



Maserati MC20

Highlights

- MC20 is the Brand's New Super Sports car and marks start of a new era for the Trident brand. Developed by Maserati Innovation Lab, and produced at the historic plant on Viale Ciro Menotti in Modena, it is totally Made in Italy.
- It has a unique style that combines the iconic features of the Maserati tradition with clean, innovative aerodynamics, completely wind-tunnel designed.
- Best in class weight/power ratio
- MC20: refined aerodynamics
- Identical carbon fibre chassis for the three configurations planned: coupé, convertible and electric.
- Maserati Nettuno: a ground-breaking, patented 630 hp V6 engine with the new MTC (Maserati Twin Combustion) technology.
- Top speed of over 325 km/h
- 8-speed Dual Clutch Transmission
- New colors, new combinations and the option of customising your car with exclusive materials
- A constantly connected car, with the new connected services
- MC20 stands for Maserati Corse 2020 ("Maserati Racing 2020") and celebrates the Brand's racing comeback.

Modena - Maserati presents the MC20, an engineering and styling masterpiece that opens a new era for the Trident brand. With the MC20, Maserati returns to a stage where it has always starred, that of Supercars that combine luxury and performance with the unique Maserati Style. The MC20 is a Maserati with mind-blowing aerodynamic efficiency. Its superb looks conceal an uncompromisingly sporty soul, with the new 630 horsepower V6 Nettuno engine that delivers 0-100 km/h acceleration in under 2,9" and a top speed over 325 km an hour. A patented, 100% Maserati engine, benefiting from the MTC (Maserati Twin Combustion) technology, the innovative combustion system developed by the Brand, evolved from the pre-chamber technology used on Formula 1 powertrains. Conceived, designed and built entirely in-house.



MC20 is a Maserati built to stun, a Maserati that can storm round the track but also perform superlatively on the road, with excellent driveability, comfort and safety, in an interior where efficiency combines with the luxury and exclusiveness integral to all the Brand's models.

MC20 was designed in Modena and will be built at the site where the marque's models have been born for 80 years. A new production line has been created at Viale Ciro Menotti, in the area where the GranTurismo and GranCabrio cars used to be assembled, and completed with a completely new painting plant. The project began in January 2019.

Best in class: weight/power ratio

The MC20 is particularly light under 1.500 kg, and thanks to its power output of 630 hp it is best in class in weight/power ratio, at 2.33 kg/hp. This light weight was achieved without sacrificing anything in terms of comfort. The MC20 has all the contents cars of this type must have today to satisfy a sporty yet sophisticated clientele, looking not only for performance but also for comfort and luxury. So a great deal of work was done on the materials. The entire chassis is in carbon fibre and composites, with the benefits of lighter weight, faster tool-go times and greater stylistic freedom in the design of forms. Carbon fibre enables the creation of shapes impossible with press-formed metal. The butterfly doors are a very obvious example.

Refined aerodynamics

Over two thousand man-hours in the Dallara Wind Tunnel and more than a thousand CFD (Computational Fluid Dynamics) simulations have enabled the creation of a car with refined aerodynamics which is also a genuine work of art.

Elegant and sporty, efficient and lightweight. Unmistakable.

Conceptually, the MC20's aerodynamic design divides the car into two parts: an upper part where stylistic considerations predominate and a more technical lower part, color-coded in black and carbon fibre respectively. In the car's upper section, the forms respond primarily to aesthetic priorities and the aerodynamic features are amalgamated into the lines conceived by the designers, to achieve high efficiency without interfering with the sleek, elegant bodywork.

The air vents on the bonnet and those at the side that provide the engine's air intake and cool the intercooler are thus "natural" features, virtually invisible when the car is viewed from some angles.

What's more, there are no obvious aerodynamic appendages: just a discreet rear spoiler that enhances the up-washing generated by the floor and enhances the downforce with no detriment to the car's great beauty.

In the lower part of the MC20, on the other hand, the technical component takes control.



The front air ducts have been optimised to ensure efficient air distribution across the radiators and the car's floor and upper part.

Special attention was also taken over the correct management of heat flows.

The floor is completely encased and was the subject of complex design analyses to maximise the car's aerodynamic efficiency.

Its front incorporates an elaborate system of vortex generators, rendered even more effective by the distinctive hump shape of the floor, which gradually rises in the centre, in the area level with the wheels, to increase the air flow to these devices, before reconnecting to the chassis bed.

The venting channel in the area behind the front wheel starts near the point where the hump reaches its greatest extent and continues right along the side, generating a considerable vertical load in line with the front axle due to the expulsion of the air flowing from the bottom and the wheel arch.

The incorporation of this highly racing-derived feature implied a special conformation for the carbon fibre monocoque, the wheel arch and the doors, as was also the previously case on the MC12.

The door sill air ducts, located immediately in front of the rear wheels in a zone with natural overpressure, enable the necessary air flow through the engine compartment without impacting resistance.

To conclude, the rear part of the floor of the car includes a large diffuser, with channels of different depths and optimised vertical spoilers that exploit the pressure differences between the various sections to generate vortices and energise the air flow.

Thanks to the almost obsessive care taken over the development of all these features, and the ceaseless hard work to integrate technical factors with aesthetic demands, the MC20 generates a high aerodynamic load with an excellent drag, enabling it to reach top speeds over 325 km/h and continue to hug the ground in all conditions of use.

Performance

The top speed is over 325 km/h with acceleration from 0 to 100 km/h in less than 2,9 seconds and from 0 to 200 km/h in less than 8.8 seconds.

A monocoque for three

The monocoque, in composite material, is a concentrate of technology and performance. The design of the carbon fibre monocoque has been achieved through the partnership between Maserati and Dallara, both leaders in the design and construction of racing sports cars. The monocoque has been developed from the outset for all three types of car to be produced in the coming



years: the coupé, the convertible and the future electric version. The monocoque's architecture and geometry are the same for all three versions, but differ in the distribution of the carbon fibres and layers, to provide monocoques with different structural characteristics for the three different types of car: the focus for the coupé will be on light weight and performance; the convertible demands greater torsional rigidity due to the absence of a roof; and the electric version will have more overall strength and enhanced protection for the battery area. Therefore, a single design embraces three versions, through changes only in the type, quantity and arrangement of the carbon fibres.

Suspension

The very compact front suspension features a double wishbone with semi-virtual steering, two bottom links and one top link. The same semi-virtual layout is adopted on the rear suspension, one of the very few cases of this application on the market today.

The use of semi-virtual suspension allows the tyre's contact patch to be kept constant while cornering, ensuring high lateral accelerations and keeping handling natural and instinctive in any situation and at any speed.

The engine

The 630 horsepower 90° V 6 cylinder 3,000 cc turbo engine, called the "Nettuno", is absolutely new and protected by an international patent, because it transfers to a road car a technology previously only found in Formula 1. It is an engine 100% made in Modena, and currently the highest-powered 6-cylinder powerplant in production. Designed component by component by the engine specialists of the Maserati technical department with constant support from the Modena Innovation Lab, it has the most advanced technology of any road-car engine on today's market.

There are **three** main components:

The pre-chamber: a combustion chamber placed between the central spark plug and the conventional combustion chamber, to which it is connected by a series of specially shaped holes.

The side spark plug: a standard spark plug that provides back-up to ensure smooth engine combustion in operating conditions when the use of the pre-chamber is not necessary.

The dual (indirect and direct) injection system: combined with the fuel delivery pressure of 350 bar, it reduces noise at low rpm, cuts emissions and saves fuel.

The new Nettuno engine has a dual combustion chamber for each cylinder. A design which includes a prechamber, in which the main spark plug is installed. The air-fuel mixture is forced into the pre-chamber during the piston's compression stroke. Near the TDC, the main spark plug ignites the mixture in the pre-



chamber, triggering pilot combustion, then propagated (via special holes) into the conventional combustion chamber. The process generates combustion with multiple flame fronts, characterised by high turbulence and thus greater efficiency; this improves the engine's overall efficiency and increases specific power output without penalising specific fuel consumption.

The new Nettuno engine generates a power output of 210 horsepower/litre. This makes it currently the best-in-class 6 cylinder engine in terms of specific power output.

Transmission

The automatic transmission is an 8-speed oil-immersed Dual Clutch design with 6 power and two overdrive speeds to ensure emissions compliance.

Virtual development of the car

97% of the car's development was performed virtually, using the system known as Virtual Vehicle Dynamics Development, developed by Maserati itself and based on a very complex mathematical model called Virtual Car, into which every conceivable parameter is entered (the engineers assure us that it can also take what the driver had for breakfast into account).

Virtual development reduces delivery times and allows the optimal technical solution to be identified faster and with lower costs. For example, it is possible to assess 3 different shock absorber solutions and thus choose the most suitable within a short period of time.

Naturally, the final tuning takes place on the track and on the Apennine mountain roads above Modena, which have always been the Maserati proving grounds.

Maserati presents Nettuno: the new 100% Maserati engine that adopts F1 technology for a road car

The new engine is the beating heart of the MC20 super sportscar that will make its world premiere in September. The unit was designed at Maserati's Modena facilities: the Maserati Innovation Lab on Via Emilia Ovest, the workshops on Via Delle Nazioni (Maserati Corse's historic base) and developed at the Engine Hub, situated at the famous Viale Ciro Menotti address where it will be built. Currently the new production line and new paint shop are being modified to host the much-anticipated MC20.

The new engine is the result of a technical revolution, one protected by international patents. The project was born from the passion and commitment of a team of highly-qualified technicians and engineers. After



twenty years, Maserati has once again enthusiastically taken on the challenge of returning to its Modena HQ with the development and production of a new, highly-technological, high-performance engine.

The operation is a strategic one for Maserati, a brand that, today, is preparing to launch the new MC20, a project that is '100% Made in Modena' starting right from its engine, the heart of the new car.

An ambitious design, which represents a historic moment for the company, a new era that will officially begin on September 9 and 10 in Modena during the event, "MMXX: Time to be audacious". At the launch, new models will be revealed, which will go into production in the coming years, and innovative propulsion systems as well as ambitious programmes developed by the Casa del Tridente will be announced.

The new power unit is a V90° architecture, with a 3-litre, 6-cylinder twin-turbo, and features a dry sump (a classic solution on super sportscars). It delivers 630CV at 7500rpm and 730 Nm of torque from 3000rpm with a specific power output of 210CV/litre.

The compression ratio is 11:1, the stroke is 82 mm and the bore 88 mm.

The soul of the engine is the innovative pre-chamber combustion system featuring twin-spark plugs. This technology is derived from **Formula 1** and is now available, for the first time, on an engine destined for the road.

The engine has **three** main features:

The **pre-chamber**: a combustion chamber is set between the central electrode and the traditional combustion chamber and connected by a series of specially-designed holes.

Lateral sparkplug: a traditional sparkplug acts as a support to ensure constant combustion when the engine is operating at a level that doesn't need the pre-chamber to kick in.

Twin injection system – direct and indirect: linked to the fuel supply pressure at 350bar, the system reduces noise low down on the rev range, lowering emissions and improving consumption.

It is strategically important and supported by the Innovation Lab, which, thanks to virtual analysis, has allowed development and planning times to be notably reduced.

The new "Made in Modena" engine, a traditional 90° V6, has been taken to unheard of power and torque levels and will be used for the first time on the MC20 super sportscar. The MC20 will take Maserati back to the world of racing.



<i>Engine Specs</i>	
Manufacturer	Maserati
Engine Architecture	V6 90° MTC twin turbo
Total displacement	3000 cc
Bore / Stroke	88 x 82 mm
Compression Ratio	11 : 1
Firing Order	1-6-3-4-2-5
Max Power	630 CV @ 7500 rpm
Max Torque	730 Nm @ 3000 – 5500 rpm
Engine Max Revs	8000 rpm
Turbochargers	Twin Side Turbo with electronic actuated Waste Gate
Ignition System	Twin Spark with passive prechamber
Lubrication pump	Fully variable oil pump
Lubrication system	Dry sump with scavenge pumps & external oil tank
Fuel System	PDI (Direct Injection 350bar + Port Injection 6bar)
Valvetrain & Timing	Double Over Head Camshaft with variable valve timing
Engine Width	1000 mm
Engine Height	650 mm
Engine Length	600 mm
Engine Mass (as per DIN GZ)	<220 kg
Emission Level	EU6D / China 6B / Ulev 70

Maserati Engine Lab: the new Maserati Engine Hub

Nettuno, the ground-breaking engine of the MC20, is the first child of the Maserati Engine Lab, established within the Viale Ciro Menotti plant in Modena. Nettuno, the 6 cylinder twin turbo engine of the Trident's new supercar has been designed, trialled and tested in Modena, in the facility which is now one of the jewels in the company's crown. More than 100 engineers, technicians and skilled workmen are employed full-time not only on the engines of today, but also on the electric designs of the future.

Maserati had not built its own engines since 1998, but with the MC20 it once more embraces a major feature of its history. In 2013, the company's new strategies approved a business plan that led to the creation of the Engine Hub in 2015. It is partly thanks to this facility that Maserati is entering a new era. The planned investments have resulted in an engine development and production centre that is now one of the most modern on the planet, with sophisticated equipment that oversees the life of an engine from design to mounting in the vehicle, with all the essential tests for certification and verification.

The Maserati Engine Lab consists of five separate areas: assembly shop; testing room; the workshop where the engine is mounted in the car; emission roller beds and production.



When an engine is designed, everything is added to a bill of materials listing everything that goes into its construction. Every component, and there are more than 300 for Nettuno (the engine of the MC20) is placed in a specific, sealed container with several layers, which contains everything needed to build the engine, down to the last screw. This "trolley" moves on to the assembly shop, where specialist technicians assemble every single engine by hand, with the aid of a series of special devices designed during the engine's development phases. Every engine is also meticulously checked by instruments of the very highest precision, to guarantee final product quality and flawless workmanship. The work is done in air-conditioned premises with a controlled atmosphere, where the maintenance of air quality is fundamental because every tiniest dust particle could impair the functioning of critical components such as the prop shaft, pistons and friction bearings, which have to withstand extremely high loads and rotation speeds, combined with assembly tolerances of the order of a few micron (1/5 of the thickness of a human hair). When the engine is completely assembled, it is completed with the auxiliary components (electrical generator, air-conditioning compressor and system-car connections), placed on a trolley and transferred to the testing room. The Maserati Engine Lab has 5 testing rooms with dynamos able to test engines with power outputs from 440 hp up to 1,000 hp. In practice, each test room is a kind of operating theatre, where the engine is started up for the first time. It is an ideal environment, of a kind the engine will never encounter again during its lifetime - once it is installed in the car, every driver will use it in a different way. In the testing room every engine is tested at idling speed, at maximum rpm, following an acceleration ramp, and simulating downhill running, verifying operating data such as fuel use and emissions.

From the testing room, the engine moves on to the workshop department, where the transmission and other components (such as the radiator, exhausts and oil reservoir) are fitted before it is mounted in the car. The engine now starts a new life, undergoing new tests on roller beds on road tests on board a vehicle.

At the Maserati Engine Lab we are able to test cars with engines up to 1,000 hp and speeds of about 300 kilometres an hour before performances are verified on track. We can verify the potential of the engine, the transmission and the auxiliary systems (air intake, exhaust, fuel and supply and cooling systems). The certification tests are also performed at the Maserati Engine Lab: they take as long as 200 hours, because every market demands 5/6 tests for certification, and every test is repeated in all the car's modes of use. In Europe, what's more, since September 2017 road tests with the PEMS (Portable emissions measurement system) have also been compulsory, as well as the testing already performed on the rollers. These tests last a couple of hours each and at the end of the day involve at least a month of road testing. An engine's development requires from six months to a year in the testing room: between 400 and 600 hours on the roller beds to verify emissions and fuel consumption. Once all these steps are complete, it is time for final approval for production of the engine that will be installed in the car.

When the development of the new engine is completed, production proper begins, and after a gap of some years this will again take place at the historic via Ciro Menotti site in Modena. A totally new production line with 6 assembly stations has been created to produce the MC20. The production process uses highly



innovative machinery, but this is no replacement for the know-how and passion of all the production staff, without whom it would not be possible to build unique cars, rich in personalised features developed to customers' requirements. Overall, production of each engine takes about 25 hours, just over 3 working days.

MC20: technological features

The driving seat controls of the MC20 are essential, functional and rational. The entire focus is on the driver, and his desire for optimal performances. Everything is designed to help him to get the most out of his Maserati, without distracting him. So shapes are simple, with very few sharp corners. The materials chosen are black and the upholstery is dark, to prevent reflections in the windscreen. Everything is laid out just like the cockpit of a racing car, with functionality and visibility paramount.

The central tunnel is clad with carbon fibre and only carries the switches that are absolutely necessary, to maintain concentration on the driving experience and sustain the approach of elegant minimalism with which the MC20's interior was styled.

The most luxurious detail is the driving mode selector: in centre stage, it is the distinctive feature that tells the driver and passenger they are on board a Maserati.

Inspired by a luxury watch, the driving mode selector is mechanical and precise, it is made from choice quality, exquisite materials and it has a touch of typically Maserati dark blue. It evokes the luxury that embraces anyone getting into a Trident brand car. The styling of the driving mode selector to resemble a luxury watch was a symbolic decision, since the MC20 does not have the trademark Maserati analogue clock on the instrument cluster.

The sport steering wheel

The steering wheel was developed and designed with input from Andrea Bertolini, Maserati Corse test driver and former World Champion in the MC12. A thick steering wheel was chosen to maximise ergonomics and the sporty "feel". Only essential buttons and switches are provided, including the Start and Launch Control buttons. MC20 is the first new-generation Maserati to have the ignition button on the steering wheel, another symbol of this car's extremely sporty character. The Start and Launch Control are integrated in the steering wheel's central surround. The steering wheel is covered in black leather with carbon fibre inserts. It is also available in Alcantara® for those who prefer a more racing ambience.

The easily accessible, generously sized paddle shifters, fixed to the steering column, are available in dark aluminium as standard configuration and in carbon fibre as part of the carbon fibre interior package.

Driving modes



MC20 has five driving modes, selected using the selector in the centre of the tunnel: WET, GT, SPORT and CORSA. Each one is identified by its own color: WET green; GT blue; SPORT red; CORSA yellow; ESC OFF orange.

Driving modes are selected by turning the selector for a few seconds. For example, the car starts in the default GT mode. It only takes a movement of half a second in the direction of the mode required to switch from GT to SPORT (on the right) or WET (on the left). Or the driver can press the selector for 2 seconds to choose CORSA mode. Pressing for 5 seconds switches to ESC Off mode. The longer time is to ensure that the driver has chosen this mode intentionally and not by mistake.

The four modes are differentiated as follows:

GT Mode (Default driving mode)

GT Mode is the default driving mode, active when the car is started. It is ideal for everyday driving and provides the maximum ease of use and comfort.

- Engine boost: normal
- Pedal sensitivity: normal resistance
- Exhaust valves active: only opened above 5,000 rpm
- Gear shift setting: slow and smooth
- Suspension: soft
- Traction control: normal

WET Mode

WET mode offers the highest level of control on wet or damp road surfaces, to prevent skidding during acceleration or cornering.

- Engine boost: limited
- Pedal sensitivity: normal resistance
- Exhaust valves active: only opened above 5,000 rpm
- Gear shift setting: slow and smooth
- Suspension: soft
- Traction control: all controls active

SPORT Mode

SPORT mode offers the highest performances in high-traction conditions and is ideal for use on the track.



- Engine boost: normal
- Pedal sensitivity: low resistance, high sensitivity
- Exhaust valves active: opened at 3,500 rpm
- Gear shift setting: fast and direct
- Suspension: stiff
- Traction control: sport

CORSA Mode

CORSA mode offers the driver the most extreme experience. Traction control is much less active and stability control is active but with very high thresholds. This mode provides the maximum enjoyment, but also the most challenging handling.

- Engine boost: maximum (maximum power output available at once)
- Pedal sensitivity: low resistance, extremely sensitive and responsive
- Exhaust valves active: always opened
- Gear shift setting: racing
- Suspensions: racing
- Traction control: race

In CORSA mode, the driver can activate the Launch Control using the steering wheel button.

ESC OFF Mode

In ESC OFF, all control functions are deactivated. It is similar to CORSA mode, but with traction control totally deactivated.

Adjustable suspension

A button in the centre of the driving mode selector enables the driver to adjust the suspensions. It is useful in SPORT or CORSA modes when the suspensions are extremely stiff. Pressing the Suspension button makes the suspensions more comfortable and less stiff. This is particularly useful on uneven ground, since it gives the driver a sporty yet comfortable driving experience.

Suspension

MC20 has a double-wishbone suspension system with active shock absorbers. The short spindle semi-virtual double-wishbone layout is used on both front and rear axles. This suspension type ensures the best performances in terms of handling and ride comfort.



The semi-virtual double-wishbone assembly on the front axle guarantees the best control of the steering wheel and the highest degree of steering precision, and it cushions the vibrations transmitted from the road to the steering wheel, to guarantee better overall driver comfort.

All components are in forged aluminium for optimal weight saving.

A vehicle height variator

As an optional, a system is available to raise the vehicle at low speeds, increasing ground clearance when traversing obstacles such as speed bumps or over-steep ramps. The driver can activate the system by pressing the specific button on the steering wheel. When activated, the hydraulic system raises the front axle by 50 mm. The driver can then deactivate the system by pressing the button again. At this point, the car will return to the standard ground clearance.

The system functions up to 40 km/h. If the lift system is activated and the car exceeds 40 km/h, the system is deactivated automatically and the car returns to the normal height above the ground.

Digital rear-view mirror

The digital rear-view mirror is attractively designed without a frame. Images are transmitted by a rear-view camera and increase the driver's visibility by an incredible amount, assisting him in all manoeuvres at the wheel.

MC20: multimedia

MC20 is complete the new generation MIA (Maserati Intelligent Assistant) multimedia system. The heart of MIA the powerful Android Automotive operating system, which offers a completely new, innovative, higher-performing User Experience, with full personalisation to the driver's use preferences. MIA has two screens inside the car, the digital cluster and central display, which are similar in shape and size. Neither too large nor too small, they are perfectly suited to the MC20's functional cabin interior, and facilitate driving comfort since the driver does not have to refocus his eyes when switching his glance between screens. The 10.25 inch cluster is all-digital with TFT (Thin Film Transistor) display. The central display, also of 10.25 inches, has HD Resolution of 1,920x720 and touch functions typical of smart screen personal devices. The screen has a special anti-reflection coating to ensure maximum visibility even in direct sunlight. The effect with the devices switched off is total black, thanks to an innovative optical solution.

Maserati Connect*

Maserati MC20 is always connected thanks to the new Maserati Connect program. Having the Maserati MC20 connected at all times enables an eye to be kept on the car's health, and Maserati Connect will alert the driver when a service is due, improving the customer care experience.



Maserati Connect also enhances safety and security, with assistance in emergencies and in case of car theft. With a Smartphone or Smartwatch, drivers can always stay in contact with their Maserati MC20 thanks to the Maserati Connect app; this is also possible from home via their virtual personal assistant (Amazon Alexa & Google Assist). Through the MIA (Maserati Intelligent Assistant) multimedia system, the Maserati Connect connected services deliver a new experience for the driver and passengers.

Thanks to the integrated, connected navigation system, the driver always has the latest traffic information in real time, as well as constantly updated maps. MIA also enables activation of Amazon Alexa services or a Wifi Hotspot inside the Maserati.

The MC20 will have included TIDAL's Hifi streaming service which offers the best sound quality available by taking full advantage of the potential of the Sonus Faber Audio System.

*availability may vary from country to country.

Sound system

MC20 is equipped with a 6-speaker Premium Unbranded sound system as standard and with a 12-speaker Sonus Faber high-premium sound system as optional.

The basic sound system comprises 6 speakers:

- 2 tweeters on the door panels
- 2 medium band speakers on the door panels
- 2 woofers on the door panels

MC20: the design

The design of the MC20 was developed at the Centro Stile Maserati in Turin. Underlying the new Trident supercar is the history of a Brand which has both elegance and racing prowess in its genes.

Maserati design is the perfect blend of elegance, sportiness and personality.

Elegance is reflected in the balancing of looks and function, as the MC20 conveys at a glance: this supercar has been elegantly styled to achieve mind-blowing performances. With no stylistic excess, the purity of its looks embraces the timeless design typical of all Maserati models across the eras. Elegance also means exquisite proportions, and so Maserati always designs its cars starting from the side. Design is the process by which the model is defined and is clearly influenced by Italy's artistic and cultural ambience.



Sportiness is another core characteristic, again intrinsic to Maserati's history, and it is expressed by the statistics clocked up by the MC20, which make it the fastest ever on-road Maserati. At Maserati, sporty performance is a trait as old as the Brand itself, fuelled by the love of a challenge rooted in its Modena homeland. To ensure it, the car was conceived in its simplest terms, virtually tailored to the mechanicals.

Personality is a key constituent of Italian design, and in MC20 it impresses at once, as this car has unmistakable forms that make it absolutely unique. MC20 is a true child of Italian automotive design, inseparable from our history and origins, where every project has an intrinsic ability to evolve, generation after generation.

The MC20 project strikes the perfect balance between opposites, the ideal trade-off of craftsmanship and engineering, hand-made masterpieces and precision machining, to reconcile the apparently distant, contrasting worlds of on-road motoring and racing. In this project, tailored beauty and technicality combine, as the car's upper section takes on the form of a hand-made sculpture, while its lower part is sheer engineering.

The project's evolution: from design to presentation

The Centro Stile's work starts with a product and engineering briefing. Within Maserati, the briefing is debated and shaped to find the best possible trade-off before moving on to the practical phase, which begins with drawings and sketches. The design is developed during the project in continuous dialogue with the engineering side.

After the sketches, which are then translated into mathematical terms, the hand-crafting of the models is very important: in a project like that of the MC20, the manual shaping of the forms plays a crucial role. "We conceive the car almost as a dynamic sculpture," the people at the Centro Stile explain, underlining the importance of the human factor in the prototype creation process. Once the work on the models is complete, virtual analysis takes over. It is only at that point that the design becomes a render and is submitted for the final approval that marks the end of the creative phase and the start of the finalisation of the forms and then the engineering.

The MC20 is a car with elegant yet very sporty design. Its character and personality are truly eye-catching thanks to the purity of its forms, which seem to have been carved by the wind. In MC20, performance is paramount, and every detail is studied with this aim in mind. Nothing is superfluous, everything has a function.

Aerodynamics had a fundamental role in sculpting the forms of this born-to-run Maserati. Nothing is purely ornamental; there is a reason for every stylistic feature, either aerodynamics or cooling. The massive work in the wind tunnel enabled the design of a car with the sleekest of lines, with no need for a movable spoiler that would have detracted from its form.



The aim of the Centro Stile Maserati was to integrate everything aerodynamics demanded organically, as if the car had evolved naturally. Everything has a purpose, such as the deflector on the door which also completes the line of the wheel arch, while keeping the air flow glued to the car.

The only concession to a surprise effect is the butterfly doors. The car is seen in all its purity of line. The butterfly door enables much easier access to and from the cabin, and also shows off the carbon fibre cockpit, the aerodynamics and the completely unmasked front wheel. It fulfils a practical purpose, by facilitating driver and passenger access, while also enhancing the car's looks and underlining specific details that would otherwise be concealed beneath the outer clothing. The doors are opened by a push-button from the inside and have sensors to warn of obstructions.

The Maserati MC20 is a project that unites two very different worlds. Its clothing, the bodywork, represents beauty and purity, and the chassis, the carbon fibre lower section, expresses technology and extreme performance. This division is immediately obvious when looking at the new addition to the Maserati family. The upper section of the car conveys strong yet aesthetically harmonious impressions, while the lower part, with its bare carbon fibre, starts from the aerodynamic floor and is rather more aggressively designed, with sharp edges and corners - style seems to take second place to function. The MC20 incarnates a fine balance between these two extremes. The front grille is the linking feature between these two worlds and is rather different from Maserati models of the past. It combines a bare carbon fibre lower part with a body color top, and its form seems to be composed of two elements.

The front wing is without the three air vents that were a signature feature of Maserati models but which would be pointless here, since the engine is mid-mounted. However, they reappear on the rear window.

Interior: the realm of functionality

The MC20 conveys emotions with its elegant yet sporty line, and leaves the role of pure functionality to the interior. Everything is very rational, almost minimalist, with two 10 inch screens, one for the cockpit and the other, Maserati Touch Control Plus (MTC Plus MIA) centrally located, slanted slightly towards the driver. The tunnel is very plain, with no superfluous ornamentation. It only carries the driving mode selector, two buttons for the gears, the power window controls and the infotainment volume control, and a smartphone pad with wireless charger. All the other controls are on the steering wheel, with the ignition button on the left and the launch control on the right.

Even though every element's function takes priority, the interior is skilfully styled with carbon fibre to express the coming-together of fashion with performance and engineering. The carbon fibre in the interior is matte



in finish, for a more tailored, fabric-like look. Maserati MC20 has two roomy luggage compartments. One at the front of 47 litres and one at the rear of 101 litres.

The new colors for the MC20 are inspired by the past

MC20 is the first Maserati to be painted in the futuristic new Modena plant, the new line equipped with innovative, environment-friendly technologies. A new range of colours have been invented for MC20 and will remain exclusive to this model.

The range comprises six colors: Bianco Audace, Giallo Genio, Rosso Vincente, Blu Infinito, Nero Enigma and Grigio Mistero. Every one of them was conceived, designed and developed exclusively for this car. All the colors were evolved by combining two factors: one is a strong reference to Italian design and workmanship, Italian identity, our local area and its distinctive skills; the other is an aspect more linked to the Maserati legacy, meaning the brand's history and some historic models, together with their reinterpretation. Behind each color lies a great deal of development work that combines the coating's leading-edge technology, the brand's origin, legacy (the brand heritage aspect) and a reference to Italian identity, the local area and design

The color of the MC20 is not mere color, it is substance. It is a dynamic color, originated and inspired by great models of the past:

- Bianco Audace
- Giallo Genio
- Rosso Vincente
- Blu Infinito
- Nero Enigma
- Grigio Mistero

Bianco Audace is the launch color. It is a yellowish, rather warm white with a bluish mica that subtly evokes the vein patterns of marble. It merges the two colors of the Birdcage, milky white and its dark blue racing colors, distinct in the past yet combined here to create a new stylistic language. The pigments and technology used to develop the paints evoke the gleam of quarried marble, struck by the light of a Mediterranean sunset that calls forth glimmers of orange and blue on the white surface. The concept is that of absolute pure white with these delicate interferences that give the color a warmth and soul reminiscent of classical sculptures.

Giallo Genio combines the dark blue and yellow of the city's colors. It is actually a metallic fusion that expresses power and dynamism. This yellow has an extremely sophisticated blue component that comes alive in natural light.



Rosso Vincente is extremely powerful, conveying the explosive power of a volcano; it is the authentic color of Italian motorsports. It evokes the red of the Tipo 26, the first racing Maserati in history.

Blu Infinito is less anodised, less high-tech, more vintage, very simple and authentic, clearer and more sporty. It is a very bright, vibrant blue, combined with an iconic color that identified our historic MC12. The resulting color is new, contemporary and high-impact, with an effect resembling a ceramic glaze.

Nero Enigma has a solid, pure identity, deep as ink. It is an absolute black, associated to the *Gran Turismo* concept, reinforced by an extremely deep, lacquered effect, a kind of Mont Blanc look working through different levels of transparency.

Grigio Mistero refers to the unforgettable Alfieri concept car, presented a few years ago. It is a darkish grey with a highly sophisticated yet aggressive personality. It derives from the idea of the fusion of metal itself, bestowing great fluidity on the surface and the car's forms.

Maserati: the badge new era

The MC20, the car symbolising the Maserati New Era, also introduces a restyling of the Brand's badges. This is not a revolution but rather a decided evolution, which makes the Trident, Maserati's symbol throughout its history, more contemporary, with more modern, elegant, stylish graphics, while still conserving its history. A large number of small changes make this badge very different from its predecessor, created by the last restyling in 2005.

The arrows at the side are now rounded for greater balance and continuity between the upper and lower sections of the Trident. The distances between the Trident and its dark blue background have been modified for a more dynamic overall effect. This evolution has lightened the oval, both by breaking down the layout of the various features and in terms of color, removing the red for a more modern, fresher image. The logo thus now comprises just two colors, white and dark blue, which morphs into a very deep shade with a lacquered effect, a color we may describe as Maserati Blue.

The badges which feature throughout the car, from the steering-wheel to the pillar, wheel caps and front grille, are now all of the same design. The lightning bolt has been eliminated from the pillar badge, which now contains just the Trident.

The Maserati script on the rear of the car is new, simpler and more modern, with a font which will be maintained for the naming of the Brand's future models.

Both the Trident and the Maserati script have a satiny instead of a glossy chrome finish, giving a more high-tech effect that evokes polished aluminium.



MC20: back to the racing world

Racing is an integral part of Maserati's genetic make-up and MC20, heir of the multiple victorious MC12, will bring the Brand back to the racing world.

You only have to leaf back through the company's photo album to appreciate how important sport has been in the Trident Brand's over a century of history. Maserati was born to run. The first car to bear its name, the Tipo 26, made its debut at the Targa Florio on Sunday 25 April 1926 with Alfieri Maserati at the wheel and Guerino Bertocchi as mechanic. A category win and eighth place overall. A debut that won the Maserati brothers the hearts of many Gentleman Drivers, and many other fans as well. The Tipo 26 was red, Italy's racing color, and had an in line eight cylinder engine giving a total displacement of 1,492 cc and power output of 120 horsepower at 5,300 rpm. It was built on the chassis of the Diatto 30 sport, which Maserati had bought before the Turin constructor shut down its racing team. This is where Maserati's history began, at the Targa Florio, one of the most historic races. In less than a year the Tipo 26 started to record impressive placings, very often driven by Alfieri himself: third place overall at the Tripoli Grand Prix in 1927, third place overall at the Targa Florio. At the Coppa Messina on 8 May, Alfieri was blinded by the dust, ran off the road and had an accident that almost cost him his life. But a few days later a cable was sent from Sicily: "God is on our family's side". The story continued, and while Alfieri, who had lost a kidney in that accident (which was to prove fatal in 1932), was recovering, Emilio Materassi became overall Italian champion in the Tipo 26.

Maserati drivers

Borzacchini, Fagioli, Varzi, Campari, Trossi, Taruffi, Villoresi, Cortese and the supreme Nuvolari are the names of the great racing champions who won Maserati success on roads and tracks all over the world before the Second World War. All the drivers who wrote the history of racing in Italy drove for the Trident, which in those years also began to export its success, by winning two editions of the Indianapolis 500 in 1939 and 1940 with Wilbur Shaw. This history was continued after the War with the Formula 1 World Championship, Fangio, Ascari, Moss, Brabham, Phil Hill, Scarfiotti, Maria Teresa de Filippis, Surtees and Pedro Rodriguez. On the track, Maserati was a magnet for the best drivers.

From Indianapolis to the two Formula 1 World Championships

Maserati once ruled both worlds. It conquered America by winning the Indianapolis 500 twice, and Europe by claiming two Formula 1 World Championships. The driver in the two Indianapolis victories (1939 and 1940) was Wilbur Shaw, who went on to become President of the Indianapolis Motor Speedway. Maserati conquered America thanks to Michael Joseph "Mike" Boyle, a picturesque and far from squeaky clean character from Chicago, who had decided that a car managed by his team had to win the Indianapolis event. He purchased an 8CTF, rechristened it the Boyle Special and handed it over to Wilbur Shaw, who had already won in 1937, and who recorded two consecutive victories and only just missed a third in 1941 due to a



problem with a wheel. Winning at Indianapolis was an extraordinary result, also in commercial terms, but these years saw the outbreak of the Second World War.

In the postwar period, Maserati started winning again with half a dozen cars that had been hidden at the Scuderia Milan headquarters and had escaped the destruction suffered by many northern Italian factories. But it was in 1950, with the birth of the Formula 1 World Championship, that Maserati really came back to the limelight in a competition initially almost entirely dominated by Italian constructors. Maserati was already on the track at Silverstone on 13 May 1950, the day of the Championship's first race. Ferrari had not yet made it, but Maserati took part in impressive style. One official 4CLT/48 was entered by Officine Alfieri Maserati and driven by Louis Chiron, but there were actually seven cars on the starting line bearing the Trident badge. The major change, however, came in 1952, when the new regulatory formula enabled Maserati to take part in the Championship with an official team and two Argentinian drivers destined to go down in history, Juan Manuel Fangio and Froilan Gonzalez, together with Italian Felice Bonetto. 1953 brought the first pole positions, followed by the first Formula 1 victory on 13 September, when Fangio won the Italian Grand Prix at Monza. The following year was the year of the 250 F, which made its debut with two wins with Fangio, in Argentina and France. For the Argentinian driver this was the start of season of triumphs, in which he won his second world title, but also switched to the new Mercedes with effect from the British Grand Prix. In 1956 Maserati won two amazing races in Monaco and at Monza, with another ace, Stirling Moss, at the wheel. Fangio then returned to Maserati in 1957 to win four more GPs and his fifth world title, this time only driving the Trident car, the outstanding 250F. Political regime change in Argentina, where thanks to Fangio's victories Maserati was enjoying excellent sales, forced the constructor to change its strategy and abandon racing. It would continue to supply engines: Surtees was to win in Mexico in 1966, for example, in a Cooper with a Maserati engine, and Rodriguez was to do the same in South Africa in 1967, but it would be a long wait before a works car was seen in competition again.

The racing comeback with the MC12

Forty-seven years after Fangio's World Championship, Maserati returned to the track in September 2004 for a new challenge, this time amongst the GT cars, with the amazing MC12. Twelve cylinders, carbon fibre monocoque, low centre of gravity, a car born to run and win, between 2004 and 2010 on the track it reaped no fewer than 22 victories (including 3 overall wins at the Spa 24-Hour Race) and 14 FIA GT titles, including Constructor, Driver and Team Championships, especially two Constructor's Cups, four international drivers' titles (Bertolini, Bartels three times and Thomas Biagi once), and a world drivers' title in 2010 in the newly renamed FIA GT1 championship, won by Andrea Bertolini and Michael Bartels.

"It was an incredible achievement, we won our fourth international title with Maserati," Andrea Bertolini, now Maserati's chief test driver, recalls. "They say that you never forget your first win, but now I must admit



that this World Championship, the latest victory, was absolutely marvellous. Winning for the first time is hard, but keeping on doing so is even more so ... The key to our success was having a fast, consistent car, a co-driver like Michael Bartels, like a brother to me, and a team as strongly motivated as I am myself. We were fast even with ballast, we attacked at the right times and we did well in keeping out of trouble. This is determination. Everyone played their part in the win."

The racing comeback with the MC20

The MC20 is a Maserati born to run and to proudly take the Brand's DNA onto the racing circuits. A powerful, fun-to-drive car at the technological state of the art, with an original turbo engine that transports the Trident into a new era, with a type of car previously missing from its range. The name of the MC20 recalls the MC12, which restored Maserati Corse, a name linked to racing throughout its history, to the world's circuits after a 47 year hiatus. Maserati was on the track at Silverstone in 1950, when the Formula 1 World Championship began. The constructor's history is rich in breath-taking victories of Tazio Nuvolari, Juan Manuel Fangio and Stirling Moss. Before Formula 1 began, in Formula 1 and after its farewell to the category, the Trident has always been linked with the best drivers around. In the Fifties, Maserati carried off the World Championship twice with Fangio, but it had already been queen of America in the Thirties, winning the Indianapolis 500 twice (1939 and 1940) with Wilbur Shaw, who went on to become President of the Indianapolis Motor Speedway.

Racing has always been in Maserati's blood, and now with the MC20 it is again beckoning not only to those wishing to compete in a Maserati, but also to anyone wishing to drive an Italian supercar with thrilling performances and elegant lines on the road. MC20 shows what the constructor is capable of, as it enters the new MMXX era with a completely made-in-Modena car, the first product of the Maserati Innovation Lab, with a V6 Turbo engine developed, designed and built to provide the ideal combination with a carbon fibre chassis also styled to become full electric in the future. MC20 is launched in Coupé version, but it will have a Spyder sister with retractable Hard Top and then a high-performance electrified version.

MC20 marks Maserati's entry into the sports supercar segment, which recorded sales of 19 thousand units in 2018. This expands the offer portfolio of a constructor which has also recently renewed Ghibli, Quattroporte and Levante, to provide a complete range for all types of customers.

The MC20's sporty nature is immediately obvious from its aggressive looks, designed by the Centro Stile Maserati. Aggressive, but also elegant and immediately recognisable thanks to the gull-wing doors, which are not only a very distinctive stylistic feature but also the best way of giving the driver and passenger easy access to the cockpit.



Nettuno engine according to our experts

Nettuno according to Federico Landini

Vehicle Line Executive – Sport Vehicles

The main idea that guided us in designing the MC20 was the aim of creating a stunning, desirable car that would go down in the history of motoring and of Maserati itself. So everything in the development and styling of the MC20, in its design, is the way it is because of a clear decision. Nothing is there by chance. Starting from its incredible racing-car chassis, which we developed with the precise intention of accommodating both a traditional propulsion system.

When we began the development of the MC20, we had in mind what this car had to represent for Maserati. For Maserati, this car will represent a technological halo, meaning its technological state of the art. The absolute state of the art, because in this project we used all the very latest materials, from carbon fibre in every conceivable variant to high-performance aluminium and magnesium alloys. For a historic automotive constructor like Maserati, this car will represent both the past and the future.

Because, basically, Maserati has always been an automotive constructor that has launched cars with major technological innovations, throughout its history: just think of the Birdcage and its historic, mythical chassis. A chassis that could only have been created as it was created, in Modena by a group of crazy geniuses. They came up with tubes with a cross-section of 8 mm, an ultra-high performance chassis for an iconic racing car. Or take the engine of the 250F, where some madman decided to install electronic direct injection on an automotive petrol engine for the first time. So Maserati has always done futuristic things in the past, and we are carrying this aspect forward into the MC20. Interestingly, when we were wondering about the configuration of the MC20, whether it should have a front or rear engine, in the end we decided by looking at Maserati's past history and its future. On this basis, it was clear that given what the MC20 had to represent, it absolutely had to have a mid-mounted rear engine, because it is only with a mid-mounted rear engine like the one on the MC12 that you can develop a car with the level of performance and the iconic status we expect and we are determined to achieve.

Recently, someone asked me if we are satisfied with the result. As an engineer, I have to admit, and I think the whole team would say the same, I can only say I'm completely satisfied. Partly because being able to develop a car of this kind for an automotive constructor like Maserati is definitely an honour, a unique opportunity. And it's not often you can use all your know-how and expertise, and also the know-how and expertise of a whole company, for the development of a design. From another point of view, I'd say we'll never be content, we'll never be content because when we look at a design we always try to think of ways to improve it. However, this leaves the way open for future opportunities, future versions. We always have new ideas, then by force of circumstances at a certain point we're told we've achieved the objective, we're told



we have to stop, and we're told we have to go into production, but I can assure you that we are satisfied, but there's always this drive to do better.

What will the Maserati MC20 represent for Maserati? The Maserati MC20 will represent the highest expression of an automotive constructor's technology and a unique opportunity for a racing comeback for Maserati, a Marque with a glorious past. I also think it will represent and embody all the pride of a very special district, the area known as Motor Valley, because it represents and encapsulates all the passion, hard work and ingenuity put into it by all the people who contributed to its development, design and construction. The Maserati MC20 will be at the summit of the Motor Valley mid-engine super sports sedan class. I specify Motor Valley because this area is home to other famous, renowned examples of high-performance sports cars with outstanding engineering. So of course we are honoured to be a member of such an illustrious class.

The car is absolutely mind-blowing at first glance. This car is rather like the MC12. I can still remember when the MC12 was launched: it was virtually the highest expression of what a supercar could be in the early years 2000. I can remember that as I look at it today, still absolutely up to date, it looks like a space ship, it awes you even before you start the engine, even before the engine storms into life. The MC20 is just the same. Even before you start it up, it is beautiful, muscular and elegant: you can see and sense that nothing in this car has been left to chance. It seems impossible for a car with such clean lines to hug the ground at 330 km/h, without wings or aerodynamic appendages. So how is it done? Because intensive design work on the underbody and the underside of the car enables the creation of a strong downforce without interfering with the clean, elegant lines of the upper section, with no need for noticeable aerodynamic appendages. And the car truly expresses an aesthetic creed. Maserati cars have always been lovely, desirable - beautiful. This is what Italian identity is all about. Luxury, performance, and also looks.

What does building this car, the MC20, in Modena mean? Building the MC20 in Modena is just like producing tortellini and balsamic vinegar, the city's world-famous food delicacies, there. It's part of the community's genetic make-up, part of our company, part of us.

People say that the MC20 is the heir to the MC12. First of all, I find it very flattering that the MC12 is linked to the MC20, because the MC12 is an automotive icon and part of Maserati's history. The MC12 was one of the GT supercars with the most race victories ever, and, like the MC20, the MC12 represented Maserati's racing comeback, as well as Maserati's return to the world of mid-mounted rear-engine supercars. I and all the team members find this comparison very flattering, and we have risen to the challenge; I would say that the MC20 will represent the future and present version of the MC12, for a Maserati working constantly with the future in mind.

I am flattered that the MC20 is linked and compared with the MC12. Because in the early years 2000 the MC12 represented the pinnacle of the GT supercar sector. It was also one of the most successful racing GT cars of all time, winning a large number of driver and constructor world titles, and what's more for Maserati



the MC12 represented an era, the racing comeback, Maserati's return to the supercar segment - and the MC20 also represents all this. The MC20 will represent for Maserati what the MC12 also represented back then, so we have risen to the challenge and have developed a car which is certain to express Maserati's present with a focus on the future.

People have asked me whether it was harder to develop the Levante or the MC20. First of all, there is not much point in this question, because it is like asking a father which of his children is his favourite. And I think everyone knows how fond I am of the Levante project, having worked on it day and night for almost 3 years. Before making a comparison of this kind, you need to consider a number of underlying factors. Factors that set the project in its historic context and concomitant industrial difficulties. Like the MC20, the Levante was a prima donna, a star: the first SUV in Maserati's history. Since it was the first SUV of such an important automotive manufacturer, expectations were huge and we worked incredibly hard for a long time, striving to develop a product that would be successful in the SUV segment, dominated by the Germans at that time. And the result is plain for all to see: today the Levante is a sports SUV icon, an object of desire. In that project I spent a lot of time thinking and not much sleeping; it involved a great deal of pressure but immense satisfaction. But I'm not getting much sleep with the MC20 either. However, there is a substantial difference, even though the MC20, too, will be a comeback that expresses the summit of Maserati technology in a segment. I'd say that the main difference is that on the MC20 it is easy to draw in people who would like or want to work on it; passion and desire play a large part. It is a car that inspires desire, even for the people who have to work on it, who have to spend a large chunk of their lives, their private and working lives, focused on it; and the other thing that is a big more problematical about the MC20 is that very often in a project like the Levante you can settle for a compromise or a trade-off; in the MC20 there's no such thing as a trade-off - it is almost always a question of the best or nothing. The mindset is trade-offs aren't on the cards, so we don't even know if they are feasible. To settle for them would almost be to betray your own beliefs.

The development of the race version of the MC20, project name M240, is certainly facilitated by the fact that when developing the road version we decided to set ourselves some major constraints that would facilitate the development of the racing car. This means that the road version itself already has a strong air of the race track. So given this starting point, the track version is bound to be a fine racing beast. A fine racing beast that is certain to make life hard for all its competitors. What's more, from Maserati's point of view, this development project will be aided by all the best Innovation Lab technologies: from the virtual driving simulators for development of the handling to the third-generation, state-of-the-art FM calculations, and all the calculations with applied thermal fluid-dynamics, correlated with our wind tunnels and those of our service providers.

So I'd say that from the performance point of view, it is a car born for the road but genetically programmed for the track, just like the MC12. The MC12 was originated for the road but with a clear racing vocation, definitely a unique basis, and one not many constructors can handle. Often our competitors develop a road version followed by a race version that is an adaptation of the road car. Naturally, this means more trade-



offs, because the regulations set restrictions on the modifications you can make. But if, like us, you consider architectural constraints for the track version, you will be in an optimal position when you come to develop the race version.

The whole of the MC20 was developed in the Innovation Lab. Starting from the powertrain, meaning the engine and transmission, or the propulsion unit, integrated in the vehicle. We don't develop a car in pieces; we develop a car that is a harmonic whole, a highly integrated system. This integration is even more possible inside the Innovation Lab, where we can use all the best predictive, innovative virtual tools, which we've created at our new via Emilia site in the last few years.

It's not a case of the work being easier or harder; it's simply a different way of working. Using modern technologies, the simulator and virtual calculations, and always pushing ourselves to our limits, we can perform more interactions in a shorter time. So, for example, to make a comparison with the Levante, where the simulator was hardly used at all, or only minimally at the start of development, we can try, for example, three types of steering boxes, with a different steering ratio, on the simulator in 20 minutes. In the method we used on the Levante, which means going to the test track and changing the steering boxes, that takes 3 days. So, that doesn't mean we cut the time from three days to 20 minutes; it means that in three days we can test 50 steering boxes, so we get the best result chosen from a larger number of variations. On other occasions we may save time, or we may use the same time but with more interactions.

A car like the MC20 is missing from all the automotive constructors' ranges. No constructors have an MC20, and they would all like to be able to build an MC20. But there are very few constructors, Maserati and a handful of others, which are able to develop an MC20 with the certainty that they will come up with an icon, and maybe a legend like the MC12.

Maserati is once again going to be building an engine of its own, and what's more at the Modena plant, after a gap of about twenty years. If I remember rightly, the last engine Maserati built at that plant was the engine of the 3200 GT, the 8 cylinder twin turbo. This is absolutely a historic moment for an automotive constructor, creating a car from start to finish, meaning vehicle plus engine, having total, complete ownership of the project and the technology, and being able to claim the whole of the result. It is rather as if Michelangelo had gone to the quarry to dig out his own marble.

There are various reasons for the decision to build a V6 rather than a V8: first of all, because the world of conventional engines, what we call internal combustion engines, has inevitably to move towards a more environment-friendly, sustainable approach. So downsizing is increasingly the name of the game. To be able to offer the best in performance, while of course complying with environmental concerns, we decided to develop a V6, which simplifies matters from one point of view, because naturally removing two pistons reduces the displacement, but on the other hand it makes it more difficult to deliver a higher specific power output. Therefore, we developed and invented this completely new engine, with our patented dual chamber,



which enables us to achieve the highest specific power output in history: I'm talking about 207 horsepower/litre.

When choosing the car's architecture, deciding whether it should be front or rear engine, we thought about what this car had to represent for Maserati. Since this car had to represent the summit of sports performance and technology, a mid-mounted rear engine was the only choice. This meant we had to develop a completely new mid-mounted rear engine, because you can't adapt a front engine to a mid position; we had to develop a dry sump engine, to lower its centre of gravity and align it with the driveline of a rear engine; and, naturally, the Centro Stile department thanked us for this. Because it is the dream of all stylists, as of all engineers, to work on a car with these characteristics.

Like all Maserati cars, the MC20 will have a unique sound, which will identify it and ensure that its roar is the Maserati roar. This will be the sound of all future Maserati high-performance engines. We're working hard to ensure that this engine is unique in terms of sound performance and personality. Of course, I can't deny that this is more difficult with a V6, but once again we've risen to the challenge, and I suggest you listen to the result.

Nettuno according to Ettore Musu: "We wanted to design something no-one had ever done before"

Interview with the head of Maserati Powertrain Innovation

"This project was born early in 2015 in a very specific context, because we were just starting the Giorgio project, intended to relaunch Alfa Romeo and Maserati. From the outset, the team delivered a motivation and passion that spread to everyone working on the project. In this context, thanks to the enthusiasm and passion of the people involved, the idea arose of not just settling for something that equalled others, but of creating something special, something extraordinary."

"The inspiration came from the racing world, where this system, a kind of insert, was placed between the spark plug and the combustion chamber. We wondered whether we could also use this item in a standard production engine. We began to think about it. Initially it was a secret project within the Giorgio project; I remember that at the beginning there were 2 or 3 of us working on it - one person doing the calculations, one designing and me trying to coordinate things a little. We managed to go ahead, to design some objects and to start testing them around September/October 2015."

"The benefit of this technology was clear at once, from the very first trials. We immediately noted that it brought benefits, especially when the engine was at very high power outputs. At the same time, we realised the system had drawbacks: the engine was very unstable in the phases generally considered normal operation on a road car, meaning when travelling at low speeds with the engine delivering only low power levels. There were great benefits at high power outputs, but major problems at low powers. So we had to study how to use this concept to make it feasible for application on a road car."



This kind of insert between the spark plug and the combustion chamber is to all intents and purposes a combustion pre-chamber. It's a small object, not more than a cubic centimetre, much smaller than a conventional combustion chamber, which measures about 40/45 cubic centimetres. The pre-chamber communicates with the main combustion chamber via specially designed small holes. There's a spark plug inside this object, and this plug ignites an air-fuel mixture forced into this compartment during the piston compression stroke; on ignition, combustion takes place inside this compartment and emits plasma jets into the main combustion chamber. What does this mean? Jets at very high temperature are entering the combustion chamber. These jets trigger combustion not just in one point, as in a conventional engine, but in multiple points, and this enables all parts of the combustion chamber to be reached fast, with much quicker, more efficient combustion."

"The benefit is more efficient use of the energy contained in the fuel. Basically, the engine's efficiency is increased and higher power outputs are achieved, not because more petrol and more air are taken in, but because the air and petrol we already have available are used better. The next step is to add a second spark plug in the main combustion chamber. This may seem fairly obvious, but we had to understand how these two objects work together and decide the control strategies to enable them to operate so that the two combustion systems could function in tandem. Because in the final analysis, the engine has two combustion systems: a conventional combustion system and an innovative combustion system. They have to be controlled and operated together, so that the transition between the two operating modes is imperceptible. This led to the patent, issued to protect these strategies and enable a pre-chamber to operate on a standard production engine.

"The pre-chamber isn't a new idea. There are patents covering a concept of this kind dating from the early Twentieth Century. It was used in a few prototypes, there are various patents around, but then a lot of people gave up on it. I've also seen a considerable number of patents from the past, but it seems people never managed to overcome all the problems posed by this object. It may seem obvious, but we were also faced with a mass of problems to be overcome."

"We worked on this concept for 4 years before obtaining approval of the programme to enable it to be used in production; we had to resolve every anomaly and problem that emerged from the introduction of this design, one by one. First of all the increase in performances, because an increase in performances means increasing pressures and increasing thermal stresses, so we had to completely redesign an engine to enable it to withstand a performance level that was unknown even to us. At the start of the project, even we didn't think it would be possible to achieve such a high performance level."

"One important step in the project's development was the idea of the Twin Spark combustion system and then the construction of the Democar. In mid 2017 we started to transfer this engine to a car, and we realised we'd have to bear in mind other issues during the development: emissions, on-board diagnosis (OBD) compliance, vibrations, and then all the structural problems. From 2017 onward, most of the team



was working on resolving all the engine's anomalies in these areas. It was very difficult to define the design of the piston and all the engine's structural parts, to enable them to withstand a level of performances far above anything we'd known before."

"A couple of factors were crucial in changing the results: the first of these was the choice of material. We used a copper alloy, a material that tends to disperse heat rapidly, with very high thermal conductivity. This was one of the first things that gave us decent results from the outset, and I must say that we'd come up with this choice of material more or less right from the start, because we'd realised that the thermal stress being generated on this object would be very high and even the initial calculations and simulations told us that we had to get rid of a lot of heat from this object, which is also immersed in the engine's cooling water, meaning that the water flowing between the head and the top of the head, the flame plate, also cools this object. I believe this was a very important idea, because it enabled us to cool this object correctly; otherwise, we'd never have achieved the results we have achieved, because of the temperatures generated in an object which basically only does combustion. It's not like a conventional combustion chamber that also receives cool air; the intake valves open and feed a lower temperature into the charge. This object only receives hot gases, so the temperatures are very high. This was the first insight that helped to change the overall outcome. Next came another important point concerning the choice of spark plug: initially, performances were limited because the spark plug was unable to offer anything more, but then, amongst our various tests, we managed to invent or test a spark plug compatible with combustion inside this object: a spark plug which, like the pre-chamber, was also able to disperse a large amount of heat."

"The final fundamental idea was to use the Twin Spark system, because with the second spark plug we can make the engine function conventionally in operating modes with low power outputs. We have a pre-chamber for each cylinder and then a second spark plug for each cylinder, making this a Twin Spark system. For each cylinder, we have one spark plug in the pre-chamber and one serving the main combustion chamber, giving us a total of 12 plugs and 6 pre-chambers.

"The great thing about this combustion concept is that it enables us to increase performances while simultaneously improving the engine's fuel efficiency. This is one of the system's strong points. Naturally, this implies an increase in cost, because we need 6 extra spark plugs on 6 cylinders, 6 extra coils to activate the plug, more wiring, and component numbers that increase in one way or another. Then this object is in a fairly expensive material: eight euros is quite a lot for a piece of metal, and overall this means an additional cost of about 150 euros for a 6 cylinder engine.

"The substantial benefit of this object is that it delivers both a significant improvement in performance and a reduction in fuel use. In terms of the performances of a V6 engine, power output is increased by about 120/130 horsepower and torque by about 130 Nm. In general, on an internal combustion engine there's always a trade-off, meaning that engines required to deliver higher performances inevitably also consume more fuel. In this case, the trade-off is moved to a higher level, so it's possible to achieve higher



performances and also reduce fuel use, simultaneously. With the same contents, we've found that this technology provides a potential reduction in fuel use of about 3%, which we'll be introducing on our Maserati cars."

"The really exciting thing is that everyone who has tested this technology has been really impressed by it. The most striking things are above all the performances and the car's sound, which is different from a conventional engine. Lots of executives fell in love with it at first sight, and immediately decided to sponsor the continuation of all the pre-development activities, including the finalisation of the technology for real production.

"It's difficult to assess feeling or emotional benefits just from a power curve. If I show you a power curve and you see 130 horsepower more, it's difficult to translate that into the emotion or sensation actually experienced. Those who've had the chance to test drive the demo car have been able to appreciate how this additional performance raises emotions, sensations and experience to a higher plane. And this was a very important step in the timeline of this technology's development."

"We know we've done something extraordinary. I believe that in the future this technology will be widely adopted, even by competitors, but being the first, in a sector as competitive as the automotive world, is definitely a source of great satisfaction. What makes us all proud is having worked on the design of such a revolutionary engine at the time when we've turned our back on Ferrari engines to construct our own engines. A transition that defines an era, really. However, we're confident that what we can come up with in-house can be superior to what other people were able to offer us."

Nettuno according to Stefano Tonietto: "There's no other engine like it on the market"

Stefano Tonietto, Maserati Design Project Leader - Gasoline Base Engine

"After twenty years, Maserati is once again building an engine of its own, after this twenty-year transition period with Ferrari engines. The engines will be produced at Ciro Menotti, where a specific production line has been created."

"You could say the MC20 is a rather crazy project. In the sense that it originated at the end of 2018: we'd already worked a great deal on the new combustion technology, and we were well aware of the potentials we could draw on. The first application will be on the MC20, but it will go on to represent Maserati's future, with a whole series of additional applications. The idea struck us in December 2018: to try to build a supercar with an extreme engine. After that, within a couple of months we'd produced the first components of the



new engine. We got the first actual engine, specifically for the MC20 project, onto the test bed in just 6 months, by May 2019."

"This is definitely a best-in-class engine in terms of displacement-power output ratio, as it produces more than 200 horsepower/litre. There's no other engine like it on the market, so it undeniably raises the concept of the V6 architecture to new extremes. What's more, using a dry sump was a no-brainer to try to keep the engine compact and the centre of gravity as low as possible, to guarantee the most extreme vehicle performances, befitting a supercar."

"The project was challenging especially in terms of the time schedule: we designed the engine in less than six months and after that we merely optimised it, only changing a very few pieces. Thanks to the quality of our work, aided by virtual analyses, we were able to generate a first prototype that immediately achieved the target performances in terms of both power output and overall functionality, feeds, and so on. This meant we didn't have to interfere with the architecture. We got the initial approach right, and that made things much easier for us in the later development phases."

"You'll be wondering how many people it takes to design, build and industrialise an engine completely from scratch. In fact, it really takes very few people. Considering all the applications we're developing at the same time, because our department doesn't only work on this engine, there are about fifty of us for design as such and basic engineering. Then there are 35/40 people in Virtual Analysis, who supported us with their simulations. Plus our colleagues in Product Development, meaning validation, testing and calibration, who are at the Ciro Menotti site - overall about 200 people are employed in the Powertrain area. It's not a very large group, considering the vast amount of work we had to do: let's say that during the last year we've almost all been doing fourteen hour days."

Stefano Tonietto: There's a definite advantage to having the Innovation Lab; obviously, there's a very deep link between our virtual analysis area and the work done by the simulator and the Innovation Lab in general, which meant to some extent we could predict the way the engine would behave in the car. For example, when we were faced with parameters to be fine tuned, such as the engine's dynamic performance, all we had to do was create a simulation loop, then we passed it on to the boys in the Innovation Lab and the driver was able to try out the modification more or less on the spot. So it definitely saved us time and indicated whether we were working in the right direction; it certainly gave us immediate feedback. As of today, 25 February, we haven't yet got a definitive car, in the sense that the test mules out on the road now are test mules derived from another car; they haven't got the definitive chassis, they haven't got the engine on the definitive engine mountings, so it's quite unthinkable to test the car's handling or verify its performances with these test mules. So having the Innovation Lab has certainly saved us time and given us feedback in advance.



"Our direct competitors have rather different architectures; the only one with a V6 is the Honda NSX; the others all have larger displacements than ours, so if we make a comparison, obviously, if we look at a Lamborghini it's got more horsepower, but what exactly has it got under the bonnet? It's always a bit difficult to discuss this in absolute terms; it's better to think in terms of a common factor, such as displacement. For example, for displacement/power output ratio we're best in class compared to our main competitors."

"This is a Made in Modena product, in the sense that we're proud to have built the engine, the car and the customisations at the historic Maserati plant, that's been here for 80 years or so. We've worked very hard to develop, design and test the engine, and now it gives us great satisfaction to see it being built. It's rather like a child to us."

"At a time when everyone is moving towards electric or strongly hybrid supercars, Maserati has taken on an audacious challenge. We're turning the tables by launching, in 2020, a product that seems to have an "old" powertrain, but in fact the new pre-chamber combustion technology gives us the extraordinary ability to provide an extremely powerful powertrain. Maserati today doesn't have such a powerful engine with fuel consumption almost at utility car levels, an engine that uses less fuel than others with the same horsepower. It revolutionises what we're used to seeing on an internal combustion engine."

Nettuno according to Dario Benazzi: "Why we chose a V6 and not a V8"

Maserati Engine Design

"We're proud of starting to make our own engines again after twenty years, but also aware of the responsibility this implies. We have to persuade people we're really good, so good that Maserati has decided to stop buying engines from Ferrari, and to build them in-house instead. We had ideas we believed in from the outset, which gave us the confidence that we could build an engine worthy of the Maserati name, that could deliver the performances and the contents required."

"I believe I can proudly say we've proved that already having a few new engine prototypes facilitated and perhaps even prompted the decision to do everything in-house. We had prototypes with very promising contents to show. They were running on the test bench, they worked, they achieved the targets: this must have played a part in the final decision."

"It was a tough challenge for us, because in December 2018 all we had was a blank sheet of paper. They asked us to design and develop a supercar engine, with all the characteristics required of an engine of this kind, meaning a dry-sump engine, without an oil sump, with recovery pumps, mid-rear mounted, with a very tough torque and power output target. We got to work flat out and within a couple of months we'd produced the first drawings and then had the first components constructed. In May we assembled the first prototype and put it on the test bench, and we confirmed that it achieved all the targets. This showed us we were on the right track, so we proceeded with the development and by October we had the first Beta



engines, with a significant number of components very similar to the ones which will go into production, on the test benches."

"Targets in terms of torque and power output are challenging for an engine of this kind. The engine is a 6 cylinder 90 degree V design with 3 litres displacement; it has power of 630 technical horsepower with a torque of 730 Nm from 3,000 to 5,500 rpm. It hits peak power output at 7,500 rpm. The engine has to be compact in size because it's a mid-rear mounted 6-cylinder unit combined with a dual clutch transmission, which takes up a lot of space at the rear, so we had to recoup that by keeping the length down."

"The engine's key characteristic is its combustion system, an innovative system, around which we've built this engine and all the ones that will be used on future Maserati cars. The current engine for the MC20 will be the first to be launched, to be followed by all the others, which we are however developing concurrently."

"This engine was conceived for the MC20, a supercar with specific characteristics. But definitely a large proportion of the technologies developed for MC20 are not vehicle-specific and will also be used on other applications, although with different characteristics in terms of both layout and performance."

"The targets are set first, so we needed an engine that would meet the power output and torque demands and also be compact in size. Once we knew we could reach those targets with a V6, after several loops of virtual simulations, we went ahead with that, because a V6 is shorter than a V8, weighs less and costs less: so it's smaller, lighter and also more economical"

"A supercar you want to use on the race track virtually has to have a rear engine."

Then the positioning in the car determines the design of the specific components for this application, as against other applications on front-engine cars.

The design process therefore began from the initial engineering choice dictated by the car's architecture and requirements."

"Without a doubt, electrification is the challenge facing us, which will characterise the future of mobility; personally, I believe the greatest challenge is the integration of conventional technologies with electric architecture."

This doesn't mean that work on internal combustion engines is worthless; quite the contrary, we'll be required to press harder and harder to come up with more and more sophisticated and efficient products."

And the pre-chamber technology we're developing, and which is the heart of the new engines, is very relevant here, because it enables us to increase combustion efficiency and exploit the benefits from this to improve both performance and fuel economy."



The Maserati dynamic simulator and the MC20

Andrea Bertolini: "MC20, a project I am proud of"

Andrea Bertolini, GT1 world champion in the MC12, now Maserati's chief test driver. It's his job to work on the simulator on the MC20.

"I've been working on simulators for 15 years now, and I can assure you that the Maserati dynamic simulator is truly at the state of the art: it's the most advanced in the world today."

"A tool like this virtual driving simulator enables us to cut development times while simultaneously increasing the precision with which the car is developed, since it enables very fast interaction, and changes can be made in real time. Until a short time ago, when we only used the car on the road, it used to take us several days to modify the setup, but now this operation has become immediate."

"With the simulator we can really test anything: the correlation with reality is extremely high. You only see the driver at the wheel, but there's a great deal of teamwork behind the car's development, and it's a large team, since it takes 10 engineers to run the simulator alone. The simulator lets us test every aspect of the car extremely quickly: from any model and variant of tyre by way of aerodynamics to engine performance and driveability."

"You may be surprised to hear that in spite of the use of the simulator, human input is essential in the development process. The human factor remains central to Maserati and is part of its genetic make-up; even if we use all these leading-edge technologies, Maserati puts people at the centre of the project. In fact, the car has to have a soul, and without a strong team, from the engineer to the test driver, this wouldn't be possible. The Maserati team are well aware of the brand values, and this knowledge enables us to give the car beauty, sportiness and driving pleasure. In this case, since we're dealing with a supercar, we have an important target to meet: like the MC12 before it, the MC20 must set a new handling benchmark in the supercar class."

"It's a great responsibility and a major challenge, and I'm really proud to belong to this team."

"I'm also proud because I'm from Modena, and witnessing the creation of this car in my city spurs me on to strive even harder for perfection."

"Maserati is about to face a new era: we are Maserati and we will always seek to deliver the absolute best. With the MC12, we have an impressive legacy to manage with the greatest care; so we know - it's clear for us all to see - what we have to achieve with our car. In the final analysis, we want to write the next chapter in Maserati's history."



"Then, since there's no harm in dreaming, I can't deny that more than once, at the wheel on the simulator, I've imagined myself racing, on the track, all kitted out in overalls and helmet."

The design according to Giovanni Ribotta

Giovanni Ribotta: "This is the Maserati everyone was waiting for, a car with very Italian design"

Chief Designer Exterior MC20

What does the MC20 mean for Maserati?

"This is the Maserati everyone was waiting for: we needed a model that would take us back to our roots, our ancestral soul. Maserati was founded to build racing cars: developing and designing a supercar is part of our identity, as the marque's history tells us"

After years of working on sedans, SUVs and GT cars, this was a new major challenge for the style team: where did you start?

"We were asked to create a mid-engine supercar. We approached the project with great care, seeking a balance between performance and form, and we based our work on the canons of Italian and Maserati design, focusing on the ideal trade-off between style and function, meaning performance. This is what we call timeless design, timeless beauty - styling in impeccable taste that doesn't interfere with performance."

When creating the MC20, did you draw inspiration from the many key models in Maserati's history?

"When we began to design the MC20, we immediately looked back over our history and we found inspiration in the world of the Birdcage (Tipo 61), a time when cars' outlines kept very low to the ground; a central fuselage intersected by the wheel arches, with style apparently playing only a secondary role, and the mechanicals prioritised. We also sought inspiration in the most recent example, the MC12: a car developed for the race track and then transferred to the road. In this new project, we thought in terms of a road car from the outset. So our approach was much more streamlined and dynamic than the MC12 concept."

"The car is characterised by a central body that intersects with the wheel arches, generating very pure, dynamic lines. In contrast, in the lower part, given a separate visual identity by the use of carbon fibre, we allowed the engineering to take centre stage. There's a clear distinction between the dynamism and purity of the upper section and the technical nature of the lower part."

What was the main challenge when designing a supercar?



"The challenge in designing a supercar was to achieve the right trade-off between the performances fundamental for a car of this type and elegant proportions. For Maserati, and I'd say for the whole Italian design world, proportions signify elegance and sporty prowess. So we tried to strike the right balance by designing a very pure form, with no excesses, that would perfectly match the constraints, the package, the engineering."

The shapes are very different in the top and underside of the car.

"The form is very pure in the upper part of the car and very technical in the lower part. This is where the MC20's performances come from, with the aerodynamics concentrated in the flat floor and the lower part of the car."

"MC20 doesn't have the usual rear fin, because all the aerodynamic load is generated by the underside. This was a great advantage for us in terms of styling: it meant we could avoid aerodynamic appendages that would have detracted from its style."

You were inspired by the great Maserati cars of the past. How and where?

"We studied the story of the Birdcage and the relationship between form and mechanicals. The Birdcage is a car that shows its chassis in places ... and in the MC20, thanks to the butterfly doors, you can clearly see the entire inner structure of the chassis"

"However, the world of the MC12 was our inspiration for the more rounded wheel arches. To conclude, the car has a longtail rear. Then, even though this is a mid-engine sports car, we shifted the cabin towards the rear to give a more GT "feel".

As in all Maserati models, the front is very high-impact.

"All Maserati cars have always had very distinctive front ends. They've always been very strong, striking and aggressive. When you look in your rear-view mirror, you can always tell if the car behind is a Maserati. We opted for vertical light inserts, because the horizontal ones have been copied by many other constructors and are no longer so individual. This enabled us to give pride of place to the front grille."

"Half the front grille follows the line of the fuselage, meaning that its shape is pure and dynamic; the lower section, on the other hand, even in terms of material, which is carbon fibre, reveals the structure, the more mechanical part, underneath the skin - everything that enables us to deliver these amazing performances."

With MC20, is Maserati creating a concept for other cars in the future?



"This supercar is a milestone: it's our opportunity to create a real concept, rather like the Alfieri, that provided the basis for generating a whole family of cars. MC20 is the concept for cars to come, but it even enabled us to create a concept in terms of form: what we call sculpted engineering, implemented for the first time with MC20, which is an approach to surfaces we're intending to use again in the future."

A Maserati supercar is a car destined to make its mark.

"A Maserati supercar is a breath-taking proposition. We hadn't had a halo model for some time. MC20 is without a doubt a Maserati: it complies in full with our cars' fundamental design rules, with a form which is, well, sculpted."

"When people see MC20, they're sure to think: this is a Maserati. One of Maserati's characteristics is that it interprets every segment in accordance with its own rules, whether it's a GT, a sedan or a SUV, or in this case a supercar, it's always handled the Maserati way. For us it's crucial that when people see it go by, they say: that's a Maserati."

The MC20 project was also carried through at impressive speed.

"I'm very happy with the outcome, because the project originated very fast and was completed in extremely short times; from beginning to end, I've really watched the car mature and grow into a Maserati, and this gives me great pleasure. It was absolutely new for us to take on the design of a mid-engine car, almost a racing car. The main difficulty was to create forms that gave a unified, dynamic design. But above all we wanted to design a real Maserati, a car with Italian design, and when I say Italian design I'm talking about the mood, not necessarily the fact that the designer is Italian, because mine is an international team. The trade-off between form and function was fundamental, because this is a car with immense performances, that had to have elegant looks. And I'm very satisfied with the end result."

Colors and materials according to Rossella Guasco

Rossella Guasco: "Colors and materials highlight the brand's sporty spirit"

Colors & Materials Responsible

"The MC20 project combines the on-road and racing concepts. It's a supercar that expresses the essence of Maserati, first and foremost because it has been invented, created and "dressed" in Modena. Once again, a



Maserati model is a part of the city itself, and at the same time the Modena plant regains worth and prestige because the new project is based there."

What criteria were used when choosing the materials?

"The design of the materials for the new Maserati sports car starts from a concept not of decoration but of material which clothes and clads a function: in other words, an idea of sartorial engineering, where the material signifies and expresses the underlying performance. This certainly applies on the outside, where we balance and combine the concept of an extremely dynamic, taut, streamlined body, enhanced by a color project we will be examining in detail, and a much more structural, more mechanically orientated part, which is the carbon fibre. These two aspects have always both been integral to the essence of Maserati."

"Underlying the concept of the materials is the concept of experimentation with matter itself, and evolution. As well as the idea of expressing superlative performances, we give extreme importance to the idea of mechanical beauty and sculptured engineering; all matter is a skin, a cladding for forms and functions, and is conceived with a finishing which enhances the quality of its surface."

What did you choose for the interior?

"In the cabin, where dark colors predominate, we have a contrast between materials, all in these dark shades, which is emphasised by the surface finishings, achieved through laser engraving, created with state-of-the-art techniques which make every object a truly mechanical, a truly technical, piece."

"The seats, which perhaps play the biggest role in terms of color and trim styling, are in a combination of materials. Alcantara leather is very innovative, with great potentials, and it underlines the car's dynamism through its surface finish, again produced via laser engraving, which produces a sort of sculptural effect, as well as an almost aerodynamic impression, by means of the gradient within the patterning and graphics. Here, color is used to express a concept of speed, dynamism and motion, and not just patterning for its own sake."

The choice of six colors created especially for MC20.

"The approach to color we used for this project is extremely important. Each of the six colors in the range was conceived, designed and developed exclusively for this car. All the colors were evolved by combining two factors: one is a strong reference to Italian design and workmanship, Italian identity, our local area and its distinctive skills; the other is an aspect more linked to the Maserati legacy, meaning the brand's history, and a number of historic models and their reinterpretation."



"Behind each color lies a great deal of development work that combines the coating's leading-edge technology, the brand's origin, legacy (the brand heritage aspect) and a reference to Italian identity, the local area and design"

A return to the brand's sporty spirit

"There's a balance between the car's exterior and interior and between its parts, although sometimes this balance starts from opposites, and I believe their successful reconciliation in an equilibrium is a specific achievement grounded in the work of real specialists, familiar with the brand and with an in-depth kinship with Italian identity and harmony - a harmony of proportions, forms and materials, a founding principle of the brand itself."

"We are very pleased with this project, which was a major challenge, partly because of the very short time-scale we were working on, but above all because it represents a return to the sportiest side of the brand's spirit, which we all felt was necessary."

"At the Centro Stile, I immediately got to work alongside my designer colleagues to figure out how to enhance form, performance and matter to the very highest degree. In my opinion, this is the best possible approach to a project: achieving the optimal combination of these three aspects, where material expresses form and form expresses function. This was the starting point, and we are very pleased with the outcome, because objectively it embodies a great deal of the essence of Maserati, but in a completely new key: the brand's new sporty spirit."

Who is this Maserati for?

"Discussing this with my team, we all agreed that this Maserati isn't only intended for people in search of performance, extreme sporty excellence, because Maserati keeps alive the gentleman racer concept, so it perfectly encapsulates the idea of continuing to be a gentleman even at the wheel of this supercar. That's why we drew inspiration from Alexander Zverev, who took part in a great advertising campaign for Zegna, in which he plays tennis wearing a conventional suit - traditional Zegna even while moving around and playing sport, just as Zverev regains his class and elegance at the wheel of this model. And how is this possible? It's thanks to the innovation incorporated in that specific fabric, which contains natural fibres with added extreme elasticity. This sums up the way we work, our idea of our customer, a gentleman racer in spite of the technical innovation embodied, in this case, in our car. This is what we try to convey and this is the customer we would like to reach."



Maserati MC20 and the made in Italy

The new Maserati MC20 is an engineering and styling masterpiece that opens a new era for the Trident brand. With the MC20, Maserati returns to a stage where it has always starred, that of Super Sports Cars that combine luxury and performance with the unique Maserati Style.

The new MC20 is the model from which Maserati draws inspiration for the car of the future, 100% made in Italy, fully developed and engineered in Modena.

The Italian essence is sought everywhere; from the engine to the design, every detail deliberately speaks Italian.

For this reason Maserati has chosen some of the most iconic Italian excellences as partners.

- Alcantara
- Brembo
- Bridgestone
- Dallara
- Sabelt
- Sonus faber

ALCANTARA

The recipe is simple: take Maserati, a pure Made in Italy icon in its own right, and finish it with Alcantara for a unique mix of technology, contemporary elegance, finely crafted details and superlative performances.

Alcantara is the unique material, created in the heart of Italy and exported worldwide, that covers the planet's most glamorous surfaces, including car interiors, sofas, luxury yachts, planes, personal devices, clothing and even artworks. Thanks to Alcantara's immense versatility, Maserati can customize the interiors of its cars with colors and finishes that underline each model's individual character.

Alcantara finishes the interior of the MC20. Key applications are the seats and the door panels, in laser-perforated black Alcantara on a dark blue backing. The Alcantara-clad seats give the driver a high degree of stability even when subject to lateral accelerations, meaning precision cornering. With its breathability, wear-resistance and above all its perfect adherence, Alcantara is the covering of choice for all supercar parts requiring a material able to deliver outstanding performances combined with unbeatable comfort. Apart from technical performance, Alcantara connotes the cabin with elegance and a contemporary lifestyle mood. The tactile pleasure ensured by this material makes every journey a unique sensory experience.



BREMBO

Brembo, world leader in the design and production of braking systems, is the supplier of choice for the entire system for the new Maserati MC20.

At the front, the new Trident super sports car is stopped by Brembo radial mounted monobloc 6-piston brake calipers. The calipers converge on 390 x 36 mm Brembo CCM (carbon ceramic material) brake discs to offer superior stopping power. At the rear, the Brembo 4-piston monobloc brake calipers grab onto 360 x 28 mm Brembo CCM brake discs.

Given the high loads generated by the pressure of the pistons on the pads, to ensure maximum rigidity and less deformation, the monobloc calipers are machined from a single block of cast aluminum.

Aluminium is a material known for its lightness and strength. Brembo has designed six different caliper color for the MC20 to allow even more personalization of the car.

Brembo CCM brake discs offer a 50 percent reduction in weight compared to cast iron. This advantage results in a significant reduction in the vehicle's unsprung mass, which translates into exceptional vehicle dynamic behavior when driving and remarkable comfort when cruising.

The braking system is complemented by the Brembo electronic parking brake (EP), the result of extensive development and research into technologies capable of improving performance and comfort both for vehicles on the move and during stops.

BRIDGESTONE

Bridgestone EMIA is proud to be a partner in Maserati's high performing developments. Bridgestone has designed and customized tires for Maserati and supplied original equipment to Modena production cars since the Maserati Quattroporte (M139) in 2004 and going forward with the GT Coupè (M145) / Gran Cabrio (M147), the Levante (M161) and the latest MC20 in the recent years.

Bridgestone EMIA is part of the world's largest tyre and rubber company. For almost 90 years, we've been providing the confidence to get people and goods where they need to go as conveniently as possible, without interruption.

Today, in a fast-changing world, we're evolving to provide real solutions to the actual problems our customers face. This is why Bridgestone EMIA is rapidly transforming from a premium tyre producer into a mobility solutions leader.

Our tires: for cars, 4x4's, vans, motorcycles, trucks, buses, and off the road and agricultural vehicles, Bridgestone offers an ever-growing range of premium and customized tires to keep you going.



Our solutions: Bridgestone is pioneering cutting-edge products and solutions with some of the industry's most advanced factories, world-beating technologies and coveted partnerships. As our transformation journey continues, we're working to shape the future of mobility.

Our retail network: with over 6500 outlets across EMIA, through 12 distinct retail partners, Bridgestone has a unique relationship with everyday drivers.

We're present in 40 countries in EMIA, employing more than 22,000 people. We have 17 tyre plants in the region, a major R&D centre, and a proving ground in Rome (Italy). We're the largest R&D spender in our industry, investing around €800 million every year across the globe.

DALLARA

Dallara and Maserati, two companies that symbolise Italy's Motor Valley and have been working together for years, in partnership with other top automotive manufacturers, to grow professional competences in the industry and ensure the worldwide success of Italian cars.

Over the years, the bond between the two companies has grown ever stronger, thanks in part to the specialist consulting and professional assistance services the Varano de' Melegari business supplies to Maserati.

Dallara's key expertise is in design, especially carbon fibre composites, aerodynamics (with the aid of its wind tunnel and computational fluid dynamics), vehicle dynamics (supported by the professional driving simulator and static and dynamic test beds), and fast, flexible, high quality prototype construction.

These competences were fundamental in the work done by Dallara, in concert with Maserati, for the creation in 2004 of the MC12, a model which defined the golden age of FIA Championship GT cars.

The MC12's success further consolidated the relationship between Maserati and Dallara, which has developed over the years and now blossoms in a new cooperation project: the Maserati MC20.

The MC20 is the Modena constructor's new supercar, a car with outstanding performances, approved for use all over the world. Dallara contributed to this ambitious project by designing and developing the car's aerodynamic components (using both CFD and the wind tunnel), the entire monocoque and the carbon fibre structural part.

SABELT

The collaboration between Maserati and Sabelt has created the new MC20 seat made with comfort contents and a sports DNA, fully developed, tested and manufactured in Italy.

It is the first Maserati seat with a high performance composite structural shell, equipped with power adjustments and lumbar system.

A product that stems from a 100% Sabelt know-how, adapted to the Maserati MC20 needs through a successful cooperation work among the two style and engineering departments.

The new seats of the Maserati MC20 are in fact the result of a collaboration grounded in the sharing of two Italian companies' values, oriented towards innovation and improvement by an intensive research and



development activity. They represent the essence of the MC20 project: sportiveness at a high quality and performance level, as required by the super premium market.

Moreover, the MC20 seats are fully customizable in logos, stitching and materials and have a good ergonomics to ensure containment in curves and comfort in sporty driving.

SONUS FABER

Founded in Vicenza in 1983, Sonus faber creates its high-end loudspeaker systems as musical instruments. The company is internationally recognized as a brand synonymous with Italian culture, craftsmanship and extreme performance.

Born in Italy, Maserati and Sonus faber are connected by common values, a love for the Italian culture and a commitment to delivering an extraordinary brand experience with luxury, performance and innovation at the forefront. Combining the roar of the Tridente engine and the natural sound of the Sonus faber system, each brand, despite their continuous evolution, remain rooted in tradition and devoted to maintaining their stellar reputations in the automotive and audio industries.

Defining innovation as the desire to face new challenges, Maserati and Sonus faber continue to look towards the future by expounding on technological advancements that offer its luxury clientele the caliber of product synonymous with both brands. Setting the standard in the luxury space, Maserati and Sonus faber fuse the spirit of Italy into its craftsmanship and design; solidifying each brand's position in their respective markets. The Maserati MC20, the only model currently in production outfitted with the Sonus faber sound system, features a high frequency amplifier with 695 Watts of power and 12 speakers with specific functionalities that illustrates Sonus faber's natural sound through the use of natural materials. Sonus faber tuning offers natural, clear and detailed sound quality, giving the listener the ability to easily denote each melody within this sound symphony; bringing a performance element to the driving experience.

Designed and engineered in Italy, the Sonus faber audio system and Maserati MC20 blend power and sound to offer its clientele a taste of each brand's rich heritage.

"Historical authenticity, craftsmanship, luxury and elegance are the values which intertwine the two brands, creating an extraordinary journey where the sound of the engines and the harmony of the music merge together bringing to life a unique voice: the voice of the Italian Style."