



# VERTICAL AFFINITY OR NOTHING BUT THE BEST



**I**f we are talking about Mercedes Benz which we are, then the company rulebook was written by its founders and major contributors. Stunning lines and high engineering quality are what make a Mercedes Benz, whether that is bred from gathering the best minds and artists or sheer stubborn German efficiency.

It was Gottlieb Wilhelm Daimler, co founder who set the standard Philosophy for Mercedes 'Nothing But the Best' and it was the famous long serving Mercedes designer Italian born Bruno Sacco, who introduced standards known as Horizontal and Vertical Infinity.

We decided to explore these Mercedes rules and borrowed a very nice example of the Mercedes C250 Coupe, from Mr David Phillips of Kent. David although passionate about his stunning white 250 with its more than luxurious ride, felt it had a few gaps that could be improved, these mainly being the power and torque.

On the lookout for a suitable way of improving his drive while not sacrificing

his refined motor, Dave contacted the long established company Tunit who for over 15 years have specialised in the performance and economy of all diesel engines. Just like choosing the best tyres or garage for servicing it is just as important to introduce safe and well proven performance, as opposed to generic performance boosting software or hardware. Tunit as a company are a more than reasonable good call and

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have provided proven products to the British Military and Blue Chip companies. The Tunit has hugely acclaimed improved performance, fuel savings of 12% and even cuts in emission's which are proven independently by a university study.

David could have visited any one of many Tunit outlets and installers around

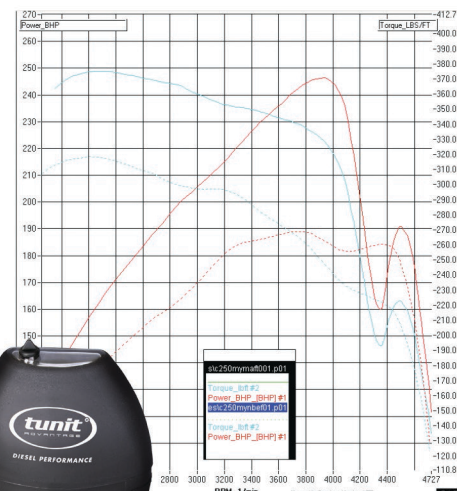
the country or even install himself on his particular car, however he wanted the real royal Treatment for his car by visiting the Tunit HQ in Lancashire, where design and testing happens. Tunit happily opened its doors giving David a professional installation along with a run or two on its Research Dyno Rolling Road, which measures up to 1000hp power accurately.

Watching the car being set up on the giant single roller to simulate road conditions was quite amusing as all common sense suggests the car cannot balance on the top, however after explanation the method of using a single large rolling surface apparently provides the most accurate non slip readings possible.

The vehicle was run in standard at first on the dyno, along with the high speed fan simulating an on road wind speed of 90mph. After 3 runs the standard power was a little down on normal at just under 190hp and 320lbs/ft of Torque. Not unusual for most vehicles to be 10hp or more under or over the stated manufacture figure.

Then the Tunit was installed and the first dyno run soon showed changes through





## TUNING STATS

AFTER TUNIT INSTALLATION & LAPTOP TUNE

HORSEPOWER INCREASE

**247** HP

TORQUE INCREASE

**379** LBS/FT



a graph that looked like a new engine. The power had increased to 234.4 bhp and the torque climbed to just over 370 lbs/ft. A great improvement it seemed, but for the fact that the Mercedes was performing under par to begin with by 10hp. So Tunit showed how the simple adjustment countered any shortfalls. The adjustment can be carried out manually with the Tunit dial, but in this case the Tunit was connected electronically and altered by this method as well as also tweaked a little extra for low down Torque.

Immediately another run on the Dyno produced a smoother 247 hp at peak and a jump in torque to 379 lbs/ft. This was more than impressive but could bring to mind, is it safe for the Mercedes Engine and is it beneficial? The Tunit representative Paul Wardle explained, the reason Tunit is always safe is because it never removes the manufacturer's safety limits that other types of Tuning often does, meaning no strain on components.

To say David was pleased is an understatement from his reaction to the Dyno testing results that rivalled upper models of Mercedes including E350's. The

real result must be felt on the road through and that is where David showed more amazement. His many comments included "a now smoother drive" "increased acceleration" and "better fuel economy" once he had got over his excitement and checked his fuel usage after a week.

So taking us back to the famous designer Bruno Sacco and his protocol of Vertical affinity, what does that mean? It simply meant that the philosophy was to strive towards something that stood the test of time and did not become obsolete in the face of new vehicles being launched. So have Mercedes achieved this? It can be argued so. However it does seem that Tunit has helped add even more on top more of 'Nothing but the best' and 'Vertical Infinity'.

If you are interested in a Tunit to benefit your vehicle then you can contact any of their helpful advisors by email, through their website or the old fashioned way by phone, were a team member will advise the best product and a local dealer for fitting. The Tunit information Line is 01257 274100 or Email [info@tunit.co.uk](mailto:info@tunit.co.uk)