



Photos: Neil Birkitt

# RS 3+

After a Revo re-map and Milltek exhaust, producing well over 400 bhp, a Bilstein PSS10 suspension kit has provided the extra element of dynamic delight for VAGtech's RS 3...

WE'VE FEATURED several of VAGtech's modified cars in the past. As a long-time enthusiast of all of the Volkswagen Group's products, VAGtech MD Jon Watts has always been keen to mix business with pleasure and he's in the fortunate position to be able to modify the cars he owns. He certainly knows what to look for and what parts are best for the job.

Jon recalls 'My passion for Volkswagen Group products started at a young age, as one of my brothers owned a Beetle. As the youngest of four, I was taken to the early GTI International events and other VW shows, and I distinctly recall travelling with my brother in his Beetle.'

'So, my first VW had to be a Golf, and a 1992 Mk 2 GTI 8V was just the first of a long line of Golfs including the Mk 4 R32, which has to be one of my favourites. The R32 was the first car I had owned that was really powerful, with the 400 bhp HGP turbo conversion.'

'I then bought my first Audi, a Series 1 TT 3.2 V6 with the DSG gearbox, which also got the HGP turbo treatment, turning an already very impressive sports car into a real supercar. Its performance and handling was on a par with Porsches and Ferraris. They say that once you have owned an Audi there's no going back, and there's certainly something about the build quality, the feel and the fit and finish, that you can't quite put your finger on...'

'So, my second Audi was a B5 RS4 Avant. An iconic car in its own right, I had always dreamed of owning one, and I knew all the pitfalls, having worked on many by then. In Avus silver, with full service history, re-mapped to 430 bhp, with a Milltek exhaust, Bilstein PSS9 coilover suspension kit, H&R anti-

roll bars, and uprated with B7 RS4 brakes, it was an absolutely stunning example. It's one of the best cars I have owned, but it had to be sold to fund my wedding, the idea being to free up some cash and buy a new car on finance.'

'The question was what to buy instead. Within the budget available, I was limited on choice, but I started off looking at the Golf R, and even placed a deposit on one. I then decided to wait, and I'm glad I did because the promise of an Audi with the turbocharged 5-cylinder engine looked too good to pass up. Having worked on the original quattros, as well as the S2 and RS2, I knew that the engine would be very good. It was just a question of which car to go for and what I could stretch my budget to.'

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had the Mk 1, I liked the idea of the TT but – getting older and with the prospect of children on the way – it wasn't really practical enough and a new one was just outside the budget. So, an RS 3 it was and I was soon just as excited about the prospect of tuning the car to the same performance as the old B5 RS4, with the four-door Sportback body style providing all the practicality I would need.

'I visited my local Audi Centre in Milton Keynes, to see what was available, and I struck lucky as I was able to obtain a cancelled order for a Daytona grey RS 3, with the sports bucket seats, winter pack and a few other options like folding door mirrors, auto-dimming rear-view mirror, Bluetooth phone prep, iPod dock, garage door link option and black roof bars. I didn't have a choice of options, as it had been ordered by someone else, but I was happy with what was on offer and I snapped up the chance to own this car.'

'Even in standard form, the RS 3 was immediately impressive, the power delivery very linear, with plenty of torque available low down in the rev range making it very tractable. The

chassis is tight and responsive and the handling sharp, the steering surprisingly keen, and I found the car very agile and 'pointy' for an Audi, with much less of the traditional understeer.'

The interior is up to the usual Audi standard, although I do feel it is let down a bit by being a tad 'plastic', but this is more an A3 thing. It would just have been nice to see some more special interior details on the RS version. The bucket seats are great, holding you in very well, and my only complaint is that you sit quite up high in them – I prefer a lower seating position in a performance car. If I wanted to sit up high, I'd be driving our Sharan instead!

'The 2.5 turbo engine, though, is brilliant – everything I hoped it would be, and more, with that special sound from the five cylinders truly addictive. So much so, that I just wanted to hear more of it, and so the first task was to fit a full Milltek Sport exhaust system. This in itself made a noticeable difference, with the engine revving more freely and there was a crisper feel to the throttle response. The exhaust note was just right, very pleasant and

AS IS INCREASINGLY the case, the RS 3 uses a locked MED9 Bosch engine management control unit (ECU) which must be removed from the car in order to reprogram the software on the bench using a BDM device, rather than the traditional upload from a laptop via the OBD port.

It's interesting to note that, when tested on a rolling-road dynamometer, even in standard form the RS 3 engine produced 346 bhp, a useful increase over the official figure of 335 PS.

The extra effort of a re-map is still very well worthwhile with Revo's Stage 1 software producing 410 bhp at 6900 rpm and 546 Nm torque (403 lb.ft.) at 5000 rpm.

Stage 2, which has been specially developed to work with other modifications, like a free-flow exhaust, improved intake system, sports cat or upgraded intercooler, produces 420 bhp and 560 Nm (413 lb.ft.).

The standard 155 mph speed limiter is removed and the software is also adjustable to some degree, so that the owner can tweak the settings for turbo boost, fuelling and timing to individual requirements, although the throttle response remains unaffected. Special low-performance valet and anti-theft immobilisation modes are also available.

only enhancing what was already good, without being too overbearing.

'As a Revo agent, the engine management option was an easy choice and so I headed over to Revo HQ in Daventry to have the Stage 2 ECU re-map uploaded. The gain in performance is very impressive, the car now feels completely different, with more power on tap in every gear and even more low-down torque, making the car much more fun to drive. Coupled with the Milltek Sport exhaust upgrade, this particular combination makes for an awesome cross-country car.'

Now much faster than before, Jon decided that a further improvement in the handling would be a good idea. In



**'With a REVO Stage 2 re-map and Milltek exhaust, the gain in performance is very impressive'**



any case, he wanted to reduce the ride height for improved appearance, but without compromising the handling and roadholding as can sometimes occur if you just fit lowered springs.

'Having been very impressed with the Bilstein suspension on the RS 4, there was really only one option and Bilstein soon came out with a suitable kit for the RS 3. Always busy with high-priority customer work, it took us a while to find a gap in the workshop schedule, but we eventually made a free morning available and our technician Ben Thomson set to work.'

'It's always a treat to work on a virtually brand-new car, without any rusty, dirty nuts and bolts to deal with,' said Ben, and the Bilstein kit was soon in place, set to an initial 'halfway' adjustment for ride height and damping rates, and the suspension alignment subsequently checked and the tracking readjusted on VAGTech's Beissbarth alignment rig. As a special reward for his efforts, Ben was entrusted with the first test drive; in fact, it was the first time he'd been allowed behind the



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wheel, and – some time later – he came back beaming!

Jon was also clearly very pleased with the results: 'On the initial road test, the car felt just as good as we'd expected; the ride is firm but not too hard, and the dampers control the springs far more firmly and accurately

than the stock set-up. Indeed, rather than being harsh, the ride quality is more compliant and less crashy over big bumps. When pushing on in the car, you have much more confidence to carry speed into corners, and it is even more agile.'

'The standard car was very 'pointy'





**'Overall, I am very pleased with the Bilstein PSS10 suspension. The end result is great and a lot of fun!'**

but, with the Bilstein suspension on, it is even better – just a flick of the wrist, and the car changes direction. Even on the standard wheel and tyre combination, turn-in is great – quick and accurate, with no hint of understeer – and at higher speeds the car corners flat and stable, as if on rails, literally welded to the road. In slippery conditions, you can even induce some controlled oversteer to provide a gentle drift.

'Overall, I am very pleased with the Bilstein PSS10 suspension – the quality of the components is very good, the installation was very straightforward and the set-up and adjustability is good. The end result is great and a lot of fun!

Future modifications? Jon says that a Forge front-mounted intercooler and diverter valve are on the wish-list, when they become available. A higher priority, though, will be a change of wheels and tyres, as Audi has since

used this particular style of wheel on several other models and it now looks too much like a 'standard' A3. Preferred options are BBS CH R in 19-inch diameter, but 8.5 inches wide, which is half an inch wider than standard, with 235/35-19 tyres all round, to fill out the arches and give the car a more aggressive appearance. ■

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**SECOND ONLY TO** Bilstein's race-worthy Clubsport (CSC) suspension set-up, the B16 PSS10 coilover kit is one of the highest quality aftermarket suspension systems available, combining a wide range of height adjustment with individual settings for both bump and rebound damping.

The coilover strut, with its adjustable spring mounting on a threaded strut body, is designed to be able to reduce the ride height to between 30 mm and 55 mm (front) and 50 mm (rear) from the standard setting, while the damping rates can be adjusted independently to one of 10 different settings on both the front and rear. This is easily achieved, with the damper still on the car, using a thumbwheel adjuster, clicking through the individual settings to tailor the dynamic damping characteristics to suit the driver.

As well as being gas pressurised, for resistance to heat fade under arduous conditions, the Bilstein advantage comes from its inverted monotube damper design, with a larger diameter piston rod at the top of the strut tube, for greater strength and stability, as well as reducing unsprung weight.

With a surface coating which uses Bilstein's Triple-C-Technology® comprising three protective layers for long-lasting corrosion resistance, the kit comes with full TÜV approval and is offered with a lifetime guarantee for the original purchaser.

