

# BIG SCHOOL

**JD Engineering**



**W**hat can we say about JD Engineering and its founder, the legendary Jeroen Dik that hasn't already been said? Well, as we discovered following a recent visit to its much-improved premises in Lochem, Holland, quite a lot.

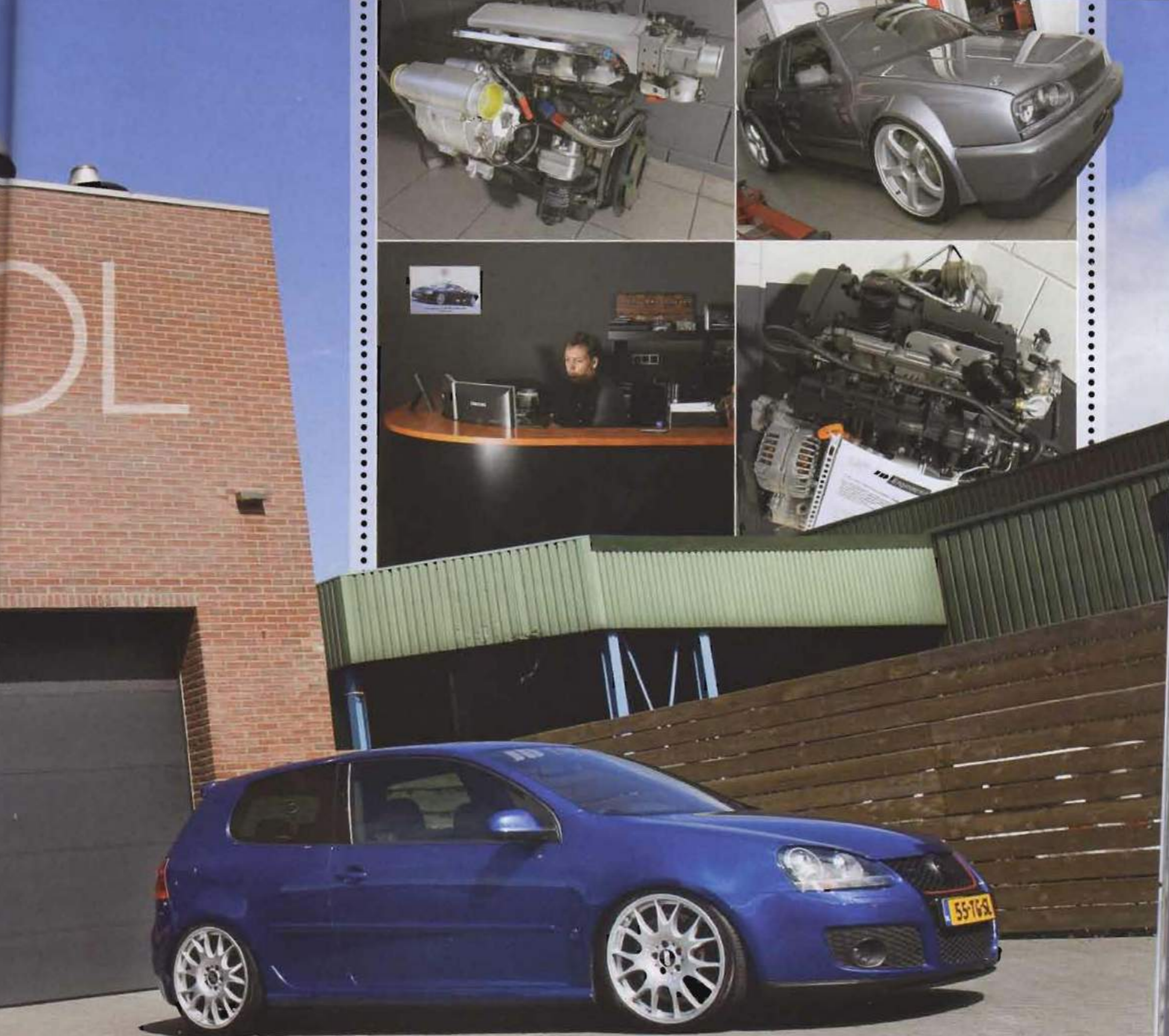
In fact you soon realise nothing stands still for long where the forced-induction specialist is concerned. He may have been 'messaging about' with VWs for longer than some readers have been born, but unlike a lot of the larger tuner names that have fallen by the

wayside, JD has refused to let fame or fortune go to his head. And that's despite building some of the most radical metal to grace these pages over the last ten years.

From his infamous 350bhp Mk1 16v G60 (featured way back in *PVW* 2/98) right through to more recently, Roy Koenen's twin-charged Mk4 (*PVW* 11/08), anything JD touches is usually ahead of its game. How many people do you know that could successfully rig up three individual ECUs to manage the G60 blower and twin-scroll turbo that powered Roy's car? Not many.

On our previous visit way back in *PVW* 9/01 Jeroen had just moved into the purpose-built unit, but he soon ran out of room and needed to extend. Despite producing his own line of equal length manifolds and being pretty handy with a spanner (he built most of that awesome Mk4), Roy is a builder by trade and designed the much-improved extension we've come to see today.

Like a lot of the commercial premises in Holland this one also has residential dwellings on site and you never guess who



**We've seen some big names come and go over the years but one that's remained at the forefront of Veedub tuning is Dutch force-induction specialist, JD Engineering.**

**Words: Elliott Roberts Photos: Jeroen Dik**

lives there! "Living on site has its good and bad points," admits Jeroen. "Instead of working late and then driving for an hour to get home I can literally walk there in seconds," he said. He does confess to being a workaholic though and when his wife goes to bed will often pop back to the office and continue till the early hours. One thing's for sure, Jeroen loves his job and the challenges it brings. That's why he's at the top of his game still after all these years. The tuning programme he's been working on for the 2.0-litre TFSI engine has certainly been

challenging but he's relished it and come up with arguably the most comprehensive packages in the world – but more about them later.

The first time I met Jeroen Dik was back at GTI International 1999. Even then, with his unforgettable 16v G60 Mk1 annihilating pretty much everything on the drag strip, Jeroen was a legend in the making. Modest as ever, the extremely tall and ever so slightly intimidating chap may not have been able to see it... but we could. Just typing his name into YouTube gives you a good idea

what he's all about. The first clip we see is that same Mk1 running a 12-second quarter way back in 2003 and you're instantly reminded where it all started.

Jeroen may have set up JD some nine years ago but, despite turning his hobby into a business, has vitally remained a true enthusiast. Massive premises, glossy adverts and a huge workforce may look impressive but it's just not JD's style.

Mr Dik, or 'The Doctor', as his friends know him, has always been very humble. This is a man so committed to his work that he

doesn't go anywhere – and we mean anyway – without his magic laptop: "On the very few occasions I get to spend on holiday with the family I have to remain contactable at all times, it's what makes JD what it is," he admits.

Despite taking on a few extra pairs of hands in the workshop, Jeroen still insists on keeping a hand in every area of the company. While predominantly it's the software side of things he's better known for, thanks to his much-improved workshop Jeroen can now develop complete tuning packages in-house rather than subbing out machine work or only concentrating on the programs to suit them. Despite the open country side and long stretches of road surrounding Lochem, which are ideal for live mapping, a new state-of-the-art 4wd Superflow rolling road saves Jeroen loads of time and money in the long run – being geared for 310km/h and with a limit of 1500bhp, at least means Jeroen may keep hold of his license for little longer too.

As we mentioned earlier, Jeroen has recently been busy wrapping up a comprehensive, eight-stage tuning programme for the 2.0-litre TFSI, which he's been working on for the last year or so. We asked Jeroen what makes the TFSI so special: "The ECU is just fantastic, there is so much more adjustment, more control loops and safety features. Knock control, wideband fuel control, EGT control etc. There's also very good boost control and torque control," he said. Suitably named the JD-Powerpack – and intended for the basic 200bhp 2.0-litre TFSI – the packs start with a plug-and-play software upgrade (Stage 1) good for between 245-260bhp then Stage 2, which includes both software and an exhaust system (including

down pipe and sports cat). The first turbo upgrade arrives at Stage 3 in the form of a hybrid KO4 blower with the obligatory trimmings, plus JD's unique dash-mounted Power Controller (including various settings and gear dependent power), plus a rolling road run. You can usually expect between 300-315bhp for this. The gear dependent power feature basically stages how much boost comes in each gear. For example, 0.8 bar in 1st, 1.2 bar in 2nd, 1.7 in 3rd, 2.0 bar in 4th and so on. The adjustable control then allows you to fine tune this further to suit driving conditions, for example whether it's been raining and you want less boost or maybe you are at the circuit, in which case need to wind it up a touch – all clever stuff indeed.

Jeroen always believes in claiming conservative power figures for his kits due to the fact that no two engines are alike when they leave the factory: "It's better this way, most people are still blown away with the results and if they get more power than they originally hoped for then it's always a bonus.

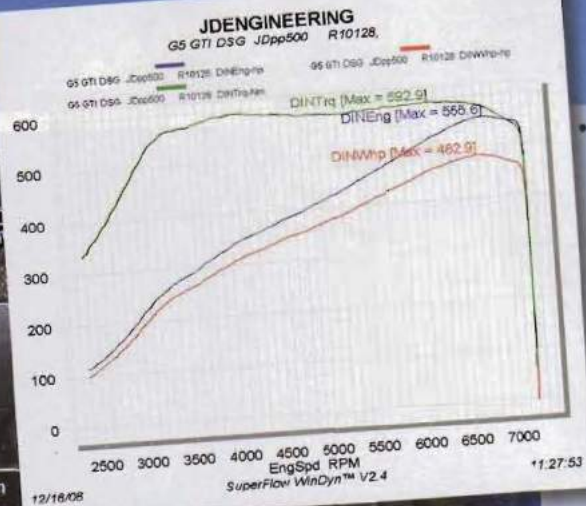
Stage 4 is basically Stage 3 plus an exhaust system and achieves upwards of 320bhp. By Stage 5 you're into the first roller-bearing turbo with rods, pistons, four-branch, injectors, plus the obligatory bolt-ons for 380bhp (330lb ft torque).

Stage 6 (410-435bhp) is dual ball-bearing territory and Stage 7 sees the first twin-scroll turbo set up. With equal-length manifolds, two rows of injectors and a whole host of other extreme hardware on offer, we don't need tell you how serious this kit is. As for stage 8 (claimed to be a genuine 500bhp), well this is still in development but should be available early 2009.

Of course it doesn't come cheap and prices will vary depending on your personal spec and needs. There's a full list of these stages on JD's website although the specs may be in Dutch, so email Jeroen if you need anything translating or prices



**The gear-dependent power feature basically stages how much boost comes in in each gear**



Above: Power Controller housed neatly in headlight switch panel. Below left: In-car adjustable suspension





Lightweight Mk3 Kit Car features independent suspension and space-frame but which motor will JD settle on?



working out. Although not the cheapest kits available, with JD's products you do get a tried and tested product, you're not simply paying for a name and overpriced hardware. Jeroen believes in testing all his kits out thoroughly on his own cars, developing them both on and off the circuit. And sometimes, where the high-power kits are concerned, testing to destruction (dodgy fuel being a recent issue). This way if there are any problems he gets to experience them rather than the customer. I must admit we were a little surprised to discover his most recent test bed for the TFSI was a DSG-equipped Mk5 GTI, although as it transpires Jeroen had a good reason for this (He usually does). "We've been working on the software to allow us to map the DSG system and reduce the shift time considerably," he said. Fine-tuning the DSG means JD can programme it not to kick down in manual, not over shift but rev to the limiter, ultimately making you in charge of the car rather than the ECU. JD was also keen to discover the limits of the dual clutch, which he reports he found recently. He's now found a 7-piece carbon replacement clutch which should be good for 650lb ft torque and used with a Quaife diff and the reprogrammed DSG will make the system arguably the best paddle set up around.

On top of all that Jeroen's been busy with a couple of other interesting projects which include helping Dutch supercar manufacturer Spyker out with its C8 programme. Plus, he's been playing around with his wife's RS4. "The engine sounds so good," he said. "We've been playing around with the exhaust flaps and throttle settings," he said. Apparently there isn't much available in the way of tuning for the V8 TFSI and this has sparked a lot of interest on Audi forums around the globe.

You may have spotted the photos of a rather menacing Mk3. Well Jeroen's been building something a little special for himself in the shape of a home-grown, ultra-lightweight Mk3 Kit Car with space-frame chassis, fully independent, remote reservoir suspension and custom fabricated arches: "I'm still undecided which engine to use in it but the car will be a lot of fun when it's complete," he said with a smile.

What does JD do on weekends if he's not working? "I've got quite addicted to racing recently," he confessed, making reference to the diesel SEAT Ibiza he's been campaigning this year in the Dutch Toerwagen Diesel Cup.

What does the future hold for JD? Well on top of the RS4 tuning he's now developing a whole host of kits for the S3/Edition 30 engines, which will be the natural progression to his current TFSI stuff. We can't imagine where JD will be in another seven years, but for now big school will have to do.

#### Contact:

JD Engineering ([www.jdengineering.nl](http://www.jdengineering.nl))  
or 0031 573 258752