VALHALLA

This is Valhalla

Our first ever mid-engine PHEV combines unparalleled performance, 112 years in the making. Combining unprecedented actuation systems with form-defining aerodynamics derived from and inspired by the iconic Aston Martin Valkyrie and powered by a powerful combustion engine and two electric motors, all the extreme edge of technological advancement.
Never look back.

POWER (P)

1079

TOP SPEED (MPH)

217

0-60MPH (MPH) 0-100 KM/H (SPRINT)

600

See full specifications

POWERTRAIN

Pure PHEV Power

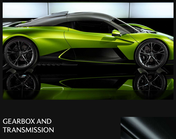
One engine, three hybrid motors. Combined to unleash an extraordinary 1,079HP, 2-sprint in 2.7s and 0-100km/h of 3.0s. Electrifyingly complex in a big speed of 217mph. Valhalla is our most powerful series production Aston Martin.

INTERNAL COMBUSTION ENGINE

Powered by a bespoke 4.0-litre twin-turbo flat-plane crank V8, Valhalla's combustion engine produces 938PS. The most powerful V8 ever fitted to an Aston Martin. Driving the rear axle, the V8's dry sump lubrication system lowers the centre of gravity and ensures optimal oil supply even under high lateral cornering forces.

Electric drive unit

Another first for Aston Martin is Valhalla's cutting-edge Electric Drive Unit (EDU) – two independent front E motors designed exclusively for Valhalla, driving the front axle. Uniquely integrated into the Front Electric Drive Unit, to allow front wheel torque vectoring. The E motors are powered by a 400V battery system, ensuring high power overmap. A 10Nm power moduvalve, 9Nm, can be deployed, enjoy better turn-in, and experience spectacular mid-corner grip with superior traction on exit. The rear axle, driven by the V8, has a 9Nm power moduvalve, 9Nm, and a 9Nm E-reverse. Valhalla houses an Electronically Limited Slip Differential ensuring superb balance, grip, and agility.

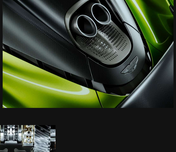


BATTERY

Designed for this performance-focused PHEV powertrain, the 10.4Ah motors are powered by a 400V battery. The Lithium-ion Battery (HPB) system. An ultra-efficient dielectric cooling system instantly satisfies frequent and successive power demands with fast energy absorption and high power density. The result is immediate access to full power potential while accelerating, with energy recuperation through regenerative braking.

GEARBOX AND TRANSMISSION

The all-new 8-speed Dual Clutch Transmission (DCT) has been designed and built specifically for Valhalla and its PHEV powertrain. The innovative rear E motor integrated into the DCT performs multiple tasks to improve efficiency. It is used to start the engine, charge the HV battery in all drive modes, enhance gear synchronisation, assist the engine in reaching optimum revs during gear shifts, and in launching vehicle. The specially packaged E motor is essential in giving the driver the ultimate feeling of engagement through both Torque Fill and Load Shifting. This brand new DCT has been developed for the hybrid future, purposefully engineered for an engaged shift feel.

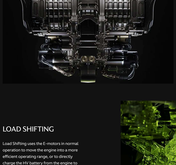


E-REVERSE

In EV mode Valhalla takes drive exclusively from the front axle, and to minimise weight there is no reverse gear. Valhalla instead features E-reverse, with rear-wind drive provided by the from axle E-motors in all drive modes.

Torque Fill

Valhalla combines Intelligent Torque Fill, E-Boost and Loadshift functions to extract ultimate performance from its powertrain. Torque Fill is a proprietary function that, when in EV mode, it anticipates the demand of instantaneous propulsion from the ICE system, supporting the torque demand for the internal combustion engine. Ensure the turbochargers deliver the required level of boost.



E-BOOST

E-Boost uses the electric motors to extend the operation of Torque Fill, enabling the total tractive power to exceed the maximum available by the twin-turbo charged V8 engine alone. Pushing performance and response even further its class-leading propulsion technology sharpens electrical efficiencies to maximise torque, speed and driving thrill.

LOAD SHIFTING

Load Shifting uses the E motors in normal operation to move the engine into a more efficient operating range, or to directly charge the HV battery from the engine to increase the state of charge. Increasing or decreasing the load on the engine, the combustion engine (ICE) supports Valhalla to achieve best use of its onboard energy.

COOLING SYSTEMS

Valhalla has an extensive cooling network and heat management system, regulating the PHEV powertrain to ensure ultimate performance can be extracted at all times. Three high temperature radiators, located at the front of the car, cool the V8 engine. Air is funnelled through two ducts into the turbochargers, Air Charged Air Coolers (ACAC) and the twin V° configuration within the V8, too. A smaller radiator and condenser cool the cabin and battery. Within the F1®-inspired roof scoop lives two air charge coolers, ensuring the V8 is kept cool. Completing this complex network are eight two-side radiators, fed by air guided along the side of the car by the door turning vanes, the left-hand cooler for the engine oil and the right-hand cooler for the transmission oil.

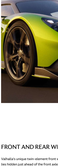
Active aerodynamics

Unparalleled active aero

Track DNA, sculpted for the road. Every surface of the car has been meticulously honed to generate downforce and minimise drag, informed by Aston Martin Valkyrie and Valkyrie AMR Pro, and developed in the wind tunnel at Aston Martin Technology (AMT), directly harnessing innovations straight from our Aston Martin Aramco Formula 1® team. Valhalla incorporates an integrated system of Active Aerodynamics, Active Suspension and Active Chassis, all working in harmony to manipulate the airflow. This paired with extensive use of the F1® simulator for dynamic calibration pushes Valhalla to the extreme edge of on-track and road-going performance.

ACTIVE AERO

Our Formula 1™ philosophy and performance not design comes to the roads thanks to Valhalla's Active Aerodynamics. Combining a unique, active front wing with a fixed rear wing, the system ensures the car rides from the bodywork to face those for maximum downforce. The active rear wing features a DRS (Drag Reduction System) track, boosting off-downforce with automatic drag reduction (DRS) or adjusting towards a vertical position to deploy the air brake.



Unerringly airflow is managed masterfully by rear vortex tunnels and a diffuser while an active air-dam automatically controls the underflow running wires. A cooling by-pass minimises drag in all drive modes. A Gurney flap, fitted to the trailing edge of 600kg of downforce, helping drivers corner at pace with increased performance and unshakable stability.

This groundbreaking downforce figure is mainstream at the way up to Valhalla's electronically limited top speed of 217mph. Valhalla's active aerodynamics system is a complex active aerodynamics. The front and rear wings are gradually reduced in angle to lower off excess downforce as speed rises, seamlessly working together to maintain optimum downforce levels, delivering increased performance, incredible stability and maximum driver confidence.

FRONT AND REAR WING

Valhalla's unique twin element front wing has hidden just ahead of the front axle, ensuring the flow of air is under maximum control and manage the airflow across multiple surfaces. When Race mode is selected the front wing shifts to maximum downforce mode, with the movement of the wing's flaps and the rear wing controlled by Valhalla Control (VAC) electronic systems, the active rear wing adjusts to optimise downforce mode, reduce drag or minimise braking distance. Under heavy braking, the rear wing flaps rotate to a vertical position, allowing the angle rapidly in under 0.5 seconds to reduce drag. Influenced by our Formula 1™ experience in aerodynamic transfers, the rear wing works in tandem with the concealed active front wing to shift the balance of pressure and maintain optimal aero balance and stability while delivering incredible braking performance.

When in F1 Sport or Sport + modes the rear wing remains stowed, perfectly preserving Valhalla's sleek and elegant profile. In Race mode Valhalla comes to life, with the rear wing extending upwards by 250mm. Taking inputs from Valhalla's Electronic Vehicle Control (EVC) electronic systems, the active rear wing adjusts to optimise downforce mode, reduce drag or minimise braking distance. Under heavy braking, the rear wing flaps rotate to a vertical position, allowing the angle rapidly in under 0.5 seconds to reduce drag. Influenced by our Formula 1™ experience in aerodynamic transfers, the rear wing works in tandem with the concealed active front wing to shift the balance of pressure and maintain optimal aero balance and stability while delivering incredible braking performance.

Together the front and rear wings give Valhalla the excellent downforce distribution and aerodynamic balance, Valhalla Cruise for assured stability and unparalleled vehicle performance.

Weight, Performance and Power

Formula 1™ inspired foundations

A superior chassis forged for control and precision. Every aspect carefully considered and bespoke revised. You will find no compromise here. Uncompromising performance, in a lightweight, high-strength package. Valhalla's chassis and suspension are a masterpiece of engineering, with a lightweight, high-strength, ultra-stiff carbon fibre monocoque, coupled with a bespoke, ultra-sophisticated, carbon fibre bodywork, the suspension package improves airflow within the wheel arches, ensuring the wheels are free to move, to deliver maximum grip and precision in relation to drag. Precision engineering to push the limits.

CARBON FIBRE MONOCOQUE

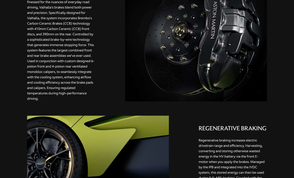
Designed and engineered in partnership with Lotus Aerospace Composite Technologies, Valhalla's core is a bespoke carbon fibre tub, Euro Non-Footy specialised F1™ expertise and technical capabilities at the very pinnacle of motorsport, Valhalla's tub is the product of cutting-edge composite technology. Designed for maximum stiffness with minimum weight, with super and lower-contour Nomex Honeycomb Sandwich Panels, Carbon Fibre Reinforced Plastic (CFRP) and F1™ aerospace technology. The platform for ultra-rigid aluminum subframes, with a bespoke, ultra-sophisticated carbon fibre bodywork. The bodywork is an immensely strong, stiff, light passenger cell providing unrivalled, high-speed and outstanding safety for driver driving mastery.

FRONT PUSH-ROD SUSPENSION

At the front and at its aluminium sub-frame, Valhalla features F1™ style push-rod front suspension, complete with closed-mounted dampers and torsion springs. The system is lavish dry-shifted aero sprockets in the carbon fibre bodywork, this suspension package improves airflow within the wheel arches, ensuring the wheels are free to move, to deliver maximum grip and precision in relation to drag. Precision engineering to push the limits.

DAMPER SYSTEM

Valhalla's inboard-mounted spring and damper units reserve the carrying out of the airflow, inboard of the front wheel, just like our F1™ cars. Improving cooling flow to the rear side coolers, it features a bespoke, Valhalla-specific Electronic Vehicle Control (EVC) reactively opposed adaptive dampers. Fitted to the front and rear, they are finely tuned for exceptional performance and ride comfort. Valhalla's bespoke suspension is a highly effective multi-link suspension design. Valhalla's chassis and suspension has been purposefully engineered and perfectly tuned to deliver exceptional comfort levels on any, ever your hands.



Integrated Power Braking System

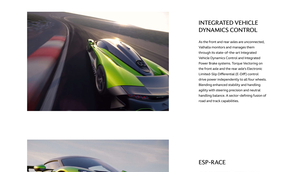
Aston Martin's first introduction of the partial-rapid Integrated Power Braking (IPB) brings a new sense of commanding partial control. Honed for exceptional performance and feel, Valhalla's IPB system delivers unrivalled performance and control in all drive conditions. Windback assist, Regenerative Braking, Torque Vectoring and Pro-demanding, Valhalla's IPB system ensures driving control is paramount.

CARBON CERAMIC DISCS

Engineered for the extremes of track use and fitted for the roadster of everyday road driving, Valhalla's brakes blend both power and feel, delivering unrivalled performance. Valhalla's bespoke carbon fibre brakes, Carbon Ceramic Brakes (CCB) technology sets 4 Brembo Carbon Ceramic (CCB) front discs, and 390mm on the rear. Controlled by Valhalla's Electronic Vehicle Control (EVC) that generates immense stopping force. The system features the largest continental front and rear brake packages ever in our sport, with 6 piston front and 4 piston rear calipers, piston front and 4 piston rear ventilated monobloc calipers, to seamlessly integrate with the cooling system, enhancing airflow management for improved brake cooling and stability. Effectively ensuring optimum temperature during high-performance driving.

REGENERATIVE BRAKING

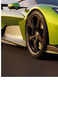
Regenerative braking increases electric consumption, range and efficiency. Upon braking, the electric motor is switched to generator, energy is fed to the battery via the hybrid E-motor when you apply the brakes. Managed by the IPB and energy management, the electric motor is switched to generator, the electric motor runs during full-ABS braking. Coupled with the Torque Vectoring system, it enables regenerative torque distribution across the axles, ensuring the maximum energy is fed back to the battery when you lift off the throttle.



Dynamics

Truly dynamic performance

Valhalla excels on both the road and track, focusing on driver engagement, agility and stability at speed. Pure dynamic excellence with a unique combination of active aerodynamics and torque vectoring, delivering unrivalled dynamic performance and remarkable handling.



INTEGRATED VEHICLE DYNAMICS CONTROL

As the front and rear axles are unconnected, Valhalla's Integrated Vehicle Dynamics through its state of the art Integrated Vehicle Dynamics Control and Integrated Power Brake systems. Torque Vectoring on the front axle and the rear axle's Electronic Limited Slip Differential (eLSD) ensure the drive power independently to all four wheels. Blending enhanced stability and handling agility with steering precision and neutral handling balance. A sector-defining fusion of road and track capabilities.

ESP-RACE

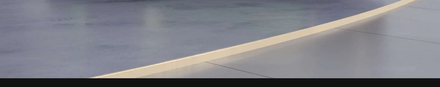
Valhalla's exceptional Electronic Stability Programme (ESP) includes ESP-Race. Tuned for track use, ESP-Race allows the driver to increase agility and steering response, activates precision Torque Vectoring to deliver the ultimate in cornering performance, the rear-wheels threshold is the limits of traction and lateral grip. Elevated capabilities alongside complete reassurance.

Torque Vectoring

E Torque Vectoring (eTV) is an extension of Valhalla's VDC system. Torque Vectoring uses front and rear axle, provides the ability to apply actively torque according to the dynamic demands on Valhalla, adjusting the way that the vehicle handles to ensure a "neutral" feel. Torque Vectoring is a combination of Active Differential, Torque Vectoring, Torque Vectoring, Electric All-Wheel Drive Distribution and Regenerative Braking that work in perfect harmony with Valhalla's Integrated Power Brake (IPB) braking system. Valhalla's power, perfectly delivered.

DRIVE MODES

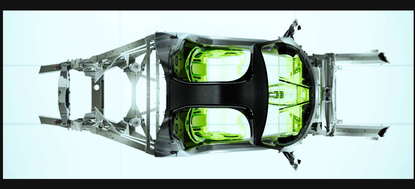
Pure E's Sport, Sport+ Race. Each distinct drive mode utilises Torque Vectoring to control the power going to each wheel, plus Valhalla's Electronic Vehicle Control stiffness, active aero, and steering calibration to offer its own unique powertrain setting. Pure E's stem on start-up before Valhalla switches automatically to Sport+ mode to fire up the E-motor. Pure E's Sport+ offers instantaneous torque and exhilarating power. Dial up the intensity in Sport+ and maximise the dynamic thrill on the open road. Race mode activates the rear wing to prepare for ultimate neutral performance.

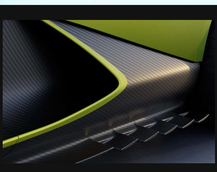


Exterior

Track-led aerodynamic philosophy

A masterpiece of automotive aerodynamic design. Bold. Futuristic. Ushering in a new generation of mid-engine supercars. Unmistakably Aston Martin. Taking technological learnings from Aston Martin Valkyrie and Formula 1™. Bringing together beguiling form, sublime proportions and exemplary details within detailing. For our drivers, Valhalla is an addictive blend of form, function and flair.





F1® DERIVED GRILLES AND VANES

Every aerodynamic feature is designed to maximise airflow, hone dynamic performance and enhance driver enjoyment. The seamless integration of the five vortex generators at the rear of the side skirt are taken directly from our F1® chassis design – specially engineered to increase downforce. Race-inspired door turning vanes and gills redirect airflow from front wheel arches directly across radiators and into rear tunnels towards the rear-mounted oil coolers, to boost engine and transmission efficiencies. Speed, agility and stability in perfect harmony.

DIHEDRAL DOORS

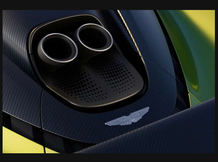
Dramatic supercar theatre accompanies Valhalla with forward-hinged dihedral doors. Effortless entry and exit has been ensured with lowered sills, roof cut-outs and a forward A-pillar position to allow you to drop easily into the bespoke carbon fibre seats. The doors also incorporate one of Valhalla's innovative aerodynamic features, the door turning vane. This allows front wheel arch airflow to exit, improving the performance of the V8 engine and transmission oil coolers by 50%. An engineering work of art with purposeful design.

ROOF SCOOP AND SIDE ACCESS

Valhalla's groundbreaking design showcases a Formula 1™-informed roof snorkel. Housed using a new mounting strategy – saving 5kg in weight – into a built-in channel within the lowered roofline. Air is funnelled via two ducts into the turbochargers, Air Charged Air Coolers (ACAC) and the hot V configuration within the V8 itself. Either side of the striking roof snorkel, two sculpted side access hatches hold the fuel filler and charge port.

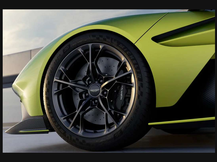
EXHAUST SYSTEM

Two unmissable top-exit tailpipes maximise the visual drama of Valhalla, combined with an additional pair of low-mounted tailpipes that flank the underbody of the venturi tunnels. The lightweight exhaust system optimises the flow of exhaust gases and shapes Valhalla's sound character; the low-mounted tailpipes are managed by active valves which open to join the top-mounted exhaust tailpipes, maximising the visceral sound of the V8. This is Valhalla's quad exhaust system.



REAR DESIGN

Two large venturi tunnels dominate the rear of the car, accelerating airflow under the car and generating powerful downforce. A perfect balance of dramatic form and aerodynamic function. Aston Martin-designed signature 3D light blades protrude through a rear mesh panel. A precise and purposeful pattern designed to allow hot airflow to be extracted from the back of the car.



WHEELS AND TYRES

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Interior

Inspired driver-centricity

Race-engineered steering wheel. Lowered driving position. Ergonomics centred on the driver. Every detail. Every touch. Every interaction. Inspired by F1™. Bold. Minimalistic design language, with a new ergotheatre line crafted to cosset the driver and passenger immersing them in an intense supercar experience.

F1® INFORMED DRIVING POSITION

Valhalla's race-inspired, raised-heel driving position is born from Formula One™. Footwells raised for a more directional, hip-to-heel seating position. Each single piece carbon-fibre seat shell, weighing under 5kg not only offers lightweighting but further amplifies the drivers' sense of connection without compromising on comfort. Architecture combining high levels of craftsmanship, a minimalist cockpit design plus a suite of other F1™ derived hallmarks. Clear, simple driver-focused ergonomics.

TOUCHSCREEN

Valhalla is equipped with our next generation infotainment system. A driver-focused instrument cluster paired with an expansive 10.25" centre touchscreen. The innovative Aston Martin HMI system provides an ultra-clear, column mounted driver display. Features include Race mode layout with a large linear tachometer and shift lights informed by Aston Martin Aramco F1™ Team drivers at their Silverstone HQ. The uniquely designed drivetrain visualiser displays real-time PHEV powerflow. The Full Digital Display Mirror System (FDM) replaces the rear-view mirror.

Sounds

Valhalla offers the state-of-the-art option of a specially designed Bowers & Wilkins® surround-sound system. 14 speakers. 765W output. Your choice of two Sound Modes. "Studio" replicates recording-studio authenticity. "Stage" recreates a sound stage with you in front, up close and personal. Add Quantumlogic® immersion processing and Dirac Unison™. A symphony for your senses.

MASTERY. DRIVEN.