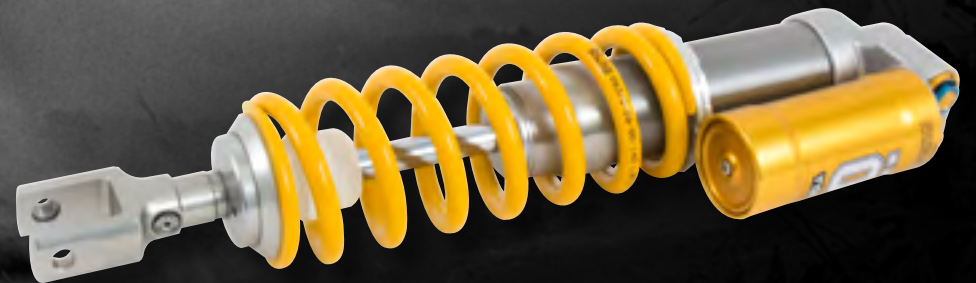


**MX & ENDURO 2016**



## 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 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 over 85 MEUR



# 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



RXF RACING

## CARTRIDGE KITS



TTX 22



STX 85 cc

## SPRINGS



## FLUIDS



## SHOCK ABSORBERS



TTX 44



STX 46



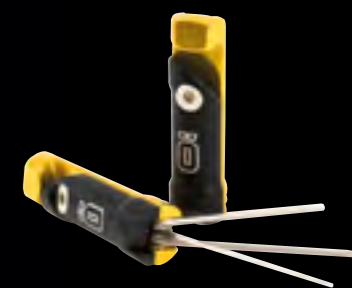
TTX 30

## STEERING DAMPERS



STEERING DAMPER 2.1

## COOL TOOL



COOL TOOL TTX 44



## THE TTX TECHNOLOGY

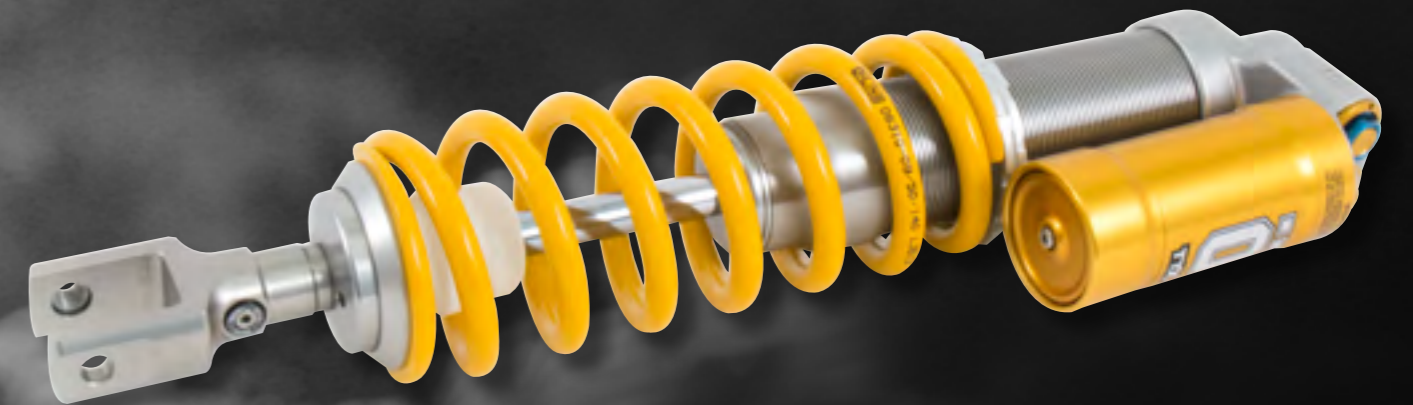
Cavitation – it's a nightmare. Pressure drops in the shock absorber results in gas bubbles forming in the oil, resulting in a catastrophic loss of damping force. First, this problem was reduced through the use of pressurized gas acting upon the oil. But the engineers at Öhlins weren't satisfied. They 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 track applications. Now the technology is available in a wide range of products.

The acronym has an actual meaning. The TTX stands for Twin Tube Cross-flow, 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. 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 ten and twelve 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 cartridge kits.



# SHOCK ABSORBERS



# TTX 44 SHOCK ABSORBER

The TTX 44 is built especially for championship riders, but serious privateers can of course lay their hands on this masterpiece from the R&D department at Öhlins, through the Öhlins distributor network. The performance has been proved at the highest level of AMA, MX GP and WEC.

Motocross and Enduro are the ultimate tests for the R&D department with the roughest and toughest conditions possible. It's close to the heart of Öhlins and it's where it all started, that is why Öhlins is serious about it. TTX Mk II was introduced in 2012 and got updates with new designs to main piston and piston band. Flow pattern in this TTX 44 shock have proved to be very good where the oil flows through two pieces of Öhlins Gold valves sitting at the compression adjusters at the top of the shock. The shock was fine tuned for 2015 with a new rebound adjuster design for better precision and more rigid feeling.

This version also includes the all-in-one suspension tool, Öhlins Cool Tool.

### FEATURES

- Twin Tube design
- Öhlins TTX-technology
- Rigid, fine precision rebound adjuster
- Three level high speed compression adjuster
- Highly effective low speed compression adjuster
- Race type piston and piston band
- Dual spring kit available to most models
- Available for all major MX and Enduro models
- Öhlins gold valves
- Öhlins Cool Tool





## STX 46 SHOCK ABSORBER

An updated 46 mm shock absorber from Öhlins, perfectly suited for 85cc bikes and OE applications. There's always been a 46 mm off road shock absorber in the Öhlins line-up but for 2013 it was updated with new valve technology and some retuning by Öhlins R&D. The result is the newborn Öhlins STX 46.

Compared to previous 46 mm models the STX is updated in many areas, resulting in developed dynamics of the shock absorber which the rider will be able to feel, giving the rider a better function in every way possible. The two way compression adjuster is new and similar to the Öhlins TTX shocks for the larger bikes. Wide range of low speed compression adjustment and 3 clicks high speed compression adjustment leaves nothing more to wish and creates a great performance. The PDS – Progressive Damping System – function has also been updated to better control the forces the shock absorber is subject to. Rebound damping adjustment is also available as well as spring pre-load adjustment. A wide range of springs are as always available to chose from.

### FEATURES

- Two way compression adjuster • Wide range of low speed compression adjustment, 3 click high speed
- Improved dynamics, equals better function
- Updated PDS function



STX

## TTX 30 SHOCK ABSORBER

Öhlins are proud to offer a new family of shocks for the 50 & 65 cc MX-bikes – The Öhlins TTX 30.

This is the first time Öhlins brings out the successful TTX-technology for the small bikes. Thanks to the small diameter the TTX-technology can be brought in a small package to fit these bikes. Having good suspension, as good as the GP-racers, is vital when you start out and start honing your race craft and speed. A comfortable performance driven shock absorber means the rider can use less energy to go fast, giving better control, higher safety and of course in the end more energy towards the end of the race to fight for the victories. As on all Öhlins products the TTX 30 is serviceable so you can keep the performance of the shock absorber over a long period of time and last the life time of the bike if not longer.

### FEATURES

- Twin Tube design • TTX-technology with no cavitation risk • Compression and rebound damping adjusted separately • Different spring rates available • Full maintenance and service capability



TTX

# FRONT END PRODUCTS







## RXF RACING FRONT FORK

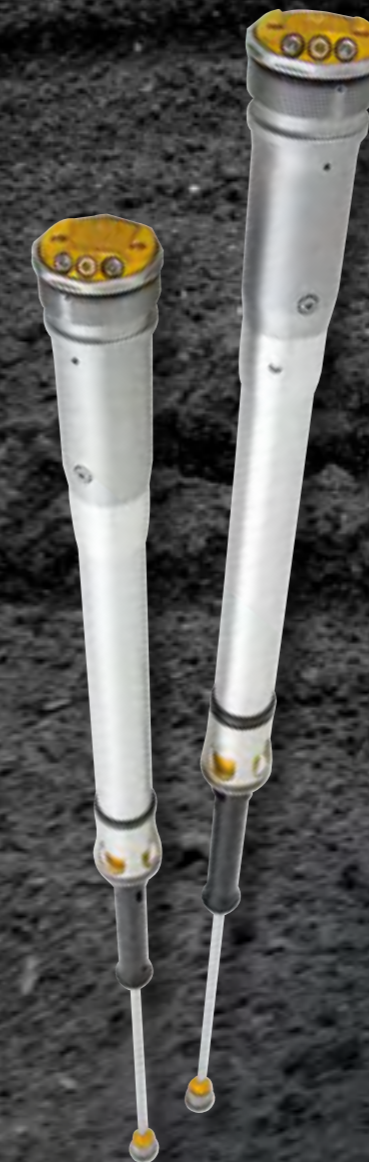
The Öhlins 48 mm front fork is loaded with the latest Öhlins front fork technology with gold anodized outer tubes and titanium oxide treated inner tubes. Our aim is to provide a fork stable enough to give confidence for racing, but still with that plush and gentle touch and feel. Continuing from our 2014 product with internal top out springs, settings have been further improved for 2015. Riders will experience less fading as the seals fitted works to prevent this and there top-out noise is minimized due to the top out spring and rubber used. The check-valve unit helps the fork to stay up in stroke without feeling too hard, which also improves the overall performance of the front fork.

The front fork has been chosen so it is hard enough to resist stones but is still solid enough to prevent corrosion. The front fork also comes with protective stickers for the outer tube to protect the outer tube all way up to the lower clamp.

This is the very latest MX/Enduro front fork technology from Öhlins.

### FEATURES

- Unique cartridge kit with TTX design
- Gas pressurized damping system for immediate damping response
- External compression adjuster
- External rebound adjuster
- Improved hydraulic stops to improve bottoming resistance
- Top-out springs and rubbers for smoother top-out feeling
- Inner tube surface treatment, gives low friction
- Stronger fork bottom material, highly resisant to hitting stones
- Long outer tube sticker to protect the outer tube from rocks
- Designed to be used with Öhlins fluids



## TTX 22 CARTRIDGE KIT

It's the inside that really counts! If you want to keep your front fork legs but still upgrade to Öhlins TTX, just pull out the standard inserts and pop in this powerful TTX 22 cartridge kit from Öhlins R&D.

The same kit that is fitted in the Öhlins Front Fork is based on the Öhlins TTX-technology is also available as a stand-alone cartridge kit for all major models. The TTX technology brings a positive pressure balance in the system, thanks to the twin tube technology. The gas pressurized dividing piston inside pushes the hydraulic fluid back into the low pressure side and the end result is better improved performance and no more cavitation.

The kit is lighter thanks to an 8 mm steel hollow shaft and the main piston diameter is 22 mm. All other details are made in aluminum. Settings are constantly improved and a new one-way rebound valve was recently introduced which improves the performance and gives better front wheel control. Available for most major models on the market.

### FEATURES

- Unique cartridge kit with TTX design
- Gas pressurized damping system for immediate damping response
- External compression adjuster
- External rebound adjuster
- Improved hydraulic stops to improve bottoming resistance
- Springs are ordered separately to suit rider's choice of rate
- Top-out springs and rubbers for smoother top-out feeling
- Available for all major MX and Enduro models





## STX 85 cc CARTRIDGE KIT

For 85cc bikes, a new cartridge kit is now available based on the TTX 22 cartridge kit for the bigger bikes. In 2015 the new 85cc cartridge kit will be available for all major 85cc models.

These kits are designed based on the Öhlins TTX 22 cartridge kit for the bigger bikes and share a lot of features with them and the experience they have from top level racing around the world. As such it's one of the most powerful cartridge kits available for 85cc bikes. This kit has been designed to rise very low above the fork leg ends, thus allowing the forks to be mounted far up in the triple clamps with a small clearance to the handlebars. This allows for lower bikes for the smaller riders in the class. Click adjusters and air breather are easily reachable as they are angled out from underneath the handlebar. The kit is also designed to achieve a quick and continuous response in the damping which directly slows down upcoming motions without harshness. It has a very reliable and constant damping characteristic in every stroke and during the whole race so the behavior is predictable and consistent.

### FEATURES

- Efficient hydraulic stop for improved bottoming resistance
- Adjustable compression and rebound
- Spring pressurized system to compensate for heat changes and provide reliable damping behaviour
- Wide range of springs
- Springs must be ordered separately



## STEERING DAMPER 2.1

It has been on the market since 1992 and was praised from the very start. The evolution of technological solutions has been added to the design throughout the years but now it is time to launch a whole new concept.

The new silhouette is a result of a much easier way of mounting the damper under the handlebar. The new steering damper is now equipped with a completely new valving system, eliminating any fluctuation of the damping characteristics depending on making a left or a right turn. The new UniFlow feature is actually a system that controls the flow of the hydraulic fluid into only one direction hence the new fluctuation free damping curve. The system is also pressurized to compensate any temperature changes.

The new easy way of mounting the damper broadens the list of MX bikes that can be fitted with this model.

### FEATURES

- Damping Level Adjuster (DL) - Controls the general setup, including a high speed valve
- Return to Centre Adjuster (RTC) - Variable setup of the damping force on the return
- All aluminum casing
- Damper body and mounting kit ordered separately
- Available for Honda, Kawasaki, KTM, Suzuki, Yamaha, Gas Gas, Husaberg and Husqvarna





## 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.

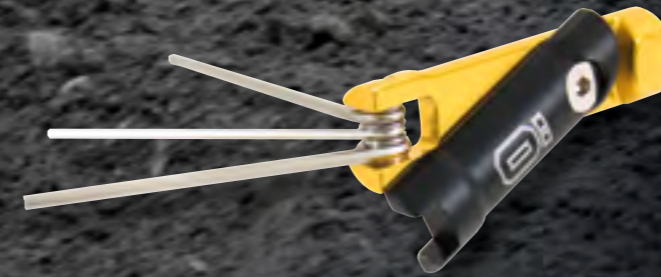
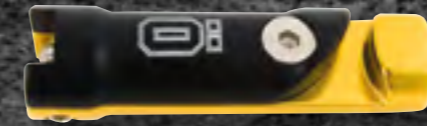
Made with the same precision as other Öhlins products, we believe that our fluids not only do the job of bringing the best out of our shocks. You just might add a little Öhlins performance using our fluids in just about any shock out there.



## 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 correct decision, as well as installing the springs.



## COOL TOOL TTX 44

Our technicians got fed up with walking around the tracks with their pockets full of tools. With this single piece of gold, you can adjust your Öhlins suspension easily, and it comes with a pocket too!

Use one of the Insex tools to open the spring preload adjuster locking ring, then grip the thread of the spring with the tool, and turn the spring in any direction to change spring preload! No more hook spanners or cursing.

You can also adjust the clickers and adjust the high speed compression hexagon with the black piece. Simple as that.



## MX DISTRIBUTORS

### FOR MORE CONTACT INFORMATION PLEASE VISIT

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  
**HONG KONG** Power Motorcycles Specialist  
**INDONESIA** PT Madani Sentra Mult. 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

#### EUROPE

**AUSTRIA** Öhlins DTC  
**BELARUS** Motosalon MV Agusta  
**BELGIUM** Öhlins DTC  
**CYPRUS** Extra Products  
**CZECH REPUBLIC** Öhlins DTC  
**DENMARK** F.I. Motorcykler A/S

**ESTONIA** Larsen Kalanduse OÜ  
**FINLAND** MP-Racing Oy  
**FRANCE** PFP Racing  
**GERMANY** Öhlins DTC  
**GREECE** Extra Products  
**HUNGARIA** Öhlins DTC  
**IRELAND** Pro-Link Racing Services  
**ICELAND** JHM Sport  
**ITALY** Andreani Group International s.r.l.  
**LATVIA** Motofavorits  
**LITHUANIA** UAB Proracing  
Jiezno UAB Juta  
**LUXEMBURG** Öhlins DTC  
**THE NETHERLANDS** Öhlins DTC  
**NORWAY** Norsk Motor Import A.S.  
**POLAND** InterCars S.A.  
Fast Forward

**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 Motorsport  
**TURKEY** Endo Motors  
**UKRAINE** Suspension World Ukraine  
**UNITED KINGDOM / ÖHLINS CENTRES** BG Motorsport Ltd  
Crescent Motorcycle Co Ltd  
FTR Suspension  
Harris Performance Prod. Ltd

Kais Suspension Services Ltd  
Mick Gardner Racing  
MH Racing Services  
P&H Motorcycles

#### MIDDLE EAST

**DUBAI** Revolution Accessories Est.  
**ISRAEL** Ofer Motor Co. Ltd.

#### NORTH & CENTRAL AMERICA

**CANADA** Öhlins USA Inc.  
**MEXICO** Impomotos 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.





# RECOMMENDATION LIST 2016

## SHOCK ABSORBERS & FRONT END PRODUCTS

Model	Year	Part No	Type Code	P/C	Notes
250/350-F Sixdays	2012-16	FGKT 1685	TTX 22 Cartridge kit	PC 245	08765- spring series
250/350-F Sixdays	2012-15	FGKT 1586	RXF Fork	PC 1155	08765- spring series
250/350-F Sixdays	2016	FGKT 1686	RXF Fork	PC 1155	08765- spring series
450500 Sixdays	2012-16	FGKT 1685	TTX 22 Cartridge kit	PC 245	08765- spring series
450500 Sixdays	2012-15	FGKT 1586	RXF Fork	PC 1155	08765- spring series
450500 Sixdays	2016	FGKT 1686	RXF Fork	PC 1155	08765- spring series

### MARZOCCHI - FRONT END

For Marzocchi 50mm	-	FGMA 1595	TTX 22 Cartridge Kit	245	-
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### SUZUKI - SHOCKS

RM85	2005-16	SU 1490	STX 46	PC 19	00698- spring series
RM-Z250	2007-16	SU 1693	TTX 44	PC 225	06310- spring series
RM-Z450	2005-16	SU 1694	TTX 44	PC 225	06310- spring series

### SUZUKI - FRONT END

RM85	2009-16	FGSU 1390	STX 22 Cartridge	PC 107	08785- spring series
RM-Z250	2016	FGSU 1693	TTX 22 Cartridge Kit	PC 245	08765- spring series
RM-Z450	2015-16	FGSU 1694	TTX 22 Cartridge Kit	PC 245	08765- spring series
RM-Z 250/450	2013-16	FGSU 1696	RXF Fork	PC 1155	08765- spring series

### YAMAHA - SHOCKS

YZ85	2002-16	YA 1390	STX 46	19	00698- spring series
YZ 125	2013-16	YA 1692	TTX 44	225	06310- spring series
YZ 250	2013-16	YA 1692	TTX 44	225	06310- spring series
YZ 250F	2014-16	YA 1693	TTX 44	225	06310- spring series
YZ 450F	2014-16	YA 1694	TTX 44	225	06310- spring series

### YAMAHA - FRONT END

YZ85	2009-16	FGYA 1390	STX 22 Cartridge	PC 107	08794- spring series
YZ 125/250	2015-16	FGYA 1693	TTX 22 Cartridge Kit	PC 245	08765- spring series
YZ250F	2014-16	FGYA 1693	TTX 22 Cartridge Kit	PC 245	08765- spring series
YZ450F	2014-16	FGYA 1694	TTX 22 Cartridge Kit	PC 245	08765- spring series
YZ 250/450F	2014-16	FGYA 1696	RXF Fork	PC 1155	08765- spring series

## STEERING DAMPER 2.1 ALL MODELS USES SAME DAMPER BODY SD 502

Model	Year	Mount. Kit	P/C	Damp. Body	P/C
<b>GAS GAS</b>					
EC 250	2009-10	SD 572	1	SD 502	43
EC 300	2009-10	SD 572	1	SD 502	43
EC 300 2T	2013-14	SD 573	1	SD 502	43
EC 450	2009-10	SD 572	1	SD 502	43
EC 515	2009-10	SD 572	1	SD 502	43

### HONDA

CRF 250R	2007-09	SD 513	1	SD 502	43
CRF 250R	2010-14	SD 514	1	SD 502	43
CRF 250X	2010	SD 513	1	SD 502	43
CRF 450R	2008	SD 513	1	SD 502	43
CRF 450R	2009-14	SD 514	1	SD 502	43
CRF 450X	2010	SD 513	1	SD 502	43

### HUSABERG

FE TE all models	2010-11	SD 534	1	SD 502	43
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### HUSQVARNA

FC 250	2014-15	SD 535	1	SD 502	43
FC 350	2014-15	SD 535	1	SD 502	43
FC 450	2014-15	SD 535	1	SD 502	43
TC 125	2014-15	SD 535	1	SD 502	43
TC 250	2014-15	SD 535	1	SD 502	43
TC 250	2010	SD 582	1	SD 502	43
TC 449	2011	SD 582	1	SD 502	43
TC 450	2010	SD 582	1	SD 502	43
TE 250	2010-11	SD 582	1	SD 502	43
TE 310	2010-11	SD 582	1	SD 502	43
TE 449	2011	SD 582	1	SD 502	43
TE 450	2010	SD 582	1	SD 502	43
TE 510	2010	SD 582	1	SD 502	43

### KAWASAKI

KX 250F	2008-14	SD 522	1	SD 502	43
KX 450F	2008-14	SD 522	1	SD 502	43
KLX 450 R	2009-10	SD 522	1	SD 502	43

Model	Year	Mount. Kit	P/C	Damp. Body	P/C
<b>KTM</b>					
200-250-300 XC	2008-09	SD 534	1	SD 502	43
200-250-300-400-450-530 EXC	2008-12	SD 534	1	SD 502	43
200-250-300-400-450-530 XC-W	2008-09	SD 534	1	SD 502	43

### KTM

250 EXC-F	2008-12	SD 534	1	SD 502	43
250 XCF-W	2008-09	SD 534	1	SD 502	43
250/450SX-F	2008-12	SD 534	1	SD 502	43
250SX	2008-12	SD 534	1	SD 502	43
250 SX-F	2014	SD 535	1	-	-
350 SX-F	2014	SD 535	1	SD 502	43
450 SX-F	2014	SD 535	1	-	-
EXC all models	2013-14	SD 535	1	SD 502	43

### SUZUKI

RM-Z 250	2008-14	SD 543	1	SD 502	43
RM-Z 450	2008-14	SD 543	1	SD 502	43

### YAMAHA

YZ 125	2013	SD 554	1	SD 502	43
YZ 250F	2008-14	SD 554	1	SD 502	43
YZ 450F	2008-14	SD 554	1	SD 502	43
WR 250F	2009-10	SD 555	1	SD 502	43
WR 450F	2009-13	SD 555	1	SD 502	43

## SHOCK ABSORBERS - VINTAGE

Model	Part No	Type Code	P/C	Length	Spring
<b>VINTAGE MX</b>					
Classic MX	CC 606	S36D	13	360	00180-90
Classic MX	CC 718	S36P	13	380.5	00480-01

If you can't find your bike in the list, please contact your local Öhlins Distributor, [www.ohlins.com](http://www.ohlins.com).

Reservation for changes



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