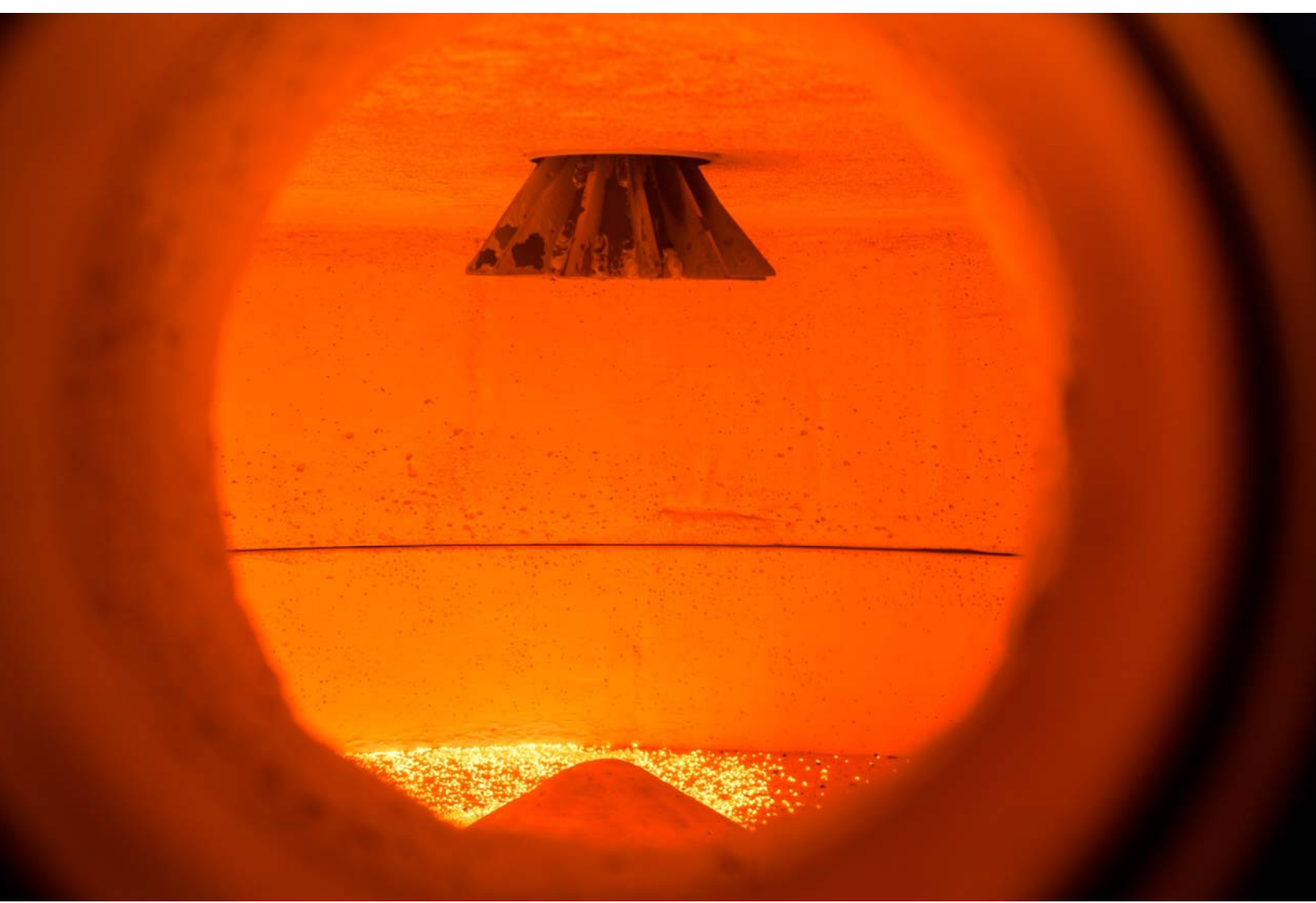




*Kappes, Cassidy & Associates*

# ***KCA CARBON CONVERTER***









## High Performance Solution For Carbon Fines Treatment

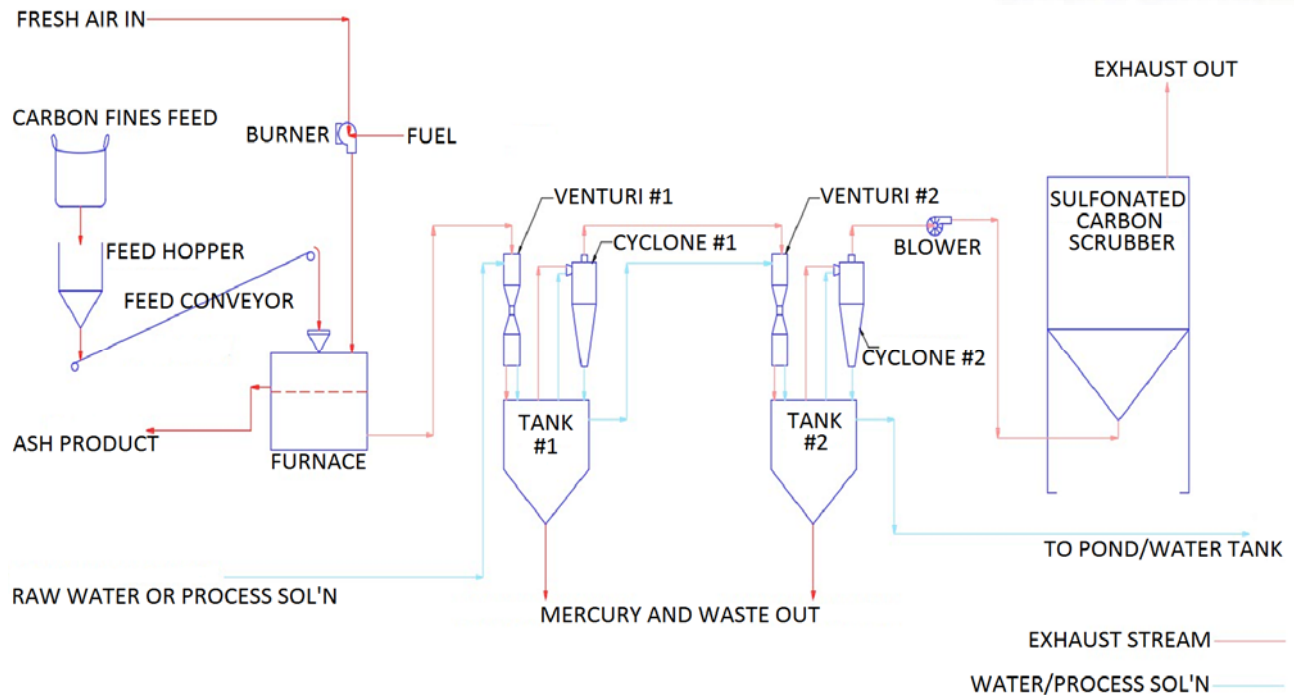
The KCA Carbon Converter is a modular, self-contained unit for converting up to 500 kg of carbon per day into a fine dry ash. Dirty, wet carbon fines can be fed directly into the roasting chamber and even feather light carbon ash is fully captured as a dry product. A three-stage system fully captures mercury to best attainable EPA-acceptable levels. 99% gold and silver recovery has been demonstrated.

Kappes, Cassiday & Associates (KCA) specializes in the development, engineering and implementation of extractive metallurgical processes for the mining industry, and for the past four years, has invested significant R&D efforts toward bringing the Carbon Converter to market. Through rigorous testing and product development, the KCA Carbon Converter has been shown to handle any variety of carbon fines material, eliminating your on-site carbon fines problem.

The KCA Carbon Converter combines the best technologies to effectively ash your carbon fines, allowing you to recover the precious metals locked within and significantly increase the revenue of your operation.

Here's how it works: Carbon fines are conveniently loaded into the feed hopper. An automated conveyor then transfers the material to the top of the furnace, where it is continuously and evenly distributed over a thin bed of silica sand. Hot air from an overhead flame is pulled down through the carbon. Excess water is evaporated, and the carbon begins to ash. Two interchangeable bottom sections of the furnace allow for semi-continuous operation. Carbon is continuously burned in the furnace, until the level of accumulated ash alerts the operator to exchange bottom sections for the next ashing cycle. The semi-continuous batch system is easily operated by one person through a sophisticated PLC interface.

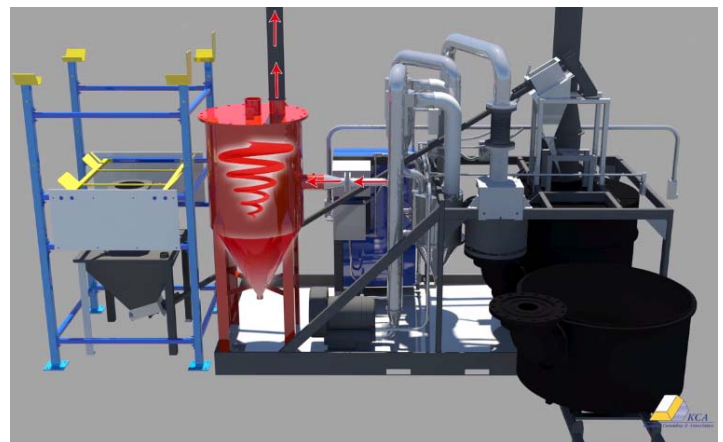
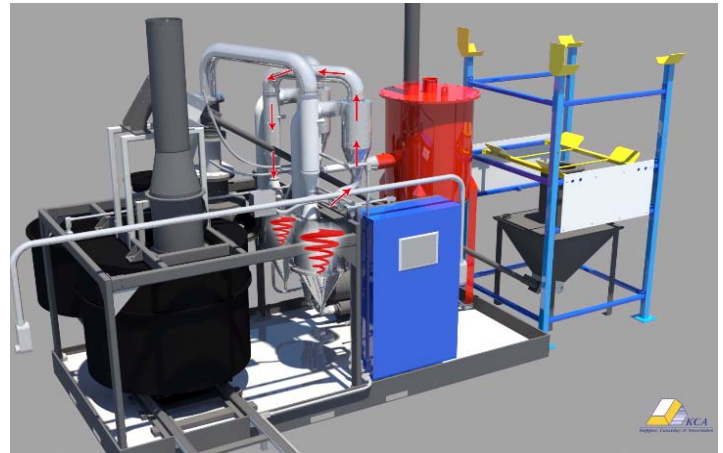
*Created by Kappes, Cassiday & Associates, with over 40 years of experience in the gold industry.*



## Complete Mercury Removal

Within the Carbon Converter unit, KCA has designed a unique system for removing mercury and other volatiles, with emissions meeting emission standards of every US state and foreign country: The hot exhaust gas flows through a series of two venturi/water scrubbers, using water at ambient temperature to remove volatiles including mercury.

Mercury is collected in a conical sump below each scrubber. In most cases, coolant for this stage is process solution, flowing into the system and discharging back into the leaching process. As a final polishing step, the cooled exhaust gas passes through a tank filled with sulfur-impregnated carbon to remove any trace amounts of mercury from the exhaust gas stream. Once the ashing cycle is complete, the ash, which has been roasted at high temperature, has no mercury remaining.



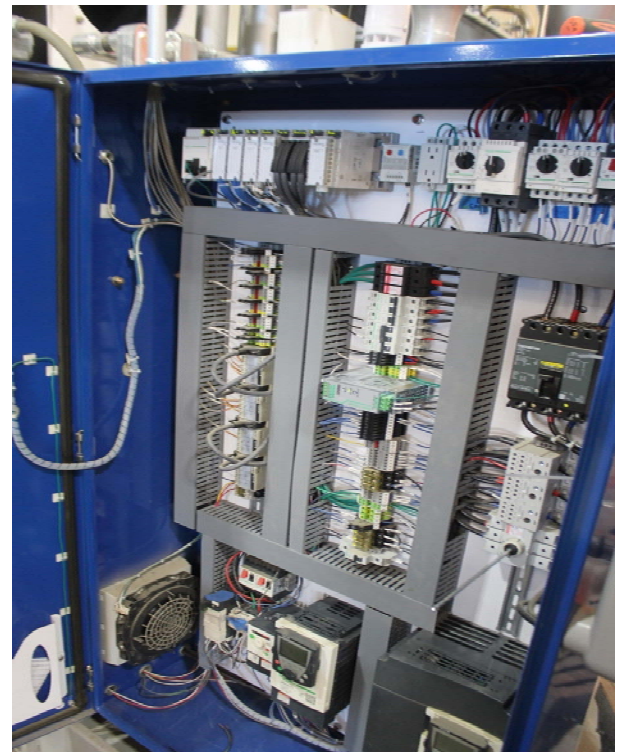
***The KCA Carbon Converter: A sophisticated and well designed solution to your carbon fines problem.***



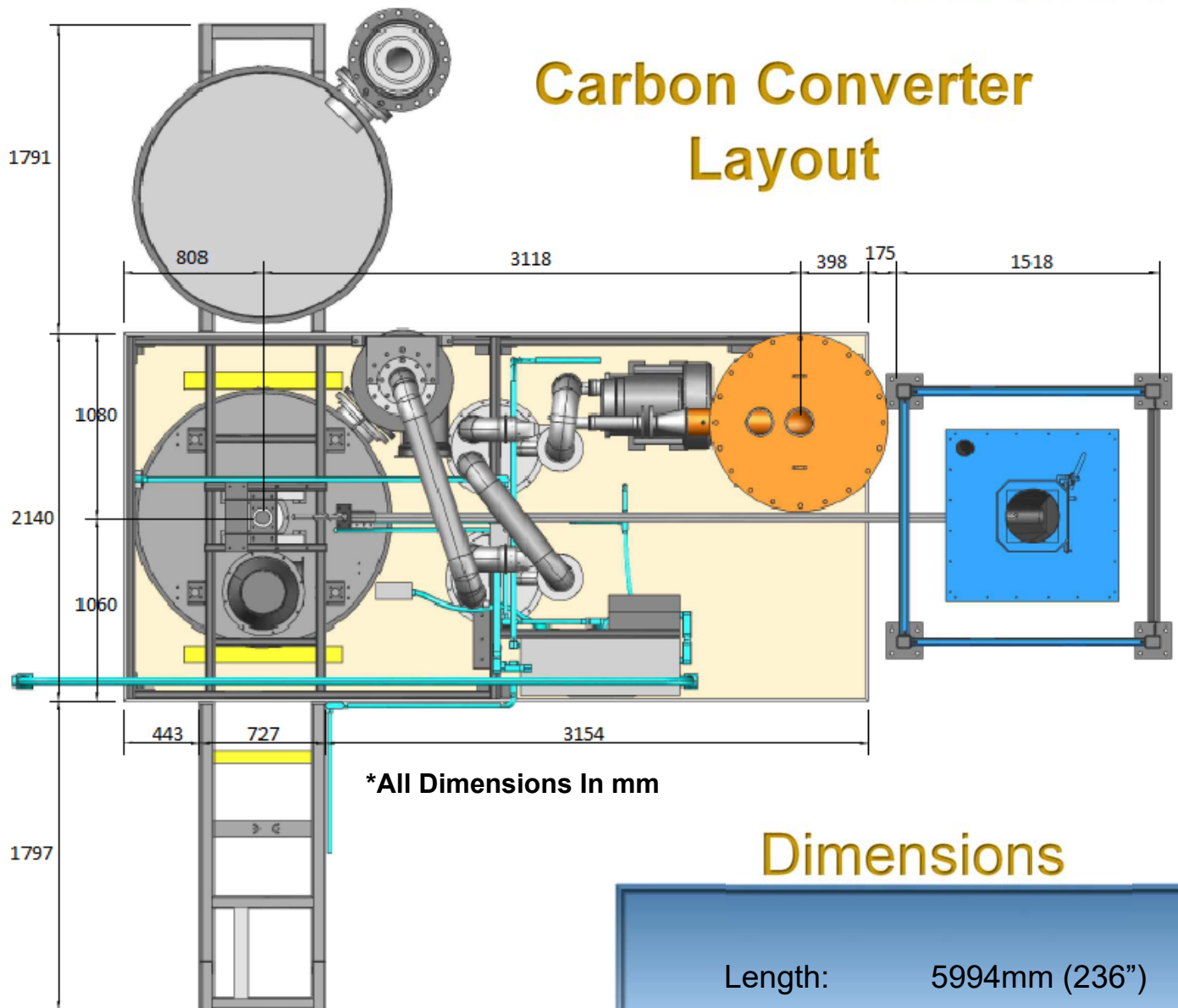


## Sophisticated PLC Interface

Safety interlocks, automated valves and monitors all play an integral role in keeping personnel and equipment safe from harm. The entire apparatus is mounted on a containment base designed for easy cleaning after operation or in the event of a spill. High quality materials of construction ensure that the furnace will operate for an extended amount of time without major service or corrosion regardless of the impurities on the carbon.

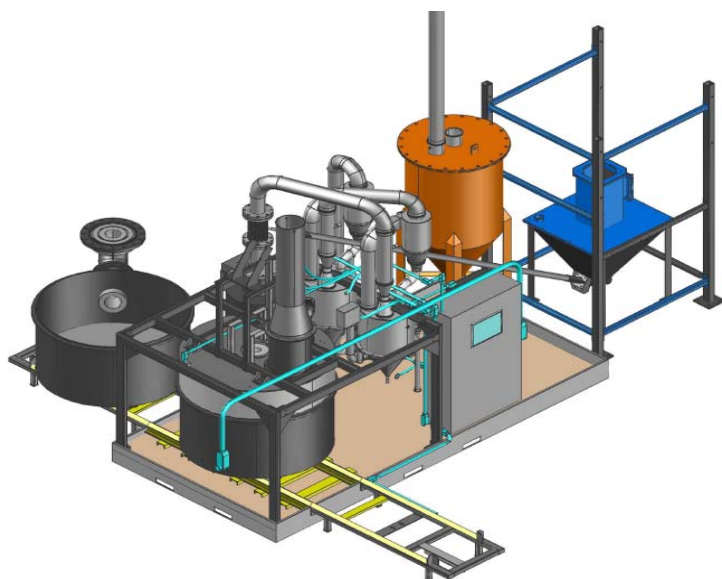


# Carbon Converter Layout

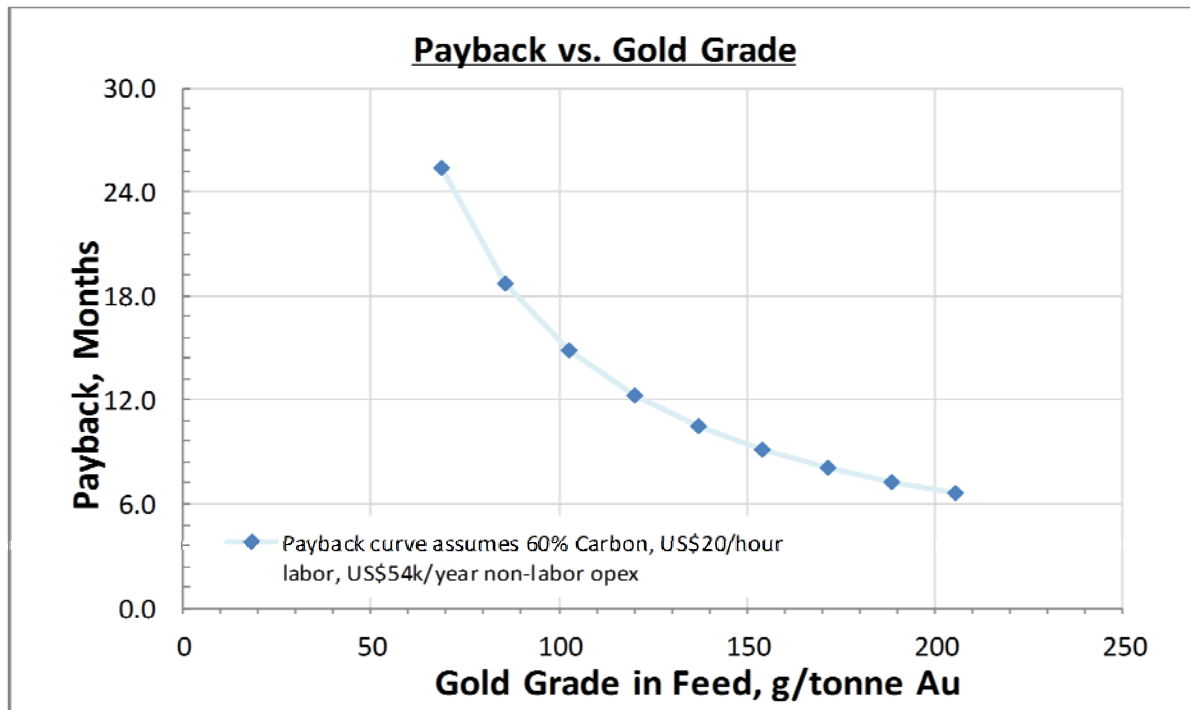


## Dimensions

Length:	5994mm (236")
Width:	5740mm (226")
Height:	3200mm (126")



*The Carbon Converter conveniently ships in one 40-ft container or two 20-ft containers.*



For More Information, Contact:



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