

Kedco Power

Capitalising on a Carbon Economy

KEDCO POWER

*"Harnessing the Energy
Within"*

Green Harvester Dry Fermentation Key Benefits

- System availability 100%

(since July 2003 the city of Munich enjoyed uninterrupted organic waste acceptance of 8,500 tons p.a.)

- Electricity availability 95.5%

(with the use of multiple block type power stations this availability will increase to close to 100%)

- MSW productivity 160 – 365 KWH

(with the use the biodegradable components of Municipal Solid Waste)

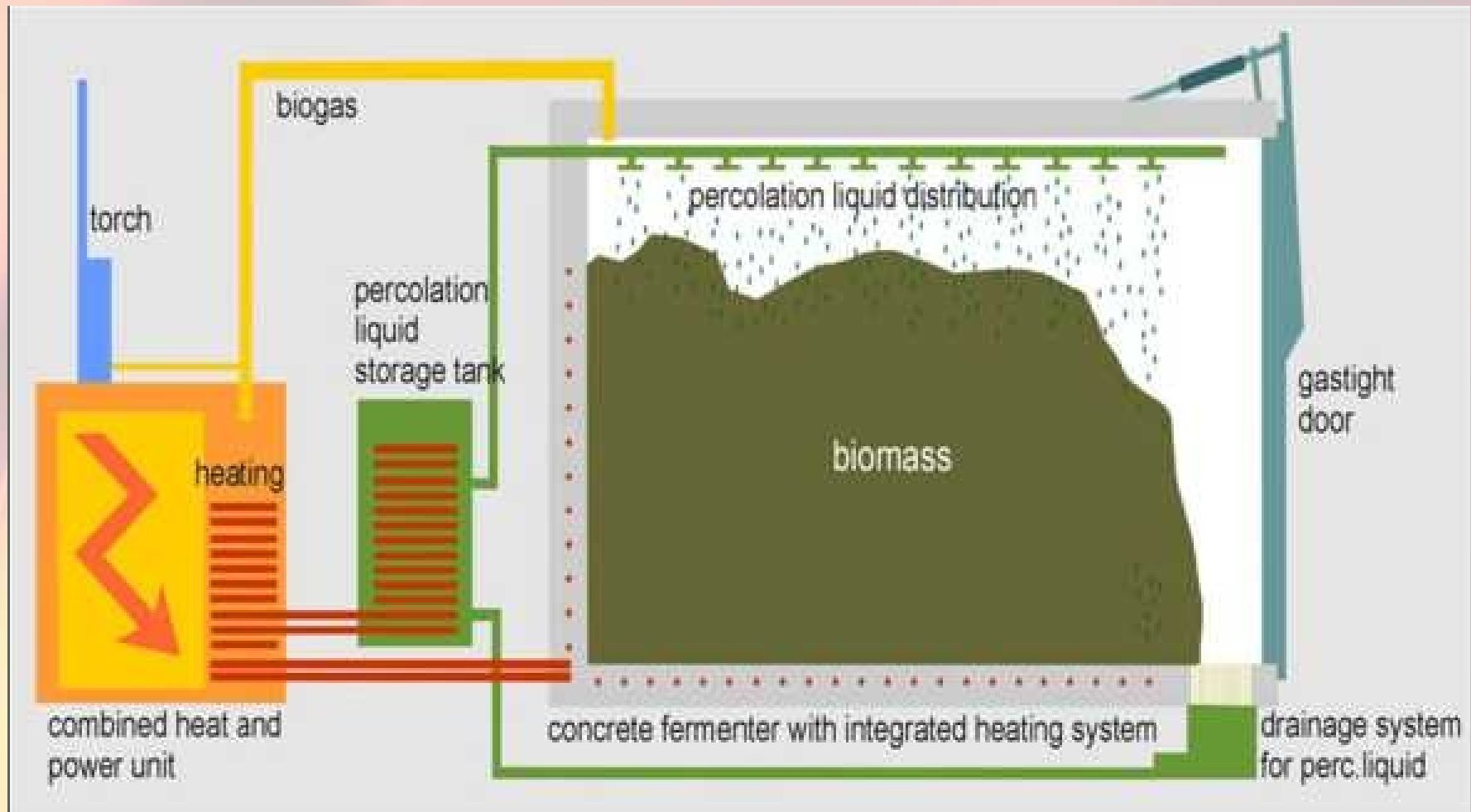
- Agriculture productivity 120 – 1,200 KWH

(with the use the farming products or residuals)

Green Harvester Dry Fermentation Process

- Dry substance content $>$, therefore
 - input with high energy load
 - specifically low reactor volumes
- Inoculation of input material , therefore
 - accelerated process initialisation
 - chemical biological process stabilisation
- Circulation of leachate by percolation , therefore
 - simplest process control
 - maximisation of biogas yield

Biogas Layout



Kedco Green Energy Harvester
Reference Plant Munich 8,500 ton/year



Filling of digester by means
of
front loader/wheel loader



Modular expandable



Applications

(1) Processing of source segregated municipal biological waste (green bin)

The material can be processed directly without further pre-treatment. Disturbing substances do not have to be removed. Cleaning of compost after rotting process.

Results:

- High yield of biogas (85 – 175m³ biogas/ton) or 170 – 350kWh electrical power + additional warmth
- High quality compost (fertiliser)

(2) Processing of biological industrial and agriculture residuals

The residuals can be processed directly without further pre-treatment. Disturbing substances do not have to be removed. Cleaning of compost after rotting process.

Results:

- High yield of biogas (up to 400m³ biogas/to
- High quality compost (fertiliser)

Advantages

- Robust, simple and remote controlled technology
- Low manpower requirements
- Low need for maintenance and repairs
- About 50% of the plant construction can be realised by domestic resources, low import rate
- Low process energy consumption
- High energy gain
- Significant reduction of CO₂ emissions