



YOUR OWN ELECTRICITY

FROM WOOD



- Model:** Volter 40 Indoor **Datasheet date 19.03.2015**
- Output:** 40 kW electrical (45kW generator), 100 kW heat (additional radiant heat available from housing ventilation). Electrical output can be adjusted between 30-100%.
- Dimensions of the unit:** Length 4820mm, Width 1270mm, Height 2500mm.
- Free space for maintenance (minimum):** 1200mm on both sides or 1200mm in between each unit if installed side by side, 1000mm in control panel end ,1000mm in ash conveyor end.
- Weight of the unit:** approx. 4500kg
- Dimensions of grid feeding unit (separate installation by the unit):**
Length 500mm, width 600mm, height 1800mm.
- Weight of grid feeding unit (separate installation by the unit):**
approx. 200kg

Fuel and consumption

Fuel	Wood chips (tested species: birch, spruce, pine, aspen)
Fuel moisture	<18%, optimum <15%
Fuel particle size	>80% between 16-50mm, >60% between 30-50mm, ≤9% 50-63mm, all below 63mm. ≤1% below 3,2mm
Fuel consumption	approx. 4,5m ³ /24h at full power level (38kg/h). May vary depending on the fuel quality and moisture.

Electrical consumption: approx. 1,5-2 kW

Ash produced: approx 500l/week (approx. 1-2% from input fuel)

Ash removal: Automatic ash removal, ash bin optional

Woodgas

Composition approx.	CO (Carbon monoxide)	25%
	H ₂ (Hydrogen)	17%
	CO ₂ (Carbon dioxide)	8%
	CH ₄ (Methane)	2,5%
	N ₂ (Nitrogen)	47,5%

Heating value approx. 5,75 MJ/m³

Heat connection: flange sizes DN40, max output temperature 85C, max. input temperature 65C, pressure drop over the main heat exchanger 10,17kPa, flow approx. 1,4 l/s (depending of fluid mixture).

Electrical connection: 400VAC, 50 Hz, 86A

Compressed air: inlet pressure 6-8 bar, consumption 1-2 NI/s

Gas engine: Agco Sisu Power 8,4L, 6-cyl. naturally aspirated

Generator: ABB M2BA 225 SMB 4, 3-phase induction motor, 400VAC, 50Hz, 45kW, air cooled

Grid feeding unit: Nocard PGU, parallel to grid (island modes optional), 400VAC, 50Hz (other voltages and frequencies optional), nominal current 86A

Automation: Schneider electric PLC, 5,7" touch screen, GSM –alarms, remote internet control

Connections needed: Electricity cable, heat channel, water line, broadband, GSM-connection

Installation: Indoors, relative humidity <90%, no condensing

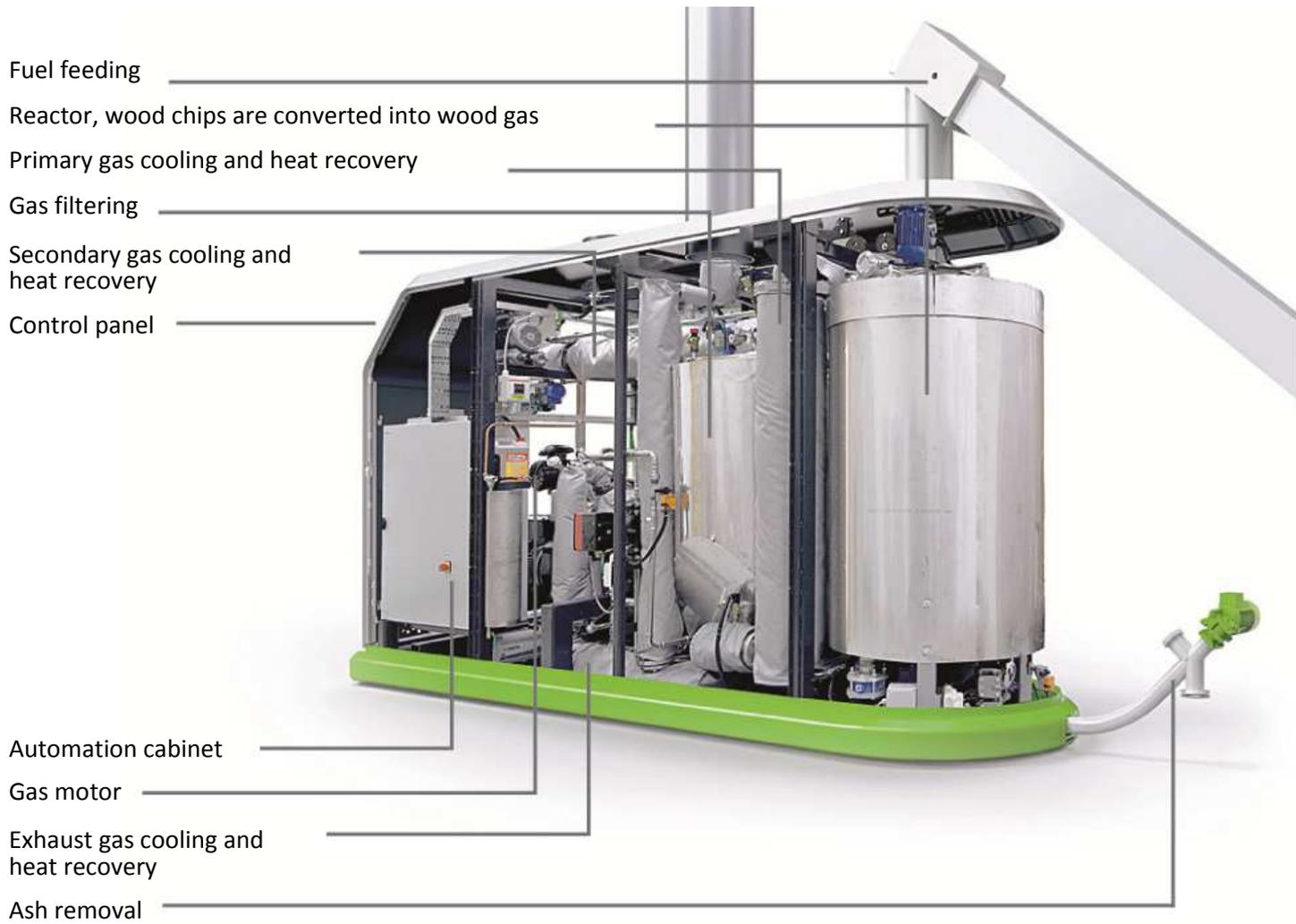
Maximum annual run time: 7800h

Certificates: CE-marked product

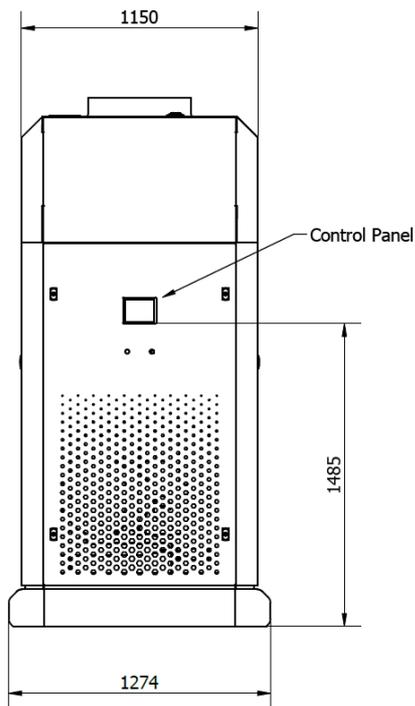
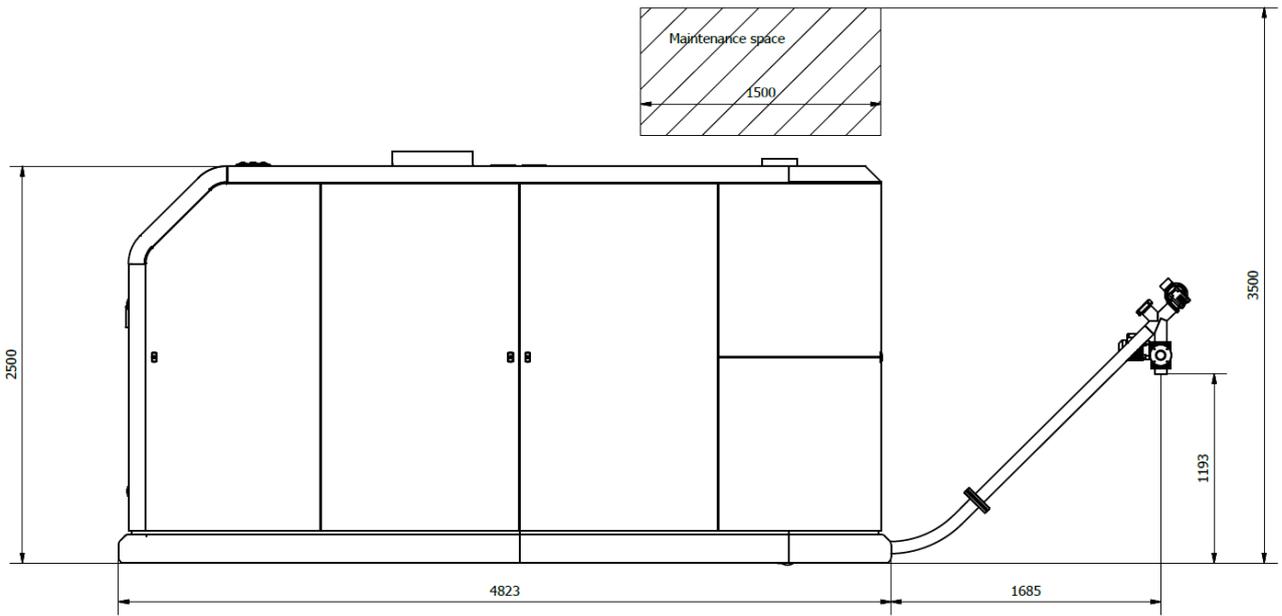
Manufacturer: Volter Oy, Koivikkohaka 9, 90450 Kempele, FINLAND

Volter Oy reserves right to change data on this datasheet

ELECTRICITY FROM RENEWABLE ENERGY SOURCE

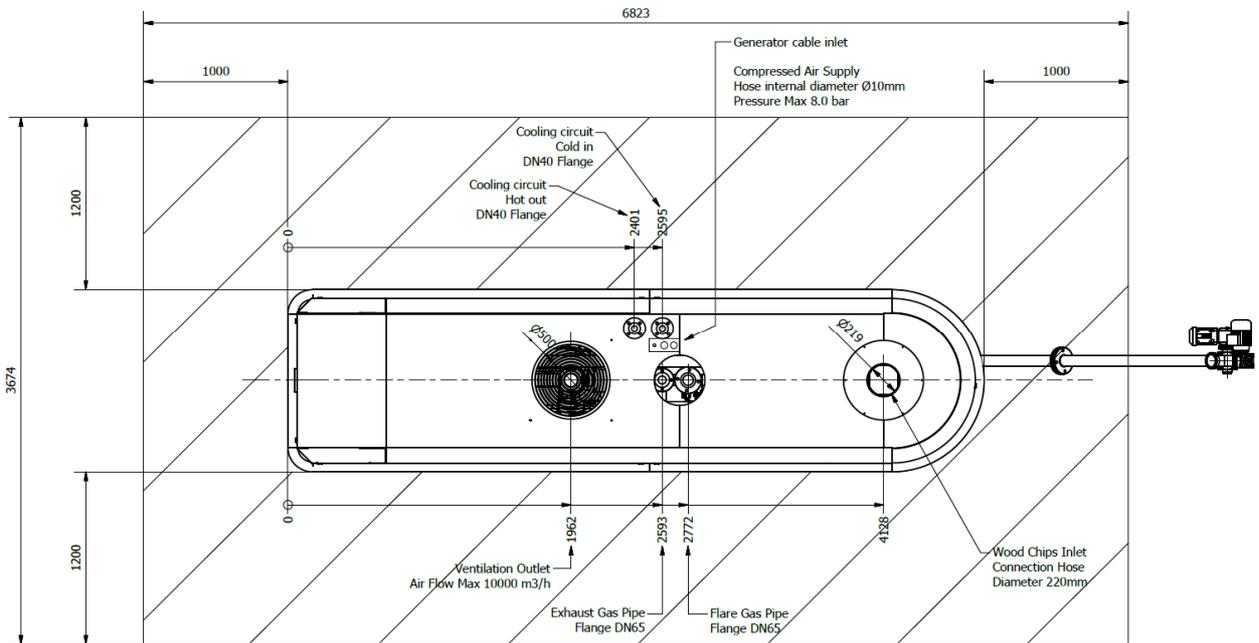


Dimensions

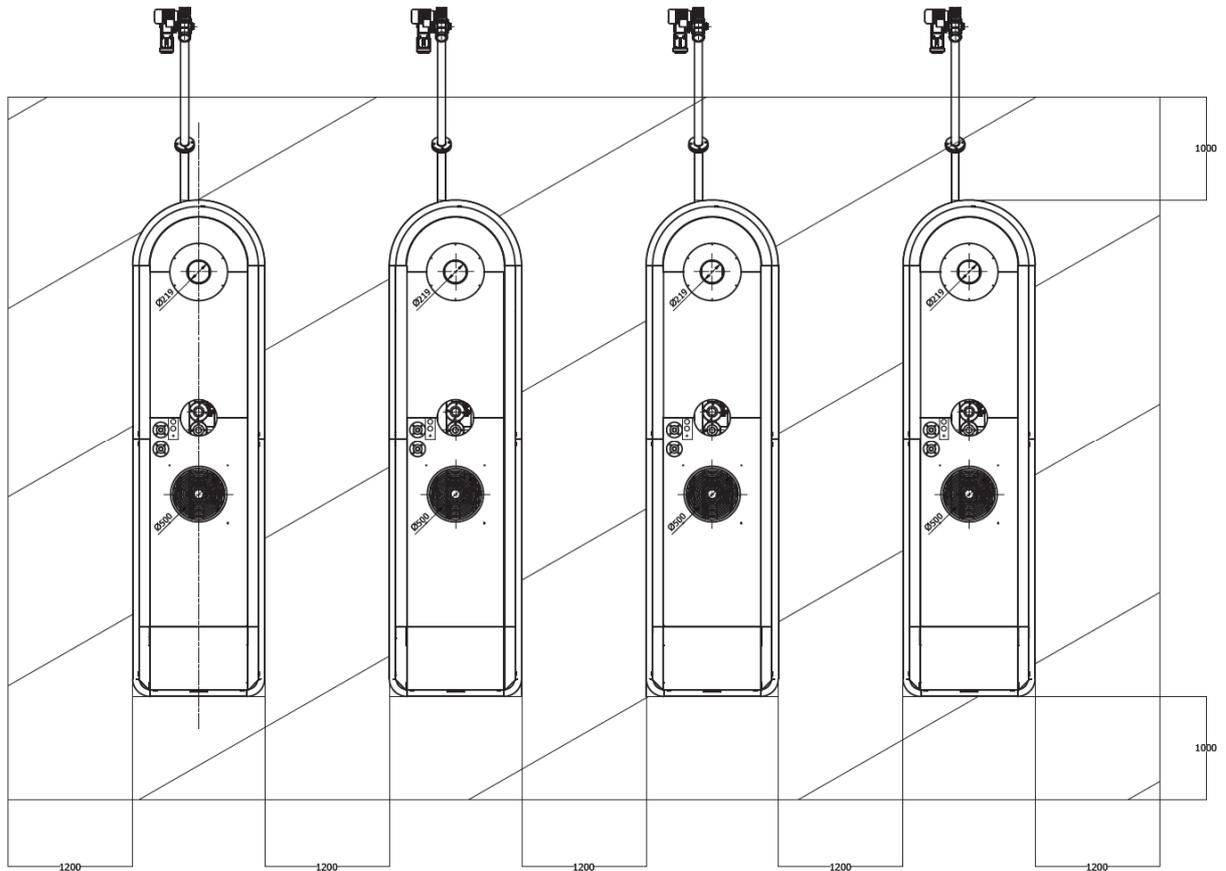


Required maintenance spaces

Single installation



Multiple installation





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