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AN EVOLUTION IN
PORSCHE

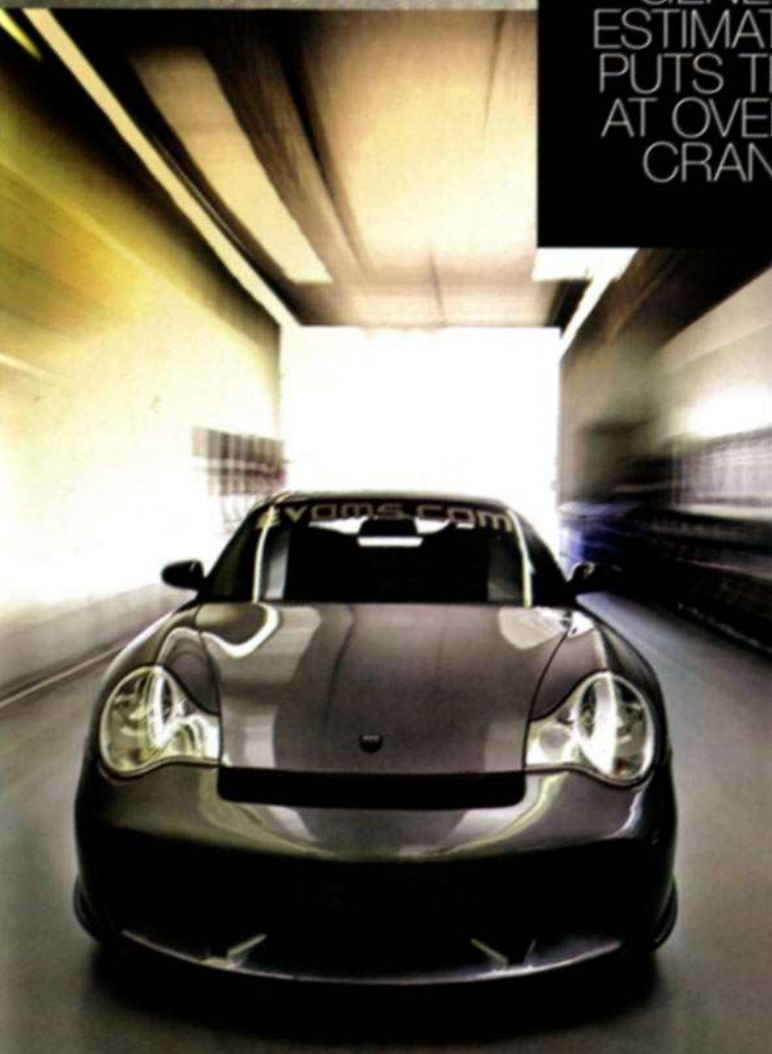
STORY ZACHARY MAYNE PHOTOS MIKE MAEZ

The Evolution MotorSports
Porsche GT800





WITH 890HP AT
THE WHEELS,
A LESS THAN
GENEROUS
ESTIMATE STILL
PUTS THIS 996
AT OVER 1,000
CRANK HP.



AN EVOLUTION IN PORSCHES

HERE are few production cars that have motors capable of handling 700, 800 and even 900 horsepower while still maintaining a decent dose of driveability and reliability. One card-carrying member of this elite club is the Porsche 996 Turbo, an iconic machine that also happens to be one of the most popular for mega-horsepower conversions. Credit its stable all-wheel drive platform and solid Teutonic engineering for that. And of course, with Porsche's unparalleled competition pedigree, it's really not surprising that the company's cars hold up so well to massive power hikes.

Without doubt, tuning 996 Turbos for more power has become a cult unto itself and it could be argued that the staff at Evolution MotorSports in Tempe, Arizona are the

high priests of said cult. If you need proof, just take a look at their Porsche 996 Turbo GT800 development vehicle. When running on normal 93 octane pump gas, this 996's motor belches out 752 hp and 749 ft-lbs of torque. Feed this beast 116 octane fuel, remove the cats and the numbers jump to a scarcely believable 890 hp and 890 ft-lbs of twist. And that's at the wheels!

In order to arrive at a powerplant that could pump out the huge numbers, EVO started by completely disassembling the stock 996 TT's 3.6-liter powerplant and thoroughly inspecting all of the components. The motor was then meticulously reassembled using Carillo connecting rods with multi-torque rod bolts. A set of EVO forged pistons with an upgraded

gapless ring package replaced the stock pistons and a set of EVO sport cams were bolted in. A Porsche GT3R high flow racing oil pump ensures proper lubrication.

Once the engine was built, EVO turned its attention to the turbocharging system. "In order to reach the 800 horsepower goal reliably," says Todd Zuccone, owner of EVO, "we realized that certain OEM components had to be reengineered in order to work properly." According to EVO, during the development of the GT800, months were spent testing everything from different turbochargers to spark plugs, to arrive at the proper mix of parts. According to Zuccone, the stock K16 and K24 turbos are not only limited in their power poten-

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tial, but they also suffer from excessive lag. In order to reach the desired power - as well as instantaneous turbo spool up - EVO engineered custom Garrett GT turbos, hence the GT nomenclature applied to the EVO line of modified 996 Turbos.

The custom turbos use Garret internals (turbocharger bearing cartridge, bearings, compressor wheel, compressor housing and turbine wheel) but use stock KKK turbine housings, modified for this application to allow for an OEM fit and a nearly stock appearance. The company also claims 25 percent quicker boost response and a 25 percent power gain over stock, a claim certainly backed up by the dyno numbers.

On the intake side of the engine is EVO's

less restrictive V-Flow intake system and inlet ducts. For the proper exhaust system, EVO partnered with UK-based Milltek for a custom exhaust. Says Zuccone, "We had to engineer a system that would support the exhaust flow with minimal restriction while maintaining a civilized exhaust note." EVO 44.5mm stainless steel headers dump into the Milltek sport exhaust.

Though the development of the engine and turbo system took a tremendous amount of effort, Zuccone says the most difficult and time consuming element was the software tuning. EVO tuned the Bosch ME7.8 software that Porsche uses for the 996. Hundreds of hours were spent testing on an AWD Mustang dyno, a 2WD Dynojet as well as street and track driving

ensure that the GT800 would not only be supremely powerful but driveable.

The entire engine package is available for \$54,500.

DETAILS

2001 PORSCHE 996 TURBO

SUSPENSION

Moton Clubsport Coilover suspension kit
Porsche GT3 adjustable anti-roll bars
EVO CNC-machined front camber plates
EVO carbon fiber strut brace
EVO CNC-machined rear shock mounts
EVO carbon fiber rear shock tower brace

BODY

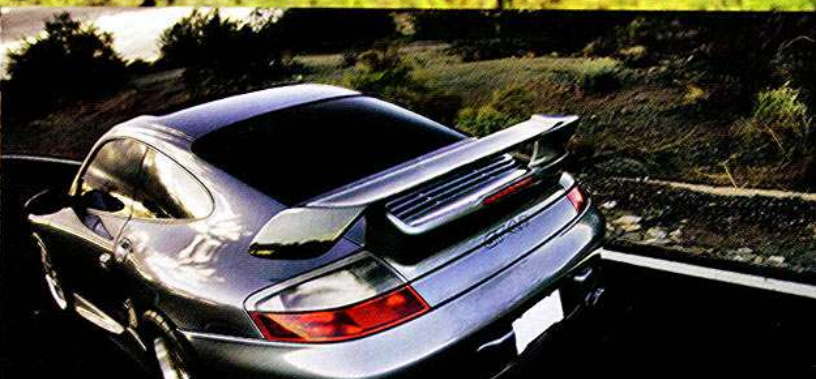
Techart GTS front bumper with EVO carbon fiber splitters
Techart GTS side-skirts
Porsche GT2 rear wing
Rear wiper deleted
EVO carbon fiber mirrors

WHEELS, TIRES, BRAKES

(f) 18x9-inch Champion Monolite forged alloy wheels with Toyo Proxes RA1 245/40ZR18 tires with EVO Clubsport 14-inch brake kit, Porsche GT3 six-piston calipers and steel-braided lines; (r) 18x11-inch Champion Monolites forged alloy wheels with 335/30ZR18 and 996 Turbo brakes with braided steel lines

INTERIOR

Porsche GT3 leather buckets
Porsche Equipment six-point harnesses by Schroth
Porsche stainless steel roll bar



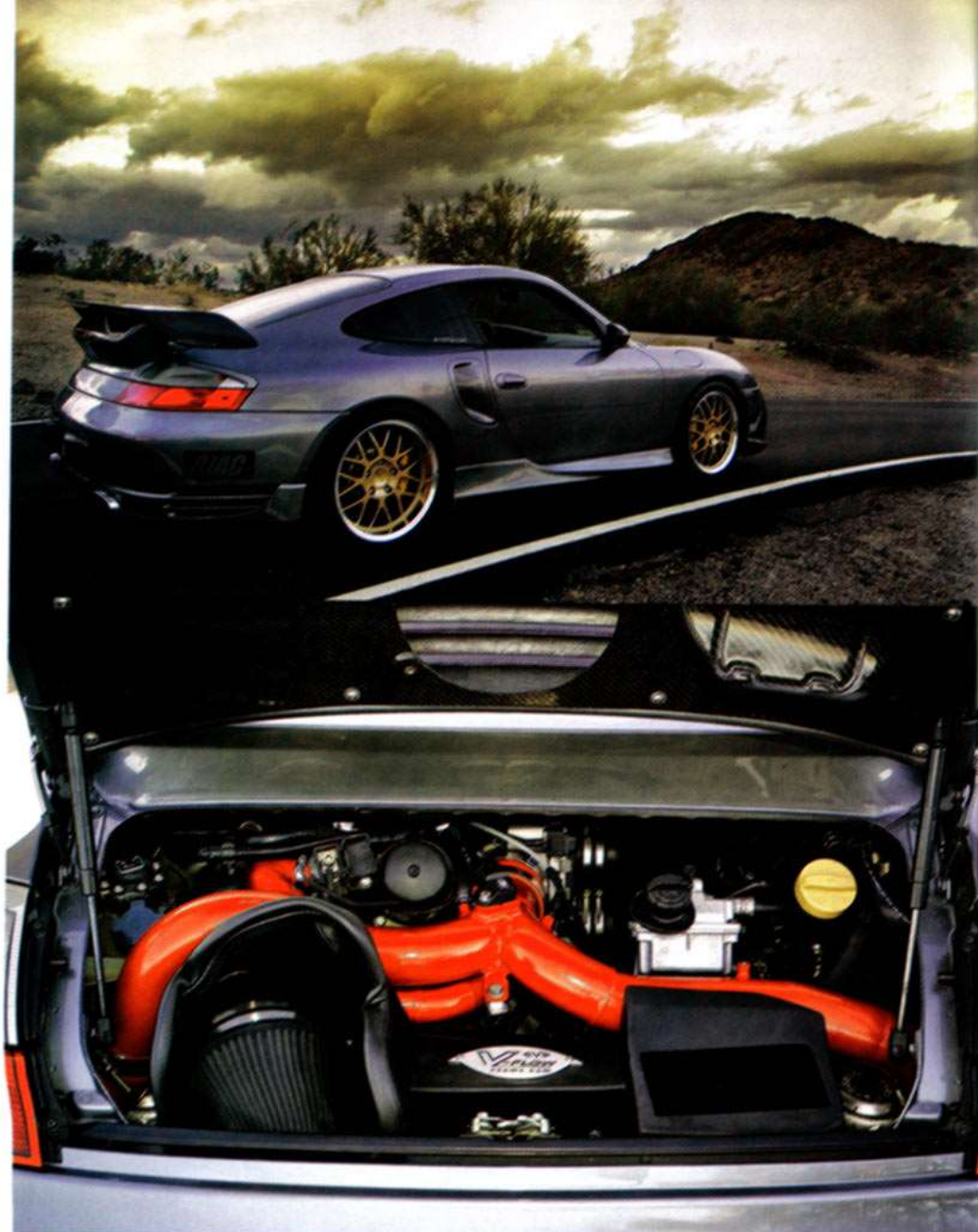
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Harnessing all of this power and technology is an EVO/Sachs Stage 3 clutch. "This custom designed clutch system was designed specifically for the GT800 system," explains Zuccone. "We had to have an increased clamping force pressure plate engineered to hold the power and torque." EVO uses a Sachs racing pressure plate that has had its clamping force increased by 600 pounds which works with EVO's carbon/Kevlar disk. The setup retains the stock dual mass flywheel for near-factory driveability.

Of course all the power in the world is useless if the car's chassis isn't kept firmly under control, so EVO thoroughly reworked the GT800's suspension. A Moton Clubsport kit allows the perfect setup to be dialed in and a set of GT3 adjustable anti-roll bars eliminate excess roll. Up front there are CNC-machined EVO camber plates, while a carbon fiber strut braces reduces chassis flex. At the rear are CNC machined shock mounts and a carbon fiber rear shock tower brace. Deceleration is handled up front by an EVO Clubsport 14-inch brake kit, which utilizes six-piston calipers from a GT3, while the rear uses a stock setup. Adding a track aesthetic are a set of \$3,400 gold-colored Champion Monolite alloys that measure 18x9-inches up front and 18x11-inches at the back. Keeping the GT800 glued to the road are Toyo Proxes RA1 tires measuring 245/40ZR18 and 335/30ZR18 respectively.

For the exterior, EVO turned to Techart for a GTS front bumper which retails for \$5,500 with EVO carbon fiber splitters as well as GTS side-skirts. A factory GT2 wing was installed on the rear end for high speed stability.

On a recent visit to EVO's Tempe, Arizona headquarters we were scheduled to sample what the GT800 had to offer. Unfortunately the company's menacing looking vehicle was undergoing further development testing, however, Zuccone was generous enough to toss us the keys to a GT700 model, which, as you may have guessed, has "only" 700hp. This 996 Turbo is a sleeper – or at least as much of a sleeper as any yellow Porsche Turbo can be. According to Zuccone the owner uses this car on the street frequently, so it has retained all of its creature comforts. Firing the motor is another surprise, since the exhaust is scarcely



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louder than a stock system.

In Arizona traffic, the GT700 behaves perfectly, idling almost as consistently as a stock model, while the lower end of the power band is so tractable it's really no surprise the owner drives this beast regularly. When you dip into the power band though, you better have this thing pointed in the right direction. Driving around in traffic in the GT700 is like walking around in a crowd of people with a loaded gun: you really have to be careful with the trigger. The first few thousand rpm have the 996 accelerating quickly, but it's nothing out of the ordinary. As soon as the tach passes 3000 rpm though, the turbos spool with a vengeance and the car rockets towards the horizon, shoving you back in your seat.

The car is deceptively fast. While I was never able to exceed 130 mph, I can report that the GT700 got there extremely quickly and gives new meaning to the phrase 'point and shoot.'

The GT800 development vehicle posted the quickest known quarter mile for a tuned 996 Turbo: 10.37 seconds at 139.68 mph.



Of course, as fast as the GT700 is, the 800 in the accompanying photos is even faster, which after experiencing its 700-horsepower cousin, we can scarcely imagine. EVO has wasted no time in proving just how fast their GT800 is. On January 8, 2006 with EVO's head technician John Bray behind the wheel, the GT800 development vehicle posted the quickest known quarter mile for a tuned 996 Turbo: 10.37 seconds at 139.68 mph. And as if that's not enough, Zuccone and his crew plan on tweaking the car to get into the nines. And the best part of all? They do all this hard work so their customers can reap the rewards, like parking one of the fastest cars in the world in their garage. **MLE**

SPECIFICATIONS

2001 PORSCHE 996 TURBO

ENGINE

Porsche 3.6L 24 Valve Twin Turbo flat-six

ENGINE MODIFICATIONS

Carillo connecting rods with multi-torque rod bolts
EVO forged pistons with upgraded gapless ring package
EVO sport cams
EVO high-pressure head gaskets
Porsche GT3R high flow racing oil pump
EVO/Garrett GT twin turbos
EVO V-Flow air intake
EVO V-Flow turbo air inlet ducts.
EVO 44.5-mm stainless steel headers
Milltek sport exhaust
100-cell German catalytic converters.
EVO fuel rail and larger fuel injectors
EVO Clubsport intercooler kit

ENGINE MANAGEMENT

EVO re-tuned Bosch software

NUMBERS

Horsepower: 752hp @ 6900 rpm
890hp @ 6900 rpm without catalytic converters and with 116 octane fuel
Torque: 740 ft-lbs @ 4700 rpm
890 ft-lbs @ 4700 rpm without catalytic converters and with 116 octane fuel
Quarter mile: 10.37sec @ 139.68 mph

Current Numbers

Quarter Mile: 9.67sec @ 149.86 mph



EVOLUTION MOTORSPORTS TO OPEN NEW FACILITY

This July, renowned Porsche tuner Evolution MotorSports will open their state-of-the-art facility to better serve their growing clientele. The 25,000 square-foot motorsports complex is being constructed in Tempe, Arizona. Included in the new facility will be a 9,000 square-foot workshop with eight lifts and work stations, an all-wheel-drive Mustang dyno with 100 mph airflow fans, a full machine shop, a 2,500 square-foot R&D facility

as well as a 1,000 square-foot clean room dedicated to engine building. Many of the products Evolution MotorSports sells will be stocked in-house, in a 5,000 square foot warehouse to avoid unnecessary wait times. The new facility will also feature a large showroom and a lounge for customers. This 5,000 square-foot space will house product displays, show cars – both street and race – and even an espresso bar.



STARFEST '06 COMING TO LAS VEGAS



The Mercedes-Benz Club of America (MBCA) will be holding their bi-annual meet in Las Vegas, NV from October 1st to 5th, 2006. This year is of particular importance because the club will be celebrating 50 years of bringing Mercedes-Benz owners and enthusiasts together. The brand new South Coast Hotel and Casino will host the MBCA, including several cocktail parties, a gala dinner and special room rates for MBCA members. On Monday, October 2nd, to kick off the festivities, a concours will be held on the first fairway of the Sunrise Course at the exclusive Spanish Trail Golf & Country Club. Much of the rest of the week will be at the Spring Moun-



Spring Mountain Motorsports Course

tain Motorsports Course just outside Las Vegas. Activities include Defensive Driving, Auto-cross, Acceleration Runs and Time Trials. Experienced driving instructors will be available to assist MBCA members and help them learn the track. Classes will be tailored for all levels of abilities so you can drive at your comfort level. Check out for www.mbca-lasvegas.org for more information, including a registration sheet, schedule and contact information.