



**....Technological optimisation....Process chains....Increase of productivity....Investment....**

**Problem** The client manufactures high performance parts for the automotive industry. The components are made of refractory and special metal.

The demand of these components of refractory and special metal increase because customers require increasing performance and reliability.

In addition to these requirements the necessary volume increase demands a capacity expansion. Operating costs and physical risks of existing processes have to be optimized.

**Project description and result** First step is an analysis of the actual manufacturing process in several steps. Based on this analysis new technologies have to be evaluated according to their physical risks and suggestions for improvement.

Optimisation options of the overall process are:

- Integration of several process steps to a single step by using new technologies
- Saving of single process steps by integration in other process steps or using alternative technologies

A tremendous reduction of manufacturing time and costs could be realized by replacing the existing turning technology by a grinding process.

For the complete manufacturing process cost savings of about 40 % could be realized. It is obvious that the implementation of the complete optimisation potential – from the organisation to the technology – allows tremendous cost savings by evaluating the complete process.

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