

MacroBurn Cremators

Macrotec designs and manufactures high quality Cremators based on our thermal technology developed over several decades. Our Cremators are designed for maximum reliability and minimum emissions. They are designed to control the rate of combustion and minimise emissions in a four chamber process.

Our Cremators can be optionally fitted with a Ceramic Filtration Plant to further reduce emissions. As such, our Cremators comply with South African and International standards.

Our Cremators

MacroBurn Cremators are designed utilising the high standard of technology we have created through many years of building high quality, economical and reliable Cremators. Our Cremators are designed taking into account the special requirements that crematoriums create, and have been designed to reduce emissions to extremely low levels.

MacroBurn Cremators utilize a three chamber process, with the coffin being placed in the Primary Chamber where highly combustible components are burnt away. Gasses pass through a Secondary Chamber, with a high degree of turbulence for ideal mixing, completing the burnout and eliminating entrained smoke and other combustible particles. A long residency time of over 2 seconds in the secondary chamber ensures complete combustion. A third chamber is located beneath the primary chamber, where all liquid waste is burned away.

Our Cremators are designed with automatic control of air and combustion rate, which will prevent excessive burning and conversely increase combustion when the burning rate is too low, with temperatures regulated between 850°C and 1000°C. For maximum automation, our PLC system can be installed to fully automate all functionality, and allow for remote monitoring and alarms of all parameters. MacroBurn Cremators are manufactured to the highest quality, and as such use a high quality Alumina-Silicate refractory, with a very high strength, service temperature of up to 1,500°C, high abrasion and chemical resistance, and an expected lifetime of over 15 years. The efficiency of our Cremators is further increased by using pre-heated air, reducing fuel usage. With these efficiencies, our Cremators are able to complete a cremation in just over an hour when running continuously.

Environmental Impact

Macrotec has engineered our Cremators to combat every possible threat it could pose to the environment. We make use of advanced designs in our combustion plant, which completely regulates the combustion rate, temperature in the different chambers, turbulence, gas velocities and supply of oxygen. This prevents formation and eliminates all carbonaceous matter, entrained ash, and chemically formed compounds.

Our Cremators can also be optionally fitted with an advanced Ceramic Filtration Plant that further reduces emissions. The filtration plants make use of high temperature ceramic filter elements that are able to withstand temperatures of up to 1,200°C with high resistance to attack by acids and alkalis.

Typical Emissions

EMISSION	POST FILTER	TYPICAL EMISSION LIMIT
Particle Matter	< 10	< 40
CO	< 50	< 75
NO _x	< 300	< 500
Hg	< 0.05	< 0.05

*All measurements are in mg/Nm³

Model Range

MacroBurn Cremators are available in one standard size, though Macrotec can custom build designs according to customer specifications.

	V221
Cremator Dimensions	
Length	2895
Width	2570
Height	2545
Loading Door	750 x 750
Chimney Dimensions	
Diameter	561
Standard Height	1495
Max Height (No Guys)	16000
Capacity Data	
Burn Rate Continuous (kg/h)	132
Burn Rate Intermittent (kg/h)	60 - 80
Grate Hearth Area (m ²)	2.27
Primary Volume (m ³)	2.38
Incinerator Weight (kg)	11800
Chimney Weight (kg)	760

*All measurements are in mm, unless indicated otherwise.

Further Specifications:

- Gas or Diesel fired burners available.
- Electrical panels are dust and water proof IP65 powder coated enclosures. Electrical circuit breakers are in accordance to SABS IEC 60947-2. Should you require a certain specification or brand of electrical components, please advise us during the quotation stage as we use components as per supplier availability.





