



International Limited

Combustion Engineering for the 21st Century

WOI- Range

Skid Mounted Waste Oil Incinerator Range, Capacity from 50 to 350 Litres/hr



Model WOI-350i (WOI - Waste Oil Incinerator)

The WOI range was developed for the safe and clean disposal of waste oil and solvents from the Petrochemical and Hydrocarbon industry, oil exploration, Base camp debris and Military bases. Its design allows for reliable operation in remote location with difficult climatic conditions.

The WOI design combines high temperature, turbulence and residence time in the specially designed combustion chamber to meet the required emission standards for EC and US environmental standards for waste oil disposal.

The units capacity is based on waste engine oil (Sump oils), when burning solvents or mixtures of other chemical waste the capacity may vary according to the waste CV, water contamination and viscosity.

Self Contained System

Simplicity of Operation

Proven Technology

Robust Construction



Specification

| Models WOI | Capacity (Lit/hr) | Skid Dimensions (mm) | | | | Fan Power kW | Noise level dba 1m | Burner Rating (kW) | Electrical Spec |
|---------------|----------------------|----------------------|-------|--------|----------------|-----------------|--------------------------|--------------------------|--------------------|
| | | Length | Width | Height | Weight (kg) | | | | |
| 120i | 50 -120 | 3000 | 1400 | 1550 | 3200 | 8.0 | 65 | 50 - 250 | IP65 |
| 175i | 50 - 175 | 3200 | 1650 | 1650 | 3750 | 9.0 | 68 | 50 - 250 | IP65 |
| 250i | 100 -250 | 4100 | 1850 | 1800 | 4200 | 10.2 | 70 | 50 - 290 | IP65 |
| 350i | 150 - 350 | 4500 | 2200 | 2200 | 5000 | 11.3 | 72 | 50 - 300 | IP65 |

Site requirements:

Once delivered the WOI only requires a level area to be located, fuel and mains power supply and the waste loaded into the waste tank located on the skid frame.

Power requirements:

The WOI can be supplied arranged for a variety of voltages to suit site supplies, the standard voltage would be – 380v 3 phase 50 Hz and 230v 3 phase 60 Hz a four wire supply.

Auxiliary equipment required:

None.

Construction:

The skid frame is a welded box section frame fitted with four heavy duty lifting lugs all having a painted finish of a primer and a top coat of gloss finish.

The outer casing is a 8mm thick welded MS plate, lined throughout with 255mm high grade castable refractory with a 50mm thick ceramic fibre block insulation, The hearth is lined in the same way as the walls. The base of the combustion chamber having a 50mm air gap between the skid frame and the steel casing to prevent heat transfer.

The system incorporates a skid mounted waste daily service storage tank and a fuel oil storage tank, which provides a capacity for approximately 4 to 6 hours continuous running. In the event that the system is arranged for Propane (LPG) firing the diesel tank would be replaced with a gas cylinder.

Controls:

The control panel is IP65 rated for outdoor operation and houses the ON/OFF switches, relays and indicator lamps for the safe operation of the system.

Combustion Air:

The units are fitted with a forced draught fan, centrifugal impellor, belt driven with a TEFC motor IP65 rated. The air supply is connected to the combustion chamber via heavy duty hoses and each air inlet has a manual damper control to allow adjustment for variations in the waste feed. The air supply nozzles are angled to force air into the chamber for intimate mixing of the waste and burner heat to ensure clean combustion and smoke free emissions.

Burner:

The system is fitted with a robust automatic packaged burner, located at the lower section of the combustion chamber, positioned to fire tangentially across the chamber to create cyclonic combustion conditions and a long residence time to complete combustion of even heavy oils. The system can be supplied suitable for Diesel oil, Natural and LPG firing as required.

Options:

- Combustion chamber extensions each extension 1000mm long.
- Tank level switches for automatic unmanned operation.
- Specially designed units for large capacity systems.

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