



GTURBO

WHY A GTURBO

FOR YOUR 1VD-FTV

VDJ76/78/79 LANDCRUISER

Version 1.1 (2025)

PERFORMANCE BY DESIGN





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A photograph of the GTURBO storefront. The building has a dark grey facade with large windows. The 'GTURBO' logo is prominently displayed in large, 3D, metallic letters. The 'G' is red, and the rest of the letters are silver. The windows are dark, reflecting the surroundings.

GTURBO

US

GTurbo is proudly Australian-owned and operated. Our turbochargers are designed and manufactured at our Balcatta facility in Western Australia.

ABOUT

Our story begins with founder Graeme Bentink, an avid explorer of Australia's rugged landscapes, who struggled with the limitations of an underpowered and inefficient 4WD.

Convinced his factory LandCruiser had untapped potential, Graeme used his background in process engineering and metallurgy to create a solution: a high performance turbocharger built for real-world conditions.





Fourteen years on, GTurbo has grown into one of Australia's leading manufacturers of high-performance diesel turbos and tuning solutions. Fuelled by a passion for performance, we engineer, test, and optimise every product to deliver maximum power and reliability for every drive.

**DRIVEN BY INNOVATION AND BACKED BY ENGINEERING
EXCELLENCE, WE FOCUS ON THE ENTIRE SYSTEM TO BRING
YOU GREATER POWER OUTPUT WITH EVERY UPGRADE.**

OUR TURBOS

**ENGINEERED
BY DESIGN**

**BUILT ON THE FOUNDATION
OF FACTORY-FITTED UNITS,
OUR TURBOCHARGERS ARE
COMPLETELY REIMAGINED
USING CUTTING-EDGE DESIGN
PRINCIPLES TO MEET
MODERN PERFORMANCE
DEMANDS.**

All GTurbo turbochargers are balanced using state-of-the-art, four-stage high-speed equipment, spinning at up to 200,000 RPM.

We use a proprietary GTurbo balancing procedure that delivers levels of precision far beyond any original turbo we've tested. This advanced balancing ensures quiet operation, exceptional reliability under extreme boost, and, most importantly, long service life. Each GTurbo is race-ready straight out of the box, with no need for extra tuning or preparation, giving drivers the confidence to push performance to the limit from day one.

**OUR COMPREHENSIVE REDESIGN DELIVERS MORE POWER,
GREATER EFFICIENCY, AND ENHANCED RELIABILITY UNDER
HIGH-DEMAND CONDITIONS, THROUGH IMPROVED AIRFLOW,
SUPERIOR MATERIALS, AND ROBUST CONSTRUCTION.**

1 Turbine Shaft

Larger and stronger, with advanced blade metallurgy.

2 Compressor Wheel

Precision billet aluminium or titanium, point-machined for uncompromised accuracy, far superior to line-machined alternatives common in the market.

3 Bearings

Reinforced to handle high boost with gapless seals for superior oil control.

4 Boost Capability

Rated over 40psi, ensuring durability even under over-boost conditions.

5 Variable Nozzle Technology (VNT)

Precision-controlled VNT for rapid spool, consistent boost delivery, and unmatched throttle response.





GTURBO & THE 1VD-FTV

The Toyota 1VD-FTV 4.5L V8 turbo-diesel engine, fitted to the VDJ70 Series LandCruiser from 2007 onward, comes equipped from factory with a small Garrett GT2559V variable geometry turbo (VNT). This turbo is similar in size to units typically found on smaller 3.0L engines, such as the BMW M57 (1998). While efficient for stock performance, these turbos are limited in airflow and responsiveness at higher power levels.

Recognising its limitations, GTurbo has engineered a range of direct-fit turbocharger upgrades, completely reworking the original design while retaining the benefits of modern VNT technology.

The IVD-FTV has proven incredibly robust under significant power increases. In 2012, GTurbo released the world's first true V8 upgrade for this engine, featuring a redesigned compressor wheel, thrust bearing, turbine shaft, and variable nozzle system. Our initial development vehicle has since clocked over 80,000km of high-load use, operating at 70%+ above factory power without a single reliability issue.

Today, our customers are achieving over 365rwhp, with massive low-end torque, enhanced drivability, and no fuel economy loss—more than double the factory output, while maintaining everyday usability.





To push the limits of the IVD platform, GTurbo purchased a VDJ79 in 2015 and entered it into the WA Off-Road Racing Championship.

From 2015 to 2018, the vehicle performed exceptionally—winning multiple Class 7 Championships, outperforming higher-class vehicles, and proving the durability of GTurbo products under extreme conditions.



Over three seasons, the engine and turbo system maintained **100% reliability**



PRODUCT GUIDE

FOR THE 1VD-FTV PLATFORM





TURBOCHARGERS



VD-G333 Titan
T T 1VD-FTV S2.5B

Description

Delivers rapid spool and strong low-end torque, perfect for touring and responsive everyday performance.

\$4290



VD-G380 Titan
T T 1VD-FTV S3B

Description

Combines sharp response with massive midrange power, ideal for heavy towing and high-output builds.

\$4290



VD-G400 Titanium
T T 1VD-FTV S4.5

Description

Engineered for maximum boost and top-end performance, delivering extreme power for serious builds.

\$4980





VD-G333 TITAN

STAGE 1: TURBO UPGRADE

RESPONSIVE | LOW-END TORQUE | DAILY DRIVES

The GTurbo VD-G333 Titan delivers strong low-end torque and rapid response, giving your IVD-FTV the punch it should've had from the factory.

Whether you're towing, touring, or chasing big power off-road, the VD-G333 Titan is designed to perform across a wide rev range with class-leading reliability.



PRICE **\$4290**

Key Features



The VD-G380 Titan features a high-efficiency billet compressor wheel with our signature TITAN coating, engineered for ultra-low friction, extreme heat resistance, and long-term reliability.



This turbo is built for durability. It includes a 30% larger turbine, reinforced thrust bearing, 30% stronger main shaft, and higher-flow Next-Gen VNT system to ensure consistent boost delivery and robust operation under load.



Our one-piece bearing housing increases structural durability, while the marine-grade stainless vacuum controller resists corrosion far better than the original mild steel actuator, making this turbo ideal for harsh environments.

Performance Expectations

The VD-G333 Titan delivers efficient boost from 16–33psi, with a design boost of 24psi. Boost control is managed through the factory ECU calibration and turbocharger design. When tuned correctly, with supporting mods, customers can expect up to 30psi by 1500rpm.

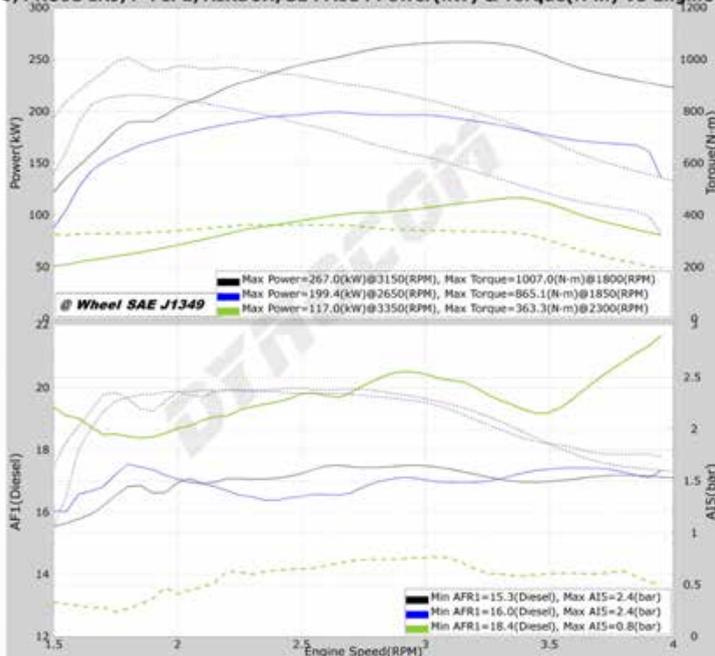
Product	Torque (Nm)	Power (rkwW)
Stock VDJ76/78/79	380	100-120
VD-G333T + remap	800-900	190-220
VD-G333T + supporting mods*	1000	260

*Supporting Mods = NPC1600 clutch, intercooler or fan kit, 3" exhaust, upgraded airbox, power pipe, high-flow injectors

Note: These performance figures are based on a turbo-back exhaust system. Retaining the DPF will slightly reduce output.

The dyno graph below, reflects real-world performance of the VD-G333 Titan on a IVD-FTV engine.

/G333/PRO95 INJ/P-PIPE/AIRBOX/SE FMIC : Power(kW) & Torque(N-m) VS Engine Speed



VD-G380 TITAN

STAGE 2: TURBO UPGRADE

MID-RANGE PUNCH | REAL-WORLD PERFORMANCE

The GTurbo VD-G380 Titan steps up the performance game, delivering sharper throttle response and significantly improved top-end performance.

Purpose-built for the VDJ70 series, this turbo provides strong, consistent boost across the full rev range, making it the ideal choice for heavy towing, high-speed touring, and demanding off-road adventures.



PRICE **\$4290**

Key Features



At its core, the VD-G380 Titan has a high-efficiency billet compressor wheel with our aerospace-grade TITAN coating for ultra-low friction and extreme heat resistance.



Behind the compressor sits a 37% larger turbine (7% larger than the VD-G333T), improving flow at higher engine speeds while maintaining excellent spool characteristics. It also includes a 30% stronger main shaft and our Next-Gen high-flow VNT system



Our one-piece bearing housing adds strength and a marine-grade stainless vacuum controller ensures long-lasting corrosion resistance.

Performance Expectations

The VD-G380 Titan delivers efficient boost from 16–36psi, with a design boost of 30psi. Boost control is managed through the factory ECU calibration and turbocharger design. When tuned correctly, with supporting mods, customers can expect up to 30psi by 1600rpm.

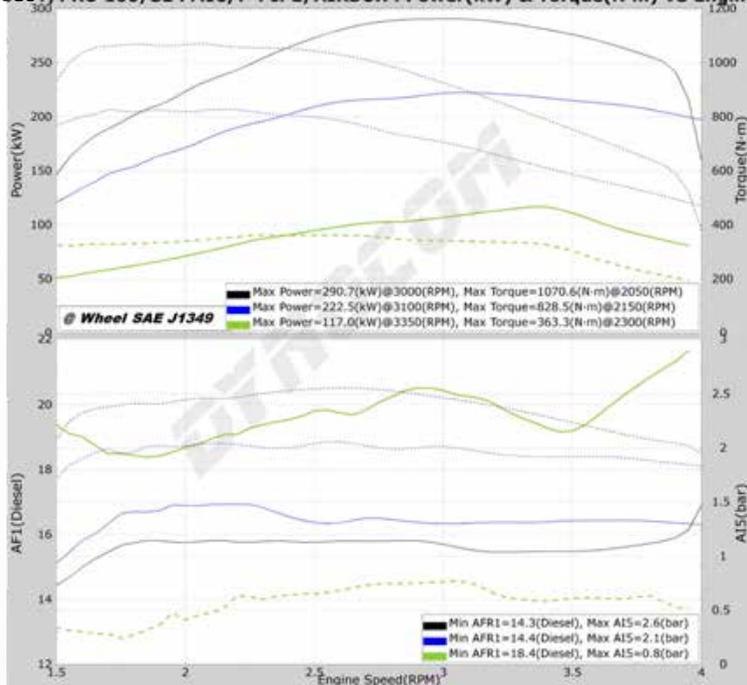
Product	Torque (Nm)	Power (rkwW)
Stock VDJ76/78/79	380	100-120
VD-G380T + remap	800-900	190-220
VD-G380T + supporting mods*	1000	290

*Supporting Mods = NPC1600 clutch, intercooler or fan kit, 3" exhaust, upgraded airbox, power pipe, high-flow injectors

Note: These performance figures are based on a turbo-back exhaust system. Retaining the DPF will slightly reduce output.

The dyno graph below, reflects real-world performance of the VD-G380 Titan on a IVD-FTV engine.

4M G380T/PRO 100/SE FMIC/P-PIPE/AIRBOX : Power(kW) & Torque(N-m) VS Engine Spee



VD-G400 TITANIUM

STAGE 3: TURBO UPGRADE

SUPERIOR TOP-END POWER | DEMANDING DRIVES

The VD-G400Ti is our highest-flowing turbo for the IVD-FTV, built for serious power and uncompromising reliability. It's designed for those chasing big numbers, heavy towing loads, or top-end performance that doesn't taper off at high RPM. While it maintains impressive bottom-end response, this turbo truly shines from midrange to redline.



PRICE **\$4980**

Key Features



At the heart of the VD-G400Ti is a 59% larger titanium billet compressor wheel, offering superior strength and heat resistance compared to traditional aluminium designs.



Combined with a 37% larger next-gen turbine, this setup delivers massive flow and exceptional thermal stability under high boost and EGT conditions.



The VD-G400Ti has a 30% stronger main shaft, upgraded thrust bearing, and a high-flow Next-Gen VNT system. It also features a one-piece bearing housing for improved reliability and a marine-grade stainless vacuum controller to resist corrosion in tough environments.

Performance Expectations

The VD-G400 Titanium delivers efficient boost from 16–44psi, with a design boost of 40psi. Boost control is managed through the factory ECU calibration and turbocharger design. When tuned correctly, with supporting mods, customers can expect up to 30psi by 1600rpm, and 40 psi by 2000rpm with efficient air intake and cool charge air temperatures.

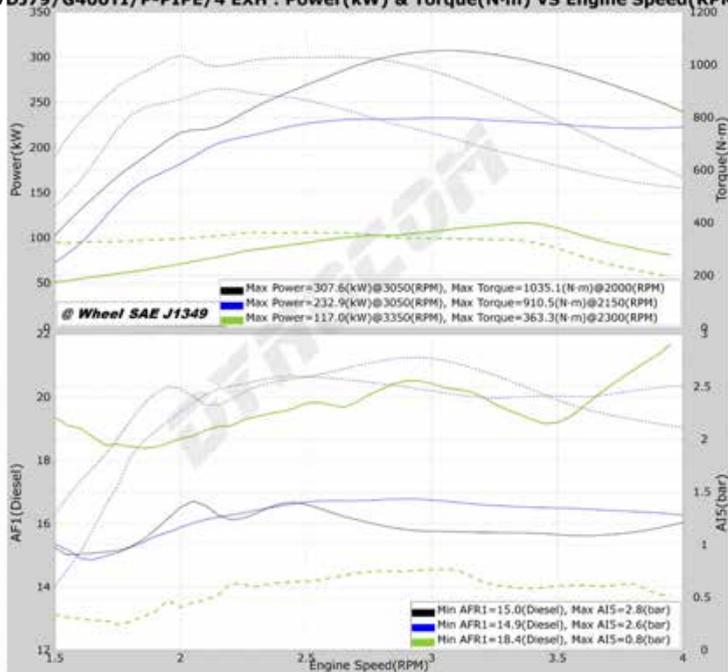
Product	Torque (Nm)	Power (rwkW)
Stock VDJ76/78/79	380	100-120
VD-G400Ti + remap	800-900	200-230
VD-G400Ti + supporting mods*	1100	330

*Supporting Mods = NPC1600 clutch, intercooler or fan kit, 3" exhaust, upgraded airbox, power pipe, high-flow injectors

Note: These performance figures are based on a turbo-back exhaust system. Retaining the DPF will slightly reduce output.

The dyno graph below, reflects real-world performance of the VD-G400 Titanium on a IVD-FTV engine.

VDJ79/G400TI/P-PIPE/4'EXH : Power(kW) & Torque(N-m) VS Engine Speed(RPM)





SUPPORTING MODS



High-Flow Airbox
A AB GT VD J79

Description

Unrestricted airflow and ultimate dust sealing for maximum engine performance.

\$1495



NPC1600 Clutch
C CL XHD T4.5

Description

Heavy-duty clutch rated for up to 1600Nm, delivering factory-like drivability with unmatched strength for high-torque builds.

\$2490



+95% HF Injector Nozzles
F | 1VD HFN

Description

Precision-engineered nozzles providing 95% more flow for serious performance gains while maintaining reliability.

\$1190





Pro 100 HF Injector Nozzles

F | 1VD DPF +100 HFN

Description

Maximum fueling capability for extreme power builds, designed for durability and precise delivery.

\$2790



+95% Injector Exchange

F | 1VDFTV S2

Description

High-flow injectors offering a 95% increase in fuel delivery, supplied on an exchange basis to ensure OEM fitment and reliability.

\$2500



Pro 100 Injector Service + Upgrade

F | 1VDFTV S2.1

Description

Your original injectors are precision-modified and flow-matched to deliver more fuel, supporting big-power builds.

PRICING FROM \$4890



Power Pipe

P 1VD P

Description

High-flow stainless intake pipe designed for maximum airflow, superior strength, and long-term reliability.

\$2290



Intercooler - VD J70

A IC AA T3F-2.1

Description

Optimised airflow and thermal efficiency to support higher boost and sustained performance.

PRICING FROM \$2200



Fan Kit

A IC EF 1VD

Description

Active intercooler cooling solution that reduces intake temps under load, ensuring consistent performance and safe EGTs.

\$1895



HIGH-FLOW AIRBOX

VDJ70 SERIES LANDCRUISER

DURABLE | LIGHT-WEIGHT | DROP-IN FIT

GTurbo's high-performance airboxes are engineered for maximum airflow, strength, and durability to complement our turbo systems. Designed for harsh conditions, they deliver consistent performance, reliable filtration, and the long-term protection needed for high-power builds.



PRICE \$1495

Features

Our GTurbo High-Flow Airbox features a market-first double-seal system for superior dust and water protection in the harshest conditions. Built from 3mm alloy with 8mm flanges and finished in corrosion-resistant anodizing, it delivers strength, durability, and long-term reliability.

Designed as a direct OEM replacement, it uses factory mounting points and retains OEM filter compatibility for easy servicing. Unlike plastic factory units that flex and leak under load, GTurbo's alloy design ensures clean, cool, and unrestricted airflow, improving engine performance and providing consistent protection for towing, touring, and serious off-road use.

Why its needed

High-performance turbos demand more air than the factory airbox can deliver. Stock units can become a major restriction, reducing power and efficiency.

NPCI600 CLUTCH

VDJ70 MANUAL TRANSMISSION

EXCELLENT DRIVEABILITY | RELIABLE | STRONG

The NPC1600 Clutch with billet fly-wheel offers excellent drivability with a factory-like pedal feel while providing the strength and reliability required to handle significant torque for long-term performance. NPC remains our trusted partner for all LandCruiser clutch applications.

PRICE **\$2490**



Features

The NPC1600 clutch is engineered to handle up to 1600Nm of torque, making it the perfect match for high-performance turbo upgrades and heavy-duty applications. Featuring a full-face organic disc and a heavy-duty pressure plate, the NPC1600 delivers superior clamping force while maintaining a smooth, factory-like pedal feel for everyday comfort.

Every kit includes a billet steel flywheel for added strength and heat resistance, ensuring consistent performance under extreme conditions. Designed and built in Australia, the NPC1600 is made to thrive in harsh environments.

Why its needed

The factory clutch in 1VD-FTV LandCruisers often fails to manage increased torque, with slip commonly occurring beyond 500Nm. Many original clutches are now decades old, making failure likely even at stock power levels. When targeting higher power upgrading to the NPC1600 clutch with a billet flywheel is essential.



HIGH-FLOW INJECTORS

GTurbo +95% & Pro 100 INJECTORS

PRECISION-FLOW | INTEGRATED | RELIABLE

GTurbo have developed its own high flow injector range, which are designed for seamless integration with GTurbo systems. These injectors deliver precise fuel delivery for stronger throttle response, increased torque, and big-power capability across both pre-DPF and DPF VDJ70 Series Landcruisers.



Why upgrade Injectors?

Larger injectors reduce the workload on your injection system. By delivering more fuel at lower rail pressures, they help take the strain off your injector pump while improving atomisation and combustion under load. Whether you're chasing more torque, better fuel delivery under boost, or future-proofing your build for power goals, high-flow injectors are a key part of the puzzle.

GTurbo offers two levels of high-flow injectors designed to suit a range of performance goals. These injectors are proven to support builds making 400+whp and 1000+Nm at the wheels, but they're just as effective in mild applications. Don't be put off by the potential, they're completely ECU-controlled, and your tuner can adjust them to suit any target, even as low as 200whp and 550Nm, if desired.

What we offer?

We offer two levels of high-flow injectors:

+95% Injectors only for **pre-DPF** VDJ70 series.

Pro 100 Injectors only for **DPF-equipped** VDJ70 series.

Purchase Options

PURCHASE OPTION	PURPOSE	+90% Injectors (Pre-DPF ONLY)	Pro 100 Injectors (DPF ONLY)
Nozzle Kits Only	Ideal for customers working with local fuel shops	\$1190	\$2790
Exchange Injectors	Refurbished injectors, professionally modified and high-flowed. Sold on an exchange basis (see below)	\$2500	NOT AVAILABLE
Genuine New High-Flow Injectors	New Toyota Injectors professionally modified and high-flowed by GTurbo	\$5890	\$11,900
Service Upgrades	Customers send in their injectors for modification and flow upgrade.	\$2500	\$4890
Fitting Kits	Complete Kit with everything you need for an install: gaskets, seals and injector seats	\$320	\$190

GTurbo IVD-FTV Injector Exchange Program

GTurbo offers an exchange program for +95% injectors (pre-DPF). Injectors are supplied first on an exchange basis with a **\$300 refundable core charge**. The core charge is refunded once your original injectors are returned. The cores must be in working, serviceable condition for refund eligibility.

All injectors are fully flow-tested, matched, and ready to support your build.



IVD-FTV POWER PIPE

VDJ70 SERIES HIGH-FLOW INTAKE PIPE SMARTER AIRFLOW | DIRECT REPLACEMENT

The GTurbo Power Pipe is a premium high-flow intake system purpose-built for the VDJ70. Expertly engineered for strength, efficiency, and performance, it replaces the restrictive factory pipe with a robust stainless steel upgrade that improves airflow, boosts reliability, and enhances efficiency in all driving conditions.

PRICE **\$2490**



Features

Our GTurbo Power Pipe is crafted from 316-grade stainless steel and purge TIG-welded, to provide strength and durability, and support clean airflow. The purge welding process ensures the inside of the pipe is smooth and free from dags, weld spatter, or debris that could compromise your engine. It is 4" in diameter from the airbox, tapering to 3" at the turbo inlet. A custom-engineered engine mount is included to relocate the mount, eliminating any clearance issues. The result is a high-flow, performance-focused intake that holds its shape under pressure, heat, and load.

Why its needed

The factory intake pipe is made mostly from plastic and known to fail over time. As it absorbs oil from the engine breather, it softens and can eventually split or collapse under load. When this happens, dust and debris can enter the turbo, reducing performance and in severe cases causing turbocharger or engine damage.



FAN KIT UPGRADE

VDJ70 SERIES LANDCRUISER

EXCELLENT DRIVEABILITY | RELIABLE | STRONG

The GTurbo Intercooler Fan Kit is designed to keep intake temperatures under control when airflow is limited, such as slow-speed climbs, towing, or tough off-road conditions. By actively pulling cool air through your intercooler, this upgrade ensures consistent performance, improved efficiency, and safer EGTs.



PRICE **\$1895**

Features

Our GTurbo Fan Kit mounts directly to the factory top-mount intercooler to help combat heat soak, a common issue where the intercooler absorbs heat from the engine and engine bay. By actively drawing air through the intercooler when temperatures rise, this kit significantly improves charge air cooling without the need to cut or modify the vehicle.

Our fan kit wires neatly into the engine bay's accessory box and installs cleanly without interfering with factory components. It is ideal for setups where space behind the grille is limited due to accessories like winches, lights, or transmission coolers.

Why its needed

At low speeds or under heavy load, airflow over the intercooler drops, causing intake temps and EGTs to rise. The GTurbo Fan Kit solves this by maintaining consistent cooling, preventing heat soak, and ensuring your engine performs safely and efficiently in the toughest conditions.

FM INTERCOOLER

VDJ70 PDI INTERCOOLER KIT

UNMATCHED COOLING | EFFICIENT | SEAMLESS

The PDI Front Mount Intercooler Kit for the 70 Series LandCruiser is the ultimate cooling upgrade for the VDJ70 platform. Engineered to deliver exceptional intake temperature control under heavy loads, it's a bolt-on solution that fits behind any bullbar and winch combo, and no cutting is required.



PRICING
FROM \$2200

Features

The PDI front-mount intercooler delivers exceptional cooling performance with its 700mm-wide core and 3-inch outlets, designed for maximum airflow. Its close-mounted design improves airflow pull from the factory fan, ensuring reliable cooling even at low speeds and under heavy load.

Independent testing shows intake temps as low as 47°C under full load, over three times more effective than top-mount alternatives.

The kit includes stainless steel piping (2.5" and 3"), reinforced silicone joiners, and high-torque clamps for strength and consistent performance under boost.

Why its needed

Toyota's factory top-mount intercooler was chosen for cost and packaging, not performance. While it meets stock emissions and output goals, it quickly becomes a bottleneck under increased boost or prolonged load.

Unlike top mounts that heat soak and have restricted access to the engine bay, the front mount clears the engine bay, improves serviceability, and significantly reduces intake temperatures. Whether you're chasing reliable touring performance or 300+kW power builds, this intercooler is essential.

Kit Options

Single Entry Kit

Designed for maximum airflow, this version eliminates the factory throttle butterflies and EGR feed. Ideal for high-flow turbo setups and a cleaner piping layout.

Requires ECU tuning or EGR/throttle solutions to avoid derate on late-model vehicles.

OPTIONAL
UPGRADE **\$395**

Dual Entry Kit

Retains both factory throttle valves and EGR system, allowing smoother engine shutdown and compliance with emissions requirements.

OPTIONAL
UPGRADE **No Extra Cost**

Adaptive Cruise Relocation

On 2022–2023 models with adaptive cruise, PDI supplies a bracket and wiring extensions to move the sensor and Toyota emblem forward for proper clearance, no need to delete the system or compromise on fit.

OPTIONAL
UPGRADE **No Extra Cost**



PRODUCT GUIDE

PERFORMANCE EXPECTATIONS

COMPARISON TABLE

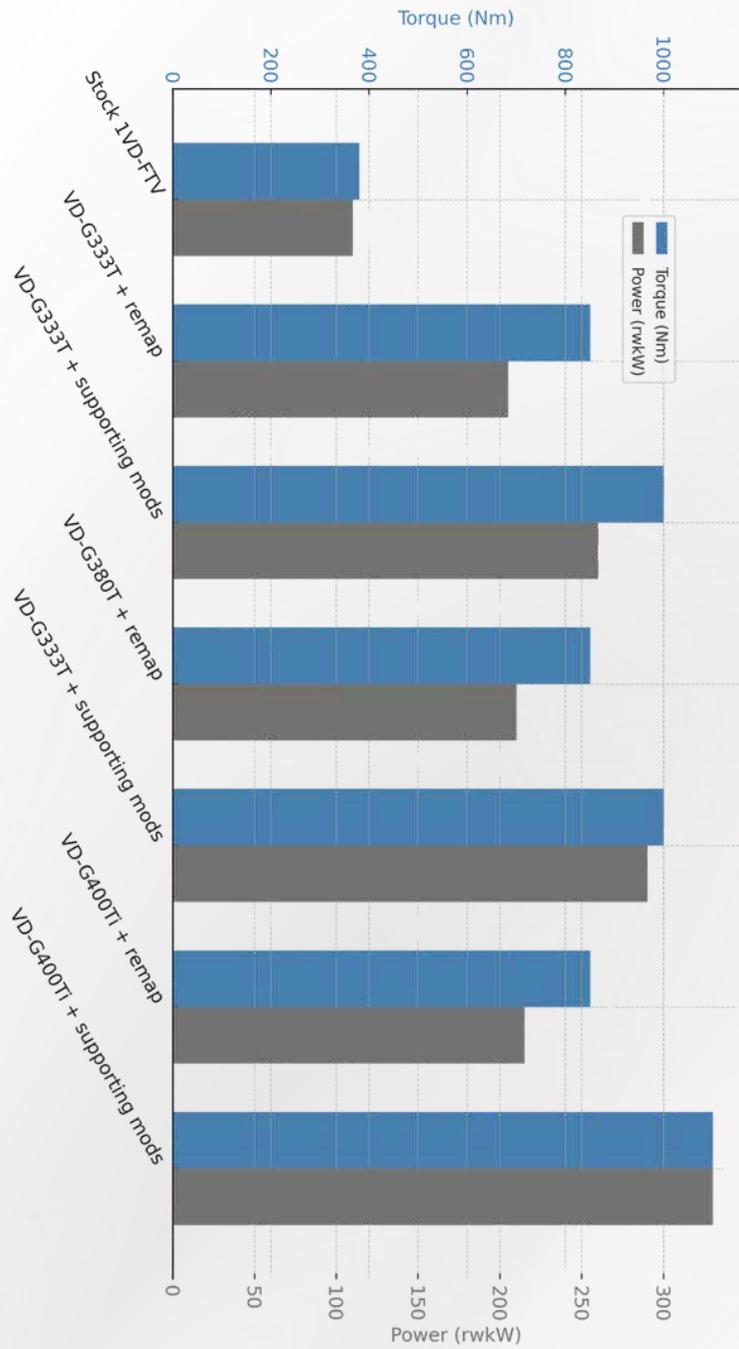
When choosing the right turbo for your build, it's important to consider your performance goals, vehicle use, and supporting modifications. The table below compares each GTurbo option to help you decide which upgrade best suits your needs.

Product	Torque (rwNm)	Power (rwkW)
Stock IVD-FTV	380	100-120
VD-G333 Titan (Starting at \$4290)		
VD-G333T + remap	800-900	190-220
VD-G333T + supporting mods*	1000	260
VD-G380 Titan (Starting at \$4290)		
VD-G380T + remap	800-900	190-230
VD-G333T + supporting mods*	1000	290
VD-G400 Titanium (Starting at \$4980)		
VD-G400Ti + remap	800-900	200-230
VD-G400Ti + supporting mods*	1100	330

***Supporting Mods** = NPC1600 clutch, intercooler or fan kit, 3" exhaust, upgraded airbox, power pipe, high-flow injectors

Note: Results are based on setups using a turbo-back exhaust. Vehicles retaining the DPF will see slightly reduced output. The VD-G333T, VD-G380T and VD-G400Ti, can be used as a direct bolt-on upgrade with factory ECU calibration, but tuning is highly recommended to realise its full potential.

GTurbo VDj Series Performance Comparison (All Variants)





PRODUCT GUIDE

SPECIAL CONSIDERATIONS

Before Upgrading

Before upgrading your turbo, it's crucial to plan for the supporting modifications that make extra power safe and reliable. Relying on stock components can limit performance or worse, lead to engine or driveline damage. Ensuring the right supporting mods will protect your investment and unlock the full potential of your GTurbo upgrade.

Supporting modifications

We have provided extensive information on preceding pages regarding supporting modifications. To summarise:

REQUIRED

- NPC1600Nm clutch upgrade

RECOMMENDED

- PDI Front-Mount Intercooler or GTurbo Fan Kit
- Minimum 3" Exhaust
- Airbox
- High-Flow Injectors
- Powerpipe

Tuning

At GTurbo, we prioritise safe, reliable performance. The figures we publish reflect conservative, real-world results suited to long-term reliability. If you're aiming for more aggressive tuning, we can accommodate that, with the understanding that increased risk may be involved. We're here to guide you through the right setup based on your goals and how you use your vehicle.

Fueling

The factory injectors on the IVD-FTV become a significant restriction once power levels approach 200–230 rkw and ~800 Nm at the wheels. To safely and reliably push beyond this threshold, we recommend upgrading to high-flow injectors +95% for pre-DPF models or +100% for DPF-equipped engines. These upgraded injectors support power targets of 300+ rkw and 1000+ Nm at the wheels.

Intake Manifold Cleaning

Over time, the EGR system allows oily vapour and soot to build up in the intake manifold, forming sludge that restricts airflow and reduces performance. Given the age of these vehicles, most will benefit from a thorough intake clean to restore flow and improve efficiency

Oil Filter Cartridge Insert – Don't Forget It

When servicing the oil system on the VDJ70's IVD-FTV engine, special attention must be paid to the internal cartridge support pole inside the oil filter housing. This small but critical component prevents the oil filter element from collapsing under pressure during engine operation.

It's common for this insert to be accidentally removed with the old filter and not reinstalled with the new one. If left out, the new filter can collapse internally under load, starving the engine of oil and leading to catastrophic failure. Always double-check that the support insert is in place before installing a new filter. This simple step can prevent a costly engine rebuild.

Injector Installation Caution

On pre-DPF IVD-FTV engines, injector installation requires particular care due to the risk of diesel leaking into the sump if the leak-off washers are not correctly seated. This can cause the engine oil level to rise and, in extreme cases, lead to engine runaway. Always torque the injectors to factory specification (18Nm), and ensure the leak-off rail is properly sealed. We recommend applying a light film of oil around the leak-off bolts and using compressed air to check for leaks before final assembly. After installation, monitor your oil level over the first 1,000km to confirm there is no diesel contamination.

Note: This issue does not apply to post-DPF IVD models, which use a different injector design

Turbo Actuator Breather & Stainless Upgrade

On the VDJ70 Series, GTurbo turbochargers feature a two-port vacuum actuator, a deliberate improvement to address a known failure point in the factory design. The original turbo is mounted low on the engine, and during water crossings, the small breather hole in the factory actuator is prone to drawing in water, leading to internal rust and eventual failure. GTurbo solves this in two key ways:

1. The breather port is relocated and fitted with a hose barb, allowing you to run a breather line up into the engine bay, keeping it high and dry.
2. The actuator body itself is upgraded to stainless steel, eliminating the risk of rust altogether.

This combination significantly improves long-term durability, especially for vehicles used in off-road or wet environments.

MAP Sensor Filter Cracks

The plastic MAP sensor filter is a common failure point. Cracks or leaks in this filter can cause incorrect sensor readings, resulting in power loss or tuning issues. GTurbo offers a washable stainless steel replacement for \$99 that won't crack or degrade over time.

Rear Exhaust Crossover Pipe – Bigger Isn't Better

It's a common misconception that upgrading the factory rear exhaust crossover pipe to a larger diameter will improve exhaust flow and power. In reality, the opposite is often true. Increasing the volume of the crossover pipe introduces more space that must be filled with exhaust gases, which delays exhaust energy delivery to the turbo. This results in slower spool, reduced response, and ultimately poorer performance, especially noticeable in off-boost drivability.

We've tested this extensively and found no performance benefit in upgrading the crossover pipe, even on high-output setups making 400+ rwhp and over 1000Nm at the wheels. Additionally, many aftermarket pipes use flexible mesh sections that can deteriorate over time, shedding material into the turbo and damaging the turbine or VNT mechanism.

For reliability and performance, we recommend retaining the factory crossover pipe.

Secondary Fuel Filters – Choose the Right Micron Rating

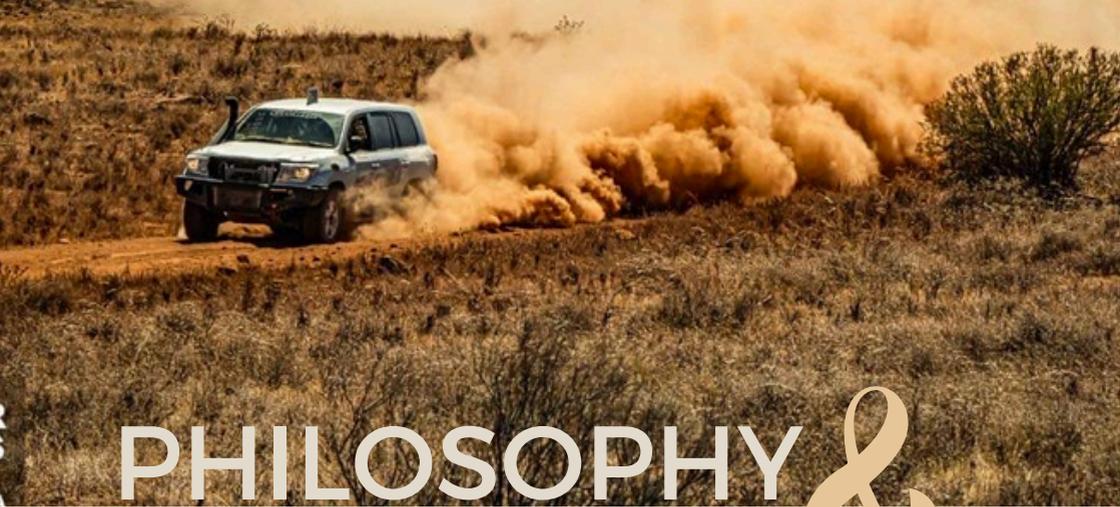
While adding a secondary fuel filter is a popular upgrade to protect the IVD-FTV from contaminated fuel, using the wrong filter can do more harm than good. Many aftermarket kits use a 5-micron element, which is far too restrictive for the factory common-rail injector pump to draw through on its own. This restriction causes the pump to struggle, leading to internal wear and metal contamination.

Over time, metal from the pump can circulate through the fuel system and even make its way back into the fuel tank, risking widespread damage. We strongly recommend using a 30-micron filter at a minimum for secondary filtration. If you plan to run anything finer, a quality lift pump is essential to relieve strain on the injector pump and maintain long-term reliability.

Always Remember

We're here to help whenever you need us! You can find our contact details on page 37.





PHILOSOPHY & WARRANTY

Philosophy

GTurbo turbos are designed to safely handle the boost levels we specify, while maintaining exceptional durability and performance. Our units are bolt-on replacements, connecting seamlessly to your existing manifold and exhaust for a straightforward upgrade.

At GTurbo, we prioritise safe, reliable performance. The figures we publish reflect conservative, real-world results suited to long-term reliability. If you're aiming for more aggressive tuning, we can accommodate that, with the understanding that increased risk may be involved. We're here to guide you through the right setup based on your goals and how you use your vehicle.

Warranty

Every GTurbo product comes with a 12-month warranty against manufacturing and assembly defects. This excludes our titanium models which are covered for 24-months under warranty.

We take pride in delivering world-class products that significantly enhance your vehicle's performance and in providing outstanding support to ensure the best possible GTurbo experience.

While we'll assist you wherever possible, please note that we cannot accept liability for issues caused by factors outside our control.

CONTACT US

G TURBO

PERFORMANCE BY DESIGN

We're here to help you get the most out of your diesel performance. Whether you have questions about our products, need advice on the right upgrade, or want to book a tune, the GTurbo team is ready to assist.

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Opening Hours

Monday – Friday:
8:30 AM – 4:30 PM

Saturday – Sunday:
Closed

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