PRECISION MANUFACTURING

Machining of complex geometries

BACKGROUND

Machining is a key process for the final finishing of high-performance components, particularly when the most stringent requirements for surface quality and geometric tolerances must be met. In addition to conventional machining, it is also used in hybrid process chains, for example with additive manufacturing or for the post-processing of cast and forged parts. Milling and turning are crucial for function-critical surfaces, sealing surfaces, and fits. Modern 5-axis machining also enables highly complex geometries.

ADDED VALUE

- Digital process monitoring and real-time data acquisition
- Highly dynamic 5-axis machining of complex geometries
- Complete multi-sided machining in a single setup
- Reduction of setup and non-productive times
- High dimensional accuracy and surface quality

TECHNOLOGY

Highly dynamic 5-axis machining centers from the CHIRON Group are used here. They enable the precise multi-sided machining of complex geometries as well as turning operations on large components. Manufacturing is supported by digitally networked machines featuring process simulation, collision control, and continuous monitoring. All process data is recorded and used to analyze and optimize the manufacturing processes.

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