

***CLEAN POWER THAT
WON'T COST THE EARTH***



 **BLADON**
MICRO TURBINE
CLEAN POWER. TODAY.

CLEAN POWER TODAY. CLEANER POWER TOMORROW.

Since 2017 Bladon's Micro Turbine Gensets (MTG) have been used by mobile networks and TowerCos around the world to provide reliable clean power. Our unique technology delivers prime and essential backup power with ultra-low maintenance, low emissions, and low noise.

Its fuel flexibility makes it possible to become an early adopter in getting on the road to net zero emissions. From today's HVO biofuel with 90% lower CO₂, to biogas and on to a zero carbon future with tomorrow's hydrogen fuelled MTG. The Bladon MTG can be combined with renewable energy sources including solar, wind and storage solutions to further increase site autonomy.

With the changes to fuel availability, security, costs and legislation it pays to invest in Bladon technology, today.

-  **CLEAN**
-  **FUEL FLEXIBLE**
-  **RELIABLE**
-  **ULTRA LOW MAINTENANCE**
-  **QUIET**
-  **REMOTE MONITORING**
-  **TOTAL SUPPORT**



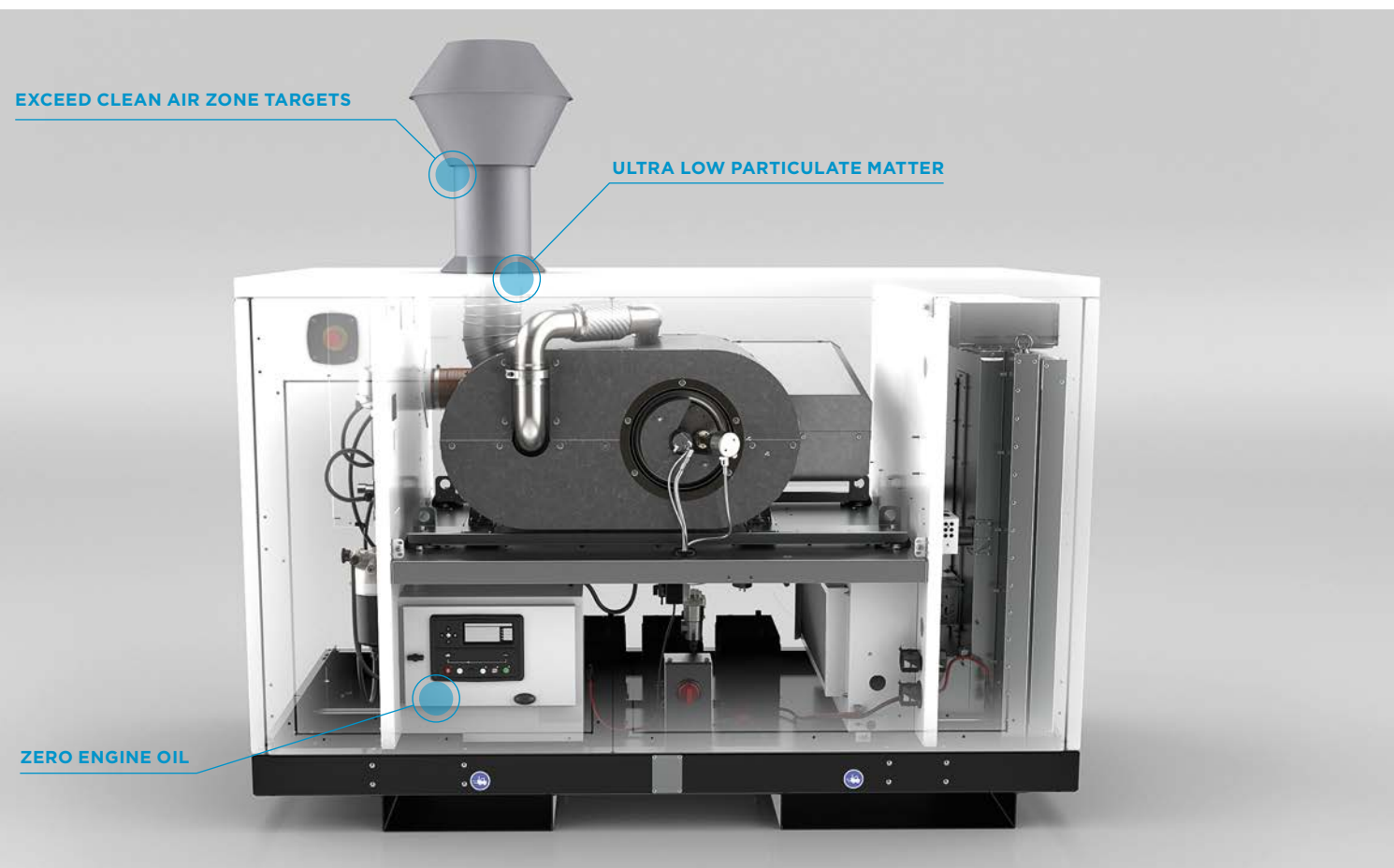
HYDROGEN
100% zero CO₂

BIOGAS
95% lower CO₂

HVO BIOFUEL
90% lower CO₂

CLEAN

The Bladon MTG utilises unique Clean Burn technology which easily surpasses EU Stage V emissions legislation, confirmed by independent laboratories. Delivering all the practicalities associated with a regular diesel genset but without the maintenance headaches, engine oil costs and high exhaust emissions. Bladon MTG's are ready to use low/no carbon fuels including hydrogen based fuels to deliver on sustainability goals for a zero carbon based source of power delivery.



- **EU Stage V emissions equivalent**
- **Combustion efficiencies of 99.9% across the full load range**
- **Suitable for operating in 'Clean Air Zones' with zero soot/particulate matter (PM), and ultra low carbon monoxide and NOx**
- **A net zero carbon future with the hydrogen fuelled MTG**

FUEL FLEXIBLE

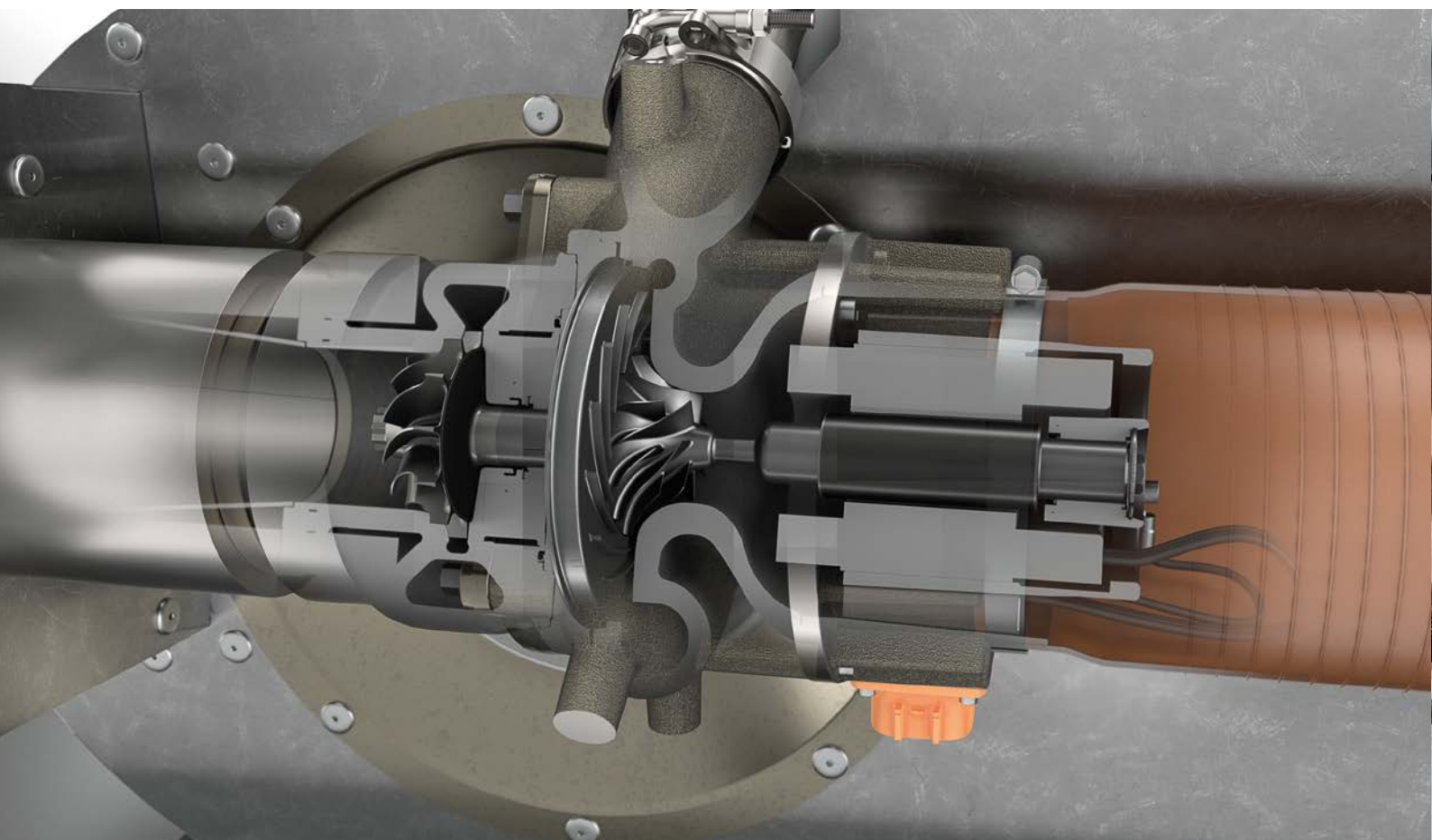
The Bladon MTG uses an electronically controlled fuel and combustion system to allow it to run on many different fuel types including diesel, kerosene, paraffins and low carbon HVO's (Hydrotreated Vegetable Oils). The Bladon MTG can run on any blend of these fuels and in any ratio to ensure a security of supply. An added advantage of being able to use the cheapest fuels available and blending fuels together also deters fuel theft. In the drive to move to low/no carbon economy investing in Bladon technology provides immunity to change in local fuel supply and policies and gives flexibility and choice when it comes to managing costs and lowering carbon footprint.



- **The flexibility to use many different fuel types**
- **Protect against fuel supply issues**
- **Fuels can be mixed in different ratios**
- **Reduction in costs and fuel theft**
- **Balance fuel cost and emission targets**

RELIABLE

The Bladon MTG has been designed using proven micro turbine engine and air bearing technologies that deliver reliable offgrid primary power. Turbine power plants have been used in electric power stations and on the wings of aircraft for decades. The reliability of turbine based power units remains unmatched. The Bladon Micro Turbine power plant uses no engine oil nor liquid coolant and has been designed to be modular, and with one moving part delivers maximum autonomy.



- **High reliability thanks to only one moving part: power plant weighs less than 30kg**
- **The turbine engine incurs zero wear and zero vibration while operating**
- **Proven reliability through rigorous endurance testing and longer lifetime than any other generator**

ULTRA LOW MAINTENANCE

A maximum of once a year servicing which takes less than 1 hour, regardless of run hours. No overhauls, no 'back to factory' major services ever. Reducing site visits is key to reducing operating costs. Bladon's MTG has reduced site service visits by up to 95% compared to standard diesel generators, and keeping configurations and supply chains simple to allow deployment at scale.



- **Once a year servicing using small, lightweight parts and requiring no advanced expertise**
- **Reduced site visits by up to 95%**
- **Zero maintenance with a sealed for life power unit**
- **No engine oil or coolant disposal costs**
- **Continuous web based realtime monitoring and management**

QUIET

The Bladon Micro Turbine features world-leading and patent protected air bearing technology with the only moving part floating on air. This produces no vibration and very low noise, making less than 60dB(A) at 7 metres. The sound is also unique in being high frequency and unobtrusive, meaning it doesn't travel and is easily absorbed, compared to the low frequency vibrations and rumble of other generators. The low noise and no vibration make the Bladon MTG ideal for use on buildings or in close proximity to vibration sensitive equipment, residential/urban areas, and natural habitats sensitive to noise and air quality.

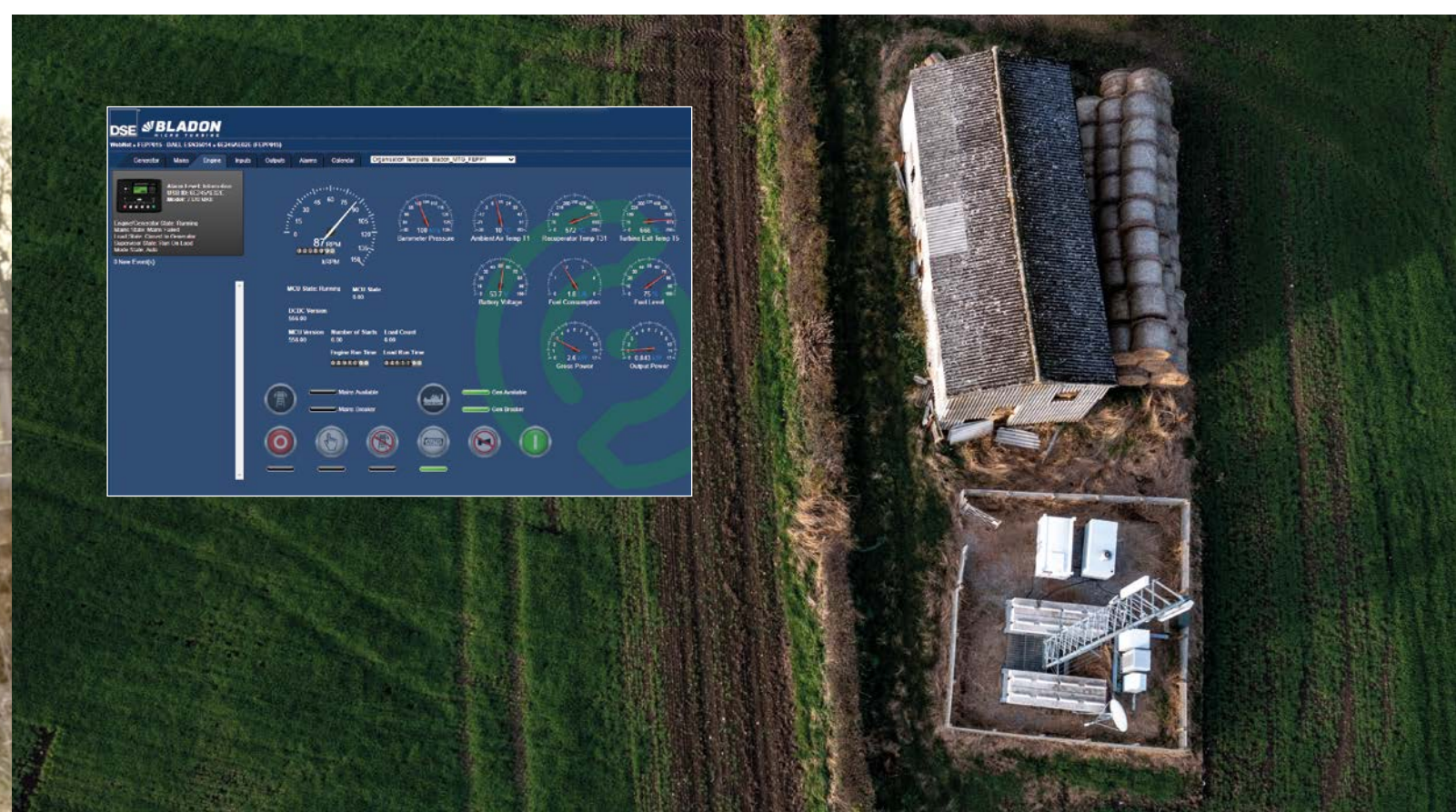


ULTRA LOW NOISE - THREE TIMES QUIETER THAN A DIESEL GENERATOR

- **Low noise of less than 60dB(A) at 7 metres**
- **Turbine sound diminishes rapidly with distance and can't penetrate walls**
- **No vibration and low noise provide increased possibilities for use**
- **Eliminates complaints from nearby residents and potential vandalism to sites**

REMOTE MONITORING

Realtime remote monitoring and management comes as standard on the Bladon MTG with the DeepSea Electronics DSE7320 MKII™ controller and DSE890 Gateway™ remote manager. This telematics system helps eliminate unnecessary site visits through real time monitoring tools which keep you up to date with all the important information via the DSEWebNet® app on your smartphone, computer or tablet, wherever you are in the world, 24/7.



REAL TIME MONITORING 24/7 USING DEEP SEA ELECTRONICS

- **Eliminate unnecessary site visits**
- **Provides real time information 24/7**
- **Receive automatic alerts such as low fuel level and door alarms, changes in site load**
- **Ability to Integrate with other site management operating centre platforms**
- **Guaranteed peace of mind**



TOTAL SUPPORT

As you would expect from a world-class company, Bladon offer world-class support. We provide comprehensive support and training during the installation and commissioning phases of new deployments and ongoing support to help customers get the best value from their Bladon MTG fleet. The Bladon MTG also comes with a full 12 months or 8,760 hours (whichever occurs first) manufacturer's warranty as standard.



- **Ongoing support and training**
- **12 months (8,760 hours) parts and labour warranty as standard**
- **Optional extended warranty is also available**
- **Global support with offices locations in UK (head office), Europe, Africa, Middle East and Asia Pacific**

SPECIFICATIONS

MTG12TL SPECIFICATIONS	
Power Output	0kW to 12kW (Prime / Standby) 230Vac 50Hz/60Hz
Power Factor	1.0
Earthing Configuration	TN-S
Fuel	Diesel Kerosene Illuminating Paraffin Hydrotreated Vegetable Oil Mix (In any ratio of the above. Other fuels upon request)
Engine Type	Variable high speed air cooled gas turbine (up to 135,000 RPM)
Cooling	Air cooled
Lubrication	Air bearings
Noise	<60dB(A) at 7 meters with no low frequency rumble
Vibration	None / Negligible
Environmental Operating Temperature	-10°C to +45°C Further range upon request
Operating Altitudes	Up to 2000 meters
Environmental Air Density Power De-Rate	Approximately 100W per 1°C above 15°C. Approximately 130W per 100m above 0m. Efficiency and emissions are not affected
Overload	Self-recovering software controlled overload protection
Internal Battery	4x 12V lead acid (supplied fitted as standard)
Communications	RS485 Deepsea DSE 890 MKII Gateway 4G (GSM) and Ethernet with built-in roof mounted antenna
Controls	Deepsea 7320 MKII Control Module positioned behind the main access doors.
Warranty	Manufacturers 12 months or 8760 hours parts and labour. Optional extended warranty available.

Specifications are not warranted and are subject to change without notice. Bladon Jets and all persons acting on its behalf disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

**Actual service life subject to air and fuel quality

Other company product names may be trademarks or service marks of others.



Bladon is a pioneer in the design, development and manufacture of Micro Turbine Gensets (MTGs) using high-speed, ultra-reliable, clean-burning microturbines together with patented air-bearing and heat-exchanger technologies that will transform distributed power generation.

Bladon Approved Reseller:

Version 03. 05/22

Tel: +44 24 7651 1268

**Spartan Close, Royal Leamington Spa,
Warwickshire, United Kingdom CV34 6NG**

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bladonmt.com