

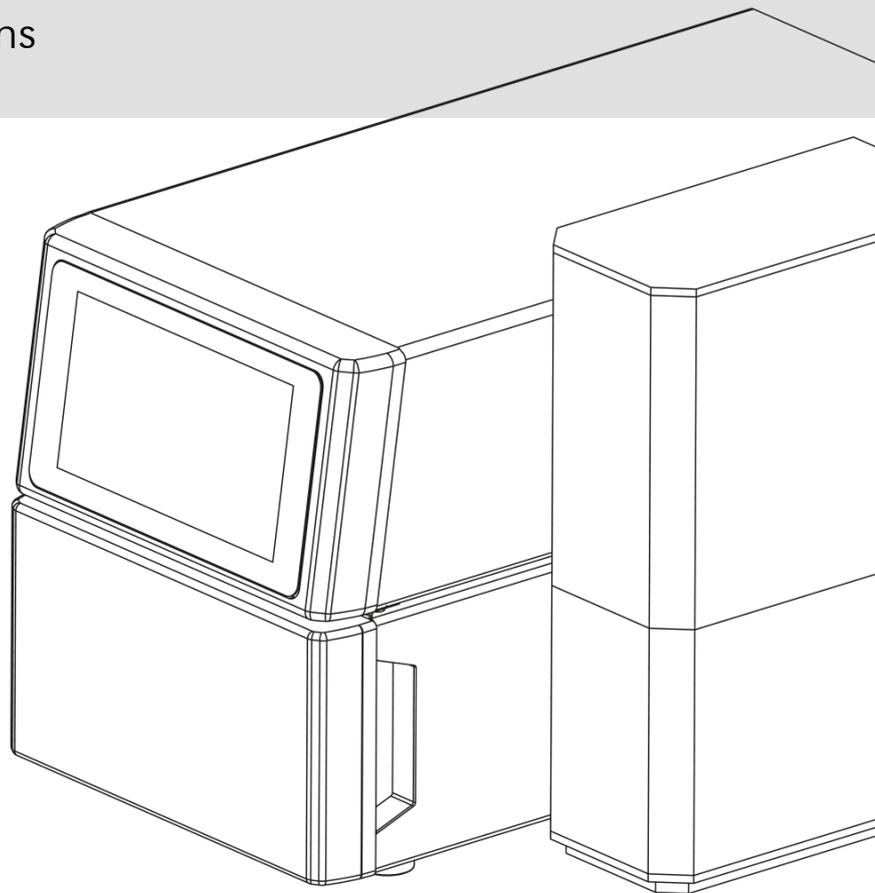


RS wash

D wash | P wash | SHERAprint wash

3Dewash

Original operating instructions



About these Operating instructions

These operating instructions enable the safe and efficient use of the machine. The operating instructions are part of the product and must be kept accessible to the personnel in its immediate vicinity at all times.

Personnel must carefully read and understand these instructions before starting any work. Compliance with the safety instructions and handling instructions specified in this manual is the prerequisite for safe working practices.

In addition, the local health and safety regulations and general safety regulations apply to the area of application of the machine.

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After the editorial deadline of this documentation, the product may have changed. We expressly reserve the right to make changes to the technical data or design as well as changes to the scope of delivery.

The original operating instructions were created in German.

Our general terms and conditions apply.

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Product type

These instructions are valid for the following models:

- RS wash
- D wash
- P wash
- SHERAprint wash
- 3Dewash

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1 Safety

1.1 Symbols in this manual

Safety instructions

The safety instructions in this manual are marked with symbols. The safety instructions are introduced by signal words that express the extent of the hazard.



DANGER!

This combination of symbol and signal word indicates an imminently dangerous situation which may lead to death or severe injury if not avoided.



WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation which may lead to death or severe injury if not avoided.



CAUTION!

This combination of symbol and signal word indicates a potentially dangerous situation which may lead to minor or slight injuries if not avoided.



NOTE!

This combination of symbol and signal word indicates a potentially dangerous situation which may lead to material damage if not avoided.



NOTE!

This combination of symbol and signal word indicates a potentially dangerous situation which, if gloves are not worn, may result in hand injuries.



ENVIRONMENTAL PROTECTION!

This combination of symbol and signal word indicates potential dangers to the environment.

Special safety instructions

In order to draw attention to particular dangers, the following symbols are used in safety notices:



Warning: dangerous electrical voltage



Warning: hand injuries

Tips and recommendations



This symbol highlights useful tips and recommendations, as well as information for efficient and trouble-free operation.

1.2 Intended use

The cleaning unit is intended for cleaning components manufactured in the DLP process with isopropanol. The digital workflow is to be observed. (→ Chapter 1.2.1)

The printer system is designed for temperature controlled interiors. (→ Chapter 10)

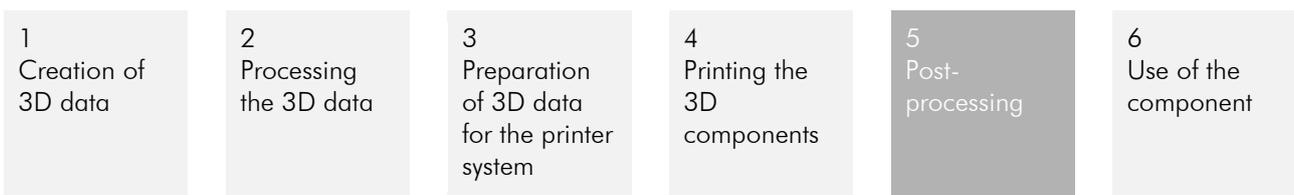
Proper use requires compliance with all information in this manual.

Any use going beyond the intended use or otherwise is deemed to be improper. The operator is exclusively liable for any resulting damage.

Use contrary to the intended use includes, but is not limited to the following actions:

- Operation within potentially explosive areas
- Operation with explosion-hazardous printing materials
- Outdoor operation
- Operation in tropical climates
- Operation in wet, damp rooms
- Operation without sufficient instruction
- Operation with defective or modified safety devices
- Operation without mandatory safety equipment
- Operation with unauthorised spare parts
- Improper conversions, modifications, repairs and maintenance

1.2.1 Digital Workflow



The cleaning unit described in these operating instructions is part of the digital workflow and is used in step 5.

1.3 Residual risks

The machine is designed and manufactured according to the state of the art and according to current safety requirements. Nevertheless, residual risks remain, which require prudent action. The following lists the residual risks and the resulting behaviour and measures.

1.3.1 Electrical current



DANGER!

Danger to life due to electric current!

Incorrect connection, insulation faults, foreign objects (dust, liquid due to inappropriate installation environment) or lack of grounding can lead to housing parts being live. There is an imminent danger of electrocution in the event of contact with live parts.

- Work on the electrical equipment may only be carried out by qualified electricians and in compliance with the relevant safety and VDE regulations.
- Machines with damage to the power cord, insulation or lack of earthing must be disconnected from the mains immediately. Repairs are to be made immediately.
- Before starting work on active parts of the electrical equipment and operating material, make sure that it is de-energised and secure for the duration of the work.
- Fuses must never be bypassed or put out of service.
- Connect the mains plug to the nearest and correctly grounded socket of the machine.
- Only operate the machine with the mains voltage specified for the machine.
- Only operate the machine with the power supply unit supplied
- The mains plug must be freely accessible at all times. A complete separation of the machine from the mains in an emergency by pulling out the power plug (→ Chapter 5).
- Disconnect the machine in case of prolonged absence and in the case of storms.
- Keep moisture away from live parts. This may lead to short circuiting.

1.3.2 Mechanical dangers



CAUTION!

Risk of injury due to moving parts!

The machine consists in part of accessible parts that can easily cause hand injuries through crushing or getting caught.

- When closing the drawer, do not insert any fingers into the closing area of the drawer.
- During operation, never reach into the area of the rotors.

1.3.3 Chemical dangers



WARNING!

Risk of injury due to harmful substances!

The cleaning liquid required for operation can emit harmful fumes and cause dizziness and irritation of the respiratory tract. Direct skin contact may cause skin irritation.

- It is necessary to provide sufficient fresh air.
- Cleaning liquid containers may only be lifted and tilted if the bottles contained in them had been removed first.
- If necessary, wear appropriate protective clothing.
- Read the appropriate safety data sheets carefully.
- Always store cleaning liquid containers that you do not use out of the reach of children.

1.3.4 Danger of material damage

Overheating



NOTE!

Material damage due to overheating!

Too high ambient temperatures and a disabled air outlet may overheat the overall system.

- The air outlet must never be covered.
- Maintain the specified ambient temperature (→ Chapter 10).
- Never install the machine in a closed cabinet.
- Keep a minimum distance of 20 cm behind the machine so that the heat generated can be dissipated without hindrance.

Environmental conditions



NOTE!

Material damage due to environmental conditions!

Separate environmental conditions may result in property damage to the machine.

- Protect the machine from moisture, dripping water and splashing water.

- Protect the machine from dust in excessive quantities.
- Protect the machine from heat and direct sunlight.
- Keep open flames away from the machine.
- Do not place objects filled with liquids (such as drinks) in the immediate vicinity of the machine.

1.4 Personnel requirements



WARNING!

Risk of injury in case of inadequate qualification of personnel!

If unqualified personnel carry out work on the machine, dangers arise which can cause injuries and material damage.

- All activities must be carried out by qualified personnel only.

The following are the required qualifications of the personnel to work with the machine:

Operator

The operator is the person who operates the equipment for commercial or economic purposes or loans it to a third party for operation and bears legal product responsibility during the operation for the protection of the user, the personnel or third parties.

The operator has been trained by the manufacturer in handling the machine and the necessary accessories and can recognise possible dangers independently and avoid hazards.

Operator obligations

The operator

- is obligated to read these operating instructions fully before using the system for the first time.
- is obligated to ensure that all persons working with the machine have read and fully understood the contents of these operating instructions.
- is obligated to provide these operating instructions for the personnel at a fixed location near the machine.
- is obligated to inform regularly all persons who work with the machine about the current general accident protection guidelines. must ensure that precautionary safety measures at work are respected.
- is obligated to inspect regularly and keep up-to-date first aid facilities and fire protection.
- is obligated to provide the prescribed safety equipment to all persons working with the machine.
- is obligated to check all safety devices and safety equipment regularly for their functionality.

Qualified electricians

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, electricians are able to carry out work on electrical systems and to recognise and avoid possible dangers independently. The qualified electrician has been

specially trained in the working environment in which he or she is active.

Basic requirements of the personnel

Only persons who can be expected to perform their work reliably are eligible as qualified personnel. People whose response capacity has been affected, e.g. through drugs, alcohol or medication, may not work on the machine.

Personnel who are being trained, instructed, taught or undergoing general apprenticeships should only be allowed to work on the machine under the constant supervision of the operator.

1.5 Personal protective equipment

Description of the personal protective equipment

Personal protective equipment helps protect people from negative impacts on their safety and health.

Personnel must wear personal protective equipment while working on and with the machine, as referred to in the individual sections of this manual.

The personal protective equipment must be provided by the operator and must be checked for function before starting work on the machine. The following describes the personal protective equipment:

Protective gloves



Wearing protective gloves protects the skin from contact with skin damaging materials. Therefore, read the appropriate safety data sheets of the material manufacturer.

1.6 Environmental protection



ENVIRONMENTAL PROTECTION!

Danger to the environment through incorrect disposal of materials!

Incorrect disposal of used cleaning liquid can cause considerable damage to the environment.

- Dispose of all materials according to local waste disposal regulations. Please take note of the safety data sheets of the respective materials.

2 Overview

2.1 Machine Assembly / Operating Elements

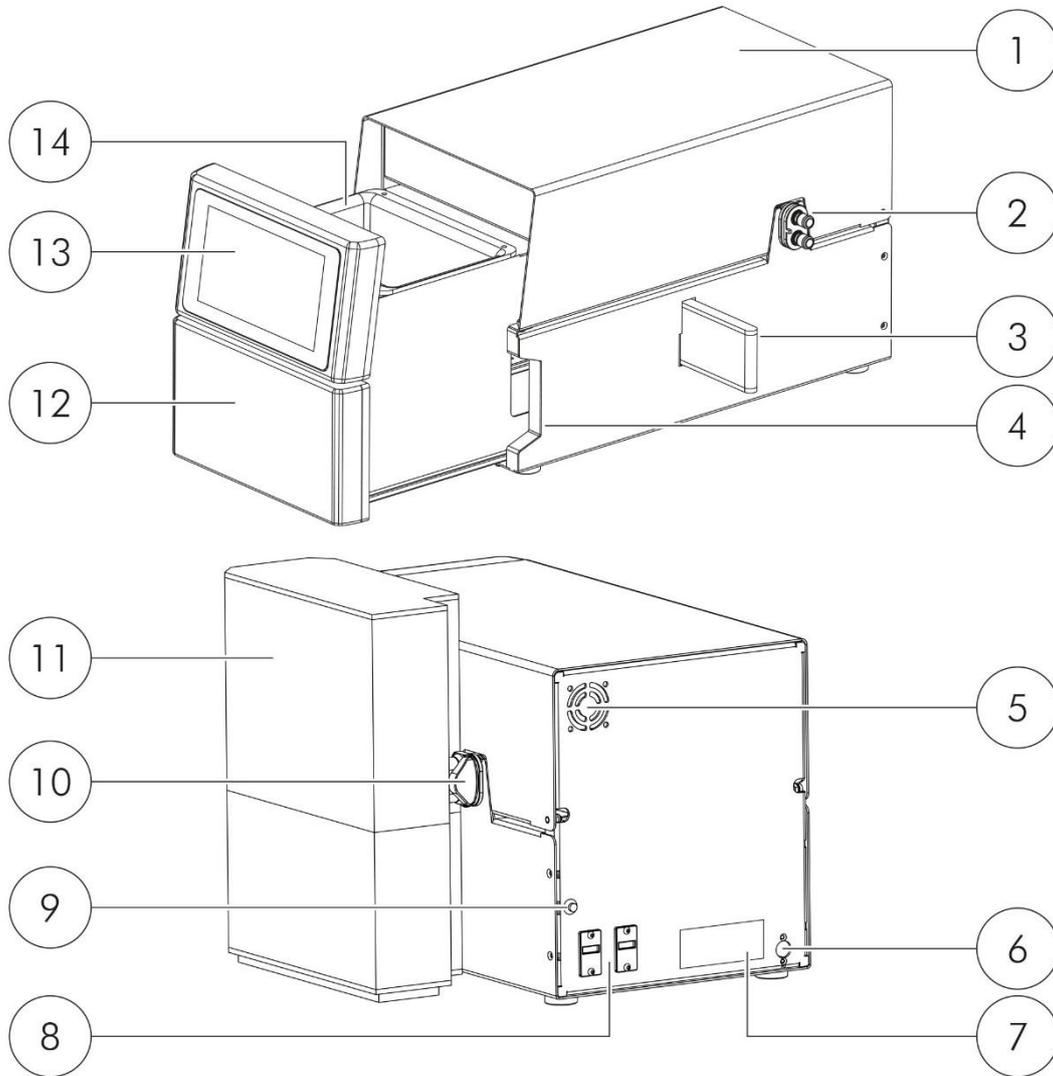


Figure 1: Machine overview

- | | |
|-----------------------|------------------------------|
| 1 Lid | 8 USB/Ethernet connection |
| 2 Coupling connection | 9 Power on/off button |
| 3 RFID reader | 10 Quick coupling |
| 4 Drawer extension | 11 Cleaning liquid container |
| 5 Air outlet | 12 Drawer |
| 6 Power connection | 13 Touch display |
| 7 Serial plate | 14 Inner container |

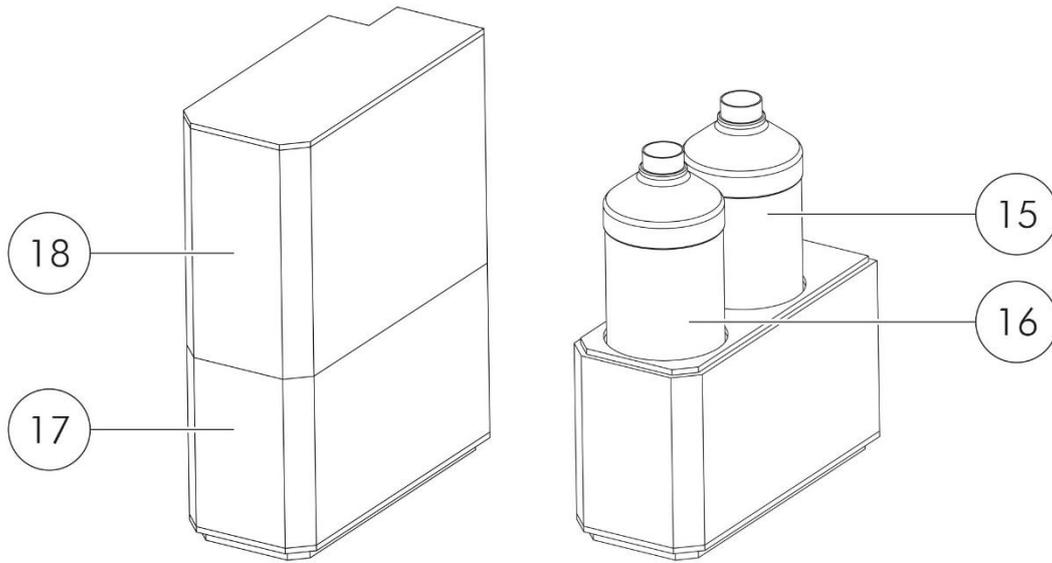


Figure 2: Overview cleaning liquid container

- 15 Cleaning bottle 1 (dirty)
- 16 Cleaning bottle 2 (clean)
- 17 Container bottom
- 18 Lid

2.2 Serial plate

The serial plate is situated on the machine rear. It shows the most important technical data and the serial number of the machine.

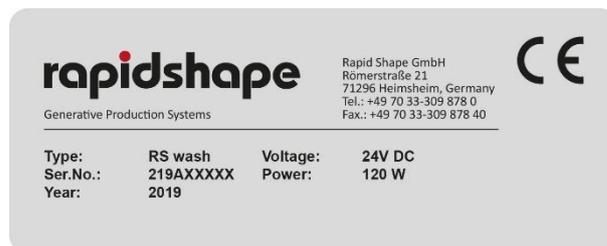


Figure 3: Serial plate RS wash (sample)

3 Transport & storage

3.1 Safety during transport



NOTE!

Material damage caused by improper transport!

Improper transport may cause the machine to fall. This can cause material damage.

- Only transport the machine with the packaging provided.
- In the event of subsequent transport of the machine, make sure that the interior chamber is empty before starting the transport.

3.2 Transporting the machine

Transport Damage

Check the transport packaging immediately upon receipt for any visible damage. Damage must be recorded in written and image form and then immediately reported to the transport company and Rapid Shape.

Transport

The machine can be transported by one person.

1. Grasp the bottom of the transport packaging and transport it to the destination.
2. Then unpack the machine. → Chapter 3.3



NOTE!

Do not turn over the transport packaging during transport. This can lead to material damage to the machine.

3.3 Unpacking the Machine

For unpacking the machine please proceed as follows:

1. Open the transport packaging. The machine is protected against vibration with foam rings:
2. Grasp the separately packed cleaning liquid container and remove it from the transport packaging.
3. Then grasp into the packaging from the top. Grasp the machine directly on the housing!
4. Lift the machine out of the transport packaging.
5. Set up the machine. → Chapter 4.2



Store all parts of the transport box safely for future transport of the machine.

3.4 Scope of delivery

The standard delivery includes the following parts:

- Cleaning unit
- Power supply
- Cleaning liquid container

Optionally, additional accessories can be supplied. For more information, please contact Rapid Shape.

3.5 Storing the machine

Store the machine

- in a dry, dust-free and frost protected room.
- on a horizontal base.
- with the drawer closed.
- without connected cleaning liquid container.
- ideally in the original packaging.

Also make sure that there are no components in the inner container.

4 Installation

4.1 Safety during installation



DANGER!

Danger to life due to electric current!

Incorrect connection, insulation faults, foreign objects (dust, liquid due to inappropriate installation environment) or lack of grounding can lead to housing parts being live. There is an imminent danger of electrocution in the event of contact with live parts.

- Work on the electrical equipment may only be carried out by qualified electricians and in compliance with the relevant safety and VDE regulations.
- Machines with damage to the power cord, insulation or lack of earthing must be disconnected from the mains immediately. Repairs are to be made immediately.
- Connect the mains plug to the nearest and correctly grounded socket of the machine.
- Only operate the machine with the mains voltage specified for the machine.
- Only operate the machine with the power supply unit supplied
- The mains plug must be freely accessible at all times. A complete separation of the machine from the mains in an emergency by pulling out the power plug (→ Chapter 5).
- Keep moisture away from live parts. This may lead to short circuiting.

4.2 Setting up

4.2.1 Requirements for the installation location

For the smooth functioning of the machine, please note the following requirements at the installation location:

- dust protected room
- sufficient fresh air supply
- protection against direct sunlight (window equipped with UV protection film)
- UV-protected exposure
- stable base (table)
- Internet connection (LAN/WLAN)

The following optional requirements are recommended:

- Sink with fresh water
- Air conditioned environment

4.2.2 Setting up the machine

For setting up the machine please proceed as follows:

1. Prerequisite: The machine has already been unpacked.
→ Chapter 3.3
2. Lift the machine and accessories to the desired installation location and set them down.
3. Remove all transport locks from the machine and the accessories.
4. Make sure that the four feet of the machine are completely resting on the ground.
5. Place the cleaning liquid container next to the machine.

4.3 Connecting

4.3.1 Power connection

To make the power connection, please proceed as follows:

1. Prerequisite: The machine has already been set up.
→ Chapter 4.2.2
2. Slide the cap of the power plug back until the stop and hold the cap in this position. Then insert the plug into the power connection of the machine.
Pay attention to the positioning of the plug. The flat plug side must point inwards!
3. Then, connect the power supply to the nearest outlet. Be careful not to trip over cables lying around.
4. *Recommended: Connect a network cable to the Ethernet port on your machine and to your network interface. In this way, software updates can be installed automatically.*
5. Then switch on the machine. → Chapter 6.2

4.3.2 Cleaning liquid container

For equipping and connecting the cleaning liquid container please proceed as follows:

1. Prerequisite: The machine has already been switched on.
→ Chapter 6.2
2. Call up the bottle change wizard on the user interface. Start the wizard.
3. Remove the lid of the cleaning liquid container and place it upside down (tubes facing upwards) on a flat surface.
4. Slide the bottom of the container to the RFID reader.
5. Unscrew both bottles with cleaning liquid. Place the bottle caps in the appropriate storage compartments of the container base.
6. Insert a bottle in the rear position of the container. Pay attention to the position markings on the bottle and container. The RFID tag on the bottle is read.
7. Insert the second bottle in the front position of the container. Pay attention to the position markings on the bottle and container. The RFID tag on the bottle is read.
8. Put the lid back on. Insert the tubes into the bottle openings.
When doing so, make sure that the container is not removed from the RFID reader.

9. Connect the equipped container to the coupling connection of the machine. The coupling must click in audibly.
10. Finish the wizard on the user interface. Return to the Home screen.



The machine automatically detects when the cleaning liquid needs to be changed and, with a note on the user interface, alerts you of a required bottle change.
→ Chapter 8.2.1

4.3.3 Connect to other machines

The cleaning unit can be connected to existing 3D printers in the surroundings. In this way, completed print jobs are sent from the 3D printer to the cleaning unit and allow a cleaning process based on the print job submitted.

To establish a connection between the cleaning unit and the 3D printer, please use the 'Settings' menu item → 'Set up connection with printer'.

5 Emergency shut down

In an emergency, proceed as follows:

1. Unplug the mains plug.

6 Operation

6.1 Safety during operation



CAUTION!

Risk of injury due to moving parts!

The machine consists in part of accessible parts that can easily cause hand injuries through crushing or getting caught.

- When closing the drawer, do not insert any fingers into the closing area of the drawer.
- During operation, never reach into the area of the rotors.



NOTE!

Wearing protective gloves protects the skin from contact with skin damaging materials. It is therefore essential to observe the information provided by the material manufacturer.

6.2 Switching on the machine

To switch on the machine, please proceed as follows:

1. Prerequisite: The machine has already been fully connected.
→ Chapter 4.3
2. Turn the machine on using the power in/off button.
 - The machine is started and performs a self-test during start up.
 - After completion of the self-test, the user interface Home screen is displayed.

6.3 Equipping the machine

For equipping the machine please proceed as follows:

1. Grasp the drawer extensions on the left and right of the machine and open the drawer.
2. Place your components in the inner container.
Observe the instructions for equipping, see below!
3. Close the drawer.
Be careful of your fingers.
4. Select the operating mode. → Chapter 6.4



The components must never touch the rotors as they may otherwise be damaged.



The components must not overlap each other. The maximum filling level must not be exceeded, see marking on the infeed grid.



If you used a disposable building platform for printing, place the building platform in the appropriate capsule insert.



If you want to clean a building platform, place it flat side down in the inner container.



Hollow models must be separated from the building platform due to their mechanical properties prior to the cleaning process. For an optimum drying result we recommend inserting hollow models with the cavities downwards.

6.4 Select operating mode & start

To start the cleaning process, you can choose from the following three operating modes:

- Operating mode ‚Jobs‘ → Chapter 6.4.1
- Operating mode ‚Material‘ → Chapter 6.4.2
- Operating mode ‚Custom‘ → Chapter 6.4.3

6.4.1 Operating Mode ‚Jobs‘

In the ‚Jobs‘ operating mode, the cleaning process is performed based on the print job submitted. To start the process, please proceed as follows:

1. Prerequisites: There is a connection between the cleaning unit and the 3D printer. → Chapter 4.3.3
The inner container is properly equipped. → Chapter 6.3
2. Go to Home screen.
3. Select the ‚Jobs‘ tab.
4. Select the respective print job.
5. Press the ‚Start‘ button. The cleaning process starts, the current progress is shown on the display.



Figure 4: Home screen, job selection



The cleaning parameters (e.g. the cleaning time) are selected based on the print job.



For safety reasons, the machine should not be opened during the cleaning process.

6.4.2 Operating Mode ‚Material‘

In the 'Material' operating mode, the cleaning process is performed based on the materials used. To start the process, please proceed as follows:

1. The inner container is properly equipped. → Chapter 6.3
2. Go to Home screen.
3. Select the ‚Material‘ tab.
4. Select the respective material you used when printing the components.
5. Press the 'Start' button. The cleaning process starts, the current progress is shown on the display.

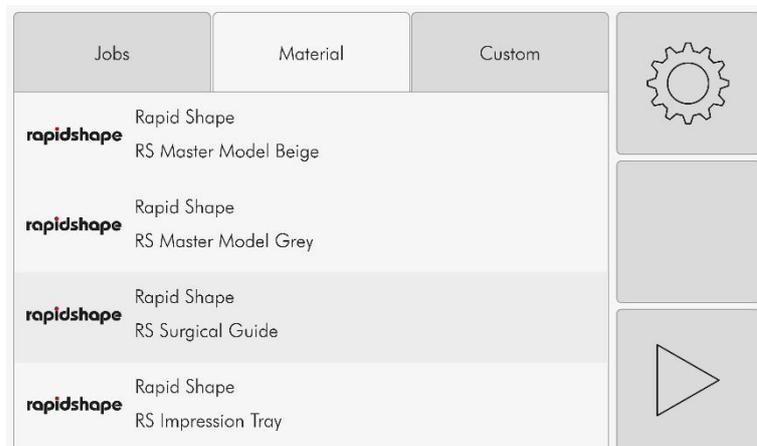


Figure 5: Selection of materials



The cleaning parameters (e.g. the cleaning time) are selected based on the print job.



For safety reasons, the machine should not be opened during the cleaning process.

6.4.3 Operating Mode ‚Custom‘

In ‚Custom‘ mode, you can create your own parameter sets.



For the proper cleaning of the component, observe the specifications of the material manufacturer when creating custom parameters. Only by observing the instructions of the manufacturer can safe biocompatibility be ensured.



For safety reasons, the machine should not be opened during the cleaning process.

6.5 Check the job

After the cleaning process, check the component for the desired result:

1. Open the drawer.
2. Remove the components.
3. Close the drawer.
4. Check the components



If you notice that the curing result deviates from the desired result, please repeat the workflow or contact Customer Service.

7 Decommissioning

7.1 Switching off the machine

To switch off the machine, please proceed as follows:

1. Go to the Home screen
2. Press the ‚Shut Down‘ button. The shutdown countdown will appear. The machine counts for 10 seconds until the switch off happens automatically.
3. Wait for the machine to shut down completely.
4. Switch off the machine using the power on/off button.

7.2 Shut down the machine for a long time (> 1 month)

For the long-term shutdown of the machine, please proceed as follows:

1. Switch off the machine. → Chapter 7.1
2. Disconnect the power supply.
3. Store the machine in a dry, dust-free and frost protected room.
→ Chapter 3.5

8 Cleaning & maintenance

8.1 Safety during cleaning and maintenance



CAUTION!

Risk of injury due to moving parts!

The machine consists in part of accessible parts that can easily cause hand injuries through crushing or getting caught.

- When closing the drawer, do not insert any fingers into the closing area of the drawer.
- During operation, never reach into the area of the rotors.



NOTE!

Material damage due to incorrect cleaning and maintenance!

Observe the individual cleaning and maintenance steps to avoid material damage to the machine.

8.2 Overview of the cleaning & maintenance work

Interval	What	How
Depending on use, autom. display	Change cleaning bottles	→ Chapter 8.2.1
1x/month	Check inner container	→ Chapter 8.2.2
Every 3 months	Check tubes	→ Chapter 8.2.3
Every 6 months	Change carbon filter	→ Chapter 8.2.4



The cleaning and maintenance of the machine is an integral part of a properly functioning machine. It is therefore essential to observe the prescribed cleaning and maintenance work.

8.2.1 Change cleaning bottles

Required accessories:	1x new bottle of cleaning liquid, protective gloves
Personnel:	Operator

To change the cleaning bottles, please proceed as follows:

1. Put on protective gloves.
2. Call up the bottle change wizard on the user interface. Start the wizard.

3. Disconnect the cleaning liquid container from the machine.
4. Remove the lid of the container and place it upside down (tubes facing upwards) on a flat surface.
5. Slide the bottom of the container to the RFID reader again.
6. Remove the rear (dirty) bottle and seal it with the lid kept in the container. Set the bottle aside.
Then check if there are liquid residues on the bottom of the container. Clean these with a paper towel.
7. Remove the front (clean) bottle and place it in the rear position of the container. Pay attention to the position markings on the bottle and container. The RFID tag on the bottle is read.
8. Open the new bottle of cleaning liquid. Place the bottle cap in the appropriate storage compartment of the container base.
9. Insert the new bottle in the front position of the container. Pay attention to the position markings on the bottle and container. The RFID tag on the bottle is read.
10. Put the lid back on. Insert the tubes into the bottle openings.
When doing so, make sure that the container is not removed from the RFID reader.
11. Reconnect the container to the coupling connection of the machine. The coupling must click in audibly.
12. Finish the wizard on the user interface. Return to the Home screen.
13. Dispose of the used cleaning liquid.



NOTE!

Wearing protective gloves protects the skin from contact with skin damaging materials. It is therefore essential to observe the information provided by the material manufacturer.



Dispose of used cleaning liquid according to local waste disposal regulations. Please take note of the safety data sheets of the respective materials.

8.2.2 Check and clean inner container

Required accessories: Paper towel, isopropanol, protective gloves
Personnel: Operator

For checking and cleaning the inner container, please proceed as follows:

1. Put on protective gloves.
2. Open the drawer.
3. Check the inner container for wear. In case of severe signs of wear, the container can be changed. Separate installation instructions are enclosed with the spare part. 
4. Check the inner container for soiling. Remove light soiling with a paper towel moistened with isopropanol. For persistent soiling, e.g. hard incrustations, the container can be replaced. Separate installation instructions are enclosed with the spare part. 



NOTE!

Wearing protective gloves protects the skin from contact with skin damaging materials. It is therefore essential to observe the information provided by the material manufacturer.



For proper function of the cleaning unit and compliance with biocompatibility requirements, the inner container must always be kept clean.

8.2.3 Check hose connections

Required accessories: Hexagon wrench (Allen key) set
Personnel: Operator

To check the hose connections, please proceed as follows:

1. Open the drawer.
2. Using an Allen key, loosen the fastening screws on the left and right between the drawer and the housing.
3. Then remove the screws and set aside for later reassembly.
4. Grasp the lid and fold it completely backwards.
5. Check the hoses for visible damage or signs of wear. Damaged hose connections must be replaced. Separate installation instructions are enclosed with the spare parts. 
6. Close the lid and fasten it firmly to the housing with the fastening screws.
7. Close the drawer.
8. Check the hoses in the cleaning liquid container for visible damage or signs of wear.
(For opening the container, see chapter 8.2.1) Damaged hose connections must be replaced. Separate installation instructions are enclosed with the spare parts. 

8.2.4 Change the activated carbon filter

Required accessories: Hexagon wrench (Allen key) set, 3x carbon filter
Personnel: Operator

To change the activated carbon filter, please proceed as follows:

1. Open the drawer.
2. Using an Allen key, loosen the fastening screws on the left and right between the drawer and the housing.
3. Then remove the screws and set aside for later reassembly.
4. Grasp the lid and fold it completely backwards.
5. Remove all three carbon filters from the housing.
6. Insert the new carbon filters into the housing.
7. Close the lid and fasten it firmly to the housing with the fastening screws.
8. Close the drawer.
9. Dispose of used carbon filters according to local waste disposal regulations.

9 Disassembly & disposal

9.1 Safety instructions for disassembly & disposal

Electrical accessories



DANGER!

Danger to life due to electric current!

There is an imminent danger of electrocution in the event of contact with live parts.

- Before starting disassembly work, the power supply must be finally disconnected.

Improper disassembly



WARNING!

Risk of injury due to improper disassembly!

Stored residual energy, sharp, pointed components and tools can cause injuries.

- Disassembly work may only be carried out by qualified personnel.
- Sufficient space must be ensured before the disassembly work begins.
- Wear appropriate protective clothing.
- Disassemble components properly.
- Handle edged and pointed components carefully.
- If necessary, secure components so that they can not fall down during work.
- In case of doubt, please contact the Customer service.

9.2 Disassemble the machine

To disassemble the machine, please proceed as follows:

1. Switch off the machine. → Chapter 7.1
2. Disconnect the power supply.
3. Separate the cleaning liquid container from the machine.
4. Open the drawer and, if present, remove any remaining components or building platforms from the inner container.
5. If present, remove any soiling.
6. Disassemble the machine properly.

9.3 Dispose of the machine

Dispose of the machine as intended via your recycling agent or approved specialist companies. For a list of materials used, please contact Rapid Shape.



ENVIRONMENTAL PROTECTION!

Incorrect disposal of electronic waste, electronic components, lubricants and other additives can be hazardous to the environment. Therefore, please dispose of machine components and auxiliary materials as intended via your waste disposal company or authorised specialist companies.

10 Technical details

10.1 Operating data

Power	[W]	120
Ambient temperature	[°C]	+15 to +40
Storage temperature	[°C]	-15 to +70
Max. humidity	[%]	70

*All values are approximate.

10.2 Dimensions and weights

Width	[mm]	230
Height	[mm]	270
Depth	[mm]	380/500 (closed/open)
Weight	[kg]	8

*All values are approximate.

10.3 Connections

Electrics	[V DC]	24
Media	[-]	WLAN/LAN

*All values are approximate.

10.4 Serial plate

→ Chapter 2.2