

Super Heated Steam generator

The structure of the Shikoukan Super heated Stem generator is very simple. When water mist sprayed toward flame, the mist evaporated instantaneously and changed as superheated steam.
 Food Sterilized steam temperature is higher (300-500°C) than conventional steam sterilizer.
 We have 2 type steam generator 100,000kcal and 50,000kcal type. We can choice which type generator is suitable. it depend on sterilization purpose, sample material, capacity.



装置外観写真 (正面)



装置外観写真 (後方)

Furnace

We have 2 type Furnace connecting superheated steam generator.
 (1) Kiln Furnace and (2) Drop type vertical furnace.
 High Moisture contents material is suitable (1)Kiln type.
 Powder, beans, seeds is suitable (2)Drop type.
 (2)Drop type can be sterilized just 1 second.



(1)Kiln type



(2)Drop type

Running Cost

LPG consumption	1.6m3/hour	JPY 416 /hour, (JPY260/1m3)
Electric consumption	1.5kW/hour	JPY20 /hour (JPY20/kw)
Water consumption	30L/hour	JPY0.6/hour (JPY22/1m3)
total		JPY 446.6 /hour

Sterilization example by superheated steam

Rice powder, Rice bran,
 Rice, soybean, red bean, Grains, Seeds
 Coffee, Nuts
 Tea
 Fish
 Fruits, Vegetable,

Fish / Dry and sterilization by superheated steam



redwing searobin



rockfish



Mackerel



horse mackerel

Sterilization time

Powder (rice, rice bran) sterilization	30-40minutes
Coffee, Nuts roasting	10-20minutes
Fruits, Vegetable Dryer and Powdering	0.8-1.2hours
Fish (Niphon spinosus, Shrimp skin) Dryer and Powdering	1.0-1.5hours
Grains, Beans sterilization	300-500kg/hour (Drop type furnace)





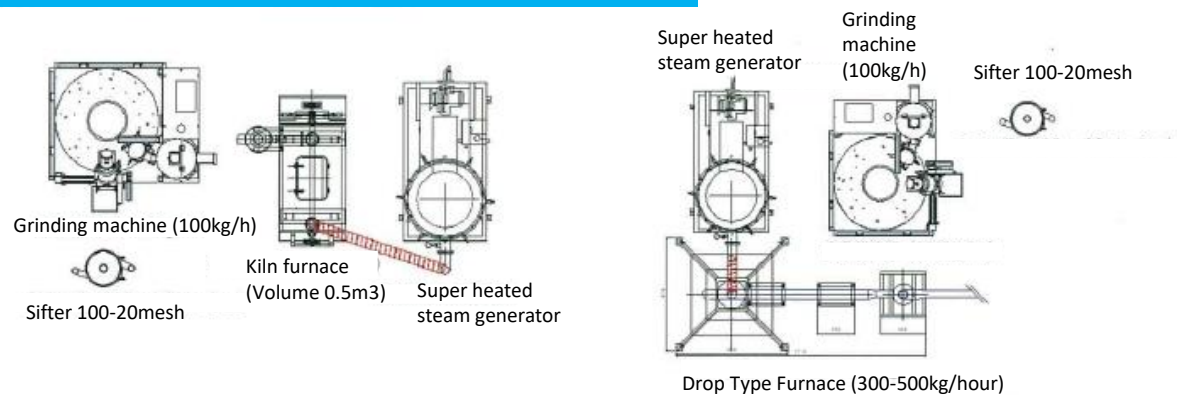
1. Steam Generator Specifications

	SHS-5M(Middle type)	SHS-10L(Big type)
Electric source	3phase 200V (50Hz)	
Heat resource	50,000kcal burner	100,000kcal burner
Heat resource type	LPG(13A)	
exhaust temperature range	250-600°C	
Maximum water Spray volume	40L/hour	80L/hour
Water Nozzle number	4 or 6 pcs	
Furnace	Tube Type / Ceramic wool (insulation)	
Machine size	W1,100 × L2,100 × H2,200(mm)	W1,300 × L2,300 × H2,400(mm)
Weight	600kg	800kg
Machine construction	3-split structure(Furnace/Steam generation/Temperature adjustment)	
Exhaust diameter	80A/100A	
Control method	①Automatic adjustment of Water spary amount (To be set Target temperature) ②Control Air amount (To be set Target gas amount) ※adustment of gas amount is required in accordance with processing capacity.	
Application	Dry and Sterilization of Foods	

2. Furnace specifications

	Kiln type		Drop type
	small type	Middle type	
Volume	0.5m3	1.0m3	-
Processing capacity	150kg/batch	300kg/batch	300-500kg/hour
Size	W1,230 × L1,900 × H1,760 mm	W1,430 × L2,200 × H1,960mm	W1,680 × L3,700 × H4,300mm
Weight	400kg	500kg	300kg

3. Example floor plan



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過熱水蒸気発生器

