

**THIS PROBLEM,
ONCE SOLVED,
WILL BE SIMPLE.**

THOMAS A. EDISON

—

OMPECO



THE GOAL:
0%
LANDFILL WASTE



— CONVERTER®

Converter® is a patented eco-friendly method of treating waste converting it into FLUFF - Refuse Derived Fuel. It doesn't use chemicals, combustion, microwaves, or pressure and doesn't produce emissions. Many independent scientific institutions and laboratories have verified the efficacy of this innovative treatment process.

+ **CERTIFICATIONS**
ISO 9001-ISO 14001
ISO 13485-RINA



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APPLICATIONS

CONVERTER[®]H - CONVERTER[®] MO

THE IDEA!
Transform the waste into a stable,
dry product without risk, usable as fuel.



INFECTED
WASTE



CONVERTER[®] H

Hospitals, Labs, Clinics,
Treatment centers



MUNICIPAL
WASTE



CONVERTER[®] MO

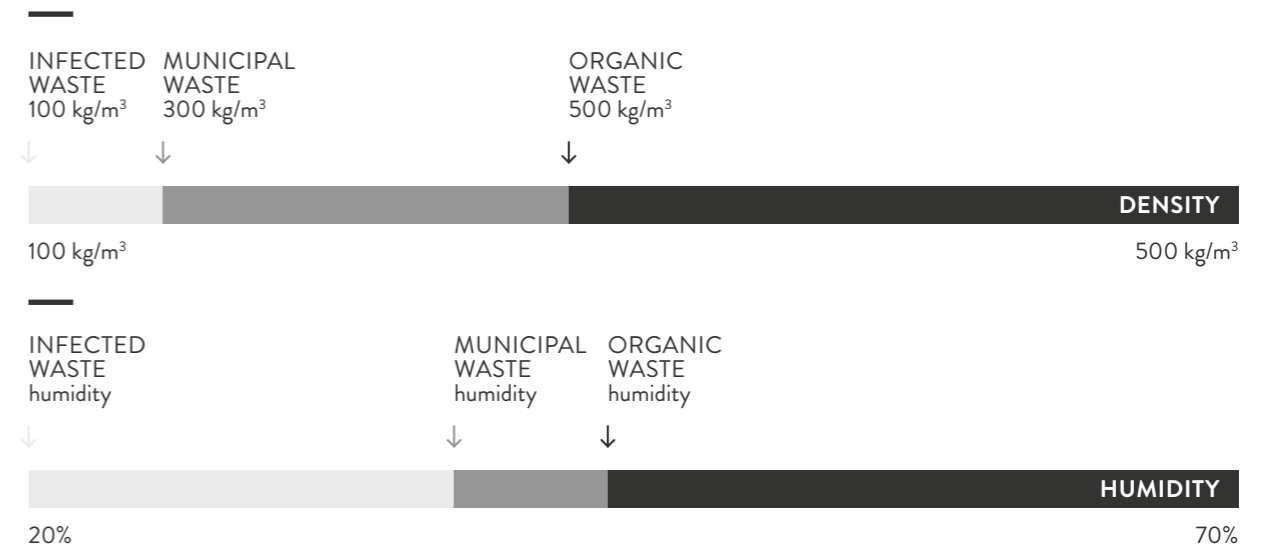
Municipality, Treatment centers,
Farms, Ranches, Airports, Ports,
Hotels, Restaurants

WORKING MODELS

WASTE CHARACTERISTICS

H SERIES:
for infectious waste

MO SERIES:
for municipal waste





HOW IT WORKS

PHISICAL FUNDAMENTALS

+ SAFETY: The system does not work under pressure!

+ SAFETY: Flame free!

—

1.



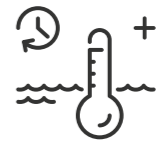
WARM-UP
friction

2.



EVAPORATION
boiling

3.



HIGH TEMPERATURE
MOIST HEAT



THE PROCESS

SEVEN STEPS

Converter® is designed to treat different types and compositions of waste, with the result that it is sterilised, physically modified, reduced by volume, dehydrated and reduced by weight.

1.



WASTE LOADING

The waste is loaded into the sterilization chamber (by hand in small machines or by means of an on-board automatic loader) in its original packaging, in plastic or cardboard bags or boxes, 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.



100°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°C.

4.



151°C



SUPERHEATING

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

5.



STERILIZATION OR PASTEURIZATION

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

6.



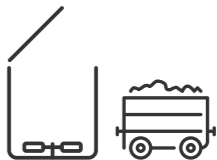
100>60°C



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

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





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FINAL PRODUCT

The Converter[®] transforms the waste into a reusable material: it transforms waste into a resource.
European Waste Code: 19.12.10 - 20.03.01



All types of waste from sanitary structures can be treated inside the Converter[®] H series, including: pricking and sharp objects, needles, disposable lancets, dressings, diapers, gloves, catheters, syringes, probes, small glass and plastic bottles, meal remnants from infectious wards, physiological matter, biological cultures, post-surgery waste and non-easily recognisable anatomical parts and guinea pigs.

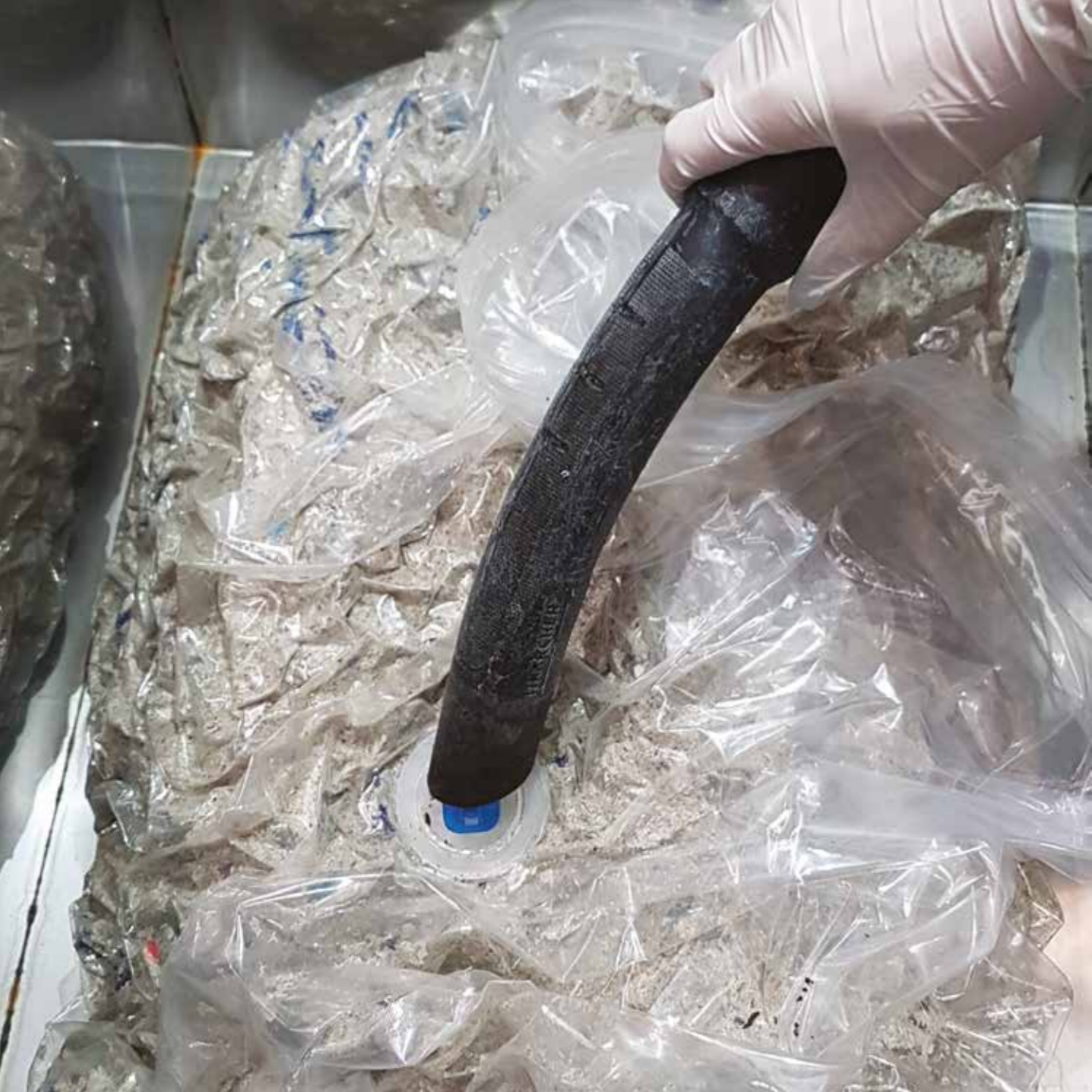


CONVERTER[®] H

Converter[®] MO Series is specifically designed for any kind of waste with the exception of chemical, toxic, explosive or radioactive waste, with the ability to choose between sterilisation or disinfection processes.



CONVERTER[®] MO



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CALORIFIC VALUE

Special Vacuum packing reduces the initial volume of the treated waste by up to 80%. The Converter® technology shreds and dehydrates the waste to produce a Refuse Derived Fuel with European Waste Code 19.12.10 or 20.03.01



OTHER TECHNOLOGIES

Other technologies available on the market, particularly autoclaves and microwaves, produce a resultant moist material with a low calorific value.



H₂O

CONVERTER®

The Converter® technology separates and recovers the resulting water from the sterilisation process, producing a completely dry resultant material.



DRY



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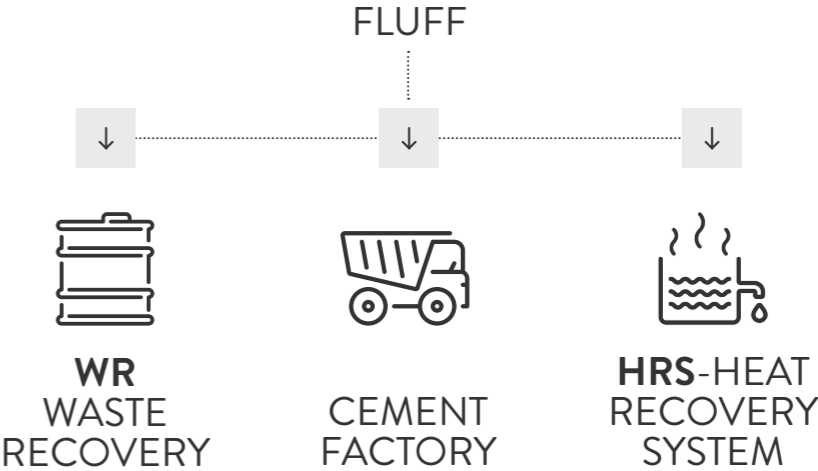
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WASTE TO ENERGY SYSTEMS

INFECTED WASTE 7 ÷ 8 MWh/t*

MUNICIPAL WASTE 3.5 ÷ 4.5 MWh/t*

* nominal value



THE RESULT

ECONOMIC, SAFE,
PRACTICAL AND CLEAN

Converter® technology cycles last less than 30 minutes.

At the end of the treatment with the Converter® the final product, generally considered a 'fluff' is completely sterile; but above all it is reduced by 50% by weight and 80% by the Vacuum pack.

These features guarantee not only benefits in terms of safety, given the long-term handling and storage of a stable product; but it allows considerable savings in logistics, not only from an economic point of view, but also practical and environmental (less material to be disposed of means cost reductions and fewer truck miles which also benefit the environment).



**-80%
VOLUME**

**-50%
WEIGHT***

*based on the moisture content



A NO COMPETITORS CHOICE

Converter® is a convenient solution in every way.

	AUTOCLAVE	INCINERATOR	MICROWAVE	CONVERTER®
	↓	↓	↓	↓
Dry	×	✓	×	✓
Weight reduction	×	✓	×	✓
Volume reduction	✓	✓	✓	✓
Safety	×	×	✓	✓
No civil works	×	×	✓	✓
No emissions	×	×	✓	✓
Treatment duration	60'	Non stop	45'	Less than 30'
Environmentally friendly	×	×	×	✓
Pressure	High	Neutral	Neutral	Low/negative
Easy to operate	×	×	×	✓

Note: no metal



THE RANGE

DISCOVER THE FLEET

H100
MO100

H200
MO200

H400
MO400

100 LITERS WASTE:

infected:
10 to 15 kg/h

organic:
25 to 30 kg/h

municipal:
30 to 40 kg/h



200 LITERS WASTE:

infected:
25 to 40 kg/h

organic:
40 to 60 kg/h

municipal:
60 to 80 kg/h



400 LITERS WASTE:

infected:
60 to 80 kg/h

organic:
80 to 120 kg/h

municipal:
100 to 160 kg/h



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H1000 MO1000

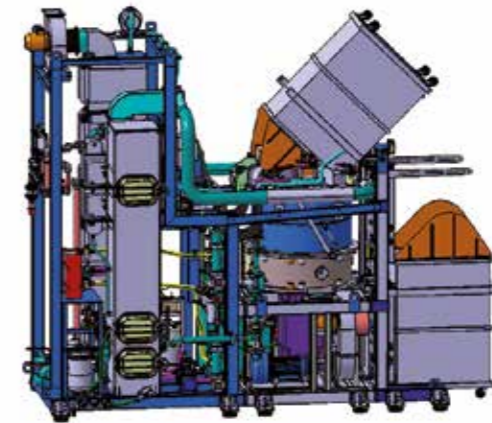
1000 LITERS WASTE:

infected H:
80 to 120 kg/h

infected MO:
120 to 200 kg/h

organic:
180 to 250 kg/h

municipal:
350 to 450 kg/h



H2000 MO2000

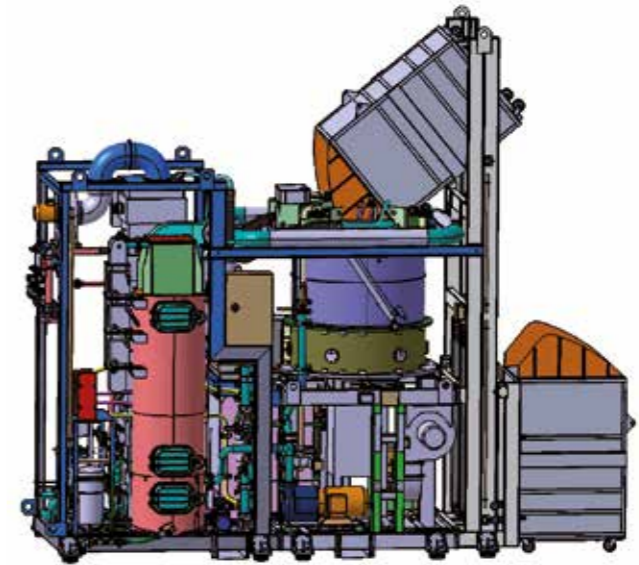
2000 LITERS WASTE:

infected H:
200 to 260 kg/h

infected MO:
340 to 350 kg/h

organic:
400 to 500 kg/h

municipal:
600 to 800 kg/h





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H5000 MO5000

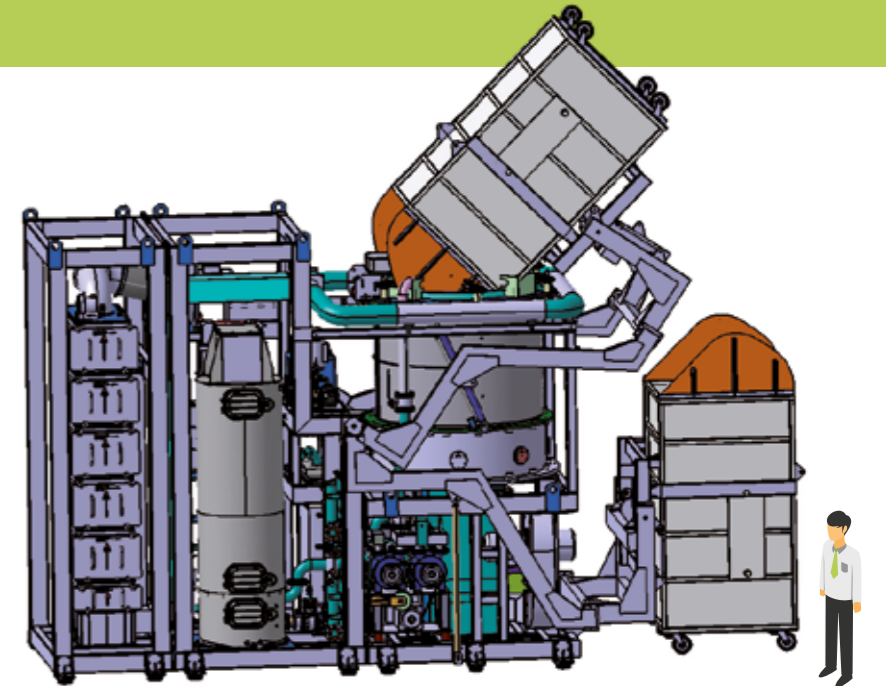
5000 LITERS WASTE:

infected H:
400 to 600 kg/h

infected MO:
600 to 900 kg/h

organic:
800 to 1000 kg/h

municipal:
1600 to 1800 kg/h



MOBILE UNIT



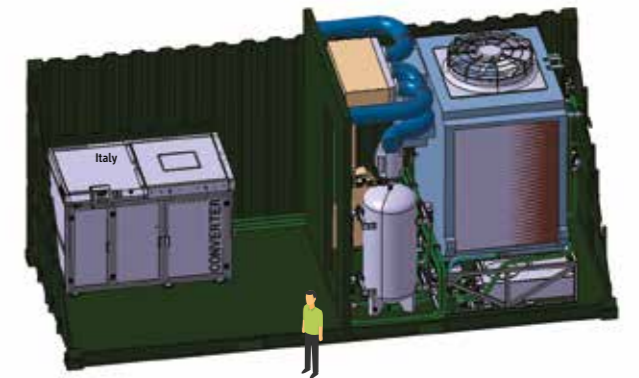
MOBILE UNIT 20"

- 1 Converter®
(100-200-400 liters)
- 2 water tanks
- 1 radiator-type
cooling unit
- 1 electric panel

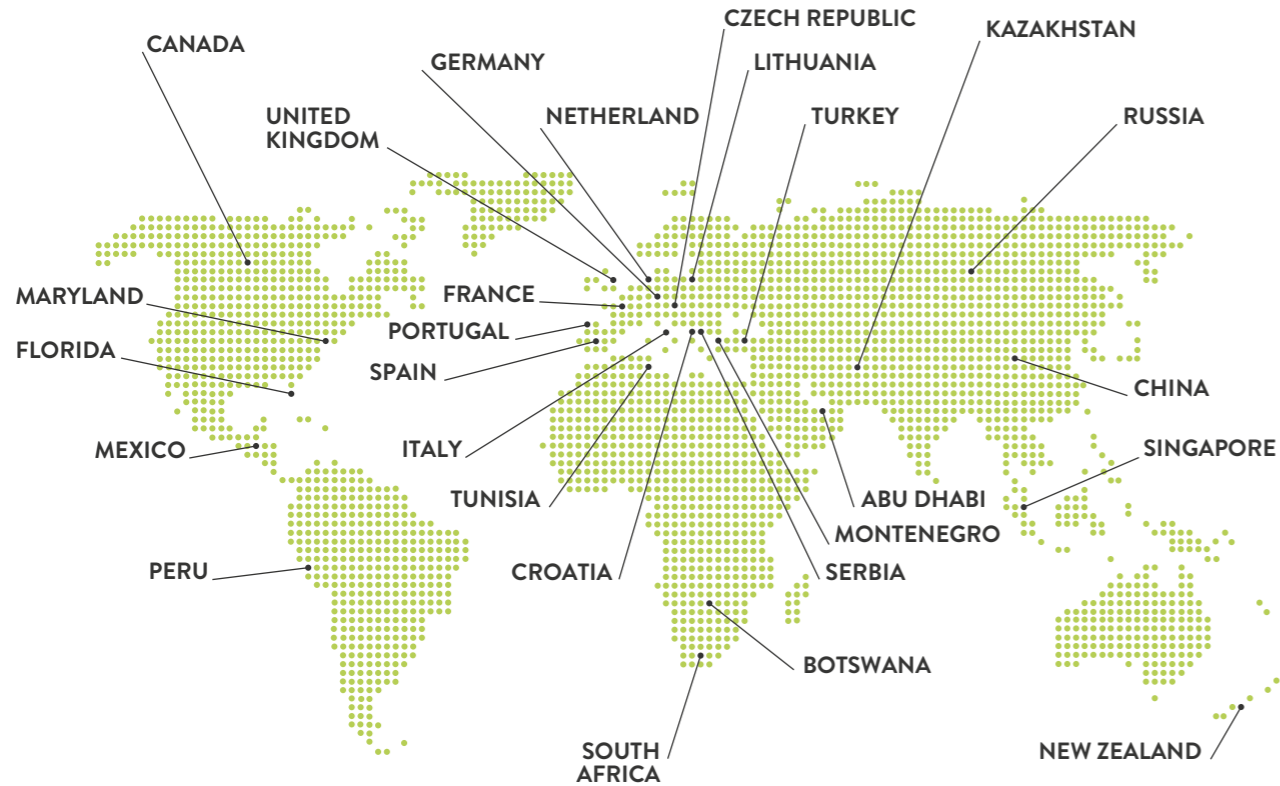


MOBILE UNIT 40"

- 2 Converter®
(200-400 liters)
- 1 diesel generator
- 2 water tanks
- 1 radiator-type
cooling unit
- 1 electric panel







CONVERTER® IN THE 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 manufactures of luxury Yachts over 60 m.



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