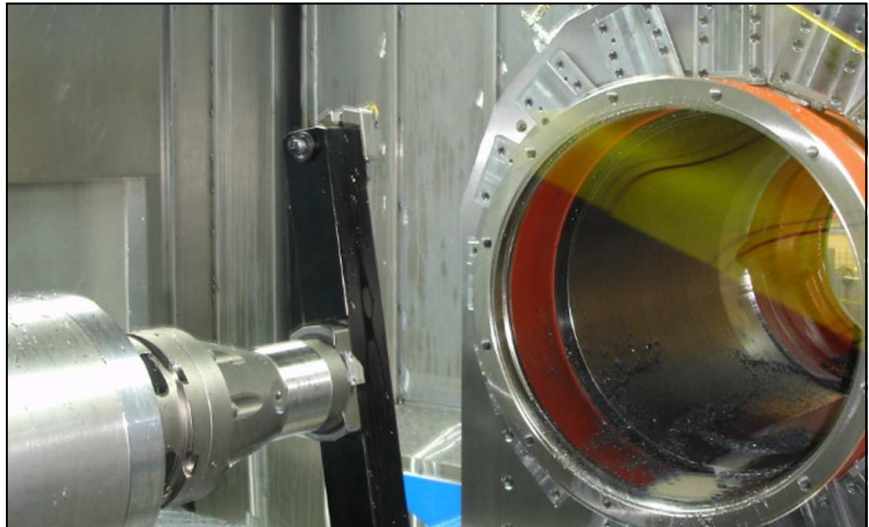


URMA manufactures faster and with less errors

Good technical manufacturing documentation and the integration of the data flow throughout the production process mean shorter throughput time and less production standstill ... even if you produce in small lots.



Urs W. Berner (CEO), guarantor for highest precision and error-free production process.



Stator body for immersion pump, serial production in GG25
 • Operation uses URMA high-performance boring tool Ø 645 mm
 • Tolerance H8 at Vc 1000 m/Min for roughing-finishing production (RFP)

URMA AG is a leading manufacturer for boring tools worldwide. Efficient boring, precision boring, and reaming in a wide variety of materials and for a wide range of tool diameters is the core of the product line. URMA enjoys sustainable success due to their expertise and many years of field experience. Custom specific tool designs are a significant part of their business today.

Task

Engineering and manufacturing has been organized to efficiently produce "catalogue tools" in larger series as well as "custom tools" in small batches. Investments into the finest CNC machine park required an optimal usage of these resources. Urs Berner implemented a new organization which allows switching production jobs and machine setups significantly quicker than before and at the same time he managed to reduce the risk of process errors across the board from

CAD design to NC programming to machining.

Solution

A new CAM system allowed direct import of the 3D models from their design department. The CAM simulation allowed reducing the time to prove out new NC programs on the machines. However, URMA needed to secure that the tools used in the CAM system were realistic representations of the tools used in reality on the CNCs. And consequently, precise setup instructions were needed.

The *WinTool* tool management system was the missing link in the URMA production process: *WinTool* enables to easily record tool components and combine assemblies upon the programmer's requirements. The *WinTool* CAM interface gives full access to this data and generates accurate 3D models automatically. It includes also an archive for cutting condi-

tions. *WinTool* made sure that URMA programmers use preferably tools that are available in the workshop. Furthermore *WinTool* generates literally in a second detailed tool lists directly from within the CAM system and makes them available online. They will be archived together with the G-Code, clamping instructions, measurement equipment, and other documents in the *WinTool* CNC Archive.

Result

The integrated solution was implemented step by step. After a short implementation time *WinTool* was ready to be used by the day and night shifts. The productivity in job preparation could be significantly improved as well as the risk of setup errors on the CNC machines.