

YOSHAN

Coffee Roasters



YS-6KG/12KG/15KG

Installation & Operation Manual

Version 0.3 - English

Important Information

Important Information



Warning

- The machine need to be placed in a prominent location. This information needs to be advised by a local gas supplier.
- The appliance area needs to be free and clear of any combustibles.
- Note that those parts which have been protected by the manufacturer or his agent shall not be adjusted by the user;
- The machine needs to be connected to a qualified electric, gas and ventilation connection.
- Do never obstruct the roasting and air ventilation vents.
- This equipment contains dangerous voltages. Non-compliance with Warnings or failure to follow the instructions contained in this manual can result in loss of life, severe personal injury or serious damage to property.
- The instructions shall contain a warning on the danger of opening the oven door when the cooking chamber is hot.
- Only suitable qualified personnel should work on this equipment, and only after becoming familiar with all safety notices, installation and operation procedures contained in this manual. The successful and safe operation of this equipment is dependent upon its proper handling, installation, operation and maintenance.
- Children and the general public must be prevented from accessing or approaching the equipment!
- This equipment may only be used for the purpose specified by the manufacturer.
- Unauthorized modifications and the use of spare parts and accessories that are not sold or recommended by the manufacturer of the equipment can cause fires, electric shocks and injuries.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

To ensure the safe operation of the equipment, it must be installed and commissioned by qualified personnel in full compliance with the warnings laid down in these operating instructions.

- Take particular note of the general and regional installation and safety regulations regarding work on dangerous voltage installations (e.g. EN 50178), as well as the relevant regulations regarding the correct use of tools and personal protective gear.
- The mains input can carry dangerous voltages even if the roaster is inoperative.
- The surroundings of the roaster need s to be free of liquids, dust and corrosive gases.
- The surrounding ambient temperature must not exceed 40 ° C. The room should have sufficient ventilation during operation .Burning gas requires oxygen!
- Ensure that appropriate circuit-breakers/fuses with the specified current rating are connected between the power supply and roaster.
- Improper connection of gas supply can cause fire and / or explosions. The gas supply should be installed adjusted, and tested by a qualified gas installer.
- Check carefully for gas leaks after installation.

Important Information

Important

- Be sure to reserve at least 50 centimeters of space between every side of the machine!
- Clean the roaster according to the maintenance interval. Insufficient maintenance or cleaning can cause fires!
- During maintenance on any of the electrical parts, be sure it is disconnected from the main net: pull the plug.
- During maintenance on the gas installation, close the gas supply to the roaster.



Shutdown Procedure

In case of cleaning or maintenance always follow this 7 step shutdown procedure.

1. Turn the roaster off. You can do this by pushing the on/off button.
2. Finish the cooling down.
3. The temperature needs to be below 50 degrees/122 Fahrenheit.
4. Push the emergency button on the console.
5. Unplug the roaster electric supply.
6. Close and disconnect the gas valve.

Acceptable Products

The Yoshan Coffee Roaster YS-6KG/12KG/15KG sole purpose is to roast coffee beans. No other products may be processed since it may lead to fire, explosions or other dangerous situations.

The Roaster



Explanatory Drawing

Installation

Installation Steps

DANGER



IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, SERVICE, OR MAINTENANCE COULD RESULT IN SEVERE INJURY; DEATH, OR CAUSE PROPERTY DAMAGE.

READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

1. Choosing the Location

The roaster is not water resistant and should be protected from moisture and wind. Seen from all sides, the roaster should have 1 meter minimum free space around it. This for allowing adequate air flow and safe accessibility. The roaster must be vented to the outside if installed indoors. It must be reasonably level to operate properly. Ensure that the floor is capable of holding the weight of the roaster (approx 800 kg). Ensure that the area is well lit, so save operating and maintenance is possible.

If you are at an altitude a: or above 1500 m please let us know. Some adjustments may be needed to allow the roaster to operate properly at altitudes above 1500 m.



Transport

Do not lift the roaster by the hopper and not by the cooling sieve.

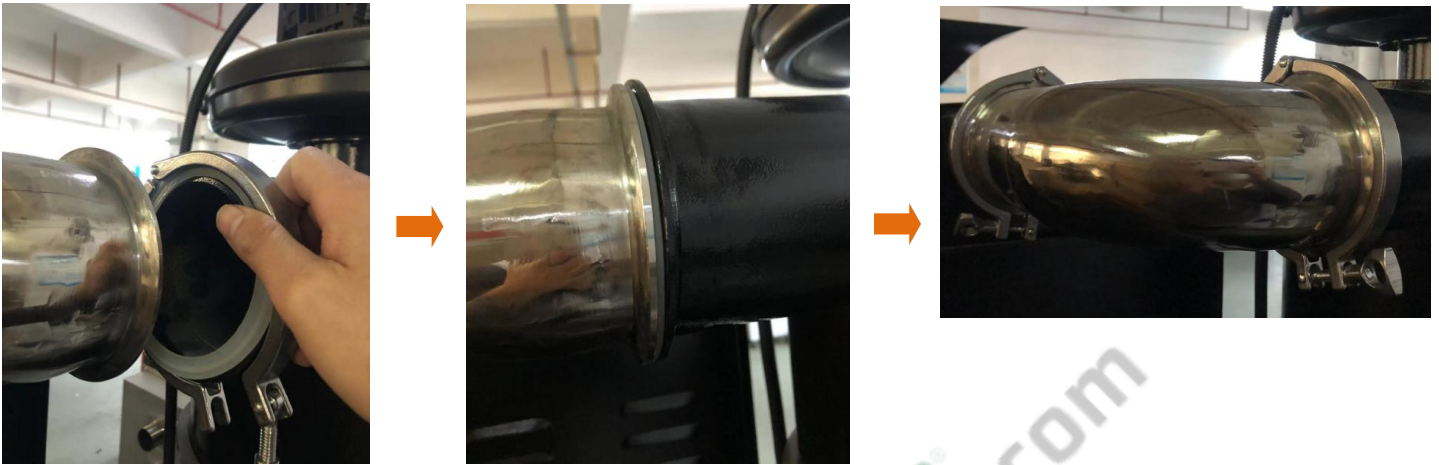


Installation

The installation surface is to be a horizontal concrete or flagged floor. Wooden floors are to be fireproofly insulated by means of sheet metal. The roaster must be accessible from all sides and have distance of at least 1 meter to the wall. The cooling sieve is installed without any special securing.

2. Connecting the Stainless Steel Pipe

1. Align the pipes (add the rubber ring in the middle).
2. Put on the buckle and fix it.

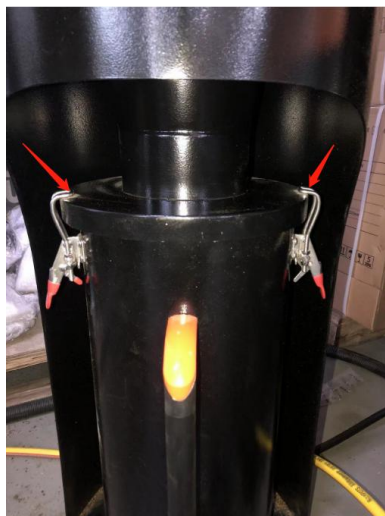


3. Connecting the Hot Air Motor

1. Put the hot air motor on the top of chaff cyclone.
2. Tighten the 4 fixing screws under the motor.
3. Connect the plug to the motor, under the back of the roaster.



4. Install the Roast Residue Collection Tank



Fasten the switch clip

5. Connecting the Console to the Roaster

Just plug the connector tight.



5. Connecting the main plug of your roaster



Electric Installation

Only authorized skilled persons are allowed to connect the main plug of the roaster to the main power supply. **(Better to direct connect the roaster to air switch.)**

6. Connecting the Gas Bottle



Gas connection



It can be locked with a lock to avoid gas leakage.



The gas bottle needs to be connected to a low-pressure pressure relief valve!

Gas Installation

Only authorized skilled persons are allowed to connect the gas line! The installation must confirm with local codes.

- A manual gas shut-off valve must be installed at the roaster (for maintenance and safe storage).
- Connection: 3/8" right thread standard fitting.
- Gas type: see identification plate on the back side of the roaster.
- Minimum and maximum gas pressure: see identification plate on the back side of the roaster.

Electric Installation

Only authorized skilled persons are allowed to effect electrical connection! The roaster must be electrically grounded in accordance with local codes.

- Life, neutral, earth, using a dedicated circuit without residual current circuit breaker (RCCB), since it may trip due to the filters in the frequency inverter.
- Voltage: see identification plate on the back side of the machine.
- Current: see identification plate on the back side of the machine.

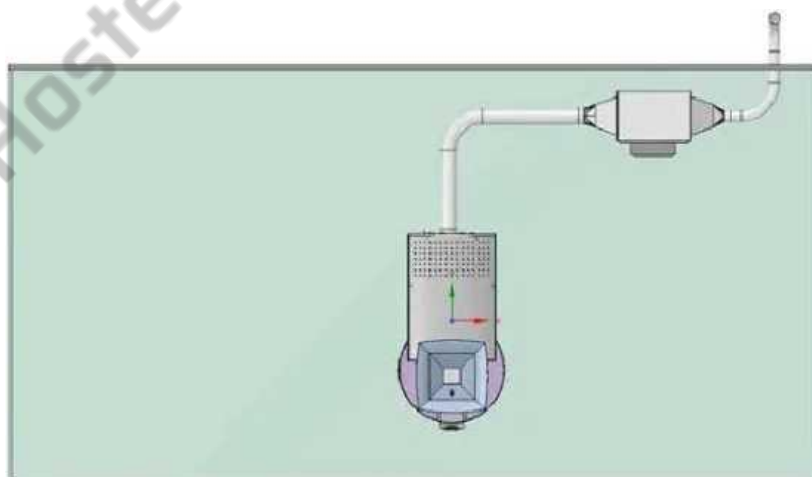
Setup Locations

Setup Locations

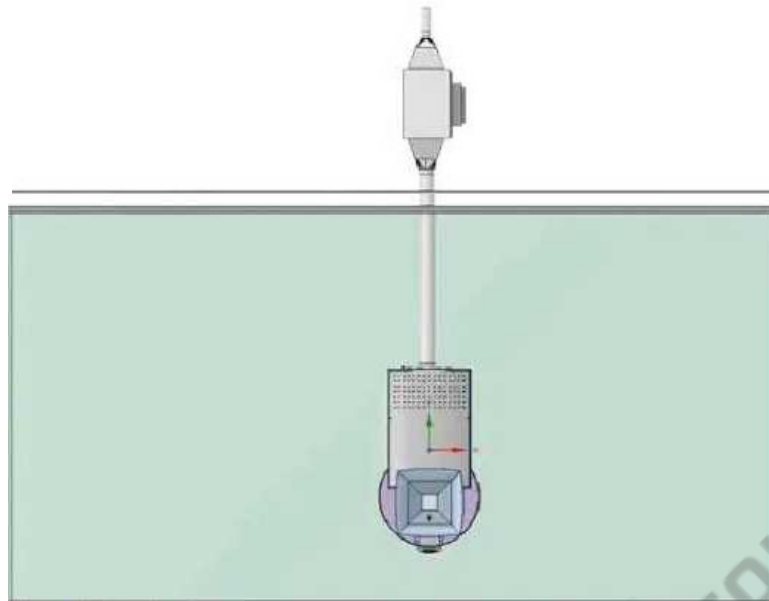
Below we have 3 example setup locations. The roaster should always be placed 1 meter to the wall.



Example location 1



Example location 2



Example location 3

Ventilation Installation

Ventilation (Only authorized skilled persons are allowed to connect ventilation.)

- Metal (single smooth pipe) or stone pipe pressure resitaned. No flexible pipe because this interups the airflow of the roaster.
- Make sure the exhaust is pressure proved.
- Minimum diameter: YS-6kg (150 mm), YS-12kg (200 mm)
- Maximum total length: depends on the situation.
- Maximum horizontal length: depends on the situation.
- For angles us a2 x45 degrees instead of 90 degrees angle pipe.
- Do not use external ventilation in the exhaust.
- The maximum temperature of the exhaust ventilation is 80 degrees.

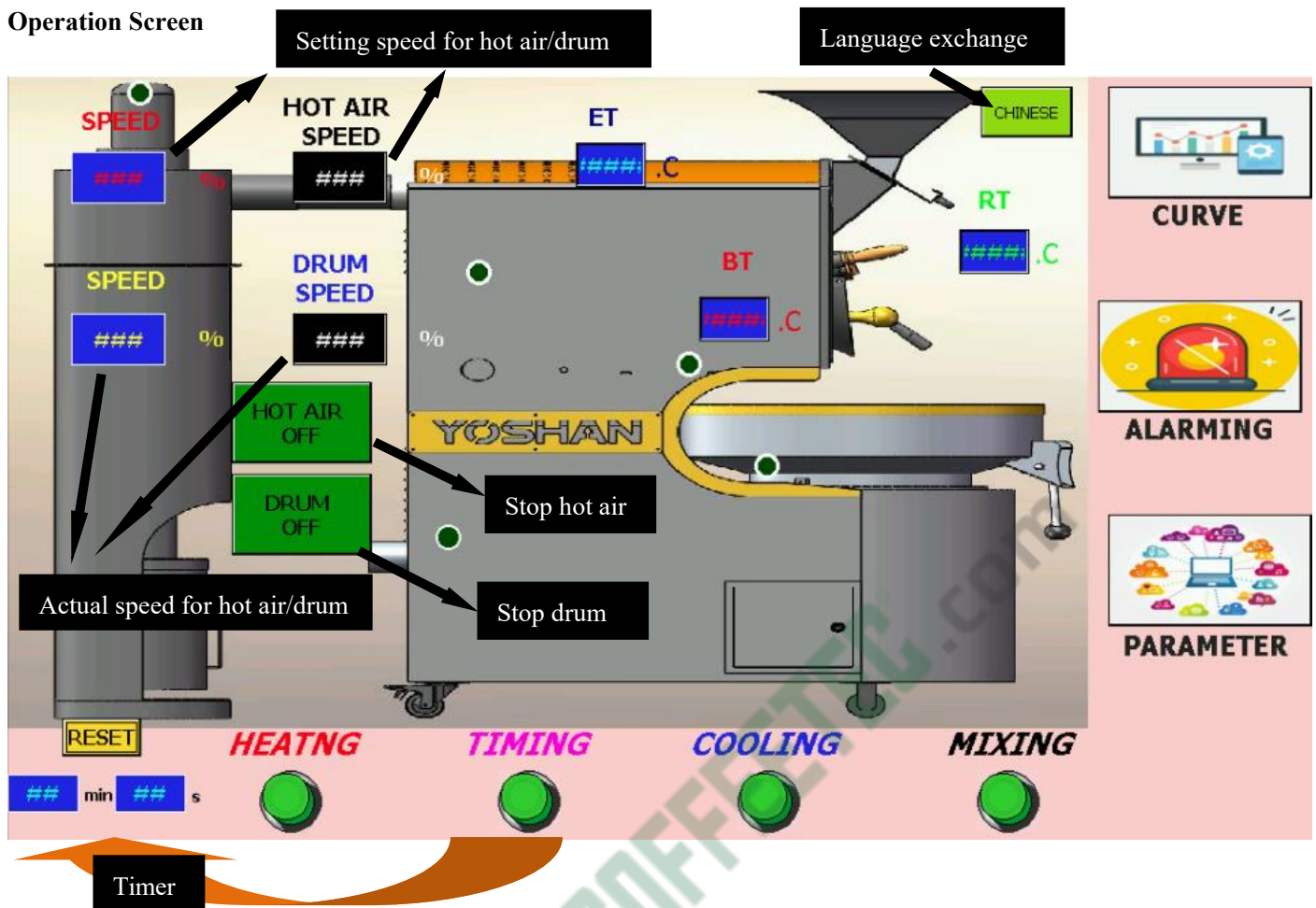
Operating Console

Operating Console

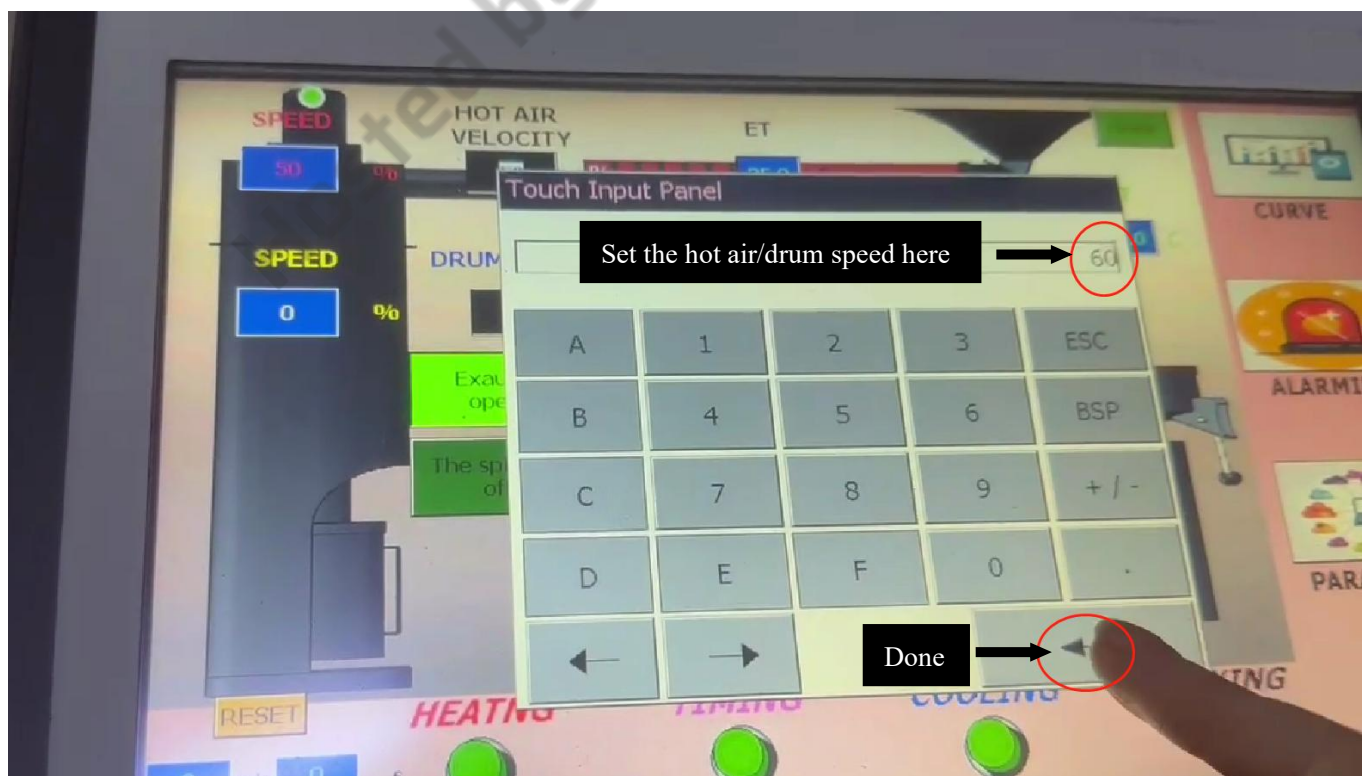
Main Operating Buttons

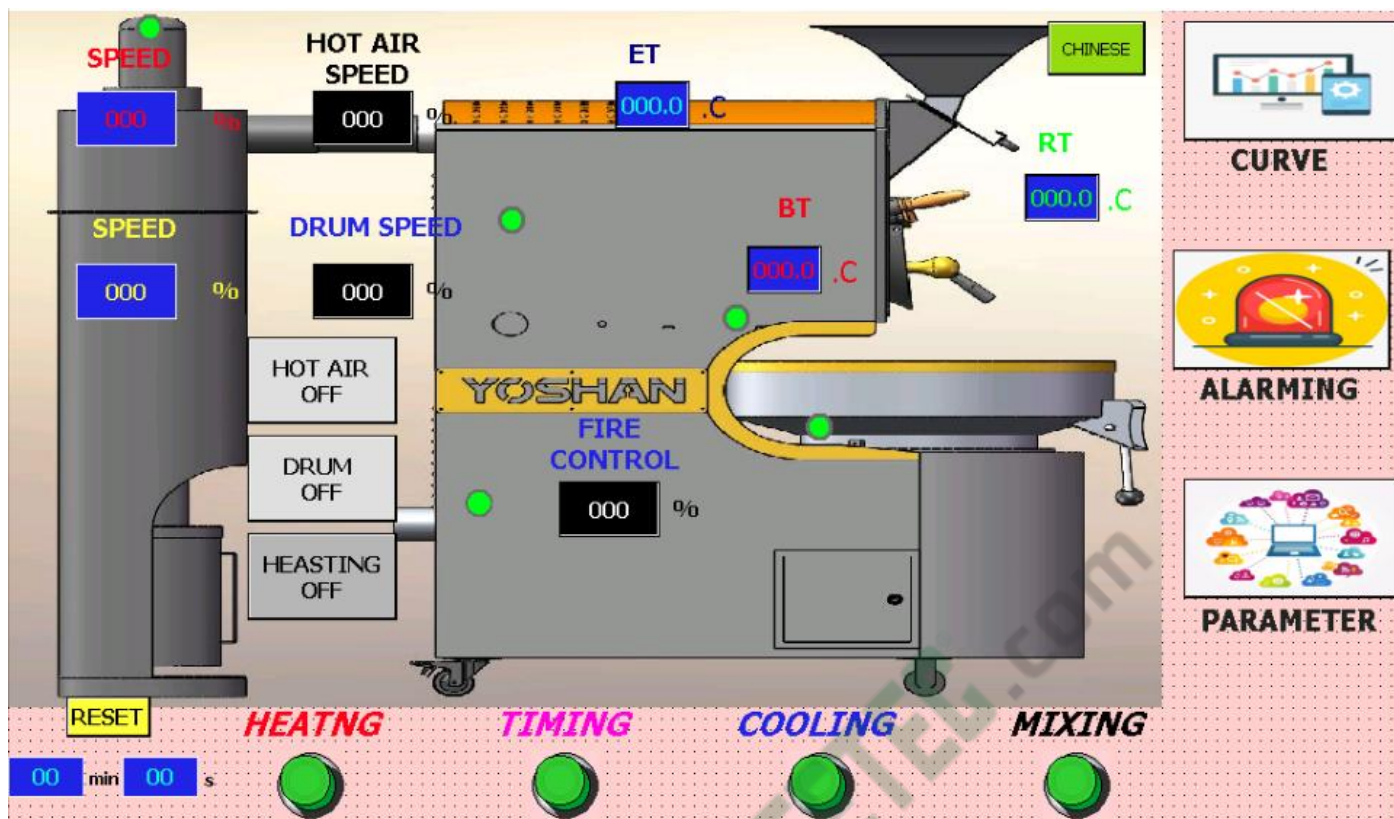


Operation Screen

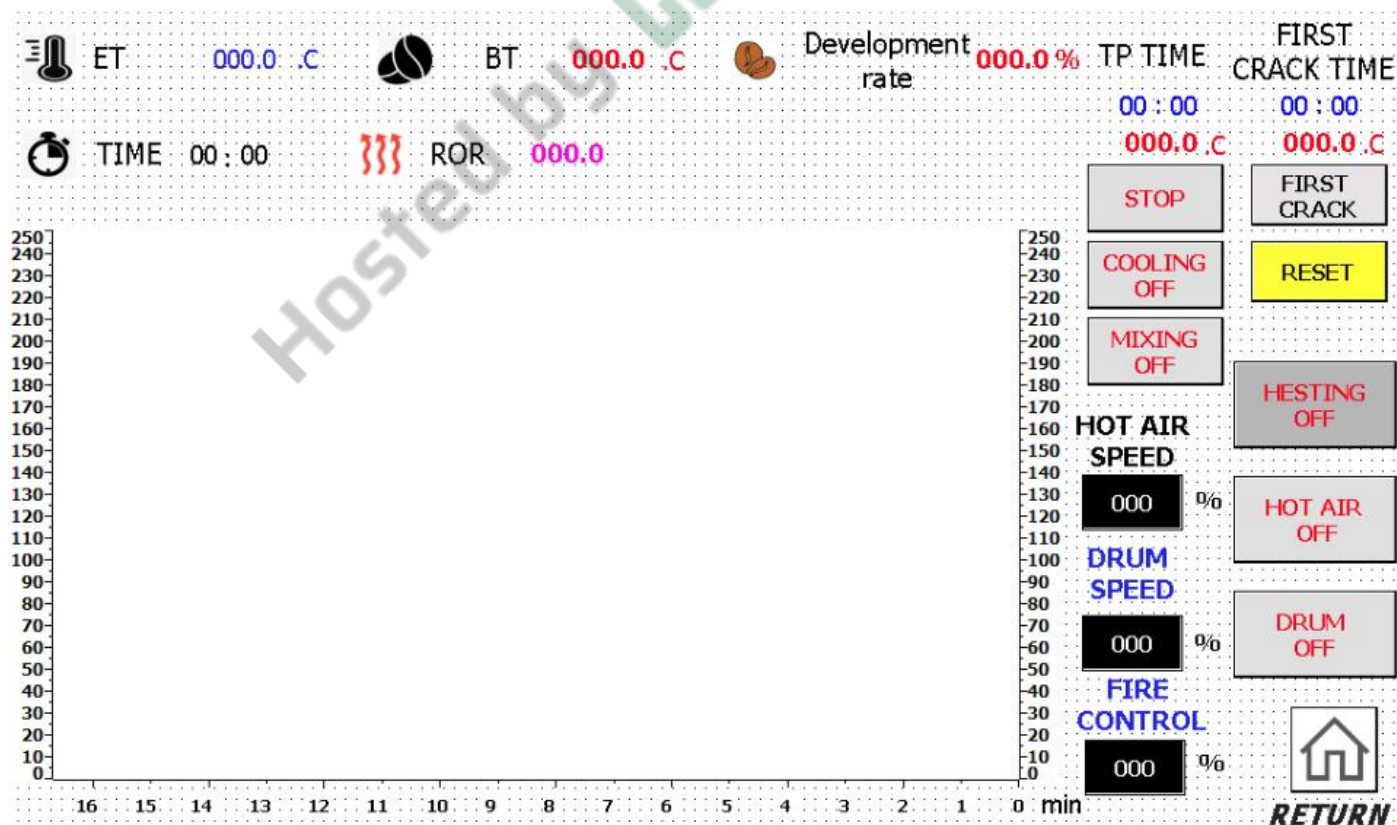


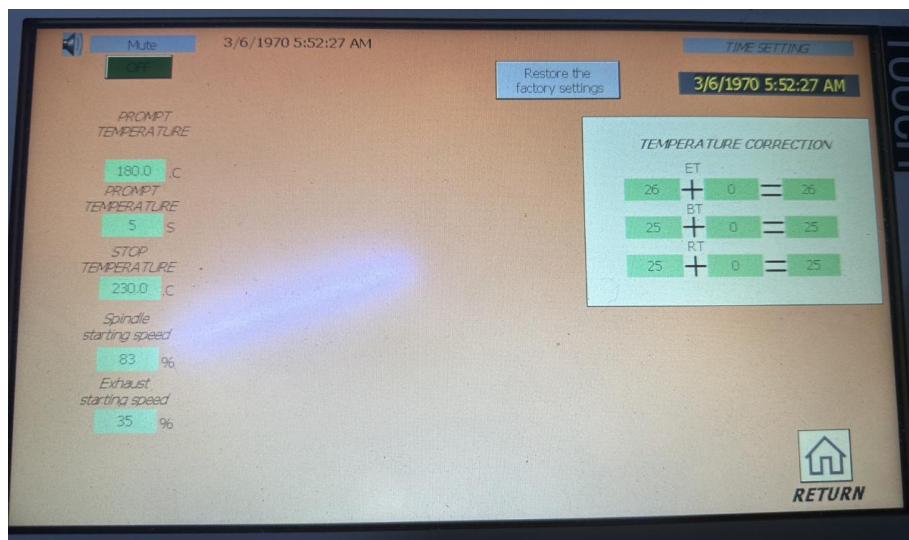
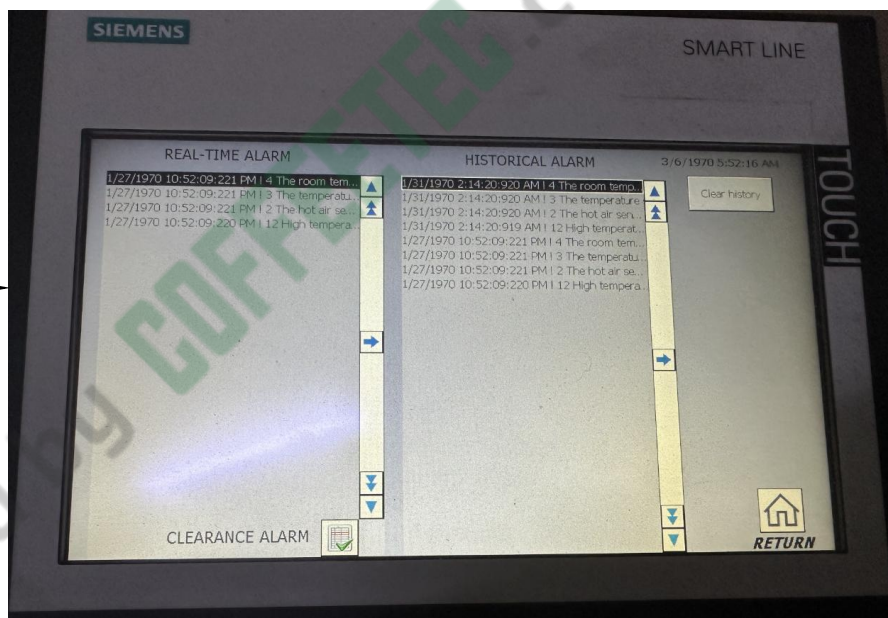
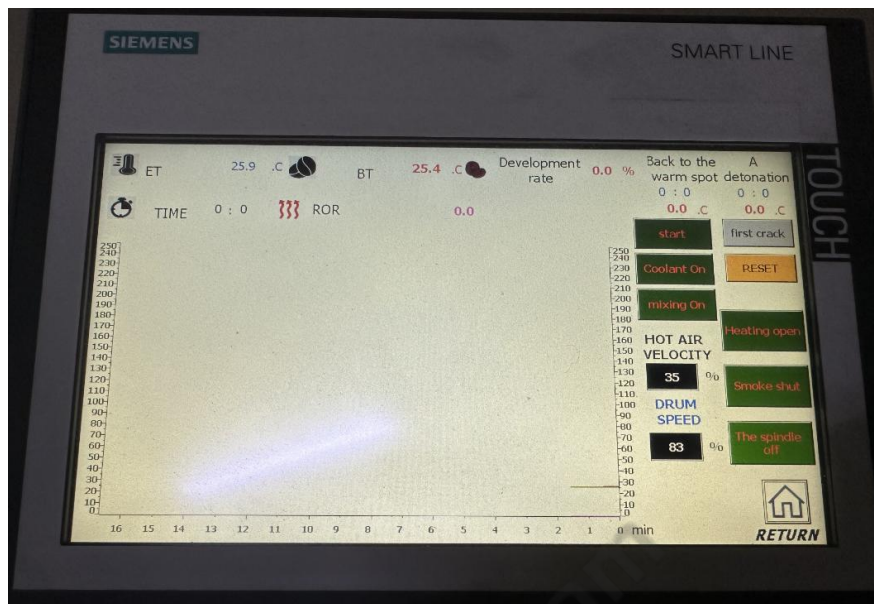
Gas Heating Type





Electric Heating Type



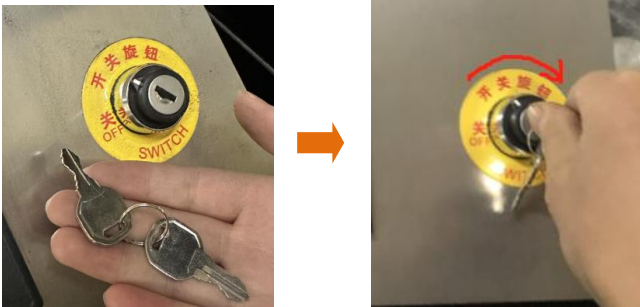


General Operation

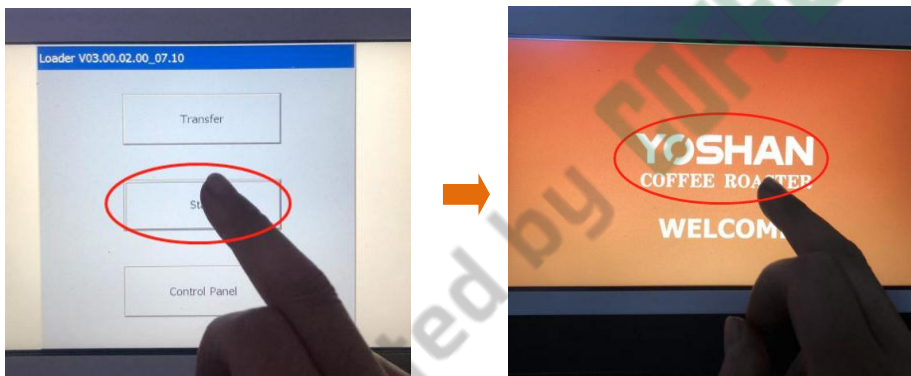
General Operation

In this chapter we will explain the general operation of the roaster. We will explain this in a step-by- step roasting procedure.

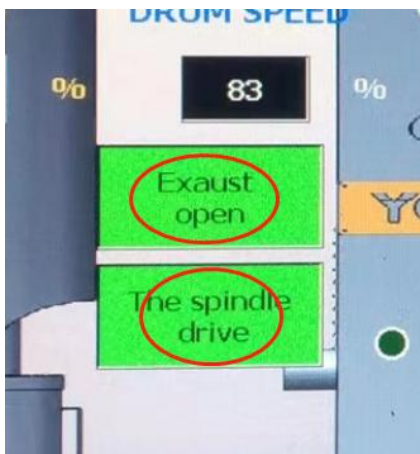
1. Power on (insert outlet into socket/open the air switch)
2. Rotary switch key.



3. After the screen turns on, click "Start", and then click "YOSHAN".



4. Open the hot air motor and the drum motor. **(Only when they are all turned on can the ignition be successful.)**
After turning it on, check whether the hot air is turned on and whether the drum is rotating.



Noted:

Open **hot air motor to 30%**, open **drum motor to 85%**, open the **bean release door**.

Then ignition!!!

(Otherwise there will be strange noises)

5. Open gas valve.

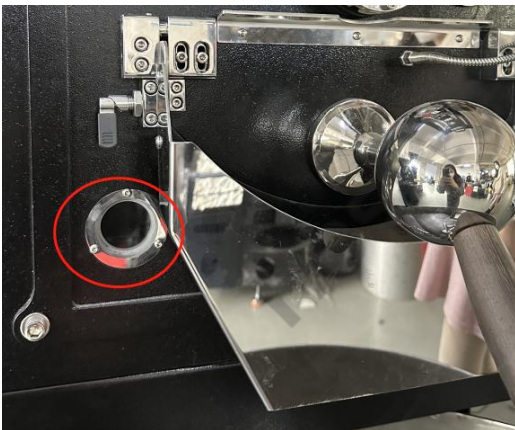


6. Click “Heating” button.

7. Turn on the gas knob on the roaster. (Counterclockwise increases firepower, clockwise decreases firepower)



8. Observe whether the ignition is successful through the flame observation window. Then waiting the preheating.



9. Wait until the hot air temperature has reached the required roasting temperature. This might take a couple of minutes.

10. Release the beans into the drum by opening the handle. **Note: This might be the moment when you start the timer.**



11. The air temperature will drop due to the cold beans. It takes a while until the set point temperature is reached again.
12. Continue roasting until the beans have reached the required color. **Note: You can change the temperature set point while roasting is in progress.**

13. When the beans are ready, start the stirrer by pushing the MIXING button, and start the cooling by pushing the COOLING button. Then slowly open the door to release the beans into the cooling tray.



14. When the beans have cooled off open the discharge port and store the beans into a bag/bucket. When all the beans have been ejected by the rotating stirrer, you can stop the cooling system by pushing the COOLING and MIXING button again.



15. To start a new batch, repeat the steps. When all batches have been completed, push the HEATING button to turn off the burner.

16. The roaster will stay in cooling down mode until the air temperature inside has dropped below 50°C: **While cooling down, the drum and fan continue to run, but burner is turned off.**

Important: Cooling down is important. Do not unplug the roaster or push the emergency button to stop the drum and fan. The equipment may get damaged when cooling down is aborted.

Maintenance Plan

Maintenance Plan

Interval	Recommendation
After 100 hours	Check all screws from the exhaust pipes.
After 200 hours	Check all ventilators for vibrations
After 300 hours	Clean the roast and cooling system.
Clean the covers of the motor coolers.	Lubrication of the back beaming
Clean the lock from the roast cyclone	
After 1000 hours or once a year	Burner service and tested by a qualified local gas installer.
After 10000 hours	Big service
Replace the motors, bearings and ventilators new.	

Grease Plan

Interval	Position	Service	Grease
Daily	Tank (Front & Back) roast drum	Cleaning	
Daily	Tank roast cyclone	Cleaning	
Every 100 hours	Front and back beaming	Greasing	K3k
Every 200 hours	Burner	Cleaning by a qualified local gas installer.	
Every 300 hours	Roast ventilator	Cleaning	



Maintenance

Clean the roaster according to the maintenance interval. Insufficient maintenance or cleaning can cause fires and damages to the roaster.



DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

Grease Table

Mineral grease

	Drive roast drum	Drive cooling sieve	Drumbearing
DIN code	VG220	VG220	K3k
ARAL	Degol BG 220	Degol BG 220	Aralub HL 2
BP	Energol GR-XP 220	Energol GR-XP 220	Energol LS3
ESSO	Spartan EP 220	Spartan EP 220	Beacon 3
MOBIL	Mobilgear 630	Mobilgear 630	Mobilux2
SHELL	Omala Oil 220	Omala Oil 220	Alvania R3
Kliiber	Lamaro 220	Lamaro 220	Staburags NBU 8 EP
TEXACO	Meropa 220	Meropa 220	Multifak2
DEA			Glissando 20

Synthetic grease

	Drive roast drum	Drive cooling sieve	Drumbearing
DIN code	VG220	VG220	K3k
Tribol	TRIBOL 800/220	TRIBOL 800/200	MOLLUB ALLOY
BRB527			
Kluber	Syntheso D220 EP	Syntheso D220 EP	CentroplexGLP402

It is not possible to mix mineral grease and synthetic grease!

Daily Maintenance

Daily Maintenance

1. First, turn off the roaster following the shutdown procedure.
2. Finish the cooling down. The drum temperature is below 50°C.
3. Remove the collector and empty it. You can do this on the right side of the roaster.



4. Remove the Roast Residue Collection Tank and empty it.

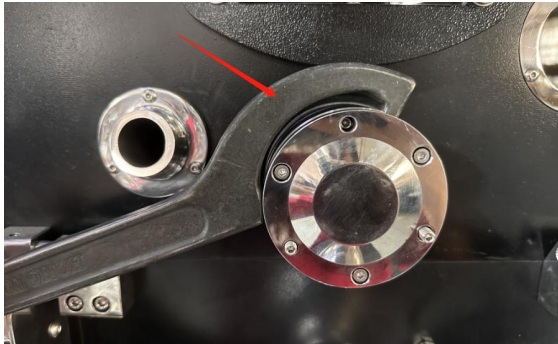


5. Return them to the original position. And then fasten the switch clip.
6. Check if all is ready for the next day.

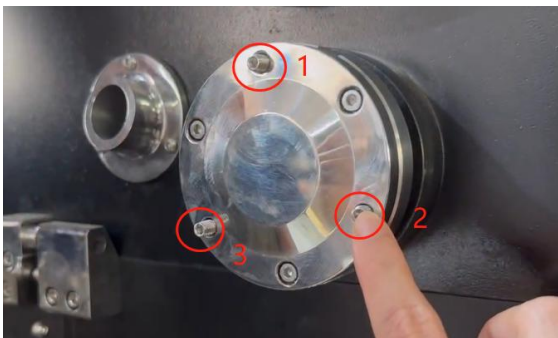
Adjusting the Drum

Adjusting the Drum

Adjusting the front bearing might be necessary when: **A scraping sound is being heard: the distance needs to be bigger.**
When beans are falling through, the distance needs to be smaller.



Tools needed: Crescent wrench / key hook
(In the tool box that comes with the roaster)



Step 1:

Unscrew the three countersunk screws as shown in the picture with the delivered tools. **(No need to take it off, just loosen it)**



Step 2:

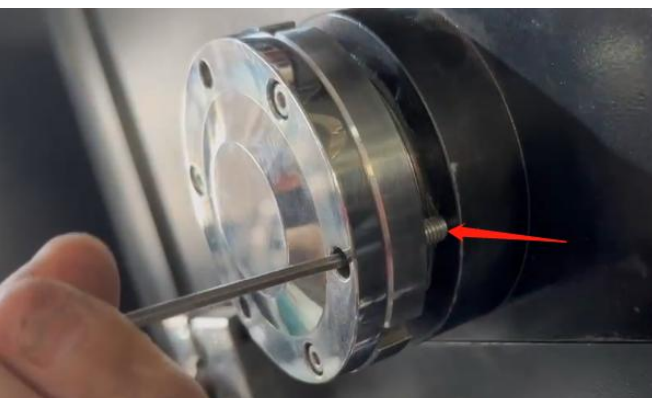
- * Turn clockwise with the key hook to adjust the drum to the back.
- * Turn anti-clockwise with the key hook to adjust the drum to the front.

(You can also twist it by hand)



Step 3:

Adjust the gap to 1~2mm, open the front door and observe the gap.



Step 4:

Screw the 3 countersunk screws tight to fix the drum.

Lubrication

Lubrication

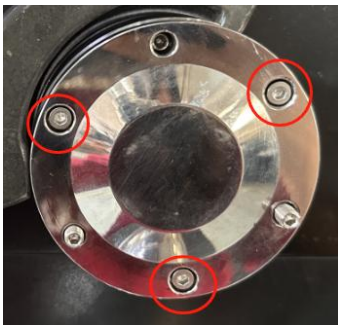
Lubrication is very important for the roaster. It will keep the front and back bearing in good shape.

1. Every week a few drops:

Oil valve on the front in both sides: (Left side&Right side)



2. Bearing in the front every 3-4 months:



Step 1:

Remove the 3 visible screws loose.



Step 2:

Remove and clean the cover.

Step 3:

Clean the bearing with a piece of paper.



Step 4:

Put new **heat resisted grease** in the bearing.
(Can be applied evenly with fingers.)



3. Bearing in the back every 3-4 months:

**Step 1:**

Open the back panel of the roaster.

Step 2:

Put new heat resisted grease in the bearing in the back with a grease pump.



Technical Data

YS-6kg

Features

Batch Capacity: 1kg-7kg/batch

Heating Source: LPG gas/N-gas

Drum Material: cast iron

Control System: Siemens brand

Drum Speed Control: yes

Airflow Control: yes

Total Power: 1070W

Certificate: ISO9001/CE/RoHS

Size: 2151*720*2000mm(W*D*H)

Weight: approx. 600kg

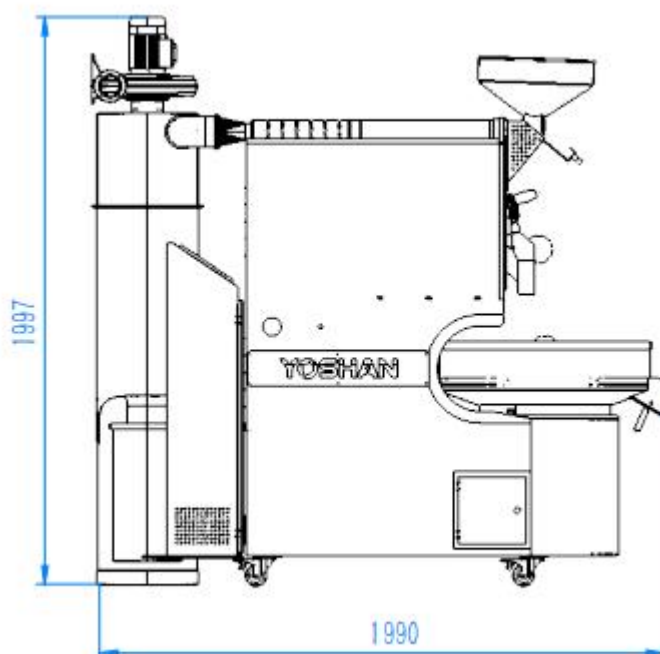
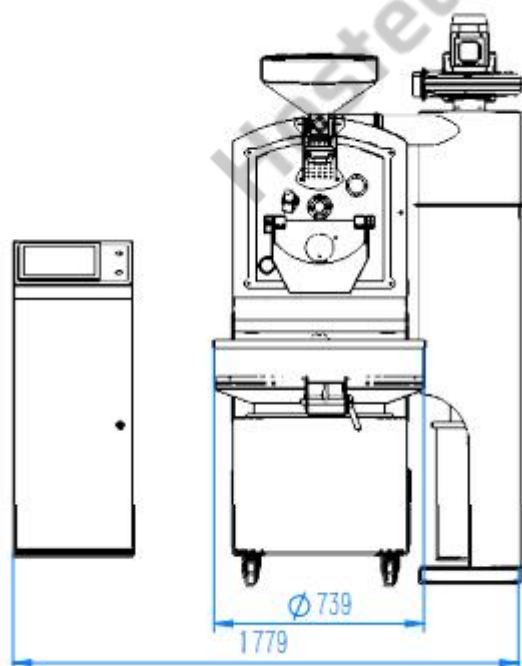
Options

Data logging and profiling

Destoner

Your own choice of painting

Electrostatic filter system



YS-12kg

Features

Batch Capacity: 1kg-13kg

Heating Source: LPG gas/N-gas

Drum Material: cast iron

Control System: Siemens brand

Drum Speed Control: yes

Airflow Control: yes

Total Power: 1500W

Certificate: ISO9001/CE/RoHS

Machines Size: 2321*770*2100mm

Machines Weight: 770kg

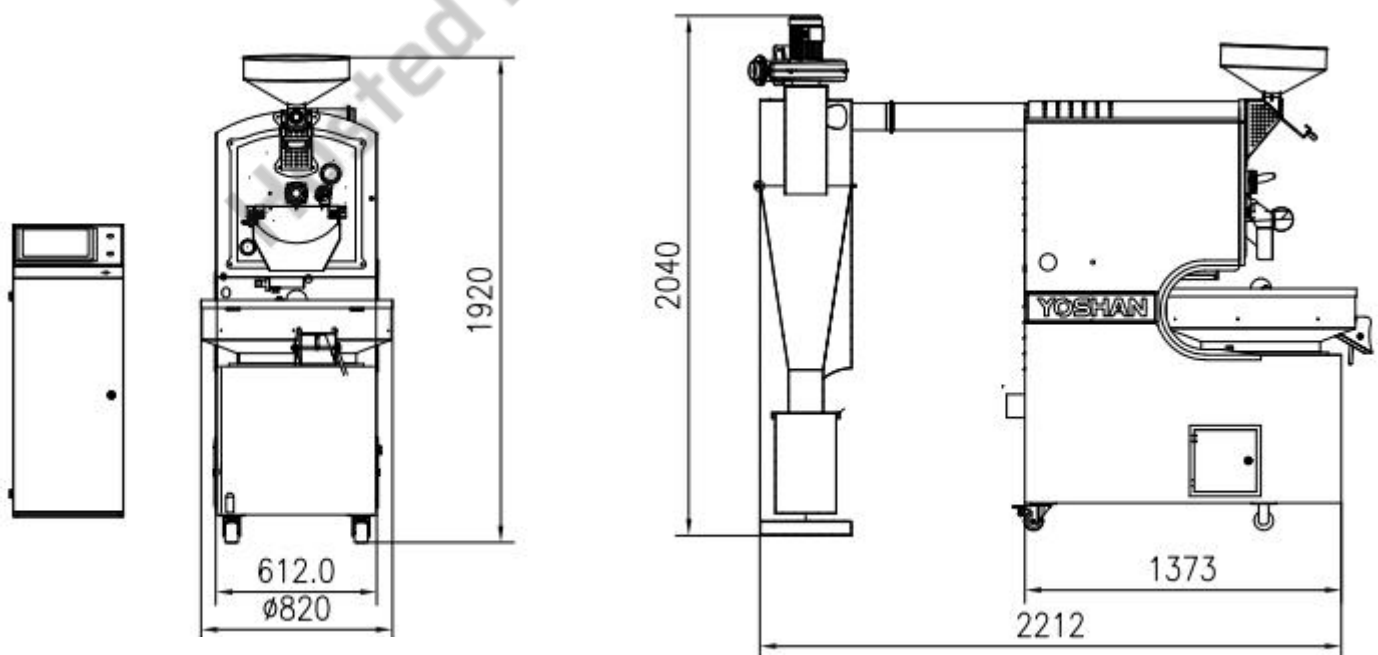
Options

Data logging and profiling

Destoner

Your own choice of painting

Electrostatic filter system



YS-15kg

Features

Batch Capacity: 1 kg- 15 kg

Heating Source: LPG gas/ N- gas

Drum Material: cast iron

Control System: Siemens brand

Drum Speed Control: yes

Airflow Control: yes

Total Power: 1500W

Certificate: ISO9001/CE/RoHS

Machines Size: 2320*1188*2244mm

Machines Weight: 800kg

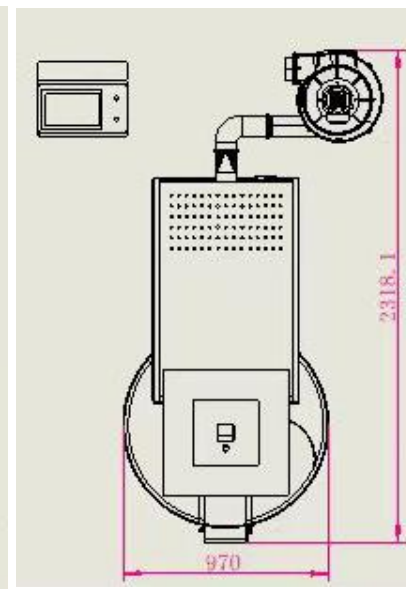
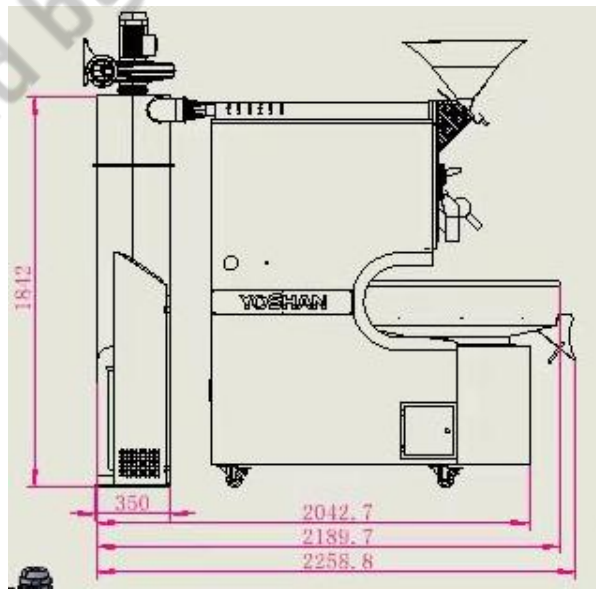
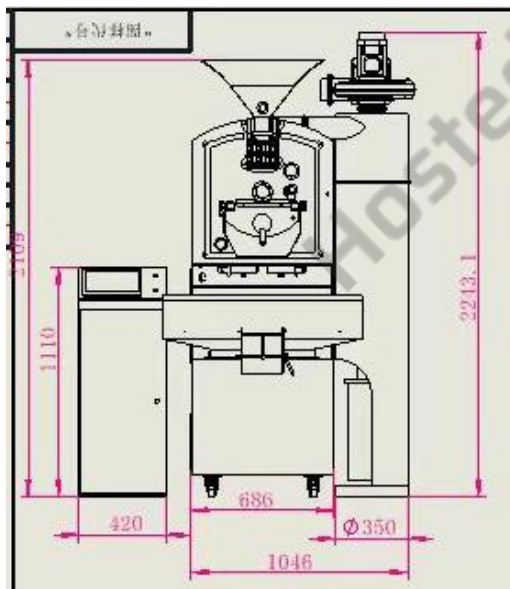
Options

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Electrostatic filter system



Appendix: Daily log**Appendix: Daily log**

Date	Time (From)	Time (Till)	Hours	Troubleshooting

Appendix: Daily log

[illegible]

Appendix: Change log

Appendix: Change log

Inspection, warning, oil change, repair	Signature Person

Appendix: Change log

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