



Commercial gas fryer



RFA-227G / RFA-327G / RFA-427G

User's manual







- "Warning for safety" parts inside is to keep user's safe and prevent from damage of property.
- Please read this manual to use correctly.
- After reading this manual please keep it in the place easy to find.
- Pictures in the manual is for explaining, actual appearance would be different.
- Appearance and standard could be changed for improving quality without notice. Product warranty is included in manual.

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Safety warning

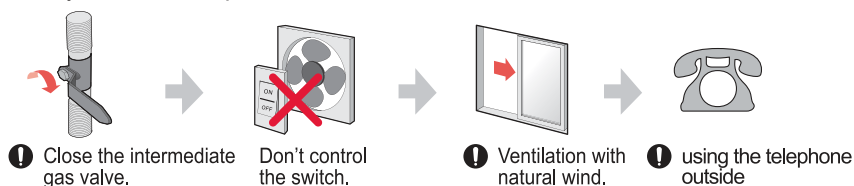
This information is for keeping safety of user and preventing of property damage. Please must read and use correctly.

 Danger	If user doesn't follow instruction, there are dangers that user might lost their lives or wounded.
 Warning	If user doesn't follow instruction, user may lost their lives or wounded.
 Caution	If user doesn't follow instruction, user may wounded or get property damage.
	Must do mark.
	General prohibition mark - it emphasize the things not to do.
	Earth display for electric shock prevention.

Danger

If gas seems to leak

- **If you suspect gas leakage, do not turn on the light or electric appliance or plug and do not use telephone.**
It may cause explosion accident by electricity.
- **In this case, follow below step.**
 1. Stop using and close the intermediate gas valve.
 2. Open the window to ventilate.
 3. Contact to service center. In this time, do not use the cell-phone or telephone nearby, use the telephone outside.



- **When you notice earthquake, fire, abnormal combustion, abnormal sound and smell during using. Stop using immediately, close the intermediate gas valve and do the ventilation.**

Ventilate by opening the windows.

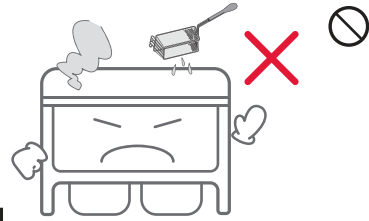
- **Do not spray water.(Especially during cleaning.)**

It could be a direct cause of breakdown , fire or injury
Do not spray water never.

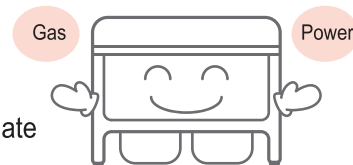


Warning

- **Don't shake fry basket on exhaust air port.**
Inside of exhaust air port is connected to burner. If oil get inside, it will cause fire.
- **Don't put flammables near to fryer.**
It make product overheated and it cause fire.
- **You must not touch product while it's operating or for some time after product is switched off.**
Especially, don't let child close to product. It has very high temp while and right after cooking, so easily get burned.
- **You must not leave from product while fryer working.**
It is heated by high-calorie burner, so you must keep your eyes on while fryer working.
- **Don't block exhaust air port.**
Don't block exhaust air port with dishcloth or other. Incomplete combustion will happen and it cause fire or breaking.
- **Don't repair or disassemble this product except our service engineers.**
It will effect to safety for using this product. When you consider it is broken, please refer to manual or call to service center.
- **Don't put your hands, face or other parts of your body to exhaust hole or oil tank.**
You could get burned by high temperature of heat or oil.
- **Don't use this product for other purpose except cooking.**
It will cause fire or breaking.
- **Don't put other fluid except oil inside of oil tank and don't use without oil.**
It will be cause of breaking by high temp, fire by oil leaking. When oil is not enough while using, supply appropriate amount of oil.
- **You must not use the place where water could be sloshed to fryer.**
If water get inside of power supply part, product could be damaged by malfunction or electric shock especially, if water get inside of heated oil tank, oil will be spattered so you could get burned.



- **Use specified gas only.**
Check whether the using gas is specified gas. Otherwise, it may cause not-operating, product damage or fire by abnormal combustion or overheat.
The name plate is on the right side of product.
(If you don't know about using gas, please contact our service center).
When you move, check the using gas and name plate is same.
- **You must check capacity of intermediate valve (fuse cock) attached rear of product .**
It is written on right side of gas hose connection part .



Caution

- **Install gas pipe(Within 3M) and power cord as short as possible and don't extend it.**

Especially, don't install gas pipe and power cord around exhaust part behind, upper or under of product.

It could be a cause of fire by short circuit or leakage by melting of power cord and gas hose.

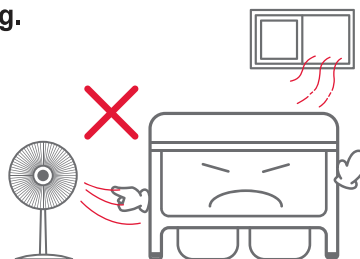
- **Don't keep clothes near by product while it being used.**
Clothes could catch the flame or you could be burned.
- **If foreign substances like frying powder are accumulated inside of oil tank, oil is polluted, and smoking by burning foreign substances.**
Taste of fried food will be bad, oil could be boiled over by remained water. Clean often inside of oil tank with soft brush.

- **Don't use it in the place where wind flowing.
(in front of fan or window)**

It could be a cause of malfunction and inside damage of product.

- **To control waste oil draining knob, don't control it with foot or use other items.**

Waste oil draining knob is important parts which is connected to valve.



- **Ventilate frequently often while using.**

While using, ventilate the air by opening the window. Otherwise, you may be poisoned by carbon monoxide.

- **When install this fryer, must adjust horizontally and make it stable.**

Especially, install it to the place where is easy to ventilate. It could be a cause of burn and fire if it is used in the mobile car and ship



- **You must check whether intermediate valve is opened or not.**

Before use this fryer, You must check whether intermediate valve is opened or not.

- **Before ignite product, check whether tank is filled with oil. filled with water or oil.**

If you use product without water or oil in it, product will be overheated resulting in fire or discoloration.

- **You must check intermediate valve for defects.**

If capacity of valve is so small or valve is clogged, Fryer can't be ignited.

- **After using, you must press "START/STOP" to stop fryer.**

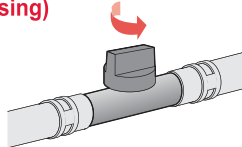
It will extinguish when you press "start/stop".

You must close intermediate valve When you leave your work.

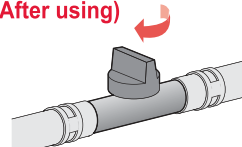
Especially pay attention to below point!

- **You must check whether mid valve(fuse cock) is opened or closed.**
You must check that it is opened before you use, it is closed after use.
Open intermediate valve before use, close it after use.

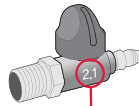
Intermediate valve opened
(Before using)



Intermediate valve closed
(After using)



- **You must check status of mid valve.**
In case of that capacity of intermediate valve is not appropriate or stuck, you can't ignite it.



EX) In case of RFA-227G LNG

Specification

Model	RFA-227G		RFA-327G		RFA-427G
Gas type	LPG	LNG	LPG	LNG	LPG/LNG
Spec	1.2	2.1	1.2	2.1	PT 1/2"(15A)

- ▶ Intermediate valve to be in sole occupancy.
- ▶ Singapore, Israel : Gas pipe connector 1/2", 15A.

- **When you use first time or you are not going to use for long period,**
You should expel all the air from gas pipe.
Before you expel all the air, it won't ignited easily.

- **You must check gas pipe installation whether it meets product standard or not.**

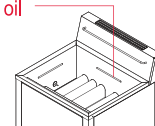
Especially, you install several gas product same time, capacity of gas pipe could not be enough, it could cause extinguishing, incomplete combustion, operational degradation.

- **Don't shake fry basket on exhaust air port.**
Inside of exhaust air port is connected to burner.
If oil get inside, it will cause fire.

- **Adjust oil quantity corresponding to tank capacity.**

If you use too much oil, oil volume will be swollen by heat resulting in overflow or oil may splash on you when you put foods into oil causing burn.

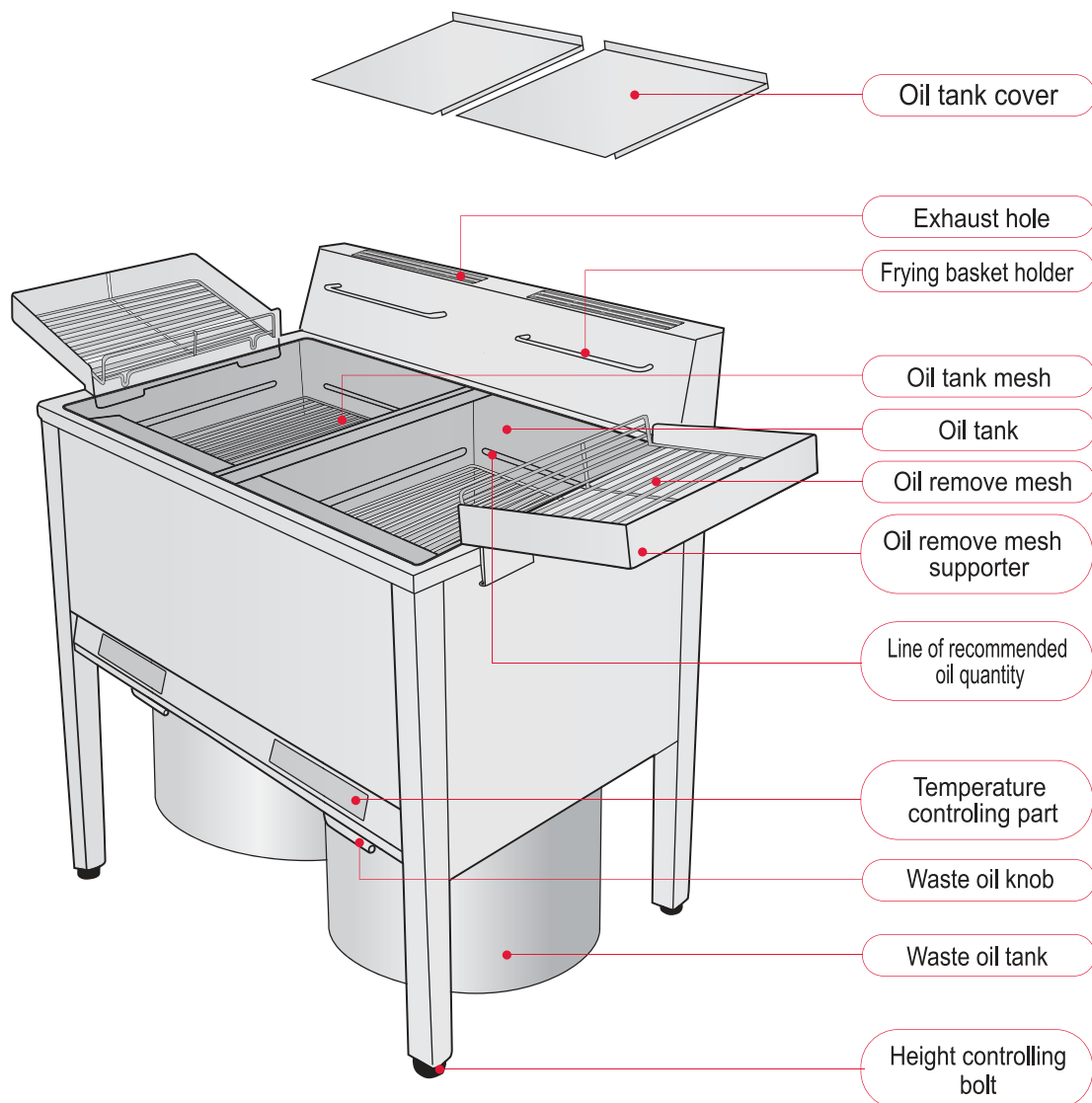
The line for required amount of oil



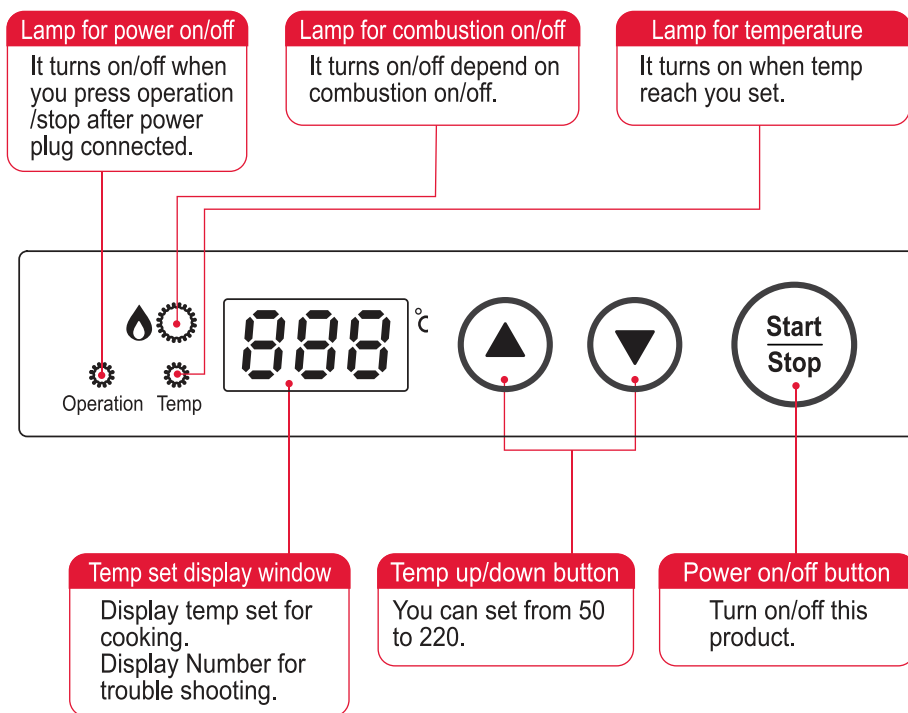
RFA-227G	RFA-327G	RFA-427G
22ℓ	29ℓ	22ℓ X 2

Name of each part

This below is the picture of RFA-427G.



Control panel



Accessory



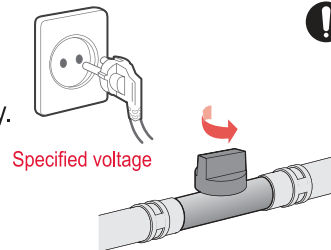
- Please check correct amount of accessories are inside.
(Refer to p15 to check the amount of accessories depends on model.)
- Accessories are in the box upper part of product and inside the tank.
- Please remove tapes, styrofoam and paper before you use.
- If you want to purchase frying basket, waste oil tank, waste oil filter, ask to Rinnai agency near or service center.

In order to use correctly

You must check below condition before you use.

1 Please check below again.

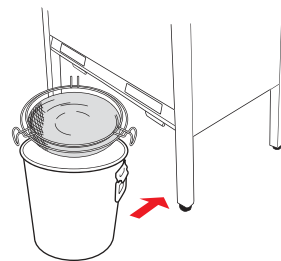
- 1) Please check intermediate valve works correctly.
- 2) Please check Gas and power are connected correctly.
- 3) Please deflate from gas pipe.
- 4) Please check a power cord is set safety.



2 Please check waste oil tank and waste oil draining knob put correctly.

Before you supply oil to tank please check waste oil draining knob locked tight

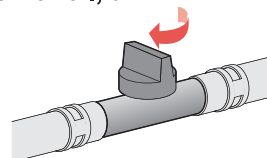
Please put waste oil tank below waste oil hole in order oil to be put into. When you use this product first time, turn waste oil draining knob 2~3times to get air out before operate it.



In case that you are not willing to use in long term

Please turn off this product to prevent oxidation of oil, and you must turn off the intermediate valve.

Especially, you must turn off the intermediate valve before you go back to home.



[The table appropriate temp for fried food]

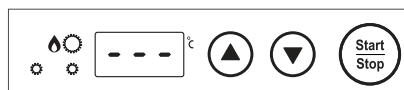
Name of food	Appropriate temp	Name of food	Appropriate temp
Potato, sweet potato	160–180℃	Fish, meat	180℃
Donuts	180℃	Croquette	180–190℃
Frozen stake	170–190℃	Chicken	160–180℃

- Above "ideal temp table" could be standard as example, but please adjust the best appropriate temp yourself while cooking.
- Generally, the oil used long term demands more higher temp for frying, also could take more time to be fried then the oil newly supplied.

How to use properly

1 Plug in.

After plugging in power cord, It'll be blinking "7SE" 3times temperature display will show "---".



2 Pressing "start/stop" button.

When you press "start/stop" button, It will show default temperature (160 °C) of product.



3 Adjust cooking temperature.

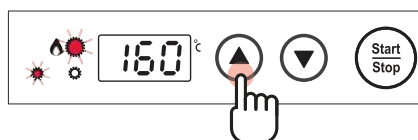
When you press "up" and "down" button, Figure in the display will go up and down by 1 °C per press.

When you press "up" and "down" button for 3 seconds, Figure in the display will change by 10 °C.

Set your desired temperature by pressing temperature up or down button.

A few seconds later, combustion will start.

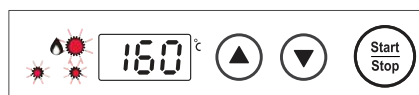
(if you don't set temperature, combustion will begin at the default emperature (160 °C).



4 Putting Food Into Fryer.

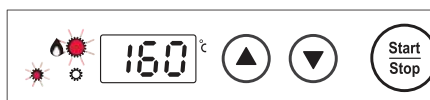
When temperature reaches to the setting temperature, temperature lamp will be lighting and you can put food into fryer.

Lighting of temperature lamp means the temperature of oil in the tank reaches to the setting temperature.



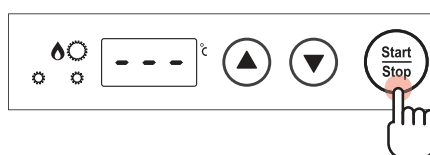
5 Automatic temperature maintaining system.

When the temperature of oil drops while cooking, (for example, when you put food into fryer), temperature lamp will be off and product will automatically start combustion to heat up oil to the setting temperature again.



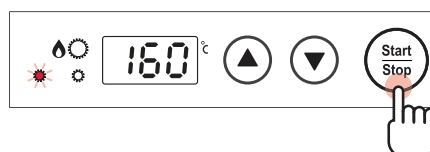
6 Power on/off.

When you press “start/stop” after cooking, Temperature display will show “---”



7 Pressing Restart button.

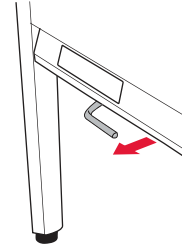
If you need to cook again, Press “start/stop” button. then it will start combustion according to the last setting temperature.



How to drain waste oil

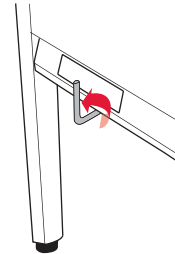
1 Pull out waste oil draining knob forward softly.

To get oil, put waste oil tank under waste oil hole.



2 Please Turn waste oil draining knob counterclockwise slowly.

The oil could be poured suddenly, please be careful.



3 At the completion of draining waste oil, close waste oil draining knob in the reverse order.

You must keep below

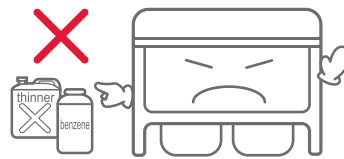
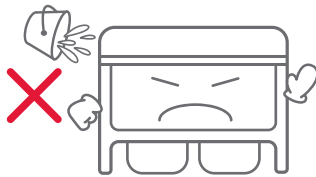
- When you drain waste oil , please check fryer and oil is cooled down to avoid getting burned.
- Before drain waste oil, please check waste oil tank and waste oil filter is correctly set.
- To avoid getting burned, while carrying waste oil tank, don't fill oil inside more than a half of waste oil tank.
- Don't control waste oil draining knob by your feet or other stuff to avoid pulling or pushing hard.
Waste oil draining knob is connected to inside valve. So if you push or pull waste oil draining knob hard, it affects to valve, and oil leak could be occurred. You must control it by your hand.
- Don't shake cooked-food to exhaust hole in order to take oil off.
Inside of exhaust hole is connected to burner.
If oil gets into it, fire could break out.

Cleaning and maintenance

Caution



- **Don't use any other part of body or tools to control product.**
In case of control panel, malfunction or damage could be occurred, in case of waste oil draining knob, oil leakage could happen by impact given to valve connected to.
- **Don't pour water on the product**
In case that water get inside front control panel or exhaust hole, it could be a cause of breaking by short circuit or malfunction.
- **Don't use flammable material as like thinner or benzene to clean.**
When combustion begins, flammable material will ignite and it could be a cause of fire.



- **Please use gloves when you need to clean inside the product.**
It protects your hand from high temperature or sharp edges inside.



Warning

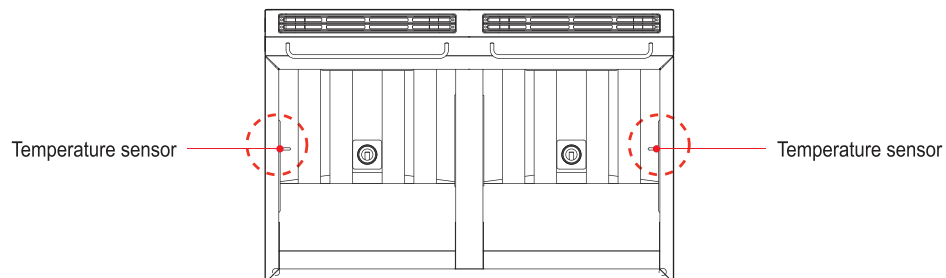


- Maintenance work should be done with the middle valve closed.
- After maintenance work, make sure that there are no unnecessary items such as tools and etc inside the product. And make sure there are no flammable material.

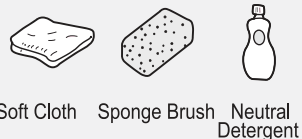


- **Wipe it well with a soft cloth.**
Wiping it with any metal or nylon brush may damage the surface of the product.
- **After cooking, wipe it with neutral detergent and dry it fully.**
If the water left for a long time, they're apt to rust.
- **Be careful not to get water into the product while you are cleaning.**
If the water left for a long time, they're apt to rust.
If the water left, it may boil up when the oil is heated.
- **When you clean the tank inside, wipe it well using soft cloth.**
Must do not clean with water.
Especially, check the temperature sensor in side the tank is stained with foreign substance every day. and clean with soft brush or cloth.
If the foreign substance is remained, it may cause fire by the overheating product.

Be careful impact to temperature sensor(thermistor) while cleaning

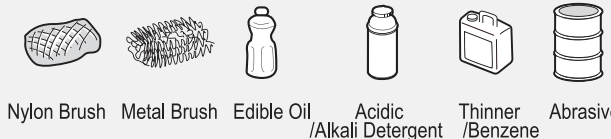


Usable



Soft Cloth Sponge Brush Neutral Detergent

Unusable



Nylon Brush Metal Brush Edible Oil Acidic /Alkali Detergent Thinner /Benzene Abrasive

Trouble Shooting

In case there is any problem in product, check the followings before apply for A/S.

Error code and trouble	Check point	Measures
11 Ignition failure	Check if the gas intermediate valve is open. Check gas supply by turning on other gas appliances.	Press the START/STOP button again.
12 Abnormal extinguish	Problem with flame rod.	Turn intermediate valve off and call service center.
14 Oil tank overheated	Check whether oil is in or not. Replace overheating sensors. (Bi-metal, Thermistor)	Check Bi-metal and Thermistor. Replace them if necessary. Request service. (If Bi-metal is cut off due to overheating, power supply will stop. It resumes again when temperature drops. At that time, press the ON/OFF button again.)
31 Abnormal thermistor	Check whether Thermistor wire is taken off or disconnected.	Turn on and off the product by pressing the START/STOP button.
70 Switch malfunction	Press "STOP" and "START" to re-operate fryer If same status happen again, call service center	Problem with temperature control panel
71 P.C.B Unit Error	Electric-magnetic valve control error	Check electric-magnetic valve P.C.B. unit circuit check Request service.
72 Fake flame detection	Close the gas intermediate valve and request service.	Check P.C.B. unit

- Other abnormal status occurred, close intermediate valve immediately, call to service center.

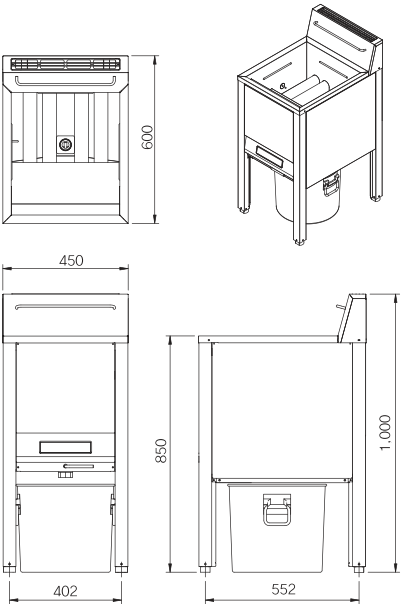
Dimension

The exterior and dimension of product would be changed without notice for quality improvement.

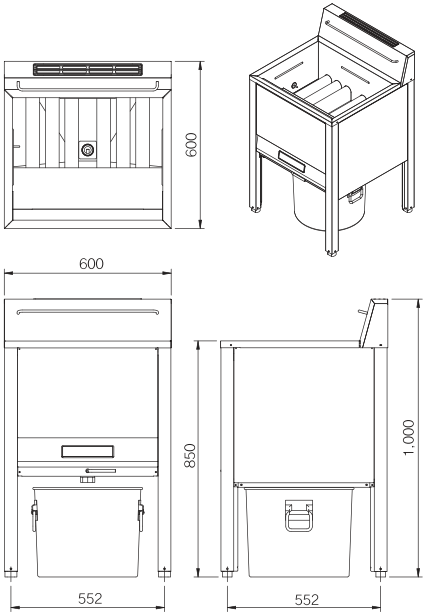
(Unit:mm)

Exterior of product

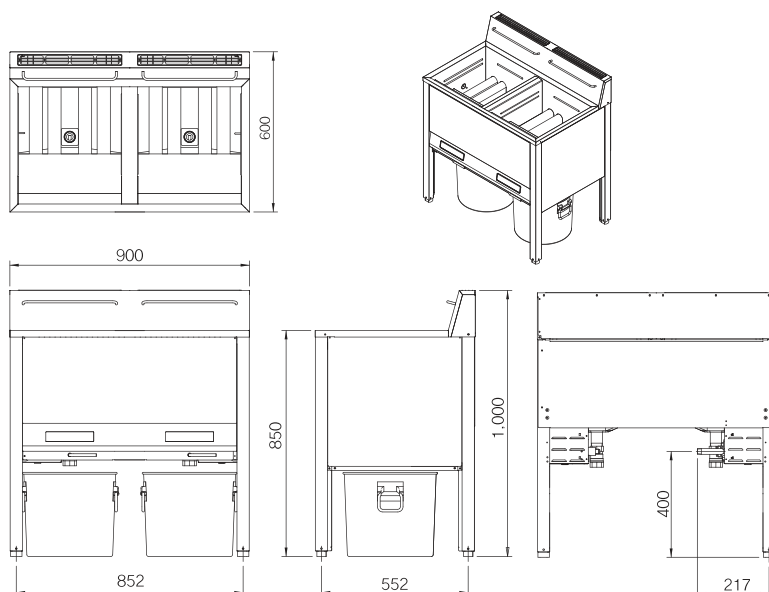
RFA-227G



RFA-327G



RFA-427G



Product Specification

		RFA-227G	RFA-327G	RFA-427G
Demension (W*D*H)(mm)		450 * 600 * 1,000	600 * 600 * 1,000	900 * 600 * 1,000
Tank Capacity(ℓ)		22	29	22 * 2ea
Gas Consumption	LPG	12.8kw(0.92kg/h)	16.3kw(1.17kg/h)	25.60kw(1.83kg/h) (Left/Right) 12.80kw(0.92kg/h)
	Town Gas	12.8kw(11,000kcal/h)	16.3kw(14,000kcal/h)	25.60kw(22,000kcal/h) (Left/Right) 12.80kw(11,000kcal/h)
Product Weight /Packing Weight(kg)		39 / 46	47 / 57	70 / 83
Power Consumption(W)	220V, 50~60Hz	16	16	37
	230~240V, 50~60Hz	18	18	39
Heating Velicity(time to reach 200℃)		Within 30minutes		
Temperature Control Range(℃)		50~220		
Ignition Method		Direct Ignition		
Gas Connection		Ø 9.5mm (RFA-427G : PT 1/2"(15A))		
Power		220V, 50 ~60Hz or 230~240V, 50~60Hz		
Safety Device		1. Extinguishment Safety Device. 2. Pverheating Prevention Device 3. Lighting Induction and Protection Device		
Component Part	Oil tank Cover	1EA	1EA	Each 1EA on the left/right side
	Oil tank Mesh	1EA	1EA	2EA
	Oil removing Mesh	1EA	1EA	2EA
	Oil removing Plate	1EA	1EA	2EA
	Waste Oil Tank	25 ℓ *1EA	40 ℓ *1EA	25 ℓ 1EA

※ Singapore, Israel : Gas pipe connector 1/2", 15A.

How to install

Please read this manual before you install product.



Caution

- Please check below matters before you install product.
- **Must check that gas type and power are compatible.**
Ask to certificated person or company for gas connection.
And check intermediate valve is working correctly.

- **Must leave interval clearance from flammables when you install this product.**
- **Before install this product, You must check that gas type and power are compatible.**
Ask to certificated person or company for gas connection and electric wiring.
 - For power, grounding, wiring, install it based on local relevant regulations.
 - In case that side grounding of power consent isn't done in 220v area, must do grounding.
 - In case of that boosting 110v to 220v in 110v area, must do grounding.
(Must use transformer which has over 1kw/h consumption of electrical power)
- **After installing product, must check 18p(Check point)**



1 Have enough space between product and walls.

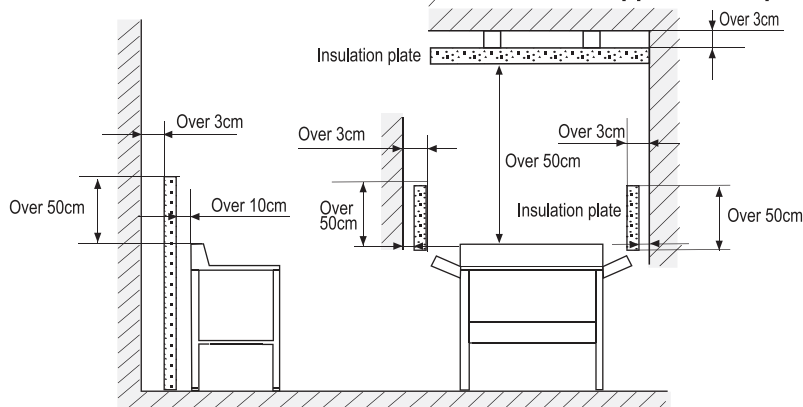


- There should be at least 50cm or longer clearance from the flammables such as ceiling and selves to the exhaust port.
- There should be 15cm or longer clearance from the rear or side of product to flammable walls. In case that use long time with attaching stainless panel to flammable wall directly, it could be cause of fire by heat transfer. When you install thermal barrier panel, install it correctly as below picture.

Don't install attachment like shelves near by product after you install product.
It could be a cause of fire.

In case that fire alarm is installed leave interval over 100cm.
If it is close to product, fire alarm beeps by heat of product.

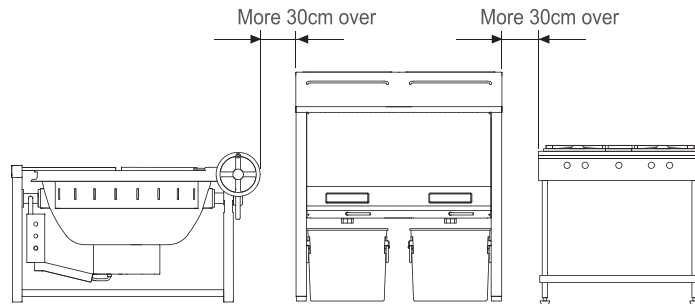
Install exhaust hood made inflammable material to upper side of product.



2 Do not install other gas appliances around fryer.

Don't install product near other gas appliance as possible as it is.

If you have to install other gas appliances nearby, give a 30cm or longer clearance between gas appliance .



In case that install gas pipe in parallel to use with other gas appliances together.

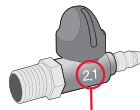
Because of lack of gas pressure, it could be a cause of abnormal combustion and breaking. Especially it is connected with gas appliance which has 11.6kw (10,000kcal/h), abnormal combustion and noise could occur.

3 Capacity of intermediate valve.

In case capacity of intermediate valve is not appropriate or it is clogged, ignition will be failed.

Person who install product must check it when install product .

EX) RFA-227G LNG



Specification

Model	RFA-227G		RFA-327G		RFA-427G
Gas type	LPG	LNG	LPG	LNG	LPG/LNG
Spec	1.2	2.1	1.2	2.1	PT 1/2"(15A)

- ▶ Intermediate valve to be in sole occupancy.
- ▶ Singapore, Israel : Gas pipe connector 1/2", 15A.

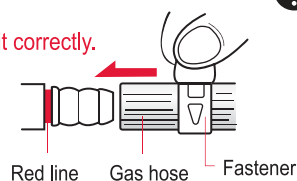
4 Gas connection

• Hose end type

Certificated

Put gas hose which is certificated and fit to gas connection hole into red line and fasten it with fastener.

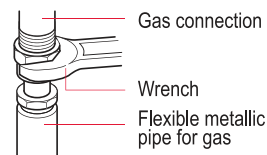
Connect it correctly.



• Pipe connector type

Please make sure that gas pipe connector which is pipe, PT 1/2"(15A) for the safe use.

After connecting pipe, must check gas leakage or not.



5 Checking component.

Please check all components and quantity are correct or not.

If you lose component even 1 pc, product can't be worked normally.

Check point for person who install this product	Check	Remark	Check pre-operation	
1. Check horizontality of floor of installation place?	<input type="checkbox"/>		Model name	
2. Check gas pipe connection status? Check whether intermediate valve is opened, working correctly, and air ventilating from gas pipe has been done.	<input type="checkbox"/>		Installation date	
3. Check "Warning"	<input type="checkbox"/>			
4. Check space for service and distance from other gas appliance?	<input type="checkbox"/>		Serial No.	
5. Pre-operation and check products for defects?	<input type="checkbox"/>		Installation place	
Remark				

Check point for user	Check	Remark	Installation company	
1. Check damage of product and installation status?	<input type="checkbox"/>		Name of person who install	
2. Check products is installed the place you want?	<input type="checkbox"/>		Tel No. of person who install	
3. Installation for electricity and gas are done safe?	<input type="checkbox"/>		Others	
4. Check components inside of product?	<input type="checkbox"/>			
5. Check functional condition of product?	<input type="checkbox"/>			
6. Have you educated "how to use" from person who install?	<input type="checkbox"/>		Sign of person who install	Sign of User
7. Check functional condition of control panel?	<input type="checkbox"/>			
8. Check horizontality of floor of installation place and other defects?	<input type="checkbox"/>			
Remark				

MEMO

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