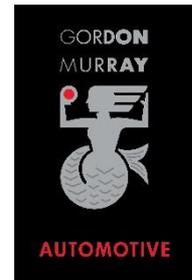


10 December 2019



T.50 supercar to feature most advanced aerodynamics ever

- **First official T.50 image reveals purity and drama**
- **Murray shares details of ground-effect 'fan car' innovation that rewrites the rulebook for road-car aerodynamics**
- **Six aero modes enable driver to optimise dynamic and outright performance**
- **Vmax Mode and ram induction boost T.50 output to 700hp**



Gordon Murray Automotive (GMA) has revealed details of the unique aerodynamic systems of its forthcoming T.50 supercar. According to Professor Gordon Murray, the driver-focused new model will have the most advanced and most effective aerodynamics ever seen on a road car.

Alongside its aerodynamics announcement, GMA has shown the first official image of the T.50 supercar. The rendering shows the purity and drama of the T.50, which has been penned by Professor Gordon Murray and the design team at Gordon Murray Design.

Contrasting with the clean lines of the T.50 body, perhaps the most notable feature of the exterior is the rear-end, which is dominated by a 400mm ground-effect fan – part of a unique airflow management system. Coupled with active underbody aerodynamics and dynamic rear aerofoils, the revolutionary aero system enables the T.50 to achieve considerably more aerodynamic performance and control than a conventional ground-effect supercar contributing to an unrivalled driving experience.

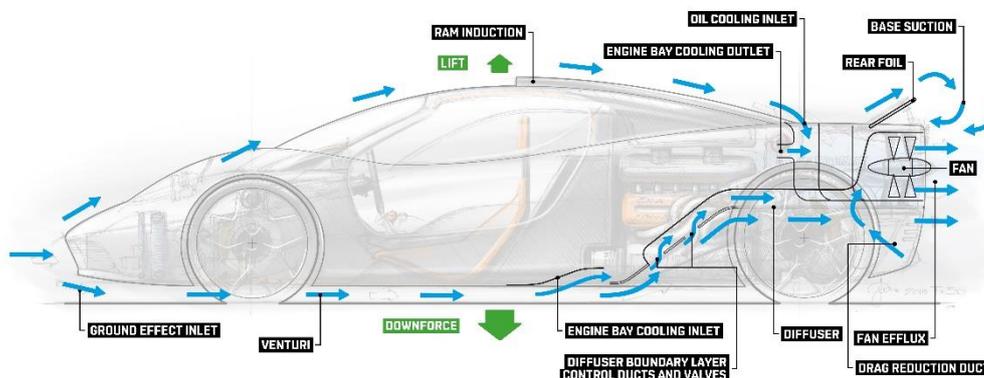
The T.50 features six different aero modes that optimise the car for different scenarios to balance traction and outright performance. The most extreme – Vmax Mode – combines motorsport slipstream technology, extra power from a 48-volt integrated starter-generator, and ram induction to boost power to 700hp.

The announcement comes as customer allocations of the T.50, priced in excess of £2 million before taxes, enter their final phase. The majority of the exclusive production run of 100 cars has already been allocated to automotive enthusiasts. The supercar has generated demand from a wider than expected global customer base, with a significant number heading to customers in the USA and Japan.

Weighing just 980kg, the T.50 will deliver the purest, most driver-focused performance and dynamics of any road car. The car's bespoke Cosworth V12 will be the highest-revving road car engine ever made, capable of an extraordinary 12,100rpm.

The rear-wheel drive T.50 features Murray's favoured three-seat layout, with the driver benefitting from a central 'jet-fighter-style' driving position. Aligned with Gordon Murray's claim that the T.50 could be the pinnacle of great analogue supercars, the driver-centric analogue controls are positioned to provide the ultimate, highly-intuitive, and totally-immersive driving experience.

T.50 - THE MOST ADVANCED AERODYNAMICS SEEN ON A ROAD CAR



- Fan is multi-purpose - cooling / downforce enhancement / efficiency enhancement / drag reduction
- Fan is active and interactive with top surface of car aerofoil
- Fan control is automatic for cooling and braking
- Driver control of High Downforce / Streamline / Vmax / Test mode
- Developed with Racing Point Formula One Team in their large scale / rolling road wind tunnel



The most advanced aerodynamics of any road car

The T.50 takes road-car aerodynamics to entirely new levels with Murray's ground-breaking design significantly enhancing the supercar's ground-effect capabilities. To achieve unmatched aerodynamic performance, the car's 400mm fan rapidly accelerates air passing under the car, forcing it through active boundary-layer control ducts that form part of the rear diffuser.

The fan and its associated ducting system build on conventional ground effect systems by actively helping control both the underbody and overbody airflow ensuring that both airflow systems interact to ensure absolute control of the enhanced aerodynamics and improve the car's performance.

The underbody airflow system allows Gordon Murray Automotive to achieve purity of design for the car's upper surfaces, with air flowing over the top of the car undisturbed by unsightly vents, ducts, or flaps. At the rear, air is channelled down through vents to cool the powertrain oil. Also, a pair of active aerofoils at the rear of the car contribute to downforce or shedding drag, as required.

The fan's design and underbody ducting does away with the need for a 'skirt' – like that of the BT46B Fan Car – while the vertical inlet ducting ensures no road debris passes through the fan. The novel system has multiple benefits, enhancing engine cooling, boosting downforce and maximising efficiency. The various fan functions, combined with the underbody ducting and activation of the rear aerofoils, are controlled seamlessly as part of the car's six distinct aero modes.

Two modes operate without any driver input. 'Auto Mode' is the car's default, which optimises use of the rear aerofoil, fan and underbody diffusers in response to speed and driver inputs. When high levels of deceleration are required, 'Braking Mode' deploys the rear aerofoils automatically and the fan operates simultaneously at high speed. This function doubles the levels of downforce, enhancing stability and grip, and enables the T.50 to pull up a full 10 metres shorter when braking from 150mph.

The other four aero modes are driver-selectable. 'High Downforce Mode' delivers enhanced traction – where the fan and the aerofoils work together to increase downforce by 30%. At the flick of a switch, the driver can shift to 'Streamline Mode', to reduce drag by 10% and boost straight-line speed, while also reducing fuel consumption and downforce. This mode closes the underbody ducts and sets the fan to operate at high speed to extend the trailing wake of the car, creating a 'virtual longtail'.

When maximum velocity is required, the 'Vmax Mode' can be deployed by the driver at the push of a button. This utilises the same aerodynamic configuration as 'Streamline Mode', but adds an extra boost of around 30hp for up to three minutes by adding power to the crankshaft from the car's 48-volt integrated starter-generator.

Finally, 'Test Mode' operates when the car is at standstill to demonstrate the capability of the aero system.

Purity and drama – official T.50 styling revealed

Since the T.50 was announced in June this year, media have speculated on the design of the supercar. No official images have been revealed by the Gordon Murray Design team – until now. The rear three-quarter image released by the Surrey-based design team shows how purity and drama are combined to produce a unique and distinctive supercar.

Aerodynamics plays a critical role in defining the proportions and styling of the T.50. Clean, flowing upper surfaces contrast sharply with the dramatic rear, which is dominated by a prominent 400mm-diameter fan. The entire rear end design is technically driven, with the fan, engine exhaust, ground effect diffusers and engine bay cooling featuring prominently.

Down its centre-line the rear deck rises subtly to accommodate the substantial 'fan assembly', the trailing edge of which extends just beyond the rear. Flanking the fan outlet on the upper surface are a pair of dynamic aerofoils that actively manage airflow at speed, according to the aero mode in operation.

The profile of the T.50 is distinguished by the radiator exit duct outlet behind the front wheel and the profiled dihedral door and monocoque. This concept of 'functional bodywork' is also evident in the engine ram induction duct in the roof of the car.

Professor Murray said: "We were highly focused on achieving the purest possible form for the T.50, an objective we've achieved through world-first engineering innovations and active underbody aerodynamics."

Customer uptake grows strongly as T.50 development continues at a pace

Professor Murray said: "We've been taken aback by the enthusiastic reaction of buyers from across the globe. The first customer deliveries will take place in January 2022, on schedule, with every customer who has already been allocated their T.50 receiving their car that year."

Gordon Murray Automotive – T.50 – Technical specification

Configuration

Supercar with GT capability
Coupé – central driving position

Dimensions

- Length 4,349 mm
- Width 1,850 mm
- Height 1,152 mm
- Wheelbase 2,700 mm
- Front track 1,586 mm
- Rear track 1,525 mm
- Weight 980 kg

Chassis / Body

- Full carbon fibre pre-preg monocoque, carbon fibre body

Engine

- Type / number Cosworth GMA
- Configuration V12 semi-structural
- V. angle 65°
- Displacement 3,994 cc
- Valve train Double overhead camshafts / variable valve timing / 4 valves per cylinder

- Lubrication system Dry sump
- Maximum power 650 hp
- Maximum torque 450 Nm
- Maximum rpm 12,100 rpm
- Starter 48-volt integrated starter
- Alternator 48-volt ISG (integrated starter-generator)

Transmission

- Configuration Transverse all synchro constant mesh
- Speeds 6 forward and reverse
- Gear selection Manual with reverse lockout

Suspension

- Front Double wishbone with anti-roll bar
- Rear Double wishbone – included axis GSP system

Steering

- Type Rack and pinion with LSPA

Aerodynamics

Full ground-effect with fan-assisted boundary-layer control
6 aero modes

-Ends-

Notes to editors

Images – Follow this link (<https://we.tl/t-Wy11g0pk2m>) to download the following:

- High-resolution rendering of the Gordon Murray Automotive T.50 supercar
- Detailed technical drawing showing the supercar's revolutionary aerodynamics
- Computational Fluid Dynamics graphics displaying the ground-effect fan system's influence

About Gordon Murray Automotive

Gordon Murray Automotive was launched in November 2017 and will manufacture exclusive low volume sports cars – the T.50 supercar will be the brand's halo model. The company forms part of a new corporate organisation for the engineering group, and is positioned as a sister company to Gordon Murray Design.

About Gordon Murray Design

Gordon Murray Design is a visionary design and engineering company headquartered in Surrey, UK. Established in 2007, its focus is on developing innovative and disruptive manufacturing technologies trademarked iStream®. The company has built a global reputation as one of the finest automotive design and engineering teams in the world.

The company's unique approach and truly creative thinking enables Gordon Murray Design to deliver complete car programmes in a highly efficient and innovative way from concept and design, through to prototype and development for production.

About Professor Gordon Murray, CBE

Having spent 20 years as Technical Director to two Formula One teams from 1969-1990 Gordon Murray has a wealth of technical, design and engineering experience. At Brabham he was instrumental in two world championship wins (1981 and 1983) before three consecutive championship wins with

McLaren Racing (1988, 1989 and 1990). In 1990 – after 50 Grand Prix wins – Gordon moved away from Formula One to concentrate on establishing a new company for the group, McLaren Cars Limited.

His first project there, the F1 road car, is still regarded as one of the world's best-engineered cars. A racing version won two world sports car championships and the Le Mans 24-hour race in 1995. McLaren Cars then completed several other successful projects culminating in the Mercedes-Benz SLR McLaren.

Gordon left McLaren in 2005 to set up a Gordon Murray Design Ltd (in 2007), of which he is Chairman. The innovative British company is a world leader in automotive design, and reverses the current industry trend for sub-contracting by having a complete in-house capability for design, prototyping, and development.

In 2017, Gordon Murray Design celebrated the company's 10-year anniversary along with that of the iStream manufacturing process at a special event, named 'One Formula'. Gordon also marked the 25th production anniversary of the McLaren F1 road car, and his 50th year of design and engineering.

In May 2019, Professor Murray was made a Commander of the British Empire (CBE) by the Duke of Cambridge, Prince William, in recognition of his contributions to the motorsport and automotive sectors over the past 50 years.

PR contact

For further information, images, interviews or comment about the Gordon Murray Group, please contact Sarah Smith, Communications Officer at sarah.smith@gordonmurraydesign.com.