BOOST . . . HOW MUCH & WHERE (RPM) determines who has the most HP & Torque?

READ WHAT THE EXPERTS SAY

There's a lot of claim, counterclaims and advertising rhetoric about the various superchargers and their performance. When choosing a supercharger, BOOST (how much and where) is the number 1 consideration because you can't drive your car or truck around at maximum rpm all the time. A supercharger must develop maximum boost at all rpm levels if your car or truck engine is to develop the most torque and horsepower for acceleration, towing etc.

We at Kenne Bell are very proud of the overwhelmingly favorable response our supercharger kits have received from all thirteen (13) of these automotive performance magazines.

"Large enough to swallow a house cat, the Mammoth intake effectively eliminates intake restriction."
5.0 Mustang Magazine "Big Deal" *(2011 5.0 Mustang)*

"In typical Twin Screw fashion, the Kenne Bell 5.0 Kit torque curve resembles more of a torque plateau, as the immediate boost response offered torque by the truckloads." **Muscle Mustangs & Fast Fords "So Much More"**

"A supercharger s only as good as the inlet system feeding it. Restrict the inlet system and you literally chop off all the power and boost of even the most efficient superchargers. Unrestricted airflow to the supercharger is critical for maximum performance." **5.0 Mustang Magazine**

To get right to the point, at just under 9 psi of boost, the stock GT500 was at 581RWHP and the 5.0 Mustang GT with the KB blower kit 610RWHP."
Super Ford Magazine "Coyote vs. Condor"

"Simply replacing the Eaton M112 Roots blower with the more efficient [Kenne Bell] twin screw design upped the power to the tune of 60HP. Testing has shown the twin screw design to be more efficient and powerful than the more common (and less expensive) Roots style supercharger."
Muscle Mustangs & Fast Fords "2 Screw or not 2 Screw"

"There are a lot of tuner Camaro's out there, but we can state from first hand experience that the RPO series of Kenne Bell supercharged tuner cars from Mr. Norm's Garage definitely deliver the performance promised."
Super Chevy Magazine "RPO Camaro Track Thrash" *(Drag strip testing the street legal Kenne Bell supercharged 650HP and 825HP RPO Camaro's)*

"The entry level 8 psi kit made a staggering 177HP over stock. Kenne Bell is using a huge inlet breathing outside the engine compartment [cold air] while others suck through smaller tubes inside the [hot] engine compartment." **5.0 Mustang Magazine** *(2011 5.0 Mustang Mammoth)*

"Remember big blowers only work as well as the most restrictive [smallest] portion of the intake."
Muscle Mustangs & Fast Fords *(Mammoth Kits)*

"To say that we were impressed by the results of the blower upgrade would be an understatement. Installing the Kenne Bell supercharger [with the lower blower pulley no less] increased the power output to an amazing 682HP. Think about it: the Kenne Bell added more power [145 hp] to the Eaton supercharged Cobra motor than the Eaton supercharger did to the normally aspirated motor [just 130 hp]. Where the power curve leveled off with the Eaton, the horsepower kept climbing with the twin screw. The Eaton is simply not large or efficient enough to compete with the twin-screw supercharger at the elevated power levels."
Muscle Mustangs & Fast Fords *('03 Cobra)*

"Installation of the Kenne Bell blower upgrade on the '03 Cobra 4.6 boosted the power output by nearly 150 hp, from 537 to 682 hp. The torque was up from 530 lb-ft with the Eaton to 595 lb-ft with the twin screw." **Muscle Mustangs & Fast Fords " Mods for 4V Mods 2"**

The broad torque curve offered by the Kenne Bell kit allowed the two-valve GT motor to exceed 400 lb-ft of torque from 2,400 to 5,000 rpm. Heck, the supercharged mill pumped out 350 lb-ft at just 1,500 rpm." **Muscle Mustangs & Fast Fords "2 Screw or not 2 Screw"** *(2V Mustang 4.6 GT)*

This is what Andy Schwartz, supervisor of performance equipment, Motorsport Engineer at FORD MOTORSPORTS SVO - now FORD RACING PARTS (FRP) has to say about street superchargers: "A centrifugal supercharger is very bad for the street because there is no boost and no torque increase down low where street guys need it most. We (Ford FRP) would not do a centrifugal supercharger: that's why we did the positive displacement for the 4.6 2 valves."
Ford FRP (formerly Ford SVO)

"Twin Screw: efficient, delivers great low and mid range power. Centrifugal: basically a belt driven turbocharger dependent on engine speed for boost. Makes good power at upper rpm range." **Truck Trend**

"As for the centrifugal blowers (much like a turbo on a belt), you must wait for high rpm for the big bang of boost, and in a world of mostly cruisers that want their power down low (below 4500 rpm) it's just not as effective." **Popular Hot Rodding**

"Unlike centrifugal superchargers, which make boost proportional to rpm, the twin screw design develops all of it's boost just above idle - around 2000 rpm - and keeps it all the way to redline. The sensation is rather like a big block; lots of stump pulling torque and long, fat midrange pull." **Muscle Mustang**

"As a street unit, particularly in cars with high rear end ratios and/or automatic transmissions, this unit's ability to produce maximum boost at 2000 rpm coupled to prodigious amounts of torque lends a distinct advantage." **V8 Power Magazine**

"The Kenne Bell is designed to make full boost right around 2000 rpm, so the kick in the pants happens quickly. Also there is no throttle lag; when you put your foot down, the power is right there. What this means is the 5.0 hits off the bottom and mid-range like a rev-happy big block. Power does not swell with rpm, it kicks in as hard as you put the throttle down." **Super Ford "Kaboom"**

"The positive displacement supercharger grabs a fixed amount of air for each revolution. A centrifugal, on the other hand, actually compresses the air by accelerating it out to the outside of the volute (compressor housing). Like a turbo, a centrifugal relies on tremendous speed of a small impeller to create the pressure. Naturally, speed is of the essence. A positive displacement supercharger relies on relatively large, slow (by comparison) spinning rotors. While both rotors and impellers have a fixed maximum speed, the impeller favors high rpm power, making a nice linear increase with engine speed. The rotors of a positive displacement supercharger grab massive amounts of air early on, helping to produce a ton of low-end torque and mid range power."
Muscle Mustangs & Fast Fords "Under Pressure"

"The major advantage of this type of supercharger is the introduction of immediate power throughout the entire rpm range, without the lag commonly associated with centrifugal superchargers or turbochargers." **Mopar Hi Performance**

“The Dodge pulls hard from idle right up to 5500 rpm red line, unlike many turbocharged and even centrifugal supercharged cars we have driven that experience the dreaded turbo lag." **Truckin' Sport Utility Vehicle Magazine**

"The Kenne Bell Twin Screw design offers several advantages, foremost being most of the boost is available at low rpm - so you'll feel the power when you're leaving a stop light." **Mopar Muscle**

"There's no (boost) lag that you find in centrifugal blowers and turbochargers." **Mopar Action "Brute Ute”**

“The rotors on a roots blower “beat up” the air on a longer trip through the blower and hotter air is the result. The compression in a roots blower occurs after all of this, as air enters the manifold. The twin-screw never sends air around the side of the case and shows for it with a cooler intake charge - cool air makes more power. When all is said and done, the roots blower is just less efficient.” **Muscle Mustangs & Fast Fords**

“Unlike Eaton equipped cars on other 2V 4.6’s, this thing doesn’t turn off at 5500 rpm. It’ll make gobs of horsepower right up to 6500 rpm - 425 to be exact.
Muscle Mustangs & Fast Fords *(’96-’04 2V GT 4.6)*

"You can't get enough horsepower out of a Roots type, A Twin Screw can get it." **AutoWeek "AMG/Mercedes Benz”**

“Capable of serious power (we've made well over 600RWHP), the KB 422 blower is head and shoulders better than the stock Eaton in term of power potential."
Muscle Mustangs & Fast Fords

"Too bad SVT didn't equip the Cobra with a Twin Screw in the first place." **Muscle Mustangs & Fast Fords "Mods for 4V Mods - part 2”**

"Expect to see screw blowers gradually replacing Roots types in production car and light truck applications." **Today's SUV**

"The numbers supplied by the Autorotor test are not insignificant. How does 100+ extra cfm, an 83° reduction in inlet air temp and 23 less drive horsepower sound at 14000 rpm and 11.8 psi? These numbers sound almost too good to be true, but our tests show that these numbers were indeed accurate."
Muscle Mustangs & Fast Fords "Eaton vs Autorotor in a Supercharger Slugfest"

“Whereas everyone loves to quote peak horsepower and torque numbers, THE TRUE MEASUREMENT OF AN ENGINE'S OUTPUT IS HOW MUCH POWER IT PRODUCES ACROSS IT'S OPERATING RANGE." **Motor Trend**

"Compared to both centrifugal blowers and turbos, a twin screw produces full boost at very low rpm. Benefits over the Roots-type blower found on the Ford Lightning: It requires less power to drive and boasts significantly lower charge temperatures, eliminating the need for a space-robbing intercooler."
Motor Trend "Kenne Bell Grand Cherokee Unlimited"

"When it's all said and done the Roots blower is just less efficient." **Popular Hot Rodding**

"Take one stock Mercedes SOHC, 18 valve 3.2 liter V6; attach a screw type supercharger; and stand back from the breeze."
Automobile Magazine "Breathing Hard"

"Simply replacing the Eaton M112 Roots blower with the more efficient Kenne Bell twin screw design upped the power to the tune of 60HP."
Muscle Mustangs & Fast Fords "2 Screw or not 2 Screw"

“Because of its ability to produce an abundance of boost at virtually any engine rpm without any supercharger lag, the twin screw has become one of the most popular choices for contemporary street supercharging.” **“How to Build Supercharged Fords”**

"Most impressive about Kenne Bell's blower is it's ability to make buckets of boost at comparatively low rpm. Of all the blowers, this one really does make a 302 feel like a 428 Cobra Jet." **Super Ford "Blown Power"**

"What impresses us most about the Kenne Bell package is the instantaneous boost, innovative design and quiet operation."
Muscle Mustangs & Fast Fords

"Such tests (faster by 1.35 seconds and 11.95 mph, a fabulous improvement) indicate the Kenne Bell might make more power in stock bolt on trim than the popular centrifugal units, and there are two good reasons why this may be so. First, the Kenne Bell makes more torque over a much wider powerband than the centrifugals. More area under the curve definitely means faster down the track and with full boost coming on at 2000 rpm, the Kenne Bell definitely has a voluminous torque curve." **Super Ford**

"More scientifically, the Cobra posted one of the largest performance gains we've ever seen for a single performance package." **Super Ford**

"The Kenne Bell Supercharger offers several features that make its application to an automotive engine a natural. The screws do not touch and are supported by low friction bearings which further reduce the amount of power required to drive this unit."
5.0 Mustang Performance

"Lots of fun and easy to drive if you can control tirespin (with stock tires). This car was the most fun to drive of any blower car there. The Kenne Bell gives a torquey big block feel; it's quiet but it still has a strong engine note. It also didn't seem as maintenance oriented as the others."
Hi Tech Performance "Blower Madness Shootout III"

"If you're a street freak who wants to feel the torque every time you crack the slightest throttle, if your biggest rush is being pushed into your seat by a big silent hand, if you like incinerating the tires from a dead stop, then the Kenne Bell might just be your bag."
Muscle Mustangs & Fast Fords

"Why they chose a positive-displacement supercharger over the more common centrifugal superchargers - though both will provide a great deal of additional power to a stock or near-stock motor, the boost response of a positive-displacement motor literally transforms a mild-mannered 302 into a serious real torque monster. Though down on absolute horsepower compared to the centrifugals, the standard Kenne Bell 1500 supercharger offers something a centrifugal can't - immediate boost. Stomp on the gas of a 5.0L Mustang equipped with a Kenne Bell, and you are rewarded with a seamless flow of torque. While the centrifugal supercharger builds boost (and flow) in relation to engine speed, a positive-displacement supercharger offers full boost at less than 2000 rpm. On a stock 5.0L, a 6-psi Kenne Bell kit will provide 6 psi at around 1800 rpm and carry it until the rev limiter kicks in at 6250 rpm. Having 6 psi at 2000 rpm adds a tone of useable torque, especially for street driving. It makes the 302 feel as if it has suddenly grown an extra 100 or so cubic inches. Sure, a drag strip run usually keeps the revs between 4000 and 6000 rpm, where a centrifugal supercharger makes good power, but how often are you driving near the redline? The added torque from a positive displacement is available and useable even in day-to-day traffic." **5.0L Ford Dyno Tests**

"And you can't always believe the guy at the speed shop, because if he is a dealer for a certain supercharger company, he's going to try to sell you that unit even if it isn't ideal for your car. Wouldn't it be great if someone would come out and tell you straight up what is the very best supercharger for your application? Well, we can't really do that, but we are an impartial source for information on the subject (regardless of advertising concerns). We can tell you that if you've got an automatic-equipped 5.0 Mustang that you drive on the street every day and you want a supercharger that makes immediate, gut wrenching power and torque, is easy to install and will grow easily with your needs, then the Kenne Bell "Blowzilla" positive-displacement twin-screw supercharger kit is probably it."
Muscle Mustangs & Fast Fords "Blowzilla"

"Whoosh! The Durango settles back onto its haunches as the rear wheels smoke and then punch the big vehicle down the road."
Car and Driver "Shelby SP 360 Durango"

"While cruising down the road at 30 mph, we tried to see if we could get the pedal down to the floor before the boost gauge would reach 6 psi. Our foot was never able to beat the lightning response of the Kenne Bell supercharger. As soon as we pushed the throttle, we were rewarded with immediate boost and the power that accompanied it, just like a bigger motor would produce." **Muscle Mustangs & Fast Fords**