

PRESS INFORMATION



RX 450 4T MY 2024

The Art of RideAbility in the MX World

In 2023, Beta's project to expand the horizons of RideAbility has officially entered the new dimension of Motocross in Europe, first with the RX 300 two-stroke and now with the king of motocross bikes, the RX 450 four-stroke!

It is officially the first four-stroke motocross bike built by the Italian manufacturer; for enthusiasts of all riding abilities, this translates into the first chance to ride the Beta MX bike closest to the race prototype which has been competing in the MXGP World Championship for the last three years.

A race-ready bike in all respects, designed for Motocross circuits all over the world as has never previously been possible.

The design is completely new from the ground up: the frame, engine and components are of the highest level, just like the project behind it: bringing the new horizons of RideAbility to the MX world.

What does **RideAbility** mean for Beta? It means to design a MX model that appeals to everyone of all levels. Beta motorcycles are designed by a team of engineers based out of Florence, Italy with a mission statement to provide all riders with a motocross model that is easier overall to ride while still providing a top level of performance. This is thanks to an engine-frame combination which is able to provide a fun ride without no reason to ever fear the world championship-level performance of the engine.

Debuting in the MXGP circuit just a few years ago, the RX 450 prototypes have provided the knowledge that can only come from a top-level of racing. These early one-off models provided the base layout and design for the production model. The RX 450 4T will join it's younger brother the RX 300 2T on race tracks all over the world.

The technical design of the RX 450 is totally new; more specifically:

Frame: designed from the ground up as an all-new frame, specifically designed and dedicated for motocross use. The main spar of the frame is wider in design to withstand the stresses from repeated landings, making it much stiffer overall yet supple enough for cornering. This translates into a precise chassis that provides a planted feeling in corners and a light feeling while in the air.

Rear sub-frame and filter box: The RX 450 has a new aluminium rear sub-frame which provides rigidity to the bike despite its light weight, providing the strength needed for demanding needs of motocross. This new component is perfectly integrated with the new filter box, never previously used on Beta models. The new filter box and sleeves, combined with the new 46 mm throttle body, provide a significantly different air flow than that required by an enduro bike, creating optimum air flow to keep up with the performance of the new engine. Access to the filter remains on the left side of the bike, and is extremely easy and intuitive, as well as being tool free.



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Plastic parts: while the front shrouds, recently redesigned for RR models as well, remain unchanged in their form, the rear features a new sleek and aggressive tail which, not being a structural component, fits into the new aluminium rear sub-frame and, as previously mentioned, allows access to the filter box via a convenient connection. The fuel tank is a smaller design and has a capacity of around seven litres.

Fork and Shock: Kayaba, with 48 mm stanchions at the front and 50 mm piston at the rear. Both components are completely adjustable in terms of their settings, and represent an ideal compromise between rideability and performance, thanks to continuous development on the track. The bike has been set up by the technicians in Rignano to make it stable and accurate, but always easy and sincere in its response. The main difference in the suspension compared to the enduro models is the greater travel of the front fork, with specific calibration for motocross, while the single shock is completely new. This is larger than the one the RR models are equipped with to provide greater support on landings thanks to greater hydraulic damping, and more consistent performance with demanding use, where the temperature tends to rise and so it becomes more complicated to maintain performance.

The **wheels** are 21" at the front and 19" at the rear, with 90/100-21 and 110/90-19 Maxxis tyres, while the **braking system** is by Nissin with floating callipers and a 260mm disc on the front and 240mm at the rear. The front brake calliper is a smaller, more modern design. Also lighter than those previously used on Beta models, which provides noticeably more incisive performance when letting off the throttle at the limit, while on the rear the new pump has a reservoir designed in order to leave more space for the exhaust layout.

And what about the bike's performance? The RX 450 four-stroke will leave those who decide to make it their own breathless:

Engine: The engine, designed specifically for motocross use, has been developed in close partnership with the Official MXGP Team. The gearbox is five speed, with dedicated ratios, while the clutch (with diaphragm springs, adjustable to three positions) has been designed to withstand the stresses deriving from the engine's high power output yet still offers a light clutch pull at the lever. The weight and dimensions are particularly compact, as the components required for motocross use have been pared down to the minimum.

The crankshaft and countershaft are new, as are the cylinder, pistons and timing system, allowing a compression ratio of 13.5:1 to be achieved.

The result is excellent engine performance along the entire delivery curve while featuring extended top-end at medium-high engine speeds, those most commonly used on the track. In keeping with the rideAbility goal which the whole design project was based on, the engine nevertheless offers excellent torque, therefore providing enjoyable and always controllable progressiveness, offering docility in all situations. Aided by the optimal weight distribution, the frame to engine location is therefore designed to create a manageable, agile and fun bike, with great power at the top end when you decide to open up the throttle.

Engine maps: in the wake of the recent introductions on the RR models, the RX 450 4Str is also equipped with two specific engine maps (wet and dry) and four levels of Traction Control (on/off/active with hard map/active with soft map) to manage the bike's significant power in all terrain conditions. The button to select the map and TC is located on the handlebar pad.



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Other notable features:

The **handlebar controls** have been reduced to a minimum, as has the electrical system. On the right-hand side is the start button, while the button to shut off the bike is on the left. The battery is lithium type.

There are then some **special components** which enhance the bike's trim level as well:

- Chain tensioners in red Ergal alloy
- Blue anodised Excel rims
- Red chain guide
- Red anodised dual-material sprocket
- Black Ergal alloy footpegs with steel pins

Rounding off the package are **brand-new graphics**, featuring typical Racing colours, but lending a unique flavour to the Beta's first four-stroke motocross bike.

The RX 450 will be delivered with customised stand and four different throttle pulleys, to customise the accelerator response.

Availability

November