APRILIA TUONO V4 1100 RR AND FACTORY MODEL YEAR 2019

THE FACTORY VERSION ADOPTS THE MOST ADVANCED ELECTRONIC SUSPENSION SYSTEM AVAILABLE ON THE MARKET: HIGHER PERFORMANCE AND PRECISION BOTH ON THE TRACK AND ON THE ROAD WITH A SIGNIFICANT IMPROVEMENT IN COMFORT AS WELL

THE TUONO V4 RANGE REPRESENTS THE STATE-OF-THE-ART IN TECHNOLOGY: THE SOPHISTICATED ELECTRONIC MANAGEMENT INCLUDES THE ADVANCED DYNAMIC CONTROLS PACKAGE WITH APRC, CORNERING ABS, QUICK SHIFT ACTIVE EVEN IN DOWNSHIFTING, PIT LIMITER AND CRUISE CONTROL

THE 175 HP V4 ENGINE AND THE RACING FRAME PROVIDE UNPARALLELED PERFORMANCE

ATTRACTIVE NEW GRAPHICS FOR BOTH TUONO V4 1100 RR AND TUONO V4 1100 FACTORY

Simply unrivalled. The Aprilia naked range, heir to a family of motorbikes which has been voted over time as one of the most adrenaline pumping and efficient bikes ever, achieves absolute performance levels and sophistication, thanks to Aprilia's know-how acquired over years of winning premier level competitions and the experience of the Tuono history, which is thus confirmed as being unbeatable on the track and loads of fun on the road. The Tuono V4 family of motorbikes is made up of two distinctly outfitted models. **Tuono V4 1100 RR** represents an exceptional thrill machine, the heir to a dynasty of naked sport bikes acclaimed by critics as the most effective and fastest bike in its segment. **Tuono V4 1100 Factory** is the more exclusive version, dedicated to an extremely demanding public, this bike is equipped with components which are largely derived from the Aprilia RSV4 RF superbike. The new Factory now comes standard with the **most advanced semi-active electronic suspension system** currently available on the market, developed by Öhlins and fine tuned with the collaboration of Aprilia engineers. Maximum ease of calibration for the suspension through simple handlebar controls to give you an even more thrilling riding experience in any area of use.

Even more electronics features thanks to the introduction of the electronic suspension system

The new Aprilia Tuono V4 1100 Factory comes standard with the most advanced and efficient electronic suspension system currently available, the latest technological frontier offered by manufacturer Öhlins, developed in close contact with Aprilia engineers for the new Tuono V4 1100 Factory. The new electronic suspension management system is conveniently implemented on the Aprilia Tuono V4 1100 Factory, the super naked par excellence, unbeatable on the track and fabulous to ride on the road too. The particular technology of the **Smart EC 2.0 semi-active suspension** system allows calibration, simple and even customisable, of the fork and shock absorbers with two operating modes on the units: **semi-active mode and manual mode**, both selectable using the buttons on the handlebar. **There are 3 Riding Modes** the user can select: Track, Sport and Road. In the semi-active mode, suspension performance is managed by the Smart EC 2.0 system which actively intervenes on operation thanks to an algorithm that processes the data transmitted from the vehicle to the dedicated ECU in real time. In this mode, the Aprilia Tuono V4 1100 Factory suspension adjust their hydraulic calibration, second by second, to the type of route and the riding style used. In the manual mode, on the other hand, the 3 Riding Modes provide as

many predefined calibration types without semi-active assistance, therefore in the same way that mechanical type suspension systems operate. Both in the semi-active and manual mode, the user is still left with the possibility, within the three aforementioned logic maps, of fine tuning and customising the suspension calibration based on personal taste and riding style, particularly to the advantage of more expert and demanding riders. The Öhlins steering damper is also managed electronically by the Smart EC 2.0 system now and it is fully customisable in order to best adjust the calibration depending on that of the fork and shock absorber. The OBTi (Objective Based Tuning Interface), visible on the 4.3 inch colour TFT dashboard of the Aprilia Tuono V4, makes the settings intuitive. The operating logic of the new OBTi is based on the situations of use and the sensations that the rider feels. The system allows the rider to customise suspension calibration in every single situation in which the suspension system is stressed such as, for example, in the acceleration and braking phase, in order to have the ideal settings in each of these areas. Simple and quick to adjust, as well as extremely effective in any condition: the innovation introduced by the electronically managed suspension system is important on a motorcycle like the Tuono V4 1100 Factory, intended for use in very different environments (from the track to the road and touring) which demand as many different setups to provide the best riding experience.

The Aprilia Tuono V4 on board electronics remain unchanged, already considered “best in class”. Aprilia Performance Ride Control is the patented control suite derived directly from the winning technology in world Superbike, the most complete and refined of those available on motorbikes in the same segment. The fourth generation of APRC, standard on the Tuono V4 1100, integrates seamlessly with the fine electronics management guaranteed by the fully integrated **full Ride-by-Wire throttle control** and the inertia platform that allows an optimum possibility of detecting the dynamic conditions of the bike and therefore effective electronic control strategies.

The Tuono V4 1100 RR and Tuono V4 1100 Factory APRC includes:

- **ATC: Aprilia Traction Control**, **adjustable on the fly** (without having to release the throttle) to 8 settings thanks to a practical joystick, **boasts precise and high performance operating logic**.
- **AWC: Aprilia Wheelie Control**, the **wheelie control** system that can be adjusted to 3 levels, has extremely precise operating strategies. **Wheelie control can be adjusted on the fly** without closing the throttle, like the ATC, thanks to the practical left side electric block**.**
- **ALC: Aprilia Launch Control**, for use on the track only, with 3 settings, uses extremely effective operating strategies.
- **AQS: Aprilia Quick Shift**, the electronic gearbox that allows shifting without closing the throttle and without using the clutch, also equipped with the **downshift** function, to allow clutchless downshifting. Its open-throttle downshifting feature is exclusive.
- **APL: Aprilia Pit Limiter**, the system that lets you select and limit the top speed allowed in pit lane at the track or simply to make it easier to comply with posted speed limits on the road.
- **ACC: Aprilia Cruise Control.** This is very convenient on longer trips because it lets you maintain the set speed without touching the throttle.

The Tuono V4 1100 range is fitted with the **advanced multimap Cornering ABS** system, developed in collaboration with Bosch to guarantee maximum safety on the road, without sacrificing any performance on the track. The 9.1 MP system, with truly contained weight and dimensions, is able to optimize braking and the ABS intervention in corners, thanks to a specific algorithm that constantly monitors various parameters such as lateral acceleration, the pressure applied to the front brake lever, the lean, pitch and yaw angle, modulating the braking action in order to better guarantee the ratio between deceleration and stability. The ABS system works in unison with the Aprilia RLM (Rear Liftup Mitigation) system that limits the lift of the rear wheel during more abrupt braking. Cornering ABS, fine tuned in accordance with Aprilia's specific indications, is adjustable to 3 levels of sensibility and can be switched off. In order to allow riders with various levels of experience to find the best possible combination, each of the three Cornering ABS maps can be combined with any of the **three engine maps** (Sport, Track, Race). The latter are all three “full power” and differ in the way they dole

out the 175 HP of which the Aprilia V4 is capable, in addition to the percentage of engine brake dedicated to them.

The **colour TFT digital instrument cluster** boasts exceptional display options and it is capable of managing the user interface required for the intuitive electronic adjustment of the new Tuono V4 1100 Factory's suspension system. The two selectable screen pages (Road and Race, both with night and day backlighting) correspond to as many represented indexes. **V4-MP** is available as an option. This is the Aprilia multimedia platform that lets you connect your smartphone to the vehicle, introducing a true corner by corner electronic settings calibration system with data that can subsequently be downloaded to your laptop (or displayed directly on the smartphone screen) for analysis, just like they do at the races. V4-MP offers a new connection protocol that reduces smartphone battery consumption to a minimum, in addition to providing a larger range of circuits already mapped in which you can manage the electronic settings corner by corner, as well as user acquisition of a new circuit that is not in the list Aprilia has provided. V4-MP includes the **infotainment system**, introduced by Aprilia for the first time on the Tuono V4, to manage voice commands and incoming/outgoing telephone calls with your smartphone.

The Aprilia V4 with unrivalled performance

The Tuono V4 1100 is the only naked powered by a **65° V4 engine with unique characteristics**. The narrow V architecture has made it possible to make an engine that is extremely compact lengthways which helps to centralise weights and to have a compact chassis. The changes made in this evolution of the Italian V4 resulted in an increase in overall reliability and performance, without sacrificing any of the great character and marvellous sound that bikers love so much. The powerplant adopts an exhaust system with a silencer that has a double oxygen sensor and a built in valve. The engine ECU has high calculating capacity and is capable of managing the engine's significant maximum rotation speed. In order to guarantee maximum reliability, decreasing friction at the same time, the piston pins have DLC surface treatment, whereas the connecting rod heads boast a surface honing treatment. The combustion chambers are no longer obtained through a fusion process, but by a finer, numerically controlled mechanical process, whereas the gearbox has a linear sensor that guarantees impeccable gearshift operation.

Top of the line suspension systems and brakes

The new Tuono V4 range fully confirms all the proverbial qualities of handling and stability provided by a frame that is closely derived from that of the Aprilia RSV4, seven-time World Superbike champion, assisted by top of the line braking and suspension systems. The front Brembo braking system comes from the one on the RSV4 and relies on a pair of steel discs with a diameter of 330 mm, gripped by monobloc M50 callipers and activated by a radial master cylinder on the handlebar. Aprilia Tuono V4 1100 Factory has the new Öhlins Smart EC 2.0 semi-active electronic suspension system which includes an electronically adjustable steering damper, a high-end fork **with semi-active NIX technology and travel extended from 117 mm to 125 mm**, as well as a shock absorber that goes to semi-active TTX technology that, compared to the previous mechanically adjusted unit, is lighter and has a lower stiffness coefficient load (to the benefit of comfort), easily adjustable in preload through a convenient hex screw.

Versions and colours

The Aprilia Tuono V4 1100 range includes two models distinguished by different technical equipment and different colour schemes: Tuono V4 1100 RR is available in two attractive new colour schemes,

Sachsenring red and Magny-Cours grey, while the new **Superpole** graphic on the Tuono V4 1100 Factory, **revamped in terms of the black and red pattern,** confirms the decidedly non-conformist and colourful spirit typical of Aprilia stylistic tradition. Tuono V4 1100 Factory stands out technically because of the most refined trio of **Öhlins** semi-active electronic suspension systems and stylistically because of its magnificent tail fairing (approved for two-up) derived from the RSV4. The wheel rims are the same for both models: their lightweight quality contributes to a maximum reduction of the gyroscopic effect, all to the advantage of great handling. Tuono V4 1100 Factory is shod with the more sporty Pirelli Diablo Supercorsa, with a wider 200/55 on the rear, in any case approved for street use and available for the Tuono V4 1100 RR as well which, on the other hand, comes standard with 190/55 on the rear and Pirelli Diablo Rosso III tyres.

Wide range of accessories

Aprilia has designed and developed a wide range of accessories so you can personalise your Tuono V4 1100. These are select high quality items that you can use to increase the performance of your Aprilia Tuono V4, make it more attractive or more comfortable.
Slip-on racing exhaust: made by Akrapovic, this item is available with a carbon silencer.
Complete racing exhaust: this is an exhaust system complete with headers made by Akrapovic. This item is available with a carbon muffler.
Öhlins Shock Absorber (for Tuono V4 1100 RR): Allows full and fine adjustment in all shock absorbing functions, ensuring maximum performance on the track and on the road.
Öhlins Steering Damper (for Tuono V4 1100 RR): the fine adjustment of this item's hydraulics provides a front end that is always solid even during the most violent acceleration.
Öhlins NIX Fork: (for Tuono V4 1100 RR): top shelf performance on the track and on the road. A wide range of precision pre-load and hydraulic rebound and compression adjustments.

Components in carbon: side fairings, mudguards and heel guards. Made in matte finished carbon fibre. They guarantee a sporty look and lower overall weight.
Frame guards: made of billet nylon, these are useful to prevent damage to the frame in the event of a sliding crash.
Inverted racing gear lever: this is a mechanical element that inverts the gear shifting mode in order to improve performance on the track.
Forged rims: made from aluminium with a forging process, these provide maximum resistance at a light weight, essential for increasing handling.
Tank bag: this bag is made of technical fabric with carbon-look inserts. Tested and approved to resist oil, fuel, UV rays and not to compromise stability even at high speeds.
Adjustable license plate bracket: made in laser cut steel. Includes the LED licence plate light.
LED turn indicators: The LED turn indicators guarantee a brighter light and
lower consumption.
Motorcycle cover: made of breathable Lycra, this cover was designed to protect your bike from dust.
V4-MP kit: this is the installation kit for the multimedia platform dedicated to the Aprilia V4 models made up of a Bluetooth control unit and all the wiring needed for installation.

Aprilia Tuono V4 1100 Factory: Technical Specifications

[in brackets data for Tuono V4 1100 RR]

Engine type	Aprilia longitudinal 65° V-4 cylinder, 4-stroke, liquid cooling system, double overhead camshafts (DOHC), four valves per cylinder
Bore and stroke	81 x 52.3 mm
Total engine capacity	1077 cc
Maximum power at crankshaft	175 HP (129 kW) at 11,000 rpm
Maximum torque at crankshaft	121 Nm at 9,000 rpm
Fuel system	Airbox with front dynamic air intakes. 4 Weber-Marelli 48-mm throttle bodies with 4 injectors and latest generation Ride-by-Wire engine management that the rider can select on the fly: T (Track), S (Sport), R (Race)
Ignition	Magneti Marelli digital electronic ignition system integrated in engine control system, with one spark plug per cylinder and “stick-coil”-type coils
Starter	Electric
Exhaust	4 into 2 into 1 layout, two oxygen sensors, lateral single silencer with ECU-controlled bypass valve and integrated trivalent catalytic converter (Euro 4).
Alternator	Flywheel mounted 450 W alternator with rare earth magnets
Lubrication	Wet sump lubrication system with oil radiator and two oil pumps (lubrication and cooling)
Transmission	6-speed cassette type gearbox 1st: 39/15 (2.600) 2nd: 33/16 (2.063) 3rd: 34/20 (1.700) 4th: 32/22 (1,455) 5th: 34/26 (1,308) 6th: 33/27 (1,222) Gear lever with Aprilia Quick Shift electronic system (AQS)
Clutch	Multiplate wet clutch with slipper system
Primary drive	Straight cut gears and integrated flexible coupling, drive ratio: 73/44 (1,659)
Secondary drive	Chain: Drive ratio: 42/15 (2.8)
Traction management	APRC System (Aprilia Performance Ride Control), which includes Traction Control (ATC), Wheelie Control (AWC), Launch Control (ALC), cruise control (ACC) and speed limiter (APL), all of which can be configured and deactivated independently
Frame	Aluminium dual beam chassis with pressed and cast sheet elements. SmartEC 2.0 electronically managed Öhlins steering damper [Sachs steering damper]

Front suspension	SmartEC 2.0 electronically managed Öhlins NIX fork with TIN surface treatment. [Sachs upside-down “one by one” fork, Ø 43 mm stanchions]. Forged aluminium radial calliper mounting bracket. Completely adjustable spring preload and hydraulic compression and rebound damping. 125 mm [117 mm] wheel travel.
Rear suspension	Double braced aluminium swingarm; mixed low thickness and sheet casting technology. SmartEC 2.0 electronically managed Öhlins monoshock absorber with piggy-back [Sachs monoshock absorber with piggy-back, fully adjustable in: spring preload, hydraulic compression and rebound damping]. APS progressive linkages. Wheel travel: 130 mm
Brakes	Front: Dual 330-mm diameter floating stainless steel disc with lightweight stainless steel rotor with 6 pins. Brembo M50 monobloc radial callipers with 4 Ø30mm opposing pistons. Sintered pads. Radial pump and metal braided brake lines. Rear: 220 mm diameter disc; Brembo floating calliper with two 32-mm Ø isolated pistons. Sintered pads. Master cylinder with built in reservoir and metal braided hose. Bosch 9.1 MP ABS with cornering function, adjustable on 3 maps, featuring RLM strategy and can be disengaged.
Wheel rims	Cast aluminium wheels with 3 split spoke design. Front: 3.5”X17” Rear: 6.00”X17”
Tyres	Radial tubeless. Front: 120/70 ZR 17 Rear: 200/55 ZR 17 (alternative: 190/50 ZR 17; 200/55 ZR 17) [190/55 ZR 17]
Dimensions	Wheelbase: 1450 mm Length: 2,070 mm Width: 810 mm Saddle height: 825 mm Headstock angle: 27° Trail: 99.7 mm
Weight	209 kg weight with a full tank of fuel
Consumption	7.71 l/100 km
CO2 emissions	183 g/km
Fuel tank capacity	18.5 litres (including 4-litre reserve)