

The Transparent Factory and its Role on Volkswagens Way in the Luxury Sector of the Car Market (Background information on the Transparent Factory)

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The Transparent Factory

The Transparent Factory in Dresden makes the fascination of car production visible to the outside world, originating a unique exchange between man, technology and the environment. With this, Volkswagen is creating a new dimension: the birthplace of the Volkswagen luxury class sedan “Phaeton”, and a combination of production and experience never before seen in the world.

The very first glance into the factory shows that auto production has moved into another dimension here. Parquet floors hide cables and pipe-work. No noisy machines disturb an atmosphere of concentration; only quiet tools are allowed. Robots are only used when they can sensibly assist the craftsman. An oval production line, which seems to scarcely move, carries the cars through the various stages where the white-clad operators assemble the many parts – precisely, carefully, sometimes even wearing white gloves. The development of the “fish-scale” production line demonstrates how innovations were inspired by nature. The oval-shaped production line is composed of 29 huge “fish-scales” which transport an automobile complete with its unique components and tools through the various finishing processes along the line. The “fish-scale” complete with body and auto components, moves slowly through the production processes – only the team changes at each process. The overhead suspended rail track is a newly developed assembly method, and represents a step change from traditional assembly lines. The body is moved through the Factory by the electric cable-way and can be lifted, twisted and turned into the position most suitable for each assembly process. The same innovative approach is demonstrated by the driverless transport system which uses radio control to deliver components, for example the complete drive train, to the appropriate position of the line.

And these are just a few examples to demonstrate the forward-looking methods used in the production of Volkswagen’s luxury class car.

The Transparent Factory was laid out to make up to 150 luxury vehicles per day. At maximum output up to 800 jobs will be created at the Transparent Factory, plus a further 2500 new jobs at component suppliers and in the logistics and service areas associated with the factory.

The Transparent Factory was conceived as an architectonic whole within its surrounding park, which covers 49.000 square meters or 54.000 square yards. Each wing of the transparent building complex measures 145 meters or 160 yards long. The main building is just under 22 meters (72 feet) high.

The symbol of the Transparent Factory is the 40 meter (130 feet) high Glass Tower of automobiles, reminiscent of the cylinder of an automobile engine. It carries finished cars on six different levels.

Conscious of the traffic situation in Dresden, Volkswagen developed a very clever delivery solution. Components are delivered by road and rail to the Logistics Center in the Dresden suburb of Friedrichstadt. The specially developed “cargo tram” is then used for the environmentally friendly delivery of the components to the Transparent Factory in the Strassburger Platz. Two special street-cars, fitted out for the transport of auto components and painted in Volkswagen blue, shuttle between the Factory and the Logistics Center using the existing street-car tracks.