



# CONVERTER® TREATING WASTE DIRECTLY ON SITE

+ CERTIFICATIONS
ISO 9001 NATO AH649
RINA
M.O.G.C. 231
APHIS
APHA





# APPLICATIONS

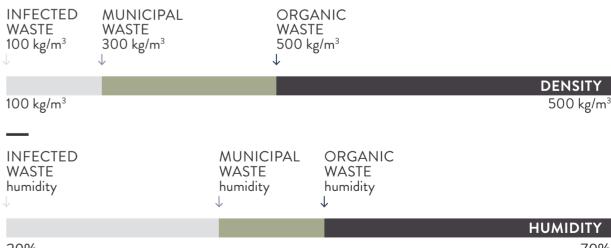
\_MILITARY BASES
\_HUMANITARIAN CAMPS
\_HOSPITAL CAMPS
\_AIRPORTS
\_CUSTOMS
\_MILITARY SHIPS
\_HARBOURS



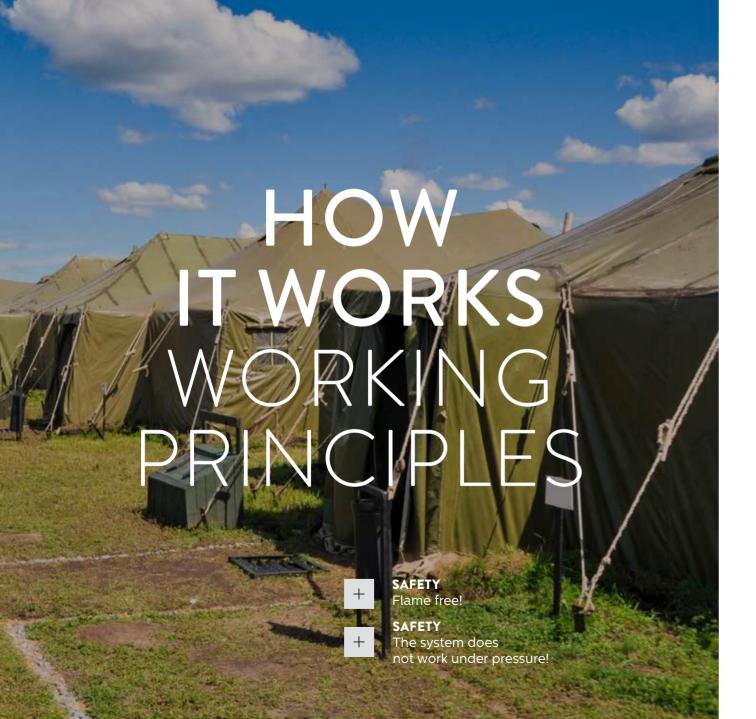
Transform unsorte waste into a dry, stable product.

# **WASTE** CHARACTERISTICS





20% 70%



1.

FRICTION - UP



2.

EVAPORATION
BOILING



3.

HIGH TEMPERATURE MOIST HEAT



# THE PROCESS

#### **SEVEN STEPS 30 MINUTES ONLY**





Converter® equipment is authorized to treat waste through physical modification, reduction of volume, dehydration and reduction of weight.

#### **WASTE LOADING**

The waste is loaded inside the chamber by hand in plastic bags and the lid is closed. 2.





100°C



#### CRUSHING

The rotor starts and accelerates gradually, as the material is finely ground and the temperature rises quickly to about 100 °C.

3.



4.



151°C



#### **EVAPORATION**

The heat generated by friction in the material causes the evaporation of the waste moisture and the temperature remains firm at around  $100^{\circ}$ C.



#### **SUPERHEATING**

Once all the moisture has been eliminated, the frictional heat causes the temperature of the material to increase to 151°C.



6.



100>60°C



## STERILIZATION OR PASTEURIZATION

The temperature of the material is held firm at 151°C for 3 minutes, under moist heat conditions through controlled water dosage.



#### **COOLING DOWN**

The waste is sprinkled with water in order to lower the temperature of the material to about 100°C. A vacuum pump then lowers the temperature further down to 60°C adiabatically.

7.

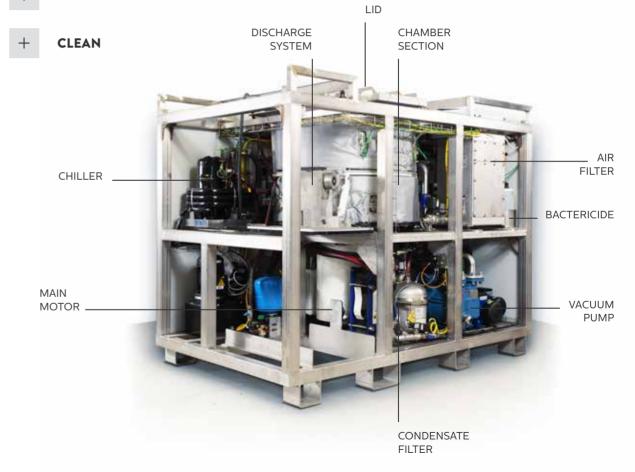


## UNLOADING IN VACUUM BAG

The treated material is unloaded by centrifugal force through the opening of a servo-operated valve positioned at the bottom of the treatment chamber.



- COSTS SAVING
- + SAFE
- + PRACTICAL



# THE RESULT LIGHT AND DRY

## WASTE BIN IS AN IDEAL BACTERIAL CULTURE

Microorganism proliferation and spreading is the most common problem connected to the management of the waste, because it directly impacts human health.

1 bacteria today  $\rightarrow$  5x10<sup>86</sup> in 4 days







At the end of the treatment with Converter the final product is a completerly unrecognizable, odorless and sterile flock or "fluff".

The weight is reduced by 50%, and the volume by 80%. If Vacuum packed the volume is reduced further and the brickets can be stored for long periods, with no odour, dust or need to refrigerate.

#### **WASTE MATERIAL**

includes several hazardous substances which can be eliminated only through thermal processes.









# STANDARD EQUIPEMENT LANDUSE



250 kW Diesel generator, stabilized for excellent voltage response, electric starter kit



Special independent cooling system including ventilation system



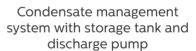
Specially designed Water Recycle System cooling system including heavy duty dry cooler

#### **OPTIONS:**

NATO Mimetic pattern painting



Container Air conditioning





Soundproof protection for the converter, auxiliary components and container itself



and Heating System (electric)

Pressurized system for process water



Thermal protection of the container to ensure functioning at -10°c below the external



Electric control board of Container and auxiliary components with PLC and 5,7' color touch screen

# CONVERTER® MOB20





#### TECHNICAL DETAILS

#### 200 liters waste

organic  $\rightarrow$  30 a 40 kg/h municipal  $\rightarrow$  40 a 80 kg/h

NOTE

treatment capacities calculated assuming:

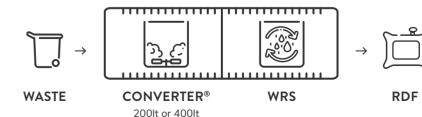
- a density of 180kg/m³ and 50% of humidity for Urban Waste
- a density of 100kg/m³ and 30% of humidity for Medical Waste

#### 400 liters waste

organic  $\rightarrow$  60 a 80 kg/h municipal  $\rightarrow$  100 a 150 kg/h

#### Converter® 200 or 400 liters in container

1 Converter® 200 or 400 liters 1 radiator-type cooling unit 3 water tank 1 electric control board Internal lighting system



# CONVERTER® MOB40





#### TECHNICAL DETAILS

#### 400 liters waste

organic  $\rightarrow$  municipal  $\rightarrow$ 

60 a 80 kg/h 100 a 150 kg/h

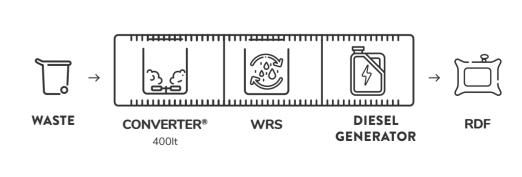
#### NOTE

treatment capacities calculated assuming:

- a density of 180kg/m³ and 50% of humidity for Urban Waste
- a density of 100kg/m³ and 30% of humidity for Medical Waste

#### Converter® 400 liters in container

1 Converter® 400 liters
1 radiator-type cooling unit
3 water tank
1 diesel generator - autonomy 8h
1 electric control board
Internal lighting system



# CON/HRTE MOB40 PLUS





#### **TECHNICAL DETAILS**

#### 400 liters waste

organic municipal

60 a 80 kg/h 100 a 150 kg/h

#### NOTE

treatment capacities calculated

- · a density of 180kg/m³ and 50% of humidity for Urban Waste
- · a density of 100kg/m<sup>3</sup> and 30% of humidity for Medical Waste

#### 2 Converters® 400 liters in container

2 Converter® 400 liters 1 radiator-type cooling unit 3 water tank 1 electric control board Internal lighting system



**WASTE** 



**CONVERTER®** 400lt



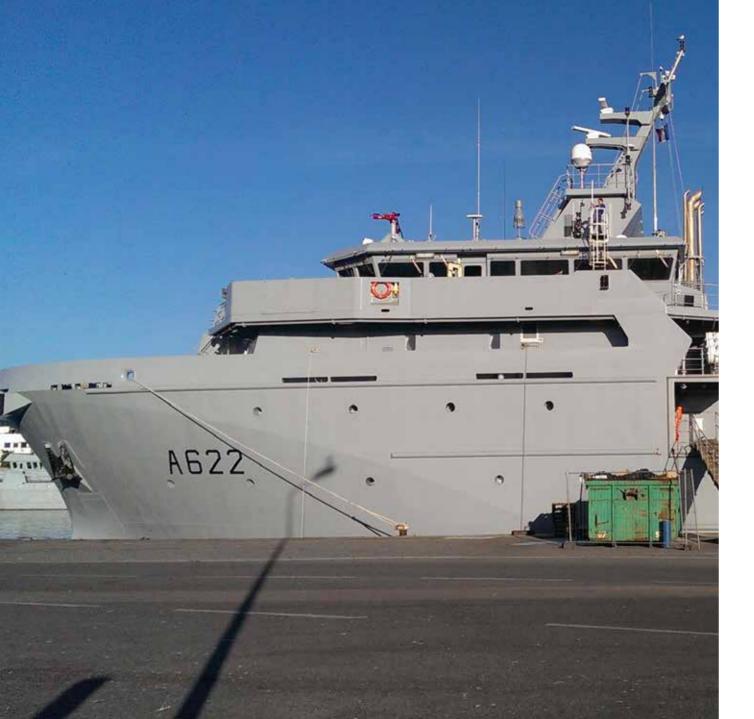
WRS



**RDF** 

400lt







## CONVERTER® NV200

1

#### **TECHNICAL DETAILS**

#### 400 liters waste

organic  $\rightarrow$  60 to 80 kg/h municipal  $\rightarrow$  100 to 150 kg/h

#### Specification

treatment chamber volume [lt] 400 machine dry weight [Kg] 2200 2300x1500-1800 machine footprint [mm - h] electric cabinet weight [Kg] 450 electric cabinet footprint [mm] 1000x660x2000 total installed power [KW] 100 85 nominal motor power [KW] 120 nominal current [A] peack current [A] 150 electrical consumption [KW/Kg] 0,4 - 0,6



### CONVERTER® NV100

#### $\downarrow$

#### **TECHNICAL DETAILS**

200 I	iters	waste

organic  $\rightarrow$  30 to 40 kg/h municipal  $\rightarrow$  40 to 80 kg/h

#### Specification

treatment chamber volume [lt] 200 1500 machine dry weight [Kg] machine footprint [mm - h] 1950x1200-1400 electric cabinet weight [Kg] 450 electric cabinet footprint [mm] 1000x660x2000 total installed power [KW] 65 60 nominal motor power [KW] nominal current [A] 95 peack current [A] 120 electrical consumption [KW/Kg] 0.4 - 0.6



### CONVERTER® NV60

#### $\downarrow$

#### **TECHNICAL DETAILS**

#### 100 liters WASTE

organic  $\rightarrow$  15 to 20 kg/h municipal  $\rightarrow$  20 to 40 kg/h

#### Specification

treatment chamber volume [lt] 100 1100 machine dry weight [Kg] machine footprint [mm - h] 1500x1100-1400 electric cabinet weight [Kg] 450 electric cabinet footprint [mm] 1000x660x2000 total installed power [KW] 55 50 nominal motor power [KW] nominal current [A] 70 peack current [A] 80 electrical consumption [KW/Kg] 0.4 - 0.6





### NO POLLUTANT EMISSIONS

Liquids present in the waste are separated and condensed





#### **SAFE STOCK**

No dust No odor No fermentation





## NO WASTE SEGREGATION

Time saving





## NO WATER CONSUMPTION

Can be reduced down to zero





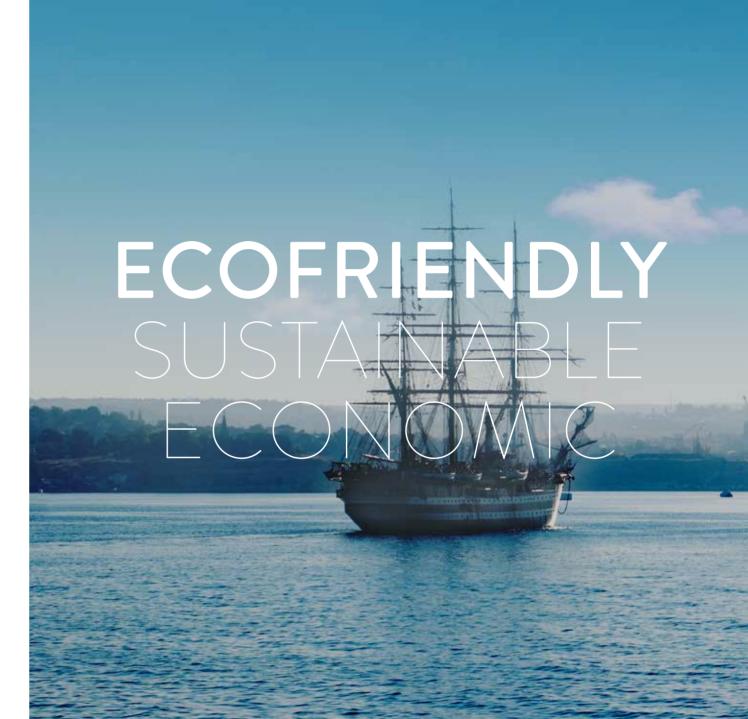
#### **EASY TO USE**

No special license is needed to operate





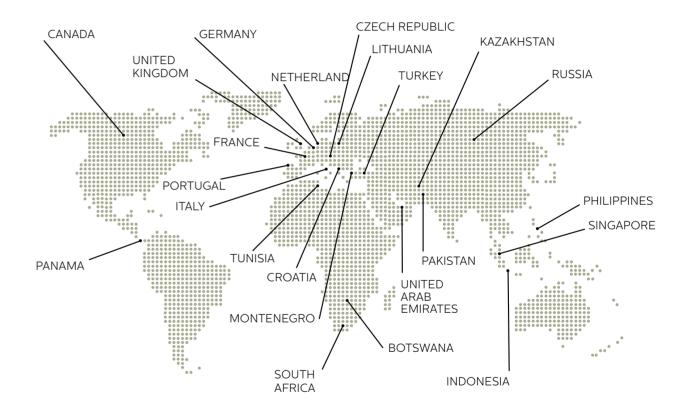
LOW ENERGY CONSUMPTION



# CONVERTER® INTHE WORLD

#### 25 COUNTRIES

- · Our brokers are present worldwide
- Several local distributors operate exclusively in their territories;
- Among our clients there are the 5 most important NATO Navies and manufacture of large luxury Yachts.





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