

# WER 4 YOU

WER represents a turn-key solution for your waste streams. This easy-to-install, and easy-to-operate unit can be run continuously for 24 hours, with max. 10 hours/day spent on emptying waste.

WER allows for two waste recovery routes:

1. **Chemical recycling** when large quantities of plastics are available, producing oil for dual fuel input
2. **Waste to energy** for a broad range of waste streams, producing gas for heat or electricity

## Input requirements

### 1. Chemical recycling (min. 8000 t/y)

#### Acceptable waste:

- Pure PP, PE, PS, PB, PMP
- Diluted oxygen-based polymers (PET), nitrogen-based polymers (PDMS), sulfur-based polymers (rubber)
- Traces of halogens (<0.5wt%)
- Diluted hydrocarbons (largely affecting efficiency)

#### Unacceptable waste:

- Streams containing radioactive, poisonous or explosive ingredients
- Big parts of metal, glass or inert materials thicker than 1 mm
- Bricks larger than 1 cm

(However, small parts can be present in occasional quantities, though reducing the efficiency)

### 2. Waste to energy (min. 700 t/y)

#### Acceptable waste:

A random mix of:

- Wood and wood derivatives
- Leaves, hay, etc.
- Paper and paper derivatives
- Plastics of any kind
- PVC (max. 2 wt%)
- Kitchen waste
- Tyres, rubber
- Machine oil and lubricants

- RDF components
- Solid waste from water purification

### **Unacceptable waste:**

- Streams containing radioactive, poisonous or explosive ingredients
- Big parts of metal, glass or inert materials thicker than 1 mm
- Bricks larger than 1 cm

(However, small parts can be present in occasional quantities, though reducing the efficiency)

### Operational requirements

- > 150 kg/hr of waste to energy input
- exterior temperature between -10°C and +45°C
- technical water connection (possibly waste water)

### WER characteristics

- fits in two 20 ft containers (ISO 668 type 1CC)
- avoids pre- and post-treatment technologies
- applies gasification - incomplete burning and evaporation - on heterogeneous streams, and internal gas cleaning
- allows for dual fuel (hybrid fuel) usage by adapting diesel generators to cope with changing input composition
- prevents human contact with waste

### Unit sizes

Small WER <1750 tonnes/ year

Medium WER 1750-3500 tonnes/ year

Large WER 3500-8750 tonnes/year