PRESS INFORMATION

October 2023

V-STROM 800

INDEX

The V-STROM series evolves yet again to bring even greater comfort and freedom to adventure touring

With the introduction of the V-STROM 800, Suzuki is expanding the V-STROM series to now offer adventure loving riders another new option from which to choose. This follows on the launch of the V-STROM 800DE in 2022 and proudly carries on the heritage of excellence first established by the original V-Strom 1000 in 2002.

The V-STROM 800 represents a new entry into the mid-size adventure category. While the V-STROM 800DE was specialized to excel at riding on gravel and other loose road surfaces, the V-STROM 800 evolves the chassis in the direction of providing maximum comfort and performance for long-distance touring and high-speed riding. Highly capable at highway speeds or when exploring less travelled routes, it is equally as enjoyable and practical to ride daily around town for work and play.

The V-STROM 800 features Suzuki's parallel twin 776cm^3 DOHC 4-valve-per-cylinder engine, a rugged steel frame, and suspension tuned to maximize straight-line stability and cornering performance. Every aspect of the design is geared to deliver a satisfying experience to riders who desire more power than offered by the 650cm^3 class and who desire the ability to tour comfortably, no matter how far or wide they wish to journey.

The chassis and free-revving engine respond faithfully in a nonassertive fashion that makes the rider's style and preferences the focus of riding pleasure on every outing. Riders can easily tap its full potential and enjoy a pure riding experience they will continue to enjoy for many years. The new V-STROM 800 is ready to enrich the lives of its owners and serve as a dependable partner, wherever its rider wishes to go.

All Roads Merge

The product concept “All Roads Merge” intends to convey how the new V-STROM 800 was developed as a versatile adventure bike that excels on various types of roads. The V-STROM 800 performs brilliantly on different surfaces, providing riders with a satisfying sense of freedom to confidently explore whatever form of adventure riding they please. The concept also suggests how the harmonious mating of the V-STROM 800’s parallel twin engine, chassis layout and styling delivers the power, agility, control and comfort to merge all roads into one exhilarating adventure.

The V-STROM 800 instantly sends the message that it is a capable long-distance tourer destined to usher in an exciting new era of sport adventure riding, and it instantly conveys a thoroughly modern interpretation of sophisticated adventure styling. Highlight features beyond Suzuki’s parallel twin engine and optimized chassis layout include the model’s uniquely shaped aluminum swingarm, four-piston radial-mount front brake calipers, inverted front forks, rear suspension with hand-adjustable spring preload and new 7-spoke cast aluminum wheels shod with a 19-inch front and 17-inch rear tire. They also include advanced electronic rider assist systems such as Suzuki Drive Mode Selector, the Suzuki Traction Control System, Suzuki’s Bi-Directional Quick Shift system, a two-mode antilock braking system and the Ride-by-Wire Electronic Throttle System. Other features include the V-STROM 800’s tall height-adjustable windscreen, LED lighting and a color TFT LCD multifunction instrument panel.

The V-STROM 800 builds on the solid reputation earned by other models in the V-STROM family, yet offers something different for riders seeking advanced features and the best balance of comfort, performance and handling for a wide range of uses, whether riding around town in daily use or heading out to explore new destinations.

KEY PRODUCT FEATURES

Engine Features:

- 776cm^3 parallel twin DOHC engine delivers a fine balance of smooth, controllable power from low rpm and the pleasant feeling of free-revving performance through to the high end.
- Tenacious staying power at extremely low speeds makes the V-STROM 800 easier to control on forest roads and trails.
- The 270-degree crankshaft configuration provides power delivery characteristics and a pleasing sound similar to that of the model's V-twin brethren.
- The Suzuki Cross Balancer is a patented biaxial primary balancer that contributes to smooth operation and a compact, lightweight engine design.
- Long-reach iridium spark plugs help enhance combustion efficiency.
- Cooling system inlet control helps maintain consistent engine temperature and eliminate rough idle while warming the engine in cold weather.
- The electronic throttle bodies help achieve faithful response and a linear feeling to throttle action.
- The 2-into-1 exhaust system features a dual-stage catalytic converter inside the collector that helps satisfy Euro 5 emissions standards, and a long, upswept muffler.
- The six-speed transmission realizes smooth shifting and improved controllability.
- Suzuki Clutch Assist System (SCAS) helps reduce fatigue on long rides and contributes to smoother shifting.

SUZUKI Intelligent Ride System (S.I.R.S.) Features:

- Suzuki Drive Mode Selector (SDMS) better supports the rider in matching performance to the conditions of the riding scene, road conditions, or preferred riding style.
- Suzuki Traction Control System (STCS) with 3 mode settings (+ OFF) enables greater control over the bike's behavior under diverse riding conditions.
- Suzuki's ride-by-wire electronic throttle control system realizes throttle action that responds faithfully to the rider's every intention.
- Suzuki's Bi-directional Quick Shift System (with ON/OFF settings) provides quicker, smoother, more assured shifting, without operating the clutch lever while in motion.
- The ABS system contributes to stable braking and features a choice of two mode settings for differing road conditions.
- The Suzuki Easy Start System starts the engine with one quick press of the starter button.
- Suzuki's Low RPM Assist function helps maintain engine idle speed for smoother and easier starts.

Chassis Features:

- The rugged steel frame developed for the V-STROM 800 contributes to comfort and straight-line stability, when touring for long distances, and to nimble handling.
- The narrow-profile seat rails are engineered to withstand the optional top and side cases mounted.
- Hitachi Astemo (SHOWA) SFF-BP* (Separate Function Fork – Big Piston) inverted front forks deliver a smooth, controllable ride and the front suspension is tuned to provide optimum performance.
  *SFF-BP is a registered trademark of Hitachi Astemo, Ltd.
- Adjustable Hitachi Astemo (SHOWA) rear suspension contributes to agility and stability. The spring preload can be adjusted easily by hand, which is beneficial when preparing to ride tandem or carry a load.
- Dual four-piston radial-mount front disc brake calipers act on ø310mm discs to provide sure stopping power and controllability.
- New 7-spoke cast aluminum wheels are sized for optimal touring performance, designed for strength and feature a distinctive “V” shape on each of the spokes.
- New Dunlop D614F/D614 tires engineered exclusively for the V-STROM 800 feature a new tread pattern and custom-engineered internal structure.
- Adopts a uniquely shaped lightweight aluminum swingarm with enhanced torsional rigidity that contributes to straight-line stability and nimble handling.
- The fuel tank features a large 20L capacity that helps deliver superior touring range.
- Tapered handlebars made of a strong yet flexible aluminum are positioned to contribute to a comfortable riding position.
- The solid-mount rider seat is designed to maximize comfort and minimize fatigue, even when touring long distances, and to allow freedom of movement.
- The riding position is comfortable and provides plenty of room, even when riding tandem with the optional top and side cases mounted. The design also enables the rider to shift their weight forward for greater control when exiting corners or riding on loose surfaces.
- Rubber-covered aluminum footpegs provide sure footing and comfort on long rides.
- The height-adjustable windscreen is designed to protect the rider from buffeting when touring at higher speeds and enhance comfort on long rides.
- Rear carrier with grab bars makes it easier to load gear or mount the optional top case.

Electric Equipment Features:

- A custom 5-inch color TFT LCD multi-function instrument panel features a clearly legible display of a rich variety of information.
- Vertically stacked LED headlights in hexagonal housings topped by an LED position light provide a clear view of the road ahead and create a sharp look with bold presence.
- Compact LED position lights, turn signals and taillight ensure clear visibility and practical durability.
- A USB port is built into the left side of the meter cluster as standard equipment.

Styling Features:

- Styling for the V-STROM 800 aims to set a trend that ushers in a new era of functional beauty and symbolizes the future of Suzuki design, even as it pays full respect to the distinctive features of its V-STROM heritage.
- Stays true to the Suzuki design ethos of creating unique styling expressions that gave birth to the distinctive character of the V-STROM series.
- The distinctive front “beak” visually conveys a thoroughly modern look and the model’s all-round capabilities, while also staying true to its V-STROM design heritage.
- The bodywork features flat surfaces with sharp lines that emphasize the model’s look of sophisticated toughness.
- The tall windscreen, cast aluminum wheels and 19-inch front tire convey at a glance that the V-STROM 800 is equipped with distinctive equipment features designed to make long-distance touring more comfortable.
- Sharp, understated lines on the cowling pieces and front beak convey the appeal of modern styling, while subtle application of lettering and numbers help emphasize functional beauty.
- Riders can choose from trio of body colors carefully chosen to convey the appeal of the V-STROM 800’s distinctive character and accentuate its functional beauty.

3. KEY COMPARISON

<Purpose-specific features to make the V-STROM 800 comfortable for long-distance touring and the V-STROM 800DE highly capable on gravel.>

V-STROM 800

V-STROM 800DE

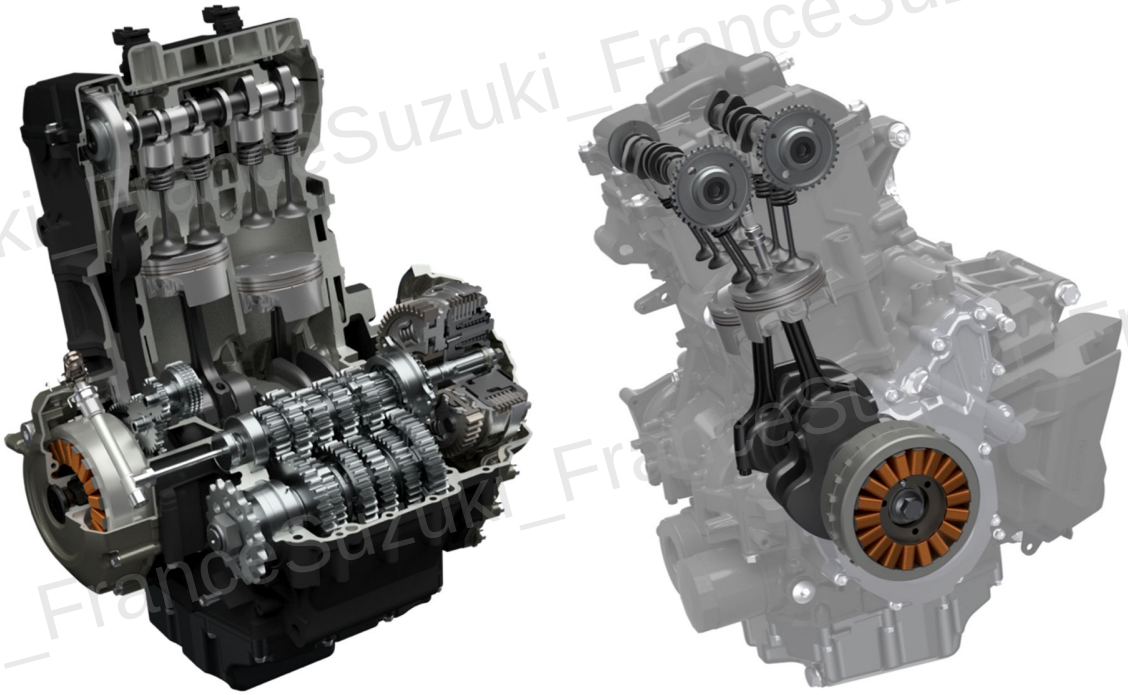
No.	Features	V-STROM 800	Benefit	V-STROM 800DE	Benefit
1	Windscreen	Tall	Reduce fatigue on long rides	Short	High visibility on gravel roads
2	Beak design	Exclusive design	Solid, tough look	Exclusive design	Slim, sharp look
3	Front brakes	Dual four-piston radial-mount calipers	On-road performance	Dual axial-mount calipers	Braking performance on gravel
4	Wheels	Cast aluminum	On-road performance and freer design expression	Wire-spoked	Well suited to gravel riding
5	Front tire	19-inch tubeless	On-road performance	21-inch tube type	Better control on gravel roads
6	Rear tire	Exclusively designed 17-inch tubeless	On-road performance	Exclusively designed 17-inch tube type	Better control on gravel roads
7	Front suspension stroke	150mm	Controllability and on-road performance	220mm	Longer stroke performs better on gravel
	Front suspension adjustments	Adjustable spring preload	Can be adjusted to match the preferences or riding conditions	Adjustable spring preload and compression/rebound damping	Can be adjusted to match the preferences or riding conditions
8	Rear wheel travel	150mm	Controllability and on-road performance	220mm	Extra travel for better performance on gravel
	Rear suspension adjustments	Hand-adjustable spring preload, Adjustable rebound damping	Beneficial when preparing to ride tandem or carry a load	Hand-adjustable spring preload, Adjustable rebound compression/damping	Beneficial when preparing to ride tandem or carry a load
9	Ground clearance	185mm	Adequate for on-load and long touring	220mm	Suitable for gravel riding
10	Seat height	825mm	Easier to plant feet on the ground	855mm	Optimized for gravel riding
11	Front fender	–	–	Three-piece construction	Enhances look of toughness
12	Handlebars	Tapered, narrower grip, forward positioning	Good on-road riding position	Tapered, wider grip and closer positioning	Better control on gravel
13	Under cover	Genuine accessory	Protects engine and enhances look of toughness	Standard equipment	Protects engine and enhances look of toughness
14	Radiator guard	–	–	Standard equipment	Protects against flying stones and other objects
15	Knuckle covers	Genuine accessory	Protects hands from elements	Standard equipment	Protects hands from elements
16	Footpegs	Rubber-covered aluminum	Comfort for long touring	Wide, rubber-covered steel	Stability when standing and tough looking

An Engine Built to Go the Distance

Creating the adventure tourer for a new era began with designing an engine. Suzuki's first goal was to design a slim, compact powerplant that would expand the possibilities for overall design flexibility and help realize the most effective chassis geometry for performance gains. That includes realizing an optimum riding position that is comfortable when out touring for long distances. The second goal was to deliver dynamic go-anywhere performance that riders would find easy to control and smooth running, even when carrying luggage. The engine had to provide plenty of torque and power, yet must also feature smooth throttle response that is easy for even novices to control. Overall, it must fill the rider's personal adventuring experience with fun, even when carrying a passenger and luggage.

With these objectives in mind, Suzuki designed the parallel twin 776cm^3 DOHC, 4-valve-per-cylinder engine. This powerplant helped achieve the first goal, as it features a compact front-to-rear size that enabled us to optimize weight distribution and chassis geometry, and also to move the rider's hip point forward and achieve optimal riding position. The engine also delivers a fine balance of smooth, controllable power from low rpm and the pleasant feeling of free-revving performance through to the high end. And it demonstrates tenacious staying power at extremely low speeds, which makes the V-STROM 800 easy to control in traffic or when exploring roads with loose surfaces that catch the rider's interest while out touring.

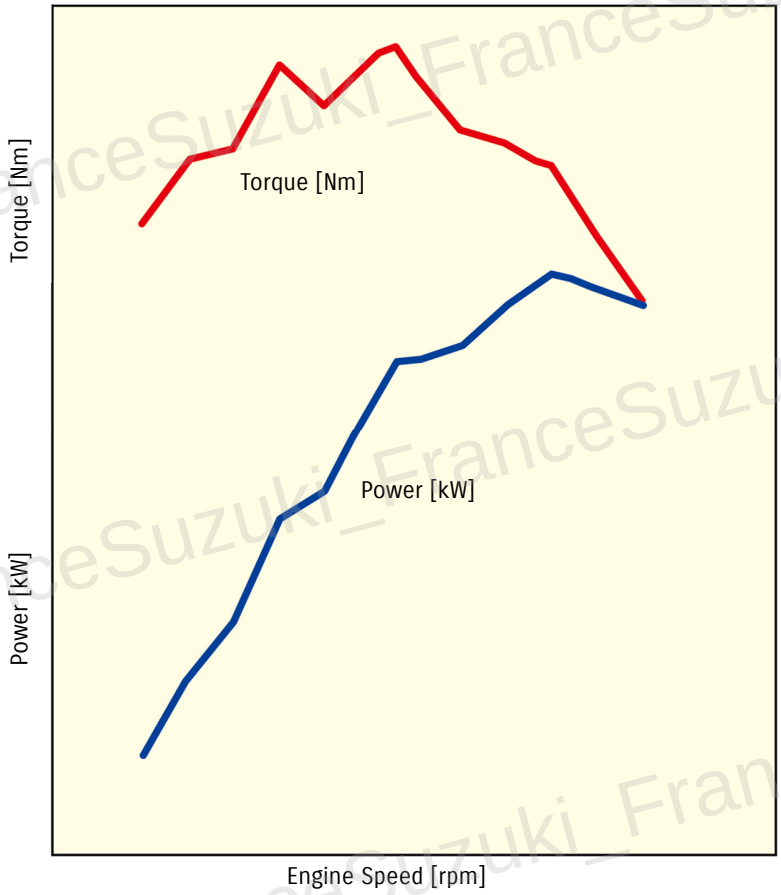
The engine features a 270-degree crankshaft design, which delivers a smooth ride with plenty of torque, positive traction, and a pleasing rumble. It also introduces the Suzuki Cross Balancer, an innovative primary balancer design that contributes to smooth operation and helps achieve the compact and lightweight package that enhances the V-STROM 800's nimble handling. Additionally, the long, upswept muffler is striking to look.



776cm^3, 4-stroke, 2-cylinder, Liquid-cooled, DOHC, Parallel Twin Engine

Engine type	4-stroke DOHC parallel twin
Cooling system	Liquid-cooled
Displacement	776cm^3
Bore x Stroke	84.0mm x 70.0mm
Maximum output	62kW/8,500rpm
Maximum torque	78Nm/6,800rpm
Emissions level	Euro 5
Fuel consumption	22.7km/L (4.4L/100km) in WMTC

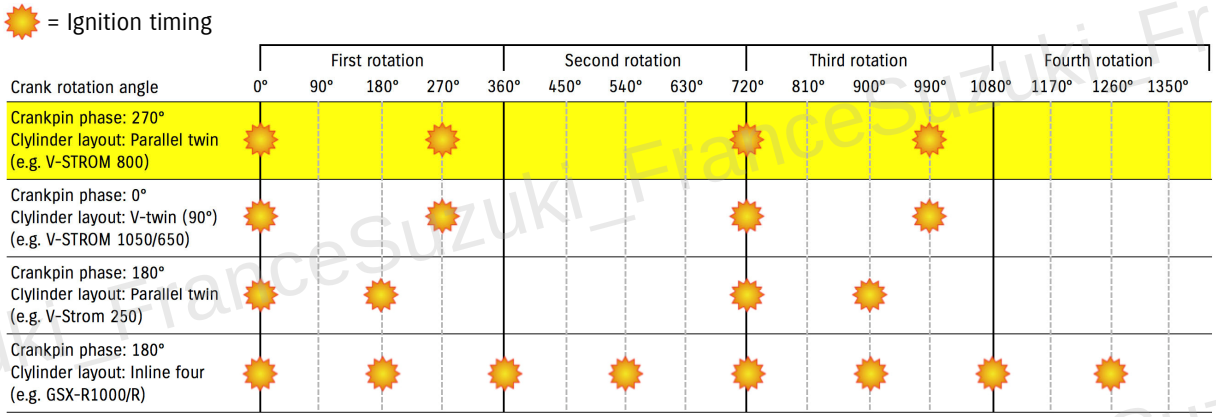
Note: Actual fuel consumption may differ owing to conditions such as the weather, road, rider behavior and maintenance.



Engine Performance Curve

270-degree Crankshaft

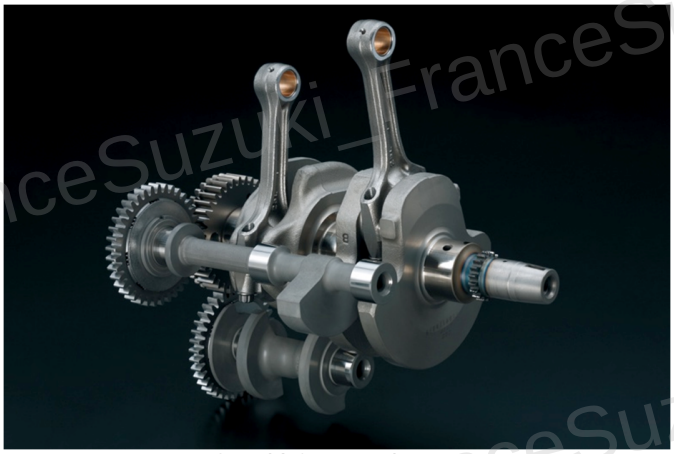
The ignition timing of the engine's 270-degree crankshaft layout is the same as that on the (90°) V-twin engines Suzuki has been developing and evolving for many years. That means it produces the same pleasing rumble and sound for which V-twins are favored.
In addition, the 450 degrees of crank revolution between cylinder firings, (between 270° and 720° in the chart below), extends the time between power pulses and gives the rear wheel the time it needs to regain traction. This is particularly beneficial when powering out of corners or riding on loose surfaces.



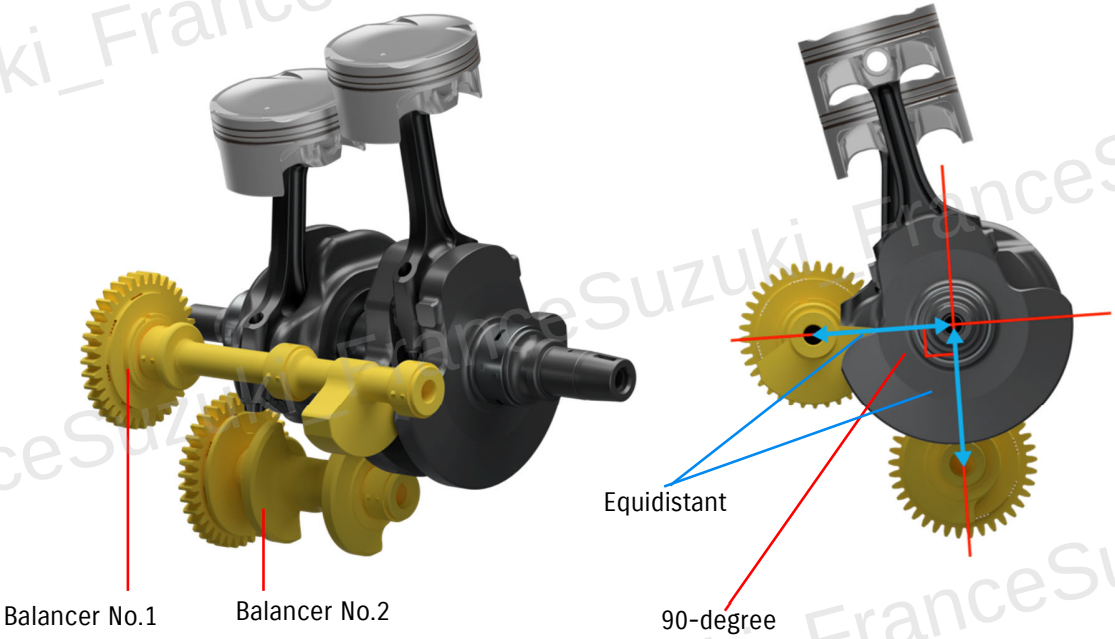
Suzuki Cross Balancer

The engine introduces Suzuki Cross Balancer. This patented biaxial primary balancer positions its two balancers at 90° to the crankshaft*1. This patented mechanism suppresses vibration to contribute to smooth operation, and it also helps realize a lightweight powerplant that is more compact from front to rear.
Balancer No.1 cancels the primary vibration generated by the piston (reciprocating weight) of the first cylinder, while balancer No.2 cancels the primary vibration of the second cylinder. Adopting a 270-degree crankshaft angle cancels secondary vibration, contributing to even smoother engine operation. Furthermore, placing the two balancers at 90° to the crankshaft with each positioned equidistant from the crankshaft cancels primary couple vibration.

*1: Patent granted for biaxial primary balancer that positions its two balancers at 90° to the crankshaft.



Suzuki Cross Balancer



Suzuki Cross Balancer

Pistons and Connecting Rods

The engine employs forged pistons engineered using FEM (Finite Element Method) analysis to maximize strength and minimize weight, despite the engine's 84mm bore. Conical machining inside the wrist pin holes transfers load and mitigates stress transferred to the crowns, so contributes to enhanced durability.
The connecting rods also feature the reliability and high level of technical prowess for which Suzuki is known. This is backed up by thorough analysis conducted to ensure a balance of weight and rigidity, and to stabilize the rods' behavior during stroke action.

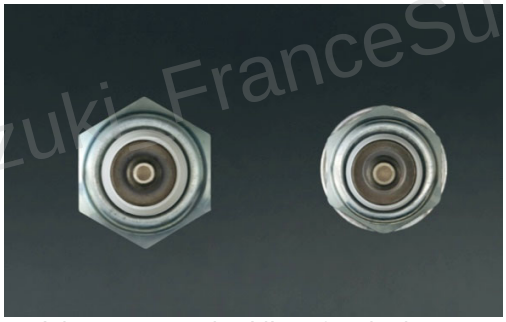
Suzuki Composite Electrochemical Material (SCEM)

The cylinder bores inside the aluminum die-cast cylinders are plated using Suzuki's SCEM process. Originally developed for racing and proven on the track, the SCEM cylinder promotes better heat dissipation, reduces friction and achieves a consistent wear resistant seal on the piston rings for greater durability.

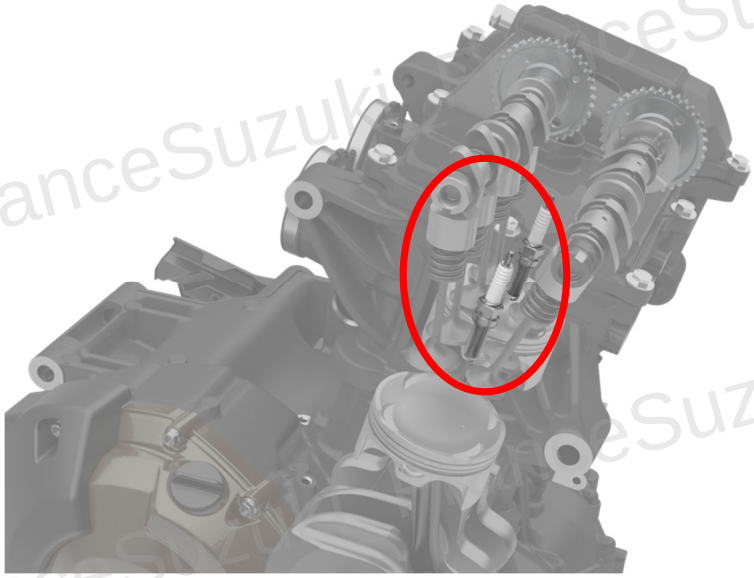
Long-reach iridium spark plugs

Long-reach iridium spark plugs bring a number of benefits. Firstly, their extended length makes it easier to secure a cooling channel around the plug, leading to improved cooling performance. Secondly, their diameter is thin enough that they contribute to optimizing the combustion chamber layout. And thirdly, they leverage the strong spark characteristics of iridium plugs to aid combustion efficiency, while also contributing to greater fuel economy.

Right: Long-reach Iridium Spark Plug
Left: Conventional Iridium Spark Plug



Right: Long-reach Iridium Spark Plug
Left: Conventional Iridium Spark Plug



Position of Long-reach Iridium Spark Plugs

Ride-by-Wire Electronic Throttle Bodies

The two cylinders are fed by a pair of linked 42mm bore electronic-controlled throttle bodies. Accelerator position sensor play is optimized to deliver the best balance of performance for both daily on-road use and the demands of adventure touring.

High-Pressure Fuel Injectors

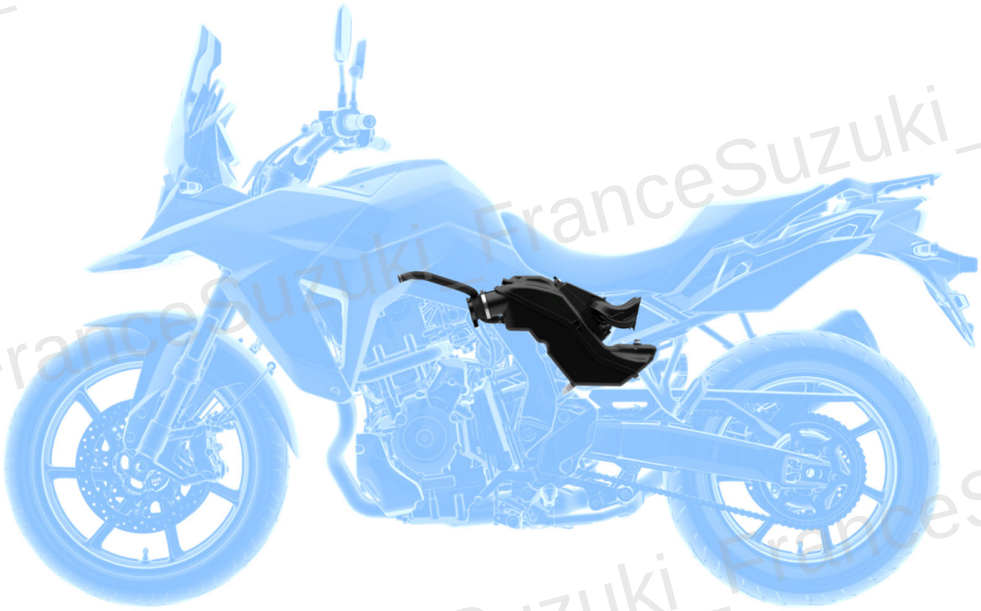
The V-STROM 800 employs 10-hole, long-nosed, 343kpa high-pressure-feed fuel injectors that maximize fuel atomization for better combustion efficiency and lower fuel consumption.

Transmission

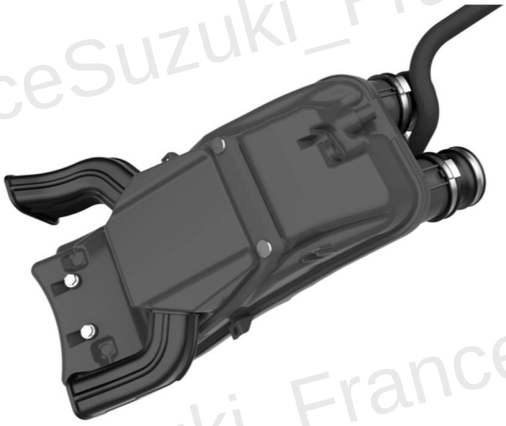
The six-speed transmission adopts gear ratios that deliver smooth shifting and exciting acceleration, whether shifting normally or using the standard-equipment Bi-directional Quick Shift system to shift without clutch operation.

Air Cleaner Box

The 6.0L air cleaner box and intake pipe designs are optimized using CAE analysis to maximize power output characteristics and torque production at low rpm. To contribute to the realization of a slim and compact chassis design and enhance the freedom of rider movement, the box adopts a compact design and is positioned under the seat. Even so, the intake is optimized, using different lengths for the left and right pipes, which helps secure adequate flow to derive maximum power output.



Position of Air Cleaner Box



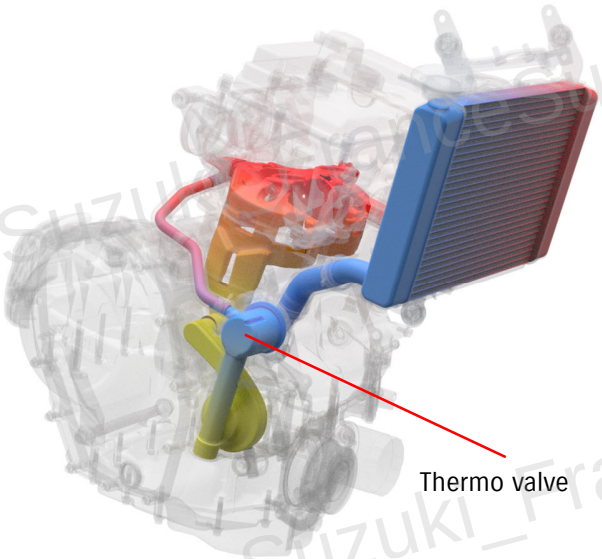
Air Cleaner Box (outside)

Air Cleaner Box (inside)

Highly Efficient Cooling

The radiator boasts high cooling capacity to support the parallel twin engine's powerful output. A cooling fan helps stabilize the coolant temperature.

Cooling water inlet control contributes to early stabilization of water temperature during engine warm-up. Since a thermo valve located at the inlet of engine cooling circuit, adjusts the temperature, before the coolant enters the engine, there is less temperature fluctuation during warm-up. This helps stabilize combustion and contributes to cleaner exhaust gas.

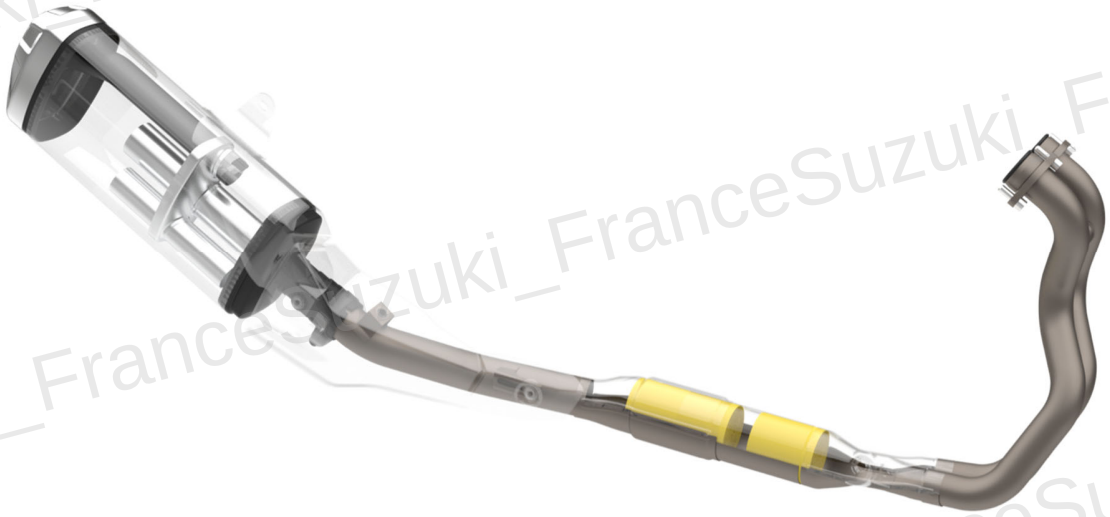


Cooling System Inlet Control

The V-STROM 800 is also equipped with a lightweight, compact liquid-cooled oil cooler that helps keep lubrication temperatures cooler for even smoother and reliable engine operation.

Exhaust System

The 2-into-1 exhaust system for the V-STROM 800 is designed to produce a pleasing note that befits the parallel twin engine, whether enjoying a long touring run at highway speeds or heading down camp trails at low rpm. Better yet, the two-stage catalytic converter inside the collector helps limit emissions to a level that satisfies Euro 5 standards, while at the same time maximizing power output and overall performance.



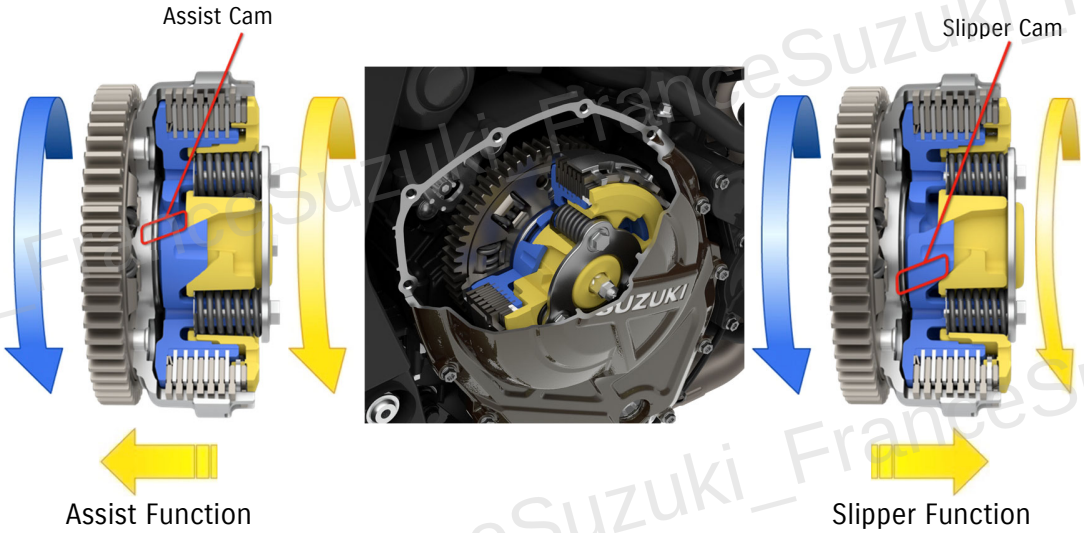
Exhaust System

Suzuki Clutch Assist System (SCAS)

The assist function leverages precision-engineered ramps to force the clutch boss and pressure plate together and efficiently transfer torque to the rear wheel under acceleration, all while using softer clutch springs.

The slipper clutch partially disengages when downshifting to decelerate to mitigate the effect of engine braking. By helping to prevent the rear tire from hopping and providing smoother deceleration, this function enables the rider to shift down with greater confidence and maintain better control.

Suzuki Clutch Assist System Cam Operation Diagram

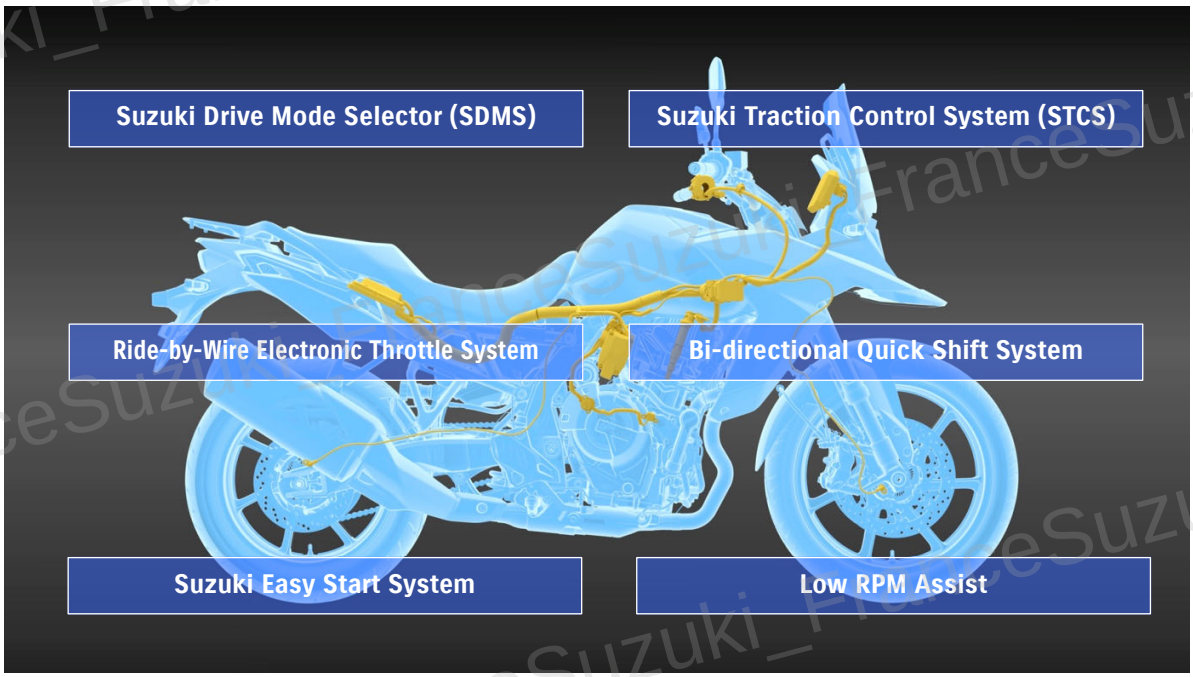


Introduction

The Suzuki Intelligent Ride System (S.I.R.S.) features a collection of advanced electronic rider assist systems. The rider can freely choose the settings for each system to best suit their level of skill and experience, and to optimize performance characteristics for the riding conditions and road surface at any given moment. These settings in turn help make the V-STROM 800 more controllable, predictable, and less tiring to operate when touring for long distances or riding around town on a daily basis. With each system designed and thoroughly tested to operate the way the rider expects, S.I.R.S. helps realize a more exciting riding experience that inspires confidence and frees riders to concentrate on enjoying their adventures.

The robust collection of advanced S.I.R.S. electronic systems employed by the V-STROM 800 include the Suzuki Drive Mode Selector (SDMS), Suzuki Traction Control System (STCS), Ride-by-Wire Electronic Throttle System, Bi-directional Quick Shift System, Suzuki Easy Start System, Low RPM Assist and Two-Mode Antilock Braking System.

Suzuki Intelligent Ride System (S.I.R.S.)

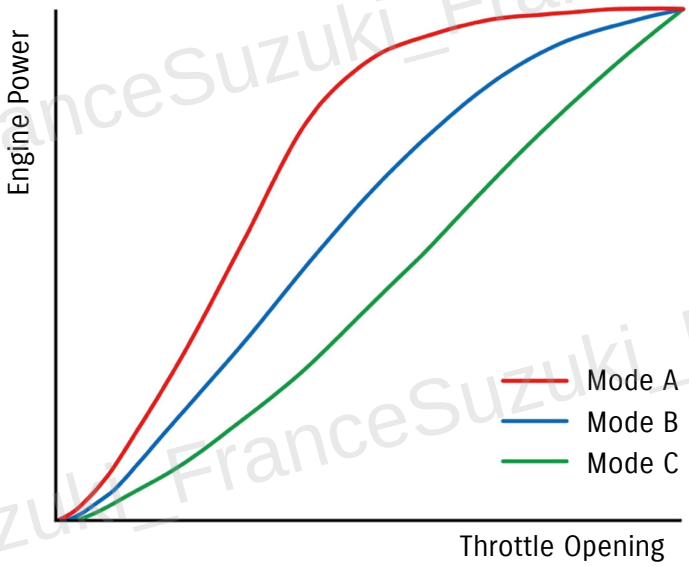


(1) Control over Engine Output Characteristics

Suzuki Drive Mode Selector (SDMS)

SDMS fully leverages the electronic throttle control system to offer a choice between three modes that deliver different power characteristics — especially when turning the throttle grip between a slightly open position to when it reaches the top of the mid-speed range under acceleration — to match the conditions of the riding scene, surface conditions, or preferred riding style for any given outing. The settings for each mode were custom-tuned and thoroughly tested to maximize the V-STROM 800's capabilities as a top-performing sports adventure tourer, to build in the flexibility to adapt well to changing weather, road and riding conditions, and to make the overall riding experience more enjoyable.

Power Delivery Image by Mode



Mode A (Active) provides the sharpest throttle response as the throttle is opened. Settings for torque characteristics are tuned to deliver exciting acceleration and fully leverage the engine's power. It is well suited for enjoying aggressive runs on winding road surfaces in good weather.

Mode B (Basic) reaches the same level of maximum output, but features a more linear curve with softer throttle response. Planned as an ideal setting for touring, this mode aims to make the bike more controllable and instill confidence in the rider when accelerating, and to make a good fit for a wide range of riding styles and road conditions.

Mode C (Comfort) provides the softest throttle response and more gentle torque characteristics, which makes the V-STROM 800 more obedient and controllable as the throttle is opened. This is particularly beneficial when touring for long distances, when riding with a passenger, when riding on wet or otherwise slippery surfaces, when road conditions are bad, or even when the rider wants to relax and enjoy a ride home after a long outing.

(2) Control over Engine Acceleration Characteristics

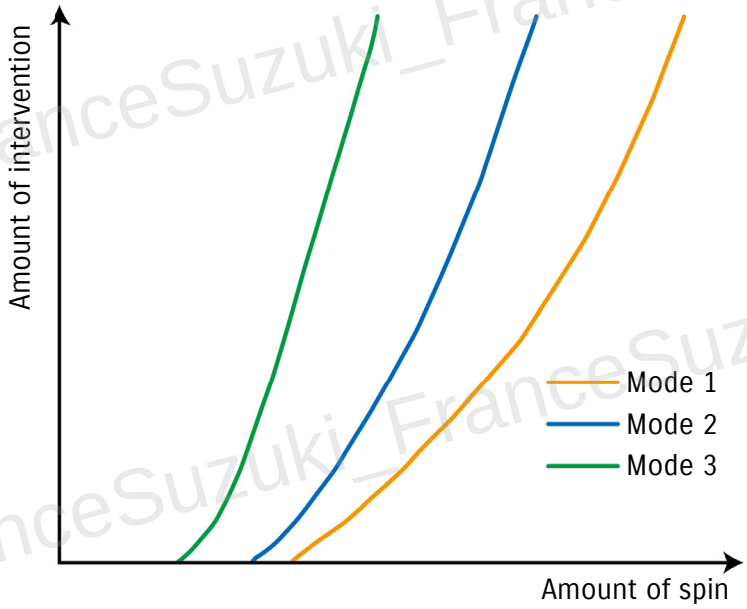
Suzuki Traction Control System (STCS)

STCS for the V-STROM 800 enables the rider to better control the bike in diverse and varying conditions, whether riding alone or with a passenger, carrying a load of gear, or riding in inclement weather. STCS not only reduces stress and fatigue but, by giving the rider greater control over the bike's behavior, it instils greater confidence regardless of their experience level.

The rider can select from 3 modes or turn the system off. The higher number the mode, the faster the control takes effect and the more proactive the system is in limiting wheel spin. As such, Mode 1 is for sport riding with minimal intervention from the system. Mode 2 offers a balance that is ideal for city riding and regular road conditions. And Mode 3 is well suited to wet or otherwise slippery road conditions.

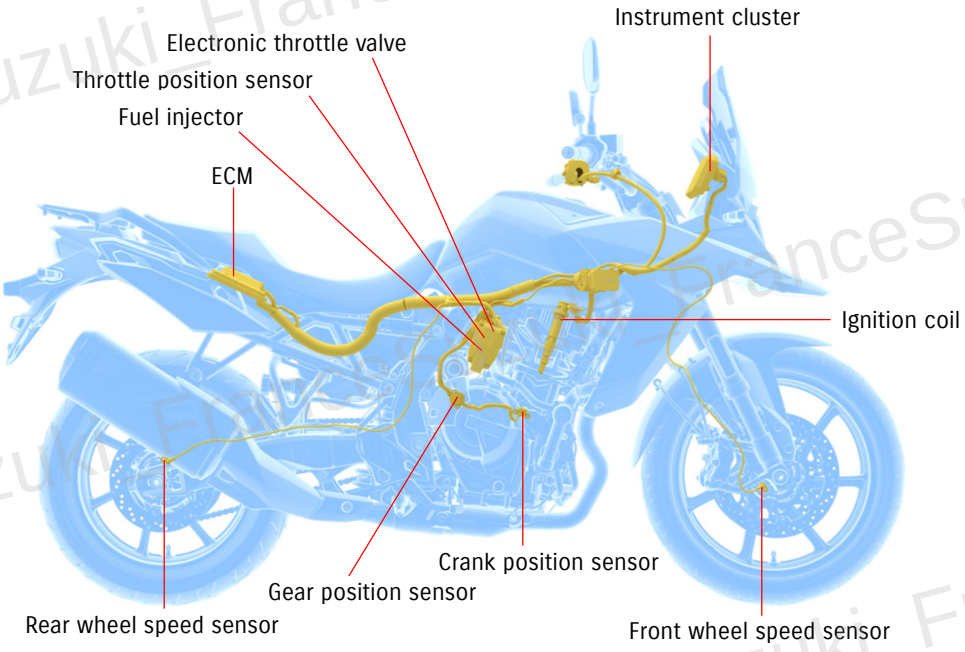
The system is programmed to continuously monitor front and rear wheel speed, engine RPM (as calculated using data from the crank position sensor), throttle position and gear position. It is designed to immediately limit power and help prevent slipping when an imminent loss of traction is detected by retarding the ignition timing and limiting the throttle opening.

Image of Intervention by Mode



Note: Traction Control System is not a substitute for the rider's throttle control. It cannot prevent loss of traction due to excessive speed when entering turns, or while braking. Nor can it prevent the front wheel from losing traction.

Suzuki Traction Control System Overview Diagram



(3) Control over Engine Operations

Ride-by-Wire Electronic Throttle System

Suzuki's electronic throttle control system takes advantage of the ECM to control the action of the throttle valves and make it possible for settings to more finely control the relationship between throttle action and engine output characteristics. One benefit is precision control over throttle body action to optimize operation of each mode setting for the Suzuki Traction Control System and SDMS to produce a riding feel best matched to the specifications and performance characteristics of the V-STROM 800.

Throttle grip action is set to maximize controllability, with the faithful response of linear control. This setting also makes throttle action feel more natural to riders not yet accustomed to systems that do not employ a mechanical cable. Adding to the benefits, the system is simpler and more compact than conventional mechanical systems and eliminates cables that would otherwise add clutter to the right side of the handlebars.

Bi-Directional Quick Shift System

The Bi-directional Quick Shift System enables the rider to shift up or down without operating the clutch lever while in motion. As standard equipment on the V-STROM 800, this distinctive feature is one the rider will find enhances the riding experience the minute they try it. And they will immediately feel the benefits of reduced fatigue and not missing shifts.

When activated, the system produces a smoother experience when the rider shifts up by automatically interrupting power delivery when accelerating or maintaining steady speed just long enough to unload the transmission gear dogs. When decelerating, the system automatically opens the throttle valves just enough to increase rpm and match engine speed to the next-lower gear ratio without manually blipping the throttle or using the clutch. This hands-free automatic blipping function combines seamlessly with engine braking to create a highly satisfying experience. While the ECM is programmed to control the electronic throttle valves and ignition timing to match the engine's operating speed and enable smooth shifting at any RPM, the gear shifting mechanism is optimized to provide a solid click with each shift that assures the rider a satisfying feeling that the gearbox has responded immediately to their action.

Suzuki Easy Start System

This system lets the rider start the motorcycle with one quick press of the starter button. There is no need to pull in the clutch lever when the transmission is in neutral, and the starter motor automatically disengages the instant the engine fires up. As a function used every time the engine is started, removing the bother of the above operations makes the riding experience more pleasurable and convenient.

Low RPM Assist

Suzuki's Low RPM Assist function monitors engine rpm, gear position, throttle position, and clutch switch data as the rider releases the clutch lever to pull away from a standing start, or when riding at low speeds. It is programmed to help prevent engine speed from dropping excessively as the rider launches the bike to ensure smoother starts. It also promotes more confident riding by helping counteract drops in engine speed when riding in stop-and-go traffic, or when doing U-turns.

(4) Control over Braking

Two-Mode Antilock Braking System (ABS)

The antilock braking system (ABS) contributes to stable braking by helping prevent the wheels from locking up, even under hard braking. Programmed to monitor wheel speed and match stopping power to the available traction, the system offers two mode settings. Mode 1 provides minimal intervention. In contrast, Mode 2 intervenes more proactively. The ABS control unit has a compact, lightweight design that helps make the bike nimble.

Note: ABS is not designed to shorten the braking distance. ABS cannot prevent wheel skidding caused by braking while cornering. Please drive carefully and do not overly rely on ABS.

Supporting Technologies

Controller Area Network (CAN bus)

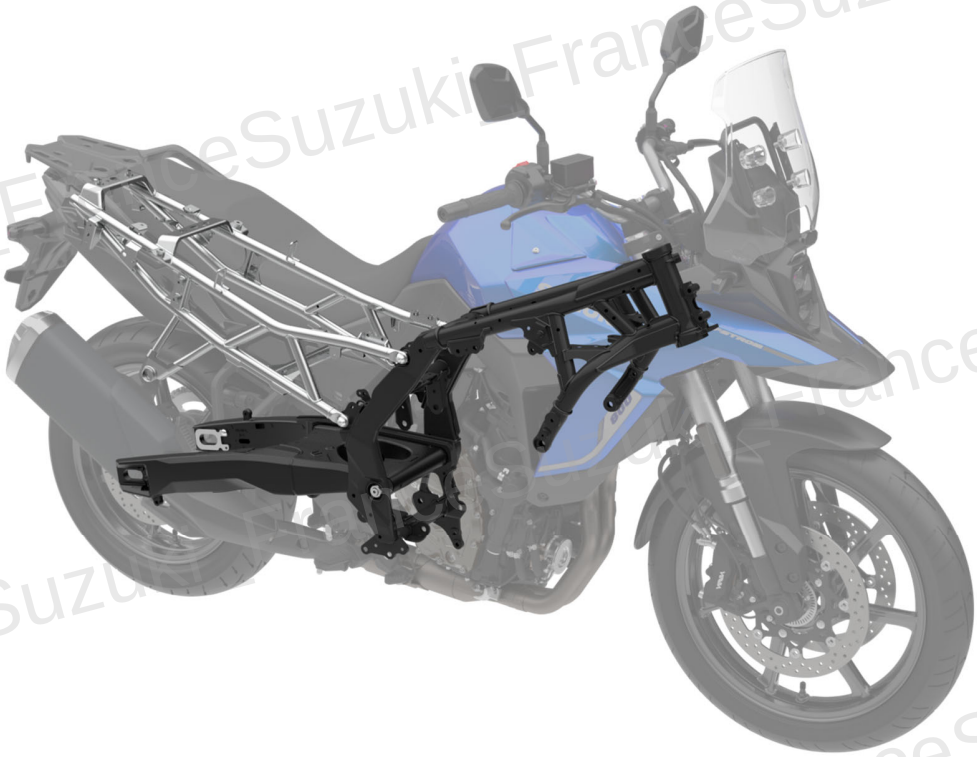
The V-STROM 800's robust CAN bus reduces the number of wires required by the harness, so contributes to reducing weight.

Engine Control Module (ECM)

A dual-core processor ECM provides optimal engine management that contributes to the operation and optimization of critical systems, including those to comply with Euro 5 emissions standards.

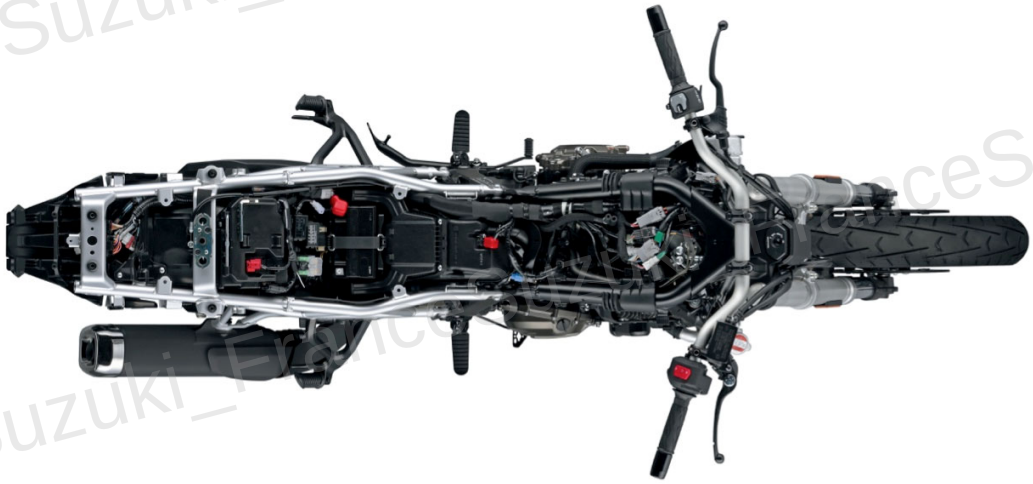
Engineered for Touring Comfort and Everyday Convenience

The goal was to design a compact, lightweight chassis engineered to maximize agility, comfort, utility, and riding pleasure. One target set by the development team demanded the chassis would contribute to comfort when touring for long distances, to great cornering performance and to providing sure and stable handling under all riding environments. The chassis also had to deliver reassuring straight-line stability when riding at highways speeds, even when carrying a passenger and when the bike is fitted with the genuine-accessory top and sides cases and loaded with gear.



Every aspect was planned to reflect a focus on great handling and control in a wide range of real-world riding conditions, on supporting the high-performance parallel twin engine, and on maximizing comfort while minimizing fatigue when touring for long distances. These features are critical in helping to establish the V-STROM 800's identity as a top-performing adventure tourer that is equally adept in daily on-road use as it is when riding at highways speeds or negotiating winding roads while enjoying an outing.

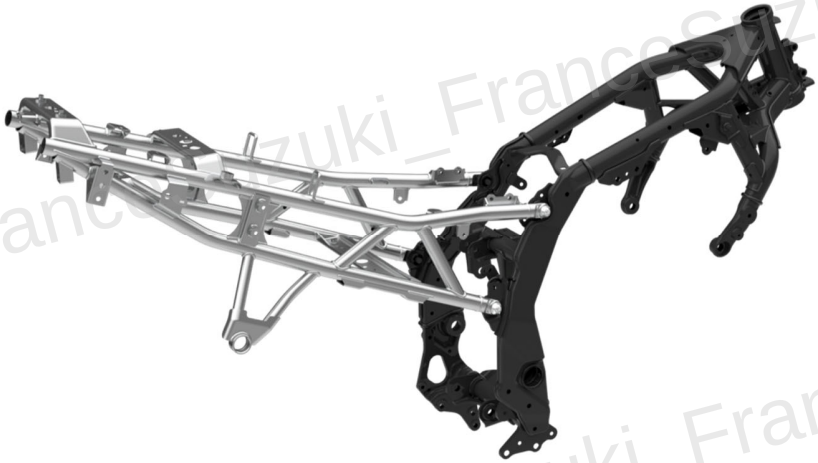
The layout freedom provided by the compact front-to-rear dimensions of Suzuki's slim parallel twin engine contributes to achieving optimum weight distribution and riding position. Of particular note is the ability it afforded in moving the rider's hip point forward. This makes it easier for the rider to use their body weight to ably negotiate tight corners, or to place more weight on the front wheel when standing on the footpegs to explore flat dirt.



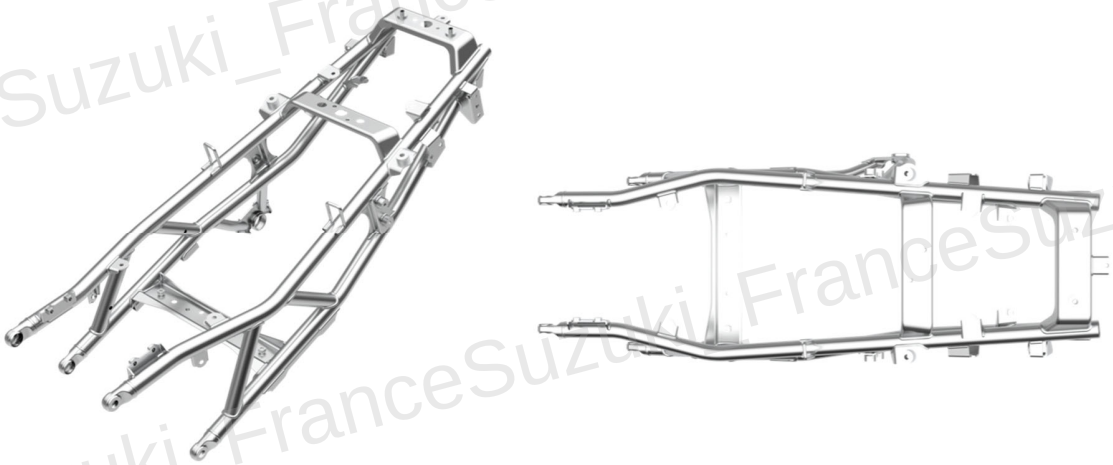
Rugged Steel Frame

Designed around the engine platform and made from rugged steel pipe, the frame for the V-STROM 800 was engineered to provide all the strength needed to provide excellent straight-line stability, to contribute to nimble handling, and to perform well at highway speeds when touring for long distances. At the same time, the steel frame delivers the right amount of flex to better support comfort when touring for long distances or passing over flat dirt.

The seat rails are engineered to withstand the weight of carrying a passenger or the optional top and side cases loaded with gear. They also feature a narrow profile that helps riders better control the bike with their legs.



Frame and Seat Rails



Seat Rails

Sure Stopping Power

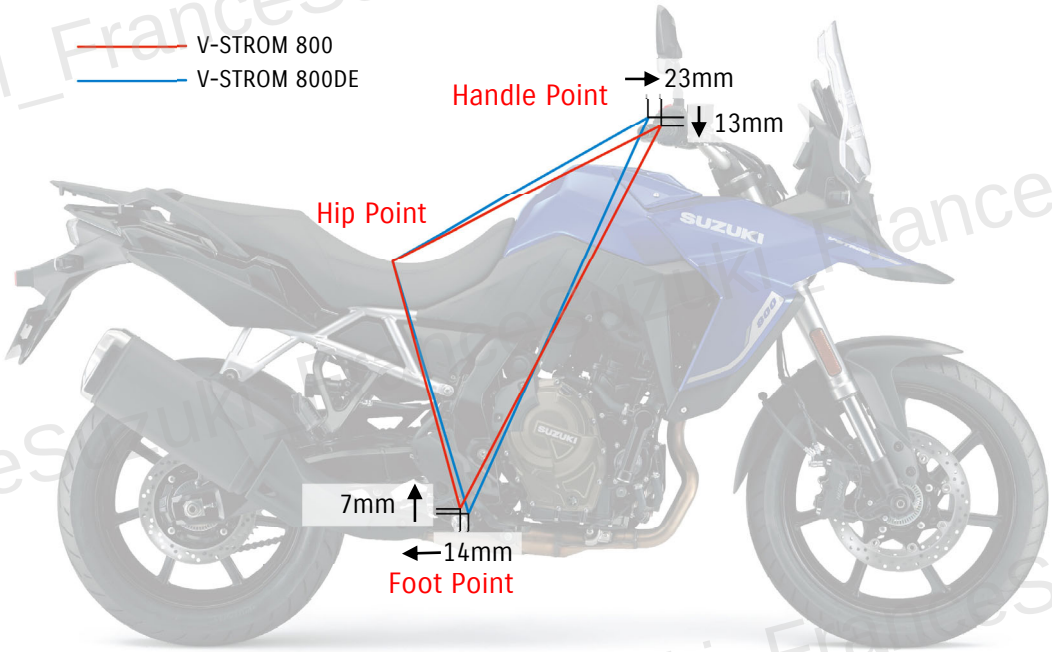
Four-piston radial-mount front brake calipers mated with 310mm outer diameter dual discs provide sure stopping power and controllable braking for optimal on-road performance.
The rear brake has a 260mm outer diameter disc and uses a single-piston pin-slide caliper.

Dual Front Disc Brakes

Chassis Geometry (dimensions)

The V-STROM 800 features a dedicated chassis geometry engineered to provide maximum stability and controllability, as well as a riding position that effectively distributes weight to the front and rear and is comfortable on long-distance touring runs. Considering the comfort of the seating position on long rides as well as the bank angles used in cornering, Suzuki decided on handle and foot points that realize a slightly forward leaning posture. This riding position, created uniquely for the V-STROM 800, provides more precise control and greater comfort when touring for long distances.

The V-STROM 800 also lends the passenger added comfort because they have plenty of space and can sit without bending their knees too much. The geometry achieved also enhances handling stability, even when carrying a passenger and with the top and side cases mounted. Suzuki's parallel twin engine benefits the geometry because its shorter length allows us to position the rider's hip point further forward than with a V-twin engine. This in turn enables the rider to shift their weight forward and more easily control the bike when negotiating tight corners.



Riding Position

Riding Position Compared with V-STROM 800DE

Handle Point	Moved 13mm lower Moved 23mm further
Handle Grips	Moved 15mm closer together
Foot Point	Moved 7mm upward Moved 14mm backward
Seat Height	V-STROM 800: 825mm V-STROM 800DE: 855mm

Optimized Front Suspension and Rear Shock Absorber

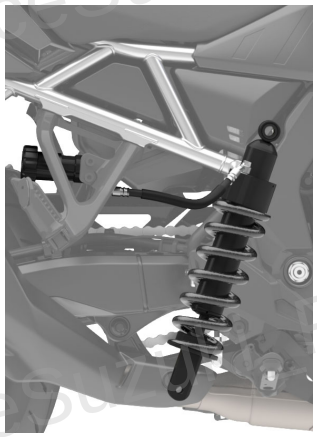
Hitachi Astemo (SHOWA) SFF-BP* (Separate Function Fork – Big Piston) inverted front forks allows for the elimination of the cartridge on one side and made it possible to increase the size of the piston. These forks not only reduce weight, but also feature stable damping characteristics that make them suitable for long touring, with a spring rate that is optimized for both solid cornering performance as well as straight-line stability. The spring preload can be adjusted, allowing the suspension to be set to best match the rider's preference or the usage conditions.

*SFF-BP is a registered trademark of Hitachi Astemo, Ltd.

SFF-BP inverted front forks

Front Spring Preload Adjuster

The Hitachi Astemo (SHOWA) gas-pressurized rear shock absorber with a remote initial adjuster contributes to agility and stability. Not only can the spring preload and rebound damping be adjusted, but the spring preload can be adjusted by simply turning the dial by hand. This is particularly beneficial when preparing to ride tandem or carry a load.



Rear shock absorber

Rear Rebound Damping Adjuster

Rear Spring Preload Adjuster

Cast Aluminum Wheels and Tubeless Tires for Sport Adventure Touring

The V-STROM 800 rides on new 7-spoke cast aluminum wheels that feature a unique design. They are shod with tubeless Dunlop D614F, D614 tires (110/80R19 at the front; 150/70R17 at the rear) that feature an internal structure custom-engineered exclusively for the V-STROM 800 that delivers nimble handling, solid grip and high-speed stability. In addition, the exclusive tread pattern on these tires helps provide sure traction and braking, as well as smooth handling, even when riding on unpaved surfaces. The tread also introduces a new silica compound that enhances positive grip in wet conditions and features durable wear resistance.

Front Wheel and Tire

Rear Wheel and Tire

Uniquely Shaped Lightweight Aluminum Swingarm

The V-STROM 800 adopts a highly attractive and tough looking aluminum swingarm with a unique shape that is engineered to perform optimally. Its lightweight aluminum construction enhances trackability and improves rear suspension response, contributing to a smoother, more comfortable ride.

Uniquely Shaped Lightweight Aluminum Swingarm

Large Capacity Fuel Tank

The fuel tank features a capacity of 20L that provides greater reassurance when touring for long distances by extending the riding range.

20L Fuel Tank

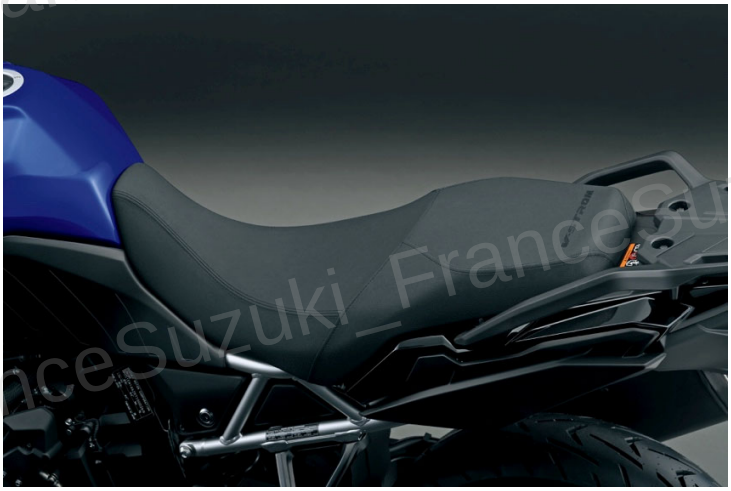
Tapered Aluminum Handlebars

The V-STROM 800 adopts tapered handlebars made from a strong yet flexible aluminum. These handlebars contribute to greater comfort and a comfortable riding position under all riding conditions.

Aluminum Tapered Handlebars

Seat Designed for Performance and Comfort

The V-STROM 800 seat features a design with a bottom shape that achieves great rigidity. This durable seat stands up well to input load, as well as to weight shifts as the rider changes position. It uses a denser foam to improve comfort for both rider and passenger when touring for long distances. The V-STROM logo embossed on the seat adds a pleasing design accent.



Seat

Footpegs

The V-STROM 800's rubber-covered aluminum footpegs are designed to provide comfort when touring for long distances. Rubber-covered steel pillion footpegs attached to cast-aluminum brackets aim to achieve the right balance of passenger comfort and support.

Footpegs

Grab Bars and Rear Carrier

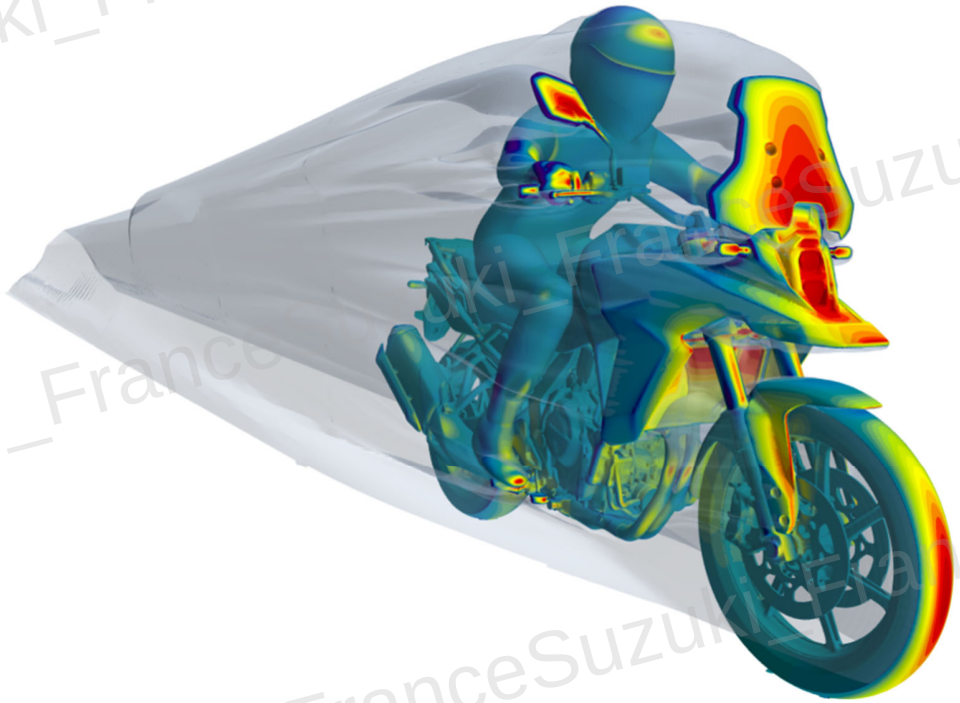
Solid grab bars on each side provide the passenger with a firm grip and also add an attractive and tough-looking design accent. These extend from the integrated rear carrier,* which is handy for carrying extra gear and also makes it easier to mount one of the optional top cases available as genuine accessories.

*Maximum load capacity: 10kg

Grab Bars and Rear Carrier

Windscreen

The V-STROM 800 windscreen helps reduce fatigue on long rides by providing sufficient size for wind protection. Features include a shape and size defined and optimized through extensive wind tunnel testing and CAE analysis. The shape aims to minimize the impact of wind hitting the rider's abdomen, chest and shoulder. In addition, the windscreen's 3-step height adjustment lets it be raised or lowered in 15mm increments using a hex key.



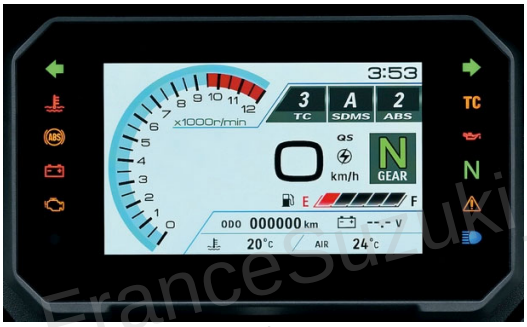
: Simulation of wind protection coverage

Windscreen

5-inch Color TFT LCD Multi-Information Display

The V-STROM 800's custom 5-inch color TFT LCD multi-function instrument panel features a clearly legible display of a rich variety of information.

Not only does it keep the rider fully aware of all the bike's systems and settings, it also supplies critical real-time operating status information. The look is one of high quality that helps instill pride of ownership.



Day Mode

Night Mode

LCD readouts include:

- Speedometer
- Tachometer
- Riding range
- Odometer
- Dual trip meter
- Gear position
- Water temperature
- Ambient temperature
- Freeze indicator
- Engine rpm indicator
- Average fuel consumption (1&2)
- Instant fuel consumption
- SDMS mode
- ABS mode
- Traction control mode
- Quick Shift (ON/OFF)
- Fuel gauge
- 12-hour clock
- Voltmeter
- Service reminder

The LCD offers the ability to display large pop-up alerts and warnings.

Pop-up Display

The tachometer also serves as programmable engine rpm indicator. It blinks when the engine speed reaches the preset rpm entered by the rider. (It can be set in 250rpm increments within a range from 4000rpm to 9500rpm.)

LED indicators flanking the display include the turn signal indicator, MIL (Malfunction Indication Light), neutral indicator, master warning indicator, high-beam indicator, TC (Traction Control) indicator, low oil pressure warning indicator, ABS indicator, low voltage warning indicator, and coolant temperature warning indicator. All are designed for easy recognition.

The screen features clear display of information using attractive graphics, including blue highlight lines on the tachometer that add extra flavor and convey the appeal and spirit of the Suzuki brand identity. It also offers manual or automatic switching settings for the day (white) and night (black) display modes that maximize visibility at any hour and in any riding situation.

LED Lighting

The vertically stacked pair of distinctive hexagonal LED headlights employ a bright mono-focus LED light source that provides the rider with a clear view of the road ahead. In terms of design, the vertical orientation of the thin, compact headlight assembly topped by an LED position light creates a sharp look with unique character that makes the front end look light and ready for action. Compact LED position lights, LED turn signals and an LED taillight ensure clear visibility and practical durability.


Headlights OFF


Position light


Low beam


High beam


LED rear combination light & LED rear turn signals

USB Port

A USB (Type-A) port is built into the left side of the meter cluster. It can provide up to 5V output and 2A maximum current.

USB Port

* Using the USB port while the engine is idling or stopped may drain the battery. Be aware of battery drain when using the USB port.
* Do not use when washing the motorcycle or when it is raining.
* Attach the cap when USB outlet is not in use.

Handlebar Switches Designed for Intuitive Operation

The ergonomic switch layout maximizes operating ease and efficiency, allowing the rider to access controls while remaining focused on the road ahead. Selecting modes and making settings and adjustments for each of the advanced electronic control systems simply involves operating the MODE and UP/DOWN switches, (which recognize long and short presses), on the left handlebar.

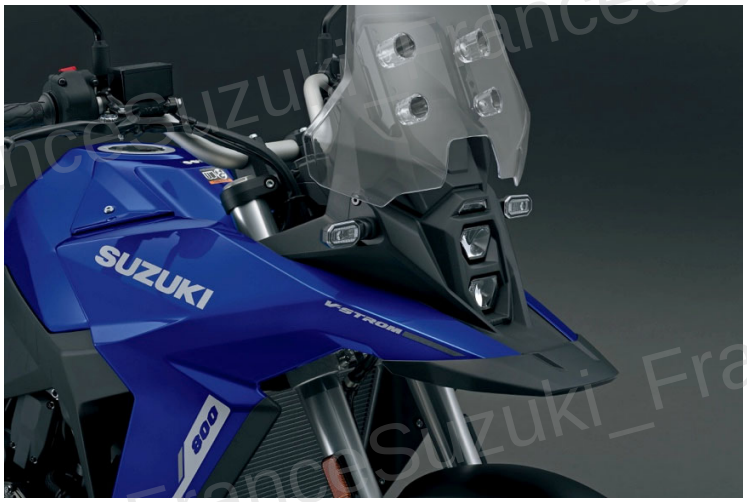
Left Handlebar Switch

Right Handlebar Switch

The V-STROM 800 Design Concept is;
“Adventure for a New Era”

Suzuki’s design team set the following goals for the new V-STROM 800’s styling. The design must carry on the tradition of the V-STROM series. At the same time, it must convey a thoroughly modern look and must reflect the all-round capabilities of the product.

The first key element is to stay true to its V-STROM heritage and the Suzuki design ethos of creating unique styling expressions that gave birth to the series’ distinctive character. For example, the V-STROM 800 features the latest evolution of the “beak” design first introduced to the world in 1988 on the DR-Z 800 desert racer.



Beak Design

Features such as the cast aluminum wheels, the new front beak design and the tall windscreen are in keeping with the goal of creating a modern look that speaks of both all-round capabilities and outstanding long-distance touring comfort. The width and shaping of the beak create an image of strength and solidity, while it and the new garnish at its tip join the vertically stacked hexagonal LED headlight assembly and other front end design elements to give the front end a slim, light and compact look.

Image Sketch

The sharp lines of the body work and flat panel surfaces create a tough yet sophisticated look. Bold accents are introduced through the use of molded garnish parts at the tip of the prominent beak out front and below the fuel tank. And angled lines set into the knee grip area of the molded panel below the fuel tank lend yet another subtle accent.

Image Sketch

The design freedom achieved by employing cast aluminum wheels helped realize the unique “V” shape introduced on each of the seven spokes. The development team used the keywords “solid” and “mechanical” in creating this striking design, which is intended to symbolize the V-STROM 800 model name and convey a look of functional beauty.

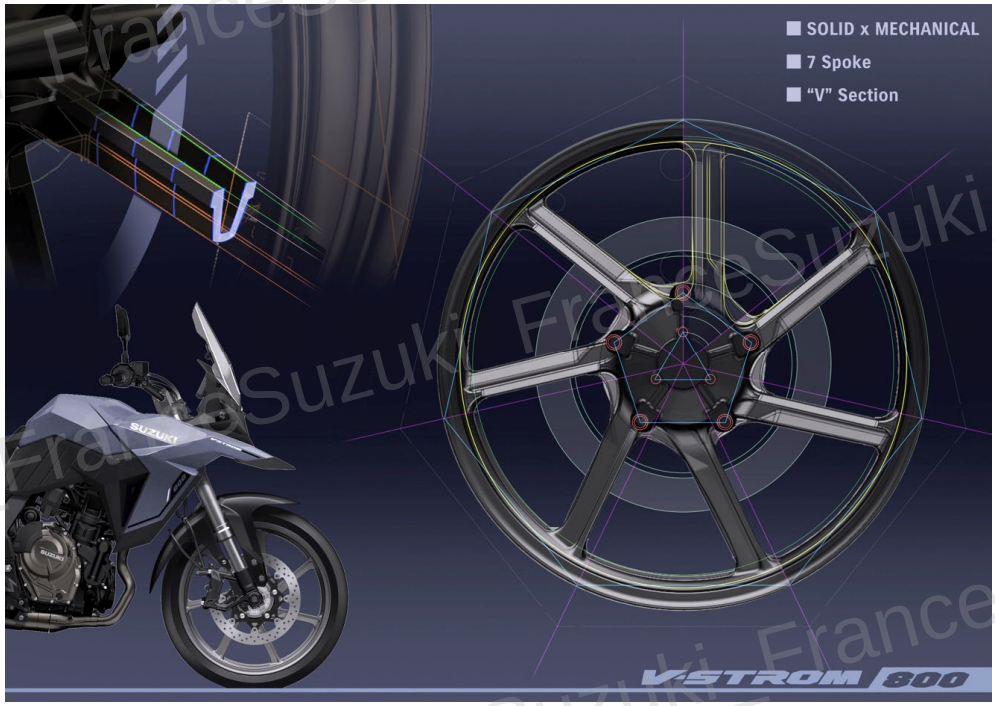


Image Sketch


SUZUKI

A Trio of Trendsetting Body Colors

The body color lineup for the V-STROM 800 is comprised of three colors chosen to best express the color concept “Borderless Explorer”. The concept intends to express the cool world view of an all-round tourer capable of breaking down all borders to perform well in every scene, whether that involves riding through urban cityscapes, touring on highways, or exploring wilderness locations.

Metallic Mat Steel Green (QVP) is a new color developed to express this color concept. Intended to reflect an organic sense of natural beauty as experienced on a misty morning in a deep forest, the deep green paint creates a favorable contrast and coordinates well with the cool shine of the bike’s metal parts. The overall effect is one of refreshing taste that looks great whether viewed out in a natural setting or on a city street.

Metallic Mat Steel Green (QVP)

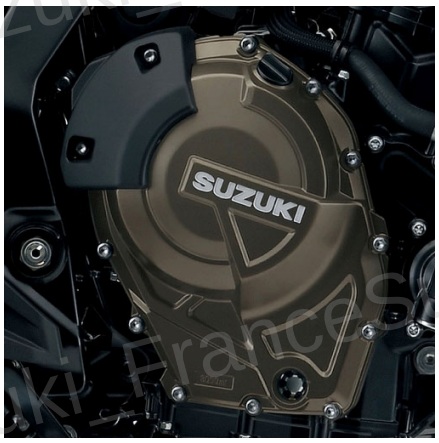
Molded accent pieces on the front tip of the beak and below the sides of the fuel tank complement the respective body colors, creating sophisticated appeal that lets the beauty of the functional parts shine. Functional parts such as the exposed seat rails and front forks are painted silver to highlight their beauty.

Body Graphics

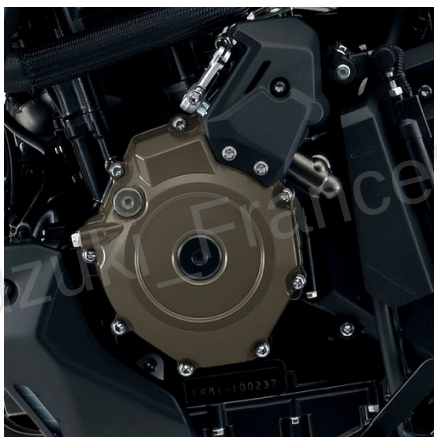
Simple lines employed on the cowling pieces and beak create highlights that enhance the appeal of the V-STROM 800's modern styling. Letters and numbering are applied subtly to not detract from the emphasis on functional beauty.

Body Graphics

The clutch cover and magneto cover are finished in a color selected to match the V-STROM 800's styling, while the SUZUKI name on the clutch cover is finished in a contrasting color to create an effective accent.



Clutch Cover



Magneto Cover

Pearl Vigor Blue (YKY)

Metallic Mat Steel Green (QVP)

Glass Sparkle Black (YVB)

11. SPECIFICATIONS

Overall length		2,255 mm (88.8 in.)
Overall width		905mm (35.6 in.)
Overall height		1,355mm (53.3 in.)
Wheelbase		1,515mm (59.6 in.)
Ground clearance		185mm (7.3 in.)
Seat height		825 mm (32.5 in.)
Curb mass		223kg (492 lbs.)
Engine type		4-stroke, 2-cylinder, liquid-cooled, DOHC
Bore x stroke		84.0 mm x 70.0 mm (3.3 in. x 2.8 in.)
Engine displacement		776 cm^3 (47.4 cu. in.)
Compression ratio		12.8 : 1
Fuel system		Fuel injection
Starter system		Electric
Lubrication system		Forced feed circulation, wet sump
Transmission		6-speed constant mesh
Suspension	Front	Inverted telescopic, coil spring, oil damped
	Rear	Link type, coil spring, oil damped
Rake / trail		26°/ 124mm (4.9 in.)
Brakes	Front	Disc, twin
	Rear	Disc
Tires	Front	110/80R19M/C 59V tubeless type
	Rear	150/70R17M/C 69V tubeless type
Ignition system		Electronic ignition (transistorized)
Fuel tank capacity		20 L (5.3 /4.4 US/Imp gal)
Oil capacity (overhaul)		3.9 L (1.0/4.1 US/Imp qt)
Fuel consumption		22.7 km/L (4.4L/100km) in WMTC
CO_2 emissions		104 g/km in WMTC

European Spec. shown

Actual fuel consumption and CO_2 emissions may differ owing to conditions such as the weather, road, rider behavior and maintenance.

Specifications, appearances, color (including body color), equipment, materials and other aspects of the SUZUKI products shown in this document are subject to change by Suzuki at any time without notice and they may vary depending on local conditions or requirements.