

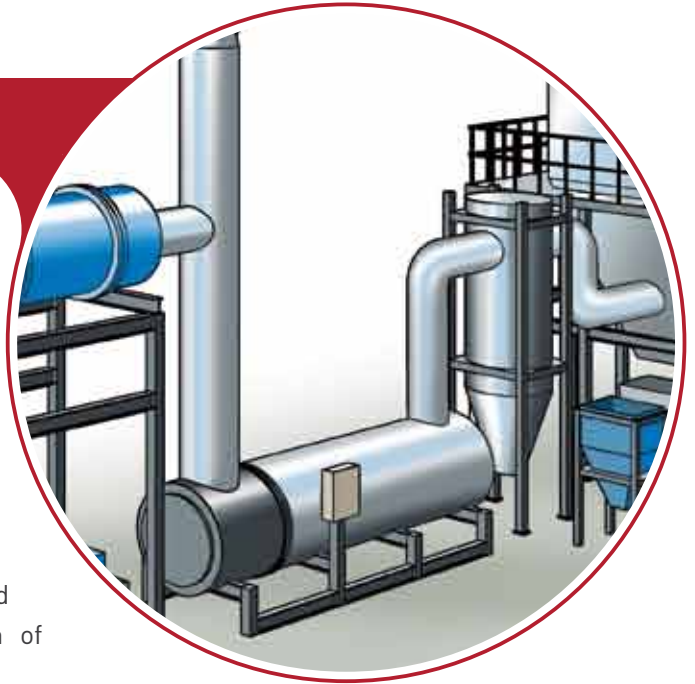
ENERGY RECOVERY SYSTEMS

Gases exiting the secondary chamber will be ducted directly into the waste heat boiler, which will convert the gaseous energy into useful energy such as steam or hot water.

Flue gases will enter the multipass gas tube boiler at a temperature of approximately 1000°C and exit at a temperature of 180°C. This temperature gradient will promote both maximum heat recovery and to enable the gas entrained heavy metals to be adsorbed by the downstream injection of activated carbon.

The boiler will be constructed to the latest applicable standards and will be heavily insulated and clad in aluminium.

The boiler will also incorporate the necessary level gauges, level switches, crown valves, safety valve, blow down valve and pump.



Steam

Heat is recovered indirectly from the incinerator exhausting gas by passing them either through a gas tube heat exchanger or across a radiant tube boiler. Energy is exchanged between the gases and water to produce steam for heating or industrial processing.

When used for electrical power production, the steam is further heated within a super-heater to produce a dry steam to drive a turbine/generator set.

Economisers are fitted to the boiler outlet to recover additional energy from the flue gas.



Hot Water

Heat is recovered indirectly from the incinerator exhaust gases, by passing them through a gas tube heat exchanger. Heat is exchanged with the external water jacket,

generating hot water for district heating or for industrial processing.



Hot Air

Heat is recovered indirectly from the incinerator exhaust gases by passing them through a gas tube heat exchanger. Cool ambient air is blown across the hot heat

exchanger tubes, which provides heated clean air for factory space heating, pre-heated combustion air or process drying.

