

RR, the magical acronym that immediately brings to mind the world of competition. The bike for special individuals who demand the most exhilarating riding experience. Created using the most exotic materials, ultra-sophisticated suspension and the new 1000cc short-stroke engine make the MV Agusta F4 RR the most advanced and powerful superbike in the world.

When the most sophisticated chassis design is joined with the new MV short stroke engine, the result can only be an extraordinary machine. The MV Agusta F4 RR is the perfect tool for riders who demand the utmost performance. Evolved, exotic, and even further refined, the F4 RR is currently the best that technology can offer to the motorcycling world. To already refined MV Agusta F4, you add even more exotic materials, reduced weight, and, above all, a 201 hp four-cylinder engine which makes the F4 RR the most powerful superbike ever built. All "packaged" with the advanced design that makes the MV Agusta F4 RR unique and unmistakable. A project for those who demand the ultimate riding experience.

In detail, the highlights of the new MV Agusta F4 RR:

- New short-stroke radial valve engine 201 hp at 13,400 rpm
- New increased bore diameter
- New primary drive
- New cylinder head
- New large-diameter titanium intake and exhaust valves
- New lightweight forged pistons in "aerospace RR alloy"
- New exhaust 4-2-1-4
- Close ratio gearbox
- Variable length intake runners
- Öhlins multi-adjustable 43 mm fork
- Öhlins TTX 36 rear shock
- Öhlins steering damper
- Forged aluminum wheels





## ENGINE: 201 Hp, PURE POWER

The new 4-cylinder short stroke engine with radial valve is the soul of the MV Agusta F4 RR. The engine is completely new and is inspired by MV Agusta's experience in competition. Apart from the engine case castings, the arrangement of cylinders and a few other elements the 4 cylinder RR engine shares little with that of the previous F4. It has been completely redesigned with a single goal in mind: maximum performance. All new thermodynamics, a new crankshaft that has a reduced value of inertia and new bore and stroke dimensions with an extremely over-square relationship that can reach rpm's worthy of a true racing motorcycle. The piston diameter has been increased from 76 to 79 mm while the stroke is reduced from 55 mm to 50.9 mm. With these dimensions the rpm limit has been raised to a stratospheric 13,700 rpm while at the same time reducing the linear velocity of the piston (from 24.7 m/s to 22.9 m/s) and thus also improving reliability.

To reach the stratospheric level of 201 hp at 13,400 rpm with a completely homologated engine including an exhaust system complete with the catalytic converter, extreme attention has been given to every detail. The thermodynamic efficiency has been optimized to guarantee a record level of performance. For this reason, the head of the F4 RR is completely new including new intake and exhaust tracts as well as large diameter intake and exhaust valves. For the first time on an MV mass production engine, all the valves are made of titanium and this has made it possible to reduce the mass while at the same time significantly increasing the diameter (30 to 31.8 mm for the inlet and from 25 to 26 mm for the exhaust). The tuning of the engine has been optimized thanks to the use of a completely new 4-2-1-4 exhaust system with large diameter tapered headers. In addition to ensuring the optimized performance of the engine, this new exhaust system has a unique sound and is even more intoxicating.

The intake is controlled by four 49 mm throttle bodies with the unique TSS system of variable length intake tracts.

The new engine of the F4 RR has been designed according to the criterion of low friction. A new primary drive gear has drastically reduced the speed of the generator and water pump in effect limiting the parasitic power consumption of these components. As with previous F4's, this new engine features a rapidly removable cassette gearbox and the clutch employs a mechanical slipper system to assure proper control even under the most extreme braking conditions. The electronic engine management has been further refined compared to that of the previous F4. The traction control follows new operating modes as well as two maps for the engine, and everything is now easily managed through the new controls that have been placed on the left handlebar.







# **CHASSIS: LIGHT AND PRECISE**

The frame and swingarm are common with those of the already excellent F4, but the desire on the part of MV Agusta to offer a four-cylinder superbike has also led to the employment of some unique solutions. To optimize performance and adapt the F4 RR to all race tracks and conditions, the MV Agusta F4 RR allows a virtually infinite combination of adjustments. Multi-adjustable suspension, essential for a racing motorcycle, has been combined with the adjustable steering head angle (with interchangeable eccentrics) and the height of the swing arm pivot and rear axle by means of calibrated inserts.

### SUSPENSION: THE BEST OF THE BEST

The Öhlins NIX upside-down front fork has 43 mm diameter inner tube and a titanium nitride coating to improve the smoothness and precision. This particular fork dimension has been designed to achieve the perfect balance of agility without sacrificing the legendary stability of an MV.

As the most sophisticated motorcycles, the front wheel axle carriers are machined from billet aluminum and the front forks offer precise external adjustment of spring preload as well as compression and rebound damping. Also, the fork of the MV Agusta F4 RR provides separate adjustments for the hydraulic damping (left leg compression, right leg extension), a solution that enables the accuracy of the hydraulic independence as varying the compression does not have an influence on the rebound.

The Öhlins Racing TTX 36 rear shock is simply the best in the world. Born from experience in competition, it is externally adjustable in spring preload, compression, rebound and length allowing you to vary the ride height of the rear of the bike to match the different driving styles and different circuits. In addition, the MV Agusta F4 RR also offers the possibility of adjusting the height of the swing arm pivot point by means of calibrated inserts.

#### RIMS

The quest for lighter weight and the best possible handling led to the creation of lightweight forged aluminum wheels that minimize un-sprung weight and reduced inertia with the advantage in the increased reactivity of the bike. The new wheels on the MV Agusta F4 RR allow a weight saving of I kg compared to the standard F4 cast versions.







#### BRAKES

The F4, the current reference in high performance braking, has only been exceeded by the new F4 RR. The Brembo monobloc calipers are the state of the art high performance brake calipers for motorcycles, and now, paired with Brembo radial master cylinders, the braking performance is on par with that of the top superbikes. The clutch master cylinder is the mirror image of the radial brake caliper which offers increased feel and modulation. Numerous other exclusive details, such as the levers and handlebars which are dedicated specifically to the MV F4 RR and subject to countless hours of testing and development all lead to the best possible ergonomics available on a production motorcycle.

#### COMPONENTS

A true superbike is not only defined by its potential performance, but also by the attention to detail with which it is made. F4 RR, the details speak for themselves. Never before has a race-ready superbike been built with such a high level of attention to detail. The design features are not only created to be visually pleasing, but, as form follows function and the F4RR has been designed to perform. For this reason, every detail has been considered to increase performance and functionality, reduce weight and increase the product quality fit and finish. The F4 RR debuts new adjustable light weight rear sets to match the ergonomics of the bike to the needs of the pilot. The remote control of the dashboard functions (including traction control) is just one of the details that the MV engineers have put into this new superbike. In addition, a new aerodynamic flap has been added under the lower triple clap to convey additional air to the radiator optimizing the aerodynamics and cooling of the engine's record power.

### **MV SPECIAL PARTS TO PERSONALIZE YOUR MASTERPIECE**

Exclusive technology and design has been imprinted into the DNA of the new F4 RR. It is the world's most powerful superbike. But, the evolution never ends. You can make your F4 RR even more unique with the original MV special parts that have been developed to provide you with additional performance using the very latest technical advancements in materials and design.

MV special parts are an absolute guarantee of quality for the customer as they have been subject to the same high standards of quality that have been applied to the original masterpiece using the most advanced materials such as aerospace alloy, titanium and carbon fiber. Special exhausts systems and racing engine ECU's have also been developed that can increase even further the record power level of the 4 cylinder







engine.

Accessories, such as MV Agusta clothing, can be viewed at www.mvagusta.it and a number of items may be purchased directly online.

### COLORS

The two new colors, pastel red/white and matt pearl white, together with the new graphics make the F4 RR even more unique.

"Plus ... it's a MV Agusta"

