



**Johnson  
Thermal  
Engineering cc**

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Designers and builders of thermal process equipment

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Attention: To Whom It May Concern

May 03, 2022

Dear Sir/ Madam

**JTE BA2 Cremator Machine Emission Compliance**

We confirm that Johnson Thermal Engineering are the designers of the JTE BA1 and BA2 Cremator Machines, locally manufactured and distributed in South Africa by Engineered Thermal Systems (PTY) Ltd.

Our JTE BA2 Cremator Machines are designed as a starved combustion or sub-stoichiometric primary chamber cremator, that ensures the gas velocities are reduced, resulting in lower particulate pickup.

Our JTE BA2 Cremator Machines are configured to only start the cremation process if the secondary chamber is above 600°C in temperature. This ensures that during the cremation process the secondary chamber temperature will rapidly rise to control at 850°C or higher to result in complete combustion of the gases and odours before existing the cremator stack.

The secondary chamber of the JTE BA2 Cremator Machines is designed with sufficient volume to provide 2 seconds of high temperature exhaust gas residence time, to ensure low carbon monoxide emission and total combustion of complex volatile organic compounds.

Our JTE BA2 Cremator Machines is equipped with an ejector in base of the cremator stack to aid with the drafting of the cremator to maintain a slight negative pressure within the primary chamber, to ensure that no gases or noxious fumes are emitted into the cremator machine room when the door is opened.

Yours faithfully,

Peter Johnson  
Johnson Thermal Engineering cc



*Johnson Thermal Engineering JTE BA2 Cremator  
Braamfontein Crematorium - courtesy of Johannesburg City Parks*

*Suppliers of Cremator Machines and associated  
crematoria equipment, manufactured under licence  
from Johnson Thermal Engineering*

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## JTE BA2 Cremator

### Features:

- Totally South African designed and built for African conditions at all altitudes.
- Modern clean appliance type appearance.
- Smokeless and odourless operation.
- Installation and operator training included.
- Maintenance plans and all consumables can be provided.
- Hot hearth design for rapid cremation process.
- Carry out 5 cremations in a normal 8 hour shift.
- Self sealing hydraulically operated loading door controlled via push buttons.
- Fully automatic simple operation using touch screen input and plc.
- Touch screen displays chamber temperatures and all essential status indications including time to process completion.
- Minimal operator input required.
- SANS 329 compliant combustion system.
- Fully modulated primary and secondary burner controls.
- Natural gas or LPG fired.



**Engineered**

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