

eurotuner

REAR WHEEL-DRIVE OF THE YEAR

INSANE REAR-DRIVE
MID-ENGINE GTI
VR6 TURBO

TIRE-SMOKIN'
WIDEBODY
HOOLIGAN



TRACK ATTACK
VW TUNERS TAKE
VW'S CONCEPT
FOR TOP HONOR

TECH HOW-TO
• 1.8T TURBO MAN
INSTALLED AND DY
• HID HEADLIGHT UPG



TUNER GP
12 CARS SLUG IT
OUT ON CIRCUIT
STRIP AND DYNO



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eurotuner

GP

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The 2006 eurotuner magazine Tuner

Grand Prix, or etGP06 as it's affectionately known, was a great success and a sign our industry and hobby is flourishing.

The etGP is our annual shoot-out for tuner cars, where we invite the biggest and the baddest to put up or shut up. But it's not so much a competition as a battle for honor and respect. It's our opportunity to scrutinize specific products and see if they meet the tuner's claims.

So please don't think the fastest and most powerful car wins. Yes, the team with the highest numbers has something to brag about, but that's not the whole story, as you'll see.

The etGP isn't a head-to-head competition because many of the cars we invite can't be directly compared. Instead, it's more of a yardstick; a tool for measuring the relative performance of various tuning options.

With etGP you can examine what the tuners are capable of on specific platforms. If you have an R32, for example, there are three conversions here that should appeal to you. Owners of the 1.8T have a couple of cars to scrutinize, and so on.

You can also see how different tuners and packages stack up against one another, and determine how an R32 compares to the 1.8T, for example.

Hopefully etGP will help you decide if tuning packages actually deliver your target performance. For others, it might simply help you decide which car you will choose to be your next project vehicle.

Basically, etGP is a shop window where you can browse tuning conversions under the harshest environment and draw your own conclusions about what will work for you.

The format

etGP is a test of speed, power and poise. We scrutinize the car on the dyno for outright power, the drag strip to reinforce those numbers and examine traction, and finally at the track, to see how the cars perform under sustained pressure.

After dropping the quarter-mile in '05, we



Words & Photos:
Greg Emmerson, Sam Du



12 cars from the country's best tuners on the dyno, drag strip and road course for three days of competition, fun and camaraderie. This is the eurotuner GP.

TUNER GRAND PRIX





PRIX



Greg shows the drivers his track record on the wall



decided to reinstate it this year because it reinforces the dyno numbers and is fun for the teams. As it turns out, there was some pretty fierce competition on the drag strip, with cars reaching phenomenal times, so we're happy to have it back.

Unlike last year's exclusively VW/Audi affair, we were able to tempt out a Mini, Lotus and (perhaps controversially) a Focus for '06. Sadly, no BMW tuners stepped up to the plate once again...

Like every etGP the rule is there are no rules - except no nitrous in the engine. And because several teams had a big advantage through tire choice in '05, we decided to level the playing field by supplying all the teams with Falken Azenis RT-615 tires. This is a good track-day R-compound tire that stood up to the abuse extremely well, providing consistent results for all the teams (see panel).

On the dyno the teams are allowed three pulls and can tune in between, so we always expect high numbers and are rarely disappointed.

The drag strip is a free for all. Line up, run against the clock and keep coming back for more. We thought the fastest times would be set in the morning but as teams got faster, the competition heated up and the action

lasted most of the day.

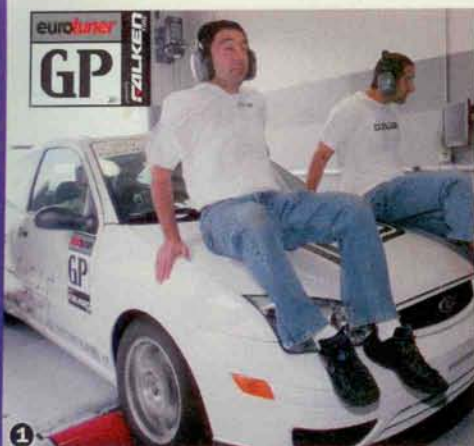
Finally, the road course at Streets of Willow provides the ultimate test of power, brakes and handling. This is the event all the teams relish and is the real indicator of car preparation; this is where the BS stops.

Falken Azenis RT-615

If you're a regular track junkie you know you can never have enough traction. But if you're anything like us, your track car is also your daily driver. However, the cost of going to the track adds up so you need to maximize the effectiveness of the parts you buy. Luckily for us, the folks at Falken have one of the best street tires that combine performance and durability in the Azenis RT-615.

Just take a look at some of the teams in this year's etGP, like Torque Factory, AWE and HPA. Not only did they abuse their cars all week with multiple passes at the drag strip and numerous hot laps on the road course, but they also drove their cars to and from the track on the same set of tires!

Now that we've found some tires we can drive to the track on and run all day, we're pretty much set. The trick is to get driving skill to match. Too bad Falken doesn't sell that as well!



1



2



1. Raffi Kazanjian of Euro Sport Accessories prepares for the next time he's caught sitting on the hood of a car going 70mph
2. With only one seat in the Coupe, the 034 Motorsport staff enjoys resting on the metal flooring
3. Since the TT has no back seats, these two settled for the trunk
4. In good sportsmanship, 034 Motorsport offers a hand in helping Stasis Engineering at the dyno

Dyno

Advanced Motorsport Solutions

Advanced Motorsport Solutions (AMS) in Carson, CA hosted this year's dyno event thanks to its four-wheel MAHA dynamometer – described as one of the more sophisticated dyno tools in the industry.

During a vehicle's run on the MAHA, the system uses heavier load settings to calculate power. Once a car reaches peak power, it must roll to a complete stop and the MAHA measures the power losses from the wheels. The computer then calculates this figure, compensates for environmental factors and finally produces flywheel horsepower and torque. It's difficult to cheat with this dyno system because it takes almost every factor into account. The fan used for the dyno is also one of the most powerful available, simulating speeds over 70mph.

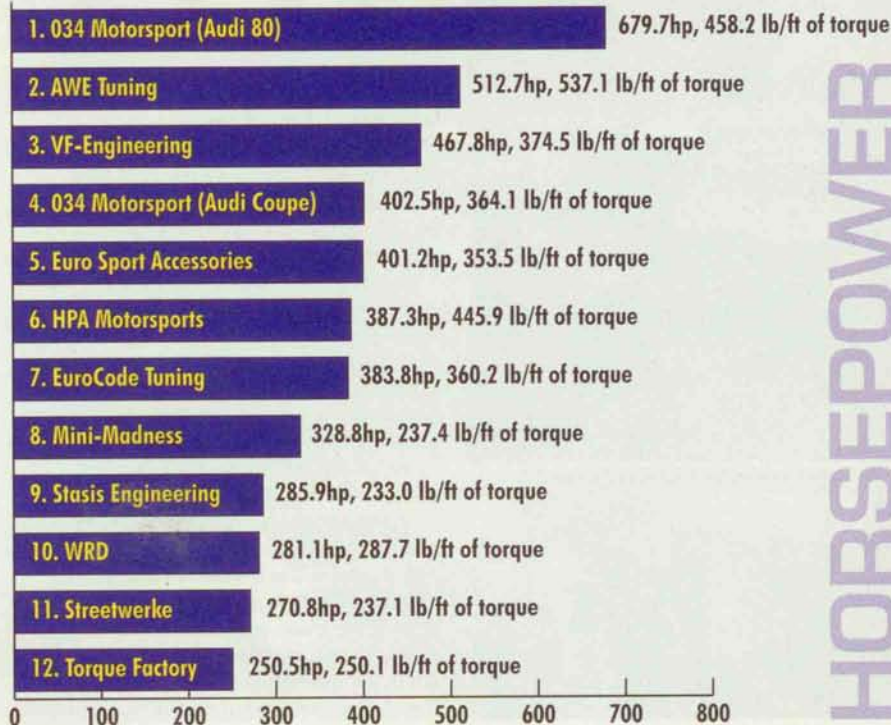
Unfortunately, the dynamics of the dyno made it difficult for some of the high powered cars to gain traction on the rollers.

The most notable loss was the Lotus Elise from Stasis Engineering. It claimed to have previously run near 400whp on a Dynojet that morning, but with its turbo and variable valve timing, it was spinning the rear tires after 6000rpm. EuroCode Tuning's GTI was also having problems with the MAHA. The front-wheel drive hatch lost traction even with three people weighing down the front of the car.

AWE Tuning was disappointed with its S4's first dyno run because the facility's fan was aimed toward the center of the car, neglecting its side-mount intercoolers. After a quick trip to Torque Factory to borrow portable fans, the tuner returned and put down more pleasing figures.

The main story of the day, though, goes to 034 Motorsport and its Audi 80. It attempted one run and shattered its previous record at AMS for the most horsepower recorded.

After 12 hours of strapping down, sitting on and testing cars, it was time to head north to Palmdale and Lancaster for the next two days of action.

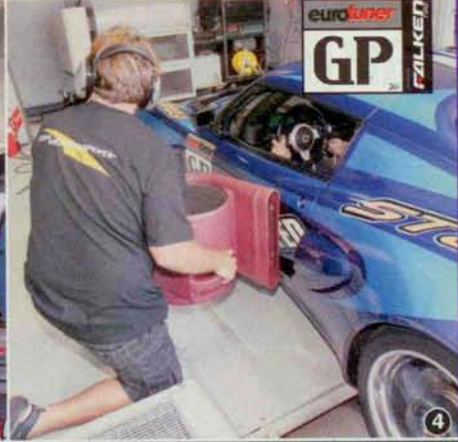


HORSEPOWER

Contact

www.advancedmotorsport.com, 310/763-8000

The only seat George Mehallick of Mini-Madness could find in the AMS dyno was on the hood of his car



034 Motorsport

The 034 Motorsport Audi 80 was originally built as a sleeper and budget street racer. You might remember this monster from et 9/06 where we followed the car to AMS witnessing its dyno of 622hp and 619 lb/ft of torque. At etGP06, it pulled 679.7hp, 458.2 lb/ft of torque to remain one of the most powerful Euros on the West Coast.

"Like everybody else we were concerned with the MAHA dyno," explained Javad Shadzi of 034. "Fortunately, we knew what we could do, having been at AMS before. Normally we run the car at 38psi but we lowered it to 30psi - we couldn't run too much boost because it would shut down the dyno." The 80 annihilated the competition and held everybody off at the drag strip by 0.1sec.



680hp dyno king



VF-Engineering

VF-Engineering's R32 ran smoothest on the dyno and only needed one run to prove its power. Unfortunately, it encountered continuous obstacles with its supercharged R32. Brad Beardow of VF explained, "It was tough because we have so many things going on within the company so we didn't have time

to prep the car. We didn't do enough to ensure reliability, which is our claim to fame. On the drag strip and track we took the cats off and went with race gas for an extra 20hp to shave some time. It ended up costing us because the fuel pump couldn't handle the requirements. And yet we took the car to the same track weeks ago and had no problems."

1988 Audi 80 quattro

DRIVER: Christian Miller - '06 was his first year in SCCA, placing third best rookie

DYNO: 679.7hp, 458.2 lb/ft of torque (1st)

QUARTER-MILE: 11.22 @ 134.8mph (1st)

LAP TIME: 1:32.238 (7th)

ENGINE: 2.3 liter 20v block bored to 83mm, 034 Motorsport copper MLS sandwich head gasket, block 0-ringed, 034EFI 144mm forged rods, JE 83mm pistons, Total Seal oil and compression rings, chromoly top rings, new stock valves, ported and flowed head, 7A Coupe quattro cams, 034EFI HD valve springs, Autotech Vernier cam pulley, 034 Motorsport aluminum radiator and Mercedes turbo-diesel oil cooler, 034MS intake manifold with 70mm throttle body, 034EFI stage 2c engine management and plug-in wiring harness, Innovate Motorsports LC1 with XD-16 wideband control unit, 034 stainless tube-header, Garrett GT40R dual ball-bearing turbocharger, 3" downpipe and race exhaust system, OE Audi external wastegate with 1.5" dump tube, custom crankcase breather

DRIVELINE: Audi B5 S4 six-speed with cryogenically treated and micro-polished gears, Stasis 5:1 high-bias center diff, lockable rear diff, Quaife 01E front limited-slip differential, custom Spec stage 5+ clutch with double-spring pressure plate, custom MR2 electronic power steering pump

SUSPENSION: 2Bennett coilovers with Koni shocks, aluminum upper strut mounts, 034 Delrin control arm bushings, custom sway bars, OE Audi strut bar welded

WHEELS & TIRES: 17x7" Ford Racing aluminum wheels, 215/40-17 Falken Azenis RT-615 tires

BRAKES: 13" 2Bennett Brembo big brakes

EXTERIOR: S2 headlights, carbon fiber B4 hood

INTERIOR: six-point rollcage, Cobra driver's seat, five-point harness, fire suppression system, Aim dash with Innovative Motorsports telemetry

CONTACT: www.034motorsport.com, 510/657-6707

2004 VW R32

DRIVER: Mike Potter

DYNO: 467.8hp, 374.5 lb/ft of torque (3rd)

QUARTER-MILE: 13.20 @ 108.0mph (7th)

LAP TIME: 1:34.190 (11th)

ENGINE: 3.2 liter VR6 with VF-Engineering stage 3 supercharger conversion, plus VF-Engineering side engine and rear pendulum mounts, Magnaflo cat-back exhaust system

DRIVELINE: six-speed manual transmission with VF-Engineering transmission side mount, Haldex HPP module for 4WD system

SUSPENSION: H&R RSS coilovers and 22mm rear sway bar, Euro Sport Accessories rear stress bar, CPP rear camber arms

WHEELS & TIRES: 18x7" OZ Superleggera wheels, 245/40-18 Falken Azenis RT-615 tires

BRAKES: Stasis/Alcon front big brake kit, ECS Tuning rear rotors

EXTERIOR: OE VW HID headlight upgrade, Hella smoked tail lights

CONTACT: www.vf-engineering.com, 714/528-0066

EDITOR'S DYNO CHOICES



John Gardner of WRD had to push his car off the strip because an axle broke during one of his burnouts



Fastest quarter-mile competition

Los Angeles County Raceway

The quarter-mile was definitely one of the more exciting events this year. Four of our competitors were in the 11sec club, with HPA Motorsports' Audi TT only hundredths of a second away from being the fifth car.

The final hours of drag racing were tense. While most of the competitors quit after six or seven runs, 034 Motorsport, Stasis and AWE pushed their cars to the limit, trying to outdo each other's time.

It started when Todd Sager of AWE mentioned to Stasis the Lotus would probably go faster without the wing. As a result the Lotus lowered its previous time and gained speed on the final trap speed. AWE was running the S4 virtually all day and the tuner reached its limit at 11.8sec. In order to shave more time, the exhaust was dropped, tire pressures were lowered and new software was uploaded to increase timing and the rev limiter. With the new setup, the S4 ran six consistent runs in 11.5sec territory.

Javad Shadzi of 034 Motorsport and his Audi 80 held the top time and speed for the day. "We started the day with two easy runs using mild launches," he explained. "I gave it everything on my third run and ran an 11.22. We were happy with it until Stasis hit 11.3 and we got a little worried so pulled the car out again." Unfortunately for Javad, a front axle snapped on the sixth run. Nonetheless, nobody was able to catch the 80.

Besides the battle between the top three cars, other tuners faced their own challenges. VF-Engineering had high hopes but its R32 experienced fuel pump problems. EuroCode Tuning worked hard to overcome traction problems but was unsuccessful. WRD was eager to get started on the strip but was the first car to fall – an axle blew while attempting a burnout.



QUARTER-MILE





WRD's GTI does a nice burnout on one of the first runs of the day



034 Motorsport's Audi 80 started in second gear and was still spinning all four tires



AWE Tuning

The AWE Tuning S4 scored consistently high in each competition. Jeff Moss from Torque Factory helped AWE with the preparation and tuning. "This S4 is a full weight car, around 3500 lb with the driver," he said. "The cars that were beating us came in on trailers and weren't street cars. We were really stoked that we were right there with those guys."



No car in our class drove to the event besides HPA's Audi TT, which was the nearest competitor."

Through Jeff's efforts and the excellent drivers, AWE placed second on the dyno and third in the following races. Jeff also credits the S4's owner, Brent Matraw, for being able to push the car more. "Because Brent is a good friend we had the ability to make sure the car was tuned perfectly," he mentioned.

EDITOR'S FASTEST QUARTER-MILE CHOICES

2001 Audi S4

DRIVER: Chip Herr, Neil McGarry – never driven with differentials, Todd Sager – still off pace
DYNO: 512.7hp, 537.1 lb/ft of torque (2nd)
QUARTER-MILE: 11.47 @ 121.9mph (3rd)
LAP TIME: 1:28.928 (3rd)
ENGINE: 2.7 liter V6 with AWE Tuning RSK04 turbo kit, downpipes, Twin 1 exhaust and front-mount intercooler, OE Audi RS4 motor mounts
DRIVELINE: six-speed manual with AWE drivetrain stabilizer DTS bar, Sachs RS2 clutch kit and flywheel, Stasis center differential
SUSPENSION: Stasis Engineering coilovers
WHEELS & TIRES: 18x7.5" Volk Racing LE37 wheels, 245/40-18 Falken Azenis RT-615 tires
BRAKES: Stasis 14" big brake kit with Ferodo DS3000 front and DS2500 rear pads
EXTERIOR: Audi RS4 grille
INTERIOR: Topspin four-point driver harness, AWE Tuning center-vent boost gauge
CONTACT: www.awetuning.com, 888/565-2257

HPA Motorsports

HPA Motorsports is renowned for its twin-turbo projects, which include the Jetta R GT as well as its R32 packages. This year, the tuner brought an '05 Audi TT, driven from British Columbia to California to compete in etGPO6, with plans to continue on to its new home in Indiana where it will remain a training car for One Lap of America. The TT was formerly equipped with DSG, but it was swapped for the six-speed from HPA's One Lap-winning Beetle RSi, making this North America's only six-speed TT V6.

"Because it's a 3500 lb car, we had to balance the braking, handling and power," Marcel Horn of HPA Motorsports explained. "The FT400-series single-turbo kit proved itself capable on the dyno, drag and track. The power and torque curves are consistent and keep going through each gear. We couldn't ask for more on the drag strip. We were able to achieve low 12s on the slowest drag strip on the West Coast. On the road course, we had some technical problems with the geometry, but we'll be back next year and won't disappoint."

2005 Audi TT

DRIVER: John Kiewicz – Associate Editor of Motor Trend
DYNO: 387.3hp, 445.9 lb/ft of torque (6th)
QUARTER-MILE: 12.06 @ 114.0mph (5th)
LAP TIME: 1:33.425 (9th)
ENGINE: 3.2 liter VR6 with HPA FT-400+ single-turbo, lowered compression, race grade con rod bearings, upgraded fuel supply, NOS intercooler sprayer
DRIVELINE: six-speed manual with hardened & lightened gears, Quaife diff, sintered metal clutch, Haldex Competition controller
SUSPENSION: KW Club Sport coilovers with adjustable camber plates, 22mm Neuspeed rear sway bar
WHEELS & TIRES: 18x8" SSR Competition wheels, 235/40-18 Falken Azenis RT-615 tires
BRAKES: HPA stage 2 brake system with 360mm front rotors, six-piston calipers and 310mm rear rotors
INTERIOR: VDO boost gauge
CONTACT: www.hpamotorsport.com, 604/598-8520



Streets of Willow Fastest lap competition

This is the most anticipated event for all the tuners. It's the ultimate test of performance, chassis balance and reliability. Each tuner strives to design its vehicle for the best lap time and to be the definitive road course tuner.

The weather was comfortable on the third day of etGPO6, with 70° temperatures, light wind and blue skies. Racing was divided into three groups. Each group had two 20min practice sessions to test the car's capabilities and settings. After the practice runs, each car ran solo around the track with three timed laps to achieve the best time.

During the practice sessions, certain tuners encountered difficulties. HPA's TT experienced geometry problems. The VF-Engineering R32 continued to suffer with fuelling mishaps and bad luck continued to strike WRD's driveline. Even the Stasis Lotus ruptured a boost hose during practice but it was quickly repaired for the final session.

The scariest incident happened to 034's Audi 80. Although it performed well on the dyno and drag strip, at Streets we witnessed the driver-side front wheel separate from the vehicle on a cool down lap. Luckily, driver Christian Miller was going slowly when the incident occurred. Fortunately, they were able to refit the wheel and complete a timed lap but reluctance to push a potentially damaged car meant it finished in the middle of the pack.

The Lotus, with its lightweight body, turbo power and tight chassis easily took first place. 034 Motorsport's Coupe came in second while AWE's S4 fought its way into third place – the S4 was in the middle of the group after practice but a little tweaking along with a rotation to different drivers helped place the car only tenths away from the 034 Coupe.

Euro Sport Accessories surprised us when its Focus finished fifth. Several tuners were

shocked to see a Ford at the event, but Euro Sport (competing under its Focus Sport banner) proved to be a worthy contender.

EuroCode was another surprise on the final day. After losing traction on the dyno and drag strip, the GTI was finally able to gain speed and grip on the road course. The tuner prepped the car for Christian Miller, who drives a Mk4 Jetta in SCCA races, so the suspension was tuned to his specs and was even corner-balanced to his weight.

Finally, the Mini-Madness Cooper S was a thrill to watch. As one of the lighter and lower horsepower vehicles, it proved to be quick like the Lotus, finishing in a very respectable fourth place.

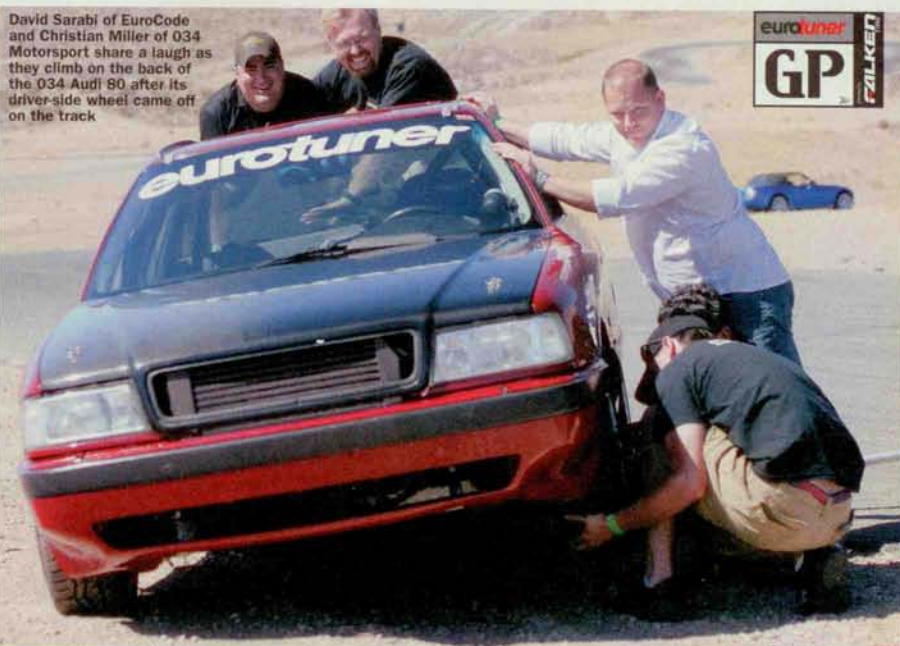


FASTEST LAP





David Sarabi of EuroCode and Christian Miller of 034 Motorsport share a laugh as they climb on the back of the '034 Audi 90 after its driver-side wheel came off on the track



Stasis Engineering

To diversify the line-up, Stasis brought its '05 Lotus Elise. It was a test-mule for the company's brake and suspension developments. Forced also developed one of the first turbo kits for the Elise by utilizing a GT28RS turbocharger. Dynamic Racing Solutions then worked on the engine

management for the motor, implementing a programmable system that enables the driver to switch from low to high boost.

Reinforcing the philosophy, "performance through low weight," the Elise surprised everybody as its low dyno numbers were quickly forgotten on the drag strip and road course. "It was great competing against cars

with twice the displacement and twice the tire," Jason Whipple of Stasis said. "In terms of horsepower per pound, there wasn't much that could touch the Lotus."

Although the team experienced a complication during practice on the road course with a ruptured boost hose, the Elise easily got back to racing form to take first place.

EDITOR'S FASTEST LAP CHOICES

Opposite: driver Chip Herr of the Stasis Engineering locks the Lotus Elise on a wide turn



2005 Lotus Elise

DRIVER: Chip Herr - Stasis touring car driver, winning three SCCA races in '06

LAP DYNO: 285.9hp, 233.0 lb/ft of torque (9th)

QUARTER-MILE: 11.34 @ 127.5mph (2nd)

LAP TIME: 1:26.224 (1st)

ENGINE: 1.8 liter four cylinder 16v with Forcedfed 380 turbo package

DRIVELINE: six-speed manual, upgraded clutch, limited-slip

SUSPENSION: Stasis-tuned Ohlins coilovers

WHEELS & TIRES: 17x7.5" front, 17x8" rear PIAA FR-7 two-piece wheels, 205/40-17 (front), 235/40-17 (rear) Falken Azenis RT-615 tires

BRAKES: Stasis Alcon four wheel brake kit

CONTACT: www.stasisengineering.com, 707/935-9700; www.racesolutions.com, 562/694-2226

1990 Audi Coupe quattro

DRIVER: Christian Miller

DYNO: 402.5hp, 364.1 lb/ft of torque (4th)

QUARTER-MILE: 11.99 @ 118.1mph (4th)

LAP TIME: 1:28.688 (2nd)

ENGINE: 2.5 liter 20v five cylinder with JE 82.5mm pistons, Carillo rods, stroker crank, 034 head, Garret GT35R turbo, 034 intake and exhaust manifold, 0.5mm oversize valves, stainless steel intake valves, inconel exhaust valves, OE Audi 71 cams, 034 high current DIS coil packs, 034EFI stage 2c engine management and wiring harness, Innovative Motorsports LC1 wideband control unit, 034 tubular header, front-mount intercooler, 3" mandrel exhaust system

DRIVELINE: OE Audi RS4 six-speed with Spec stage 3 clutch and flywheel, Stasis 5:1 high-bias center diff, 034 clutch-type rear differential

SUSPENSION: Eibach springs, Koni dual-adjustable struts, Delrin control arm bushings, Ground Control camber plates, 034 rear strut mounts and aluminum subframe bushings

WHEELS & TIRES: 17x8" Rota Torque wheels, H&R wheel studs, 255/40-17 Falken Azenis RT-615 tires

BRAKES: Porsche 993 Turbo Brembo brakes, Pagid pads

EXTERIOR: OE Audi RS2 headlights

INTERIOR: OE Audi S4 steering wheel, Aim Sports race dash

CONTACT: www.034motorsport.com, 510/657-6707



034 Motorsport

In its second appearance at etGP, 034 Motorsport brought its '90 Coupe quattro with an upgraded turbo, stripped interior and rollcage. "The Coupe was built for road driving," explained Javad Shadzi of 034. "It used to be Christian Miller's daily driver

but after etGP05 we decided to make it a full track car. There was no way anybody could touch the Lotus, so second place was our goal." Christian Miller pushed his Coupe hard, ousting AWE's S4 by 0.3sec to take second place.

Mini-Madness

After trying different engine configurations, George Mehallick ripped the factory supercharger from the Mini-Madness Cooper S and fitted a GT28RS turbo. Along with newer engine management, transmission and suspension upgrades, the car became a mean track machine. "I wouldn't change the format of the challenge, but we looked

forward to the track; power, handling, braking – everything shined. We had no problems during the event. The only thing we did on the track day was adjust shock, rear sway bar and tire pressure settings. We did very well on the track – the fastest FWD car there. It was great considering this was our driver's first time at Streets." Stay tuned for a feature on the Mini-Madness Cooper S turbo.

Euro Sport Accessories/ Focus Sport

The Focus was designed, engineered and built in the UK and Germany. The car was later sold over here to help reduce Ford's CAFE economy ratings and ended up selling well. "In late '99 we heard the car was coming to the US," explained Raffi Kazanjian of Euro Sport. "We were able to get a car from Ford and started tuning it. It's very tuneable and has been successful for us, allowing us to establish Focus Sport as a separate division."

The '05 hatchback comes with a 2.0 liter but Euro Sport acquired a 2.3 liter from Ford and built the motor with Cosworth crank and rods. Along with custom-built intake manifold and a CNC ported head, Euro Sport added its bolt-on turbo with some slight modifications. "We knew the engine could handle the boost," Raffi said. "We normally run 11-12psi but upped it to 18psi on the track and 23psi on the dyno. The Focus is very similar to the Golf and Civic – I've looked over all three and can see the Focus was influenced by both. It's a very nimble car."



EuroCode Tuning

EuroCode didn't have a GP-ready car four weeks prior to the event. After 21 days of hard labor, David Sarabi and his team completed a fully-built 2.0 liter turbo motor from a 1.8T. APR provided its stage 3+ turbo kit, utilizing a GT2871R turbo and other components from its Audi TT turbo kit. Last minute work also included a custom-built

front-mount intercooler utilizing a 3" core from Evolution Racewerks.

"Overall we were happy with the results," explained David. "Every year somebody runs into issues. We all have them, so there's no need to be ashamed." With difficulty achieving traction on the dyno and drag strip, EuroCode excelled on the Streets of Willow, beating half the competition.



2003 Mini Cooper S

DRIVER: Brian Smith – World Challenge driver, former test driver with BFG/Michelin, runs national driving school
DYNO: 328.8hp, 237.4 lb/ft of torque (8th)
QUARTER-MILE: 13.86 @ 106.4mph (9th)
LAP TIME: 1:31.275 (4th)
ENGINE: 1.6 liter four cylinder with JE pistons, engine balanced and blueprinted, ported cylinder head with larger valves, Mad Dog GT28RS turbocharger, AEM engine management, Mini-Madness chargecooler, engine oil cooler and baffled oil pan, 3" exhaust with no cats
DRIVELINE: six-speed manual with RPS lightweight flywheel, Spec clutch, Quaife limited-slip diff, short shifter
SUSPENSION: Leda coilovers, H&R springs, Mini-Madness 22mm rear sway bar, tubular front control arms and adjustable rear control arms, poly suspension bushings, camber plates
WHEELS & TIRES: 17x7" SSR Competition wheels, 225/40-17 Falken Azenis RT-615 tires
BRAKES: Willwood big brake kit, DS2500 pads, stainless steel lines
EXTERIOR: OE Mini aero kit, carbon rear spoiler
INTERIOR: OMP seats, five-point harness, welded-in rollcage, tachometer with shift light, Turbosmart boost control, oil pressure and water temp gauges
CONTACT: www.mini-madness.com, 888/783-6294

2005 Ford Focus SE

DRIVER: Raffi Kazanjian – SCCA driver
DYNO: 401.2hp, 353.5 lb/ft of torque (5th)
QUARTER-MILE: 13.09 @ 115.2mph (6th)
LAP TIME: 1:31.492 (5th)
ENGINE: 2.3 liter four cylinder with Cosworth crank and rods, custom intake manifold and CNC ported head, Focus Sport turbo kit
DRIVELINE: five-speed manual with Quaife limited-slip diff, custom clutch
SUSPENSION: H&R coilovers, 24mm rear sway bar, front and rear Focus Sport stress bars and front camber plates
WHEELS & TIRES: 17x7" OZ Superleggera wheels, 215/45-17 Falken Azenis RT-615 tires
BRAKES: cross-drilled rotors with Hawk pads, stainless steel brake lines
EXTERIOR: North Viking rear wing, Focus Sport carbon front lip spoiler
INTERIOR: Corbeau seats, Momo driver's seat (for the track)
CONTACT: www.eurosportacc.com, 800/783-3876

2004 VW GTI

DRIVER: Christian Miller
DYNO: 383.8hp, 360.2 lb/ft of torque (7th)
QUARTER-MILE: 13.68 @ 115.5mph (8th)
LAP TIME: 1:31.767 (6th)
ENGINE: 2.0 liter short block with 1.8 20v head, JE forged pistons, Scat forged rods, APR intake manifold, OE R32 throttle body, EuroCode stainless steel valves and titanium valve springs, Evolution Racewerks FMIC, APR/EuroCode turbo kit, APR exhaust manifold, VF-Engineering motor mounts, Forge Motorsport 007P diverter valve
TRANSMISSION: EHA five-speed manual with Quaife limited-slip diff, Neuspeed short shift kit
SUSPENSION: Bilstein PSS9 coilovers, Neuspeed 25mm front and 32mm rear sway bars, front upper and lower tie bars, Ground Control upper camber plates
WHEELS & TIRES: 18x7.5" 5Zigen SC3000 wheels, 245/40-18 Falken Azenis RT-615 tires
BRAKES: OE R32 front and rear brakes, Porterfield R4 race pads
EXTERIOR: OE R32 bumpers
INTERIOR: OE European navigation
CONTACT: www.ecodetuning.com, 310/379-3876

Streetwerke

Since Streetwerke representatives were unavailable for etGP06, the tuner submitted one of its best customers, Nedzad Zagovic with his '04 R32. Although known for its R32

turbo kits with last year's example pushing over 550hp, this example was naturally aspirated. Without any assistance, Nedzad's R32 represented Streetwerke with honor.



2004 VW R32

DRIVER: Nedzad Zagovic
DYNO: 270.8hp, 237.1 lb/ft of torque (11th)
QUARTER-MILE: 13.88 @ 98.9mph (10th)
LAP TIME: 1:32.781 (8th)
ENGINE: 3.2 liter VR6 with GIAC software, Schrick cams, ported and polished head, Supersprint headers, APR cat-back exhaust, high-flow cats, VF-Engineering mounts, Evoms intake, Neuspeed pulleys
DRIVELINE: six-speed manual with HPA Motorsports short shifter, Haldex HPP module
SUSPENSION: H&R coilovers, CPP control arms, Ground Control camber plates, Neuspeed sway bars, Autotech front lower tie bar, YarrowSport rear tie bar
WHEELS & TIRES: 17x7" Kosei TS wheels, 215/40-17 Falken Azenis RT-615 tires
BRAKES: Stasis Engineering 13" front, 11" rear big brake kit, stainless steel lines
EXTERIOR: OE HID headlamps, carbon hood
INTERIOR: stripped interior, Momo steering wheel
CONTACT: www.streetwerke.com, 650/739-0820



Torque Factory

Unfortunately, we witnessed one of the more powerful competitors exclude itself with engine problems on the first day of competition. However, Torque Factory's R32 was ready to take its place with only hours to prepare for the dyno. Equipped with GIAC software, a Royal Muffler exhaust and a

handful of other modifications, the R32 performed consistently well. "We thought it would be interesting to bring the R32 as a benchmark car," explained Jeff Moss of Torque Factory. "It ran consistently all day and performed exactly as expected. We were hoping to take on the Streetwerke R32 and came close."



2004 VW R32

DRIVER: Collin Branch - head of race team KW Suspension
DYNO: 250.5hp, 250.1 lb/ft of torque (12th)
QUARTER-MILE: 13.98 @ 96.3mph (11th)
LAP TIME: 1:34.171 (10th)
ENGINE: 3.2 liter VR6 with GIAC software, VF-Engineering engine mounts, evoms V-Flow intake, 2.5" Royal Muffler cat-back exhaust
DRIVELINE: six-speed manual with HPA Haldex Competition controller, Neuspeed short shifter
SUSPENSION: KW Variant 3 coilovers, Tomas Sport Tuning rear stress bar, Neuspeed 25mm rear sway bar
WHEELS & TIRES: 17x7" OZ Superleggera wheels, 215/40-17 Falken Azenis RT-615 tires
EXTERIOR: OE HID headlamps, Hella RCCR tail lights, shaved front side markers
CONTACT: www.torque-factory.com, 310/466-4296



2001 VW Golf

DRIVER: Paul Bonaccorsi
DYNO: 281.1hp, 287.7 lb/ft of torque (10th)
QUARTER-MILE: 14.44 @ 100.3mph (12th)
LAP TIME: 1:36.889 (12th)
ENGINE: 1.8 liter 20v with ATP Eliminator turbo kit and FMIC, Forge Motorsport diverter valve and induction hose, Neuspeed software and pulleys, WRD intake, Techtonics turbo-back exhaust
DRIVELINE: five-speed manual with Quaife limited-slip diff, Spec stage 3 clutch, WRD flywheel, Driveshaft Shop stage 2 axles
SUSPENSION: Koni coilovers, Neuspeed rear sway bar, WRD urethane mounts, front lower and rear tie bar
WHEELS & TIRES: 18x8" BBS RS-GT wheels, 235/40-18 Falken Azenis RT-615 tires
BRAKES: WRD/New Advantage two-piece 13" front big brake kit and 12" rear kit
EXTERIOR: Eurogear front and rear bumpers, shaved moldings and emblems
INTERIOR: Recaro seats, Momo harnesses, boost gauge
CONTACT: www.wrdsusa.com, 916/781-3876



WRD

The hard luck story of etGP06 belongs to WRD. The tuner was juggling several projects, including construction of its Mk5 GTI for SEMA (see p34), which hindered the

preparation its '01 Golf. Unfortunate events began with a boost leak that hindered its power on the dyno. The next day an axle broke on the drag strip and finally, driveline problems sidelined the car on the road course.



Conclusion

Once again, we mustn't dwell on winners and losers. We like to recognize excellence but, as we said at the start, this wasn't a real competition – the cars are just too different for that. But the event shows a Mini can beat an R32 and a Focus can beat a GTI if you give it the right parts.

This year also proved once again that there's no substitute for ridiculous power, except possibly decent power and very little weight – certainly the Elise turbo was the revelation of the GP and the one that worried all the competition.

We'd like to thank the teams who participated in etGP06. The spirit of friendship and cooperation continues, and we again witnessed rivals pitching in to help one another when problems were encountered.



LACR DRAG STRIP

This was a battle of giants, with four cars breaking into the 11sec bracket – so fast they should have been required to run rollcages. There were also a number of cars knocking on the door, notably the HPA TT in the very low 12s, and the Focus surprising everybody by beating all the R32s!

The big battle was between the 034 Audis, AWE's S4 and the Lotus. Again, we didn't think the RWD Lotus could compete with the quattras but it scared them all by almost winning the event.

AMS DYNO

This threw up some very interesting results. The star of the show was 034 and its crazy Audi 80. Just looking at it causes concern about it completing a 100-mile journey, and yet it developed almost 700hp on the dyno. In fact, a previous run on the Waterfest dyno saw it exceed 1000whp, and with more boost we might have seen the same result here.

To be honest, the dyno day was slightly overshadowed by problems with traction that saw cars like the Lotus and EuroCode GTI failing rather badly. Since everybody was suffering the same maladies, it keeps the test relevant, but we'll have to correct this next year to give everybody a fair shot.

Having said that, we need to thank the AMS crew for giving up a day to test the cars.

A special mention should go to the AWE S4, 034 Coupe and VF R32 in this category for getting spectacular power. We were also impressed by how much power HPA's single-turbo produced in the TT, and who thought a Focus could deliver so much grunt?



STREETS OF WILLOW

This is where we separate the men from the boys – speculation ends and the excuses begin. Most teams admitted they'd rather win on the track than the dyno or the strip. This is what etGP is all about.

Winner by a country mile was the Stasis Elise. We said exactly the same thing last year, when the Stasis S4 won by a 3sec margin with a time of 1:26.611. That S4 was a monster, but Stasis was right to leave it in the garage this year.

Last year 034 ran its Coupe and set a third best time of 1:30.525. This year they overhauled the same car and took second with a 1:28.688. Knocking 2sec off the lap time is no mean feat and a testimony to their car preparation skills.

Sadly, 034's 80 didn't fare so well and although they did record a lap time, it didn't represent what the car had to offer. Stretched by preparing three cars for the event the 034/Stasis crew may have forgotten to tighten the wheel bolts on the car before sending it out. Fortunately, the wheel came off during practice at low speed and the team was able to recover the car without major damage. They valiantly recorded a lap time during the timed session but it wasn't at 100%.

The domination of etGP by the Audi S4 continued when AWE recorded the third fastest time, just 0.3sec behind second place.

After that, it was the very surprising Mini and Focus showing the VW tuners how it should be done. Since these were wildcard entries, we feel their strong performances have vindicated our decision to include them as they made a valuable addition to the event.

Final thoughts

So there it is, etGP06 is over. Some egos were bruised, there are some new cockerels in the henhouse and we have a new champion.

As we said at the beginning, this isn't a competition but we do like to recognize success. So while 034 took the award for best dyno and quarter-mile, Stasis took the fastest lap.

We use a very simple point scoring system to establish the overall victor of etGP06, awarding 12 points for first place in each event, down to one point for finishing twelfth. On this basis the winner of etGP06 is AWE Tuning's S4. It didn't actually win an event, but a second place finish and two thirds guaranteed it the top position. It underscores the B5 S4's position as one of the best all-round European performance cars of recent times. Not only did the Avalon S4 take first place in etGP04, but the Stasis S4 won last year's track day.

However, etGP06 was a close finish. The AWE S4 finished just one point ahead of 034's Audi 80, with the 034 Coupe one point behind in third. And the Lotus was one point back in fourth – so three points between the top four.

Congratulations to our winner and thanks to all the teams. Same time, similar places for etGP07? And if you're a European tuner building a car, please contact us to discuss your possible involvement in the event (eurotuner@primedia.com). **et**