

VAS Energy Systems International GmbH

Industrial development, production and maintenance of industrial cogeneration plants from 2 to 25 MW.

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Biomass Plant AGRO Energie Schwyz Reference



AGRO Energie Schwyz powered by waste wood

As part of AGRO's energy supplier role for region of Schwyz in Switzerland, they have decided to complement their existing district heating network by installation of a CHP plant to cover additional heat demand and also to export electrical power to the grid.

For this expansion VAS was chosen as general supplier for the complete plant technology with 10MW_{th} and $1,5\text{MW}_{\text{el}}$.

Produced heat is used to power an ORC unit (**O**rganic **R**ankine **C**ycle) to generate $1,5\text{MW}_{\text{el}}$ power. Remaining heat of $7,0\text{MW}_{\text{th}}$ after process of electrical power generation is delivered to the district heating network to provide heat to AGRO's private clients.

Waste wood requests a high developed exhaust gas treatment system, which was realized for this project by combination of ESP and Bag Filter with sorbent injection system to take care on the acid parts within exhaust gas due to this kind of fuel.

Technical Data

Thermal input	10,0 MW (fuel)
Thermal output	8,5 MW (to ORC)
Electrical output	1,5 MW
Thermal output	7,0 MW (water district heating)
Fuel	recycled waste wood (A1, A2, parts of A3)
Permission	TÜV Pressure Equipment Directive 97/23/EC



Scope of Supply by VAS

- Fuel handling
- Biomass plant
- Thermal oil plant
- Deashing
- Exhaust Gas Treatment by ESP and Bag-Filter incl. sorbent injection ($<10\text{mg}/\text{Nm}^3$)
- Condenser unit (to avoid plume down to -5°C outdoor temperature)
- ORC T1500

First deliver of heat and electrical power

January 2015

