



ADVANCED SUSPENSION TECHNOLOGY

# MOTORSPORT 2017



# 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.



2016		
Mattias Ekström	FIA World Rallycross Championship	Audi S1 EKS RX Quattro
EKS RX	FIA World Rallycross Championship	Audi S1 EKS RX Quattro
Kevin Hansen	European Rallycross Championship	Peugeot 208 WRX
José María López	FIA WTCC	Citroën C-Elysée WTCC
Citroën Sport	FIA WTCC	Citroën C-Elysée WTCC

2015		
Hiroaki Ishiura	Super Formula Series Japan	Toyota R14A
Mies/Sandström/Mueller/Vanthoor	ADAC Zürich 24h-Rennen Nürburgring	Audi R8 LMS GT3
Team Peugeot	Hansen FIA World Rallycross Championship	Peugeot 208 WRX
Gainer Tanax	Super-GT Championship	Nissan GT-R
José María López	FIA WTCC	Citroën C-Elysée WTCC
Citroën Sport	FIA WTCC	Citroën C-Elysée WTCC
Vincent Abril/Maximilian Buhk	Blancpain Sprint Series Cup	Bentley Continental GT3
Alex Buncombe/Wolfgang Reip/ Katsumasa Chiyo	Blancpain Endurance Series Pro Cup/Nissan	Nissan GT-R NISMO GT3

2014		
André Lotterer / Marcel Fässler / Benoît Tréluyer	Le Mans 24-Hours	Audi R18 E-tron quattro
Anthony Davidson / Sebastian Buemi	Hybrid FIA World Endurance Championship	Toyota TS 040
James Rossiter	Super GT 500	Lexus RC F
Kazuki Nakajima	Super Formula	Toyota R14A
Citroën Sport	FIA WTCC	Citroën C-Elysée WTCC
Joni Wiman	Global Rallycross	Ford Fiesta ST
José María López	FIA WTCC	Citroën C-Elysée WTCC
JP Dayrault	Andros Ice Trophy	Mini Cooper Countryman
Kevin Eriksson	World Rallycross RX Lites	Ford
Kevin Hansen	Swedish Rallycross Lites	Peugeot
Matt Summerfield	British Truck race Championship	MAN
Olly Clark	UK Time Attack Championship	Subaru Impreza Gobotopper II
Petr Fulin	FIA ETCC	BMW 320 Si S2000
Romain Dumas	Pikes Peak	Norma
Sebastian Eriksson	Swedish Rallycross Champ.	Ford Fiesta ST
Vitaliy Pushkar / Ivan Mishyn	FIA ERC Production Cup	Mitsubishi Lancer EVO X R4

2013		
Hideki Mutoh / Yuhki Nakayama	Super GT300	Honda Mugen
Naoki Yamamoto	Super Formula Nippon	Swift Honda
Tom Kristensen / Allan McNish / Loïc Duval	Le Mans	Audi R18 E-Tron Quattro
Yuji Tachikawa / Kohel Hirate	Super GT500	Lexus
Yvan Müller	WTCC	Chevrolet
Frankenhut / Radenmecker / Ricci	24H-Nürburgring VLN	Peugeot 208 GTI
Gianni Morbidelli	Italian Superstars	Audi RS5
Jimmy Owens	Dirt Late Model	Bloomquist
Petr Fulin / Krenek Motorsport	FIA ETCC 2013	BMW 320
Sebastien Loeb	Pikes Peak	Peugeot 208 T16
Timur Timerzyanov	European Rallycross	Citroën DS3
Tom Kristensen / Allan McNish / Loïc Duval	World Endurance	Audi R18 E-Tron Quattro

2012		
Tanner Foust	Global Rally Cross	Ford
Rob Huff	WTCC	Chevrolet
Fässler / Lotterer / Tréluyer	Le Mans	Audi
Kazuki Nakajima	Formula Nippon	Toyota
Fässler / Lotterer / Tréluyer	World Endurance	Audi
Jimmy Owens	Dirt Late Model	Bloomquist
Johan Kristoffersson	STCC	Volkswagen
Johan Kristoffersson	Italian Superstars	Audi

2011		
Alain Prost	Andros Trophy	Dacia
Yvan Muller	WTCC	Chevrolet Cruze
Treluyer / Fässler / Lotter	LeMans 24h	Audi R18
Boije Ovebrink	Speed world record Hybrid Truck	Volvo VN
Boije Ovebrink	Swedish Flying kilometer Hybrid Truck	Volvo VN
Rickard Rydell	Swedish Touring Car Championship	Chevrolet Cruze
Martin Tomczyk	DTM	Audi A4
Dirk Muller / Joey Hand	ALMS GT	BMW M3 GT2
Andrea Bertolini	Super Star International Champ.	Maserati QP
Alberto Cerqui	Super Star Italian Championship	BMW M3

2010		
Jason Plato	BTCC	Chevrolet
Richard Göransson	STCC	BMW
Rockenfeller / Bernhard / Dumas	Le Mans 24H	Audi R15
Jörg Müller / Augusto Farfus / Uwe Alzen / Pedro Lamy	Nürburgring 24H	BMW
Boije Ovebrink	Standing kilometer for Trucks	Volvo FH16
Sverre Isachsen	European Championship RallyCross	Ford Focus
Scott Bloomqvist	Lucas Oil Dirt Late Model Series	Bloomqvist/Ford
Tanner Foust	X-Games Rally Car Racing	Ford Fiesta
Tanner Foust	Rally Car Super-Rally	Ford Fiesta
Rahal	ALMS GT2	BMW E92 M3 GT2
Yvan Muller	WTCC	Chevrolet Cruze
Chevrolet	WTCC	Chevrolet Cruze
Thomas Biagi	Superstars Series	BMW E92 M3
Cesar Ramos	Italian F3 Championship	Dallara F308

2009		
Timo Scheider	DTM	Audi
Brabham / Gené / Wurz	LeMans	Peugeot
Sverre Isachsen	Rally X EM	Ford
Kenny Bräck	X-Games	Ford
Tommy Rustad	STCC	Volvo

2008		
Kristensen / McNish / Capello	LeMans 24h	Audi
Timo Scheider	DTM	Audi

2007		
Mattias Ekström	DTM	Audi
Lars Larsson	European Rallycross Champion	Skoda
Andy Priaulx	WTCC	BMW
Biela / Pirro / Werner	LeMans 24h	Audi R10
Sebastien Bourdais	ChampCar	Newman Haas

2006		
Lars Larsson	European Rallycross Champion	Skoda
Lars Larsson	Swedish Rallycross Champion	Skoda
Giandomenico Basso	European Rally Champion	Fiat S2000
P.Andreussi / A. Andreussi	Italian Rally Champion	Fiat S2000
Biela / Pirro / Werner	LeMans 24h	Audi R10/LMP1

2005		
Tony Stewart	NASCAR Nextel Cup	Joe Gibbs Racing
Toshi Arai	Production Car WRC	Subaru
Dan Wheldon	IRL	Chip Ganassi
Yvan Muller / Paul Bourlom	Andros Thropee	
Letho / Werner / Kristensen	LeMans 24h	Audi R8/LMP1

2004		
Mattias Ekström	DTM	Audi
Antonio Liuzzi	FIA Formel 3000	Lola
Jussi Pinomäki	European Rally Cross	Renault
Buddy Rice	Indianapolis 500	Team Rahal
Ara / Kristensen / Capello	LeMans 24h	Audi Sport
Kelly / Murphy	Bathurst 1000	Kmart Racing Team
Richard Lyons	Formula Nippon	DoCoMo Dandelion

2003		
Kristensen / Capello / Smith	LeMans 24h	Bentley
Martin Rowe	Production Cars WRC	Subaru
Scott Dixon	IRL	G-Force/Toyota
Paul Tracy	CART	Ford Cosworth/Lola
Brice Tirabassi	Rally Sper 1600	Renault
JJ Letho / Johnny Herbert	ALMS	Audi

2002		
Biela / Kristensen / Pirro	Le Mans 24h	Audi R8
Tony Stewart	NASCAR Winston Cup	Joe Gibbs Racing
Sam Hornish Jr.	Indy Racing League	Panther Racing

2001		
G. Pozzo	Rally Grp.N	Mitsubishi
Gil De Ferran	CART	Team Penske
Helio Castroneves	INDY 500	Team Penske
Biela / Kristensen / Pirro	LeMans 24h	Audi R8

2000		
Juan Pablo Montoya	Indianapolis 500	Ganassi
Gil De Ferran	CART	Team Penske
Bobby Labonte	Sprint Cup Champion	Joe Gibbs Racing
Brendan Gaughan	Winston West Champion	
Tony Kasemets	SCCA Formula Continental	
Larry Connor	SCCA Formula Atlantic	
Jeff Clinton	SCCA 2000	
Manfred Stohl	World rally Grp.N	Mitsubishi
Biela / Kristensen / Pirro	LeMans 24h	Audi R8
Harri Luostarinen	FIA European Supertruck Ch.	TRD

1999		
Tommi Mäkinen	Rally WRC	Mitsubishi
Juan Pablo Montoya	CART	Reynard
Bill Baird	ARCA	Chevrolet
Tony Hirshman	NASCAR Modifieds	Pontiac
Anthony Lazzaro	Toyota-Atlantic	Swift
Mattias Ekström	STCC	Audi A4
Gustavo Trelles	Rally Grp.N	Mitsubishi
Manufacturers Championship	Rally WRC	Toyota

1998		
Tommi Mäkinen	Rally WRC	Mitsubishi
Alez Zanardi	CART	Reynard
Mike Stefanik	NASCAR Modifieds	Chevrolet
Eddie Cheever Jr.	Indianapolis 500	Dallara
Rickard Rydell	BTCC	Volvo S40
Fredrik Ekblom	STCC	BMW320
Gustavo Trelles	Rally Grp. N	Mitsubishi

1997		
Tommi Mäkinen	Rally WRC	Mitsubishi
Alex Zanardi	CART	Reynard
Tim Steele	ARCA	Ford
Alex Barron	Toyota-Atlantic	Ralt
Laurent Aiello	STW	Peugeot 406

1996		
Tommi Mäkinen	Rally	Mitsubishi
Tim Steele	ARCA	Ford
Patrick Carpentier	Toyota-Atlantic	Ralt
Steve Knapp	FF2000	VanDiemen
Emanuele Pirro	STW	Audi A4
Frank Biela	BTCC	Audi A4
Rinaldo Capello	Championata It. Superturismo	Audi A4
Jordi Gene	Campeonato Esp. Superturismo	Audi A4
Terry Moss	South African Touringcar Champ.	Audi A4
Jean-Francois Hemroulle	Belgian Procar	Audi A4
Brad Jones	Australian Supertouring	Audi A4
Steve Parrish	EC Truck Racing	Mercedes

1995		
Slim Borgudd	EC Truck Racing	Mercedes

1993		
Nigel Mansell	USA - Indy Car	Newman-Haas-Lola



# PRODUCT OVERVIEW 2017

Öhlins shock absorbers are available in a many different versions, all of which can be tailor made to any competition car depending on your requirement, budget and the technical specification of the car.

Our shock absorbers are all rebuildable and serviceable and designed to be modified to different kind of competition vehicles, and cover all kinds of motorsport disciplines. At Öhlins and at our trained Öhlins service centers there is experience from countless of years of motorsport success to find the winning suspension solution for you.



## TYPE STX 36



S36D S36PB S36HR1C1 S36PR1C1

## TYPE STX 46



S46D S46DR1 S46HR1C1 S46HR1C2 S46PR1C1 S46PR1C2 S46HMR1C1 S46HMR1C2Q1

## TYPE STX 50



S50HR1C2 S50PR1C2

## TYPE TTX 36



T36PR1C1 T36PR2C2

## TYPE TTX 36 ILX



T36DR1C1 T36DR2C2

## TYPE TTX 40



T40DR2C2T

## TYPE TPX



S44PR1C2Q1Q2M

## TYPE TTX 46



T46PR1C1MT

## TYPE DFV



## TYPE STOCKCAR



CCJ STJ LMJ LMP ILX WCJ

## OPTIONAL PARTS



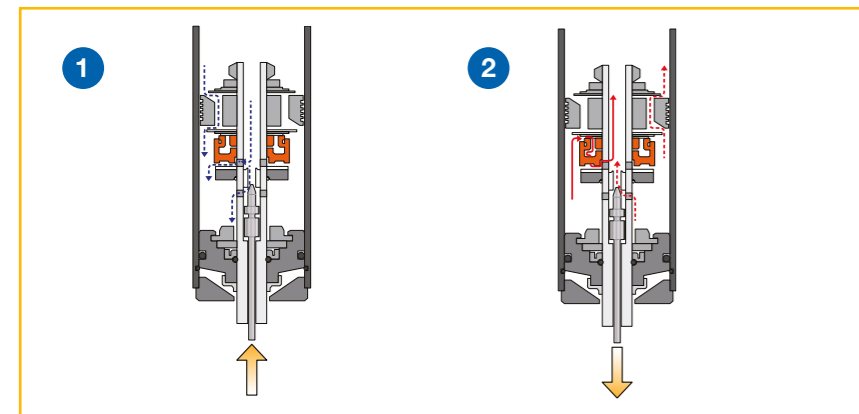
BLOW OFF VALVE FOR TTX 46 MT BLOW OFF PISTONS FOR TTX36/TTX36IL(ILX) BLOW OFF PISTONS FOR TTX40 SPRING SEAT KIT BLOW OFF VALVE FOR TTX46 MT LINEAR DISPLACEMENT SENSOR KIT FOR TTX46 ÖHLINS SHOCK COVERS

# THE FEATURES OF DFV TECHNOLOGY



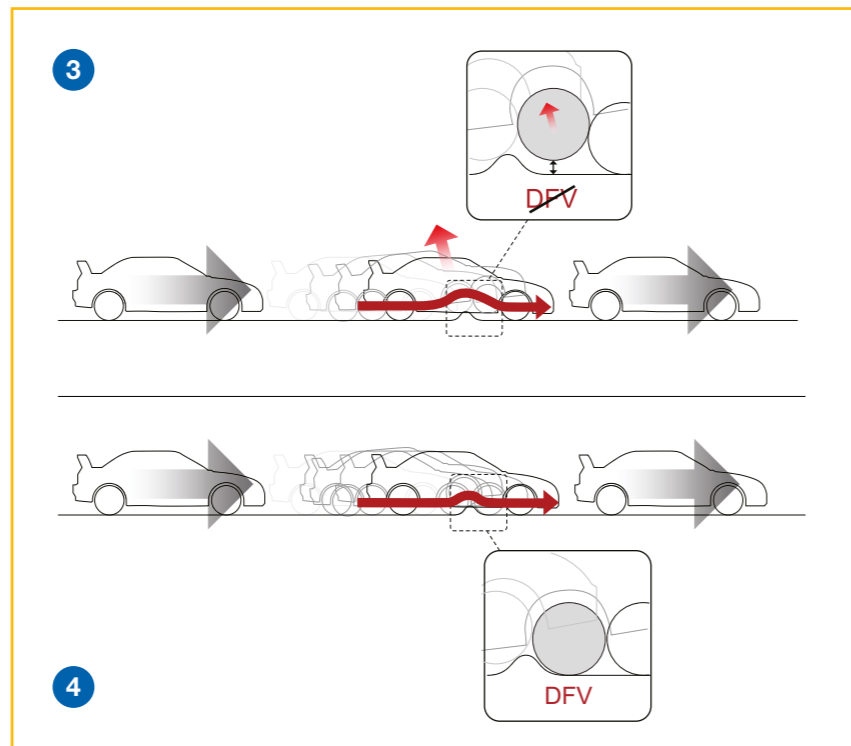
So what is DFV? It is Dual Flow Valve technology – and it sets us apart from our competitors. Only Öhlins has DFV technology on its road and track products.

With DFV, the dual flow valve gives the same characteristics on rebound as it does on compression, thanks the damper fluid having a consistent path of flow in both directions. This means that the wheel and tyre can quickly and effectively resume their important position back on the ground, providing grip and traction. The new Öhlins R&T range uses DFV technology on every single fitment, making it the perfect upgrade for the enthusiast that needs comfort and agility in the one unit.



**FIGURE 1:** (Compression flow) At low shaft speeds, oil flows mostly through the shaft jet bleed (lower dotted arrow). At higher shaft speeds, oil flows mostly through the compression ports in the piston (upper dotted arrow). At very high shaft speeds, or during sudden shaft accelerations, oil can also escape through the compression ports in the DFV, increasing comfort.

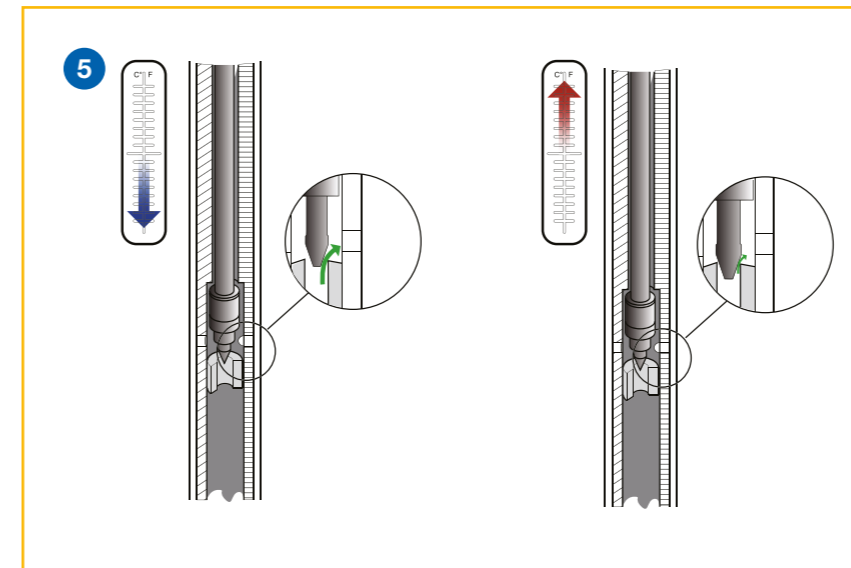
**FIGURE 2:** (Rebound flow) At low shaft speeds, oil flows mostly through the shaft jet bleed (lower dotted arrow). At higher shaft speeds, oil flows mostly through the rebound ports in the piston (upper dotted arrow). At very high shaft speeds, or during sudden shaft accelerations, oil can also escape through the rebound ports in the DFV, maintaining tyre contact with the road.



**FIGURE 3:** (Vehicle – no DFV) Without DFV the oil can not flow through the piston quickly enough on the rebound stroke after hitting a bump, so the tyre is not able to stay in contact with the road.

**FIGURE 4:** (Vehicle – DFV technique) The DFV valve opens, letting the oil flow quicker through the piston on the rebound stroke after hitting a bump, enabling the tyre to stay in contact with the road.

**FIGURE 5:** Thermal Expansion



Dampers will get hot. That's one thing that you can be sure of. As the piston moves within the damper, it generates friction – and therefore, heat. Although we can't stop heat, we can deal with it, and this is yet another way that Öhlins differs from the competition. As the heat increases, the viscosity of the damper fluid can change, altering the car's handling characteristics. Our unique needle bleed valve expands with temperature, closing the gap that the fluid travels through, maintaining a consistent damping rate. The best thing of all? You won't even notice! All you'll feel is that the car responds consistently, lap after lap, turn after turn. Allowing you to concentrate on braking points and apexes whilst the Öhlins technology takes care of the damping.

"KEEPS YOU ON THE RACING LINE"

The Öhlins Dual Flow Valve (DFV) damping system is Öhlins answer to entry level circuit racing, one make classes, cups etc. The damping system gives the car improved grip control and stability. The DFV system keeps you on the racing line when hitting curbs and you will experience precise steering and high speed stability in all conditions. Developed for racing series, national base classes and similar with lightweight cars, front or rear wheel drive, where you need to be able to fine tune the damping characteristics which is possible with the external adjuster for each specific track or conditions. This product has a well proven function on many kind of surfaces and has great performance also on demanding tracks such as Nürburgring etc.



RACING



RACING





## TTX 46 MT/CR

The updated TTX 46 is featured in GT, sports car, club racing and touring car racing, where McPherson struts are used, and is accompanied by the TTX 40, TTX 36 and ILX 36. This shock absorber features a 46 mm solid piston with a through rod of 30 mm, providing a rigid and lightweight strut. To further improve the rigidity, the outer tube is made from a special aluminum alloy. The all new upgraded seal head with its design and seals reduce friction and by that increases track performance and by that grip.

The TTX 46 comes in two versions which both benefits from a positive pressure build up. The four-way adjustable (TTX 46 MT) provides a wide range of adjustments without even taking the strut off the car. The second version is a two-way adjustable (TTX 46 CR) and aims towards the club racers and is accompanied with the TTX 36 piggyback or ILX 36 depending on the needs. These are also available with a blow-off piston kit which reduces peak loads and makes driving over curbs much smoother and in the end saves tires and improves tyre performance.

**FEATURES**

- > TTX-technology – no cavitation risk
- > 46 mm solid piston, through rod 30 mm
- > 4-way adjustable
- > McPherson strut suspension
- > Valve Reference Program
- > Available with a blow-off piston kit
- > Also available as a two-way adjustable version



## TTX 40

Ever since the introduction this high-end level racing damper has been a winner in top level racing around the globe.

The TTX 40 twin tube damper features a 40 mm solid piston and a through rod shaft which eliminates the requirement of an external reservoir. The design is fully pressure balanced with a positive pressure build-up throughout the adjustment range, eliminating the risk for cavitation as well as enabling the use of low gas pressure, keeping the internal friction at bay. The top eye can easily be re-locked without opening the damper.

The TTX 40 is a fully independent four-way adjustable damper. The MkII version also comes with a Valve Reference Program. This computer model of a dyno will allow you to find damping curves without a dynamometer. It reduces building time tremendously and allow exact damping adjustment out in the pit lane.

The TTX 40 is also available with a Blow Off piston kit. The advantage with this kit is that it reduces peak loads. This makes driving over curbs smoother, saves tires and reduces the risk of getting flat tires. The damper can be modified to suit most of the different types of racing cars and covers a wide range of car types and models. The TTX 40 is also available in a two-way adjustable version for some models.

**FEATURES**

- > TTX-technology – no cavitation risk
- > 40 mm solid piston
- > 4-way adjusted, compression and rebound
- > High end racing damper
- > Comes with Valve Reference Program
- > Available with a blow-off piston kit
- > Suitable for Le Mans style prototypes, single seaters, touring cars, sports cars and GT-cars





## TTX 36 INLINE

The TTX 36 is a popular choice, especially for GT-cars and prototypes as well as in single seater applications.

This version with an inline reservoir is particularly well suited for cars where size and fitment is an issue. The damper has an inline reservoir with improved internal oil flow and is of a non-through rod type. The configuration out of the box is 2-way adjusted; 1-way compression and 1-way rebound, but is easy to upgrade to become 3- or even 4-way adjusted.

The big advantage with the damper is the integral reservoir that makes it very compact and easy to package and also be possible to use it in applications that do not allow external reservoirs. This program will guide you through the "build" of the damper and shows all parts needed to build a complete damper for your specific need. Five lengths available. The length is measured without end- and top-eye.

### FEATURES

- > TTX-technology – no cavitation risk
- > Integrated reservoir
- > 2-way adjusted, compression and rebound
- > Possible to upgrade to 3- and 4-way adjustable
- > Compact design
- > Available in different lengths
- > Suitable for single-seaters and historical racing and vehicles where external reservoirs are not allowed or can be fitted



## TTX 36 PIGGYBACK

The TTX 36 is also available in a piggy back version with an external reservoir. Still with a compact light weight design this versatile racing shock absorber is 2-way adjustable that can be upgraded to 3- and 4-way adjusted.

It's one of our most versatile dampers and is used for many different applications for spanning from single-seaters and GT-cars to touring cars, sports cars and prototypes.

### FEATURES

- > TTX-technology – no cavitation risk
- > 2-way adjusted, compression and rebound
- > Possible to upgrade to 3- and 4-way adjustable
- > Compact design
- > Length calculation program available
- > Available in different lengths
- > Suitable for a wide range of cars from GT- and sports cars to single seaters, touring cars and prototypes







# RALLY & OFFROAD





## ALR TPX/TTX RALLY & RALLYCROSS

They have proven themselves in the toughest of conditions. This range with a set of universal struts and dampers are aimed at the rally and rallycross markets but they are also suitable for racing applications, especially for demanding circuits such as the Nürburgring Nordschleife.

The strut is a twin piston McPherson strut (TPX 44) with a 44 mm diameter piston. It is three-way adjusted, one-way rebound and two-way compression. The damper is a four-way adjusted twin tube (TTX 44) damper. The rod adjuster is a coarse rebound adjuster, while the single adjuster in the cylinder head is a fine tuner with a two-way compression adjuster. The damper has a 44 mm piston.

Both are fully pressure balanced, eliminating the risk of cavitation and due to low gas pressure they keep the internal friction level minimized. There is a whole range of optional parts to tailor the dampers to any specific needs. The dampers can be built and modified for more or less any rally or rallycross vehicle and has been winners since the launch.

### FEATURES TPX

- > McPherson strut
- > 44 mm Twin Piston Technology (TPX)
- > 3-way adjustable
- > Fully pressure balanced
- > Progressive Damping System (PDS)

### FEATURES TTX

- > Conventional shock
- > 44 mm Twin Tube (TTX)
- > 4-way adjustable
- > Fully pressure balanced
- > Progressive Damping System (PDS)



## GROUP N

For this class Öhlins has developed the Group N dampers to suit the Subaru and Mitsubishi. For this class Öhlins has developed the Group N dampers to also suit the Subaru and Mitsubishi R4 cars. The front strut is a Twin Piston McPherson strut with a 44 mm diameter piston, three way adjusted with one-way rebound and two-way compression. The rear damper is a Twin Tube TTX 44 with a 44 mm piston and it's four-way adjusted.

Both front and rear are fully pressure balanced, eliminating the risk of cavitation and due to low gas pressure they keep the internal friction minimized.

### FEATURES FRONT

- > TPX 44 McPherson strut
- > 44 mm twin piston
- > PDS (Progressive Damping System)
- > 3-way adjusted, one way rebound and two way compression

### FEATURES REAR

- > TTX 44 Twin Tube shock absorber
- > 44 mm single piston
- > PDS (Progressive Damping System)
- > 4-way adjusted, two way rebound and two way compression





## ORQ 16/46

The ORQ-series Off-Road damper has proven a success in all kinds of Rally Raid events. The damper has a swiveling hose, for increased flow potential for easy mounting on the vehicle.

The ORQ range of dampers is designed with Off-Road and Rally Raid Cars in mind, as well as similar kinds of vehicles where this layout is suitable. These dampers are available in three different lengths. The dampers are of 46 mm piston type with remote reservoirs. They have compression and rebound adjusters together with the Progressive Damping System, PDS. The damper comes with a protecting sleeve and two circlips to help prevent spring wear. Springs, spring platforms and spacers for the spherical bearings need to be ordered separately.

FEATURES
> 46 mm piston
> Remote reservoirs
> Available in three different lengths
> PDS, Progressive Damping System
> 2-way adjustable



## ORQ 18/50

A high performing Off-road damper in the Öhlins ORQ series. The ORQ 18/50 is suitable for off-road and rally raid and features a 50 mm piston and a 18 mm piston rod. The whole design is very robust to withstand the high forces and demands presented in off road such as rally raid and similar events. Details such as ball joint and the rebound adjustment has been reinforced and dimensioned for this application. The ORQ 18/50 also features the PDS, Progressive Damping System, featured on Öhlins rally dampers.

It is available in three lengths but it is also possible to custom build dampers with up to approx. 350 mm stroke. PDS components, adjustment rod and length calculations program are available as well. Piggy back cylinder head will be available as optional component which makes it possible to rebuild a hose damper to Piggy back.

FEATURES
> 50 mm piston
> 18 mm piston rod
> PDS, Progressive Damping System
> Three way adjustable, two way compression and one way rebound
> Robust design and light weight aluminum body
> Available in three lengths
> Also possible to custom build up to 350 mm stroke
> Piggy back cylinder head available as optional component to rebuild a hose damper to piggy back version





## HISTORIC RALLY

With Öhlins kit system we can build you the Öhlins legendary suspension system for your historic rally car. We have numerous different applications that are hand built and extensively tested to withstand the forces from serious rallying. The latest application includes the Porsche 911 Historic Rally car.

Our suspension is rebuildable and it is possible to build the suspension after your drivers' preferences and type of use. Like all of our suspensions they need to be serviced to withstand the brutal force that are thrown at a historic rally car.

The Porsche dampers are available in two versions, with or without adjustment possibilities. The adjustable version has a 16 mm piston shaft hollowed with a valve and jet that is externally adjustable. It features a single adjuster knob that

affects both rebound and compression circuits with the use of a bleed system and also benefits from a temperature compensating system.

The rear shock has a 46 mm damping piston together with a 16 mm piston shaft with compression and rebound adjustable with one external adjustment knob and benefits from the temperature compensating system. The Öhlins rear shocks is rebuildable and is tailor made for the car as well as the settings to suit the drivers' preferences.

The non-adjustable version is based on a 40mm cylinder tube that fits into the original Porsche McPherson outer tube. The piston shaft is 12 mm and has a balanced setting developed for both Tarmac and Gravel.





STOCK CAR



**STOCK CAR**  
SHOCK ABSORBERS



# WCJ

This high performance light weight stock car shock absorber is designed for use in Asphalt oval series in anything spanning from the highest series in NASCAR to Late Model. It features as a regular winner in NASCAR.

- FEATURES**
- > Light weight aluminum body
  - > Large reservoir for improved cooling
  - > Quick response for better handling
  - > Consistent on long runs
  - > Easy to dial in, reshim, rebuild and service
  - > Infinite valve and piston combinations
  - > Options include a variety of different pistons, one-way shaft jets, parallel compression valve and base valve



**STOCK CAR**  
SHOCK ABSORBER



# OTJ

A new shock absorber for oval track racing replacing the STJ.

- FEATURES**
- > Adjustable or non-adjustable
  - > Light weight aluminum body
  - > Large reservoir for improved cooling
  - > Easy to dial in, reshim, rebuild and service
  - > Infinite valve and piston combinations
  - > Options include a variety of different pistons, one-way shaft jets and base valve





## ILX-SERIES

The design of the TTX36 Inline with the compact design and with an inline reservoir makes it suitable for asphalt oval racing.

### FEATURES

- > TTX-technology – no cavitation risk
- > Integrated reservoir
- > 2-way adjusted, compression and rebound
- > Possible to upgrade to 3- and 4-way adjustable
- > Compact design
- > Available in different lengths
- > Used in asphalt oval racing as the NASCAR-series and Late Model



## LMJ/LMP-SERIES

Designed for use in Late Model and Modified but also for use in NASCAR Sprint Cup, Nationwide and Truck series. The LMJ & LMP-series are also available in Dirt oval applications for use in Dirt Late Model, Modified and Sprint racing.

The shock absorbers are two way adjustable with LMP available as a piggy back version and LMJ series in hose version with remote reservoir.

### FEATURES LMJ

- > Late Model and Modified
- > Dirt and Asphalt applications
- > Light weight, aluminum body
- > 2-way adjustable damping
- > Easy to dial-in, rebuild, reshim and service
- > Available with several different piston options
- > Options include one-way shaft jets, parallel compression valve & two-way reservoir

### FEATURES LMP

- > Late Model and Modified
- > Dirt and Asphalt applications
- > BOB-R compression valve for increased adjustment range
- > Large reservoir for better cooling
- > Easy to dial-in, reshim, rebuild and service
- > Options include One-way shaft jets to allow smaller compression or rebound valve
- > Optional parallel compression valve to allow for smaller rebound valve





# CCJ

An economical non-adjustable shock absorber for use in dirt oval racing and asphalt oval racing. The base stock car version is non adjustable and can be used in all forms of stock car oval racing.

### FEATURES

- > Late Model and Modified classes
- > Dirt and Asphalt applications
- > Steel body
- > Easy to dial in, reshim, rebuild and service
- > Large number of valve and piston combinations available
- > Options include different optional pistons and one-way shaft jets







### BLOW OFF VALVE FOR TTX 46 MT

This new valve has minimized force overshoot and optimized response time. It reduces impact of curb hit for further improvements of lap time.



### SPRING SEAT KIT

New spring seat kits are launched which include bearings and helper springs. The kit is made for Öhlins TTR, TTX40, TTX36 and TTX36 Inline racing shock absorbers.



### BLOW OFF PISTONS FOR TTX 36 / TTX 36 IL (ILX)

The advantage with this piston is that it reduces peak loads. This makes the driving over curbs smother and reduces the risk of getting flat tires.



### BLOW OFF VALVE FOR TTX 46 MT

This blow off valve reduces peak loads, makes the driving over curbs smother and reduces the risk of getting flat tires.

*Note: 06200-11 valve housing required.*

### BLOW OFF PISTONS FOR TTX 40

Öhlins presents a blow off piston for the TTX 40 Touring car damper. The advantage with this kit is that it reduces peak loads. This makes the driving over curbs smother and reduces the risk of getting flat tires.



### LINEAR DISPLACEMENT SENSOR KIT FOR TTX 46

The advantage with this piston is that it reduces peak loads. This makes the driving over curbs smother and reduces the risk of getting flat tires.



### ÖHLINS SHOCK COVERS

To prevent dirt, dust and mud from clogging up the shock absorber it can be dressed up with Öhlins shock covers. The flexible neoprene material is an effective blocker and it fits many different shock absorber types including McPherson struts.



MERCHANDISE

MERCHANDISE



# ÖHLINS MERCHANDISE 2017

Öhlins merchandise range is designed to keep you stylish, comfortable, functional and durable. Designed and tested by Öhlins crew to visualize our values and heritage, our range fits all who lives an active life in the saddle. Merchandise can be found through the Öhlins network.



**Ö T-SHIRT**  
Part No: 11202-01 to -06  
Size: XS - XXL



**Ö PIQUE**  
Part No: 11205-01 to -06  
Size: XS - XXL



**Ö PIQUE**  
Part No: 11204-01 to -06  
Size: XS - XXL



**RETRO T-SHIRT**  
Part No: 11201-01 to -06  
Size: XS - XXL



**Ö T-SHIRT**  
Part No: 11203-01 to -06  
Size: XS - XXL



**Ö HOODIE**  
Part No: 11206-01 to -06  
Size: XS - XXL



**Ö ZIP HOODIE**  
Part No: 11207-01 to -06  
Size: XS - XXL



**MERCHANDISE**



**Ö BACKPACK**

**Part No:** 11216-01  
**Size:** ONE SIZE



**Ö BEANIE**

**Part No:** 11210-01  
**Size:** ONE SIZE



**Ö SNAPBACK CAP**

**Part No:** 11211-01  
**Size:** ONE SIZE



**ÖHLINS UMBRELLA**

**Part No:** 00021-01  
**Size:** ONE SIZE



**ÖHLINS WATCH 40 YEARS**

**Part No:** 00098-01  
**Size:** ONE SIZE



**ÖHLINS LANYARD**

**Part No:** 11213-01  
**Size:** ONE SIZE



**ÖHLINS WATCH**

**Part No:** 00097-01  
**Size:** ONE SIZE



## ÖHLINS STICKERS 2017

Öhlins stickers range gives you the option to personalize your bike or shock. Stickers can be found through the Öhlins network.



**Ö YELLOW SMALL**

**Part No:** 11221-08  
**Size:** 17 x 32 mm



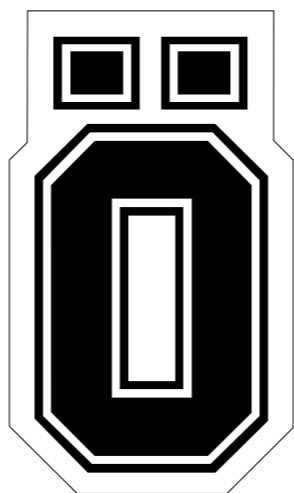
**Ö BLACK SMALL**

**Part No:** 11221-09  
**Size:** 17 x 32 mm



**Ö YELLOW**

**Part No:** 11221-06  
**Size:** 43 x 80 mm



**Ö BLACK**

**Part No:** 11221-07  
**Size:** 43 x 80 mm



**ÖHLINS BLUE/YELLOW**

**Part No:** 01196-02  
**Size:** 74 x 28 mm



**ÖHLINS BLACK/WHITE**

**Part No:** 01196-01  
**Size:** 74 x 28 mm



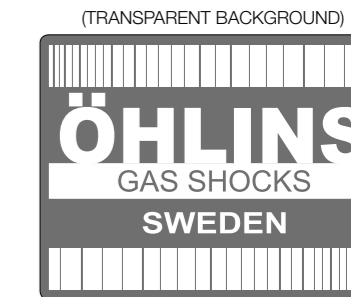
**ÖHLINS BLUE/YELLOW MEDIUM**

**Part No:** 11221-01  
**Size:** 210 x 79 mm



**ÖHLINS RETRO BLACK**

**Part No:** 11221-04  
**Size:** 63 x 47 mm



**ÖHLINS RETRO WHITE**

**Part No:** 11221-05  
**Size:** 63 x 47 mm



**ÖHLINS BLACK/WHITE MEDIUM**

**Part No:** 11221-02  
**Size:** 210 x 79 mm

# FOR MORE CONTACT INFORMATION PLEASE VISIT

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

## AFRICA

**KENYA** Azar Anwar Motorsport  
**SOUTH AFRICA** VM Innovation Ltd

## ASIA

**CHINA** Gusto Technik Co  
**HONG KONG** Power Motorcycles Specialist  
**JAPAN** Carrozzeria Japan Co., Ltd  
**MALAYSIA** Trans Techno Enterprise S/B  
**SINGAPORE** Sporting Motors Pte Ltd  
**SOUTH KOREA** Neobis Int Co., Ltd  
**TAIWAN** Capricore Trading Co. Ltd  
**THAILAND** Öhlins Asia  
**VIETNAM** Dia Hoang Gia, HCM

## EUROPE

**AUSTRIA** Öhlins DTC  
**BELGIUM** Öhlins DTC  
**BULGARIA** Öhlins DTC  
**CZECH REPUBLIC** Öhlins DTC  
**CYPRUS** RSD-Panos Konstantakos & Sia E.E.  
**DENMARK** Öhlins DTC

**ESTONIA** VTR Motors OÜ  
**FINLAND** Öhlins Auto Norden  
**FRANCE** PFP Racing  
**GERMANY** Öhlins DTC  
**GREECE** RSD-Panos Konstantakos & Sia E.E.  
**HUNGARIA** Öhlins DTC  
**IRELAND** Öhlins DTC  
**ITALY** Andreani Group International s.r.l.  
**LATVIA**

Motofavorits

Bairons Sia

**LITHUANIA**

Jiežno UAB Juta

UAB Proracing

**LUXEMBURG** Öhlins DTC

**NORWAY** Öhlins Auto Norden

**POLAND**

Fast Forward

**PORTUGAL** Maxi-Shocks

**ROMANIA** Öhlins DTC

**RUSSIA**

Kajma Racing

Master-Sport Ltd

**SPAIN** Andreani MHS Ibérica, SL

**SWEDEN** Öhlins Auto Norden AB

**SWITZERLAND** Öhlins DTC

**THE NETHERLANDS** Öhlins DTC

**TURKEY** Avitas A.S.

**UKRAINE** Ascania Racing

**UNITED KINGDOM** Öhlins DTC

## MIDDLE EAST

**DUBAI** Automotive Design & Development  
**ISRAEL** Outback Technologies Ltd  
**LEBANON** Lead Race Engineering

## NORTH & CENTRAL AMERICA

**CANADA** Öhlins USA Inc.  
**MEXICO** Conequis SA  
**USA** Öhlins USA Inc.

## PACIFIC

**AUSTRALIA** Steve Cramer Products  
**NEW ZEALAND** Kiwi Suspension Solutions Ltd

## SOUTH AMERICA

**ARGENTINA** Alpes Racing  
**BRAZIL** JP3 Motorsport  
**ECUADOR** RPM Imports  
**PARAGUAY** Gotze Ingenieria S.A.





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