



Orbis Brakes debuts revolutionary brake technology — and the surprising environmental benefits

NASA collaboration results in ultralight automotive brakes expected to change the standard for price, performance, safety, and sustainability

Santa Rosa Calif., June 5, 2022– Developed in partnership with NASA, and highly anticipated within the automotive industry, Orbis Brakes has announced the launch of its Periodic Wave™ disc brake line, expected to shake up the category.

Although considered the most important part of any car or truck, brakes have not seen a significant disruption since the introduction of carbon-ceramic brakes 20 years ago. Orbis had been pioneering a design innovation that would cool brakes more efficiently when a NASA engineer offered his agency's heat-dissipation expertise. The partnership resulted in the patented Periodic Wave™ disc brake, which uses advanced aerodynamics to provide superior surface cooling, reduce dangerous brake fade, and extend vehicle range and fuel efficiency.

“This is a collaboration of some of the smartest people on the planet,” says Orbis co-CEO and co-Founder Marcus Hays. “We decided from the beginning that it wasn't innovation unless it produced real-world results, and that's exactly what we've done.”

Lighter, cooler, and vastly more efficient, Orbis Brakes are slated to deliver the kind of market disruption carbon-ceramic brakes couldn't: racetrack performance at consumer prices. Its first product, the **NextWave**, is an innovative superlight disc brake rotor and pad expected to retail at a fraction of comparable performance brakes. The **EcoWave** is an environmentally-driven high-performance replacement brake rotor and pad priced to compete with entry-level brakes. The company will also be introducing **LightWave**, the lighter, cooler, high-performance replacement rotor, monoblock caliper, and vented pad, and **CarbonWave**, the world's first integral wheel and brake, delivering the lowest unsprung weight in the industry.

While performance, safety, and price are key values in any braking equation, Orbis Brakes have added another revolutionary advantage: lower environmental impact. The Orbis

brake weighs 50% less on average than conventional cast iron brakes, reducing the energy needed to manufacture them by half and lowering carbon consumption across the supply chain. A global upgrade to Periodic Wave brakes could remove billions of pounds of Co2 from the atmosphere.

Made from 100% recyclable iron, the unique design also dramatically reduces brown emissions, the particulate matter from brakes, tires, and road surfaces that is considered exponentially more toxic than tailpipe emissions and is expected to become a major environmental issue in coming years. Next month, Europe will be including brake pad pollution for the first time in issuing its Euro 7 regulatory mandates.

Industry analysts expect high-performance and commercial vehicle owners to be a prime audience for the Orbis upgrade, as well as the fast-growing number of electric car owners looking for aftermarket products that share their high-efficiency, low-emission values.

Orbis Brakes plans launch the NextWave Q3 2022, and EcoWave Q1 2023, and is currently taking pre-orders at orbisbrakes.com

MotorTrend

<https://www.motortrend.com/news/nasa-orbis-high-performance-brakes-tesla-model-s-plaid>

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“There's about to be a new name in lightweight, high-performance brakes: Orbis.”

“The result is the new Periodic Wave Disc Brake Rotor, said to rival the best performance aftermarket brakes available today.”

“Ideal for the Tesla Plaid crowd”

“Configured to replace conventional rotors and calipers inside *any* manufacturer's wheel.”