

BMW CS1 Concept Car.



BMW is presenting a small but particularly refined surprise at this year's Geneva Motor Show: The world debut of the **CS1 Concept Car** offers the public all over the world a first glimpse of the design philosophy which might characterise the exterior of a "small" BMW in future. The study takes up classical values and striking design features of the brand, interpreted anew in a young, innovative world: Orientated to the future and full of elegance all in one, light but very dynamic, as you would expect of a BMW.

The four-seater CS1 convertible concept car is clearly a genuine BMW, a fully-fledged member of the family. But at the same time it boasts its unique, independent character most clearly. Full of youthful freshness, the CS1 takes up well-known highlights in the family tradition of BMW, conveying these characteristic features to the future-oriented lifestyle of its generation. So forget about nostalgia when looking at this very special car!

In its design, the CS1 combines elegant agility with powerful dynamism. Both worlds are therefore presented in their clear, unmistakable style, without the slightest compromise. The domain of agility and pure elegance you will find in particular where the car's occupants enjoy life and the thrill of motoring: above the shoulder line and in the avantgarde interior so "light" and playful. But where the car communicates with its outside world, conveying its power to the road, power and dynamic performance are clearly the dominating factors also in design. The broad shoulder line, flowing side-sills and muscular wheels with their extra-large and clearly visible brakes stand for performance and endurance wherever you go. The high-rising front end with dual headlights and a twin kidney grille, finally, gives the CS1 its dynamic, watchful face.

With its elegant, stretched sideline, this unique concept car is very dynamic and sleek in appearance. Short overhangs front and rear typical of BMW, as well as the striking side-sills, help to impressively underline this special look.

The philosophy of light, carefree elegance is also borne out by the interior of the CS1 Concept Car. There are absolutely no opulent, bulky components, the designers being inspired instead by the world of fashion and modern architecture. The result is an ambience truly fresh and modern in every respect. Both classic and modern materials are used consciously in their ideal form, expressing their character also through their design. Surfaces finished in fabric and leather replace the usual heavy components, not only saving space, but also providing an extremely generous feeling and experience inside the car. And at the same time BMW's designers prove that weight reduction need not detract from the car's elegance and flair.

The CS1 Concept Car consistently maintains BMW's new interior and control philosophy featuring iDrive management for the driver. This allows the driver to concentrate on the essential, the actual process of motoring. The various functions offered by a modern car such as the CS1 are masterminded conveniently and safely by just a handful of controls. All the driver has to do is briefly press the Controller in the centre console and the monitor previously concealed will come out of the cockpit, facing the driver's line of vision directly from above. This enables the driver to set all functions required for comfort, communication, navigation, information and entertainment within a matter of seconds, without having to first look for the appropriate controls and buttons.

While being a short car, the CS1 is a BMW through and through also in its drive concept: Standard drive, that is with the engine fitted lengthwise and the drive wheels at the rear, gives the CS1 the dynamic driving characteristics so typical of BMW and ensures optimum weight distribution at the same time.

The CS1 is powered by BMW's 1.8-litre four-cylinder developing maximum output of 85 kW (115 bhp) and features VALVETRONIC valve control. The SMG Sequential Manual Gearbox shifts gears within fractions of a second via paddles on the steering wheel, relieving the driver of the usual chore of engaging or disengaging the clutch. Driver power is conveyed to the road by 18-inch light-alloy wheels with tyres measuring 215/45 at the front and 235/40 at the rear.

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Premium – next generation.

The four-seater CS1 convertible concept car is clearly a genuine BMW in every respect, a fully-fledged member of the BMW family. But at the same time it proudly boasts its unique, very different character. Full of fresh practicality, it combines well-known highlights of BMW's family tradition with new lines and design. There is certainly nothing nostalgic about this car! The CS1 looks forward, reflecting the future-oriented lifestyle of its generation even while reviving an important element of BMW history, anticipating the small model series to be introduced in future: the tradition of small, sporting cars culminating in legends such as the BMW 2002.

Through its unique character, this concept car clearly underlines BMW's new design philosophy. The CS1 is not a "mini" version of BMW's larger production models. Rather, it demonstrates most convincingly that in future each BMW model series will have its very special character. This bears out BMW's premium claim in all classes and vehicle segments in the same individual style so typical of the BMW driver in his world.

Exterior Design.

The design of the CS1 is characterised by an exceptional blend of elegant agility and powerful dynamism. Both of these worlds clearly express their character, without the slightest compromise. The domain of agility and pure elegance is to be found particularly where the car's occupants enjoy the experience of living and motoring: in the avantgarde interior so "light" and carefree in design. Where the car itself is directly connected to the outside world and where it conveys its power to the road, however, elements of performance and dynamism are also demonstrated by the exterior design: The broad shoulder line, flowing side-sills and impressive wheels with extra-large and clearly visible brakes confirm the performance and endurance of the CS1 concept car.

The elegant, stretched sideline gives the CS1 a very dynamic, sleek appearance. The short overhangs front and rear so typical of BMW, in turn, as well as the striking side-sills, clearly accentuate this look.

The powerful shoulders of a dynamic athlete.

Apart from the proportions of the car, the exterior is characterised in particular by the distinct shoulder line extending all round the rear end and reminiscent of an athlete's muscular shoulders. At the same time this line provides visible protection for the car's occupants and leads into the delicate and fine interior where automotive design clearly expresses what lurks beneath the surface: sophisticated, state-of-the-art passive safety technology protecting the driver and his passengers.

This protective and agile character continues beneath the shoulder line. The surfaces of the doors and wings follow a flowing curve without any superfluous gimmicks all the way to the side-sills and wheel arches. Quality of this kind reminds you of the smooth skin of a well-trained athlete revealing the contours of the muscles below.

This becomes particularly clear in the lines of the side-sills marking the bottom of the doors. Here the car's design language is clearly visible, bearing testimony to the design destined to characterise BMW's more sporting cars in future. Indeed, this dynamic look created by the interaction of concave and convex surfaces was to be admired for the first time on the X coupé crossover study. Now, underlining the light, purist character of the

CS1, the same design language has been used very discreetly and with utmost refinement once again.

Unmistakable face and refined lights technology.

Apart from the shoulder line extending all round the car, the CS1 concept car takes up yet another feature of BMW's smaller models equally rich in tradition: the high-rising, almost vertical front end. This also proves that dynamic looks and performance do not necessarily require flat, allegedly "sleek" design at the front. The well-balanced, aerodynamic shape of the car gave the designers a lot of freedom in their work, allowing them to create an unmistakable face making the CS1 quite unique even within the BMW model range.

The traditional dual headlights are set off against one another in dynamic arrangement, surrounded by the new but already very popular light rings as yet another distinctive BMW design element. A small "window" between the two headlights offers a glimpse of the bi-xenon headlight technology, at the same time underlining the car's modern design also at this point. The glass covers on the headlights extend over the front edge up to the engine compartment lid, providing the impression of eyes wide open. Together with the powerful-looking front air dam with its wide air intake scoop, these "eyes" give the CS1 an alert, refined and dynamic look.

The rear lights are a combination of illuminated areas and double light rings integrated in the surface. Light-emitting diodes in ring shape provide all the functions of the brake lights, direction indicators and back-up lights. The entire background around the LED rings is illuminated in red from behind to provide an ideal tail light function. Apart from the impression of depth and a three-dimensional configuration, this design also bears testimony to the high standard of technical refinement.

Interior Design.

The futuristic interior of the CS1 Concept Car points even further into the future, while nevertheless still focusing on the philosophy of agility and youthful elegance. Both the design and the choice of materials emanate a flair of optimism, joy of life and spontaneity characteristic of a new generation enjoying life and expressing this joy through their lifestyle.

The interior does without any opulence and bulky elements, the designers focusing instead in their drafts on the elegant world of fashion and modern architecture. The result is a fresh and useful ambience, classic and modern materials being used consciously to express their character also through their shapes and forms. Indeed, modern, flexible materials open up entirely new options in this area.

A feature you will notice at very first sight are the unusually delicate surfaces finished in fabric or leather, for example on the neckrests, above the cockpit or in the centre armrest. To provide an almost "breezy" and light atmosphere within the car, these materials have not been used as usual just as the surface lining on top of solid interior elements. Rather, they come on fine aluminium frames, forming such elements themselves or at least indicating their contours through their own shape. Ultimately, this not only saves space, but also ensures a generous feeling of large dimensions despite the small size of the car. And last but not least, the designers are able to clearly prove in this way that saving weight need not necessarily detract from the beauty of elegance and style.

Tension hovering above the cockpit.

An aluminium crossbar with both a light and solid feeling forms the central axis in the cockpit. It is supported visibly by two wing-like swinging arms rising up out of the centre tunnel and extending to the two sides of the cockpit at either end. Covered with soft neoprene, the two swinging arms offer a particularly attractive touch. The right-hand arm is flexible and, whenever required, provides access to the bag-like glove compartment right behind.

Dome-like surfaces appearing to hover in space above the aluminium crossbar round off the cockpit. Covered in fine, flexible neoprene, these surfaces

freely encompass the free space created in this way. Beneath this "roof" there is adequate space for the free-standing controls and instruments, the speedometer and rev counter attached directly to the steering column. These two circular instruments vary in size, thus taking up a design element already well-known from the cockpits of BMW motorcycles. They are surrounded by discreet light rings reminiscent themselves of the headlights' new look.

Elegance and function: perfect use of materials.

The choice of materials and colours on the CS1 consistently follows a concept combining elegance with agility and function. The foundation of the interior, starting with the floor panel above the centre tunnel with the swinging arms holding the cockpit and extending all the way to the stable seat backrest shells, expresses its solidity through the dark Storm Blue colour. The surfaces are finished in robust neoprene.

Elements providing a load-bearing function within the interior demonstrate their purpose through the use of matt aluminium. The interior structure, the cockpit bracket, and the load-bearing side profiles of the centre tunnel are all clearly visible along the two main axes. At the same time smaller details such as the neckrest supports, the door handles, belt latches and the gearshift lever underline the stability of the entire structure and their own specific function.

Wherever people come into direct contact with the car, experiencing the comfort features of the CS1, soft materials in a warm brown Pale Camel dominate the look of all surfaces. The seat bottoms, neckrests and the steering wheel are finished in soft Nappa leather, the side panels of the seat subject to greater loads come in soft and robust Nubuk leather of the highest quality.

Comfortable gel pads and mysterious shades of colour.

Highlights in colour and material very discreet but highly effective give the interior a special touch. Transparent gel pads in the seat bottoms, for example, ensure supreme comfort also on long journeys. Soft, semi-transparent materials in the door pockets underline the open and light character maintained throughout the design of the interior. And last but not least, colour shades beneath the freely elevating neoprene-covered surfaces above the cockpit provide a mysterious but nevertheless harmonious and warm ambience. The rear of this multi-layer high-tech material is finished in brilliant Flame Orange, a striking colour filling the free spaces behind the instruments without being directly visible. As a match, the controls in the aluminium trim are illuminated in orange from behind.

iDrive – the Control Concept of the Future.

The CS1 Concept Car continues BMW's new interior and control philosophy using iDrive for perfect driver orientation. This advanced system allows the driver to concentrate on the essential, the actual act of motoring, while operating just a few buttons comfortably and safely to control the various functions of a modern car such as the CS1. The central control unit, the Controller, is therefore fitted precisely where the driver would place his hand instinctively – on the centre console, behind the gearshift lever – without any kind of obstruction.

Information on-demand. Always there when you need it.

Pressing the Controller briefly, you move up the previously concealed monitor out of the cockpit until it reaches the flexible cockpit "roof", aligned perfectly in the driver's line of vision. The Controller allows the driver to mastermind the comfort, communication, navigation, information and entertainment functions with absolute ease by a flick of his wrist. And in the process the driver does not even have to look for the right buttons, his hand resting comfortably on the Controller activating all these functions at his command.

Functions required frequently and at short notice are operated by a handful of conventional buttons. Pressing the air conditioning button, for example, is sufficient to move the air conditioning control unit out of the cockpit from beneath – so that now the driver can immediately set the interior temperature or the power of the fan. iDrive thus offers appropriate, on-demand access to the functions and information required at any time.

Technical Features Matching the Design Concept.

Within its body, the CS1 Concept Car again proves that design, technology and function interact hand-in-hand. The engine compartment, for instance, is partly covered by flexible, heat-proof tissue and partly by fire-resistant carbon-glass fibre plastic. The flexible cover houses "cold" units and systems such as the air filters, the cooling and brake system indicated graphically on the reflecting surface. The "hot" components around the engine, for example the exhaust system, are housed beneath the carbon-glass fibre cover.

The heart beating within the car is BMW's agile 1.8 -litre four-cylinder 85 kW/115 bhp power unit, giving the CS1 spontaneous and refined performance. VALVETRONIC, BMW engine technology that dispenses with conventional throttle butterflies, allows the engine to breathe freely. Power and performance is no longer controlled by closing the air supply, but rather by intelligent management of the valves perfectly geared to every situation on the road. Which means in practice that the engine of the CS1 not only offers consistently high torque from low engine speeds, but also a very high standard of fuel economy.

Shifting gears faster than a human being.

The power of the engine is transmitted to the wheels through the SMG Sequential Manual Gearbox already thrilling countless drivers of the BMW 3 Series the world over. Using paddles in the steering wheel like on a racing car, the driver can shift to the next gear within fractions of a second without having to operate a clutch, since this is done by a high-performance hydraulic system working faster than a human being ever could. At the same time the system retains all the advantages of a manual gearbox, in particular the direct flow of power from the engine to the wheels. And in slow city traffic the driver can leave the gearshift function entirely to SMG, always choosing the right gear in every situation.

The drive concept: once again BMW through and through.

Despite its short and compact body, The CS1 concept car remains a genuine BMW also in terms of its drive system: Standard drive, that is the engine fitted lengthwise at the front and the drive wheels at the rear, gives the CS1 the dynamic driving characteristics so typical of a BMW and ensures optimum weight distribution. Drive power is conveyed to the road by 18-inch light-alloy wheels running on 215/45 tyres at the front and 235/40 tyres at the rear.

Apart from the big and muscular wheels, the extra-large brakes to be seen within also bear out a feeling of solid quality. Brake discs measuring 335 mm (13.2 ") in diameter at the front and 330 mm (13.0 ") at the rear, together with racing brake callipers fitted with six pistons at the front and four at the rear, slow down the CS1 to a standstill quickly and efficiently at all times.

Specifications.

Drive system

Configuration:	Standard drive (engine fitted lengthwise at the front, drive wheels at the rear)
Engine:	Straight-four with VALVETRONIC valve control
Capacity:	1,796 cc
Max output:	85 kW/115 bhp at 5,500 rpm
Max torque:	175 Nm/129 lb-ft at 3,750 rpm
Transmission:	SMG (Sequential Manual Gearbox) with shift paddles on the steering wheel and gearshift lever.

Chassis

Rims:	7.0 x 18 "(front) 8.0 x 18 "(rear) Light-alloy rims
Tyres:	215/45 ZR 18 (front) 235/40 ZR 18 (rear) Hand-cut tread
Brakes:	Racing brakes, six pistons at the front, four at the rear
Brake discs:	335 mm/13.2 "(front) 330 mm/13.0 "(rear)