

ESI-Scholer 1.5 - 45/75

Multi Waste Incinerator package.

1.0

Incinerator Duty: High calorific, General, Hazardous, Medical, Mixed waste.

Incinerator Burn rate: 45 to 75kg/hr General/Hazardous Multi Waste

Incinerator selection: SI-ESI 1.5 - 45/75 Inline Design

Incinerator Chambers: 1.5 m3 Primary chamber with 0.75 m3 Secondary chamber

2.0

Incinerator specification: **General description.**
Pyrolytic incineration process - Partial burning at high temperature resulting in the conversion of organic matter to a combustible gas and thermal reaction in which the combustion of the gas is completed.

Equipment - A packaged unit ready for immediate installation consisting of a heavy-duty high temperature primary combustion chamber and secondary combustion chamber manufactured as a monocoque construction with dividing wall.

Primary Combustion Chamber (PCC)

Shell manufactured of heavy gauge hot rolled steel plate, lined with insulating and high temperature refractory materials impregnated with stainless steel needles suitable for continuous operation to 1500°C. The lining consists of 50mm ceramic fibre blanket and 100mm dense castable refractory. The refractory is tied to the steel shell with high temperature refractory anchors welded to the shell at 220mm centres. Embedded in the refractory are air distribution jets to provide an even distribution of combustion air. No grates are required.

The front charging and cleanout door, providing complete access, is refractory lined and hinged with thrust bearings for manual operation with two screw type sealing devices. Door may be factory hinged either right or left as required.

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The PCC is equipped with diesel oil or gas fired ignition burner to commence the burning cycle, thermocouple.

A water spray fogging nozzle controls over- temperature conditions which is fitted for high CV hazardous waste applications.

Secondary Combustion Chamber (SCC)

The outer shell is manufactured of heavy gauge mild steel lined with 100mm high temperature castable refractory impregnated with stainless steel needles suitable to temperatures of 1500°C and 50mm ceramic fibre back-up. The SCC is equipped with a diesel oil or gas burner for initial preheat of the SCC and to maintain minimum required temperatures throughout the burning cycles. The burner is fitted to give a strong tangential swirl in the SCC to promote high turbulence.

Combustion air is admitted sequentially along an extended portion of the chamber.

Stack.

The 4 metre stack is manufactured in AISI type 304 stainless steel with flanged sections for bolting together.

A rain hood is fitted to the stack to prevent water entry.

Paint Specifications.

Surfaces shall be sand blasted and covered with shop application of a single coat film (1.5 mil minimum thickness) modified silicone alkyd copolymer high temperature enamel with a Zinc Chromate rust and corrosion inhibitor.

Automatic auxiliary Burners: Both Primary and Secondary Chambers are fitted with automatic diesel fuel fired burners for initial start-up and temperature control during the burn cycle.

Electrical control panel using COL System:

A fully programmed IP54 control panel is to be located outside on an adjacent wall to the incinerator door and is fitted with a Siemens Simatic ET 200SP PLC with Simatic TP900 HMI touch screen, with temperature controls for both PCC and SCC and all the necessary switchgear for the correct automatic operation of the unit.

Scholer/ESI COL System Benefits:

Batch Loading high calorific value (HCV) waste = Larger loads = Longer burn cycles = Less Operator labour time.

How operation Cycle Works:

The COL System controls the volatiles of HCV waste through the combustion stages until complete destruction of the waste is achieved. During these operation stages the waste gas is being cleansed at high temperature and turbulence in the SCC.

Result Guarantee: Low particulates, No visible emissions & Dioxin/Furan formation.

The ESI-Scholer COL system is designed to comply to US EPA environmental standards for low emissions. (Test Results are available on two incinerators destroying Medical/Hazardous waste.)

Utilities.

Electrical: 415V 8 Amp, 230/240V 10 Amp. Draw: 3KW

Fuel oil: Average diesel consumption 12 litre/hour

Water: Clean water at a minimum pressure of 1.5 bar is required for the water spray assembly fitted in the roof of the PCC.

Warranty.

A conditional warranty period of 12 months exists on ESI/Scholer products against faulty workmanship and/or materials. A complete, formal Warranty document is available on request.

This warranty period commences from our point of delivery despatch date. Notification of fault is to be in writing within 7 days of being discovered or known.

Spare Parts List.

A priced recommended Spare Parts list (Commissioning, Operational & Insurance) is available on request.

Commissioning, Operator

We offer initial site inspections & assistance when requested.

Training & Maintenance.

Installation assistance, Commissioning & Operator Training with offer of On-going Service & Maintenance of your incinerator.

Remote Commissioning.

For a nominal additional cost, we can supply a separate Notebook loaded with remote software to carry out Commissioning and assist with on-going service & maintenance issues into the future.