

RM-Z250

Competition motorcycles like the RM-Z250 can only be ridden on non-public land in California per California Air Resource Board (CARB) regulations.

OVERVIEW

With a versatile engine and responsive chassis, the 2025 RM-Z250 remains the choice of professionals and privateers everywhere. Fed by a dual injector EFI system the RM-Z250's four-stroke, four-valve engine delivers strong, usable power through the entire rev range.

Tuning the fuel injection and ignition for maximum performance is easy and quick thanks to Suzuki's smartphone-based MX-Tuner 2.0, and proven fuel-coupler system. The RM-Z250 continues its reputation as the best-handling 250 through a twin-spar aluminum frame and hydro-formed swingarm that carry a KYB® suspension that includes a coil spring fork and a shock with four-way damping force adjustment.

The ergonomically shaped bodywork let the rider easily maneuver the RM-Z250 around the racetrack. Ready for competition or pleasure, the 2025 RM-Z250 delivers outstanding motocross performance in an intelligent and reliable way.



Champion Yellow No. 2

2025

2025

KEY FEATURES

- Superb performance starts with a center-port head as the fuel-injected, 249cc liquid-cooled, four-stroke, four-valve, DOHC engine is proven and dependable while delivering strong peak power and superb throttle response through the entire rev range.
- Thanks to Suzuki's design and production standards, shifting the five-speed transmission is smooth and precise, while the multi-plate, wet clutch uses a lever and cam release mechanism for a light and direct feel.
- Agile handling comes from an aluminum frame that is lighter but has a ten percent increase in torsional rigidity as compared to the prior generation frame, achieving superior front-and-rear weight distribution. The KYB® coils spring fork and shock have fully adjustable damping force for superior suspension response.
- Suzuki's MX-Tuner 2.0 is included and provides the ability to adjust the fuel injection and ignition settings through a smartphone application, while the Suzuki Holeshoot Assist Control (S-HAC) and advanced traction management system provides the rider a performance edge.
- The Suzuki beak-inspired styling has sharp front fender and radiator shroud shapes that blend into the frame's side covers and into an upswept tail. This functional styling and trim chassis permit a variety of rider positions that facilitate maneuvering and comfort.

ENGINE

- Fitted with a center-port cylinder head, the fuel-injected, 249cc liquid-cooled, four-stroke, four-valve, DOHC engine remains proven and dependable.
- The engine delivers strong peak power and superb throttle response through the entire rev range.
- The cylinder head's intake port shape and finish funnels the fuel/air charge into the combustion chamber to increase engine output.
- The large air cleaner has a large outlet tube for a direct path into the throttle body for high-volume airflow.
- The fuel injection system has extra-smooth power delivery, high fuel efficiency, superb reliability, and easy tuning capability.
- Two fuel injectors are used to deliver an ample fuel-air charge for excellent combustion chamber efficiency at all engine speeds.
- 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.
- To feed the twin-injector system and mix the fuel and air charge for outstanding throttle response, the RM-Z250 uses a high-capacity fuel pump.
- The distinctive design of the throttle body eliminates a complex control linkage, so the rider feels a more direct connection to the engine.
- The intake camshaft profile has more valve lift than the prior generation RM-Z250, increasing power at all engine speeds.
- The cam chain tension adjuster and guide have been designed to reduce 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 is refined to reduce stress at the piston crown helping increase reliability.
- Engine starting remains simple due 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 four-layer design enhancing performance while complying with AMA sound regulations.
- The high-impact plastic engine protectors help guard the coolant pump (on the right) and the stator cover (on the left) from debris and stones.

DRIVE LINE

- The five-speed transmission's second gear ratio and overall final ratio match the engine's strong output for outstanding acceleration and top speed.
- True to Suzuki's industry-leading transmission standards, gear shifting is smooth and precise. Carefully designed parts like the precisely machined shift cam and corresponding gears create a transmission a racer can rely on.
- The multi-plate, wet clutch uses a push-rod 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

- The RM-Z250 features a frame and swingarm design that continues Suzuki's reputation of creating the best-handling motocross motorcycles.
- The 2025 RM-Z250 frame is 370 grams (0.8 pounds) lighter but has a ten percent increase in torsional rigidity as compared to the prior generation RM-Z250 frame.
- 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 swingarm is shaped using an innovative hydroforming process that maintains strength but weighs 0.6 pounds (270 grams).
- The hydroforming process enabled engineers to create tapered swingarm beams that increased rigidity, while reducing heavier assembly welding.
- The engine's position in the frame is pitched up so the crankshaft sits higher in the chassis to enhance 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.
- The engine mounts are aluminum, rather than steel, for reduced weight.
- Hexagonal aluminum rails are used on the sub-frame for lighter weight, a slimmer appearance, and easier air-filter access.
- The sub-frame rails are moved inward to slim the bodywork but are also raised to provide additional space for the larger air cleaner.
- Not only is the sub-frame narrow, but all the bodywork is slim, so the rider can move freely in the cockpit, especially during spirited riding.
- The KYB®-supplied shock absorber has a thin-wire spring, spring guide, cushion rubber guide, and lower link that are lightweight and have better movement reaction. The spring and link weigh a pound (447.5 grams) less than the prior generation's parts.
- This KYB® shock has specialized damping force circuits and a refined rear lever ratio to help improve 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 fork has 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.
- This fork uses 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 handlebar has a flatter bend with less pull-back than prior models helping the rider maneuver the RM-Z250.
- A rigid, but lightweight upper fork bracket complements the front suspension and handlebars.
- The front brake has a 270mm diameter, wave-style rotor, and a Nissin® two-piston caliper.
- 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 have black anodized D.I.D Dirt Star rims with a cross-section design that maintains strength while reducing un-sprung weight.
- To match the handling potential of the RM-Z250, the wheels are fitted with the race-developed Dunlop® GEOMAX MX33 tires. Additionally, the rear tire is approximately one half-pound (160 kg) lighter than the tire used on the prior generation RM-Z250.

ADVANCED RIDER AIDS

- Included with the 2025 RM-Z250 is Suzuki's MX-Tuner 2.0 that provides the ability to easily adjust the fuel injection and ignition system settings for improved race performance.
 - Using a smartphone application that wirelessly connects to the MX-Tuner's compact transceiver, fuel delivery and ignition timing can be quickly changed.
 - The MX-Tuner application can pre-program personalized settings into the ECM that 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 multiple settings for different tracks or weather conditions, plus settings can be exchanged with other racers.
 - Real-time engine data and run-time information are accessible to help riders stay on top of bike maintenance.
- Suzuki's proven; easy-to-use fuel couplers are also included to simplify EFI tuning.
 - For quick fuel adjustments to suit riding conditions, two couplers are provided. 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 evolved and efficient traction management system. 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 the engine output to help deliver the best traction for the riding conditions.
 - The RM-Z250's traction management system is different from a street bike traction control system because the needs of a motocrosser are different than a street bike. This system does not measure rear tire spin and offers constant adjustment that always helps maximize traction.
- The Suzuki Holeshot Assist Control (S-HAC) is a selectable launch system derived from the Suzuki factory race bike to help riders' takeoff from the starting gate for an early lead.
 - To deliver race-winning starts, 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 start of the launch and during the ride over the gate to reduce wheel slip to deliver a smooth takeoff. It also advances ignition timing during this sequence for stronger acceleration. After six seconds or when you reach fourth gear, the system shuts off and returns to normal ignition timing.
 - Benefit of Mode A: For novice riders, and/or hard and slippery traction conditions, use Mode A for a more controlled launch.
 - **Mode B: When conditions at the starting gate have better traction, and a more aggressive launch is desired.** S-HAC will advance the ignition timing to allow increased throttle response and stronger acceleration off the line. The ignition timing alteration is similar to Mode A, but with increased overall timing. The system will return the ignition to normal operation in three situations (whichever happens first): After six seconds, or when the bike reaches fourth gear, or when the throttle is closed.
 - Benefit of Mode B: For novice riders, and/or hard and slippery traction conditions, use Mode A for a more controlled launch.
 - **Base Mode: Standard power launch, no action required on the S-HAC switch.**

BODY

- The Suzuki beak-inspired styling has sharp front fender and radiator shroud shapes that blend into the frame's side covers and into an upswept tail, enhancing the impression of speed while reducing weight and easing service.
- The functional styling and the motorcycle's trim chassis permit a variety of rider positions that facilitate maneuvering and comfort.
- Compared to the prior generation RM-Z250, the 2025 edition has ergonomic improvements including the foot pegs moved 0.12 inches (3.3 mm) forward and 0.2 inches (5.2 mm) upward, while the handlebar grip position is moved 0.3 inches (7.4 mm) forward and 0.15 inches (3.8 mm) downward.
- The plastic fuel tank weighs a half-pound less than the prior generation's aluminum tank. Fuel capacity is 1.66 US gallons.
- The seat base, inner fenders, and side covers were developed to reduce moisture and dirt reaching the air cleaner. This helps prevent debris from contaminating the air filter.
- The slim seat has a specialized foam density to increase rider comfort. The seat has a large gripper panel that runs nose-to-tail on the cover.
- The Suzuki Champion Yellow bodywork is enhanced with distinctive striping and logo graphics.



RM-Z 250

ADDITIONAL

- Suzuki Genuine Accessories include items that can enhance the RM-Z's performance and simplify maintenance.
- See Suzuki's industry leading contingency programs at www.SuzukiCycles.com/Racing.

SPECIFICATIONS

ENGINE

Engine:	249cc, 4-stroke, liquid-cooled, single cylinder, DOHC
Bore x Stroke:	77.0 mm x 53.6 mm (3.0 in. x 2.1 in.)
Compression Ratio:	13.75:1
Fuel System:	Fuel injection, dual-injector type
Starter:	Primary kickstarter with automatic decompressor
Lubrication:	Semi-dry sump

DRIVETRAIN

Clutch:	Wet, multi-plate type
Transmission:	5-speed constant mesh
Final Drive:	Chain, DID® 520DMA4K, 114 links

CHASSIS

Suspension, Front:	Inverted telescopic, coil spring, oil damped, adjustable damping
Suspension, Rear:	Single unit, link type, coil spring, oil damped, adjustable spring preload and damping force

Brake, Front:	Disc brake, single rotor
Brake, Rear:	Disc brake, single rotor
Tire, Front:	80/100-21 M/C 51M, tube type
Tire, Rear:	100/90-19 M/C 57M, tube type
Fuel Tank Capacity:	6.3 L (1.7 US gal.)

ELECTRICAL

Ignition:	Electronic ignition (CDI)
Spark plug:	NGK® CR8EIB-10

DIMENSIONS

Overall Length:	2185 mm (86.02 in.)
Overall Width:	835 mm (32.9 in.)
Overall Height:	1255 mm (49.4 in.)
Wheelbase:	1485 mm (58.46 in.)
Ground Clearance:	330 mm (13.0 in.)
Seat Height:	955 mm (37.5 in.)
Curb Weight:	106 kg (233 lb.)

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