Husqvarna Motorcycles – Motocross Model Year 2024

Media Information

The latest generation of Husqvarna Motorcycles' TC and FC motocross machines are expertly crafted and equipped with the latest technology, electronic advancements, and rider aids to offer assured on-track performance.

For 2024, all five machines are updated with a stunning, Swedish inspired colour scheme and high-grip seat covers, together with revised suspension settings to further improve the agile handling of each motorcycle. Designed to outperform their competition, each 2-stroke and 4-stroke model is engineered to compete at the highest levels of racing.

Skilfully assembled with high quality components and the latest in technical innovations, the TC and FC models continue to set the standard for premium motocross machinery. With the TC 125 and TC 250 equipped with Electronic Fuel Injection (EFI) and electric starter, these two models are the machines of choice for all serious 2-stroke riders.

The 2024 FC 250 and FC 350 are powered by DOHC engines that are designed to be class-leading in terms of torque and peak power, while also enhancing each bike's overall handling. These proven 4-stroke models, together with the iconic FC 450, utilise the latest technology and rider aids for superior performance. All feature premium components ensuring unrivalled reliability.

Technical Highlights

- New grey and yellow graphics for a striking yet understated look
- New high-grip seat cover for improved control under hard acceleration
- New suspension settings for improved cornering agility
- Bodywork designed with specifically tailored ergonomics for easier movement on the motorcycle
- Hydro-formed chromium molybdenum frame for refined anti-squat behaviour
- Topology-optimised die-cast aluminium swingarm provides optimal rigidity at a low weight
- Throttle body fuel injection on 2-stroke engines ensures class-leading power and rideability
- FC 250 and FC 350 DOHC engine provides class-leading torque and peak power
- Quickshifter provides seamless up-shifting on 4-stroke models
- High-performance Brembo hydraulic clutch system
- Aluminium-polyamide hybrid subframe construction providing specifically calculated rigidity and advanced durability
- WP XACT 48 mm front forks with AER technology offer progressive end-of-stroke damping
- WP XACT rear shock design with CFD-optimised main piston and tool-free adjusters
- Multifunctional Map Switch activates the Quickshifter and engages Traction and Launch Control
- Premium-quality ProTaper handlebars
- Electric starter on all models powered by a lightweight Li-Ion 2.0 Ah battery

Features and benefits

Frame

The hydro-formed, laser-cut and robot-welded frame is expertly crafted. Constructed with specifically calculated parameters of longitudinal and torsional flex, the frame provides exceptional rider feedback, energy absorption, and straight-line stability. Additionally, the frame features forged brackets for mounting the skid plate, which is available as Technical Accessory.

Rotational masses in the frame and the forged steering head connection have been specifically positioned to reduce chassis squat. Together with the shock mounting, which is not connected to the main tube, the anti-squat of the chassis has been optimised for exceptional balance on acceleration and turning. In addition, the wall thickness of the frame has been optimised to achieve reliability and specific rigidity in high stress areas such as the steering head and the upper shock mount. Parallel frame mounts (same position on left and right sides) provide optimized chassis flex characteristics while straight-line stability remain unrivalled.

Another highlight of the frame topology is that the footrest mounting positions have been moved inwards, resulting in less susceptibility to the footrests catching in deep ruts or clipping take offs when scrubbing jumps. The overall size of the footrests has been optimized, designed with the help of state-of-the-art Computational Fluid Dynamics (CFD). The one-piece steering head seal ensures outstanding reliability and allows for easier mounting during a replacement or service.

The frame is finished off in a premium metallic blue powder coating with standard frame protectors guaranteeing superior protection, durability, and advanced grip in any condition.

- Specifically engineered longitudinal rigidity → exceptional rider feedback, energy absorption, and stability
- Optimized placement of rotational masses and shock mounting → for enhanced anti-squat behaviour from the chassis
- Topology-optimised frame wall thickness for specific rigidity and reliability in high-stress areas (e.g., steering head, shock mount)
- Parallel frame mounts (same position on left and right side) for optimal flex characteristics
- Footrest mounting position moved inwards for reduced risk of catching the footrests in deep ruts or when scrubbing
- Service friendly one-piece steering head seal → outstanding reliability, easier mounting
- Durable metallic blue powder coated finish with standard frame protectors

Polyamide-reinforced aluminium subframe

Using 60% polyamide and 40% aluminium, the two-piece subframe has a total weight of just 1.8 kg. With the help of computational dynamics, specific rigidity was engineered into the light and robust subframe to deliver outstanding handling and rider comfort.

The lower subframe spars and frame mounts are made from cast aluminium profiles to guarantee robustness and reliability where needed. The upper subframe is made from injection-moulded polyamide, enabling specific flex characteristics and allowing a lightweight construction.

- Topology-optimised polyamide/aluminium hybrid construction
- Lower subframe spars and frame mounts made from (cast) aluminium profiles → extremely robust and reliable with no weld joints

- Upper subframe made from injection-moulded polyamide → specific rigidity and flex benefit handling and comfort

Swingarm

The hollow, die-cast aluminium swingarm is designed to offer optimal stiffness and reliability at the lowest possible weight. The topology has been optimised to ensure precise rigidity, while a state-of-the-art casting process reduces weight. In order to optimise and match the chassis flex characteristics, a 22 mm rear axle is fitted.

Additionally, the chain guide and chain slider have been designed for exceptional durability and less susceptibility to catching on external objects. This design will help reduce dirt build up around the swingarm and chain guide, especially in extreme muddy conditions.

Chain adjustment markings are also visible from above for easy adjustments.

- Die-cast swingarm → topology-optimised for optimal rigidity
- Optimised casting process for reduced weight
- 22 mm rear axle optimised to match chassis flex characteristics
- Chain guide and chain slider aligned with swingarm surface for optimal durability and less susceptibility to catching on external objects

WP XACT front fork with AER technology

The 48 mm split air fork features a capsulated air spring and pressurised oil chamber for progressive and consistent damping. Oil and air bypasses reduce pressure peaks and, in combination with a midvalve damping system, the fork provides exceptional feedback and rider comfort. A hydrostop improves bottoming resistance through more progressive damping force in the last 40 mm of travel. Additionally, rebound is also reduced leading to the fork being lower on initial acceleration after a hard landing. Updated shim stack settings improve the overall balance of the machine and offers enhanced comfort by keeping the suspension higher in the stroke. This leads to significantly noticeable improvements in cornering agility.

Settings are easily adjusted via a single air-pressure preload valve, as well as via easy access click adjusters for compression and rebound. The fork protection ring increases protection against dirt intrusion on the fork seals. Additionally, the air pump needed to adjust the fork's air spring pressure is provided as standard.

- Updated suspension settings → improves overall balance and comfort by keeping the suspension higher in the stroke.
- WP XACT front fork → 48 mm air type with split damping function
- Midvalve damping system → exceptional damping and consistent performance
- Capsulated air spring and pressurized oil chamber → progressive and consistent damping
- Hydrostop in fork legs → improved bottoming resistance and reduced rebound
    - More progressive damping in last 40 mm of travel (total 305 mm)
    - Reduced rebound → fork stays lower on initial acceleration after hard landings
- Easy access clicker dials → simple and fast clicker settings
- Fork protection rings → increased protection against dirt intrusion

CNC-machined triple clamps

Made from high-grade aluminium, the 22 mm offset CNC-machined triple clamps ensure a precise geometry of the fork clamps to guarantee perfect alignment of the fork tubes and a highly responsive and smooth fork action. The upper triple clamp is stiffer and works in harmony with the front forks to offer superior handling and stability. A 3-way handlebar adjustment is standard and allows for customisable ergonomics.

Topology-optimised handlebar mounts provide increased grip surface for less handlebar twist at the same weight as the previous generation. Additionally, they allow for both rubber-damped and fixed mounting to offer customisable handlebar flex.

- Rubber-damped → less vibration, less precise front-end feel (OE)
- Fixed → increased vibration, more precise front-end feel

The front number plate integrates a triple clamp protector that covers the lower clamp and protects it from wear caused by roost.

- CNC-machined aluminium with anodised surface → finest quality and reliability
- Perfect clamping and alignment → smooth fork action
- Topology-optimised handlebar mounts → increased grip surface for less handlebar twist at the same weight as the previous generation
- Rubber damped handle clamp → reduced vibration, increased comfort
- Adjustable handlebar position → customisable ergonomics

WP XACT rear shock

The computational fluid dynamics (CFD) optimised main piston in the shock improves initial comfort and provides strong hold-up. Differently sized flow holes allow the shims to open more easily and reduce the overall stress of oil flow and pressure on the shims. Reduced weight also means less moving mass, resulting in lower forces on the main piston. Updated shim stack settings focus on improved balance and comfort by keeping the suspension higher in the stroke. This leads to significantly noticeable improvements in cornering agility.

A fully hand-adjustable dual compression control concept allows the high and low speed settings to be easily changed by hand. Together with the rebound adjuster, which is also hand or tool adjustable, riders are now able to adjust their shock settings without the help of a mechanic at the racetrack.

In addition to the tool-free setting adjustment options, the preload adjuster brings increased resistance to dirt intrusion. A two-piece spring retainer allows for quick mounting without splitting the shock.

With its low-friction SKF linkage seals, the WP XACT rear shock provides advanced damping characteristics for unsurpassed traction and energy absorption. A pressure balance inside the shock ensures consistent damping, resulting in superior rider comfort and feel.

- Updated suspension settings → focus on improved balance and more comfort by keeping the suspension higher in the stroke
- CFD-optimised main piston increases initial comfort and guarantees strong hold-up
- Optimized ground clearance → lower risk of damage in extreme bottoming-out situations
- Dual compression control allows high and low speed settings to be adjusted by hand

- Rebound adjuster allows changing of the setting by hand or tool
- Reworked preload adjuster with increased dirt intrusion resistance and quick mounting concept
- Low-friction SKF linkage seals → refined rear shock response for advanced damping characteristics
- Pressure balance inside the shock body → consistent damping
- Two-piece spring retainer allows for quick mounting and assembly of preload adjuster and shock

Brembo hydraulic clutch

The high-performance Brembo hydraulic clutch system guarantees even wear, near maintenance-free operation, and perfect action in every condition. This means that play is constantly compensated so that the pressure point and function of the clutch remains identical in hot or cold conditions, as well as over time. Countless hours of race-focused testing have proven the exceptional reliability of the high-quality, Italian-made Brembo hydraulic system.

- Brembo hydraulic clutch system → perfect action and outstanding reliability

Brakes

The highest level of quality is guaranteed with class-leading Brembo calipers and controls. The 260 mm front, and 220 mm rear wave discs deliver superior stopping power, instilling confidence in all conditions.

- Brembo brake calipers and high-performance discs → superior stopping power with greater control and confidence

ProTaper handlebar

The ProTaper handlebar is second to none for function and style. Manufactured to exacting standards, the handlebar features class-leading fatigue resistance at a minimal weight. The handlebar bend further increases comfort with an optimal pressure point on the rider's hands.

- ProTaper handlebar → class-leading function and style
- Husqvarna bend → optimal comfort

Grips and throttle assembly

The ODI lock-on grip on the left side does not require gluing, while on the right, the vulcanised grip features an innovative integrated throttle mechanism. The assembly has easy free-play adjustment and, by changing a cam, throttle progression can be altered.

- Throttle assembly and ODI grips → easily alter throttle progression; easy grip mounting without glue

Footrests

The Computational Fluid Dynamics (CFD) designed footrests offer a bigger surface for boot soles while being less susceptible to catching on deep ruts, take-offs when scrubbing, or trackside barriers. This was achieved by utilising a narrower mounting concept which reduces overall weight with the design offering better control of the machine in all conditions.

- Topology-optimised, die-cast footrests → reduced weight and less susceptible to dirt build-up
- Footrest mount integrated into the frame → narrower profile is less susceptible to hook on deep ruts

Map Select Switch, Quickshifter, Traction and Launch Control

Designed for easy and intuitive operation, the Map Select Switch comes as standard. It activates Traction and Launch Control, selects between two engine maps (aggressive/smooth), and activates the Quickshifter on 4-stroke models. Map 1 (white) is the standard map for linear, predictable power, while Map 2 (green) is an aggressive map for added throttle response and a more explosive power output.

The Quickshifter can be activated or deactivated via the Map Select Switch. The function works only when upshifting, interrupting the ignition for a fraction of a second. This allows for smooth gear changes, even with the throttle fully open and without using the clutch. The Quickshifter works by a sensor on the shift drum registering the force from the shift lever and sending a signal to the ECU to interrupt the ignition timing. To prevent unintended shifts and false neutrals, the function is only active from second to fifth gears.

With the engine at idle, Launch Control is engaged by pressing the Traction Control and Quickshifter buttons simultaneously. Both symbols will start flashing to indicate that Launch Control is active. This function limits the amount of power to the rear wheel, improving traction, and preventing loss of control under hard acceleration. Once the rider shifts up a gear, the Launch Control will deactivate automatically. Additionally, the Quickshift function is deactivated while Launch Control mode is engaged.

Traction Control on 4-stroke models is engaged by a switch marked ‘TC’ and functions by analysing throttle input from the rider and the rate at which engine RPM increases. If the RPM increases too quickly, the Engine Management System (EMS) registers a loss of grip and reduces the amount of power to the rear wheel for maximum traction. This is a distinct advantage in wet or muddy conditions.

- Handlebar Map Select Switch → alters engine characteristics according to conditions and rider preference
- Quickshift function → clutch-free upshifting
- Traction Control → optimal traction in all conditions
- Launch Control → maximum traction for perfect starts

Start/stop switch

The combined start/stop switch on right side of handlebar allows for easy, intuitive starting and stopping of the engine.

Engine Management System (EMS)

The Keihin EMS is specifically designed to be small, light, and fast at processing data. It integrates Launch Control for perfect starts, selectable engine maps via the Traction Control switch on the handlebar, as well as the Quickshift function. Combined with the gear sensor, power delivery is tailored for each gear.

A Rollover Sensor (ROS) cuts the ignition in the event of extreme crashes, adding another level of safety to the Husqvarna motocross machines. Additionally, the hour meter comes with an integrated FI status LED and a fuel level indicator.

- Keihin EMS → small, light and fast at processing engine data for more efficient engine management
- Rollover Sensor (ROS) → automatic cuts the ignition during extreme crashes
- Hour meter with integrated FI status LED and fuel level indicator
- Gear sensor → specific engine maps for each gear

Keihin throttle body

The 4-stroke range features a 44 mm Keihin throttle body while the 2-stroke range features a 39 mm throttle body. The injectors are positioned to ensure the most efficient flow into the combustion chamber. To ensure optimal throttle response, the throttle cable is mounted directly without a linkage to provide a more immediate throttle response and feel.

On the 2-stroke models, the 39 mm Keihin throttle body features dual injectors which are positioned for optimal flow and a more immediate throttle response thanks to the direct cable mounting. Idle is controlled over the throttle valve (not over a bypass system as on Transfer Port Injection) with a dual injector setup – one low load injector and one “top-feed” oriented injector for maximum performance before the throttle valve.

In summary, this provides much better idle control, more stable idle behaviour, and a much better fuel/air mixture. The results are more power, more response, and a larger possible fuel/air operation window in comparison to TPI. Therefore, it is less prone to engine cut-outs or hesitations, and less sensitive to different ambient conditions (e.g. temperature, altitude, humidity).

- 4-stroke throttle body → 44 mm, injector positioned for optimal flow, more immediate throttle response thanks to direct cable mounting
- 2-stroke throttle body → 39 mm with two injectors positioned for optimal flow and more immediate throttle response thanks to direct cable mounting

Exhaust system

Tailored specifically for each model using an innovative 3D design process, the 2-stroke header pipes offer optimal geometry, performance, and ground clearance, making them less susceptible to damage. The 2-stroke mufflers also feature an aluminium mounting bracket and advanced internal construction for excellent noise damping and weight saving.

The 4-stroke exhaust systems are expertly designed to deliver leading performance at the lowest possible weight. The header pipe features a flow-designed resonance chamber integrated into the header pipe and is manufactured in two pieces to be as compact as possible. The position of the joint allows it to be removed without having to remove the rear shock. Further innovation allows for a short, compact silencer without increased noise levels. The silencer is crafted from lightweight aluminium and is stylishly finished in a black coating to highlight its premium quality.

- Compact exhausts → lightweight and engineered for optimal performance
- Header pipe mounted directly onto engine mount for easy serviceability
- Header joint position → removal of exhaust without removing rear shock

Electric start and Li-Ion battery

Along with the benefit of an easy electric starting system, a Li-Ion 2.0 Ah battery is fitted to the full Husqvarna motocross range. The Li-Ion battery weighs approximately 1 kg less than a conventional lead/acid battery, so the convenience of electric starting is delivered while minimising overall weight.

- Electric starter → easy starting at all times
- Li-Ion battery → lightweight, 1 kg lighter than a conventional battery

Integrated cooling system and radiators

The radiators are expertly crafted by WP using high-strength aluminium. Computational Fluid Dynamics (CFD) optimisation is used to channel air through the radiators more efficiently and provide optimal cooling in any condition. The cooling system is integrated into the frame allowing for optimal cooling by channelling coolant through the frame while eliminating the need for additional hoses. A large centre tube running through the frame reduces the pressure at this point in the system allowing for a more consistent coolant flow and includes an internal thermostat for added reliability.

Additionally, the radiators are mounted close to the centre of gravity and contribute to the outstanding handling agility of each model in the motocross range.

- Integrated cooling → maximum efficiency in minimum space
- Bayonet closure radiator caps
- WP radiators → efficient for optimal cooling
- Large central tube → consistent coolant flow

Fuel tank

The 7.2 litre polythene fuel tanks incorporate a threaded filler cap and an integrated fuel pump. A one-piece fuel pump with integrated filter provides optimal fuel supply and allows the tank to be emptied further at low fuel levels. The external fuel line is specifically positioned to make it less exposed and susceptible to damage.

- 7.2 litre polythene fuel tank → larger capacity for extended running times
- One-piece fuel pump and filter for optimal fuel supply → tank can be emptied further at low fuel levels
- External fuel line routing → less exposed and susceptible to damage

Airbox and tool-less air filter access

The Computational Fluid Dynamics (CFD) optimised airbox is designed with precisely positioned inlet ducts to prevent air deformation and ensure maximum airflow and filter protection. The air filter is easily accessed, without tools, by removing the left side panel. Easy maintenance is guaranteed by the Twin Air filter element and filter cage design, which offers a simple fail-proof mounting system for safe and accurate filter installation.

- CFD optimised airbox → exceptional air flow and maximised filter protection
- Intuitive filter mounting system → safe and accurate protection against dirt
- Tool-less filter access → quick and easy maintenance
- High-flow airbox cover in the by-pack → added customisability of the engine response

Wheels (all TC models)

Black high-strength alloy rims by D.I.D with laser engraved logos are laced to CNC machined hubs using lightweight spokes and silver anodised aluminium nipples. The nipples incorporate an advanced design which reduces the frequency of spoke checks and maintenance.

- Lightweight but strong and reliable construction → minimum unsprung weight

Wheels (all FC models)

Black high-strength anodised EXCEL Takasago rims are mounted to CNC-machined hubs using lightweight spokes and silver anodised aluminium nipples to offer maximum weight savings and optimised handling and stability, even in the most extreme conditions.

- Lightweight but strong and reliable construction → minimum unsprung weight

Tyres

Dunlop GEOMAX MX33 Motocross tyres featuring the proven 'block-within-a-block' design for more progressive cornering and superior grip are fitted as standard.

- Developed in top-level AMA Supercross and Motocross → enhanced handling, cornering, and steering feel
- Impressive performance on all surfaces including sand, mud, and hard pack
- Increased durability and crack resistance through an innovative rubber compound

Bodywork

The Motocross range features bodywork which clearly showcases Husqvarna Motorcycles progressive approach to offroad motorcycles and new, grey and yellow graphics stylishly adorn the Swedish-inspired design.

An optimized rider triangle for better knee contact, especially when riding in the standing position, inspires confidence for riders of every ability and enables them to perform at the highest level for extended periods of time. The slim contact surfaces on the bodywork allow the rider to move around easily on the machine for total control at all times.

The flat seat profile, combined with a new style high grip seat cover, deliver superior comfort and control in all conditions. A recessed pocket under the seat, just above the airbox, allows for easy lifting of the machine onto, and off of motorcycle stands.

- New grey and yellow graphics → striking, Swedish-inspired design
- Rider triangle optimized for exceptional knee contact, especially when riding in the standing position
- Large contact surface → allows for improved gripping and easier movement on the machine
- Recessed grip pockets → allowing better grip to lift the motorcycle
- Seat → flat seat profile and new high-grip seat cover for exceptional comfort and control in all conditions

Technical information by model

FC 250

Engine

The FC 250 engine is tilted 2° backwards when compared to the previous generation which repositions the front sprocket to be 3 mm lower. The engine is designed to offer improved mass centralisation for enhanced handling.

Service markers on the engine (▲) clearly show where to use washers, making maintenance and service easier than in the past.

All major components and shaft arrangements are carefully designed and placed to best suit the performance and handling characteristics of the overall package.

The 250cc engine is not only light at 26.11 kg, but also remarkably powerful with an overall output of more than 47 hp.

- Engine design → light and compact for optimised mass centralisation
- Low-friction design → reduces overall drag and vibration
- Outstanding high-revving performance engine → over 47 hp peak power and a 14,000-rpm rev limit
- Easy serviceability of engine internals with added service markers

Cylinder head

The DOHC cylinder head features finger followers with a DLC (Diamond Like Carbon) coating resulting in minimal friction and optimal performance. These actuate large titanium valves (32.5 mm intake, 27.5 mm exhaust) which at the 14,000-rpm limit, open and close multiple times every second to deliver the fuel/air mixture into the combustion chamber for optimal power throughout the rev-range.

The 27.5 mm exhaust valve is a result of the bore/stroke ratio which delivers an optimised gas flow. Valve timings have been adapted to the valve measurements, working in perfect harmony with the camshaft.

For easy serviceability and maintenance work within the engine, the camshaft bearing bridge is screwed and thus increases stiffness. Also, the head gasket comes with a ‘stopper design’, reducing sealing gap oscillations caused by gas force.

- DOHC cylinder head → Advanced durability and serviceability
- Finger followers with DLC coating → reduce friction and guarantee optimal performance
- Large titanium valves (32.5 mm intake, 27.5 mm exhaust) with 27.5 mm exhaust valve → optimized gas flow
- Camshaft → adapted valve timing to valve measurements
- Camshaft bearing bridge increasing stiffness and improving serviceability (screwed design)
- Cylinder head gasket with stopper design → reducing sealing gap oscillations caused by gas force

Cylinder and piston

The 81 mm bore cylinder houses a forged bridged-box-type piston made by CP with an extremely light weight of only 150 g. Both the cylinder and piston are professionally engineered from high-strength aluminium for outstanding performance and reliability. The 48.5 mm stroke and the compression ratio of 14.5:1 provide exceptional torque and peak performance.

Thanks to the Computational Fluid Dynamics (CFD) optimised combustion chamber, the inlet port is smaller resulting in increased engine responsiveness.

- 81 mm bore and 48.5 mm stroke
- Large 81 mm bore and larger diameter exhaust valves → high-revving, quick response
- CFD optimised combustion chamber → small inlet port for improved engine responsiveness
- Compression ratio of 14.5:1 → outstanding torque and peak power
- Forged bridged-box-type piston → high performance and reliability

Crankshaft

The crankshaft is designed to offer the best possible performance while being perfectly positioned in the engine cases to centralise oscillating masses for optimal handling. The plain big-end bearing features two force-fitted bearing shells ensuring maximum reliability and durability, guaranteeing long service intervals of 90 hours.

- Plain big-end bearing with force-fitted bearing shells → increased durability and service intervals
- Friction bearing on the counter-balancer shaft → increased durability

Crankcases

The FC 250 engine is designed with mass centralisation and weight reduction as the two main criteria. As a result, the crankcases have been designed to house the internal components of the engine in the perfect positions to achieve the ideal centre of gravity at the lowest possible weight. Engine mounting points are the same as on the FC 450 engine.

The casings are manufactured using a high-pressure die-cast production process, resulting in thin wall thickness while retaining exceptional strength and reliability.

- Light and compact crankcases → optimised mass centralisation
- Optimized engine mounting points (as on FC 450)
- High-pressure die-cast production process → thin walls for reduced weight while maintaining strength

Gearbox

Produced by Pankl Racing Systems, the 5-speed gearbox is designed to be extremely light and durable while featuring a 250cc-specific ratio (24:72). The optimized shift shaft reduces the operating forces required for gear changes with a Quickshift sensor on the shift drum ensuring smooth upshifts. The function can be activated/deactivated via the QS button on the Map Select Switch, located on the left side of the handlebar.

The shift fork has a low-friction coating for smoother shifting, while the gear lever is designed to prevent dirt build-up and ensure perfect gear selection in all conditions. An advanced gear sensor allows for specific engine maps to deliver the best possible performance in each gear.

- 5-speed gearbox by Pankl Racing Systems → 250cc-optimised transmission ratio (24:72) and exceptional durability and effortless shifting
- Optimized shift shaft → reduced operating force required for gear changes
- Integrated Quickshift sensor on the shift drum allows clutchless upshifts → seamless shifting function can be activated/deactivated with Map Select Switch
- Integrated gear sensor → specific engine maps for each gear

DS clutch

The FC 250 features a Diaphragm Steel (DS) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs.

The clutch basket features the same design as the FC 450 but adapted to the transmission ratio. It is a single-piece, CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

- Clutch basket with same design as FC 450 → adapted for transmission ratio
- DS clutch → lightweight with consistent action and exceptional durability

FC 350

Engine

The FC 350 engine is tilted 2° backwards when compared to the previous generation which repositions the front sprocket to be 3 mm lower. The engine is designed to offer improved mass centralisation for enhanced handling.

Added service markers on the engine (▲) clearly show where to use washers, making maintenance and service easier than in the past.

All major components and shaft arrangements are carefully designed and placed to best suit the performance and handling characteristics of the overall package.

The 350cc engine is not only light at 27.2 kg, but also remarkably powerful with an overall output of more than 57 hp.

- Engine design → light and compact for optimised mass centralisation
- Low-friction design → reduces overall drag and vibration
- Outstanding high-revving performance engine → over 57 hp peak power and 13,400-rpm rev limit
- Easy serviceability of engine internals with added service markers

Cylinder head

The DOHC cylinder head features finger followers with a DLC (Diamond Like Carbon) coating resulting in minimal friction and optimal performance. These actuate large titanium valves (36.3 mm intake, 29.1 mm exhaust) which at the 13,400-rpm rev limit, open and close multiple times every second to deliver the fuel/air mixture to the carefully designed combustion chamber for optimal power throughout the rev-range. Valve timings have been adapted to work perfectly in harmony with the camshaft.

For advanced serviceability and maintenance work within the engine, the camshaft bearing bridge is screwed and thus increases stiffness.

- DOHC cylinder head → Outstanding durability and serviceability
- Finger followers with DLC coating → reduce friction and guarantee optimal performance
- Large titanium valves (36.3 mm intake, 29.1 mm exhaust) → optimal gas flow
- Optimized camshaft → optimal valve timing and improved durability
- Camshaft bearing bridge increasing stiffness and improving serviceability (screwed design)

Cylinder and piston

The 88 mm bore cylinder houses a forged bridged-box-type piston made by CP. Both the cylinder and piston are professionally engineered from high-strength aluminium to create a compression ratio of 14.6:1 for outstanding torque and peak performance.

Optimized valve guides and valve shaft diameters in the Computational Fluid Dynamics (CFD) optimised combustion chamber provide exceptional engine responsiveness.

- Large 88 mm bore and diameter optimized exhaust valves → high-revving, quick response

- CFD optimised combustion chamber → optimized valve guides and valve shaft diameters for exceptional engine responsiveness
- Compression ratio of 14.6:1 → outstanding torque and peak power
- Forged bridged-box-type piston → high performance and reliability

Crankshaft

The crankshaft is designed to offer the best possible performance all while being placed in the perfect position to centralize oscillating masses for optimal handling. The plain big end bearing features two force-fitted bearing shells ensuring maximum reliability and durability guaranteeing long service intervals of 90 hours.

- Plain big end bearing with force-fitted bearing shells → increased durability and service intervals
- Friction bearing on the counter-balancer shaft → increased durability

Crankcases

The FC 350 engine is designed with mass centralisation and weight minimization as the main criteria. As a result, the crankcases have been designed to house the internal components of the engine in the perfect positions to achieve the ideal centre of gravity at the lowest possible weight. Engine mounting points are the same as on the FC 450 engine.

The casings are manufactured using a high-pressure die-cast production process, resulting in thin wall thickness while retaining exceptional reliability.

- Light and compact crankcases → optimised mass centralisation
- Optimized engine mounting points (as on FC 450)
- High-pressure die-cast production process → thin walls for reduced weight while maintaining strength

Gearbox

Produced by Pankl Racing Systems, the 5-speed gearbox is designed to be extremely light and durable while featuring an optimized transmission ratio (24:72). The optimized shift shaft reduces the operating forces required for gear changes with a Quickshifter allowing smooth upshifts. The function can be activated/deactivated via the QS marked button on the Map Select Switch, located on the left side of the handlebar.

The shift fork has a low-friction coating for smoother shifting, while the gear lever is designed to prevent dirt build-up and ensure perfect gear selection in all conditions. An advanced gear sensor allows for specific engine maps to deliver the best possible performance in each gear.

- 5-speed gearbox by Pankl Racing Systems → optimized transmission ratio (24:72) and exceptional durability and effortless shifting
- Optimized shift shaft → reduced operating force required for gear changes
- Integrated Quickshifter allows clutchless upshifts → seamless shifting function can be activated/deactivated with Map Select Switch
- Integrated gear sensor → specific engine maps for each gear

DS clutch

The FC 350 features a Diaphragm Steel (DS) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs.

The clutch basket features the same design as on the FC 450 but adapted to the transmission ratio. It is a single-piece CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

- Clutch basket with same design as FC 450 → adapted for transmission ratio
- DS clutch → lightweight with consistent action and exceptional durability

FC 450

Engine

The SOHC engine is the perfect example of the advanced engineering techniques used by Husqvarna Motorcycles. Offering peak power of more than 63 hp and with an overall weight of just 26.8 kg, a combined weight reduction of approximately 300 g is achieved when compared to the previous generation.

Mass centralisation is key to the engine design, enabling chassis engineers to position the engine closer to the centre of gravity for greatly improved handling and manoeuvrability. This was achieved by tilting the engine 2° backwards which positioned the sprocket 3 mm lower when compared to the previous generation. Together with the benefits of mass centralisation and reduced weight, the anti-squat behaviour of the chassis was significantly improved.

Attention was paid to the serviceability of the FC 450 engine. Drain bosses for fluids and added service markers on the engine (▲) clearly show where to use washers, making maintenance and service easier than before.

- Engine design → optimized mass centralisation and anti-squat behaviour
- Peak performance and minimal weight → 63 hp and only 26.8 kg
- Easy serviceability of engine internals → added service markers and drain bosses for liquids

Cylinder head

The SOHC cylinder head is incredibly compact and lightweight with a short profile and positions the camshaft as close to the centre of gravity as possible. Parallel frame mounts provide exceptional handling and agility.

Lightweight valves are actuated via a rocker arm and feature timing specifically designed to deliver precise levels of torque and throttle response. The diameter of each intake valve is 40 mm while the exhaust valves are 33 mm. A valve cover reduces the number of mounting screws (only two needed) and a single oil-spray jet guarantees efficient cooling while keeping weight to a minimum.

A fine punched cam chain, low-friction chain guides, and the low-friction DLC rocker arm coating offers optimum efficiency, reliability, and durability. Attention was paid to maintenance tasks with lock positions for the cam chain to provide easy serviceability of the valve train.

- SOHC cylinder head → more compact design, parallel frame mounts, and the camshaft positioned closer to centre of gravity
- Lightweight valve cover → only two mounting screws and one oil-spray jet for cooling
- Fine punched cam chain for added durability
- DLC coating and low-friction chain guides → optimum efficiency, reliability, and durability
- Easy serviceability of valve train → lock positions for cam chain

Cylinder and piston

The lightweight aluminium cylinder is an engineering masterpiece and features a 95 mm bore. The CP bridged-box-type piston features anodised annular grooves, adding durability and longer service intervals while weighing only 327 g. The compression ratio of 13.6:1 provides an outstanding peak performance of more than 63 hp.

- Lightweight aluminium cylinder → 95 mm bore / 63.4 mm stroke
- Lightweight, high-performance CP forged bridged-box-type piston → reduced oscillating masses
- Compression ratio of 13.6:1 → outstanding peak performance
- Anodised annular groove → added durability and longer service intervals

Crankshaft

The inertia produced by the crankshaft has been carefully calculated to deliver optimal traction and rideability from the powerful 450cc engine. The crankshaft is specifically positioned to harness the rotational mass at the ideal centre of gravity resulting in a lightweight, agile handling feel. A plain big-end bearing comprising two force-fitted bearing shells ensure maximum reliability and durability, guaranteeing long service intervals of 90 hours.

- Crankshaft position → ideal centre of gravity, improved handling
- Plain big-end bearing and force-fitted bearing shells → increased durability and service intervals

Crankcases

The crankcases are designed to arrange the shafts and engine internals in the ideal positions to offer the best-possible handling. Additionally, the position of the clutch shaft keeps the clutch above the oil level resulting in decreased drag and increased efficiency. A steel oil pump gear and oil jet increase the overall oil pressure to prevent overheating and aids the outstanding durability of the FC 450.

High-pressure die-cast production processes keep overall weight to a minimum, resulting in thin wall thickness while retaining reliability.

- Design → optimised mass centralisation and increased efficiency
- Steel oil pump gear and increased oil pressure → outstanding durability and resistance to overheating
- High pressure die-cast production process → thin walls for reduced weight while maintaining strength

Gearbox

The lightweight 5-speed gearbox is produced by Pankl Racing Systems and ensures the highest level of durability and reliability. A weight-optimised shift shaft reduces the operating force required for gear changes and the gearbox also features a transmission ratio of 29:72. A Quickshifter is positioned on the shift drum to ensure smooth, clutchless upshifts. The function can be activated/deactivated via the QS marked button on the Map Select Switch, located on the left side on the handlebar.

The gear lever features a design that prevents dirt build-up and keeps the lever tip in its original position, even in the toughest conditions. An advanced gear sensor selects a specific engine map tailored for each gear.

- 5-speed gearbox → optimised transmission ratio of 29:72 with smooth and precise shifting
- Weight-optimised shift shaft → reduced operating force required for gear changes

- Integrated Quickshift sensor positioned on the shift drum allows clutchless upshifts → seamless shifting function can be activated/deactivated with Map Select Switch
- Integrated gear sensor → specific engine maps for each gear

DDS clutch

The FC 450 features a Dampened Diaphragm Steel (DDS) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs. It integrates a damping system for better traction and durability. The clutch basket is a single-piece CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

The pressure lubrication provides exceptional clutch cooling, reducing clutch fade from frequent usage while the clutch basket has been optimized for the 5-speed transmission.

- DDS clutch → lightweight with consistent modulation and exceptional durability
- Advanced clutch cooling from pressure lubrication → reduced clutch fade from frequent use
- Optimized clutch basket → adapted for 5-speed transmission ratio

TC 125

Engine

All the latest innovations have been brought into the 2-stroke motocross platform and many parts of the TC 125 engine have been rearranged, modified, or developed from the ground up when compared to the previous generation. With 38.5 hp and an overall weight of just 17.9 kg, the engine sets the benchmark in the competitive 125cc class. The lightweight engine is designed to provide more torque than any 125cc 2–stroke engine on the market while maintaining a high-revving, lightweight 2-stroke character.

The engine is designed to centralize rotating mass for optimal performance with the chassis creating in a light and agile handling feel. The fuel injection system (Keihin EFI, 39 mm throttle body in combination with Vitesco EMS), and an electronic exhaust control allow for a more compact engine design with an engine map designed for each gear. The result is a tailormade power delivery for every situation.

Another focus during development of the TC 125 engine was put on the serviceability of the engine. Draining noses for liquids, an oil level indicator and added service markers on the engine (▲) clearly show where to use washers, making maintenance and servicing much easier.

A water pump concept includes a shaft featuring a drive wheel instead of a centrifugal regulator and is protected by the aluminium diecast water pump cover. The water pump design is shared among all 2-stroke engines, making it easy for dealers to supply spare parts in the rare case a replacement is needed.

A flange bushing on the swingarm bolts of the TC 125 provides advanced durability and gives the swingarm architecture the life span it deserves without keeping much attention to it in terms of service.

The versatile TC 125 engine allow all riders from beginners through to seasoned professionals to ride faster and reduce their lap times.

- Pinnacle of 2-stroke performance → 38.5 hp, 17.9 kg
- No jetting changes → 2-stroke EFI technology
- Mass-centralisation → significant benefits in handling and manoeuvrability
- Easy serviceability of engine internals → added service markers and draining noses for liquids

Cylinder head

The cylinder head features an external water temperature sensor for a clear indication of the engine's running condition. A "front" indication makes it close to impossible to mount the cylinder head the wrong way, which not only helps mechanics but also riders servicing engines by themselves.

The combustion chamber inserts follow the same logic. Mixing up inserts from different models will be a matter of the past. All these details significantly improve the overall engine serviceability.

Motocross specific cylinder timing and porting results in a high compression ratio for the TC 125 and no compromise between the TC and TE range.

- "Front" indicator on cylinder head → avoid incorrect installation

- Specific combustion chamber inserts → impossible to mix-up with inserts from other models
- Motocross specific cylinder timing and porting → pure motocross performance

Cylinder

The cylinder features a 54 mm bore. The highly innovative electronic exhaust control manages the opening of both the main exhaust and lateral exhaust ports via an actuator. On the TC 125, both the lateral exhaust ports and the main exhaust port open simultaneously to deliver the maximum power.

The machined finish on the upper contour of the exhaust port ensures accurate port timing delivering unrivalled performance in every situation.

- Electronical exhaust control → tailormade, linear and predictable power delivery
- Machined exhaust port → outstanding performance and controllability

Crankshaft

The crankshaft is designed with weight reduction in mind to increase the liveliness and response of the engine (300 g lighter than the previous generation). The perfect balance of rotating masses is achieved by balancing the weights of the crankshaft flywheel and the rotor. With this weight combination, vibrations are kept to an absolute minimum. The crankshaft is positioned to ensure that the rotational mass created has very little effect on the handling of the motorcycle.

- Lightweight crankshaft → responsive engine character
- Combination of crankshaft and rotor → very little vibration

Crankcases

The TC 125 engine is designed with mass centralisation and weight reduction as the main criteria. As a result, the crankcases have been designed to house the internal components of the engine in the perfect position to achieve the ideal centre of gravity and ensure the lowest possible weight. The casings are manufactured using a high-pressure die cast production process, resulting in thin wall thickness while retaining exceptional reliability.

The black powder coating provides additional durability to the engine cover while service and oil level markings improve the serviceability. Additionally, the engine is connected to the frame with symmetrical engine mounts (left and right side) resulting in an optimized flex characteristic.

- Light and compact crankcase, optimised mass-centralisation
- Symmetrical engine mounts
- Easy serviceability of engine internals with added service markers and draining noses for liquids

Electronic Fuel Injection (EFI)

The TC 125 features Electronic Fuel Injection. In cooperation with Keihin, a 39 mm throttle body was developed. The Electronic Control Unit (ECU) comes from Vitesco and works in harmony with the Keihin throttle body by always delivering the perfect fuel/air mixture. The ECU continuously analyses water temperature, air temperature, ambient pressure, pressure within the crankcase, rpm, and throttle position (TPS) to calculate and deliver the perfect fuel/air mixture for any riding situation.

Composite flaps on the outside of the reed valve case provide exceptional sealing of the intake tract. This design prevents excess fuel build-up in extreme up or downhill sections which can lead to overly rich engine settings. Industry leaders Boyesen Inc. supplies the carbon membranes for the reed valve.

A beneficial side effect of the Electronic Fuel Injection and the ECU is the implementation of the innovative electronic exhaust control.

With all these innovative features, it was possible to introduce different engine maps on the TC 125. Map 1 (white) is designed for hard pack while Map 2 (green) is more aggressive and suited to sand and heavier track conditions. Either map can be engaged via the 2-stroke Map Select Switch on the left side of the handlebar.

- EFI by Keihin (39 mm throttle body) → optimal power delivery and performance in any condition (no more re-jetting)
- Updated reed valve case design → guarantees correct fuel/air mixture even in the most extreme up or downhill sections

E-Start

The TC 125 comes with electric start. A kickstart is no longer in place and cannot be retrofitted. The starter motor comes without any intermediate shaft, saving weight and allowing a compact engine design with perfect integration. A robust but compact cover protects the starter motor from damage caused by roost or rocks. The 12,8V 2 Ah Lithium-Ion battery is placed under the seat and close to the centre of gravity. The engine can easily be started by pressing the combined start/stop switch on the right side of the handlebar. A high-quality stator and pickup from Mitsuba are built into the engine for outstanding reliability and an efficient power supply for the electronics.

- Electric start → saves time if the engine is stalled during races
- High-quality stator & pickup from Mitsuba → advanced reliability and efficient power supply for electronics

Gearbox

The 6-speed gearbox is manufactured exclusively by Pankl Racing Systems ensuring the highest level of durability and reliability. The gearbox features specific motocross gearing while the gear lever features an innovative tip design that prevents dirt build-up.

The shifting is made effortless with the optimized shift drum and shift fork. The shift shaft offers optimal leverage, resulting in a smooth and precise feel when shifting. The lever design and the transmission ventilation concept round out the gearbox features.

- 6-speed gearbox → manufactured by Pankl Racing Systems
- Optimized shift drum and shift fork → Optimal leverage for smooth and precise shifting
- Friction optimized shifting mechanism → less necessary lever force needed to change gear

DS clutch

The TC 125 features a Diaphragm Steel (DS) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs. The clutch basket is a single-piece CNC machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine. The clutch slave cylinder is shared among all 2-stroke engines and brings the advantage to dealers of keeping less spare parts in stock.

- DS clutch → lightweight with consistent modulation and exceptional durability
- Clutch slave cylinder → easy serviceability for mechanics

TC 250

Engine

The 250cc 2-stroke engine has for many years been the best combination of unsurpassed power within a lightweight construction. The simplicity and low maintenance cost of the 2-stroke motor has made it a favourite amongst motocross riders for generations. All the latest innovations feature on the latest generation TC 250 to maintain its best-in-class performance.

With more than 53 hp, and an overall weight of just 23.9 kg, the engine sets the benchmark in the competitive 250cc class. Many national championships now allow 250cc 2-strokes to race in the MX2 category which makes the TC 250 the perfect machine to compete against 4-strokes with.

The lightweight engine provides more torque than any 250cc 2–stroke on the market without losing its typical high-revving, lightweight 2-stroke character. The engine is designed to centralize rotating mass for optimal operation within the chassis which creates a light and agile handling feel.

A fuel injection system (Keihin EFI, Ø 39mm throttle body in combination with Vitesco EMS) and an electronic exhaust control allow for a more compact engine design. This technology also allows for a tailormade power delivery in each gear and for every situation.

Draining noses for liquids and added service markers on the engine (▲) clearly show where to use washers, making maintenance and service incredibly easy. Additionally, the aluminium diecast water pump cover is shared among all 2-stroke engines, making it easy for dealers to supply spare parts in the rare case it's needed.

The engine alone makes it easier to go faster for everyone, from beginners through to seasoned professionals.

- Pinnacle of performance → over 53 hp, 23.9 kg
- No jetting changes required→ 2 stroke EFI technology
- Mass-centralisation → significant benefits in handling and manoeuvrability
- Easy serviceability of engine internals → service markers and draining noses for liquids

Cylinder head

The cylinder head features an external water temperature sensor for a clear indication of the engine's running condition. A "front" indication makes it close to impossible to mount the cylinder head the wrong way, which not only helps mechanics but also riders servicing engines by themselves.

The combustion chamber inserts follow the same logic. Mixing up inserts from different models will be a matter of the past. All these details significantly improve the overall engine serviceability.

Motocross specific cylinder timing and porting results in a high compression ratio for the TC 250 and no compromise between the TC and TE range.

- "Front" indication on cylinder head → avoiding wrong installations
- Specific combustion chamber inserts → impossible to mix-up with inserts from other models
- Motocross specific cylinder timing and porting → pure motocross performance

Cylinder

The cylinder features a 66.4 mm bore. The highly innovative electronic exhaust control manages the opening of both the main exhaust and lateral exhaust ports via an actuator. On the TC 250, the lateral exhaust ports open before the main exhaust port opens to deliver controllable power.

The machined finish on the upper contour of the exhaust port ensures accurate port timing delivering unrivalled performance in every situation.

- Electronical exhaust control → tailormade, linear and predictable power delivery
- Machined exhaust port → outstanding performance and controllability

Crankshaft

The crankshaft is designed with weight reduction in mind to increase the liveliness and response of the engine. The perfect balance of rotating masses is achieved by balancing the weights of the crankshaft flywheel, the rotor, and the counter balancer shaft. With a perfect combination of these components, vibrations are kept to an absolute minimum. Engine internals are also positioned to ensure that the rotational mass created has very little effect on the handling of the motorcycle.

- Lightweight crankshaft → responsive engine character
- Combination of crankshaft, rotor, and counter balancer shaft → minimal vibration

Crankcases

The TC 250 engine is designed with mass centralization and weight minimization as a key theme. As a result, the lightweight engine casings are developed to house the shaft arrangements in the perfect position, centralising oscillating mass, and improving rideability. The casings are manufactured using a high-pressure die cast production process, resulting in thin wall thickness while retaining exceptional reliability.

The black powder coating provides additional durability to the engine cover while service and oil level markings improve the serviceability. Additionally, the engine is connected to the frame with symmetrical engine mounts (left and right side) resulting in an optimized flex characteristic.

- Light and compact crankcase, optimised mass-centralisation
- Symmetrical engine mounts
- Easy serviceability of engine internals with added service markers and draining noses for liquids

Counter balancer shaft

The TC 250 features a laterally mounted counter balancer shaft. This shaft significantly reduces vibrations resulting in a smoother and more comfortable ride with less rider fatigue.

- Counter balancer shaft → significantly reduced vibration

Electronic Fuel Injection (EFI)

The TC 250 features Electronic Fuel Injection. In cooperation with Keihin, a 39 mm throttle body was developed to fulfil the needs of the innovative, and state of the art 2-stroke injection system. The Electronic Control Unit (ECU) comes from Vitesco and works in harmony with the Keihin throttle body by always delivering the right amount of the fuel/air mixture. Therefore, the ECU continuously analyses water temperature, air temperature, ambient pressure, pressure within the crankcase, rpm, and throttle position to calculate the perfect fuel/air mixture for any riding situation.

Composite flaps on the outside of the reed valve case provide exceptional sealing of the intake tract. This design prevents excess fuel build-up in extreme up or downhill sections which can lead to overly rich engine settings. Industry leaders Boyesen Inc. supplies the carbon membranes for the reed valve.

A beneficial side effect of the Electronic Fuel Injection and the ECU is the implementation of the innovative electronic exhaust control.

With all of this innovation, the TC 250 features two engine maps. Map 1 is the standard, more mellow map for linear, predictable power, while Map 2 is the aggressive map for added throttle response and a more explosive power output. Either map can be selected via the 2-stroke Map Select Switch on the left side of the handlebar.

- EFI by Keihin (39mm throttle body) → optimal power delivery and performance in any condition (no more re-jetting)
- Updated reed valve case design → guarantees right fuel/air mixture even in the most extreme up or downhill sections

E-Start

The TC 250 comes with electric start as standard. A kickstart is not in place and cannot be retrofitted. The starter motor comes without any intermediate shaft, saving weight and allowing a compact engine design with perfect integration. A robust but also compact cover protects the starter motor from damage caused by roost or rocks. The 12,8V 2 Ah Lithium-Ion battery is placed under the rider's seat close to the centre of gravity. The engine can be started easily by pressing the combined start/stop switch on the right side of the handlebar. A high-quality stator and pickup from Mitsuba are built into the engine for outstanding reliability and an efficient power supply for the electronics.

- Electric start → less time lost if the engine is stalled and ease of use
- High-quality stator and pickup from Mitsuba → advanced reliability and efficient power supply for electronics

Gearbox

The TC 250 features a 5-speed gearbox manufactured exclusively by Pankl Racing Systems with motocross specific ratios. Additionally, precise and easy shifting is guaranteed thanks to the shift lever which prevents the build-up of dirt from blocking the lever tip in the toughest conditions thanks to its clever design.

- 5-speed gearbox → precise and easy shifting
- Gear lever → optimal leverage, smoother and precise shifting
- Friction optimized shifting mechanism → less lever force required

Clutch

The TC 250 features a Damped Diaphragm Steel (DDS) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs. It integrates a damping system for better traction and durability. The clutch basket is a single-piece, CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

- DDS clutch → light action with integrated damping system, increased traction, and reliability
- CNC-machined steel clutch basket → consistent modulation and exceptional durability

Technical Accessories

Available now from your local Husqvarna Motorcycles dealership is a competition-focused selection of high-quality Technical Accessories. Each and every component is designed to enhance the performance, style, or protection of all models in the 2024 motocross line-up.

Factory Racing Triple Clamp

Personalise the handling of all FC and TC machines with the Factory Racing Triple Clamp. Engineered to ensure 100% fork alignment with no ovalisation and used by Husqvarna Factory Racing, uncompromised suspension performance is guaranteed. The CNC-milled aluminium triple clamp offers two offset options for customised ergonomics - 20 mm for improved stability at high speed, or 22 mm for faster cornering. Complete with the steering stem and lower bearing already installed, the Factory Racing Triple Clamp is easy to fit and available with either a black or blue anodised finish.

Akrapovič "Evolution Line"

Unlocking further torque and performance from all FC models, the Akrapovič "Evolution Line" is made from high-grade titanium to offer a substantial weight saving. The header pipe is optimally routed from the exhaust manifold to improve power delivery while the silencer creates a rich exhaust note that complies with all current FIM and AMA sound regulations.

Factory Racing Wheel Set

New for 2024, the Factory Racing Wheel Set provides increased strength and stability. The WP hubs are milled from one piece of aluminium then anodised black before being laced to black EXCEL rims using strong spokes. The Factory Racing Wheel Set is an essential, durable upgrade for those competing on the toughest race tracks in the world.

Factory Seat

Using the same dimensions as the standard seat ensures all riders have total freedom of movement while riding stood up on the footrests. The Factory Seat is complete with a high-grip and tear-resistant cover for a durable and stylish appearance.

Factory Skid Plate

A blend of carbon fibre and injection molded plastic ensures effective protection for the engine and frame. Offering a light and strong construction, the Factory Skid Plate has been developed and rigorously tested for use in the most challenging offroad conditions.

Factory Racing Brake Disc Guard

To ensure the lowest possible weight, injection molding technology is used to manufacture the Factory Racing Brake Disc Guard, which protects the disc from damage to maintain continued braking performance. The guard features a front wheel spacer with an integrated central adaptor for fast wheel changes without needing to remove the cover, which is just one of the reasons why is used by Husqvarna Factory Racing.

Rekluse Outer Clutch Cover

CNC-machined from high-strength aluminium to ensure the highest level of impact resistance, the Rekluse Outer Clutch Cover improves durability and offers a long-lasting finish. As used by Husqvarna Factory Racing, this cover offers maximum protection at the lowest possible weight.

Factory Racing Frame Protection Set

Protect the frame without effecting the slim ergonomics of the FC and TC machinery with the Factory Racing Frame Protection Set. Manufactured using state-of-the-art injection molding technology ensures a thin but durable set of guards that are easy to install with the grippy outer surface enhancing control. As used by Husqvarna Factory Racing.

Factory Racing Brake and Clutch Master Cylinder Guard

An essential Technical Accessory for any serious racer, these new carbon fibre guards protect your front brake and clutch master cylinders from stone impacts to maintain perfect brake and clutch performance.

Functional Apparel

Designed and developed for serious racers and riders, Husqvarna Motorcycles provides a quality collection of protective, functional clothing made with the latest safety and fabric technologies for assured comfort, durability, and protection.

Moto 9S Flex Railed Helmet

An exciting new addition to Husqvarna Motorcycles' Functional Apparel, the Moto 9S Flex Railed Helmet is race proven and provides the highest level of protection and comfort. Featuring the latest in safety innovations, this premium helmet is low in weight with maximised ventilation for an enhanced on-track experience. Manufactured exclusively for Husqvarna Motorcycles by Bell Helmets.

Velocity 6.5 Goggles

Developed for professional racers by Leatt, the Velocity 6.5 Goggles feature a large, polycarbonate lens for an unrestricted field of vision. Protecting against harmful UVA, UVB, and UVC rays, the lens can be quickly removed for cleaning. A three-layer foam wicks away sweat while an optional nose guard offers additional face protection.

Railed Shirts

Available in two versions, the Railed Shirts are ultra-lightweight performance motocross shirts. Designed with a modern fit for unrestricted movement on the motorcycle, the breathable fade-free fabric incorporates mesh panels to further aid cooling. The Railed Shirts are differentiated by their own unique, bold styling.

Railed Pants

Strategically placed ventilation zones together with heat and abrasion-resistant inner knee sections highlight the premium spec of the restyled Railed Pants. Manufactured from lightweight and strong materials throughout, they are the perfect match for the Railed Shirt.

Crossfire 3 SRS Boots

With premium build quality and offering serious protection, the Crossfire 3 SRS Boots are designed to perform and protect. Fully adjustable to ensure a personalised and comfortable fit, these boots are made exclusively for Husqvarna Motorcycles by leading Italian brand Sidi.

Authentic Gear

The Authentic Gear is a line of entry-level functional clothing from Husqvarna Motorcycles. This quality range of apparel is manufactured with many of the same features found on high-end clothing. A helmet, shirt, pants, and goggles are included with all designs aligned with the FC and TC models for a stylish head-to-toe look.