



**TECHNICAL MOTORBIKE COMPONENTS**

## OTHERS MAY TALK A LOT ABOUT BRAKES. AT FORMULA WE LIVE THE BRAKE

In the world of modern Motorcycle and Bicycle brakes, Formula is the industry benchmark. Combining supreme technology, compact construction and the elegance of Italian design. Our products are revered globally for their quality and performance. Formulas journey as a company has been a long and successful one, but we've never forgotten our roots.

Formula was founded in 1987 by Andrea Becocci and his wife Daniela in Prato Tuscany. These two pioneers who still manage the company with unabated energy had one objective: to design, create and promote the world's best quality wheels and brakes for motorcycles. In this pursuit they succeeded.

With the advent of disc brakes for MTB brought exciting opportunities, allowing Formula to change its business and apply its expertise in a brand-new arena. Since 1993 we have produced high-end brakes for the bicycle industry and we stand today as the leader in this market, still driven the same principles of excellence.

Formula remains a family-owned company guided by Italian performance and design. We think big and act globally. Based in our country of origin we work closely together with our subsidiaries in the US, Germany, France, Canada and Taiwan in order to provide unique and highly engineered disc brakes to bicycle manufacturers around the world.

Our employees work in a technology driven environment allowing them to enhance production in terms of quality and quantity. Constant monitoring of every process both inside and outside the company assures high quality performance products for our clients.

Formula has always maintained a close relationship to professional sports in which we sponsor many world class athletes. They are like us: Driven by the unstoppable will to be the best.

*With the purchase of a Formula brake you receive the exact product that has been approved by our sponsored riders: You ride the brakes of champions!*

## BRAKE TECHNOLOGY

FORMULA brakes are developed with leading features through extensive racing experience.

The use of light alloys combined with exacting production processes allow FORMULA to have both a low weight, high performance brake with excellent modulation in all conditions.

The pad compounds are developed internally by the FORMULA R & D department with professional rider input to ensure maximum performance.

Each FORMULA brake is rigorously tested in extreme conditions to offer the highest quality, highest performance product.

## TECH SUSPENSION

Tech Suspension is a division of Formula srl that takes care of the development and production of Motorcycles suspension, based on the knowledge of engineers with over 30 years of experience on the design and construction in racing suspension, counting multiple World Championship wins in all disciplines.

The main parts are produced in Japan and Taiwan, always with Italian design and technology and are then assembled in Italy.

We currently produce the following types of forks:

- Suspension forks for mountain bikes, marketed under the Formula brand.
- USD forks Ø39 type Minicross / Pit bike (Winner of European championships, both in France and Italy).
- USD forks Ø43 type Enduro (Italian champions).
- RSU forks Ø39 type Trial (second place to indoor world champions with Albert Cabestany).





# MINICROSS 50

## BRAKE

FOR RACING USE ONLY



FRONT BRAKE



FRONT RADIAL BRAKE



## features

The **MiniCross 50** brake is designed for racing use. Its smaller size and use of light weight alloys combine to give this strong stopper all the power needed for MiniCross applications.

### front master cylinder

- Forged master cylinder
- Hard anodized MC piston Ø 11 mm
- Removeable handlebar clamp
- Forged lever blade with integrated tool free reach adjust

### front caliper

- Forged caliper
- Axial mount  
(front caliper is also available in a radial mount configuration)
- 2 pistons Ø 22 mm

### rear master cylinder

- Forged master cylinder
- Hard anodized MC piston Ø 11 mm
- Integrated oil reservoir
- Inspection sight window

### rear caliper

- Forged caliper body
- Axial mount
- 2 pistons Ø 22 mm

REAR BRAKE

# MINICROSS 65

**BRAKE**

**FOR RACING USE ONLY**



**FRONT BRAKE**



**FRONT BRAKE**



**REAR BRAKE**

**features**

Designed for competition use **The Minicross 65** is highlighted by its controlled power to give precise feedback in any racing condition.

## front master cylinder

- 11 mm hard anodized piston
- SLC Master cylinder body
- Forged lever blade with integrated tool free reach adjust
- Removable handlebar clamp

## front caliper

- SLC caliper body
- 4 pistons

## rear master cylinder

- SLC master cylinder body
- Hard anodized MC piston
- Integrated oil reservoir
- Inspection sight window

## rear caliper

- Forged caliper body
- Axial mount  
(front caliper is also available in a radial mount configuration)
- 2 pistons Ø 22 mm



# MINICROSS 85

## BRAKE

FOR RACING USE ONLY

FRONT BRAKE

FRONT BRAKE

CLUTCH

## features

The NEW **Minicross 85** master cylinder makes use of an innovative reverse piston (patented) Extended seal life combined with increased performance make the **NEW 85** a standout among traditional master cylinders in the market. Developed with pro riders, the 85 sets a new standard in **MiniCross** brakes.

### front master cylinder

- SLC master cylinder body
- Hard anodized 9.75mm piston
- Inspection sight window
- Forged lever blade with integrated tool free reach adjust

### front caliper

- SLC monolithic caliper body
- Radial mount
- 4 pistons Ø 24 mm

### rear master cylinder

- SLC master cylinder body
- Hard anodized MC piston
- Integrated oil reservoir
- Inspection sight window

### rear caliper

- SLC caliper body
- Radial mount
- 4 pistons Ø 24 mm

## Clutch MC

**New!** Available for **Minicross 65/85** our new Formula clutch actuators grant a perfect smooth pistons sliding to allow the maximum modulation to the rider.

- Forged body and hard anodized
- Hard anodized piston

REAR BRAKE

# PIT BIKE

**BRAKE**

**FOR RACING USE ONLY**



FRONT BRAKE

FRONT BRAKE



REAR BRAKE

**features**

The FORMULA Pit-Bike brake is engineered exclusively for these small bike applications.

Race tested in all conditions, this powerful brake has proven itself with European and Italian championship WINS.

## front master cylinder

- 11 mm hard anodized piston
- SLC Master cylinder body
- Forged lever blade with integrated tool free reach adjust

## front caliper

- SLC monolithic caliper body
- New resin pistons
- Radial mount

## rear master cylinder

- SLC master cylinder body
- Hard anodized MC piston
- Integrated oil reservoir
- Inspection sight window

## rear caliper

- SLC caliper body
- Radial mount
- 4 pistons Ø 24 mm



# TRIAL

## BRAKE

FOR RACING USE AND  
HOMOLOGATED VERSION



FRONT BRAKE



CLUTCH



## features

Designed and developed with direct input from **professional Trials riders**. The FORMULA Trials brake is engineered with the specific needs of the Trials rider, incorporating a feel and power that stands alone.

### front master cylinder

- 10 mm hard anodized piston
- SLC master cylinder body
- 2 piece forged lever with anti-break system
- Inspection sight window
- Forged lever blade with integrated tool free reach adjust

### front caliper

- SLC monolithic caliper body
- 4 pistons Ø 26 mm

### rear master cylinder

- Compact design
- Hard anodized piston
- Separate reservoir

### rear caliper

- SLC monolithic caliper body
- 2 pistons Ø 26 mm

## Clutch kit

The new FORMULA hydraulic clutch kit for trials bikes offers excellent modulation and precision. Master cylinders are available in different diameters.

- Hard anodized piston
- SLC master cylinder body
- 2 piece forged lever with anti-break system
- Inspection sight window



REAR BRAKE





Formula's collaboration with KTM began in 1999 with the supply of brakes for the SX 50 minicross.

The front lever is derived from a race proven Formula bicycle brake, while the caliper was exclusively designed for KTM. The rear brake unit was designed from scratch both in the lever and caliper.

The next model year Formula provided KTM with a new front caliper for the 65SX. A trusted alliance was formed with KTM, so after a few months we had been requested by KTM to provide a complete brake system for the front and rear of the 65SX.

In 2002 KTM launched its new 85SX model equipped with dedicated Formula brakes, both front and rear.

In 2010 KTM has once again chosen Formula for the development of a brake dedicated to the new Freeride range which includes a 350cc four stroke and a fully electric version. The performance and weight requirements have led Formula to the development of a highly innovative braking systems.

All lever bodies and calipers are produced internally, in Formula's new foundry, with a revolutionary semi-solid casting process. This process gives the needed mechanical strength to the product with the highest reliability.

The front levers are equipped with the innovative system patented at Formula that uses a double gasket. The front monolithic caliper with four 24mm pistons is radial mounted and provides outstanding performance in all situations. The rear, two piston apposed radial caliper also delivers performance and thermal stability in all conditions.

Along with this new line of brakes, Formula has also developed two new hydraulic clutch systems for KTM, both for the 85SX and the Freeride 350.

These new products are also equipped with the new dual seal pumps, to ensure the best possible performance and extremely long seal life.





**BRAKE**  
**HOMOLOGATED VERSION**

**features**

The NEW master cylinder makes use of an innovative reverse piston (patented). Extended seal life combined with increased performance make the pump a standout among traditional master cylinders in the market. Developed with pro riders, the 350 sets a new standard in brakes.

FRONT 350cc BRAKE KIT

CLUTCH 350cc KIT

FRONT 350cc BRAKE KIT

REAR 350cc BRAKE KIT

# PIT BIKE / MINICROSS Ø39

## SUSPENSION ENDURO



Rebound adjustment



Outer tube detail

Radial axle clamp

Compression adjustment



### features

Engineered for **PitBike** and **Minicross** applications. Stiff **39mm** stanchion tubes combined with lightweight aluminum alloy race inspired internals give the 39 a precise feel. Since its early inception into the racing world the 39 has earned European titles both in Supermoto and PitBike competition, and has become a leader in the Minicross pits.

### details

- Anodized aluminium alloy outer tubes
- Hard chrome-plated steel stanchion tubes
- Forged and anodized aluminum clamps, available with radial and axial coupling
- Fork protection included
- Completely tunable fork
- Compression and rebound adjustments
- High quality oil for consistent performance and longevity
- Low friction sliding bushings
- Specially designed seals for extreme conditions

### specifications

Stanchion Tubes	Ø 39 mm diameter Hard chromed steel
External adjustment	Rebound, compression
Length	865 mm - 770 mm - 720 mm
Stroke	270 mm - 230 mm - 180 mm
Weight	6.3 kg
Type of use	Minicross / Pit Bike

### options

Version	Cross, Motard, Minicross
Axle clamp type	Radial, Axial, Axial Nissin
Kit	Stanchion tubes with surface titanium coating color black



# USD Ø43

## SUSPENSION ENDURO



Rebound  
adjustment



Crown detail



Compression adjustment



### features

Designed for 80/125cc applications. The USD 43 has all the suspension technology needed for Enduro riders. With dedicated forged crowns, the 43 provides the sensitivity and progressive feel Enduro riders demand and have proven themselves on many European podiums.

### details

- Anodized aluminium alloy outer tubes
- Hard chrome-plated steel stanchion tubes
- Forged aluminum anodized axle clamps, available with radial and axial couplings
- Forged, anodized aluminum crowns
- Completely tuneable fork
- Compression and rebound hydraulics adjustment in both legs
- High quality oil for consistent performance and longevity
- Low friction sliding bushings
- Specially designed seals for use in extreme conditions

### specifications

Stanchion Tubes	Ø 43 mm hard chromed steel
External adjustment	rebound, compression
Length	895 mm
Stroke	270 mm
Weight	10kg (included crowns and steerer tube)
Type of use	Enduro / Cross

### options

Axle clamp type	Radial or Axial
Kit	Stanchion tubes with surface titanium coating color black

STD

SUSPENSION  
TRIAL



Spring preload

End stroke adjustment

Rebound adjustment

features

Designed for racing; the Trials fork is recognized for its progressive smoothness after the very first hurdle.  
Compatible with all Trials frames; the 39mm steel stanchions combined with forged aluminum lowers makes this fork the lightest (5kg), most precise handling fork yet.

details

- Forged, polished and anodized aluminum lower legs
- Hard chrome-plated steel stanchion tubes
- Completely tuneable fork
- Fully adjustable external hydraulics
- High quality oil for consistent performance and longevity
- Low friction sliding bushings
- Specially designed seals for extreme conditions

specifications

Stanchion Tubes	Ø 39 mm diameter Hard chromed steel
External adjustment	Rebound, end-stroke, spring preload
Length	747mm
Stroke	165mm
Weight	5 kg
Type of use	Trials

options

Spring	progressive spring
Kit	Hydraulic compression adjustment
	Stanchion tubes with surface titanium coating color black



# RACING

## SUSPENSION TRIAL



Rebound adjustment



Spring preload



End stroke adjustment



### features

Designed and developed on the tracks of the Trials World Championships. Its low friction, black titanium coated stanchion tubes, combined with progressive rate springs provide an exceptionally smooth, progressive ride.

### details

- Forged, polished and anodized aluminum lower legs
- Hard chrome-plated steel stanchion tubes with black titanium surface coating
- Completely tuneable fork
- Fully adjustable external hydraulics
- High quality oil for consistent performance and longevity
- Low friction sliding bushings
- Specially designed seals for extreme conditions

### specifications

Stanchion Tubes	Ø 39 mm diameter hard chromed steel with black titanium surface coating
External adjustment	rebound, end-stroke, spring preload
Length	747 mm
Stroke	165 mm
Weight	5,1 kg
Type of use	Trials

### options

Spring	Linear spring
Kit	Hydraulic compression adjustment Stanchion tubes with surface titanium coating color black

FACTORY

SUSPENSION  
TRIAL

Rebound  
adjustment



Spring preload



End stroke adjustment



Compression adjustment



features

Designed and developed on the tracks of the Trials World Championships. Its low friction, black titanium coated stanchion tubes, combined with progressive rate springs and hydraulic compression adjustments provide an exceptionally smooth, progressive ride.

details

- Forged, polished and anodized aluminum lower legs
- Hard chrome-plated steel stanchion tubes with black titanium surface coating
- Completely tuneable fork
- Fully adjustable external hydraulics
- High quality oil for consistent performance and longevity
- Low friction sliding bushings
- Specially designed seals for use in extreme conditions

specifications

Stanchion Tubes	Ø 39 mm diameter hard chromed steel with black titanium surface coating
External adjustment	rebound, compression, end-stroke, spring preload
Length	747 mm
Stroke	165 mm
Weight	5,1 kg
Type of use	Trials

options

Spring	Linear spring
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Certified Environmental  
System UNI EN ISO 14001:2004



Certified Quality System  
UNI EN ISO 9001:2008

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