

# Zenvo and MAHLE talk about the most powerful production V12 in the world



Zenvo Automotive, George F Williams

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The Zenvo Aurora will go on sale next year with the [most powerful V12 ever installed in a production car](#). It's an engine named for Thor's hammer that will brutally pound the pavement while somehow managing to meet emissions standards around the world. How did the 6.6-liter beast come together? Zenvo and MAHLE Powertrain dive in to explain how this engine came to be.

When Zenvo came to MAHLE, it was looking to get just a little more power from [its TSR's V8 engine](#). They were having trouble with emissions, and the engine was at its absolute max. So MAHLE said it could do a bespoke engine for it. One that could go *far* beyond what the existing one was capable of.

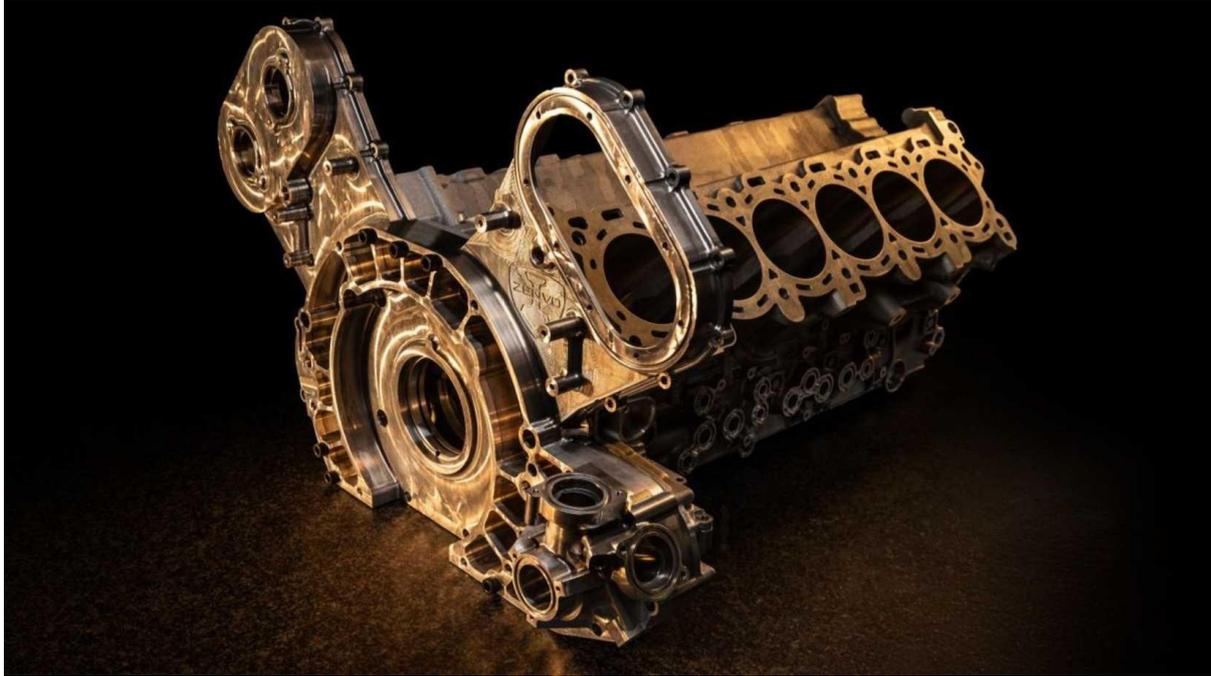
## Decades Of Experience In Every Decision



Zenvo Automotive

Even how many turbochargers to install was a tough decision. A quad-turbo setup would deliver slightly better responses than two, but it was tougher to do. MAHLE made it work. The company's team has decades of experience developing engines for racing and performance cars of all types and power levels.

But the look of the engine was important too. MAHLE wanted the 600 components to look like a work of art, in recognition of the performance it could deliver and the car in which it would be placed.



*Zenvo Automotive*

"The biggest target we had at the time was 450 km/h [280 mph]," said MAHLE Powertrain Sales and Marketing Director John Hollingworth. "We had to work out what size engine, and what performance does the engine need to do" in order to get that. "The other part was the 9,800 rpm. The sound of the high-revving engine."

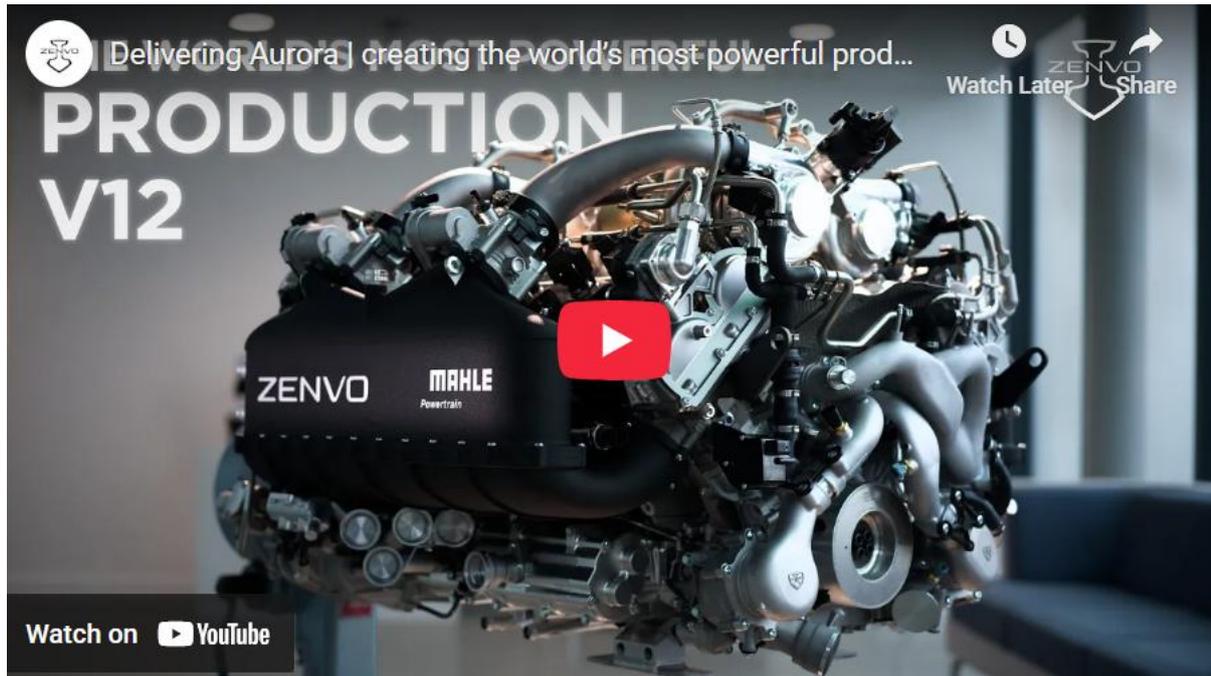
"We have taken many risks and many challenges by going with this level of specification," said Chief Engineer Javier Castane. "The benefit would be that the car is at the same level as all the other hybrid [hypercars] out there."

### **MAHLE Thinks This Engine Might Go Unchallenged**



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This V12 engine is a feat Hollingworth thinks may never be replicated. He rightfully points out that with electrification and modern regulations, the days of boutique companies building bespoke engines is nearing its end. Which would not be great for MAHLE, since that's their business.



<https://youtu.be/jjbyr8SXqyg>

[The Zenvo Aurora's 6.6-liter V12 and its four turbochargers](#) can produce 1,250 horsepower and 1,032 pound-feet of torque. The engine can't quite meet the 10,000 rpm redline it had initially planned, but when it hits 9,800 you're probably never going to miss the extra 200 revs. Another 600 horsepower comes from the hybrid drive system, which will help the car achieve immense speeds.

Zenvo plans to get this car to market with production starting in 2026. Then it can look at new possibilities for the engine. That could include the same engine in smaller cars from the supercar company, or, thanks to the modular design, [V10 or V8 variants that better-suit the cars in which they will be used.](#)

MAHLE Powertrain was born from [engine legends Cosworth](#). The company was absorbed into MAHLE in 2005 after being separated from Cosworth Racing by Audi, which was sold to Ford. MAHLE Powertrain develops gasoline engines and electrified powertrains including doing OE design work as well as validation and studies.

<https://carbuzz.com/worlds-most-powerful-production-v12/>