Locations in WA & UT
650 Employees
135 Engineers
State-of-the-Art Facilities
R&D Lab
Project Management
Engineering Design & Analysis
Composite & Metal Mfg.
Large Scale, High Precision

Advanced
Composite Parts & Tools

Founded by Peter & Susan Janicki in 1993
OMNI PROCESSOR
The future of waste processing.
WHAT DOES THE OMNI PROCESSOR DO?

- Generates renewable energy to power itself...
- Reduces solids to dry ash
- Captures water for drinking or reuse
- Yields revenue and/or cost savings
- Eliminates human waste
- Eliminates solid waste streams
- Produces usable heat
- Destroys 100% of all pathogens
- ...and then some.

JANICKI BIOENERGY
HOW THE OMNI PROCESSOR WORKS

1. Solid Fuel Combustion
2. Steam Power Generation
3. Water Treatment

- BIOSOLIDS
- CONTROLLED FIRE
- BOILER
- FILTER
- CONDENSER
- WATER
- AIR
- DRYER
- STEAM
- ASH
- DRIED FUEL
- ELECTRIC POWER
- SLUDGE STEAM
- EXHAUST

JANICKI BIOENERGY
With the combination of this technology and modern manufacturing practices, the Janicki OP revolutionizes the treatment of fecal sludge and other waste products, providing revenue potential instead of a parasitic cost to society.
There is nearly twice the amount of energy within the dry solids of the sludge as there is energy required to boil the water out of the sludge.
BREAK-EVEN ANALYSIS ON SOLIDS CONTENT

As the solids percentage of the sludge is reduced, the available energy is also reduced. Beyond the breakeven point, excess energy production is no longer possible and additional energy is required to continue processing the waste.
Air emissions from the boiler meet all applicable US EPA clean air regulations.

**CO**
CONTROLLED BY GOOD COMBUSTION PRACTICES:
- Temperature
- Time
- Turbulence

**NOX**
- Fluidized bed combustors run too cold to make any thermal NOX

**SOx**
- Controlled by adding lime to the flue gas
- Fuel dependent

**HCl**
- Controlled by lime injection

**POLLUTANTS ARE CONTROLLED 3 WAYS:**
1. Thermal control
2. Dry Sorbent Injection
3. Baghouse
Emissions:

**HEAVY METALS**
- They adsorb to the ash and are collected on the baghouse.
- Mercury
- Low stack temp

**DIOXINS & FURANS**
- Typical dioxin/furan formation requires chlorine
- Controlled by adding lime to the flue gas
- They adsorb to the ash and are collected on the baghouse.

**CO2 & OTHER GREENHOUSE GASSES**
- Waste left alone will emit methane
- The use of this technology eliminates production of methane
## OMNI PROCESSOR S200

**STANDARD SPECIFICATIONS**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>S200 (V3) CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Biosolids Processed</td>
<td>60 wet (12 dry) tons/day</td>
</tr>
<tr>
<td>Max. Power Produced</td>
<td>300 kW</td>
</tr>
<tr>
<td>Max. Water Produced</td>
<td>14,400 gal/day</td>
</tr>
<tr>
<td>Footprint</td>
<td>100’ x 40’ (4,000 ft²)</td>
</tr>
<tr>
<td>Parasitic Load</td>
<td>50 kW</td>
</tr>
<tr>
<td>Fuel</td>
<td>Biosolids @ 20% solids</td>
</tr>
<tr>
<td>Max. % Moisture of Fuel</td>
<td>80 %</td>
</tr>
</tbody>
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