

MC STREET 2016



## HISTORY

Ever since the company was founded in 1976, Öhlins has represented the very pinnacle of suspension technology and firmly rooted itself as an intricate part of the motorsport industry, underpinning countless world titles. That very technology has subsequently been adopted not only as the gold standard of aftermarket suspension, but is also by car and motorcycle manufacturers around the world.

Back in the 1960's, Kenth Öhlin was an up-and-coming motocross rider and showed an innate talent for mechanics. He knew how to bring the best out of his material and soon he saw himself engaged in modifying his competitor's bikes. By the time he started his business he had already designed exhaust pipes, engines and – of course – shock absorbers.

Öhlins soon became synonymous with advanced suspension. The products were not only superior in terms of technology, but as Mr. Öhlin was, and is, a very meticulous man the quality was always outstanding. The first world championship was won already in 1978, as Russian Gennady Moiseev took the 250cc title on an Öhlins equipped KTM. Since then, more than another 300 world titles have followed.



The success continued in road racing and soon also in the automotive segment, in racing as well as in rally, all adding to the motorsport pedigree. But don't think that Öhlins was content, not for a minute. The company continued to grow, adding electronically controlled, semi-active suspension to its portfolio under the trademark CES. Today, this technology has revolutionized the car industry and can be found in a wide range of products from premium car manufacturers.

In the 1980's, Öhlins' achievements got the attention of industrial giants and in 1987, Öhlins was acquired by Yamaha. Under the Japanese ownership, Öhlins had the necessary financial stability to develop into a dominating player in the industry. Twenty years later, Öhlins was considered better off on its own legs and Kenth Öhlin regained the company he once had started.



Today, Öhlins is more than ever in the forefront of advanced suspension technology, covering areas from top tier motorsport to original equipment manufacturing. All with the same performance, quality and attention to detail.



## ÖHLINS IN NUMBERS

- Today 280 employees
- Privately owned by Kenth Öhlin
- Headquarters and manufacturing plant in Stockholm, Sweden
- Subsidiary in Hendersonville, NC, USA
- Subsidiary at Nürburgring, Germany
- Subsidiary in Thailand
- Subsidiaries in Karlstad and Jönköping, Sweden
- 97% of all sales on export
- Annual turnover 85 MEUR

# ÖHLINS MOTORCYCLE HALL OF FAME

## 2015

Cameron Beaubier	Moto America Superbike Champ.	Yamaha
Christian Brockel	German MX Open	KTM
Danny Kent	Moto3	Honda
Emil Sayfutdinov	Speedway European Championship	
Joe Collier	British Super Sport EVO 600	Triumph
Jorge Lorenzo	MotoGP	Yamaha
Josh Brookes	British Superbike	Yamaha
Luke Stapleford	British Super Sport	Triumph
Kyle Bickley	World 250CC Speedway	
Markus Reiterberger	IDM Superbike Championship	BMW S1000 RR
Mason Law	British National Super Stock 600	Kawasaki
Robbie Brown	British Ducati Tri-Options Cup	Ducati
Suzuki End. Racing Team	FIM Endurance World Champ.	Suzuki
Tai Woofinden	Speedway GP World Champ.	

## 2014

Esteve Rabat	Moto2	Kalex
Alex Marquez	Moto3	Honda
Marc Marquez	MotoGP	Honda
Sylvian Guintoli	World Superbike	Aprilia
Checa/Foray/Gines/ Mahias	World Endurance Championship	Yamaha
Ivan Gol	Italian CIV	Ducati
Josh Hayes	AMA Superbike	Yamaha
Michael Dunlop	North West 200 Superbike	BMW
Michael Van Der Mark	World Supersport	Honda
Xavi Forés	IDM Superbike	Ducati

## 2013

Michael Dunlop	Supersport, Isle of Man TT	Honda CBR600
Alex Lowes	British Superbike	Honda
Marc Marquez	MotoGP	Honda
Pol Espargaro	Moto2	Kalex
Franco Morbidelli	Euro Superstock 600	Kawasaki

## 2012

Max Biaggi	World Superbike	Aprilia
Jorge Lorenzo	MotoGP	Yamaha
Kenan Sofuoglu	Supersport	Kawasaki
Sylvian Barrier	Superstock 1000	BMW
Josh Hayes	Superbike	Yamaha
Marc Marquez	Moto2	Suter
Matteo Baiocco	Italian CIV Championship	Ducati
Josh Waters	Australian Superbike	Suzuki
Erwan Nigon	German IDM	BMW

## 2011

Stefan Bradl	Moto2	Kalex
Nicolás Terol	Moto3	Aprilia
Casey Stoner	MotoGP	Honda
Tommy Hill	British Superbike	Yamaha
Josh Hayes	AMA Superbike	Yamaha
Arnaud Tonus	British MX2	Yamaha
Martin Bauer	IDM German Superbike	Yamaha
Carlos Checa	World Superbike	Ducati
Elliot Banks-Browne	Red Bull Pro Nationals MX2	Honda

## 2010

Zach Osborne	British MX2	Yamaha
Jorge Lorenzo	MotoGP	Yamaha
Toni Elias	Moto2	Moriwaki
Max Biaggi	World Super Bike	Aprilia
Andrew Stroud	New Zealand Superbike Championship	Suzuki
Michael Phillips	New Zealand MX2	Honda
Joshua Hayes	Superbike Champion AMA	Yamaha R1
Martin Cardenas	Daytona Sportbike Champion AMA	Suzuki GSXR600

## 2009

Valentino Rossi	MotoGP	Yamaha
Ben Spies	World Super Bike	Yamaha
Carl Crutchlow	Super Sport	Yamaha
Julian Simon	MotoGP 125cc	Aprilia

## 2008

Livia Lancelot	FIM World Cup	Kawasaki
Valentino Rossi	MotoGP	Yamaha
Marco Simoncelli	MotoGP 250cc	Gilera
Mike De Meglio	MotoGP 125cc	Derbi
Troy Bayliss	Superbike WSB	Ducati
Brendan Roberts	Superstock	Ducati

## 2007

Casey Stoner	MotoGP	Ducati
Jorge Lorenzo	MotoGP 250cc	Aprilia
Gabor Talmacsi	MotoGP 125cc	Aprilia
Steve Rap	Daytona 200	Kawasaki
Roger Lee	Hayden AMA Supersport	Kawasaki
Josh Hayes	Formula Extreme	Honda

## 2006

Avaro Bautista	MotoGP 125cc	Aprilia
Jorge Lorenzo	MotoGP 250cc	Aprilia
Troy Baliss	Superbike WSB	Ducati
Josh Hayes	AMA Formula Extreme Championship	Honda
Jamie Hacking	AMA Superstock Championship	Yamaha
Christophe Pourcel	MX2 W.C.	Kawasaki

## 2005

Valentino Rossi	MotoGP	Yamaha
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## 2004

Valentino Rossi	MotoGP	Yamaha
James Toseland	Superbike WSB	Ducati
Gerd Reiss	Speedway Longtrack	Jawa Frame

## 2003

Neil Hodgson	Superbike WSB	Ducati
Manuel Poggiali	MotoGP 250cc	Aprilia
Robert Barth	Speedway Longtrack	Suzuki
Adam Raga	Trial Indoor WC	Gas Gas
Peteri Pojamo	Enduro WC	Gas Gas

## 2002

Marco Melandri	MotoGP 250cc	Aprilia
Arnaud Vincent	MotoGP 125cc	Aprilia
Tony Rickardsson	Speedway World Champion	

## 2001

Troy Bayliss	Superbike WSB	Ducati
James Ellison	European Superstock Championship	Suzuki

## 2000

Kenny Roberts	Jr. RR 500cc	Suzuki
Roberto Locatelli	RR 125cc	Aprilia
P. Lindén/W. Nowland	Endurance	Suzuki

## 1999

Carl Fogarty	Superbike WSB	Ducati
Valentino Rossi	RR 250cc	Aprilia
Gerd Gliss	WC Speedway Longtrack	GM
Vesa Kytönen	Enduro 250cc 4-stroke	Kawasaki
Petteri Silvan	Enduro 250cc 4-stroke	Gas Gas

## 1998

Kasuto Sakata	RR 125cc	Aprilia
Loris Capirossi	RR 250cc	Aprilia
Carl Fogarty	Superbike WSB	Ducati
Gianmarco Rossi	Enduro 250cc 4-stroke	Honda

## 1997

Paolo Casoli	Supersport 600cc	Ducati
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## 1996

Max Biaggi	RR 250cc	Aprilia
Troy Corser	Superbike WSB	Ducati
Paul Edmondson	Enduro 175cc	Gas Gas
Anders Eriksson	Enduro 400cc 4-stroke	Husaberg
Peter Jansson	Enduro 500cc 4-stroke	Husaberg

## 1995

Max Biaggi	RR 250cc	Aprilia
Carl Fogarty	Superbike WSB	Ducati
Kari Tiainen	Enduro 500cc	Husqvarna
Petteri Silvan	Enduro 125cc	Husqvarna
A. Eriksson/S. Mertens/ Jean M. Mattioli	Endurance	Honda

## 1994

Carl Fogarty	Superbike WSB	Ducati
Kazuto Sakata	RR 125cc	Aprilia
Kari Tiainen	Enduro 500cc	Husqvarna
Paul Edmondson	Enduro 125cc	Gas Gas
Bob Moore	Motocross 125cc	Yamaha
Markus Hansson	Motocross 500cc	Honda

## 1993

Tetsuyo Harada	RR 250cc	Yamaha
Scott Russel	Superbike WSB	Kawasaki
Jacky Martens	Motocross 500cc	Husqvarna
Sven-Erik Jönsson	Enduro 350cc	Husqvarna

## 1992

Jeff Nilsson	Enduro 125cc	KTM
Kari Tiainen	Enduro 500cc	Husqvarna
Donny Schmit	Motocross 250cc	Yamaha
Wayne Rainey	RR 500cc	Yamaha
Doug Polen	Superbike WSB	Ducati
Marcel Gerhard	1000m	Godden

## 1991

Jeff Nilsson	Enduro 125cc	KTM
Kari Tiainen	Enduro 250cc	Husqvarna
Kent Karlsson	Enduro 350cc	Husaberg
Sven-Erik Jönsson	Enduro 500cc	Husqvarna
Wayne Rainey	RR 500cc	Yamaha
Doug Polen	Superbike WSB	Ducati

## 1990

Kari Tiainen	Enduro 250cc	Suzuki
Peter Hansson	Enduro 500cc	KTM
Jimmie Eriksson	Enduro +500cc	Husaberg
John Kocinski	RR 250cc	Yamaha
Wayne Rainey	RR 500cc	Yamaha
Raymond Roche	Superbike WSB	Ducati

## 1978-1989

Christof Husser/ Andreas Husser	Motocross-Sidecar	VCM-KTM	1989
Fred Merkel	Superbike WSB	Honda	1989
John van den Berk	Motocross 250cc	Yamaha	1988
Christof Husser/ Andreas Husser	Motocross-Sidecar	VCM-KTM	1988
Eddie Lawson	RR 500cc	Yamaha	1988
Fred Merkel	Superbike WSB	Honda	1988
John van den Berk	Motocross 125cc	Yamaha	1987
Jacky Vimond	Motocross 250cc	Yamaha	1986
Christof Husser/ Andreas Husser	Motocross-Sidecar	VCM-KTM	1986
Eddie Lawson	RR 500cc	Yamaha	1986
Fred Merkel	Superbike WSB	Honda	1986
Pekka Vehkonen	Motocross 125cc	Cagiva	1985
Eddie Lawson	RR 500cc	Yamaha	1984
Håkan Carlqvist	Motocross 500cc	Yamaha	1983
Emil Bollhalder/Karl Büsser	Motocross Sidecar	EML-Yamaha	1983
Carlos Lavado	RR 250cc	Yamaha	1983
Eric Geboers	Motocross 125cc	Suzuki	1982
Danny La Porte	Motocross 250cc	Yamaha	1982
Brad Lackey	Motocross 500cc	Suzuki	1982
Emil Bollhalder/Karl Büsser	Motocross Sidecar	EML-Yamaha	1982
Neil Hudson	Motocross 250cc	Yamaha	1981
André Malherbe	Motocross 500cc	Honda	1981
Georges Jobé	Motocross 250cc	Suzuki	1980
André Malherbe	Motocross 500cc	Honda	1980
Håkan Carlqvist	Motocross 250cc	Husqvarna	1979
Graham Noyce	Motocross 500cc	Honda	1979
Gennady Moiseev	Motocross 250cc	KTM	1978

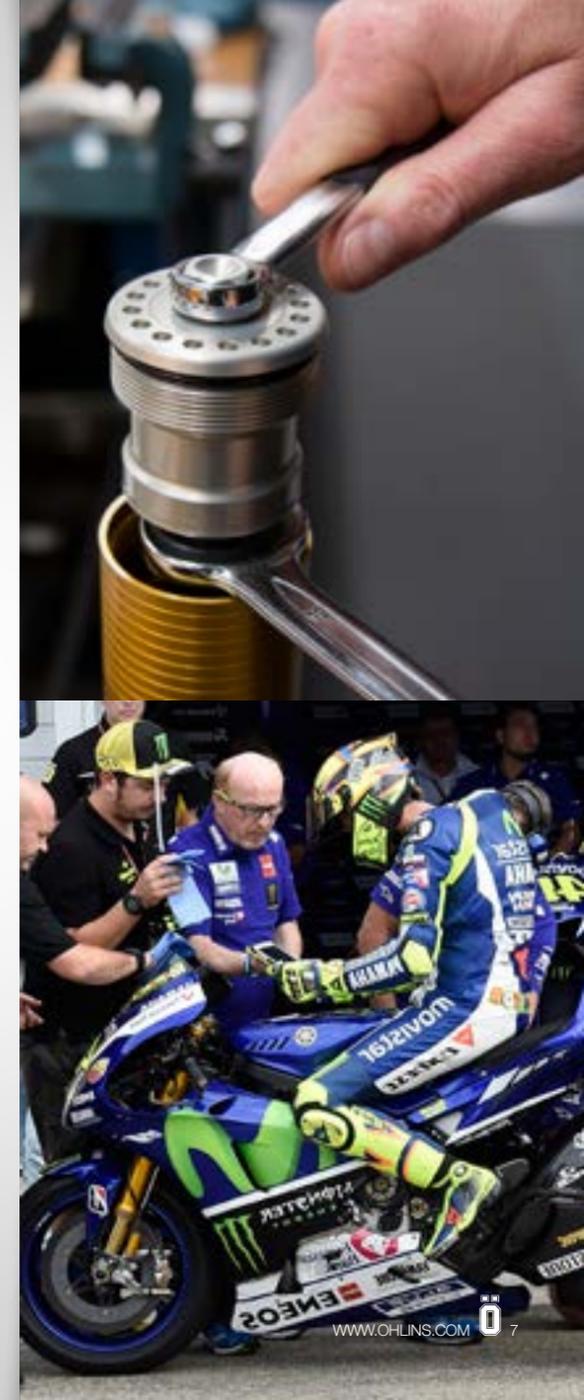


## ÖHLINS TESTING & DEVELOPMENT

At Öhlins, we are serious about suspension. In fact, we live it and breathe it. The amount of engineering that goes into our products is simply staggering, every single product is tested and measured prior to production, in order to make sure you get the best performance possible. Think computer simulations, rig tests and evaluation on either race track or on the street. Or both. It may be the latest development for MotoGP or a new street application for your daily driver, our strict program applies to everything we do.

Öhlins are proud of the amount of engineering that are put in to our products. Remember, a large portion of our revenue is reinvested directly into research and development.

Not only that. In order for you to be sure to enjoy perfect performance from your Öhlins product for many years to come, every component is subject to a number of tests, from corrosion to fatigue resistance. And of course, our products are fully rebuildable should the day come.



# PRODUCT OVERVIEW 2016

## THE CHOICE FOR YOU

Tailor made for you! We have the perfect part for your bike, delivering outstanding performance at a competitive price. Öhlins manufactures more than 300 different shock absorber models, every one uniquely fitted to your bike and suited to fit without interfering. We make sure that the product behaves the way it should, through the design of the shim stacks and valves as well

as the calibration of the adjusters. This is no guesswork. We try the settings out, in real life, and adjust them until everything works perfect for each and every specific model. Then we assemble the products with utmost precision to ensure superior control of the damping force. That is the key to our success.

### FRONT FORKS



### STEERING DAMPERS



### FLUIDS



### CARTRIDGE KITS



### SPRINGS



## SHOCK ABSORBERS

### TYPE STX 36



### TYPE STX 36 P



### TYPE TTX 36



### TYPE TTX 39



### TYPE STX 46



### TYPE STX 46 H



### TYPE STX 46 P





# MECHATRONICS

Once in a while, Öhlins takes a giant technological leap. When the TTX shock absorber was introduced early in the 21st century, it was a revolutionizing concept doing away with many of the flaws in conventional technology and it pointed to a completely new direction of development in the world of suspension.

Now we did it again, added a new chapter to the history of shock absorbers. Combining the racing heritage with advanced electronic control, our range of mechatronic solutions offers complete control over the damping characteristics. The word itself, mechatronics, is a portmanteau of mechanics and electronics. And that's what it is – mechanics and electronics in a prosperous relationship and for us the pinnacle of advanced suspension technology.

## TTX EC

Take control over your TTX. With the electronically controlled TTX EC technology, you can turn your adjusters conveniently without letting go of the handlebar. Just thumb away on the control panel and experience how the bike changes its behavior.

The best part? You don't have to buy a new shock absorber. The new TTX EC system can be retrofitted onto all TTX street shock absorbers. Just remove the standard valves from a TTX shock and insert the small stepper motor that handles the clicking for you. Then the settings can be adjusted in fixed steps from a control panel, of even automatically via a continuous feed from an SCU, Suspension Control Unit. TTX EC adds another dimension of control to your suspension.



# THE TTX TECHNOLOGY

Cavitation – it's a nightmare. Pressure drops in the shock absorber results in gas bubbles forming in the oil, resulting in a catastrophic loss of damping force. First, this problem was reduced through the use of pressurized gas acting upon the oil. But the engineers at Öhlins weren't satisfied. They designed a revolutionizing damping system, where low pressure areas never need to arise. With the TTX technology, the pressure balance is always positive and the risk of cavitation is eliminated.

After an extensive development and testing program, the TTX technology was first introduced in racing and instantly delivered major championship victories. Since then, it was made available for privateers and then adapted for street applications. Now the technology is available in a wide range of products, from the hypersport to the adventure segments. Also, it forms the base for our electronically controlled suspension, EC.



The acronym has an actual meaning. The TTX stands for Twin Tube Crossflow, the X illustrating how the oil is flowing through the cylinder head. Thanks to the revolutionizing design, the pressure created by the piston is transferred through the adjusters in the cylinder head and then flows through the space between the tubes back to the cylinder. Thereby, a positive pressure balance can be upheld at all times. There are no shim stacks on the main piston, nor are there any valves acting on the flow to the outer reservoir. Its only duty is to harbor excessive oil, stemming from the piston rod displacement and heat expansion. Inside the reservoir, there is a dividing piston to keep the oil separated from the nitrogen gas. This gas pressurizes the oil to a level between six and nine bars, basically the static pressure acting on both sides of the main solid piston. The same principles are successfully used in our front forks and racing cartridge kits – racing proved, available for the street.

# HYPER-SPORT





# TTX GP

Straight from the champions – the new TTX GP is Öhlins latest range of shock absorbers for sport and hypersport bikes. Based on the highly regarded TTX technology it has been developed from Öhlins' vast experience in MotoGP.

Compared with the standard TTX36 MkII, the compression and rebound adjustments have improved even further with a new adjustment needle, providing better guidance and a different flow restriction behavior. The function of the damper is more consistent with less variation and the adjusters work in a more precise manner. A new main piston completes the package, designed to improve traction and rider control. Did we mention that the weight is reduced even further? Among the advantages are a much improved chassis feedback as well as enhanced performance. Also, the adjustment range is even wider and with this new design, the variation in behavior from one shock absorber to another is further reduced – a proof of Öhlins commitment to precision. The TTX GP continues on the TTX36 path, sharing and improving on the benefits of one of the best shock absorbers in the world.

TTX GP will be available for most major bikes used in national racing as well as the new street bike models.

### FEATURES

- TTX technology, twin tube technology
- No risk of cavitation
- Solid piston
- Rebound and compression adjustment straight from MotoGP
- Adjustment needles with different flow restriction behavior to improve chassis feedback
- New main piston
- Wider and more precise adjustment range
- Adjustment possible by hand or with hexagon tool
- Completely separated functions for rebound and compression damping
- Easy to change settings, based on Öhlins setting bank



# TTX RT

The TTX Road&Track is developed for the latest hypersport models as a complement to the top of the line TTX GP shock. The TTX RT has a competitive price but still offers great performance for the road and track day enthusiast. The shock is based on the TTX36 with it's race proven technology. It has a traditional C-spanner type pre load adjustment and the advantage of rebound and compression adjustment easily accessible on the cylinder head.

The TTX technology has brought bikes and riders to the podium and to the winners circle many times and has been an obvious choice for winners' bikes. Now the experience from MotoGP and WSBK can be on your bike too and at a much affordable price. Check valves are improved in terms of opening force and closing forces and each and every part has been under the sharp eye of our engineers. The result is a shock absorber with the long term technology developments from Öhlins, all learned from experience in MotoGP and WSBK, now at a competitive price in the shape of the TTX RT.

The TTX RT is available for most major hypersportmodels.

### FEATURES

- TTX-technology – no cavitation risk!
- Wide adjuster range
- Completely separated functions for rebound and compression damping
- All adjustments are done on the cylinder head of the shock absorber
- Length adjustable for most models





## TTX EC

Following Öhlins successful introduction of mechatronic as a factory option on bikes such as the 1199 Panigale S and Multistrada 1200S, we have made mechatronics an option for the aftermarket. First out was the TTX EC for the Kawasaki ZX10R.

Based on the successful experiences in World Superbike in 2008, Öhlins R&D team set out to make a shock absorber that would deliver the best possible performance on the race track, while still retaining comfort and suppleness when returning home from that perfect track day. Or why not when commuting to work – the TTX EC does it all. This is the ultimate upgrade for your street bike.

Using the conventional TTX as a base, the TTX EC is coupled with advanced software to continuously monitor the riding behavior, how the bike responds to a certain riding style as well as chosen power modes. All this information is used to instantly change the setting of the shock absorber – while you ride. The result is a shock that always gives you what you expect, from a supple tour through the countryside to unparalleled performance towards the finish line.

This is possible thanks to the Öhlins Suspension Control Unit, SCU, which constantly chats with the control unit of the bike in order to react to your slightest intentions. The algorithms used are a company secret, but the results are obvious for anyone. This is, in our opinion, simply the best semi-active system currently available out there.

### FEATURES

- Based on Öhlins TTX technology
- No cavitation risk
- Perfect traction, stability and comfort on the track and on the road
- The latest software and SCU developed by Öhlins Racing
- Reads data and controls the shock instantly, riding style and bike behavior
- Interacts with Öhlins OE steering damper on the Kawasaki ZX 10 R 2013
- Fits both models from 2012 and 2013
- No more click settings headache, Öhlins SCU does the job for you
- New Electronically Controlled (EC) adjusters
- Manual ride height adjustment possible



## STX 46

The Öhlins STX 46 shock absorber comes in a wide range of styles and for many different bikes in the smaller Hyper Sport segment, such as the Yamaha R3, Ninja 250 Honda CBR 250.

This shock absorber features the Öhlins well-known Monotube design with its builds quality. With fully adjustable compression and rebound damping it has a great range of adjustments possible. And if you would like to have it, you can fit the shock absorber with an optional hydraulic spring preloader!

The Öhlins STX 46 shock absorber brings a new way to ride your bike. With enhanced cornering performance and improved comfort it contributes to rider confidence which makes you want to go faster around the track. But the STX 46 does also work well for your daily commute and the weekend country road tour.

### FEATURES

- STX technology
- Monotube high pressure gas type of shock absorber with hose mounted external reservoir
- Fully adjustable compression and rebound damping
- Wide range of springs available
- Optional: Hydraulic spring preloader adjuster





# FGR 100 TTX25 PRESSURIZED CARTRIDGE KITS

Brought straight from Öhlins vast MotoGP experience, the TTX25 pressurized cartridge kit brings TTX technology to the front end of your bike. Designed for top level racing in SuperStock and SuperSport classes, this high end cartridge kit delivers performance levels previously unheard of.

The advanced design maintains damping even at high frequencies, improving control of tire vibrations. Thanks to the pressurized damping system, the dynamics are vastly improved. This results in a superior control over movement, improving response time to sudden shocks. The rider will notice two things: better feedback and more grip.

As an advanced product born and raised on the race track, this kit requires regular maintenance by qualified mechanics to perform at the highest possible level race after race.

### FEATURES

- Pressurized damping system
- External rebound, compression and spring pre-load adjusters
- Easy to change settings for individual preferences from Öhlins setting bank
- Spring kit included



# NIX 30 CARTRIDGE KITS

The Öhlins Road&Track 30mm front fork cartridge kit was developed in racing series such as World Supersport and Superstock championships. Whether heading for a National Roadracing title or just taking your bike to the local race track, the cartridge kit offers loads of performance, stability and superior suppleness.

This kit has a unique design, where the compression damping is taken care of the left fork leg while the other controls rebound damping. This allows not only for a more precise function and better stability, but also the possibility of having all adjustments conveniently placed at the top of the fork, together with the spring preload adjusters. The cartridge kit fits bolt on and is easy to install in most standard hypersport front forks.

Note! This kit is delivered without springs. The 08790-series of front fork springs are available to order separately to suit the rider's choice of spring rate.

### FEATURES

- External rebound, compression and spring preload adjusters
- Easy to change settings for individual preferences, based on our Setting Bank
- Wide range of spring rates available in the 08790-series
- Easy to install and service
- Available for all Hypersport models



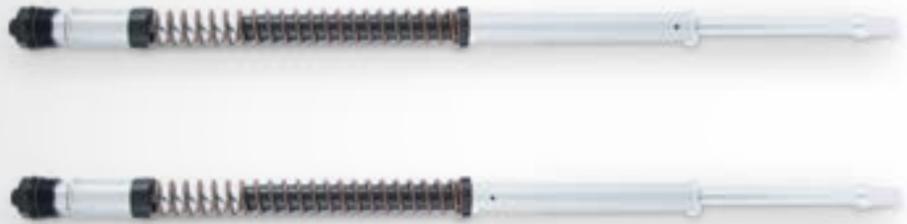
# NIX 22 CARTRIDGE KIT

The Öhlins Road & Track 22 mm front fork cartridge kit, for light-weight sportbikes, is based on experience gained from World Superbike and Supersport championships. This kit has many similarities with our NIX 30 product aimed towards the larger displacement hyper sport bikes. The NIX22 Cartridge kit delivers loads of performance with a stable damping characteristics and great comfort contributing to rider confidence. Whether you are aiming for a title in light-weight road racing or just want to have a good track day bike.

The kit has the Öhlins proven "NIX" design which features compression damping in the left leg and rebound damping in the right leg, which allows for a more precise function and stability. Adjustments are made at the top together with the spring preload, all to make it easier for you. The cartridge system fits bolt-on and is easy to install in standard front forks.

### FEATURES

- Öhlins NIX technology
- External compression & rebound adjustment
- External 15 mm preload adjustment
- 22 mm piston diameter
- 8 mm piston shaft
- Range of fork springs available

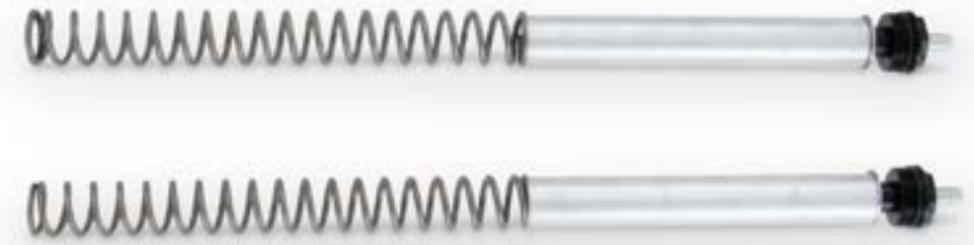


# FSK 100 CARTRIDGE KITS

This fork spring kit is an upgrade for small sports and street bikes with conventional forks. The kit is designed to improve the handling, cornering and braking and give the rider a noticeable improved feeling in all areas. The kit consists of a replacement top cap and higher performance rate springs. The replacement top cap also provides an external spring preload. It is available for small sports such as the Yamaha R25/R3, Kawasaki Ninja 250/300R, Honda CBR 250/300R.

### FEATURES

- Full maintenance capability
- Replacement top caps
- Performance rate springs





## FGR 300

The FGR300 packs the very essence of advanced suspension technology. Packed with technical solutions developed in MotoGP and World Superbike, the FGR300 improves on its predecessors in a number of ways to stay further ahead of the competition. Building on the technology from the pressurized TTX25 front fork cartridge kit, the reinforced outer tube adds stiffness to the design, crucial for complete control in racing, and a thinner piston rod allowing for improved dynamic behavior. Also, a 3.5 mm bleed valve allows for a larger adjustment range, adjustments that have never been easier to carry out with the color coded adjustment knobs for both compression and rebound, together with a click setting function for the spring preload. All in all, the TTX technology packed FGR 300 represents the pinnacle of front fork engineering.

### FEATURES

- Pressurized TTX25 Cartridge technology
- New stronger outer tube top
- Longer, lighter design
- Improved adjustment features
- Fully engaged top out spring as an option
- Different settings available from Öhlins setting bank



## FGRT 200

Whether heading for a National Roadracing title or taking your bike for a quiet countryside trip, the new Road&Track front fork will deliver loads of performance, consistent behavior and a suppleness you wouldn't believe was possible. Featuring the race proven technology of our 30mm front fork cartridge kit, the compression and rebound damping systems are separated between the fork legs. This not only allows for superior dynamic behavior, but also for keeping the adjusters conveniently on top of each leg. The new front fork improves on rider feedback, brake support and general handling of the bike. Not to mention the exquisite styling – the FGRT200 is a perfect design in terms of both performance and appearance.

### FEATURES

- Öhlins 30mm Cartridge Kit inside
- Compression damping in one leg, rebound in the other
- Weight and stress optimized fork bottom design
- All adjustments at the top of the fork
- Reduced weight
- Proven in various racing applications
- Available for all major Hypersport models
- Different settings available from Öhlins setting bank



# STEERING DAMPERS

An essential ingredient in a complete performance package, the Öhlins telescoping steering dampers are still the ones to beat. Thanks to the superior pressurized design and extremely tight manufacturing tolerances, the damper delivers supreme performance and agility, and with the wide adjustment range it is easy to find that perfectly weighted steering feel and feedback.

Available as a bolt-on kit for most sport and hypersport models, there is also an assortment of universal models in different lengths and a wide range of mounting brackets and parts for race bikes as well as custom builders.

### FEATURES

- Unique, well proven design
- Pressurized fluid avoids problem of free play
- Adjustable in 16 well defined clicks
- Available in 6 different lengths/strokes
- Mounted outside of the fork leg or across the frame behind the triple clamp
- Kits complete with mounting brackets available for certain bikes
- Universal parts for race bikes available



# ADVENTURE



# DUCATI MULTISTRADA MECHATRONICS KIT

Semi-active suspension for the Multistrada – a major upgrade for your Ducati giving you even better comfort, agility and grip. Not only can you change the damping characteristics of your bike on the fly. Now the electronics do it for you, continuously, while you ride.

Öhlins offers the possibility to either upgrade Ducati Multistrada 1200S already equipped with Öhlins EC Suspension with a new Suspension Control Unit (SCU), delivering true semi-active suspension. While still retaining the different riding modes in the Ducati display, each mode has a completely new way of working. Instead of adjusting the shock absorber to a specific setting tuned to the current use of the bike, each program mode adapts to the environment and adjust damping forces – both compression and rebound – on the fly.

There is also the option of installing an Öhlins semi-active system as a complete package on a non-EC equipped Multistrada 1200. This includes a new Öhlins SCU, an Öhlins Road & Track TiN-coated front fork with NIX technology, a TTX shock absorber and an Öhlins touch screen dashboard MMI (Man Machine Interface).

Either way, the heart of the operation is the new Öhlins SCU, Suspension Control Unit. With this, the already highly praised suspension gains another dimension of control. The new SCU is loaded with smart algorithms. Depending on riding style, speed, acceleration and various other parameters, the suspension is adjusted momentarily to give the best possible response. With the different riding modes – Sport, Touring, Urban and Enduro – certain characteristics are prioritized in the programming, giving optimum performance for each occasion. Needless to say, fixed click settings can also be used by the touch of a button just as before – just that with the new SCU the adjustment range now is almost twice as big as the original.

Installing the SCU is a matter of minutes. Simply remove the standard ECU under the seat and connect the new Öhlins SCU. In a simple Plug and Play operation the bike now has a smart EC semi-active suspension. If the complete suspension package is required, it is easily installed by a trained Öhlins service technician.

Like any of Öhlins products, the system was developed in racing before launched to the market – back in 2008, the Öhlins R&D team developed the package in World Superbike racing where it soon became the suspension to beat. Once again, the advanced suspension technology of Öhlins had revolutionized the suspension world.

### UPGRADE FEATURES

- Öhlins semi active suspension SCU
- Fits Ducati Multistrada 1200, 2010-2012 with EC
- Integrates with original Multistrada dashboard
- Twice the adjustment range
- Easy plug-and-play installation

### COMPLETE PACKAGE FEATURES

- Öhlins semi active suspension SCU
- Fits Ducati Multistrada 1200, 2010-2012 w/o EC
- TiN coated Road & Track front forks with NIX technology
- TTX shock absorber with electronically controlled adjuster
- Öhlins MMI touch screen dashboard
- All installation parts included
- Easy plug and play installation by an Öhlins trained technician



# TTX ADVENTURE

The thoroughly race proven TTX technology makes it into the Dual Sport segment, delivering unparalleled performance. Designed for the BMW R1200GS, the Öhlins TTX36 and TTX39 shock absorbers improves on feedback, control and comfort. With reinforced cylinders, the Dual Sport TTX shock absorbers are prepared for the challenges waiting ahead. Of course, both front and rear shocks benefit from all the common TTX advantages, such as individually adjustable compression and rebound damping and eliminated risk of cavitation. Developed exclusively for the Dual Sport segment, the rear TTX39 shock is designed specifically to cope with the varying and sometimes unforgiving load conditions of on and off road use.

### FEATURES

- TTX36 mm front shock absorber for Dual Sport and Adventure
- TTX39 mm rear shock absorber specifically designed for the adventure and dual sport segment
- Reinforced cylinders
- Individual setting of spring preload front and rear
- Individual settings of both compression and rebound front and rear
- Full maintenance possibilities



# TTX EC ADVENTURE

Once again, Öhlins takes a giant leap in suspension development with the first electronically controlled aftermarket suspension system. Based on the victorious TTX technology from MotoGP and World Superbike, Öhlins is proud to present the TTX EC ADVENTURE system designed for the Dual Sport segment and the BMW R1200GS in particular. The system fully integrates with the CAN bus in BMW's ESA suspension. Controlled by an Öhlins Suspension Control Unit, SCU, it is maneuvered through the standard dash display and Enduro ESA control buttons.

Improving significantly on control and rider feedback, the system also features individual adjustment of compression and rebound damping both front and rear. Operating with the same driving modes as the standard ESA suspension, the Öhlins system features a smart semi-active EC function in Comfort mode, continuously adjusting the damping forces in order to deliver the highest levels of both performance and comfort at all times. The rider also has the option of customizing the spring rate through our extensive spring assortment.

### FEATURES

- MotoGP and WSBK based race winning technology
- First TTX system for the Dual Sport segment
- Smart semi-active EC functions
- Easily installed
- Full maintenance capability
- Different spring rates available
- New valves developed by Öhlins R&D
- Diagnostic capacity by Öhlins service centers
- Fully adjustable compression and rebound damping both front and rear
- Software updates available through Öhlins service centers
- Available for the BMW R1200 GS and GSA





# STX 46 SHOCK ABSORBERS

The classic monotube design of the Öhlins STX46 shock absorber is a major upgrade to most bikes in the Dual Sport and Adventure segment. The design is well proven, continuously developed since its first introduction more than a decade ago and features a large 46mm piston, delivering reliable performance in all possible environments.

Available in a wide range of configurations, with piggyback or hose mounted reservoir and with or without spring preload adjuster, the STX46 can be made to fit in virtually any mounting space no matter what the constraints are. Depending on application, the STX46 is available as everything from a one-way to three-way adjustable shock and fits most major models in the adventure segment.

### FEATURES

- Well proven monotube design
- Separate gas pressure reservoir
- Large 46 mm piston diameter
- A number of different adjustment possibilities
- Available in different configurations depending on bike model
- Maintenance and service possibilities
- Available for most major Adventure models



# FKA 100 CARTRIDGE KITS

Upgrade your front end with race proven technology. Öhlins now offers a front fork cartridge kit for medium sized adventure bikes. Based on the successful road racing front fork technology, the FKA 100-series fully adjustable cartridge kit offers improved comfort and performance. Based on the technology from Öhlins road racing cartridge kits, the front fork kit features our well proven NIX damping system, keeping compression and rebound damping separated, each confined to one fork leg.

Among the advantages with this design is the improved stability and control of the damping system, as well as ease of use as all the adjusters, both for compression and rebound damping as well as spring preload, is located at the top of each fork leg. Different springs are available to cope with individual requirements, as well as an effective hydraulic stop inside the cartridge to prevent bottoming.

The compact design of the NIX cartridge means it will easily fit inside the upside-down original front forks of most medium sized adventure bikes. They are easy to install as well. Just pop out the old innards of the fork and install the Öhlins cartridges. Then you won't have to bother for a long while, as the cartridge is designed to withstand hard use for extended periods of time without servicing.

Fast gravel roads on a weekend or piloting around narrow trails to find that perfect stopover for the night – now you can do it with complete control over your bike.

Kits are available for a number of bikes, among them BMW F800GS and Triumph Tiger 800/800XC – check our application list for the latest updates.

### FEATURES

- Öhlins NIX Technology
- Fully adjustable from the top cap
- Rebound in one leg, compression in the other leg
- New hydraulic stop to prevent hard bottoming
- Easy to install and service
- Different spring rates available





# HARLEY-DAVIDSON & CUSTOM



## HARLEY-DAVIDSON & CUSTOM SHOCK ABSORBERS



## STX 36 P BLACKLINE SHOCK ABSORBERS

Designed for Harley-Davidson and custom bikes the new Blackline STX36P shock absorbers are developed for motorcycles with twin shock absorbers. The Öhlins STX36P Blackline shock absorbers are a classic monotube damper with modern design, featuring all the proven Öhlins qualities. The result is top notch ride comfort and performance for your motorcycle. Available in piggyback version, it can also be specified with a number of different damping adjustment options with or without length adjustment.

### FEATURES

- Well proven monotube design
- Piggyback gas pressurized system
- Designed for comfort and rideability
- New black design
- Each application tested and tailor made to suit
- Wide range of spring rates are available





## STX 36 D BLACKLINE SHOCK ABSORBERS

Designed for Harley-Davidson and custom bikes the new Blackline STX36D shock absorbers are developed for motorcycles with twin shock absorbers. The Öhlins STX36D Blackline shock absorbers are a classic monotube damper with modern design, featuring all the proven Öhlins qualities. The result is top notch ride comfort and performance for your motorcycle. Available in dividing piston version, it can also be specified with a number of different damping adjustment options with or without length adjustment.

### FEATURES

- Well proven monotube design • Dividing piston gas pressurized system • Designed for comfort and rideability
- New black design • Each application tested and tailor made to suit • Wide range of spring rates are available



# STX 36 SHOCK ABSORBERS

Developed for bikes with twin shock absorbers, the Öhlins STX36 is a classic monotube design, featuring all the classical Öhlins qualities delivering top notch performance for your street bike. Available in emulsion, piggyback or hose versions, depending on application, it can also be specified with a number of different damping adjustment options with or without length adjustment.

Suitable for any application from cruisers to café racers, the STX36 shocks are one of Öhlins most successful designs of all times.

### FEATURES

- Well proven monotube design • Emulsion, dividing piston, piggyback or hose type gas pressurized system
- Each application tested and tailor made to suit • Designed for comfort and rideability on cruisers • Wide range of spring rates are available • Optional black, yellow and chrome springs are available to most models



# NIX 22 CARTRIDGE KITS

Imagine – riding your Harley-Davidson down the country road with improved comfort, control and performance of Öhlins suspension. The Öhlins NIX22-Series cartridge kit extends Öhlins advanced suspension technology to the popular line of Harley-Davidson Sportster and Dyna models.

The high end front fork cartridge damping system vastly improves performance, comfort and vehicle control for the Harley-Davidson front forks. Designed with proven Öhlins NIX technology, each fork leg features 8 mm steel piston shaft, an aluminum damper tube and 22 mm pistons. To maximize damping performance in the available confines of a fork leg, compression and rebound damping are separated between the legs. Just install and enjoy! Of course, optional fork spring rates are available for individual rider weights, preferences and use of the bike. Whatever your needs are, you'll be surprised by how your bike can be transformed.

### FEATURES

- Öhlins NIX technology
- External compression & rebound adjustment
- 22 mm piston diameter
- 8 mm piston shaft
- Range of fork springs available
- Improved feel, control and comfort
- Easy to install



# FKC 100 CARTRIDGE KITS

Imagine – the heart and soul of a Harley-Davidson with the comfort and rider control of Öhlins suspension. This is now a reality! The Öhlins FKC101/FKC102 cartridge kit introduces Öhlins advanced suspension technology to the front forks of the popular line of Harley-Davidson FLH/FLT Touring Baggers.

The high-end front fork cartridge damping system vastly improves performance, comfort and vehicle control for the Harley-Davidson front forks. Designed with proven Öhlins NIX technology, each fork leg features an 8 mm steel piston shaft, an aluminum damper tube and 25mm pistons. To maximize damping performance in the available confines of a fork leg, compression and rebound damping are separated between the legs. We also did away with the hassle of external adjusters. Just install and enjoy! Of course, optional spring rates are available for individual rider weights, preferences and use of the bike. Whatever your needs are, you'll be surprised by how your bike can be transformed.

### FEATURES

- 25mm pistons
- Öhlins NIX technology
- Aluminum damping tubes
- Improved feel, control and comfort
- Easy to install
- Range of fork springs available





# UNIVERSAL CONVENTIONAL 43 FRONT FORKS

Öhlins offers a 43 mm conventional universal fork for any custom builder that wants to give the bike supreme suspension yet classic style and at the same time get the familiar Öhlins Racing design. They are available in an Öhlins gold version as well as a black version. The technology in this fully adjustable fork has been proven through the years on numerous applications and works for a range of different applications. The top cap gives the possibility to adjust spring preload as well as rebound adjustment in each leg separately. The external adjuster on the fork bottom clamps is for compression adjustments. The fork bottoms come without brake caliper and fender mountings, this enables the fork to be easily adapted to various models.

### FEATURES

- Stroke 120 mm • Length 800 mm • Triple clamp diam. 43 mm • Wheel axle 32 mm • Spring rate 9,5 N/mm
- Fully adjustable • Setting can be changed with help from Öhlins Service Centres



# UNIVERSAL USD 43 FRONT FORKS

For naked bikes, Öhlins offer a range of front fork options. For custom builds, the fully adjustable FG324 and FG424 feature the signature Öhlins separate compression and rebound damping as well as adjustable spring preload, easily tuned for your specific requirements. The front fork offer complete control and race proven performance for your bike.



# FGRT 300 48MM CUSTOM FRONT FORKS

An unique 48 mm front fork that originally was developed for the Ducati Diavel and has been a popular front fork option for custom builders.

Performance in spades from the latest Öhlins NIX30 technology matches the aggressive and beefy looks. Based on the Road&Track front fork compression and rebound is easily adjustable with rebound in one leg and compression in the other. Spring preload adjustment is done from the top cap.

This front fork does not only improve the looks but also delivers performance that improves the handling of any bike with improvements in tire feel, brake support and general handling. It is available in a black color scheme but don't worry, it's still the original gold inside!

### FEATURES

- Öhlins NIX 30 cartridge kit inside
- Compression and rebound adjustable, with rebound in one leg and compression in the other
- Spring compression adjustments in the top cap
- Weight and stress optimized fork bottom design





# STREET PERFORMANCE LINE



# STX 46 SHOCK ABSORBERS

A well proven monotube design, the Öhlins STX46 shock absorber sets the standard for performance, quality and durability. A major suspension upgrade for your sports bike suspension, it features a large 46mm main piston and an internal gas reservoir within the main body of the shock. With adjustable damping, you can change the behavior of the shock to suit your taste and even fit a hydraulic spring preloader to change the stance of the bike. This is the perfect choice for the naked sports bike, or as we call it: the Street Performance Line.

### FEATURES

- Monotube shock absorber • Öhlins well proven design • Adjustable rebound damping and compression
- A range of spring rates available • Maintenance possibilities • Optional hydraulic spring preloader • Available to more than 100 different bike models



# NIX 22 CARTRIDGE KITS

The Öhlins Road & Track 22 mm front fork cartridge kit, for street bikes. This kit has many similarities with our NIX 30 product aimed towards the larger displacement hyper sport bikes. The NIX22 Cartridge kit delivers loads of performance with a stable damping characteristics and great comfort contributing to rider confidence. Whether you are aiming for a title in light-weight road racing or just want to have a good track day bike.

The kit has the Öhlins proven "NIX" design which features compression damping in the left leg and rebound damping in the right leg, which allows for a more precise function and stability. Adjustments are made at the top together with the spring preload, all to make it easier for you. The cartridge system fits bolt-on and is easy to install in standard front forks.

### FEATURES

- Öhlins NIX technology • External compression & rebound adjustment • External 15 mm preload adjustment
- 22 mm piston diameter • 8 mm piston shaft • Range of fork springs available

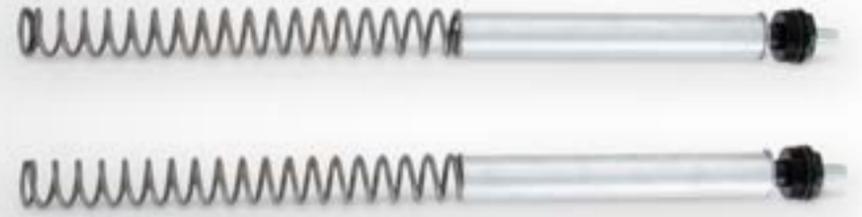


# FSK 100 CARTRIDGE KITS

This fork spring kit is an upgrade for small sports and street bikes with conventional forks. The kit is designed to improve the handling, cornering and braking and give the rider a noticeable improved feeling in all areas. The kit consists of a replacement top cap and higher performance rate springs. The replacement top cap also provides an external spring preload. It is available for street bikes such as the Yamaha MT-07, Honda CB650F and the Kawasaki ER6N.

### FEATURES

- Full maintenance capability
- Replacement top caps
- Performance rate springs



# SCOOTER PERFORMANCE LINE



# STX 36 MONO & TWIN SHOCK ABSORBERS

Based on the well proven and high performing STX36 shocks Öhlins has developed both mono shocks and twin shocks to enhance the performance and comfort of scooters. The application list includes shock absorber upgrades for 125 up to 600 cc scooters.

The S36 is a classic monotube design available in emulsion, piggyback or hose versions depending on application and it can also be specified with a number of different damping adjustment options with or without length adjustment.

### FEATURES

- Well proven monotube design
- Each application tested and tailor made to suit
- Design for comfort and performance
- Available for Honda MSX, Forza and PCX 150, with other applications being developed for machines such as the Yamaha X-Max range.



# FDK 100 CARTRIDGE KITS FOR HONDA MSX125

Öhlins cartridge kit for MSX 125/Grom is a great Performance upgrade for the standrad bikes front end. Improved handling, cornering and braking are immediately noticed.

Full maintenance capability. Alternative spring rate available as an accessory part (60000-02). Öhlins recommends use of Öhlins oil suspension fluid R&T (01309-01). Öhlins recommends installation by an approved service centre. Installation requires specialist tools, available separately (60000-01).

### FEATURES

- Proven Öhlins damping technology
- Specifically developed for Honda MSX
- Springs included
- Compression insert
- Rebound insert
- Replacement Öhlins top caps
- Higher performance rate springs





## SPRINGS

One of the most important aspects of tuning the suspension of the bike to your weight and riding style is to choose the correct spring. Öhlins offer a wide range of springs, not only for our own shock absorbers and front forks but also replacement springs for standard applications. Depending on use, different lengths and spring rates are available.

Öhlins experienced service centers are happy to help you in making the right decision, as well as installing the springs.



## FLUIDS

Needless to say, the fluid used in the shock is a crucial part of the performance. Leaving nothing to chance, we develop our own suspension fluids, using the more precise Centistoke scale of viscosity rather than the conventional SAE scale. But to help you out a little bit if cSt is not your thing, we did put a small number on the lower right corner of the bottle, to make a reference.

Made with the same precision as other Öhlins products, we believe that our fluids not only do the job of bringing the best out of our shocks. You just might add a little Öhlins performance using our fluids in just about any shock out there. Öhlins fluids offer a wide viscosity index.

## FOR MORE CONTACT INFORMATION PLEASE VISIT

For full information about which models Öhlins products are available for, please contact your local Öhlins Distributor.

### AFRICA

**MAURITIUS** Ruben Racing Ltd

**SOUTH AFRICA** VM Innovation Ltd

### ASIA

**CHINA** Starbike Ltd

**DUBAI** Revolutions Accessories Est.

**HONG KONG** Power Motorcycles Specialist

**INDONESIA** PT Madani Sentra Multi Jasa

**JAPAN** Carrozzeria Japan Co., Ltd

**MALAYSIA** Trans Techno Enterprise S/B

**SINGAPORE** Sporting Motors Pte Ltd

**SOUTH KOREA** Neobis Int Co., Ltd

**THAILAND** Öhlins Asia

**TAIWAN** Capricore Trading Co. Ltd.

**VIETNAM** Dia Hoang Gia HCM.

### EUROPE

**AUSTRIA** Öhlins DTC

**BELARUS** Motosalon MV Agusta

**BELGIUM** Öhlins DTC

**CZECH REPUBLIC** Öhlins DTC

**CYPRUS** Extra Products

**DENMARK** F.I. Motorcykler A/S

**ESTONIA**

Larsen Kaubanduse OÜ

Fredy OÜ

**FINLAND** MP-Racing OY

**FRANCE** PFP Racing

**GERMANY** Öhlins DTC

**GREECE** Extra Products

**HUNGARIA** Öhlins DTC

**IRELAND** Öhlins DTC

**ICELAND** JHM Sport

**ITALY** Andreani Group International s.r.l

**LATVIA** Motofavorites

**LITHUANIA**

UAB Proracing

Jiezno UAB Juta

**LUXEMBURG** Öhlins DTC

**THE NETHERLANDS** Öhlins DTC

**NORWAY** Norsk Motor Import A.S.

**POLAND** InterCars S.A.

**PORTUGAL** Multimoto Motor Portugal, SA

**ROMANIA** Öhlins DTC

**RUSSIA**

Pilot-Moto

LLC Motorclub Vector

LLC Gravis

LLC Dialen Motorsport

Master-Sport Ltd

Probike LLC

**SPAIN** Andreani MHS Ibérica, SL

**SWEDEN** Motospeed AB

**SWITZERLAND** 3W Motosport

**TURKEY** Endo Motors

**UKRAINE** Suspension World Ukraine

**UNITED KINGDOM** Öhlins DTC

### MIDDLE EAST

**DUBAI** Revolution Accessories Est.

**ISRAEL**

Ofer Motor Co. Ltd.

Lee-Gal Motorbikes Ltd.

### NORTH & CENTRAL AMERICA

**CANADA** Öhlins USA Inc.

**MEXICO** Impormotos S.A.

**USA** Öhlins USA Inc.

### PACIFIC

**AUSTRALIA** Steve Cramer Products

**NEW ZEALAND** Kiwi Suspension Solutions

### SOUTH AMERICA

**ARGENTINA** Alpes Racing

**BRAZIL** Pro Performance Parts

**COLOMBIA** Ruta 40 Ltda

**PARAGUAY** Gotze Ingenieria S.A.



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