

Huayra REVO

# TECHNICAL SPECIFICATIONS PAGANI HUAYRA R EVO

**POWER** 900 hp (662 kW) at 8,750 rpm **TORQUE** 770 Nm from 5,800 to 8,200 rpm ENGINE Pagani V12-R Evo, 6.0 liters, naturally aspirated 12-cylinder V 60° and longitudinal central position **GEARBOX** 6-speed sequential plus reverse, non-synchronized dog ring gearbox with sintered metal 3-disc racing clutch TRANSMISSION Rear-wheel drive CHASSIS Monocoque with integrated seats in Carbo-Titanium HP62 G2 and Carbo-Triax HP62 with front and rear subframes in Cr-Mo alloy steel SUSPENSION Forged aluminum alloy independent double wishbone, helical springs and electronically controlled shock absorbers with additional heave damper per axle **BRAKES** Brembo CCM-R ventilated discs front 410×38 mm with monolithic 6-piston calipers rear 390×34 mm with monolithic 6-piston calipers WHEELS Forged monolithic aluminum alloy with carbon fiber extractor front 19 inches and rear 20 inches **TYRES** Pirelli P Zero<sup>™</sup> Slick, in Dry and Wet specs front 280/680 R19 and rear 345/725 R20 **DRY WEIGHT** 1,060 kg (2,336.94 lb) DIMENSIONS Length: 5180 mm (203.94 inches); width: 2077 mm (81.77 inches); height: 1164 mm (45.83 inches); wheelbase: 2792 mm (109.92 inches). MAX SPEED 350 km/h (218 mph)

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# HUAYRA R EVO: THE EXTREME OPEN-TOP HYPERCAR THAT ENRICHES THE ARTE IN PISTA PROGRAM

- The new open-top track Hypercar pushes the boundaries of performance even further.
- It will join Arte in Pista, the exclusive program reserved for Pagani Track Hypercar owners.
- The inspiration is multifaceted: from IndyCar racing cars to historic Le Mans vehicles.
- The 'codalunga' (long-tail) design is the result of a carefully studied evolution in its natural environment: the racetrack.
- At the heart of the Huayra R Evo lies the Pagani V12-R Evo engine, delivering 900 hp (662 kW) at 8,750 rpm with a maximum torque of 770 Nm.
- *Aerodynamic efficiency improves, increasing downforce by* 45% *while preserving the ease of handling.*
- The cockpit is inspired by the most innovative applications in the motorsport world, particularly focusing on safety.
- The suspension improves in stability and precision thanks to the new heave damper system.
- The braking system has been further enhanced with the brand-new CCM-R self-ventilated carbon-ceramic discs paired with bespoke racing pads.
- From virtual development to the track, the Pirelli P Zero<sup>TM</sup> Slick tires ensure maximum control on the asphalt in every condition.





*San Cesario sul Panaro, February 8<sup>th</sup>, 2024* – Pagani Automobili presents the Huayra R Evo, the new open-top car that enhances the experiences of clients in the Arte in Pista program. With a focus on this exclusive club of track-Hypercar owners, the Pagani team explored new stylistic and technical potential, giving rise to an even more thrilling and extreme vehicle.

«The Huayra R and the Arte in Pista program have expanded our clients' experience with the Pagani brand beyond our wildest dreams, giving a new opportunity to owners of the Zonda R and Zonda Revolución as well. The demand for the Arte In Pista program, where adrenaline-seekers from around the world meet to share their common passion, led us to think about an addition to the program. It is our pleasure to share the Huayra R Evo with you, pushing the boundaries of performance and emotion even further. Let's start by removing the roof and take it from there...» (Horacio Pagani, Founder & Chief Designer of Pagani Automobili)

## Arte in Pista, a high-octane program for an exclusive club of passionate clients

In 2021, for the launch of the Huayra R, Pagani Automobili announced the beginning of the new Arte In Pista program, a rich calendar of personalized events allowing owners of the new model, alongside those of the Zonda R and Zonda Revolución, to take it to its highest levels of performance.

The essence of Arte in Pista consists of non-competitive track events at the most prestigious FIA circuits in the world, featuring both high-octane sessions and leisurely moments. The format includes a complete track experience and the technical assistance of the Pagani team, including the technical director for data analysis, track engineers and mechanics, and a motorsports physiotherapist and nutritionist. The program's highlight is the support of professional drivers, who contribute to improving the client's driving skills.

«I was fortunate to be able to attend all of the Arte in Pista events during 2022 and I am so pleased I made the time to do so. I felt very much part of the Pagani family, and the level of care and organization were extraordinary. I had nothing to worry about, the Pagani team took care of everything, allowing me to focus all my time and energy on my new Huayra R at the amazing circuits we visited. My family and friends were made to feel very welcome, which made the whole experience even more special for me. I feel I should also mention the driver coaching and race mechanics that were there to support each event. Having raced myself in the past, I could appreciate the quality and level of detail. It does feel like you're part of a professional race team, with data analysis, driver coaching, timing, and physio.» (M.R. - Huayra R owner)





«A program like Arte in Pista has several key components: the cars, the events, and the people. The Huayra R is just as incredible to drive as it is stunning to look at. Having experienced two years of Arte in Pista with the Huayra R, I am still blown away by the car's performance and its breadth of capabilities. And the sound! You feel like you've been transported back in time to the glory days! The Pagani team that runs the events has to be amongst the world's best. In addition to managing the cars and the track activities like a professional racing team, they take care of the participants and their families so well that it wouldn't be much of a stretch to say that these events are worth attending even if you weren't driving! The level of focus and commitment I've seen in most of the participants is seriously impressive. As fun as it is to just be able to drive a car like this on the track, most people in the program are willing to put in the (very) hard work needed to consistently improve. I am very much looking forward to the next season, and beyond!» (A.S. - Huayra R owner)

#### Genesis of a project born from the world of racing

«The inspiration for the design of the Huayra R Evo struck me during a Formula Indy race in Nashville: as I observed the single-seater cars with their Aeroscreens, the idea of creating a car with protective polycarbonate surfaces and the option to remove the two roof panels to be fully immersed in the allure of the air and the captivating sound of the engine, dawned on me.

From that moment on, we set out with the goal of creating a beautiful car, subjective as that term may be, harmonious in its lines and strong in its character. The final result is a true descendant of the Huayra R, one of the cars our customers love the most.

We also drew inspiration from the elegance of Le Mans cars that graced the tracks in the '60s and '70s, including the swift 'codalunga' long-tail prototypes.

With these stylistic foundations, we meticulously addressed aerodynamics, design, and every minute detail, adhering to the high standards synonymous with Pagani Automobili and the expectations of our discerning customers.

This fascinating project engaged the entire team for approximately two years, involving extensive testing and participation in Arte in Pista events on track. We gathered valuable insights from our customers, collaborating closely with longstanding partners such as Pirelli and Brembo to develop top-tier components for a high-performance and distinctive vehicle like the Huayra R Evo.» (Horacio Pagani, Founder & Chief Designer of Pagani Automobili)

In the quest to further elevate the driver's experience, Mr. Pagani and his team have shaped the new Huayra R Evo drawing inspiration from a time when drivers braved the elements, piloting open-top cars, in their pursuit of victory.





The result is a bold and aggressive vehicle designed to meet an extreme need for freedom, yet with careful consideration for safety, aimed at thrilling even the most expert driver with uncompromising performance. With a significant increase in power output, braking performance, aerodynamic efficiency, and vertical load, the Huayra R Evo can match the performance levels of the current Le Mans Prototype 2 race cars, providing an experience remarkably close to the epic world of endurance racing that has transformed drivers into heroes and sensational cars into eternal legends.

#### The design, the result of a carefully studied evolution in its natural environment

«When the Huayra R was born, we had an extreme car in mind, an expression of a great desire for freedom. At that time, with premises like these, it was not possible to think of its future evolution, but thanks to the Arte in Pista program and its related experiences, we allowed ourselves to be inspired by new stimuli. Nature teaches us how every organism tends to evolve to adapt to environmental conditions, and this principle guided the creation of the Huayra R Evo project. The term 'Evo' reflects the transformation of a Hypercar that increasingly adapts to its natural environment — the track — integrating new elements and evolving in terms of performance and drivability." (Francesco Perini, Head of Technical Department at Pagani Automobili)

Many of the design peculiarities of the Huayra R Evo are evident at first glance: at the front, the team of designers conceived a compact and aerodynamically efficient layout through a sophisticated system of air ducts to manage the optimal distribution of cooling required for brake discs, calipers, and the water radiator. This ducting system is integrated and supported by the splitter, extended forward by 101 mm (approx. 4 inches), featuring a dedicated aerodynamic profile that enhances the car's capabilities. Alongside it, the double row of flicks on the hood contributes to the aerodynamic load on the front axle, essential for maximum control during corner entry.

From the front hood, the sinuous beltline and the shaped side sills enhance the perception of lightness and efficiency, giving rise to a flow system essential for functionality in extreme conditions. It represents a complex fusion of shapes and surfaces that, on one hand, allows the release of air and heat accumulated in the front wheel arches, and on the other hand, contributes to generating an airflow that aerodynamically cleans the rear engine compartment.

These features are complemented by a 190 mm (approx. 7.5 inches) extension at the rear, following the 'codalunga' (long-tail) concept. The expansive and gracefully contoured rear hood supports the newly introduced central stabilizing fin and the integrated supports within the wing, featuring metal side flaps reminiscent of iconic designs from the past. The body is completed by a rear extractor that incorporates essential aerodynamic fins to streamline the airflow at the rear of the vehicle. All these developments have





also led to an increase in the surface area of the aerodynamic underbody, an aspect carefully considered during the design of every detail of the vehicle and its drivability to ensure it is both extreme and intuitive – whether observed in the pits through the expression of its design or experienced while driving on the most prestigious tracks.

The overall body design incorporates cutting-edge Class A carbon fiber, specifically developed for the Utopia with a keen focus on aesthetic applications. This carbon fiber, enhancing both visual appeal and structural performance, has contributed to a 38% increase in stiffness characteristics at the same weight, optimizing material usage and reducing the vehicle's weight.

## The new Pagani V12-R Evo engine boosted to 900 hp

The strategic collaboration between Pagani and HWA AG remains the cornerstone of the Huayra R Evo project, by giving life to the upgraded and enhanced V12-R Evo engine, unleashing all the potential of the new track Hypercar. Equipped with the most modern technology derived from the racing world, the new engine delivers 900 hp (662 kW) at 8,750 rpm with a maximum torque of 770 Nm, which is directly available from 5,800 to 8,2000 rpm. The Huayra R Evo offers great track performance with a redline at 9,200 rpm. HWA AG and Pagani engineers did not solely focus on increasing power; they also intervened in other crucial components, such as the intake manifold. It has been optimized with a new trumpet design and new camshafts to enhance the delicate aspiration process.

The team also worked on both the precise calibration of the control unit and the design of the exhaust system to enhance performance and deliver a distinctive sound. Throughout the refinement process, each element was meticulously crafted with care and passion to endow this vehicle with extraordinary power.

The six-speed sequential gearbox was designed in collaboration with HWA AG and dedicated only to the Huayra track lineage. Driven by a 3-sintered metal disc racing clutch, the non-synchronized dog ring gearbox guarantees a 95% friction efficiency, offering the greatest shift precision, extremely reduced shifting times, and weighing just 80 kg (176 lb). Securely attached to the monocoque as well as the engine, it contributes to the overall rigidity of the chassis and withstands heavy dynamic loads. The complete transmission system is designed to integrate structurally with the entire suspension unit through dedicated attachment points to maximize the architectural efficiency of the car.

## Greater aerodynamic efficiency with the open roof

The clean design of the Huayra R Evo forms a symbiotic relationship with the evolution of aerodynamics and is capable of bringing out the most extreme performance while guaranteeing the total protection of the driver, aimed at increasing the driver's confidence.



The 'codalunga' (long-tail) style, characterized by a distinct extension of the diffuser and hood, needed a comprehensive reassessment of the aerodynamic design. The extensive and meticulous effort undertaken by the team reaffirmed a noteworthy observation that had surfaced during the development of the Huayra R: underscoring the significance of exploring beauty in design, enhancements in the vehicle's aesthetics were seamlessly intertwined with improvements in performance and aerodynamic efficiency. This synergy resulted in optimal aerodynamic performance while ensuring safe and predictable behavior under all conditions. As a result, there is an incredible 45% increase in downforce and a 21% increase in aerodynamic efficiency with the same resistance.

Every line and surface of the new Hypercar has been designed to generate the greatest aerodynamic load; at 320 km/h (199 mph), in a lowered setup, the vehicle generates a greater vertical aerodynamic load than its total weight in running order. Achieving this potential required precise balancing, maintaining a distribution of 45% - 55% throughout the entire speed range, and minimizing sensitivity to ground clearance. This design ensures stability during braking and in corners, aided by the contribution of the two movable rear flaps and sophisticated active aerodynamic management strategies.

Particularly relevant is the open roof, which enhances aerodynamic efficiency, contrary to expectations. The open-top configuration increases both front and rear vertical load, boosting the total downforce by an additional 5%.

## A cockpit inspired by the most innovative automotive technologies

The comfort and performance of a sports car make no sense without being combined with an environment that provides maximum safety, a fundamental aspect on which the Pagani Automobili team never compromises.

The chassis of the Huayra R Evo incorporates various elements to minimize weight, from the safety cage to the seat and headrest structures and is crafted with the latest technologies in advanced composite materials developed by the Atelier, such as Carbo-Titanium HP62-G2 and Carbo-Triax HP62.

The interiors are equipped with six-point harnesses and seats covered in fireproof material, whose special Ener-Core EC 50 foam padding ensures an optimal driving position, perfectly adapting to the body shape of the driver and passenger, while the carbon fiber headrests are also fitted with dedicated lateral protection.

The new cockpit ensures full frontal visibility and introduces a touch of uncommon elegance in track cars: from the inside, lifting the gaze, a play of sinuous lines seamlessly integrates onto the roof structure. This allows for enjoying a meticulously crafted interior even during the most extreme track sessions. The spectacle is accessible for both the right-hand and left-hand seated driver, as the Huayra R Evo can be





configured with either driving position. This underscores the exclusivity and distinctive craftsmanship of Pagani.

Everything leads back to the pursuit of maximum safety and protection, without compromising the essential beauty that characterizes the vehicle, inside and out, following the Leonardo da Vinci principle of 'Art and Science.' The Huayra R Evo project confirms the great attention to the customer and a first-class technical know-how, capable of turning a dream of extreme driving into a concrete reality.

## Sophisticated suspension enhanced by a new heave damper

The Huayra R Evo inherits the unprecedented kinematics and sophisticated geometry of the suspension system developed specifically for the Huayra R, representing one of the most complex and experimental moments ever faced by the Pagani Atelier.

A significant innovation complements the suspension system: the integration of a heave damper, a third hydraulic element that separates the management of the car-body heights from the independent dampers of the four wheels.

With a double-wishbone suspension made of forged aluminum alloy, helical springs, and electronically controlled active shock absorbers, the entire configuration of the new system with rigid mounting points not only allows transferring all the power and extraordinary torque of the Pagani V12-R Evo to the ground, but also provides unprecedented driving precision.

The advanced and refined elasto-kinematics of the new Hypercar enable greater camber recovery and optimized dynamic bump steer correction to ensure the ideal grip of the tires in every situation. Interconnected with the active aerodynamics system, the active suspension ensures the Huayra R Evo's appropriate response in every condition, allowing for perfect balance when entering and exiting corners and maximum stability when braking, for precise and always predictable behavior.

## An even more advanced braking system

The brand-new CCM-R self-ventilated carbon-ceramic discs paired with bespoke racing pads provide the Huayra R Evo with top-tier braking power.

The front brake system features a 100% increase in the surface area of exchange zones in the discs, thanks to a double line of slotted holes, and a 14% increase in the braking area on the disc and pads. This enhancement reduces the thermal power absorbed by the pad and further improves disc durability and stability.

The new CCM-Rs embody the most advanced available technology and have significant advantages in terms of thermal conductivity and maximum braking power, typical of carbon used in motorsports. As a





result, stability is improved, operating temperatures are reduced during extreme track use, and the entire system is more durable.

The new braking system of the Huayra R Evo is the product of a long-standing cooperation between Pagani Automobili and Brembo, which has always focused on equipping Pagani Hypercars with state-of-the-art technology to ensure maximum performance, perfectly integrated design, safety, and unprecedented lightness.

## Wider P Zero<sup>TM</sup> Slick tires for superior control on the track

The Huayra R Evo includes brand new P Zero<sup>™</sup> Slick tires, 280/680 R19 in the front and 345/725 R20 in the rear, resulting from a comprehensive development process starting from the structure to withstand demanding dynamic loads. The increased tread width has expanded the performance boundaries of the vehicle and improved durability under intense usage conditions. Specifically developed by Pirelli Motorsport and Pagani Automobili using virtual simulation methodology, similar to the recent Trofeo RS for the road, the Huayra R Evo tires provide maximum precision and a sense of complete control for the gentleman driver. This is achieved through a new type of compound, ensuring exceptional traction during launches and stable braking behavior.

Available in both Dry and Wet versions, designed to allow the Huayra R Evo to tackle the asphalt in any condition, Pirelli's new tire is engineered to deliver the necessary grip for millimeter-precision in every turn, extending its usage significantly to support the continuous optimal performance of the vehicle.

PRESS CONTACTS Pagani Automobili press.office@pagani.com

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