

Paving the future with **CAMWorks**

A precision component manufacturer
turns to CAMWorks to deliver the results



Case Highlights

The Client

Company: **Datta Enterprises**

Headquarters: **Kolhapur, Maharashtra, India**

Industry: **Precision Components**

The Objective

To implement a CAM platform that could machine complex parts on a sustained basis with minimal errors.

The Solution

An in-built design automation module was devised that integrated into SolidWorks to automate the design process. Once the design is initiated, the design data is sent automatically to CAMWorks for toolpath auto-generation

The Benefits

Consistency in the design quality

70% saving on the lengthy design time-cycle

Elimination of **repeated CAM processes**

Easy to learn and use

A high-end manufacturer of critical engine and structural components for aerospace companies, oil field operators, and high-speed packaging machines, Kolhapur-based Datta Enterprises builds customized parts for its clients. As bespoke manufacturing typically consists of small batch cycles with many variants, building such parts requires high precision. This naturally calls for a Computer Aided Manufacturing (CAM) platform that can machine complex parts on a sustained basis with minimal errors.

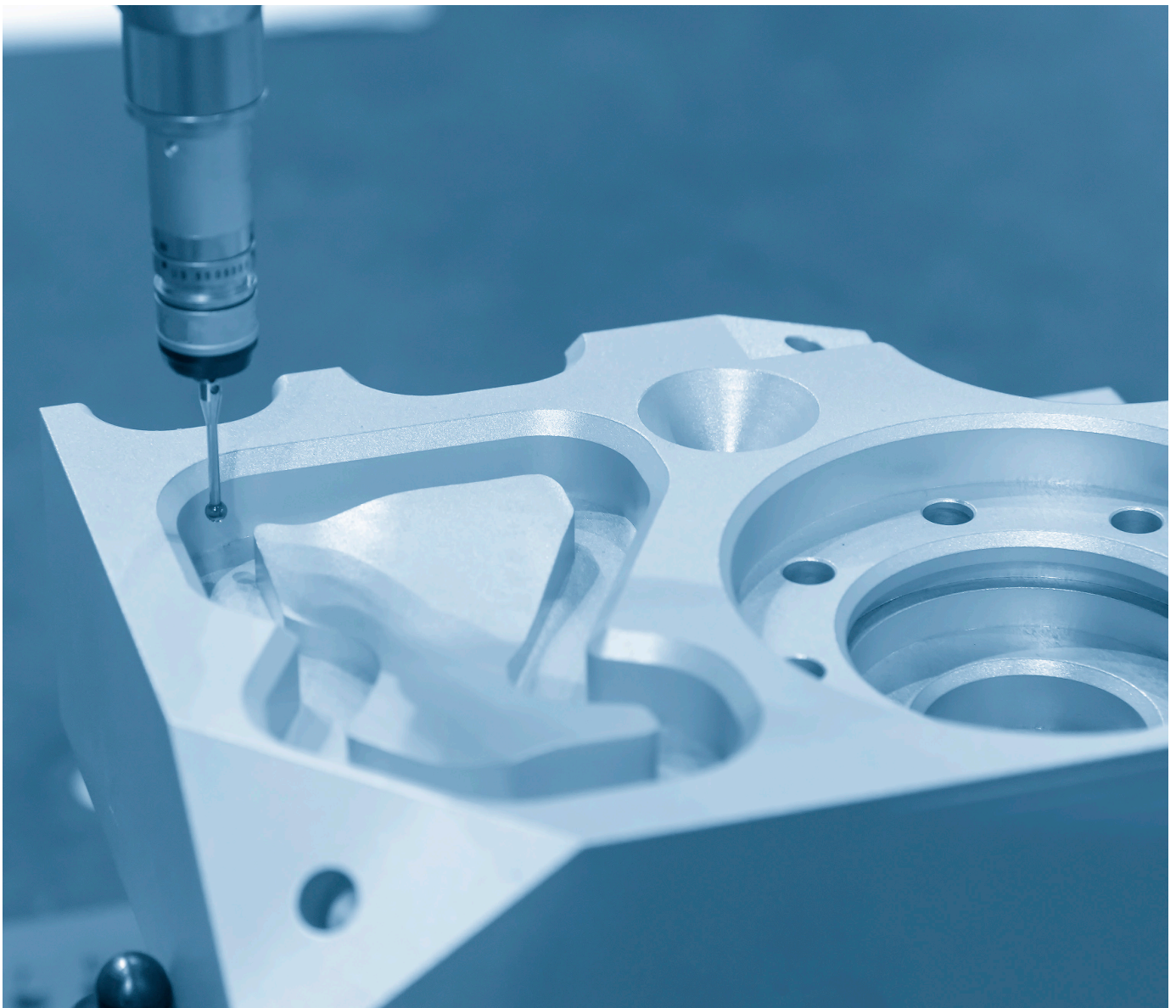


Getting set with CAMWorks

Points out Shailendra Bhosle, Partner, Datta Enterprises, “The parts that we manufacture are extremely complex, involving custom machine alloys like titanium, heat resistant alloys and aluminum. Our clients come to us because few in the market are capable of doing what we do.”

To ensure smooth production of these parts, Datta Enterprises had tried different CAM products, but found little success with the solutions on offer. “We required a CAM software that was capable of integrating and programming all the machines on our floor. We also required programming of multiple axis components, which is highly complex.”

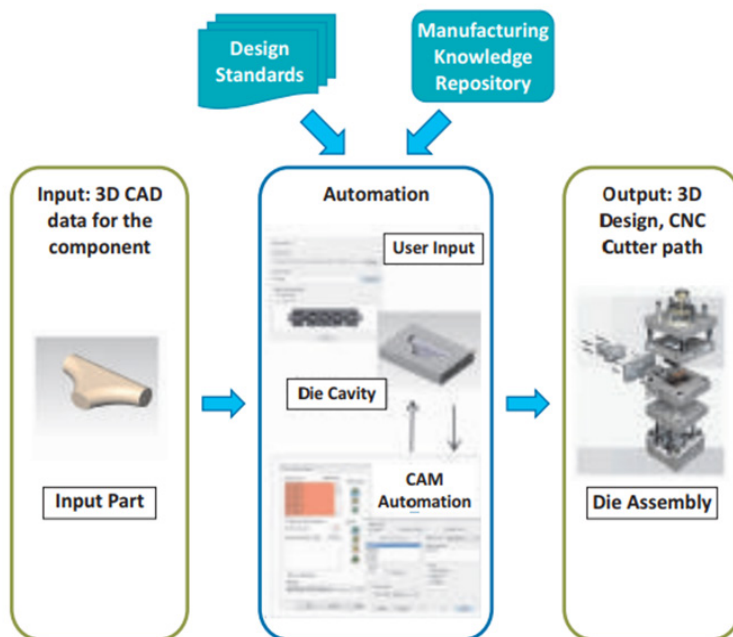
Three months ago, Datta Enterprises decided to license HCL’s highly successful CAMWorks platform, CAMWorks®. Datta Enterprises says there were several reasons behind this decision. “Firstly, they had a local team, which could support us. Secondly, we required a lot of customization, which they were willing to provide. Thirdly, their people are very focused. They do not challenge us when we have a problem. Rather, they focus on the issue.”



Enabling faster design cycles

Datta Enterprises chose HCL for its ability and willingness to customize CAMWorks to support design automation. Previously, Datta used to get CAD files and 3D models from its clients. This data was then used to design the fabricated part – a process that involved multiple rounds of consultation with specialist resources, and only after which the manufacturing could begin.

CAMWorks devised an in-built Design Automation module that was integrated into SolidWorks, the CAD program chosen by Datta Enterprises. The module essentially automates the process of die design so as to simplify and speed up the transition to fabrication. A client CAD file could now be imported into SolidWorks environment and based on that, design of the die is initiated. The design data can then be automatically sent to CAMWorks, where tool paths are auto generated. Once these have been verified by the user, the part can be sent for machining. The flow chart describes the automation process.



Datta Enterprises is in the process of implementing this module and stands to gain multiple benefits. The design automation process ensures consistency in the design quality and due to obviating of repeated processes, nearly 70% saving can be achieved on the lengthy design time-cycle. Reliance on individual specialists in the team can also be reduced as best-practice data can now be stored within the system itself. Lastly, the module has been configured in such a way that even a new user can intuitively use the software.



We believe that we will be able to service our customers better through greater manufacturing accuracy afforded by the platform. We also expect to improve our business flexibility and take up more complex jobs. CAMWorks brings in greater predictability into a job, which is very important.”

Shailendra Bhosle,
Partner, Datta Enterprises

Looking ahead: great expectations

Although Datta's team is in the midst of training on the CAMWorks platform, it is clear that they have high expectations from the software. "We believe that we will be able to service our customers better through greater manufacturing accuracy afforded by the platform. We also expect to improve our business flexibility and take up more complex jobs", points Bhosle. The company expects that CAMWorks will help them optimize the production process and ensure faster customer turnarounds. "CAMWorks brings in greater predictability into a job, which is very important", he adds.

The smooth experience, thus far with CAMWorks has also motivated Datta Enterprises to think ahead and envision integrating the entire solution with their company-wide ERP. This will ensure automation of the complete work flow – from order booking to design creation and generation of fabrication pipeline.

Datta Enterprises has also integrated CAMWorks into the planning process. Points out Bhosle, "We are more proactive now, while earlier we were more reactive....we can now plan our production strategy better."

A smoother production process will also translate into time savings, and eventually cost savings, says the company. More importantly, as Datta Enterprises emphasizes, customer expectations will be better fulfilled – which is the biggest test of all!

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About CAMWorks

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