

EXT
RACING SHOX

100% MADE IN ITALY



FERRO

USD 36

**TECHNICAL
PRESENTATION**



YOUR NEW E-MX WEAPON

At EXT Racing Shox the study and the development of new technologies never stops.

We are focused on the progress, bringing the best solution to the market with the aim to satisfy the needs of the most demanding riders.

Since the growing worldwide success of electric dirt bikes, we saw the opportunity to take our extraordinary decades-long know-how on suspensions inside this new world, implementing a new custom solution to achieve the highest performance for our customers. Something that brought your E-MX to the next level!

EXT Racing Shox is extremely proud to introduce the brand new FERRO USD 36, an upside-down 36mm stanchions fork which it's going to complete our E-MX line-up.

Hard heat-treated chrome moly steel stanchions (Superfinish surface treatment), 7000 series aluminium construction upper legs and a 205mm travel design with a dedicated triple clamp, make the core of the new 36mm USD fork, developed for minimum friction and high stiffness.

A PERFECT MATCH

Together with the popular ARMA MX, already known for his reliability and high-end performance, you can now have access to the best upgrade suspensions package on the market, purposely built to boost the performance of your electric dirt-bike.



CORE FEATURES

- ø36mm hard chromed steel stanchions (heat treated 42CrMo4) with Superfinish surface treatment
- Dedicated triple clamp design uppers (7000 aluminium series)
- HS3 system: twin positive air system → 1 large negative self-balancing air chamber, allows to get an optimum level of support through all the travel
- Chromed steel air spring shaft with Superfinish surface treatment
- High-flow 3-way adjustable cartridge with independent High/Low speed compression and rebound adjustments
- External pressure air release system on both legs
- Twin hexagonal floating axle, boost compatible ø20mm
- Air spring and cartridge radial guide system with bespoke aeronautical seals (minimize friction on side loads)
- Large piston design for best damping control and separate IFP/coil energized compression valve
- No cavitation and low hysteresis
- Self-hydraulic cartridge bleeding
- Dedicated Mobile Sliding DU guiding system with super-long static overlap (for maximum guidance and best torsional rigidity). (CGB Continuously Guided Bushing system, increase stiffness)
- 205 mm of travel and 44 mm offset
- 200 mm post mount brake
- Weight 4000gr
- Pressure release one way valves on both legs



HS3

HS3

The FERRO USD 36 fork uses the HS3 technology, the unique hybrid air spring system, already been famous with the appreciated ERA V2. Two separate positive air chambers work with one, high volume self-equalizing negative air chamber; HS3 is focused on mid-stroke support around the dynamic sag position while offering amazing sensitivity and bottom-out protection.



HS3

HS3

Combined with a high-volume damper cartridge this system offers incredible tuning capability and sets a new level for support in a suspension fork.

The machined manufacturing parts matched together with the EXT exclusive technologies, make the fork feeling supple and progressive, mixing all the best solutions for a suspension system.



3 WAY-ADJUSTABLE

An high-flow 3-way adjustable hydraulic cartridge is installed inside the fork and with an independent High/Low speed compression and Rebound adjustments set a new standard on the fork adjustability, allowing each rider to properly adjust the damping forces according to his riding style and weight. The possibilities to tailor the fork on your preferences have become unlimited!

FORK STRUCTURE

DOUBLE CROWN STRUCTURE

The double crown solid design in 7075 aluminium ensures maximum stiffness.

SLIDING BUSHINGS

We looked at everything that needed a low friction solution to improve smoothness and sensitivity. This process took us back to our 14 World Rally Championship wins, that make EXT the most successful suspension manufacturer in WRC.

Our new DU bushing material used in the new FERRO USD 36 fork are sized to a defined tolerances for each fork assembly and works in harmony with our dedicated EXT oil. This guarantees zero stiction and super low friction properties even when combined with high side loads.

The dedicated DU guiding system made with a specific superlong bushing overlap ensures the maximum guidance and the best torsional rigidity of the stanchions.

(We've called it, CGB, Continuously Guided Bushing system which also helps to increase the dynamic stiffness).

WHEEL AXLE

Twin exagonal head floating wheel axle guarantees perfect wheel alignment, while assuring maximum torsional rigidity.



NEW HIGH-FLOW CARTRIDGE

The new FERRO USD 36 inherits the best technologies that made famous our well-known ERA V2 and it adopts an innovative radial floating shaft guide in the damper cartridge with a Superfinish surface treatment with new aeronautical seals, which takes the friction to the lowest possible level.

EXT high-volume cartridge uses a high flow piston to generate control for your bike, an important performance upgrade for your riding. The large piston design allows the best damping control.

The cartridge is also equipped with a bump valve design (HDRV – High Dynamic Response Valve) with 2 different shim stacks for mid and high speed and an Internal Floating Piston (IFP) guided and combined with a bespoke thrust bearing to enhance fast response and guidance.

Our goal has always been to find a balance between all the internal cartridge pressures and through a long development process we made possible the optimization of the internal forces reaching low values of hysteresis and no cavitation.



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