

Volkswagen Sachsen GmbH

The Transparent Factory, Dresden



February 2018

Plant	Dresden
Area	83,000 m ²
Production	5.350 e-Golf ¹⁾ (April – December 2017) – from March 2018, the daily production figure is to be gradually increased from 36 to 72 e-Golf – the cars will then be assembled in two shifts (6 a.m. to 10 p.m.); 84.235 Phaeton (2001-2016) + 2.186 Bentley Flying Spur ²⁾
Employees	380
Press officer	Dr. Carsten Krebs

Current situation

Since April 2016, the Volkswagen plant in Dresden has been developed into the Center of Future Mobility, an innovative showcase of e-mobility and digitalization of the Volkswagen brand. Visitors receive an interesting glimpse of the future of the automobile. During a 75-minute tour, they can see how Volkswagen produces its electric Golf.

The highlight of the visit is a free-of-charge test drive (30, 45 or 60 minutes) through Dresden with electric and plug-in hybrid vehicles.

Dresden's largest public, solar-powered e-mobility station is located beside the Transparent Factory and has been in operation since April 2017. Cooperation has also been agreed between Volkswagen Sachsen and Dresden, the capital of Saxony. Development of the Dresden plant as the Center of Future Mobility is to continue. The objective is to make Dresden a model city for e-mobility and digitalization. Since August 2016, six innovative start-ups in the field of mobility services have received support for six months each at Volkswagen's newly installed Future Mobility Incubator at the Transparent Factory. They receive financial support in the amount of €50,000, IT infrastructure, software, free-of-charge office space, vehicles and access to the Volkswagen expert network. The city of Dresden also provides assistance and finances accommodation for the young entrepreneurs. In March 2018, the Future Mobility Campus was inaugurated. This provides education and training for employees, school classes and external visitors. Currently, 380 people work at the Transparent Factory..

Production

The Volkswagen Phaeton and the Bentley Flying Spur were produced at the Transparent Factory for 14 years up to March 2016. Modifications to the plant for flexible production of various models have now been completed. Since April 2017, the new e-Golf, with a range of 300 km in the new European Driving Cycle (NEDC), has been assembled at the Dresden plant. In 2017, 5,350 units were produced in single-shift operation. From March 2018, the daily production figure is to be gradually increased from 36 to 72 e-Golf – the cars will then be assembled in two shifts (6 a.m. to 10 p.m.); .

¹⁾e-Golf (100 kW/136 PS) Electrical consumption in kWh/100 km: combined 12.7, CO2 emissions combined in g/km: 0, efficiency class: A+.

²⁾Bentley Flying Spur - fuel consumption in l/100km: urban 22.4 / extra-urban 10.2 / combined 14.7; CO2 emissions combined in g/km: 343; efficiency class: G.



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Visitors' Forum and service

Volkswagen has broken new ground with the Visitors' Forum at the Transparent Factory. At the Forum, visitors and customers can inform themselves about Volkswagen, as well as the topics of e-mobility and digitalization. Visitors can take a close-up view of production as the tour goes directly along the production line.

In 2017, about 103,000 guests (+22% compared with 2016) visited the Transparent Factory and about 3,300 test drives in electric models, with 4,300 different drivers, took place.

Guided tours (6,100 in 2017) are currently offered in nine languages; English, Czech and Polish are especially popular. Guests from 85 countries were welcomed in 2017. There are also special tours for children and tours with special emphases, for example on architecture. About 30 percent of all visitors come from other countries. Customers can take delivery of all four electric and plug-in hybrid vehicles of the Volkswagen brand as well as the Touareg and the Arteon here – they benefit from an exclusive welcome in a separate part of the Visitors' Forum. The actual handing-over of the vehicle is a special experience. In 2017, about 500 vehicles were handed over to customers here.

Social and cultural commitment

Volkswagen Sachsen and the Transparent Factory are shouldering their social responsibility and follow two principles in their social and cultural commitment – continuity and participation.

Long-term partnerships allow the realization of sustainable projects. Volkswagen and the Transparent Factory foster exchanges of experience via cooperation with regional organizations. This makes the commitment of the plant a learning platform for the company. Key areas are social involvement in the region and throughout the world as well as cultural partnerships in Dresden and Saxony. Social responsibility is a key element in corporate policy.

Employees have given a signal for sustainable commitment with a small change campaign. Since 2003, they have donated the cents on their salary statements every month. The proceeds of these donations provide long-term support for Sonnenstrahl e.V. – a charity in Dresden supporting children and young people with cancer. The charitable organization “Terre des Hommes” is a partner for many other projects and campaigns among the workforce and ensures that the funds generated are used effectively and sustainably. Activities also include sponsored runs for UNICEF Dresden and donations to regional children's organization's

Through regional cultural projects and partnerships, Volkswagen fosters education in the field of art and culture. Companies relocating to Dresden not only benefit from the infrastructure but have also come to respect the cultural strength of Dresden as a key argument for selecting a location. Targeted cultural sponsorship has been a key element in the policy of the Transparent Factory from the outset. Support is provided in a variety of forms. We also sponsor events and projects outside the Transparent Factory which are characterized by innovative features or foster cultural activities of young people.

The Transparent Factory is now a key element in the cultural life of the city and a reliable cultural partner, which is confirmed by the long-term partnership with the Sächsische Staatskapelle Dresden and the Semper Opera House as well as sponsorship of the Moritzburg Festival and the Dresdner Musikfestspiele.

Social and cultural commitment builds bridges connecting people and opening up new ways of living together. Investments in social and cultural projects build bridges to the future. And we are involved!



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Production 2001-2016

From 2001 to 2016, the Phaeton and, temporarily, the Bentley Flying Spur, were assembled in Dresden. The key element of production is a scaled assembly line. All this line has in common with conventional assembly lines is the phasing of individual assembly procedures, meaning that production is arranged in stages such as engine fitting (marriage) and window fitting. The surface of each of the concentrically designed scaled assembly lines comprises 29 individual segments completely covered in parquet. It is on these segments that the vehicles to be assembled are placed by adjustable lifters. With the parquet surface and the clearly arranged assortment of assembly parts in baskets, the factory resembles a craftsman's workshop rather than a conventional vehicle assembly line. Vehicles are assembled on two levels. The scaled assembly line is served by an electric suspended monorail system used to vertically link the two floors as well as integrating horizontally arranged production processes on each level. This system transports cars between the two floors and to specific assembly stations such as the vehicle fuelling station. For this purpose, the entire vehicle is transferred from the upper level through the ceiling of the level below and then lowered by means of a lifter. With the precision-phasing system, the impeccable cleanliness of production areas, a highly trained workforce and permanent monitoring, Volkswagen has achieved the maximum level of manufacturing quality in Dresden. The individually phased production processes have been systematically tailored to the people who perform them. The manipulator, for example, is an assistant on navigable rollers which workers can use to adjust the positioning of large components (e.g. dashboard) to the precise setting (i.e. to the last millimeter) required for installation in the body shell.

Environmental protection

With its "Think Blue. Factory." program, the Volkswagen brand has set itself clear targets for the environmentally sustainable positioning of all its plants. By 2018, the aim is to reduce the environmental impact of all Volkswagen plants by 25 percent. Specifically, this means 25 percent lower energy and water consumption, waste volumes and emissions at all plants. The Volkswagen brand already met the environmental targets it had set itself for 2018 in 2016.

This is why the Volkswagen Group set itself a new, ambitious target for reducing environmental impact in 2017. By 2025, vehicles and components are to be produced in a way which is 45 percent more environmentally compatible than in 2010, the reference year of the current environmental program Think Blue. Factory. That represents a further 20 percent reduction in environmental burdens. Volkswagen is therefore well on the way to resource-optimized operations at all the plants of the brand..

Since production started in 2018, e-Golf assembly at the Dresden plant has been entirely climate-neutral. Thanks to the use of Naturstrom[®], power supply to the plant is already carbon-neutral, saving some 3,600 tonnes of carbon dioxide per year. In addition, the plant is changing over to carbon-neutral water supply. For this purpose, VW Kraftwerk will be co-operating for three years with the South Pole Group (SPG), the world's largest developer of climate protection programs: the 400 tonnes of the greenhouse gas CO₂ produced by heat generation from fossil sources will be compensated for by CO₂ reductions in other places..

The planners already paid special attention to environmental protection during the planning of the Transparent Factory. 350 trees were planted at a cost of more than €56,000 and special sodium vapor lamps in the outdoor areas operate in a yellow spectral range that does not disturb insects in the nearby Botanical Gardens. The depth of the complex is designed to maintain groundwater equilibrium and the sealed surface area, compared with previous development on the site, has been reduced from 6.7 to 4.8 hectares.



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Site and architecture

The L-shaped building is located on an 8.3-hectare site on Straßburger Platz, in the immediate vicinity of the Botanical Gardens. Volkswagen's luxury vehicles are produced on three levels, with a total area of 55,000 square meters behind some 27,500 square meters of windows. The view of the plant from the city is dominated by the fully-glazed building with a length of 140 meters and a height of 20 meters. Even when standing right next to the building, pedestrians and local residents cannot hear any noise from the plant. The site of the Transparent Factory was already intensively developed in the 19th century. Until the devastation in the Second World War, Straßburger Platz featured the municipal exhibition hall as well as the famous Kugelhaus (globe house), which was already demolished during the "Third Reich". It was a venue for the presentation of world-class art, culture, horticulture and architecture. A spherical structure in the new factory reminds visitors of the lost building, providing a bridge to the past. The trademark of the Transparent Factory, visible from some distance, is the 40-meter-high glass tower where completed vehicles are stored prior to collection. From here, via the Piazza and the customers' bridge, owners leave the Transparent Factory with their new vehicles. The interior of the plant is just as attractive as its external design. Large glazed areas and some 24,000 square meters of parquet flooring (even in the production area) create a well-lit, relaxed atmosphere reflecting the innovative basic philosophy of a factory based on careful fabrication steps, many of them involving hand-crafting, as a supplement to industrial production processes.

About Volkswagen Sachsen GmbH

Volkswagen Sachsen GmbH has a workforce of about 9,750 people, as well as about 530 apprentices and 30 students receiving practical training. Some 98 per cent of the highly qualified workforce have either completed vocational training in a specialized field, are certified master craftsmen, or hold a degree. The average age of the employees is about 44 years and women account for 11 percent of the workforce. Prof. Dr. Siegfried Fiebig is Speaker of the Management Board of Volkswagen Sachsen GmbH. The Management Board also includes Dirk Coers, responsible for human resources and organization, and Kai Siedlatzek, responsible for finance and controlling.