

The compact sports car for every day

# Maximum performance, perfect fun to drive – the new SEAT Leon CUPRA and CUPRA 280

- / SEAT presents the brand's new icon
- / New two-litre engine in two variants with 195 and 206 kW / 265 and 280 PS, manual and DSG
- / Powerful dynamics paired with astonishing efficiency
- / Precision driving fun with differential lock, progressive steering, DCC
- / Launched as Leon five-door and Leon SC
- / Exclusive equipment, extensive individualisation

Martorell, 10/02/14. – Maximum performance, state-of-the-art technology, stunning design matched with compelling efficiency and perfect everyday usability – the new Leon CUPRA embodies the SEAT brand values in the best possible way. With up to 206 kW / 280 PS, the new CUPRA is not only the clear top model in the highly successful Leon family, it is also the brand's most powerful series-production car. And the fastest – the drive and the chassis of the Leon CUPRA guarantee precision driving fun of the highest order. With its extensive equipment and excellent quality, the new CUPRA offers exceptionally good value-for-money. Right from the start, the Leon CUPRA will be offered as a five-door and as the Leon SC CUPRA Sport Coupé with three doors.

"With the new Leon CUPRA, the SEAT brand is once more taking a major leap forward. The CUPRA is a refined, high-performance car that combines its expressive dynamics with relaxed long-distance comfort and a compelling, high-quality feel," says Jürgen Stackmann, CEO of SEAT S.A. "Driving fun and great design come with every Leon, but the new CUPRA displays SEAT expertise in a whole new dimension. We are proud of this new brand icon and certain of its success."

A concentrated package of hi-tech guarantees the enormous performance of the new CUPRA. At the top is the all-new 2.0 TSI engine with dual injection and variable camshaft timing. Depending on the version, it delivers an output of 195 kW / 265 PS or 206 kW / 280 PS. The DCC dynamic chassis control, front differential lock, progressive steering, CUPRA Drive Profile and standard-fit full-LED headlamps are further examples of its state-of-the-art technologies.

"The new CUPRA is pure SEAT – emotion and performance, design and dynamics combine to deliver driving fun kilometre after kilometre. State-of-the-art technology is evident in its enormous precision, but also in its compelling efficiency," stresses Dr. Matthias Rabe, Vice President of SEAT S.A. for Research and Development. "The new CUPRA is a sports car for



every day; it feels just as much at home on the race track as it does on the long haul. Leon CUPRA is the ultimate front wheel drive expression."

With the new Leon CUPRA, a success story is moving onto the next level. The first generation was launched in 1996 with the Ibiza, since when the dynamic CUPRA models have developed to become icons of the SEAT brand. Now CUPRA comes as a 3-door Leon for the first time.

# The Design – emotional and powerful

Emotional design is one of the great strengths of the Leon family. Both the five-door Leon and the three-door Leon SC Sport Coupé cut stunning figures from the very first glance, with their perfectly balanced proportions and precise lines. The juxtaposition of cleanly modelled surfaces and sharply drawn lines gives the Leon a lively and dynamic look that is, to the same degree, solid and powerful.

The side view is particularly distinctive. With its balanced proportion of formed sheet metal to glass surface area – a vertical split of around 2/3 to 1/3 – it stresses the Leon's solidity and underscores its firm stance. The characteristic, interrupted "Línea Dinámica" runs over the wheel arches towards the rear. The precisely shaped blisters on the sides do not run in a straight line – instead, they form very slight arcs that raise the tension. The design language of the Leon is extremely well received by customers. As one of the most important reasons for purchase, it forms the foundation for the great success of the new Leon family.

#### New balance of power and elegance

This design language was systematically developed to the next stage for the CUPRA, with a new kind of balance between power and elegance. Powerful elements, particularly at the front and rear, indicate the high performance of the top Leon model from the very first glance – yet without being in the least bit flashy. With its large air intakes and honeycomb mesh insert with a more three-dimensional design, the new front end ensures that plenty of air reaches the high-performance engine and brake system. Characteristic for the CUPRA models from SEAT, are the five narrow openings above the number plate – a further visual signal of the performance offered by this compact sports car. The form of the lower air intake also emphasises its stability and phenomenal road holding.

The rear end of the CUPRA is just as powerful. The black insert in the bumper and the double exhaust pipe with oval shape accentuate the width of the vehicle. The moulded diffuser and the two oval end pipes of the twin exhaust, likewise set well to the outside, provide a clear yet subtle signal of the CUPRA's power.

One unique feature is the standard-fit full-LED headlamps. They consume very little energy and have an extremely long lifecycle. At 5,500 Kelvin, the colour temperature is similar to that of daylight, which is less tiring on the eyes. Above all, however, they deliver a very special light signature with their characteristic arrow form – by night and by day. The same applies to the rear lights, which also feature LED technology.

The alloy wheels have an exclusive design, while red callipers and tinted side and rear windows underscore the individuality of the CUPRA. The CUPRA 280 is visually differentiated



by its unique 19-inch wheels with a titanium bicolour paint finish, the Aerodynamic Pack with the spoiler on the rear roof edge emphasises the stretched lines and sporty character, as do the black exterior mirror housings and CUPRA lettering on the brake callipers.

## Style and quality inside

The accentuated dynamics of the exterior continues seamlessly in the interior of the new SEAT Leon CUPRA. The area for the driver and co-driver is clearly and harmoniously designed. All switches, buttons and levers are where you would intuitively expect them to be. One feature element is the broad centre console with its distinct driver orientation. The dashboard is extremely elegant, with its two-tone design making it seem to float slightly in mid-air.

The interior is distinguished by the new CUPRA sports steering wheel, with its exclusive, flat-bottomed design. Thanks to its expertly applied padding and grippy, partially perforated leather cladding, it enhances the sporty, precise handling characteristics. Multifunction operating elements are integrated into the horizontal spokes, while, behind the steering wheel, are the shift paddles for the optional DSG transmission. Likewise exclusive to the CURPA are the top sports seats clad in dark grey Alcantara with white stitching. There is a choice of black full-leather upholstery, also with white stitching, white side cushions and a white insert in the door panels. Options include bucket seats with extremely good lateral grip. Pedals and door sills are finished in aluminium. The trim elements in the cockpit are finished in classic chrome (also available in gloss black).

One particular feature in the CUPRA interior is the ambient lighting. LEDs in the door panels emphasize the contours of the interior design and add to the premium feel of the passenger compartment. At the same time, the ambient lighting offers occupants improved orientation and an even greater sense of spaciousness. The colour of the LEDs can be adapted via the CUPRA Drive Profile – they glow red in CUPRA and Sport mode, with the Comfort and Individual setting being white.

Fine details underscore the high level of craftsmanship in the new SEAT Leon CUPRA – details like the precisely placed, contrasting stitching on the steering wheel and gear knob, the exact operation of the air vents, the clearly laid-out controls for the air conditioning and the three-dimensional form of the trim elements. All surfaces have soft-touch finishes, giving a fine, tactile feedback to every touch.

# The Bodyshell – systematic lightweight design

A bodyshell with exceptional stiffness and low weight is one of the main prerequisites for superior driving dynamics. Thus, the compelling combination of top performance and amazing efficiency is also a result of systematic lightweight design. On-the-road, the Leon SC CUPRA has a kerb weight of no more than 1,300 kilograms, making it one of the lightest compact sports cars in its class.



However, a solid bodyshell is also a prerequisite for optimum safety and the best possible comfort — and not least, for a high level of perceived quality. Nevertheless, in order to maintain optimum value-for-money, the decision was taken not to use expensive materials like magnesium and carbon fibre. Instead, many areas feature high-strength and ultra-high-strength steels. On their own, these hot-formed hi-tech steels reduce weight by 18 kilograms, while also ensuring even greater stiffness for the occupant cell.

## The Drive - top performance included

CUPRA stands for power, performance, dynamics – and the new Leon CUPRA fulfils all these promises perfectly. The CUPRA 280 PS with optional DSG transmission, the brand's top model, catapults from zero to 100 km/h in just 5.7 seconds, and in 5.8 seconds with the manual gearbox (Leon SC). The regulated top speed of 250 km/h is a matter of course. The maximum torque of 350 Newton metres across a wide range from 1,750 to 5,600 rpm guarantees impressive pulling power in every situation. And the CUPRA with 195 kW / 265 PS and a maximum torque of 350 Newton metres is no more than a fraction slower. Its acceleration time stands at 5.9 seconds with manual transmission and 5.8 seconds with DSG (Leon SC).

Against this, the new Leon CUPRA is astonishingly efficient. The average fuel consumption for both power variants is just 6.4 litres with DSG (Leon 5D: 6.6) and 6.6 litres with the manual gearbox. This equates to CO2 figures of just 149 and 154 grams. And, compared with its predecessor, it means a reduction in emissions of 41 grams.

## **Hi-tech engine components**

As a genuine sports engine, the 2.0 TSI responds spontaneously to commands from the gas pedal. Its rich sound becomes particularly intense when the standard CUPRA Drive Profile is running in CUPRA mode. At this setting, the engine responds more directly to commands from the gas pedal; with the optional DSG, the twin clutch reacts in a flash. In the event of higher loads and engine speeds, the sound actuator in the exhaust system opens, producing an even richer tone. Two balance shafts, rotating in opposite directions at twice the speed of the crankshaft, deliver extremely smooth running characteristics.

Many details underscore the high-performance character of the new four-cylinder engine. Modified aluminium pistons and stiffer con rods running on new bearings transfer the forces to the crankshaft. The grey cast-iron crankcase has been reinforced at the main bearing seats and at the main bearing cover. The cylinder head is made of a new, particularly lightweight aluminium-silicon alloy characterized by high strength and temperature resistance.

The large turbocharger, another new development, is designed for exhaust gas temperatures of up to 1,000 degrees Celsius. With a maximum charge pressure of 1.1 bar, it compresses 900 kilograms, in other words 765,000 litres, of air per hour. An efficient air-to-air intercooler considerably lowers the temperature of the compressed air, thereby increasing the mass available for combustion and thus the oxygen content. The electronically-controlled waste



gate works extremely quickly and precisely; it reduces the pumping work, as, under partial load, it lowers the basic charge pressure and thus the exhaust back pressure.

## Dual injection - fit for the future

The 2.0 TSI delivers pioneering solutions in many fields of technology. One of these is additional indirect injection, which complements the FSI direct fuel injection under partial load. This reduces consumption and particulate emissions. FSI injection, which works at pressures of up to 200 bar, kicks in on start-up and at higher loads: each of the enlarged injection valves has six holes.

The four cylinders are well filled at all times. The inlet camshaft is adjustable through a crank angle of 60 degrees, the outlet camshaft through 30 degrees. Moreover, on the exhaust side, the variable valve lift system varies the valve lift in two stages. What are known as drumble valves (drall and tumble) set the incoming air moving in a specific manner.

The exhaust manifold is integrated into the cylinder head and has coolant flowing around it — a solution that lowers the temperature of the exhaust and accelerates warm-up of the engine after cold start. In the innovative thermal management system, two rotary slide valves consolidated into a single module regulate the flow of coolant. They ensure that the engine oil quickly reaches operating temperature following start-up. This way, they always achieve the best balance between minimal friction and high thermodynamic efficiency.

An innovative coating for the piston skirts and anti-friction bearings on the balance shafts keep friction low; the oil pump operates on demand. A standard start-stop system and brake energy regeneration round out the efficiency package.

#### The Transmission – manual or DSG

In the new Leon CUPRA, a standard manual six-speed gear box with a lightweight magnesium housing is responsible for transmitting engine power; its gearshift is light and exact, with extremely short travel. As an alternative, SEAT offers the DSG. As with the manual gear box, the lower gears have short ratios, while the sixth gear has high ratio for lower fuel consumption. The high degree of efficiency is another feature that is common to both.

The driver of the new CUPRA can control the twin-clutch gearbox using the gear selector or the optional steering-wheel paddles. The fully automatic programs are available in addition to the manual mode. The D mode is configured for low fuel consumption and low engine speeds, while the S mode is mapped for a sporty driving style and a higher level of engine speed. The CUPRA mode, which comes with the standard-fit CUPRA Drive Profile, is the most dynamic shifting strategy.

## The Chassis – hi-tech for precision and dynamics

CUPRA has always been synonymous with outstanding dynamics, precise agility and amazing sporting character. The new Leon CUPRA, however, manages to set the bar a good deal higher – in every dimension. With the DCC dynamic chassis control, front-axle differential lock and progressive steering all fitted as standard, the new Leon CUPRA



achieves considerably faster laps on the track than its already impressive predecessor. At the same time, it is significantly more relaxed to drive, with a surprisingly refined level of comfort even on long motorway journeys. Safe and reliable deceleration comes courtesy of the CUPRA-specific, high-performance brake system, recognisable by its red callipers.

## DCC dynamic chassis control

The key fundamentals of the dynamics are low weight and a stiff structure. The systematic lightweight design of the new Leon family is also evident on the CUPRA. Despite considerably improved equipment, the new generation weighs 55 kilograms less than its comparable predecessor. The new generation of the DCC dynamic chassis control developed specifically for the CUPRA is even more sensitive and responsive, adapting the chassis characteristics to the prevailing conditions in a matter of milliseconds. The same applies to the driver's preferences - the CUPRA Drive Profile permits extensive individualisation of the ride.

#### Front-axle differential lock

The new "limited slip differential" lock significantly improves the traction and handling of this front-wheel drive car. The system uses a multi-plate package that is hydraulically actuated and electronically controlled. The maximum locking force is 1,600 Newton metres and, in extreme cases, 100 percent of the drive can be sent to one wheel. The differential lock is integrated into all the handling systems like ESP and EDS. It improves not only the traction, but also eliminates torque steer. Furthermore, its sensitive control has no negative impact on steering feel.

## **Progressive steering**

Also included as standard equipment, the progressive steering improves the agile handling of the new Leon CUPRA even further. The driver experiences a precise and relaxed steering feel, less steering movement is required, reducing the number of grip changes, especially in cornering or parking manoeuvres. The steering in the new Leon CUPRA works with a progressive ratio through variable toothing on the rack.

Lock-to-lock with the progressive steering is 1.1 turns of the wheel. With the standard steering, this figure is 1.4. Standard steering systems apply a constant ratio. The main technical differentiation between the standard steering and the progressive steering is the latter's variable rack toothing.

## **Handling control**

The ESP handling system has been further developed specifically for the CUPRA and enables a very sporty driving style with full retention of safety functionality. For extremely dynamic use, such as on a race track, it can also be deactivated in two stages – the first stage deactivates the traction control and puts the ESP into sport mode, permitting greater yaw angles. The second stage deactivates the ESP completely.

#### **CUPRA Drive Profile**

The CUPRA Drive Profile enables the characteristics of the new Leon CUPRA to be adapted across a very wide range to meet the individual preferences of the driver. Alongside the Comfort and Sport modes, the CUPRA mode was, of course, a focal point for the engineers in



Martorell. Throttle response is particularly sensitive in this setting, while the DSG operates in its sportiest shifting mode and the sound actuator supports the full tone of the turbocharged engine. DCC dynamic chassis control, progressive steering and the front-axle differential lock also operate at their sportiest settings.

## The Technologies and Assistance Systems

For the new Leon CUPRA, SEAT engineers have put together a portfolio of state-of-the-art technologies. It includes the full-LED headlamps, as well as the multi-collision brake, which helps to avoid secondary collisions in the event of an accident. Also standard equipment is the SEAT Media System Plus infotainment system. Options include the safety assist system ACC with Front Assist and city emergency braking function.

# **Full-LED headlamps**

In the new SEAT Leon CUPRA, the innovative full-LED lights in combination with LED daytime running lights and LED rear lights are standard equipment. Alongside their expressive design, LED headlamps have many further benefits – for instance, they illuminate the road with a colour temperature of 5,300 Kelvin. Because this is very similar to that of daylight, it puts very little strain on the eyes. In terms of efficiency, the LEDs consume very little energy; dipped beam, for instance, draws only 20 watts per unit.

The distinctive contour of the positioning and daytime running lights on the new SEAT Leon CUPRA is generated by two white LEDs per unit. Nine yellow LEDs on each side provide the light for the indicators, which are likewise integrated into the headlamp unit. The dipped beam is made up of six modules each. When the main beam is switched on, three bright spot modules are activated in each unit and the dipped beam is raised accordingly. Intelligent sensors prevent oncoming traffic from being dazzled. Furthermore, the new full-LED headlamps are completely maintenance free and designed to last the lifetime of the car.

The functions of the full-LED headlamps include a motorway light. The angle of the beam is raised slightly as soon as the Leon ST travels at speeds above 110 km/h for more than 30 seconds. This improves illumination of the carriageway without irritating other road users.

#### **ACC and Front Assist**

Playing a particularly important role among the driver assistance systems in the new SEAT Leon CURPA is the adaptive cruise control (ACC). The radar-based system maintains the preset speed and pre-selected distance to the vehicle in front, accelerating and decelerating automatically in flowing traffic. The speed can be set within a range of 30 to 160 km/h. ACC works with manual transmissions and with DSG. On vehicles with DSG, the system will decelerate behind a slowing vehicle all the way to a standstill.

Front Assist, including the city emergency braking function, can guard against the danger of collisions by using a radar sensor to monitor traffic in front of the vehicle. If a critical risk of a



rear-end collision is detected at speeds ranging from ca. 30 to 210 km/h, the assistant warns the driver both acoustically and optically and prepares the brake system for a possible braking manoeuvre. The Leon thus puts the driver in the position to address the precarious situation his/herself.

If required, the system will automatically initiate the braking manoeuvre, potentially reducing the speed of impact. "Front Assist" also aids the driver during the braking manoeuvre itself, ensuring – if necessary – that maximum braking force is applied. Thus "Front Assist" can make a major contribution to protecting occupants and vehicle.

The "city emergency braking function" is a system extension of "Front Assist" that operates in urban stop-and-go traffic. At speeds of between 5 and 30 km/h, it can react in the final moments prior to a collision with an emergency braking manoeuvre.

## **Latest-generation infotainment**

The new SEAT Leon CUPRA comes to market with a state-of-the-art infotainment solution as standard. It is based on the SEAT Easy connect operating system, which enables control of all entertainment and communication functions, as well as a variety of vehicle functions, via a touch-sensitive screen in the cockpit. The 5.8-inch touchscreen with proximity sensors is conveniently and centrally positioned between the centre air vents. It is easy to read and to reach for both driver and co-driver.

As soon as the driver's or passenger's finger approaches the touchscreen, the system automatically switches from display to operating mode. In operating mode, the elements that can be activated via the touchscreen are brought to the fore, making intuitive use (smartphone-style swipe and zoom gestures) even easier. The display mode, on the other hand, is distinguished by its extremely clear and uncluttered presentation. The graphics of both modes are a perfect match for the sporty aesthetic of the SEAT design.

The standard Media System Plus comes with a 5.8-inch touchscreen with three-dimensional graphics, as well as an optional DAB tuner for digital radio reception and voice control. The system delivers sound to eight speakers. There are four buttons on each side of the touchscreen; in addition to those provided with the 5-inch systems and depending on equipment, they provide access to the functions "Phone" and "Voice". The connector unit for SD cards, USB and iPod is located in the glove compartment. The high-resolution screen offers a wide array of colours.

The optional Nav System has the same features as Media System Plus, while also incorporating the voice-controlled navigation system. Route guidance information is also displayed on the colour screen between the speedometer and rev counter, directly in the driver's line of sight.

#### **SEAT sound system**



The optional SEAT sound system with 135-watt output and ten speakers offers clear and powerful sound at all five seats. A large proportion of this impressive listening experience is attributable to the centre speaker integrated into the dashboard and the large 35-watt subwoofer in the luggage compartment.

## The Equipment - exclusive and individual

The Leon CUPRA also states its position as the top model in the SEAT range through the progressive steering, dynamic chassis control, front-axle differential lock, CUPRA Drive Profile and high-performance brake system with 18-inch wheels (CUPRA 280: 19-inch). Also standard equipment, are the full-LED headlamps and the LED rear lights.

The top sports seats in Alcantara, the CUPRA steering wheel and the Media System Plus with a 5.8-inch colour touchscreen are all among the standard interior features in addition to the extensive base equipment of the Leon FR. Still included as standard equipment are Climatronic, cruise control and heated wing mirrors.