

Winkelmann Powertrain Components Ahlen, Germany



Project

- Power self-sufficiency at the site "Schmalbachstrasse" of Winkelmann Powertrain Components GmbH + Co. KG
- Commissioned in: January 2019

Performance parameter

- 6 CHPs from MTU Onsite Energy GmbH
- Furnace capacity: 3,649 kW, Electrical capacity: 1,554 kW, Thermal capacity: 1,600 kW (per CHP in each case)
- 2 x flywheel storage for frequency and voltage stability
- Lithium battery storage with 1,000 kW capacity for weak load periods

Task

- Customised production of three buffer tanks with a water capacity of 44 m³ each, and installation of the tanks on the roof.
- Provision of a pre-fabricated skid solution for pressure maintenance, degassing and make-up.

Product solution

- 3 x **buffer tanks** 44,000 litres, 100 °C, 6 bar, 200 mm insulation
- Skid solution** – Pressure maintenance, degassing, make-up – consisting of:
- 2 x **Variomat VS 2-2/60** control units and 2 x **Variomat VG 5000** primary vessels
 - 1 x **Reflex V 3000 auxiliary vessel**
 - 1 x **Servitec 60** vacuum spray-tube degassing

Achieved goals

- On 1 January 2019, Winkelmann Group disconnected one of its sites from the public grid. Since then, the site has been fully self-powered.
- Within the overall strategy, the Reflex buffer tanks serve as hydraulic separators, buffering heat, e.g. at the weekend.
- The Reflex skid solution guarantees reliable pressure maintenance, degassing and make-up and is controlled by the central building management system.