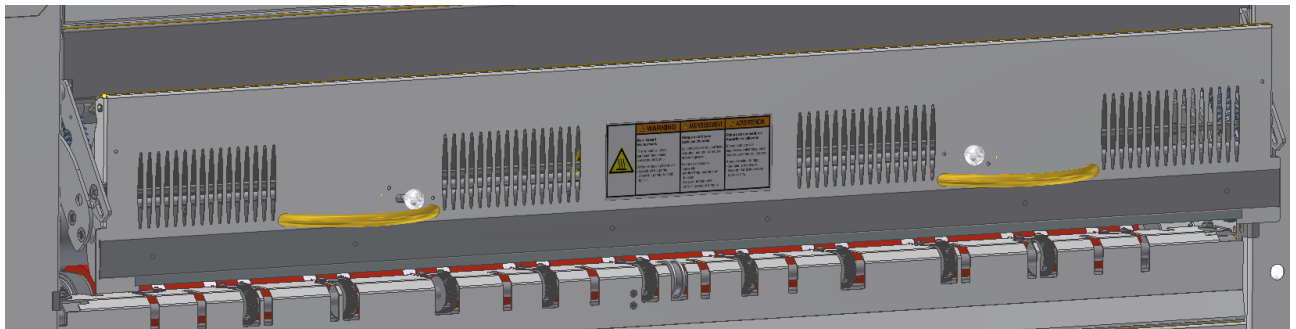
Version 1 (back delivery)

1. Using both hands, grip the rear cover handles (01).
2. Unlock the rear cover by sliding the ball buttons (02) toward the outside of the printer.




Example illustration

3. Hold the ball buttons in this position, pull the rear cover towards you and lift it to the end position.
4. Release the ball buttons.
The locking mechanism locks in automatically.

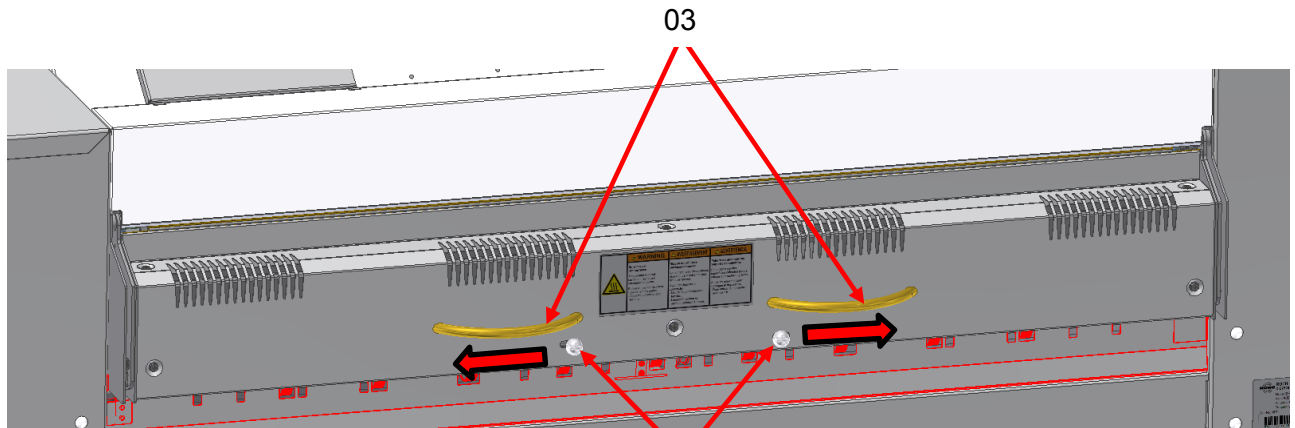


Example illustration

Operation	
5. Pull the paper out towards the back.	
6. Close the rear cover by performing steps 1 through 4 in the reverse sequence.	
i <i>Make sure the rear cover is parallel when guiding it into place.</i>	
7. Press the rear cover down until the locking mechanisms lock automatically.	
8. Check to make sure the rear cover is locked.	

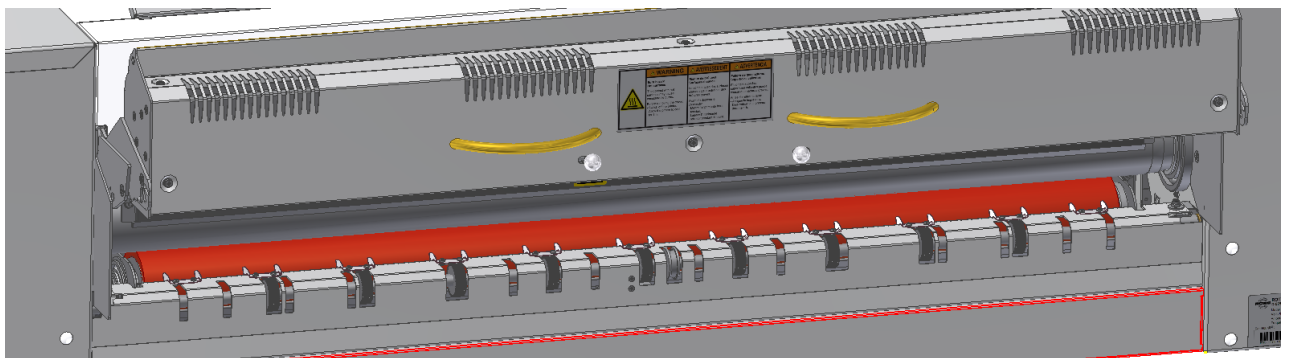
Version 2 (delivery to front delivery tray)

1. Using both hands, grip the rear cover handles (03).
2. Unlock the rear cover by sliding the ball buttons (04) toward the outside of the printer.



Example illustration

3. Hold the ball buttons in this position, pull the rear cover towards you and lift it to the end position.
4. Release the ball buttons.
The locking mechanism locks in automatically.



Example illustration

5. Pull the paper out towards the back.
6. Close the rear cover by performing steps 1 through 4 in the reverse sequence.

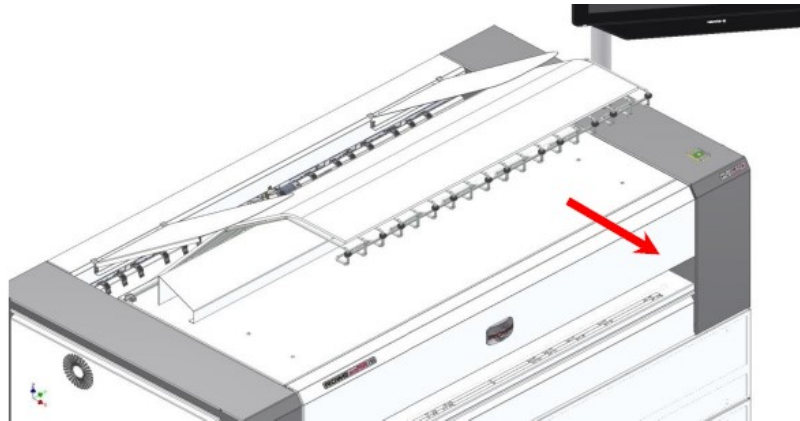


Make sure the rear cover is parallel when guiding it into place.

7. Check to make sure the rear cover is locked.

4.7.8 The front delivery tray(option) is filled with documents

If the "Front Delivery Tray full" message appears on the monitor, there are too many documents in the paper tray. The printer will not output additional documents until the existing documents are removed from the tray.

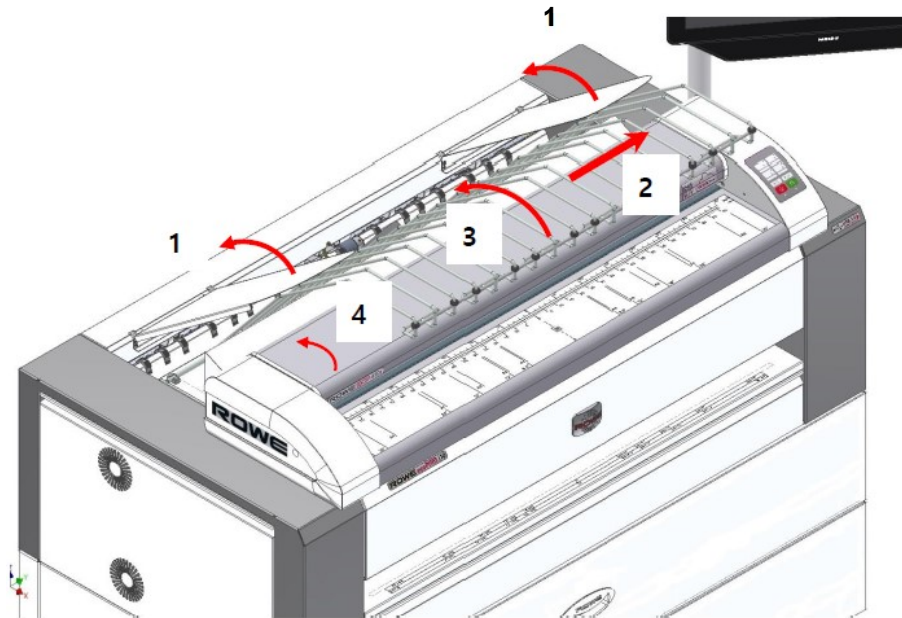


Removing paper from the tray

4.7.9 Opening the scanner (option) with the front delivery tray (option)

To open the upper section for the scanner e.g., to clear a paper jam or clean the glass plate, the wire tray first has to be flipped backward. To open the upper section proceed as follows:

1. Fold the guide plates backward
2. Slide the wire delivery tray to the right.
3. Fold the wire delivery tray backward.
4. Open the upper part of the scanner.
5. Close the delivery area cover by performing steps 1 through 4 in the reverse sequence.



Opening the scanner with the front delivery tray



4.8 Troubleshooting

The following problems may only be corrected by trained operating personnel.

If the problem cannot be corrected using the following instructions, contact ROWE authorized customer service.

- There is no reaction after turning on the main switch. The display remains dark. No power supply.
 - Make sure the power connection cable is plugged in.
- The printer is in operation, the system status on the display is "Ready", but you have no network connection to the printer.
 - Check the network cable
 - Check the network configuration (section 4.4.2.1). Ensure that the settings are correct for your local network. Compare the settings with those of your workstations and/or contact your network administrator.
 - Check the network connection of other workstations by trying to access the ROWE WEB CONNECT APP (section 4.5).

For expert assistance, please contact the manufacturer's customer service team:

ROTH + WEBER GmbH
Betzdorfer Straße
D-57520 Niederdreisbach

Phone: +49 2743 9217 0
Fax: +49 2743 2018
E-mail: info@rowe.de

5 Technical specifications

5.1 Rating plate - identification



Example of a rating plate

The rating plate identifies the printer. It contains the following information:

- Manufacturer's name
- Manufacturer's address
- Model name
- Printer number
- Technical specifications
- CE marking
- Additional certifications

5.2 Printer data

Table 9: Printer data

	i4	i6	i8	i10	i8L	i10L
Printer weight - 2 rolls (lb)	609	609	609	609	-	-
Printer weight - 3 rolls (lb)	688	-	-	-	-	-
Printer weight - 4 rolls (lb)	-	737	737	737	-	-
Printer weight - 6 rolls (lb)	-	-	-	-	898	898
ROWE FRONT DELIVERY TRAY weight (lb)	16	16	16	16	16	16
Dimensions						
Width (ft)	4.52	4.52	4.52	4.52	4.52	4.52
Height (ft)	4.62	4.62	4.62	4.62	5.38	5.38
Depth (ft)	2.45	2.45	2.45	2.45	2.45	2.45
Energy consumption (W)	1,200	1,350	1,450	1,550	1,450	1,550
Power supply	220/230 V, 50/60 Hz					
We reserve the right to make technical changes						



5.3 Monitor data

Table 10: Monitor data	
Energy efficiency class	A
Screen size	58.4 / 23 cm / inches
Power consumption when switched on	26 watts
Annual energy consumption	32.6 kWh
Power consumption in standby and when off	0.5 watts
Screen resolution	1,920 x 1,080 pixels
Color	Black
Image	
- Display	LED Backlight
- Format	16:9
- Feature	Full HD
- Panel technology	TN
- Frequencies	Horizontal frequency 31 – 80 kHz Frame rate 56 – 75 Hz
- Refresh rate	Gray to gray 5 ms
- Reaction time	Dynamic 80,000,000:1
- Contrast	250 cd/m2
- Brightness	170 Degrees
- Horizontal viewing angle	160 Degrees
- Vertical viewing angle	
Speakers	2x 1.5 watts
Connectors	
- Inputs	1 VGA 1 DVI-D 1 HDMI 1 3.5 mm audio jack
- Outputs	1 headphones
- Other	1 USB-B
Ergonomics	
- Forward/backward tilt	10 - 60 Degrees
- Wall mount	100 x 100 / 3.94 x 3.94 mm / inches
Energy Star	6.0
Dimensions (WxHxD)	576 x 408 x 44 / 22.68 x 16.06 x 1.73 mm / inches
Net weight	4.68 / 10.4 kg / lb



5.4 Operating conditions



Please be advised that the operating conditions for the printer are mandatory. You must obtain the approval of the manufacturer before operating the printer under different operating conditions.

Ambient temperature	59 - 86 °F
Ambient atmosphere	Non-explosive
Max. relative humidity	25 - 75 %
Lighting	Complies with valid workplace ordinances
Data connection	Ethernet network connection
Power connection	Connection socket with protective conductor

Room conditions

The following prerequisites must be ensured before setting up the printer:

- The printer may only be set up in a well-ventilated room.
- In addition to the printer, there must be sufficient free space so that it is accessible from all sides.
- The printer should be set up in an area as free of vibrations as possible (for example, not next to a large die cutting machine).
- Under no circumstances may the printer be set up in the following locations:
 - Near or over a heat source (e.g., a heater)
 - Next to volatile, flammable materials, such as curtains for example
 - In a hot, damp, dusty, or poorly ventilated environment.
 - In direct sunlight



5.5 Emissions

5.5.1 Noise emissions

Table 11: Noise emissions

Operating mode	Noise level L_p
Energy saving mode	Cannot be measured
Print mode	52 dB (A)

5.5.2 Exhaust ozone emissions

The following measured values fall significantly below the prescribed legal thresholds.

Table 12: Ozone emissions

Component	Ozone concentration
Complete printer (average value)	$< 0.0005 \text{ mg/m}^3$ ($< 0.00025 \text{ ppm}$)
Complete printer (peak value)	$< 0.001 \text{ mg/m}^3$ ($< 0.0005 \text{ ppm}$)

5.5.3 Thermal emissions

Table 13: Thermal emissions

Operating mode	Heat dissipation
Energy saving mode	23 W
Print mode	1,200 - 1,550 W



6 Disposal

Follow the national and local disposal regulations in effect at your location when disposing of:

- the printer
- the packaging materials
- fuels
- the waste media / printed media



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8 Appendix

8.1 Certificates

<h1>Certificate</h1>		 TÜVRheinland®
Certificate no.		CU 72140658 01
License Holder: ROTH + WEBER GmbH Betzdorfer Strasse 57520 Niederdreisbach Germany	Manufacturing Plant: ROTH + WEBER GmbH Betzdorfer Strasse 57520 Niederdreisbach Germany	
Test report no.: USA-JE 31480779 001		Client Reference: Manfred Licht
Tested to: UL 60950-1:2007 R12.11 CAN/CSA-C22.2 No.60950-1-07+A1:2011		
Certified Product:		License Fee - Units
Model Designation: ROWE aPrint ib c wxyz a= Eco, eco or blank; b=4,5,6,7,8,9 or 10; c= L or blank; w= - or blank; x/y/z= 1-9 or blank		7
Rated Voltage: AC 220/230V Rated Current: 15A Protection Class: I		
Appendix: 1, 1-7		7
Licensed Test mark:  C US	Date of Issue (day/mo/yr) 24/06/2014	

TÜV Rheinland of North America, Inc., 12 Commerce Road, Newton, CT 06470, Tel (203) 426-0888 Fax (203) 426-4009



Ref. Certif. No.

DE 2-017777-A1

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT
(IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE
CERTIFICAT D'ESSAI OC

Product
Produit

Printer

Name and address of the applicant
Nom et adresse du demandeur

ROTH + WEBER GmbH
Betzdorfer Str.
57520 Niederdreisbach, Deutschland

Name and address of the manufacturer
Nom et adresse du fabricant

ROTH + WEBER GmbH
Betzdorfer Str.
57520 Niederdreisbach, Deutschland

Name and address of the factory
Nom et adresse de l'usine

ROTH + WEBER GmbH
Betzdorfer Str.
57520 Niederdreisbach, Deutschland

Note: When more than one factory, please report on page 2
Note: Lorsque il y a plus d'une usine, veuillez utiliser la 2^{ème} page

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

AC 220/230V; 50/60Hz; 15A; Class I

Trade mark (if any)
Marque de fabrique (si elle existe)

Roth + Weber

Model/type Ref.
Ref. de type

ROWE aPrint ib c wxyz
(a = Eco, eco or blank; b = 4,5,6,7,8,9 or 10;
c = L or blank; w = - or blank; x/y/z = 1 - 9 or blank
and describe not safety relevant features)

Additional information (if necessary may also be
reported on page 2)
Les informations complémentaires (si nécessaire,
peuvent être indiquées sur la 2^{ème} page)

Correction of test report only, only documentary changes

A sample of the product was tested and found
to be in conformity with
Un échantillon de ce produit a été essayé et a été
considéré conforme à la

PUBLICATION **EDITION**
IEC 60950-1:2005 + A1 + A2
for national deviations see test report

As shown in the Test Report Ref. No. which forms part
of this Certificate
Comme indiqué dans le Rapport d'essais numéro de
référence qui constitue une partie de ce Certificat

21213560 002

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification



TÜV Rheinland LGA Products GmbH
Tillystraße 2 · 90431 Nürnberg, Germany
Phone + 49 221 806-1371
Fax + 49 221 806-3935
Mail: cert-validity@de.tuv.com
Web: www.tuv.com



Date: 07.07.2014

Signature:

Dipl.-Ing. F. Möcking



8.2 Material safety data sheets

Caveat emptor

The content of all material safety data sheets in this manual is subject to the following caveat.

The material safety data sheets were conscientiously assembled to the best of our knowledge as a brief guide for the safe handling of the ROWE ecoPrint series. ROWE retains the right to revise the material data safety sheets should new information come to our attention.

It is the customer's responsibility to evaluate the extent to which this information is sufficient for determining all necessary safety measures, and to make certain with ROWE that this is the latest data sheet.

We will not be held liable, to the extent legally permitted, for the correctness and completeness of these material data safety sheets.










8.2.1 Product material data safety sheet

MATERIAL SAFETY DATA SHEET

Date: May 2014

Large format printer: ROWE ecoPrint i4, i6, i8, i10L, i8L, i10L



Manufacturer:	ROTH+WEBER GmbH 57520 Niederdreisbach - Germany
Description:	Electrophotographic large format network printer (914), floor-standing model, normal paper
Dimensions:	W 4.52 x D 2.45* x H 4.62 ft (i4, i6, i8, i10) W 4.52 x D 2.45* x H 5.38 ft (i8L, i10L) * without stacker, wire delivery tray
Weight:	609 lb (i4, i6) 737 lb (i8, i10) 898 lb (i8L, i10L)
Voltage:	220/230 V AC
Frequency:	50/60 Hz
Current, max.:	16 A (type K circuit breaker required)
Power consumption:	Energy saving mode: 41 W Print mode: 1200 W (i4), 1350 W (i6), 1450 W (i8/i8L), 1550 W (i10/i10L)
Power connection:	Connection cable with safety plug
Noise level:	Energy saving mode: not measurable Operation: 52 dB(A) (according to ISO 7779 in operator position)
Ozone concentration:	<0.0005 mg/m ³ (<0.00025 ppm) mean value <0.001 mg/m ³ (<0.0005 ppm) peak value
Emissions rate:	0.3 mg/hr.
Room volume:	Recommended 1766 ft ³
Fresh air intake:	Recommended 1060 ft ³ /hr., natural fresh air intake
Ambient temperature:	Recommended 64.4°F - 77°F
Relative humidity	Recommended 30 % - 75 %
Approval mark:	CEEG Low voltage directive (2006/95/EC) EN 60950-1:2006 (2nd Edition) +A11:2009 + A1:2010+A12:2011+A2:2013 IEC 60950-1:2005 (2nd Ed) +A11:2009 + A2 EMC directive (2004/108/EC) CCC – GB 17625.1-2012; GB 4943.1-2011; GB 9254-2008 UL 60950-1:2007 R12.11 CAN/CSA-C22.2 No.60950-1-07+A1:2011 FCC CFR, part 15, Kl. B RoHS Compliance EAC BIS Energy Star        
Consumables:	ROWE organic photoconductive drum BT 0000/07/00/001 ROWE ecoToner BT 0000/07/00/022 ROWE ecoToner BT 0000/07/00/030 ROWE copier materials
Remarks:	Follow the instruction manuals and safety instructions.
The content of this material safety data sheet is subject to the warranty caveat.	



8.2.2 Magnetic roller material data safety sheet

General information:

Permanent magnets and magnetic materials are technical products that require safety precautions when used.

Hazard information:

Persons with cardiac pacemakers may not be exposed to magnetic fields.

Keep magnetic data media away from magnetic fields.

The functions of electronic devices can be impaired by magnetic fields.

Crush hazard. Improper handling of the magnetic rollers can result in irreparable damage.

Handling information

Do not place the magnetic roller near iron filings, tools, etc. Carefully introduce magnetic rollers to other magnets or magnetized iron parts to prevent potential crushing.

8.2.3 OPC photoconductive drum material data safety sheet

General information:

The OPC photoconductive drum is not intended for protection or decoration, it primarily represents a semiconductor. For this reason, OPC photoconductive drums are particularly sensitive to dirt, chemical reactions, and physical contact.

Directions:

Store in a cool, dry place. Avoid direct light as well as chemically aggressive gases and vapors. Do not touch the surface of the photoconductive drum. Do not open the packaging until the photoconductive drum is needed. Avoid scratches. Improper handling will result in irreparable damage.

Benefit – Risk – Ratio:

Regular cleaning of the drum (e.g., during maintenance) only increases the lifespan and reliability of the drum. The function of individual drums may improve slightly after cleaning. However, damage could occur to the drums during the cleaning procedure, requiring the drums to be replaced immediately. The average lifespan of a drum is not increased through cleaning.

When do the drums have to be cleaned:

OPC drums have to be cleaned when there is low quality toner, developer, paper, or in accordance with Appendix B391 of the cleaning sheet.

**Cleaning procedure**

Never touch the surface of the drum with bare hands. Hold it by the flanges during cleaning. The drum may never come in contact with water, oil, or organic solvents, as there is an extremely high risk of surface contamination with residues, and of chemical reactions with the coating. This would result in the drum wearing out before its time. Never expose the drum to direct sunlight, and store it in dark rooms where possible. Make absolutely certain that the drum surface does not become scratched.

Recommendations:

Drum manufacturers recommend not cleaning the OPC drums. However, if drum cleaning is necessary for whatever reason, proceed as follows: First, clean the surface with a dust-free cotton cloth soaked with alcohol (ethanol). Make sure the drum is only cleaned in the direction of rotation, never in the opposite direction. Then dry the drum thoroughly and wipe it again with a dust-free cotton cloth. After cleaning with ethanol, wipe the drum surface with a lightly moistened, dust-free cotton cloth, following the procedure above.

8.2.4 Toner material data safety sheet – according to EU Directive 91/155**Product identification:**

Product name	Toner BT 0000/07/00/022
Reference source	ROTH+WEBER GmbH

Composition / ingredient information:

Chemical characteristics	CAS. Registration number
Polyester resin	119681-86-6
Carbon Black	1333-86-4
Organic pigments	31714-55-3
Ethylene / Propylene copolymer	9010-79-1
Amorphous resin	112945-52-5

Possible product hazards:

No hazards expected under normal usage conditions.

**First aid:**

Inhalation: Bring the patient into fresh air. Keep the patient warm and calm.

Eye contact: Immediately rinse the eyes with clean water for five minutes. Remove contact lenses before washing.

Swallowing: Give several glasses of water to drink.

Skin contact: Wash with soap and water.

Additional information: Seek medical attention in case of doubt or if symptoms do not improve.

Firefighting measures:

Extinguishing agent: Water or foam, carbon dioxide Do not inhale gases produced by explosions or fire.
Poisonous, irritating vapors could be produced.
Wear breathing masks.

Actions in case of accidental release:

Do not create dust. Sweep or vacuum up spilled material and dispose of it in a closed container.
Avoid inhaling toner dust.

Handling:

Follow the general precautionary measures when dealing with chemicals. Keep away from heat and sources of ignition. Do not smoke when working. Do not inhale dust. *Notice:* As with most organic materials in powder form, the toner is capable of causing dust explosions.

Storage:

Store in its original container at temperatures less than 104 °F. Keep out of reach of children. Keep away from food, drink, and pet foods.

Personal protective equipment:

Wear synthetic gloves.

Explosion limits:

Dust load: in Great Britain, the HSE (EH40) recommends the following maximum concentration for dust: 10 mg/m³ (8 hr. TWA) total inhaled dust: 5 mg/m³ (8 hr. TWA) total breathable dust.

Physical and chemical properties:

Solid, black powder, soluble in water, slight odor, can form explosive mixtures with air, lower explosion limit at approx. 15% (in air), flammable solid, melting point under 212 °F, spontaneous combustion point >680 °F, ph NA, specific density approx. 1 (water = 1), vapor pressure NA psi.

**Stability and reactivity:**

No hazardous reactions are known when used for its intended purpose. Stable up to approx. 392 °F. Can produce carbon monoxide and carbon dioxide upon burning. Keep toners away from strong oxidation agents.

Toxicology information:

Toner dust can irritate skin, eyes, and the respiratory system.

Ecological information:

Does not represent an environmental hazard. Water pollution class 0 (self-classification)

Disposal information:

No special disposal measures. Incinerate in closed containers only. Disposal in accordance with local, regional, or national regulations.

Transport stipulations:

UN

UN No.: NA

Hazard class: NA

Packaging group: NA

Street / rail traffic (GGVS/ADR and GGVE/RID)

ADR UN No.: NA

ADR hazard class: NA

ADR Parts No.: NA

ADR/RID No.: NA

Trem card NA

Overseas (GGVSee/IMDG) IMDG

UN No.: NA

MDG hazard class: NA

IMDG page no.: NA

IMDG Packaging cl.: NA

IMDG EmS: NA

IMDG MFAG: NA

Air freight (ICAO / IATA) ICAO

UN No.: NA

ICAO Hazard class: NA

ICAO Packaging cl.: NA

Transport information:

Classified as non-hazardous for transport.

**Regulations:**

Non hazardous according to the current directive regarding hazardous compounds (88/379/EEC). Non hazardous according to the current CHIP ordinances. Non hazardous according to the current ordinance regarding hazardous material. Classified as non-hazardous for handling. The information delivered in the material data safety sheet for the product was created based on knowledge of the individual components.

Risk sets: NA

Safety sets: NA

Additional information:

The exact composition of the product is strictly confidential. Further information will only be provided to medical professionals in special cases, where special handling is required.

This product complies with all European safety regulations.

Water risk class: WRC 0 = none; 1 = slight; 2 = medium; 3 = significant hazard NA = not applicable; ND = no information; TWA = total weighted average LTEL = 8 hr. TWA; STEL = 15 min. TWA; ppm = parts per million (m³)

This information refers only to the safety of the designated product, based on our current knowledge. Any misinformation or omissions will not be the basis for legal claims.