# **RM-Z250**

The RM-Z250 is designed to achieve the right balance of "Run, Turn, and Stop" necessary to win in a competitive arena. Both the performance engineering and styling design make the RM-Z250 the most potent motocross bike in its class. Look out...the RM-Z250 is here!





Twin Injector



Suzuki Holeshot Assist Control (S-HAC)



Frame



Front brake disc

#### **Key Features**

The RM-Z250's fuel injection system features two injectors to combine precise low-rpm intake charge with greater power at high rpm.

The traction management system features Suzuki Holeshot Assist Control (S-HAC) with three mode settings, which helps maximize acceleration to put the RM-Z250 out front through the three critical stages of a motocross start.

The RM-Z250's twin-spar alloy frame and swingarm feature a combination of light weight and excellent torsional rigidity, superior front-rear weight distribution, and outstanding handling and control.

To provide sure stopping performance, the RM-Z250 features a 270mm diameter, wavestyle front brake disc and brake pad material that exhibits linear response characteristics as you brake harder.

Engine placement and mounting aid the chassis' nimble handling.

Coil spring KYB forks provide superb performance and easy tuning, while the fully adjustable KYB rear shock and linkage deliver remarkable control.

Race-ready, high-grip Dunlop GEOMAX MX33 tires feature an adaptive design intended for soft tracks that also performs well on medium, sand and mud racing surfaces.

The aggressive, functional styling is shared with the championship-caliber RM-Z450, and it features a narrow cockpit that lets you move freely for maximum racing performance.

Rider-friendly Tuning

- Suzuki's MX-Tuner 2.0 is supplied, providing quick fuel injection and ignition tuning through an easy-to-use smartphone application.
- Fuel couplers are included for quick and easy tuning of the electronic fuel injection system.

#### **Engine Features**

Fitted with a center-port cylinder head, the fuel-injected 249cm³ liquid-cooled, 4-stroke, 4-valve, DOHC engine remains proven and reliable.

The engine delivers strong peak power and superb throttle response through the entire rev range.

The cylinder head features a refined intake port shape and finish that fine-tunes the fuel/air charge into the combustion chamber to maximize engine output.

The large air cleaner opening combines with a direct air cleaner outlet tube path into the throttle body for high-volume air flow.

The fuel injection system contributes to extra-smooth power delivery, high fuel efficiency, superb reliability, and easy tuning capability.

Twin injectors deliver excellent combustion chamber efficiency and plenty of power at high rpm.

The primary fuel injector is at the bottom of the throttle body and sprays fuel at the butterfly valve for outstanding fuel and air atomization. The secondary injector is positioned in the air

cleaner inlet duct so the fuel and air have more time to mix and cool before entering the engine.

The RM-Z250 uses a high-capacity fuel pump to feed the twin-injector system and mix the fuel and air charge for outstanding throttle response.

The special design of the throttle body eliminates complex control linkage, so the rider feels a more direct connection to the engine.

The intake camshaft profile's valve lift helps boost power at all engine speeds.

The cam chain tension adjuster and guide are designed to minimize friction and mechanical loss.

The compact aluminum cylinder is finished with Suzuki Composite Electrochemical Material (SCEM) coating for durability, light weight, and efficient heat transfer.

The machining process at the piston pin holes reduces stress at the piston crown to increase reliability.

Engine starting is simple, thanks to a proven kickstarter and automatic decompression system that works precisely and efficiently (eliminating the need for a heavy and costly electric start system).

The high-flow exhaust system has a long head-pipe, tapered mid-section, and multi-layer silencer with good flow through the entire rev range, with an emphasis on low-rpm performance.

The exhaust silencer is a fourlayer design that enhances performance. The plastic engine protectors help guard the coolant pump (on the right) and the stator cover (on the left) from debris and stones.

### **Advanced Electronics Features**

Suzuki's MX-Tuner 2.0 provides the ability to easily adjust the fuel injection and ignition system settings for optimal race performance.

- Fuel delivery and ignition timing can be quickly changed using a smartphone application that wirelessly connects to the MX-Tuner's compact transceiver.
- The MX-Tuner application can pre-program personalized settings into the ECM, which can be activated by plugging in one of the supplied fuel couplers.
- Racers and tuners can easily change settings to match performance-related updates.
- The application can save a number of settings for different tracks or weather conditions, and settings can be exchanged with other racers.
- Real-time engine data and run-time information are accessible to help the rider stay on top of bike maintenance.
- Suzuki's proven, easy-to-use fuel couplers are included to simplify tuning of the electronic fuel injection system.
- Two provided couplers enable quick fuel adjustments to suit riding conditions. One is for a richer-than-stock and another for a leaner-than-stock fuel setting. Riders can change fuel settings in seconds by simply connecting either coupler to the wire harness.

The RM-Z250 features an efficient traction management system that reacts to engine speed changes quickly. The Electronic Control Module (ECM) continually measures throttle opening, engine speed and gear position, and then adjusts the ignition timing and fuel injector duration to fine-tune engine output to deliver the best traction for the riding conditions.

- Optimized specifically for motocross use, the advanced traction management system works seamlessly with the rider to put power to the ground and maximize traction on the dirt.

The Suzuki Holeshot Assist Control (S-HAC) is a selectable launch system derived from the factory race bike to help launching from the starting gate to take an early lead.

- To aid riders at the moment of launch, there are three stages of power adjustment from the S-HAC system: 1) the moment of initial launch, 2) when crossing the starting gate, and 3) acceleration up to full-speed.

There are three S-HAC modes riders can choose for the best option per their skill level and starting conditions.

Mode A: For hard surfaces or slippery conditions at the starting gate. In this mode, S-HAC alters ignition timing at the moment of launch and the ride over the gate to reduce wheel slip to deliver a smooth start. It also advances ignition timing during this sequence for stronger acceleration. After six seconds or when the rider reaches fourth gear, the system shuts off and returns to normal ignition timing.

- Benefit of Mode A: Mode A offers

more controlled launches for novice riders and/or hard and slippery traction conditions.

Mode B: When conditions at the starting gate have better traction, and a more aggressive launch is desired, S-HAC advances the ignition timing to allow increased throttle response and stronger acceleration off the line. The ignition timing alternation follows a sequence similar to that of Mode A, but with increased overall timing. One of three conditions will return the ignition to normal operation (whichever happens first): After six seconds, when the rider reaches fourth gear, , or when the throttle is closed. The system then shuts off and returns to normal ignition timing.

 Benefit of Mode B: Mode B offers more aggressive launches for skilled riders and/or good starting conditions

Base Mode: Standard power launch, no action required on the S-HAC switch.

The 5-speed transmission's second gear ratio and overall final ratio matches the engine's stronger output for outstanding acceleration and top speed.

True to Suzuki transmission standards, the gear shift operation is smooth and precise. Carefully designed parts, such as the precisely machined shift cam and corresponding gears, create a transmission a racer can rely on.

The multi-plate, wet-clutch uses a rack-and-pinion clutch release mechanism for precise feel of the engagement and disengagement points while riding.

The lightweight chain guide is

shaped to accurately route the drive chain smoothly.

#### **Chassis Features**

The RM-Z250 features a frame and swingarm design that continues Suzuki's reputation for creating the best-handling motocross motorcycles.

The aluminum-alloy, twin-spar frame combines cast and extruded sections to achieve superior front-and-rear weight distribution, while balancing strength and weight.

The RM-Z250 frame combines light weight with excellent torsional rigidity.

The engine's position in the frame is rotated up so the crankshaft sits higher in the chassis to further the bike's nimble handling characteristics.

The rear, upper engine mounts are outboard of the cylinder head to increase rigidity and allow a direct intake path to the engine.

Aluminum engine mounts help reduce weight.

The swingarm is shaped using an innovative hydroforming process maintains strength while achieving light weight.

The hydroforming process enabled engineers to create tapered swingarm beams that are both light and rigid.

Hexagonal aluminum rails used on the sub-frame are light, slim, and offer easy air filter access.

The sub-frame rail design contributes to achieving slim bodywork and maximum space for the large air cleaner.

The narrow sub-frame and slim body work allow the rider to move freely in the cockpit, especially during spirited riding.

The KYB rear shock absorber has a thin-wire spring, spring guide, cushion rubber guide, and lower link that are light and responsive.

This KYB shock has specialized damping force circuits and a refined rear lever ratio to help maximize the suspension's traction characteristics.

The damping force adjusters have a wide tuning range, so the settings can better match the conditions and the rider's style.

The high-performance KYB coil spring front forks have legs with the same springs and damping force components, so front suspension tuning and maintenance is balanced and easy: a great benefit during frequent riding.

These forks use a free-piston design that separates air and oil to optimize the damping characteristics. The design also helps control the damping cartridge's pressure and spring recoil, so the fork action remains supple and precise.

The RENTHAL aluminum tapered handlebars are designed to enhance rider control during aggressive maneuvering.

A rigid, but lightweight upper fork bracket complements the front suspension and handlebars.

A 270mm diameter, wave-style front brake rotor and Nissin 2-piston brake caliper provide sure stopping performance with a positive feel.

Brake pad material developed for the RM-Z250 helps improve braking performance. The master cylinder is a push rod type that more effectively transmits the squeezing force that the rider applies to the lever.

The rear brake master cylinder hugs the frame beam to reduce dirt contamination and the chance of the rider's boot touching it during riding.

The wheels feature black anodized D.I.D Dirt Star rims with a cross-section design that maintains strength while reducing unsprung weight.

To match the handling potential of the RM-Z250, the wheels are fitted with race-developed Dunlop GEOMAX MX33 tires.

Suzuki beak-inspired styling features a sharp front fender, radiator shroud shapes that blend into the frame's side covers, and an upswept tail. These promote the impression of speed while reducing weight and easing service.

The functional styling and the motorcycle's slim chassis permit a variety of rider positions that facilitate control and comfort.

The footpegs and handlebar grips are positioned to create a high level of rider-control during competition.

The plastic fuel tank is light and features a capacity of 6.3L.

The seat base, inner fenders, and side covers were developed to reduce moisture and dirt from reaching the air cleaner. This helps prevent debris from contaminating the air filter.

The slim seat has a specialized foam density to aid the rider's control of the motorcycle. The seat has a large gripper panel that runs nose-to-tail on the cover.

The Suzuki Champion Yellow No.2 bodywork is enhanced with distinctive striping and modern logo graphics.



The RM-Z250 Is Ready, Are You?

## Color



Champion Yellow No.2 (YU1)



