

BUGATTI ATELIER MOLSHEIM – THE MANUFACTURE IN ALSACE



Bright and clinically pure. Three Chiron¹ hyper sports cars float in the air like clouds. Bugatti's Atelier in Molsheim is more like an operating room than a car manufacturing facility. It does not smell like oil or fuel nor robots or buzzing conveyor belts. In the background, quiet music is playing.

Here in Alsace, Bugatti's French hyper sports cars are produced in weeks of manual work, such as the Chiron and now the first Chiron Sport² "110 ans Bugatti", the limited special model for the 110th anniversary of the French luxury brand. No rush, but with great care. Each vehicle becomes a unique masterpiece, reflecting Bugatti's brand values of art, form and technology.

"Quality and craftsmanship are two strands of Bugatti DNA. As we did 110 years ago, we pay close attention to the choice of materials and quality," says Stephan Winkelmann, President of Bugatti. "Company founder Ettore Bugatti said that a technical product is only perfect if it is also

aesthetically perfect. This also includes the craftsmanship. "Therefore, the quality inspection is given a high priority. In 2018, Bugatti hand-crafted 76 Chirons, this year it will be over 80 vehicles, plus the first Bugatti Divo³. Therefore, the French manufacturer continues to invest in the future, with hiring around 20 new employees in production and logistics.

UP TO EIGHT LAYERS OF PAINT

It takes three weeks to apply the individual layers of paint on the body. A carbon fiber finish, for which Bugatti is the market leader in the manufacturing quality, has six layers, and topcoats up to eight layers. Between each step, the work is precisely controlled, each layer is applied by hand, sanded and polished. The exterior parts are pre-assembled on the factory premises in the technical center, which is just a few hundred meters away, where they undergo a first quality inspection.

The Atelier, where the hyper sports cars are built is located in Molsheim next to the château, which was completely restored in 2001. It has the footprint of an oval, based on the logo of the French brand, the Bugatti Macaron. In the over 1,000 square meter Atelier, the floor shines in reflective white. It consists of epoxy, is current-draining and prevents static charge. Specially trained employees check every single component. Only after a successful quality check are the vehicle components used in the hyper sports car. Five boxes are available for this purpose, but conveyor belts and robots do not exist. One by one, employees are preparing to install the drivetrain, which had previously been running on a dynamometer for eight hours. Then the unit is assembled with the rear end, then married to the body. Fourteen titanium screws ensure a durable and resilient connection.

At least 3,800 tightening points are tightened by around 20 employees and checked several times, putting more than 1,800 individual parts together to form a whole. Machines only provide support during assembly or when adhering to precise values, such as the prescribed tightening torque for screws.

The most powerful, fastest and most luxurious hyper sports car is made entirely by hand. It takes time: It takes up to six months for a Bugatti hyper sports car to hit the road. Only the finest materials are used, limitless customization options for material and colors make each model unique. "Bugatti vehicles are a total work of art, solitary in the automotive industry," emphasizes Stephan Winkelmann. To do this, the hyper sports car goes through rigorous acceptance tests and quality controls before being handed over to customers.

Christophe Piochon has been the managing director of production and logistics at Bugatti and manager of the Molsheim site since 2013. With only short interruptions, the 42-year-old works at Bugatti since 2002 and knows every stone in Molsheim. The Frenchman accompanied the Veyron (2005-2015) and since 2016 the Chiron. On his daily walk through the Atelier, he pays attention to details, picks up lint in the entrance of the staircase and keeps it in his hand until he can get rid of it in a wastebasket.

BUGATTI HYPER SPORTS CARS CANNOT BE COMPARED

"Bugatti hyper sports cars are not comparable to any other vehicle, not in terms of performance, speed, materials and quality. It starts with the selection of materials and the composition

here in the Atelier," says Christophe Piochon. "The way we create our models by handcrafting each customer an individual product in this special atmosphere makes us unique. That's Haute Couture de l'Automobile," he says.

After filling the motor with all engine and coolant fluids, every vehicle is checked again and again. First, the hyper sports car with its 1500-horsepower 16-cylinder engine has to drive for two hours on a dynamometer. Here are simulations up to 200 km/h which includes full-throttle stages. When the hyper sport car successfully passes all tests, it receives its outer shell. It takes about four days until everything fits perfectly. Followed by water tests, then the interior is fully equipped. When the vehicle is completely finished, employees cover it with a transparent foil, this protects the coachwork from stone chips when test driving it on the road.

TRIPLE FUNCTION TEST BY TEST DRIVER

Before a finished vehicle is handed over to a customer, professional test drivers test every function for at least 350 kilometers and eight hours on rural roads and test tracks. "The quality is noticeable everywhere, is visible in the unique surface quality such as the finish of the carbon fiber, but also in the acoustics. There should be no noise in a Bugatti," says Christophe Piochon. For this purpose, four trained test drivers with specially calibrated ears drive for hours on country roads. "They recognize every dissonance immediately and let it turn off", he says. "Therefore other wheels and another underbody are mounted." Should read: Only when everything is precise, the Bugatti runs as perfect as possible, then the original wheels and the underbody are mounted and the Bugatti is subjected to its third functional test.

At the end lacquer finish is done by true lacquer artists. They remove the foil and carefully prepare the surface. Then four employees with fine cotton gloves check the surfaces for perfect workmanship during a further six-hour test. Finally, Bugatti board member Christophe Piochon examines each ready for delivery vehicle for approximately one hour under a bright daylight beam. "It is a great amount of effort, but we owe it to our customers. Only flawless vehicles leave the Atelier. Our claim: To get as close to perfection as possible," says Stephan Winkelmann. That is a challenge. For every single vehicle. Every day. But also a special motivation.