

## Two concept vehicles at the Geneva Motor Show 2005



This year Valmet Automotive displays two different concept vehicles in the Geneva Motor Show, March 1-13. The concept vehicles present the special competencies of Valmet Automotive and the service portfolio Valmet Automotive offers to the OEM's.



### Audi A4 Coupé Cabrio

The Audi A4 Coupé Cabrio concept car is built on the basis of the Audi A4 Cabriolet. The concept car is highly appreciated for the efficient yet simple roof packaging solution and functionality as well as for the styling which is true to the looks of the base car.

The concept car has been developed and built in the Technical Center of Valmet Automotive in Finland. It is a one-off vehicle with which Valmet Automotive demonstrates its product development competence especially in convertibles.



### RaceAbout 2005

The RaceAbout 2005 concept car represents an example of today's small series sports car. It is a sporty roadster with an all-aluminum monocoque, honeycomb floor pan, stainless steel sub-frames and ultra-light carbon fiber panels. The light-weight body structure was a distinctive target in the engineering of the car.

The RaceAbout 2005 was designed and built in a co-project by Finnish automotive engineering and design students at the Helsinki Polytechnic Stadia and at the University of Art and Design Helsinki. Valmet Automotive has been a major partner in the project.



## Record in continuous improvement

We at Valmet Automotive are committed to continuous improvement of our business and production processes. The ultimate target is to create added value for the customer in form of higher quality, improved product and service performance and lower costs.

Continuous improvement is a challenging objective for the entire personnel. The year 2004 was again very successful measured by the number of employee suggestions at Valmet Automotive. The personnel made all in all more than 6000 suggestions to develop Valmet Automotive's key activities. With an average of 1,2 suggestions per person per month Valmet Automotive is among the best companies in Finland.

The team members are empowered to develop the working methods and working places in order to improve the efficiency and quality as well as the occupational safety and environmental issues. This year the target for each employee is to make at least 1,3 suggestions to continuous improvement per month.



Valmet Automotive is a specialty car manufacturer in Finland. Today we produce Porsche Boxster for Porsche AG. Our facilities in Uusikaupunki consist of body shop, paint shop, final assembly and a technical center. During the past 35 years Valmet Automotive has delivered close to one million vehicles, 300 000 of which have been convertibles.



## Experience, expertise, excellence

The start of production of the second generation Porsche Boxster was an important milestone for Valmet Automotive. Porsche presented the new Porsche Boxster in September 2004 in Paris. The project work at Valmet Automotive had started already three years earlier.

The participation in the project, the simultaneous engineering, pilot phase and production launch of a completely new product in intense cooperation with the customer was a fascinating challenge for the entire team. The production implementation was a significant project in view of the scope, the investments and the broad cooperation with the customer.

We succeeded, once again, in starting the series production exactly according to the agreed time schedule. We also achieved all project targets set by the customer as well as our own targets,

measured with all key indicators as quality, cost and timing.

I am proud to say that the competence, flexibility and commitment of Valmet Automotive are best in class. One of our areas of expertise is the manufacturing of specialty versions and models. The flexible manufacturing process, individual painting as well as the special know-how of our personnel in the production implementation, production and product engineering make it possible to start high-quality series production of new products along with the ongoing production.

We are capable of managing new specialty vehicle projects from product engineering to production with experience, expertise and excellence according to customer expectations. Flexibility, reliability, efficiency and high quality are the trademarks Valmet Automotive is known for in the automotive business.



Tapio Kuisma  
President

# The production of the new Porsche Boxster started



The string of silver, black and blue cars is elegantly colored by glimpses of yellow and red. Each Porsche Boxster made by Valmet Automotive is built according to the individual desires of the end customer.

We are happy to be the production partner also for the second generation Porsche Boxster. In 2001 Porsche AG and Valmet Automotive agreed on continued long-term Porsche production in Finland. With the new models of Porsche Boxster and Porsche Boxster S, the production volume is growing. After the start of production Valmet Automotive has already employed over 100 new employees and even more are being trained to start their work in the near future.

**Flexible automation** Valmet Automotive has carried out a three-year investment

program to engineer and build up the production process for the production of the new Porsche Boxster. The overall investment program in 2002-2005 totals 40 Million Euro and complements the earlier investments for the Porsche production.

The body line was totally renewed. With today's 68 robots installed the automation level of the welding is now 90 percent. For example, the assembly of the large body modules and the main framing station are fully automated. The integration level in the body shop was increased by adding several new sub-assembly cells. Valmet Automotive supplies Porsche AG in Germany with sub-assemblies such as side panels.

Due to the high flexibility the final assembly line could be retooled with relatively slight modifications. A fully robotized windshield bonding and assembling cell was added. New

computerized equipment was installed in the testing area. A new high-tech measuring center was built to serve the quality assurance.

The production engineering project was successful and it was carried out exactly according to the schedule, says Mr Ilpo Korhonen, Vice President Porsche Project. At Valmet Automotive some 100 engineers have been occupied with the project. Also a great number of Valmet Automotive's other personnel have participated in the work part-time.

To secure the seamless human interface and information flow a team of Valmet Automotive's resident engineers has constantly worked at Porsche in Germany, and a team of Porsche engineers has been working at Valmet Automotive. According to Mr Korhonen, the cooperation has been excellent.

## Close to 120 000 Porsche Boxster already produced in Finland

The first generation of Porsche Boxster was a success story also for Valmet Automotive. Since the production start in 1997, 109 213 Porsche Boxster sports cars of generation 1 were manufactured at Valmet Automotive's plant in Uusikaupunki, Finland. It makes approximately two-thirds of the Porsche Boxster cars produced altogether by Porsche AG in Germany and Valmet Automotive in Finland. With the production of the second generation models, the Porsche

Boxster production at Valmet Automotive will soon reach 120 000 vehicles.

Porsche AG first contracted Valmet Automotive to manufacture Porsche Boxster as the demand for the new roadster, launched in 1996, exceeded all expectations. Valmet Automotive was able to start up the production in record time. The annual production of Porsche Boxster at Valmet Automotive in the years 2000, 2001 and 2002 was some 20 000 vehicles.



TÜV and Dekra animous:

## Porsche Boxster best in quality

Porsche Boxster was the best car in the distinguished German TÜV quality evaluation. Porsche Boxster cars had the fewest defects in the inspected two and three years old cars. Defects occurred only in 2.6 % of the cars, while the average of the max. three years old cars was 6.5 %.

185 different models from all car makers represented in the German market were compared. The broad analyses were carried out by Germany's Technical Inspection Association TÜV. The results were published in the German magazine Auto Bild 1/2005.

Porsche Boxster was the best car also in the quality evaluation of Dekra, the other big German inspection organisation. The result was reported by the magazine Auto, Motor und Sport in the issue Gebrauchtwagen 2005. Porsche Boxster has achieved top positions in the U.S. as well, e.g. in several J.D. Power quality studies.



The increase in the specialty car market opens new windows of opportunity for creative niche car ideas. Along the specialty models and derivatives, the demand is focused towards further tailored niche vehicles with a yearly production rate starting from some thousands of units.

Characteristic for such cars are the deviation of the body architecture of the main stream models and a variety of different materials and body structures. There are also special features directed to a certain customer group.

To assure the top quality, the manufacturing of these cars requires high level of expertise and flexibility and dedicated production facilities and processes.

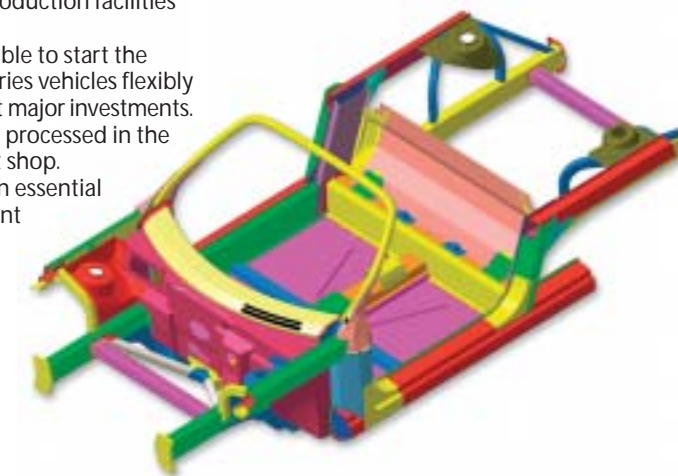
Valmet Automotive is able to start the production of new small series vehicles flexibly and cost-effectively without major investments. E.g. aluminum parts can be processed in the body shop and in the paint shop.

Individual painting is an essential part of our surface treatment process, where in addition to the 30 basic colors we can use specific top coat colors required by the customer.

The existing quality systems, logistics concept and overall infrastructure ensure a successful project with the preciseness and efficiency of series production.

The recently renewed production process and the highly qualified personnel make Valmet Automotive a competitive partner in the production of both premium products and exclusive small series products.

The technical capacity of the production process at Valmet Automotive is 100 000 cars per year. The production capabilities enable simultaneous manufacturing of various models with different production volumes.



The body welding line was renewed.



Valmet and Porsche teams work together.



Mr. Korhonen is satisfied with the project.



### The logistics further improved:

#### New ferry line from Germany three times a week

The port is a key asset for the effective logistics chain of incoming car materials as well as for the deliveries of the built-up cars to the markets. The Port of Uusikaupunki is Finland's largest car export harbor and fulfils the strictest standards in car export operations. Valmet Automotive is located only a few kilometers away from the Port of Uusikaupunki.

A new direct ferry line between Rostock, Germany and Uusikaupunki, Finland was launched in January 2005. The new route further improves the connections between Valmet Automotive and the material suppliers for Porsche Boxster. The service will run three times a week in both directions