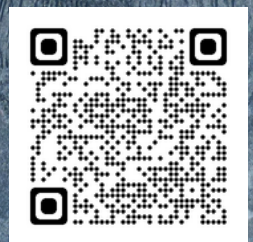




**MACROTEC**  
Waste · Energy · Filtration

# **PRODUCT BROCHURE CARBON FINES FURNACE**



View Online

Over 40 years experience in engineering and monitoring of process equipment. We specialise in Waste, Energy, and Filtration.



**More Info :** +27 32 552 2676



[info@macrotecengineering.com](mailto:info@macrotecengineering.com)



[macrotecengineering.com](http://macrotecengineering.com)



KwaZulu Natal, South Africa



# MACROTEC

At Macrotec our focus is on innovating and designing solutions for industries such as waste management, product recovery, mining, and crematoria. Our aim is to reduce emissions, improve operating efficiencies, and increase reliability, with a focus on high temperature process equipment.

## CERTIFICATION

ISO 9001:2015	Quality Management Systems
ISO 14001:2015	Environmental Management Systems
ISO 45001:2018	Occupational Health & Safety Management

## OUR CLIENTS



Call Us  
**+27 32 552 2676**



[ané@macrotecengineering.com](mailto:ané@macrotecengineering.com)  
[info@macrotecengineering.com](mailto:info@macrotecengineering.com)



[macrotecengineering.com](http://macrotecengineering.com)

# CARBON FINES GOLD RECOVERY INCINERATOR

Our Carbon Fines Incinerator is the tried and tested method for recovering gold from carbon fines removed from the elution circuit. Our technology has been adopted by most of the major mining houses and gold recovery firms. The carbon fines incinerator utilises a thermal process that burns off the carbon and other combustibles and captures the gold ash in a high efficiency filtration system.

The process has been optimised to ensure extremely low amounts of unburnt carbon, separation of most of the grit and silica from the ash, high fuel efficiency, and extremely high levels of recovery.

## Low Operating Costs

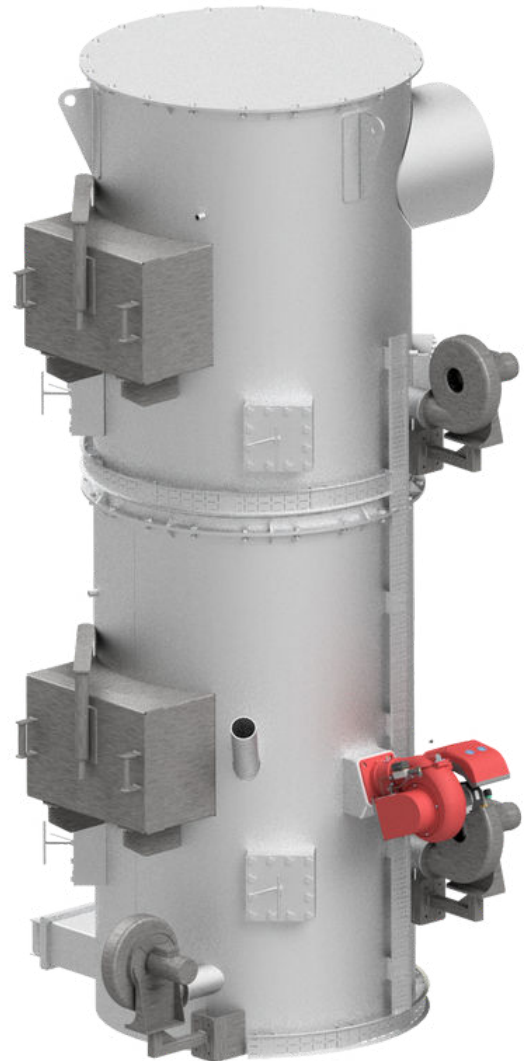
Since we employ a continuous thermal process, most of the energy required for the reaction comes from the oxidation (burning) of the carbon, with minimal auxiliary fuel needed.

## Reliability & Maintenance

Low maintenance and high reliability are critical features to all our products. A simplified design with few moving parts translates into less maintenance and longer running time

## Environmental Impact

The process is inherently low impact, as it requires no chemicals, combustion takes place at a high temperature, and the filtration unit removes all particulate matter.



## High Recovery Rates

Overall recovery rates of 85–95%, depending on the secondary treatment method used and initial gold loading.



## Continuous Operation

Our systems operate on a continuous basis, processing 10/60/90 kg/h of carbon fines, depending on the model size. Since it is a continuous process and not a batch process, it makes for very easy operation, and large fuel savings.



**Call Us**  
**+27 32 552 2676**



[ané@macrotecengineering.com](mailto:ané@macrotecengineering.com)  
[info@macrotecengineering.com](mailto:info@macrotecengineering.com)



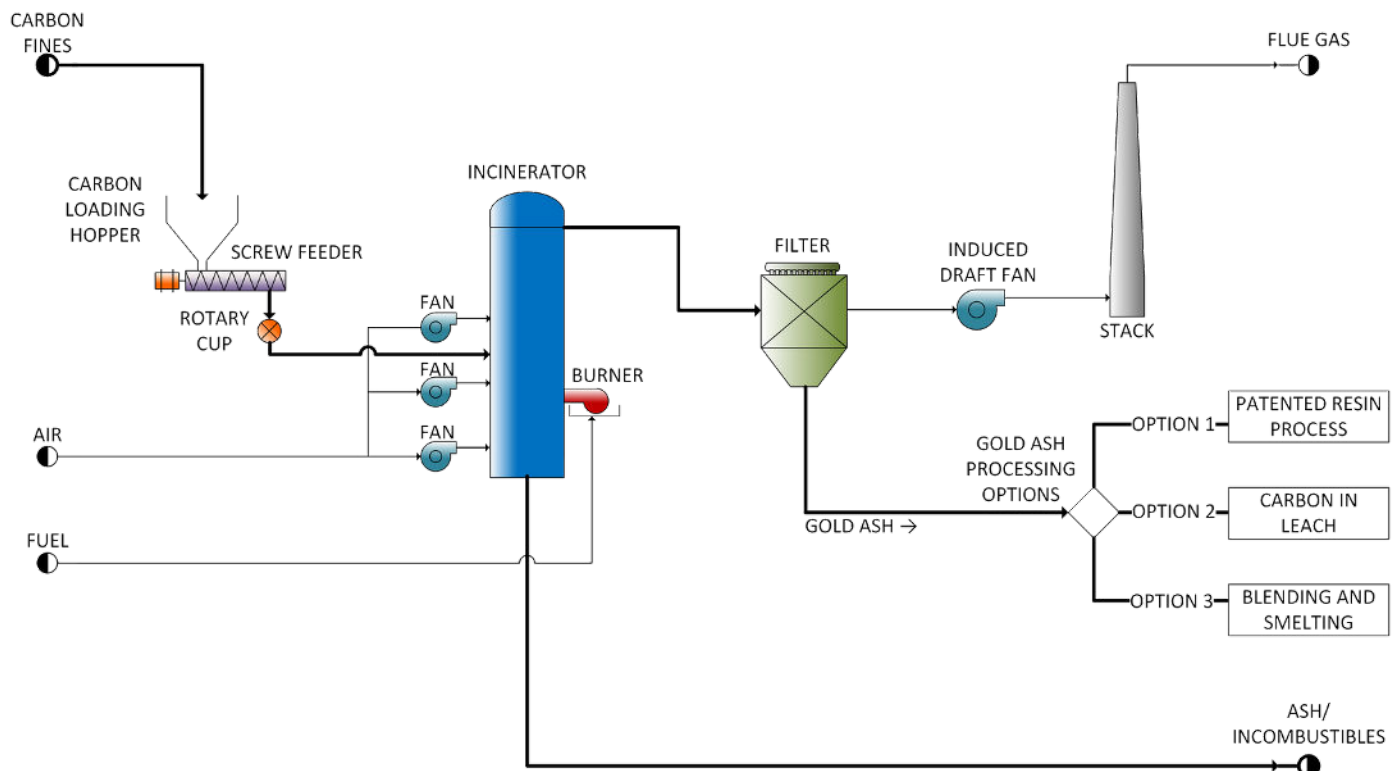
[macrotecengineering.com](http://macrotecengineering.com)

# GOLD RECOVERY SYSTEM PROCESS

During the elution process, activated carbon that is deemed too fine for reuse is removed. This fine carbon residue contains on average between 50 to 200 grams of gold per tonne. In the past these carbon fines were discarded, or had to be recovered in chemical plants that cannot achieve industrial scale and had high operating costs.

Due to increased pressure on gold mining firms to increase their recovery yield, they have started to explore recovering gold from these carbon fines. With small changes made to their process to capture all possible carbon from escaping, they are able to easily increase gold recovery.

Our system provides a reliable and cost-effective method to recover gold from fine carbon.



## RETURN ON INVESTMENT

Return on investment is usually between 8 and 12 months, depending on the gold concentration in the carbon particles and daily operating hours, with the unit able to recover 93–95% of gold content.

Capacity is also impressive, with the C100 treating 25 to 30 tonnes and the C150, 35 to 40 tonnes a month at full capacity, which is in line with the requirements of large mines.

With a fast ROI, low operating and maintenance costs, our system has become the gold standard for the industry.



*Call Us*  
**+27 32 552 2676**



ané@macrotecengineering.com  
info@macrotecengineering.com



macrotecengineering.com