



RM-Z450

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The RM-Z450 is designed for closed-course competition use only. Competition motorcycles like the RM-Z450 can only be ridden on non-public land in California per California Air Resource Board (CARB) regulations.

OVERVIEW

The RM-Z450's sleek, race-ready appearance, strong engine, and nimble chassis provide the effective power and precise handling required to continue Suzuki's race-winning legacy. The RM-Z450's controllable engine will captivate you with its high peak power, as its agile chassis continues to be the class standard for cornering performance, with the added bonus of legendary Suzuki reliability.

Tuning the electronic fuel injection and ignition systems for maximum performance is easy thanks to Suzuki's smartphone-based MX-Tuner 2.0 or proven fuel-coupler system that are included with each RM-Z450. Whether you are racing under stadium lights or enjoying a track day with friends and family, the 2025 RM-Z450 can bring serious MX performance in a smart, reliable way.



Champion Yellow No. 2

2025

2025

KEY FEATURES

- Delivering excellent throttle response through the entire rev range, the 449cc, liquid-cooled, four-stroke, four-valve, DOHC engine is the latest incarnation of Suzuki's proven fuel-injected powerplant that delivers high peak horsepower with strong torque characteristics.
- 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.
- Balancing lightness with strength to achieve exceptional handling, the aluminum frame and beam-style swingarm support the fully adjustable, the SHOWA® Balance Free spring fork and shock that deliver remarkable damping 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 provide 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

- The 449cc, liquid-cooled, four-stroke, four-valve, DOHC engine is the latest incarnation of Suzuki's proven and reliable fuel-injected powerplant.
- The engine has high peak horsepower with strong torque at lower engine speeds for excellent throttle response through the entire rev range.
- The cylinder head intake port shape creates a high amount of tumble flow to the incoming fuel/air to increase power output.
- The air cleaner's large and straight opening creates a more direct air path to the throttle body to increase performance.
- Suzuki's advanced fuel-injection system creates extra-smooth power delivery, high fuel efficiency, and superb reliability.
- The RM-Z450's throttle body design locates the fuel injector, fed by a high-pressure fuel pump, so the injector sprays fuel directly at the butterfly valve to improve atomization of the fuel/air charge.
- This throttle body design 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-Z450, increasing power at all engine speeds.
- The compact aluminum cylinder is finished with Suzuki Composite Electrochemical Material (SCEM) coating for durability, light weight, and efficient heat transfer.
- The piston's casting includes strengthening ribs near the wrist pin bosses to match component reliability to the engine's high horsepower.
- Engine starting is simple and efficient due to a long kickstart lever, well-matched internal gear ratios, a large air cleaner and breather system, plus an automatic decompression system that works precisely and efficiently, eliminating the need for a heavy and costly electric start system.
- The high-flow exhaust system complies with AMA sound regulations.
- Strong, high-impact plastic engine protectors help guard the coolant pump (on the right) and the stator cover (on the left) from debris and stones.

TRANSMISSION AND DRIVE

- The well-sorted, five-speed transmission enables precise gear shift operation. This precise transmission feel is the result of an accurately machined shift cam for exact gear selection. Specialized machining processes also increase the precision of the matching gears.
- The multi-plate, wet clutch uses a lever and cam 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-Z450's twin-spar frame and twin-beam swingarm design continues Suzuki's tradition of delivering the best-handling motocross machines available.
- This aluminum alloy, twin-spar frame combines cast and extruded sections to achieve superior front-and-rear weight distribution while balancing strength and weight.
- The frame is 1.32 pounds (700 grams) lighter than the prior generation RM-Z450 to improve cornering performance and shock absorption while delivering stable handling.
- The swingarm is comprised of thin, yet strong, materials for improved cornering performance and stable handling.
- The short wheelbase and frame head pipe location produce quick and nimble handling characteristics.
- Hexagonal aluminum rails are used on the sub-frame for light weight, a slimmer appearance, and easier air filter service.
- The sub-frame rails route inward to slim the bodywork, but also route upwards to provide additional space for the large air cleaner and the advanced BFRC shock absorber.
- Like the trim sub-frame, the bodywork is slim to enable the RM-Z450 rider to move freely in the cockpit, especially during spirited riding.
- Inspired by the advanced suspension from the GSX-R1000R Superbike, the RM-Z450 is fitted with a Showa® BFRC shock absorber.
- The BFRC uses a separate, external damping circuit that improves the responsiveness of damping force to deliver excellent traction and better absorption over bumps.
- The fully adjustable BFRC controls damping so well during minute suspension movements that ride comfort is increased at lower speeds, while performance is enhanced at higher speeds.
- The Showa® coil spring fork has large inner tubes and rod pipes for strength and durability.
- Springs in each fork leg combine with large, adjustable damping cylinders to deliver better response to the terrain and provide a strong feeling of control to the rider.
- Front suspension tuning and maintenance are balanced and easy: a great benefit during frequent riding.
- The strong Renthal® aluminum tapered handlebar has a straighter bend than prior models to help the rider during aggressive maneuvering.
- The lightweight upper fork bracket was developed to complement the Showa® coil spring front suspension and handlebars.
- The front brake uses a large 270mm, wave-style rotor with a twin piston caliper.
- The trim rear brake master cylinder hugs the frame beam to reduce dirt contamination and the chance of the rider's boot touching it during riding.
- To support the RM-Z450's strong engine, braking, and handling performance, the bike is fitted with racetrack-developed Bridgestone® Battlecross X30 tires.
- The wheels feature black anodized rims with a cross-section design that maintains strength while reducing un-sprung weight.
- See Suzuki's industry leading contingency programs at www.SuzukiCycles.com/Racing.

ADVANCED ELECTRONICS

- Included with the 2025 RM-Z450 is Suzuki's MX-Tuner 2.0 that helps provide 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-Z450 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-Z450'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 factory race bike to help rider's takeoff from the starting gate for an early lead. There are three launch modes riders can choose for the best option for their skill level and the starting conditions. There are also three stages to Mode A and Mode B of the S-HAC system. This helps riders at the initial moment of launch, when crossing the gate, and through acceleration to full speed. The S-HAC settings for Mode A on the RM-Z450 are specially tuned to aid the rider's throttle control during launches.
 - **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. The system then shuts off and returns to normal ignition timing.
 - 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.**
- Designed for motocross use, the lightweight, battery-less, electronic fuel injection system is key to the engine's efficient power delivery.

BODY

- Suzuki beak-inspired styling has a sharper front fender and radiator shrouds blending into side covers and 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 comfortable rider positions.
- The seat base, inner fenders, and side covers were developed to reduce the amount of moisture and dirt reaching the air cleaner. This helps prevent debris from contaminating the air filter element.
- Made with a special density foam, the seat is well shaped and slim to help the rider maneuver the motorcycle. The seat has a large blue gripper panel that runs nose-to-tail on the cover.
- The Champion Yellow bodywork is enhanced with a graphics package that features distinctive striping and Suzuki logos.
- The plastic fuel tank weighs a half-pound less than the prior generation's aluminum tank. Fuel capacity is an ample 1.7 US gallons (6.3 L).

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:	449cc, 4-stroke, liquid-cooled, single cylinder, DOHC
Bore x Stroke:	96.0 mm x 62.1 mm (3.78 in. x 2.40 in.)
Compression Ratio:	12.5:1
Fuel System:	Fuel injection, 44mm throttle body
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® 520DMA2K, 114 links

CHASSIS

Suspension, Front:	Inverted telescopic, coil spring, oil damped, adjustable damping
Suspension, Rear:	BFRC-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:	110/90-19 M/C 62M, tube type
Fuel Tank Capacity:	6.3 L (1.7 US gal.)

ELECTRICAL

Ignition:	Electronic ignition (CDI)
Spark plug:	NGK® DIMR8C10

DIMENSIONS

Overall Length:	2175 mm (85.6 in.)
Overall Width:	835 mm (32.9 in.)
Overall Height:	1260 mm (49.6 in.)
Wheelbase:	1480 mm (58.3 in.)
Ground Clearance:	330 mm (13.0 in.)
Seat Height:	960 mm (37.8 in.)
Curb Weight:	112 kg (247 lb.)

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