

# Operations of porsche factory



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BUSTER**

Porsche Manufacturing is as high end and flexible as its highest end car. All Porsche's made in the factory are all handmade to fit the exact specifications of their customer. Knowing that an actual human built your engine and hand-stitched your leather and not a robot gives the driver a sense of pride, the sense of customer importance to Porsche justifies the high price tag. The type of process Porsche uses is a Flexible combination layout. The reason for this type of manufacturing is to allow the assembly of more than one type of car to be built on one assembly line, combining both .

Porsche is able to gain some of the benefits of a product layout by using flexible manufacturing systems to transport the components to each of the stations. However, they use skilled workers for the actual assembly so as to assure the ability of customizing each car. Porsche is well known for having customizable options for each and every car, so having general purpose equipment and a just in time inventory system allows for this flexibility. Flexible manufacturing in the Porsche plants allows for more than 30 different variations within one car series.

Although Porsche does use lots of skilled craftsmen in their assembly process it should be said that Automated Robots to pull their fair share in the factory. Robots are used for transporting most of the parts and raw materials from one part of the factory to the other. These raw materials include steel, aluminum, glass, plastic, rubber, and various paint coatings. Automation is used much less on the assembly than other car companies such as Mercedes or BMW.

Porsche needs its operations to be flexible, and to be able to change something at a drop of a hat, which is much harder to do with automated robots than it is with skilled workers. The Porsche plant produces at an upwards of 150 cars per day which is much less than their competitors of BMW and Mercedes, but the result is a higher end car, with more detail in craftsmanship. The assembly line shuts down 5 minutes every hour to give workers a break. Porsche closes all its factories through the month of August to give workers time to spend with their families.

Keeping the worker in mind and treating them with such respect boosts morale for the company, thus boosting productivity of every employee. Porsche refers to all their workers as "family" because building a Porsche is more than just a job; it's protecting history and the name of Porsche, it's a way of life. The Stuttgart plant is home to Porsche's "Master Engine Builders." "This is where the engines for every Porsche model are built. After completion, engines of the Carrera and the Cayenne series are transported to the Leipzig factory to be married with their respective chassis.

The only engines to stay in the Stuttgart factory are the highly respected 911 engines, as stated previously this is where all 911 models are built. Working for Porsche comes with great responsibility, to stress accountability once a Master Engine Builder begins building an engine, no other worker can take over or work on that engine until it is completed. To further show the superb craftsmanship behind a Porsche is to look at the 911 series. Aside from glass installation, every step within the assembly process is done by hand, every step!

This is why the 911 series is the most expensive line within Porsche. Porsche takes serious pride in who they hire, and who is involved in the assembly of their vehicles. A worker in the factory must apprentice a line worker for 7 years before they are allowed to be apart of the assembly process. Porsche's assembly process is implemented to be as efficient as possible while retaining the customization and hand's on work they are notorious for. Their process can be described in 5 steps which epitomizes their well-organized processes.