

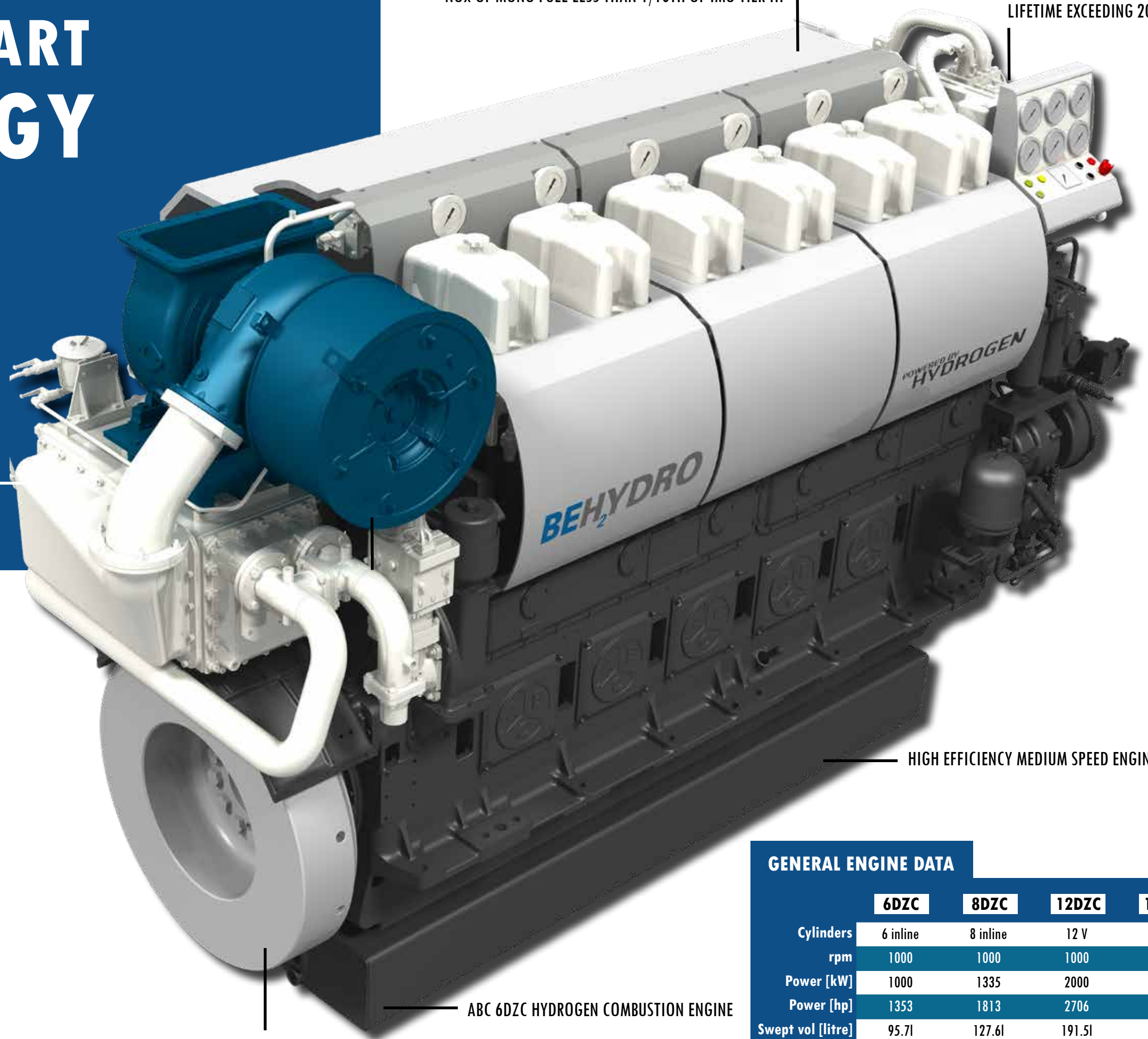
INFORMATION SHEET

BEHYDRO 2

STATE OF THE ART TECHNOLOGY

NO_x OF MONO FUEL LESS THAN 1/10TH OF IMO TIER III

LIFETIME EXCEEDING 200.000h

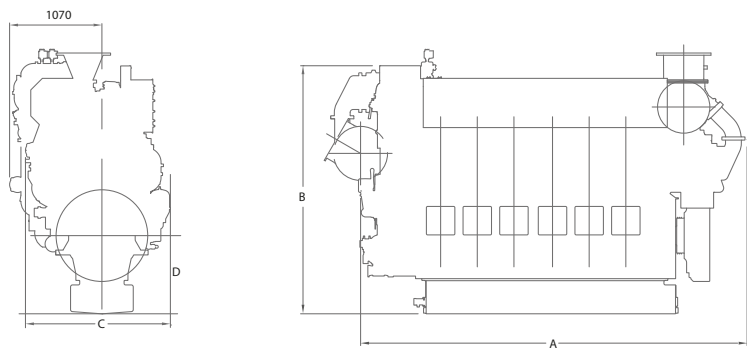


INTERCOOLER

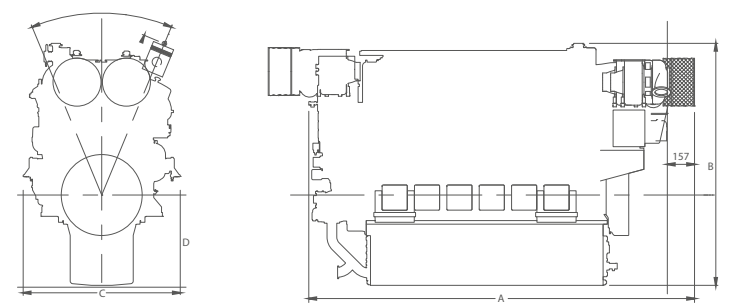
HIGH EFFICIENCY MEDIUM SPEED ENGINE

ABC 6DZC HYDROGEN COMBUSTION ENGINE

CLOCKWISE OR ANTI-CLOCKWISE ROTATION



	A	B	C	D [MM]
6DZC	4007	2741	1994	810
8DZC	4767	2741	1994	810



	A	B	C	D [MM]
12VDZC	4896	2840	1850	1060
16VDZC	5656	2840	1850	1060

GENERAL ENGINE DATA

	6DZC	8DZC	12DZC	16DZC
Cylinders	6 inline	8 inline	12 V	16 V
rpm	1000	1000	1000	1000
Power [kW]	1000	1335	2000	2670
Power [hp]	1353	1813	2706	3626
Swept vol [litre]	95.7l	127.6l	191.5l	255.2l
Dry weight [kg]	10620 kg	13905 kg	18000 kg	21750 kg

MARKET APPLICATIONS



HYDROTUG

Port of Antwerp - Belgium

65 ton bollard pull - tractor tug

EU STAGE V (SCR & DPF) - IMO TIER III

2x dual-fuel V12 - 4000 kW

FiFi 1 - water spray

HYDROGEN STORAGE

396 cilinder tanks - 250 bar
Storage of 400 kg hydrogen
Easy maintenance/acces/removal
Modulair hydrogen storage system

DIESEL PARTICULATE FILTER

DPF removes diesel particulate matter or soot from the exhaust gas

SELECTIVE CATALYTIC REDUCTION

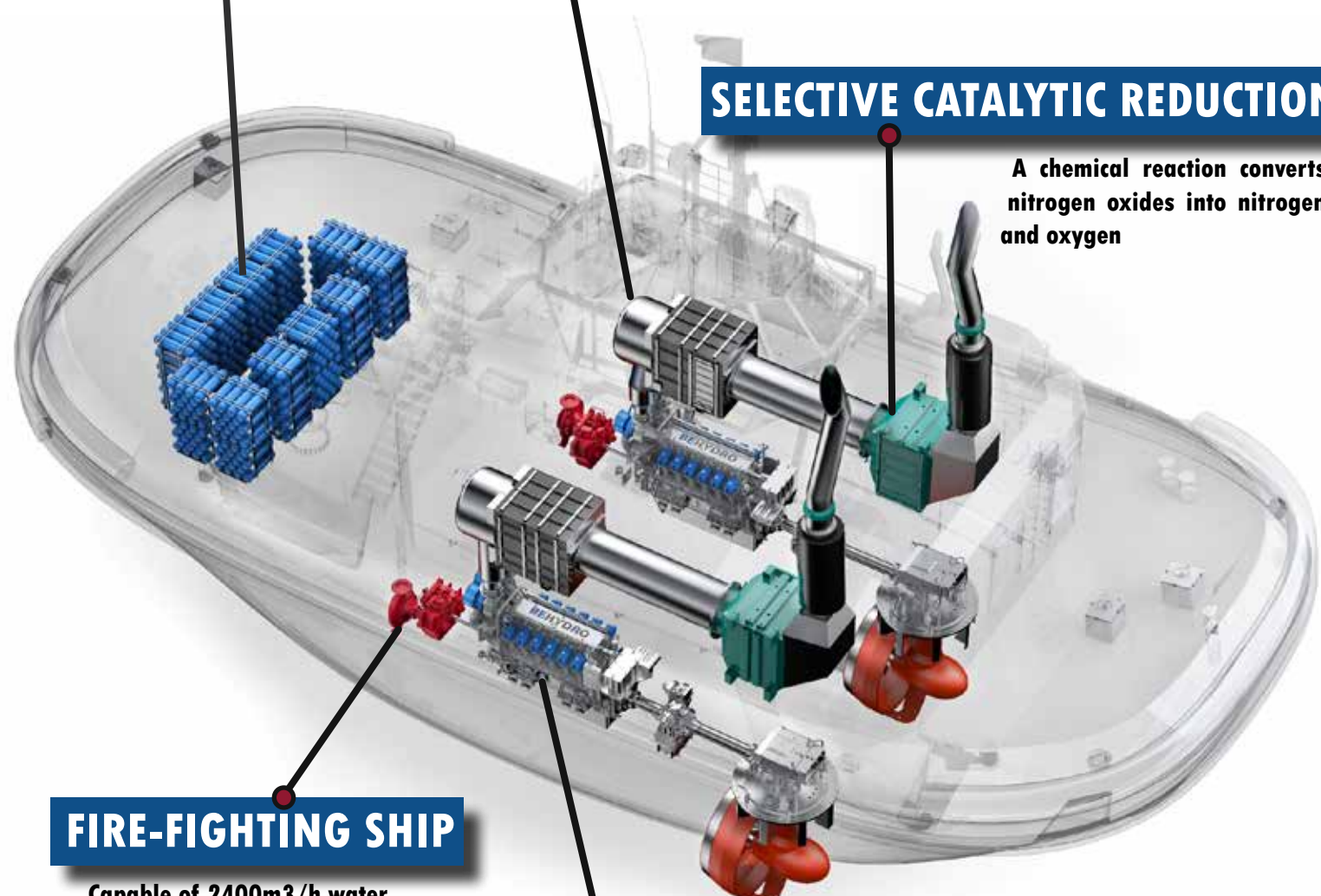
A chemical reaction converts nitrogen oxides into nitrogen and oxygen

FIRE-FIGHTING SHIP

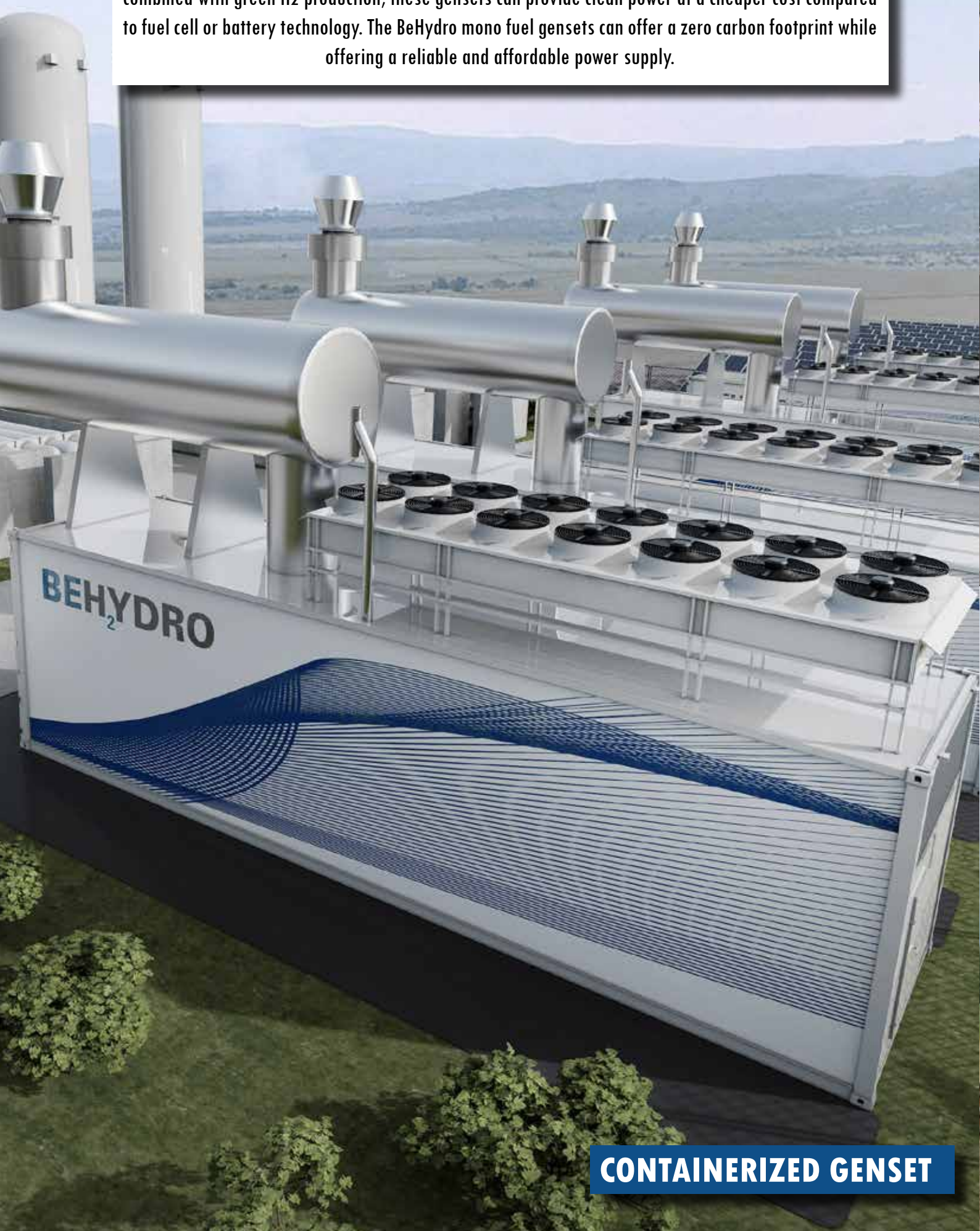
Capable of 2400m³/h water spray - 750kW power demand

BEHYDRO DUAL-FUEL ENGINE

V12 - 2000kW
Dual Fuel Hydrogen/Diesel co-combustion
Up to 75% hydrogen combustion



With BeHydro gensets, up to 85% of the GHG emissions of a regular diesel generator can be saved. If combined with green H2 production, these gensets can provide clean power at a cheaper cost compared to fuel cell or battery technology. The BeHydro mono fuel gensets can offer a zero carbon footprint while offering a reliable and affordable power supply.



CONTAINERIZED GENSET

ALTERNATIVE MARINE POWER



Mobile genset delivers automatically at correct Voltage/Frequency next to the vessel. There no expensive power converters required.

RAILWAY SOLUTIONS



Many railway tracks are difficult to be electrified. Hydrogen-diesel powered locomotives can be used on these tracks to achieve a low carbon emission footprint.

CONTAINERIZED HYDROGEN ENGINE

As part of the testing, a full scale production model of the 6 cylinder BeHydro engine was installed into a custom made container. The full setup of the BeHydro engine, container, hydrogen valve train, generator and H2 supply is extensively being tested in Ghent. During the full scale testing the efficiency, reliability and performance will be fine-tuned even further. BeHydro can rely on a large in-house expertise and state of the art engineering team which will closely monitor and is able improve the performance of the hydrogen combustion technology. The target is to deliver high quality and reliable hydrogen combustion engines for today's competitive demanding market.



BELGIAN JOINT VENTURE

The joint venture combines the skills of a premium engine manufacturer with the insights from a leading ship owner. Many industries such as shipping, railway and power generation have a need for clean technologies in order to make the energy transition happen. BeHydro has set itself the goal of providing the solution for these demanding industries.



CMB is a diversified shipping and logistics group based in Antwerp, Belgium. CMB owns and operates more than 90 sea-going ships in dry bulk (Bocimar), container transport (Delphis) and chemical tankers (Bochem). CMB is also involved in Innovation and Development and the development of Low Carbon fuel applications (CMB. TECH) and real estate (Reslea, Maritime Campus Antwerp). CMB has offices in Tokyo, Singapore, Hong Kong, Hamburg and Brentwood.



ABC founded in 1912 and located in Gent, Belgium, is a leading European manufacturer of medium-speed engines in the power range between 600 and 10,400 kW. The company develops and manufactures reliable and innovative medium-speed engines for the energy and transport industry (propulsion engines and generating sets for marine applications and diesel-hydraulic or diesel-electric engines for locomotive traction applications).



OUR MISSION

| REDUCE CO2 EMISSIONS AT SEA, AT LAND



| INVESTMENT IN R&D



| DEVELOPMENT HYDROGEN COMBUSTION ENGINE



| STORAGE OF HYDROGEN



| DIFFERENT APPLICATIONS



CONTACT US

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