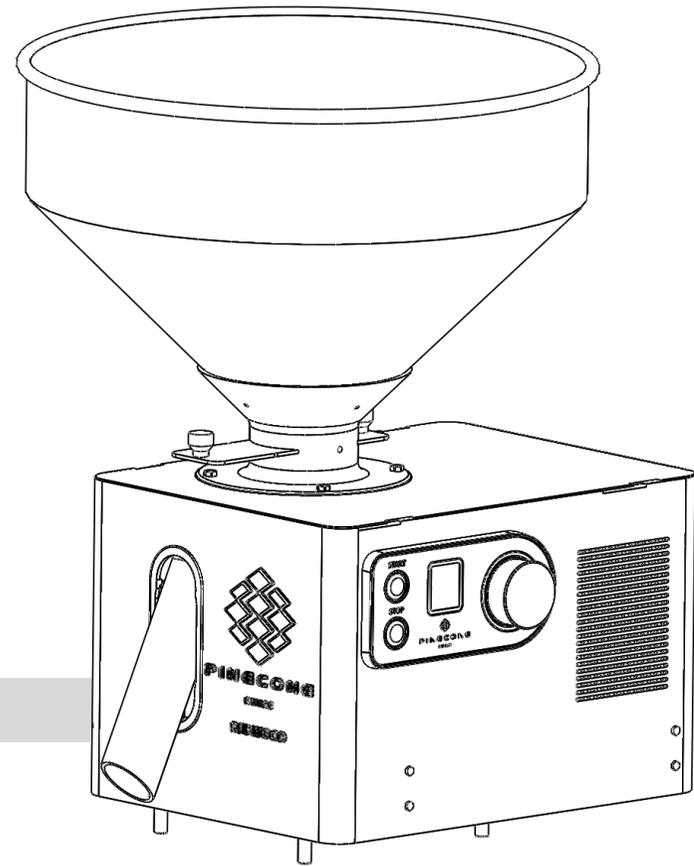
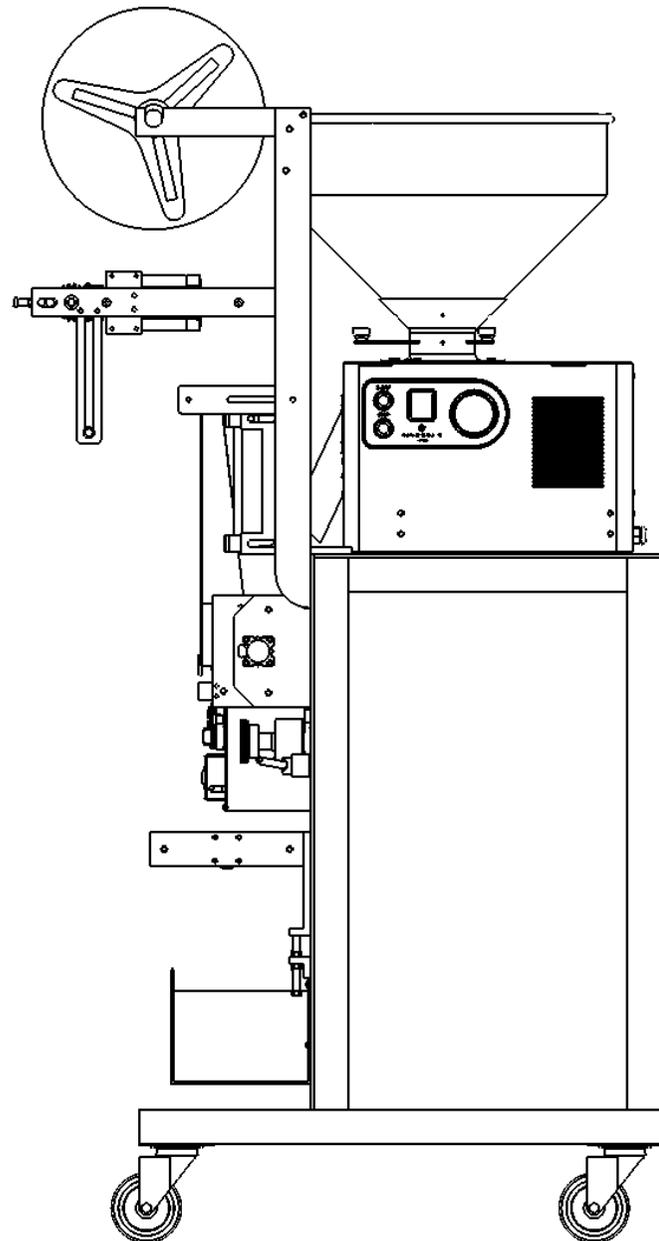
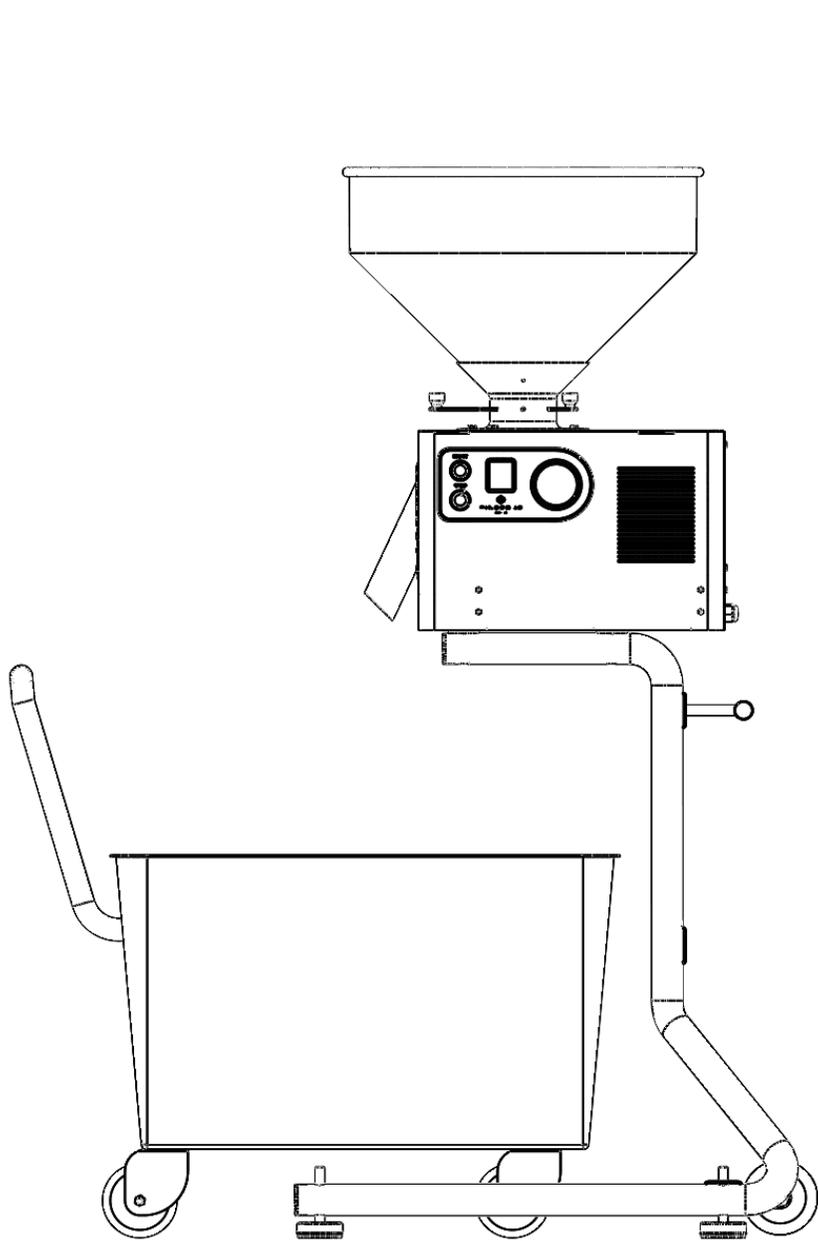


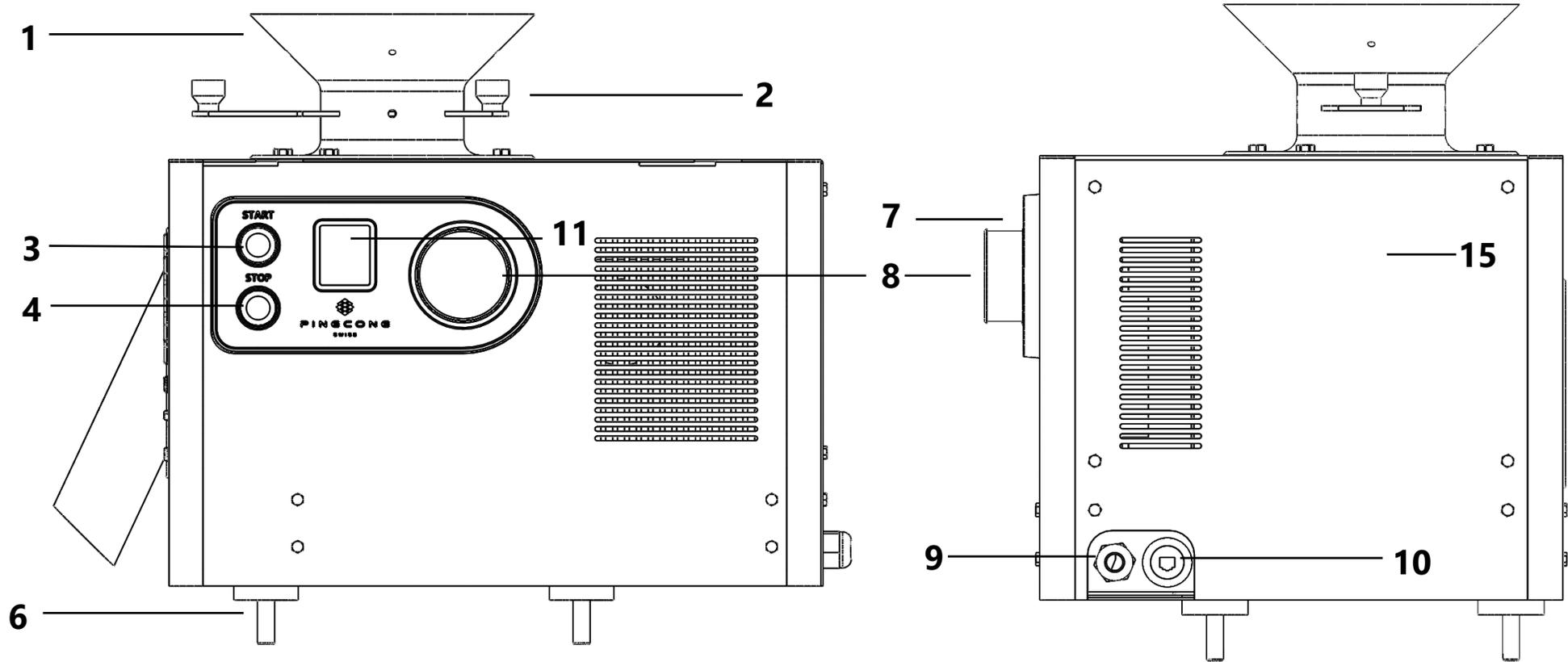
PINECONE Redwood Industrial coffee grinder User manual



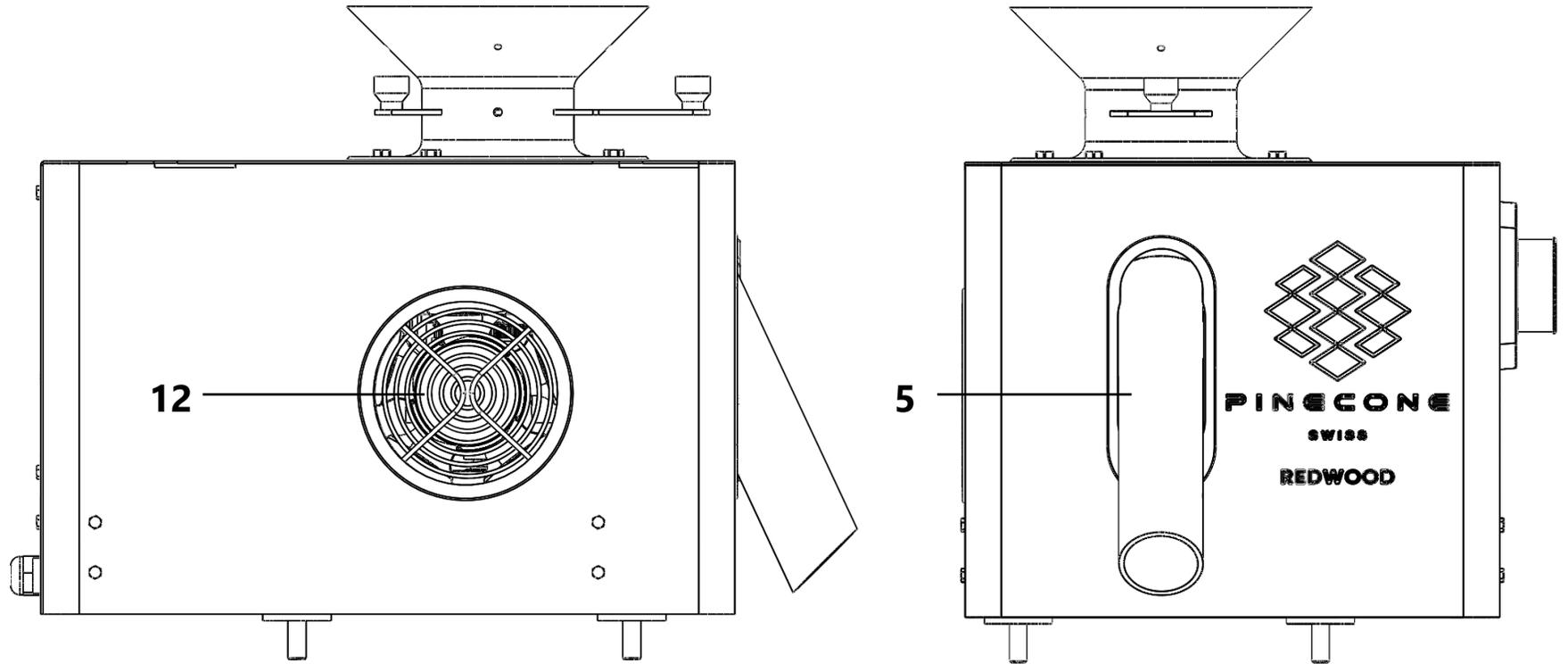
English



Overview Redwood

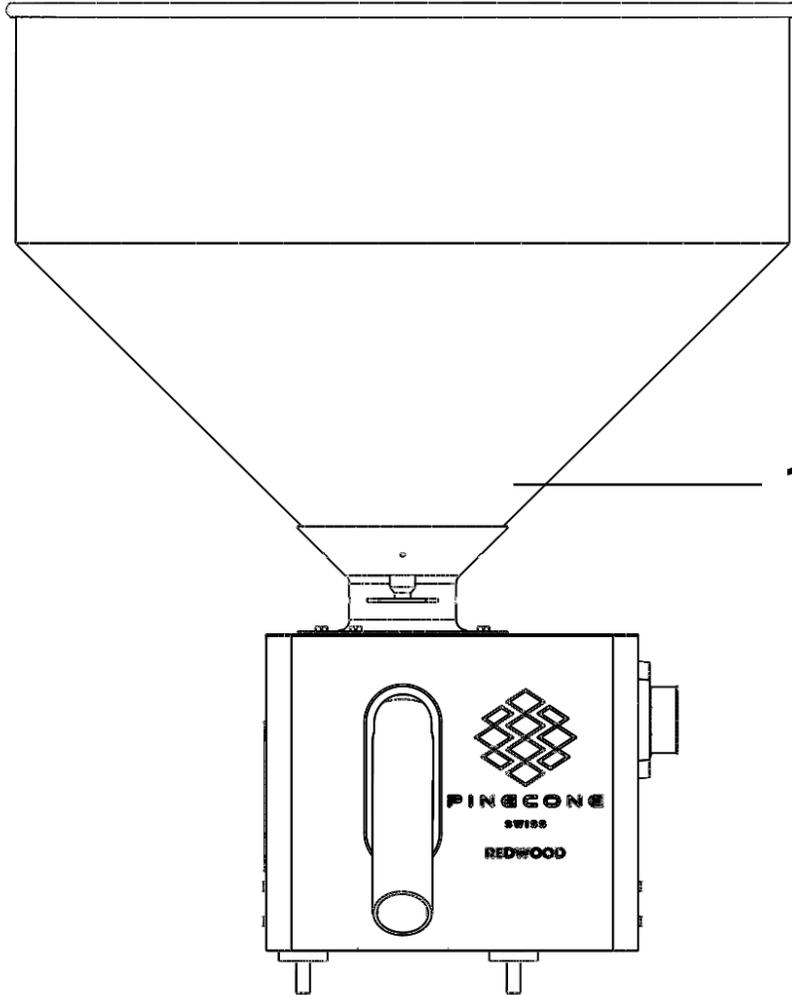


Overview Redwood

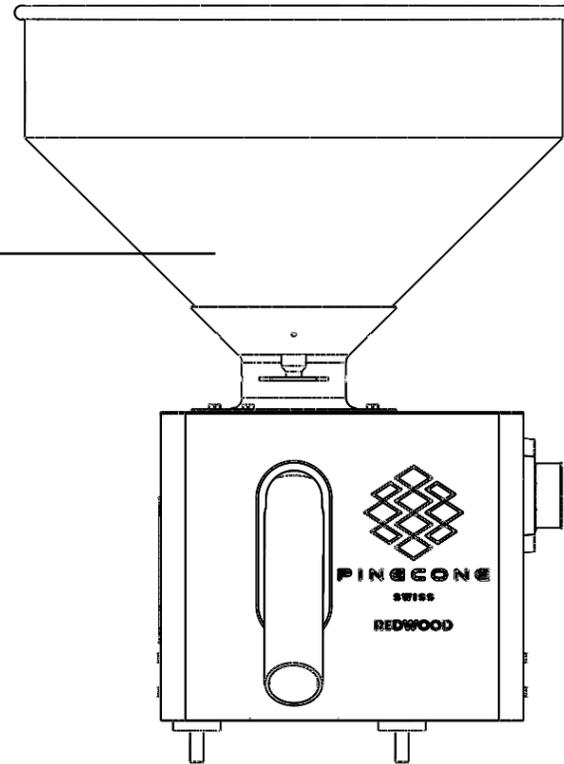


Hopper Sizes

30KG

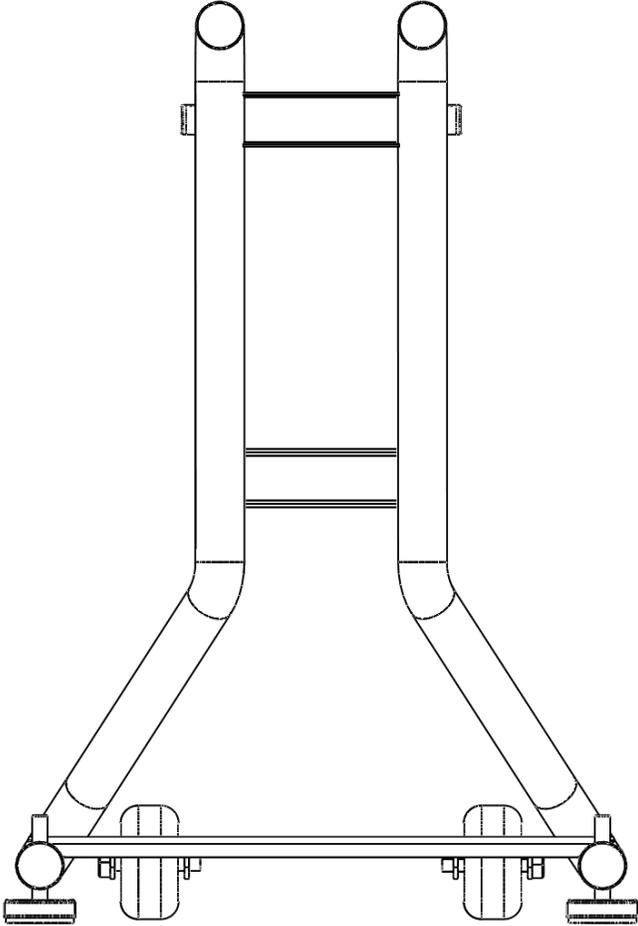
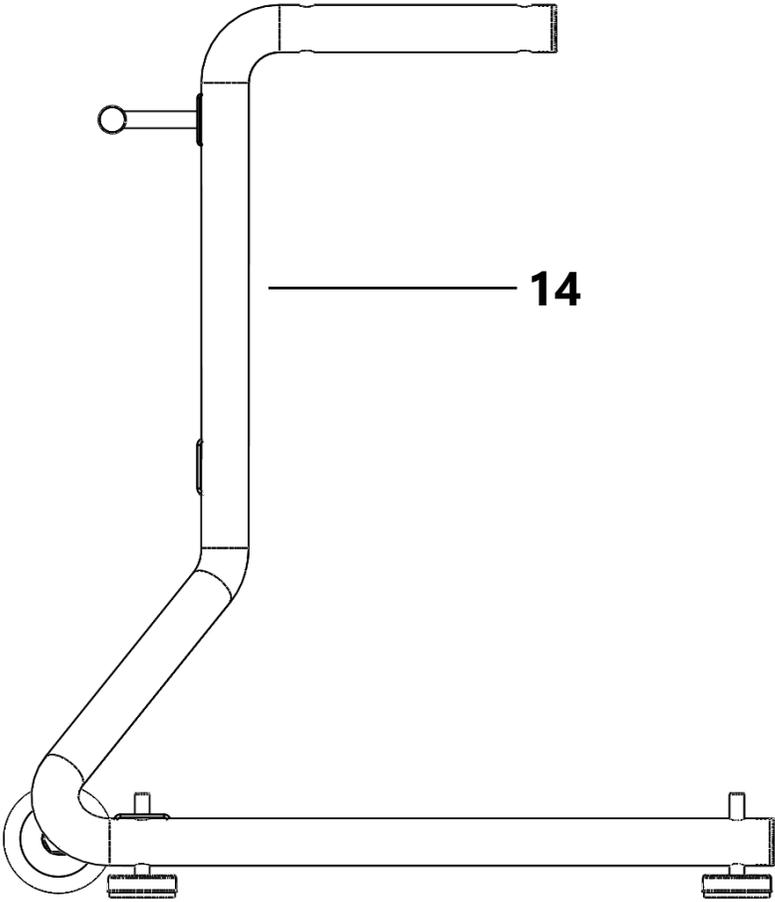


10KG



13

Redwood holding frame



Delivery scope

1. Bean hopper adaptor
2. Bean door
3. START-Button
4. STOP-Button
5. Spout pipe
6. Redwood mounting screws
7. Control frame
8. Grind size adjustment knob
9. Power cable
10. RJ45 communication socket
11. Digital display screen
12. High voltage fan (110v/220v)
13. Beans hopper
14. Holding frame
15. Top/back cover

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General information

Reading and retaining the instruction manual

Carefully read this instruction manual and safety information before using the described coffee grinder to ensure safe operation without danger. This manual applies standards and regulations in force in the European Union. Consultation of specific country laws and guidelines if abroad remain in the responsibility of the user.

The Redwood coffee grinder will hereafter be referred to only as “grinder” for simplicity. Keep this instruction manual for future reference and pass it on to subsequent owners and users of this grinder.

Glossary and explanation of symbols in the instruction manual



WARNING! Hazard of medium risk which can lead to death or serious injury if not avoided.



CAUTION! Hazard of low risk which can lead to death or serious injury if not avoided.



WARNING!
Electrical shock hazard



Note!
Material damage possible



Important information for operation & handling



Product is permitted for indoor use only



Mark to indicate a product that meets the electrical safety requirements in the United States of America.



Mark to indicate a product that meets the hygiene and cleanliness requirements in the food industry defined by the National Sanitation Foundation.



Mark to declare product conformity to applicable provisions of the European Economic Area.



Mark to declare product conformity to protection class I.

Safety

Intended use

The grinder is only suitable to grind whole roasted coffee beans. Do not use the grinder to grind other substances or objects.

The grinder is intended for commercial use and continuous mass production. Servicing the grinder is permitted exclusively for trained personnel. Operation by untrained persons is permitted in a place where its use is supervised.

Any other use is considered out of compliance with intended use and may result in material damage or personal injury.

Do not alter the grinder in any way. The manufacturer or supplier cannot be held liable for damages or any injuries resulting from failure to comply with safety instructions.

Safety information.



WARNING!

Danger of electric shock (1/2)

Improper use, incorrect electrical installation or excessively high voltage can lead to electric shock. Therefore:

- Connect the grinder only if the mains voltage of the socket complies with the information indicated on the type plate.
- Connect the grinder only to a socket with good accessibility so that it can be quickly disconnected in the event of a fault.
- Do not use the grinder if you notice any damage or if the power cable or plug is faulty. A damaged cable or plug must be replaced by the manufacturer or by qualified service personnel in order to avoid hazards.
- Do not operate the grinder without an earth connection.
- Connect the grinder only if the power supply is secured with a 16 A slow fuse or 15 A overload protection (USA). Only qualified electricians may install protective measures if the power connection at the site of use is not yet secured in this way.

Safety



WARNING!

Danger of electric shock (2/2)

- Install the grinder only in places where handling & operation of the grinder can be supervised by trained personnel.
- Do not operate the grinder above 2,000 meters.
- Do not immerse the grinder or the power cable or power plug in water or any other liquids.
- Do not clean the grinder with a water jet or with compressed air (e.g. with a compressed air gun).
- Never touch the power plug with wet hands.
- Never unplug the power plug from the wall socket by pulling on the power cable; always grip the plug itself.
- Never use the power cable as a handle to carry the grinder.
- Keep the grinder and power cable/power plug away from open flames and hot surfaces.
- Position the power cable in a way so that it does not become a trip hazard.
- Do not bend the power cable and do not place it over sharp edges.
- Use the grinder in indoor areas only. Never operate the grinder in damp rooms or in the rain.
- Keep children away from the grinder and ensure that children do not insert any objects into the grinder.
- If you are not using the grinder, if you are cleaning it or if a fault occurs: switch off the grinder and remove the power plug from the socket.
- Do not open the grinder casing and delegate repairs and service to trained service personnel.
- All liability and warranty claims will be rejected and excluded in the event of unauthorized repairs, faulty power connection or incorrect grinder operation.
- Only original equipment manufacturer parts that comply with the original appliance specifications may be used for repairs and service. This grinder contains electrical and mechanical parts that are essential for protection against potential hazards

Safety



WARNING! Danger for children and persons with reduced physical, sensory or mental capabilities (e.g. partially disabled or elderly persons) or a lack of experience or knowledge (e.g. older children or inexperienced users)

- The grinder is not intended for use by children or people with limited physical, sensory or mental abilities or a lack of experience and knowledge. Children may not play with the grinder.
- Do not leave the grinder unsupervised when in operation.
- Do not let children play with packaging film. Children can become entangled in it while playing and may suffocate.
- Do not let children play with the small parts. These can be life-threatening if swallowed.



CAUTION!
Risk of tipping and injury

- Incorrect handling of the grinder can result in injury.
- Position the power cable so that persons cannot become entangled and cause the grinder to fall over.
- Place the grinder on a level and stable surface to prevent it from falling over.
- The grinder and hopper are large and heavy and must be installed by two persons together.
- When moving the grinder using the wheeled frame, always ensure a second person is present to guide and stabilize the grinder.

Before initial operation

Functioning and basic settings

The Redwood grinder operates on single phase power supply. Ensure a properly secured and grounded supply socket is available and consult a certified electrician if it is not.

The grinders are designed to grind into bags but may also be used to grind into other containers if these can be secured safely while grinding. The grinder is powered as soon as its power cord (9) is connected to a suitable power supply. Grinding operation is controlled by the START-button (3) and STOP-button (4) located on the right side of the grinder body.

The Redwood adjusts, operates and controlled by software. The software is controlled by the adjustment knob (8, turn to toggle; push to enter) and the STOP-Button (4, push to return). As long as a menu is active on the display (11), the grinder will not start. Start condition is indicated by the green illumination of the START-button (3).

The grinder applies a modular design to ease maintenance and service to optimize machine uptime. It is possible to remove and replace the grinding module assembly including discs and flapper rather than replacing single components. The same applies to the electric module that houses all switching and other electric components that experience wear.

Validating the grinder and scope of delivery

- ! **Note! Risk of damage!** Take care while opening the grinder packaging with a sharp knife or other pointed objects, otherwise the grinder may be damaged.
-
- Remove the grinder from its packaging & validate that the delivery scope is complete (see p.3)
- Check for damage to the grinder or to its individual parts: if damage is detectable, do not use the grinder and contact your supplier.
- i **Information:** please note that each grinder is subjected to a function test before delivery and that residues of coffee powder may be present in the grinding chamber

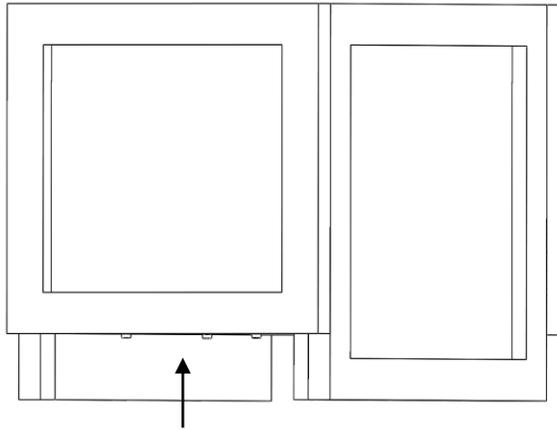
Before initial operation

Setting up the grinder

1. Remove the grinder from the wooden box by first loosening the four M10 nuts located on the bottom of the box.(see p.15)
2. Place the grinder on top of the Redwood holding frame (14). Insert the screws into the designated holes and tighten them with the supplied nuts.(see p.15)
3. Install the bean hopper (13) by fastening it to the top of the hopper adaptor (1) with the provided screws.
4. Ensure the spout pipe (5) is securely fastened in place and that the knob (8) can move freely.
5. Connect the grinder power cord (9) to a suitable, secured and grounded power supply.
6. Before introducing beans: open the bean hopper slider (2), push the START-Button (3) and look down into the grinding house to verify the grinder is turning clockwise. If not, push the STOP-button (4), and ensure the power supply is properly wired.
7. When grinding into bags, take care to select a bag size of sufficient size to prevent the spout pipe (5) from reaching far into the coffee bag / to prevent the spout pipe from interfering with accumulating coffee inside of the bag.

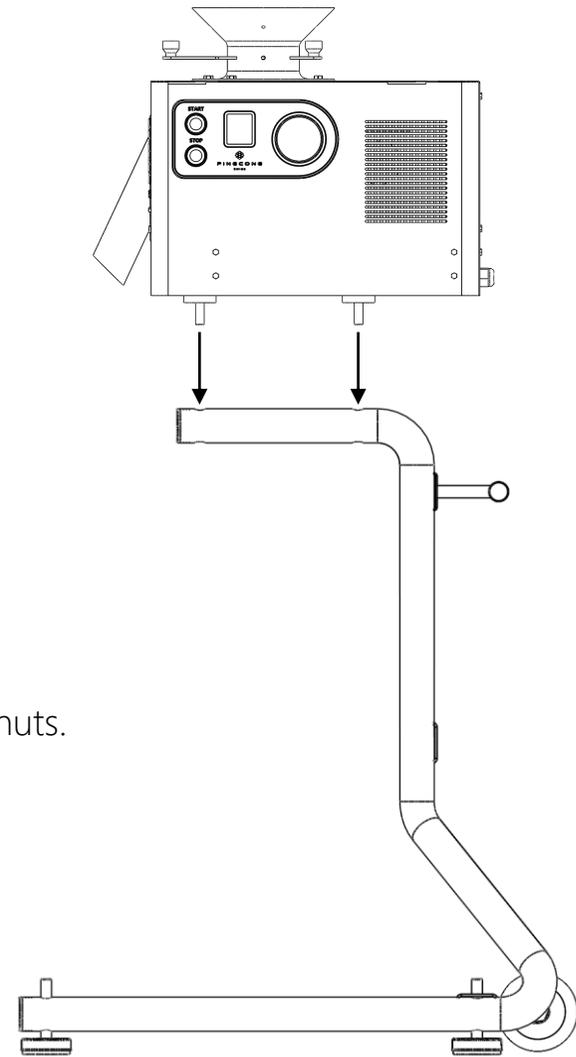
! **Caution!:** The grinder and hopper are large and heavy and must be installed by two persons together.

Before initial operation



i Information: The grinder is secured to the packaging box using four M10 nuts.

! **Caution!** When moving the grinder using the wheeled frame, always ensure a second person is present to guide and stabilize the grinder.



Operation

Filling the hopper with coffee beans

1. Fill the bean hopper with whole roasted coffee beans. The maximum filling level should be approximately 1 cm below the top edge of the bean hopper (13).
2. Ensure a container is secured under the spout pipe (5) and that the bean hopper door (2) is opened to ensure proper grinding operation.

Connecting the grinder to a power supply

Plug in the power cord (9) into a properly installed contact socket.

 **WARNING! Danger of electric shock!** Ensure a properly secured and grounded power supply socket is available at your location and consult a certified electrician if it is not available.

Operation

Setting and changing the grind size

1. Turn the grind size adjustment knob (8) until the desired setting is displayed on the screen (11).
2. Press the adjustment knob (8) to confirm the desired setting and allow the grinder to electronically adjust the grind size. The grind setting can only be changed while the grinder is not running.
3. If the grind size adjustment exceeds 150 microns, the grinder will prompt you to confirm that the grinding chamber is empty. Press "YES" only if the chamber is completely **free** of beans to avoid damage to the adjustment mechanism. If there are still coffee beans in the grinding chamber, press "NO," close the beans door (2), grind until the chamber is empty, then set the desired grind size again and press "YES" once the chamber is empty.
4. During adjustment, the grinder will not operate and will not respond to any commands until it has finished adjusting. The green illumination around the START button (3) will switch off, and a red exclamation mark will be displayed until the desired grind setting is reached.



WARNING! Reducing the size adjustment from coarse to fine while there are coffee beans in the grinding chamber can cause damage to the size adjustment mechanism.



Information

- The grind setting can only be changed while the grinder is not running.
- To avoid imbalances when adjusting grind size it is recommended to first set a coarser grind size size (about one scale value above the desired value) and only then adjust the grinding size finer to the desired value
- The grind size value shown on the screen (11) is measured in microns and indicates the distance between the grinding burrs.

Starting the grinding process

Operate the grinder via the STOP-button (4) and START-button (3).

Operation

Changing coffee beans

1. Close the bean hopper slider (2) by pushing it into the bean hopper adaptor (1) to prevent further beans from entering the grinding chamber.
2. Operate the grinding process by pushing the START-button (3) until the grinding chamber runs empty. Push the STOP-button (4) once the grinder is idling.
3. Remove all remaining coffee beans from inside of the bean hopper (13) and temporarily transfer them to another container.
4. Clean the inside of the hopper if necessary.
5. Refill the bean hopper with new whole roasted coffee beans.
6. Open the bean hopper door (2).
7. Grind a few seconds to remove any residues of the previous coffee beans.

Cleaning



CAUTION!

Risk of injury! The grinder may tip over and cause injury when moved.

- Before cleaning, always secure the grinder to its designated frame and place the frame on a stable, level surface to prevent tipping.
- Always use at least two operators when performing the cleaning procedure.



CAUTION!

Risk of injury and danger of short circuit from water entering the grinder!

- Never immerse the grinder in water or other liquids for cleaning
- Never clean the grinder using a water jet or other water propulsion tools
- Ensure that no water or other liquids enter the grinder body casing



Note! Risk of damage!

Improper handling may cause damage to the grinder

- Do not use any harsh cleaning products or sharp or metallic cleaning objects such as knives, metal scouring pads or similar. These can scratch the surface of the grinder.
- Do not clean the grinder with compressed air (e.g. with a compressed air gun).
- Do not put any part into the dishwasher. The parts are not suitable for dishwashers and may be damaged.
- Do not lift the grinder by the bean hopper adaptor. Always lift the grinder by the baseplate only, using both hands and at least two persons.

Cleaning

Cleaning the grinder auxiliary components

1. Remove the grinder's power cord (9) from its supply socket.
2. Use a brush to clean the spout pipe (5).
3. Use a damp cloth to wipe down the casing, at least once a week.

Cleaning the bean hopper

1. Close the bean hopper door (2) by pushing it into the bean hopper adaptor (1) to prevent further beans from entering the grinding chamber.
2. Operate the grinding process by pushing the START-button (3) until the grinding chamber runs empty. Push the STOP-button (4) once the grinder is idling.
3. Remove the grinder's power cord (9) from its supply socket.
4. Remove all remaining coffee beans from inside of the bean hopper (13) and temporarily transfer them to another container.
5. Use a damp cloth to clean the inside and outside of the bean hopper and allow it to dry.
6. Refill the bean hopper with new whole roasted coffee beans.
7. Re-attach all parts removed for cleaning and ensure steps of chapter "setting up the grinder" are followed before resuming grinding operations.
8. Grind a few seconds to remove any residues of the previous coffee beans.

Cleaning the grinding mechanism with GRINDZ™

Information

- The manufacturer recommends the use of Urnex GRINDZ™ grinder cleaner.
- More information on how to use GRINDZ™ to clean your grinder is available at www.urnex.com and on YouTube: www.youtube.com/watch?v=7sNRzQqfSzc.
- The grinder requires cleaning every 1-2 weeks for best taste and operation.

Maintenance

i Information

- The grinding module should be serviced or replaced after grinding ~20-25 tons of whole roasted coffee beans. The volume until replacement depends on grind size, roast degree, bean type and condition of the module.
- The grinding module includes all components that experience significant wear: grinding discs, flapper and grinding house. Changing the aforementioned separately is not recommended.
- Wear gloves when changing the grinding discs to avoid injury.
- Recalibrate your grind size after replacing or changing the grinding module.

Replacing the grinding module

1. Empty the grinder (see chapter “Cleaning the bean hopper”, steps 1–4) then remove the bean hopper (13) and hopper adaptor (1) from the grinder housing by unscrewing the four bolts at the bottom of the hopper adaptor that secure it to the grinding module.
2. Remove the top cover (15) by unscrewing all six screws on the back of the grinder, then sliding the cover toward the rear of the grinder.
3. Unscrew the grinding module fixation screws on the bottom module holder that fix it to the base plate of the grinder.
4. Unplug all plugs connected to the grinding module.
5. Carefully lift out the grinding module towards the top.
6. Select the new grinding module and reinstall it onto the base plate. Ensure that the coupling between the motor shaft and the grinding module is securely engaged, all fixation screws at the bottom of the module are fully tightened, and all wire connectors are properly plugged in.
7. Reinstall the top plate, then mount the bean hopper adaptor (1) onto the grinding module. Ensure that all fixation screws on the back of the top plate and at the bottom of the hopper adaptor are securely tightened.
8. Ensure steps of chapter “setting up the grinder” are followed before resuming grinding operations.

i Information

- Please contact your service partner for a detailed „how-to“ document on grinding module service
- Please contact your service partner to replace the electrical module.

Troubleshooting

Problem	Possible cause	Remedy
The grinder is not grinding	The power plug is not plugged into a socket.	Insert the power plug into a properly installed socket.
	The grinder is on remote control mode.	Check whether a communication cable is connected to the RJ45 socket (10) and disconnect it if necessary. Unplug the power cord from the mains outlet and reconnect it after 15 seconds. If the control panel still does not function afterwards, contact your service partner.
	Software issue.	Check page 23-25 for troubleshooting.
The grinder is making noise but not grinding.	Motor driver issue.	Check page 26 for troubleshooting.
	The grinding mechanism is clogged.	Set the grinding degree to coarsest position 850 microns. Start the grinding process. The grinder will clear itself. Then re-set the grinding degree setting to the desired position.
	Coffee has backed up into the grinder due to over-dosing in the container/bag.	Clean the spout. Set the grinding degree to coarsest position 850 microns. Start the grinding process. The grinder will clear itself. Then re-set the grinding degree setting to the desired position.
	The grinding degree is too fine.	Set the grinding degree to coarsest position 850 microns. Start the grinding process. The grinder will clear itself. Then re-set the grinding degree setting to the desired position.
	A foreign object entered into the grinding mechanism.	Clean the grinding mechanism as described in the chapter on "Cleaning" and remove the foreign object in the process. If the foreign object cannot be removed, contact your service partner.

Troubleshooting

Problem	Possible cause	Remedy
The grinder is not grinding fine enough.	The grinding module reached end of life or need calibration.	Replace the grinding module or adjust the grind size to a finer setting. If the result is still not sufficiently fine, contact your local supplier.
The grinder does not grind continuously / it stops grinding intermittently.	Software communication error or malfunctioning START/STOP buttons	Contact your service partner.

Redwood error codes

Error codes are indicated on the operating screen by a large red exclamation mark and remain visible until a reset has been performed. During this time, the grinder will not operate and will not respond to any commands.

Resetting error codes:

1. (R1) Press the **START** and **STOP** buttons simultaneously.
2. (R2) Switch off the main switch or Disconnect the main power cable, wait 15 seconds, then restart/reconnect it.

Redwood Error codes

Error code	Fault	Cause	Remedy	Remarks
Error 10	Hardware initialization error	One or more peripheral devices failed to be recognized	R2 If the issue persists after a few attempts, contact your local supplier.	Check the grinding module connectors.
Error 11 or Error 15	Hall sensor did not detect a signal during calibration (in or out).	During calibration, the magnet was not detected.	R1 R2 If the issue persists after a few attempts, contact your local supplier.	Check magnet presence. Check magnet to sensor height
Error 12	A2D (analog-to-digital) component failure detected.	No signal received from the positioning potentiometer.	R2	Check the potentiometer board cables and replace the board if necessary.
Error 13	Servo motor blocked	No movement detected from servo motor	R2	Check servo belt Check servo gear Check motor cable
Error 16	Missing offset value		Contact your local supplier to set the offset.	Insert password



CAUTION!

- The remarks column is intended for trained personnel only and must not be used without consulting the manufacturer.
- If any of the issues listed above persist after a few attempts to perform the recommended remedies, contact your local supplier.

Redwood Error codes

Error code	Fault	Cause	Remedy	Remarks
Error 23	Servo motor blocked	No movement detected from the servo motor	Cleaning the grinding chamber Replacing module	Check servo belt Check servo gear Check motor wires
Error 24	Servo target failed	During calibration, the target value could not be reached.	Cleaning the grinding chamber Replacing module	Check servo belt Check servo gear Check motor wires
Error 41	Communication error	MCU–BLDC motor driver communication error.	R1 R2 Replace communication board	Contact your local supplier to replace the communication board.
Error 42	No status reply	Driver fail to answer status	R1 R2 Replace communication board	Contact your local supplier to replace the communication board.



CAUTION!

- The remarks column is intended for trained personnel only and must not be used without consulting the manufacturer.
- If any of the issues listed above persist after a few attempts to perform the recommended remedies, contact your local supplier.

Redwood Error codes

Error code	Fault	Cause	Remedy	Remarks
Error 40 + XX	BLDC motor driver error	BLDC driver limit reached	R2	See below for an explanation of the "xx" value.

Redwood 110V

XX	Fault
0	Stalled motor
1	Over current
2	Abnormal hall sensor behavior
3	Bus voltage too low
4	Bus voltage too high
5	Peak current alarm
6	Temperature alarm
7	Reserve

Redwood 220V

XX	Fault
1	Stalled motor
2	Over current
3	Encoder hall fault
4	Undervoltage protection
5	Overvoltage protection
6	Motor overspeed protection
7	EPR0M internal fault
8	Parameter check error
9	Braking energy overvoltage protection
10	Overload protection



CAUTION!

- The remarks column is intended for trained personnel only and must not be used without consulting the manufacturer.
- If any of the issues listed above persist after a few attempts to perform the recommended remedies, contact your local supplier.

Technical data

Model	Redwood
Voltage / frequency	110-240V, 50/60 Hz, 1Ph, 1.500 W
Motor idle speed	500-1600 rpm
Grinding output	2.4 kg/min* – 3.0 kg/min
Max. permitted operating cycle	110-240V, 50/60Hz: 180 min ON / 10 min OFF
Recommended pause	10 minutes
Max. bean hopper filling quantity	30/10 kilograms
Dimensions (W x H x D)	560 x 1600 x 780 mm (grinder, frame, hopper) 355 x 370 x 660 mm (grinder)
Packaging dimensions (W x H x D)	440 x 690 x 490 mm (grinder) 750 x 750 x 530 mm (30Kg hopper)
Weight	38 kg (net) / 45 kg with hopper

Disposal

Packaging disposal



Dispose of the packaging by correctly sorting recyclable materials. Dispose of card and cardboard as waste paper and film as recyclable material

Grinder disposal



Old appliances may not be disposed into commercial/domestic waste. As a consumer, if you can no longer use your grinder, you are required by law to dispose of old equipment separately from commercial/household waste, e.g. at a collection point in your municipality. This ensures professional recycling and avoidance of negative impacts on the environment as much as possible.

Support & Service

Please contact your authorized service partner for PINECONE SWISS products in an event of service of maintenance.

For general inquiries and other customer service please contact:

www.pineconeswiss.com

PINECONE SWISS AG

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