V-STROM 800 RE

Press information

October 2023

Contents

1. Introduction

The V-Strom series evolves to bring greater comfort and freedom to adventure touring with the addition of the new V-Strom 800RE. This important new model carries the ‘RE’ nomenclature, which stands for *road explorer*, confirming its credentials.

The V-Strom 800RE expands the V-Strom range to offer adventure riders greater choice, with a more road-focussed machine that is designed to provide maximum comfort and performance for all-round riding; be that on long-distance tours, taking the road less travelled, or cutting time from the weekday commute.

It follows the launch of the V-Strom 800DE, which specialises in combining road riding with off-road exploring, expanding and adding versatility to the new 800 series, while retaining the hallmarks and traits of the V-Strom lineage, first established in 2002 by the V-Strom 1000.

The V-Strom 800RE features Suzuki’s 776cc, DOHC parallel twin engine, with four valves per cylinder, housed in a steel frame with new suspension, tuned to maximise straight-line stability and on-road cornering performance. Every aspect of the V-Strom 800RE is designed to appeal to riders who desire a powerful, usable, flexible middleweight adventure bike with a suite of electronics crafted to enhance the riding experience.

2. Product concept

All roads merge

The product concept of '*all roads merge'* conveys how the new V-Strom 800RE was developed as a versatile adventure bike that excels on all types of roads, providing riders with a satisfying sense of freedom to confidently explore whatever roads they choose. The concept also suggests how the harmonious mating of the parallel twin engine, chassis, and styling deliver the ability to merge all roads into one exhilarating adventure.

The V-Strom 800RE is a capable long-distance tourer and every-day machine, featuring sophisticated adventure styling. Highlight features beyond Suzuki's parallel twin engine and chassis include four-piston, radially-mounted front calipers, Showa suspension that includes inverted front forks with preload adjustment and rear suspension with adjustable for preload and rebound damping, and new seven-spoke cast aluminium wheels with a 19" front and 17" rear.

The suite of advanced electronic systems such as Suzuki Drive Mode Selector, a three-mode traction control system, a bi-directional quickshifter, a two-mode ABS and a ride-by-wire throttle serve to enhance the riding experience and reduce rider fatigue.

Other key features include a wide, tall, height-adjustable windscreen, LED lighting and a colour TFT multifunction instrument panel.

Born to roam, the V-Strom 800RE builds on the existing V-Strom reputation of being ready to tackle any terrain, any horizon, any adventure, but is ready to offer something new for riders seeking the best balance of on-road orientated comfort, performance, handling, technology, and price.

2. Product concept

Key product features

Engine features:

- 776cc, DOHC, parallel twin engine that delivers a fine balance of smooth, controllable power from low rpm to free-revving performance at the top end.
- The 270° crankshaft configuration delivers an engine characteristic similar to Suzuki's famed V-twin models.
- 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 eliminates rough idle while warming the engine in cold weather.
- The electronic throttle bodies help achieve a faithful response and linear feeling to the throttle action.
- The two-into-one exhaust system, with an upswept design, features a dual-stage catalytic converter inside the collector that helps satisfy Euro 5 emissions standards.
- The six-speed transmission enables smooth shifting and improved controllability.
- Suzuki Clutch Assist System contributes to smoother down shifting.

Suzuki Intelligent Ride System (SIRS) features:

- Suzuki Drive Mode Selector (SDMS) allows the rider to select an engine map that is best suited to riding conditions or personal riding style.
- Suzuki Traction Control System (STCS) with three modes and the ability to switch off give better control in a variety of riding conditions.
- Ride-by-wire electronic throttle control system makes for a throttle action that feels natural and responds faithfully to the rider's input.
- Suzuki's Bi-directional Quick Shift System (with on/off settings) provides quicker, smoother, more assured shifting without operating the clutch lever and without closing the throttle on upshifts or blipping it on downshifts.
- The ABS system features a choice of two mode settings for differing road conditions.
- Suzuki Easy Start System starts the engine with one press of the starter button.
- Low RPM Assist function helps maintain engine idle speed for smoother and easier starts.

2. Product concept

Chassis features:

- The rugged steel frame provides comfort, straight-line stability and agile handling.
- The narrow-profile seat rails keep the bike slim and are engineered to withstand the optional top and side cases mounted.
- Showa Separate Function Fork – Big Piston (SFF-BP) inverted front forks deliver a smooth, controllable ride tuned to provide optimum on-road performance.
- Adjustable Showa rear suspension contributes to agility and stability. A remote spring preload adjuster means it can be adjusted easily by hand.
- Dual four-piston radial-mount front brake calipers bite 310mm discs to provide sure stopping power.
- New seven-spoke cast aluminium wheels are sized for optimal performance, designed for strength and durability and feature a distinctive V shape on each of the spokes.
- New Dunlop D614F/D614 tyres are engineered exclusively for the V-Strom 800RE and feature a new tread pattern and custom-engineered internal structure.
- Lightweight aluminium swingarm with enhanced torsional rigidity contributes to straight-line stability and agile handling.
- Large 20-litre fuel tank capacity helps deliver a superior touring range.
- Aluminium tapered handlebars are positioned to contribute to a comfortable and engaging riding position.
- The solid-mount rider seat is designed to maximise comfort and minimise 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.
- Rubber-covered aluminium footpegs provide sure footing and comfort on long rides.
- The wide, height-adjustable screen 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.

2. Product concept

Electric equipment features:

- A 5” colour TFT multi-function instrument panel features a clear display of a rich variety of information, with day and night modes.
- 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 striking 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 instrument cluster as standard equipment.

Styling features:

- Styling for the V-Strom 800RE symbolises the future of Suzuki design while paying homage to the distinctive features of its V-Strom heritage.
- Stays true to the Suzuki design ethos of creating unique styling expressions.
- The distinctive front beak visually conveys a thoroughly modern look and highlights 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 emphasise the model’s look of sophisticated toughness.
- The wide, tall windscreen, cast aluminium wheels and 19-inch front wheel convey, at a glance, that the V-Strom 800RE is equipped with the right equipment and features that enable it to excellently handle long-distance touring.
- Sharp lines on the cowling and front beak convey modern styling, while subtle application of lettering and numbers help emphasise functional beauty.
- Riders can choose from a trio of body colours carefully chosen to convey the appeal of the V-Strom 800RE’s distinctive character.

3. Key comparison

No.	Feature	V-Strom 800RE	Benefit	V-Strom 800DE	Benefit
1	Screen	Wide, tall	Reduced fatigue	Short	Visibility off-road
2	Beak	Exclusive design	Solid, tough look	Exclusive design	Slim, sharp look
3	Front brakes	Dual four piston radial calipers	On-road performance	Dual axial-mount calipers	Off-road performance
4	Wheels	Cast aluminium	On-road performance and freer design expression	Wire-spoked	Off-road performance
5	Front tyre	19” tubeless	On-road performance	21” tubed	Off-road performance
6	Rear tyre	17” tubeless	On-road performance	17” tubed	Off-road performance
7	Front suspension travel	150mm	On-road performance and control	220mm	Longer stroke for off-road performance
	Front suspension adjustment	Adjustable spring preload	Can be adjusted to match style or riding conditions	Fully-adjustable	Wide adjustment for varying terrain
8	Rear wheel travel	150mm	On-road performance and control	220mm	Extra travel for off-road performance
	Rear suspension adjustment	Remote preload adjuster, adjustable rebound damping	Ease when preparing to carry load or pillion	Fully-adjustable	Wide adjustment for varying terrain or carrying a load
9	Ground clearance	185mm	Adequate for on-road use	220mm	Off-road performance
10	Seat height	825mm	Easier to plant feet on the ground	855mm	Off-road performance
11	Front mudguard	-	-	Three-piece construction	Tough, strong look
12	Handlebars	Tapered, narrower, forward positioning	Good on-road riding position	Tapered, wider, closer to rider	Off-road control
13	Lower cowling	Genuine accessory	-	Standard	Engine protection
14	Radiator guard	-	-	Standard	Radiator protection
15	Hand guards	Genuine accessory	-	Standard	Protect hands
16	Footpegs	Rubber-covered aluminium	Comfort for touring	Rubber-covered steel	Durability and off-road performance

4. Engine

An engine built to go the distance

When designing the new 776cc parallel twin engine first introduced last year, the first goal was to design a slim, compact powerplant that would expand the possibilities for overall design flexibility and help realise the most effective chassis geometry for performance gains. That includes creating an optimum riding position, both for riding on long-distance tours and sportier rides on twisty roads. The second goal was to deliver dynamic performance that riders would find easy to control. The new engine provides plenty of torque and power with a smooth throttle response.

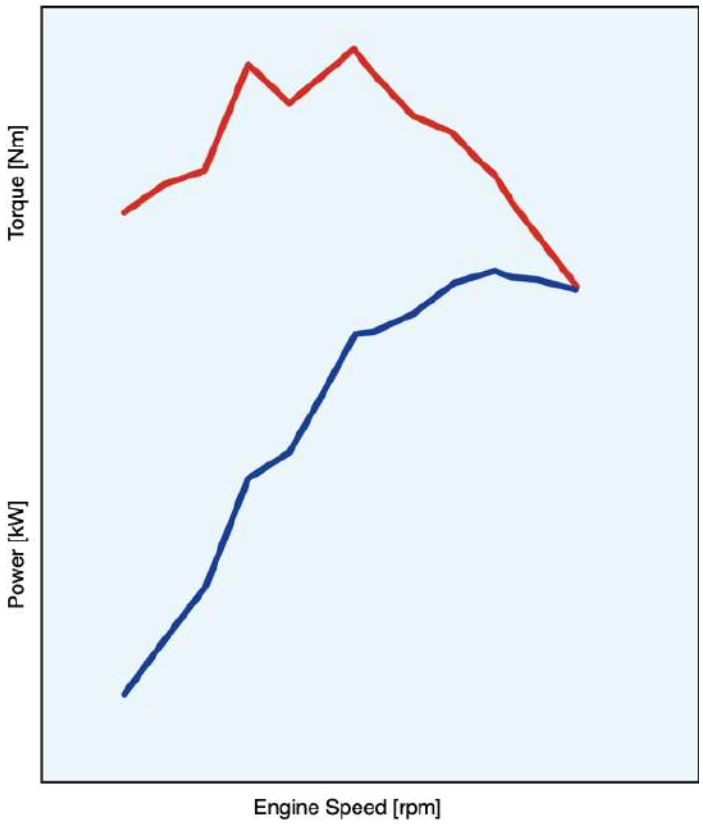
As a result, the new 776cc, DOHC, parallel twin engine with four valves per cylinder features a long-stroke configuration that delivers a fine balance of smooth, controllable power from low rpm and the pleasant feeling of free-revving performance through to the top end.

The engine also features a 270° crankshaft design, which delivers plenty of torque, positive traction and a pleasing rumble. It also introduces the Suzuki Cross Balancer, an innovative new primary balancer design that contributes to smooth operation and helps achieve a compact and lightweight package that enhances the V-Strom's agile handling. Additionally, the long, upswept exhaust design enhances the bike's stance.

776cc, four-stroke, liquid-cooled, DOHC, parallel twin engine

4. Engine

Engine type	Four-stroke, DOHC parallel twin
Cooling system	Liquid-cooled
Displacement	776cc
Bore x stroke	84.0mm x 70.0mm
Maximum power	84.3PS (62kW) / 8500rpm
Maximum torque	78Nm / 6800rpm
Emissions level	Euro 5
Fuel consumption (WMTC)	64.12mpg

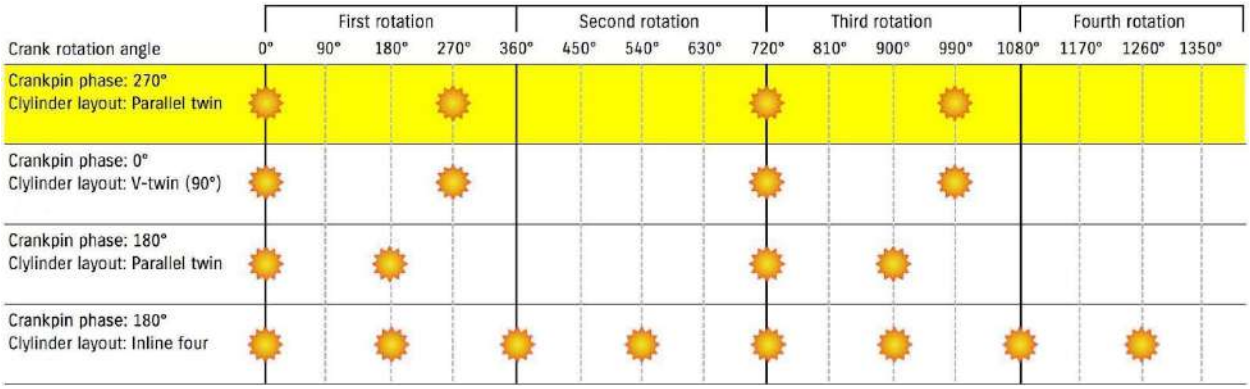


4. Engine

270° crankshaft

The ignition timing of the engine's 270° crankshaft layout is the same as that on Suzuki's (90°) V-twin. That means it produces a similar pleasing rumble and sound for which bikes like the V-Strom 650 are known. 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 before the next pulse. The positive traction that results is beneficial when powering out of corners.

= ignition timing



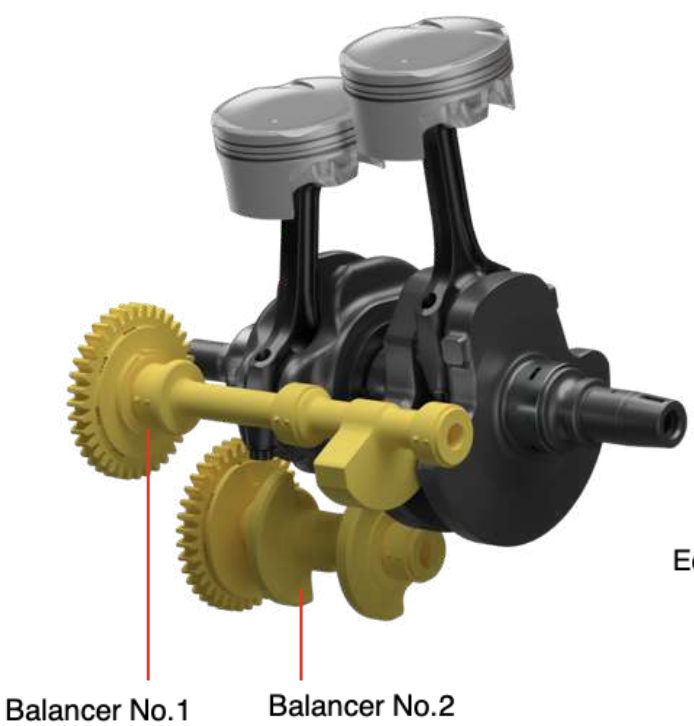
Suzuki Cross Balancer

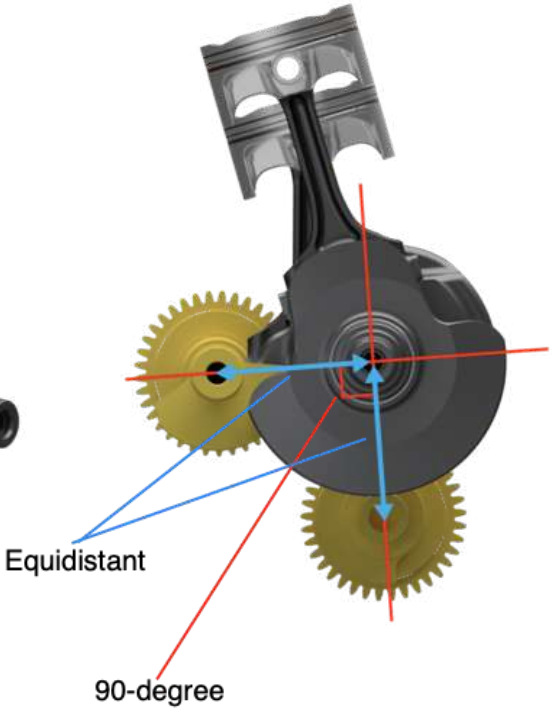
The new engine uses the Suzuki Cross Balancer. This patented biaxial primary balancer positions its two balancers at 90° to the crankshaft[1], marking a first among production motorcycles[2]. This patented mechanism suppresses vibration to contribute to smooth operation, and it also helps achieve a lightweight 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° 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.
[2] Based on Suzuki research as of November 2022.

4. Engine design





4. Engine design

Pistons and connecting rods

The engine uses forged pistons engineered using FEM (Finite Element Method) analysis to maximise strength and minimise weight, despite the engine's 84mm bore. Conical machining inside the wrist pin holes transfers load and mitigates stress transferred to the crowns and contributes to enhanced durability.

The connecting rods also boast the reliability for which Suzuki is known. This is backed up by thorough analysis and testing conducted to ensure a balance of weight and rigidity and to stabilise the rods' performance during stroke action.

Suzuki Composite Electrochemical Material (SCEM)

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

Ride-by-wire electronic throttle bodies

Each of the two cylinders are fed by a pair of linked 42mm bore, electronic-controlled throttle bodies. APS (Accelerator Position Sensor) play is optimised to deliver the best balance of performance for both everyday use and the demands of adventure touring.

High-pressure fuel injectors

The V-Strom 800RE employs 10-hole, long-nosed, 343kpa, high-pressure-feed fuel injectors that maximise fuel atomisation for better combustion efficiency and lower fuel consumption.

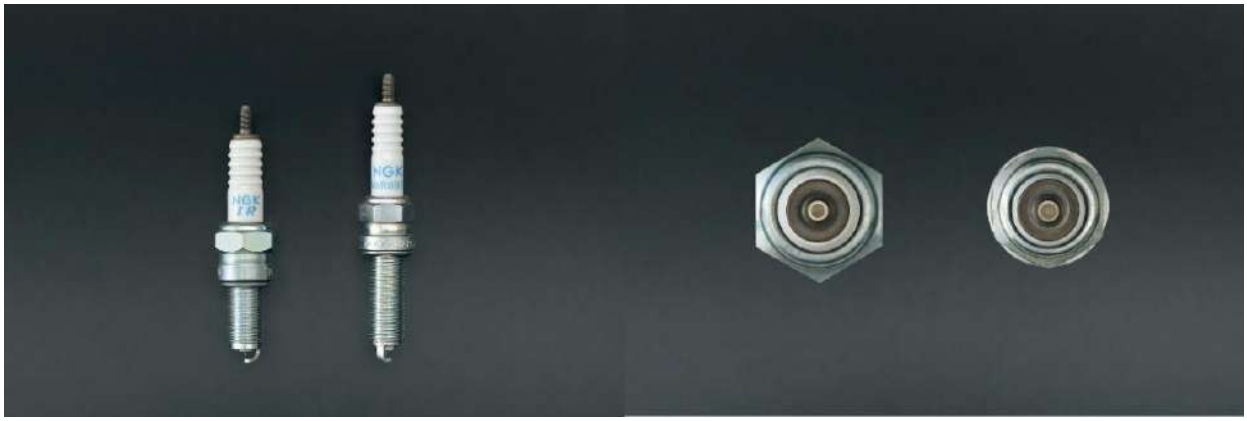
Transmission

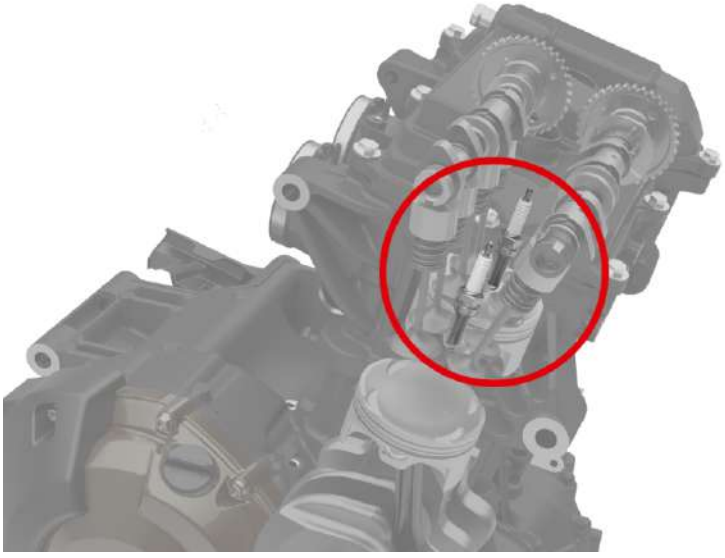
The six-speed transmission adopts gear ratios that deliver smooth shifting and exciting acceleration performance.

4. Engine design

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 optimising 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.



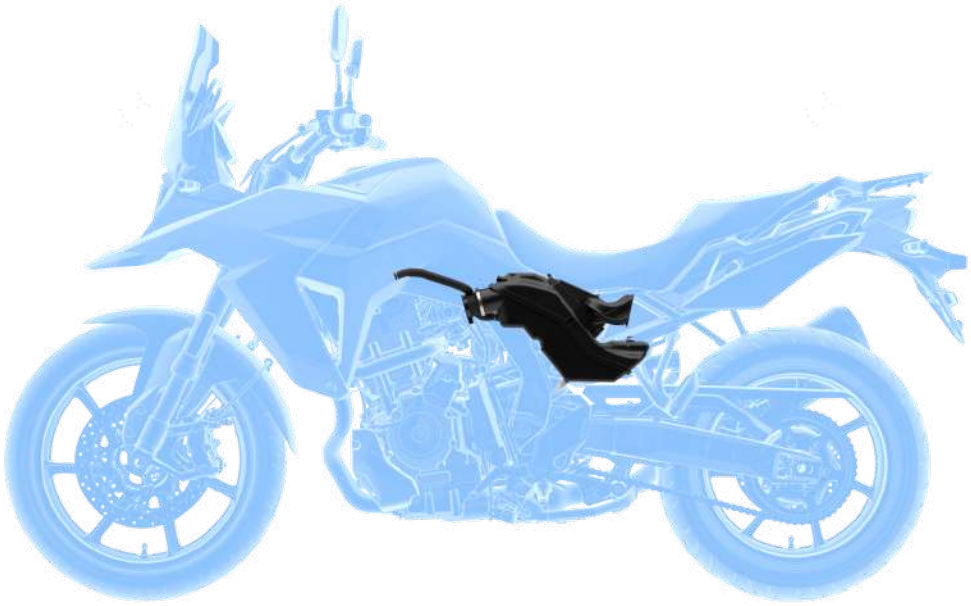


Position of long-reach spark plug

4. Engine design

Airbox

The six-litre airbox and intake pipe designs are optimised using CAE analysis to maximise torque production at low rpm and enable high peak performance. To contribute to the slim and compact chassis design and enhance the freedom of rider movement, the airbox is compact and positioned under the seat. Different lengths for the left and right pipes intakes help secure adequate flow to derive maximum power output.



Location of airbox

Outside

Inside

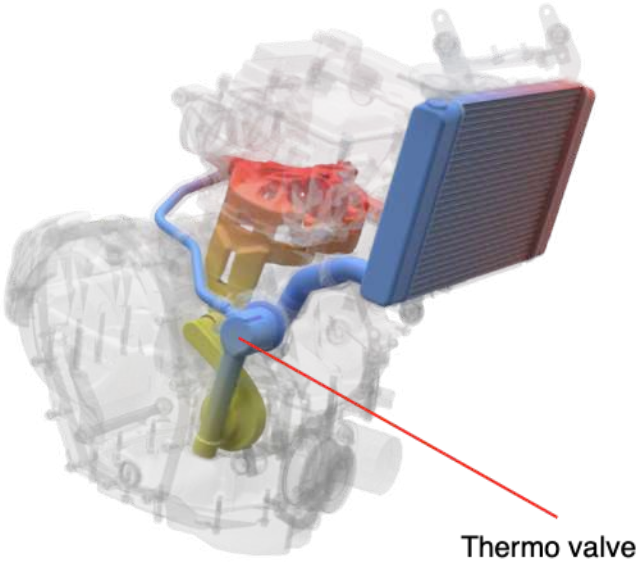
4. Engine design

Efficient cooling

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

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

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



4. Engine design

Exhaust system

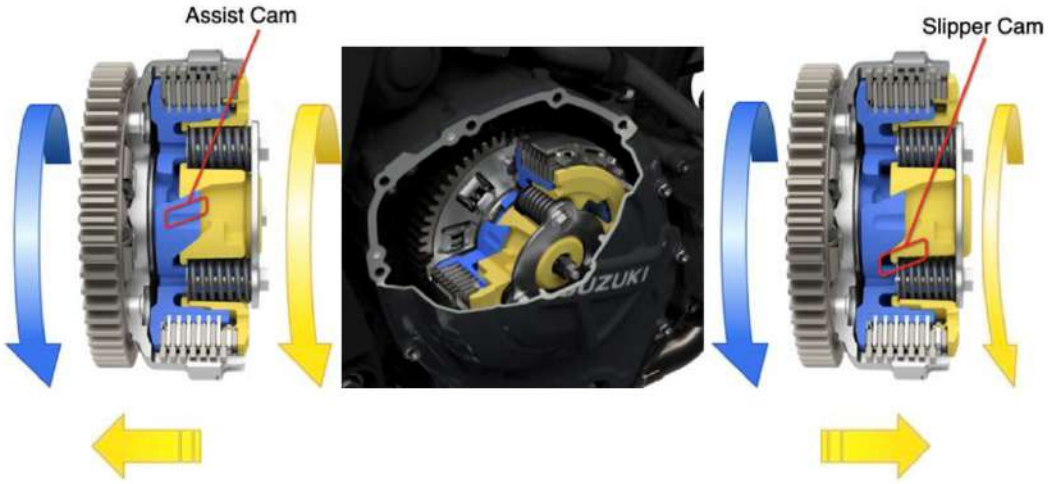
The two-into-one exhaust system for the V-Strom 800RE is designed to produce an exciting exhaust note. The two-stage catalytic converter inside the collector helps limit emissions to a level that satisfies Euro 5 standards, while at the same time maximising overall performance.

Exhaust system

4. Engine design

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 and decelerating to mitigate the effect of engine braking and provides smoother deceleration, which enables the rider to shift down with greater confidence and maintain better control.

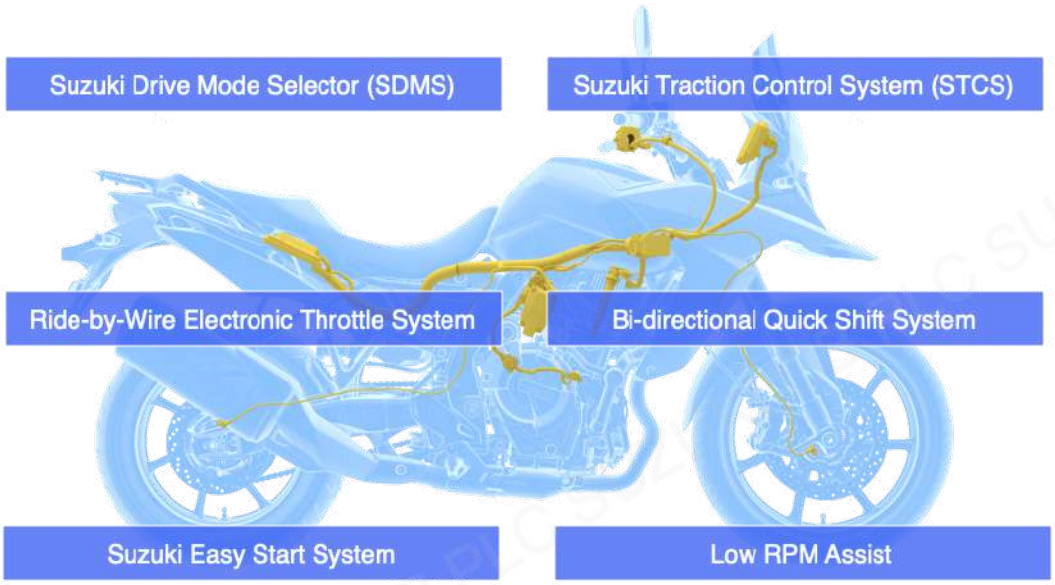


5. Suzuki Intelligent Ride System (SIRS)

Introduction

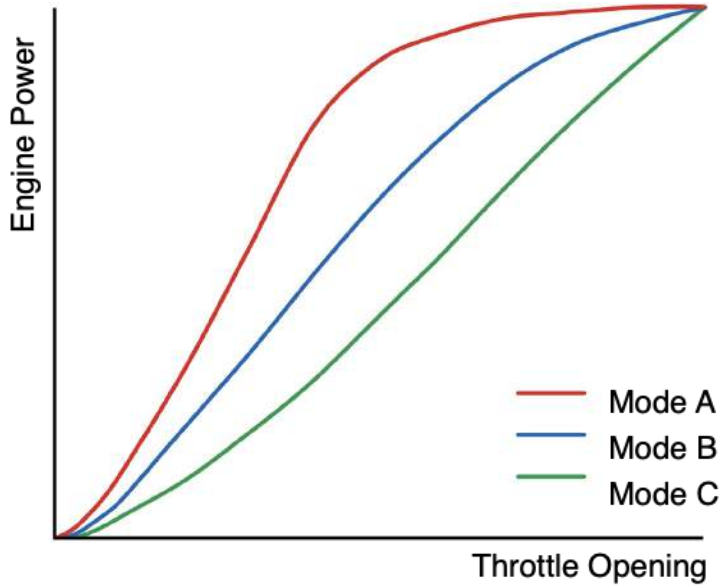
The Suzuki Intelligent Ride System (SIRS) is a collection of advanced electronic rider assist systems which enables the rider to choose the settings for each system to best suit their preference or to suit the conditions. SIRS helps enhance an already exciting riding experience that inspires confidence and frees riders to concentrate on enjoying the ride.

The collection of advanced SIRS electronic systems employed by the V-Strom 800RE include the Suzuki Drive Mode Selector (SDMS), Suzuki Traction Control System (STSC), a ride-by-wire electronic throttle, bi-directional quickshifter, Suzuki Easy Start System, Low RPM Assist, and two selectable ABS modes.



5. Suzuki Intelligent Ride System (SIRS)
Suzuki Drive Mode Selector (SDMS)
SDMS leverages the electronic throttle control system to offer a choice between three modes that deliver different power characteristics to match the riding conditions or preferred riding style.

Power delivery by mode



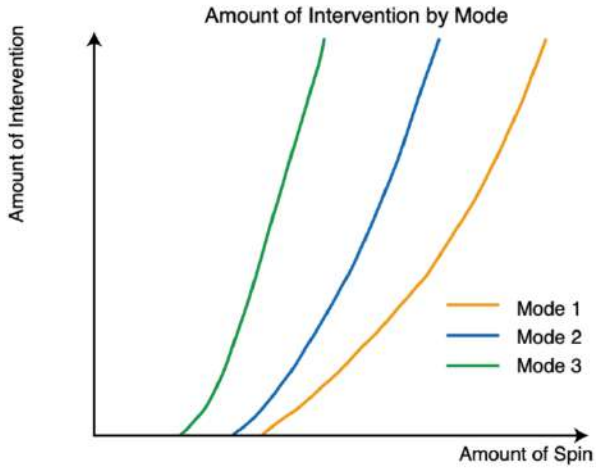
Mode A (Active) provides the sharpest throttle response as the throttle is opened. Settings for torque characteristics are tuned to deliver exciting acceleration and fully-leverage the engine's power on sporty rides.

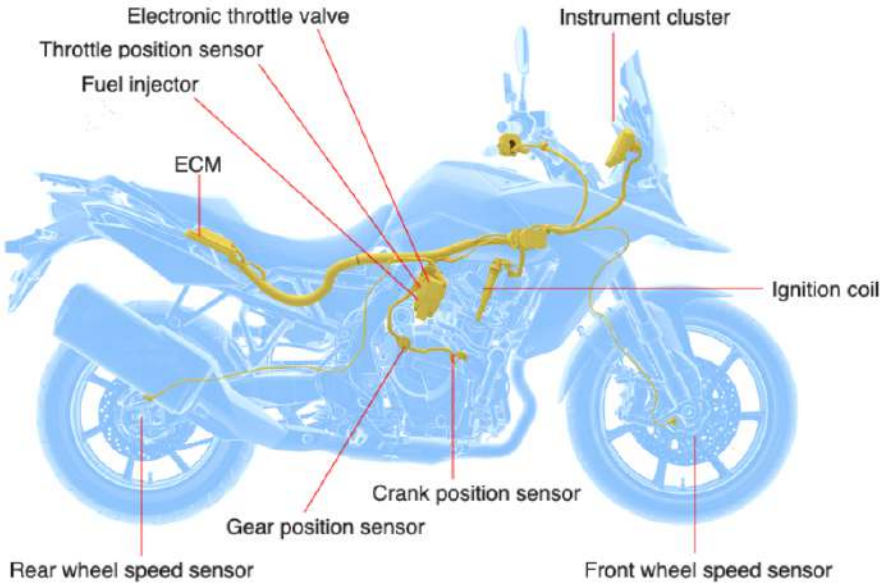
Mode B (Basic) reaches the same level of maximum output, but features a more linear curve with softer throttle response. Planned as an ideal setting for touring or commuting, this mode is a good fit for a wide range of riding styles and road conditions.

Mode C (Comfort) provides the softest throttle response and more gentle torque characteristics. This is particularly beneficial when touring for long distances, when riding with a passenger, when riding on wet surfaces, when road conditions are bad, or even when the rider wants to relax.

5. Suzuki Intelligent Ride System (SIRS)
Suzuki Traction Control System (STCS)
STCS for the V-Strom 800RE enables the rider to better control the bike in diverse and varying conditions, such as riding in inclement weather, and instils greater confidence regardless of the rider's level of experience.

The rider can select from three modes or turn the system off altogether. The higher the number of the mode selected, the faster the control takes effect and the more proactive the system is in limiting wheelspin. The system continuously monitors front and rear wheel speed, engine RPM (as calculated using data from the crank position sensor), throttle position and gear position.





5. Suzuki Intelligent Ride System (SIRS)
Ride-by-wire electronic throttle system
An electronic throttle control system uses the ECM to control the action of the throttle valves and more finely control the relationship between throttle action and engine output characteristics.

Throttle grip action is set to provide faithful response and linear control. This makes the throttle action feel more natural. 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 quickshifter
The bi-directional quickshifter allows riders to shift up without closing the throttle or downshift without blipping it, and eradicates the need to operate the clutch lever, also.

The system automatically interrupts power delivery when accelerating and maintaining steady speed just long enough to unload the transmission gear cogs, thereby producing a smoother ride and uninterrupted acceleration when the rider shifts up. 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.

5. Suzuki Intelligent Ride System (SIRS)

Suzuki Easy Start System

The Suzuki Easy Start System lets the rider start the motorcycle with one quick press of the starter button with no need to pull in the clutch lever when the transmission is in neutral.

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.

Two-mode antilock braking system (ABS)

The antilock braking system (ABS) on the V-Strom 800RE offers two mode settings. Mode 1 provides minimal intervention, so is suited for riding on looser surfaces. Mode 2 is ideal for city riding and regular road conditions.

Supporting technologies

Controller Area Network (CAN bus)

The V-Strom 800RE's 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 of critical systems, including those to comply with Euro 5 emissions standards.

6. Chassis

Introduction

Engineered for touring comfort and everyday convenience, the goal was to design a compact, lightweight chassis, created to maximise agility, comfort, utility, and riding pleasure. The target set by the development team demanded the chassis would contribute to comfort when touring for long distances, but also 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 motorway 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 designed with a focus on great handling and control in a wide range of real-world riding conditions, on supporting the performance character of the engine, and on maximising comfort and minimising fatigue when touring for long distances. These features are critical in helping to establish the V-Strom 800RE's identity as the top-performing middleweight adventure tourer that is equally adept in daily on-road use as it is when riding on motorways or negotiating more twisty roads.

The layout freedom provided by the compact front-to-rear dimensions of the 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.

6. Chassis

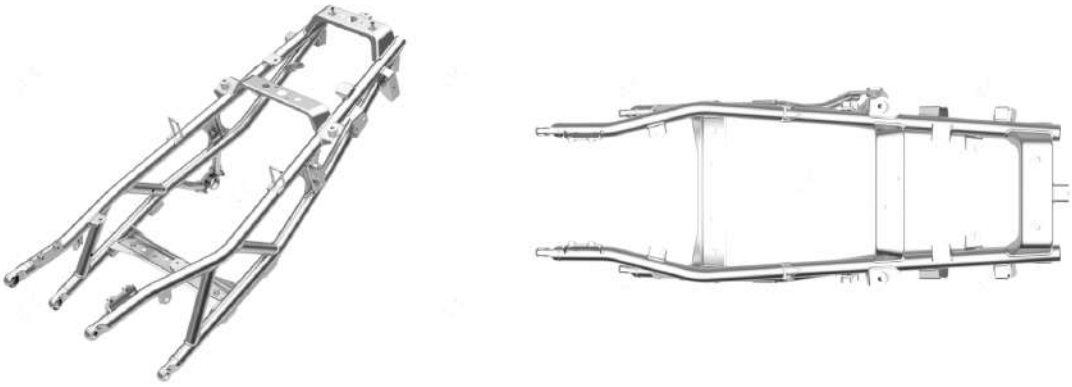
6. Chassis

6. Chassis

Rugged steel frame

Designed around the new engine and made from rugged steel pipe, the frame for the V-Strom 800RE was engineered to provide strength, excellent straight-line stability, agile handling, and to perform well at highway speeds when touring for long distances. 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

6. Chassis

Sure Stopping Power

Four-piston, radially-mounted front brake calipers bite onto 310mm discs to 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.

6. Chassis

Chassis geometry

The V-Strom 800RE 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 rides.

With a view to enhancing on-road cornering performance, Suzuki decided on handlebar and footpeg positioning that realises a slightly forward leaning posture. This riding position provides more precise control.

The V-Strom 800RE also lends the passenger added comfort because they have plenty of space and can sit without overly bending their knees. 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 aids the geometry due to its shorter length, allowing the positioning of 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 compared to V-Strom 800DE:

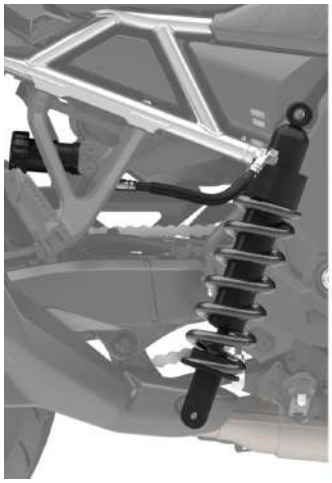
Handlebars	13mm lower 23mm further forward 15mm narrower
Footpeg position	7mm higher 14mm rearward
Seat height	V-Strom 800RE: 825mm V-Strom 800DE: 855mm

6. Chassis

New Showa front and rear suspension

Showa Separate Function Fork – Big Piston (SFF-BP) inverted front forks allows for the elimination of the cartridge in one fork leg and make it possible to increase the size of the piston, saving weight and delivering stable damping characteristics that make them suitable for long touring, with a spring rate that is optimised 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.

The rear shock absorber can be adjusted for spring preload and rebound damping, with a remote adjuster making setting the spring preload easier. This is particularly beneficial when preparing to ride tandem or carry a load.



Rear shock absorber | Preload adjuster | Rebound damping adjuster

6. Chassis

Cast aluminium wheels and tubeless tyres

The V-Strom 800RE uses new seven-spoke, cast aluminium wheels that feature a unique design. They are shod with tubeless Dunlop D614F and D614 tyres (110/80R19 front, 150/70R17 rear) that feature an internal structure custom-engineered exclusively for the 800RE that delivers agile handling, solid grip, and high-speed stability.

In addition, the exclusive tread pattern of the tyres helps provide sure traction and braking, as well as smooth handling. The tread also introduces a new silica compound that enhances positive grip in wet conditions and features durable wear resistance.

6. Chassis

Lightweight aluminium swingarm

The V-Strom 800RE uses an attractive aluminium swingarm with a shape that is engineered to perform optimally. It's lightweight aluminium construction enhances trackability and improves rear suspension response, contributing to a smoother, more comfortable ride.

Large capacity fuel tank

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

6. Chassis

Tapered aluminium handlebars

The V-Strom 800RE adopts tapered handlebars made from a strong-yet-flexible aluminium. The handlebars enable a more forward-leaning riding position for an engaging riding experience as well as providing greater comfort on longer rides.

Seat designed for performance and comfort

The V-Strom 800RE 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.

6. Chassis

Footpegs

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

Grab bars and rear carrier

Solid grab bars on each side provide the pillion with a secure 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.

6. Chassis

Screen

The tall, wide screen on the new V-Strom 800RE helps reduce fatigue on long rides by offering excellent wind and weather protection. Features include a shape and size defined and optimised through extensive wind tunnel testing and CAE analysis. The shape aims to minimise the impact of wind hitting the rider's abdomen, chest and shoulder. In addition, the screen's three-step height adjustment lets it be raised or lowered in 15mm increments using an hex key.

7. Electric equipment

5-inch colour TFT multi-information display

The V-Strom 800RE's 5", colour TFT multi-function instrument panel features a clearly legible display of a variety of information, while also providing a high-quality finish and pleasing view from the rider's perspective.

Day mode

Night mode

The display offers the ability to display large pop-up alerts and warnings while readouts include:

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

7. Electric equipment

The tachometer also serves as a 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 left turn signal indicator, MIL (Malfunction Indication Light), neutral indicator, master warning indicator, high-beam indicator, right turn signal 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.

It also offers manual or automatic switching settings for the day (white) and night (black) display modes that maximise 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 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 and LED rear turn signals

7. Electric equipment

USB port

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

Handlebar switches designed for intuitive operation

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

Left handlebar switch

Right handlebar switch

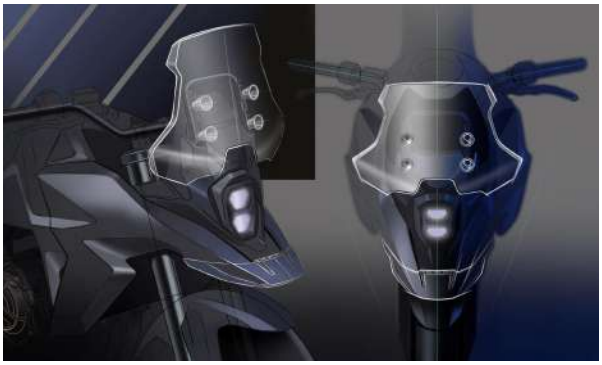
8. Styling design

The V-Strom 800RE design concept is *adventure for a new era*. The design team set the following goals for the new V-Strom 800RE's styling: The design must carry on the tradition of the V-Strom series, and 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 the 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 800RE features the latest evolution of the beak design first introduced to the world in 1988 on the DR-Z 800 desert racer.

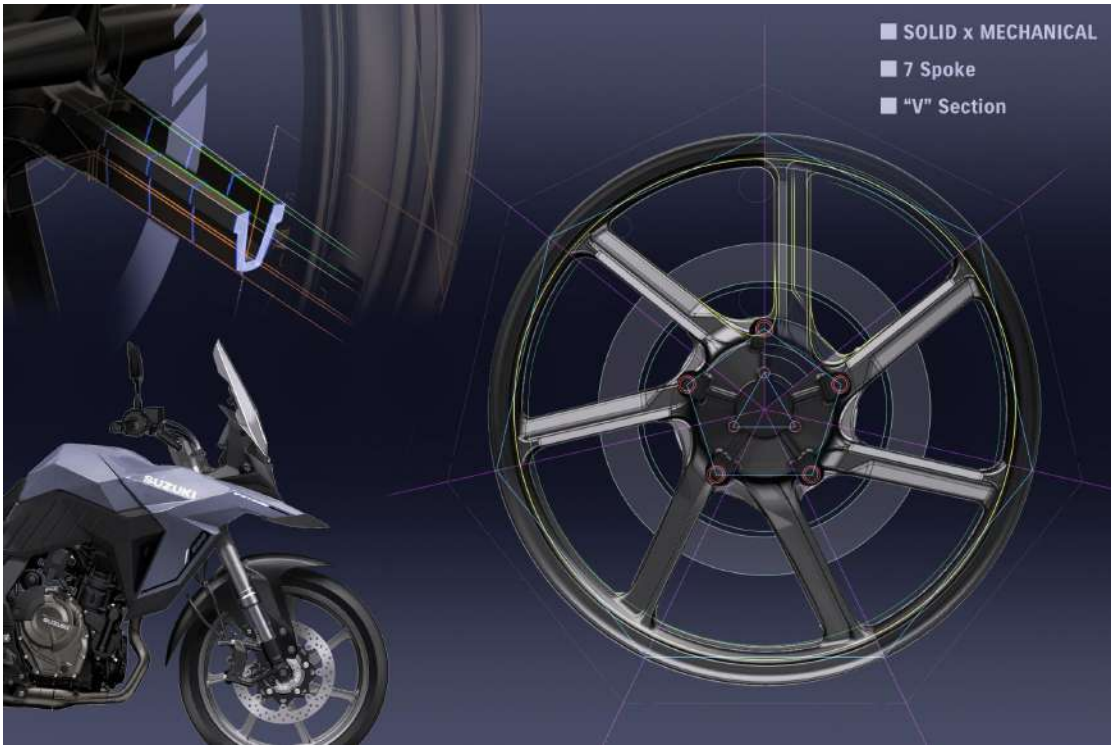
Features such as the cast aluminium wheels, the front beak design, and the wide, tall screen are in keeping with the goal of creating a modern look that speaks of both all-round capabilities and outstanding long-distance touring comfort. The width and shape of the beak create an image of strength while it and the vertically stacked hexagonal LED headlight assembly and other front end design elements give the front end a slim, light and compact look.

8. Styling design



The sharp lines of the body work and flat surfaces create a tough, yet sophisticated, look. Bold accents are introduced through the use of moulded accents parts at the end of the prominent beak and below the fuel tank. Angled lines set into the knee grip area of the moulded panel below the fuel tank lend yet another subtle accent.

The new seven-spoke cast aluminium wheels include a V shape in the design, thanks to the design freedom cast wheels offer versus wire spokes.



8. Styling design

8. Styling design

9. Colour and graphics

A trio of purposeful body colours

The colour lineup for the V-Strom 800RE consists of three options chosen to best express the concept of *borderless explorer*. The concept intends to express the 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 motorways, or twisty mountain passes.

Metallic Matt Steel Green (QVP) is a new colour developed to express this 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 favourable 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.

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

9. Colour and graphics

Body graphics

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

The clutch cover and magneto cover are finished in a colour selected to match the V-Strom 800RE's body colour, while the Suzuki name on the clutch cover is finished in a contrasting colour to create an effective accent.

10. Colour lineup

Pearl Vigor Blue (YKY)

Metallic Matt Steel Green (QVP)

Glass Sparkle Black (YVB)

11. Accessories

A comprehensive range of genuine accessories gives customers the opportunity to customise and personalise their V-Strom 800RE, and tailor it to their specific needs. Owners can choose from an array of items that can enhance touring comfort, utility, and protection, and to achieve their desired look.

11. Accessories

<table>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>1. Plastic top case (35L)
35 litre storage solution with one-key system using the ignition key for locking/unlocking.</td><td>2. Top case carrier plate
Top case carrier plate is designed only for installing 35L plastic top case.</td><td>3. Cushion pad
Improves riding comfort for pillion. To be installed on 35L plastic top case.</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>4. Plastic side case set
Uses one-key system with ignition key used for locking/unlocking.</td><td>5. Side case upper bracket
Required for installing plastic side case set.</td><td>6. Side case lower bracket
Required for installing plastic side case set.</td></tr>
<tr><td colspan="2">   </td><td>  </td></tr>
<tr><td>7. Plastic top case (56L)
Large plastic top case with embossed S logo. Lock and key included. Cannot be used with side case set.</td><td>8. Top case carrier set
Top case carrier plate is designed only for installing 56L plastic top case.</td><td>9. Aluminium top case
Aluminium top case embossed with Suzuki logo. Available in silver or black, 38L.</td></tr>
</table>

11. Accessories

		
10. Top case carrier plate Top case carrier plate is designed for installing aluminium top case.	**11. Aluminium side case set** Aluminium side case set embossed with Suzuki logo. Available in silver or black, 37L.	**12. Side case bracket** Required for installation of aluminium side case set.
		
13. Touring screen Designed to offer higher level of touring comfort, 38mm taller than standard screen.	**14. Accessory bar** Adds additional protection and gives tougher look. Required for fog lamps and skid plate, in conjunction with accessory bar tube.	**15. Accessory bar tube** Required for installing accessory bar, skid plate or under cover.
		
16. LED fog lamp set Bright LED fog lamps attached to accessory bar, improving visibility at night.	**17. Centre stand** Brings bike to stable upright position, ideal for maintenance.	**18. Aluminium skid plate** A tough skid plate to enhance look. Use in combination with accessory bar tube.

11. Accessories

		
19. Under cowl Another option to enhance look and style. Not to be used in combination with accessory bar tube.	**20. Under cover** Additional option to provide engine protection. Use in combination with accessory bar tube.	**21. Hand guards** Provides protection from weather and debris.
		
22. Heated grips Heats entire grip surface with three heat settings to choose from.	**23. Side stand extension** Provides larger contact surface when parking on mixed or unstable surfaces.	**24. Low seat** 20mm lower seat option than standard.
		
25. High seat 30mm higher seat option than standard.	**26. Mirror extender** Raises mirror by 50mm and adjustable 40mm sideways to give more rear visibility options.	**27. Fuel tank pad** Tank cover scratch protection with V-Strom logo.

11. Accessories

		
28. Fuel cap protection Protects fuel cap from scratches.	**29. Fuel tank protection foil** Protects against scratches.	**30. Navigation bracket** Navigation bracket with damping system installed at centre of handlebar.
		
31. DC socket Gives option to charge electronic devices, installed under seat.	**32. Wheel decals (front)** Decals to enhance look, available in red and grey.	**33. Wheel decals (rear)** Decals to enhance look, available in red and grey.

12. Specifications

Overall length		2,255mm (88.8in.)
Overall width		905mm (35.6in.)
Overall height		1,355mm (53.3in.)
Wheelbase		1,515mm (59.6in.)
Ground clearance		185mm (7.3in.)
Seat height		825mm (32.5in.)
Kerb mass		223kg (492lbs.)
Engine type		Four-stroke, DOHC, two-cylinder, liquid-cooled
Bore x stroke		84.0mm x 70.0mm (3.3in. x 2.8in.)
Engine displacement		776cc (47.4 cu. in.)
Compression ratio		12.8 : 1
Fuel system		Fuel injection
Starter system		Electric
Lubrication system		Forced feed circulation, Wet sump
Transmission		Six-speed constant mesh
Suspension	**Front**	Inverted telescopic, coil spring, oil damped
	Rear	Link type, coil spring, oil damped
Rake / trail		26° / 124mm (4.9in.)
Brakes	**Front**	Disc, twin
	Rear	Disc
Tyres	**Front**	110/80R19M/C 59V tubeless type
	Rear	150/70R17M/C 69V tubeless type
Ignition system		Electronic ignition (transistorised)
Fuel tank capacity		20L
Oil capacity (overhaul)		3.9L
Fuel consumption		64.12mpg in WMTC
CO_2 emissions		104 g/km

ENDS