

Project Note

Reduced production costs for a surgical microscope

A manufacturer wished to reduce the costs of a surgical microscope without any loss of functionality. Zühlke conducted an analysis that quickly showed the customer where costs could be reduced.

Task

The project involved Leica Microsystems, a specialist in microscope development. To meet the mounting price pressures in the industry, the production costs of the X, Y and Φ focus actuator in a surgical microscope were to be reduced substantially. The product quality was also supposed to be improved with no loss of functionality.

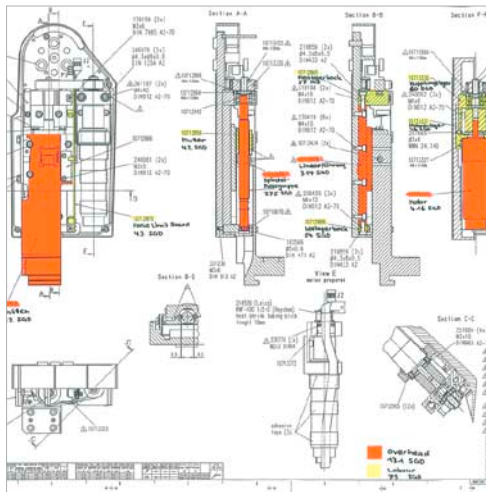
Implementation

To achieve these goals, Zühlke analysed the status quo and reduction potential using its own cost reduction process.

Zühlke's cost reduction process involves several steps:

- Analyse product specifications
- Define system limits
- Analyse cost structure (components and assembly)
- Visualise production costs
- Derive principles for redesigning the system
- Generate a broad range of ideas for cost reduction
- Devise and visualise approaches for reducing the production costs with a system design in tune with production
- Estimate the potential for cost reduction in each approach

Leica implemented the optimisation suggestions immediately after the analysis and achieved the desired reduction.



Customer benefits

- Thanks to a systematic procedure and new innovative solutions, the production costs were reduced by up to 50 per cent.
- Zühlke drew on its broad technological expertise to point out concrete steps that could be taken to improve product quality.
- The flexible deployment of the Zühlke experts allowed potential areas for cost reduction to be pinpointed in short order.

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