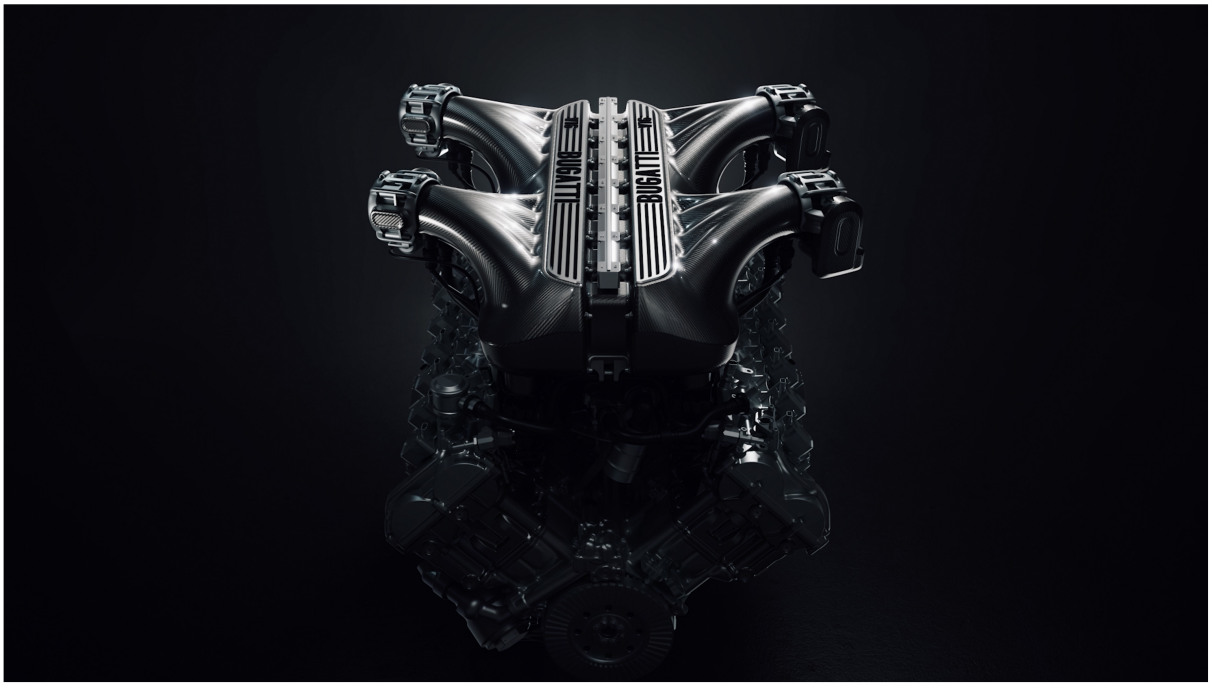
SILENCE TO SYMPHONY: THE BIRTH OF BUGATTI'S NEW MECHANICAL HEART



For 116 years, Bugatti has been defined by the relentless pursuit of excellence, where artistry and engineering converge to push the boundaries of performance. This philosophy continues into the marque's new era — one characterized by innovation, and an unwavering dedication to creating the extraordinary. At the heart of this is an all-new V16, a feat of engineering that stands apart in the modern automotive landscape. Episode Seven of the 'A New Era' docuseries — available on YouTube now — captures a defining moment in the engine's journey.

The pursuit of perfection necessitates an uncompromising approach to development. For the brand from Molsheim, the journey to develop a powertrain that would drive the new era of

Bugatti hyper sports cars began in 2021 when Mate Rimac made initial contact with the high-performance internal combustion engine specialists at Cosworth.
Unlike conventional early-stage testing, which often starts with the assembly of a single-cylinder mule engine, Bugatti took a more ambitious approach.

> ''We're building a Bugatti, so naturally, the number of cylinders and the displacement needed to be significant. That's why we opted for a four-cylinder mule engine rather than just one. This approach allows us to better understand performance characteristics, sound quality, and overall behavior.''
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> MARCO ARNOLETTI
> POWERTRAIN CHIEF ENGINEER AT BUGATTI RIMAC

The significance of this moment was not lost on the Bugatti team. Firing up the first iteration of an all-new powertrain was a milestone that defined the future of the brand. Unlike any other internal combustion engine in modern production, the Bugatti engine is a V16 naturally aspirated powerhouse designed for unparalleled performance and engagement.

In 2023, the teams at Bugatti and Cosworth reached a landmark — the first complete V16 test engine was ready for testing on the dyno. A moment years in the making, it represented the fusion of vision, ingenuity, and uncompromising standards. Bugatti's engineering philosophy demands not only extraordinary performance but also an unmatched sensory experience. The sound, the response, the way the engine delivers power — all had to be perfect.

The plenum, a critical component in any naturally aspirated engine, became a key point of the design process. The subject of countless iterations, Bugatti worked to achieve the perfect balance between performance and aesthetics. True to the history of the marque, every component had to function flawlessly while also embodying a level of craftsmanship so exquisite that it could stand alone as a piece of automotive art, worthy of display beyond the car itself.

> ''The dream finally came true. The naturally aspirated V16 is one of the largest engines ever created, measuring nearly a meter in length. Just imagine the size of the crankshaft inside — it's massive. This engine is a truly unique achievement, embodying Bugatti's incomparable vision and relentless drive to push boundaries and achieve the unimaginable.''
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> EMILIO SCERVO
> BUGATTI RIMAC CHIEF TECHNICAL OFFICER

From the outset, Emilio Scervo and the powertrain team recognized that a naturally aspirated V16 would deliver an unrivaled emotional connection, and by integrating it into a hybrid drive, Bugatti could ensure instantaneous torque. The culmination of this engineering prowess is epitomized in the Tourbillon[1], where the all-new 8.3-liter V16 engine works in harmony with advanced electric support to deliver unparalleled performance.

Together, the engine and hybrid system produce a combined output of 1,800 HP, with the V16 alone generating 1,000 HP at 9,000 rpm. Engineered for both power and precision, the combustion engine delivers 900 Nm of torque, seamlessly complemented by three electric motors that provide an additional 800 HP and instant torque. In the Tourbillon, this translates to groundbreaking acceleration — 0 to 100 km/h (62 mph) in just 2.0 seconds — and a top speed of 445 km/h (276 mph).

The result of years of development, the Bugatti engine redefines what is possible in modern automotive engineering. Through its powertrain, the Tourbillon offers a unique approach to performance as the only production car to feature a naturally aspirated V16. More than just a hyper sports car, it is an expression of elegance, innovation, and bravery. With the V16 a reality, the next step in the journey began: integrating this extraordinary engine with the hybrid system, setting the stage for the hyper sports car that will define Bugatti's next era.

> "Bugatti has always been about doing things differently. As a brand, we take on challenges that others wouldn't attempt, and we do it with an unmatched level of craftsmanship and beauty. This V16 is the ultimate expression of that mindset — an engine that defies convention, delivering both raw emotion and unparalleled performance in a way only Bugatti can."
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> EMILIO SCERVO
> BUGATTI RIMAC CHIEF TECHNICAL OFFICER

Watch the full episode 'A New Era: A 16-cylinder Heart' on the official Bugatti YouTube channel.

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[1] Tourbillon: This model is currently not subject to directive 1999/94/EC, as type approval has not yet been granted.