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PROASTER
프로스타

**SAMPLE ROASTER
MODEL : THSR-001G1**



Operation Manual

**Please carefully review the user manual before you use the machine
You should fully understand the manual to use the machine properly**

MANUFACTUROR / SELLER:



TAEHWAN AUTOMATION IND.CO.,LTD
www.taehwan.co.kr/english

0. OUTLINE

1. General Information

- (1) Purpose P 3
- (2) Features

2. Safety Regulations

- (1) General Safety Regulations P 3,4
- (2)-1 Safety Label P 4,5
- (2)-2 Safety Device P 5

3. Installation

- (1) Carriage P 5
- (2) Before Installation
- (3) Installation P 6

4. Operation

- (1) General Information P 7
- (2) Components, Structure P 8
- (3) How to Roast P 9, 10

5. Cleaning and maintenance

- (1) How to clean – Before Cleaning P 10
- (2) Maintenance – regular cleaning P 11
- (3) After Cleaning P 12
- (4) Trouble-Shooting

6. Disposal Regulation

- (1) Disposal Instructions P 13

7. Replacement Part List P 14

8. Warranty

1. GENERAL INFORMATION

General

- Place your manual near the machine for your easy access.
- Read the manual before starting operation.
- Wear gloves to prevent injuries.
- Do not self-repair the machine in case of any mechanical problems.
- Start and stop the machine only after giving it enough time to heat up and cool down.
- Do not touch the upper part of the machine.

(1) Purpose

- This coffee roaster is manufactured as a coffee roaster for test sample coffee beans.
- This roaster is for indoor use.
(Using the machine outdoors might result in failure to roast due to moisture, malfunctioning of the machine, and other accidents)
- Inappropriate use of the machine (cooking grains, foods, etc.) is prohibited and any repairing of the machine has to be done by the headquarters or designated service centers.
- Carefully review safety regulations before you use the coffee roaster and contact the designated service center or store if you have any problems using it.

(2) Features

- The product uses two methods which are radiation and hot-air flow to bring out greater expansion and uniformity.
- The structure maximizes heat efficiency to bring out the affluent aromas and taste of beans during roasting.

2. SAFETY REGULATIONS

(1) General safety regulations

1) Burn and Injury

- You may get burned if you touch the main surface, handle, or pipe
- Be cautious as you may suffer injury from the rapid rotation of the bearings and motor.

2) Fire

- Do not put any foreign objects in the machine
- Do not place any unnecessary flammable material, cloth, paper, or other accessories in or near the machine
- Do not open or disassemble the machine while the machine is running as this creates a fire hazard.

3) Electricity

- Do not handle the machine with wet hands to avoid electric shocks
- Be careful to keep power cable away from hot surfaces
- After use, switch off the power at the back, and unplug the power cord.

4) Cleaning and general care

-Avoid exposing machine to moisture. Always follow specified directions for cleaning and care, paying attention to order of steps. Clean the machine regularly to ensure smooth functioning. (See directions for cleaning and care)

5) Damages

We are not responsible for damage caused by the followings:

- Inappropriate use (different materials, incorrect operation)
- Damages caused by self disassembly, repair
- Use of the wrong voltage
- Breakdown from bad management (cleaning and general care)

* We do not guarantee for damages caused by poor operation or repair against safety regulations.

(2)-1 Safety Label



1) Electric Shock Hazard

This label is to warn of electric shock. Turn off the power to avoid any electric shocks or burns before using



2) Drawing in Hazard

This label is to warn of moving part. Use the safety cover to avoid any injury. Always turn off the power before doing any Maintenance.



3) Burn Hazard

This label is to warn of possible burns caused by touching a hot surface.



4) Fire Hazard

This label is to warn of fire hazard. Be cautious of short circuit, gas leakage and flammable objects.

(2)-2 Safety Device

1) Fire Extinguisher

Please place a fire extinguisher near to your coffee roaster

3. INSTALLATION

(1) Carriage

1) Packing

-For export machines, first remove nails from the wooden container and take out slats and boards. Please recycle packaging materials in accordance with your country's regulations.

- Please confirm that the roaster with cyclone and instruction manual have been included.

2) How to carry

-Weight: 25kg

-Use a handcart to transport over level ground

-In case you can not use handcart, move it by hand: at least by 2 people

-Hold the bottom part to carry the machine and place it on the table.

(2) Before Installation

1) Check Point

1)-1 Electric power

The machine is designed to connect to a regular outlet. Consider the total electricity consumption and installed. The roaster directly into your wall outlet. Do not use multi-tap.

1)-2 Exhaust Condition

Place your coffee roaster where you can install a short exhaust pipe for good air-flowing conditions.

If a ventilation duct is not available, make sure there is a hole to emit combustion gas.

(3) Installation

1) Installation

- The machine is designed for indoor use.
 - Using the machine outside can cause breakdown. In that case, the warranty is not longer valid.
 - The machine has to be placed on a flat surface. Slops can cause excessive noise.
 - Exhaust: A ventilation system, door or window has to be within 1m of range of the machine.
 - Avoid poor exhaust conditions such as air resistance, long exhaust pipes and environments with excessive moisture.
 - The table used has to bear the weight of machine. Portable or foldable tables should not be used. Use a table with wheels for convenience of cleaning.
 - Exhaust Condition: Exhaust impedance (length of vent pipe, environment, etc.) may affect roasting results
-
- Operation Space: at least 30cm to 1m of space is necessary from cooler and heater.
 - Others: For your safety and the best result, place the machine at least 20cm away from the wall or window. Avoid moisture (do not use close to sinks or espresso machines)

2) Power Connection

- Power connection: plug in into the outlet with the correct voltage.
- The voltage has to match the specification on the label.

2)-1 Power condition

- model: AC 220V (1PH) 60Hz 0.9A 2,200w

2)-2 How to connect

- POWER: Check the Voltage and plug in the outlet.
- Connection have to always follow the Safety Regulations of your country.

4. OPERATION

(1) General Information

1) The machine has to be operated by an authorized person who has trained in roasting at an institute, head office or agency.

2) Before operation

- Check if the machine is unplugged or switched off.
- Do not let power cords or gas tubes touch the hot surface of the machine.
- Do not press any buttons on the control panel as you please.
- Make sure there is adequate ventilation.
- For the best air-flowing environment and the best roasting results clean the chaff trap, cooler, inside the cooler and cyclone thoroughly after operation.

(2) How to Operate – Components



Operation ON/OFF Switch

ON/ OFF Switch

Turn On the Switch to operation the machine
Turn OFF the Switch to stop the machine



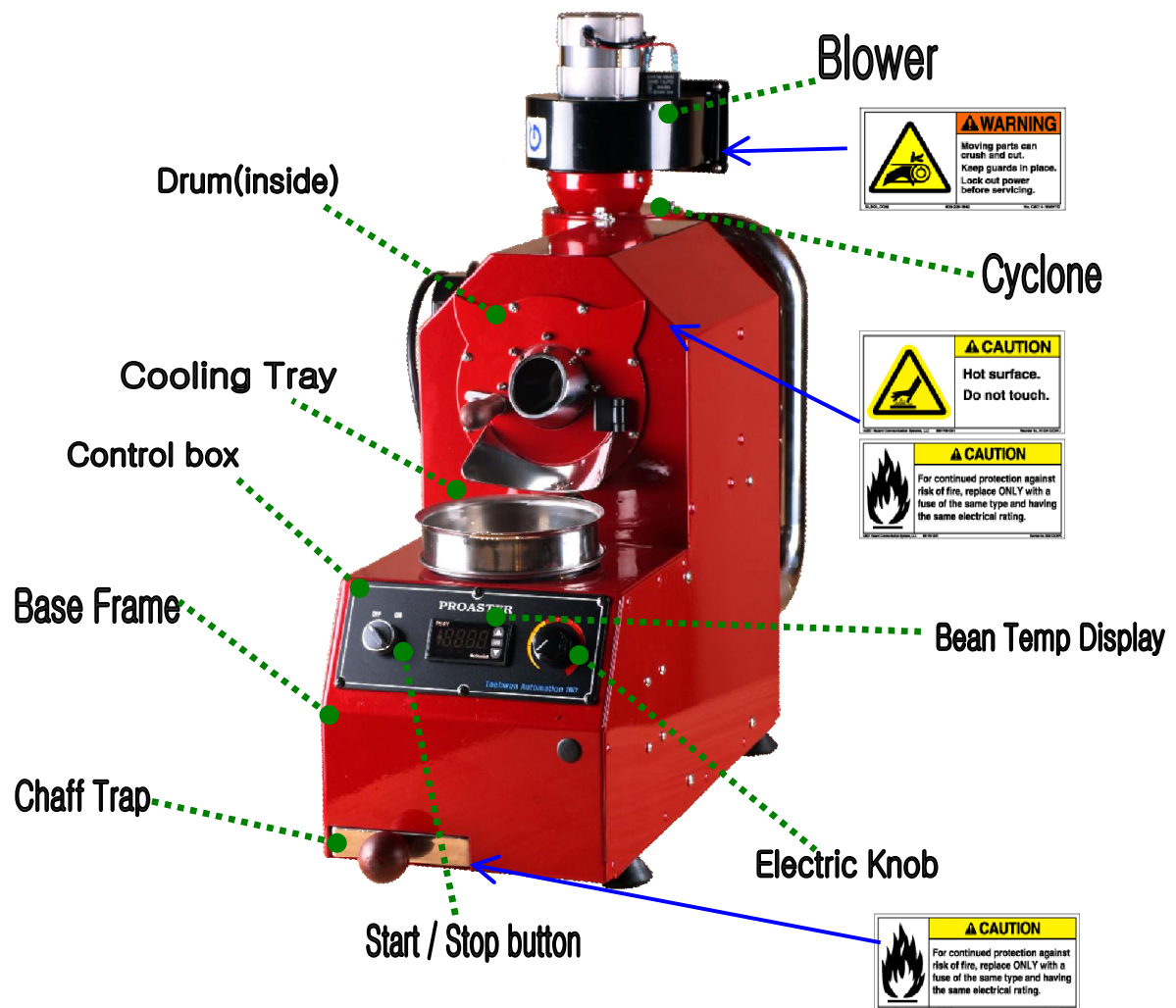
Electric Supply Knob

FOR IGNITION AND HEATER CONTROL

"0" = OFF < "10" = MAX

※Warning!!! For the electric type
Do not go below 6 as it takes a long time to raise the temperature back

(2) How to Operate – Structure



(3)-1 How to Roast- Before Roasting

1) Fresh beans

- Perceive the moisture and quality of fresh beans
- * Old or Dried beans can result in a bad outcome.

2) Preheating

Moisture inside or outside the machine may cause scale buildup or roasting failure. Start roasting after allowing enough preheating time.

3) External environment

- Weather: Cold or humid weather can cause roasting failure. Have enough preheating time to dry the roaster.
- Ventilation: Roasting is a combustion process requiring adequate amounts of oxygen. Please check ventilation conditions.




4) Exhaust

- Cleaning: Bad management of the machine can cause roasting failure from bad air flow conditions. Poor cleaning and management causes clogged pipes, blower breakdown, and prevents air flowing in the machine. This results in a longer cooling time, cooling failure and smoky, burnt smelling beans with silver skins.
- Make sure exhaust pipes and Blowers are well cared for.

5) Roasting level

- Set to the appropriate roasting level regarding your purpose such as hand drip, espresso or blending

(3)-2 How to Roast

	Preparation and preheating	1) Connect the power cable and Switch on. (Drum will rotate) 2) Blower switch on. 3) Turn the electric knob to start warm up the heater 4) Supply heat max once the moisture is removed 5) Prepare 100g of green beans to roast
	Roasting	6) Start roasting at about 200°C 7) Once the bean temperature starts to raise reduce the heat (70~80%) 8) Adjust heat supply to help the bean temperature raise at the same rate. 9) Reduce the heat supply once the first cracks start * Please be careful not to drop the bean temperature 10) If the roasting temperature rises too fast, supply minimum heat or turn it off.
	Releasing & Cooling	11) Once the bean reaches the level as you planned. Open the gate to release beans. * Stop counting time * DO NOT CHECK ROASTED BEANS WITH BARE HANDS BEFORE COOLING! !
	After Roasting	12) Till the roasting temperature drops to room temperature level, do not stop the fan 13) Power off, disconnect the power. 14) Vacuum or use an air compressor gun to clean Cyclone, Cooling Tray and Chaff Trap. * Warranty is not valid for problems arising from poor management even within the warranty period. * Connecting pipes, Cyclone, blower require regular checkups and cleaning with a steel brush, wooden stick(for blower wings)

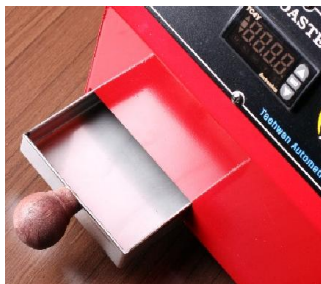
4. OPERATION

(3)-3 How to Roast – After Roasting

!! IMPORTANT !! Clean the parts below EVERYDAY

To prevent problems and maintain the best conditions for good aroma and taste of roasted coffee, cleaning is very important.

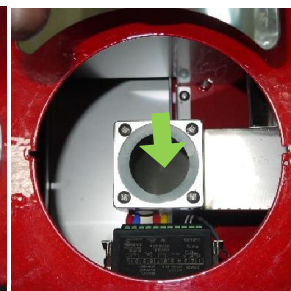
Chaff Trap



Cooling Tray



Cyclone



5. CLEANING&MAINTENANCE

(1) How to clean – Procedure

Preparation: tool box, mask, cotton gloves, vacuum cleaner, beans for cleaning (used to remove dust after cleaning)

- Please prepare the Tool box for maintenance.
- Wear gloves and mask for operator's safety.
- Follow the order and instructions in the manual for cleaning.

(2) Cleaning and maintenance – Regular Cleaning

Clean after every 100 batches



Twist holder of the cooling tray to the side to open for the cleaning insider cooler

The insider cooler is important as the blower is connected. Clean the dust inside the cooler pipe with a brush then vacuum.

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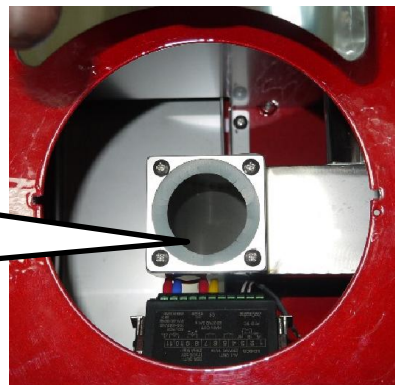
PIPES brush the dust before it builds up inside the pipe.

* In case scale builds up on the surface, you can soak in water and scrape off the scale but **MAKE SURE THAT PIPES ARE 100% DRY** after cleaning with water.

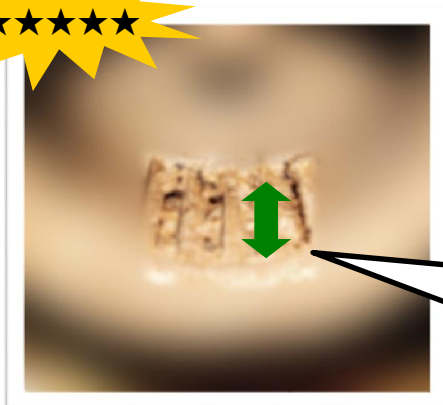
UNDER COOLING TRAY

The insider cooler is important as the blower is connected. Remove sediment inside the solo cooler pipe with a brush then vacuum.

* Use vacuum cleaner right after roasting



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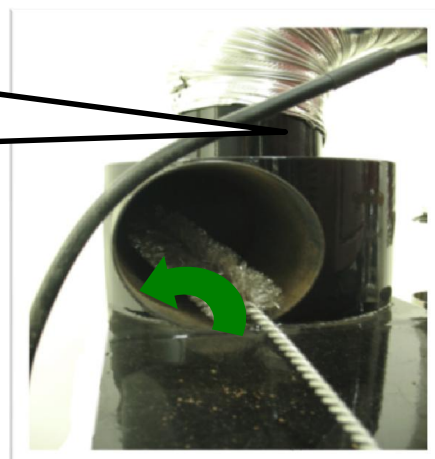
BLOWER FAN

VIBRATING NOISE IS 80% FROM DIRTY BLOWER FAN. BRUSH REGULARLY.

If scale builds up inside, scrape with a wooden stick to clean.

INSIDE CYCLONE

NO SILVERSKIN IN YOUR CYCLONE. SMOKE FROM ROASTER is a typical symptom when cyclone is blocked. **BRUSH REGULARLY.**



5. CLEANING&MAINTENANCE

(3) After cleaning

After cleaning, remove any dust around the machine with a vacuum cleaner. Use spare roasted coffee beans to remove dust inside after cleaning.

Poor cleaning and maintenance can cause roasting failure or mechanical problems. Neither company nor agencies are responsible for problems arising from poor maintenance.

(4) Trouble shooting

Heating supply troubles (Electric Type)

Cause	Action
Damaged Heater	Accumulation of Silver skins and dirt from poor cleaning can cause heater coil to break. The heater may need to be replaced. Contact the company for details.
Damaged sensor	Contact the company for the replacement

Noise

Cause	Check Point
Screw, bolt	Check if any screws or bolts have loosened
Blower, motor	Check that the blower wings are clean.
Table	Make sure the table is stable enough to handle the vibration of the rotating roaster drum.

IN CASE YOU CANNOT SOLVE THE PROBLEMS, PLEASE CONTACT YOUR LOCAL AGENCY OR MAIN COFFEE NUMBER BELOW

TEL : + 82 32 624 3410~3 FAX : + 82 32 624 3414 SITE : www.taehwan.co.kr EMAIL : throaster@gmail.com

6. DISPOSAL REGULATION

(1) Disposal Instruction

1. Cartons and package materials should be recycled or disposed of following the disposal regulation of your country
2. For the disposal of metal parts and Electric parts, please contact a local recycling center.
3. Machines must not be disposed of with regular garbage. Dispose the product following regulations for electrical products.
 - Detailed information about recycling is available at recycling center and store of purchase.
4. Dispose of waste from coffee beans by following the regulations of your country or industry policy.

7. REPLACEMENT PART LIST

	Unit	Period
Bearing	UCFC60022zz	5 years
Sensor	Φ2.3 x 65ℓ 1ea	2~3 years

Replacement of parts can be changed depending on how the machine has been handled.

Warranty is only valid from the purchase date.

8. Warranty

Please read the manual for operation and maintenance.

In case it is not mechanical problem, an extra service fee can be charged.
Check POWER first.

Please prepare enough roasted beans before repairing service

Warranty is 1 year from the date of purchase.

Warranty is not valid for second-hand machine and in the following cases

- 1) Damage caused by natural disasters
- 2) Damages by poor operation or management
 - Inappropriate use
 - Using machine for other purposes
 - Intentional damage, remodeling, over-heating from long over-work, poor operating, disassembly, self-repairs
 - Use of genuine part, incorrect cleaning process, poor management
 - Damages or injuries by not following safety regulations
- 3) Problems from installment environment
- 4) Damage from poor cleaning, operation, management
- 5) Consumable parts replacement

MODEL	THSR-001	CAPACITY	100g/batch
POWER	Single Phase 220V (60Hz)	POWER CONSUMPTION	2,200w
DIMENSION	655*320*675 m/m	DEVICES	Motor : AC / 230V / 60W / 50~60HZ Reduction gear : Reduction rate 1/30 Blower : AC / 230V / 55W / 50~60HZ



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