

# **FROSGOLD**

## **SMOKELESS BUSINESS WASTE INCINERATOR**

### **Eco-Friendly Design**

**Air pollution free & Non-stench**

**Protecting**

**Your living surrounding**



**GREYWATEC**  
PRETREATMENT PLANT SYSTEM

### **Greywatec Engineering Sdn. Bhd.**

12, Jalan TIB 1/3, Taman Industri Bolton,  
68100 Batu Caves, Selangor Malaysia.

Tel : 603-6185 9262 (Hunting Line)

Fax : 603-6185 9279

Email : [sales@froscoweb.com](mailto:sales@froscoweb.com) / [work@froscoweb.com](mailto:work@froscoweb.com)

Website : [www.froscoweb.com](http://www.froscoweb.com)

Central Region : 6019-385 1168

Northern Region : 6012-549 7710

Southern Region : 6012-713 0515

**-Since 1986-**



**MADE IN MALAYSIA**



MR. K. C. TOH

H/P : 019-281 5063

Email: [work@froscoweb.com](mailto:work@froscoweb.com)  
(CENTRAL REGION)

MR. ERIC ONG

H/P : 016-919 9920

Email: [sales@froscoweb.com](mailto:sales@froscoweb.com)  
(CENTRAL REGION)

MR. PETER

H/P : 012-233 3861

Email: [work@froscoweb.com](mailto:work@froscoweb.com)  
(EAST MALAYSIA &  
INTERNATIONAL)

MR. ONG

H/P : 012-549 7710

Email: [sales@froscoweb.com](mailto:sales@froscoweb.com)  
(NORTHERN REGIONAL OFFICE)

MR. ALEX

H/P : 012-713 0515

Email: [sales@froscoweb.com](mailto:sales@froscoweb.com)  
(SOUTHERN REGIONAL OFFICE)

Email: [sales@froscoweb.com](mailto:sales@froscoweb.com) / [work@froscoweb.com](mailto:work@froscoweb.com)



# SMOKELESS BUSINESS WASTE INCINERATOR

## Eco Friendly Design



# FROSGOLD

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**Website : [www.froscoweb.com](http://www.froscoweb.com)**

**We Reserve All Intellectual Property  
Rights In Our Products.**

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## SMOKELESS INCINERATOR

Associated  
Representing Brand:



BURNING - \* Commercial Waste  
\* Food Waste  
\* Liquid Waste  
\* Rubber Waste

\* Chemical Waste  
\* Hospital Waste  
\* Sludge



## INTRODUCTION OF INCINERATOR

### Pet Cremator Furnace



SINGULAR / INDIVIDUAL TYPE



MASS TYPE



MOBILE TYPE

### Human Body Cremator Furnace



HUMAN BODY CREMATOR FURNACE



BODY ASHES FURNACE



MATERIAL POSSESSIONS FURNACE

### Eco Friendly Worship Goods Furnace



RECTANGULAR



OCTAGON



LARGE SIZE FURNACE



PAPER WORSHIP GOODS FURNACE



FIRE CRACKERS FURNACE

## **INTRODUCTION OF INCINERATOR**



**HYPERMARKET REFUSE  
INCINERATOR**



**RESOURCE RECOVERY  
FURNACE**



**WASTE LIQUID  
FURNACE**

## **AIR POLLUTION CONTROL EQUIPMENT**



**2 COMBUSTION CHAMBER  
INCINERATOR**



**CYCLONE DUST  
COLLECTOR**



**BAG DUST  
COLLECTOR**



**DIOXIN  
COLLECTOR**

## SALES RECORDS IN THE WORLD

NO.		COUNTRY	YEAR
1		TAIWAN	1990
2		JAPAN	1995
3		CHINA	1997
4		THAILAND	1998
5		PHILIPPINES	1999
6		HONG KONG	2002
7		VIETNAM	2003
8		SINGAPORE	2005
9		AFRICA	2012
10		PAKISTAN	2015
11		MACAU	2015
12		KOREA	2016
13		INDIA	2016
14		ARGENTINA	2016
15		INDONESIA	2017
16		MALAYSIA	2017

## OVERSEAS MARKET



DE480E  
宮城県 大衡村



DE480E  
宮城県 名取市



DE3000ERX  
宮城県 仙台市



DE480ES  
宮城県 石巻市



DE780ER  
宮城県 仙台市



DE480E  
宮城県 名取市



DE480E  
千葉県 野田市



DE480Ei  
栃木県 日光市



DEP 1000 x 2  
岩手県 盛岡市



DE780Ei  
岩手県 千厩町



DE480E  
福島県 郡山市



DE480E  
福島県 伊達市



DE480AR  
福島県 いわき市



DE480E  
山形県 寒河江市



DE480AR  
山形県 酒田市



DE780Ei  
山形県 東根市



DE780Ei  
山形県 天童市



DE2000Ei  
山形県 鮭川村



DE3000Ei  
山形県 庄内町



DEP 1000R  
山形県 米沢市



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Email: sales@froscoweb.com . work@froscoweb.com

## **SMOKELESS INCINERATOR**

### **Incinerator FG/D100 Specification Compliance For Hospital**

Pyloric incinerators without grate ensure complete combustion to incinerator general hospital waste including paper, wrapping material, plastics, animal and vegetable waste and pathological waste. Incinerator must be capable to receive the above waste without separating.

**The incinerator process must comply with international flue gas emission standards (f.i.TA- LUFT, Germany):**

- Max flue emission percentage of solid particles  $100\text{mg}/\text{m}^3$  OK, about  $60\text{mg}/\text{M}^3$
- Content of CO: max 0.002 % OK
- Content of CO: max 0.002 OK
- Visibility of flue gases : max 1 ring element. This is out of date measurement.
- The incineration must not produce any smell (The post combustion temp must be above 800C) Smokeless to air non stench. The secondary (post) combustion chamber temp 850-1000°C
- Volume of ash : max 3% of initial volume Yes, but it is not correct measurement
- Weight of ash : max 12% of initial weight Yes, our incinerator less 8% of initial weight.
- The waste must be completely burnt & contact of unbent organic matter of the ash. must not exceed 3%.

Yes, our incinerator is designed for environment protection and sanitary.

Waste can be destroyed as fast as it accumulates and nothing is left to spread disease. After combust complete, leaves only sterilized ash.

#### **Capacity:**

800 kg/day, during 8 hours/day, during 6 day/week, corresponding to an hourly

Capacity : 100 kg

The above amount is based on a daily waste production of 2kg per day and per bed and may vary according the result.





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## **Design :**

Incinerator of the pyrolytic type preferred it should be able to operate the incinerator as follows:

a) Manual feeding trough special feeding door with lock in order protect the operator from accident.

Yes, our incinerator has special designed garbage feeding device as shown in our catalogue.

b) Incinerator must be without grate in order to avoid liquid waste to full into the ash container without being incinerated. No grate in the bottom. Our incinerator has not grate as you can see in our product.

c. Incinerator must be equipped with one primary and one secondary (Pilot) burner. The fuel consumption of the burners is to be indicated in the offer. we use Japan 'KATO' pilot burners. Model CRN-35WEM is to be used for secondary combustion chamber and model CRN-20 is for the 1<sup>st</sup> combustion chamber. For the catalogues, please refer to the attached catalogue below.

## **Control:**

Automatic control with all necessary swishes, lamps, gauges, etc. in order to ensure automatic operation of the incinerator.

Yes, it is automatic control system after working time set up.

**Electrical supply:** 220-380V, 50 cycle. OK

## **Chimney:**

Stainless steel chimney of sufficient length and diameter with spark arrestor.

Yes, chimney of our incineration is made of SS SUS #304 with heat resistant painting on surface.

## **Fuel oil tank:**

Fuel oil tank made steel plate, sand blasted and provided with protecting paint sufficient for one month incineration for both burner including tank armatures,

The capacity of fuel tank is 450 L completed with valve and fitting,

The fuel consumption is 20L/HR for the first chamber and 25L/HR for secondary chamber in case of these two burners are continuously burning without ceasing fire.

For your kind reference:

A. The first combustion chamber:

1. For dry waste incineration : The burner could be shut off 1-3 minutes later after ignition.
2. For wet waste incineration: The burner has to work continuously flaming the wet wastes until the combustion chamber temperature reach up to 600°C. It will shut off automatically according to thermo sensor.

B. The secondary combustion chamber

There are two nozzles for the secondary burner. One is Hi flame nozzle and the other is Lo flame nozzle (we are also called seed flame). The burner will stop Hi flame automatically when the chamber temperature up to the preset temperature 800°C and there is only seed flame working.

Therefore, the actual fuel consumption is less than 45L/HR totally (two burners fuel consumption)

**Training:** For one year (part + labour) after installation & operation.

We provide one year limited warranty under normal operation. The warranty provide is 14 months from on board date. But the labor cost and traveling expenses for warranty work as well as freight for warranty parts are excluded.

**Maintenance:** For 2 years (labour only) after expiry of warranty.

Installation and operation : The supplying co. should make complete installation of all incinerators except civil works will be under the responsibility of hospitals any offer not including complete installation will be rejected.

**\* Spare part list sufficient for five years.**

Offered in our quotation already.

## **A. VERTICAL TYPE OF INCINERATORS:**

The vertical type incinerators are covering the following major features:

1. Small land space occupation and easy installation without civil engineering.
2. Chimney made of stainless steel SUS304 with heat resistant painting for lasting usage.
3. Round wall compact structure ensure firebricks without loosing or falling off.
4. Special designed garbage throw in device to secure operator safety.
5. Vertical type possess of anti-explode function. If there is an unknown explosive material is exploded in burning, the burst pressure of incinerator is going upward and discharge from the center upright chimney. Therefore it can minimize the damage of incinerator and to avoid any hazard to operators.

## **B. BURNERS:**

For your kind information, the primary and secondary burners are pilot burner which is the No 1 quality in oversea market. Furthermore, as we mentioned in our previous email and the sales records we submitted, our incinerators have been exporting to Japan market for more than 11 years. (Since 1996)

## **C. CONTROL SYSTEM:**

Actual our control panel is semi-automatic. It means that the starting and starting and stopping procedure is manual and the burning process is automatically.

The reasons why we are designed for semi-automatic control panel are described in the below:

1. The design of our incinerator is simple and easy operation. Everyone can do it but not for PLC panel.
2. We adopt quality oversea electronic components. So the control panels is durable for lasting usage.
3. The burning process is simple so there is no need to adopt PLC control.
4. Semi-automatic control is easy for maintenance by any technician or trained operator.
5. PLC control must be maintained through and experienced professional engineer with PLC program and computer.
6. Individual spare part is easy to get from open market any time any places and the cost of individual part is low, not for PLC unit because it has to buy from specified company at specified delivery time.
7. The damage part of our control panel can be replaced one by one without changing original function and the PLC must be replaced with complete and the cost is expensive.

## **CONCLUSION:**

There is only a large or medium capacity incinerator with complicated control system requiring for PLC control panel. Because our incinerator is simple compact design, high efficiency, easy operation and low cost maintenance, therefore from the above mentioned reasons, it is not necessary to use PLC control panel. That is why our incinerator is decided to use semi-auto control panel in design. In case MOH authority demands PLC control panel. We can supply two options, one is PLC panel and the other is PLC with LED touch screen control system. The extra cost to be discussed.



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## **SMOKELESS BUSINESS WASTE INCINERATOR**

### **A) APPLICATION**

1. Various kinds of industries.
2. Community & amusement park.
3. Military units & government administration.
4. Hospitals, clinics, laboratory & pharmacy.
5. Shopping mall & business for agriculture.

### **B) PRODUCT FEATURES:**

1. Less bulky, small land space and no civil engineering needed.
- 2 . Minimum fuel consumption for high performance.
- 3 . Stainless steel sus 304 chimney with heat resistant painting & spark arrestor
- 4 . Designed as per the theory of 3 Ts of combustion which improved working efficiency.
- 5 . With precise electronic automatic control system.
- 6 . Easy operation & low maintenance.
- 7 . Automatic fuel injection system assists burner and automatic temperature control, temperature can reach more than 1000°c
- 8 . Adopt castable cement and refractory brick which can be fireproof up to SK34.
- 9 . In conformity with environmental protection standard.
10. Water-tight control box to prolong control system for long lasting usage.

**\*\* 3 Ts means – Time , Turbulence & Temperature**



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## C) SUITABLE FOR WASTE KINDS :

### 1. LIVING RUBBISH:

Kitchen wastes and sanitary disposable materials.

### 2 . ADMINISTRATIVE WASTE:

Office secret documents and papers.

### 3 . INDUSTRIAL REFUSE:

Timber, clothes, rubber, resin, paints, chemical solution, foot ware materials, waste oil, leather and unable cycle various wastes.

### 4. MEDICAL WASTE:

Injection needles and disposable medical care materials.

### 5 . FARM GARBAGE:

Such as animal body and leaves and branches of plants

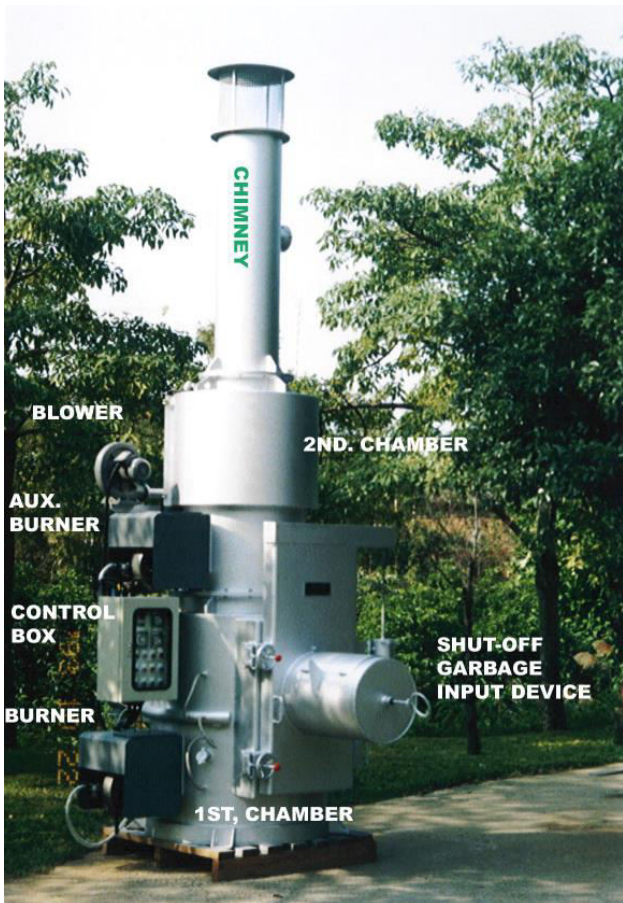


**MEDICAL WASTE INCINERATOR  
MODEL FG/DE-480**



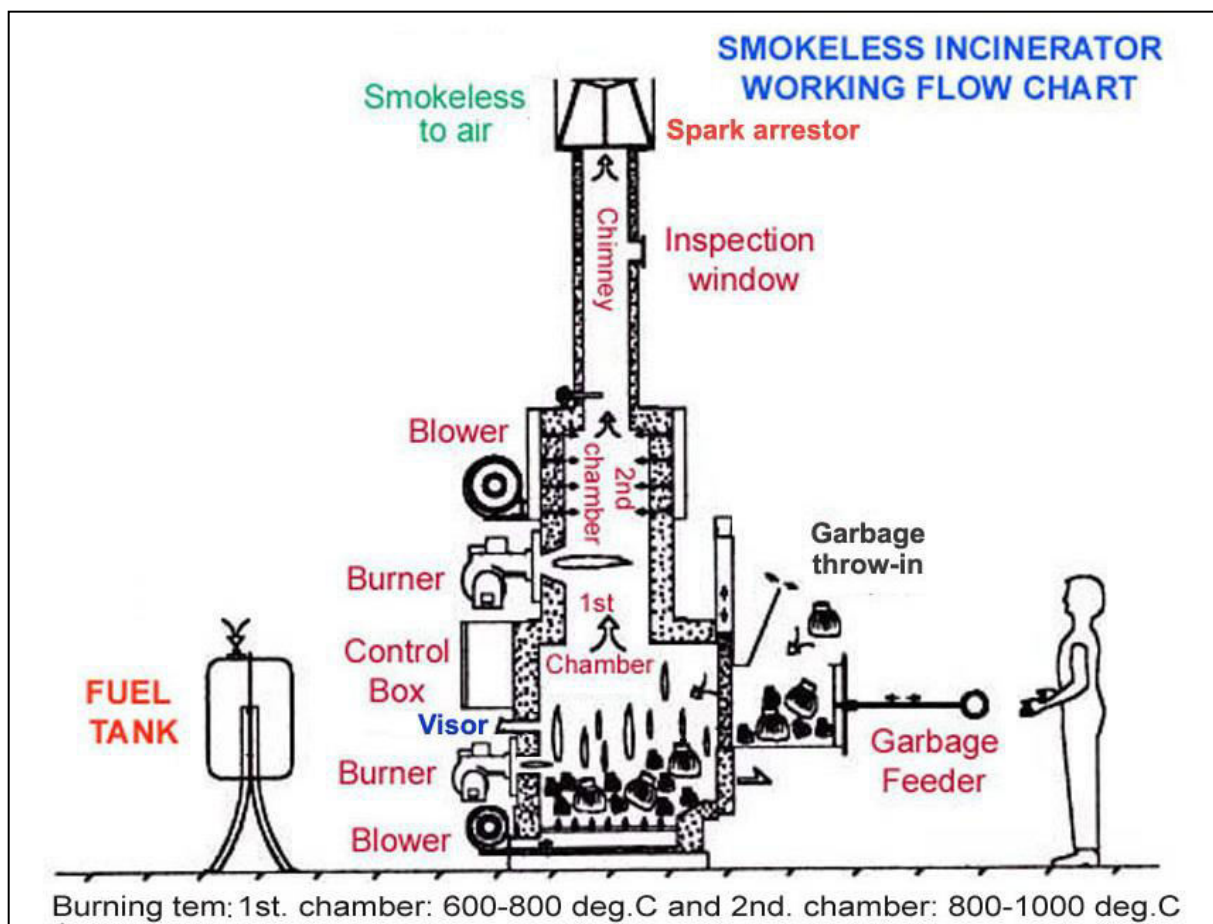
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### FEATURES:

- Small land space occupation.
- Easy operation & low maintenance.
- Durable for long lasting service.
- Multipurpose treatment.
- High efficiency with low fuel consumption.
- Non-stench & no air pollution.
- Combustion door extensive garbage throw-in device to protect operator preventing from accident.



**FG/DE-480 INCINERATOR WORKING DIAGRAM**

**GREYWATEC**  
PRETREATMENT PLANT SYSTEM

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**WATER-TIGHT CONTROL BOX  
ADOPTED WITH MITSUBISHI &  
FUJI ELECTRONIC COMPONENTS**

**Installed With Automatic Control Panel**



### **THE FEATURE OF CONTROL BOX :**

- Automatic operation after time set up .
- Simple & easy operation .
- Water-tight control box to prevent water & dust.
- Precise & quality electronic components used.
- Durable structure and good finishing.

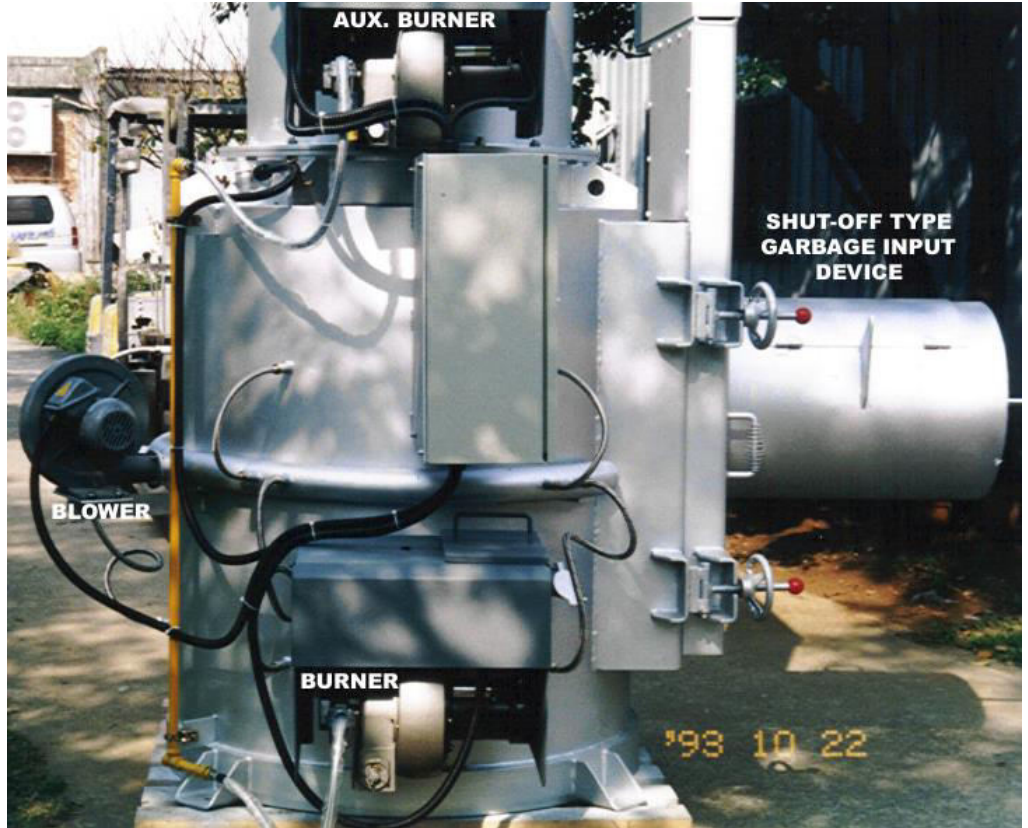
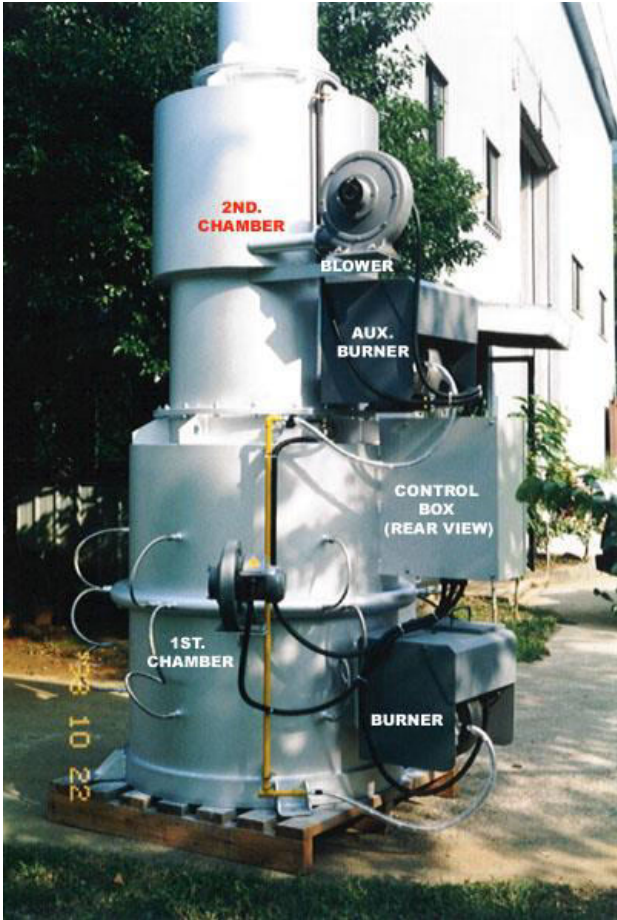


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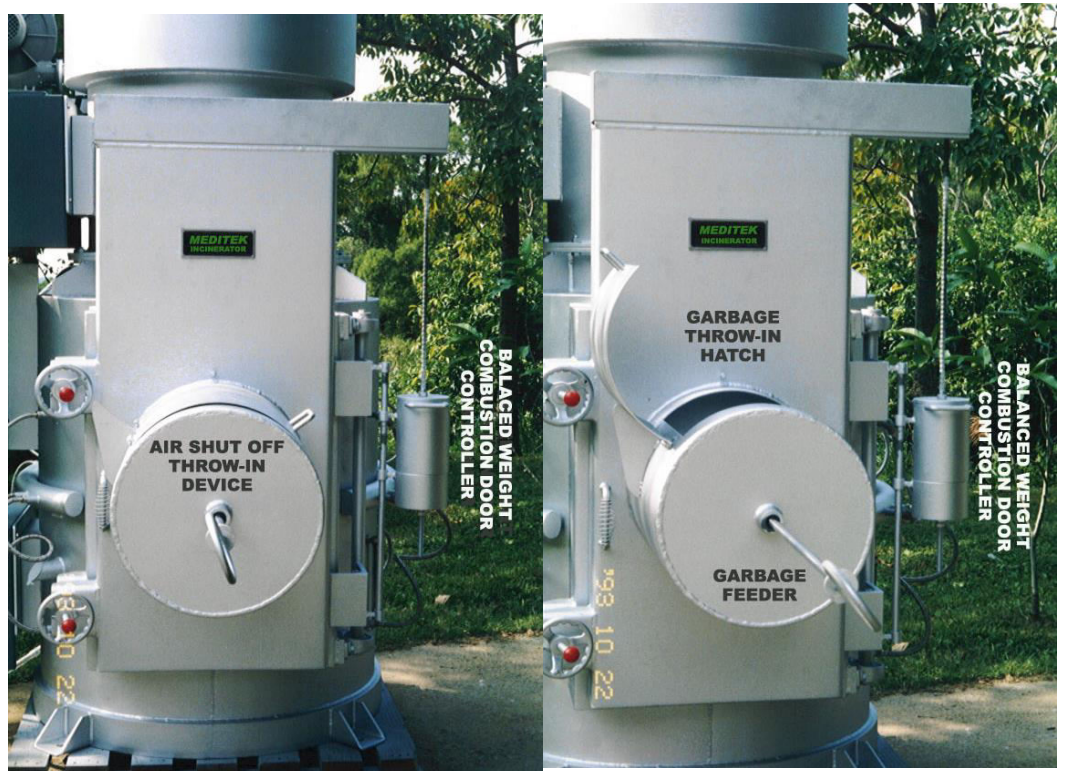
Email: sales@froscoweb.com . work@froscoweb.com



**QUALITY OVERSEA BURNERS**



**SS #304 CHIMNEY WITH HEAT RESISTANT PAINTING**



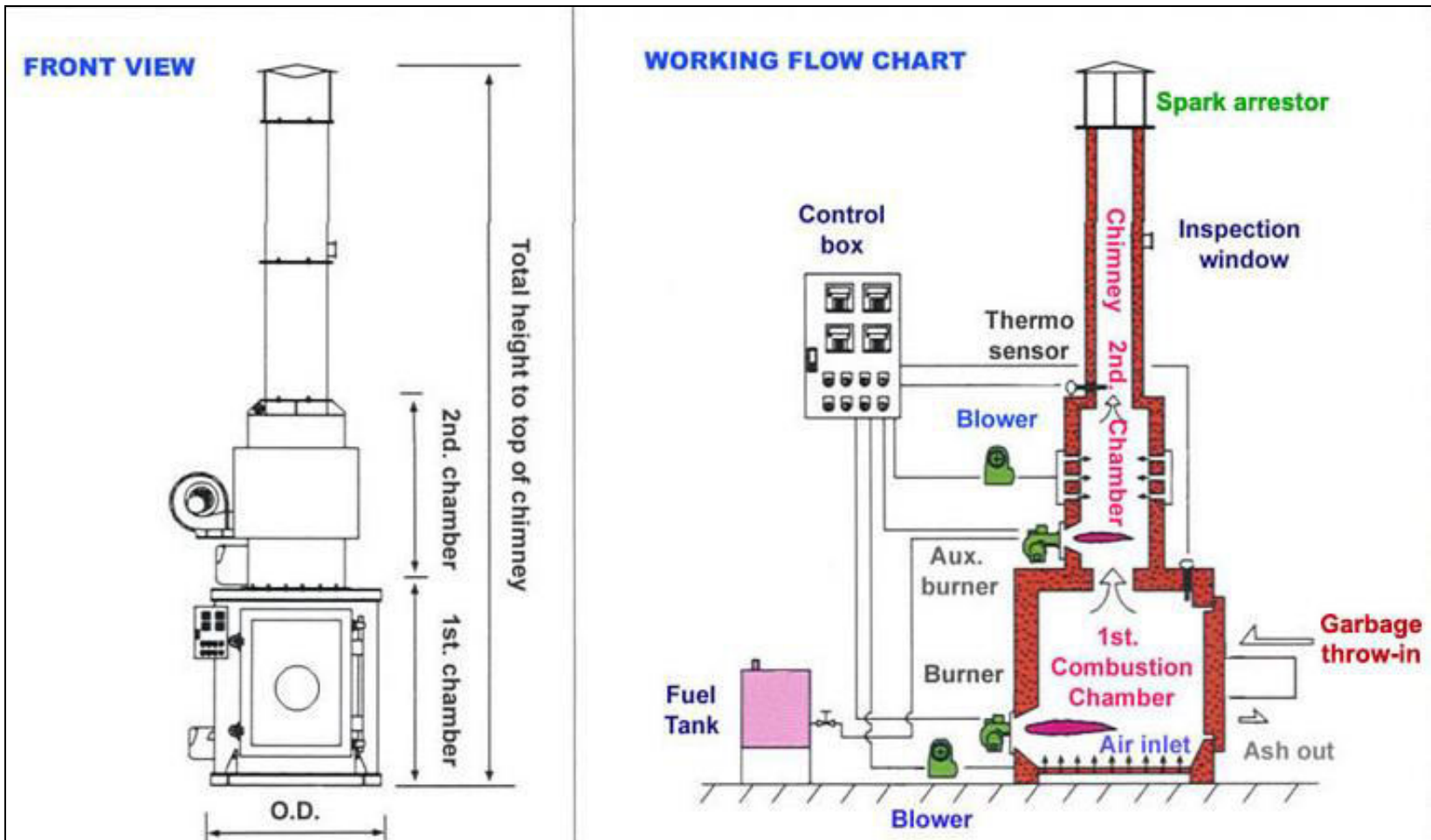
**SPECIAL DESIGNED SAFETY THROW-IN DEVICE**





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## FG / D & A INCINERATOR DIAGRAM



### FG / D & A INCINERATOR INSTALLATION REQUIREMENT

MODE	FLOOR AREA (M)	POWER SUPPLY (V)	POWER CONSUMPTION	FUEL CONSUMPTION
FG/DE-480	3.6 X 4.0	200V ~ 380 V	1.7 KW/HR	10 L/HR
FG/D-100	3.0 X 3.0	200V ~ 380 V	1.7 KW/HR	10 L/HR
FG/D-200	3.8 X 3.8	200V ~ 380 V	2.6 KW/HR	20 L/HR
FG/D-300	4.2 X 4.2	200V ~ 380 V	2.7 KW/HR	30 L/HR
FG/A-100	3.0 X 3.0	200V ~ 380 V	1.7 KW/HR	10 L/HR
FG/A-200	3.8 X 3.8	200V ~ 380 V	2.6 KW/HR	20 L/HR
FG/A-300	4.2 X 4.2	200V ~ 380 V	2.7 KW/HR	30 L/HR

## INCINERATOR DESIGN CRITERION

1. Applicable places: government authorities, factories, schools, hypermarket, rest stations, hospitals, military and research units.
2. Suitable for burning: general garbage, wood, tarpaulin, medical waste, etc.
3. Equipment combination: primary combustion furnace, secondary combustion furnace, chimney, rain cover, feeding door, air inlet equipment, burners, temperature control equipment, operation control panel, tools and manual for operation and maintenance.
4. Equipment options: dust collector, hot water recovery, waste oil & liquid burning injector, bag dust collector equipment, activated carbon injection equipment.
5. Mode of waste operation: manual input.
6. Ash cleaning method: Manual cleaning.
7. Furnace operating temperature: 500 °C ~ 800 °C in the first combustion and 800 °C ~ 1000 °C for the secondary combustion chamber which can be set according to different garbage properties.
8. Ignition method: automatic ignition.
9. Use power: Available from 100V~380V.
10. Fuel: diesel.
11. Ash content: 5% average for general garbage.
12. Ash treatment method: burying or clearance processing by professional company.
13. Safety device: flameout alarm or power trip circuit breaker alarm.
14. Shockproof rating: 6 levels.
15. Service life: 10 years approximately in average.



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## FG / DA-1500 INCINERATOR FEATURES

1. Adopt vertical stacking design, no space occupation.
2. The exhaust gas passes through the second complete combustion mode, which makes emission smokeless to air without odorless, and meets the standard requirement.
3. Using steel separate structure, it is convenient to erect at factory on-site, assembly, maintenance, migration and replacement.
4. The instrument control system is automatic control according to temperature and timing, which can be set according to actual needs any time.

## FG / DA-1500 SPECIFICATIONS & INSTALLATION AREA



### A. SPECIFICATIONS:

MODEL	BURNING CAPACITY (KG/HR)	CHAMBER VOLUME M <sup>3</sup>	FIRST BURNING CHAMBER			SECOND BURNING CHAMBER		CHAMBER IN/OUTLET SIZE (M x H)		CHIMNEY SIZE	
			O.D. (M)	HT (M)	AREA (M <sup>2</sup> )	O.D. (M)	HT (M)	O.D. (M)	HT (M)	O.D. (M)	HT (M)
FG/DA-1500	150	3.32	1.5	1.88	1.77	0.87	2.43	0.6X0.6	0.6X0.3	0.55	3.04

☆ WE RESERVE THE RIGHT TO MODIFY THE ABOVE SPECIFICATIONS WITHOUT NOTICE.

### B. BURNING CAPACITY: (BASED ON THE SECOND CHAMBER)

MODEL	FLOOR AREA L X W (M)	POWER SUPPLY (VOLTAGE)	POWER CONSUMPTION	FUEL CONSUMPTION	QTY SHIPMENT
FG/DA-1500	4.6X4.6	200V-380V	2.6 KW/HR	25 L/HR	1 UNIT/40 FCL

☆ THE ABOVE DATA IS JUST FOR YOUR REFERENCE ONLY.

# FG / DA-1500 SPECIFICATIONS & BURNING CAPACITY

## A. SPECIFICATIONS:

TYPE	CHAMBER VOLUME M <sup>3</sup>	FIRST BURNING CHAMBER			SECOND BURNING CHAMBER		CHAMBER IN/OUTLET SIZE (M x H)		CHIMNEY SIZE	
		O.D. (M)	HT (M)	AREA (M <sup>2</sup> )	O.D. (M)	HT (M)	O.D. (M)	HT (M)		
FG/DA-1500	3.32	1.5	1.88	1.77	0.87	2.43	0.6X0.6	0.6X0.3	0.55	3.04

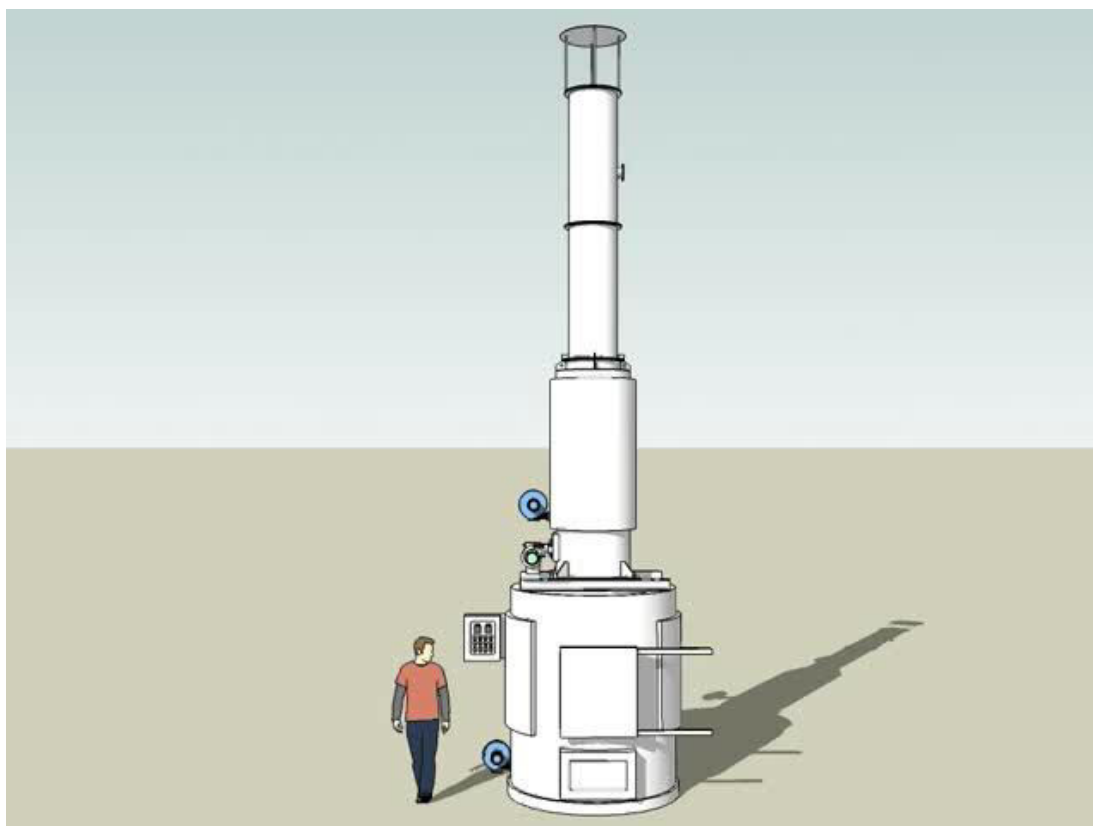
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## B. BURNING CAPACITY: (BASED ON THE SECOND CHAMBER)

(KG/HR)

TYPE	WASTE HEAT ENERGY (Kcal/KG)								
	2000	3000	4000	5000	6000	7000	8000	9000	10000
REFUSE	Hospitals & Hotels Super market Apartment		Banks & Securities Office building News paper Company		Industrial refuse covering the following items: 1.Waste oil, rubber & paint etc. 2.Chemical waste such as polyester & ABS resin etc.				
FG/DA-1500									

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**FG/DA-1500 BIZ. REFUSE INCINERATOR**



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## INCINERATOR MAIN BODY

1. Type: Round vertical stacking design.
2. Structural combination: steel structure, refractory construction, combustion system, temperature measurement system, hearth structure, air inlet supply system.
3. Main functions:
  - a) The flammable waste is pyrolysis in the first combustion chamber into flammable gas and then get into the secondary combustion chamber.
  - b) Non-combustible waste is forced to incinerate by heating with a burner.
4. Structure description:

**Steel structure:** It is made by welding and forming a steel plate, and then it is made by high-speed steel rust removal treatment, following by zinc powder paint and heat-resistant paint. The top of the furnace is attached with a lifting ring, which can be lifted directly for installation. The installation base attached to the bottom of furnace can be fixed to the bolt to resist earthquakes.

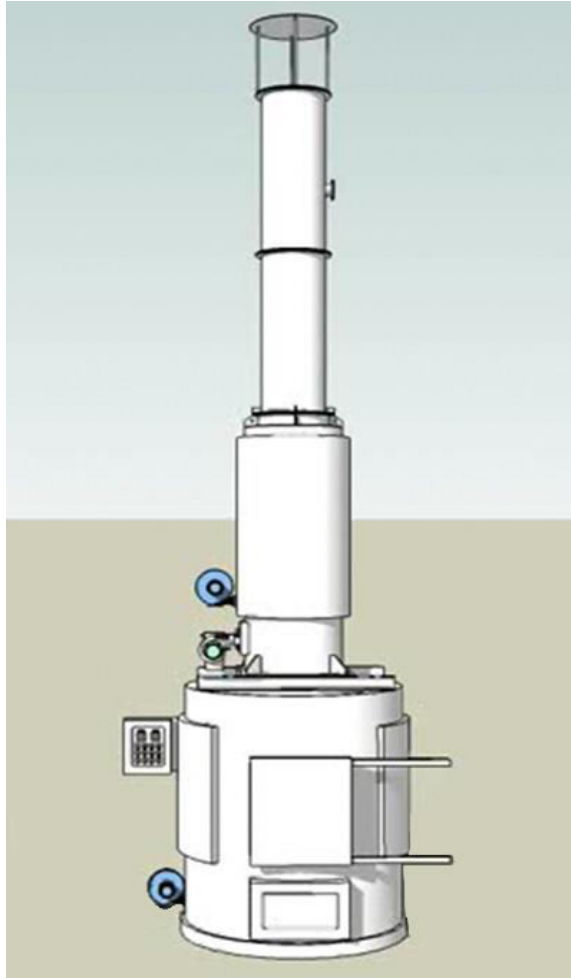
**Refractory structure:** Divided into heat-adiabatic layer and refractory layer. The former thermal insulation layer is laid with ceramic fiberboard. The refractory layer is integrally formed by the castable stainless steel fiber material.

**Combustion system:** The main structure is composed of a fan, oil mercury, solenoid valve, flame sensor and ignition equipment, which is so-called burner. The main function is to ignite waste and forcibly incinerate waste materials.

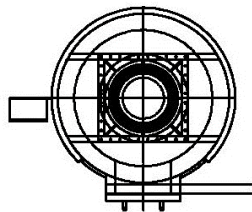
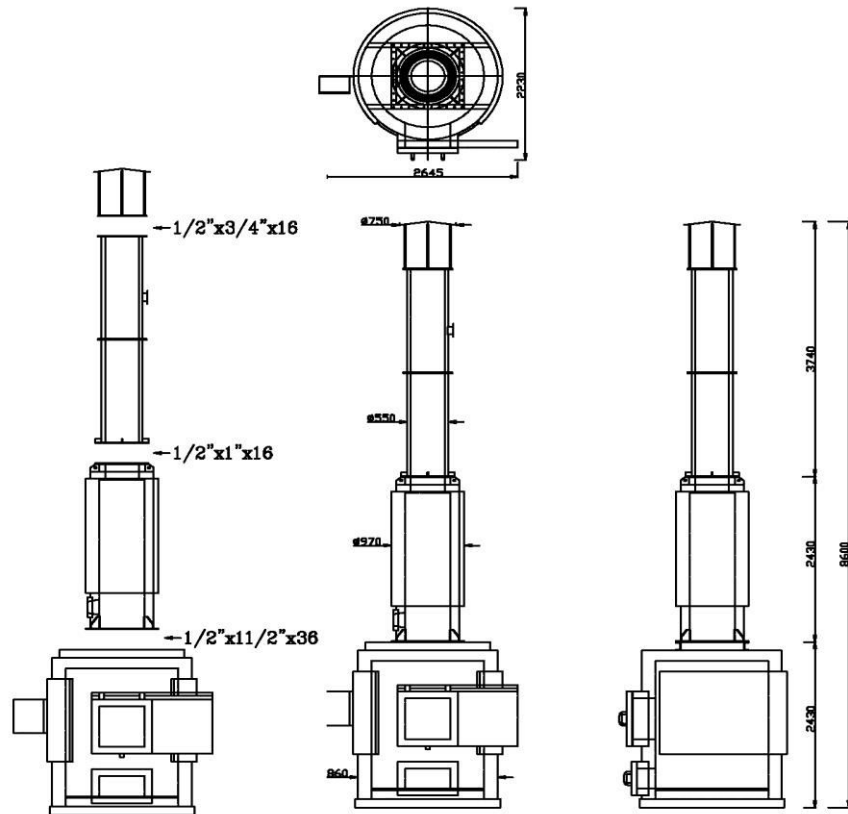
**Temperature measurement system:** it is a combination of a temperature measuring rod and a temperature controller. The temperature measuring rod is placed at the center of the combustion chamber wall to detect the combustion temperature and then transmit to the temperature controller for interpretation as control data.

**Hearth structure:** It adopts a circular combination design to resist high temperature expansion thermal stress.

**Air inlet supply system:** preheating design, the bellows is placed at the bottom of the furnace and connected to the hearth.



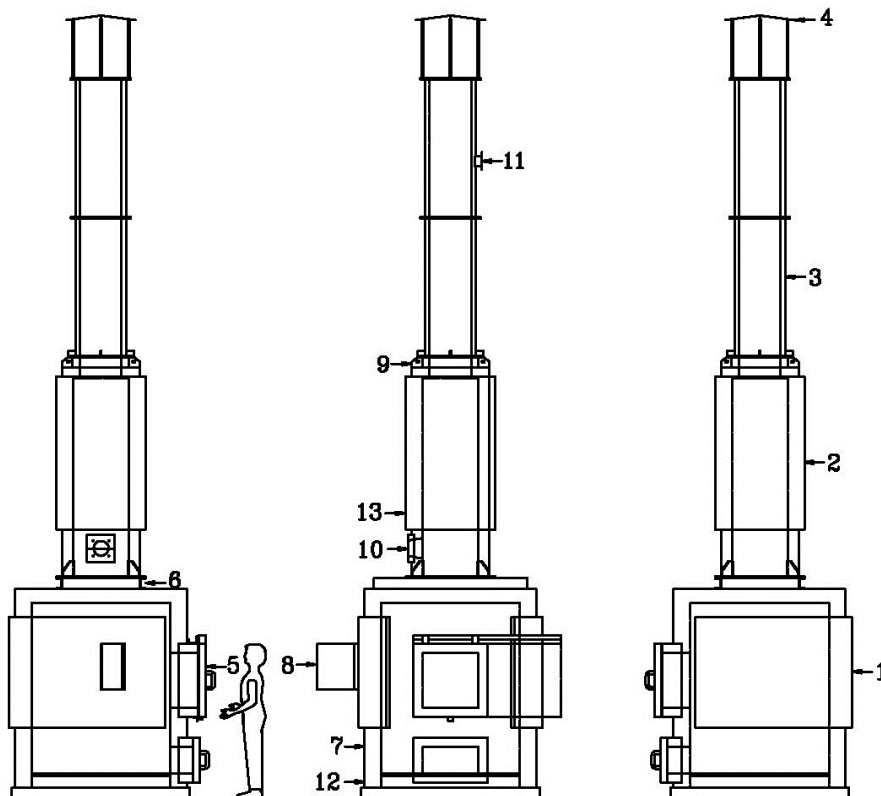
## FG/DA-1500 DIMENSION DRAWING (MM)



## FG/DA-1500 DESCRIPTIONS

<b>Furance Volume</b>	<b>3.32M3</b>
<b>Fire Grate Area</b>	<b>1.76M2</b>
<b>Door</b>	<b>600Wx800H</b>
<b>Ashpit Door</b>	<b>600Wx300H</b>
<b>Fuel Type</b>	<b>Kerosene/Diesel</b>
<b>Power Consumption</b>	<b>2.4Kw</b>
<b>Power</b>	<b>AC 200V 3Φ</b>

No	Item	Material
1	Primary Combustion Chamber	ss400/cast
2	Secondary Combustion Chamber	ss400/cast
3	Stack	sus304/cast
4	Stack Cap	sus304
5	Door and Ashpit Door	ss400/cast
6	Primary Temperature Sensor	sus304
7	Primary Burner	15L/H
8	Control Panel	ss400
9	Secondary Temperature Sensor	sus304
10	Secondary Burner	35L/H
11	Emissions Sampling Hole	sus304
12	Primary Blower	1/2 HP
13	Secondary Blower	1 HP



## FG/DA-1500 INCINERATOR



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12, Jalan TIB 1/3, Taman Industri Bolton, 68100 Batu Caves, Selangor, Malaysia.

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## SECONDARY COMBUSTION CHAMBER

1. Adopt individual vertical circular design
2. Main function: The incomplete burning exhaust gas generated in the first combustion chamber will be fully decomposed and destroyed under the mixing of high temperature and air inlet supply in the secondary combustion chamber.
3. Structural combination: It is composed of external steel, internal refractory structure, diamond/rhombic distribution, air inlet supply system, combustion system and temperature control system.
4. Operation mode: The air inlet supply system and the combustion system are respectively provided with manual operation, automatic operation and emergency stop operation.
5. Instrument control mode: Adopt temperature setting. After the temperature sensing is connected, the connection to the combustion system turns on the automatic ignition and makes the temperature increase process.

## EMISSION CHIMNEY

1. The main function of the chimney is to direct the treated exhaust gas to the atmosphere.
2. The chimney is provided with exhaust gas sampling holes, platform, specified voltage power socket, ladder and guardrail for exhaust gas detection purposes.
3. The top of the chimney is designed with rain cover to prevent the backflow of rainwater from the damage of the exhaust fan and the exhaust gas deflector, which increases the emissions of exhaust gas smoothly.
4. The top of the chimney is designed with lightning rod to prevent equipment from damage caused by lightning strikes.
5. In order to prevent the damage caused by typhoons and earthquakes, the base can be fixed with screws.
6. The chimney is made of stainless steel to prevent from rusting and maintenance difficulties.



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## FUEL SUPPLY SYSTEM

### The main function:

1. Provides fuel for the first chamber burner to ignite and incinerate waste materials.
2. Supplying the secondary burner to eliminate odor and raise the temperature in order to decompose and destroy the incomplete burning exhaust gas from the primary combustion chamber.

### Design explanation:

1. The incinerator main structure is designed for circular body and diesel fuel pipeline is made of stainless steel.
2. Auxiliary equipment: vent hole, level gauge, cleaning valve, outlet switch control valve.
3. The oil supply line is made of stainless steel, and the connecting part is applied by crimping, and the oil supply can be circulated return to oil tank.

## ELECTROMECHANICAL CONTROL SYSTEM

### A. Functions

The operation of our incinerator is designed with automatic operation, and in addition to the automatic control can be changed into manual operation at any time if necessary.

### B. Monitoring equipment

The monitoring device is set up with the following devices:

1. The main combustion chamber temperature
2. The second combustion chamber temperature
3. And the downtime display.

### C. Control panel

1. Size: 400 × 600 × 250mm.
2. Type: Steel housing wall type attached on the main equipment.





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3. Accessories of control panels:
  - i. Main power supply NFB.
  - ii. With MCS for all machine
  - iii. Auxiliary relay
  - iv. Other accessories and parts
  - v. Number: a set.

### **D. Program and automatic control system functions**

Program automatic control system with the following operational control functions.

#### 1. Combustion control program:

- ★ Main burner start
- ★ Combustion air blower starts
- ★ The secondary burner start
- ★ Automatic temperature control interlocks the main burner to start
- ★ Flame sensor starts work

#### 2. Automatic cooling system control program

After the previous process is completed, the automatic cooling program is started by the operator button, and the following actions are performed:

Cooling start display

- ★ Main combustion chamber temperature display
- ★ The cooling operation is stopped automatically.

Note: The automatic cooling temperature should be set below 250 °C.

### **E. Main components of testing equipment**

The main components of the equipment described below are installed on site for testing and transmit the signals to the control panel.



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## 1. Temperature and transmission device

### 2. Quantity: 2 sets.

★ Type and quality: Thermocouple type temperature detection device, suitable for detecting the temperature of combustion gas under high temperature and low pressure

★ Installation location: Installed in the furnace position for signal output, it is the necessary accessories in accordance with the temperature range and gas conditions on site.

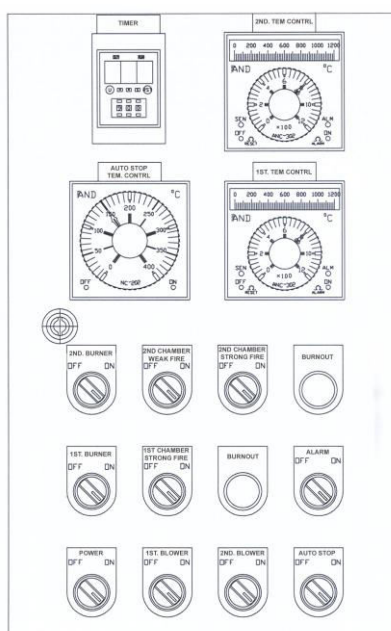
★ Design: Temperature sensor is thermocouple type and showing mV value output.

Accessories: Compensating cable protected with burnable metal flap, provide the necessary length according to the detection temperature range. It is to be used for the site location to the control panel for indication and control usage. Its accuracy is 0.5%.

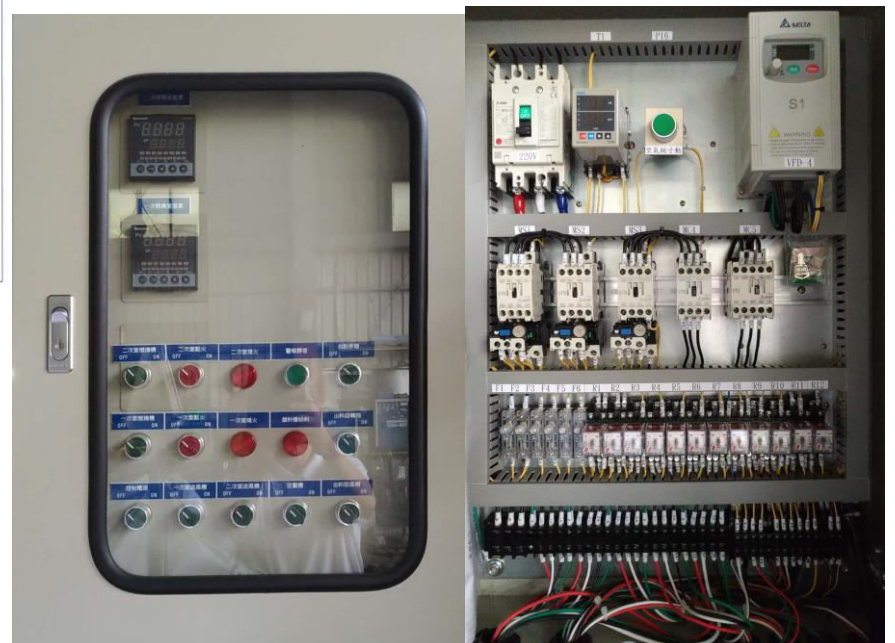
The material of thermocouple: SUS304.



**FG/DE-480 AUTOMATIC CONTROL BOX**



**FG/DE-1500 AUTOMATIC CONTROL BOX**





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## INCINERATOR SPECIFICATIONS & BURNING CAPACITY

### A. SPECIFICATIONS:

TYPE	CHAMBER M <sup>3</sup>	FIRST CHAMBER			SECOND CHAMBER			CHAMBER IN/OUTLET SIZE (M x H)		CHIMNEY	
		O.D. (M)	HT (M)	AREA (M <sup>2</sup> )	O.D. (M)	HT (M)	CBM	O.D. (M)	HT (M)		
FG/DE480	0.48	1.16	1.46	0.48	0.92	1.36	0.29	0.5	0.8	0.37	1.92
FG/D-100	0.98	1.47	1.74	0.78	0.87	1.67	0.39	0.6	1.0	0.55	6.35
FG/D-200	1.92	1.87	1.79	1.54	0.87	1.67	0.39	0.6	1.0	0.55	6.40
FG/D-300	2.84	2.17	1.84	2.27	0.87	1.67	0.39	0.6	1.0	0.55	6.45
FG/A-100	0.98	1.47	1.74	0.78	0.87	2.43	0.60	0.6	1.0	0.55	7.11
FG/A-200	1.92	1.87	1.79	1.54	0.87	2.43	0.60	0.6	1.0	0.55	7.16
FG/A-300	2.84	2.17	1.84	2.27	0.87	2.43	0.60	0.6	1.0	0.55	7.21

☆ WE RESERVE THE RIGHT TO MODIFY THE ABOVE SPECIFICATIONS WITHOUT NOTICE.

### B. BURNING CAPACITY: (BASED ON THE SECOND CHAMBER)

(KG/HR)

TYPE	WASTE HEAT ENERGY (Kcal/KG)									
	2000	3000	4000	5000	6000	7000	8000	9000	10000	
REFUSE	Hospitals & Hotels Super market Apartment		Banks & Securities Office building News paper Company		Industrial refuse covering the following items: 1.Waste oil, rubber & paint etc. 2.Chemical waste such as polyester & ABS resin etc.					
FG/DE-480	89	74	55	40	37	31	27	24	24	
FG/D-TYPE	120	100	75	60	50	42	37	33	33	
FG/A-TYPE	180	150	112	90	75	60	55	49	45	

☆ THE ABOVE DATA IS JUST FOR YOUR REFERENCE ONLY.



## GREYWATEC ENGINEERING SDN. BHD. (1003291-V)

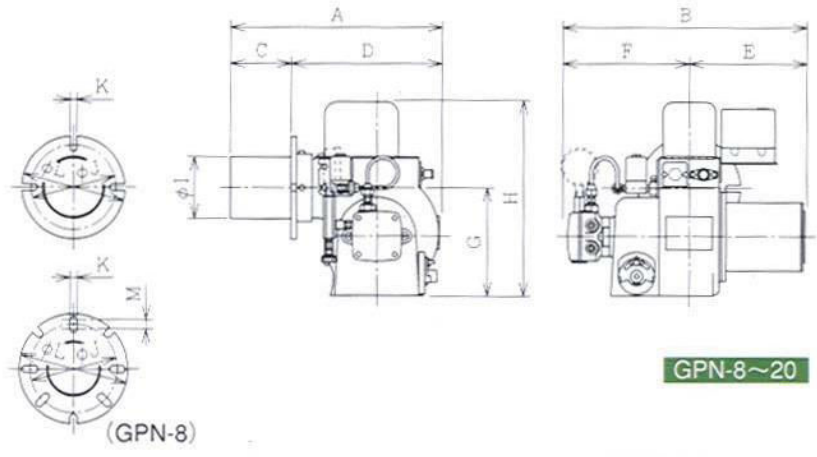
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GPN-8~20



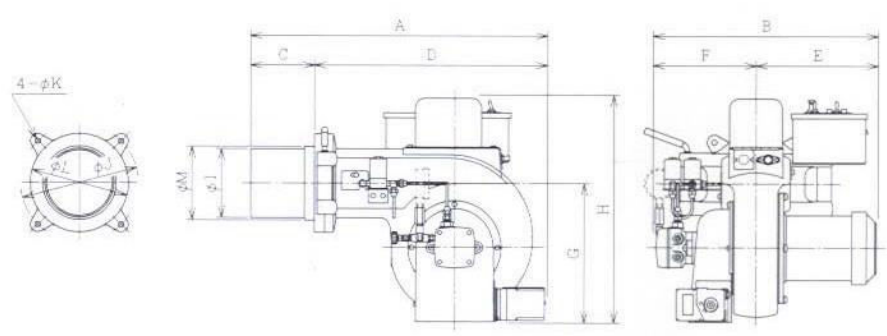
GPN-8~20

フランジ固定タイプ

型式	A	B	C	D	E	F	G	H	I	J	K	L	M
GPN-8	326	355	79	247	175	180	185	330	90	145	12	180	15
GPN-9	350	390	130	220	181	209	185	330	90	140	11	180	
GPN-10	350	400	100	250	195	205	180	325	102	140	11	170	
GPN-15	385	450	115	270	245	205	206	356	102	150	11	190	
* GPN-20	370	450	100	270	245	205	206	356	115	150	11	190	

GPN-25WEM~81WEM

NOZZLE: DOUBLE  
CONTROL METHOD: HI-LO TWO STAGES AUTOMATICALLY



GPN-25WEM~81WEM

ヒンジタイプ

型式	A	B	C	D	E	F	G	H	I	J	K	L	M
GPN-25WEM	480	460	110	370	245	215	235	400	115	230	11	190	125
GPN-30WEM	555	460	118	437	245	215	275	460	127	240	11	200	
* GPN-35WEM	515	460	118	397	245	210	287	460	127	240	11	200	
GPN-40WEM	565	460	130	435	245	215	275	460	140	240	11	200	150
GPN-50WEM	600	460	130	470	250	210	285	465	140	240	11	200	150
GPN-75WEM	620	525	130	490	275	250	315	500	153	240	11	200	
GPN-81WEM	645	600	130	515	350	250	355	600	153	240	11	200	

**THE EMISSION LIMITED VALUE OF INCINERATORS**

**1. The Regulation for Taiwan EPA 1996:**

<b>EPA Emission Limited Value</b>		
<b>Item</b>	<b>General Waste</b>	<b>Business Water</b>
SO <sup>2</sup>	300 PPM	220 PPM
NOX	250 PPM	250 PPM
CO	350 PPM	350 PPM

**2. Standard for Pollution Control on the Municipal Solid Waste for China GWKB3-2000:**

<b>Item</b>	<b>Unit</b>	<b>Value Meaning</b>	<b>Limited Value</b>
Smoke Dust Concentration	Mg/m <sup>3</sup>	Measure Average Value	80
Flue Gas Emission	Ringelman rank	Measure Value	1
Carbon Monoxide	Mg/m <sup>3</sup>	Average Value / Hr	150
Nitrogen Oxides	Mg/m <sup>3</sup>	Average Value / Hr	400
Sulfur Dioxide	Mg/m <sup>3</sup>	Average Value / Hr	260
Hydrogen Chloride	Mg/m <sup>3</sup>	Average Value / Hr	75
Mercury	Mg/m <sup>3</sup>	Measure Average Value	0.2
Cadmium	Mg/m <sup>3</sup>	Measure Average Value	0.1
Lead	Mg/m <sup>3</sup>	Measure Average Value	1.6
Dioxins	TEQNG/m <sup>3</sup>	Measure Average Value	1.0

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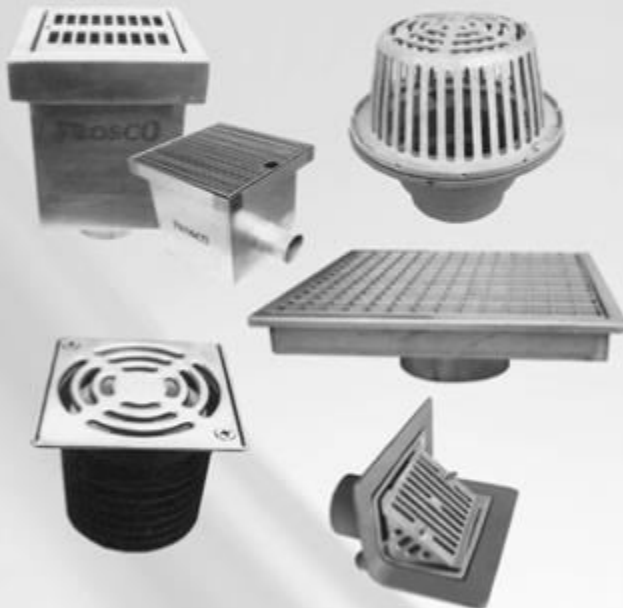
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### FROSCO OIL STORAGE TANK



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**FROSCO (M) SDN. BHD** 149888-v  
**GREYWATEC ENGINEERING SDN. BHD.**  
12, Jalan TIB 1/3, Taman Industri Bolton,  
68100 Batu Caves, Selangor, Malaysia.  
Tel : 603-6185 9262 (Hunting Line)  
Fax : 603-6185 9279

Email :  
work@froscoweb.com  
sales@froscoweb.com

Website : [www.froscoweb.com](http://www.froscoweb.com)

Region :

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- ✓ **National Palace, Duta Road, Kuala Lumpur, Malaysia**
- ✓ **Port Klang Free Trade Zone**
- ✓ **Mid Valley City, Kuala Lumpur, Malaysia**
- ✓ **KTM (Keretapi Tanah Melayu, Malayan Railway) National Double Tracking & Electrification Project.**

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**Greywatec Engineering Sdn. Bhd.**

12, Jalan TIB 1/3, Taman Industri Bolton,  
68100 Batu Caves, Selangor Malaysia.

Tel : 603-6185 9262 (Hunting Line)

Fax : 603-6185 9279

Email : [sales@froscoweb.com](mailto:sales@froscoweb.com) / [work@froscoweb.com](mailto:work@froscoweb.com)

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Central Region : 6019-385 1168

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