



CONVERTER[®] IV

OMPECO CREATION



In 2001 the OMP created a new division of it's activity, OMPEco.

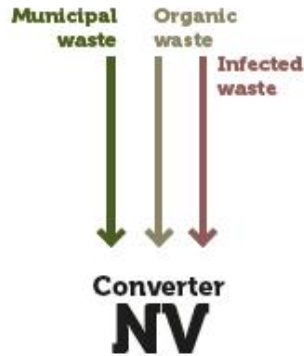
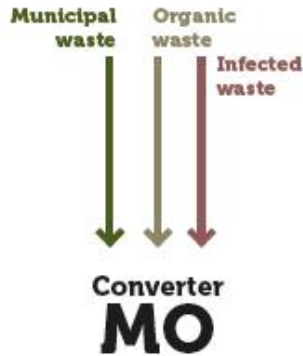


It was an environmental Branch for the developing of the Converter process by applying a different approach to the waste treatment, while permitting to eliminate the waste on the site where it was produced.

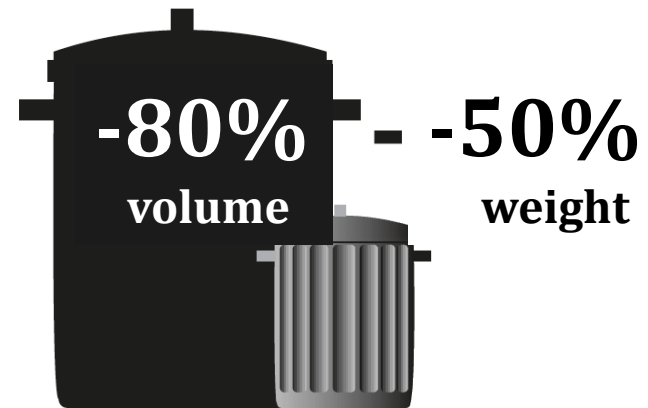
In 2014 this complementary Branch has become an independent Company OMPECO, which continues to manufacture Converter machines for the waste treatment.



APPLICATIONS: Maritime and Seaport Sector



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OMPECO

OMPECO Srl has created the Converter series NV to meet the needs of the marine, seaports and oil and gas industries.

TYPES OF TREATED WASTE

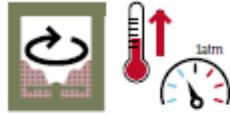


THE PROCESS



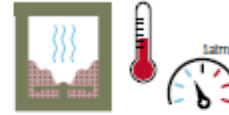
Step 1 - Waste loading

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.



Step 2 - Crushing

The rotor starts and accelerates gradually while the material becomes finely grinded and the temperature rises quickly to about 100 °C.



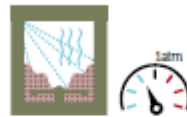
Step 3 - Evaporation

The heat generated by friction in the material causes the evaporation of the waste humidity and the temperature remains firm at the value of about 100°C.



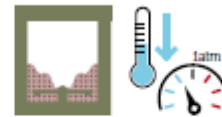
Step 4 - Superheating

Once all the humidity has been eliminated, the frictional heat causes the temperature of the material to rise up to 151°C.



Step 5 - Sterilization or Pastorization

The temperature of the material is kept firm at 151°C during 3 minutes, under moist heat conditions, by means of controlled water dosage.



Step 6 - Cooling down

The waste is sprinkled with water in order to lower the temperature of the material to about 100°C. After, by means of a vacuum pump, the temperature lowers in adiabatic way till to reach 60°C.



Step 7 - Unloading

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

THE FINAL RESULT

- ▶ 100% STERILIZED
- ▶ SAFE and DRY
- ▶ REDUCED IN VOLUME and IN WEIGHT
- ▶ NO UNPLESANT SMELL
- ▶ CAN BE STORED FOR LONG PERIOD
- ▶ STOP RECYCLING
- ▶ SUITABLE FOR ENERGY PRODUCTION ->



Reusable product with a **high calorific value** (up to 7000 kcal / kg) and therefore can be classified as **RDF** (European Waste Catalogue **Code: 19 12 10**).

CONVERTER VS OTHERS WASTE TREATMENT METHODS

	Autoclave	Incinerator	Microwave	Converter
Dry	●	●	●	●
Weight reduction	●	●	●	●
Volume reduction	●	●	●	●
Safety	●	●	●	●
No civil works	●	●	●	●
No emission	●	●	●	●
Treatment duration	60'	non stop	45'	Less than 30'
Environmentally friendly	●	●	●	●
Pressure	High	Neutral	Neutral	Low/negative
Easy to operate	●	●	●	●

MODELS RANGE

100 liters



NV 60

WASTE:
infected:
10 to 15 kg/h
organic:
25 to 30 kg/h
municipal:
30 to 40 kg/h

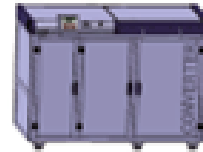
200 liters



NV 100

WASTE:
infected:
25 to 40 kg/h
organic:
40 to 60 kg/h
municipal:
60 to 80 kg/h

400 liters



NV200

WASTE:
infected:
60 to 80 kg/h
organic:
80 to 100 kg/h
municipal:
120 to 160 kg/h

TOP OF THE RANGE: Converter NV100

- ▶ Capacity from 30 kg/h to 60 kg/h and easier bags loading
- ▶ Control system via “PLC”
- ▶ Possibility of semi-automatic cycle management by selecting the steps of the cycle
- ▶ Possibility to choose the treatment program in base of the waste type
- ▶ Double control of the waste temperature, in order to guarantee the maximum safety (temperature sensor on the blade)
- ▶ Multi-standard switchbox
- ▶ **OPTIONS:** pneumatic vacuum sealing machine for fluff:
 - A. Integrated into the converter with usage of appropriate bags
 - B. Separated unit with appropriate bags



ADVANTAGES

Expertise and Experience, more than 40 years Know how.

Young and dynamic TEAM.

One Partner to contact for all project development.



NO POLLUTANT EMISSIONS

liquids present in the waste are separated and condensed

ENERGY RECOVERY

up to 50% of the electricity can be recovered into heat



WATER CONSUMPTION

can be reduced up to ZERO



IMPROVED LOGISTIC

-70% transports
no ADR transports

EASY TO USE

no special license is needed to operate



OMPECO

PATENT AND CERTIFICATION

- The Converter process is patented worldwide (EPO710125 and WO/1995/003072)
- OMPECO is certified by ISO9001.
- Positive tests carried out by several public and private laboratories.
- Code NATO (NCAGE CODE) :AH649
- RINA Test Certificate: N.2011/TO/01/97



RINA



OMPECO

CONVERTERS IN THE WORLD – NV Partner

-**Military Marine** of the **NATO** group.

-The major European finest **yacht builders** (over 60m yachts).



