



YOUR OWN ELECTRICITY

FROM WOOD



Datasheet date 01.03.2019 (Volter Oy reserve right to change data without notice, all data in this datasheet are subject to change)

Model: Volter 40 Indoor

Output: 40 kW electrical (45kW generator), 100 kW heat (additional radiant heat available from housing ventilation). Electrical output can be adjusted between 30-100%. Outputs may vary depending on fuel quality and moisture.

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 400 mm, width 1200 mm, height 1000 mm.

Weight of grid feeding unit (separate installation by the unit):

Approx. 160kg

Fuel and consumption:

Fuel	Wood chips (forest, plantation and other virgin wood)
Fuel moisture	<18%, optimum <15%
Fuel particle size	P31S (EN-ISO 17225-4) / G50 (Önorm 7133), fines(<3,15mm) <5% (sieve for fine particles as an option) (for more details see Volter fuel specification)
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

Wood gas:

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%

Calorific value approx. 5,75 MJ/m³

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

Electrical connection: 400VAC, 50 Hz, min. 63A

Compressed air: Inlet pressure 8 bar, consumption 4 NI/s

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

Generator: ABB M2BAX 225 SMB 4, 3-phase squirrel cage motor, 400VAC, 50Hz, 45kW, air cooled (or similar). Other voltages and frequencies available on request.

Grid feeding unit: Parallel to grid (island modes optional), 400VAC, 50Hz. Other voltages and frequencies available on request.

Automation: Schneider electric PLC, 5,7" touch screen, SMS-alarms (optional), remote internet control

Connections needed: Electricity cable, heat channel, water line, fixed ADSL

Installation: Indoors, relative humidity 5-90%, no condensing

Maximum annual run time: 7800h

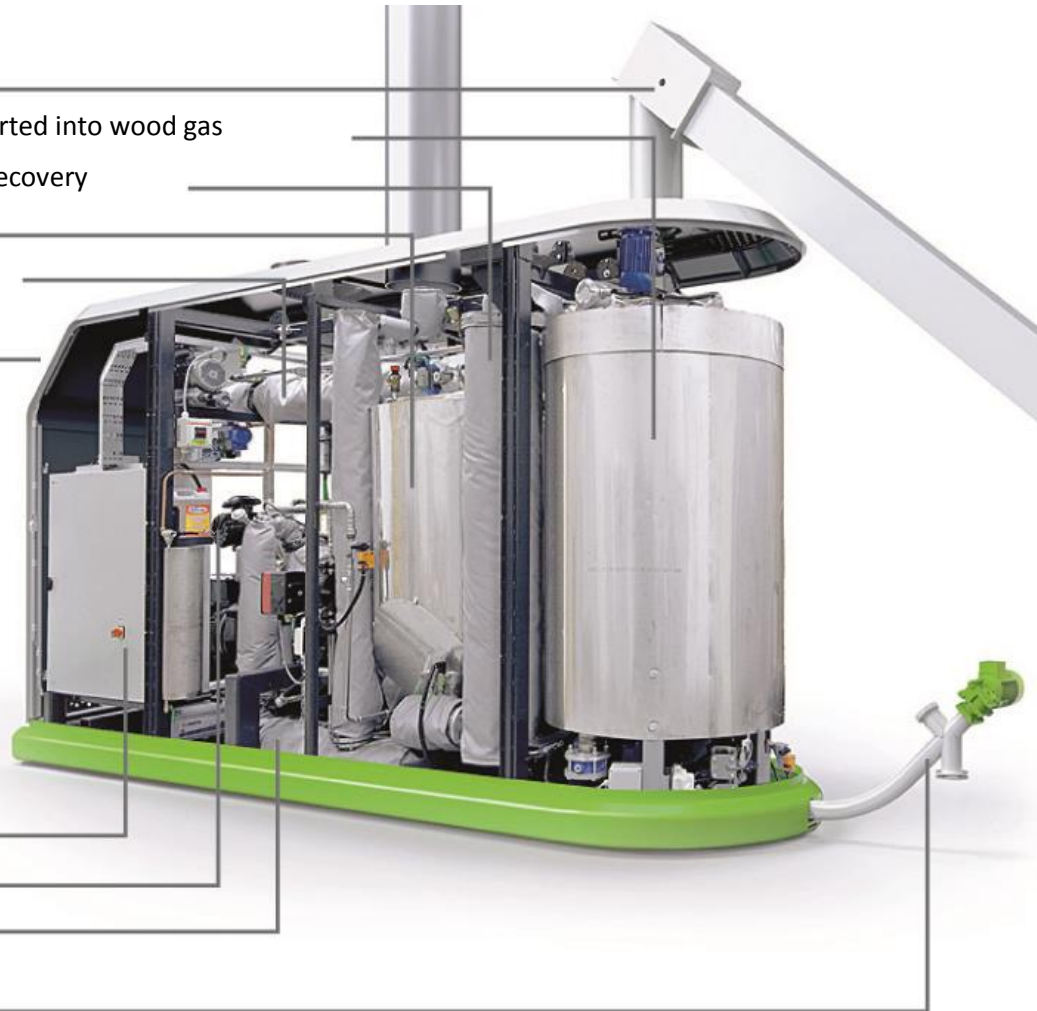
Certificates: CE-marked product

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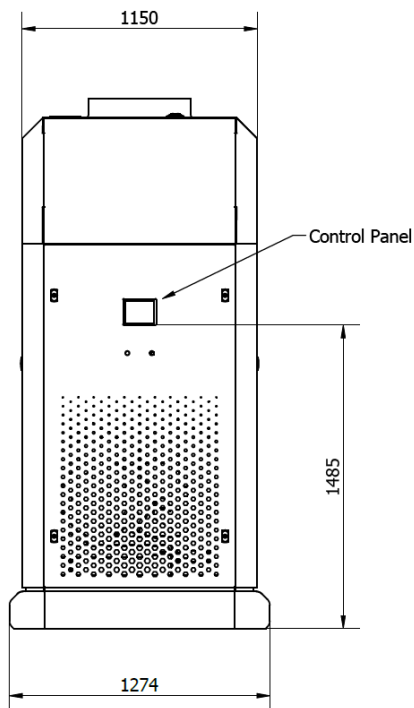
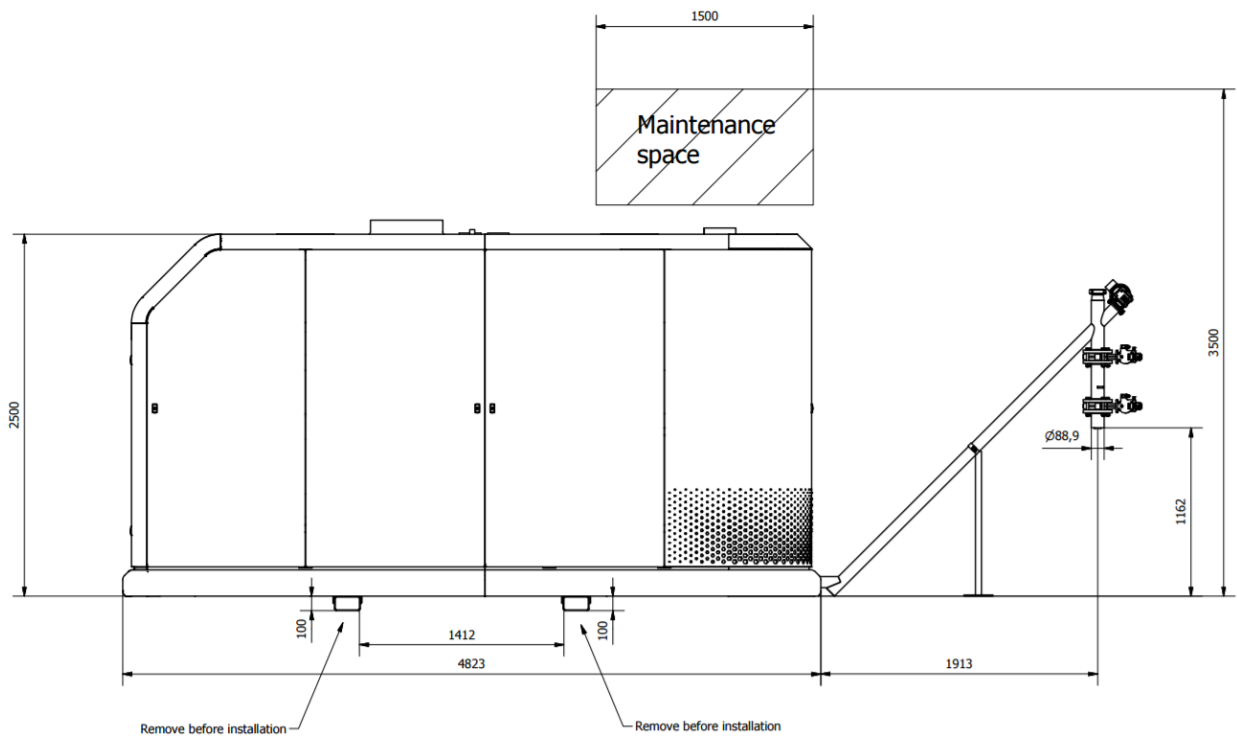
ELECTRICITY FROM RENEWABLE ENERGY SOURCE

- Fuel feeding
- Reactor, wood chips are converted into wood gas
- Primary gas cooling and heat recovery
- Gas filtering
- Secondary gas cooling and heat recovery
- Control panel

- Automation cabinet
- Gas motor
- Exhaust gas cooling and heat recovery
- Ash removal

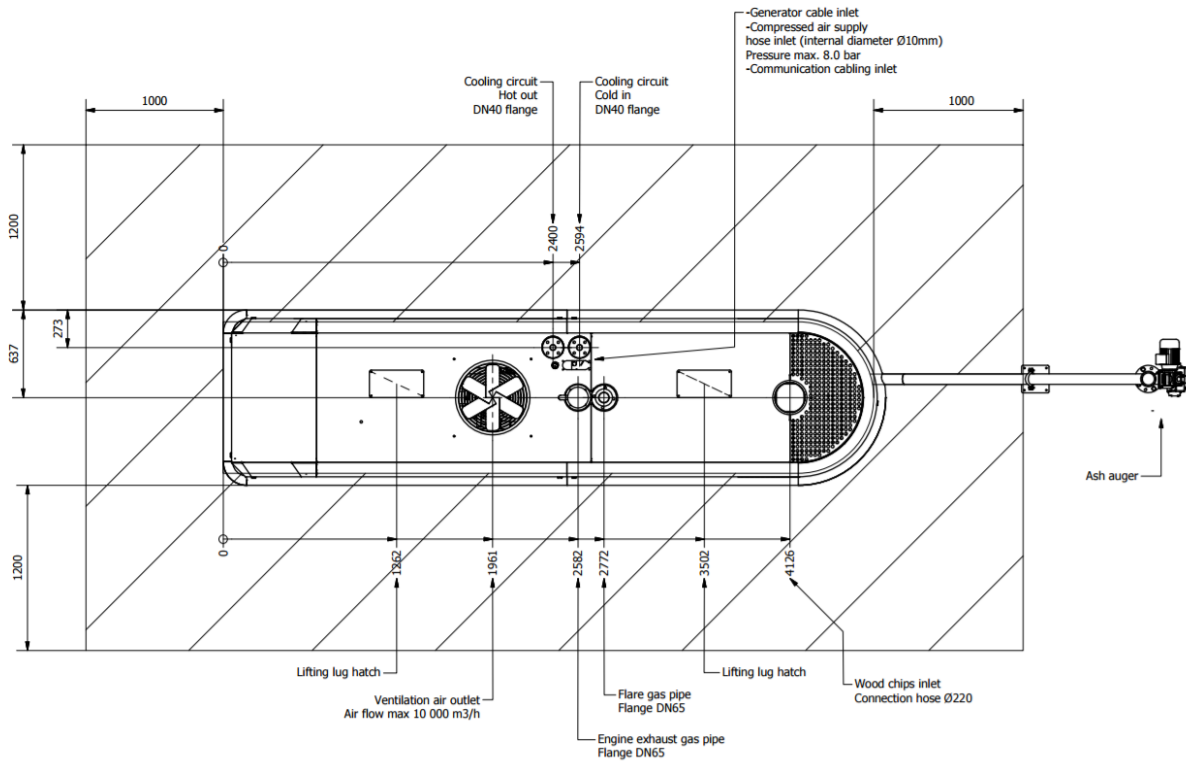


Dimensions

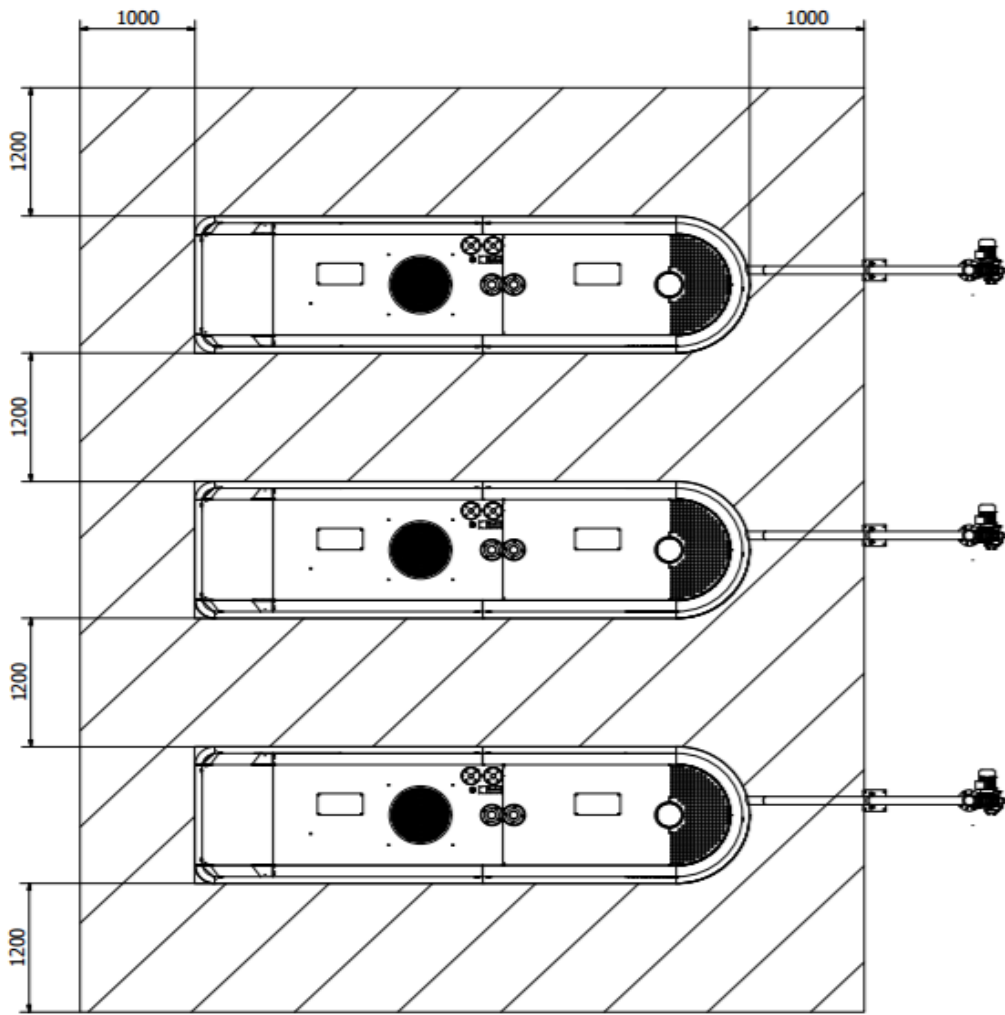


Required maintenance spaces

Single installation



Multiple installation





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