Volkswagen AG
Emden Plant

Area: 4,300,000 m²

Production: about 189,180 vehicles (12/2019)

Models: Volkswagen Passat, Passat Variant, Passat Alltrack, Passat GTE¹, Volkswagen Arteon

Plant Manager: Uwe Schwartz

Employees: about 8,000 (January 31, 2020)

Plant

Volkswagen's Emden plant is the largest industrial employer in the region of Germany to the west of Bremen and to the north of the Ruhr area. The plant occupies a total area of 4,300,000 square meters, with buildings covering about 40 percent. The plant site also features parking areas for vehicles to be exported and a test facility.

Management

Uwe Schwartz has been the manager of the Emden plant since October 2019. Previously, he was Head of Planning and Production Technology of the Volkswagen brand. Schwartz (52) holds a degree in mechanical engineering and joined the Volkswagen Group in 1992. From 1998 onwards, he held various management functions in the planning business unit of the components division, before joining Auto 5000 as project manager for the Tiguan in 2005. In 2009 he became Head of Planning with Volkswagen Commercial Vehicles in Hanover and was appointed Head of Production Planning of the Volkswagen brand in 2015. Since 2019, he has also been responsible for toolmaking and plant construction.

¹ Passat GTE is the plug-in hybrid version of the Volkswagen Passat.
Production

The declared objective of the plant is to manufacture environmentally compatible vehicles in an environmentally compatible production process. High product quality is the key to success as quality leads to customer satisfaction and is therefore a decisive cost element and factor in competition. The Emden plant produces the Passat Saloon and is the only plant to produce the Passat Estate, Passat Alltrack and Passat GTE in the eighth generation, as well as the Volkswagen Arteon. 189,180 vehicles were produced in 2019. Since November 2018, the Emden plant has been preparing for the transition to e-mobility. A new assembly hall is being built in March 2020 and the first electric vehicles will roll off the production line at Emden by the end of 2021.

A special feature of the plant is a press shop with a total area of 40,000 m², including storage area for finished parts and rail connection, which was inaugurated in 2001. The halls of the press shop house two vacuum transfer presses, each designed for a total force of 7,300 tonnes. The press shop mainly produces interior and exterior parts for the Passat models, including side parts, doors, roofs, engine compartment covers, tailgates and fenders. Components for models of other Group brands and plants are also produced here. The capacity is currently about 200,000 parts per week.

Production and the environment

Emden has opted for environmentally compatible, efficient technologies. The plant is especially contributing to the expansion of renewable energies within the Group and in the East Frisia region. With its “Go To Zero” program, the Volkswagen brand aims to make production 45 percent more environmentally compatible by 2025. The goals include higher resource efficiency, lower emissions and increased use of renewable energies at all plants. One example is the near-surface geothermal system at the Emden plant. The new body shop with an area of 63,000 m² was constructed on 5,000 piles driven up to 24 m into the ground. About 3,300 of these piles act as “energy piles”. They are used to cool water, initially for the cooling of welding systems. In winter, the water which has been heated in this cooling process is used for space heating in the building before it is returned to the energy piles for cooling again. Another project concerns the floor of the logistics centre. This is the first industrial building in the Group with energy-efficient underfloor heating. Energy for this heating system is supplied by a district heating system with heat generated by a biomass power plant burning used wood in a carbon-neutral way. Volkswagen’s Emden plant also features solar power generation on the roof. A cooperative among the workforce to operate renewable energy systems at the plant was already established in 2008.

Wind power facilities have also been installed at the plant. Since 2010, the municipal utilities of Emden have used areas on the plant site for the operation of powerful wind turbines (E-126). Each of these turbines supplies enough power for about 5,000 households. The group power supplier, Volkswagenkraftwerk GmbH, also installed four wind turbines for power generation in 2014. The renewable power generated is not fed to the plant network, but makes a contribution to its positive carbon dioxide balance.

In future, the topic of carbon dioxide reduction will become increasingly important. Under the pact for the future, Volkswagen’s Emden plant has developed the vision of an almost carbon-neutral plant.
Port
The port of Emden is Europe's third largest port for vehicle shipments. At the port, virtually all models of Volkswagen Group brands shipped from European and overseas ports are handled by Volkswagen Group Logistics and Autoport Emden GmbH. Every year, about 800 ships, 140,000 railcars and 40,000 trucks come to the estuary of the Ems to deliver or collect vehicles. From Emden, imported vehicles are distributed to destinations in Germany as well as to Portugal, Spain, Mexico, Brazil and South Africa. Automakers also use the port of Emden for the shipment of their vehicles to countries throughout the world, including the USA, Canada, Mexico, Japan and Spain. Every working day, about 6,000 new vehicles are handled via the port of Emden. In total, about 1,35 million vehicles are imported and exported every year.

Industrial estate
Volkswagen has provided support for the industrial estate being developed on the former “FRISIA” refinery site by the municipality of Emden with aid from the state of Lower Saxony and the EU since 2003. Apart from other companies and business start-ups, the estate also provides sites for Volkswagen suppliers. 15 suppliers now produce components for the Passat there and supply them to the plant using the just-in-sequence approach.

Logistics
The Emden plant has changed over from road transport to multimodal transport, with material being delivered by rail and only part of the route being covered by trucks. Now, only three goods trains are needed instead of 102 trucks. The objective of this change was to reduce CO₂ emissions. The changeover from road to rail transport has resulted in CO₂ savings of 5,000 tonnes per year.

Employees
The total workforce at the Emden plant is 8,000. Volkswagen assumes responsibility towards its employees. Processes at Emden are continually reviewed with respect to health, safety and ergonomics, optimized and adjusted to meet the needs of employees.

At its Emden plant, Volkswagen trains young people in a total of 13 vocations and also offers five dual courses of study. Each year more than 100 apprentices and students on these courses have an opportunity to train with one of the world’s largest automakers and then to be employed within the Volkswagen Group.

History
On February 4, 1964, the State of Lower Saxony, the shipping and waterway administration, the city of Emden and Volkswagen AG signed contracts for the purchase of an industrial site with an area of about 200 ha in the immediate vicinity of the port of Emden. There were two major reasons for the choice of Emden as a site for the plant. Firstly, the port of Emden is the major German seaport offering the shortest possible shipping distances to overseas countries. Secondly, the large labor force available in the East Frisia region was a key factor. Emden and East Frisia were one of the most economically depressed areas of Western Germany. At that time, unemployment was about 25 percent; now, the figure in the region 8.9 percent. As production volumes rose, the workforce of the plant grew from the initial figure of 790 to over 3,000 in 1965, in only one year.
History

After only nine months of construction, the first Volkswagen Beetle rolled off the production line at Emden, Volkswagen’s fifth plant in Germany, on December 8, 1964. Volkswagen Emden initially specialized in the production of the Beetle, especially for the North American market. However, over the 50-year history of the plant, many other Volkswagen models such as the Type 2 Bus, Golf I, Type 181 Kurier, Audi 80, Santana, Type 4 Bus and Taro have been produced here.

The Passat has been produced at Emden since 1977. Since then, the Emden plant has been the lead plant for production of this model. Currently, the eighth-generation Passat is produced here. The Passat is the world’s most successful mid-range vehicle. In 2019, it was the first model in its segment to break through the barrier of 30 million vehicles sold.

The total number of vehicles produced at Emden and delivered to customers by the end of January 2020 was more than 12 million. Not only the 8,000 people employed directly at the plant but also the economy of the entire region, including suppliers, the logistics sector, the port, craftsmen and retailers, benefit from the Volkswagen plant.

Passat GTE: Super 95 Fuel consumption combined 1.5 - 1.4 l/100km; Super 95 CO₂ Emissions combined 34 - 32 g/km; Electricity Fuel consumption combined 14.2 - 13.8 kWh/100km; Efficiency class A+.