

# turbo-zone

*Insider Turbo knowledge for the garage professional*

**Will Twin Turbos  
turn up the volume  
of future F1?**

SUPPORTED BY

**Honeywell  
Garrett**



Non-OE can mean  
40% less power.



Turbos on petrol  
award winners



Check before you fit:  
new critical instructions

**BTN HEAVY DUTY**

***Now we are  
Heavy Duty too.***



You may already know that BTN Turbo offers new and remanufactured turbos for heavy commercial and off-highway vehicles. But did you know we now supply a whole range of other quality replacement parts for heavy duty machinery?

Our BTN Heavy Duty company focuses on the major manufacturers including Case, Caterpillar, Cummins, John Deere and Perkins. The comprehensive range

comprises dependable parts for powertrain, lubrication, cooling, fuelling, hydraulics, electrics and of course, turbochargers.

BTN Heavy Duty works with leading US-based manufacturer FP Diesel, part of the Federal-Mogul Corporation. FP Diesel's global network of advanced technology centres produces parts that are equivalent to OE and in some cases, exceed OE standards.



***Independent tests show  
copy turbos can be  
40% down on power.***

Are you getting the power you paid for? If you bought a cheap replacement turbo, possibly not. It may look a bargain, but independent tests show that non-original reman and copy turbos can be 40% down on performance and have higher emissions, compared to OE remanufactured turbos.

At BTN Turbo, we'll never compromise on our 100% OE standards. The remanufactured turbos we supply are either remanufactured by the original manufacturer, or rebuilt by us using genuine OE parts to the original specification. That means they'll also match the original unit for power, to keep you and your customers satisfied.



[www.btnturbo.com](http://www.btnturbo.com)



# A 'clean room' upgrade for our workshops

Cleanliness and accuracy are vital for remanufacturing a turbo. To make sure the units we remanufacture in-house continue to provide OE standards of performance and reliability, we embarked on a somewhat bigger rebuild – upgrading our workshop facilities.

## New technology

When we started manufacturing exchange units over 40 years ago, turbochargers were fairly simple. As their technology has evolved, so have our expertise and equipment, which is why we continue to remanufacture today's highly complex and sophisticated turbos under licence, to the highest standards, using 100% original parts. As the leading UK distributor for all the main turbo manufacturers, our remanufacturing facilities have to be second to none.



properly set up when remanufactured. To achieve this, we've invested in state of the art equipment. Our advanced rotor balancer is one of several precision machines that ensure each turbo is correctly aligned.

## Precise balance

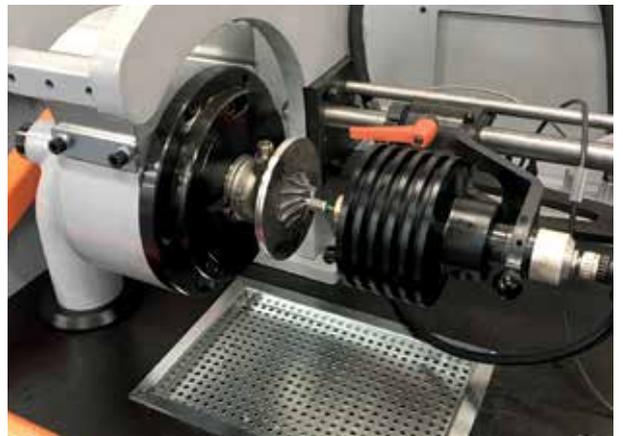
We balance the rotor assembly first, then build it up into a cartridge and insert it into our cartridge balancer.

As a turbo spins at up to 4,000 revs per second, it must be balanced precisely to prevent it destroying its bearings.



## Thorough cleaning

The process is full strip down and cleaning, then machining, assembly, balancing and testing. The same staff who break down the units also reassemble them, for continuity. In-depth cleaning takes place in an oven at the exact temperature that's safe for aluminium and cast iron, but hot enough to burn off all the carbon build-up. The carbon dust is removed and the turbo goes through our shot blast machines for final cleaning. Assembly takes place in our newly equipped clean area. Because turbos operate at extremely high temperatures and pressures, it's crucial they're



The semi-automatic cartridge balancer eliminates the risk of human error, and is faster and more efficient. None of this technology is cheap, but the best rarely is. When you look at the competitive prices of our remanufactured turbos, it demonstrates what exceptional value they are.



**Honeywell**  
**Garrett**

**BorgWarner**  
**IHI**

**HOLSET**  
TURBOCHARGERS

**MITSUBISHI**  
TURBOCHARGERS  
**Schitzer**

# 77% of turbos are replaced by aftermarket technicians

And BTN Turbo is here to help you benefit from this lucrative opportunity. A 2016 GIPA study of UK workshops confirmed the independent aftermarket represents 77% of turbo replacements. 62% of those are for cars 6–9 years old, with the market estimated at 200,000 turbochargers. That's why we offer you over 2,400 turbo part numbers from all the major OE turbo manufacturers and keep 18,000 units in stock, ready for next day despatch.



## Always the latest turbos from BTN

As the official UK distributor for Honeywell Garrett turbochargers, BTN Turbo offers the full range of their brand new turbos, plus all their Original Reman remanufactured turbos – including the latest releases.

Honeywell Garrett Original Reman turbos already cover an extensive range of popular UK vehicles and the choice continues to grow. The new releases are for the 2008-on 2.2TDCI Ford Transit, 2000 – 2005 Toyota RAV4 2.0LD and several BMWs fitted with the 141HP 2.0 litre diesel. And they're all available from us.



## New Critical Instructions issued

We've added more Critical Instructions to help you achieve successful, trouble-free replacement turbo installations.

Based on feedback from vehicle technicians, factors and turbo manufacturers, our Critical Instructions highlight potential problems and recommend remedial actions.

The latest feature: the heat shield on the Citroen/Peugeot PureTech that may deform and restrict the turbo actuator; the EGR valve that may fail and destroy the turbo on some Scania's, and an oil filter recommendation for the 2.2, 2.4 and 2.5LD Ford Transit and Land Rover. All our Critical Instructions are available at [btnturbo.com](http://btnturbo.com)



# Wins for Ferrari and Honeywell Garrett. Will the next generation F1 be twin turbo?

Ferrari's 2017 F1 campaign has got off to a flying start with outright wins in Australia, Bahrain, Monaco and Hungary along with eight other podium finishes. Ferrari and Honeywell Garrett have worked together to ensure the turbocharged V6 engine in the impressive SF70H is more powerful, frugal and reliable, and they've clearly been successful.

## Twin turbos sound more exciting!

Former team boss and now F1 sporting manager Ross Brawn says the next generation of F1 cars will have simpler, cheaper and louder engines, most likely with twin turbos.

The current single turbo engines don't generate enough sound for F1's drama and spectacle. But twin turbos will bring back the howl fans want to hear. First reports predict the engines due in 2021 will be V6 twin turbos producing 1200 horse power, but without the complex MGU-H technology.



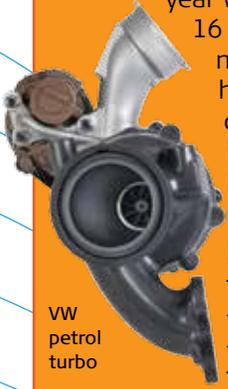
# 1 in 3 cars sold in Europe has Honeywell Garrett turbo technology.

Turbocharging is the key ingredient in the ongoing quest for more power, better economy and lower emissions. A forecast by Honeywell Garrett says that by 2021, 48% of new vehicles produced each year will be turbocharged. There'll be 16 million hybrids on the road, and nearly three quarters of 'mild' hybrids will have turbos. Today one in three cars sold in Europe is equipped with a turbo from Honeywell Garrett.

## Petrol-powered award winners

Their turbo technology also features in two recent awards for new petrol-engined cars. The 2017 European Car of the Year, Peugeot's 3008 features a Honeywell Garrett turbo on its PureTech 1.2 litre petrol engine, as does the new Volkswagen Golf.

The new Golf bucks the current trend for down-sizing engines, growing from 1.4 to 1.5 litres. The Honeywell Garrett VNT turbo fitted to the Golf's 130hp 1.5 TSI Evo engine was nominated for the 2017 Automotive News PACE awards, which celebrate superior innovation and technological advances.



VW petrol turbo



Sales Team 01895 466666 Technical Helpline 01895 466663

**Honeywell  
Garrett**

When he can't deliver the goods,  
make sure you fit a turbo that can.



Help your LCV customers get back on the road  
and stay on the road.

Choose Honeywell Garrett, supplied by BTN Turbo. The turbo  
every trader can trust.

- All brand new and original remanufactured turbos are 100% OE.
- 2 year warranty on all turbos.
- 18,000 turbos in stock ready for immediate despatch.
- Free FitKit and oil syringe for easy installation.
- Oil feed pipes and strainers available for popular applications.

Fit a turbo you can be sure will deliver the goods. Ask your motor  
factor for a genuine Honeywell Garrett turbo from BTN Turbo.



The turbocharger people

BTN Turbo is the UK's largest independent turbo supplier.  
Over 18,000 OE turbos in stock, new first fit or remanufactured  
by the original manufacturer. All with 2 year warranty.

Contact your local factor  
for a BTN Turbo or call us  
to find your local stockist.

BTN Turbo Limited,  
BTN House, Zodiac Park,  
High Road, Cowley,  
Uxbridge, UB8 2GU

T: 01895 466666  
F: 01895 466667  
E: sales@btnturbo.com  
W: www.btnturbo.com

