

Case study



BAELZ PRODUCT: Steam transfer station, steam pressure reduction station, steam distributor with fittings
INDUSTRY: Textile & textile finishing
COMPANY: Leading medium-sized company in the textile sector
COUNTRY: Germany

INITIAL SITUATION

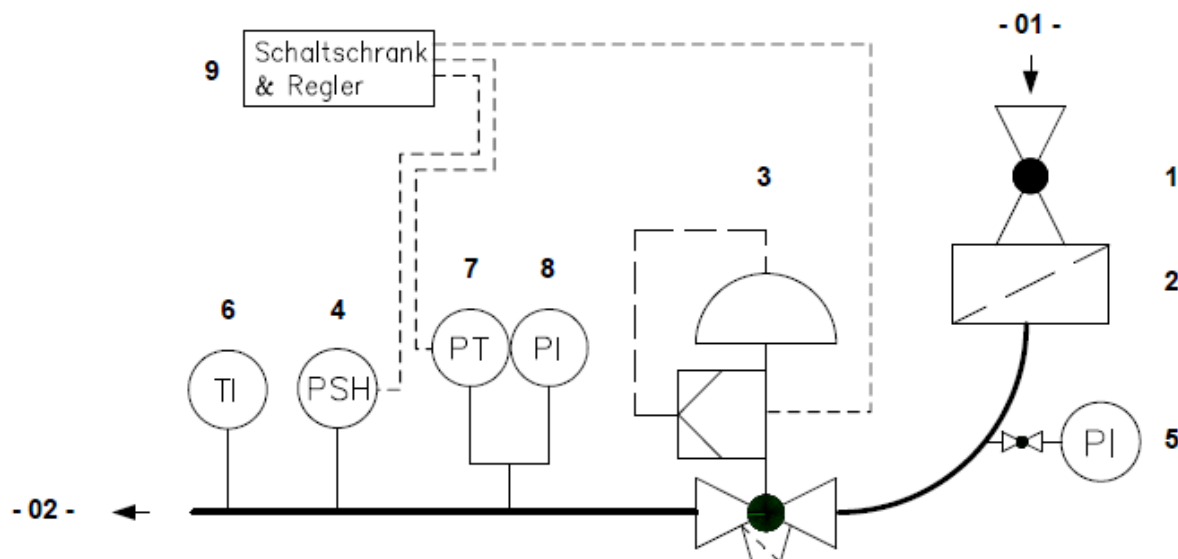
Before the energy renovation, three steam boilers operated with heating oil were used for steam generation. A part of the generated steam was used directly as the heat required for the production process. By far the largest part was a gas turbine for the generation of electricity. However, this was very inefficient when only partially loaded.

TECHNICAL MODIFICATIONS

Due to the reorientation of the energy concept, the old steam boilers were replaced by a gas-fueled power plant for the production of steam, hot water and the generation of electricity on the basis of combined heat and power. The output of the cogeneration unit is just under 2 MW and is thus exempt from electricity tax and can be adapted very flexibly to the needs of the operator. Furthermore, a new gas-operated steam boiler was installed, which generates the process steam required for operation, in the event of a failure or during maintenance work on the cogeneration unit.

Due to this measure, the current required for operation can be generated almost exclusively by the cogeneration unit itself.

The generated steam pressure is 25 bar. This is reduced to the 5.5 bar required for the manufacturing process by a **Baelz steam pressure reduction station**.



Furthermore, a **steam-forming station** from Baelz is used, which is in operation, which generates pump hot water provided with a temperature of 110°C from the 5.5 bar steam.

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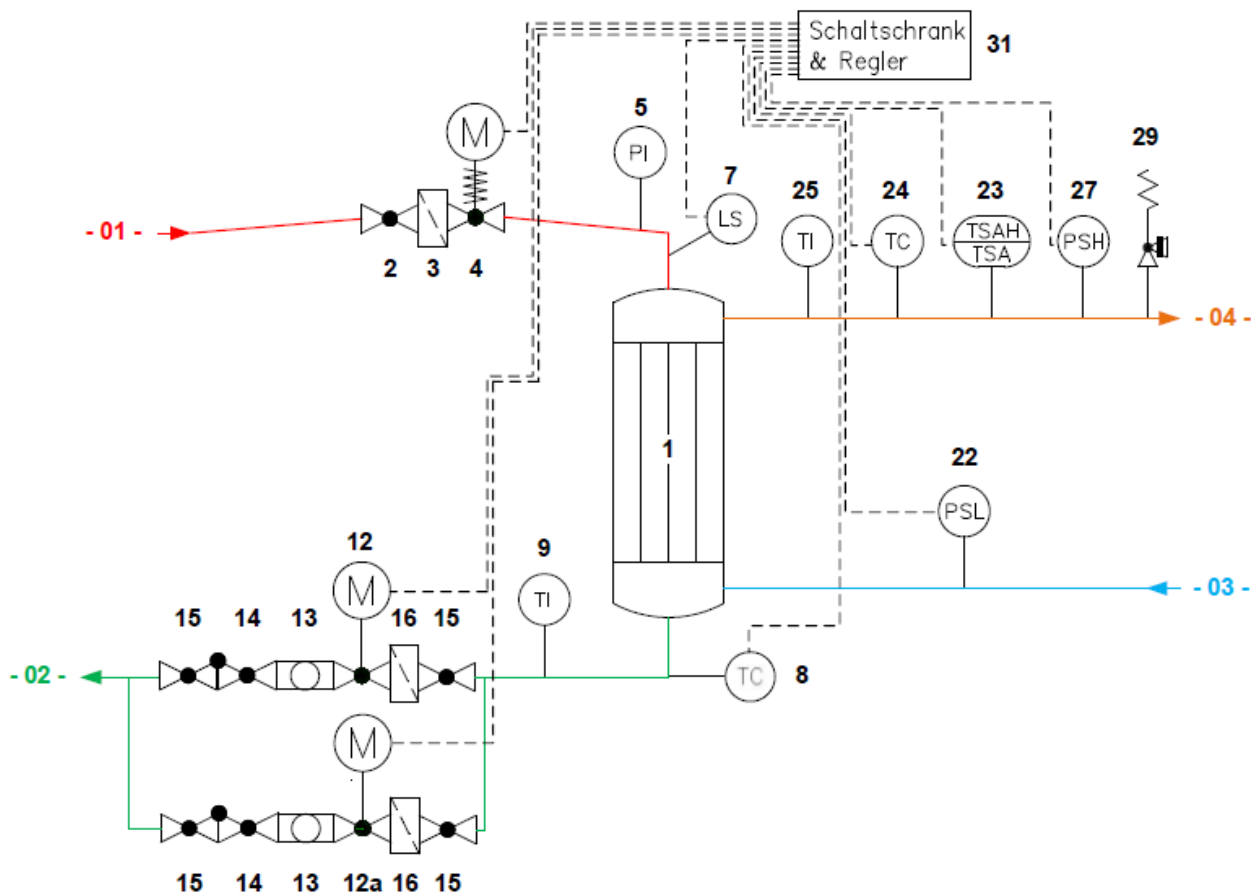
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SAVINGS/ECONOMIC EFFICIENCY

The new cogeneration unit saves around 15 percent of primary energy and 12 percent of CO². The operator assures us that a complete operating standstill is no longer necessary in the summer.

"Our production processes can be run more optimally and more variably."