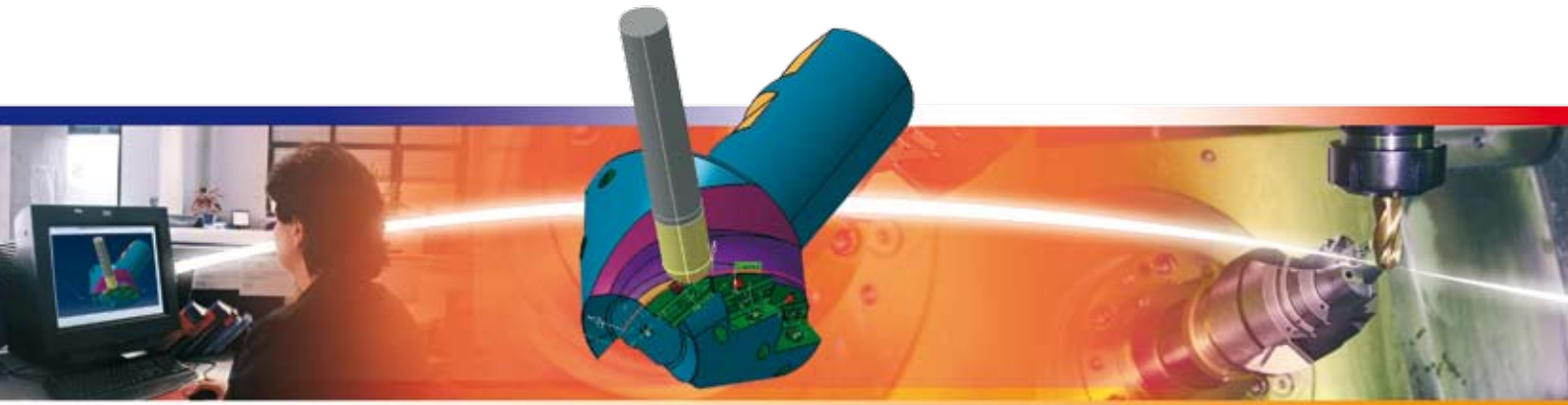


ISCAR Hartmetall GmbH

Precision tool specialist cuts product development time with CATIA V5



Overview

■ Challenge

To respond to ever-growing industry demand for more precision tools, ISCAR Hartmetall needed to further cut product development time.

■ Solution

ISCAR Hartmetall uses an on-line catalogue of 25,000 tools designed in CATIA V5 by its parent company in Israel, and the CATIA NC module.

■ Benefits

With CATIA V5, company has drastically reduced errors, avoided the production of test pieces, and accelerated the entire development process.



“With the CATIA V5 NC module and 5-axis simultaneous post-processor, 40% of programming time can be saved compared to manual programming.”

Kurt Brenner, Head of Technology and Manufacturing, ISCAR Hartmetall GmbH



In just 50 years, ISCAR has developed from being an unknown newcomer to an internationally renowned precision tool manufacturer. The parent company in Israel develops standard tools while German subsidiary ISCAR Hartmetall develops precision tools.

ISCAR Hartmetall's product portfolio covers the whole range of test piece, drilling, milling, and finishing tools, as well as chipformers and accompanying services for the machine-building, automotive and aerospace industries, and its suppliers.

Going global with CATIA V5

Today, ISCAR Hartmetall is an innovation leader and ranked number two in the world in its market. ISCAR takes a centralized approach to CAD software and makes the same release available to its technical designers who can learn from one another. Its engineers have worked with CATIA for 13 years in all locations.

In Germany, the company moved from CATIA V4 to V5 in 2003. The reason for change was a desire for faster, simpler 3D design, solid surface modeling, and time-saving on smaller jobs. Another positive aspect was lower hardware expenses using Windows rather than the UNIX platform.

Since mid-2005, ISCAR Hartmetall has used the CATIA V5 NC module with a 5-axis simultaneous post-processor. The aim is to reduce errors, avoid production of test pieces, and accelerate the entire process. The CATIA V5 NC module covers the entire machining process from roughing to finishing.

Access to standard data

The demand from industry to develop precision tools is rising constantly. The major bottle-neck is shrinking cycle times. ISCAR Israel provides an electronic catalogue which contains approximately 25,000 standard tools



and finishing operations information for its subsidiaries. ISCAR Hartmetall designers can consult the designs for information when designing a new tool. When the 3D model is completed, the technical designer hands it over along with the related information to the production department.

Downtime - a thing of the past

CATIA V5 and its NC module is a valuable asset at ISCAR Hartmetall. In the past, bad data could mean downtime for the milling machine while the machine operator clarified the problem with the designer. Today, before a part is machined, the machine operator creates a simulation on the computer involving all the relevant tools to discover any possible sources of error. And only when everything has been verified is the data transferred to the machine via the post processor.

“With the application of the NC module with the 5-axis simultaneous post-processor, 40% of programming time can be saved compared to manual programming,” says Kurt Brenner, ISCAR Hartmetall’s Head of Technology and Manufacturing in Ettlingen.

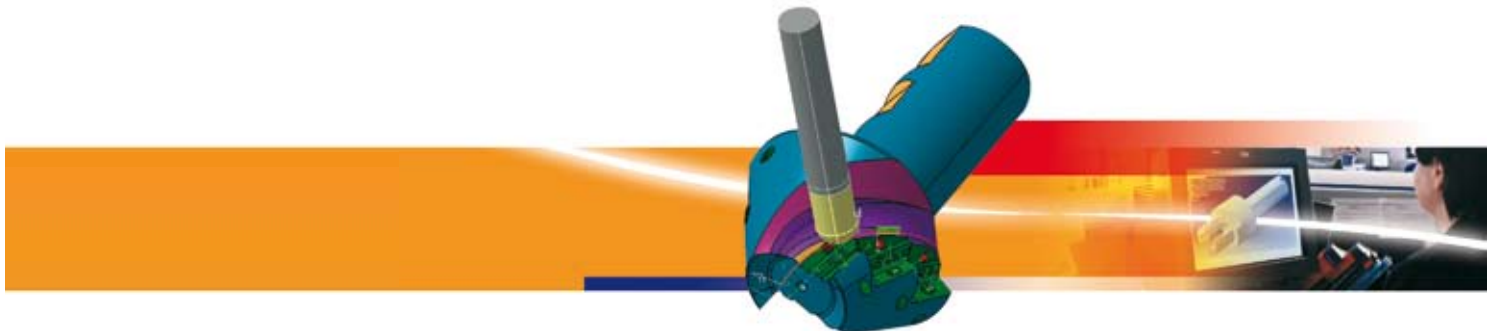
In addition, thanks to greater precision, ISCAR Hartmetall completely eliminated the production of test pieces. Previously, at least one test piece per order was produced. For small series involving only two to five parts, the elimination of a test piece represents a substantial saving of time and costs.

Shorter processing time

For ISCAR Hartmetall with its 52 sites worldwide, it is a major benefit that CATIA V5 and the service that comes with it are available everywhere. This global presence enables the company to harness the synergy of its various development sites. Thus if a site develops a solution for a particular industry or task, the design manager makes the information with the relevant CAD data available to entire company. This strategy ensures that all designers have access to the global experience of their colleagues and thereby work more efficiently.

“The translation of data from the CATIA NC Module to the machine runs smoothly. Our integrated CAD/CAM process using NC programming is an essential time-saver for us.”

Kurt Brenner, Head of Technology and Manufacturing, ISCAR Hartmetall GmbH



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