

# Features & Specifications

## 2019 RM-Z250



### RM-Z250L9

YU1: Champion Yellow No.2

### Key New Advancements to the 2019 RM-Z250

- **Increased Engine Performance**
  - New cylinder head increases output and throttle response
  - New dual fuel injector system increases high rpm power
  - Evolved traction management system helps the bike hook up
  - Updated Suzuki Holeshoot Assist Control (S-HAC) gets you out front
- **Greater Cornering Performance**
  - New frame and swingarm balances lightness with strength
  - Engine placement and mounting aid chassis' nimble handling
  - Coil spring KYB fork provides superb performance and easy tuning
  - New KYB rear shock and linkage deliver remarkable control
  - Race-ready, High-grip Dunlop MX33 Tires
- **Improved Braking Performance**
  - Larger front brake increases stopping power and feel
  - New, compact rear master cylinder is designed to prevent mud from collecting on it and from catching on the rider's boots
- **Functional Styling**
  - Aggressive new styling from the championship caliber RM-Z450
  - Narrow cockpit lets rider move with ease for maximum racing performance
- **Rider-friendly Tuning**
  - Fuel couplers are included for quick and easy EFI tuning



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Suzuki's RM Army and Amateur Racing Support is top notch, offering over \$4 million in contingency, trackside support, and the opportunity to train with Ricky Carmichael at Suzuki's exclusive Camp Carmichael. Want to see why champions choose Suzuki? Visit [racesuzuki.com](http://racesuzuki.com) for more information on Suzuki's Amateur Support Program and enlist in the RM ARMY!

## Overview

Redesigned for 2019 and ready for battle, the RM-Z250 marries the sleek, race-ready appearance of the RM-Z450 with an upgraded engine and list of chassis changes to achieve superior performance. Using Suzuki's "RUN, TURN and STOP" philosophy, factory engineers have made the 2019 RM-Z250 an even more formidable competitor.

The RM-Z250 has always set the standard as the best-handling 250 on the track. Now, the 2019 edition has more power, thanks to a host of changes that include a new cylinder head and dual injector EFI, to boost performance through the entire rev range. The frame and swingarm are new, as is the KYB-supplied suspension that includes a new coil spring fork. Strong brakes and ergonomically shaped bodywork that help keep the rider in control as the RM-Z250 carves up the racetrack.

Back in the pits, tuning the new EFI system for maximum performance is easy, thanks to Suzuki's proven fuel-coupler system. Suzuki's Winning Balance is again on display with the 2019 RM-Z250, as it again raises its own high standard for cornering performance.



## Engine Features

- Fitted with a new cylinder head and other improvements for 2019, the fuel-injected, 249cc, liquid-cooled, four-stroke, four-valve, DOHC engine remains proven and reliable.
- The engine improvements result in greater power output with improved throttle response through the entire rev range.
- The cylinder head features a new intake port shape and finish that fine-tunes the fuel/air charge into the combustion chamber to increase engine output.
- A 30 percent larger air cleaner opening is combined with a more direct air cleaner outlet tube path into the throttle body for increased air flow.
- The updated fuel injection system has extra-smooth power delivery, high fuel efficiency, superb reliability, and easy tuning capability.
- The new throttle body eliminates complex control linkage so the rider feels a more direct connection to the engine.
- For the first time on a Suzuki MX model, twin fuel injectors are used. The fuel/air mix created by both injectors improves charging efficiency and increases high rpm power.
- The primary fuel injector is at the bottom of the throttle body and sprays fuel at the butterfly valve to improve 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.

## Engine Features (continued)

- To feed the new twin-injector system and mix the fuel and air charge to improve throttle response, the new, high-capacity fuel pump has 17 percent more output pressure.
- The new throttle body eliminates complex control linkage, so the rider feels a more direct connection to the engine.
- The intake camshaft profile is new, with more valve lift, increasing power at all engine speeds.
- The cam chain tension adjuster and guide have been redesigned 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.
- To increase reliability, the machining process at the piston pin holes is changed to reduce stress at the piston crown.
- Engine starting remains simple, due to a proven kick-starter and automatic decompression system that works precisely and efficiently (eliminating the need for a heavy and costly electric start system).
- The new, high-flow exhaust system has a longer head-pipe, tapered mid-section, and multi-layer silencer that has better flow through the entire rev range, with an emphasis on low-rpm performance.
- The new exhaust silencer is a four-layer design that enhances performance and maintains compliance with AMA sound regulations.
- New resin engine protectors help guard the coolant pump (on the right) and the stator cover (on the left) from debris and stones.

## Advanced Electronics

- Suzuki's proven, easy-to-use Fuel Couplers are included to simplify EFI tuning  
For quick fuel adjustments to suit riding conditions, two couplers are provided. One is for a rich, and another for a lean fuel setting compared to the stock setting. Riders can change fuel settings in seconds by simply connecting either coupler to the wire harness.
- The 2019 RM-Z250 features an evolved and faster 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 deliver the best traction for the riding conditions.  
The RM-Z250's traction management system is different from a street-bike traction control system as it does not measure rear tire spin. Because the needs of a motocrosser are different than a street bike, this system offers constant adjustment that maximizes traction at all times.
- The Suzuki Holeshot Assist Control (S-HAC) is a selectable launch system derived from the factory race bike to help riders' takeoff from the starting gate for 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. The launch settings for A-Mode and B-Mode are updated on the 2019 RM-Z250 to help the rider control engine speed during starts.

**A-Mode: 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 take off. It also advances ignition timing during this sequence for stronger acceleration. After 6.0 seconds or when you reach fourth gear, the system shuts off and returns to normal ignition timing.

Benefit of A-Mode: For novice riders, and/or hard and slippery traction conditions, use A-Mode for a more controlled launch.

**B-Mode: 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 alternation is in a similar sequence as A-Mode, but with increased overall timing. One of three conditions will return the ignition to normal operation (whichever happens first): After 6.0 seconds or when you reach fourth gear, the system shuts off and returns to normal ignition timing.

Benefit of B-Mode: For skilled riders and/or good starting conditions, use B-Mode for a more aggressive launch.

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

## Transmission & Drive Features

- The five-speed transmission is updated with a new second gear ratio and overall final ratio to match the engine's stronger output for better acceleration and top speed.
- True to Suzuki transmission standards, the gear shift operation 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 rack-and-pinion clutch release mechanism for precise feel of the engagement and disengagement points while riding.
- The new, lighter-weight chain guide is shaped to accurately route the drive chain smoothly.



## Chassis Features

- The 2019 RM-Z250 features a new frame and swingarm design that continues Suzuki's reputation for creating the best handling motocross motorcycles.
- The new aluminum-alloy twin-spar frame combines cast and extruded sections to achieve superior front-and-rear weight distribution while balancing strength and weight.
- The new frame is 370 grams (0.8 pounds) lighter, but has a 10 percent increase in torsional rigidity.
- The position of the engine in the new frame is changed so the crankshaft sits higher in the chassis to further the bike's nimble handling characteristics.
- The design of the rear, upper engine mounts has been updated to a pair of mounts that are outboard of the cylinder head to increase rigidity and allow a direct intake path to the engine.
- The engine mount material is changed to aluminum from steel to reduce weight.
- The new swingarm is shaped using an innovative hydroforming process that maintains strength but reduces weight by 0.6 pounds (270 grams).
- The new hydroforming process enabled engineers to create tapered swingarm beams that increased rigidity while reducing heavier assembly welding.
- New 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 new sub-frame narrow, but all of the body work is slim so the rider can move freely in the cockpit, especially during spirited riding.

## Chassis Features (continued)

- The new, KYB-supplied shock absorber has a thin-wire spring, spring guide, cushion rubber guide, and lower link that weigh less and have better movement reaction. The new spring and link weigh a pound (447.5 grams) less than the prior parts.
- This KYB shock has new damping force circuits and a different rear lever ratio to improve the suspension's traction characteristics.
- The damping force adjusters have a wider tuning range so the settings can better match the conditions and the rider's style.
- A new, high-performance KYB coil spring front fork replaces the PSF2 Pneumatic Spring Fork previously used on the 2018 RM-Z250.
- Both fork legs have the same springs and damping force components, so front suspension tuning and maintenance is balanced and easy: a great benefit during frequent riding.
- This new fork uses a free-piston design that separates air and oil to optimize the damping characteristics. Other internal changes help control the damping cartridge's pressure and spring recoil, so the fork action remains supple and precise.
- The new Renthal aluminum tapered handlebar has a straighter bend (less pull-back) than prior models to help aid the rider during aggressive maneuvering.
- A new, lighter upper fork bracket is used to complement the new front suspension and handlebars.
- To improve stopping performance and feel, a new, larger 270mm, wave-style front brake rotor and a Nissin two-piston brake caliper are used.
- The brake pad material is also changed to improve performance, plus the new front brake lever is a push rod type that more effectively transmits the squeezing force that the rider applies to the master cylinder.
- A new design 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 DirtStar rims with a new cross-section design that maintains strength while reducing un-sprung weight.
- To match the handling potential of the 2019 RM-Z250, the wheels are fitted with the race-developed Dunlop Geomax MX33 tires. Additionally, the rear tire is nearly a half-pound (160 kg) lighter than the tire used on the prior RM-Z250.
- Suzuki beak-inspired styling has sharp front fender and radiator shroud shapes that blend into the frame's side covers and an upswept tail, to promote the impression of speed while reducing weight and easing service.
- The functional styling and the motorcycle's trim chassis permits a variety of rider positions that facilitate control and comfort.
- In addition to the ergonomic improvements from the new bodywork, the rider's foot pegs are 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, to create a high level of rider-control during competition.
- The new plastic fuel tank weighs a half-pound less than the prior model's aluminum tank. Fuel capacity is 1.6 US gallons.
- 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 new, slimmer seat has revised foam density to aid the rider's control of the motorcycle. The seat weighs a half-pound less than the prior model's and has a large gripper panel that runs nose-to-tail on the cover.
- The Suzuki Championship Yellow bodywork is enhanced with distinctive striping and modern logo graphics.

## Additional Features

- A variety of Genuine Suzuki Accessories for RM-Z250 owners are available including a large selection of Suzuki logo apparel.
- Learn more about Suzuki's industry leading contingency, plus the RM ARMY and Amateur Support programs at [www.SuzukiCycles.com/Racing](http://www.SuzukiCycles.com/Racing).
- For more details, please visit [www.suzukicycles.com](http://www.suzukicycles.com).

# Specifications RM-Z250L9

Full Specifications & Service Data to be provided at a future date

## 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 kick-start with automatic decompressor        |
| Lubrication:       | Semi-dry sump   |

## Drive Train

|               |                         |
|---------------|-------------------------|
| Clutch:       | Wet multi-plate         |
| Transmission: | 5-speed constant mesh   |
| Final Drive:  | Chain DID 520DMA4K 114L |

## Chassis

|                     |  |
|---------------------|--|
| Suspension, Front:  | Inverted telescopic, coil spring, oil damped, with adjustable damping force                  |
| 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 (1.6 US gal.)  |
| Color:              | Championship Yellow No. 2  |

## Electrical

|             |                           |
|-------------|---------------------------|
| Ignition:   | Electronic ignition (CDI) |
| Spark Plug: | NGK CR8EIB-10             |

## Dimensions

|                   |     |
|-------------------|-----|
| Overall Length:   | TBA |
| Overall Width:    | TBA |
| Overall Height:   | TBA |
| Wheelbase:        | TBA |
| Ground Clearance: | TBA |
| Seat Height:      | TBA |
| Curb Weight:      | TBA |

**Warranty** Not applicable

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