

COOL CUSTOMER

VALEO Strengthens Competitive Advantage's Reduces Costs with Objet 3D Printer

"The sample precision printed and fashioned by the Objet Eden is very high, and material performance is also very good, fully satisfying our technological requirements."

— Zhu Shi Fang,
VALEO Shashi A/C

No longer outsourcing its prototyping, VALEO Automotive has found that bringing the process in-house means reduced development times, lower costs, and more innovative design ideas



VALEO Automotive A/C Hubei Co., Ltd., commonly called VALEO Shashi A/C, is a joint venture of the VALEO Group of France and the China National Investment Corporation. The company has nearly 20 years of development history in China and produces one million sets of automotive air conditioning (A/C) systems or parts every year. With an international customer base spanning the major domestic and many European auto manufacturers VALEO's processes and products must comply with the most stringent quality standards. At the same time, operating in a highly competitive environment, VALEO must ensure total security for its R&D and designs, while bringing innovative products to market quickly and cost effectively.

Until recently, VALEO depended on outsourced CNC milling and selective laser sintering (SLS) to create its design prototypes. However, these methods, particularly SLS, often could not meet the precision and detail requirements of VALEO Shashi A/C's designs, and the processing cycles were very long. Furthermore, outsourcing generated huge amounts of technical data transfers and communication, exposing the company to potential losses due to technology leakage, process errors and logistical complications, and more. Outsourcing also added as many as three or four weeks to the development cycle.

To overcome those challenges, as well as to reduce development costs and enable advanced technological innovation, VALEO Shashi A/C decided to bring its prototyping in-house, selecting the Objet Eden350V 3D Printer.

Objet 3D Printer Wins For Accuracy, Versatility and Productivity

VALEO Shashi A/C chose the Objet Eden mainly because of its high-precision, ultra-thin-layer 3D printing process, which creates models that have outstanding detail and smoothly, curved surfaces. Support for a wide range of materials, which enables parts with varied characteristics, and extensive unattended operation

At a Glance

Challenges

- Ensure technology and product confidentiality
- Support design and technology innovation
- Simplify communication between development and pre-production teams
- Reduce product development costs

Solution

- Objet Eden350V™ 3D Printer

Results

- Design samples created in 1-2 days, instead of 20-25 days
- Highly accurate 3D models enable instant validation of parts
- Reduced time to market due to faster model creation and more efficient design reviews
- Significant cost savings due to reduction in errors

capabilities also helped make the Objet Eden350V a winner for VALEO. Now, all of VALEO Shashi A/C's all design and technology data stays inside the company walls and network – safeguarding confidentiality and eliminating communication errors during handover. “We are in an intensely competitive market, thus high product confidentiality and the precision of design demonstration is of great importance to the success of our research and development,” said Zhu Shi Fang, system engineer at VALEO Shashi A/C. “The Objet 3D Printer helps us realize these two crucial points and guarantees our competitive advantage.”

The 3D Printer has also netted VALEO significant time and cost savings by enabling fast turnaround on models of new designs and modifications. Most dramatically, the time needed to produce a prototype has shrunk from 21 to 25 days to just 1 to 2 days – delivering a time and cost saving of up to 90 percent.

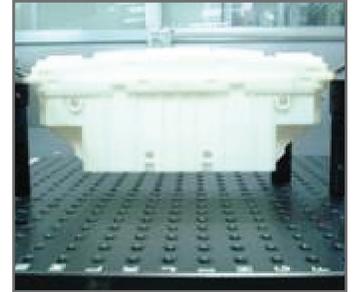
3D Printing Enables Fast Turnaround on Design Changes

During initial design phases, the high precision and structural strength of the Objet models enable the development team to evaluate product appearance and test fit and form. Said Fang, “The sample precision printed and fashioned by the Objet Eden is very high, and material performance is also very good, fully satisfying our technological requirements. The sample precision printed and fashioned by the Objet Eden is very high and material performance is also very good, fully satisfying our technological requirements.”

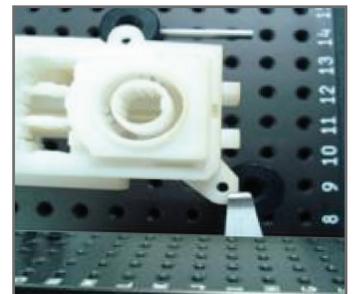
Likewise, the high quality of the models enables early evaluation of assembly and production requirements. If a problem in production requires changes to the product, the R&D team can respond rapidly by instantly testing modified designs.

The Objet Eden350V 3D Printer has been smoothly integrated into VALEO Shashi A/C's workflow. “The Objet 3D Printer is easily operated, and it is compatible with various 3D design software data,” Fang. “With the Objet team's thoughtful installment and after-sales service, our cooperation has been very efficient.”

Fang added, “We can now be much more efficient and bold in exploring innovative ideas, which is vital to helping realize the VALEO Shashi A/C company vision – building a wonderful auto world.”



VALEO Shashi A/C produces one million automotive air conditioners per year.



An Objet Eden 3D printer helps implement design changes faster.

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