

About me

Markus Ermen-Zielonka

Mechanical Engineer of applied science

Many years of experience in CHP-unit and power plant construction

Appointed and publicly certified expert by the Chamber of Commerce for combined heat and power generation with CHP-units

Contact data

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Activity / projects

- Planning of CHP-units and the peripheral plant equipment
- Construction of CHP-units and peripheral equipment
- Project management for CHP-units, biogas plants and energy plants
- Commissioning of CHP-units
- Measurement respectively recording and evaluating of energy profiles
- Developing of regulation and control concepts for energy systems
- Optimisation of CHP plants and peripheral plant equipment

Description of expert activity

My work includes the whole cogeneration plant (CHP) in accordance with DIN 6280-14. A CHP-unit consists of many different components. The fuel energy is converted into electrical <u>and</u> thermal energy. It contains of an electrical generator as well as a heat generator in one device. Accordingly, the regulations and the technical guidelines of multiple devices must be observed.

Usually the following technical special fields are included:

- Combustion engine technology
- Electrical engineering
- Heating technology
- Control engineering
- Ventilation technology
- General engineering (strength, dynamics, acoustics, etc.)

Performance data

- Investigation of damages
- Expert report in accordance with the FW 308 AGFW
- Measurement and recording of energy profiles and their evaluation
- Economic efficiency calculation
- Recording of the as-built and the actual situation
- Recommendation to the best suitable energetic practices with respect actual situation
- Review of CHP-units and power plant conceptions
- Analysis of the causes for malfunction or failures at CHP-units