





# HUMAN BODY CREMATOR

JKA-230C



Certified with ISO, FDA, CE, GMP and Patented Products

HUMAN BODY CREMATOR

MICROTEKNIK



## **ABOUT MICROTEKNIK**

We MICROTEKNIK, leading manufacturer and exporters in the field of scientific laboratory equipments, Engineering educational equipments, hospital equipments, Waste management and Incinerators.

Rich experience of over 5 decades in manufacturing with continuous improvements in producing world class quality products, supported by our in house R & D and users /customers feedback in achieving TEKNIK Brand as Import Substitution.

We owe the responsibility not only to supply quality products on time but till the successful installation-Commissioning and training at users end.

Highly competitive price of world class products with complimentary Periodic check up, spare part management and unsolicited service by TEKNIK made us preferred Supply Partners in National & International Market.

With Warm Regards. VIKAS JAIN CEO.

- $\checkmark\,$  MICROTEKNIK" that has been in the business for past 53 years .
- Our machines and equipments are of global standard and as per the norms of the central pollution control board and also as per solid waste management rule-2016.
- ✓ We are certified with ISO, FDA, CE, SSI, MSME, FIEO, FISME, NSIC, GMP and Drug License.

### OUR SKILLS

- ✓ Premium Quality.
- ✓ Timely Delivery.
- ✓ Competitive Prices.
- ✓ Highly Efficient Instruments.
- ✓ Sophisticated Infrastructure.
- ✓ Service Backup .
- ✓ Highly skilled engineering.



## **CERTIFICATES**









|  |                             |                             | TEET REPO                                  | RT                             |                                      |                            | Date 11             |
|--|-----------------------------|-----------------------------|--|--------------------------------|--------------------------------------|----------------------------|---------------------|
| introd to U/s Manufakais   |                             |                             |  | Sample rede P/2018/01/2011     |                                      | 10000                      | Page                |
| 2735 Tinton Varwe,<br>Ambala Cant (Harva)                        | nal                         |                             | Papert Du.<br>Data of Isaas<br>Externae Ma |                                | AFLPLEX26618081<br>00/08/5018<br>5.A |                            |                     |
|  |                             | 54                          | WPLE PART                                  | CULARS                         |                                      |                            |                     |
| "Norro of the Bonglo   | 3 SINCK E                   | 109201                      |  | (5) Min. 17                    | (A) Macirol/PC3                      |                            |                     |
| 2) Sizeli Allashec To  | : farity                    | koinaister (V. N            | o 72 590, 8 Ma. 88                         | 1212) (14 -5666 74             | ) 68 stack neight above the month    |                            | 1                   |
| <ol> <li>Canadity</li> </ol>                                     | : 240                       |                             |  |                                | (10) Black holiate supre the         |                            | 1 C ML              |
| () Type of Actuard   | : Ecoirio                   | br                          | It deal do at the tes                      |                                |                                      | 1 S rdh                    |                     |
| 5) Openity of Fael Live  | • * * · · · ·               |                             |  | nia soma poeracire estrecule   |                                      | recule                     | : 6 TAGAY           |
| [] Type of chiraso,<br>Motorial to construct                     | i Ubisi                     |                             |  | ritil Type of                  | productima                           | undaring                   | 1                   |
| 7) Parpose of Monitoria  | 19.1                        |                             |  |                                |                                      |                            |                     |
| Detaile of paradas   |                             |                             |  | Physics                        | cheer/si:                            | ne .                       |                     |
| as note a, gaubied   | U16                         |                             | <ul> <li>A Liest leng. (VeaMir)</li> </ul> |                                | Miró                                 | , 90°C                     |                     |
| a) Campling Pastocel   | SONE-WOEK                   | TENWOEN/33 P) FI            |  | the automan                    |                                      | + 40°C                     |                     |
| beel/freetqufcs (r   | than stack sat              | rglise                      | KD VS-COTY of flue general                 |                                |                                      | ; *4.3 minister            |                     |
| d) Campling Deep Dy  | - Cupte                     | ic) Serph                   |  | gifting belle for PM = 0.01.PM |                                      |                            |                     |
| <ul> <li>Liniter of sample</li> <li>Samiline Location</li> </ul> | 1 : 60 A.A.D.<br>- Study P. | xis<br>with late            |  | 161 201000                     | 0.00%1000%                           | 12000                      | 1 6.0100 101        |
|  |                             |                             | TEST RES                                   | JILTS                          | 0.000                                |                            |                     |
| SL. Farareta-<br>No.   | Farareta-                   |                             | Results                                    | Spannessones<br>in pr CFG8     | S(No.2)                              |                            | LECT BUILTO         |
| 1 Patruse Nete   | 01:50                       | morter*                     |  | 51                             | -                                    | IS 1128                    | (P-1) 1985 (F-6-22) |
| 2 Salar Dista  | Subject Distale (8:22)      |                             | ND 10-40                                   | Red Survey                     | int.                                 | 0 1136 (P.0 190 FAZ        |                     |
|  | Cedon of Niman y (42 y)     |                             | 10.00                                      | Net Sand                       | 6d                                   | 0 : 11316 (0.7) 2008       |                     |
| 2 Cedan of Hima  | Cater Manavida CO           |                             |  | 400                            |                                      | 5 15215.2922               |                     |
| No.<br>1 PatrosenMate<br>2 Subjes Decke                          | e (46)<br>(332)<br>(433)    | angitan<br>mgitan<br>mgitan | 44<br>ND (DL-4.0)<br>ND (DL-6.0)<br>32     | In per CPG8                    | (96-2)<br>(96-2)                     | 15 1128<br>15 1180<br>10 1 | 112<br>112          |

C-92/23, E-montes Road, Industrial Acts, Delhi-110005 Tell : 491-11-02/202225, E-mont : Into 2 accatocitate cots, parkaing o avanted ab.com Webbile : www.avankoolabe.com : arvitamen/devended.ab.com (NIII : U24100012011 PTC2104-X





## **CREMATOR**



#### JKA-230C

It is a common sight in most open crematoriums where cloud of black smoke covers the blue sky. According to some environmentalists, the ceremony of burning human bodies using wood, with the belief that it releases the soul, is actually a threat to the environment. According to a report, all the year round, around 50 to 60 million trees are burned during cremations in India. While burning the wood, there is also emission of million tonnes of carbon dioxide gas which is harmful for the environment.

The two main drawbacks of the traditional method of cremation are air pollution and deforestation. Also, cremation in open grounds generate large amounts of ashes, which are later thrown into rivers and water bodies, especially the Ganga river, there by polluting the water. These are all environmental threats caused by cremation. Today's modern crematories use industrial furnaces designed just for cremation. The process takes about 2-3 hours to complete.



## **GENERAL DESCRIPTION**

- o Use For
- Mode of Heating
- Mode of Feeding Bed
- o Door
- o Ash Removal
- o Equipment
- o Electrical Supply
- o Burner
- o Material of construction
- o Ignition
- o Control panel
- o Inside

Dead Human Body Diesel/Electrical/LPG Manual Sliding Bed/Automatic Sliding

Automatic/Mechanical Rope Manual Static 240V, 1 phase 440V, 3 phase Automatic M.S. 5MM – 8MM Automatic. Digital. High alumina refractory brick IS-8-1994 line with insulation brick IS 2042-2006





### **FACILITIES INCLUDES**

- Sliding Body Bed.
- Mechanical Rope/Automatic Door.
- Primary Chamber.
- Secondary Chamber.
- Combustion Requirements.
- Anticipated Air Emission Levels.
- Noise Control.
- Combustion Control.
- ✤ Air pollution Control Devices.
- Digital Control Panel.
- Ash Management.

#### FLOW DIAGRAM





## **THERMODYNAMICS**

- A human body usually contains a negative caloric value, meaning that energy is required to combust it. This is a result of the high water content; all water must be vaporized which requires a very large amount of thermal energy.
- o Cremation chamber.
- A cremation chamber, referred to as a retort, is an industrial furnace that is large enough to hold one body. Fire resistant bricks line the chamber and can withstand temperatures up to 850°C. Modern cremation furnaces follow according to strict environmental and air quality standards. Natural gas, propane, or diesel fuel the furnaces. They are also automated and computerized(Optional).

### **COMBUSTION SYSTEM**

- A typical unit contains a primary and secondary combustion chamber. These chambers are lined with a refractory brick designed to withstand the high temperatures.
- The primary chamber contains the body one at a time usually contained in some type of combustible casket or container. This chamber has at least one burner to provide the heat which vaporizes the water content of the body and aids in combustion of the organic portion. A large door exists to load the body container. Temperature in the primary chamber is typically between 850°C 1000°C. Higher temperatures speed cremation but consume more energy, generate more nitric oxide, and accelerate spelling of the furnace's refractory lining.
- The secondary chamber may be at the rear or above the primary chamber. A secondary burner(s) fires into this chamber, oxidizing any organic material which passes from the primary chamber. This acts as a method of pollution control to eliminate the emission of odors and smoke. The secondary chamber typically operates at a temperature greater than 1000°C-1450°C.



## **AIR POLLUTION CONTROL DEVICE**



- The flue gases from the secondary chamber are usually vented to the atmosphere through a refractory-lined flue. They are at a very high temperature, and interest in recovering this thermal energy e.g. for space heating of the funeral chapel, or other facilities or for distribution into local district heating networks has arisen in recent years. Such heat recovery efforts have been viewed in both a positive and negative light by the public.
- In addition, filtration systems (bag houses) are being applied to crematories in many countries. Activated carbon adsorption is being considered for mercury abatement (as a result of dental amalgam). Much of this technology is borrowed from the waste incineration industry on a scaled-down basis. With the rise in the use of cremation in Western nations where amalgam has been used liberally in dental restorations, mercury has been a growing concern.



### **VENTURI SCRUBBER**

A venturi scrubber is designed to effectively use the energy from the inlet gas stream to atomize the liquid being used to scrub the gas stream. This type of technology is a part of the group of air pollution controls collectively referred to as wet scrubbers.

### **CONTROL PANEL**

A control panel is a flat, often vertical, area where control or monitoring instruments are displayed or it is an enclosed unit that is the part of a system that users can access, such as the control panel of a security system.

### I. D. FAN

**Induced draft fans** or **ID fans** are used in systems such as steam boilers and thermal oil heaters to draw out and remove flue gases from combustion chambers, by creating a vacuum of negative air pressure.

### Chimney

A structure, usually vertical, containing a passage or flue by which the smoke, gases, etc., of a fire or furnace are carried off and by means of which a draft is created. the part of such a structure that rises above a roof.





3D/2D Design Of Machine





Regd Office: 2759,Teknik House, Timber Market, Ambala Cantt - 133001, India Factory : 1, Teknik Tower, Main Road, Vikaspuri, Industrial Area, Ambala Cantt-133006. Factory : 73, Teknik Estate, Main Road, Vikaspuri, Industrial Area, Ambala Cantt-133006. Ph: +91-0171 2698855, 0171-2975855 +91-89303-44845 E-Mail: info@microteknik.com, incinerator@microteknik.net Web:www.microteknik.com,www.microteknik.net,www.incineratorindia.com