

# THE EVOLUTION MOTORSPORTS EVT610

**THE BEST THING SINCE VTG TURBOS**

STORY COLUM WOOD PHOTOS MIKE MAEZ



**W**hen it comes to tuning cars, generally the true enthusiasts opt for aftermarket parts from the same country as their vehicle. So when it comes to Porsches it would be wise to stick to just German brands, right? Wrong!

Evolution Motorsports, based in Tempe, Arizona, is a true leader in Porsche tuning, with a special expertise in turbos.

The last time we checked in with owner Todd Zuccone and his wild creations, it was to feature his 1,000+ hp 996 Turbo – a car that matches top speed with practically anything and which currently holds the 996 1/4 mile record.

But with the 997 Turbo now on the market, the 996 is somewhat a thing of the past; temporarily forgotten in the immediate excitement of the new model.

Zuccone eagerly awaited the release of the 997 Turbo and while the new Variable Turbine Geometry (VTG) turbos make the 997 a better toy for owners, they present a problem for tuners like EVO. Since

taking delivery of his silver model in July, Zuccone has completely tuned every aspect of his Porsche, creating record horsepower numbers and 1/4 mile times.

“The new 997TT is a great car from the factory, let’s face it, it is a Porsche,” says Zuccone, who adds an important caveat. “Consequently, being a Porsche today does not necessarily make it a race car like those models of the past.”

“I was not that thrilled with the car on the delivery day back in July of 2006,” he admits. “I was expecting a little more in terms of power.”





## “BY THE TOP OF FOURTH GEAR, YOU WOULD SWEAR THAT **IF IT HAD WINGS IT WOULD FLY.**”

Now if you've driven a new Porsche Turbo and felt the impressive power, you are probably quickly coming to the conclusion that Zuccone must be mentally unbalanced for harping on the performance of the car. But remember, this is guy who builds 700 hp Porsches for a living.

According to Zuccone the 997 Turbo is “too refined,” has “too many switches,” is “too soft,” and has, “not enough ‘balls.’”

Ouch!

“I think we changed all of that with our EVT610 tuning system and complete EVT610 signature series upgrades,” he says.

The Porsche's new name, the EVT610, stands for Evolution Variable Turbo 610 hp. What the name signifies is that EVO did in fact retain the new VTG turbos rather than swap them out for more traditional Garrett units, a process that required plenty of R&D and is the sort of thing that raises the Arizona tuner to the level of its German competitors.

When the Porsche 997 Turbo came

out, it was cited as an engineering feat because Porsche had found a way to overcome heat issues that crippled past variable turbo systems. While that is true, the new turbos are not unlimited in their heat tolerance and as a result EVO faced the task of upgrading the surrounding systems (intake, exhaust, etc.) without damaging the turbos.

“The information that we obtained regarding the heat threshold was that this VTG turbo should not be pushed beyond 950 degrees Celsius (1,742 degrees Fahrenheit),” says Zuccone. “With our EVT610 upgrade, we are only hitting 850 (1,562) degrees.”

Thanks to EVO's software, the EVO Porsche now creates 17 psi of boost (compared to 14 stock) and revs to 7000 rpm (400 more than stock). EVO then installed a set of Clubsport intercoolers to increase horsepower by reducing air temperatures while simultaneously protecting the VTG turbos from excessive heat spikes.

Combined with a host of other perfor-

mance enhancers (EVO intakes, ceramic coated headers and a full EVO exhaust with sport catalytic converters), the power increase is nothing short of awesome. From the stock number of 480, the latest dyno results put the EVT610 at around 530 wheel horsepower, which EVO calculates to be approximately 617 at the crank – an increase of 137 ponies. Likewise, torque is increased significantly, with the new system now producing 635 crank ft-lbs! (EVO's results are from an AWD Mustang 500 SE dynamometer).

As for the sound all this power makes, “there is a slight growl and rumble emitting from our sport exhaust system,” says Zuccone, “which is a sound that is pure, crisp and fitting of a car with this type of stature.”

Often an increase in boost can mean more power at more rpm but at the expense of low rpm thrust. The VTG turbos already make significantly more power than the old Garrett 996 turbos and at less rpm. So considering the desire



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## SPECIFICATIONS

### 2007 PORSCHE 997 TURBO

#### ENGINE

Twin Turbo 3.6-liter flat-six

#### ENGINE MODIFICATIONS

Evolution Variable Turbo Stage 4 including EVO sport exhaust with high flow catalysts, EVO ceramic coated VTG sport headers, EVO Clubsport high efficiency intercoolers, EVO silicone boost hose kit, EVO piston type boost bypass valves, EVO high flow air filters; EVO carbon fiber airbox, EVO carbon fiber intake air scoops; EVO billet oil cap and power steering cap; EVO billet shift linkage

#### ENGINE MANAGEMENT

EVO/EVT610 Software

#### NUMBERS

Horsepower: 617 hp @ 6150 rpm

Torque: 635 ft-lbs @ 3500 rpm

Zero-60: 3.2 sec.

1/4 Mile: 10.99 @ 127.13 mph



to go for peak power over a broad power band and the EVT610's huge horsepower number EVO must have made sacrifices. Not so says Zuccone.

"Our system does not take away from the bottom end torque. We have actually reduced turbo lag slightly with the reduction of back pressure by eliminating the OEM exhaust system. Additionally our VTG headers are better flowing and increase exhaust velocity to the turbos for better turbo response/boost."

As for the 997 Turbo's overboost system which pumps torque from 460 ft-lbs to 505 for 10 seconds at wide open throttle, Zuccone is pleased to announce that the EVT610 incorporates Porsche's fun feature in its new ECU. "All of our power tests were done in overboost mode as well as all of our 1/4 mile testing," he says.

Speaking of 1/4 mile times, the EVT610 now holds the record for the fastest Porsche Turbo in this category and the only one to run a sub 11-second pass – 10.99 @ 127.13 mph! "The car launches so hard, it could literally lift the front wheels off the ground during its 10.9 second pass where it recorded a 1.58 second 60 foot time," boasts Zuccone.

He continues ... "The reason our 997TT runs as strong as it does is due to the tremendous amount of power under the curve. The average amount of power this 610 hp car generates is closer to that of a 680 hp 996TT of similar weight. The power curve is achieved at an earlier rpm range and is sustained for a longer rpm range which allows it to run with cars making more hp."

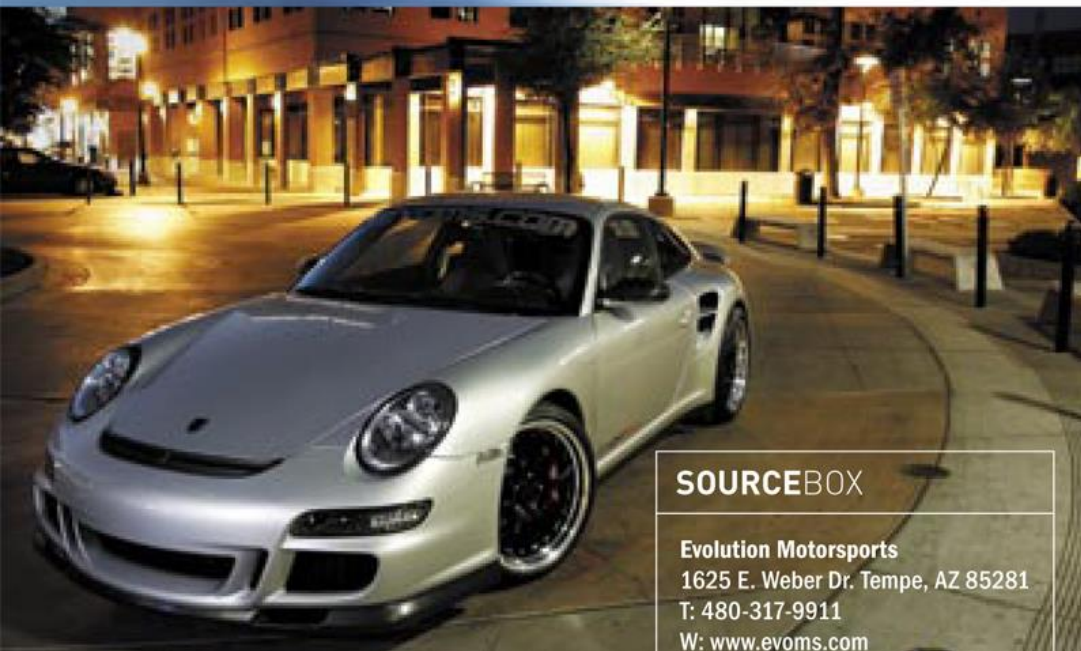
With these dynamics, the EVT610 is still a very streetable machine effortlessly capable around town and as smooth as stock. Inside the cabin it is a little louder than a regular 997 Turbo but there is no drone from the EVO pipes.

At full throttle, however, things change and Zuccone insists that, "The engine sings with responsiveness that begs to be driven ... and driven hard."

On the street, he says, "The power is smooth, linear and never lets up no matter the RPM range. By the top of fourth gear, you would swear that if it had wings it would fly."

Now don't go thinking that just because EVO is an American tuner that they don't focus equally as much on road racing credentials. With a 1.25-inch lowered

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## SOURCEBOX

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suspension and a big set of Fikse Profil 10 wheels mated to Michelin Pilot Sport 2 tires the car is track ready. "The power out of the corners is explosive," says Zuccone. "Certain gears at specific rpm the car feels more like a two-stroke motorcycle that is hitting the peak power band where the car will sling-shot you forward like a cannon ball."

"This car can do it all," brags Zuccone, who says it survived multiple consecutive track days of testing, is used as his daily driver and even serves as a Home Depot delivery car for his wife's gardening needs.

As for the looks of this beast, EVO added a GT3 front end and bolted on many little extras including carbon side sills, a carbon roof spoiler and carbon mirrors. "We are producing our own line of carbon fiber components for the 996TT and 997TT," says Zuccone, who is proud to offer all his customers a complete line of modifications.

As for the future, if the 1,000+ hp 996 Turbo is any lesson, Evolution Motorsports will be reaching for an even higher level of performance.

Zuccone shared with MLE a few of their plans.

"We are building another upgrade as we speak, utilizing larger VTG turbos," he says. This will be called the EVT650. "Our new turbos are based on the OEM 997TT VTG turbo and are upgraded with a larger compressor wheel which adds two-to-three more lbs/minute of airflow per turbo." This should result in an overall increase of 50 to 60 hp.

As though 650 hp were not enough EVO is then planning several 'high power' options. These will be called the VGT710, VGT760 and VGT790 but will make use of conventional Garrett turbos, not the VTG units.

EVOMS has not gone this direction yet because Zuccone feels demand will be too low as he believes, in part, that new 997TT owners will not be keen on replacing the VTG units with "old technology." Zuccone believes, however, that the Garret units are, "a far better turbo with more available variations and the ability to be pushed well beyond 950 degrees Celsius."

Once the 790 hp version is complete we'll be sure to let you know. If, however, you have no intention of relinquishing the two VTG turbos in the back of your 997,