

#TRUSTGARRETT

VOLUME 6

MAXIMUM HORSEPOWER + ON DEMAND BOOST + THE REPLACEMENT FOR DISPLACEMENT



CELEBRATING 80 YEARS OF MAKING THINGS FASTER

Garrett[®]
by Honeywell

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OUR HISTORY

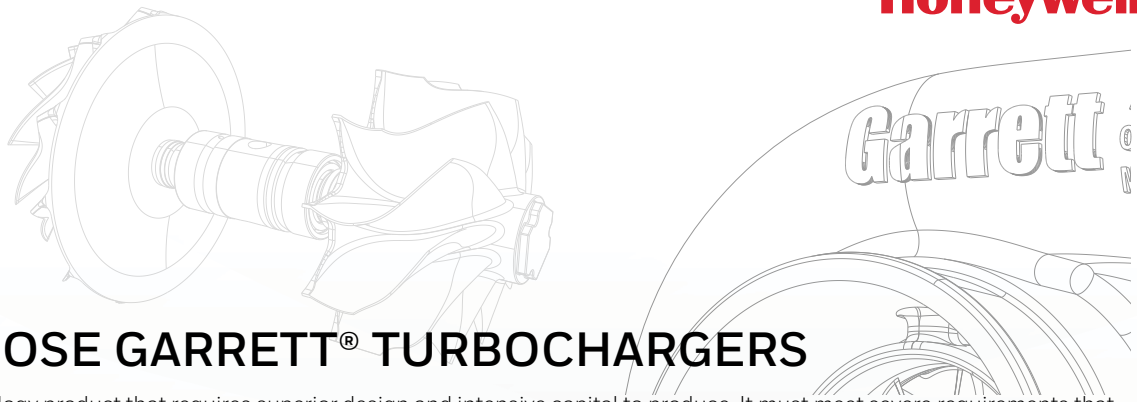
The heritage of the turbo business began in 1936 when young Cliff Garrett formed his company in a tiny, one-room office in Los Angeles. With encouragement and financial support from friends like Jack Northrop and Harry Wetzell, Cliff founded the company that would later become the Garrett Corporation. Number of employees, 1. Number of customers, 1.

Through names such as AiResearch, AlliedSignal, and now Garrett by Honeywell, the business has sustained a reputation for revolutionizing turbocharger technologies generation after generation. From the world's first turbocharged production car – the Oldsmobile Jetfire Rocket - to the first Garrett® turbocharged car to win the Indianapolis 500, Honeywell's industry-leading technology and patented designs are used daily for both OE and aftermarket vehicle applications. Honeywell turbocharger technology is the preferred choice for leading original equipment manufacturers including: Audi, BMW, GM, Daimler Chrysler, DDC, Fiat, Ford, International Truck Co, Peugeot, Renault, Saab, and Volkswagen. Top race teams in Formula 1, CART, World Rally, American Le-Mans, 24 Hours of Le Mans, Formula Drift, Global Time Attack, and Pikes Peak rely on Honeywell turbo technology to keep them on the podium.

Today, our Honeywell legacy in both Aerospace and automotive industries helps create some of the most innovative and high-performing turbochargers in the world that can enable a four cylinder turbocharged engine to perform like a non-turbocharged V6 engine while providing 20-40% greater fuel efficiency. Honeywell's global engineering network continues to inspire technological innovation around the world.



The products contained in this catalog are performance aftermarket parts that are not legal for street use in certain states or countries, unless a type-approval/executive order has been obtained e.g. by the distributor of the product. Check with your distributor before using in any vehicle on a public road or highway. You should check with your state or applicable country authorities to find out whether these products are legal for street use in your state or country. Applicable laws may also prohibit tampering with parts or vehicle design elements affecting emissions on vehicles intended for use on public roads. You are responsible for ensuring that the use of this product complies with all applicable laws, regulations and ordinances (including, but not limited to, emission, noise, safety, and type-approval/executive order). Any vehicle modifications using the products in this catalog are completed AT YOUR OWN RESPONSIBILITY and AT YOUR OWN RISK. A vehicle modification using these performance aftermarket products may affect or void a vehicle's warranty, operating license/registration or type-approval/executive order. You should consult your local laws, as well as the owner's manual and service manual of your vehicle. You should also contact your vehicle's manufacturer to determine what effect modifications may have on safety, warranty, performance, and other aspects of your vehicle. These products generally may be used on racing vehicles that will never be driven on public roads or highways.



WHY CHOOSE GARRETT® TURBOCHARGERS

A turbo is a high technology product that requires superior design and intensive capital to produce. It must meet severe requirements that only a world class manufacturer can achieve.

Honeywell is one of the few turbocharger manufacturers that subjects our turbos to several OE qualification tests. These tests ensure Honeywell produces a safe and reliable turbo for OE applications. When you buy a Garrett® turbocharger you can be sure it is reliable.

On-Engine Durability – More than 1,000-hours of general turbocharger durability, is run on-engine in one of Garrett's engineering laboratories.

Gas Stand Cyclic Durability – A several hundred hour durability test is conducted on a gas stand where the turbo is run past its normal operating limits.

Compressor & Turbine Housing Containment – A compressor/turbine wheel is weakened to hub burst at a specific speed. No portion of the wheel is allowed to penetrate a containment shroud surrounding the turbocharger. A test to ensure safety. See full article at www.TurboByGarrett.com/turbobygarrett/Garrett_White_Papers

Shaft Motion – The maximum tolerances of the bearing system are tested for rotordynamic stability beyond the maximum turbocharger operating speed. This means no bearing problems and a long turbo life.

Thrust Bearing Capacity – A test that stresses the thrust bearing at extreme conditions. This test makes sure your Garrett® turbocharger can tolerate the load you put it through.

Compressor & Turbine Seal – Multiple turbochargers are run on-engine under conditions designed to cause seal leakage. No significant leakage is allowed during these tests.

Heat Soakback – A turbocharger instrumented with thermocouples is taken beyond maximum operating temperature and shut down hard! Repeat the test four more times and make sure maximum temperatures stay within our strict limits to avoid oil coking or build up inside the center housing. This is particularly critical for high temperature gasoline applications.

Compressor & Turbine Performance – The entire operating range of both the compressor and turbine are mapped on one of Honeywell's performance gas stands. These test cells are calibrated to strict standards to assure accuracy and consistency.

Compressor & Turbine Blade Frequencies – Honeywell has strict requirements for compressor and turbine blade natural frequency. This is critical on large trims where the blade must be stiff enough to withstand potentially damaging vibrations.

Thermal Cycle – A several hundred hour endurance test that cycles the turbocharger from low temperature to glowing red every 10 minutes. To ensure a long turbo life, no cracking of the turbine housing or distortion of the heat shroud are allowed.

Rotor Inertia – A measurement made to document the rotational inertia of Honeywell's compressor and turbine wheels. Garrett® turbochargers are known for their high flow / low inertia characteristics.

Shaft Critical Speed – An analytical test that ensures that destructive shaft critical speeds are well out of the turbocharger operating range. For example, large wheels may require a large shaft diameter to avoid the shaft bending critical speed.

Wheel Fatigue – Honeywell will only sell compressor or turbine wheels that have passed a cyclic fatigue test. Honeywell runs tests on a regular basis to ensure quality and to constantly improve our products.

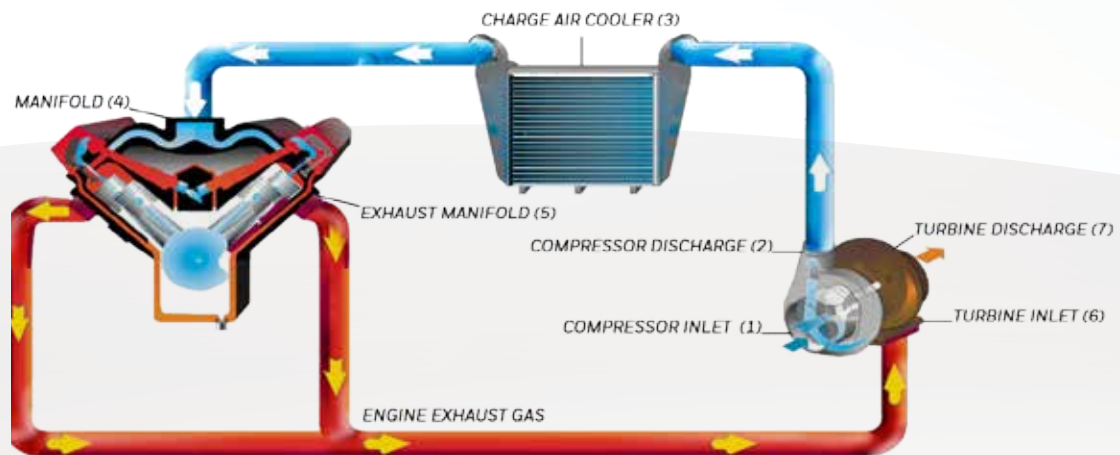
Turbo Vibration – The entire turbocharger is vibrated and monitored on Honeywell's large shaker table to ensure product durability.

HOW A TURBOSYSTEM WORKS

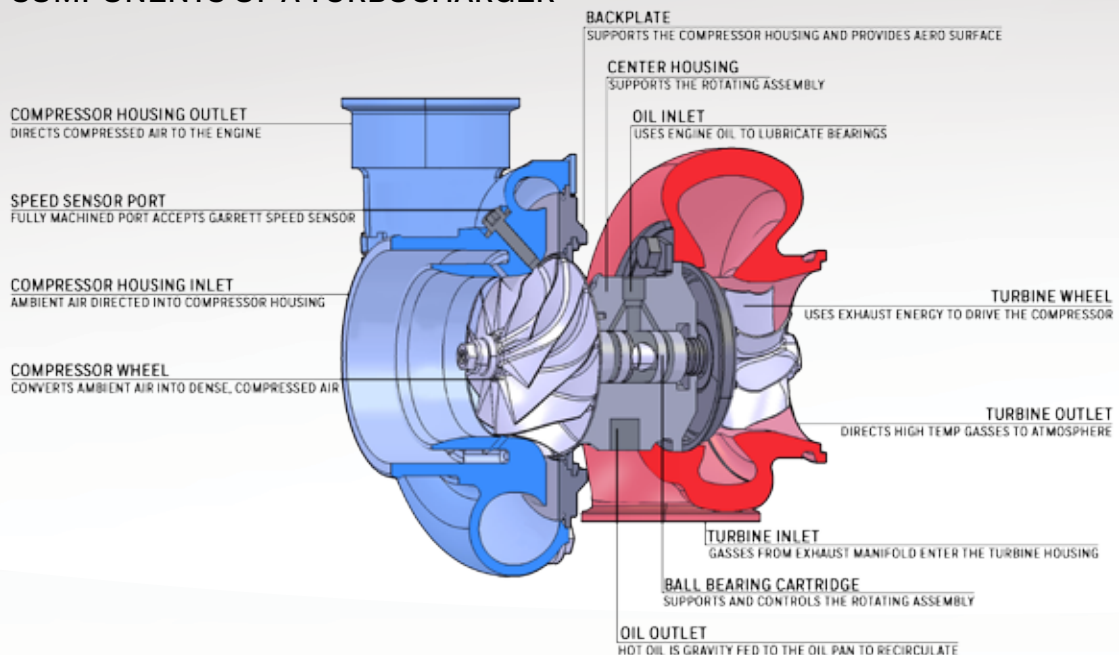
Engine power is proportional to the amount of air and fuel that can get into the cylinders. All things being equal, larger engines flow more air and as such will produce more power. If we want our small engine to perform like a large engine, or simply make our larger engine produce more power, our ultimate objective is to deliver more air into the cylinder. By installing a Garrett® turbocharger, the power and performance of an engine can be dramatically increased.

SO HOW DOES A TURBOCHARGER DELIVER MORE AIR INTO THE ENGINE?

- (1) **Compressor Inlet:** Opening through which ambient air passes before entering the compressor.
- (2) **Compressor Discharge:** Ambient air is then compressed which raises the air's density (mass / unit volume).
- (3) **Charge Air Cooler (aka Intercooler):** cools the compressed air to increase its density and to increase resistance to detonation.
- (4) **Intake Manifold:** Directs dense air into the engine's cylinders. Each cylinder draws in an increased mass flow rate of air. Higher air mass flow rate allows a higher fuel flow rate (with similar air/fuel ratio). Combusting more fuel results in more power for a given displacement.
- (5) **Exhaust Manifold:** Directs burned fuel and exhaust gasses from the cylinders towards the turbine.
- (6) **Turbine Inlet:** Directs high temperature exhaust gas towards the turbine wheel. The turbine creates backpressure on the engine which means engine exhaust pressure is higher than atmospheric pressure.
- (7) **Turbine Discharge:** A pressure and temperature drop occurs (expansion) across the turbine, which harnesses the exhaust gas' energy to provide the power necessary to drive the compressor wheel.



COMPONENTS OF A TURBOCHARGER



GARRETT® DUAL BALL BEARING

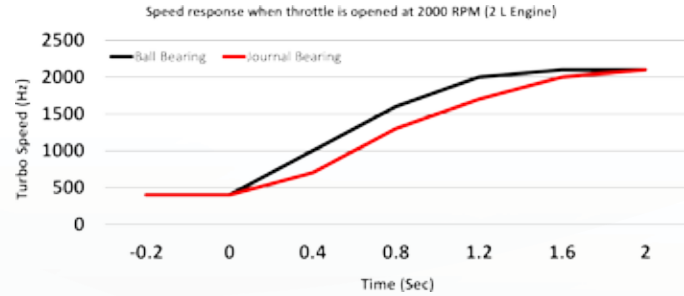
Ball bearing innovation began as a result of work with the Garrett Motorsports group for several racing series where it received the term the “cartridge ball bearing”. The cartridge is a single sleeve system that contains a set of angular contact ball bearings on either end, whereas the traditional bearing system contains a set of journal bearings and a thrust bearing.

Turbo Response – When driving a vehicle with the cartridge ball bearing turbocharger, you will find exceptionally crisp and strong throttle response. Garrett® Ball Bearing turbochargers spool up 15% faster than traditional journal bearings. This produces an improved response that can be converted to quicker 0-60 mph speed. In fact, some professional drivers of Garrett® ball-bearing turbocharged engines report they feel like they are driving a large, normally aspirated engine.

Reduced Oil Flow – The ball bearing design reduces the required amount of oil required to provide adequate lubrication. This lower oil volume reduces the chance for seal leakage. Also, the ball bearing is more tolerant of marginal lube conditions, and diminishes the possibility of turbocharger failure on cold start conditions.

Read more at www.TurboByGarrett.com/turbobygarrett/Garrett_White_Papers

Improved Rotordynamics and Durability – The ball bearing cartridge gives better damping and control over shaft motion, increasing reliability for both every day and extreme driving conditions. In addition, the opposed angular contact bearing cartridge eliminates the need for the thrust bearing, a common weak link in the turbo bearing system.



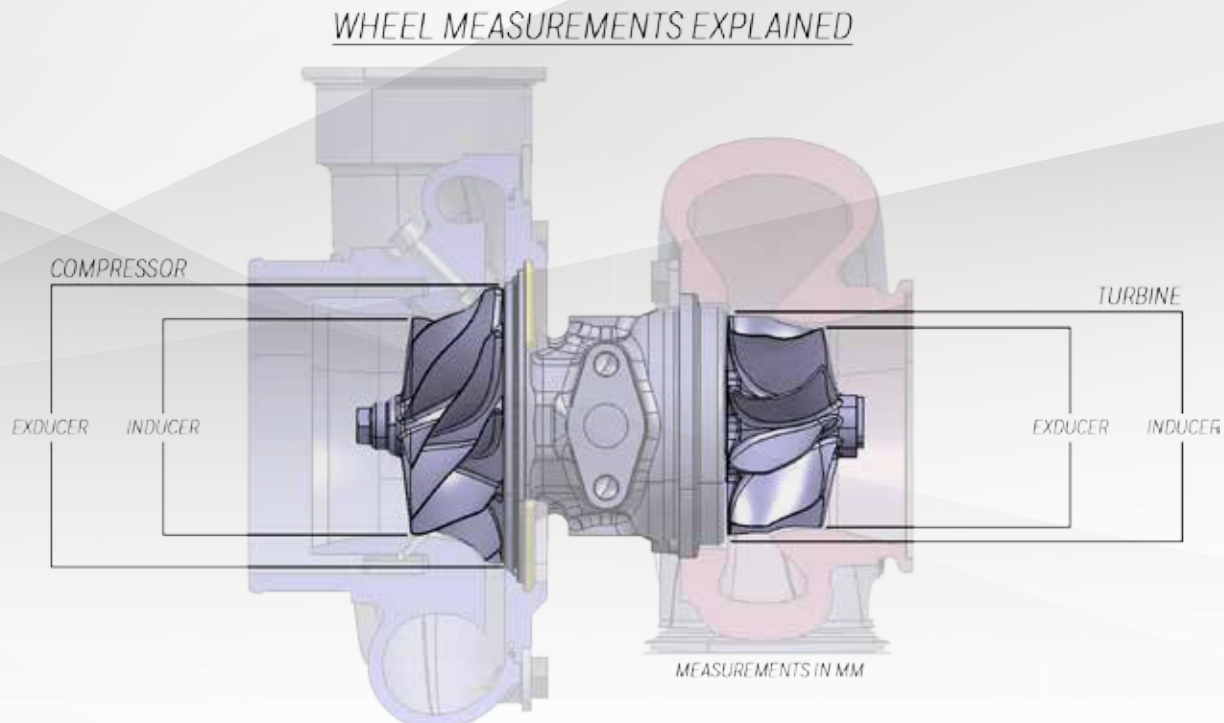
WHEEL TRIM

Trim is a common term used when talking about or describing turbochargers. For example, you may hear someone say “I have a GT2871R 56 Trim turbocharger”. What is trim? Trim is a term used to express the relationship between the inducer and exducer of both turbine and compressor wheels. More accurately, it is an area ratio. Based on aerodynamics and air entry paths, the inducer for a compressor wheel is the smaller diameter. For turbine wheels, the inducer is the larger diameter.

The trim of a wheel, whether compressor or turbine, affects performance by shifting the airflow capacity. All other factors held constant, a higher trim wheel will flow more than a smaller trim wheel. However, it is important to note that very often all other factors are not held constant. So just because a wheel is a larger trim does not necessarily mean that it will flow more.

Compressor Trim = $(\text{Inducer}^2 / \text{Exducer}^2) \times 100$

Turbine Trim = $(\text{Exducer}^2 / \text{Inducer}^2) \times 100$



HOW TO READ A COMPRESSOR MAP

The compressor map describes each compressor's performance characteristics, including efficiency, mass flow rate, turbo speed, choke line, surge line, and pressure ratio. Below is a figure that identifies these aspects.

Efficiency Islands: Efficiency Islands are concentric regions that represent the compressor efficiency at any point on the map. The smallest island near the center of the map is the highest or peak efficiency island. As the rings move out from there, the efficiency drops by the indicated amount until the surge and choke limits are reached.

Mass Flow Rate: Mass Flow Rate is the mass of air flowing through a compressor over period of time and is expressed as lb/min. As a very general rule, turbocharged gasoline engines generate 10.0-11.0* horsepower at the flywheel for each lb/min of airflow. So, an engine with a target peak horsepower of 400 Hp will require 36-40 lb/min of airflow to achieve that target. Many people use Volumetric Flow Rate (expressed in cubic feet per minute, CFM or ft³/min) instead of mass flow rate. Volumetric flow rate can be converted to mass flow by multiplying by the air density. Air density at sea level is 0.076lb/ft³. Mass flow can be physically measured, but in many cases it is sufficient to estimate the mass flow when choosing the proper turbo.

Turbo Speed: Turbo Speed Lines are constant turbo speed measured in RPM. As turbo speed increases, the pressure ratio and mass flow increases. Turbo speed lines are very close together at the far right edge of the map indicating a potential turbo over-speed condition.

Choke Line: The Choke Line is the right hand boundary of the compressor map and defined at the point where the efficiency drops below 58%. In addition to the rapid drop of compressor efficiency past this point, turbo speed also approaches or exceeds the recommended limit. If your actual or predicted operation is beyond this limit, a larger compressor is necessary.

Surge Line: Surge is the left hand boundary of the compressor map and represents a region of flow instability. This region is characterized by mild flutter to wildly fluctuating boost from the compressor. Continued operation within this region can lead to premature turbo failure due to heavy thrust loading. Surge will decay once the turbo speed finally slows enough to reduce the boost and move the operating point back into the stable region. This situation is commonly addressed by using a Blow-Off Valves (BOV) or bypass valve. A BOV functions to vent intake pressure to atmosphere so that the mass flow ramps down smoothly, keeping the compressor out of surge. In the case of a recirculating bypass valve, the airflow is recirculated back to the compressor inlet.

Pressure Ratio: $\Pi_c = \frac{P_{2c}}{P_{1c}}$
 Where:
 Π_c = Pressure Ratio
 P_{2c} = Absolute Outlet Pressure
 P_{1c} = Absolute Inlet Pressure

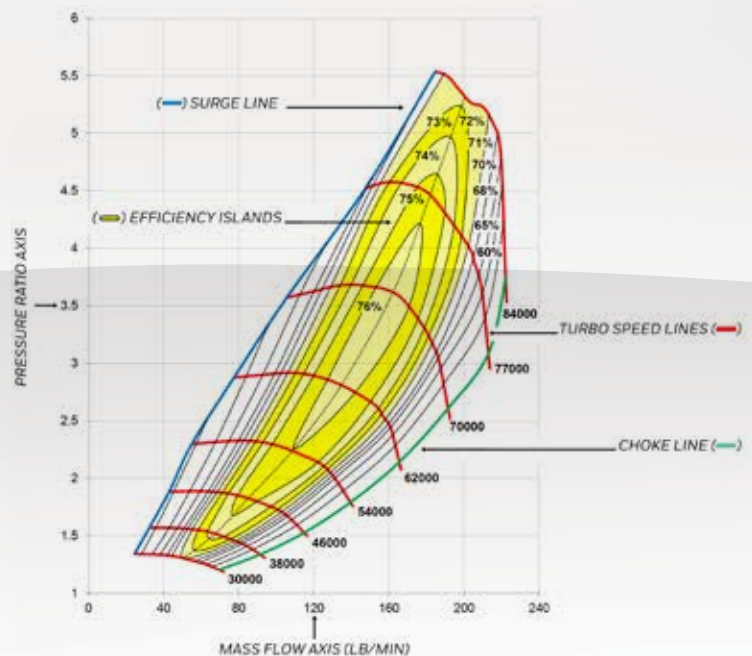
Absolute Pressure: It is important to use units of Absolute Pressure for both P_{2c} and P_{1c}. Absolute Pressure at sea level is 14.7 PSia. In units of PSia, the "a" refers to "absolute". This is referred to as standard atmospheric pressure at standard conditions.

Gauge Pressure: Measures the pressure above atmospheric, so a gauge pressure reading at atmospheric conditions will read zero. Boost gauges measure the manifold pressure relative to atmospheric pressure, and thus are measuring Gauge Pressure. In units of PSig, the "g" refers to "gauge". This is important when determining P_{2c}.

Calculating P_{2c}: For example, a reading of 12 PSig on a boost gauge means that the air pressure in the manifold is 12 PSI above atmospheric pressure. For standard atmospheric conditions, 12 PSig + 14.7 PSia = 26.7 PSI absolute compressor outlet pressure (P_{2c}). The pressure ratio at this condition can now be calculated: 26.7 / 14.7 = 1.82

Depression: A pressure loss upstream of the compressor by any restriction from the air filter or restrictive ducting. Depression can be 1 PSig or more on some intake systems. In determining pressure ratio, the absolute pressure at the compressor inlet (P_{1c}) is often LESS than the ambient pressure, especially at high load. Taking into account the 1 psig intake depression, the pressure ratio is now: (12 psig + 14.7 PSia) / 13.7 PSia = 1.95

Elevation: Higher elevations can have a significant effect on pressure ratio. Turbo speed increases to compensate for increases in altitude. Substitute the actual atmospheric pressure in place of the 14.7 psi in the equations above to give a more accurate calculation. For example, at Denver's 5000 feet elevation, the atmospheric pressure is typically around 12.4 psia. In this case, the pressure ratio calculation, taking into account the intake depression, is: (12 psig + 12.4 psia) / (12.4 psia - 1 psig) = 2.14 Compared to the 1.82 pressure ratio calculated originally, this is a big difference.



* Estimated Horsepower. Performance results of this product are highly dependent upon your vehicle's modifications and tuning/calibration. The horsepower numbers represented above are calculated based strictly on choke flow of the compressor map (total turbo capability), which represents the potential flywheel horsepower.

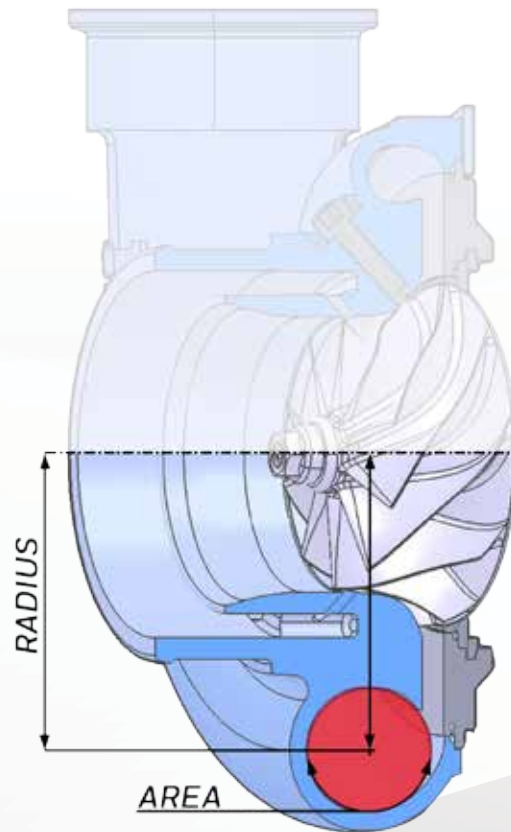
WHAT IS A/R?

A/R (Area/Radius) describes a geometric characteristic of all compressor and turbine housings. It is defined as the inlet (or, for compressor housings, the discharge) cross-sectional area divided by the radius from the turbo centerline to the centroid of that area.

Compressor A/R - Compressor performance is comparatively insensitive to changes in A/R. Larger A/R housings are sometimes used to optimize performance of low boost applications, and smaller A/R are used for high boost applications. However, as this influence of A/R on compressor performance is minor, there are rarely A/R options available for compressor housings.

Turbine A/R - Turbine performance is greatly affected by changing the A/R of the housing. Using a smaller A/R will increase the exhaust gas velocity into the turbine wheel providing increased turbine power at lower engine speeds and resulting in quicker boost response. The smaller A/R also causes the flow to enter the wheel more tangentially, which reduces the ultimate flow capacity of the turbine wheel. This will increase exhaust backpressure and reduce the engine's ability to breathe effectively at high RPM, adversely affecting peak engine power. Using a larger A/R will lower exhaust gas velocity, and delay boost response. The flow in a larger A/R housing enters the wheel in a more radial fashion, increasing the wheel's effective flow capacity, resulting in lower backpressure and more power at higher engine speeds.

When deciding between A/R options, be realistic with the intended vehicle use and choose the A/R to bias the performance toward the desired powerband characteristic.



HOW DO I CHOOSE THE RIGHT TURBO

The primary input in determining which turbocharger is appropriate is to have a target horsepower in mind. This should be as realistic as possible for the application. Remember that engine power is generally proportional to air and fuel flow. Once you have a target horsepower identified along with your engine displacement, you begin to hone in on the turbocharger size, which is highly dependent on airflow requirements.

Other important factors include the type of application. An autocross car, for example, requires rapid boost response. A smaller turbocharger or smaller turbine housing would be most suitable for this application. While this will trade off ultimate power due to increased exhaust backpressure at higher engine speeds, boost response of the small turbo will be excellent. Alternatively, on a car dedicated to track days, peak horsepower is a higher priority than low-end torque. Plus, engine speeds tend to be consistently higher. Here, a larger turbocharger or turbine housing will provide reduced backpressure but less-immediate low-end response. This is a welcome tradeoff given the intended operating conditions.

Selecting the turbocharger for your application goes beyond "how much boost" you want to run. Defining your target power level and the primary use for the application are the first steps in enabling your Performance Distributor to select the right turbocharger for you. To find your local Performance Distributor visit: [TurboByGarrett.com/TurboByGarrett/Distributor](https://www.turbobygarrett.com/TurboByGarrett/Distributor). You can also download our Boost Adviser app for your mobile device. Visit [TurboByGarrett.com/turbobygarrett/BoostAdviser](https://www.turbobygarrett.com/turbobygarrett/BoostAdviser) for more details.

TROUBLESHOOTING

POSSIBLE CAUSES	SYMPTOMS										SOLUTION	
	Engine lacks power	Black smoke	Excessive oil consumption	Blue smoke	Noise	Excessive oil - compressor end	Excessive oil - turbine end	Drag or bind in rotating assembly	Excessive rotating assembly play	Damaged compressor wheel		Damaged turbine wheel
Dirty air cleaner element	●	●										Clean or replace filter element
Plugged crankcase breathers			●			●	●					Clear obstruction per manufacturer's manual
Air cleaner element missing, leaking, or loose connections to turbo						●		●		●		Replace, repair or reconnect air cleaner element per manufacturer's manual
Collapsed or restricted air pipe before turbocharger	●	●		●		●						Inspect pipe for damaged or obstruction, replace or repair
Restricted or damaged crossover pipe - turbo to inlet manifold	●	●				●	●					Inspect pipe for damaged or obstruction, replace or repair
Foreign object between cleaner and turbocharger	●	●				●	●	●	●	●		Inspect air intake piping, remove foreign object
Foreign object in exhaust system (check engine)	●	●				●	●	●	●	●	●	Inspect exhaust piping only when engine is not running and cold, remove foreign object
Turbocharger flanges, clamp or bolts loose	●	●	●	●		●	●	●	●	●	●	Inspect all connecting hardware for damage, ensure tight fits per installation instructions
Inlet manifold cracked, gaskets, loose or missing, connections loose	●	●		●		●	●					Remove and inspect inlet manifold for damage to castings and gaskets, replace if needed
Exhaust manifold cracked, burned, gasket loose, blown or missing	●	●				●						Remove exhaust manifold only when engine is cold and not running and inspect for damage to castings and gaskets, replace if needed
Restricted exhaust system					●							Inspect exhaust system only when engine is cold, not running, remove obstruction
Oil lag at start-up								●	●			Inspect lubrication system lines, filters and oil for obstruction, remove obstruction
Insufficient lubrication								●	●			Inspect lubrication system lines, filters and oil for obstruction, remove obstruction
Lubricating oil contaminated with dirt or other material								●	●			Replace all filters and lubricating oil with new per manufacturer's manual
Improper lubricating oil type used								●	●			Replace lubricating oil with correct grade
Restricted oil feed line						●	●	●	●			Remove and inspect oil line, remove obstruction
Restricted oil drain line			●				●					Remove and inspect oil line, remove obstruction
Turbine housing damaged Or restricted	●	●			●					●		Remove turbine housing, inspect for cracks or wear, replace if needed
Turbocharger seal leakage			●	●		●	●					Inspect for proper oil feed / drain line installation. Contact Garrett distributor for rebuild
Worn journal bearings	●	●	●			●	●	●	●	●	●	Contact a Garrett performance distributor or Garrett master distributor
Excessive dirt build-up behind turbine wheel	●	●		●	●	●		●		●		Inspect air cleaner element and intake piping for damage or leaks, replace if needed. Clean compressor wheel and housing
Excessive carbon build-up behind compressor housing	●	●		●	●	●		●		●		Inspect crankcase ventilation
Too fast acceleration at initial start								●	●			Decrease acceleration at initial start
Too little warm-up time								●	●			Extend warm-up period
Fuel pump malfunction	●	●										Refer to engine manufacturer's manual and replace if needed
Worn or damaged injectors	●	●										Inspect injectors for damage and replace if needed
Valve timing	●	●										Refer to engine manufacturer's manual and replace if needed
Burned valves	●	●										Refer to engine manufacturer's manual and replace if needed
Worn piston rings	●	●										Refer to engine manufacturer's manual and replace if needed
Burned pistons								●	●			Refer to engine manufacturer's manual and replace if needed
Leaking oil feed line				●			●					Remove and inspect oil line, remove obstruction
Excessive engine pre-oil			●	●		●	●					Refer to engine manufacturer's manual and replace if needed
Excessive engine idle			●	●			●			●		Refer to engine manufacturer's manual and replace if needed
Coked or sludged center housing									●			Contact a Garrett performance distributor or Garrett master distributor
Oil pump malfunction			●	●		●	●	●	●	●	●	Refer to engine manufacturer's manual and replace if needed
Oil filter plugged	●	●	●	●	●							Refer to engine manufacturer's manual and replace if needed
Oil bath cleaner: air inlet screen restricted / dirty air cleaner	●	●	●	●	●							Replace air inlet screen
Oil bath air cleaner: oil pull-over / oil viscosity too low or high	●	●	●	●	●							Replace lubricating oil with correct grade
Boost control malfunction: wastegate	●	●	●	●	●	●	●	●	●	●	●	Inspect for damage, leaks or obstructions; replace or repair if needed
Boost control malfunction: vnt	●	●	●	●	●	●	●	●	●	●	●	Contact a Garrett performance distributor or Garrett master distributor
Boost control malfunction: engine management system	●	●	●	●	●	●	●	●	●	●	●	Refer to manufacturer's manual and adjust as needed

● Probable cause
□ Not a probable cause

Nearly all turbocharger-related problems are the result of a handful of causes. Knowing how to recognize the symptoms of these issues early and link them with causes will help you save downtime and money. The chart above outlines the probable causes and noticeable conditions of the most common turbocharger maladies as well as what you can do to solve them. If a problem falls outside of your mechanical comfort level, contact a Performance Distributor or a Master Distributor for assistance. www.TurboByGarrett.com/TurboByGarrett/Distributor

GTX SERIES

Garrett® GTX Series turbochargers are designed specifically for the hard-core enthusiast who wants optimal performance. The forged fully-machined billet aluminum compressor wheels feature next generation aerodynamics that provide a larger horsepower range and maximize boost response. Ported shroud compressor housings increase surge resistance and provide reliable, continuous power throughout the power band.

A dual ceramic ball bearing cartridge prolongs the lifespan and improves shaft balance. The water cooled CHRA keeps housing temperatures to a minimum. The turbine wheel is constructed from Inconel, a Super Alloy that maintains strength during prolonged exposure to high exhaust gas temperatures.

Turbine kits are offered in open volute and twin scroll, and a variety of A/R and flange configurations. GTX Series turbochargers are used by today's top motorsports teams and are ready to boost you to the podium or wherever your destination may be.

GEN II PRODUCT UPDATES UPDATED FEATURES ON SELECT GTX TURBOCHARGERS



GENII COMPRESSOR AERODYNAMICS FOR INCREASED HORSEPOWER RANGE
FULLY MACHINED SPEED SENSOR PORT FOR DATA ACQUISITION
LIGHT WEIGHT ALUMINUM BACKPLATE FOR WEIGHT REDUCTION

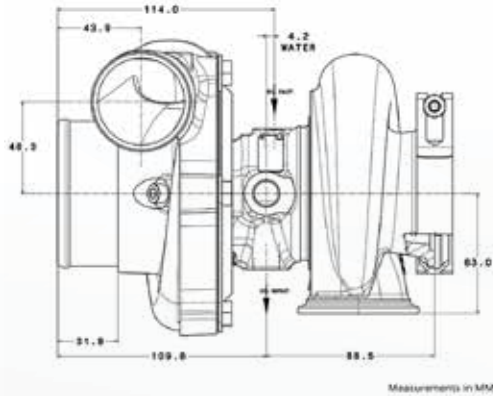


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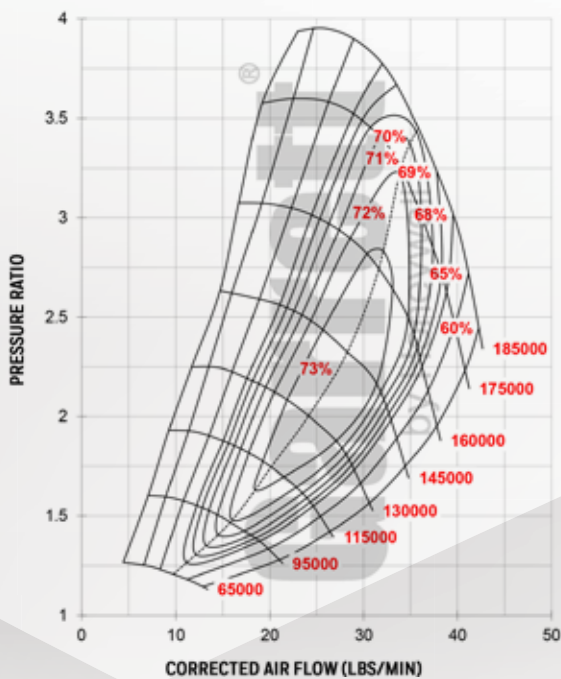
GTX2860R GEN II NEW PRODUCT

Honeywell

Horsepower: 200 - 475
Displacement: 1.4L - 2.5L



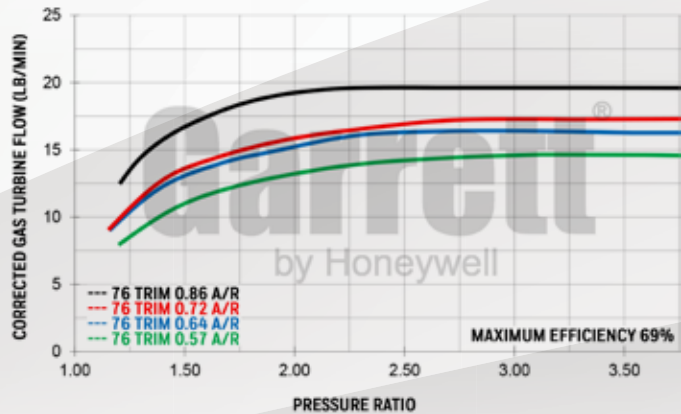
COMPRESSOR MAP



FEATURES:

- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
- ◆ IMPROVED PORTED SHROUD DESIGN FOR SURGE RESISTANCE
- ◆ NEW FULLY MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE HSG)

EXHAUST FLOW CHART



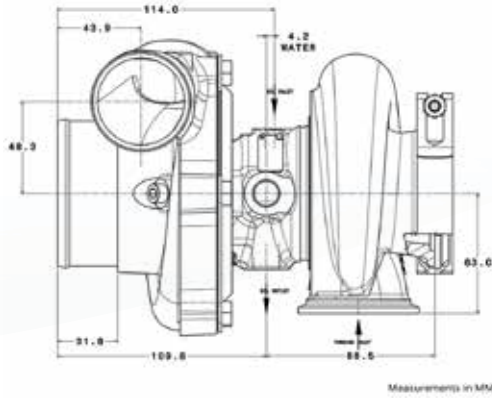
Super Core Reference Data		Compressor				Turbine		
		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
GTX2860R		46mm	60mm	58	0.60	54mm	47mm	76
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Assembly Kit PN Includes Super Core and Turbine Kit	856800-5003S	849894-5001S	827690-0003	0.64	T25	5 bolt	Wastegated	N
	856800-5004S	849894-5001S	827690-0004	0.86	T25	5 bolt	Wastegated	N
	856800-5001S	849894-5001S	827690-0001	0.57	V-Band	V-Band	Free Float	N
	856800-5002S	849894-5001S	827690-0002	0.72	V-Band	V-Band	Free Float	N

Garrett
by Honeywell

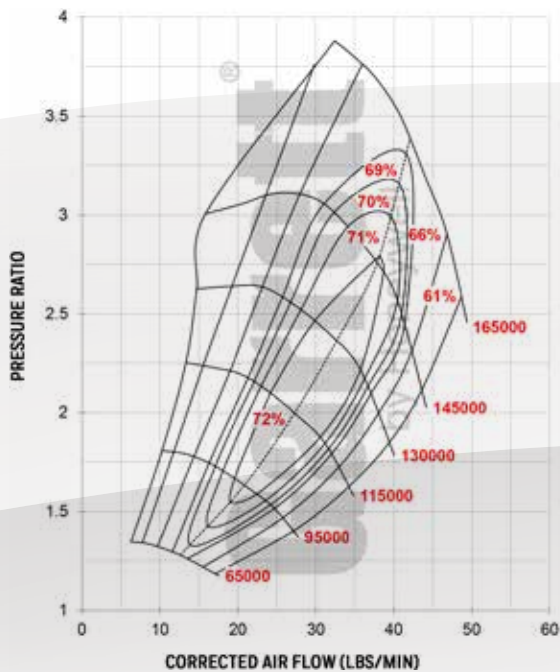
GTX2867R GEN II NEW PRODUCT

Honeywell

Horsepower: 275 - 550
Displacement: 1.4L - 2.5L



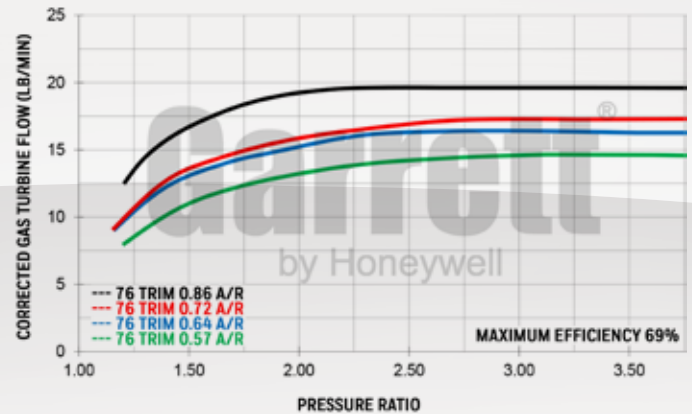
COMPRESSOR MAP



FEATURES:

- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
- ◆ IMPROVED PORTED SHROUD DESIGN FOR SURGE RESISTANCE
- ◆ NEW FULLY MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE HSG)

EXHAUST FLOW CHART



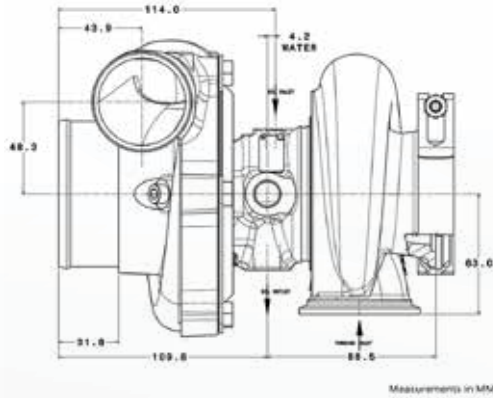
Super Core Reference Data		Compressor				Turbine		
		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
GTX2867R		50mm	67mm	55	0.60	54mm	47mm	76
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Assembly Kit PN Includes Super Core and Turbine Kit	856800-5007S	849894-5002S	827690-0003	0.64	T25	5 bolt	Wastegated	N
	856800-5008S	849894-5002S	827690-0004	0.86	T25	5 bolt	Wastegated	N
	856800-5005S	849894-5002S	827690-0001	0.57	V-Band	V-Band	Free Float	N
	856800-5006S	849894-5002S	827690-0002	0.72	V-Band	V-Band	Free Float	N

Garrett
by Honeywell

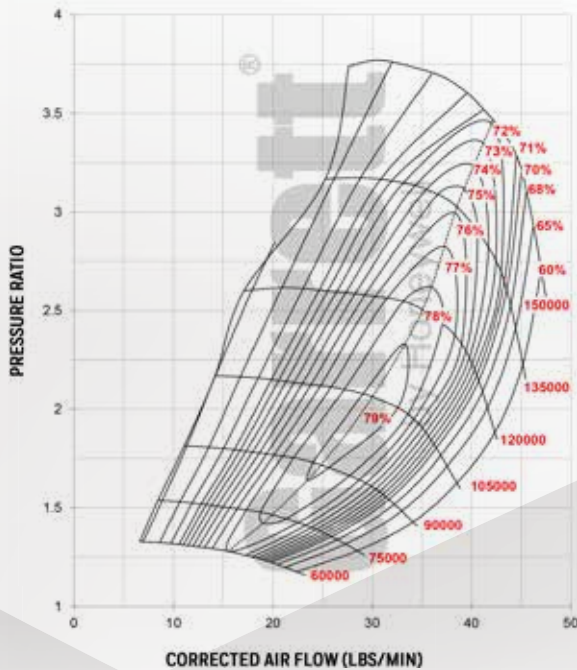
GTX2967R

Horsepower: 275 - 470
Displacement: 1.8L - 3.0L

Honeywell



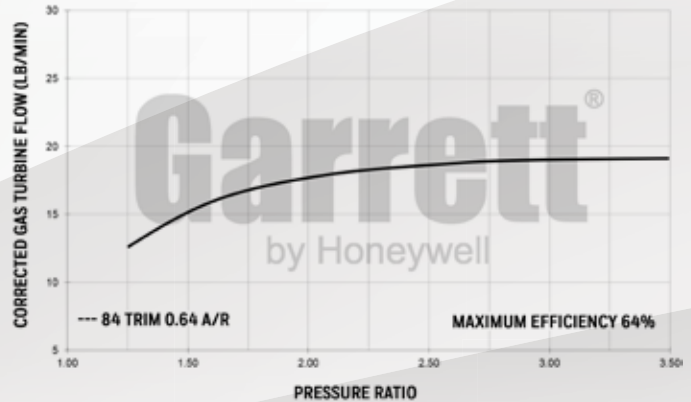
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY

EXHAUST FLOW CHART

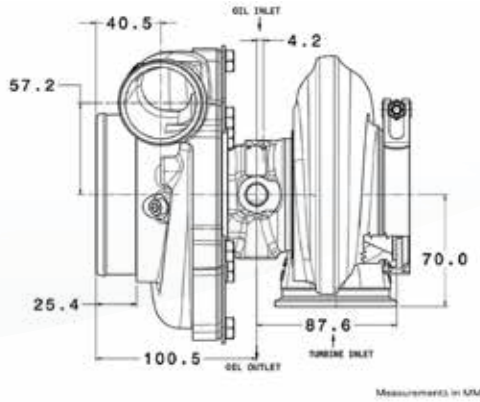


Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA PN	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
836041-5001S	836013-0001	50mm	67mm	55	0.60	57mm	52mm	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		827690-0006	0.64	T25	5-Bolt	Wastegated	N	84
		740902-0048	0.61	V-Band	V-band	Free Float	N	84
		740902-0047	0.83	V-Band	V-band	Free Float	N	84
		740902-0046	1.01	V-Band	V-band	Free Float	N	84

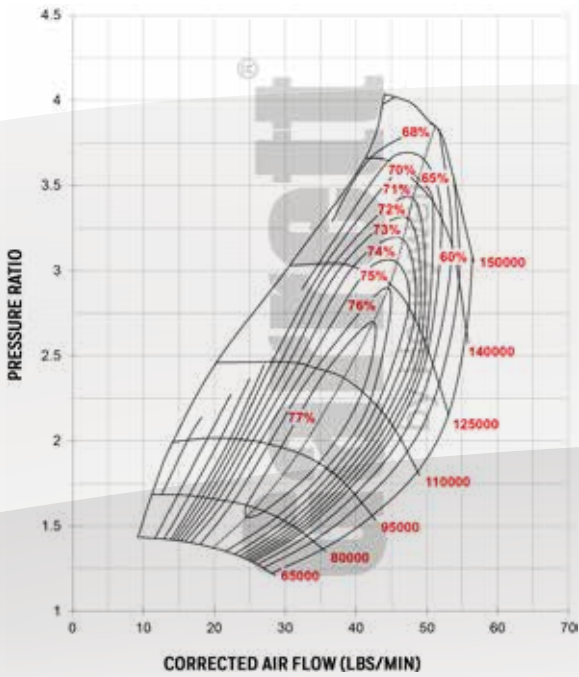
GTX2971R

Horsepower: 340 - 560
Displacement: 1.8L - 3.0L

Honeywell



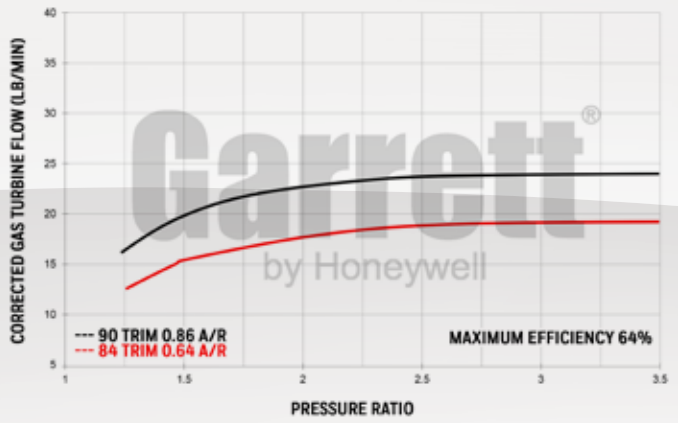
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ AVAILABLE IN 84 AND 90 TRIM TURBINE OPTIONS

EXHAUST FLOW CHART

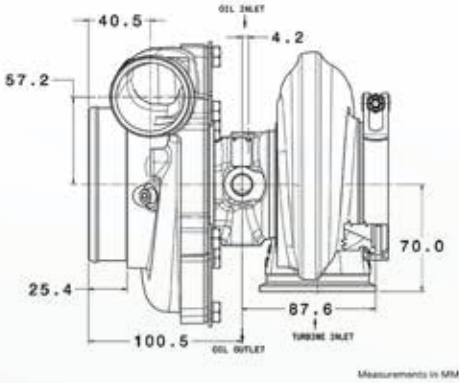


Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA PN	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
836041-5002S	836013-0002	54mm	71mm	58	0.60	57mm	52mm	84
836041-5003S	836013-0003	54mm	71mm	58	0.60	57mm	54mm	90
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		827690-0006	0.64	T25	5-Bolt	Wastegated	N	84
		827690-0007	0.86	T25	5-Bolt	Wastegated	N	90
		740902-0048	0.61	V-Band	V-band	Free Float	N	84
		740902-0051	0.61	V-Band	V-band	Free Float	N	90
		740902-0047	0.83	V-Band	V-band	Free Float	N	84
		740902-0050	0.83	V-Band	V-band	Free Float	N	90
		740902-0046	1.01	V-Band	V-band	Free Float	N	84
740902-0049	1.01	V-Band	V-band	Free Float	N	90		

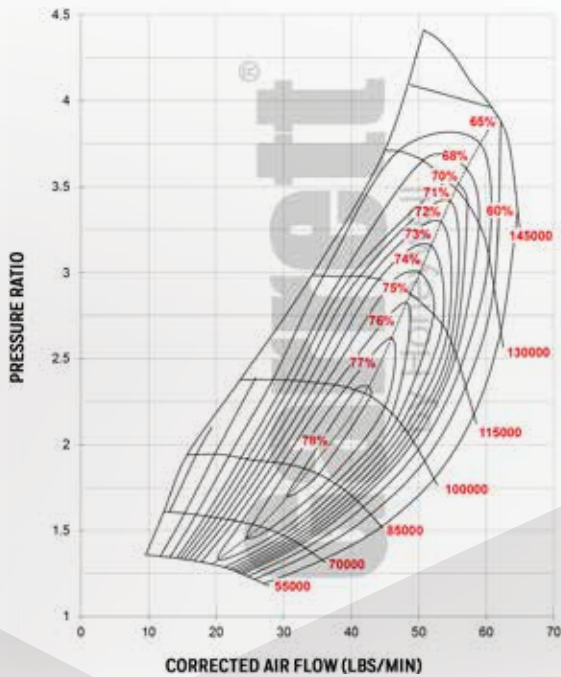
GTX2976R

Horsepower: 360 - 620
Displacement: 1.8L - 3.0L

Honeywell



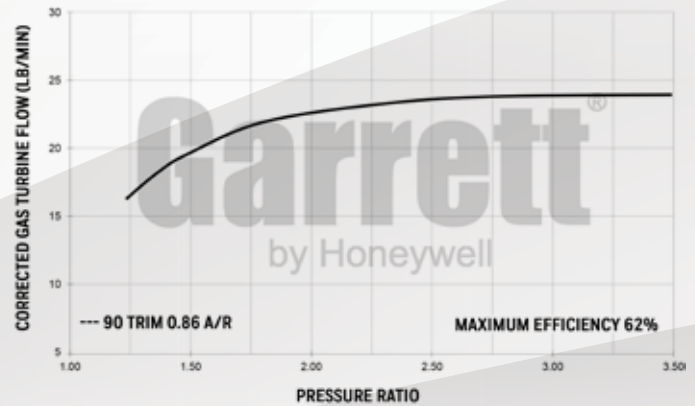
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY

EXHAUST FLOW CHART



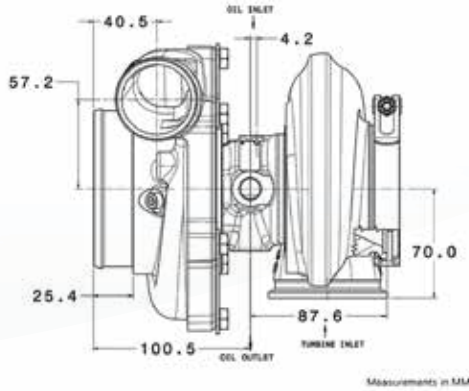
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA PN	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
836041-5004S	836013-0004	58mm	76mm	58	0.60	57mm	54mm	90
Notes:		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
Super Core and Turbine Kit Sold Separately		827690-0007	0.86	T25	5-Bolt	Wastegated	N	90
		740902-0051	0.61	V-Band	V-band	Free Float	N	90
		740902-0050	0.83	V-Band	V-band	Free Float	N	90
		740902-0049	1.01	V-Band	V-band	Free Float	N	90

Garrett
by Honeywell

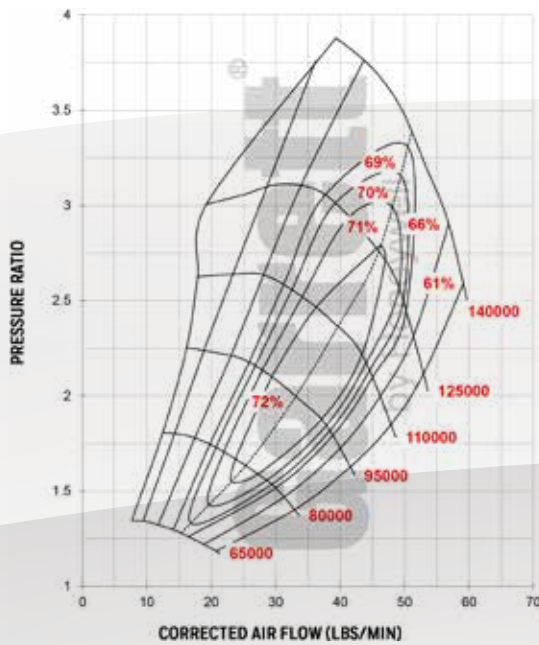
GTX3071R GEN II NEW PRODUCT

Honeywell

Horsepower: 340 - 650
Displacement: 1.8L - 3.0L



COMPRESSOR MAP

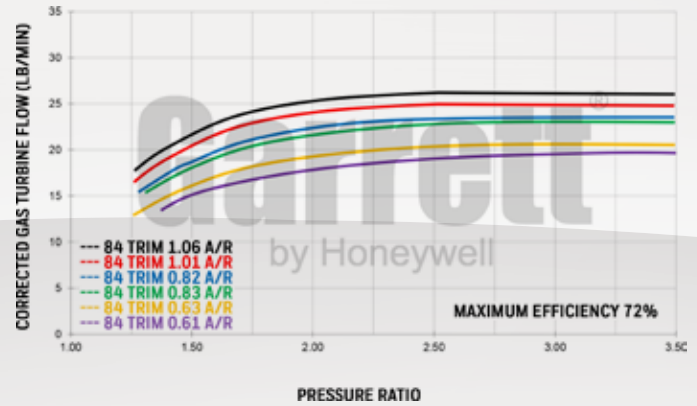


FEATURES:

- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
- ◆ NEW FULLY MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE HSG)
- ◆ NEW REVERSE ROTATION CONFIGURATIONS AVAILABLE

*WASTEGATED TURBINE BOLTS & CLAMPS SEE PG. 60

EXHAUST FLOW CHART



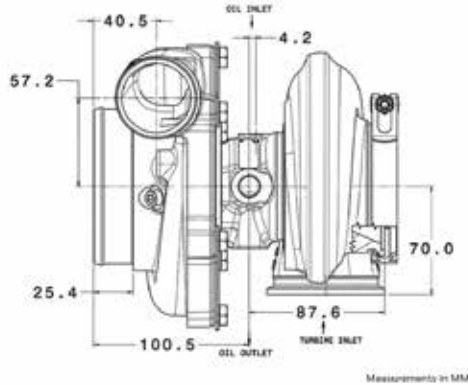
		Compressor				Turbine		
Super Core Reference Data		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
GTX3071R Standard Rotation		54mm	71mm	58	0.60	60mm	55mm	84
GTX3071R Reverse Rotation		54mm	71mm	58	0.60	60mm	55mm	84
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Assembly Kit PN Includes Super Core and Turbine Kit	856801-5006S	851154-5002S	740902-0009	0.63	T3	V-Band	Free Float	N
	856801-5005S	851154-5002S	740902-0008	0.82	T3	V-Band	Free Float	N
	856801-5004S	851154-5002S	740902-0007	1.06	T3	V-Band	Free Float	N
	856801-5018S	851154-5002S	740902-0036	0.61	V-Band	V-Band	Free Float	N
	856801-5017S	851154-5002S	740902-0035	0.83	V-Band	V-Band	Free Float	N
	856801-5016S	851154-5002S	740902-0034	1.01	V-Band	V-Band	Free Float	N
Wastegated Turbine Assembly PN does not include bolts, clamps, or actuator	856801-5021S	851154-5002S	771300-0006	0.63	T3	5 bolt	Wastegated	N
	856801-5020S	851154-5002S	771300-0005	0.82	T3	5 bolt	Wastegated	N
	856801-5019S	851154-5002S	771300-0004	1.06	T3	5 bolt	Wastegated	N
Reverse Rotation Configuration	Assembly Kit PN	Super Core PN	Turbine Asbly PN	A/R	Inlet	Outlet	Wastegate	Divided
Reverse Rotation Configuration	856802-5001S	844621-5003S	740902-0053	0.61	V-Band	V-Band	Free Float	N
	856802-5002S	844621-5003S	740902-0054	0.83	V-Band	V-Band	Free Float	N
	856802-5003S	844621-5003S	740902-0055	1.01	V-Band	V-Band	Free Float	N

Garrett
by Honeywell

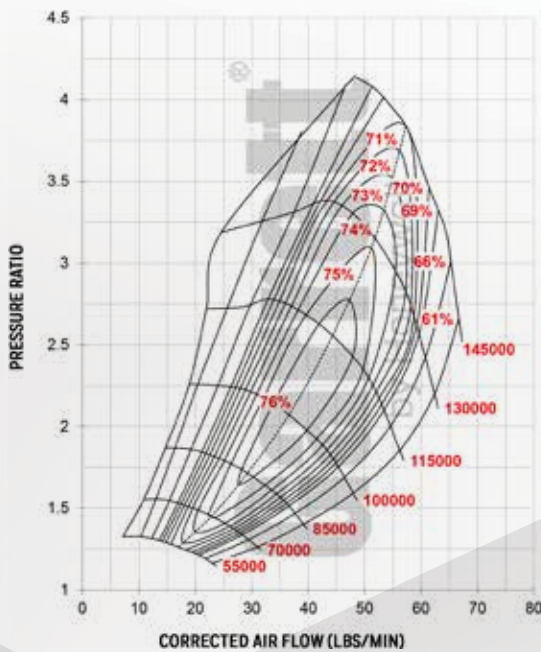
GTX3076R GEN II NEW PRODUCT

Honeywell

Horsepower: 400 - 750
Displacement: 1.8L - 3.0L



COMPRESSOR MAP

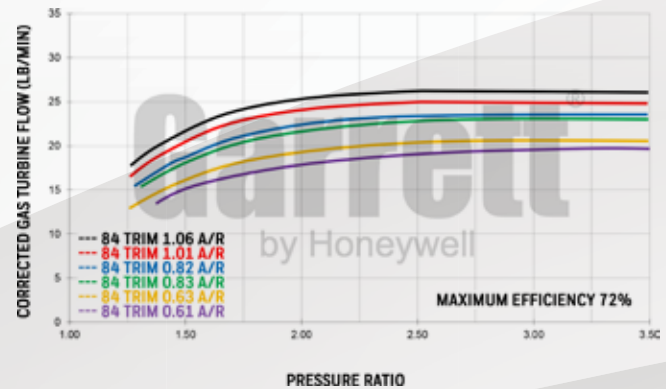


FEATURES:

- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
- ◆ NEW FULLY MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ WASTEGATE ACTUATORS & BRACKET KIT AVAILABLE ON PG. 56
- ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE KIT)
- ◆ NEW REVERSE ROTATION OPTIONS AVAILABLE

*WASTEGATED TURBINE BOLTS & CLAMPS SEE PG. 60

EXHAUST FLOW CHART



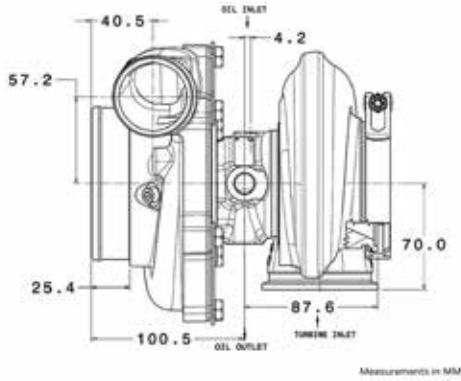
		Compressor				Turbine		
		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
Super Core Reference Data								
GTX3076R Standard Rotation		58mm	76mm	58	0.60	60mm	55mm	84
GTX3076R Reverse Rotation		58mm	76mm	58	0.60	60mm	55mm	84
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Assembly Kit PN Includes Super Core and Turbine Kit	856801-5027S	851154-5001S	740902-0009	0.63	T3	V-Band	Free Float	N
	856801-5026S	851154-5001S	740902-0008	0.82	T3	V-Band	Free Float	N
	856801-5025S	851154-5001S	740902-0007	1.06	T3	V-Band	Free Float	N
	856801-5039S	851154-5001S	740902-0036	0.61	V-Band	V-Band	Free Float	N
	856801-5038S	851154-5001S	740902-0035	0.83	V-Band	V-Band	Free Float	N
	856801-5037S	851154-5001S	740902-0034	1.01	V-Band	V-Band	Free Float	N
Wastegated Turbine Assembly does not include bolts, clamps, or actuator	856801-5042S	851154-5001S	771300-0006	0.63	T3	5 bolt	Wastegated	N
	856801-5041S	851154-5001S	771300-0005	0.82	T3	5 bolt	Wastegated	N
	856801-5040S	851154-5001S	771300-0004	1.06	T3	5 bolt	Wastegated	N
Reverse Rotation Configuration	Assembly Kit PN	Super Core PN	Turbine Asbly PN	A/R	Inlet	Outlet	Wastegate	Divided
	856802-5004S	844621-5004S	740902-0053	0.61	V-Band	V-Band	Free Float	N
	856802-5005S	844621-5004S	740902-0054	0.83	V-Band	V-Band	Free Float	N
	856802-5006S	844621-5004S	740902-0055	1.01	V-Band	V-Band	Free Float	N

Garrett
by Honeywell

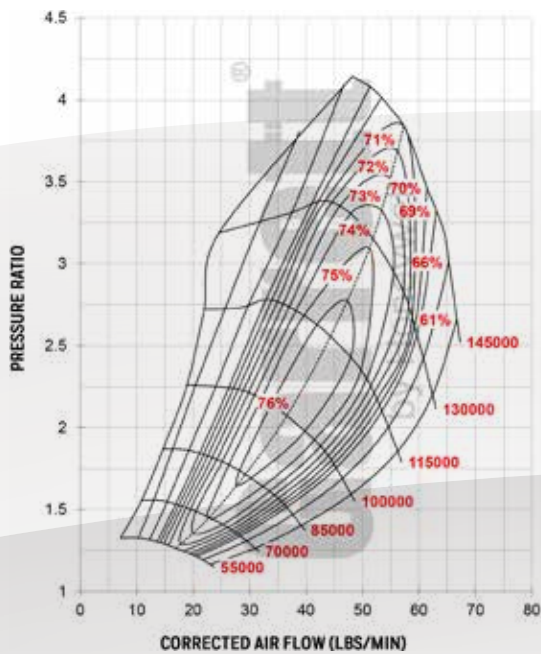
GTX3576R GEN II NEW PRODUCT

Honeywell

Horsepower: 400 - 750
Displacement: 2.0L- 4.5L

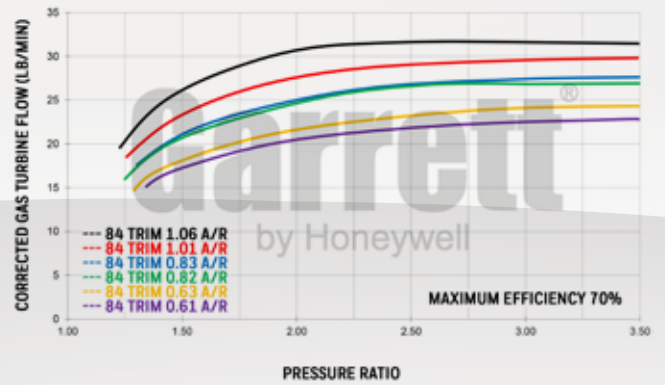


COMPRESSOR MAP



- FEATURES:**
- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
 - ◆ NEW FULLY MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
 - ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE KIT)
 - ◆ NEW REVERSE ROTATION OPTIONS AVAILABLE

EXHAUST FLOW CHART



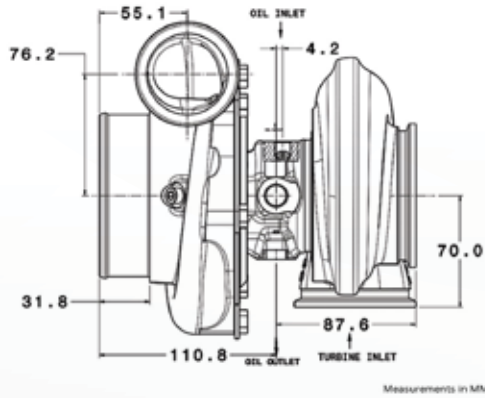
Super Core Reference Data		Compressor				Turbine		
		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
GTX3576R Standard Rotation		58mm	76mm	58	0.60	68mm	62mm	84
GTX3576R Reverse Rotation		58mm	76mm	58	0.60	68mm	62mm	84
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Assembly Kit PN Includes Super Core and Turbine Kit	856801-5048S	851154-5003S	740902-0012	0.63	T3	V-Band	Free Float	N
	856801-5047S	851154-5003S	740902-0011	0.82	T3	V-Band	Free Float	N
	856801-5046S	851154-5003S	740902-0010	1.06	T3	V-Band	Free Float	N
	856801-5051S	851154-5003S	740902-0018	0.63	T4	V-Band	Free Float	N
	856801-5050S	851154-5003S	740902-0017	0.82	T4	V-Band	Free Float	N
	856801-5049S	851154-5003S	740902-0016	1.06	T4	V-Band	Free Float	N
	856801-5060S	851154-5003S	740902-0033	0.61	V-Band	V-Band	Free Float	N
	856801-5059S	851154-5003S	740902-0032	0.83	V-Band	V-Band	Free Float	N
Reverse Rotation Configuration	856803-5001S	844626-5003S	740902-0056	0.61	V-Band	V-Band	Free Float	N
	856803-5002S	844626-5003S	740902-0057	0.83	V-Band	V-Band	Free Float	N
	856803-5003S	844626-5003S	740902-0058	1.01	V-Band	V-Band	Free Float	N

Garrett
by Honeywell

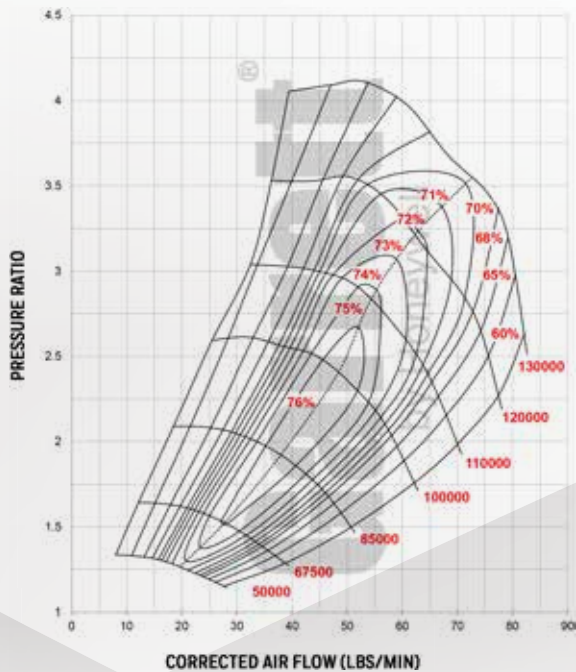
GTX3582R GEN II NEW PRODUCT

Honeywell

Horsepower: 450 - 850
Displacement: 2.0L - 4.5L

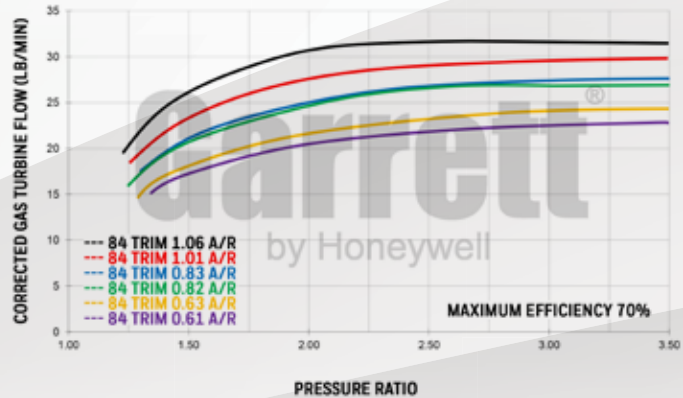


COMPRESSOR MAP



- FEATURES:**
- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
 - ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
 - ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE KIT)
 - ◆ NEW REVERSE ROTATION OPTIONS AVAILABLE

EXHAUST FLOW CHART



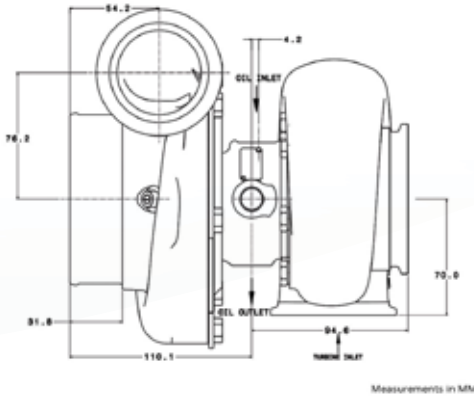
Super Core Reference Data		Compressor				Turbine		
		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
GTX3582R Standard Rotation		66mm	82mm	64	0.70	68mm	62mm	84
GTX3582R Reverse Rotation		66mm	82mm	64	0.70	68mm	62mm	84
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Assembly Kit PN Includes Super Core and Turbine Kit	856801-5069S	851154-5004S	740902-0012	0.63	T3	V-Band	Free Float	N
	856801-5068S	851154-5004S	740902-0011	0.82	T3	V-Band	Free Float	N
	856801-5067S	851154-5004S	740902-0010	1.06	T3	V-Band	Free Float	N
	856801-5072S	851154-5004S	740902-0018	0.63	T4	V-Band	Free Float	N
	856801-5071S	851154-5004S	740902-0017	0.82	T4	V-Band	Free Float	N
	856801-5070S	851154-5004S	740902-0016	1.06	T4	V-Band	Free Float	N
	856801-5081S	851154-5004S	740902-0033	0.61	V-Band	V-Band	Free Float	N
	856801-5080S	851154-5004S	740902-0032	0.83	V-Band	V-Band	Free Float	N
	856801-5079S	851154-5004S	740902-0031	1.01	V-Band	V-Band	Free Float	N
Reverse Rotation Configuration	856803-5004S	844626-5004S	740902-0056	0.61	V-Band	V-Band	Free Float	N
	856803-5005S	844626-5004S	740902-0057	0.83	V-Band	V-Band	Free Float	N
	856803-5006S	844626-5004S	740902-0058	1.01	V-Band	V-Band	Free Float	N

Garrett
by Honeywell

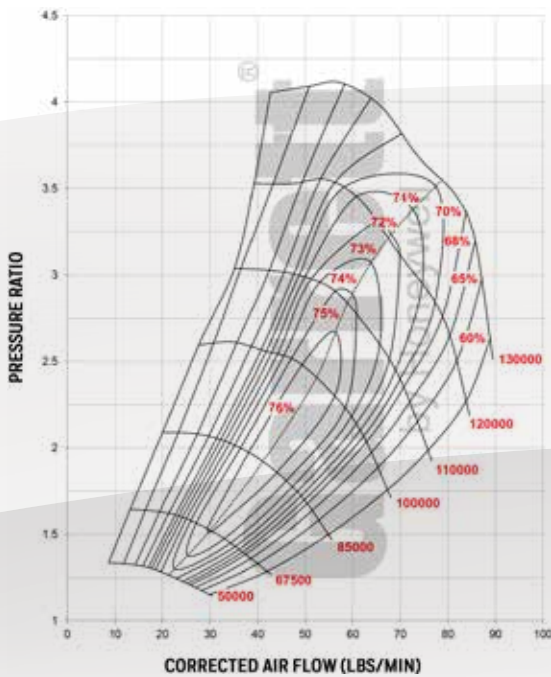
GTX3584RS NEW PRODUCT

Honeywell

Horsepower: 550 - 1000
Displacement: 2.0L - 5.5L



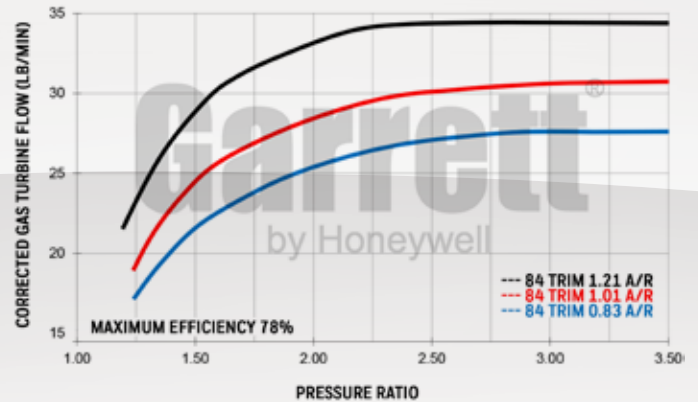
COMPRESSOR MAP



FEATURES:

- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
- ◆ "RS" DESIGNED, HIGH HORSEPOWER TURBINE WHEEL
- ◆ COMPACT DESIGN FOR TIGHT INSTALLATIONS
- ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ SOLD AS ASSEMBLY KITS (SUPER CORE + TURBINE KIT)
- ◆ COMP OUTLET AVAILABLE IN V-BAND & HOSE CONNECTION

EXHAUST FLOW CHART



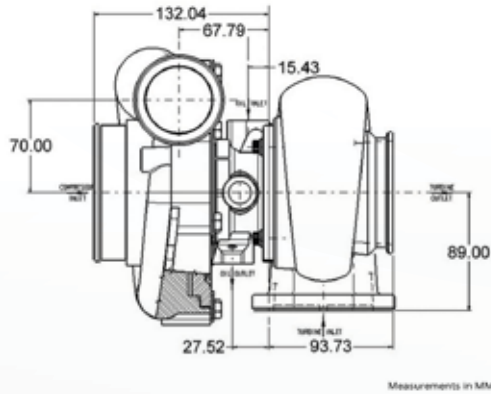
Super Core Reference Data		Compressor				Turbine		
		Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
GTX3584RS Hose Bead Comp Outlet		67mm	84mm	64	0.72	68mm	62mm	84
GTX3584RS V-Band Comp Outlet		67mm	84mm	64	0.72	68mm	62mm	84
Notes:	Assembly Kit PN	Super Core PN	Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided
Hose Bead Comp Outlet	856804-5001S	846098-5001S	740902-0067	0.83	V-Band	V-Band	Free Float	N
	856804-5002S	846098-5001S	740902-0066	1.01	V-Band	V-Band	Free Float	N
	856804-5003S	846098-5001S	740902-0052	1.21	V-Band	V-Band	Free Float	N
V-Band Comp Outlet	856804-5004S	846098-5002S	740902-0067	0.83	V-Band	V-Band	Free Float	N
	856804-5005S	846098-5002S	740902-0066	1.01	V-Band	V-Band	Free Float	N
	856804-5006S	846098-5002S	740902-0052	1.21	V-Band	V-Band	Free Float	N

*GTX3584 turbine housings not compatible with other GT/GTX35 housings

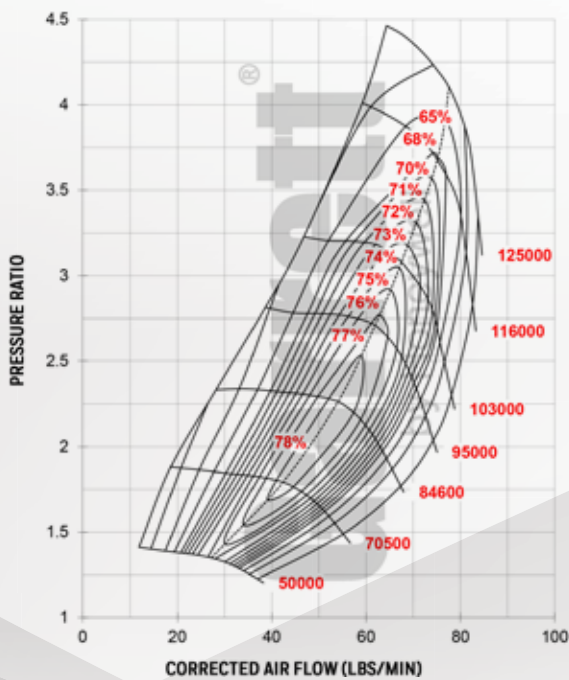
GTX4088R

Horsepower: 460 - 850
Displacement: 2.0L - 6.0L

Honeywell



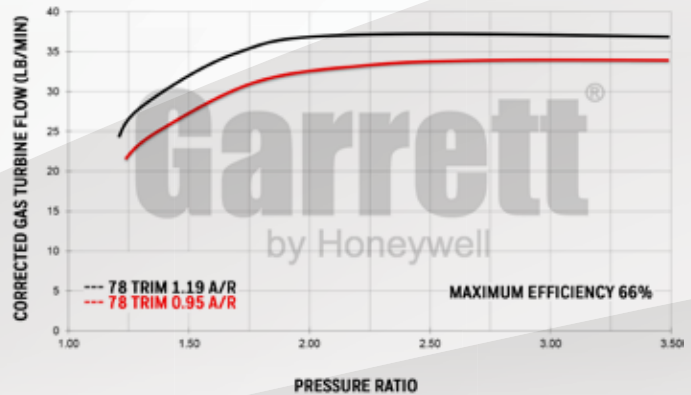
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ AVAILABLE ONLY WITH DIVIDED TURBINE HOUSINGS

EXHAUST FLOW CHART



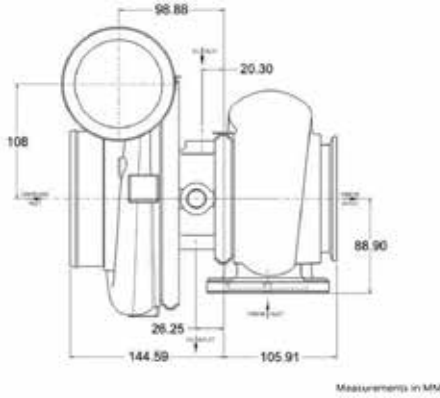
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
825614-5005S	751450-0023	65mm	88mm	54	0.72	77mm	68mm	78
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		773628-0011	0.95	T4	V-Band	Free Float	Y	78
		773628-0013	1.19	T4	V-Band	Free Float	Y	78

Garrett
by Honeywell

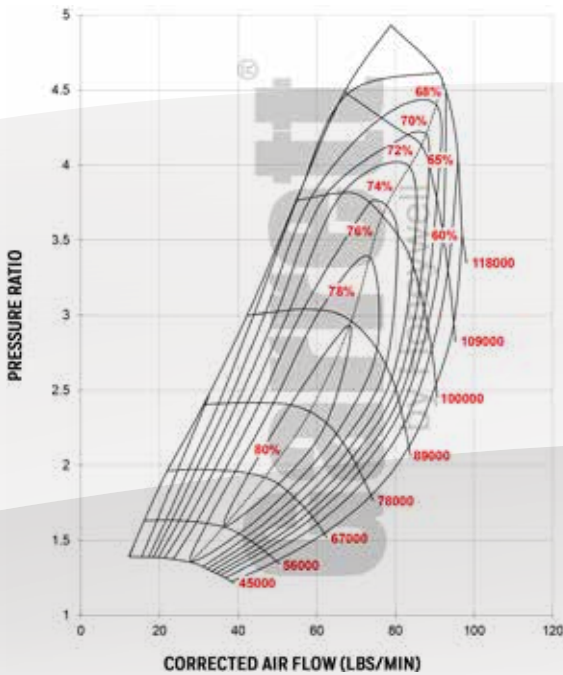
GTX4294R

Horsepower: 475 - 950
Displacement: 2.0L - 7.0L

Honeywell



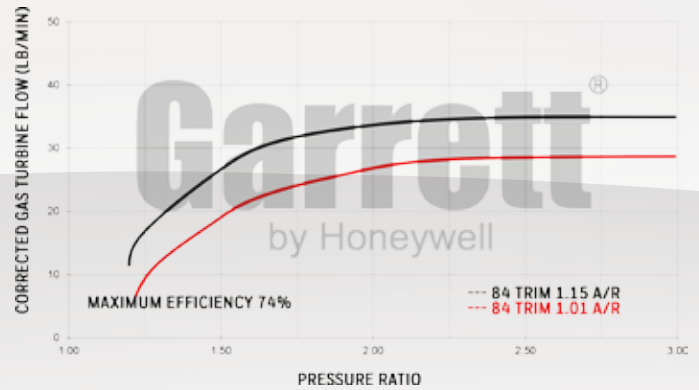
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ AVAILABLE ONLY WITH DIVIDED TURBINE HOUSINGS
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION

EXHAUST FLOW CHART



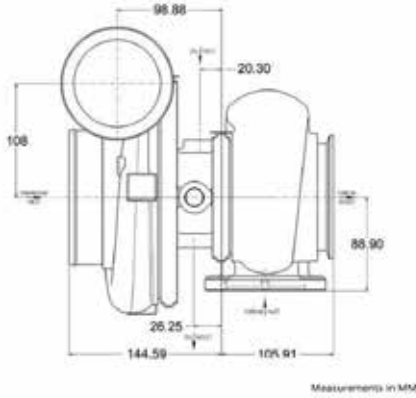
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
800269-5001S	451888-0043	70mm	94mm	56	0.60	82mm	75mm	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		757707-0001	1.01	T4	V-Band	Free Float	Y	84
		757707-0002	1.15	T4	V-Band	Free Float	Y	84

Garrett
by Honeywell

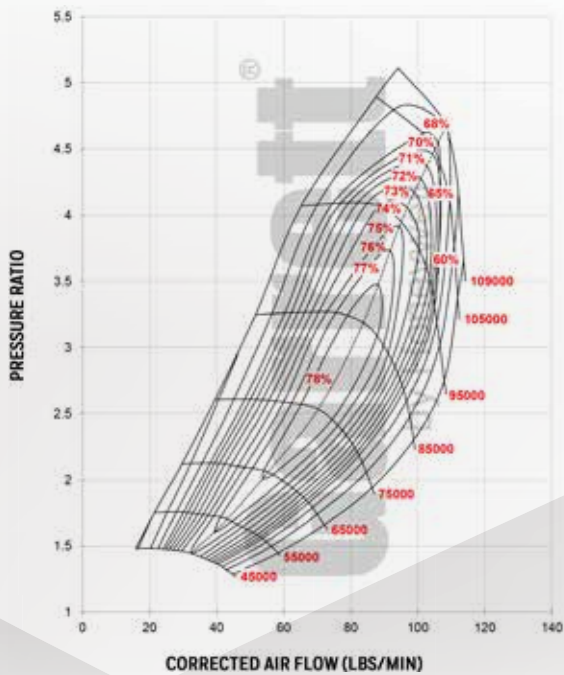
GTX4202R

Horsepower: 525 - 1120
Displacement: 2.0L - 7.0L

Honeywell



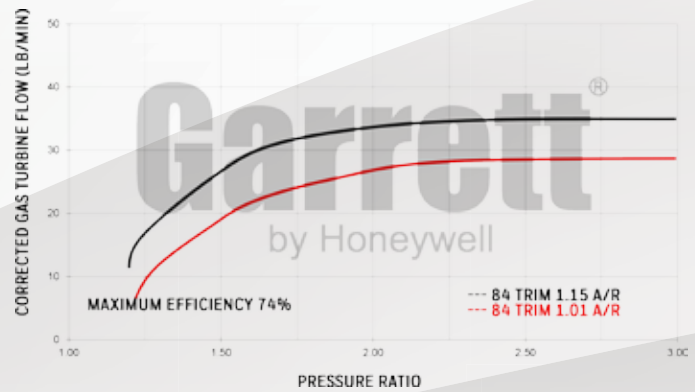
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ AVAILABLE ONLY WITH DIVIDED TURBINE HOUSINGS
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION

EXHAUST FLOW CHART



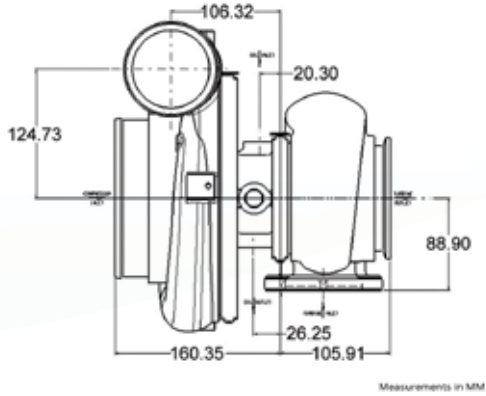
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
800269-5002S	451888-0044	76mm	102mm	55	0.60	82mm	75mm	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		757707-0001	1.01	T4	V-Band	Free Float	Y	84
		757707-0002	1.15	T4	V-Band	Free Float	Y	84

Garrett
by Honeywell

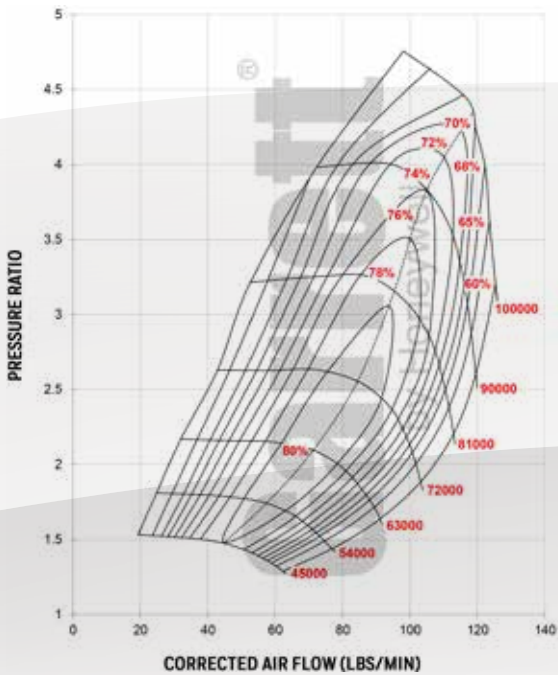
GTX4508R

Horsepower: 700 - 1250
Displacement: 2.0L - 8.0L

Honeywell

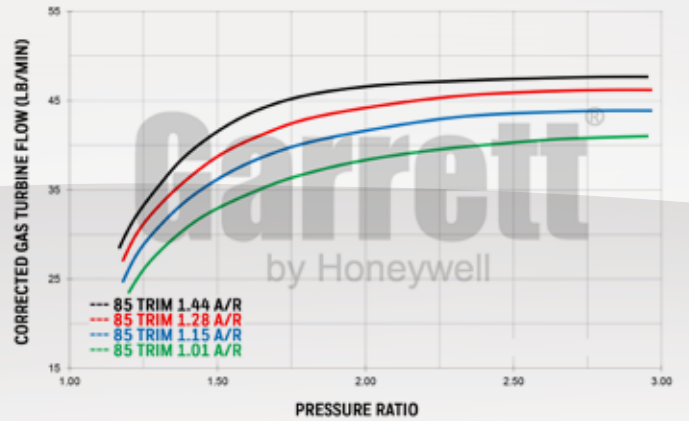


COMPRESSOR MAP



- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ AVAILABLE ONLY WITH DIVIDED TURBINE HOUSINGS
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION

EXHAUST FLOW CHART



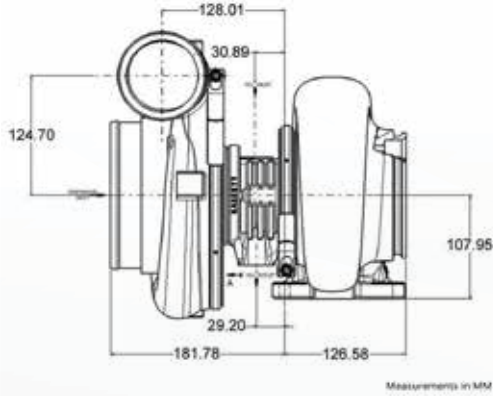
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
800270-5001S	451888-0045	80mm	108mm	55	0.69	87mm	80mm	85
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		757707-0005	1.01	T4	V-Band	Free Float	Y	85
		757707-0006	1.15	T4	V-Band	Free Float	Y	85
		757707-0007	1.28	T4	V-Band	Free Float	Y	85
		757707-0008	1.44	T4	V-Band	Free Float	Y	85

Garrett
by Honeywell

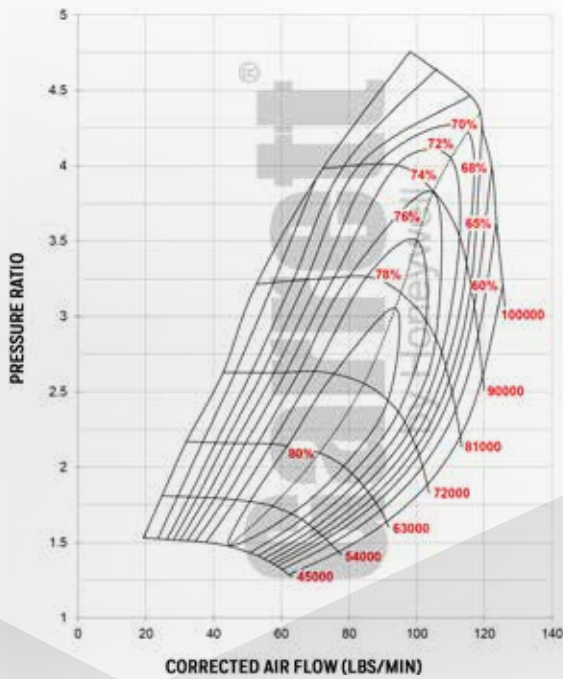
GTX4708R

Horsepower: 720 - 1270
Displacement: 2.0L - 10.0L

Honeywell



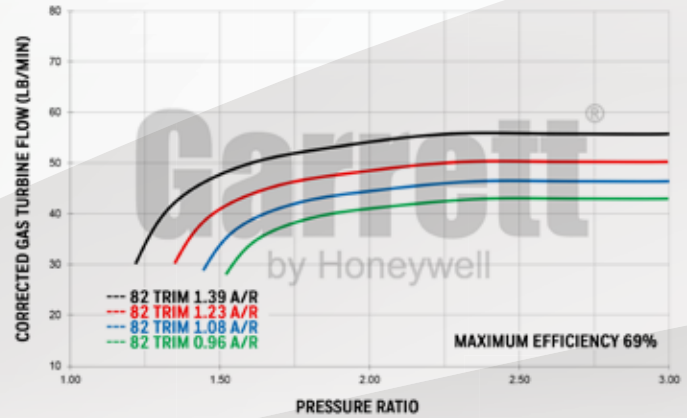
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION
- ◆ LIGHTWEIGHT BILLET BACKPLATE

EXHAUST FLOW CHART



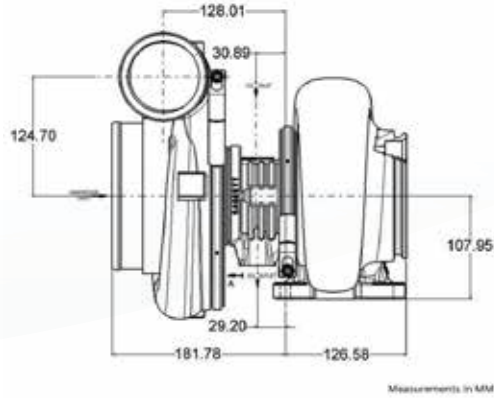
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
804878-5002S	769210-0018	80mm	108mm	55	0.69	93mm	84mm	82
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		761208-0009	0.96	T6	V-Band	Free Float	N	82
		761208-0010	1.08	T6	V-Band	Free Float	N	82
		761208-0011	1.23	T6	V-Band	Free Float	N	82
		761208-0012	1.39	T6	V-Band	Free Float	N	82

Garrett
by Honeywell

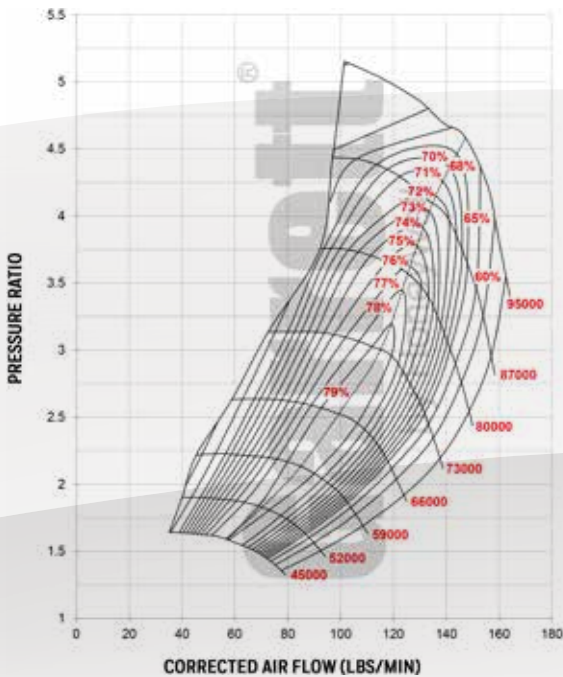
GTX4718R

Horsepower: 900 - 1600
Displacement: 2.5L - 10.0L

Honeywell



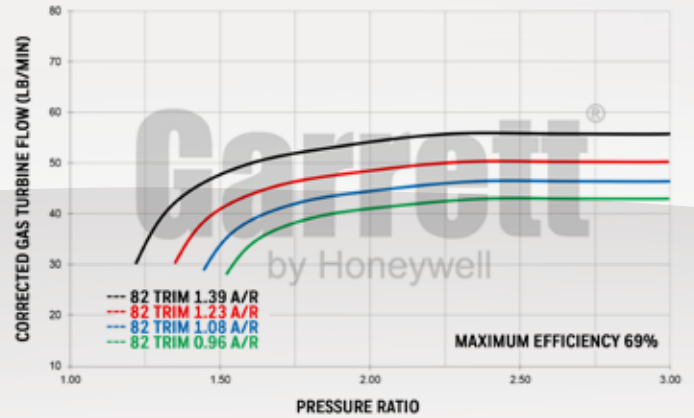
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION
- ◆ LIGHTWEIGHT BILLET BACKPLATE

EXHAUST FLOW CHART



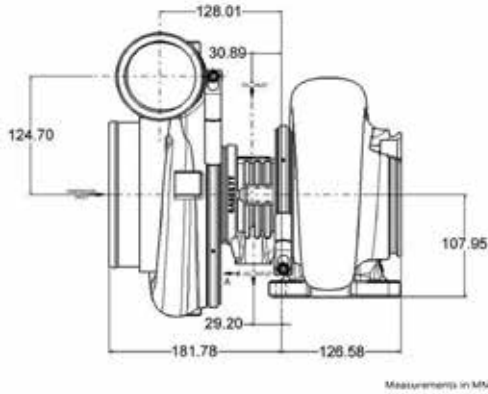
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
804878-5007S	769210-0023	88mm	118mm	56	0.69	93mm	84mm	82
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		761208-0009	0.96	T6	V-Band	Free Float	N	82
		761208-0010	1.08	T6	V-Band	Free Float	N	82
		761208-0011	1.23	T6	V-Band	Free Float	N	82
		761208-0012	1.39	T6	V-Band	Free Float	N	82

Garrett
by Honeywell

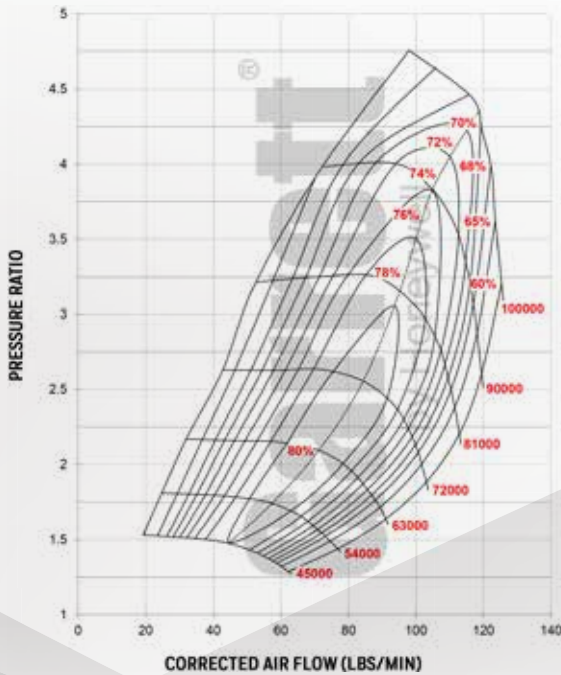
GTX5008R

Horsepower: 720 - 1270
Displacement: 2.5L - 10.0L

Honeywell



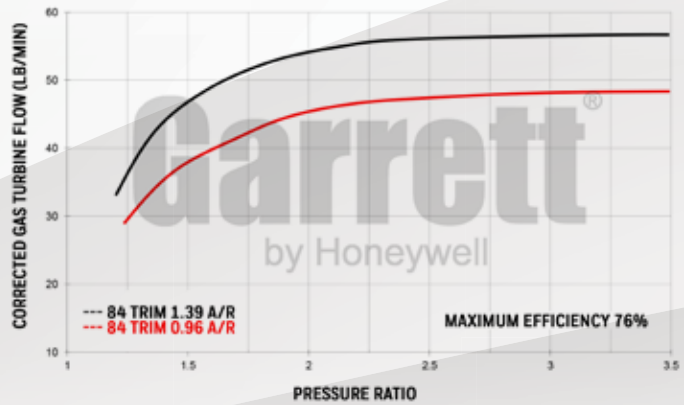
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION
- ◆ LIGHTWEIGHT BILLET BACKPLATE

EXHAUST FLOW CHART



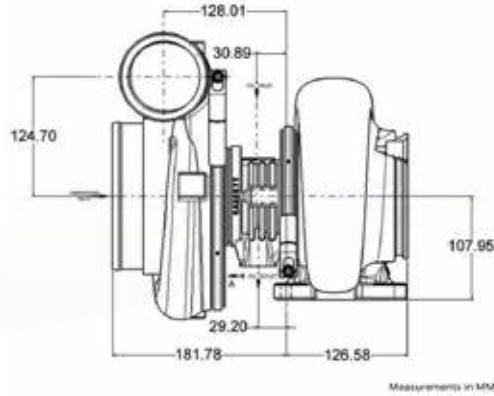
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
804878-5020S	769210-0035	80mm	108mm	55	0.69	99mm	91mm	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		761208-0030	0.96	T6	V-Band	Free Float	N	84
		761208-0033	1.39	T6	V-Band	Free Float	N	84

Garrett
by Honeywell

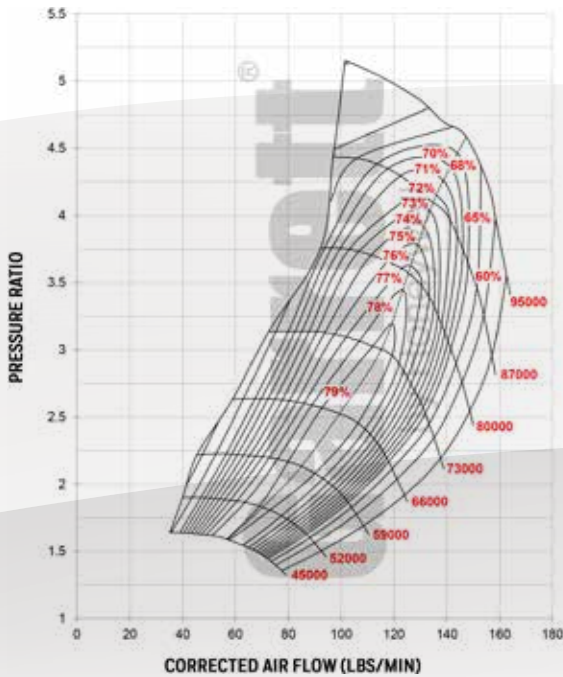
GTX5018R

Horsepower: 950 - 1600
Displacement: 2.8L - 11.0L

Honeywell



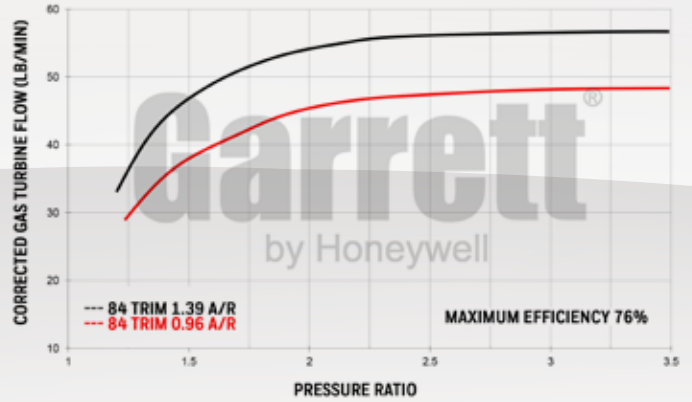
COMPRESSOR MAP



FEATURES:

- ◆ FEATURES ORIGINAL GTX COMP WHEEL AERODYNAMICS
- ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ SUPER CORE AND TURBINE KIT SOLD SEPARATELY
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION
- ◆ LIGHTWEIGHT BILLET BACKPLATE

EXHAUST FLOW CHART



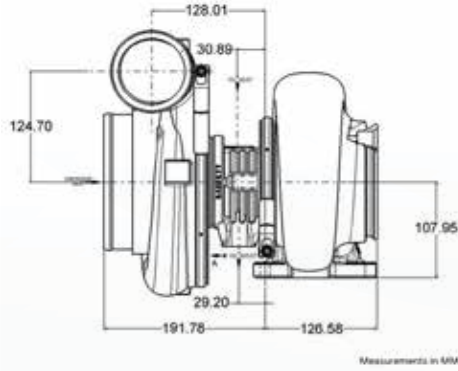
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
804878-5024S	769210-0039	88mm	118mm	56	0.69	99mm	91mm	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		761208-0030	0.96	T6	V-Band	Free Float	N	84
		761208-0033	1.39	T6	V-Band	Free Float	N	84

Garrett
by Honeywell

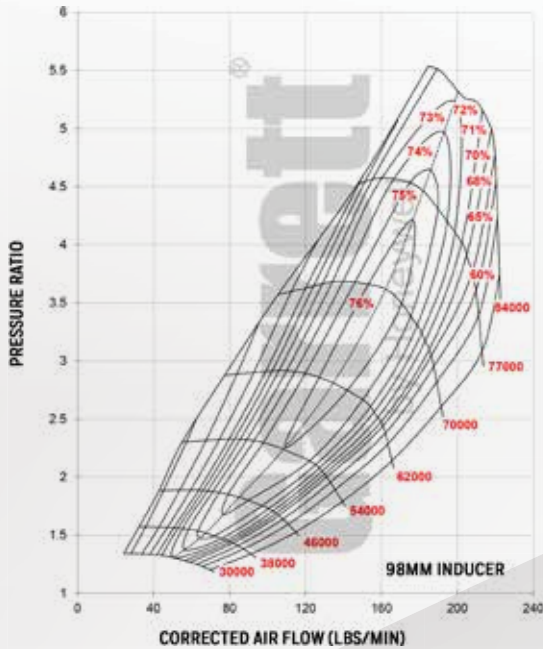
GTX5533R GEN II NEW PRODUCT

Honeywell

Horsepower: 1000 - 2500
Displacement: 3.0L - 12.0L



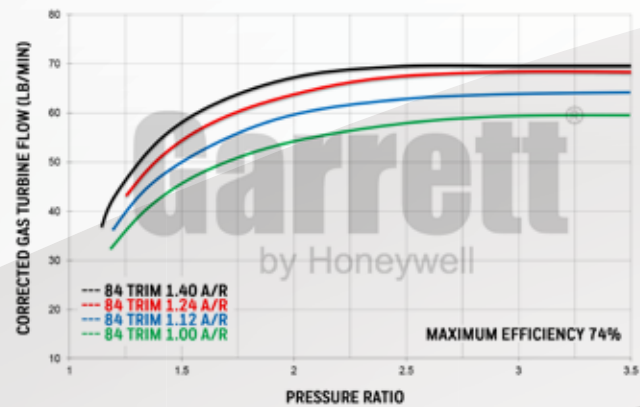
COMPRESSOR MAP



FEATURES:

- ◆ GEN 2 AERODYNAMICS FEATURE INCREASED HORSEPOWER RANGE
- ◆ NEW FULLY-MACHINED SPEED SENSOR PORT. DETAILS ON PG. 56
- ◆ IMPROVED PORTED SHROUD DESIGN FOR SURGE RESISTANCE
- ◆ LIGHT WEIGHT BILLET BACKPLATE
- ◆ SFI SUPER CORE AND TURBINE OPTIONS AVAILABLE
- ◆ V-BAND COMPRESSOR OUTLET CONFIGURATION

EXHAUST FLOW CHART



Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
851285-5001S	769210-0049	85mm	133	41	0.88	112	102	84
851285-5002S	769210-0050	88mm	133	44	0.88	112	102	84
851285-5003S	769210-0051	91mm	133	47	0.96	112	102	84
851285-5004S	769210-0052	94mm	133	50	0.96	112	102	84
851285-5005S	769210-0053	98mm	133	54	0.96	112	102	84
851285-5007S	769210-0050	88mm*	133	44	0.88	112	102	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		761208-0014	1.00	T6	V-Band	Free Float	N	84
		761208-0015	1.12	T6	V-Band	Free Float	N	84
		761208-0025	1.24	T6	V-Band	Free Float	N	84
		761208-0017	1.40	T6	V-Band	Free Float	N	84
		761208-0026	1.00	T6	V-Band	Free Float	N	84
		761208-0042	1.12	T6	V-Band	Free Float	N	84
		761208-0027	1.24	T6	V-Band	Free Float	N	84
* SFI Certified Turbine Housings		761208-0043	1.40	T6	V-Band	Free Float	N	84
		761208-0044	1.78	T6	V-Band	Free Float	N	84

*851285-5007S SFI CERTIFIED

LYFE MOTORSPORT NISSAN GT-R PIKES PEAK INTERNATIONAL HILL CLIMB

PIKES



FW TG



GTW SERIES

Garrett® GTW Series Turbochargers were designed to provide budget-minded enthusiasts with a high-performing mid frame product offering available in ball bearing and journal bearing options.

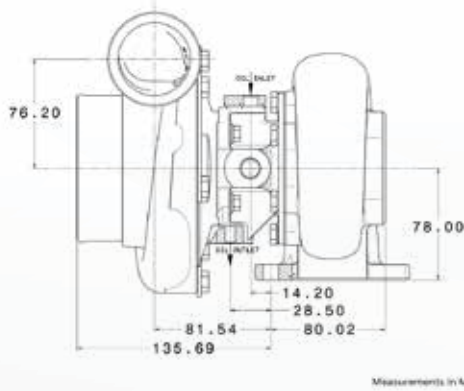
The fully-machined billet aluminum compressor wheels provide optimal horsepower range and boost response. Ported shroud compressor housings increase surge resistance and provide reliable, continuous power throughout the power band. A lightweight aluminum backplate comes standard on all GTW turbochargers and reduces overall weight.

The water cooled CHRA keeps housing temperatures to a minimum. The GTW3476 and GTW3884 turbine wheels are constructed from Inconel, a Super Alloy that maintains strength during prolonged exposure to high exhaust gas temperatures. Turbine kits are offered in open volute and twin scroll, and a variety of A/R and flange configurations. The GTW is a cost effective option for enthusiasts looking to turbocharge their vehicles.

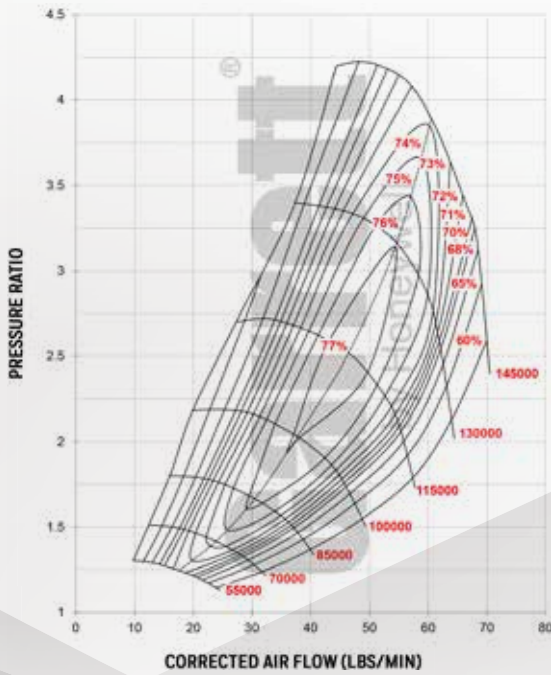
GTW3476R

Horsepower: 450 - 700
Displacement: 2.0L - 4.5L

Honeywell



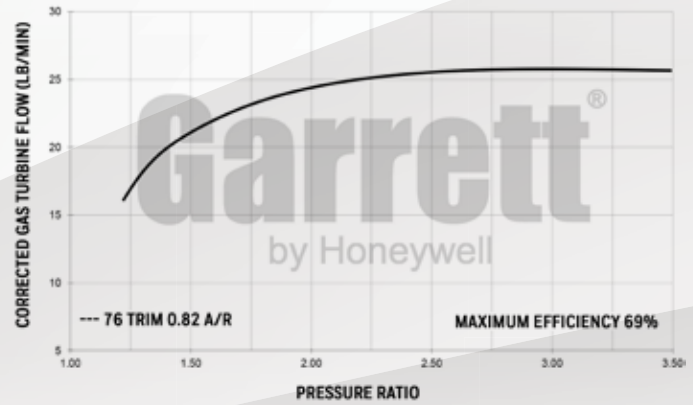
COMPRESSOR MAP



FEATURES:

- ◆ PORTED SHROUD DESIGN FOR SURGE RESISTANCE
- ◆ AVAILABLE IN BOTH JOURNAL BEARING AND BALL BEARING OPTIONS
- ◆ FORGED FULLY-MACHINED BILLET COMPRESSOR WHEEL
- ◆ LIGHTWEIGHT ALUMINUM BACKPLATE
- ◆ INCONEL SUPER-ALLOY TURBINE WHEEL

EXHAUST FLOW CHART



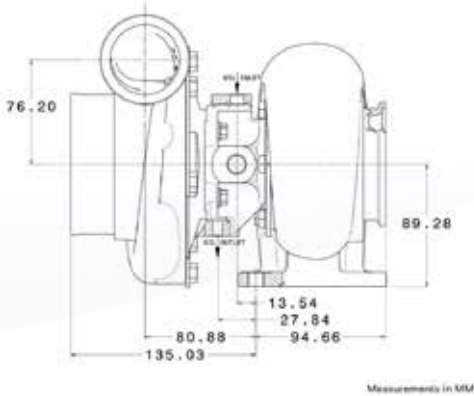
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
841297-5001S	715582-0005	58mm	76mm	58	0.70	65mm	57mm	76
841691-5001S	757197-0009	58mm	76mm	58	0.70	65mm	57mm	76
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		844669-0001	0.48	T3	4-Bolt	Free Float	N	76
		844669-0002	0.63	T3	4-Bolt	Free Float	N	76
844669-0003	0.82	T3	4-Bolt	Free Float	N	76		

*841297 Journal Bearing Option
*841691 Water Cooled CHRA

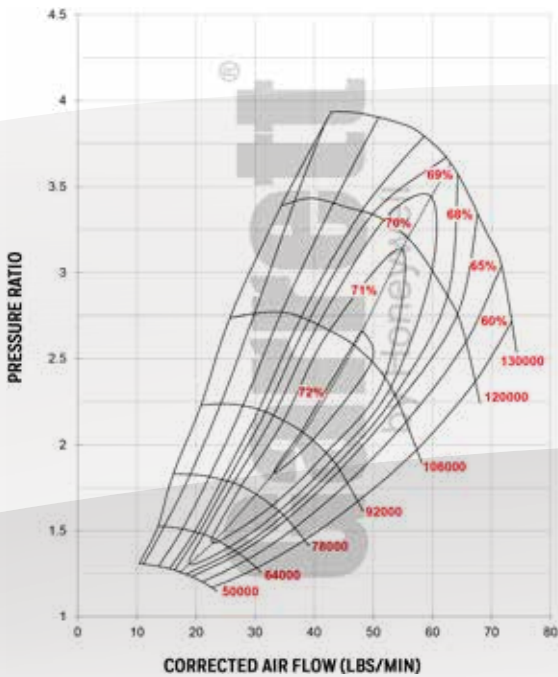
GTW3684R

Horsepower: 425 - 750
Displacement: 2.0L - 5.3L

Honeywell



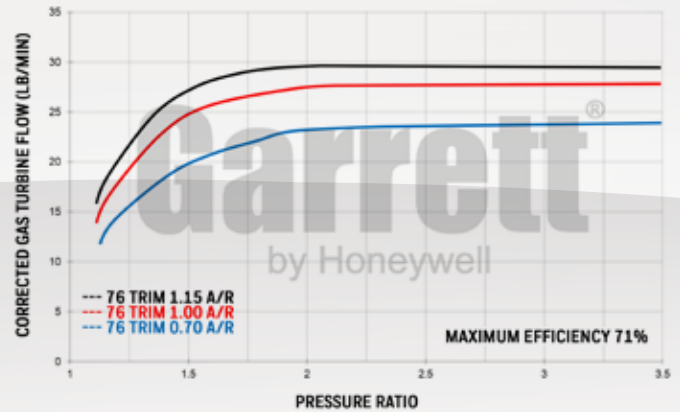
COMPRESSOR MAP



FEATURES:

- ◆ PORTED SHROUD DESIGN FOR SURGE RESISTANCE
- ◆ AVAILABLE IN BOTH JOURNAL BEARING AND BALL BEARING OPTIONS
- ◆ FORGED FULLY-MACHINED BILLET COMPRESSOR WHEEL
- ◆ TURBINE HOUSINGS AVAILABLE IN DIVIDED CONFIGURATION
- ◆ LIGHTWEIGHT ALUMINUM BACKPLATE

EXHAUST FLOW CHART



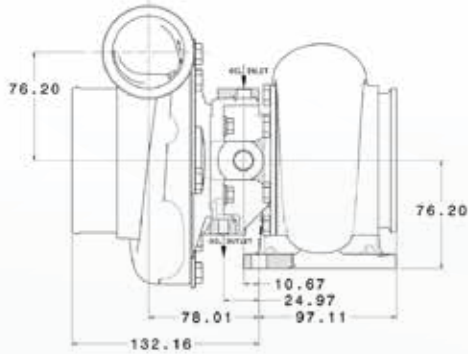
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
841297-5002S	715582-0007	62mm	84mm	54	0.70	71mm	62mm	76
841691-5002S	757197-0011	62mm	84mm	54	0.70	71mm	62mm	76
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		844669-0005	0.70	T4	V-Band	Free Float	Y	76
		844669-0006	1.00	T4	V-Band	Free Float	Y	76
844669-0007	1.15	T4	V-Band	Free Float	Y	76		

*841297 Journal Bearing Option
*841691 Water Cooled CHRA

GTW3884R

Horsepower: 450 - 950
Displacement: 2.0L - 6.0L

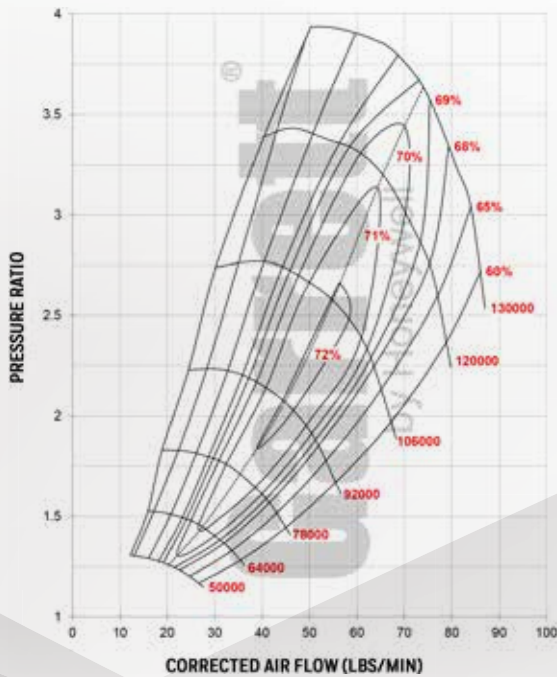
Honeywell



Measurements in MM



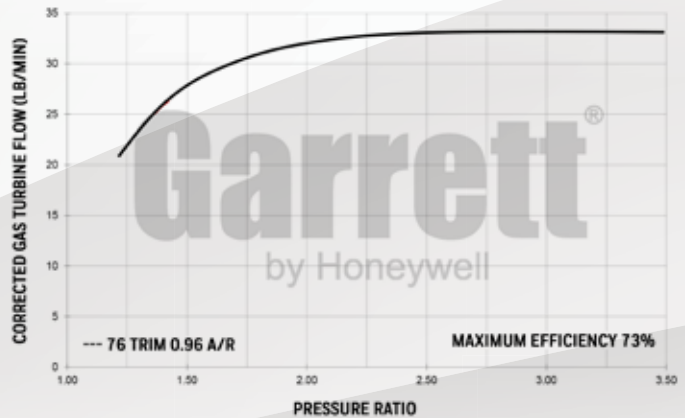
COMPRESSOR MAP



FEATURES:

- ◆ PORTED SHROUD DESIGN FOR SURGE RESISTANCE
- ◆ AVAILABLE IN BOTH JOURNAL BEARING AND BALL BEARING OPTIONS
- ◆ FORGED FULLY-MACHINED BILLET COMPRESSOR WHEEL
- ◆ INCONEL SUPER-ALLOY TURBINE WHEEL
- ◆ LIGHTWEIGHT ALUMINUM BACKPLATE

EXHAUST FLOW CHART



Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
841297-5003S	715582-0008	62mm	84mm	54	0.70	74mm	65mm	76
841297-5004S	715582-0009	64mm	84mm	58	0.70	74mm	65mm	76
841297-5005S	715582-0010	67mm	84mm	64	0.70	74mm	65mm	76
841691-5003S	757197-0012	62mm	84mm	54	0.70	74mm	65mm	76
841691-5004S	757197-0013	64mm	84mm	58	0.70	74mm	65mm	76
841691-5005S	757197-0014	67mm	84mm	64	0.70	74mm	65mm	76
Notes:		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
Super Core and Turbine Kit Sold Separately		844669-0009	0.96	T4	V-Band	Free Float	N	76
		844669-0010	1.14	T4	V-Band	Free Float	N	76

*841297 Journal Bearing Option
*841691 Water Cooled CHRA



UMS TUNING EVO
GLOBAL TIME ATTACK
ROAD ATLANTA

2
1
5

GT SERIES



Garrett® GT Series is the name that pioneered turbo technology and boosted drag racing and road racing teams to break hundreds of world records. The GT Series lineup is offered in both journal and ball bearing options, and sizes ranging from GT2052 to GT3582.

The cast compressor wheels feature original GT Series aerodynamics and provide maximum durability and longevity. Internally wastegated turbine housing options are available in all GT Series sizes.

Turbine kits are offered in open volute and twin scroll, and a variety of A/R and flange configurations. For any performance need, GT Series turbochargers have you covered.



iicon
TURBO BY
Garrett

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Dynojet

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21

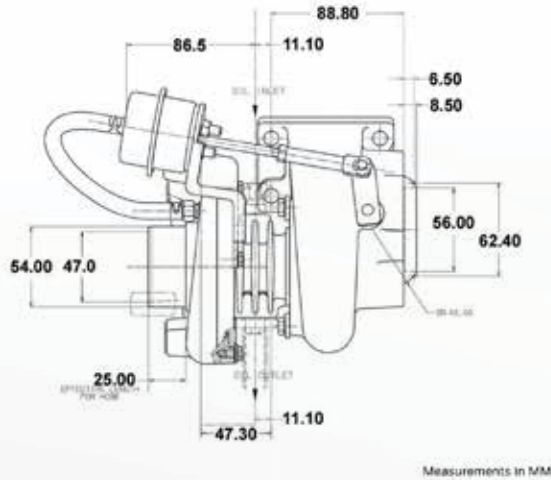
EVON

5

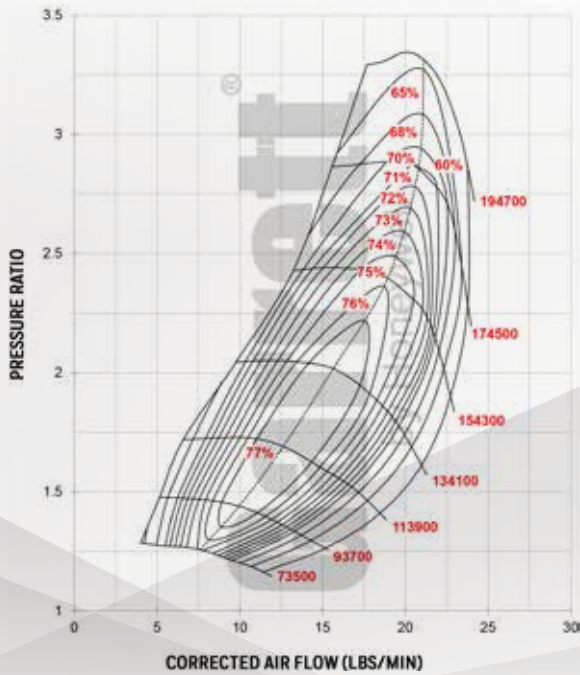
GT2052

Horsepower: 140 - 230
 Displacement: 1.4L - 2.0L

Honeywell



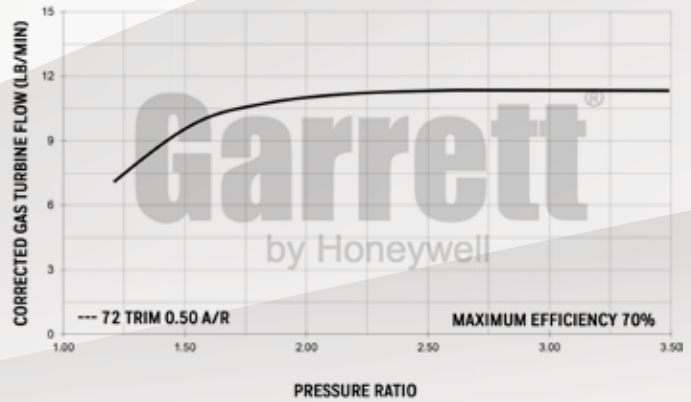
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT)
- ◆ JOURNAL BEARING CONFIGURATION
- ◆ OIL COOLED CHRA

EXHAUST FLOW CHART



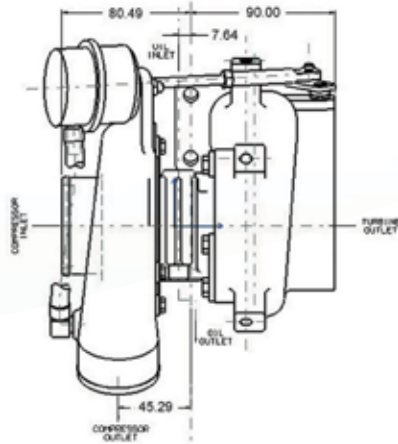
Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
727264-5001S	451298-0043	38mm	52mm	52	0.51	47mm	40mm	72	0.50

Garrett
 by Honeywell

GT2252

Horsepower: 150 - 260
 Displacement: 1.7L - 2.5L

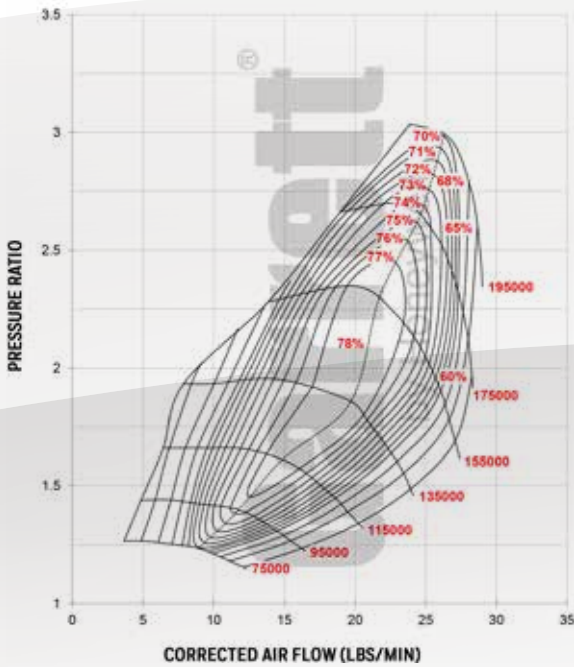
Honeywell



Measurements in MM



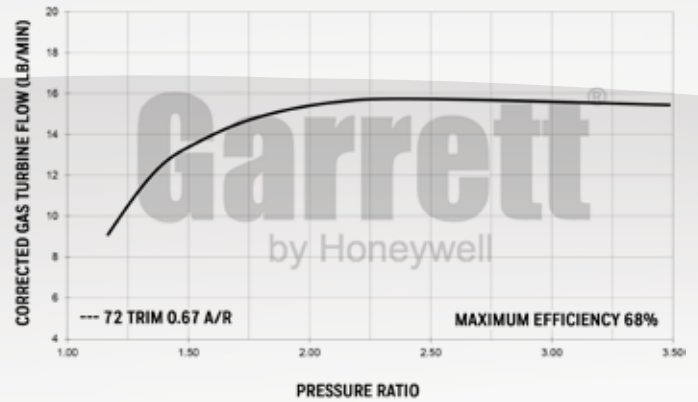
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT & ACTUATOR)
- ◆ JOURNAL BEARING CONFIGURATION
- ◆ OIL COOLED CHRA

EXHAUST FLOW CHART

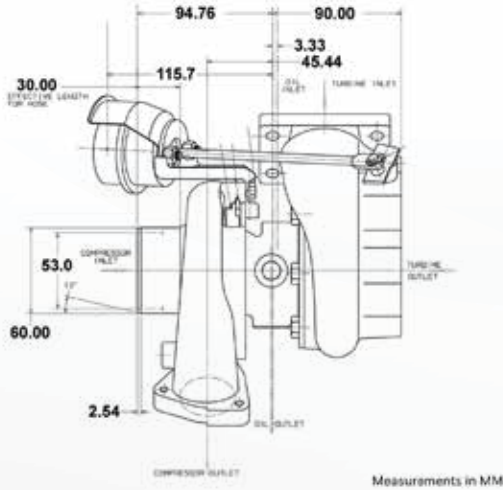


Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
452187-5006S	451298-0006	40mm	52mm	60	0.51	50mm	43mm	72	0.67

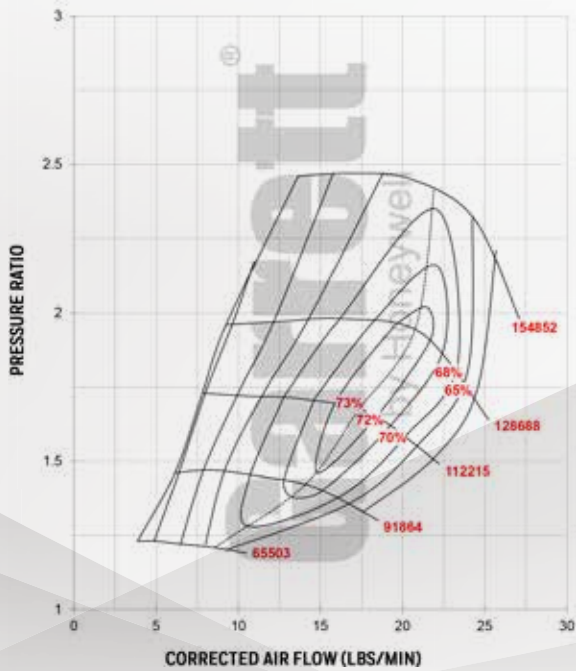
GT2554R

Horsepower: 170 - 270
 Displacement: 1.4L - 2.2L

Honeywell



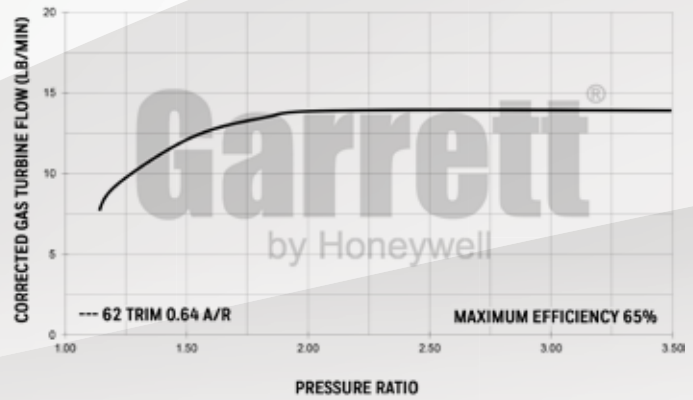
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT & ACTUATOR)
- ◆ SMALLEST BALL BEARING CONFIGURATION AVAILABLE
- ◆ WATER COOLED CHRA

EXHAUST FLOW CHART

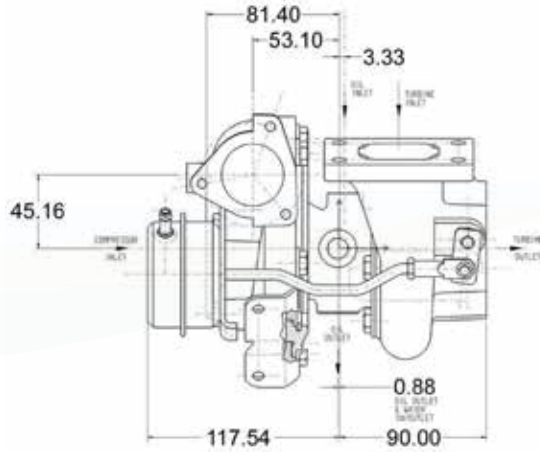


Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
836023-5001S	835995-0001	42mm	54mm	60	0.80	53mm	42mm	62	0.64

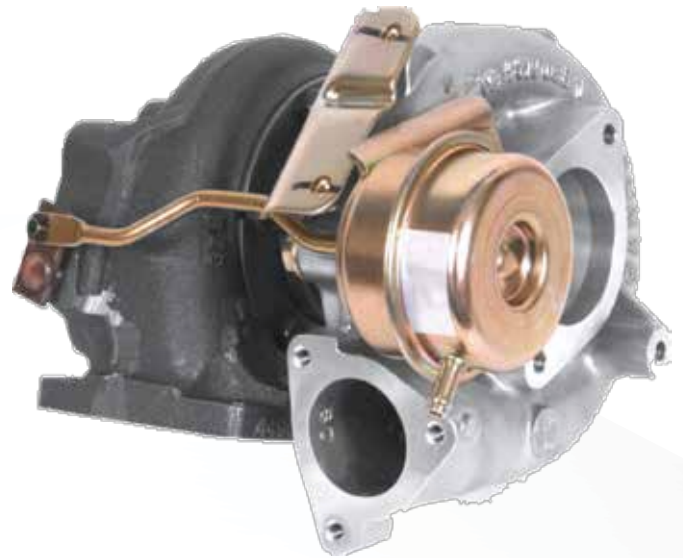
GT2560R

Horsepower: 170 - 270
Displacement: 1.4L - 2.2L

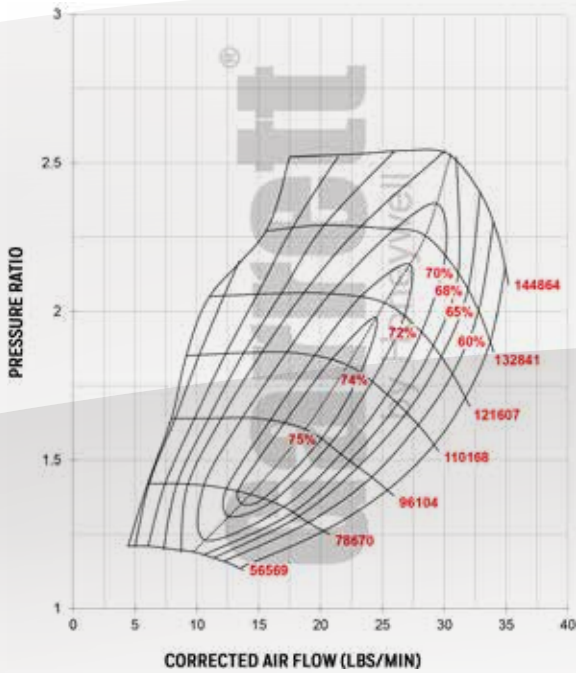
Honeywell



Measurements in MM



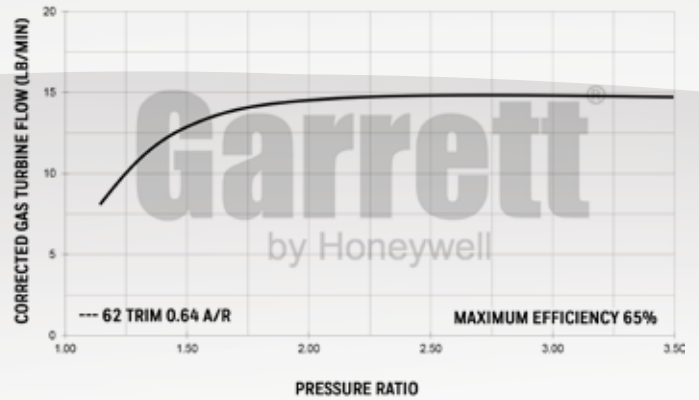
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT & ACTUATOR)
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA

EXHAUST FLOW CHART

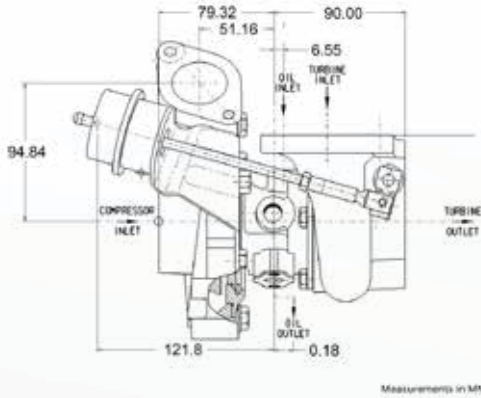


Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
836023-5004S	835995-0003	46mm	60mm	60	0.80	53mm	42mm	62	0.64

GT2860R

Horsepower: 250 - 360
Displacement: 1.8L - 3.0L

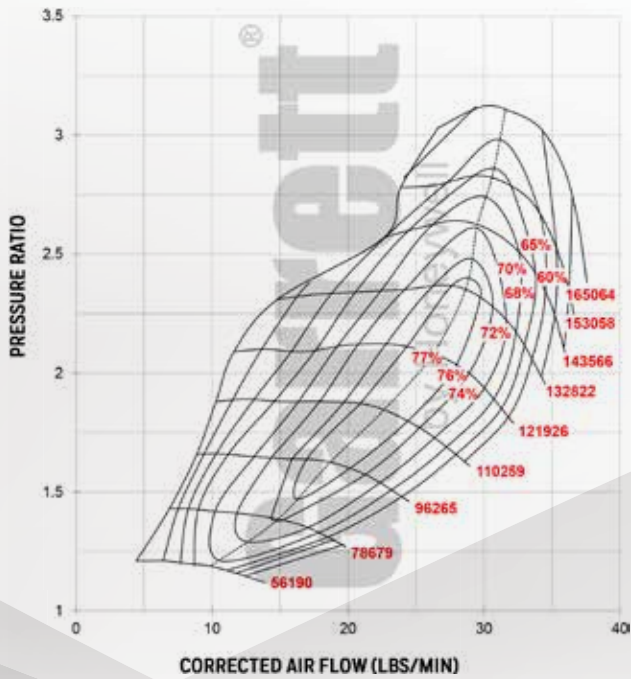
Honeywell



Measurements in MM



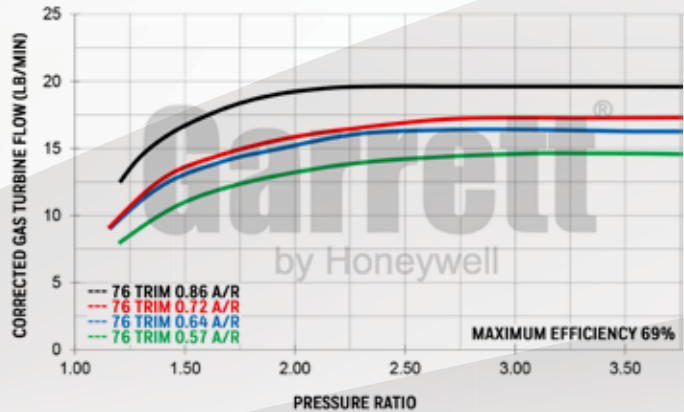
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT & ACTUATOR)
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA
- ◆ V-BAND TURBINE HOUSING OPTIONS
- ◆ BOLT-ON UPGRADE FOR NISSAN RB26DETT

EXHAUST FLOW CHART



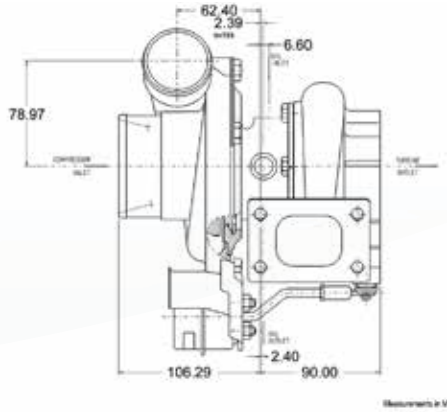
Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
836026-5005S	835998-0006	47mm	60mm	62	0.60	54mm	47mm	76	0.64
Notes: Additional Turbine Housing Options			Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
			827690-0005	0.64	T25	5-Bolt	Wastegated	N	76
			827690-0004	0.86	T25	5-Bolt	Wastegated	N	76
			827690-0001	0.57	V-Band	V-Band	Free Float	N	76
			827690-0002	0.72	V-Band	V-Band	Free Float	N	76

Garrett
by Honeywell

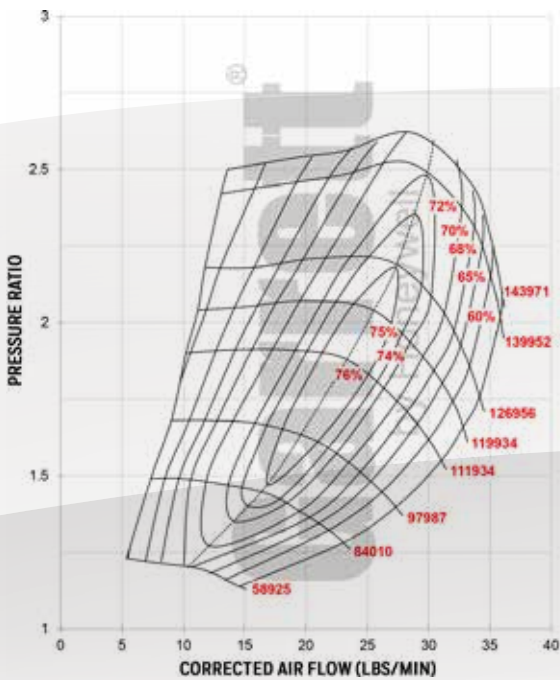
GT2860RS

Horsepower: 250 - 360
Displacement: 1.8L - 3.0L

Honeywell



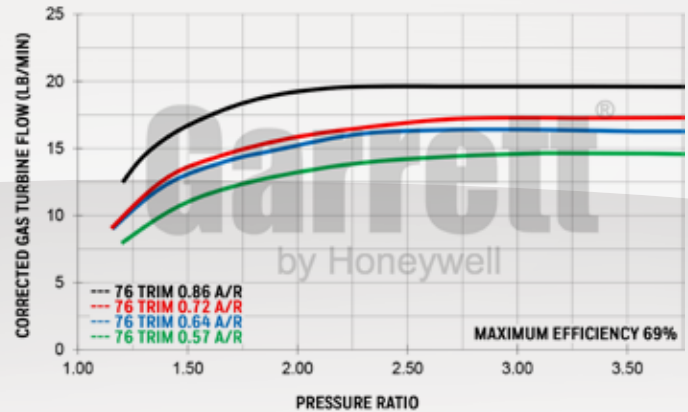
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT & ACTUATOR)
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA
- ◆ V-BAND TURBINE HOUSING OPTIONS

EXHAUST FLOW CHART

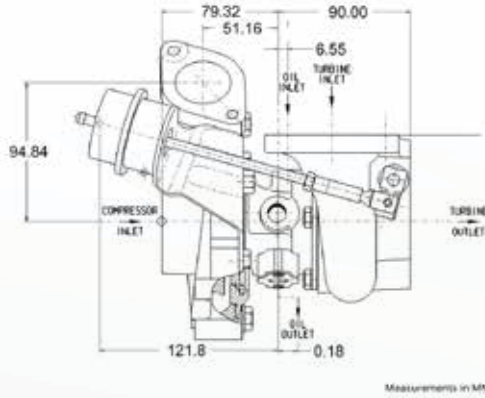


Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
836026-5013S	835998-0007	47mm	60mm	62	0.60	54mm	47mm	76	0.86
836026-5014S	835998-0007	47mm	60mm	62	0.60	54mm	47mm	76	0.64
Notes: Additional Turbine Housing Options		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim	
		827690-0005	0.64	T25	5-Bolt	Wastegated	N	76	
		827690-0004	0.86	T25	5-Bolt	Wastegated	N	76	
		827690-0001	0.57	V-Band	V-Band	Free Float	N	76	
		827690-0002	0.72	V-Band	V-Band	Free Float	N	76	

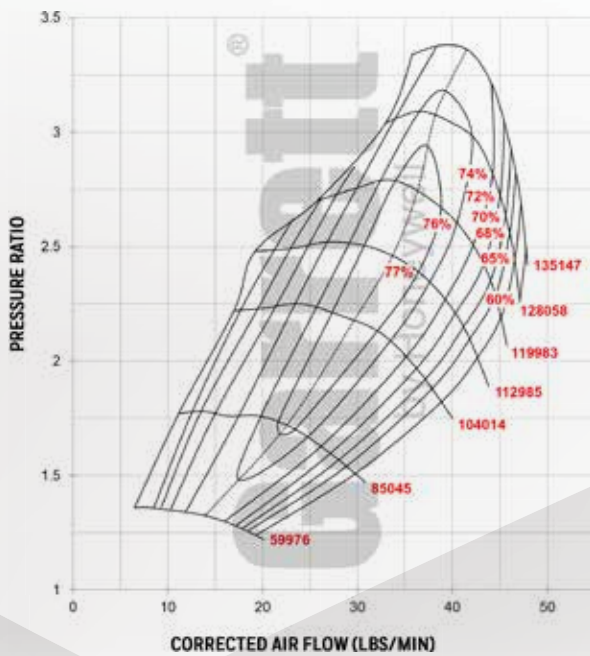
GT2871R

Horsepower: 280 - 475
Displacement: 1.8L - 3.0L

Honeywell



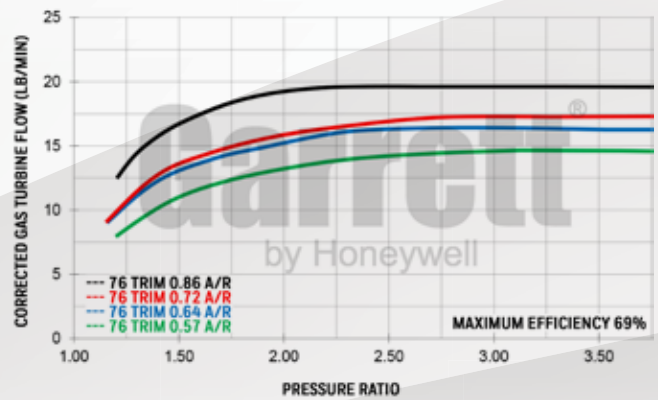
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING OPTIONS
- ◆ NON WASTEGATED TURBINE HOUSINGS AVAILABLE
- ◆ SOLD AS A COMPLETE TURBO (INCLUDES TURBINE KIT & ACTUATOR)
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA
- ◆ V-BAND TURBINE HOUSING OPTIONS

EXHAUST FLOW CHART



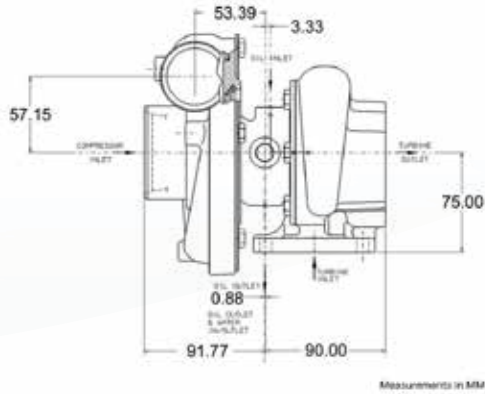
Turbo Reference Data		Compressor				Turbine			
Turbo PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
836026-5020S	835998-0010	53mm	71mm	56	0.60	54mm	47mm	76	0.86
836026-5021S	835998-0010	53mm	71mm	56	0.60	54mm	47mm	76	0.64
Notes: Additional Turbine Housing Options		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim	
		827690-0005	0.64	T25	5-Bolt	Wastegated	N	76	
		827690-0004	0.86	T25	5-Bolt	Wastegated	N	76	
		827690-0001	0.57	V-Band	V-Band	Free Float	N	76	
		827690-0002	0.72	V-Band	V-Band	Free Float	N	76	

Garrett
by Honeywell

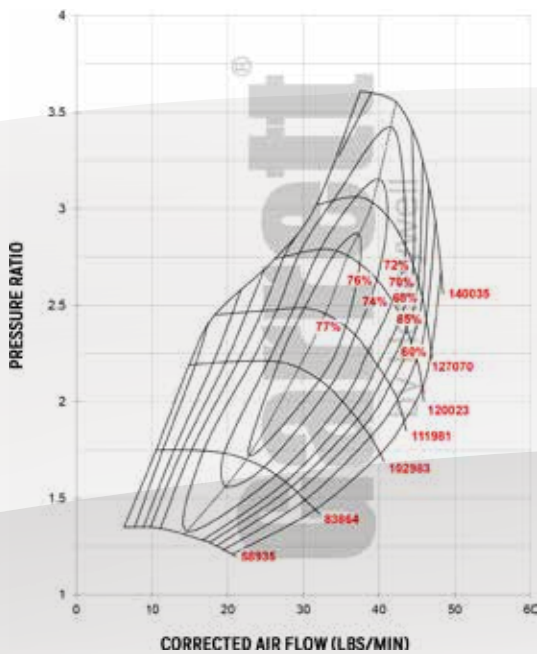
GT3071R

Horsepower: 280 - 480
Displacement: 2.5L - 3.5L

Honeywell



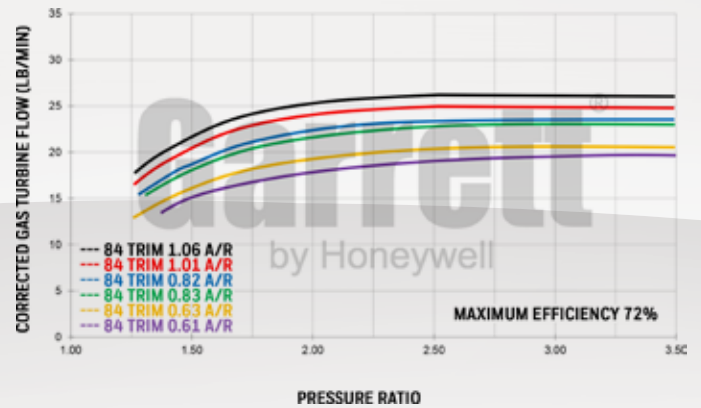
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ NON WASTEGATED TURBINE HOUSINGS AVAILABLE
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA
- ◆ V-BAND TURBINE HOUSING OPTIONS

EXHAUST FLOW CHART



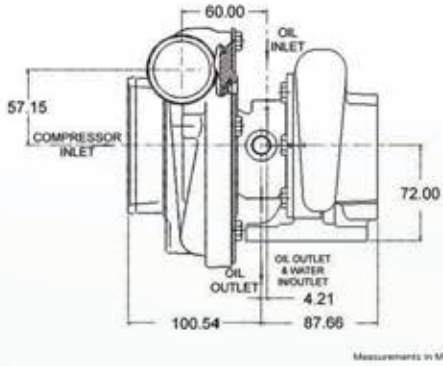
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
836028-5001S	836000-0002	53mm	71mm	56	0.50	60mm	55mm	84
836028-5002S	836000-0002	53mm	71mm	56	0.50	60mm	55mm	84
836028-5004S	836000-0001	53mm	71mm	56	0.50	60mm	55mm	84
836028-5005S	836000-0001	53mm	71mm	56	0.50	60mm	55mm	84
Notes: Super Core and Turbine Kit Sold Separately		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		740902-0009	0.63	T3	V-Band	Free Float	N	84
		740902-0008	0.82	T3	V-Band	Free Float	N	84
		740902-0007	1.06	T3	V-Band	Free Float	N	84
		740902-0036	0.61	V-Band	V-Band	Free Float	N	84
		740902-0035	0.83	V-Band	V-Band	Free Float	N	84
740902-0034	1.01	V-Band	V-Band	Free Float	N	84		
Wastegated Turbine Assembly does not include bolts, clamps, or actuator		Turbine Asbly PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		771300-0006	0.63	T3	5 bolt	Wastegated	N	84
		771300-0005	0.82	T3	5 bolt	Wastegated	N	84
		771300-0004	1.06	T3	5 bolt	Wastegated	N	84

Garrett
by Honeywell

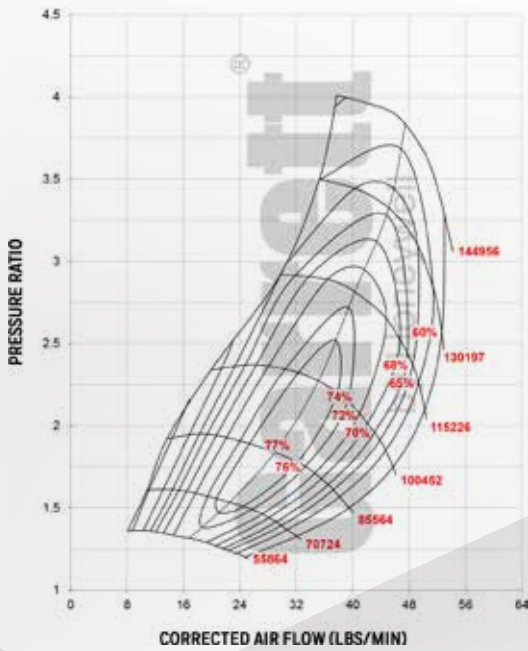
GT3076R

Horsepower: 310 - 525
Displacement: 2.0L - 3.5L

Honeywell



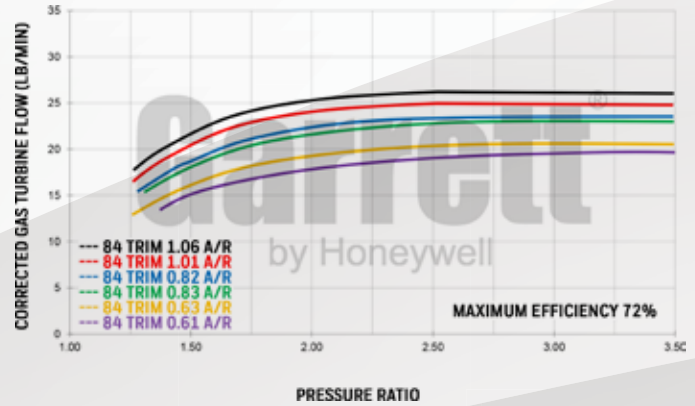
COMPRESSOR MAP



FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ NON WASTEGATED TURBINE HOUSINGS AVAILABLE
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA
- ◆ V-BAND TURBINE HOUSING OPTIONS

EXHAUST FLOW CHART

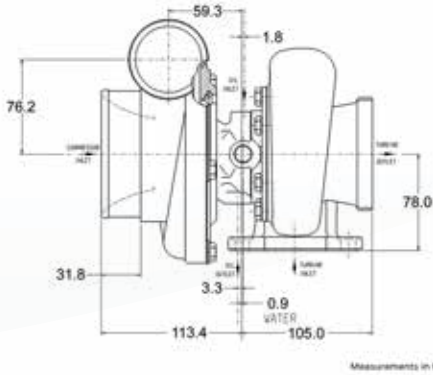


Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
836028-5003S	836000-0003	57mm	76mm	56	0.60	60mm	55mm	84
Notes:		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
Super Core and Turbine Kit Sold Separately		740902-0009	0.63	T3	V-Band	Free Float	N	84
		740902-0008	0.82	T3	V-Band	Free Float	N	84
		740902-0007	1.06	T3	V-Band	Free Float	N	84
		740902-0036	0.61	V-Band	V-Band	Free Float	N	84
		740902-0035	0.83	V-Band	V-Band	Free Float	N	84
		740902-0034	1.01	V-Band	V-Band	Free Float	N	84
Wastegated Turbine Assembly does not include bolts, clamps, or actuator		Turbine Asbly PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		771300-0006	0.63	T3	5 bolt	Wastegated	N	84
		771300-0005	0.82	T3	5 bolt	Wastegated	N	84
		771300-0004	1.06	T3	5 bolt	Wastegated	N	84

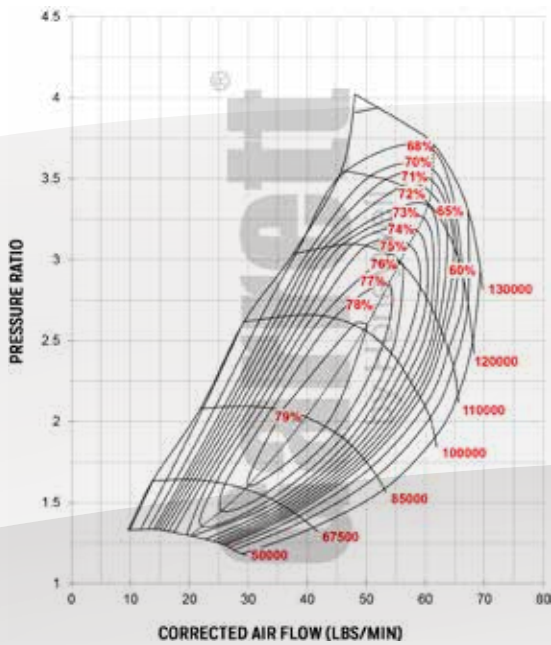
GT3582R

Horsepower: 400 - 675
Displacement: 2.0L - 4.5L

Honeywell



COMPRESSOR MAP

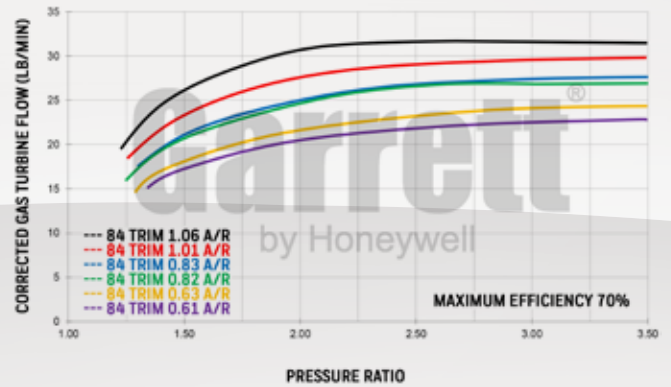


FEATURES:

- ◆ ORIGINAL GT SERIES AERODYNAMICS
- ◆ INTERNALLY WASTEGATED TURBINE HOUSING
- ◆ NON WASTEGATED TURBINE HOUSINGS AVAILABLE
- ◆ BALL BEARING CONFIGURATION WITH WATER COOLED CHRA
- ◆ V-BAND TURBINE HOUSING OPTIONS

*WASTEGATED TURBINE BOLTS & CLAMPS SEE PG. 61

EXHAUST FLOW CHART



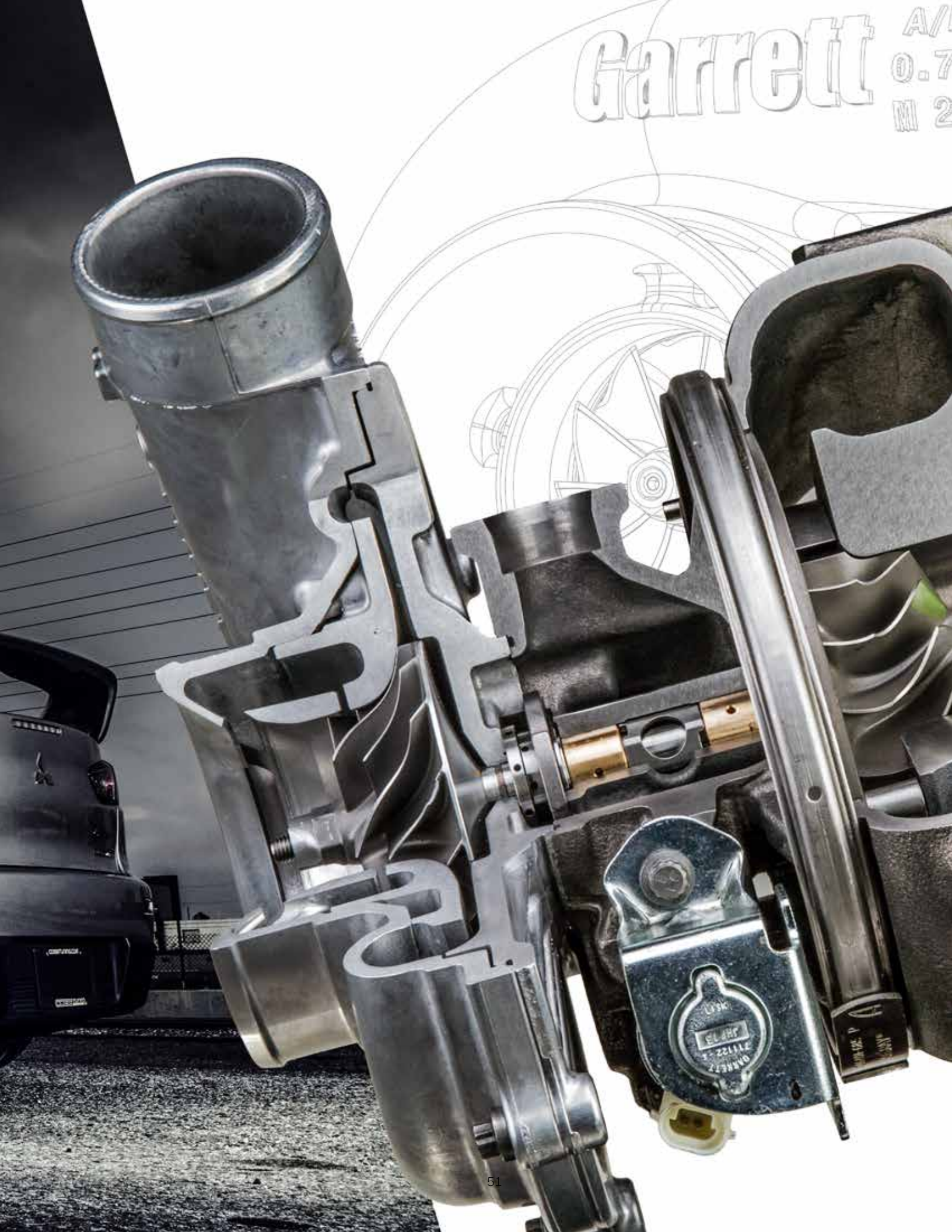
Super Core Reference Data		Compressor				Turbine		
Super Core PN	CHRA	Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim
836033-5002S	836005-0003	61mm	82mm	56	0.70	68mm	62mm	84
Notes:		Turbine Kit PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
Super Core and Turbine Kit Sold Separately		740902-0012	0.63	T3	V-Band	Free Float	N	84
		740902-0011	0.82	T3	V-Band	Free Float	N	84
		740902-0010	1.06	T3	V-Band	Free Float	N	84
		740902-0018	0.63	T4	V-Band	Free Float	N	84
		740902-0017	0.82	T4	V-Band	Free Float	N	84
		740902-0016	1.06	T4	V-Band	Free Float	N	84
		740902-0033	0.61	V-Band	V-Band	Free Float	N	84
		740902-0032	0.83	V-Band	V-Band	Free Float	N	84
740902-0031	1.01	V-Band	V-Band	Free Float	N	84		
Wastegated Turbine Assembly does not include bolts, clamps, or actuator		Turbine Asbly PN	A/R	Inlet	Outlet	Wastegate	Divided	Trim
		771300-0003	0.63	T2	5 Bolt	Wastegated	N	84
		771300-0002	0.82	T3	5 Bolt	Wastegated	N	84

Garrett
by Honeywell

VEHICLE SPECIFIC



Garrett A/ 0.7 M 2





7.3L Power Stroke

Part Number 739619-5004s (590HP*)

Applications: 1999.5 – 2003 7.3L Ford F250, F350 & Excursion

The GTP38R turbocharger contains an exclusive ball bearing cartridge for unbeatable response, efficiency, and durability. Elimination of the thrust bearing eliminates Failures at elevated boost levels. The 88mm GT compressor wheel provides 33% more flow than the stock 80mm wheel. A ported shroud housing improves compressor flow range for surge control. The kit includes a 1.00 A/R turbine housing for free flowing exhaust with reduced back pressure and up to 200° F reduction in exhaust gas temperature. Maximum recommended boost level is 40psi.

6.0L Power Stroke

Part Number 777469-5002S (560HP*)

Applications: 2003 Ford F-Series & Excursion Power Stroke 6.0L

The GT3788VA Turbo features the Garrett® patented Advanced Variable Nozzle. Turbine AVNT™ design for increased compressor flow and boost response. Utilizes nine movable vanes which significantly increase turbine efficiency and improve engine performance from idle launch through peak torque. Patented integral electro-hydraulic actuation and proportional solenoid for infinitely variable control. Larger compressor wheel over stock increases maximum power range while keeping turbo speeds down for the same power output. Outline interchangeable for a perfect fit each and every time.

Part Number 772441-5002S (560HP*)

Applications: 2004-2007 Ford F250, F350 & Excursion Power Stroke 6.0L

The GT3788VA Turbo features the Garrett® patented Advanced Variable Nozzle. Turbine AVNT™ design for increased compressor flow and boost response. Utilizes nine movable vanes which significantly increase turbine efficiency and improve engine performance from idle launch through peak torque. Patented integral electro-hydraulic actuation and proportional solenoid for infinitely variable control. Larger compressor wheel over stock increases maximum power range while keeping turbo speeds down for the same power output. Outline interchangeable for a perfect fit each and every time.

Ford Power Stroke Upgrade	Turbo PN	HP*	Compressor				Turbine			
			Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
Power Stroke 7.3L 1999.5-2003	739619-5004S	590	66mm	88mm	56	1.00	76mm	68mm	79	1.00
Power Stroke 6.0L 2003 Stage 1	777469-5002S	560	64mm	88mm	52	0.58	73mm	66mm	84	0.90
Power Stroke 6.0L 2004-2007 Stage 1	772441-5002S	560	64mm	88mm	52	0.58	73mm	66mm	84	0.90

Available through the Master Distributors, Performance Distributors, and PowerMax™ Distributor network.

* Estimated Horsepower. Performance results of this product are highly dependent upon your vehicle's modifications and tuning/calibration. The horsepower numbers represented above are calculated based strictly on choke flow of the compressor map (total turbo capability), which represents the potential flywheel horsepower.



Part Number 773540-5001s (590HP*)

Applications: 2001-2004 Chevy / GMC 2500, 3500

The Duramax Stage 1 turbocharger kit features Garrett® patented Advanced Variable Nozzle Turbine AVNT™ design for increased compressor and turbine flow. The GT Series wheel design ensures top performance, lower back pressure and reduces intake and exhaust gas temperatures. The unique design features nine movable vanes which significantly increase turbine efficiency and improve engine performance from idle launch through peak torque. Patented integral electro-hydraulic actuation and proportional solenoid allow for infinitely variable control. Suitable as a performance upgrade or replacement for original equipment. Outline interchangeable with the OE turbo for a perfect fit each and every time.



Part Number 773542-5001s (630HP*)

Applications: 2001-2004 Chevy / GMC 2500, 3500

The Duramax Stage 2 turbocharger kit features Garrett® patented Advanced Variable Nozzle Turbine AVNT™ design for increased compressor flow and turbine flow. Utilizes nine movable vanes which significantly increase turbine efficiency and improve engine performance from idle launch through peak torque. Patented integral electro-hydraulic actuation and proportional solenoid for infinitely variable control. Larger compressor trim (52), plus larger GT40 turbine wheel and vanes. Outline interchangeable with the OE turbo for a perfect fit each and every time.

Chevy GMC Duramax Upgrade	Turbo PN	HP*	Compressor				Turbine			
			Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
Duramax 6.6L 2004.5-2009 Stage 1	773540-5001S	590	65mm	94mm	48	0.58	73mm	67mm	78	0.90
Duramax 6.6L 2004.5-2009 Stage 2	773542-5001S	630	68mm	94mm	52	0.58	77mm	68mm	79	0.90

Available through the Master Distributors, Performance Distributors, and PowerMax™ Distributor network.

* Estimated. Performance results of this product are highly dependent upon your vehicle's modifications and tuning/calibration. The horsepower numbers represented above are calculated based strictly on choke flow of the compressor map (total turbo capability), which represents the potential flywheel horsepower.



MITSUBISHI EVO X TURBO UPGRADE

Bolt-on Upgrade Kit

The Garrett® Evo X Turbo Upgrade allows you to push your AWD, rally-bred monster up to an estimated 550 HP with the Garrett® GTX3071R or a tire-smoking estimated 650 HP with the Garrett® GTX3076R. Each turbo has been meticulously designed to be a bolt-on upgrade with no major modifications or guesswork required.

The Garrett® Evo X Turbo Upgrade features a specially designed twin-scroll turbine housing that mates up directly to the Evo X's stock exhaust manifold as well as the stock exhaust down pipe to allow for aftermarket exhausts to be used without worrying about fitment.

The turbine housing allows for the retention of the stock exhaust heat shield for better temperature control as well as a stealth look.

The ported shroud compressor housing reduces the occurrence of surge during operation and mates directly to the intake piping as well as the stock outlet position.

The Garrett® patented dual ball bearing center housing is standard on both turbocharger options for unmatched power handling and unbeatable response.



Mitsubishi EVO X Upgrade	Turbo PN	HP*	Compressor				Turbine			
			Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
Evo X 0.73 A/R GTX3071R Stage 1	788550-5005S	550	54mm	71mm	58	0.60	60mm	55mm	84	0.73
Evo X 0.94 A/R GTX3076R Stage 2	788550-5008S	650	58mm	76mm	58	0.60	60mm	55mm	84	0.94

* Estimated. Performance results of this product are highly dependent upon your vehicle's modifications and tuning/calibration. The horsepower numbers represented above are calculated based strictly on choke flow of the compressor map (total turbo capability), which represents the potential flywheel horsepower.



VW 1.9L TURBO UPGRADE

Part Number: 778445-5002S 1.9L

The Garrett® GT1749V is the first performance upgrade / replacement turbocharger available to the aftermarket for Volkswagen 1.9L TDI BEW Engines. The GT1749V comes equipped with a smart actuator, an industry exclusive, and a position sensor, which enables the turbocharger to communicate automatically with the Engine Control Unit (ECU). The kit is easy to install and suitable as a performance upgrade or replacement turbocharger. The Garrett VW TDI Kit also promotes a longer turbo and engine life span and increased reliability by lowering exhaust gas temperatures.

Replaces VW OE Part Numbers: 038 253 019 S & 038 253 014 E Model: KP39 (3K)

Vehicles: 2003.05 - 2006 Volkswagen Beetle TDI
2003.05 - 2006 Volkswagen Golf TDI
2003.05 - 2005 Volkswagen Jetta TDI



VW 2.0L TURBO UPGRADE

Part Number: 838946-5001S 2.0L

The Garrett® GTA1749V is a performance upgrade / replacement turbocharger available to the Aftermarket for Volkswagen 2.0L TDI BKD/BKP/AZV engines. The GTA1749V comes equipped with a larger compressor wheel for increased flow and bolts directly to the stock engine manifold flange. The turbo is easy to install and suitable as a performance upgrade or replacement turbocharger. The Garrett VW TDI turbo also promotes a longer turbo and engine life span and increased reliability by lowering exhaust gas temperatures.

Replaces VW OE Part Numbers: 03G 253 010 J & 03G 253 010 J V100

Vehicles: 2.0L TDI BKD/BKP/AZV engines
2003.10-2009.07 – Golf V Mk5 A5 (PQ35) (typ 1K)
2005.08-2011.05 – Jetta A5 (PQ35) (typ 1K)
2003.08-2010.05 – Touran (typ 1T) – [AZV for 136 HP]
2005.09-2010.05 – Passat B6 (typ 1T) – BKP
2004.02-2010.05 – Skoda Octavia Mk2 (typ 1Z) 2nd gen. [AZV for 136HP]
2009.01-2010.03 – Skoda Superb B6 (typ 3T) [BKD EA188]
2005.07-2011.09 – Leon Mk2 (typ 1P)
2004.03-2011.09 – Seat Altea
2004.04-2009.05 – Seat Toledo 3
2003.08-2007.05 – Audi A3 (Typ 8P)

Volkswagen TDI 1.9L 2.0L Upgrade	Turbo PN	HP*	Compressor				Turbine			
			Inducer	Exducer	Trim	A/R	Inducer	Exducer	Trim	A/R
VW 1.9L TDI (BEW Engine) VNT	778445-5002S	175	36mm	49mm	55	0.46	43mm	38mm	76	0.61
VW 2.0L TDI (BKD Engine) VNT	838946-5001S	190	36mm	49mm	55	0.46	43mm	36mm	70	0.61

* Estimated. Performance results of this product are highly dependent upon your vehicle's modifications and tuning/calibration. The horsepower numbers represented above are calculated based strictly on choke flow of the compressor map (total turbo capability), which represents the potential flywheel horsepower.

ACCESSORIES

Honeywell

All GTX Gen II models come standard with a fully machined speed sensor port. Just remove the bolt and screw in the speed sensor kit of your choice (sold separately). For models without the integrated port, a variety of other accessories are available.



Speed Sensor

The Garrett® Turbocharger Speed Sensor Kit offers the ability to monitor the inner workings of your turbocharger to insure longer life and maximum performance at an affordable price! By constantly monitoring your turbocharger's shaft speed through either a data logger or the speed sensor gauge, you acquire a more complete picture of your turbocharger's performance.

Maximum Performance

Comparing boost levels and shaft speed on a compressor map, you can determine the ideal operating conditions to insure peak power over a wider operating range. All Garrett® Turbocharger Speed Sensor Kits are compatible with data loggers to enhance engine tuning capability. In addition, the Garrett®-branded gauge's maximum speed recall function will retain the highest wheel speed for five minutes for easy mapping. The data gained from the Garrett® Turbocharger Speed Sensor Kit can be used to closely estimate the engine's flow behavior without a flow bench. Flow information is invaluable for determining if the turbocharger is reaching its maximum performance, for validating the turbo match, and for insuring that it is not overspeeding, allowing you to avoid potentially damaging operating conditions. This kit could even be used in conjunction with an aftermarket ECU to limit compressor speed. The Garrett® Turbocharger Speed Sensor Kit will help you be sure you've got the correct turbo for your needs!

Easy To Use

The Garrett® Turbocharger Speed Sensor works with any turbocharger to accurately determine compressor wheel speed. The instructions include detailed drawings of the exact machining specifications for all Garrett® GT catalog turbochargers as well as general guidelines for other compressor housing types. The Garrett® Turbocharger Speed Sensor Kit includes all necessary wiring for easy installation and simple data logging.

Actuator kits	Actuator PN	Model
Actuator, Adj (1.0 bar)	480009-0006	GT25
Actuator, Adj (0.5 bar)	480009-0009	GT25
Actuator, Adj (1.5 bar)	480009-0010	GT25
Actuator Kit (T25)	700187-0001	T25
Actuator Kit, Adj (12.0 PSI)	759498-0004	GT35R
Actuator Kit, Adj (16.7 PSI)	759498-0007	GT25



BOOST GAUGE

The Garrett® Mechanical Boost Gauge is the perfect addition to your interior for the important job of accurately monitoring your boost levels. The gauge has a sleek design and features a black face, white backlit numbers and a brushed aluminum ring. The gauge monitors boost from 30 Hg of vacuum to 30 psi of boost. Gauge kit comes with vacuum line, hardware, mounting brace and installation instructions.

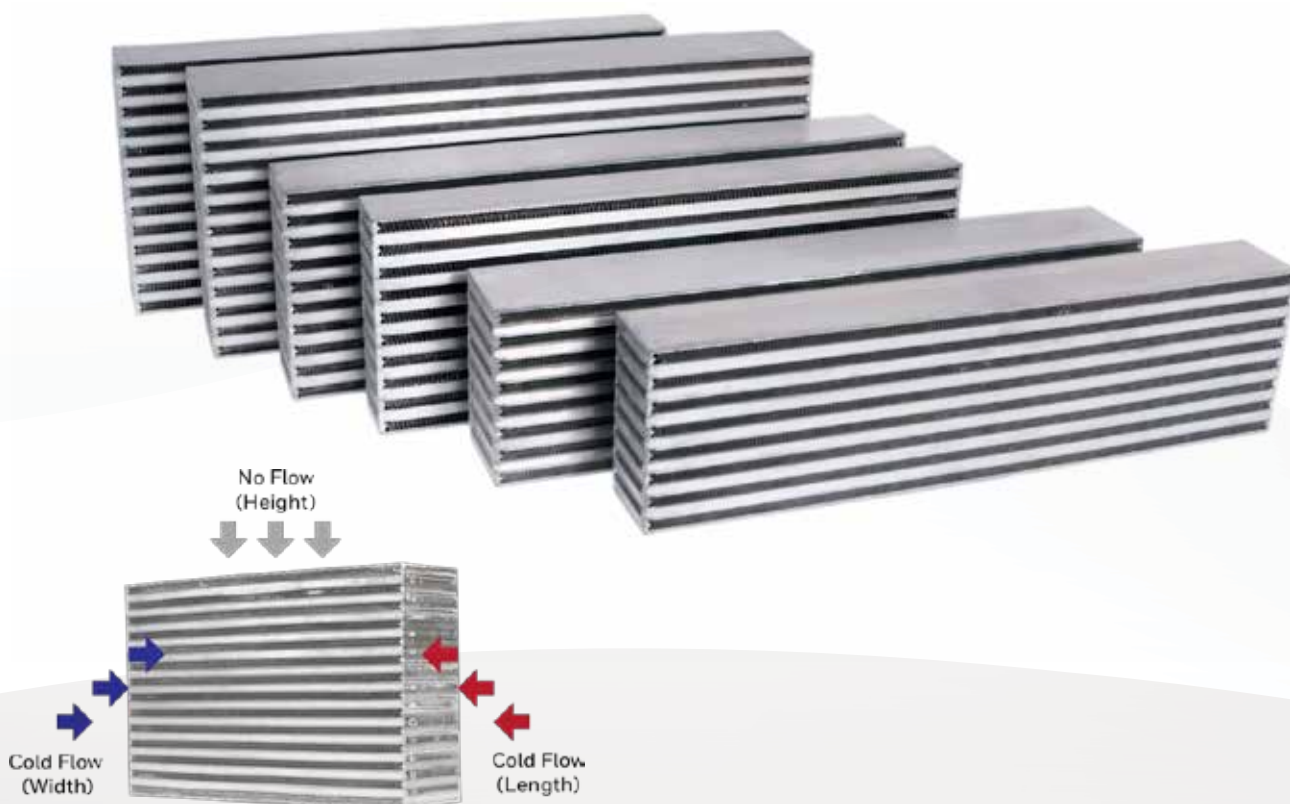


ADJUSTABLE WASTEGATE BRACKET

The Garrett® Adjustable Wastegate Bracket allows for a significantly greater range of motion to set up the compressor outlet and wastegate can. This provides easier fitment in tight engine bays by giving you the ability to make smaller adjustments to compressor housing clocking than would be possible through the standard bolt adjustments which adjust the compressor outlet at 60° increments on GT25R and GT28R turbochargers. The bracket also allows for redirection of the actuator to keep vacuum lines away from heat or sharp edges. The adjustable actuator bracket is available for use on GT25R, GT28R and GT30R turbochargers.

Accessory Kits	Accessory PN
Boost Gauge PSI	773326-0001
Boost Gauge BAR	773326-0002
Speed Sensor Street Kit	781328-0001
Speed Sensor Pro	781328-0002
3.0' Turbine V-Band Flange Adapter	774175-0001
Turbine Inlet Div V-Band Flange Adapter (SS - HK30)	813444-0001
Adjustable Actuator Bracket GT25, GT28, GT30	773151-0002
Heat Shield Kit (Turbine Hsg) GT28/28	785928-0001

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CHARGE AIR COOLERS

Utilizing advanced Aerospace technology, Garrett® intercoolers offer superior fatigue protection for the high boost pressures and temperatures of today's extreme engines. With over 75 years of charge air cooler experience, Garrett remains ahead of the industry in intercooler design and function making it the number one choice for some of the premier names in the performance car industry - Roush, Saleen, Mercedes-Benz AMG, Ford SVT, GM, and McLaren have all turned to Honeywell to intercool their hottest models.

We now offer this expertise and quality to enthusiasts, in a full range of intercooler cores that are manufactured in-house by Honeywell technicians. The bar and plate construction offers hi-performance, in a compact design using high strength vacuum brazed, aerospace grade aluminum alloys with advanced fin designs to ensure greater heat transfer effectiveness and durability. From air-to-air cores sized for sport compact cars to air-to-water cores capable of supporting 1000+ hp, we can provide optimum performance for nearly any application.

CAC PN	Type	Supported Horsepower	Length (in')	Height (in')	Width (in')	Weight (lbs)
701596-6001	Air / Air	1260	27.8	12.7	5.1	31.4
848054-6003	Air / Air	1140	22.0	14.0	4.5	26.4
486827-6002	Air / Air	1000	23.7	12.0	3.8	23.7
734408-6005	Air / Water	1000	11.9	4.8	4.8	8.6
703522-6005	Air / Air	950	24.0	12.1	4.5	26.2
703520-6005	Air / Air	925	24.0	12.1	3.5	20.3
703518-6005	Air / Air	900	24.0	12.1	3.0	19.4
848054-6001	Air / Air	870	20.0	12.5	3.5	17.4
703520-6011	Air / Air	800	24.0	10.5	3.5	17.8
848054-0005	Air / Air	800	13.7	8.6	5.0	12.3
703522-6004	Air / Air	785	18.0	12.1	4.5	19.8
703518-6004	Air / Air	750	18.0	12.1	3.0	15.6
703522-6008	Air / Air	750	18.0	11.2	4.5	17.0
717874-6008	Air / Water	750	11.7	3.8	3.8	6.3
848054-0002	Air / Air	660	22.0	9.0	4.0	17.4
487085-6002	Air / Air	600	20.0	11.2	3.0	15.2
703520-6010	Air / Air	600	24.0	8.0	3.5	13.8
703520-6002	Air / Air	550	14.0	12.1	3.5	12.3
703518-6017	Air / Air	510	18.0	10.5	3.0	11.2
717874-6009	Air/Water	500	3.8	3.8	9.8	6.0
703520-6009	Air / Air	500	24.0	6.4	3.5	11.6
703518-6018	Air / Air	475	24.0	6.4	3.0	9.9
703520-6025	Air / Air	425	18.0	8.0	3.5	10.8
703521-6003	Air / Air	375	10.0	12.3	4.5	13.1
703518-6015	Air / Air	310	18.0	6.4	3.0	7.3



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Imagine the ability to match a turbo to your engine, right from the palm of your hand! Now you can with the Garrett® Boost Adviser!

The Garrett® Boost Adviser is the first application of its kind to allow anyone to perform a turbomatch quickly and easily. The Boost Adviser allows you to narrow down the vast Garrett® Turbocharger lineup to only those turbos that most closely meet your needs.

Simply enter the parameters of your engine and project goals such as:

- Displacement
- Valves per cylinder
- Fuel type
- Horsepower goal
- Single vs twin setup

Garrett® Boost Adviser even accounts for factors such as your local air density and temperature at the click of a button. This flexibly helps you anticipate how your engine / turbo combination will perform in different environments at different engine speeds.

The best part - the Garrett® Boost Adviser is FREE and compatible with more devices than ever!

- Download at the Apple iTunes Store for your iPhone, iPad or iPod Touch.
- Now Available at the Android Market and compatible with Android-run phones and tablets.
- Don't have a smartphone? Access Boost Adviser online at bit.ly/garrettboostadviser

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