



Volkswagen Sachsen GmbH

- Zwickau/Chemnitz Region - Automotive Centre in Saxony

Zwickau/Chemnitz, January 2012. The foundation of Volkswagen Sachsen GmbH launched a Volkswagen success story that created hope, jobs, social security, and a chance for innovative development in car manufacturing immediately after the reunification of Germany.

While initially existing manufacturing facilities for Volkswagen vehicles in Zwickau and Volkswagen engines in Chemnitz were temporarily used, new internationally competitive manufacturing sites for vehicles and engines were built at both locations.

Both production sites possess validated environmental and quality management systems and are certified according to DIN EN ISO 9001:2008 (incl. KBA M1) + VDA 6.1:2003 and EG-VO Nr. 1221/2009, DIN EN ISO 14001:2004 und DIN EN 16001:2009 (Reg.-Nr.: DE-123-00001 und DE-123-00032). They are registered in EMAS and have published an environmental statement. The facilities of Volkswagen Sachsen GmbH in Zwickau and Chemnitz are members of Saxony's Environmental Alliance.

The limited-liability company is run by three executive directors: Hans-Joachim Rothenpieler, Engineering and CEO, Arne Meiswinkel, Human Resources and Organisation and Karin Sonnenmoser, Finances and Controlling. The Central Works Council headed by Jens Rothe and Works Councils at each location represent the interests of employees. The Supervisory Board is headed by Hubert Walzl, Member of the Volkswagen Brand Board.

The entire corporation is characterized by profit and cost centre structuring, and above-average qualification of staff.

The Vehicle Plant in Zwickau

Volkswagen cars have been produced in Zwickau's Mosel district since May 1990. All classical manufacturing divisions such as body and chassis, paint shop, and final vehicle assembly were built up and commissioned step by step. Beyond that, the site has a press shop and centres of excellence for aluminium add-on parts and special vehicle manufacturing. A high-performance pilot centre including a staff training floor specialises in preparing and monitoring series production.

The press shop produces sheet parts for the Volkswagen Group and delivers them to automotive factories worldwide. The raw materials used are coils (i.e. rolls of rolled steel in various formats and grades) or blanks supplied by third parties. Every day, up to 120,000 fabricated sheet parts are made from roughly 500 tons of steel that are later used to assemble car bodies. The waste from punching and cutting is automatically packaged and 100 per cent recycled. The area of the assembly hall, including measuring centre, logistics area and tool warehouse, is approximately 33.000 sq. m (355,209 square feet).

The car body construction area for VW Golf and Passat is the largest manufacturing area on site, measuring about 1,000,000 square feet (15 soccer fields). The car bodies for the Golf and Passat models are assembled using about 1,000 industrial robots, 100 laser units. The mechanisation rate is about 90 per cent. Innovative technologies such as laser welding, laser soldering and clinching are incorporated in addition to classic processes such as spot welding. The car body parts and modules are handled using with automatic electric overhead conveyors and sophisticated skid-shuttle systems. Essential steps from the individual module to the finished car body is monitored precisely in 3D measuring centres, and closed-loop quality control keep manufacturing within narrow tolerance ranges. Weld checking is mostly non-destructive with Ultraschall.

The paint shop for the Golf and Passat models (three halls with a total floor area of about 366,000 sq. ft) uses low-solvent paints (water-based paints). After thorough cleaning, the paint is applied in multiple stages. Immersion baths and state-of-the-art painting systems with integrated loop line systems allow customised painting of each car body. At the end of the run through the paint shop, the car body cavities are sealed automatically and decorative elements such as the model labelling are attached. Then, the car bodies are conveyed to two final assembly halls, controlled by sequential access memory.

Flexible modular design determines the process flow during final assembly as part of the Volkswagen manufacturing system. The overall daily output is up to 1,350 vehicles.

14 prefabricated modules are supplied just-in-sequence and directly to the installation sites at the two assembly lines by 15 systems suppliers located in the vicinity of the works. The internationally unique holistic logistics concept titled "Production in Partnership" is built on modular design and just-in-time supply of modules. The German Federal Logistics Association awarded the 1998 German Logistics Prize to Volkswagen Sachsen AG for this partnership model.

The painted car bodies are assembled into finished vehicles in 350 mounting cycles in two halls and subjected to extensive quality testing. Portable test devices for the entire electrical and electronic system of the car are used in addition to the classic roll booth tests, leak tests, and settings of axle geometries and headlights. Coolant, brake fluid and fuel, the air conditioning system and the windshield washer system per example are filled half automatically for the weather conditions in the country of destination. Safety relevant steps of the car assembly will be electronic ceased and will be documented in accordance with the laws and regulations in each market. The vehicle windows are installed by robots, and state-of-the-art handling equipment helps the employees to mount each module and component. The drive assembly and the doors are preassembled on separate pre assembly areas in the vehicle assembly halls.

Golf and Passat vehicles are built in right-hand drive and left-hand drive versions. Vehicles from Zwickau can have manual or automatic transmission. The Passat is equipped with front-wheel or 4MOTION drive. Automobiles from Zwickau are shipped to almost all international markets. In a separate hall, vehicles to be exported receive market-specific special equipment in accordance with the laws and regulations in the country of destination.

The finished vehicles are sent directly from the assembly line to the shipping station. About 260,000 cars have been built in 2011 so far. More than 3.9 million Volkswagen cars have left the assembly lines in Saxony.

Car bodies for luxury models have been built and painted in Zwickau since 2003. These vehicles are assembled at the Transparent Factory in Dresden or in Crewe, England. A total of about 17,000 car bodies left the Zwickau location in 2011.

The Engine Plant in Chemnitz

In Chemnitz, Volkswagen engines have been built since 1988. The Motorenwerk Chemnitz of the Volkswagen Sachsen GmbH is the supplier for the vehicle manufacturing facilities of the Volkswagen Group. Advanced Otto engines incorporating TSI technology and engine assembly groups, such as the balance shaft drive for Diesel engines, determine the product range of the location.

The plant is subdivided into mechanical production, engine and component assembly divisions and service areas. The manufacturing flow of the mechanical production area is dominated by high-tech machining centres and almost fully automatic complex production lines. Test and sorting procedures with direct feedback to the individual machining centres are integrated into the assembly systems.

Component and engine assembly have become increasingly flexible since 1998. Screen-controlled workstations assure a high degree of flexibility. Camera-controlled final inspections and the most up-to-date engine test procedures such as integrated cold testing secure highest quality in Chemnitz engines and balance shaft drives.

The involvement of regional service providers for logistic flows, tooling and maintenance allow Motorenwerk Chemnitz to consistently implement streamlined organisational structures as a basis for lean production in modern manufacturing businesses.

In 2011, a total of 640,000 engines were produced and delivered to the production plants of the Volkswagen Group. All in all, nearly 11 million Volkswagen engines were produced in Chemnitz.

Within the framework of the 18th Congress accompanying the "Factory of the Year / German GEO Award 2009" competition in Ludwigsburg, Motorenwerk Chemnitz was awarded the 1st prize in the category "Excellent Innovation Management" and got the award once again in 2011. It is regarded the toughest Benchmark competition within the manufacturing industry.

Human Resources

Versatile human resource concepts are available for the about 8,100 employees in Zwickau (6,850) and Chemnitz (1,250). Consistent vocational training of about 80 young people per year, a training program for employees that contains both specialised and general training offers,

and modern training promotion concepts, trainee programs, junior executive training programs are at the core of human resource efforts at Volkswagen Sachsen GmbH. Roughly 99% of the employees have industry-related vocational training, a master craftsman's certificate or a technical college or university degree. The average age is 43 and about 9% of the workforce are women.

Their payment is based on a company-related collective agreement for the metalworking and electrical industries of Berlin and Brandenburg (VME). This skeleton pay agreement is supplemented by shop agreements for a Volkswagen Sachsen pension fund and an adequate stock options-based pension plan.

The activities by Volkswagen in the new German states have created about 38,700 jobs (including upstream and downstream industries, of which 15,000 are sales and service jobs and about 15,000 are at suppliers and service providers for the Volkswagen Group).

History

Existing business relations between Volkswagen AG and IFA (the car making industry of the former GDR) led to the establishment of a joint venture in 1989, VW IFA PKW GmbH, in which the two companies each held a share of 50%. The purpose of this corporation was to look into possibilities for joint activities in Saxony. According to the original plans, a car of the Polo class was to be built as the successor of the Trabant at the almost completed new manufacturing facilities of Sachsenring GmbH in Mosel (now a part of Zwickau).

In the beginning of 1990 it became obvious that a free market for all products from western countries would develop in the new federal states as a result of the economic and currency union with the Federal Republic of Germany and the German reunification process. The demand for modern western cars increased dramatically in the new federal states. It became apparent that the demand for cars from the Volkswagen Group could not be satisfied with the existing facilities. It was necessary to build a new manufacturing facility.

Taking into account the high level of qualification and training among the employees in Saxony and the associated chance to implement new concepts of work organization and production process design, an agreement in principle was concluded in October 1990 among Volkswagen AG, the privatization agency Treuhandanstalt Berlin, and

former IFA PKW AG. The foundation stone for a new car manufacturing facility in Mosel (now Zwickau) was laid on 26 September 1990.

Establishment of Sächsische Automobilbau GmbH followed on 19 December 1990. In this corporation, Treuhandanstalt Berlin initially held 87.5% of the shares and Volkswagen AG 12.5 %, which switched to 100% Volkswagen AG as of 1 January 1993. This corporation was continued temporarily until 1996. Vehicle production was terminated at these plants on 17 December 1996, since this was just a transitional solution until the new car factory was completed.

On 12 December 1990, the joint corporation Volkswagen IFA PKW AG changed the name of its business to Volkswagen Sachsen GmbH and became a wholly-owned subsidiary of Volkswagen AG. Two new state-of-the-art factories were built in Zwickau and Chemnitz under the one roof of Volkswagen Sachsen GmbH.

For photos, visit: www.volkswagen-media-services.com

Volkswagen Sachsen GmbH

Administration/Communication

Contact: Dr. Gunter Sandmann

Phone: +49 375 / 55 28 20

E-Mail: gunter.sandmann@volkswagen.de

Internet: www.volkswagen-sachsen.de