



\*Professional rider in closed course.



Champion Yellow No.2 (YU1)

## 2020 RM-Z450 SPECIFICATIONS

Overall length	2,175 mm (85.6 in)
Overall width	835 mm (32.9 in)
Overall height	1,260 mm (49.6 in)
Wheelbase	1,480 mm (58.3 in)
Ground clearance	330 mm (13.0 in)
Seat height	960 mm (37.8 in)
Curb mass	112 kg (247 lbs)
Engine type	4-stroke, liquid cooled, DOHC
Bore × Stroke	96.0 mm × 62.1 mm (3.8 in × 2.4 in)
Engine displacement	449 cm <sup>3</sup> (27.4 cu.in)
Compression ratio	12.5 : 1
Fuel system	Fuel injection
Starter system	Primary kick
Lubrication system	Semi-dry sump
Transmission	5-speed constant mesh
Primary reduction ratio	2.625 (63 / 24)
Final reduction ratio	3.846 (50 / 13)
Suspension	Front Inverted telescopic, coil spring, oil damped Rear Link type, coil spring, oil damped
Rake / Trail	27.5° / 120 mm (4.7 in)
Brake	Front Disc Rear Disc
Tires	Front 80/100-21 51M, tube type Rear 110/90-19 62M, tube type
Ignition system	Electronic Ignition (Transistorized)
Fuel tank capacity	6.3 L (1.7/1.4 US/Imp gal)
Oil capacity (Overhaul)	1.2 L (1.3/1.1 US/Imp qt)

The RM-Z and RM series motorcycles are for closed-course competition use and related practices only. Always supervise young riders.  
Professional rider photographed under closed-course conditions. Image contains computer-generated composites.  
Specifications, appearances, color (including body color), equipment, materials and other aspects of the SUZUKI products shown in this catalog are subject to change by Suzuki at any time without notice and they may vary depending on local conditions or requirements. Some models are not available in some territories. Each model may be discontinued without notice.  
Please inquire at your local dealer for details of any such changes.  
The motorcycles shown in this catalogue includes special race bike modified for racing use. The specifications, appearance and colors are different from mass-production model.  
■ Always wear a helmet, eye protection and protective clothing.  
■ Enjoy riding safely.  
■ Read your Owner's Manual carefully.  
■ Never ride under the influence of alcohol or other drugs.

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# RM-Z450

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Suzuki's "Way of Life!" is the heart of our brand - every Suzuki vehicle, motorcycle and outboard motor is built to create excitement so customers can enjoy everyday life.



Way of Life!



# The Winning Balance

Stripped to its essence, motocross requires a racebike to do three key things:

Run, Turn and Stop - all better than the rest. In its 16<sup>th</sup> model year, the RM-Z450 is designed with a laser focus on achieving this winning balance.

Fortunately, the RM-Z450 already has a heritage of 29 world and national championships to build on, including five AMA 450 Motocross and two AMA 450 Supercross titles. To this winning history comes well-balanced engine, chassis and electronics, plus dramatic styling. The result? The most potent, balanced and competitive RM-Z450 yet.



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Image sketch

## Factory Styling

The RM-Z450 has a fresh look that enhances Suzuki's already distinctive design theme. The evolution starts with aggressive "Beak DNA," which projects a dynamic arrow form extending from the front fender through the radiator shrouds. Finished in Suzuki yellow with new team graphics and logos, the most potent RM-Z450 yet is recognizable at a glance. The styling refresh also extends to the seat shape, which makes moving between seated and standing positions easier, as well as shifting weight front or rear. And for racers, easier is always faster!



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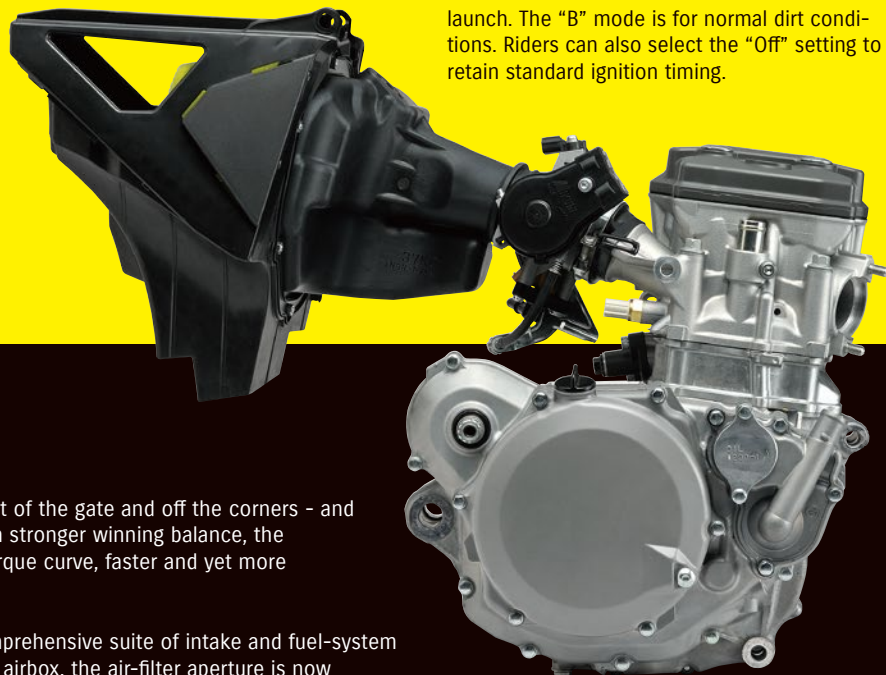
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## Heist the Holeshot

Watch any raceday motocross interview, and you'll invariably hear "get a good start" cited as a must-do proposition. And getting holeshots is exactly what the latest version of the Suzuki Holeshot Assist Control (S-HAC) is all about. An integral part of the RM-Z450's electronics package, the updated 3-stage S-HAC system assesses throttle position and gear selection, and then adjusts ignition timing to optimize engine output for fast launches.

Managing this at lightning speed, with no rider intervention, is nothing short of motocross engineering brilliance. By interpreting throttle and gear positions, S-HAC continuously alters the timing to maximize power delivery during the three critical stages of a start, including: 1) The exact moment of launch; 2) Getting over the gate; and 3) Accelerating up the start straight. Regardless of the rider, the track conditions, or whether the starting pad is dirt, mud or concrete, S-HAC automatically adapts to provide the quickest and strongest possible drive forward. The system returns the ignition timing to normal operation six seconds after launch, when the rider shifts into fifth gear, or when the throttle is closed, giving the rider ample time to bust out of the gate and toward the first turn.

Indicator light



## Power Everywhere

In motocross, you've got to get instantly hooked up - both out of the gate and off the corners - and also blisteringly fast down the straights. To give riders an even stronger winning balance, the RM-Z450 engine has more low-end torque, a flatter overall torque curve, faster and yet more controllable throttle response, and more peak power.

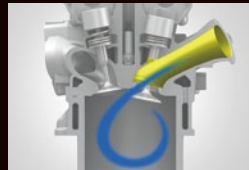
Injector



Throttle body



Intake-port



Piston



Intake camshaft



It's all due to a comprehensive suite of intake and fuel-system changes. Inside the airbox, the air-filter aperture is now 30-percent larger for enhanced airflow, and an MXGP-style mudguard helps keep mud and dirt out, contributing to greater engine durability. The outlet tube leading from the airbox to the fuel-injection throttle body is also straighter, reducing intake resistance for increased power across the rev range. The throttle body is likewise revised, providing a more uniform fuel-air mixture to further increase power while providing a smoother throttle feel. Increased fuel-pump pressure strengthens the air-fuel mix for enhanced response, and the elimination of a throttle linkage further improves throttle feel.

The fuel-injector spray path now aims fuel upward to hit the throttle butterfly valve directly for improved atomization. Inside the intake port, the shape is updated for improved tumble flow of the charge as it enters the cylinder, boosting power at all engine speeds. The intake-port shape is matched to a high-lift intake-cam profile, which further improves intake efficiency and engine output. Inside the combustion chamber, a piston-rib design adds strength and durability to match the engine's higher output. While an updated muffler conforms to the latest sound-control regulations. \*

\*For US specification conforms AMA-sports sound-control regulations. For European specification conforms FIM sound-control regulations.

The latest version of S-HAC included on the RM-Z450 gives riders a choice of three settings which can be quickly selected via a handle-bar-mounted switch. The "A" mode is programmed for hard surfaces, such as a concrete starting pad, clay or hard-packed dirt where controlling wheelspin is crucial to good starts. And the "A" mode algorithms are updated to provide even finer control as the throttle is being opened, giving the rider an even better feel for traction in the crucial initial moments of a launch. The "B" mode is for normal dirt conditions. Riders can also select the "Off" setting to retain standard ignition timing.

Outlet tube



Previous model (~2017)

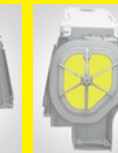
Air-filter aperture



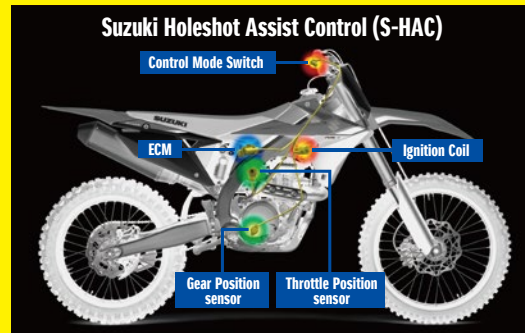
Previous model (~2017)



Current model (2018-)



Current model (2018-)



## Maximum Traction

The RM-Z450's electronic systems work seamlessly with the rider to get the power to the ground. To maximize traction for conditions, the engine control module (ECM) automatically adjusts ignition timing and fuel injection based on throttle position, engine speed and gear position. **The first RM-Z450 traction management** system debuted for 2008, and a revised **second-generation** system arrived for 2013. In the RM-Z450's **third-generation** traction management system, a revised ECU has fully 1.6-times faster data processing and 2.5-times more memory capacity than the first-generation system.



## Commanding Cornering

Lighter, more rigid and more agile, the Suzuki RM-Z450 gives riders sharper handling, better feel and more control than ever. Its lightweight frame, swingarm significantly improve turning performance, whether you're railing a berm or diving into the inside line. The head pipe point is relocated 10mm back, resulting in a shorter, 1,480mm wheelbase while the weight distribution forward for agility and stability.

Frame advancements include a more rectangular cross-section for the main spars, improved fore-aft rigidity and optimized overall rigidity, together with a 700g weight reduction. All of which directly increase cornering, shock-absorbing ability and handling stability. Swingarm upgrades include thinner materials for a 100g weight reduction and optimized rigidity, which translates to increase cornering and stability.

Additional chassis upgrades include seat rails with hexagonal tubing for slimmer

Frame



Previous model (~2017)

Current model (2018~)

dimensions and better rigidity. The revised seat-rail shape also allows more airbox capacity and easier air-cleaner service access, while allowing room for the RM-Z450's Showa Balance Free Rear Cushion (BFRC) shock. In the cockpit, a straighter bend for the Renthal Fatbar aluminum handlebar helps riders shift their weight forward for improved cornering. And finally, a lighter chain guide provides more even contact and higher durability, while an engine protector shields the water pump and magneto cover from potential damage.

Seat rail



Previous model (~2017)

Current model (2018~)

Handlebar



Chain guide



## Rims and Rubber

Lighter wheel rims and Bridgestone tires maximize grip for improved agility and control in a wide range of track conditions. Finished in durable black for a factory look, the rims have an optimized cross section, which maintains strength while also reducing critical rotating mass by 70g total. Tires are Bridgestone's latest Battlécross X30. Developed exclusively for a wide range of conditions, the front 80/100-21 51M and rear 110/90-19 62M knobbies help maximize performance in motocross race track.

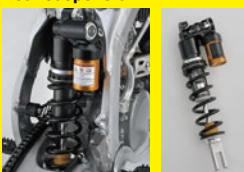


## Advanced Suspension

Showa front and rear suspension delivers improved responsiveness and terrain following, enhanced ability to absorb forces, better chassis stability, feedback and terrain feel, and improved comfort. The rider payoff is improved control, quicker lap times and less fatigue under hard training or racing conditions.

Up front, an updated Showa coil-spring fork replaces the SFF-Air fork of the previous-generation RM-Z450. It features ease of daily maintenance for wide range of customers. The upper triple-clamp is also lighter with optimized dimensions. While in back, Showa Balance Free Rear Cushion (BFRC) shock shares technology with the GSX-R1000R sportbike. The design balances pressure above and below the piston to better control the stroke and smooth out reactions to bumps and chop, even under severe braking.

Rear suspension



Front forks upper bracket



Front forks



RM-Z250



RM-Z450

# Quicker. Faster. Higher. Harder.

Motocross is a relentless game, and the technology and training needed for bike and rider to excel are too. Suzuki poured more than 40 years of open-class racebike engineering into the RM-Z450 to make it the hardest-hitting, sharpest-handling, best-balanced and most rider-friendly production motocrosser in company history. Now get out there and own it.

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