



ROAD AND TRACK SUSPENSION - DEVELOPED FOR STREET AND CIRCUIT

What's the most important part of a performance car? Many people might say the engine. Of course, without an abundance of power, a car will struggle to earn the performance title...

But what about harnessing that power? Without a chassis to match the engine, all the raw horsepower in the world will be for nothing. If your car's suspension can't keep the tires in contact with the road all the time, how can the engine transfer its power to the tarmac?

Of course, most modern performance cars are built with excellent chassis and suspension systems. But just as with the engine, brakes and tires, improvements and optimizations can be made. And even more importantly, if you do increase the performance from your engine, perhaps with an ECU remap or

a new sports exhaust – then you should upgrade the other parts to suit.

It's the same story with grippier tires, or more powerful brakes: if you don't also extend the performance of your suspension

„A package that can be fitted to most cars for less than the cost of a set of nice-looking new alloy wheels...“

system, the improved chassis parts can be overshadowed, canceling out at least part of any performance gains elsewhere.

Here at Öhlins, we know all about performance. We've been



developing suspension for the world's finest race and sports cars in the world for over 35 years.

From the rarified world of Formula One through the glory of Le Mans and sports cars racing, touring cars and single seaters down to the controlled chaos of WRC and Rallycross, we've built suspension systems to win in the toughest of conditions. And all the while we're working hard to transfer the cutting-edge technology we develop there into our road car products. For us, that's the whole point of competition – improving the breed and forcing us to work harder to make our suspension work better.

The result? Our Road and Track range of suspension upgrade packages. Aimed at the more discerning performance driver. Designed for a wide range of today's fast cars. And at an affordable cost. Öhlins' Road and Track shocks take the best of our competition know-how, and puts it into a package that's aimed at drivers who love the track and track days, but still spend most of their time on the road. A package that boasts Öhlins' DFV Dual-Flow Valve technology, for superior wheel control under the most arduous of drives. That adapts automatically to heat buildup with temperature-variable damping needles. That is easily and quickly adjusted to swap between road and track setups. A package that can be fitted to most cars for less than the cost of a set of nice-looking new alloy wheels...

Öhlins' Road and Track range is aimed at the cars you love, the cars you drive. Cars like the legendary fun-driving VW Golf GTI, through to pure driver's cars like BMW's M3, Toyota's GT86, Mazda's MX-5, RX-7 and RX-8. The Porsche 911 has a special place in any performance fan's heart, and we've worked hard on our range for the Stuttgart masterpiece. From the 996 Carrera through the Turbo and Turbo S right up to the 997 range: Carrera, Turbo, and the mighty GT2 and GT3 RS. The wild rally replicas aren't left out either: Subaru's Impreza and Mitsubishi's Lancer Evo have several fitting options.

We don't leave you behind once your shocks are installed



though. Each Road and Track kit comes with full operating and adjusting instructions, with suggested setups for comfort, fast road and track use. Altering the suspension settings is simplicity itself: a few turns of the supplied adjusting tools can alter rebound & compression damping settings. We've made it as simple as possible here, instead of working with multi-adjusters we have used a clever technology to have just one adjuster for both rebound and compression. In combination with the smart DFV technology this makes it a four-way adjustable shock through just one adjuster. Why? We think you'd rather spend your time on a track day driving, than chasing suspension settings! And it's easy to go back to the original setting for the drive back home. [Click here for more info, full fitment list, installation instructions and user guides.](#)

Finally, performance isn't just about how something works when new. We make our shocks street-tough to last for the long run. Shock bodies are salt-spray tested for durability, damper shafts are micro-finished and honed for low friction and ultimate toughness. Aluminium parts are anodized, and all materials are chosen for their longevity as well as performance. Even if you do manage to wear out an Öhlins shock, all our units are fully serviceable and rebuildable. That way we can ensure you can get the as-new performance you, and your car, needs and deserves.

DFV TECHNOLOGY EXPLAINED

Our DFV damping technology sounds complicated. But it's really pretty simple. And it has one job – to keep your wheels in contact with the ground as much as possible, no matter what.

Unlike other competitor shocks, Öhlins' DFV technology has not one, not two, but three ways for damping fluid to flow inside the shock.

It's like the doors at a shopping mall. On a normal weekday, there's a big revolving door that lets a steady stream of people in and out without any holdups. That's like the DFV shock's central shaft jet bleed, and it deals mostly with low-speed damping, such as when you accelerate, and the car's weight is transferred off the front wheels and onto the back.

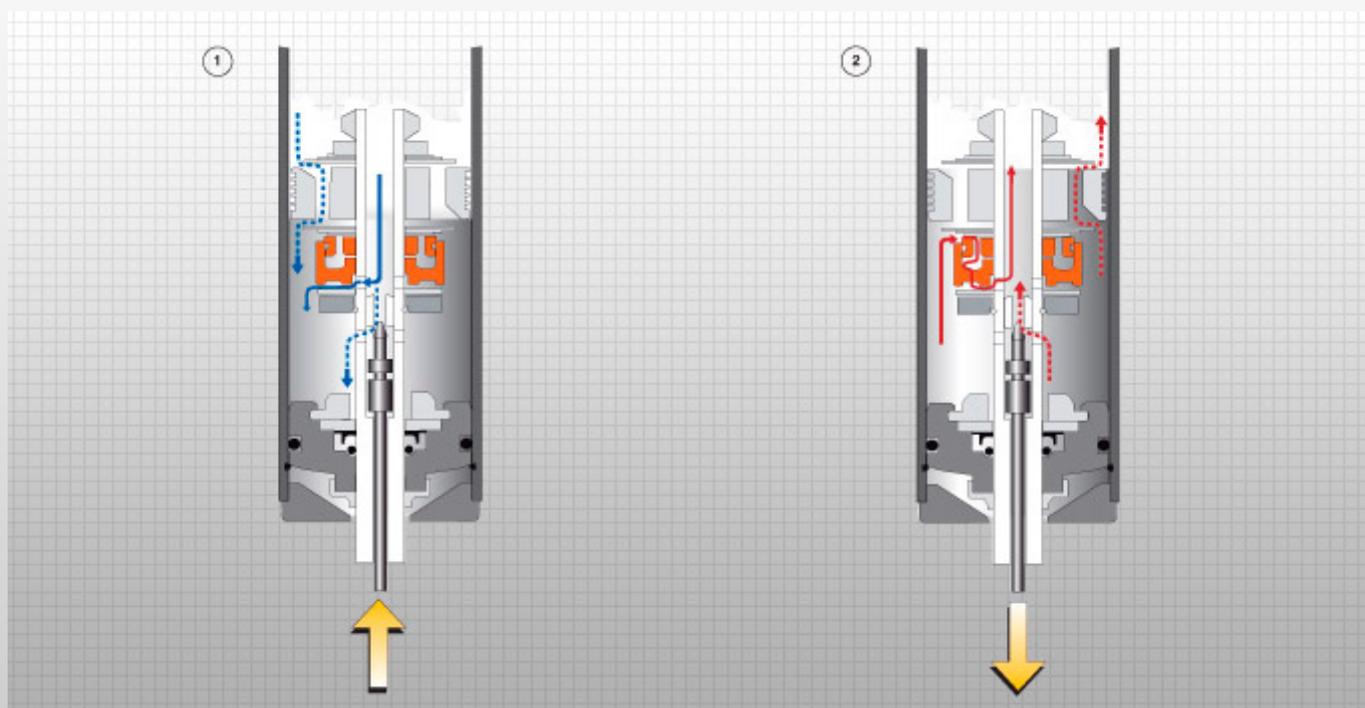
But at the shopping mall, there's a big rush of people each Saturday, coming in to shop. Then, the revolving door can't cope so well, and the crowds can't get through. So the mall staff will open the normal doors either side of the revolving door, to release the pressure from the crowds. That's what the ports in our DFV shock's piston do, when there's a sudden wheel movement, like hitting a bump. The piston ports open, and allow more damping fluid through, letting the wheel move more quickly, but still under control.

What happens at our shopping mall during the New Year

sales? The crowds are incredible, and neither the revolving door, nor the normal doors either side can cope with the numbers of people trying to flow through and into the shops. So the security team will open the fire exit doors to allow even more people through. That's like our DFV shock when the wheel hits a very large bump or pothole. Then the extra ports in the DFV unit open, allowing oil another route through the damping circuit. So like the shoppers getting to the bargains, the DFV shock can move very fast, allowing the wheel to return quickly to the ground after a bump, and regain its grip on the asphalt. Simple, isn't it?

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.





ÖHLINS MERCHANDISE



For passionate fans of Öhlins we offer high quality merchandise items with our brand label or logo. To see the whole collection please visit our website: www.ohlins.eu