Summary

Classic elegance and awesome power – the Audi RS 5 Coupé has landed in Australia

A classically elegant coupe with a wickedly powerful engine: the Audi RS 5 Coupé has landed in Australia. The high-revving 4.2-litre V8 pumps out a hefty 331 kW, yet is very fuel efficient. Like all of the high-performance models from Audi, the RS 5 Coupé delivers its power to the road via all four wheels. The RS 5 Coupé also debuts the latest evolution of Audi's quattro all-wheel-drive system.

The Audi RS 5 Coupé uses a high-revving, normally-aspirated V8 displacing 4,163 cc. This engine is closely related to the V10 that powers the high-performance R8 sports car. The 4.2 FSI delivers 331 kW at 8,250 rpm, with peak torque of 430 Nm available between 4,000 and 6,000 rpm. The sonorous V8 catapults the two-door coupe from 0 to 100 km/h in 4.6 seconds on its way to an electronically governed top speed of 250 km/h. Audi can increase this to 280 km/h upon request.

The normally aspirated engine consumes just 10.8 litres of fuel per 100 kilometres on average - far less than its key competitors. This impressive figure is due to the combination of technologies from the Audi modular efficiency platform, including an energy recuperation system.

With its excellent efficiency and tall top gear, the standard seven-speed S tronic transmission contributes to the good fuel economy. Drivers can let the lightning-fast dual-clutch transmission shift automatically or change gears themselves using the selector lever or with paddles on the steering wheel.

Like all RS models, the RS 5 Coupé applies its power to the road through quattro permanent all-wheel drive. The RS 5 Coupé debuts the latest development of the centre differential - the crown-gear centre differential.

Very compact and lightweight, this cutting-edge differential can vary the distribution of torque between the front and rear axles in the blink of an eye, with up to 70 percent flowing to the front or as much as 85 percent to the rear. The default 40:60 ratio of the rear-biased configuration ensures outstanding handling.

The crown-gear centre differential works together with the new torque-vectoring system, which acts on all four wheels. If the load on the inside wheel is reduced too much, that wheel is braked slightly before it can begin to slip. The RS 5 Coupé also boasts a sport rear differential as standard, which actively distributes power between the rear wheels.

The chassis of the RS 5 Coupé is tautly tuned, and the sleek two-door body has been lowered by 20 millimetres compared to the Audi A5. The high-performance coupe comes standard with 19-inch alloy wheels with 265/35-series tyres; 20-inch wheels with 275/30-series tyres are available as an option. From 2011 Audi will also offer a dynamic new damping technology – the mechanical DRC Dynamic Ride Control system.

The brake system uses large, internally-ventilated discs. Their steel friction rings are perforated and connected to the aluminium brake caps via pins. The callipers are painted high-gloss black; the front callipers boast eight pistons each. Audi installs carbon fibre-ceramic discs at the front upon request. The ESP stabilisation system includes a Sport mode and can be completely deactivated.

Even more options: Audi drive select

The Audi drive select driving dynamics system comes standard with the RS 5 Coupé. This system allows the driver to select between three modes – comfort, auto and dynamic – for the characteristics of the servotronic steering, the seven-speed S tronic transmission, the accelerator and the exhaust system. The Audi RS 5 Coupé is also equipped with the Audi navigation system as standard, meaning there is also a fourth Audi drive select mode which can be configured to the driver’s choice and saved to the on-board hard drive. Dynamic steering is an optional component of Audi drive select.

Dynamic steering adjusts the steering ratio to a vehicle's speed and automatically counter-steers gently when at the cornering limit. Furthermore, the optional sport suspension plus with DRC Dynamic Ride Control (available in 2011) will also be adjustable via Audi drive select.

The RS 5 Coupé has an athletic road stance, its elegant two-door lines complemented by classy and attractive accents and styling details. Its single-frame grille bears a glossy anthracite-grey rhombus-pattern grid. Xenon plus headlights with LED daytime running lights come standard. The air flows in through enlarged openings framed by distinctive contours.

The flared rear side elements with the sharp horizontal upper edges are reminiscent of a classic Audi – that all-wheel drive pioneer from 1980, the Audi quattro. The side sills sport chiselled caps; the trim strips and the side mirror housings have a matt aluminium-look finish.

The rear end is dominated by two oval exhaust pipes integrated within the bumper. A large diffuser protrudes prominently upward. The spoiler in the rear hatch extends automatically at 120 km/h. The extensively-clad underbody integrates air vents for the seven-speed S tronic and the front brakes. Thanks to its advanced aerodynamics, the RS 5 Coupé generates downforce at high speed to further enhance stability.

Dynamic elegance: The interior

The RS 5 Coupé's elegant and dynamic styling extends to the interior. The standard sport seats with integrated headrests are electrically adjustable and covered in Silk Nappa leather. Alternatives include RS bucket seats with folding backrests or ventilated and luxuriously upholstered climate-controlled comfort seats.

The instruments feature black dials and white markings with special scaling. The driver information system with colour display includes a lap timer and an oil temperature gauge. The RS 5 Coupé offers carbon fibre inlays as standard, but three additional inlay options are available as no cost options. The fascia framing the instrument cluster in the instrument panel sports a piano-black finish.

The pedals, the footrest and the buttons of the standard MMI navigation system shine in an aluminium-look finish. Aluminium inserts adorn the door sill trims, which are accentuated with RS 5 badges.

Audi also offers a range of optional features. Among them is a carbon design package for the engine compartment, and a matt aluminium or matt black exterior styling package for the body.

Deliveries of the Audi RS 5 Coupé commence in October.

At a glance

The new Audi RS 5 Coupé

Engine

- High-revving, normally aspirated V8 displacing 4,163 cc
- 331 kW at 8,250 rpm; peak torque 430 Nm from 4,000 to 6,000 rpm
- Zero to 100 km/h in 4.6 seconds; top speed of 250km/h (increased to 280 km/h as an option)
- ADR 81/02 cycle fuel consumption of just 10.8 litres per 100 km
- Energy recuperation system and additional efficiency technologies standard

Drivetrain

- Seven-speed S tronic dual-clutch transmission
- quattro with (self-locking) crown-gear centre differential and torque vectoring
- Standard sport differential for power distribution between the rear wheels

Chassis

- Audi drive select driving dynamics system. Optional dynamic steering
- High-performance brakes, with optional carbon fibre-ceramic discs
- ESP stabilisation program with Sport mode, can be completely deactivated
- Sport suspension plus, with Dynamic Ride Control variable damping available in 2011

Body

- Elegant coupe design with distinctive sporty accents
- Standard xenon plus headlights with LED daytime running lights and LED taillights
- Flared wheel wells front and rear, side extensions

Interior and controls

- Exclusive interior with carbon inlays
- Power-adjustable sport seats as standard; bucket seats with folding backrests and climate-controlled comfort seats available as options
- Specially designed instruments with lap timer and oil temperature gauge
- Standard hard drive navigation system
- Bang & Olufsen sound system available
- Advanced driver assistance systems available, such as Audi side assist blind-spot warning system

Full version

Power in its most beautiful form – The Audi RS 5 Coupé

Tremendous power packaged in a classically elegant coupe body: the Audi RS 5 Coupé has landed in Australia. The high-revving 4.2 litre V8 delivers 331 kW yet is very fuel efficient. The seven-speed S tronic transmission and an innovative crown-gear centre differential in the quattro drivetrain transmit power to all four wheels.

Developed by quattro GmbH, the Audi RS models form the dynamic spearhead of Audi's model range. The RS 5 Coupé is the latest incarnation in a tradition dating back more than 15 years to the RS 2 Avant: exceptional dynamics in the midsize category.

Body and exterior design

The Audi RS 5 Coupé has an athletic and muscular road stance. Its flowing silhouette, striking lines, accentuated surfaces, expressive front end and distinctive tail end make it a sculpture in motion. The broad, low body with the long bonnet, short front overhang and elongated transition from the C-pillar to the tail end define the proportions of classic elegance.

With the RS 5 Coupé, a number of special design details set distinctive accents. The single-frame grille bears a shiny anthracite-grey rhombus-pattern grid with an RS 5 badge. The grille's frame sports a matt aluminium-look finish. Xenon plus headlights are standard; their sickle-shaped daytime running light strips comprise seven LEDs each in conjunction with the 'wings'. The wave-like shapes in the headlight housing are a characteristic feature of the Audi design.

The bumper features a splitter edge at the bottom like on a race car. The air flows through large openings adorned with crossbars and black rhombus-pattern grids, and framed by three-dimensional, protruding edges. Two supplemental coolers support the main radiator.

The high-performance coupe requires cooling air and water for the engine, for the power steering fluid and for the hydraulics of the seven-speed S tronic transmission. Its oil cooler is integrated into the radiator loop.

The front and rear fenders are distinctly flared; the side panels have been completely redesigned for the RS 5 Coupé. The sharp edges over the wheel wells are reminiscent of a classic Audi – that all-wheel drive pioneer from 1980, the Audi quattro, had similar ‘blisters’. The sills sport chiselled caps. The trim strips and the side mirror housings, which are fitted with LED turn signals, have a matt aluminium-look finish.

Exclusive appearance: Eight paint colours, four different effects

Audi offers a choice of eight paint colours – one solid finish, two metallic colours, four pearl-effect finishes and one crystal-effect colour: Ibis White, Suzuka Grey, Monza Silver, Misano Red, Sepang Blue, Daytona Grey, Phantom Black and Panther Black. The last colour is a custom blend for Audi high-performance vehicles – special pigments generate unusual effects dependant on how light strikes the paint.

Two optional styling packages are also available. The matt black styling package includes the single-frame grille, the blade and the trim strips on the flanks finished in black. The matt aluminium styling package sees the a matt aluminium-look finish applied to accents at the front and rear of the car. A carbon design package for the engine compartment is also available as an option.

The tail end with the RS 5 logo is dominated by the two large oval exhaust pipes, set into a rhombus-shaped grid. This surface includes a large diffuser that protrudes prominently upward. The rear spoiler hatch extends automatically at 120 km/h and retracts again below 80 km/h. The driver can also activate the spoiler via a switch as desired.

The underbody of the RS 5 Coupé is largely lined with plastic cladding. It integrates NACA air vents and airfoils for the brakes, the seven-speed S tronic and centre differential. At highway speeds, the aerodynamic characteristics of the high-performance coupe generate downforce to further enhance stability. The c_D value is 0.33; the front surface area measures 2.18 m².

The Audi RS 5 Coupé is 4,649 millimetres long, 1,860 millimetres wide and 1,366 millimetres high, making it 24 millimetres longer and 6 millimetres wider than the A5. It is also 20 millimetres lower in height. Its body boasts high rigidity and low weight; the front fenders are made of aluminium. A strut brace further reinforces the front end and improves rigidity.

Engine

Muscular power, spontaneous response and high revs – all underscored by voluminous, sonorous V8 music. The V8 in the RS 5 Coupé conveys the skin-tingling sensation of power and emotion. Displacing 4,163 cc, the 4.2 FSI delivers impressive torque and just like a race engine is right at home at high revs. It puts out 331 kW at 8,250 rpm, and peak torque of 430 Nm is available between 4,000 and 6,000 rpm. The rev limiter kicks in at 8,500 rpm.

The specific output of the normally aspirated eight-cylinder is 78.8 kW per litre of displacement. Each kilowatt only has to move 5.2 kilograms – the RS 5 Coupé weighs just 1,725 kilograms. The 4.2 FSI catapults the two-door model from a standing start to 100 km/h in just 4.6 seconds; 200 km/h is reached after another 10.9 seconds. Top speed is an electronically governed 250 km/h; Audi will raise this to 280 km/h at the customer’s request.

Efficiency and dynamics are inextricably linked at Audi. The ultra-powerful eight-cylinder engine averages 10.8 litres of fuel per 100 kilometres – far less than its key competitors. This figure is due in part to technologies employed from Audi’s modular efficiency platform.

The cylinder barrels and the chain drive have been optimised to minimise friction, the oil pump operates on demand, and a recuperation system recovers energy during coasting and braking. The electricity is stored temporarily in the battery; it is used during the next acceleration phase to reduce the load on the alternator and thus on the engine.

The high-revving, normally aspirated V8, whose cylinder-head covers are painted red, is built by hand at the plant in Győr, Hungary, and has much in common with the V10 from the high-performance Audi R8 sports car. Its classic 90 degree cylinder angle results in a low centre of gravity. The two opposing cylinder banks are offset by 18.5 millimetres. The bore measures 84.5 millimetres and the stroke 92.8 millimetres.

The V8 weighs just 216 kilograms. Its crankcase is manufactured using the low-pressure die-casting method, which ensures homogeneity. The aluminium-silicon alloy combines low weight with high strength. Its high silicon content makes the cylinder barrels extremely durable. The forged crankshaft, the forged steel connecting rods and the pistons forged from a high-strength aluminium alloy are all also extremely lightweight, yet strong.

The crankcase is of a bedplate construction. The lower bearing bridges for the crankshaft are integrated into a common frame for maximum rigidity and vibration reduction. The cast iron bearing bridges reduce the thermal expansion of the crankcase and thus keep the play at the main bearings of the crankshaft within tight limits.

FSI direct injection: Winning technology from Le Mans

Like nearly every petrol engine from Audi, the 4.2 FSI has its fuel injected via a direct injection system. Audi has taken the FSI technology from the race track – the harshest testing laboratory in the world – to the street. This technology has powered the R8 race car to five wins at the 24 Hours of Le Mans. The common rail system injects the fuel into the combustion chambers at up to 120 bar of pressure through nozzles located in the side of the cylinder head.

The fuel mixture is swirled intensely in the combustion chambers and thus cools the walls. This allows a high compression ratio of 12.3:1, which increases both power and efficiency.

Painstaking refinements to the dual intake and exhaust system with the twin throttles allow the long-stroke engine to breathe freely. Vacuum-actuated tumble flaps controlled by the engine management system are integrated into the intake ports. This causes the air to move with roller-like rotation (to 'tumble'), which increases the efficiency of the combustion process.

The 32 valves, which are actuated via roller cam followers, have large diameters – 33.9 millimetres on the intake side and 28.0 millimetres in the case of the sodium-coiled exhaust values. The valves are actuated by four camshafts, which can be moved hydraulically through 42 degrees of crankshaft rotation. They are driven by chains running on the back side of the engine.

The principle of lightweight construction was also a high priority in the design of the 4.2 FSI V8. The intake manifold is made of plastic; a pressure sensor is used to measure the loads very precisely. In contrast to other high-performance engines, the 4.2 FSI needs just a single, newly developed controller. The pipes of the manifold and of the exhaust system, which have been painstakingly optimized for low backpressure, are hydroformed from stainless steel and are very lightweight.

An exhaust flap is installed in each of the two large tailpipes of the dual exhaust system. At higher loads and engine speeds – or at the push of a button in the standard Audi drive select control system – the exhaust flap is opened for an even richer sound. Upon request, Audi will install a particularly distinctive sounding sport exhaust system with black tailpipes that also includes this switching function. This sports exhaust system is a $2600 option.

Drivetrain

The RS 5 Coupé also marks the first time that the seven-speed S tronic transmission has been teamed with a high-revving engine – an easy assignment for the S tronic, which was designed for 9,000 rpm. Audi has made modifications to certain aspects of the dual-clutch transmission, such as the oil management system and the clutches. The gear ratios have also been adjusted. Seventh gear is relatively tall to reduce fuel consumption at cruising speeds.

The seven-speed S tronic comprises two sub-units and integrates two multi-plate clutches that control the various gears. The large K1 clutch located on the outside directs the torque via a solid shaft to the gear wheels for the odd-numbered gears 1, 3, 5 and 7. A hollow shaft rotates around the solid shaft. It is connected to the smaller K2 clutch, which is integrated into the inside of its larger sibling, and controls the gear wheels for the even-numbered gears 2, 4 and 6, as well as reverse gear.

Both transmission structures are continuously active, but only one is connected to the engine at any one time. For example, when the driver accelerates in third gear, fourth gear is already engaged in the second transmission structure. The shifting process takes place as the clutch changes – K1 opens and K2 closes. Shifting gears takes only a few hundredths of a second and is completed with practically no interruption of traction. It is so fluid and smooth that the driver hardly notices gear changes.

The seven-speed S tronic can be used in a number of ways. The fully automatic mode, in which the control unit determines the gearshifts, offers the D (Drive) and S (Sport) programs. The transmission management system follows the settings of the Audi drive select vehicle dynamics system. If the driver changes gears using the gear selector lever or the paddles behind the steering wheel, the transmission goes into a particularly sporty mode in which it allows the engine to rev up to the limit without shifting up. If the dynamic Audi drive select mode is active, the transmission double-clutches when downshifting.

Another specialty of the seven-speed S tronic transmission in the RS 5 Coupé is the launch control function, which enables rocket-like starts. The driver needs only to press the accelerator to the floor. The system manages the engagement of the clutch so that all of the power of the 4.2 FSI V8 is delivered to the road with perfectly controlled tyre slip.

New quattro technology: The crown gear centre differential

Audi is debuting the latest evolutionary stage of its permanent all-wheel-drive syste in the high-performance RS 5 Coupé – the quattro drive with self-locking crown-gear centre differential and torque vectoring. 30 years after the debut of the first quattro at the Geneva Motor Show in 1980, Audi has once again expanded its lead over the competition.

Inside the new centre differential are two rotating crown gears that owe their name to the crown-like design of their teeth. The front crown gear drives the output shaft to the front differential, the rear crown gear the propshaft to the rear axle. The new drivetrain design is roughly 3 kilograms lighter than the previous system.

The crown gears are driven by four pivot-mounted compensating gears arranged at angles of 90 degrees to each other. They are driven by the housing of the differential, i.e. by the gearbox output shaft. Under normal driving conditions, the two crown gears turn at the same speed as the housing. Because of their special geometry, they have intentionally unequal leverage. Normally 60 percent of the engine torque goes to the rear differential and 40 percent to the front differential.

If the torque changes because one axle loses grip, different speeds and axial forces occur inside the differential and the integrated plate packages are pressed together. The resulting self-locking effect now diverts the majority of the torque to the axle with the better traction; up to 85 percent can flow to the rear axle. If the rear axle has less traction up to 70 percent of the torque is diverted to the front wheels.

New strengths: Even more traction, even less weight

With this extremely broad torque distribution range, the crown-gear centre differential surpasses its predecessors – traction becomes even better. Forces are redistributed without any time lag and absolutely consistently. The mechanical operating principle guarantees maximum efficiency and immediate response. Other strong points of the crown-gear differential are its compactness and low weight – at 4.8 kilograms it is roughly 3 kilograms lighter than the previous unit.

Audi pairs the crown-gear differential with an intelligent brake management software solution in the RS 5 Coupé. Torque vectoring is an evolutionary form of the ESP with electronic axle-differential lock that is familiar from front-wheel-drive models; in the RS 5 Coupé this system acts on all four wheels. The new system makes sporty driving even more precise and dynamic.

When cornering at speed, the software uses the driver's steering input and desired level of acceleration to calculate the optimal distribution of propulsive power between all four wheels. If it detects that the wheels on the inside of the curve, which are under a reduced load, are about to slip, it lightly brakes these wheels – just slight application of the pads on the disks at minimal pressure is all that it takes.

Torque vectoring works smoothly and continuously. The RS 5 Coupé remains neutral for an extremely long time at the handling limits; the slight understeer when turning into corners and when accelerating is essentially compensated. The ESP stabilisation program intervenes later and more gently – if it is even necessary at all.

Like on rails: quattro with sport differential

As a complement to the new quattro drivetrain in the RS 5, Audi offers another dynamic technology as standard: the rear sport differential, which actively distributes torque between the rear wheels. Vehicles with conventional rear differentials tend to understeer in fast corners.

With the sport differential, it is like riding on rails. When turning into or accelerating in a curve, the majority of the torque flows to the outside wheel and pushes the RS 5 Coupé into the curve, nipping the tendency to oversteer or understeer in the bud and maximising corner exit speed.

The sport differential is a state-of-the-art rear differential. A superposition gear, comprising two sun gears and an internal gear, is mounted on the left and the right of a conventional rear differential. This gear turns 10 percent faster than the drive shaft.

A multi-plate clutch in an oil bath, operated by an electrohydraulic actuator, provides the power connection between the shaft and the superposition gear. When the clutch closes, it seamlessly imposes the higher speed of the superposition stage on the outside wheel. The additional torque required in order to rotate faster is drawn away from the inside wheel via the differential. In this way nearly all of the torque can be directed to one wheel. The maximum difference between the wheels is 1,800 Nm.

The sport differential is just as effective while coasting as it is under load. It is electronically controlled and reacts within a few hundredths of a second. Audi developed custom software for use in the RS 5 Coupé. The controller constantly recalculates the ideal distribution of the forces for each driving situation as a function of the steering angle, yaw angle, lateral acceleration, speed and other information.

Chassis

The high-performance Audi RS 5 Coupé delivers incredible driving dynamics. It reacts without hesitation, almost reflexively. Its handling is uncompromisingly precise; its stability guarantees maximum driving safety. The steering connects the driver with the road to provide sensitive, finely differentiated feedback.

The wide-tracked chassis of the RS 5 Coupé has been rigorously tuned for maximum response, precision and stability. All of the key suspension components are made of aluminium, thus reducing unsprung mass.

The springs and dampers of the track-controlled trapezoidal link rear suspension are separated to improve response. The links are mounted on a steel subframe on elastic bearings. The five-link front suspension processes the longitudinal and lateral forces separately. The aluminium frame to which it is linked makes the front end extremely rigid.

The low-mounted steering gear sends the steering forces via the track rods to the wheels over the shortest distance. Its ratio of 16.3:1 is sporty and direct. The controlled-output vane-type pump that supplies the system makes its contribution to fuel efficiency by delivering only as much oil as is actually needed. It is configured as a speed-dependent power steering unit, and its characteristic has been adapted to the character of the RS 5 Coupé.

Rigorously dynamic: The setup of the RS 5 Coupé

The entire setup of the high-performance coupe is rigorously dynamic. Stiffer bearings provide for sporty elastokinematics and the stabiliser bars are thicker. The shock absorbers are stiffer and the body has been lowered 20 millimetres compared with the volume A5.

In 2011, Audi will also offer the sport suspension plus with DRC Dynamic Ride Control, which is already in use in similar form in the RS 6 family. It reduces all pitch and yaw movements purely mechanically and thus without any lag.

The principle behind the DRC is as simple as it is effective. The diagonally-opposed pairs of shock absorbers are linked by hydraulic lines and a central valve. When cornering at speed, the valves regulate the oil flow in the shock absorber of the deflected outside front wheel almost immediately. They increase the support provided and reduce lateral tilt, thus improving the dynamics. The system is combined with a variable damper control, which can be switched between three stages using the standard Audi drive select vehicle dynamics system.

The RS 5 Coupé features a particularly powerful version of Audi drive select – it incorporates the sport rear-differential, the standard servotronic power steering, the seven-speed S tronic transmission, the engine's throttle valves and the sound flap in the exhaust system. The driver can vary the function of these systems between the three modes comfort, auto and dynamic. There is also a fourth mode that can be customised according to the driver's wishes and saved to the on-board hard drive.

Another optional component of Audi drive select is dynamic steering, which operates with a high-tech superposition gear in the steering column. It steplessly adjusts the steering ratio as a function of speed, from direct when manoeuvring to indirect on the highway. At the cornering limit, the dynamic steering counter-steers with virtually imperceptible pulses, making the handling even more dynamic, fluid and safe. It prevents the car from pulling when braking on a surface that offers more grip on one side. The characteristics of the dynamic steering unit were adapted specifically for the RS 5 Coupé.

Handling precision – without compromise

The Audi RS 5 Coupé rolls on large, cast-aluminium, five-arm design wheels. The 9J x 19 wheels are shod with 265/35-series tyres. Audi offers optional 20-inch wheels with 275/30-series tyres in two variants, one in a machine-polished, titanium-look finish. Winter wheels featuring the same dimensions are available; the 19-inch wheels are suitable for snow chains. All tyres have been optimised for rolling resistance – without compromising their dynamic characteristics.

Beefy discs fit behind the large wheels. Discs measuring 365 millimetres in diameter and 34 millimetres in thickness are mounted on the front axle; the rear axle sports discs measuring 324 x 22 millimetres. The internally-ventilated steel friction rings are perforated and connected to the aluminium brake caps via massive stainless steel pins. This direct structure reduces tensions, quickly dissipates the heat and prevents the transmission of temperature peaks.

The monoblock callipers painted high-gloss black and bearing RS logos are also made of aluminium. The front callipers each have eight pistons; single-piston floating callipers are mounted on the rear axle.

Audi installs anthracite grey, perforated carbon fibre-ceramic discs up front upon request. They measure 380 millimetres in diameter and are gripped by anthracite grey, six-piston fixed callipers. The base material is silicon carbide, a material with a diamond-like crystal structure in which high-strength carbon fibres are embedded.

The complex geometry of the cooling channels quickly dissipates heat. Titanium bolts connect the friction rings to the forged aluminium caps. The ceramic discs are practically fade-free, extremely robust, powerful and durable. Furthermore, with a total weight of just 4 kilograms they are lighter than steel discs despite their larger size.

The brake system in the Audi RS 5 Coupé not only delivers tremendous stopping power, it also provides finely differentiated feedback thanks to the specially compiled tandem power brake system. A specially configured electronic stabilisation system monitors the cornering limit. With the touch of a button, the driver can activate a sport mode that deactivates the engine interventions and thus permits spectacular but safe drifts when accelerating.

The ESP, together with the anti-slip control, can also be completely deactivated for particularly dynamic driving situations such as a driver training course or a trip to the race track. The standard hill-start assist, a sub-function of the system, makes it easier to start off on grades by maintaining the pressure in the brake system after the brake pedal is released.

Interior

The vehicle’s exclusive and dynamically elegant styling extends to the interior. Sport seats with prominent side bolsters, integrated headrests and embossed RS 5 logos in the backrests are standard. The sport seats are power-adjustable and include a four-way lumbar support and an extendable thigh rest.

The sport seats are offered in black or silver Silk Nappa. Audi offers even more deeply contoured, manually adjustable bucket seats for uncompromising sports enthusiasts. These seats have folding backrests and are covered in black Fine Nappa leather. Comfort-oriented customers can choose the luxuriously upholstered climate-controlled comfort seats. These ventilated seats are covered in perforated black Milano leather.

The three-spoke multifunction steering wheel in the RS 5 Coupé has a thick rim and is covered with perforated leather with contrasting gray stitching. The instruments have black faces and white markings with unique scaling – the speedometer goes to 320 km/h. When the ignition is switched on, the red dials turn all the way to the limit and then fall back to zero. The driver information system with its colour display includes a lap timer and an oil temperature gauge. It displays an RS welcome screen when the car is started.

Exclusive colours and materials: Black, silver and carbon

The interior of the four-seater is black, the headliner is either black or silver and the inlays are carbon featuring particularly fine and precise fibre structures. A piano-finish fascia in the instrument panel frames the instrument cluster. The pedals, the footrest, the air vents, the shift paddles on the steering wheel, the buttons of the standard Audi MMI navigation plus system and other controls shine in an aluminium-look finish.

Typical of all RS vehicles, the door handles are two narrow bars. Aluminium inlays adorn the door sill trims. RS 5 logos can be found there, on the steering wheel, on the tachometer and on the gear selector lever. The selector lever for the seven-speed S tronic has a knob of perforated leather and a cuff with grey seams.

A number of other elegant features are available from Audi as options. Inlays in matt brushed aluminium, piano finish black or dark stainless steel mesh are available at no charge. The metallic structure comprising countless steel fibres feels slightly rough – an extraordinarily tactile experience. In addition, the Audi exclusive program offers many specific options, including floor mats with RS 5 logos, control elements covered in black suede or coloured seat covers in fine Valcona leather.

Equipment and trim

The Audi RS 5 Coupé comes with an opulent array of standard features. In addition to the special modifications to the exterior, interior, drivetrain and chassis, these include the parking system plus with optical display and an automatic, 3-zone air conditioning system.

The back seat backrests can be folded down. A pass-through facility with removable ski sack provides another connection to the 455 litre luggage compartment, whose hatch swings up automatically when unlocked.

There is also an ample package of restraint systems, including three-point belts with tensioners and force limiters up front, and the integral headrest system. Two front, side and head airbags offer excellent protection in the event of a crash. Side airbags are not available with the optional bucket seats.

The RS 5 Coupé delivers executive-class luxury to the customer with a raft of high-class standard features. The adaptive light technology combines xenon plus headlights with dynamic cornering lights; the high-beam assistant changes automatically between low beam and high beam. The convenience key enables keyless access without having to unlock the car and allows pushbutton starting. The panoramic sunroof, the three-zone automatic air conditioning, tinted rear windows and the power rear window shade ensure that the climate on board is always comfortable.

Versatile – the assistance and multimedia systems

Innovative assistance systems make driving in the RS 5 Coupé even more relaxing. Take, for example, the adaptive cruise control and the Audi side assist. They keep your own vehicle the desired distance from the vehicle to the front and help the driver when changing lanes. The Audi parking system plus with reversing camera displays the area behind the car on the onboard monitor using an inconspicuously mounted camera.

The RS 5 Coupé also has a wide range of multimedia components at its disposal, including full Bluetooth functionality and an interface for full iPod integration – the Audi music interface.

The top-of-the-line Audi MMI navigation plus, standard on the RS 5, has cutting-edge technologies on board. The seven-inch, high-resolution colour monitor shows the navigation maps as either conventional 2D graphics or in 3D and map data is stored on a 40 GB hard drive. Music files and the user's contacts are also stored on the hard drive. The radio module has a three-way tuner. There is a player for audio and video DVDs that can be controlled easily via a special joystick function for the MMI control unit.

Optional features upgrade the system to a high-end media centre. Audi offers solutions such as an analogue/digital TV tuner and a luxury Bang & Olufsen sound system with 10 channels and 14 speakers. It boasts 505 watts of power and a highly resolved, dynamic hi-fi sound.

The RS models

With their high-performance engines and quattro permanent all-wheel drive, the Audi RS models have formed the dynamic spearhead of the Audi model program since 1994. quattro GmbH has been responsible for these vehicles since 2000.

The first model – the RS 2 based on the Audi 80 Avant – was developed in collaboration with Porsche in 1994. Its 2.2-litre, five-cylinder engine used four-valve technology and turbocharging to produce a powerful 232 kW. Both performance and the brakes were in the same league as those of powerful sports cars. The RS 2 was only on the market for two years, but it established a new vehicle class – the high-performance sports station wagon.

The first RS 4 Avant in the year 2000 carried on with this concept. It was powered by a 2.7-litre V6 engine with twin turbochargers, generating 279 kW. The second generation RS 4 introduced in 2005, on the other hand, used a high-revving, normally aspirated V8. The engine featured direct fuel injection and generated 309 kW, which it delivered to the wheels via a newly developed centre differential biased toward the rear axle. The new RS 4 was the first to be offered in three body styles: Sedan, Avant and Cabriolet.

331 kW: The V8 turbo in the RS 6

The RS 6 appeared in the A6 family in 2002 in both Sedan and Avant models. It featured the versatile 4.2-litre V8; with twin turbos supplying the boost, the engine generated 331 kW. DRC Dynamic Ride Control effectively offset pitch and yaw. The 2005 RS 4 also benefited from this technology. The limited edition RS 6 plus with 353 kW followed in 2004.

The second generation of the RS 6 appeared in 2008. Under the hood it had a 5.0-litre FSI V10 with twin turbochargers for 426 kW, the most powerful engine ever in an Audi passenger car. An RS 6 plus returned to the line-up in spring 2010, but once again as a limited production vehicle. Power has remained the same, but the top speed has been increased to 303 km/h.

Since 2009, dynamic RS models have also represented the top-of-the-line in the compact class as well. The TT RS and the TT RS Roadster both take up the Audi tradition of five-cylinder engines, with their 2.5-litre power plant with direct injection producing 250 kW. Coupled with the lightweight Audi Space Frame (ASF) body made primarily of aluminium, this unit not only provides for explosive performance but also excellent fuel efficiency.