

**TURBONETICS** 



*Turbos*  
*Turbo Systems*  
*Controls*  
*Intercoolers*  
*Industrial*  
*Diesel*

**Performance**  
**2009**  
**Product Catalog**



# TURBONETICS

This past year has brought about many changes in the racing world, with OE automakers as well as the high performance aftermarket. At Turbonetics it has been no different as we are constantly striving to be flexible with our product lines and maintain focus on our core competencies. Our engineering staff is continuing to develop new and innovative turbochargers and valves. Our latest is the TNX-122, the "X" means billet parts. It is a testament to creative thinking and ingenious ways of delivering more power and increased reliability. Featuring two billet pieces on one turbocharger, this massive unit has a forged billet compressor wheel that can deliver 3500 HP and 140+ psi of boost pressure. The second piece is the brilliant machined stainless steel bearing housing needed to house the incredible Turbonetics patented Ceramic Ball Bearing design, capable of withstanding an incredible 2600+ lbs. of thrust.

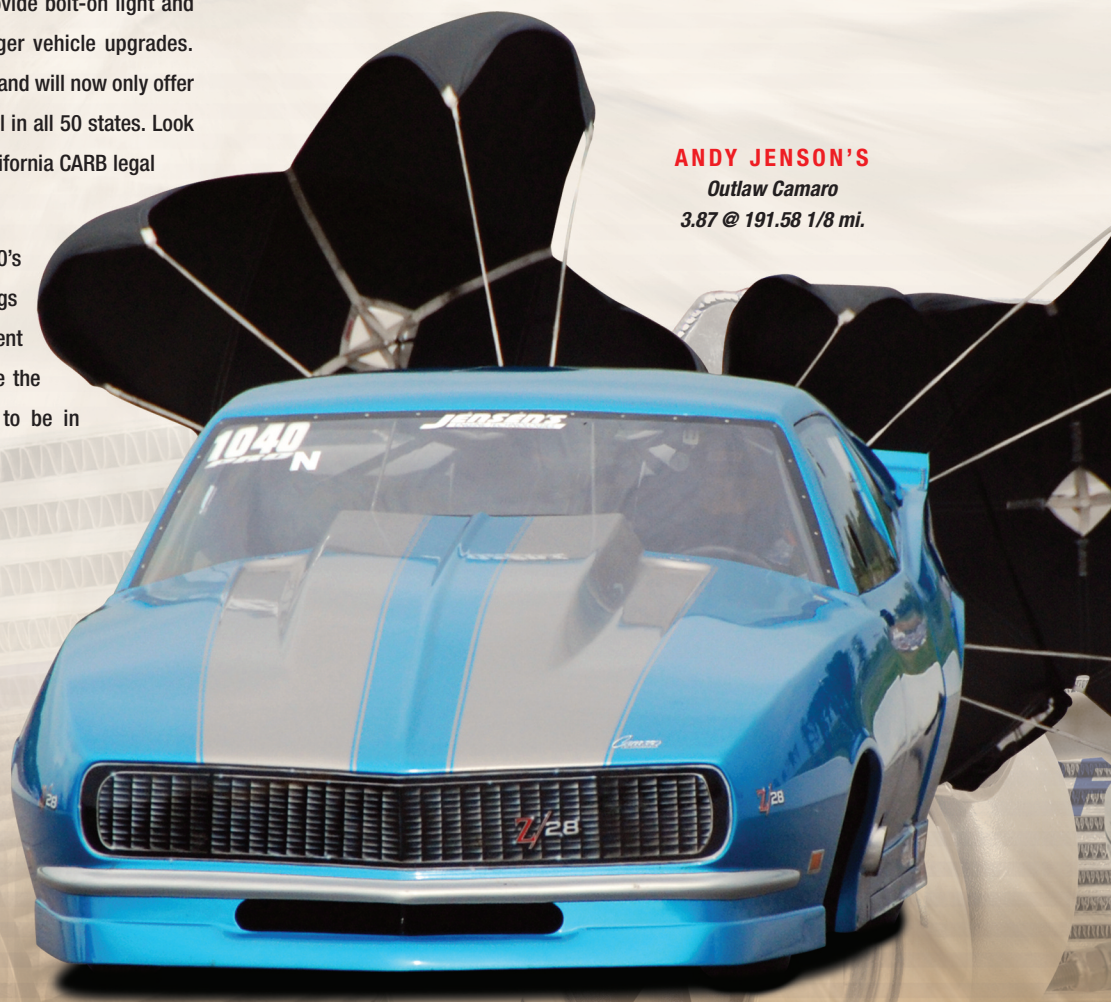
With the rise in fuel prices and fuel economy the latest top priority, the diesel performance market is poised to continue growing. With more and more offerings headed to the States, we are ready to provide bolt-on light and heavy duty applications, as well as diesel passenger vehicle upgrades. Turbonetics is also doing its part to be green in 2009 and will now only offer turbo systems that are CARB exempt and street legal in all 50 states. Look for our 450HP Ford Mustang GT kit to be our first California CARB legal system this year.

It seems that the same results that we saw from the 70's fuel crunch are once again affecting product offerings from Detroit, Japan, and Germany. Small displacement turbocharged powerplants are on the rise much like the diesel offerings in Europe. Turbonetics is excited to be in

development of an advanced family of small frame turbochargers perfect for these offerings. Keep in mind the 30 years of heat exchanger experience we have with Sparco. Don't just think about the power capabilities of keeping those intake charges cool, the fuel savings are dramatic as well.

As much as the high performance automotive aftermarket has been in flux, to no ones surprise the gas, oil and mining markets continues to boom. Turbonetics delivers OE equipment to many different clients including CAT, Waukesha, and a variety of other clients with our Industrial Regulator line of valves and Ceramic Ball Bearing turbochargers. If you have a heavy duty forced induction need make sure to contact us. No matter what the type of fuel or if it operates in the air, sea or land, Turbonetics continues to be "The source for all of your forced induction needs".

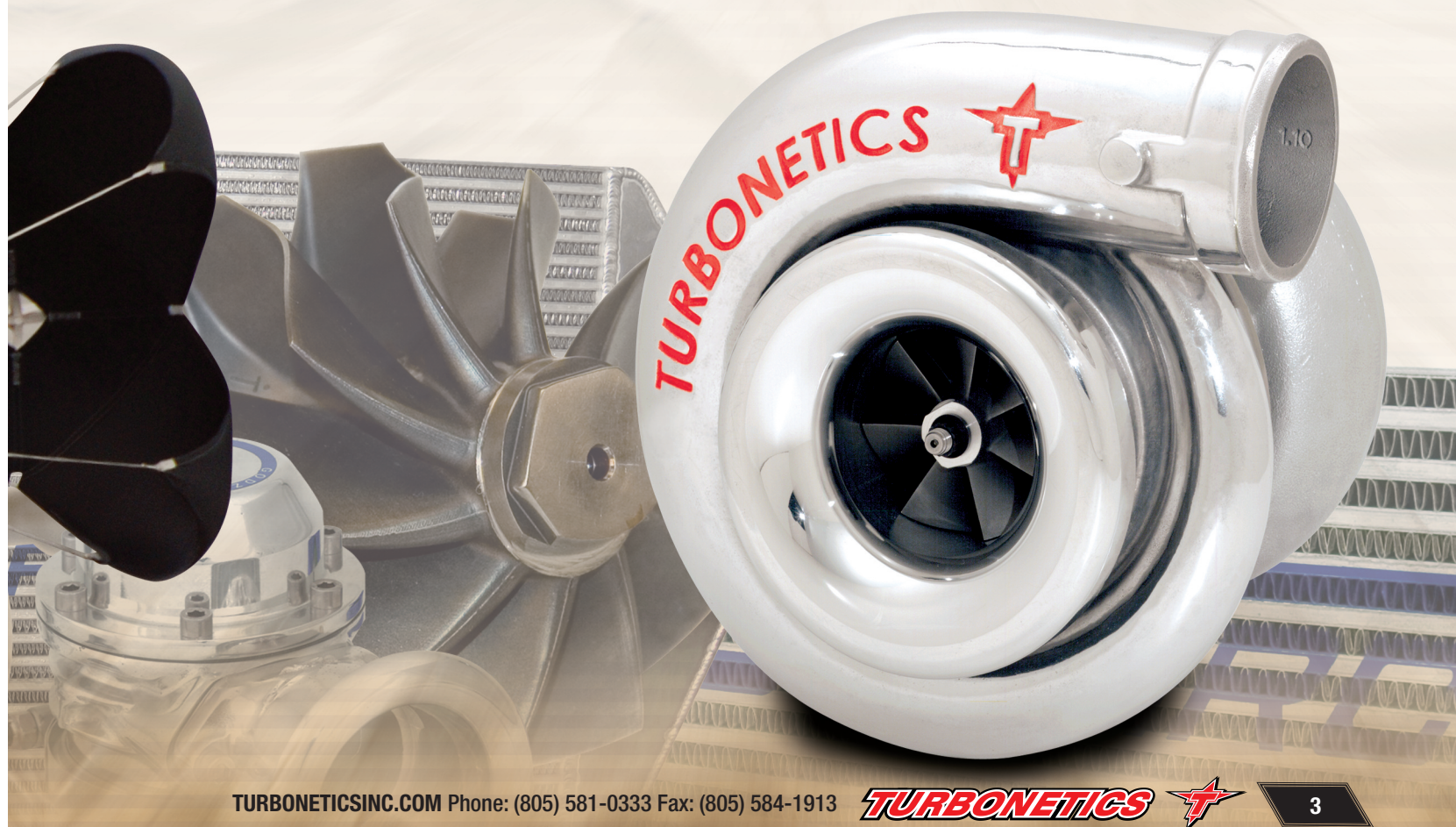
**ANDY JENSON'S**  
Outlaw Camaro  
3.87 @ 191.58 1/8 mi.





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## NEW PRODUCTS



### WATER COOLED GT-K

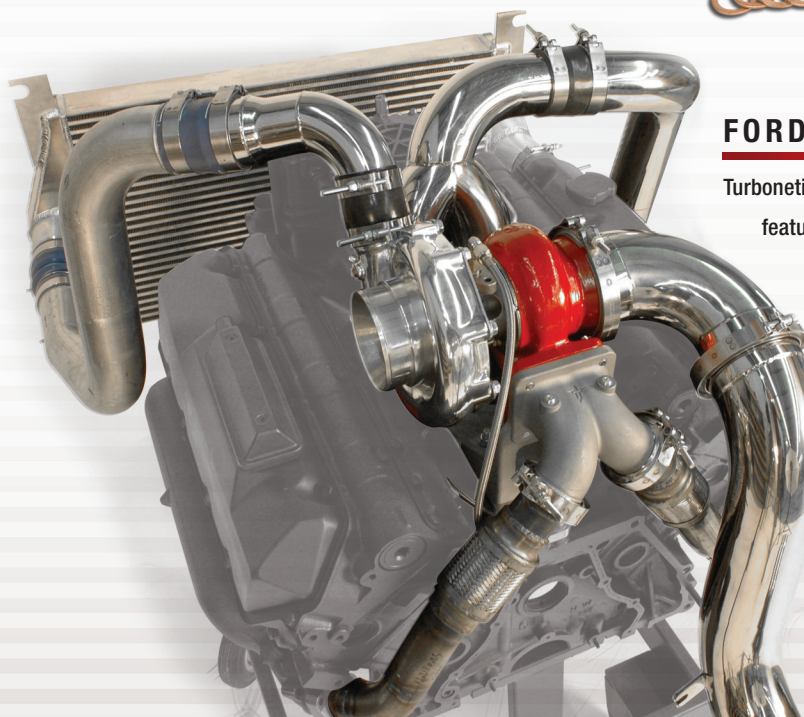
Making the best, better! Turbonetics introduces Water-Cooled GT-K turbochargers for discerning enthusiasts. This no-cost upgrade is available for the entire lineup of GT-K series turbochargers. Turbonetics exclusive 16mm bearing housing allows users to water-cool the Ceramic Ball Bearing GT-K with ease!

### WATER LINE KIT

Turbonetics is also offering universal water line kits for any turbochargers equipped with a 16mm bearing housing – including the GT-K line up. Each kit will come complete with braided lines, hoses, fittings, clamps, banjo bolts, washers, and cable ties for clean installation.

**P/N 11404** Most FWD cars (w/ 36" lines)

**P/N 11362** Most RWD cars (w/ 52" lines)

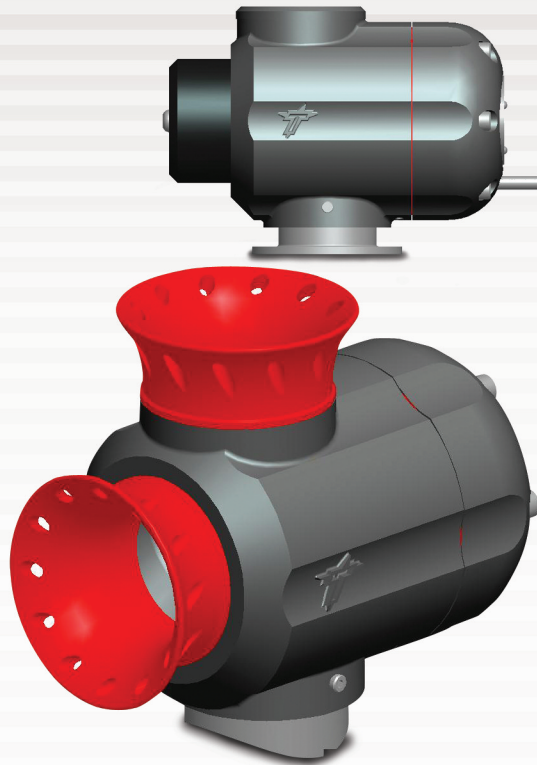


### FORD 7.3L STAGE 2 UPGRADE

Turbonetics has gone forward and created the full pedestal mounting featuring new stainless steel, investment cast, pedestal mounting system (TN part # 11284). This pedestal system allows for a variety of our Ceramic Ball Bearing turbochargers to be utilized, no matter if you need 500HP from our popular HP-Series or all the way up through our tractor pulling Mid-Frame series capable of delivering 900+ HP. It is also a great platform to build from for those serious enthusiasts looking to convert to a compound system. This approach allows our customers to choose the appropriate turbocharger for their specific power requirements and can be upgraded to a larger unit at a later time if their performance needs go up.



## NEW PRODUCTS



### NEW BY-PASS VALVE

Turbonetics' latest creation! This exclusive blow-off valve features a dual cross tunnel discharge system with various discharge designs. You can use one or two GT-K inspired horns to vent the pressurized air directly to atmosphere for that extra loud discharge. Without the horn, you can recirculate for tuning purposes and quieter operation. Compressor surging is a problem no more! Turbonetics exclusive plenum design allows the valve to stay shut air-tight when it senses boost. The valve opens up without hesitation when the unit senses vacuum. This is the ultimate blow-off valve for your turbocharged setup!

### DURAMAX PEDESTAL

The wait is finally over! Turbonetics proudly introduces the Duramax Pedestal kit for 2009. This investment cast, stainless steel pedestal utilizes a twin-scroll flange for the fastest response from a Turbonetics turbocharger of your choice. Speak with a Turbonetics dealer for the best match for your setup - mild to wild!



### MITSUBISHI EVO X INTERCOOLER

The coolest intercooler for the hottest car! This direct bolt-on intercooler for the Evo X allows minimum pressure drop and maximum cooling. The Evo X Spearco intercooler upgrade dropped an average of 150° F with less than 1 psi pressure drop. Bar-and-plate Spearco W.A.V.E. core and computer modeled end tank design allows maximum boost level and extreme durability. Keeping you cool under pressure!





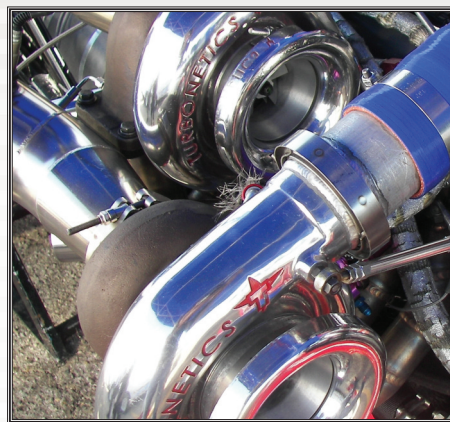
## WARRANTY & BENEFITS

### WHAT KIND OF WARRANTY IS OFFERED ON TURBONETICS PRODUCTS?

Turbonetics offers a "No Fault / No Hassle" warranty program. This unconventional warranty offers a repair or replacement of Turbonetics products that fail, including products used in racing or competition applications, for a period of one year from the original date of purchase. This is truly an exceptional warranty program that offers peace-of-mind for customers.

### THE "NO FAULT/NO HASSLE" WARRANTY?

Be sure to have your product registered immediately after your purchase on Turbonetics Product Registration page. You will find the registration URL and instruction with your product (serial-numbered products only; turbo kits, turbochargers, and intercoolers). You must have your product registered in order to validate the warranty request. You will receive a Warranty Registration Number upon completion. It is also recommended that you keep your proof of purchase from the authorized dealer.



### COMPANY/SERVICE FEATURE

#### ENGINEERING

- 100+ years of combined engineering expertise
- Custom matching for race & street application
- CAD expertise

#### RESEARCH & DEVELOPMENT

- Expert tuning capability
- Skillful custom fabrication
- 2 dynamometers on site

#### MANUFACTURING

- Full assembly line
- VSR and Heins balancing
- Fully trained & certified technicians

#### SALES & TECH SUPPORT

- Friendly sales staff
- Excellent tech support
- Dedicated customer service

#### SHIPPING

- FedEx, UPS and freight forwarding
- Competitive rates
- Same day shipping for in stock items

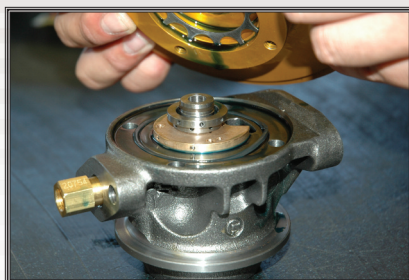


Call the Turbonetics Customer Service Department @ (805) 581-0333. Be prepared to provide the representative with the Warranty Registration Number. The Customer Service Representative will provide you with a RGA (Returned Goods Authorization) number, packing and shipping instruction. The RGA number must be clearly marked on the outside of the box and all accompanying documentation. Information regarding the failure or damage must also accompany the components, i.e., mileage, description of defect, point of purchase, etc. Any warranty requests sent to Turbonetics without a RGA number will be refused. The Customer (MWD/WD/End-user) is responsible for all freight charges. Please allow 10-15 business days for turn-around.

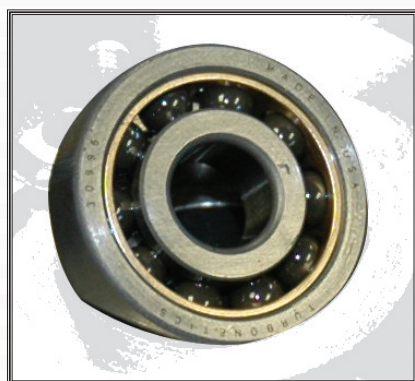
**Note:** Turbochargers that are sent in to Turbonetics under the warranty claim and under inspection the unit is found to have zero manufacturer defects, the customer will be subject to standard repair fees and shipping charges.



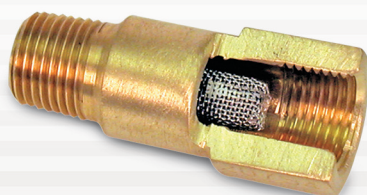
## BALL BEARING TECHNOLOGY



- 600% Greater Thrust Capacity
- 25% Faster Spool up
- Re-Buildable, Unlike Other Ball Bearing Designs
- Patented Ceramic Ball Bearings



**WITH PATENTED  
CERAMIC BALL BEARING  
TECHNOLOGY**



Every Turbonetics Turbocharger comes pre-installed with a special in-line oil filter to prolong your custom turbos life and protect it from oil debris damage. See page 51 for complete warranty details.

### CERAMIC BALL BEARING

#### WHAT MAKES THE TURBONETICS BALL BEARING SPECIAL?

Turbonetics offers a patented Angular-Contact Ceramic Ball Bearing design. This Turbonetics exclusive design is made with almost indestructible silicone-nitride ceramic balls.

A conventional unit has a capacity of 60-80

lbs. of dynamic thrust load. The patented

Turbonetics Angular-contact Ceramic Ball Bearing can withstand anywhere

from 1000 to 2200 lbs. of loading. The

“angular-contact” feature offers extreme

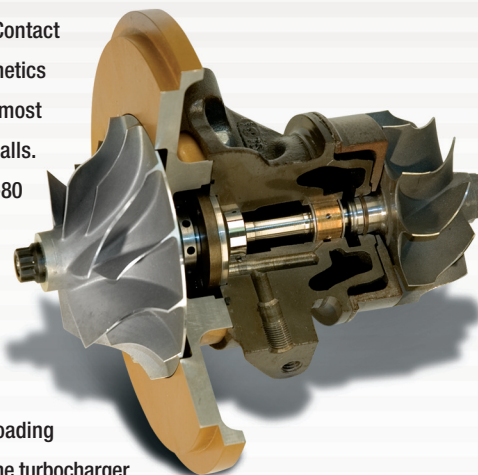
strength because it is used as the loading

surface. What does this mean? It means the turbocharger

will provide fantastic transient response and ultra-fast spooling. With Turbonetics Angular-Contact

Ceramic Ball Bearing units, you will build boost faster at the line, reach boost sooner in the RPM band

and maintain higher boost in between shifts.



#### COMPETITOR'S PRODUCT OFFERS A DUAL BALL BEARING SETUP.

##### ISN'T IT BETTER TO HAVE TWO BALL BEARINGS?

Let's talk about the real world performance and how Turbonetics Angular-Contact Ceramic Ball Bearing units survive the stress of high performance usage. Turbonetics uses a single ball bearing instead of

two – BY DESIGN! Through extensive computerized modeling and high speed rotor dynamic analysis,

the floating turbine-end bearing was found to be the very best way to absorb and dampen all of the

critical frequencies that are transmitted through the turbine shaft. The turbine-end bushing style

bearing acts as a shock absorber to prevent the destructive rotating imbalances from destroying the

turbocharger from the inside out.

#### ARE TURBONETICS UNITS RE-BUILDABLE?

Turbonetics design allows the unit to be rebuilt. Try finding a source that will totally rebuild a typical

“dual ball bearing” setup. You will get the same answer every time – “buy a new cartridge.”

#### WHY TURBONETICS?

Turbonetics products are built to withstand the rigors of competitive racing. Turbonetics exclusive

ceramic ball bearing design and W.A.V.E. intercooler cores are capable of running insane boost

pressures racers need to finish first.

Turbonetics exclusive No Fault / No Hassle warranty allows the customer to have a peace of mind that

Turbonetics stands behind its products and its customers.



## TURBOCHARGER BALANCING



### HEINS BALANCING

These machines are used to measure the amount of imbalance that the individual compressor wheels and turbine wheels have. It is virtually impossible to cast and machine a part in perfect balance but Turbonetics uses a special casting process called H.I.P. or Hot Isostatic Processing, as well as precision CNC lathes to machine our compressor wheels. H.I.P'ing allows us to reduce the porosity and strengthen the casting of our compressor wheels. Just like a tire must undergo testing to make sure that it can rotate properly at highway speeds, the turbos rotating parts must also be measured. However the tolerances are much stricter since turbochargers often spin in excess of 100,000 rpm and an improperly balanced wheel can quickly bring harm to the unit.

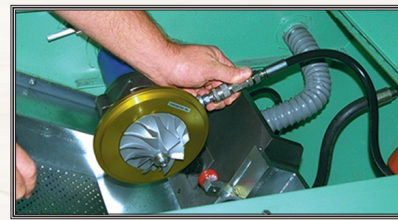
Each wheel is balanced on two different planes. Both the front and back of the compressor and turbine wheel are balanced down to the lowest possible amount with zero imbalance being the goal. Instead of adding lead like on a wheel and tire assembly, we use precision milling and grinding techniques to remove excess metal material from the nose and back of each wheel to bring the components into balance.

### VSR BALANCING

Typical turbochargers are assembled from components which are separately balanced using conventional low-speed, hard bearing balancing machines. At the turbine end, the balance is not affected by assembly into the cartridge, but at the compressor end, small errors in the wheel, the shaft, the thrust collar and the nose nut can cause an accumulation of balance error. At extreme speed, these accumulations can cause bearing failure, oiling issue and noisy operation.

Turbonetics units are assembled by certified technicians by correcting this imbalance by running the assembled cartridge at high-speed in a computerized VSR (Vibration Sorting Rig) balancing machine. The VSR machine allows the technician to measure the vibration response and either changing the assembly position or removing metal from the compressor wheel nut to achieve an acceptable balance. Think of this process as a "dyno for a turbocharger." The VSR machine is built specifically to test the rotational capabilities of the CHRA (Center Housing Rotating Assembly; turbocharger without end housings). This unique balancing procedure records the amount of imbalance and oil flow on a touch-screen monitor for correction.

Before the turbocharger is assembled and ready to be placed on the VSR, compressor and turbine wheels are balanced individually down to a quivering needle via Heins balancing procedure. A quivering needle is a term that refers to the compressor and turbine wheel balancing machine not being able to find a heavy spot on the wheel. Since the needle is constantly moving or quivering because it cannot locate a heavy spot.



Dedicated VSR technicians mount the CHRA on the machine with a simulated turbine housing. High-pressure compressed air stored in an industrial air accumulator is flowed across the turbine wheel of the CHRA. A special magneto pickup is used in conjunction with an accelerometer to determine the following:

- *Where the unit is out of balance*
- *How much imbalance the unit has*
- *What speed the shaft is rotating at*

Once the location of the imbalance is located, the technician removes microscopic amounts of metal material from the shaft nut securing the compressor wheel. Each and every Turbonetics units that leave our manufacturing facility is balanced to more than twice the typical OE quality standards; they are simply not good enough for Turbonetics. All Turbonetics units are ready to bolt on the minute they leave our building – guaranteed!

Assembled cartridges are issued a serial number only after successful completion of VSR balancing. The data is saved with its unique serial number. The final results are placed on the unit with a VSR tag. Trust Turbonetics to deliver the highest quality turbochargers available.





## COMPRESSOR WHEELS & TURBINE WHEELS

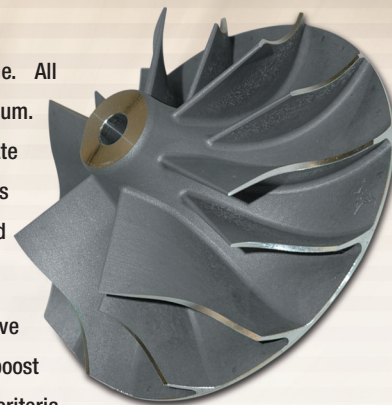


**HP Compressor Wheel**

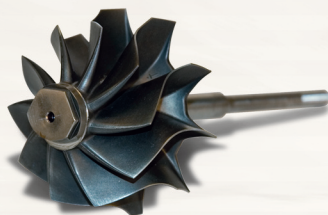
### COMPRESSOR WHEEL DESIGN

Compressor wheels deliver the dense pressurized air to the engine. All Turbonetics compressor wheels are made from 354 heat-treated aluminum. Computer aided design allows for new blade combinations to create maximum airflow efficiency and pressure. As racers and enthusiasts continue to strive for greater power, boost pressures are being raised and the compressor wheel design has to meet the demands.

Turbonetics HP-series compressor wheels (HP for High Pressure) have been created to allow for extremely high boost pressure and efficiency. Metal fatigue is a factor when high boost pressure is introduced. This is where Turbonetics HP-series compressor wheels meet and exceed the criteria. HP-series compressor wheels are manufactured using a proprietary and advanced casting procedure. The wheels then go through another Turbonetics exclusive of Hot Isostatic Processing (HIP). When compressor wheels are poured at the foundry, there may be small air bubbles that can be trapped in the wheel casting. With the HIP procedure, the wheel castings are heated to just below melting temperature of the aluminum and pressurized to force the porosity out of the casting. HP-series compressor wheels are much stronger than conventional wheels and also allow an easier balancing of the wheel due to much higher density.



**High Pressure Compressor Wheel provides maximum efficiency at high boost pressures.**

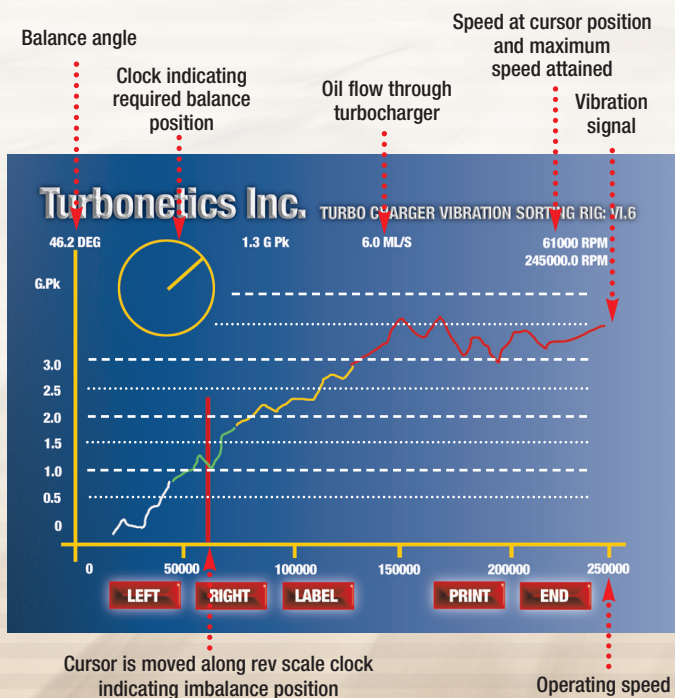


**F1 Turbine wheel provides unequalled exhaust flow while keeping backpressures low.**

### TURBINE WHEEL DESIGN

Turbine wheels harness the hot exhaust gas energy for the turbocharger. All Turbonetics turbine wheels utilize 713C inconel for manufacturing. 713C inconel, a nickel-based super alloy is much stronger and has a higher temperature threshold than most other turbine wheel materials. Turbonetics exclusive F1-series turbine wheels feature a new design with 10-bladed and tall tip height configuration to maximize the exhaust gas energy and keep backpressures low. Backpressure is the opposite of boost pressure. It is the pressure of the exhaust gas trying to get past the turbine wheel. When the backpressure is elevated it can prevent the turbocharger from continuing to make boost and deliver efficient air to the engine. The F1-series turbine wheels minimize backpressure to allow the most horsepower possible for a given wheel size.

### VSR HIGH SPEED BALANCING PROCESS



**Example of an out of balance turbocharger.**

### F1-SERIES TURBINE WHEELS\*

FAMILY	WHEEL	HORSEPOWER
T3	F1-49	325
T3	F1-54	400
T3	F1-57	475
T3 or T4	F1-62	550
T4	F1-65	750
T4	F1-68	1000

\*Wheel names also denotes turbine diameter in mm.



## TORQUE-MASTER INTRO

### TORQUE-MASTER DIESEL PERFORMANCE

Diesel Performance is the hottest and fastest growing aftermarket performance segment and Turbonetics has all the upgrades you need for your Ford, Chevy/GMC and Dodge. Having spent 30 years as the leader in turbocharging and intercooling high performance, we have designed the most aerodynamically efficient turbos and intercoolers possible for the new generation of diesel vehicles. Whether you are a serious tractor pulling competitor, a weekend warrior trying to make full pulls with your truck, or you just want more towing capacity and pulling performance in your daily driver or work truck, the Turbonetics Torque-Master Diesel Performance line is for you.

### SPEARCO INTERCOOLERS / TORQUE-MASTER

Spearco Intercoolers have been the leader in forced induction heat exchangers for over 25 years and this expertise has been applied to the Torque-Master lineup as well. Fabricated and assembled by certified welders, these intercoolers are nearly unbreakable, because that's what it takes to survive the boost pressures and tire-shaking forces at the top of the leader board. Built with the highest quality aluminum, exact measurements, double seam welded, and pressure tested to over 100 psi, Spearco Intercoolers are the strongest, most efficient intercoolers money can buy.



**TORQUE-MASTER WASTEGATE**  
PN 11232-1

### TORQUE-MASTER WASTEGATE

Due to the extreme demands of the diesel performance world, Turbonetics has developed the Torque-Master Wastegate. Tested with our Performance Pulling Team, this gate is able to control the high boost pressures needed to win. Utilizing proven technology from Turbonetics OEM diesel business, these new gates are built to survive anything you can throw their way. Look for more information on these new gates on our website at [www.TurboneticsInc.com](http://www.TurboneticsInc.com)



**ED KASPER**  
LLPS Puller

### SUPER STOCK

#### **SUPER STOCK 1400** PN# CALL FOR MATCH

Used in compound applications  
800-1400HP / 160+psi

#### **SUPER STOCK 1600** PN# CALL FOR MATCH

Used in compound applications  
1200-1600HP / 160+psi

#### **SUPER FARM** PN# 11138

Meets class rules 3" in / 3" out  
850-1150HP / 60+psi

#### **3x3.5** PN# 11164

Available with 1.39 & 1.23 A/R  
1200HP / 70+psi

#### **SUPER 106** PN# 11182

Available with 1.50 & 1.32 A/R  
2000+HP / 70+psi

*The turbos above are for diesel use only. Call for alcohol applications.*



Log onto the new Turbonetics site for turbocharger applications.



## TORQUE-MASTER FORD

### TORQUE-MASTER FORD

The Ford family of engines see fantastic gains from bolting on these turbo and intercooler upgrades. We recommend upgrading the intercooler first and then after you have taken care of the fuel

system needs, moving on to the turbocharger. Perfectly designed for towing, the Stage 1 turbo and intercooler bring both the 6.0L and 7.3L to life.

<b>7.3L POWERSTROKE</b>	<b>1999.5-2003</b>	<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-478	Upgrade Intercooler Kit	150° F average intake temp drop < 1 psi pressure drop Direct bolt-on
<b>TURBO STAGE 2</b>	11284	Pedestal Upgrade Kit Includes Up-pipes and all necessary hardware. *Does not include turbo	550-800 hp 1,000-1,200 ft. lb. 40-55 psi of boost Upgraded intercooler, injectors, trans. , fuel system and programmer with custom tune required
<b>RECOMMENDED TURBOS:</b> 11382-BB HP-66/ F1 68 .81 A/R 11384-BB HP-72/ F1 68 .81 A/R 11388-BB Super HP-76/ F1 68 .84 A/R	11266	Pedestal Upgrade Kit Includes Up-pipes, all boost tubes are sold individually *Does not include turbo	550-800 hp 1,000-1,200 ft. lb. 40-55 psi of boost Upgraded intercooler, injectors, trans. , fuel system and programmer with custom tune required
<b>6.0L POWERSTROKE</b>	<b>2003 - 2007</b>	<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-483	Upgrade Intercooler Kit	150° F average intake temp drop < 1 psi pressure drop Direct Bolt-On
<b>TURBO STAGE 1</b>	15180	Upgrade Turbo Kit T61 PS/F1 68/.58 Undiv./BB/3.5" V-Band	400-500 HP 600-700 ft./lbs. of torque 26-40 psi of boost Comes with Pedestal kit *Custom programmer/ tune required
<b>6.4L POWERSTROKE</b>	<b>2007-UP</b>	<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-488	Upgrade Intercooler Kit	150° F average intake temp drop < 1 psi pressure drop Direct Bolt-On



7.3L FORD INTERCOOLER

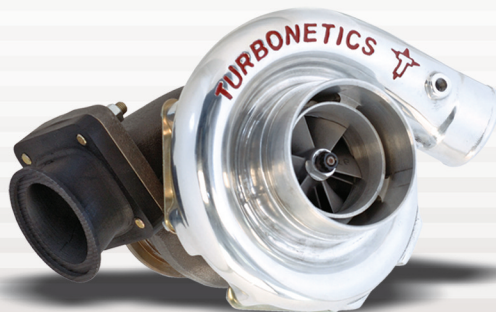


### BOLT-ON TURBO AND INTERCOOLER UPGRADES

Offered for both the 6.0L and 7.3L Ford powerplants, the Torque-Master bolt-on Stage 1 upgrades and high powered Stage 2 and Stage 3 are available for every power level you are looking for.



6.0L FORD INTERCOOLER



6.0L FORD TURBO UPGRADE



7.3L FORD STAGE 2 PEDESTAL



## TORQUE-MASTER DODGE

### TORQUE-MASTER DODGE

Torque-Master upgrades allow you to get the most towing and pulling potential out of your Dodge. The workhorse of the diesel world, the 5.9L Stage 1 bolt-ons allow you to tow higher capacities and still keep EGTs low, while the big power upgrades of Stages 2 & 3 mean you can finally pull 300 ft. with ease.



DODGE 5.9 STAGE 2 TURBO

DODGE 5.9L INTERCOOLER

12V CUMMINS	1994 - 1998	AUTO / MAN. TRANSMISSION	
INTERCOOLER	2-479	Upgrade Intercooler Kit	150° F average intake temp drop < 1 psi pressure drop Direct bolt-on
TURBO STAGE 1	15181	Upgrade Turbo Kit T58 PS/F1 65/.70 Div./BB/4" V-Band	250-400 HP 600-1100 ft./lbs. torque Great towing turbo Upgraded intercooler and fuel plate recommended
TURBO STAGE 2 STREET	11281	Upgrade Turbo Kit HP66 PS/F1 65/.84 Div./BB/4" V-Band	350-550 HP 800-1300 ft./lbs. torque Upgraded intercooler/injectors recommended Fuel plate modification required
TURBO STAGE 2 SLED PULLER	15182	Upgrade Turbo Kit HP66 PS/F1 68/.84 Div./BB/4" V-Band	550-650 HP 800-1300 ft./lbs. torque Upgraded intercooler recommended/required Performance sled pulling & performance street turbo for moderate towing use upgrade fuel system/programmer required
24V CUMMINS	1998.5- 2002	AUTO / MAN. TRANSMISSION	
INTERCOOLER	2-479	Upgrade Intercooler Kit	150° F average intake temp drop < 1 psi pressure drop Direct bolt-on
TURBO STAGE 1	15181	Upgrade Turbo Kit T58 PS/F1 65/.70 Div. /BB/4" V-Band	300-400 HP 600-1100 ft./lbs. torque 30-40 psi of boost Upgraded intercooler recommended, and programmer required
TURBO STAGE 2 STREET	11281	Upgrade Turbo Kit HP66 PS/F1 65/.84 Div./BB/4" V-Band	450-550 HP 800-1300 ft./lbs. torque 32-45 psi of boost Upgraded intercooler recommended, upgraded fuel system/programmer required Perfect for high performance street applications
TURBO STAGE 2 SLED PULLER	15182	Upgrade Turbo Kit HP66 PS/F1 68/.84 Div./BB/4" V-Band	550-650 HP 800-1300 ft./lbs. torque 32-45 psi of boost Upgraded intercooler recommended, upgraded fuel system/programmer required Great for moderate sled pulling purposes
24V CUMMINS - CRD	2003 - 2006	AUTO / MAN. TRANSMISSION	
INTERCOOLER	2-477	Upgrade Intercooler Kit	150° F average intake temp drop, < 1 psi pressure drop, direct bolt-on
TURBO STAGE 1	11280	Upgrade Turbo Kit T58 PS/F1 68/.84 Euro Div./BB/4" V-Band	350-450 HP 800-1100 ft./lbs. torque 30-40 psi of boost Perfect for towing Upgraded intercooler and programmer recommended
24V CUMMINS - CRD	2007	AUTO / MAN. TRANSMISSION	
INTERCOOLER	2-477	Upgrade Intercooler Kit	150° F average intake temp drop, < 1 psi pressure drop, direct bolt-on



## TORQUE-MASTER DURAMAX



DURAMAX INTERCOOLER, PEDESTAL & TURBO

### BOLT-ON INTERCOOLER & TURBO

The Duramax with Allison transmission show what a factory platform can produce and the Duramax Torque-Master line of products are designed and tested to run perfectly to tow harder, faster, and heavier. The bolt-on turbos and intercoolers increase boost, lower EGTs and make more power and torque.

### DURAMAX INTERCOOLER AND TURBO

An incredible factory engine and transmission deserve the best aftermarket parts available. The Torque-Master bolt-on parts for the Duramax allow you to see performance levels you want. Drop-in intercooler and turbo upgrades let you tow harder, faster and make the torque needed to move big payloads.

<b>6.6L DURAMAX - LB7 2001 - 2004 GMT-800</b>		<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-486	Upgrade Intercooler Kit	125° F average intake temp drop < 1 psi pressure drop Direct bolt-on
<b>TURBO STAGE 1</b>	11326	Pedestal Upgrade Kit	See website for latest details Comes with pedestal kit
<b>6.6L DURAMAX - LLY 2004 - 2006 GMT-800</b>		<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-486	Upgrade Intercooler Kit	125° F average intake temp drop < 1 psi pressure drop Direct bolt-on
<b>TURBO STAGE 1</b>	11326	Pedestal Upgrade Kit	See website for latest details Comes with pedestal kit
<b>6.6L DURAMAX - LBZ 2006 - 2007 GMT-800</b>		<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-486	Upgrade Intercooler Kit	125° F average intake temp drop < 1 psi pressure drop Direct bolt-on
<b>TURBO STAGE 1</b>	11326	Pedestal Upgrade Kit	See website for latest details Comes with pedestal kit
<b>6.6L DURAMAX - LMM 2007- GMT-900</b>		<b>AUTO / MAN. TRANSMISSION</b>	
<b>INTERCOOLER</b>	2-487	Upgrade Intercooler Kit	125° F average intake temp drop < 1 psi pressure drop Direct bolt-on
<b>TURBO STAGE 1</b>	11326	Pedestal Upgrade Kit	See website for latest details Comes with pedestal kit



## HOW TO CHOOSE A TURBO

### HOW TO CHOOSE AND SIZE A TURBOCHARGER

It's no longer necessary to use black magic or cast a voodoo spell to choose the right turbocharger. Turbonetics makes it easy! Each turbocharger section of the catalog features Turbonetics Preferred Performers based on the displacement and power. While there are many other variables to consider, our catalog will certainly get you started. We have over 125 years of forced induction sales and engineering expertise in our building to help you select the best possible combination of turbochargers and intercoolers. Feel free to contact Turbonetics and or any of our distributors, if you have questions. The dealer locator feature is available on-line at [WWW.TURBONETICSINC.COM](http://WWW.TURBONETICSINC.COM).

#### HERE ARE SOME THINGS TO CONSIDER:

##### POWER

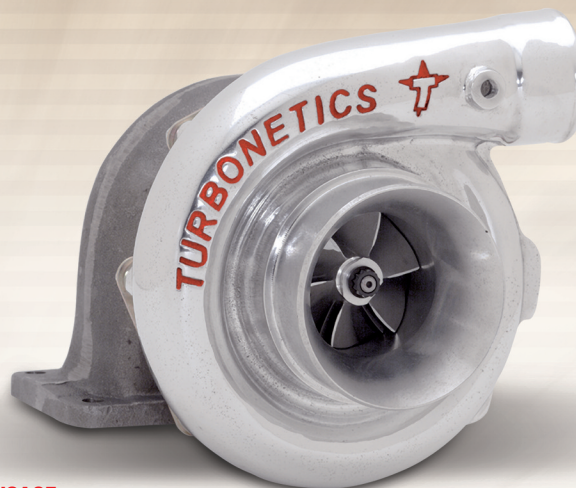
- Think in horsepower not boost.
- Boost is just a number that you will have to run on your engine to make a certain horsepower.
- How much power do you want to make? Be realistic, the more accurate that you are the better tuned your forced induction system will be.
- Can your vehicle (not just the engine, but the entire setup) handle such power?
- Remember the turbocharger is generally not the weakest link.
- Forged pistons, connecting rods, head studs, etc.
- "As much as possible" is not a goal.

##### INTENDED USAGE

- What are you using the vehicle for?
- Race or street use?
- The way that you will be using the vehicle dramatically changes the sizing of the turbocharger and intercooler needs.
- Your choice of transmission type and gearing will greatly affect the performance and characteristics of the turbocharger, keep this in mind.

##### PACKAGING

- Will the turbocharger(s) fit in your vehicles space constraints? Consider using differently sized compressor housings to more easily fit a given location.



### REMEMBER TO CHOOSE WISELY

Most street/autocross/drift enthusiasts will prefer a smaller turbocharger due to its fast response. A turbo system equipped with a smaller turbocharger is generally considered more fun to drive. The tradeoff is the final power output of the setup. On another note, dedicated track cars are aimed for peak power over boost response. There's no doubt track cars spend more time in the upper RPM than average street cars. So, a small sacrifice in boost response is offset by the huge power potential. Larger frame turbochargers are preferred by track car owners due to their maximum power capacity.

For most street applications the best solution for selecting turbine wheels and turbine housings, is to choose the smallest wheel diameter available that meets the horsepower level wanted. Turbine wheel HP limits are located on page 9. It is also important to remember that response/spool-up time is greatly affected by turbine wheel diameter and turbine housing A/R. The A/R sizing can be used as a tool to fine tune the response range in the RPM band. The smaller the A/R, the faster the turbocharger will be able to spool up from the increase in exhaust gas velocity entering the turbine housing. Backpressure has become a major tuning issue associated with high performance turbocharged engines and the turbine wheel and turbine housing A/R are both critical to maximizing the performance of the turbo system. Backpressure is the pressure that the exhaust gas generates trying to enter into the turbine housing inlet. If backpressure becomes too great (a 2:1 ratio), the exhaust gases can not escape the cylinder head and can possibly cause major tuning, performance and durability issues. It is important to try to keep the backpressure to boost pressure ratio as low as possible and should be no greater than 1.5:1 for best performance (Example: 15 psi of boost to 22.5 psi of backpressure).





## TRIMS A/R RATIO



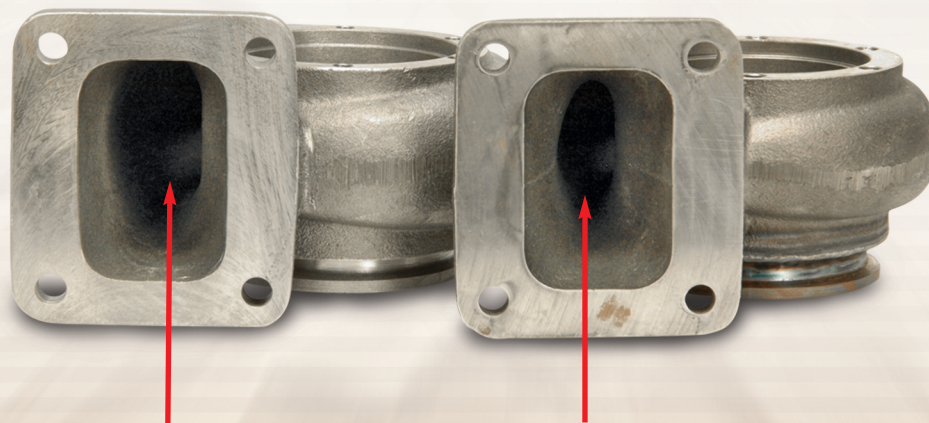
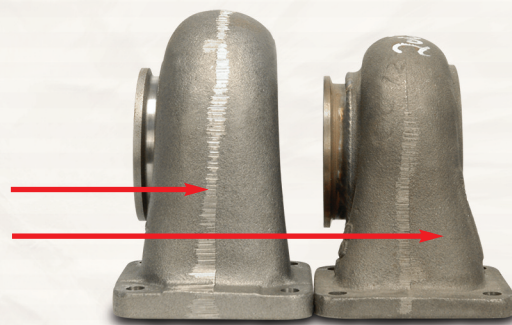
### WHAT YOU NEED TO KNOW

As the volume decreases in the volute of the housing, the exhaust gas is able to maintain velocity and a high energy level thus increasing turbine wheel speed. A small turbine housing A/R can also be a choke point with too small a size limiting the efficiency of the system by increasing backpressure and preventing total horsepower capability.

If the boost pressure to backpressure remains equal (1:1) the engine essentially thinks it is naturally aspirated. The boost pressure can continue to be turned up higher and higher until the backpressure climbs too high (above 1.75-2.0:1) or the strength limitations of the engines components are reached. Some backpressure can be a good thing for street/driving use as the pressure differential helps with turbine wheel speed and transient boost response. For racing applications it is critical to maximize the turbine housing as much as possible to keep backpressure low and efficiency high while still providing the necessary response time. There are no written rules to sizing turbine housings and as such professional recommendations and testing are often the best way to start.

### A/R RATIO

Let's say you have selected a Turbonetics turbocharger and have successfully installed it on your setup - you love the power it delivers but would like to improve low-end torque (or high-end power). It's an easy task with a large selection of Turbonetics turbine housing A/R options. Simply change to another A/R turbine housing and fine tune your setup! Utilizing a smaller A/R will amplify the exhaust gas energy to the turbine wheel. This will allow quicker spool up. However, this will reduce the maximum power potential on high RPM. On the other hand, a larger A/R will delay the delivery of the exhaust gas energy to the turbine wheel. This will allow high RPM power at expense of low-end torque. If you are having traction issues due to high power/boost in low RPM, a larger A/R turbine housing will help you to achieve the optimal power band. On another note, compressor housing A/R options are almost nonexistent as they are not critical for turbocharger performance.



*Notice how tight the throat of the volute is on the right turbine housing. The smaller A/R dramatically improves turbine response time.*



## HOW TO READ COMPRESSOR MAPS

Turbocharger systems are a complex combination of many different parts. From the turbo itself and intercooler to the fuel management system and the quality of the engine's internal components, a vehicle must have many different things just in the right order to run properly.

One of the most important aspects to a well designed turbo system is choosing the right compressor and turbine wheel correctly the first time. When the right wheels are selected you can be confident that the turbocharger is going to perform exactly as it should without complications from surging, excessive lag, or overspeeding. There are a few key mathematical formulas and general information points that you should be familiar with before choosing your wheels.

This section is intended to provide general turbocharger sizing information, not specific turbocharger-vehicle-engine solutions. Typical turbocharger matches are the result of engine dynamometer testing and installed vehicle performance evaluation. Often, compromises must be made to arrive at a match that yields satisfactory response and power.

Actual power produced by any gasoline-fueled engine is a function of how much air flows through the cylinder head and engine itself, regardless of whether it is naturally aspirated, supercharged or turbocharged. The best rule to gauge how much airflow an engine will need to make a certain amount of power is to use a factor of 10. This is based upon the rule that it generally takes 1 lb. of air to make 10 HP. Thus, if an engine makes 500 HP then it flows 50 lbs. of air per minute. It is also important to note that cubic feet per minute or cfm, is not a valid value to use in measuring air for turbochargers. Once a turbocharger has compressed air, the air has density. This density gives the air weight and must be measured in lbs./minute. The conversion formula from cfm to lbs./min. is to multiply or divide by 0.0691 depending upon the conversion direction. For example 500 HP or 50 lbs./min equals 723.59 cfm (50 / 0.0691) and 723.59 cfm equals 50 lbs./min. (723.59

x 0.0691). Keep this conversion in mind when selecting a compressor wheel, as this is a key point in selecting a compressor wheel for a turbocharger.

After the HP is converted to airflow in lbs./min., a compressor wheel selection can be made by matching the air flow plotted on the compressor map, with the associated pressure ratio. Pressure ratio is defined as absolute compressor discharge pressure P2, divided by the absolute inlet (ambient) pressure. For example: (boost pressure in psi + ambient pressure in psi; ie. 15 psi of boost + 14.7 psi (1 atmosphere) / 14.7 (1 atmosphere) = 2.02 pressure ratio. The pressure ratio, shown as P2/P1, is located on the left hand vertical axis of the compressor map. Select a compressor map where the air flow and the pressure ratio intersect at a flow rate where the plotted efficiency is no less than 65%-70% for a street application. There will

probably be more than one compressor which will satisfy your requirements – in this case, pick the compressor which has the LOWEST surge air flow limit at the selected pressure ratio – this will provide the widest range of performance at the boost pressure your vehicle will be operating at.

**“Actual power produced by any gasoline-fueled engine is a function of how much air flows through the cylinder head and engine itself, regardless of whether it is naturally aspirated, supercharged or turbocharged.”**

Turbine selection must also be considered for a successful turbocharger match. Most turbochargers described in this catalog are designed for use with an external wastegate or other device to bleed off excess exhaust energy when a desired boost is attained. TURBONETICS Inc. offers four different external gates matched for various HP outputs.

Turbine selection is a variable based on intended use, weight, and desired response. Turbine power available to drive the compressor wheel can vary in two ways: 1) The area to radius (A/R) ratio of the turbine housing can be changed to alter turbine inlet pressure; and 2) The turbine wheel trim can be specified to affect an increase or decrease in turbine pressure for a given turbine housing A/R (see page 15 for determining the proper A/R ratio and page 36-37 for various turbine housing selections).

**JORGE LAZCANO**  
6 Sec. / 200 MPH 350Z

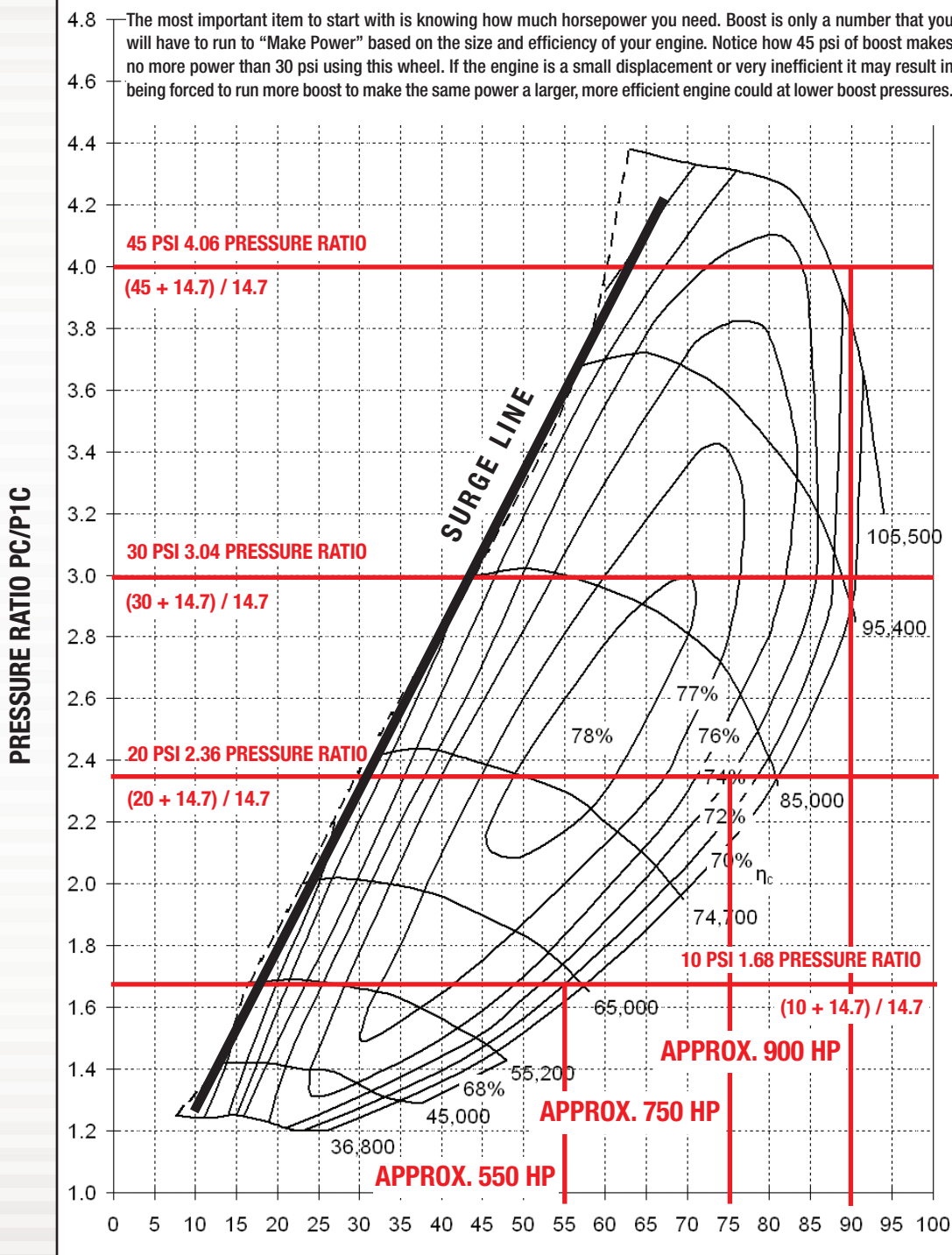




## HOW TO READ COMPRESSOR MAPS



# HP 76



$$\text{Corrected Mass Air Flow (LB/MIN)} = W \sqrt{T1c/545 / (P1c/28.4)}$$



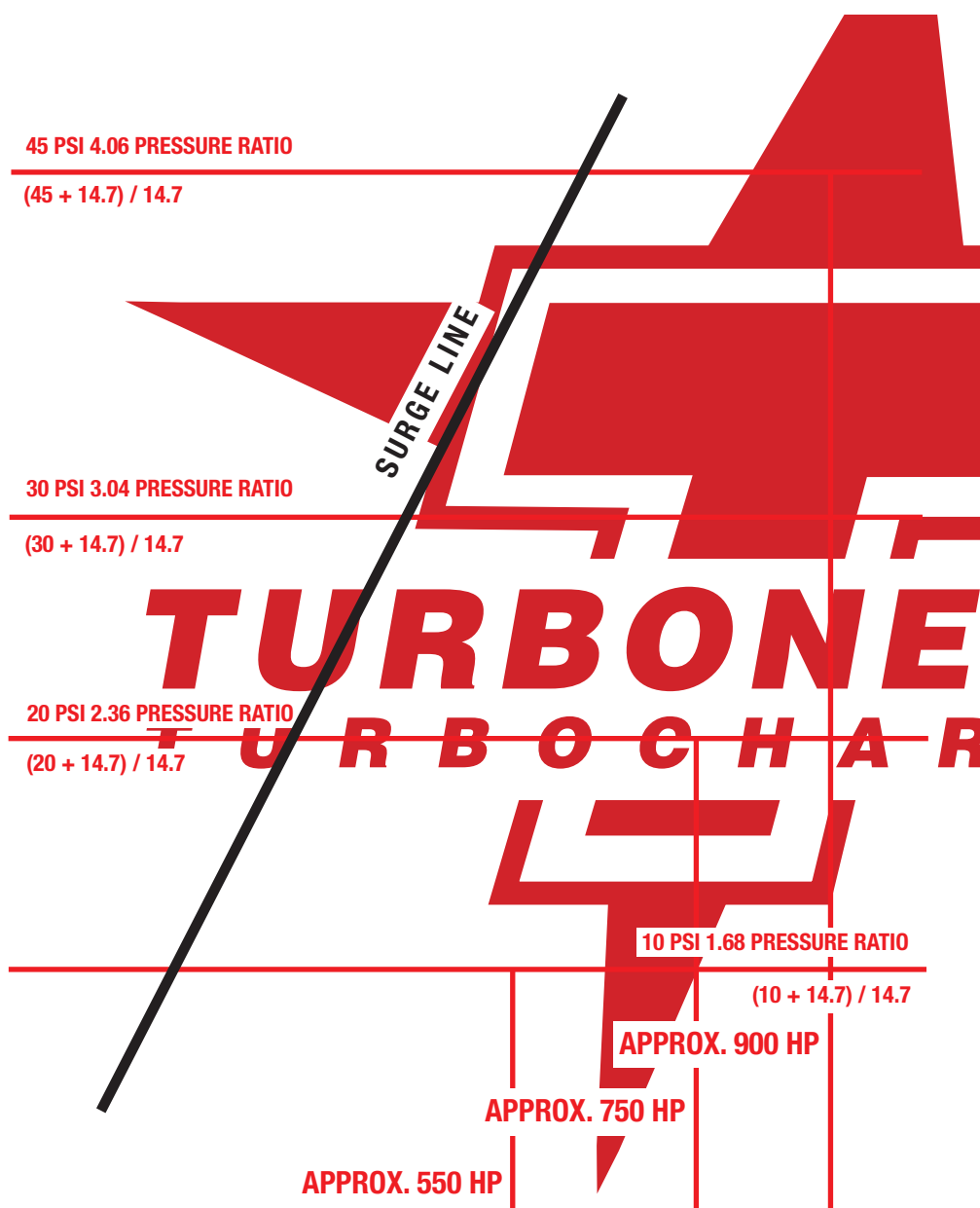
## HOW TO READ COMPRESSOR MAPS



### HP 76

The most important item to start with is knowing how much horsepower you need. Boost is only a number that you will have to run to "Make Power" based on the size and efficiency of your engine. Notice how 45 psi of boost makes no more power than 30 psi using this wheel. If the engine is a small displacement or very inefficient it may result in being forced to run more boost to make the same power a larger, more efficient engine could at lower boost pressures.

PRESSURE RATIO PC/P1C



$$\text{Corrected Mass Air Flow (LB/MIN)} = W \sqrt{T1c/545 / (P1c/28.4)}$$

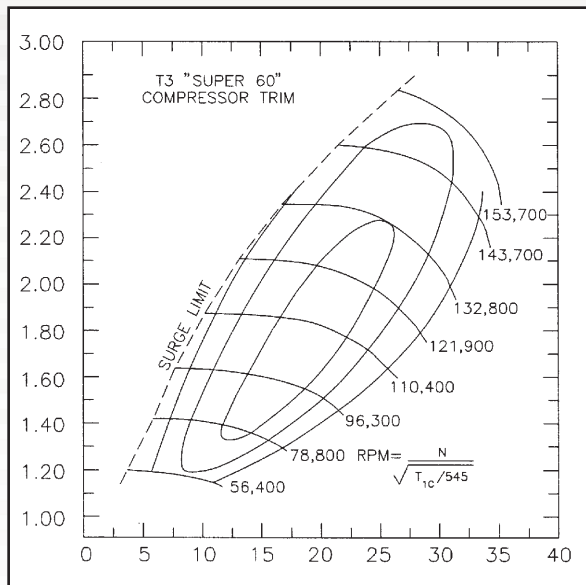


## COMPRESSOR MAPS



### T3-S60

PRESSURE RATIO PC/P1C

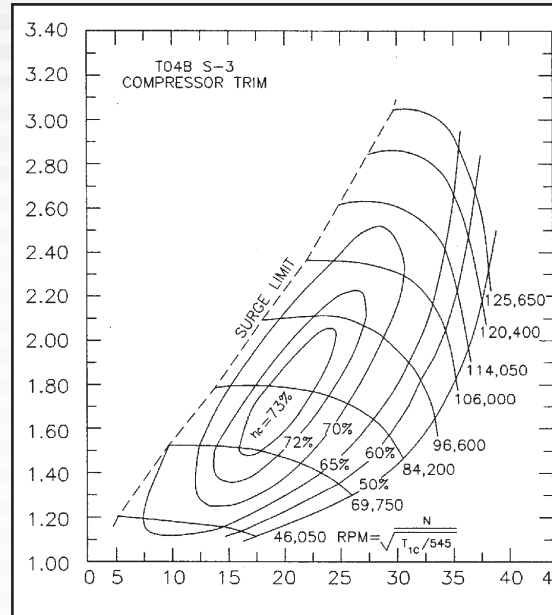


Corrected Mass Air Flow (LB/MIN) =  $W \sqrt{T_{1c}/545} / (P_{1c}/28.4)$



### T04B-S

PRESSURE RATIO PC/P1C

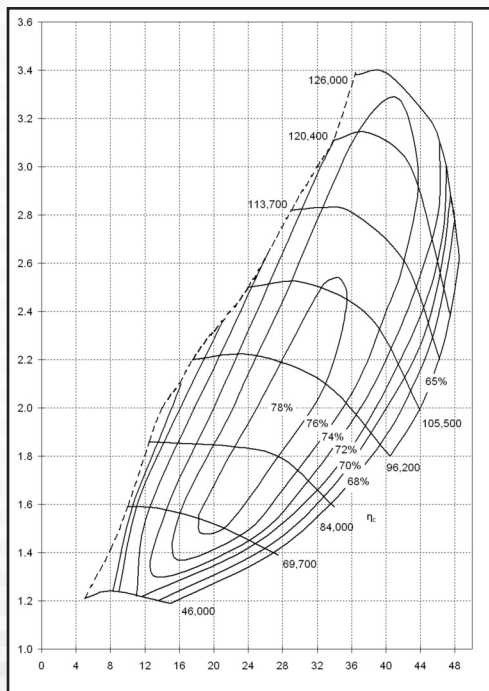


Corrected Mass Air Flow (LB/MIN) =  $W \sqrt{T_{1c}/545} / (P_{1c}/28.4)$



### T04E-50

PRESSURE RATIO PC/P1C

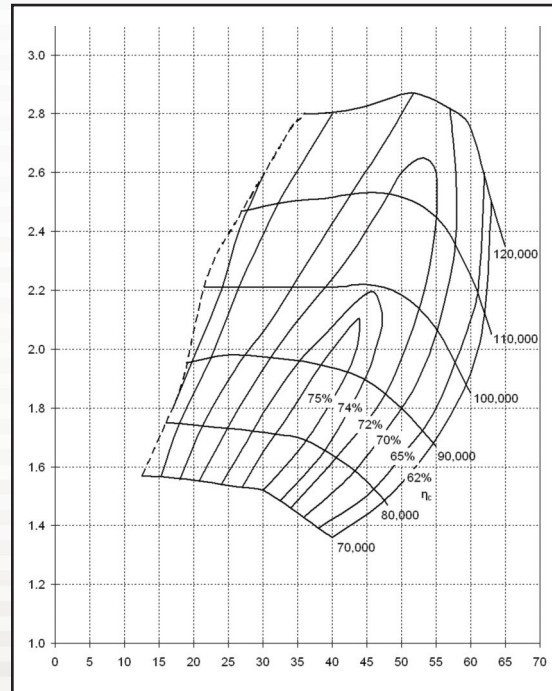


Corrected Mass Air Flow (LB/MIN) =  $W \sqrt{T_{1c}/545} / (P_{1c}/28.4)$



### T04B 60-1

PRESSURE RATIO PC/P1C

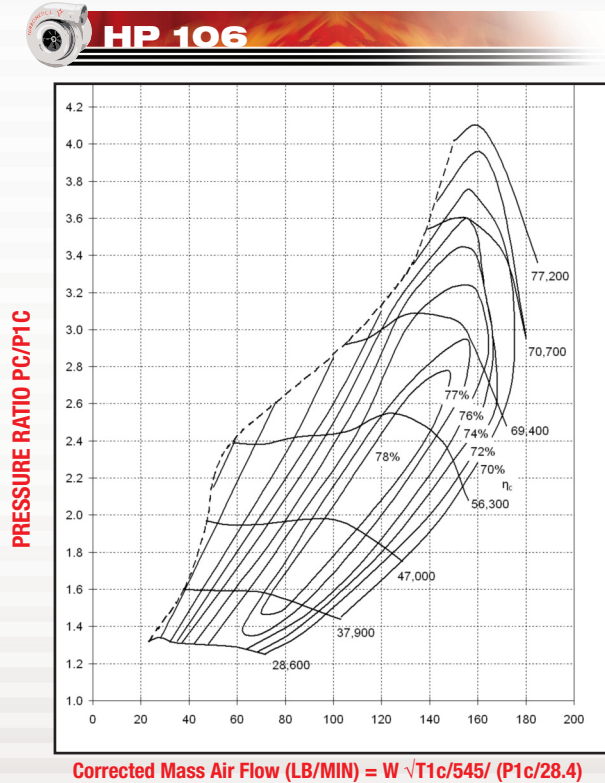
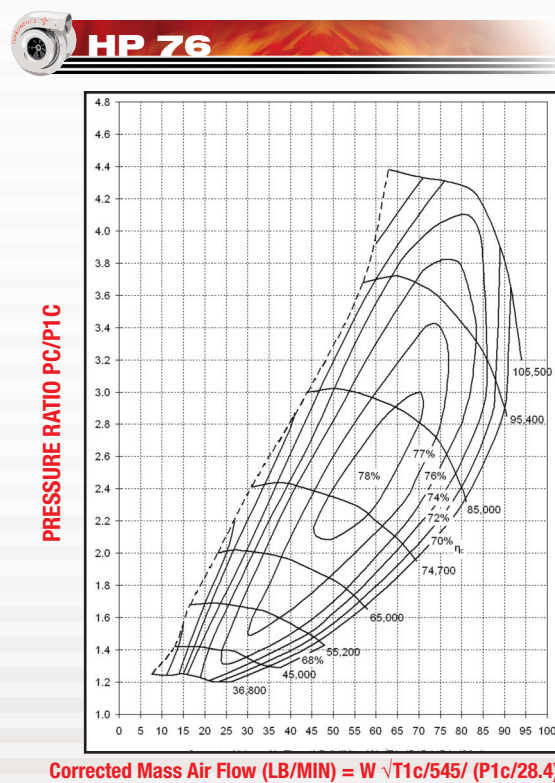
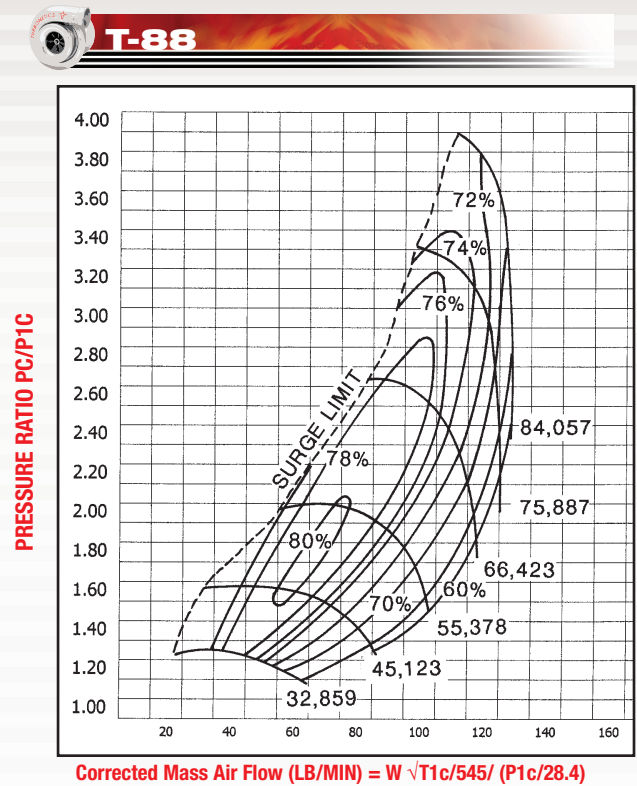
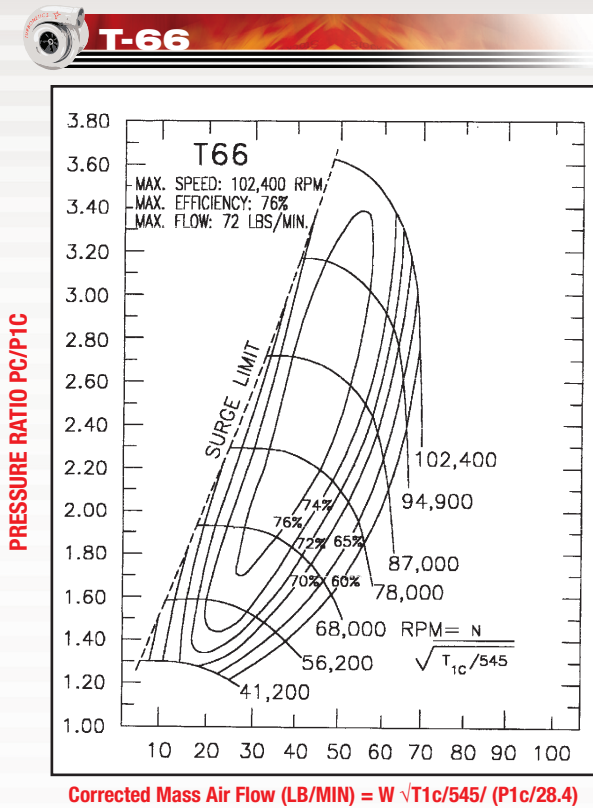


Corrected Mass Air Flow (LB/MIN) =  $W \sqrt{T_{1c}/545} / (P_{1c}/28.4)$

To view all of Turbonetics compressor maps, log on to [www.turboneticsinc.com](http://www.turboneticsinc.com)



# COMPRESSOR MAPS



To view all of Turbonetics compressor maps, log on to [www.turboneticsinc.com](http://www.turboneticsinc.com)



## GT-K TURBOS

### TURBONETICS GT-K TURBOCHARGERS

These turbo units feature special Map Enhancement Porting to allow the compressor wheel to operate at its maximum efficiency across a very broad RPM range. This design has precisely placed slots machined into the compressor housing to limit the effects of surge, as well and provides additional air flow to make maximum horsepower at high boost pressure levels and across the entire RPM range.

Aerodynamics is what separates the GT-K turbo line from the competition. Equipped with the latest HP Compressor Wheels, designed to maximize efficiency at high boost pressures, and the F1 turbine wheel, created to capture the maximum exhaust gas energy and reduce backpressures, the GT-K family of turbos delivers unequalled performance.

When paired with the Map Enhancement Porting of the GT-K compressor housings, these wheels flow huge volumes of air at high pressure ratios while still delivering a cool efficient intake charge.



# GT-K

BY TURBONETICS

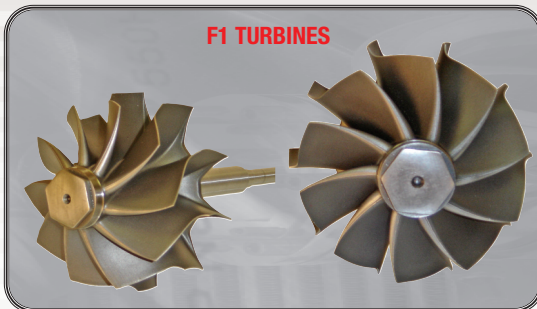
Aerodynamics is what separates the GT-K turbo line from the competition.

	HP Series Compressor Wheels	Compressor Housing Inlet / Outlet	F1 Series Turbine Wheels	Turbine Housing Style	Turbine Housing Inlet / Outlet	P/N Standard	P/N Water-Cooled
GT-K 325	HP E-46	3.5" / 2.0"	F1-54	T3 0.48 A/R	4-bolt / 4-bolt	11257	11475
GT-K 350	HP E-50	3.5" / 2.0"	F1-54	T3 0.63 A/R	4-bolt / 4-bolt	11258	11476
GT-K 450	HP E-60	3.5" / 2.0"	F1-57	T3 0.63 A/R	4-bolt / 4-bolt	11259	11477
GT-K 500	HP-61	4.0" / 2.5"	F1-57	T3 0.63 A/R	4-bolt / 4-bolt	11260	11478
GT-K 550	HP-61	4.0" / 2.5"	F1-62	T3 0.82 A/R	4-bolt / 4-bolt	11261	11479
GT-K 650	HP-66	4.0" / 2.5"	F1-65	T4 0.68 A/R	4-bolt / 3" V-band	11262	11480
GT-K 850	HP-72	4.0" / 2.5"	F1-68	T4 0.81 A/R	4-bolt / 4" V-band	11263	11481
GT-K 1000	HP-76	4.0" / 2.5"	F1-68	T4 0.96 A/R	4-bolt / 4" V-band	11264	11482



## T3 TURBOS

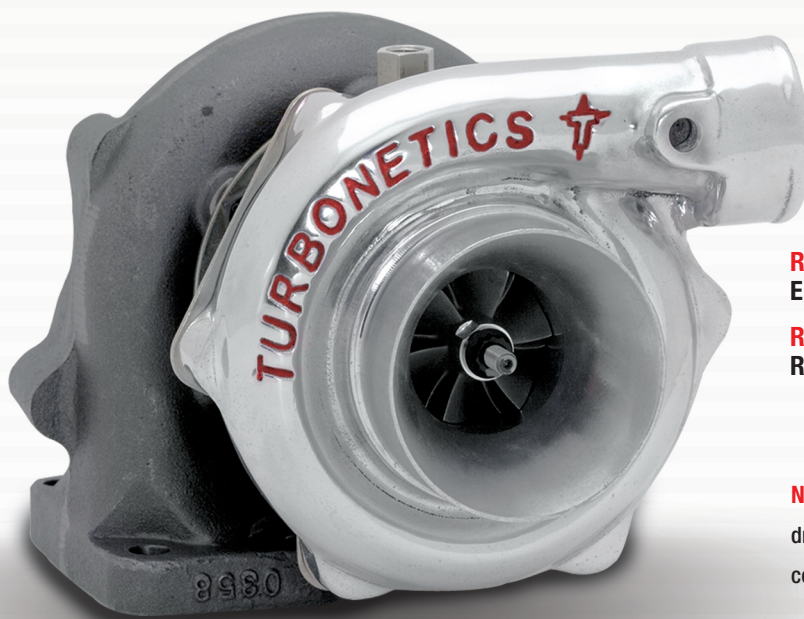
### F1 TURBINES



### T3 PERFORMANCE TURBOCHARGERS

The T3 is the smallest family of turbochargers that Turbonetics offers. Perfectly sized for applications under 2 liters, the T3 line-up starts with the 150 HP 35 trim wheel and goes up to the 325 HP Super 60. T3 compressor wheels are efficient up to 22 psi. The T3 Series gives you the choice of wet or dry bearing housing. "Blueprinted" assembly is standard. The basic unit does not include a wastegate. For specific application recommendations, contact a Turbonetics Turbo Specialist.

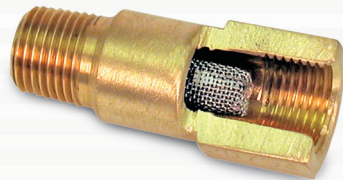
All T3 Turbine Wheels come in "Big Shaft" an industry first. The only way to have peace of mind at high boost pressures.



**RECOMMENDED WASTEGATE:**  
EVOLUTION

**RECOMMENDED BLOW-OFF VALVE:**  
RAPTOR

**NOTE:** When ordering, please specify wet or dry bearing housing, dynamic or carbon seal, compressor trim, turbine trim and A/R.



### OIL FILTER

Every Turbonetics Turbocharger comes pre-installed with a special in-line oil filter to prolong your custom turbo's life and protect it from oil debris damage.

### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
11039-BB	T3 50 / F1-49 .48 A/R	250
11038-BB	T3 60 / F1-49 .48 A/R	275
11036-BB	T3 Super 60 / F1-49 .48 A/R	325

HP  
RATING  
2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100





## T3/T4 HYBRID TURBOS

### T3/T4 HYBRID TURBOCHARGERS

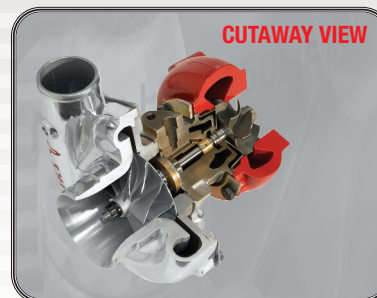
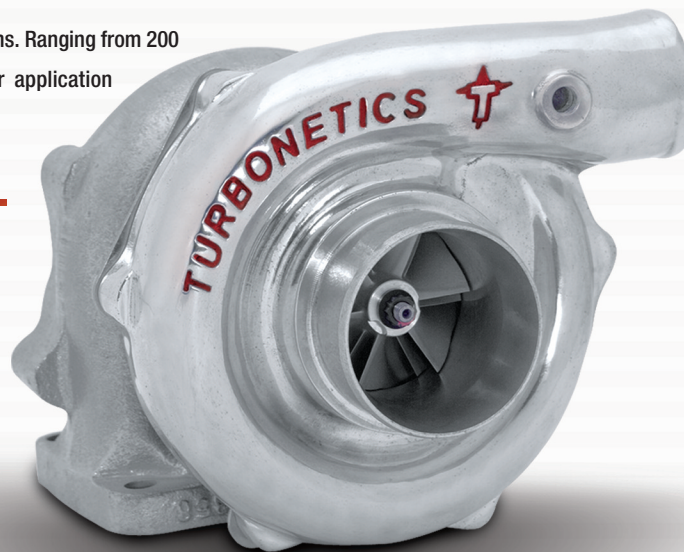
The T3/T4 Hybrid turbochargers consist of a T3 turbine section, (F1-49, F1-54, F1-57, F1-62) and a T4 compressor section (T04B trim, T04E trim & 60-Series). This combination offers the low inertia and fast boost response of the lightweight T3 turbine wheel and the high-airflow characteristics of the T4 compressor family.

All T3/T4 Hybrid Turbochargers are available with the patented Ceramic Ball-Bearing option highlighted on page 7. The Ceramic Ball Bearing T3/T4 Hybrid series offers the fastest spool-up available. Coupled with extreme durability, the Ceramic Ball-Bearing concept provides the best available performance available in the turbocharging aftermarket.

All T3/T4 Hybrids are custom matched for specific applications. Ranging from 200 HP to 600 HP. Contact a Turbonetics Turbo Specialist for application assistance and availability.

### SUPER SERIES COMPRESSOR WHEELS

The Turbonetics T04B & T04E Super Series Wheels are larger in major diameter than standard wheels, resulting in faster boost response at lower engine and turbo speeds.



All Turbonetics turbos are covered by our exclusive 1 year No Fault/No Hassle warranty.

**HP  
RATING**

2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100

**RECOMMENDED WASTEGATE:  
EVOLUTION**

**RECOMMENDED BLOW-OFF VALVE:  
RAPTOR**

### T3/T4 HYBRID TURBOCHARGERS

T3/T4B Performance Turbocharger Assembly
T3/T4B Performance Turbocharger Assembly with Ball Bearing Option
T3/T4E Performance Turbocharger Assembly
T3/T4E Performance Turbocharger Assembly with Ball Bearing Option
T3/60-1 Performance Turbocharger Assembly
T3/60-1 Performance Turbocharger Assembly with Ball Bearing Option
T3/60-1 Hi-Fi Performance Turbocharger Assembly
T3/60-1 Hi-Fi Performance Turbocharger Assembly with Ball Bearing Option

### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
10846-BB	Super S / F1-57 .48 A/R	350
10845-BB	Super V / F1-54 .48 A/R	400
10847-BB	Super H / F1-57 .48 A/R	450
10848-BB	Super H / F1-57 .63 A/R	450
11034-BB	T04E-46 / F1-57 .63 A/R	375
11019-BB	T04E-50 / F1-57 .48 A/R	450
11022-BB	T04E-50 / F1-57 .63 A/R 16mm Wet	450
11077-BB	T04E-60 / F1-57 .63 A/R	500
11015-BB	T04E-60 / F1-62 .63 A/R	500

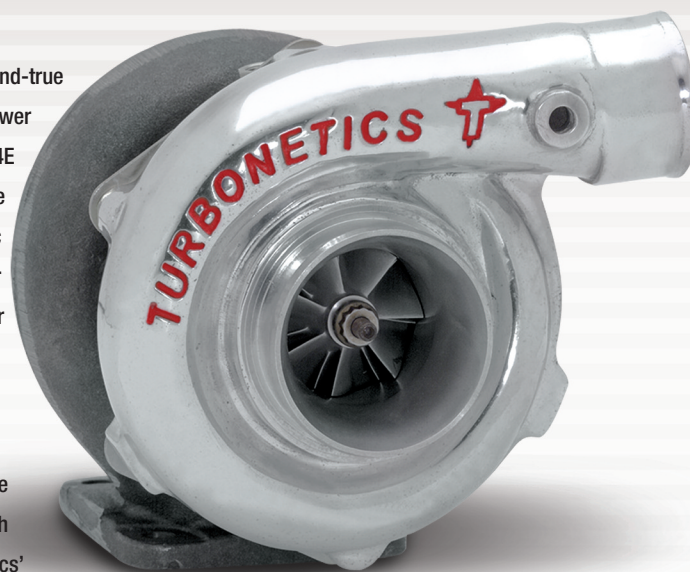




## T04B & T04E SERIES TURBOS

### T04E

Looking for more power? Search no more. The tried-and-true combination of T04E series allows you to achieve big power while retaining compact packaging. Turbonetics T04E compressor wheels are extremely effective on high pressure applications. Match it with Turbonetics Patented Ceramic Ball Bearing and you get a monster result! With its larger compressor housing (compared to T04B) and 3" compressor inlet, T04E is able to deliver the power you desire.



Big Shaft Standard On All T04B, T04E & 60 Series Turbos

### T04B

The T04B series turbochargers are one of the most versatile units available to the performance aftermarket. High compressor efficiency, strict quality standards, Turbonetics' exclusive "blueprinted" assembly process and competitive pricing makes the T04B the obvious choice for many applications.

Available in a wide range of compressor and turbine combinations, the T04B series can support power levels from 300-500 HP for single turbo applications and up to 1000 HP for twin turbo applications. T04B's compact housing with 2.75" inlet (compared to T04E's 3.00" inlet) makes it extremely attractive for twin turbo applications and where packaging is critical.

**RECOMMENDED WASTEGATE:  
EVOLUTION**

**RECOMMENDED BLOW-OFF VALVE:  
RAPTOR**



### THRUST BEARING

All Turbonetics non Ball Bearing turbochargers feature a 360° bronze thrust bearing instead of a weaker 270° bearing. Our 360° are able to withstand higher boost pressures than conventional units.

### T04B AND T04E TURBO OPTIONS

- All T04B and T04E turbochargers are available with dynamic or carbon sealing and dry or wet bearing housings (specify when ordering).
- Standard configuration includes on-center or tangential turbine housing.
- Compressor maps are located on our website.
- T04B/T04E turbochargers are also available with Turbonetics' exclusive patented Ceramic Ball-Bearing option.

### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
11109-BB	Super V / F1-62 .58 A/R O.C.	400
11014-BB	Super H / F1-62 .58 A/R Tang	450
11012-BB	Super H / F1-62 .68 A/R	475
11172	T04E-57 / F1-65 .68 A/R Tang	475
11302	T04E-57 / F1-68 .81 A/R Tang	475
11013-BB	T04E-60 / F1-62 .58 A/R Tang	500
11236	T04E-60 / F1-68 .81 A/R	500

HP  
RATING

2500

2400

2300

2200

2100

2000

1900

1800

1700

1600

1500

1400

1300

1200

1100

1000

900

800

700

600

500

400

300

200

100





## 60 SERIES TURBOS

### THE 60-1 PERFORMANCE TURBOCHARGER

These turbochargers are some of the most versatile units made because of the unique marriage of air flow and packaging size. Best suited to be used in applications under 22 psi, the 60-1 and 62-1 will comfortably make 425-625 HP and still respond well in street use. The dedicated compressor housing features a 4" inlet and 2.5" discharge but is significantly smaller than the T-Series. Even smaller still is the 60-1 Hi-Fi which will flow approximately 90% less air than the full-size model but resides in a compact 2.75" inlet and 2" discharge. The Hi-Fi version should be used only if space is a concern.



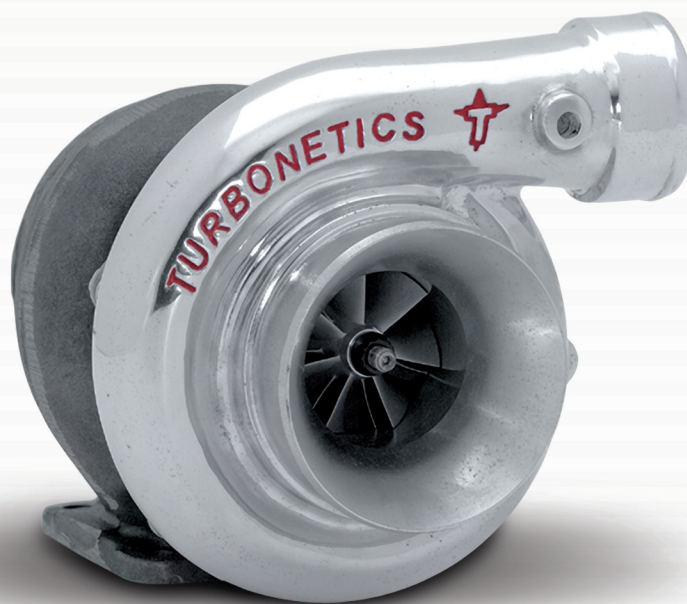
**RECOMMENDED WASTEGATE:**  
RG-45

**RECOMMENDED BLOW-OFF VALVE:**  
GODZILLA

### 62-1 SERIES TURBOS

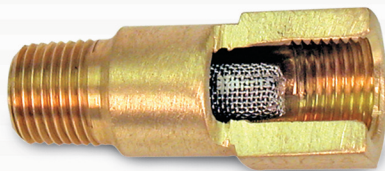
62-1 Turbo Assembly

62-1 Turbo Assembly W/Ball Bearing Option



#### PRODUCT WARRANTY

All Turbonetics turbos are covered by our exclusive 1 year No Fault / No Hassle warranty.



### TURBONETICS TURBOS

Every Turbonetics Turbocharger comes pre-installed with a special in-line oil filter to prolong your custom turbo's life and protect it from oil debris damage.

Log onto the new Turbonetics site to download the latest product information.

#### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
11007-BB	60-1 Full Size / F1-62 .58 A/R Tang	550
10997-BB	60-1 Full Size / F1-65 .81 A/R Tang	550
10998-BB	62-1 Full Size / F1-65 .68 A/R Tang	650

**HP RATING**  
2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100





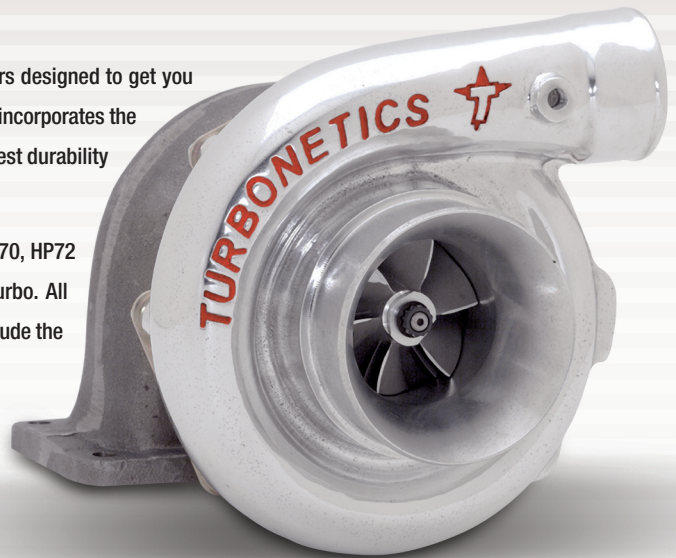
## T-SERIES TURBOS

### THE T-SERIES

Turbonetics offers custom-matched and custom-built turbochargers designed to get you across the finish line first! Designated the T-Series, this turbo family incorporates the latest "state-of-the-art" turbocharger aerodynamics and the toughest durability available to the maximum performance engine builder.

With a wide range of flow capacities (HP58, HP61, HP64, HP66, HP70, HP72 and HP76) capable of supporting 500 to 950 HP with a single turbo. All T-Series turbos are custom built to your specific application and include the Turbonetics Big Shaft components. Dynamic seal is standard.

T-Series turbochargers are matched with Turbonetics F1 Turbine Wheels from 550 HP 62mm and 700 HP 65mm to the 950 HP 68mm.



#### HP RATING

2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100

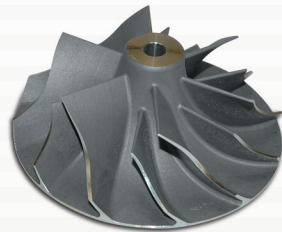
### T-SERIES TURBO OPTIONS

- Featuring the "HP" (High Pressure) compressor wheel, specifically designed for max power at over 30psi.
- Our F1 68 trim turbine wheels, a 10 blade high-flow, 713 C inconel turbine design, have replaced the Q trim.

Contact a **TURBONETICS Turbo specialist** for a computer generated analysis of your application and get the turbo that will put you in the "Winner's Circle!"

**RECOMMENDED WASTEGATE:**  
NEW GEN

**RECOMMENDED BLOW-OFF VALVE:**  
GODZILLA



### HP COMPRESSOR WHEEL

(High Pressure) compressor wheel, specifically designed for max power at over 30psi.

### TURBONETICS TOP PERFORMERS

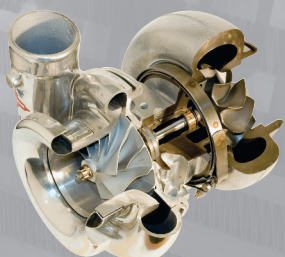
PN	DESC.	HP
10991-BB	HP-58 / F1-62 .68 A/R Tang	550
10981-BB	HP-66 / F1-68 .96 A/R Tang	725
10975-BB	HP-70 / F1-68 .81 A/R Tang	800
10977-BB	HP-72 / F1-65 .68 A/R Tang	850
11384-BB	HP-72 / F1-68 .81 A/R Tang	850
11299-BB	HP-76 / F1-68 .81 A/R Tang	950
11298-BB	HP-76 / F1-68 .96 A/R Tang	950





## SUPER T-SERIES TURBOS

CUTAWAY VIEW



### SUPER T-SERIES TURBO OPTIONS

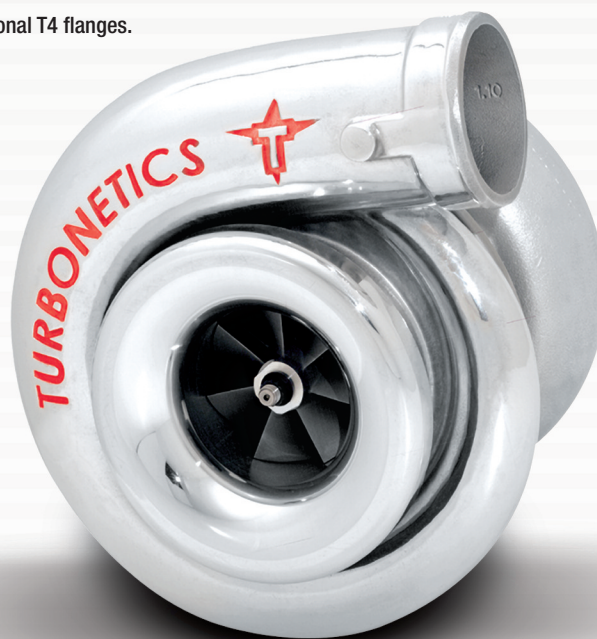
- 4" V-Bands Standard on all Super T-Series Turbochargers.
- Featuring the all new "HP" (High Pressure) compressor wheel, specifically designed for max power at over 30psi.
- All units come with F1-68 trim turbine wheels, a 10 blade high-flow, 713 C Inconel turbine design.

**RECOMMENDED WASTEGATE:**  
NEWGEN HP

**RECOMMENDED BLOW-OFF VALVE:**  
GODZILLA

### SUPER T-SERIES

Our Super T-Series is for the highest performing street or race cars and those needing that extra efficiency edge. Ideal for high boost pressures 25+ psi and from 700-1000HP, these turbos provide the most power possible in the T4 family. Available standard with Turbonetics' signature ASME Bell inlet, this line of turbos combines the highest efficiency compressor wheels and housings specifically designed for your application. These units also feature our F1 68mm, a 10-bladed, high flow Inconel turbine wheel. Fits traditional T4 flanges.



Log onto the new Turbonetics site for detailed compressor maps.

#### HP RATING

2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100

1000  
900  
800  
700  
600  
500  
400  
300  
200  
100



### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
10970	HP-72 / F1-68 .68 A/R Tang	850
10968	HP-72 / F1-68 .81 A/R Tang	850
10966	HP-72 / F1-68 .96 A/R Tang	850
10964	HP-76 / F1-68 .68 A/R Tang	1000
10963	HP-76 / F1-68 .81 A/R Tang	1000
10962	HP-76 / F1-68 .96 A/R Tang	1000



### F1 TURBINE WHEEL

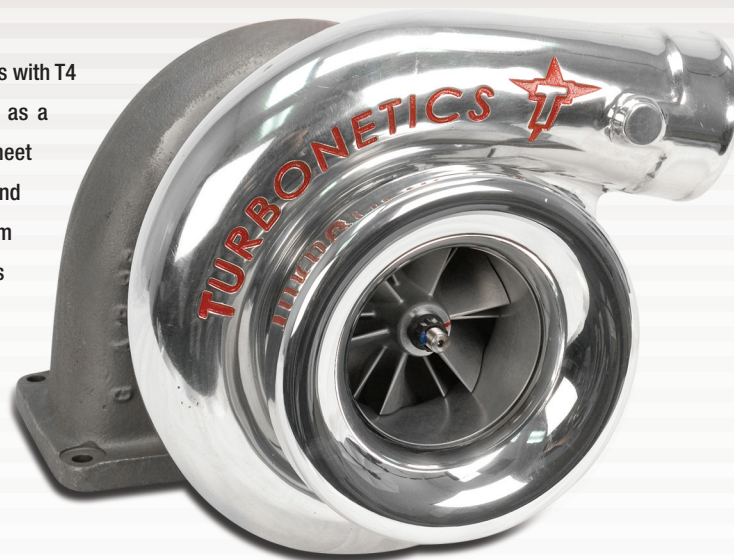
Made from 713C Inconel, a nickel based super alloy, these 10 bladed, tall tip, turbine wheels withstand extremely high temperatures while flowing large amounts of exhaust gas.



## MID-FRAME TURBOS

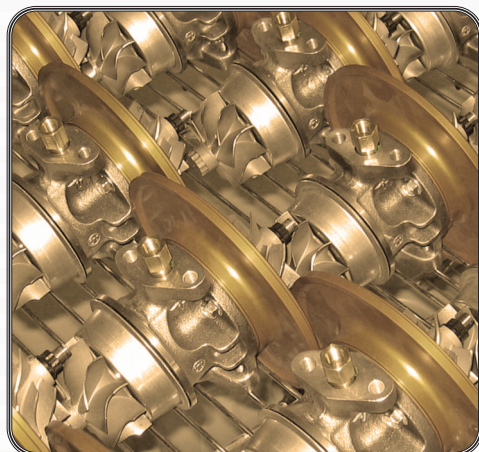
### F1 MID-FRAME TURBO

Mid-frame turbochargers are the absolute largest units with T4 flange! Featuring Turbonetics Ceramic Ball Bearing as a standard equipment, Mid-frame turbochargers will meet and exceed the needs of high horsepower racers and crazy street applications! Sharing a bearing system similar to the Y2K series, Mid-frame units ensures extreme durability and robust performance. 4" V-band discharge standard. HP-series 72mm, 76mm and 82mm compressor wheels are available for Mid-frame units.



**RECOMMENDED WASTEGATE:**  
NEWGEN HP

**RECOMMENDED BLOW-OFF VALVE:**  
GODZILLA



*Mid-frame CHRA's ready for production.*

### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
11273	Mid-frame HP-72 1.14 A/R	900
11136	Mid-frame HP-76 1.14 A/R	1000
11138	Mid-frame HP-76 1.27 A/R	1000
11274	Mid-frame HP-78 1.14 A/R	1100
11275	Mid-frame HP-78 1.27 A/R	1100

**HP  
RATING**  
2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100



**JESSICA BARTON'S**  
*9 Sec. Supra*





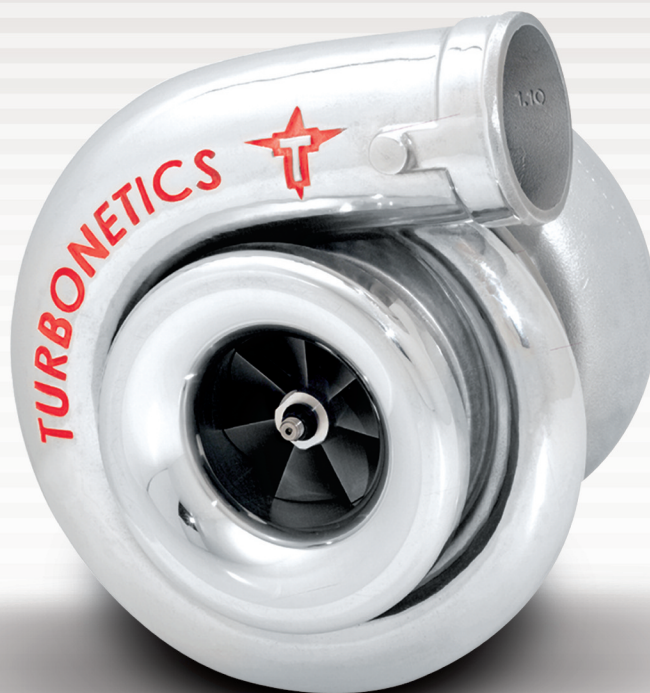
## Y2K TURBOS

### Y2K SERIES TURBOS

Y2K Series Turbochargers are a durable mid-sized frame turbocharger capable of supporting up to 1,200 horsepower from a single turbocharger application. They work great in twin turbo 2,000 + horsepower applications. Ceramic Ball Bearing only.

**RECOMMENDED WASTEGATE:**  
NEWGEN HP

**RECOMMENDED BLOW-OFF VALVE:**  
GODZILLA



**HP  
RATING**

2500

2400

2300

2200

2100

2000

1900

1800

1700

1600

1500

1400

1300

1200

1100

1000

900

800

700

600

500

400

300

200

100



### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
10860	HP-80 / F1-89 .96 A/R	1250
10861	HP-88 / F1-89 .96 A/R	1450
11165	HP-88 / F1-89 1.23 A/R	1450
11166	HP-88 / F1-89 1.39 A/R	1450
11092	HP-88 / F1-101 1.23 A/R	1450

4" V-Bands Standard on ALL Super T-Series Turbochargers.

Featuring the ALL NEW "HP" (High Pressure) compressor wheel, specifically designed for max power at over 30psi.

All units come with F1 S trim turbine wheels, a 10 blade high-flow, 713 C Inconel turbine design.



**ALEX "BOOM-BOOM" VISCARDI**  
Outlaw Mustang

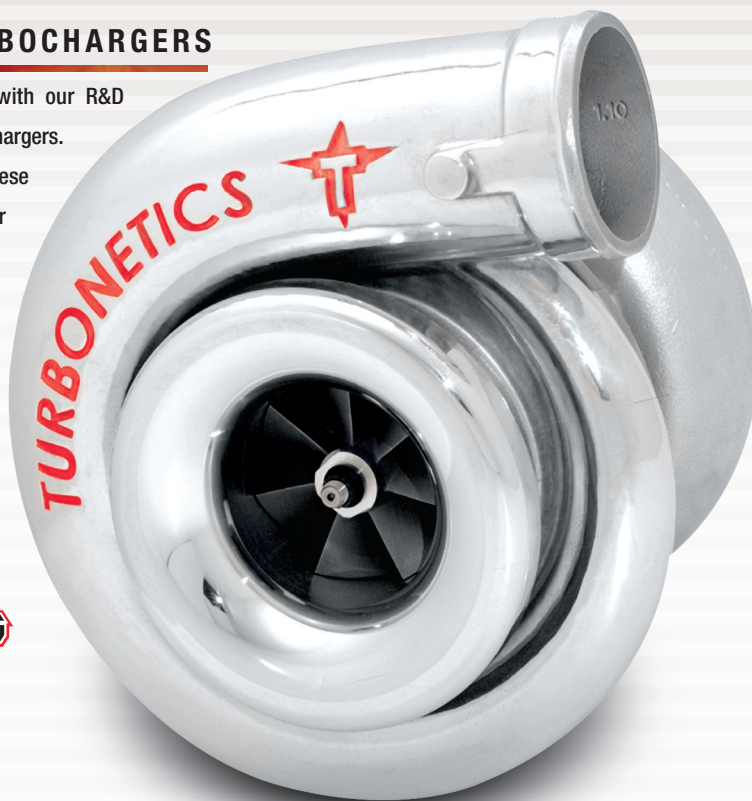


## SUPER THUMPER TURBOS

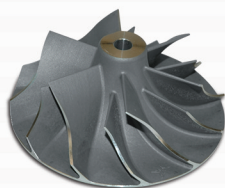
### SUPER THUMPER SERIES TURBOCHARGERS

Whoever said "size doesn't matter" did not work with our R&D department to develop the Super Thumper line of turbochargers.

Sized from 91mm all the way up to our 115mm model, these turbos are meant to move massive amounts of air for huge horsepower. Rated to make 1400 HP starting with the 91mm all the way up to 2400HP with the 115mm, this family of turbos comes standard with Turbonetics Ceramic Ball Bearing option and huge 7/16" shaft size for maximum durability. Stay tuned for the brand new 122mm model, currently under development with our Race Support teams, to be released in 2009.



WITH PATENTED  
**CERAMIC BALL BEARING**  
TECHNOLOGY



#### HP COMPRESSOR WHEEL

(High Pressure) compressor wheel, specifically designed for max power at over 30psi.



#### F1 TURBINE WHEEL

Designed to make more boost and less back pressure so you can make more horsepower.

**RECOMMENDED WASTEGATE:**  
NEWGEN HP

**RECOMMENDED BLOW-OFF VALVE:**  
GODZILLA

### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
11180	HP-91 / F1-106 1.00 A/R	1500
11179	HP-91 / F1-106 1.32 A/R	1500
10866	HP-101 / F1-106 1.00 A/R	1750
11175	HP-101 / F1-106 1.32 A/R	1750
10867	HP-106 / F1-106 1.00 A/R	2000
11229	HP-115 1.32 A/R	2600

**S&W**  
*Boost pressure is up,  
back pressure is down.*



**HP RATING**  
2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100





## GRAND NATIONAL TURBOS

### GRAND NATIONAL

All GN Turbochargers are available with the exclusive Ceramic Ball-Bearing option! A Ceramic Ball-Bearing equipped GN turbocharger provides unparalleled acceleration and response that eliminates the need for a high-stall torque converter.

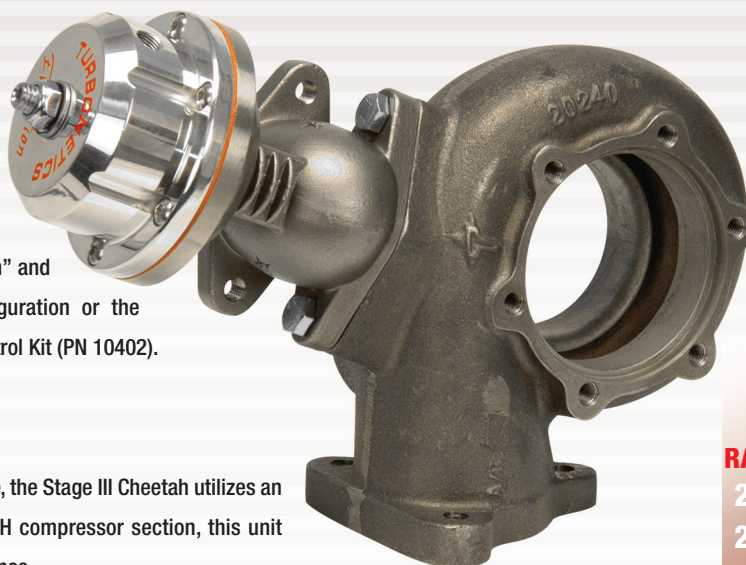
All TURBONETICS "Cheetah" series turbos are direct "bolt-on" and may be used with the original exhaust/wastegate configuration or the recommended DeltaGate or Evolution and Variable Boost Control Kit (PN 10402).

### THE STAGE III CHEETAH

Developed specifically for strong street and strip performance, the Stage III Cheetah utilizes an advanced turbine wheel design. Combined with the Super H compressor section, this unit delivers quick boost response with efficient turbine performance.

### THE STAGE V CHEETAH

For the ultimate in bolt-on performance, the Stage V Cheetah combines the proven 60-1 compressor section with the new high-flow, high-efficiency F1-62 turbine wheel. This combination gives the flow potential for 550-plus horsepower. Contact a Turbonetics Turbocharger Specialist for application, price, availability.



**HP  
RATING**

2500  
2400  
2300  
2200  
2100  
2000  
1900  
1800  
1700  
1600  
1500  
1400  
1300  
1200  
1100  
1000  
900  
800  
700  
600  
500  
400  
300  
200  
100

### TURBONETICS TOP PERFORMERS

PN	DESC.	HP
11342-BB	60-1 / F1-57 .63 G/N	500
11352-BB	60-1 / F1-62 .63 G/N	550
11439-BB	62-1 / F1-62 .63 G/N	650
11440-BB	62-1 / F1-65 .63 G/N	650
11355-BB	60 Series HP-61 / F1-62 .63 G/N	600
11353-BB	60 Series HP-66 / F1-65 .63 G/N	650
11354-BB	60 Series HP-66 / F1-65 .82 G/N	700



**JACK COTTON**  
of Cotton Performance



TURBONETICS has pioneered the evolution of Street Legal Buick GN turbocharger products from basic compressor upgrades to the innovative Stage III "Cheetah" and now the Ceramic Ball Bearing-Stage III. Continuous involvement with "heavy hitter" GN engine builders and racers has provided a level of experience unequaled in the trade. TURBONETICS offers a wide selection of turbos and turbo-related accessories for the GN.





## TNX-122 TURBOS

### TNX-122

122mm! Yes, you read it correctly. The "X" means billet parts and lots of them. Soon to be released, Turbonetics engineering team has created a monster turbocharger for the best-of-the-best crowd! Larger and heavy duty version of the patented Ceramic Ball Bearing is nestled in a billet-machined bearing housing for an absolutely astounding 2600 lbs. of thrust capacity! The billet-machined bearing housing also features an oil-feed system that's strategically located for maximum oil cooling. The HP-122 compressor wheel is a precise billet-machined unit that can boost 80+ psi. Other exotic materials are being considered for R&D – stay tuned.

**HP  
RATING**

**2500**

**2400**

**2300**

**2200**

**2100**

**2000**

**1900**

**1800**

**1700**

**1600**

**1500**

**1400**

**1300**

**1200**

**1100**

**1000**

**900**

**800**

**700**

**600**

**500**

**400**

**300**

**200**

**100**

- Forged Billet Compressor Wheel
- Hex-Lock compressor wheel to prevent wheel shaft slippage
- Billet Stainless Steel bearing housing
- 713C Inconel Turbine Wheel for maximum strength & durability
- 4.50" & 5.00" Turbine Wheel Options
- Ceramic Ball Bearing capable of handling over 2600 lbs. of thrust
- Capable of 3500 HP and 140+ PSI

**VS.**



T28

122mm



## BY-PASS VALVES

### BYPASS VALVES

The turbocharger is moving large amounts of air while under boost, and this pressure is being delivered to the engine while the throttle is depressed. As soon as the throttle is lifted, the butterfly closes in the throttle body, preventing the pressurized air from entering the intake manifold. That dense charge air now has nowhere to go. Because the engine is still moving exhaust gases and the inertia of the turbocharger is turning the turbine and compressor wheels, the air literally stacks up against the throttle blades. Pressure builds up within the system's piping extremely quickly and once it reaches the compressor wheel, the air actually flows back out of the compressor inlet and limits the compressor from rotating.

Because of the air reversing direction, the pressure drops, allowing the wheel to spin and once again raise the pressure. This process of up and down pressure and air reversal is surge and the result is the fluttering/barking sound that comes from the turbo. Surge is very detrimental to the turbocharger, resulting in various stresses being placed on the unit. The compressor wheel has high loads placed on it as it tries to move against this wall of air and as high pressure air finds its way behind the compressor wheel. Compressor surge can result in the compressor wheel spinning on the shaft, shaft breakage, bearing wear and may potentially create contact between the wheels and housings.

It is important to note that the true function of a CBV/BOV is to do just what the name implies; to bypass the air or move it from one location to another. In most instances by routing the bypassed air to the inlet of the turbo, throttle and boost response may become much higher.

Log onto the new Turbonetics site for detailed specifications



**RAPTOR**  
KIT PN 10763



**GODZILLA**  
KIT PN 10765

### CLASSIC VBC KIT

PRESSURE NO.	PART NO.
0-10 PSI	10402-10
0-25 PSI	10402-25
0-50 PSI	10402-50



**DODGE NEON SRT-4 KIT**  
KIT PN 10900



**WRX/STi BLOW-OFF VALVE KIT**  
KIT PN 10903  
NON DRIVE-BY-WIRE



**BILLET VBC KIT**  
PN 31113  
COMPATIBLE WITH ALL  
EXTERNAL WASTEGATES AND  
ACTUATORS



**CLASSIC VBC KIT**  
EXTERNAL WASTEGATE AND DUAL PORT  
ACTUATORS ONLY



## WASTEGATES

### ACTUATORS

Single & dual port actuators are to be used with internal wastegated turbos or swing valves 30298 and 10741. Boost range of 3-10 psi.



**DUAL PORT**  
PN 30326



**SINGLE PORT**  
PN 30314

### SWING VALVES

These swing valves feature the largest exhaust and are designed to be utilized for internal wastegate configurations.

**SWING VALVE DISCHARGE FLANGE**  
PN 20368



**T3 5 BOLT DISCHARGE**  
PN 30298



**CHRYSLER TURBO 2**  
PN 10741

### WASTEGATES

All of Turbonetics' high performance wastegates are designed and tested to do one thing – control boost and flow large volumes of exhaust gases. Turbonetics gates feature investment cast stainless steel bases to handle high EGTs, precision machined parts, high temp. resistant diaphragms, computer modeled and flow tested inconel valve designs and v-band connections. These wastegates perform under pressure to protect your engine from overboosting as well as efficiently evacuating hot gases to lower back pressure when running wide open throttle.

#### NEWGEN HP:

This high-flow wastegate will control engines that develop 1000+HP, and was redesigned in 2007 with a new diaphragm assembly to handle big boost/back pressures - 50/100+ psi! 2.00"/50mm Inconel swing valve assembly.

#### NEWGEN:

More compact than the HP with a smaller diameter cap the Newgen is perfect for 700-1000 HP engines running boost pressures under 20 psi. 2.00"/50mm inconel swing valve.

#### RG-45:

The brand new RG-45 replaces the legendary Racegate in our wastegate lineup. Built with the latest technology such as stainless steel base, inconel high temp valve, high temp fluoro-silicone diaphragm, and v-band connections all in a very small frame size. Like its name suggests, the gate has a 1.77"/45mm valve and is good for powerplants making up to 750 HP.

#### EVOLUTION:

This high-flow wastegate will control engines that develop up to 500 HP. Significantly smaller than the older generation Deltagate, the Evo has the same flange bolt pattern and can fit into the tightest of engine compartments. New for 2009 - adjustable set screw in wastegate cap now standard. Flat top design is now discontinued.



**EVOLUTION KIT**  
KIT PN 10780



**RG-45 KIT**  
KIT PN 11240



**NEWGEN KIT**  
KIT PN 10733



**NEWGEN HP**  
KIT PN 11105



## COMPRESSOR WHEELS & HOUSINGS



### T3 COMPRESSOR WHEELS & HOUSINGS-BIG SHAFT

WHEELS				HOUSING-POLISHED			
TRIM	PART NO.	INDUCER	MAJOR	INLET SIZE	PART NO.	INLET SIZE	PART NO.
35	20266T	1.396	2.367	2.35"	20499	3.00"	20499-3
40	20267T	1.484	2.367	2.35"	20372	3.00"	20372-3
45	20263T	1.595	2.367	2.35"	20373	3.00"	20373-3
50	20268T	1.674	2.367	2.35"	20374	3.00"	20374-3
55	20264T	1.760	2.367	2.35"	20500	3.00"	20500-3
60	20272T	1.830	2.367	2.35"	20375	3.00"	20375-3
SUPER 60	20324T	1.900	2.367	2.35"	20376	3.00"	20376-3

All compressor housings  
come polished

### F1 TURBINE WHEEL

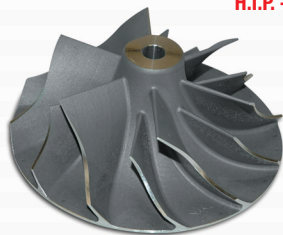
F1	PART NO.	EXDUCER	MAJOR
49	21480	1.929	2.320
54	21481	2.126	2.555
57	21482	2.244	2.555

49 = THE WHEELS EXDUCER DIAMETER IN MILLIMETERS

### T04B COMPRESSOR WHEELS & HOUSINGS-BIG SHAFT

WHEELS				HOUSING-POLISHED	
TRIM	PART NO.	INDUCER	MAJOR	INLET SIZE	PART NO.
SUPER-S	20394T	2.298	3.000	2.75"	20202
SUPER-V	20364T	2.180	3.000	2.75"	20203
SUPER-H	20288T	2.298	3.000	2.75"	20192

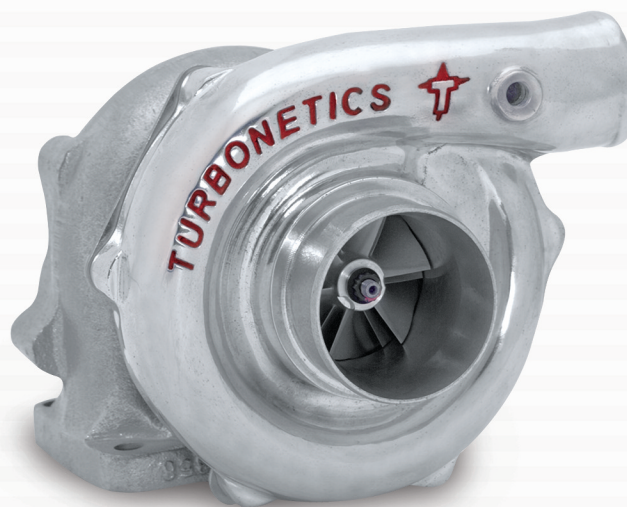
All Turbonetics compressor wheels cast with  
H.I.P. - Hot Isostatic Processing, to ensure the  
strongest wheels possible.



### F1 TURBINE WHEEL

F1	PART NO.	EXDUCER	MAJOR
62	21483	2.441	2.795

62 = THE WHEELS EXDUCER DIAMETER IN MILLIMETERS



Compressor housings feature the most  
efficient A/R sizes to match each individual  
compressor wheel trim.



### T04E COMPRESSOR WHEELS & HOUSINGS BIG SHAFT

WHEELS				HOUSING-POLISHED	
TRIM	PART NO.	INDUCER	MAJOR	INLET SIZE	PART NO.
40	30373T	1.870	3.00	3.00"	30425
46	30374T	2.003	3.00	3.00"	30427
50	30375T	2.122	3.00	3.00"	30491
54	30376T	2.170	3.00	3.00"	30462
57	30377T	2.230	3.00	3.00"	30431
60	30378T	2.290	3.00	3.00"	30432



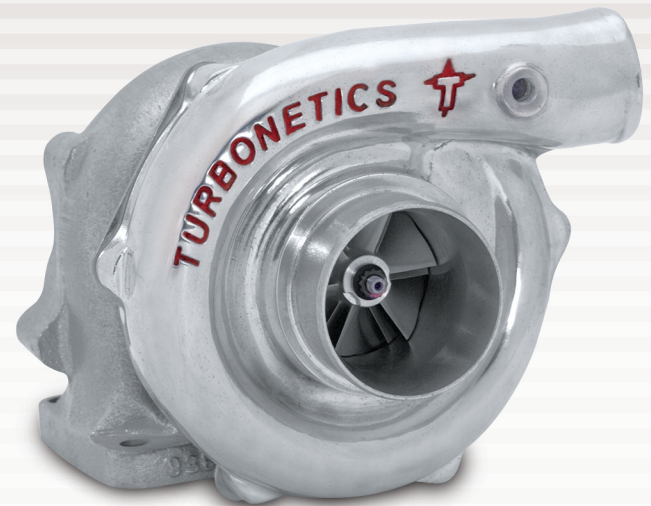


## COMPRESSOR WHEELS & HOUSINGS

### T04E SUPER COMPRESSOR WHEELS & HOUSINGS - BIG SHAFT

WHEELS				HOUSING-POLISHED	
TRIM	PART NO.	INDUCER	MAJOR	INLET SIZE	PART NO.
40	20574T	1.870	3.20	3.00"	30425
46	20575T	2.003	3.20	3.00"	30427
50	20576T	2.122	3.20	3.00"	30491
54	20577T	2.170	3.20	3.00"	30462
57	20578T	2.230	3.20	3.00"	30431
60	20579T	2.290	3.20	3.00"	30432

Super T04E wheels feature larger 3.20" major diameter for increased airflow.



### 60-1 / 62-1 COMPRESSOR WHEELS & HOUSINGS - BIG SHAFT

WHEELS				HOUSING-POLISHED	
TRIM	PART NO.	INDUCER	MAJOR	INLET SIZE	PART NO.
60-1 HI-FI	20230T	2.324	3.00	2.75"	20210
60-1	20177T	2.324	3.00	4.00"	20190
62-1	20255T	2.441	3.00	4.00"	20249

Log on to [www.turboneticsinc.com](http://www.turboneticsinc.com) to view all the Turbonetics Turbocharger dimensions in the tech data section.

### F1 TURBINE WHEEL

F1	PART NO.	EXDUCER	MAJOR
68	21486	2.677	3.111

68 = THE WHEELS EXDUCER DIAMETER IN MILLIMETERS

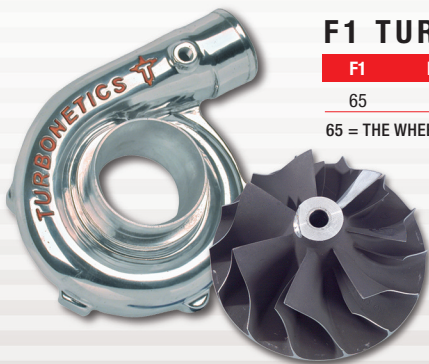
### T-SERIES COMPRESSOR WHEELS & HOUSINGS - BIG SHAFT

WHEELS				HOUSING-POLISHED	
TRIM	PART NO.	INDUCER	MAJOR	INLET SIZE	PART NO.
HP-58	21345	2.300	3.304	4.00"	21385
HP-61	21346	2.403	3.542	4.00"	21386
HP-66	21347	2.580	3.584	4.00"	21388
HP-70	21351	2.720	3.850	4.00"	21391
HP-72	21352	2.840	4.030	4.00"	21392
HP-76	21353	3.020	4.030	4.00"	21393

### F1 TURBINE WHEEL

F1	PART NO.	EXDUCER	MAJOR
65	21484	2.559	2.920

65 = THE WHEELS EXDUCER DIAMETER IN MILLIMETERS



60-1 full-sized housings feature 4" inlet and .70 A/R for maximum efficiency.





## TURBINE HOUSING

### 4 BOLT T3 TURBINE HOUSING

A/R	TRIM	STYLE	P/N
0.48	F1-49	4-BOLT	21581-49
	F1-54	4-BOLT	21581-54
	F1-57	4-BOLT	21581-57
	F1-62	4-BOLT	21581-62
0.63	F1-49	4-BOLT	21582-49
	F1-54	4-BOLT	21582-54
	F1-57	4-BOLT	21582-57
	F1-62	4-BOLT	21582-62

4 BOLT T3

BACK

FRONT

STANDARD T3

### T3 TURBINE HOUSING

A/R	TRIM	STYLE	P/N
0.36	F1-49	5-BOLT	21577-49
	F1-54	5-BOLT	21577-54
	F1-57	5-BOLT	21577-57
	F1-62	5-BOLT	21577-62
0.48	F1-49	5-BOLT	21578-49
	F1-54	5-BOLT	21578-54
	F1-57	5-BOLT	21578-57
	F1-62	5-BOLT	21578-62
0.63	F1-49	5-BOLT	21579-49
	F1-54	5-BOLT	21579-54
	F1-57	5-BOLT	21579-57
	F1-62	5-BOLT	21579-62
0.82	F1-49	5-BOLT	21580-49
	F1-54	5-BOLT	21580-54
	F1-57	5-BOLT	21580-57
	F1-62	5-BOLT	21580-62
0.63	F1-49	CHRYSLER	21583-49
	F1-54	CHRYSLER	21583-54
	F1-57	CHRYSLER	21583-57
	F1-62	CHRYSLER	21583-62
0.63	F1-57	G/N	21584-57
	F1-62	G/N	21584-62
	F1-65	G/N	21584-65
0.82	F1-57	G/N	21585-57
	F1-62	G/N	21585-62
	F1-65	G/N	21585-65

G/N

CHRYSLER

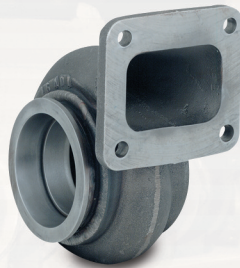




## TURBINE HOUSING

### T4 TURBINE HOUSING-TANGENTIAL UNDIVIDED

A/R	TRIM	STYLE	P/N WITH V-BAND	P/N WITHOUT V-BAND
0.50	F1-62	Tangential Undivided	21591-62	N/A
	F1-65	Tangential Undivided	21591-65	N/A
0.58	F1-62	Tangential Undivided	21592-62	21712-62
	F1-65	Tangential Undivided	21592-65	21712-65
	F1-68	Tangential Undivided	21592-68	21712-68
0.68	F1-62	Tangential Undivided	21593-62	21713-62
	F1-65	Tangential Undivided	21593-65	21713-65
	F1-68	Tangential Undivided	21593-68	21713-68
0.81	F1-65	Tangential Undivided	21594-65	21714-65
	F1-68	Tangential Undivided	21594-68	21714-68
0.96	F1-65	Tangential Undivided	21595-65	21715-65
	F1-68	Tangential Undivided	21595-68	21715-68



All tangential turbine housings now feature 3" V-band discharge machined into housing

### T4 TURBINE HOUSING-TANGENTIAL DIVIDED

A/R	TRIM	STYLE	P/N WITH V-BAND	P/N WITHOUT V-BAND
0.58	F1-62	Tangential Divided	21596-62	21716-62
	F1-65	Tangential Divided	21596-65	21716-65
	F1-68	Tangential Divided	21596-68	21716-68
0.70	F1-62	Tangential Divided	21597-62	21717-62
	F1-65	Tangential Divided	21597-65	21717-65
	F1-68	Tangential Divided	21597-68	21717-68
0.84	F1-62	Tangential Divided	21598-62	21718-62
	F1-65	Tangential Divided	21598-65	21718-65
	F1-68	Tangential Divided	21598-68	21718-68
1.00	F1-65	Tangential Divided	21599-65	21719-65
	F1-68	Tangential Divided	21599-68	21719-68
1.15	F1-65	Tangential Divided	21560-65	21720-65
	F1-68	Tangential Divided	21560-68	21720-68
1.32	F1-65	Tangential Divided	21561-65	21721-65
	F1-68	Tangential Divided	21561-68	21721-68
1.52	F1-65	Tangential Divided	21562-65	21722-65
	F1-68	Tangential Divided	21562-68	21722-68

\*\* Divided turbine housings are also known as twin scroll housings

INLET

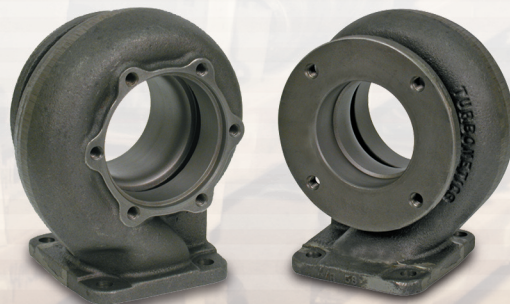


FRONT

BACK

### T4 TURBINE HOUSINGS - ON CENTER

A/R	TRIM	STYLE	P/N
0.58	F1-62	ON CENTER	21605-62
	F1-65	ON CENTER	21605-65
	F1-68	ON CENTER	21605-68
0.69	F1-62	ON CENTER	21606-62
	F1-65	ON CENTER	21606-65
	F1-68	ON CENTER	21606-68
0.81	F1-62	ON CENTER	21607-62
	F1-65	ON CENTER	21607-65
	F1-68	ON CENTER	21607-68
0.96	F1-65	ON CENTER	21608-65
	F1-68	ON CENTER	21608-68
1.30	F1-65	ON CENTER	21609-65
	F1-68	ON CENTER	21609-68



FRONT

BACK





## PARTS & ACCESSORIES

### ASME COMPRESSOR INLET KITS

Designed and engineered with ASME specifications, the compressor inlet kit allows you to achieve maximum air velocity while increasing air volume at your compressor inlet. Manufactured of spun aluminum, kit comes complete with polished horn, hose & clamps. Adds approximately 2.5-3" to length of turbo inlet.



#### MANNY BUGINGA

2005 World Challenge SSO Champion

Uses a single Super Thumper turbo.

First true 10.5" tire vehicle to break the 200 MPH mark.

PART NO.	DESCRIPTION
10766	3" Inlet Kit
10767	4" Inlet Kit
20817P	4.5" Inlet Kit

### PLENUMS

#### LOW PROFILE PLENUM

Pressure plenum with 3" side entry. Low profile, great for use where hood clearance is a factor. Fits standard 5.5" carb. inlet.

#### PRESSURE PLENUMS

Turbonetics plenums are offered in both a true pressure plenum with 2.5" top and side entry and a 3" low profile design, which is great for use where hood clearance is a factor. Both models fit the standard 5.5" 4 barrel carb. inlets and are ball burnished. The 20200 is supplied with pn 20204 flange and gasket.



PN 20200



PN 10351



PN 30271

PN 30318

PN 30316

PN 30800

PN 30799

### STAINLESS STEEL BELLOWS

PART NO.	DESCRIPTION
10351	3" side entry
20200	2.5" top and side entry

PART NO.	DESCRIPTION
30271	Stainless Steel Elbows, 1.5" ID
30316	Stainless Steel Elbows, 2" ID
30318	Stainless Steel Elbows, 3" ID
30799	HD Stainless Steel Elbows, 2.5" ID x 7.1 L
30800	HD Stainless Steel Elbows, 2.5" ID x 9.25 L



## PARTS & ACCESSORIES

### EXHAUST MANIFOLDS

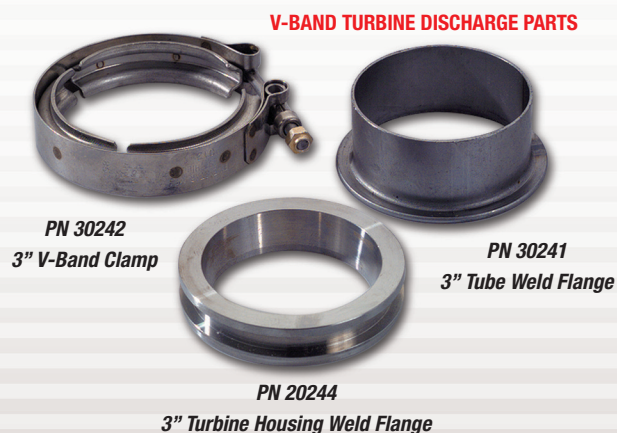
Without exhaust manifolds there is no turbo system. Fabricating manifolds are often the single most difficult challenge to turbocharging a vehicle and Turbonetics offers high ductile cast iron exhaust manifolds for 4 and 6 cylinder vehicles. Precision cast and machined, these manifolds bolt up exactly as they should to your engine's cylinder head bolt pattern and allows a turbocharger to be mounted on as though it came from the factory that way. Most all have flanges machined to bolt onto our Evolution external wastegates for exact boost control. Visit [www.TurboneticsInc.com](http://www.TurboneticsInc.com) for the complete manifold lineup.

### HEATSHIELDS

One of the most important things you can do for the life of your engine's, turbo system and to increase performance is to keep heat where it belongs – inside the turbine housing. The more energy you can keep directed at the turbine wheel and away from your engine compartment's air temp, the better. Stainless steel construction, utilizing the most advanced aerospace materials available (For T4; Max. temperature: 1600°F), means more power will be at your control. Heat shielding made of aerospace ceramic fiber wrapped with corrugated aluminum foil. Ideal for protecting sensitive components and engine accessories and lines.

### V-BAND CLAMPS & FLANGES

The easiest way to fabricate a turbo system is to plan ahead. Using a turbocharger with V-band clamps instead of a bolt pattern, will allow you the freedom of positioning as well as save you the headache and pain of breaking your knuckles loosening bolts when the time comes to service your turbo system. Our V-bands are offered in 5 different sizes ranging from 2.50" all the way up to 5.00" as well as the choice of standard and stainless steel. Keep in mind that you must have a V-band already on your tangential turbine housing in order to use the tube weld flange and clamp assembly.



**EXHAUST MANIFOLD**



**HEATSHIELDS**



### V-BAND TURBINE DISCHARGE PARTS

PART NO.	DESCRIPTION
30230	Housing Weld Flange, 2.5"
20244	Housing Weld Flange, 3"
20534	Housing Weld Flange, 3.5"
20533	Housing Weld Flange, 4"
30231	Tube Weld Flange, 2.5"
30241	Tube Weld Flange, 3"
30407	Tube Weld Flange, 3.5"
30409	Tube Weld Flange, 4"
30419	Y2K/Thumper Tube Weld Flange
30231-S	Tube Weld Flange - Stainless, 2.5"
30241-S	Tube Weld Flange - Stainless, 3"
30407-S	Tube Weld Flange - Stainless, 3.5"
30409-S	Tube Weld Flange - Stainless, 4"
30232	V-Band Clamp Assembly, 2.5"
30242	V-Band Clamp Assembly, 3"
30408	V-Band Clamp Assembly, 3.5"
30410	V-Band Clamp Assembly, 4"
30421	Y2K/Thumper V Band Clamp
20760	V-Band Adapter, 3" - 3.5"
20761	V-Band Adapter, 3 - 4"



## SILICONE HOSE & CLAMPS



### NITRILE 90° ELBOWS

SIZE	PART NUMBER
2"	PN 30208
2.25"	PN 30168
2.5"	PN 30170
2.75"	PN 30217
3"	PN 30190
4"	PN 30199
5"	PN 30218

*(Nitrile Rubber for Intake Only -  
Non Pressurized Plumbing)*



### NITRILE TRANSITION HOSES

SIZE	PART NUMBER
2" to 2.25"	PN 30196
2" to 2.5"	PN 30206
2.5" to 3"	PN 30213
2.75" to 3"	PN 30197
2.75" to 4"	PN 30192
3" to 4"	PN 30188
4" to 5"	PN 30219



### NITRILE 45° ELBOWS

SIZE	PART NUMBER
2.25"	PN 30221
3"	PN 30216
4"	PN 30169
5"	PN 30171



### NITRILE HUMP HOSES

SIZE	PART NUMBER
3"	PN 30215
4"	PN 30220
5"	PN 30222

## SPECIAL NITRILE CONNECTORS

SIZE	DESCRIPTION	PART NUMBER
3" to 4"	Transition 90°	PN 30191
2.75" to 3"	Close Radius 90°	PN 30194
3" to 3"	Close Radius 90°	PN 30193
3" to 3" to 3"	"T"	PN 30195
4" to 4" to 4"	"T"	PN 30198

## T-BOLT CLAMPS HEAVY-DUTY STAINLESS STEEL

Much stronger than conventional "Worm-Drive" clamps! Inner band protects hose from extrusion. .75" wide. Includes self locking nut.



### T-BOLT CLAMPS

PART NO.	HOSE ID	SIZE RANGE (DIA)
30275-150	1.50"	1.44"-1.58"
30275-155	1.50"	1.69"-1.94"
30275-175	1.75"	1.94"-2.25"
30275-200	2.00"	2.19"-2.44"
30275-225	2.25"	2.44"-2.75"
30275-238	2.38"	2.58"-2.83"
30275-250	2.50"	2.63"-2.94"
30275-275	2.75"	2.94"-3.25"
30275-300	3.00"	3.19"-3.50"
30275-325	3.25"	3.44"-3.80"
30275-350	3.50"	3.69"-4.00"
30275-400	4.00"	4.19"-4.50"
30275-450	4.50"	4.50"-4.81"
30275-500	5.00"	5.19"-5.50"
30275-550	5.50"	5.50"-5.81"



## SILICONE HOSE & CLAMPS

### SILICONE CONNECTORS

Top-quality, high-strength, high-temperature hose couplings.  
Multi-layered fluoro-silicone with fiberglass reinforcements.

### SILICONE TRANSITION HOSES

SIZE	BLACK
1.75" to 2.5"	30488-4
2" to 2.25"	30436-4
2" to 2.375"	30437-4
2" to 2.5"	30438-4
2" to 2.75"	30477-4
2" to 3"	30501-4
2.25" to 2.5"	30311-4
2.25" to 3"	30638-4
2.375" to 2.75"	30486-4
2.5" to 2.75"	30439-4
2.5" to 3"	30440-4
2.75" to 3"	30487-4
3" to 3.25"	30642-4
3" to 3.5"	30499-4
3" to 4"	30502-4
3.25" to 4"	30639-4
3.5" to 4"	30640-4



HUMP HOSES

### SILICONE VACUUM HOSES

SIZE	BLACK
.156" ID	30542-BK
.250" ID	30543-BK

**SOLD BY THE FOOT.**

### SILICONE HUMP HOSES

SIZE	BLACK
2"	30379-4
2.25"	30433-4
2.375"	30434-4
2.5"	30380-4
2.75"	30312-4
3"	30435-4
3.25"	30628-4
3.5"	30629-4
4"	30630-4

### SILICONE HOSE COUPLING (HD .188" WALL, 60 PSI) \*BLUE ONLY

SIZE	3 FOOT STICKS	3" COUPLINGS
1"	30353-100	30281
1.5"	30353-150	30896
2"	30353-200	30282
2.25"	30353-225	30283
2.375"	30353-238	30305
2.5"	30353-250	30284
2.75"	30353-275	30285
3"	30353-300	30286
3.25"	30353-325	30287
3.5"	30353-350	30453
4"	30353-400	30303

### SILICONE 90° ELBOWS

SIZE	BLACK
2"	30447-4
2.25"	30448-4
2.375"	30450-4
2.5"	30449-4
2.75"	30451-4
3"	30452-4
3.25"	30634-4
3.5"	30635-4
4"	30636-4



90° ELBOWS

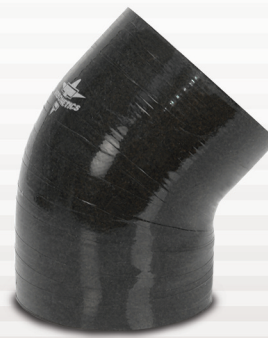
Top-quality, high-strength, high-temperature  
hose couplings. Multi-layered fluoro-silicone  
with fiberglass reinforcements.

### SILICONE HOSE COUPLINGS (STD .125" WALL, 30 PSI)

SIZE	BLACK
2"	30128-4
2.25"	30161-4
2.375"	30304-4
2.5"	30172-4
2.75"	30129-4
3"	30162-4
3.25"	30641-4
3.5"	30482-4
4"	30302-4

### SILICONE 45° ELBOWS

SIZE	BLACK
2"	30441-4
2.25"	30442-4
2.375"	30443-4
2.5"	30444-4
2.75"	30445-4
3"	30446-4
3.25"	30631-4
3.5"	30632-4
4"	30633-4



45° ELBOWS

### SILICONE HOSE STICKS (3' LONG, STD .125" WALL 30 PSI)

SIZE	BLACK
1.5"	30352-150-BK
1.75"	30352-175-BK
2"	30352-200-BK
2.25"	30352-225-BK
2.375"	30352-238-BK
2.5"	30352-250-BK
2.75"	30352-275-BK
3"	30352-300-BK
3.25"	30352-325-BK
3.5"	30352-350-BK
4"	30352-400-BK



## FLANGES & GASKETS

### GASKETS

T3 Turbine Inlet Gasket, Stainless Steel **PN 30263**



T3 4 Bolt Turbine Discharge Gasket, Stainless Steel **PN 21467**

T4 Turbine Inlet Gasket, Stainless Steel **PN 30143**



T4 Turbine Inlet Gasket (Divided) **PN 30143-DIV**

T4 Turbine Discharge Gasket **PN 30142**



T4 Turbine Discharge Gasket, Stainless Steel **PN 30142S**



T3/T4 Oil Inlet Gasket **PN 30238**



T3/T4 Oil Drain Gasket **PN 30141**



Thumper Gasket Kit **PN 10794**

(Includes Oil Inlet, Drain & Turbine Inlet)

Evolution "Fire-Ring" Flange Gasket **PN 20142**



Racegate "Fire-Ring" Flange Gasket **PN 20396**



Pressure Plenum (PN 20200) Flange Gasket **PN 20217**



Godzilla Discharge Horn Gasket **PN 20510**



### FLANGES

T3 Turbine Inlet Flange, Drilled **PN 20365**



T3 Turbine Inlet Flange, Stainless Steel **PN 20365S**

T3 Turbine Inlet Flange, Tapped M10 **PN 20980**



T3 5-Bolt Turbine Discharge Flange **PN 20367**

T3 5-Bolt Turbine Discharge Flange, Stainless Steel **PN 20367S**

T3 4-Bolt Discharge Flange **PN 21418**

T3 4-Bolt Turbine Discharge Flange, Stainless Steel **PN 21418S**

T4 Turbine Inlet Flange, Drilled **PN 21102**



T4 Turbine Inlet Flange, Tapped M10 **PN 21103**

T4 Turbine Inlet Flange, 2.25" Hole Dia. **PN 20167**

T4 Turbine Inlet Flange, Stainless Steel **PN 20167S**



Y2K & Thumper Turbine Inlet Flange **PN 20601**

### FITTINGS

3/8" NPT x 5/8" Hose Fitting Straight **PN 30133**



3/8" NPT x 5/8" Hose Fitting, 90° **PN 30134**



1/2" NPT x 5/8" Hose Fitting, Straight **PN 30244**

1/2" NPT x 5/8" Hose Fitting 45° **PN 30816**

1/2" NPT x 5/8" Hose Fitting, 90° **PN 30245**



1/8" NPT x 5/32" Hose Straight **PN 30306**

1/8" NPT x 5/32" Hose, 90° **PN 30307**



1/8" NPT x 1/4" Hose, 90° **PN 30324**



5/32" Hose x .156" Hose x 5/32" Hose, "T" **PN 30308**



O<sub>2</sub> Sensor Bung, 18mm x 1.50mm Pitch **PN 20587**



O<sub>2</sub> Sensor Bung, 18mm x 1.50mm Pitch, S.Steel **PN 20587S**

Oil Drain Weld Bung, 1/2" NPT, Aluminum **PN 20580A**



Oil Drain Weld Bung, 1/2" NPT, Steel **PN 20580S**



O<sub>2</sub> Extension Bung (Long) **PN 21376** 3.62" 18mm x 1.50 Pitch



O<sub>2</sub> Extension Bung (Short) **PN 21376-1** 2.30" 18mm x 1.50 Pitch

### FLANGES

T4 Turbine Discharge Flange, 2.5" Hole Dia. **PN 20168**

T4 Turbine Discharge Flange, 2.5" Hole Dia. Stainless Steel **PN 20168S**



T4 Turbine Discharge Flange, 3" Hole Dia. **PN 20174**

T4 Turbine Discharge Flange, 3" Hole Dia. Stainless Steel **PN 20174S**



Dodge 5.9 Stage II Turbo Adaptor Flange **PN 21476**

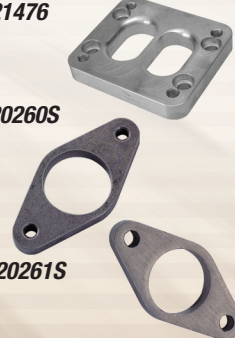
Evolution Flange, Drilled **PN 20260**

Evolution Flange, Drilled, Stainless Steel **PN 20260S**

Evolution Flange, Tapped 5/16"-18 **PN 20261**

Evolution Flange, Tapped M8 **PN 20981**

Evolution Flange, Tapped, Stainless Steel **PN 20261S**





## FLANGES & GASKETS

### FLANGES

RaceGate Flange **PN 20397**

RaceGate Flange, Stainless Steel **PN 20397S**

Godzilla Flange, Steel **PN 20507S**

Godzilla Flange, Aluminum **PN 20507A**

GN Discharge Flange **PN 20248**

Oil Drain Flange T3/T4, 1/2" NPT **PN 20259**

Oil Drain Flange T3/T4, 1/2" NPT, Billet **PN 20259B**

Y2K/Thumper/Mid Frame Oil Drain Flange **PN 21521**

Swing Valve Discharge Flange **PN 20368**

Evolution Block-off Flange **PN 20251**

Oil Inlet Y2K/Thumper/Mid Frame 1/4" **PN 21520**

Oil Inlet Flange T3/T4 **PN 30500**

Adaptor HKS To NewGen **PN 20613**

Adaptor Evolution To NewGen **PN 20614**

Adaptor Racegate To NewGen **PN 20615**

Oil Filter Replacement **PN 20754**

### OIL LINE FITTINGS

Oil Line Fitting, 1/8" NPT x -3AN, short **PN 30544**

Oil Line Fitting, 1/8" NPT x -3AN, medium **PN 30545**

Oil Line Fitting, 1/8" NPT x -4AN, short **PN 30546**

Oil Line Fitting, 1/4" NPT x -4AN, **PN 30547**

Oil Line Fitting, 1/8" NPT x -3AN, 45° **PN 30548**

Oil Line Fitting, 1/8" NPT x -4AN, 45° **PN 30549**

Oil Line Fitting, 1/4" NPT x -4AN, 45° **PN 30550**

Oil Line Fitting, 1/8" NPT x -3AN, 90°, short **PN 30551**

Oil Line Fitting, 1/8" NPT x -3AN, 90°, medium **PN 30552**

Oil Line Fitting, 1/8" NPT x -3AN, 90°, long **PN 30553**

### TEFLON®/STAINLESS STEEL BRAIDED LINES

Oil Supply Hose ass'y, -4AN Female Swiv. Ends, 12" **PN 31012**

Oil Supply Hose ass'y, -4AN Female Swiv. Ends, 12" **PN 31013**

Oil Supply Hose ass'y, -3AN Female Swiv. Ends, 12" **PN 31014**

Oil Supply Hose ass'y, -3AN Female Swiv. Ends, 12" **PN 31015**

Oil Supply Hose ass'y, SS/ Teflon®, -3AN Female Swiv. Ends, 36" **PN 10721**

Oil Supply Hose ass'y, SS/ Teflon®, -3AN Female Swiv. Ends, 48" **PN 10722**

Oil Supply Hose ass'y, SS/ Teflon®, -3AN Female Swiv. Ends, 60" **PN 10723**

Oil Supply Hose ass'y, SS/ Teflon®, -4AN Female Swiv. Ends, 36" **PN 10724**

Oil Supply Hose ass'y, SS/ Teflon®, -4AN Female Swiv. Ends, 48" **PN 10725**

Oil Supply Hose ass'y, SS/ Teflon®, -4AN Female Swiv. Ends, 60" **PN 10726**

All stainless steel braided lines are highly temperature resistant and feature air craft quality fittings.



### OIL LINE FITTINGS

Oil Line Fitting, 1/8" NPT x -4AN, 90° **PN 30554**

Oil Line Fitting, 1/4" NPT x -4AN, 90° **PN 30555**

Adapter Fitting, 1/8" MPT x 1/4" FPT M10x1.00 x-3 **PN 30556**

Adapter Fitting, 1/4" MPT x 1/8" FPT M10x1.25 x-3 **PN 30557**

Adapter Fitting, M10x1.00 x -3AN **PN 30558**

Adapter Fitting, M10x1.25 x -3AN **PN 30559**

Adapter Fitting, M10 x1.50 x -3AN **PN 30560**

Oil Line Fitting, 1/2" NPT x 1/2" NPT, 45° **PN 30561**

Oil Line Fitting, Adaptor (T) 1/8" NPT M x F x F **PN 30562**



## SPEARCO INTERCOOLERS



W.A.V.E. Technology (Wide Area Vane Effectiveness) is the ultimate combination in strength and efficiency of heat exchanger cores. Specifically designed to maximize cooling by utilizing the most surface area possible in a given space. The Spearco W.A.V.E. core incorporates a complex network of highly effective vanes to regularly decrease temperatures by as much as 30° F over conventional tube n' fin units. In addition to their phenomenal cooling ability, W.A.V.E. Technology cores are manufactured to be nearly "BOMB PROOF." Due to Spearco's manufacturing process, these unique cores are capable of comfortably withstanding pressures in excess of 200+ psi. W.A.V.E. Technology cores set the standard for high-pressure forced-induction durability and cooling effectiveness. Whether you are a high performance enthusiast or a pro drag racer seeking the peace of mind to make the next round. The W.A.V.E. Technology intercoolers and radiators are for you.

### SPEARCO INTERCOOLERS

Conventional intercooler cores are thin-walled, extruded aluminum tubes that are not designed to handle extreme boost pressures and limit cooling performance because of their narrow width. W.A.V.E. Technology Cores utilize the latest design advances in strength and durability and maximize cooling effectiveness through a greater surface area. Wider is better!

Turbonetics, Inc., home of Spearco Intercoolers, is proud to offer a new online intercooler section, which is completely revised and provides more application information than ever before. The Spearco section has been enlarged and includes a greater selection of dimensional drawings and other data with regard to air/air and air/liquid intercoolers in drag racing applications.

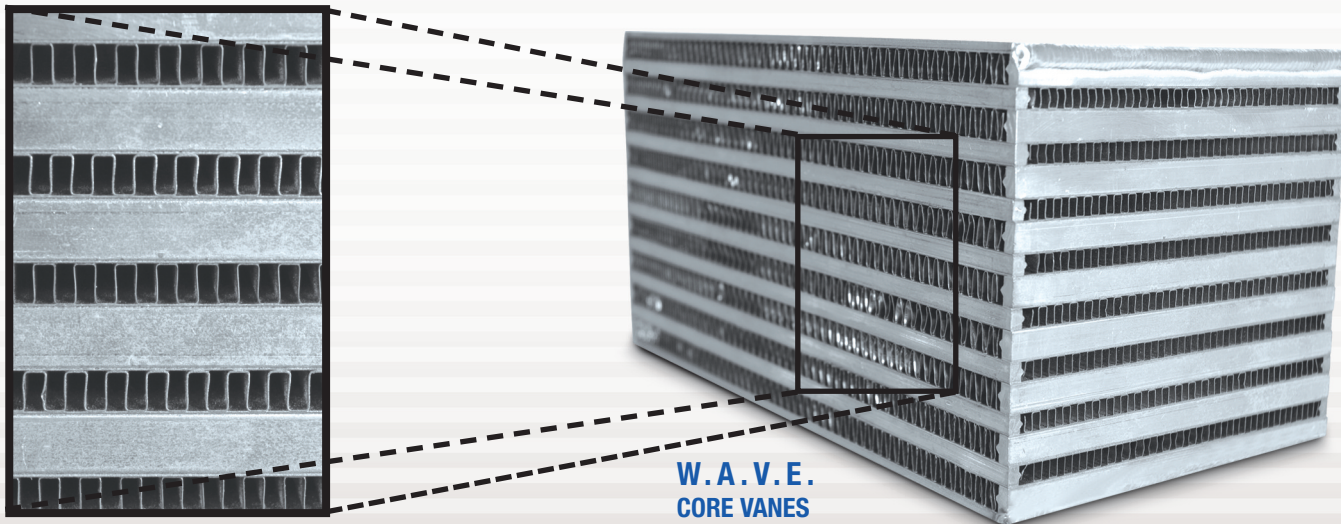
In addition to the various cast-aluminum manifolds which are used on a variety of cores by cutting their length to match the core, Spearco can also fabricate special manifolds from aluminum sheet and channel for special applications to fit all intercooler installation requirements. Spearco can fabricate to customer specifications or sketches and also offers complete engineering assistance for intercooler design and application.

In addition to the standard cores as listed herein, Spearco can manufacture special size bar and plate style cores in thicknesses of 1.25", 2.0", 2.25", 3.0", 3.5", 4.0", 4.5", and 6.0". Contact one of our sales representatives for any special size requirements.

For custom fabrication, fax your specs on the Custom Intercooler Specification Fax Form, available on the web at [www.TurboneticsInc.com](http://www.TurboneticsInc.com).

### SPEARCO INTERCOOLERS

Conventional intercooler cores are thin-walled, extruded aluminum tubes that are not designed to handle extreme boost pressures, and limit cooling performance because of their narrow width. W.A.V.E. Technology Cores utilize the latest design advances in strength and durability and maximize cooling effectiveness through a greater surface area. Wider is better!



W.A.V.E.  
CORE VANES



## SPEARCO INTERCOOLERS

Turbonetics, INC., home of Spearco racing intercoolers, is proud to offer this new catalog section, which is completely revised and provides more application information than ever before. The air/liquid section has been enlarged and includes a greater selection of dimensional drawings and other data with regard to air/liquid intercoolers in drag racing applications.

In addition to the various cast-aluminum manifolds shown in this catalog, which are used on a variety of cores by cutting their length to match the core, Spearco can also fabricate special manifolds from aluminum sheet and channel for special applications to fit all intercooler installation requirements. Pictured in this catalog are some of the special intercooler assemblies which have been

produced for race, offroad, industrial, marine, and other applications. Spearco can fabricate to customer specifications or sketches and also offers complete engineering assistance for intercooler design and application.

In addition to the standard cores as listed herein, Spearco can manufacture special size bar and plate style cores in thicknesses of 1.25", 2.0", 2.25", 3.0", 3.5", 4.0", 4.5", and 6.0". Contact Spearco for any special size requirements.



All of Spearco's intercoolers are welded by certified technicians, trained to fabricate and build air-to-air and liquid-to-air assemblies to your exact specifications.



For custom fabrication, fax your specs on the Custom Intercooler Specification Fax Form available on the web at [WWW.TURBONETICSINC.COM](http://WWW.TURBONETICSINC.COM)



## SPEARCO INTERCOOLERS



PN 5-364

### 5-364

- Core Dimension  
3.50" thick x 10.50" tall x 28.0" wide
- Hose Connection – 3.0" OD

**650HP**



PN 2-221A-3C

### 2-221A-3C

- Core Dimension  
3.50" thick x 18.48" wide x 9.0" tall
- Hose Connection – 2.50" OD

**760HP**



PN 2-379

### 2-379

- Core Dimension  
3.50" thick x 7.90" tall x 28.0" wide
- Hose Connection – 2.50" OD

**500HP**



PN 5-377

### 5-377

- Core Dimension  
3.50" thick x 7.90" tall x 20.0" wide
- Hose Connection – 2.50" OD

**450HP**



PN 5-374

### 5-374

- Core Dimension  
3.50" thick x 7.90" tall x 20.0" wide
- Hose Connection – 2.50" OD

**450HP**



PN 5-312

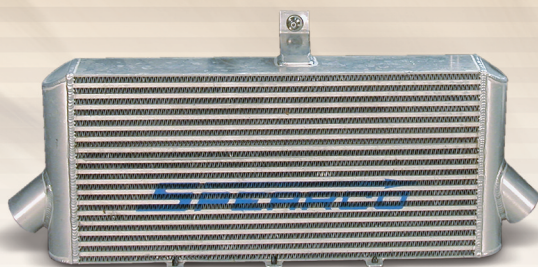
### 5-312

- Core Dimension  
3.50" thick x 10.50" tall x 24.0" wide
- Hose Connection – 3.0" OD

**550HP**



## SPEARCO INTERCOOLERS



**EVO VIII INTERCOOLER UPGRADE**  
PN 2-470 '03-

### EVO VIII INTERCOOLER UPGRADE

This direct bolt-on high performance intercooler upgrade features the same W.A.V.E. Technology as used in all the other high horsepower race cars. This intercooler is also the largest intercooler you can fit without any modification or cutting to the vehicle. All factory mounting brackets are retained. Computer modeled round end tank design, center air inlet and outlets provide maximum boost pressure distribution, increasing cooling efficiency and dramatically reducing pressure drop. The W.A.V.E. Tech core is capable of dropping temps by as much as 220° F. Kit includes all heavy duty T-bolt clamps and silicone hose needed for installation. Approximate install time 1-2 hours.

### DODGE NEON SRT-4 INTERCOOLER UPGRADE

This bolt-on intercooler features a W.A.V.E. Technology core which allows maximum efficiency and low pressure drops. Unique end tank design allows boost pressure to evenly distribute throughout the entire core, maximizing the entire surface area of the core. 5hp gains on the Stage 1 unit and as much as 15hp gain on the Stage 2 unit by just bolting them on. The Stage 2 kit will require the removal of the factory bumper reinforcement bar. Approximate install time 1-2 hours.



**DODGE NEON SRT-4 INTERCOOLER UPGRADE**  
PN 2-476



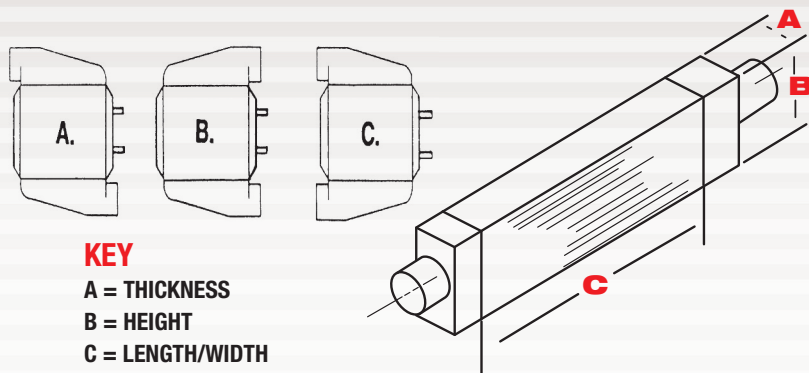
**SUBARU WRX/STI INTERCOOLER UPGRADE KIT**  
PN 2-450 WRX  
PN 2-451 STI

### SUBARU WRX/STI INTERCOOLER UPGRADE KIT

Spearco's WRX intercooler kit features the largest air-to-air top-mount intercooler on the market. Utilizing the factory mounting points, the massive 4.5"-thick unit bolts on easily without any modifications to the vehicle. Factory turbo piping and blow-off valve can be bolted on easily with standard hand tools. The massive 1,000 CFM intercooler offers a very low pressure drop and extremely low charge temperatures. Dyno results show performance improvements of up to 15 horsepower when compared to the stock intercooler. Comes complete with clamps and silicone hose. Approximate install time of 1-2 hours.



## SPEARCO AIR TO AIR



### KEY

A = THICKNESS

B = HEIGHT

C = LENGTH/WIDTH

CORE PART #	CORE SIZE	A THICKNESS	B HEIGHT	C LENGTH	FLOW RATE	ASSEMBLY PART #
2-102	3.00" x 17.00" x 36.00"	3.00"	17.00"	36.00"		
2-125	3.0" X 21.20" X 33.00"	3.00"	21.20"	33.00"		
2-110	3.50" x 9.24" x 6.00"	3.50"	9.24"	6.00"	540	2-220
2-113	3.50" x 6.80" x 11.75"	3.50"	6.80"	11.75"	320	2-222
2-120	3.50" x 7.90" x 24.00"	3.50"	7.90"	24.00"	740	2-238
2-161	3.50" x 7.90" x 12.88"	3.50"	7.90"	12.88"	700	2-225
2-172	3.50" x 10.40" x 10.50"	3.50"	10.40"	10.50"	1010	2-245
2-178	3.50" x 7.80" x 20.00"	3.50"	7.80"	20.00"	760	2-247
2-180	3.50" x 13.00" x 17.25"	3.50"	13.00"	17.25"	760	2-235
2-195	3.50" x 9.40" x 8.375"	3.50"	9.40"	8.375"	500	2-249
2-203	3.50" x 6.52" x 24.00"	3.50"	6.52"	24.00"	640	2-255
2-205	3.50" x 13.04" x 24.00"	3.50"	13.04"	24.00"	1280	2-256
2-216	3.50" x 10.50" x 28.00"	3.50"	10.50"	28.00"	790	2-272
2-174	4.50" x 16.40" x 8.75"	4.50"	16.40"	8.75"	1050	2-237
2-177	4.50" x 18.50" x 6.50"	4.50"	18.50"	6.50"	725	2-240
2-179	4.50" x 19.70" x 20.75"	4.50"	19.70"	20.75"	1000	2-277
2-127	6.0" x 5.875" x 22.00"	6.0"	5.875"	22.00"	1100	

### INTERCOOLER SELECTION GUIDE

Using any of the extensive line of air/air intercooler cores. Spearco can custom fabricate end tanks or intercooler manifolds in an endless number of configurations to fit individual specifications. Visit our website to see all of our configurations. Manifolds can be straight or tapered with tube sizes of 1.75", 2.0", 2.25", 2.50", 2.75", 3.0", and 4.0". In addition, the cast manifolds shown online can be modified by sawing off connections, capping, hole sawing, or welding in hose connections as required. Call today to custom build an intercooler that is right for you.

### WATER INLET / OUTLET CONNECTIONS ARE AVAILABLE IN:

1/2" NPT • 3/4" NPT • 1" NPT

Go online to view all of our intercooler core and assembly drawings



**TURBONETICS**  
GT-K Turbo Mustang





## SPEARCO AIR TO LIQUID

### AIR-TO-LIQUID INTERCOOLERS

Spearco offers basic air/liquid intercooler cores that can be combined in a large variety of ways to suit intercooler needs on Roots or Centrifugal superchargers and turbochargers. Refer to the detailed drawings online at [www.TurboneticsInc.com](http://www.TurboneticsInc.com).

Air/liquid intercoolers operate by pumping cooled water through the cores either from a front-mounted radiator or heat exchanger, or chilled water produced by circulating the liquid through a container filled with ice, as used in drag racing. Depending on engine size and heat load, we recommend a container that will hold a minimum of 12 pounds of ice. If a front radiator is used, this should be as large as possible since the temperature of the liquid entering the intercooler determines the cooling effectiveness. We recommend a radiator as used on small automobiles with a minimum surface area of at least 260 sq. inches. Radiator technology is preferable rather than oil cooler technology, as these are specifically designed to cool water/glycol. When these intercoolers are used with chilled water, it is possible in some cases, to get charge temperatures below ambient temperature. Therefore, remarkable increases in air density and power are possible.



PART #	CORE SIZE	A THICKNESS	B HEIGHT	C LENGTH	FLOW RATE	ASSEMBLY PART #
2-206	2.25" x 4.65" x 7.00"	2.25"	4.65"	7.00"	715	2-265
2-213	3.00" x 4.25" x 8.63"	3.00"	4.25"	8.63"	575	2-270
2-170	4.50" x 10.125" x 9.00"	4.50"	9.00"	10.125"	1500	2-230
2-171	4.50" x 10.125" x 4.50"	4.50"	4.50"	10.125"	750	2-231
2-202	6.00" x 12.00" x 13.51"	6.00"	13.51"	12.00"	1800	2-281

### DRAG RACING WITH AIR-TO-LIQUID INTERCOOLERS

There are diverse opinions about the advantage of air/liquid intercoolers versus air/air intercoolers in drag racing applications. Some say there is no advantage over air/air and they also say if there is an advantage it is offset by the added weight.

The real facts are that other than a small additional weight factor, a proper application of an air/liquid intercooler will increase power more than enough to offset any additional weight, and will always yield superior performance over an air/air unit. Furthermore, the additional weight is sometimes needed for ballast, eliminating this disadvantage. To understand why air/liquid intercoolers are superior for drag racing, consider that the cooling medium in

an air/air intercooler is the ambient temperature of the outside air at any given time. If we have an engine running at 30 psi of boost pressure, with an ambient temperature of 90°F, depending on compressor efficiency, the discharge temperature will be approximately 400°F.

Assume that you have an air/air intercooler that can give 90% effectiveness at over 100mph and less at lower vehicle speeds. 90% at the above condition will give a temperature out of the intercooler of approximately 120°F, and higher temperature out at lower speeds due to lower cooling and velocity across the surface of the core. Additionally, you are leaving the line with a hot intercooler caused by heating during burn out.



## APPAREL & MISCELLANEOUS

### T-SHIRTS



**WHITE T-SHIRT**  
(M, L, XL, 2XL, 3XL)



**BLACK T-SHIRT**  
(M, L, XL, 2XL, 3XL)

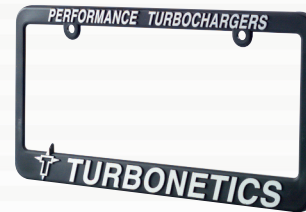


**GREY T-SHIRT**  
(M, L, XL, 2XL, 3XL)

### LICENSE PLATE FRAMES



PN 30687



PN 30315

### BADGES AND DECALS



**MYLAR DECAL** PN 2-1441

**DECAL** PN 21536  
Decal size: 12" x 4"

**BADGE** PN 21415  
Badge size: 1.125" x 4"



Patented CERAMIC BALL BEARING Technology  
[www.turboneticsinc.com](http://www.turboneticsinc.com)

**DECAL** PN 21535  
Decal size: 3.5" x 10"



**MYLAR DECAL** PN 21417

**BADGE** PN 21416  
Badge size: 1.125" x 4"

**BADGE** PN 21413  
Badge size: 1.625" x 6"





## TERMS & CONDITIONS RMA INSTRUCTIONS

### TERMS AND CONDITIONS

The following Terms and Conditions are effective November 1, 2006 and are subject to change without notice.

### PAYMENT METHOD

Visa, MasterCard, American Express, cashier's check, and money order are accepted. Company checks are accepted only upon approval.

### HEAT EXCHANGER ORDERS

All heat exchanger products are subject to customer-approved drawings and a 50% deposit prior to acceptance of the order. No returns or exchanges on customer-approved heat exchanger products will be accepted.

### SHIPPING

All shipments are FOB Simi Valley, California, USA Shipping charges include insurance for full value of the product unless prohibited by the shipping agency.

### FINAL SHIPMENT HOUR

Orders received no later than 2:00PM(14:00) will be shipped that day, inventory levels permitting.

### AUTOMATIC ORDER CANCELLATION

Unless told otherwise, Turbonetics will automatically cancel open orders (back orders) after 60 days from the order entry date.

### CLAIMS

A claim for damage in transit must be made by the customer directly to the shipping agency as soon as the damage is discovered. Turbonetics is not liable for the condition of merchandise as handled by the shipper once the shipper has accepted delivery from Turbonetics.

### RETURNED GOODS AUTHORIZATION TRACKING NUMBER

Turbonetics will only accept product returns, repair orders/upgrades, and warranty requests that have been approved and are returned with a corresponding Returned Goods Authorization (RGA) tracking number. Contact Turbonetics for approval and the RGA number. Write the RGA number clearly on the outside of the package and include it inside the package. This is very important in allowing us to properly identify and process your request. Failure to comply with this requirement will result in the delay of processing or the product being returned to you.

### RETURN POLICY

Only unused and complete merchandise may be accepted for return subject to inspection and acceptance by Turbonetics. No goods will be accepted without prior return authorization from Turbonetics. Call for approval and RGA (Returned Goods Authorization) tracking number.

- No returns will be accepted without an RGA tracking number.
- No returns will be accepted after ninety (90) days from the original shipping date from Turbonetics unless approved.
- All approved returns are subject to a 15% restocking charge NO EXCEPTIONS.
- The original invoice must accompany the return.
- Approved returns will be issued credit only.

### REPAIR ORDERS / PERFORMANCE UPGRADES

Contact a Sales and Technical Support Representative for information on turbocharger and related product repairs and performance upgrades. Available options, estimated pricing, shipment method, and RGA (Returned Goods Authorization) tracking number will be communicated at the time of the call. After receipt of the product, we will contact you with our visual inspection evaluation and final pricing. At that time you will be asked for approval to complete the repair / upgrade. Not communicating your decision within 30 days after this contact may result in the return of the product to you.

### REFUSED SHIPMENTS

Sending a shipment back to Turbonetics does not automatically constitute the right to a refund or credit. Turbonetics may, at its discretion, require different payment means for any reshipped refused shipments. It is the customer's responsibility to make all arrangements with Turbonetics for disposition of the refused shipment. Customer is responsible for all outgoing and return shipping and handling charges regardless of disposition of refused shipment. Accounts that refuse a COD-Cashier's Check/Money Order shipment will require a new payment method prior to acceptance of future orders.

### RETURNED CHECKS

Any customer checks returned to Turbonetics for insufficient funds from any institution will incur a \$25.00 USD processing charge. Any customer who submits an invalid check will be refused further shipments until such time as any outstanding debt is cleared. Customers submitting invalid checks are subject to cancellation of their buying status and / or their payment terms. Turbonetics will prosecute any fraudulent payments to the full extent of the law.

### WARRANTY - "NO-FAULT / NO-HASSLE" WARRANTY PROGRAM

Turbonetics will repair or replace, at our expense, any new Turbonetics / Spearco products that fail, including products used in racing or competition applications, for a period of one year from the original date of purchase. (All turbocharger and cartridge assemblies have a factory installed inline oil filtration device. This filter device must remain in place if any warranty is to be considered under the No-Fault / No-Hassle program.) Warranty is limited to Turbonetics products and does not include progressive or consequential damage and does not cover removal or installation labor or associated parts. Remanufactured units, upgraded units, and O.E.M. replacement units are covered by a 90-day warranty or the O.E. warranty period. Warranty is non-transferable and must be processed via the original purchaser from Turbonetics. Contact Turbonetics for return approval, RGA (Returned Goods Authorization) tracking number, and shipping method PRIOR to sending the product to Turbonetics. Our Customer Service Representative will provide packaging and shipping instructions. Please include your invoice with the shipment.

Turbonetics products are manufactured to strict quality standards using all the latest and highest grade materials. All turbochargers are professionally assembled and VSR tested as complete assemblies to assure proper balance, oil flow and long life with trouble free performance. Turbonetics highly recommends that the installation of mechanical or electrical parts be performed by trained professionals. Improperly installed products may lead to unsafe and unreliable conditions.



2255 AGATE COURT, SIMI VALLEY, CA 93065

TEL: (805) 581-0333 / FAX: (805) 584-1913

Call the Turbonetics Customer Service Department @ (805) 581-0333. Be prepared to provide the representative with the Warranty Registration Number. The Customer Service Representative will provide you with a RGA (Returned Goods Authorization) number, packing and shipping instruction. The RGA number must be clearly marked on the outside of the box and all accompanying documentation. Information regarding the failure or damage must also accompany the components, i.e., mileage, description of defect, point of purchase, etc. Any warranty requests sent to Turbonetics without a RGA number will be refused. The Customer (MWD/WD/End-user) is responsible for all freight charges. Please allow 10-15 business days for turn-around.

**Note:** Turbochargers that are sent in to Turbonetics under the warranty claim and under inspection the unit is found to have zero manufacturer defects, the customer will be subject to standard repair fees and shipping charges.

Actual products may vary from pictorial representations in catalog.





Turbonetics Inc. 2255 Agate Ct. Simi Valley, CA 93065

[TURBONETICSINC.COM](http://TURBONETICSINC.COM) (805) 581-0333 Fax: (805) 584-1913

Designed by: [KTCMEDIAGROUP.COM](http://KTCMEDIAGROUP.COM)

\$5.00