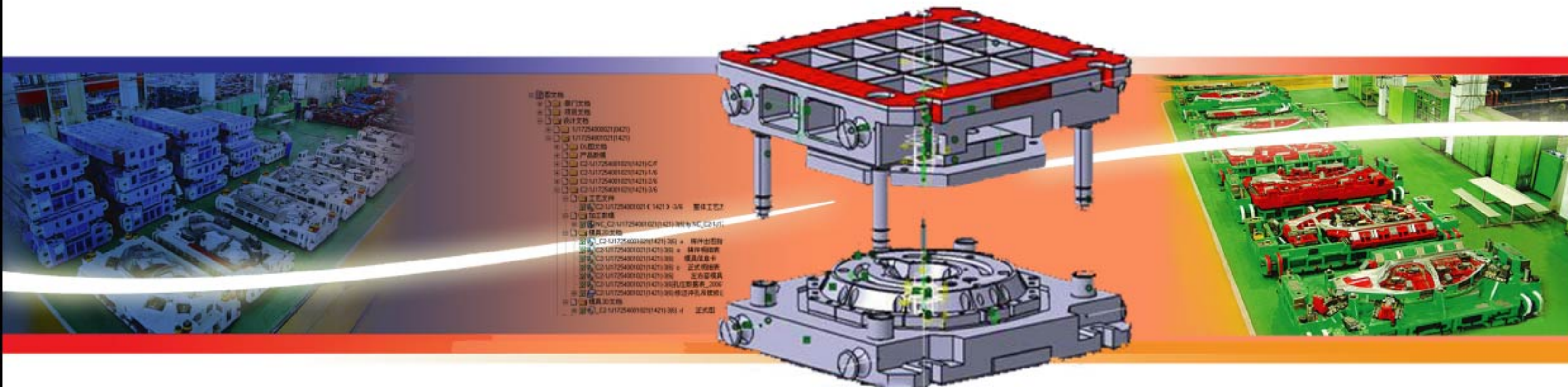


Die Manufacturing of FAW

Reducing design and production time with CATIA and ENOVIA SmarTeam



Overview

■ Challenge

Die Manufacturing Co. Ltd. of FAW needed to provide more innovative solutions to increase its competitiveness in the global die market.

■ Solution

The company implemented a collaborative R&D platform based on CATIA and ENOVIA SmarTeam.

■ Benefits

The company has developed solutions that shorten some of its manufacturing processes by up to 20%.



China's mold and die leader opts for DS PLM

Over the last 50 years, Die Manufacturing Co. Ltd. of FAW (DMFAW), previously Automotive Works, has become the largest car body die and automotive weld fixture manufacturer in China. With over 1,200 employees, DMFAW is the leading die supplier of many well known automotive OEMs, such as FAW-Volkswagen, Tianjin Toyota, German Volkswagen, and Cheery.

To increase satisfaction among its existing customer base, win new customers, and compete with leading international mold and die makers, DMFAW needed a PLM solution that would help increase its capacity for innovation.

"The four key long-term strategies of DMFAW are to improve our R&D capability, to produce cutting-edge equipment, to become the most well known brand in the Chinese automotive industry and to expand our business on the international marketplace," said Kexin Chu, president of DMFAW.

CATIA dramatically enhances DMFAW's design capabilities

DMFAW started using CATIA in 2003 and completed the first set of car body die products after using the product for only two months. DMFAW then began to use CATIA widely in the design department. In 2004, after accepting an order from a customer with demanding design requirements, DMFAW made CATIA its standard design tool.

DMFAW built a 3D part library in CATIA based on several ten thousands specifications. This helped improve design efficiency since designers no longer needed to rebuild frequently used elements. DMFAW also created a database of different types of punch equipment and technical parameters for some of its primary equipment.



"Our collaborative R&D platform based on CATIA and ENOVIA SmarTeam plays a vital role in helping us to meet the requirements of our customers on time and in realizing sustainable growth."

Yue Li
Product & Technology Dept. Director
DMFAW



ENOVIA SmarTeam for data and project management

Thanks to the implementation of CATIA, DMFAW's design and production efficiency substantially increased and business grew rapidly. However, efficiently managing the many different versions of its 3D models and related product data, as well as the processes for the development of new products, became very challenging. As a result, DMFAW decided to implement ENOVIA SmarTeam in 2004.

Focusing on process and project management for the development of new products, DMFAW divided the management system into five modules: data management, knowledge management, process management, resource management and project planning management.

Impressive ROI throughout the product lifecycle

After five years, DMFAW measured a substantial ROI, not just in the design phase, but throughout the entire lifecycle of its products. It was able to shorten time-to-market and accelerate its manufacturing processes. DMFAW cut the design of car body die products by 15% and production time 20%.

In addition, the company was able to increase the one-time success rate of design and manufacturing from 70% to 90%. DMFAW also reduced the cost of training for its mold and die designers. In the past, it took up to 15 years to become a highly skilled mold engineer using traditional methods, but with the new collaborative R&D platform, this period has been drastically reduced, as has the associated training cost. Finally, the company was able to improve the consistency of its part designs, enabling DMFAW to design and produce more complicated car body die products.

By creating a collaborative R&D platform based on Dassault Systèmes PLM, DMFAW greatly improved product quality and the efficiency of its new product design and production processes. Design, process planning and production and service engineers can now collaborate much better and enjoy working together more than ever before.

"We realize that DS PLM is one of our key success factors. Our hard work in increasing our design resources and R&D management experience, as well as improving our IT resources has already benefitted our company greatly," said Yue Li.

"The implementation of CATIA for 3D design not only shortens the design phase, it also improves the efficiency of process planning, CNC programming and production. By moving from 2D to 3D design, we have become much more confident."

Yue Li
Product & Technology Dept. Director
DMFAW



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