MOLSHEIM
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THE RIGOROUS QUALITY ASSESSMENT BEHIND EVERY W16 MISTRAL



Nothing less than perfection: that is what is demanded of each example of the Bugatti W16 Mistral[1] before it is delivered to its owner, undergoing an exhaustive and uncompromising quality assessment process. At the heart of that exercise lies a protocol that subjects each handcrafted vehicle to a minimum of 400 kilometers of rigorous evaluation across the diverse landscapes of Alsace, ensuring that every example meets the incomparably high standards of the marque.

2026 BUGATTI AUTOMOBILES S.A.S.

"The W16 Mistral represents the pinnacle of our roadster heritage and the final expression of our legendary W16 engine. Such significance demands nothing less than a constant pursuit of perfection in every detail, throughout the car. Putting every vehicle through a minimum of 400 km of assessment, our evaluation protocol isn't just about validating functionality, but a confirmation that each W16 Mistral is imbued with the pure essence of quality, precision, and craftsmanship that makes a Bugatti truly extraordinary. It is a process that has been meticulously refined over 20 years; I had the opportunity to help design the 350 km test for the Veyron during its development, and saw it evolve into the assessment optimized for the Chiron and its derivatives. Now with the Mistral, we're proud to see the continued success of this process - reaffirming the quality and reliability of our vehicles for our customers."

CHRISTOPHE PIOCHON
PRESIDENT OF BUGATTI AUTOMOBILES

A 350-kilometer test route through the picturesque Alsatian countryside serves as the perfect amphitheater for evaluating the W16 Mistral's capabilities. On this carefully curated route, each and every component undergoes individual scrutiny — from the fit, feel, and functionality of features within the cockpit, to the precision of the steering system's response and return characteristics.

The comprehensive route includes traditional Alsatian villages, winding country roads that showcase the W16 Mistral's agility, long highway stretches intended to evaluate stability and comfort during sustained cruising, and mountain passes that challenge the powertrain under range of elevation and atmospheric conditions.

Each element of the route has been carefully selected to contribute to a comprehensive driving experience that, as a whole, reflects the full spectrum of real-world scenarios a customer may encounter — from the technical challenge of cobblestone surfaces that can reveal the slightest chassis irregularity, to open stretches where the sublime symphony of the W16 engine reaches its crescendo in the open-air cockpit.

The validation extends beyond mechanical systems to encompass the complete sensory experience. Noise testing occurs across multiple scenarios: evaluation with and without the soft-top roof, analysis of wind and road noise characteristics, assessment of the exhaust system's acoustic signature, and verification of chassis and tire rolling dynamics.

Even transmission behavior receives dedicated attention, with technicians analyzing gear changes during acceleration, deceleration, and varying load conditions. Every facet of the surrounding environment is also employed in the pursuit of perfection — down to narrow streets lined with ancient stone buildings, which create natural acoustic chambers for Bugatti's test drivers, using the echo against walls to analyze every nuance of the vehicle's sound profile.

Only a select few specialists take on the mantle of such a rigorous assessment journey. Currently, just three experts possess the full qualification and dedication required to conduct W16 Mistral quality appraisal — a testament to the expertise required. These master evaluators

together represent decades of accumulated knowledge, with each new test driver undergoing an intensive training regime including several supervised test drives alongside senior experts, and fully autonomous assessments encompassing comprehensive sensory analysis.

This human-centric approach reflects Bugatti's fundamental methodology: ninety percent of quality validation derives from the driver's personal analysis through sight, sound, and touch. These automotive virtuosos possess the ability to detect the slightest irregular sound, identifying unknown vibrations imperceptible to untrained senses that could indicate developing issues. Their profound mechanical understanding, borne from extensive skill with every component, enables accurate detection and diagnosis of any anomaly.

Each observation is meticulously recorded via dictaphone during the drive for subsequent in-depth analysis, and when necessary, followed by partial or complete vehicle disassembly. The remaining ten percent of evaluation utilizes sophisticated electronic diagnostics, a combination of Bugatti's proprietary internal telemetry systems and highly precise data loggers that continuously monitor and record all performance metrics throughout every kilometer of the test drive.

Moving from the open-road to closed-circuit arena, the comprehensive program culminates with high-speed track sessions at the Colmar airfield, where Bugatti maintains an exclusive 1,600-meter partnership facility. Here, emergency braking systems, ESP, and ABS undergo rigorous evaluation at speeds reaching 300 km/h.

For this, the Mistral's removable roof mechanism demands additional layers of testing — unprecedented in Bugatti's recent portfolio. Every aspect of the roof's fit, removal process, and high-speed resistance undergoes meticulous scrutiny. Only with the roof removed can the roadster achieve its top speed, allowing the legendary W16's 1,600 PS to express itself without constraint, creating an unparalleled sensory experience as the quad-turbocharged powerplant reaches its most visceral crescendo.

The iterative nature of Bugatti's assessment method ensures absolute perfection. Following the identification and resolution of any irregularities, regardless of how minor, a secondary verification test of typically 50 kilometers or more confirms the effectiveness of all corrections. This process repeats as many cycles as necessary until the vehicle demonstrates flawless performance under every conceivable condition — representing a relentless commitment to excellence.

> "Bugatti stands as one of the few manufacturers conducting 100% comprehensive appraisal of every vehicle. Our dedication to this process establishes a true benchmark in the industry. In every aspect of engineering, design, craftsmanship and performance a Bugatti must be incomparable, so it was crucial for us to also develop a testing process so comprehensive that it would be without compromise."
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> PHILIPPE GRAND
> DIRECTOR OF QUALITY AT BUGATTI

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[1] W16 Mistral: WLTP fuel consumption, l/100 km: low phase 40.7 / medium phase 21.9 / high phase 18.3 / extra high phase 17.6 / combined 21.8; CO2 emissions combined, g/km: 495; efficiency class: G