Generating sets
and turn-key solutions
Anglo Belgian Corporation (ABC) is one of Europe’s leading medium speed diesel engine manufacturers. The company can offer a century of expertise in ship propulsion, locomotive traction, marine and industrial power generating systems.

ABC was originally established in 1912 by a group of industrialists, with participation of the inventor of the diesel engine, Rudolf Diesel himself.

An important step in ABC’s history was the acquisition by OGEPAR (1985), a strong financial holding with a large base in metal industry and engineering. Today, ABC has risen far above the standard of engine manufacturer.

The company is constantly evolving, developing new solutions in the field of marine propulsion, power generation and railway traction.

Through innovative thinking, ABC aims to increase sustainability and supply reliable and efficient products within a framework of ecological development. All engines are designed for heavy duty and continuous operation, straightforward applications and maintenance.
The best investment in order to meet all your power demands while respecting the environment

Proven experience

For 100 years Anglo Belgian Corporation supplies power solutions for electricity production. The development of the diesel engines has run parallel to the development of industry and electricity. ABC engines proved to be a prime mover compact, simple, reliable and efficient. Gensets based on ABC engines are widely used in power plants, industrial groups and emergency gensets.

Trustful and reliable power
Generating electricity using ABC gensets shows that things want to be done correctly and there is no place for mistakes. The reliability of ABC engines is legendary; the speed below 1000 rpm and cleverly engineered distribution of the loads ensure a low mechanical wear and therefore a long life of the engines and components, which extend the periods between overhauling and ensuring long periods of continuous operation.

Adapting to the environment while respecting it
ABC engines are meant to operate anywhere under the hardest conditions. Fuel flexibility and respect for the environment are two of the keywords associated with ABC. Our engines are available in executions able to work on HFO, Dual Fuel, vegetable oil or animal fats.

The gas operation mode of the Dual Fuel engine brings the emissions to the lowest levels while operating using bio-fuels makes the ABC engine a green electricity source.
From genset to turn-key solutions

Beyond manufacturing engines
The ABC expertise in engineering combined with a reliable network of partners allows us to deliver complete or partial turn-key solutions all around the world. The 32.5MW power plant in Brazzaville is an example of ABC turn-key engineering, 10 x 16VDZC operating on HFO bring the necessary power for the development and stability of the zone. ABC has developed many similar projects all around the world.

Decentralized power

Tailored solutions for specific problems
As continuous power source or as emergency units, in parallel with the grid or in island operation, ABC gensets bring power to those industrial or civil projects where the availability of power is a must.
ABC Containerized power

Mobile power opening new frontiers
What about having all the advantages of an ABC Power Plant and at the same time being able to **quick start** the operation, relocate the installation if necessary and all that for a low investment.

Electricity is the base of any civil, industrial, mining or military major project. In many areas this power is not readily available, and possible solutions can take years to develop. For those cases it is necessary to possess a power source **as soon as possible**.

ABC containerized solutions are designed according to the needs of each project, including the necessary scope of supply and tailored to the environment requirements.

The system includes not only the power units but also fuel treatment systems and electric switchgear, all **integrated in containers**.
ABC Medium speed solutions

The best reliability for the lowest operational cost
Power generation requires a fuel energy source. The efficiency of processing fuel into electricity with minimal environmental impact will determine the most attractive solution.

ABC engines, running always below 1000 rpm are renowned because of their reliability, low fuel consumption and easy maintenance. Those features are something more than technical advantages, because they result into financial saving. Less fuel, less spare parts and less works required than other fast speed solution soon reveal ABC as the best choice to ensure the profitability of the investment.

At Anglo Belgian Corporation we will be happy to help you to evaluate the OPEX of a determinate power solution based on the life cycle cost of our equipments.
With the design and development of this new engine family, ABC confirms its intention to become one of the major players on the medium speed engine market. Introducing state-of-the-art technology such as EGR, 2-stage turbo-charging and a radically optimized common rail system, the engines will comply with the strictest emission standards.

The gensets based on this new family range will deliver up to 5MWe with a large flexibility in fuels like MDO, HFO, bio-fuels and Dual-Fuel. In a medium term, the development of a v-execution with 12 and 16 cylinders will cover a new range of power; the 16DV36 will reach 10MWe per genset, and will penetrate the market of power plants with outputs up to 100 MWe.
The DZ family range, both the line and V executions, has been proven to be a reliable partner in energy generation while offering very competitive operational costs. The characteristic fuel flexibility and low maintenance requirements made those engines a wise choice when operating in remote areas or using alternative fuel sources.

A low operation pressure and low speed leads to long periods between overhauling and long continuous operation times. The easy access to the components simplifies maintenance operations and a mechanical injection system ensures the simplicity and easiness of operation.

Bio-expertise

100 years ago, Rudolf Diesel already predicted a larger use of vegetable oil as fuel for the engines, and indeed, his first engine was designed to burn peanut oil. Nowadays the world is witnessing a growth in the production and use of bio-fuels. Increasing oil prices and environmental standards are pushing governments to set up incentives for the promotion of these fuels. ABC has always understood the importance of bio-fuels, that’s why a large part of the R&D budget was invested for emission reduction and bio-fuel applications. The company is always looking for new challenges in alternative fuel sources. Subject to some simple, but effective adaptations, the robust engines of ABC can run on almost all bio-fuels:

» Vegetable Oils; rapeseed, palm, colza, soya, nuts, etc.
» Animal Grease (Tallow); pig, chicken, limb, etc.
» Aggregates: used frying oil, byproducts of oil, etc.
» In the dual-fuel version; natural gas, LNG, bio-gas, landfill gas, wood gas etc.
Some references

**Brazzaville**  
Turn-key complete solution, HFO  
10 x 16VDZC, 32.500 kW

**Arizona**  
USA EuroFresh  
4 x 6DZC, 4.500 kW

**Leela Hotel, New Dehli**  
Dual Fuel project  
1 x 12VDZD, 1.900 kW

**Italy, Bacarelli**  
Bio-fuel, Rapeseed oil  
1 x 6DZC, 1.000 kW

**Taiwan**  
Containerized solution  
2 x 6DZC, 2.500 kW

**Tanzania**  
Sumbawanga  
4 x 8DZC, 5.000 kW

Classification

Anglo Belgian Corporation is ISO9001:2008 certified. All engines are individually tested on test benches, with possibility of the presence of the client.
**Fuel flexibility and dual fuel engines**

Fuel Flexibility is one of the house brands of Anglo Belgian Corporation. ABC engines can operate within a wide range of fuels and qualities. Besides regular diesel, ABC engines can be specially adapted for operating using HFO, vegetal oil, animal fats, dual fuel and other alternative fuels.

When price of gas fuels offer an advantage over liquid conventional fuels, investing in an ABC Dual Fuel solution can be an interesting option.

ABC Dual Fuel engines are specially modified diesel engines able to run using gas with a small amount of diesel as pilot fuel. Furthermore, the Dual Fuel design still allows operating the engine using 100% diesel when gas supply is not readily available.

ABC Dual Fuel engines are able to operate using natural gas, LNG, landfill gas and other alternative gases.

ABC Dual Fuel engines have worked successfully as decentralized energy generation units around the world. Now, with special certification of Bureau Veritas, the dual fuel engines take on a very important role in maritime propulsion using LNG, especially in those ships operating close to regasification stations and in LNG tankers.

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### Overall data

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Conversion factors used: 1 metric HP = 0,736 kW • Generator efficiency: $\eta_g = 0,95$ • Power factor: $\cos \phi = 0.8$

- For special applications
- * Natural gas with Methane Index $> 73$ → Lower Calorific Value gas $> 39.000 \text{kJ/Nm}³$ → Lower Calorific Value diesel $< 42.700 \text{kJ/kg}$
- ** Possible gases: natural gas, waste gas, landfill gas (the ability to burn other gases should be done in consultation with ABC)

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### Nominal power of gensets

#### 50 Hz electric - 3 phase

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#### 60 Hz electric - 3 phase

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Fields of activity

Service and training
Anglo Belgian Corporation operates throughout the world with branches in more than 70 countries. These divisions provide on-site commissioning, installation works, repairs and preventive maintenance and advice for ABC engines 24/7.

The service organization and certified technicians ensure to exceed the required service level standard. The service staff is dedicated to help ABC’s customers, maximizing the productivity and uptime of the engines.

ABC’s large-scale stock of spare parts ensures that components can be sent within hours to any location in the world. In addition to this service, local service stations provide the fastest delivery with their individual substantial stock of spares and consumables.

ABC Academy
The service department offers tailored training programs for clients and new partners, according to specific requirements and can take place at the plant in Ghent or anywhere else in the world. ABC training courses are taught by veteran and experienced technicians who will be glad to share their know-how and enthusiasm for ABC engines.

Marine engines
Propulsion & power solutions
Originally, it is the marine sector where ABC has established its brand. The company is known for decades in propulsion and generating of inland ships, fishing boats, tugboats, dredgers, ferries, coasters, etc.

Generating sets
and turn-key solutions
Anglo Belgian Corporation provides energy solutions in the most remote areas and extreme environments; from industrial and mine gensets, to complete turnkey projects such as containerized power plants, CHP projects and Bio-fuel powerstations.

To find out more detailed information about our service and sales support, please visit our website www.abcdiesel.be

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