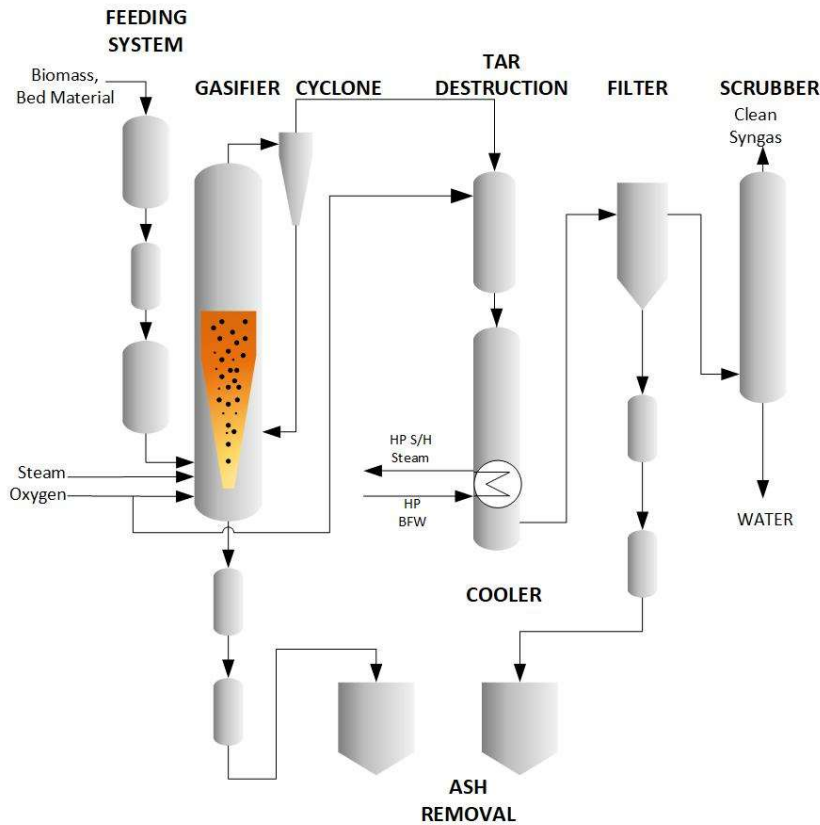




# The SunGas System 1000™ Battery Limits and Specifications



## Gasification Island

- Efficiency:
  - ✓ 95 - 98%+ Carbon Conversion
- 135' X 55' approximate footprint
- Turndown (60%)
- Global Equipment Supply Chain
- Based on GTI's U-Gas® Technology

**The SunGas gasification system produces the clean syngas required to produce renewable fuels and chemicals.**

- Evolved and matured over decades through pilot, demonstration, and commercial projects around the world
- Commercial wood gasification reference plant operating in Europe since 2007

Input	Quantity	Specifications
<b>Woody Biomass</b>	Nominal 1000 (s)tons/day	< 1 ½ inch-wood Chips, Particle < 3 mm (20 wt.% Max.), Particle < 1 mm (5 wt.% Max.) Moisture: 15 – 20 wt.%, Ash < 5.5 wt.% Dry Basis, Na+K < 0.3 wt.%
<b>Oxidants (Oxygen, Steam)</b>	Oxygen: 570-590 (s)tons/day Steam: 360 (s)tons/day	Oxygen purity 95 - 99 % (Depends on Final Product) LP Steam at 200 psig
<b>Bed Material</b>	5 - 10 (s)tons/day	Tailored to Biomass Constituents
<b>Electricity</b>	175 kW	Excludes ASU, Gas Compression
<b>Inert Gases (CO<sub>2</sub> &amp; N<sub>2</sub>)</b>	CO <sub>2</sub> : 135 (s)tons/day N <sub>2</sub> : 20 (s)tons/day	CO <sub>2</sub> : Dry (Purity: >90%, no H <sub>2</sub> S) N <sub>2</sub> : up to 2% O <sub>2</sub>

Output	Quantity	Specifications
<b>Dry Syngas</b>	40 - 45 MMSCFD	H <sub>2</sub> : 30 - 35%, CO: 35 - 40%, CO <sub>2</sub> : 25 - 30%, CH <sub>4</sub> <0.2%
<b>Wastewater</b>	70 - 80 USGPM (varies with biomass product)	Inert, non-hazardous disposal as long as no toxic chemicals in woody biomass feedstock
<b>Waste Ash</b>	55 - 60 (s)tons/d	Landfill Disposal