

**TRANSPORTABLE / MOBILE
INCINERATOR
UNITS**

ZANNI GROUPTM

TIU-8G+ V2017

TECHNICAL DATA

Retrofittable modular system

TIU-8G+ V2016

0 – 250 kg/hr

850/1100 °C



Incinerators for hazardous materials
Safety and reliability with newest technology

**PATENTED
TECHNOLOGY**

Offer no.:
Item:
Quantity:

**Transportable Incinerator Unit,
Retrofittable modular system**

First 40 feet flat rack

Incineration unit

2 stage incineration module

Execution:

- Fix bed system with movable grate
- 2 burner system with fuel pump
- 3 temperature measurements
- 1 top filling system with conveyor connection
- 3 side doors for de-ashing

Main combustion chamber

The waste is incinerated in a two stage combustion chamber. The dimensioning of the combustion chamber and the controlled incineration ensure a min. consumption of Diesel oil. Absolutely sterile ashes quality. The waste is mechanically mixed and burned on a movable grate over the refractory lining. Combustion air is blown under and into the incinerated waste by a nozzle system controlled by the operator. Depending on the calorific value of the waste the temperature in the combustion chamber is 800 - 850 °C. The temperature will be controlled by the burner operation. Auxiliary fuel is only necessary at low calorific value and/or high moisture content of the waste.

The first combustion chamber is lined entirely with high quality refractory material. The refractory material of the step floor has high alumina oxide content and has high resistance against wear.

Temperature: 850 °C

Residence time of waste: 30–60 minutes

Post-combustion chamber

The flue gas from the combustion chamber can contain not burnt components. In a post combustion chamber (secondary combustion chamber) an additional burner ensures the complete combustion of all smell and organic components. The selected residence time of the flue gas in the combustion chamber will be min. 2 seconds at min. 1.100 °C. A burner and a temperature measurement after the post combustion chamber ensure the destruction of organic pollutants and CO.

Temperature: 1.100 °C

Residence time of flue gas: > 2 seconds

Type of waste:	Domestic waste and hazardous waste like industrial waste, medical waste, chemical residues that are solid and paste-like up to 30% moisture content.
Forbidden materials:	Ammunition and other explosives, lightning ammunition, akkus and batteries, mercury containing materials, PVC (only smaller amounts per feeding sequence allowed)
Mixing of waste:	Movable grate / manual via the ash hole
Waste capacity:	0 – 250 kg/h
Calorific value:	1 – 45 MJ/kg
Density:	50 – 1.250 kg/m ³
Burning temperature:	First chamber 850 °C Second chamber 1100 °C
Burners thermal capacity:	2 x 700 kW
Max. oil flow rate:	2 x 58.2 kg/h
Calorific value of waste:	12500 kJ/kg
Average fuel consumption:	0 – 45 l/h
Power consumption:	12 kW *
Refractory lining:	The bottom of the post combustion chamber (gas combustion) is lined with a special ceramic fiber, which is surrounded by a concrete sheath. The walls are insulated with a special ceramic fibre, which is heat-resistant up to 1200 °C. This fiber has a special coating as sealing surface that makes it insensitive to dust so that a wear protection is given. Maintenance and repair work are easy to perform.
Requirements:	- Fuel (Diesel), - Power (power generator as option available).

* depending on final engineering for local conditions

Flue gas cooling unit

The cooling module will cool the flue gas down to a temperature of averagely 230 – 250 °C. The advantage is that this facility do not require water consumption, like e.g. spray coolers.

Key figures:	<ul style="list-style-type: none"> - Air cooler - Heat exchanger pipes made of high alloyed stainless steel - Cooling air fan - Blow-off pipe for cooling air - No water consumption - External insulation.
--------------	---

Power consumption approx.: 11 kW *

Second 40 feet flat rack

Additive dosing system

Execution: Manual (standard) or automated filling system
Power consumption approx.: 1 kW *

Filter system

Temperature resistant module

Key figures:

- Fabric filters or ceramic filter candles
- Dust removal manually via container boxes
- Draft fan
- External insulation.

Power consumption approx.: 11 kW *

Accessories

Including:

- Compressor,
- Fan,
- Stack (+6 m from ground),
- Control box.

Power consumption approx.: 7,5 kW *

* depending on final engineering for local conditions and on the included accessories

OTHER OPTIONAL EQUIPMENT

CONTINUOUS EXHAUST GAS MONITORING (CEGM) SYSTEM

A continuous exhaust gas monitoring system is usable for automated hover bed combustion plants and fix bed plants with movable grate.

Envisaged analyses could be: HCL, CL₂, NOX, SOX, CO and TOC.

The operation frequency can be either continuous operation or activation at a predefined frequency or upon demand.

The CEGM system will be installed in second module.

DIESEL TANK

As diesel tank we can offer a wide range of sizes.

Most frequently asked size is united in the PE combined 1000 VS.

The volume of this system is 1000 l that could be bigger on demand.

We prefer a supply including:

- 10m fuel hose with fuel lance and foot valve
- Optical level indicator
- Content indicator and
- Vent hood.

Tanks will be normally installed in second module.

WHATEVER ELSE

Please do not hesitate to contact us.
We are there for your service!

* depending on final engineering for local conditions

CONTACT

ZANNI GROUP

Germany

web: <http://www.zanni.group>

LOCAL AGENT