

Reference Projects - Expansion

# Biomass boiler UTSR-2400 & UTSR-900 visio

District Heating Hilzingen | Solarcomplex AG | Singen | Germany



**More energy output**  
with the same amount of fuel

**+20-40 %**

## Sustainable heating. From biomass. For generations to come.

By expanding the district heating network in Hilzingen, Solarcomplex AG is strengthening the region's sustainable heat supply. The new heating plant reliably supplies households and businesses with renewable heat and makes use of biomass in a particularly resource-efficient manner.



**4,1 MW**

Thermal power



**Multicyclone  
+ APF**

flue gas dedusting



**105 °C**

warm water

### ► BACKGROUND

To ensure optimal and cost-effective use of flue gas condensation, the return temperature of the heating network must be below 50°C. In existing heating networks, this value is often exceeded. To ensure an efficient and resource-conserving heat supply, the energy loss in the flue gas must be reduced through appropriate measures.

### ► APPLICATION

The plant supplies the Hilzingen district heating network with renewable heat. The network comprises approximately 278 building connection points and spans about 17 km, supplying both residential and industrial buildings. It uses forest wood-chips and forest maintenance wood sourced from the region.

### ► OUR SOLUTION

The system utilizes two UTSR-2400 visio and UTSR-900 visio biomass boilers with active flue gas condensation. An interposed absorption heat pump further lowers the return temperature, thereby enabling greater heat recovery with the same fuel input. The system is supplemented by an electrostatic precipitator (APF) and Revolution adaptive control for efficient operational optimization.

*“Thanks to the integrated solution, we benefit from maximum efficiency and a perfectly coordinated overall system.”*

- Solarcomplex AG





## ► TECHNICAL SPECIFICATIONS

|                                    |                                                                                                                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Plant type                         | UTSR-2400 visio and UTSR-900 visio                                                                                                                                                 |
| Operating medium                   | Warm water max. 105 °C                                                                                                                                                             |
| Fuel                               | Forest woodchips/forest maintenance wood (P63)                                                                                                                                     |
| Capacity<br>Heat Recovery<br>Total | 2,400 kW and 900 kW<br>approx. 800 kW<br>approx. 4,100 kW                                                                                                                          |
| Application                        | District heating                                                                                                                                                                   |
| Silo                               | 449 m³                                                                                                                                                                             |
| Venue                              | Moving floor / drag chain conveyor                                                                                                                                                 |
| Flue gas dedusting                 | Multi-cyclone / Electrostatic Precipitator (APF)                                                                                                                                   |
| Combustion ash removal             | <ul style="list-style-type: none"> <li>► Grate ash / cyclone ash in an 8-cubic-meter ash hopper</li> <li>► Filter ash in a 900-liter Big-Bag</li> </ul>                            |
| Commissioning                      | March 2026                                                                                                                                                                         |
| Building contractor                | Solarcomplex AG, Singen, Germany                                                                                                                                                   |
| Measures to improve efficiency     | <ul style="list-style-type: none"> <li>► Revolution Adaptive</li> <li>► 2-stage flue gas condensation HEG-EC-0330 Heger</li> <li>► K3 absorption heat pump (StepsAhead)</li> </ul> |

