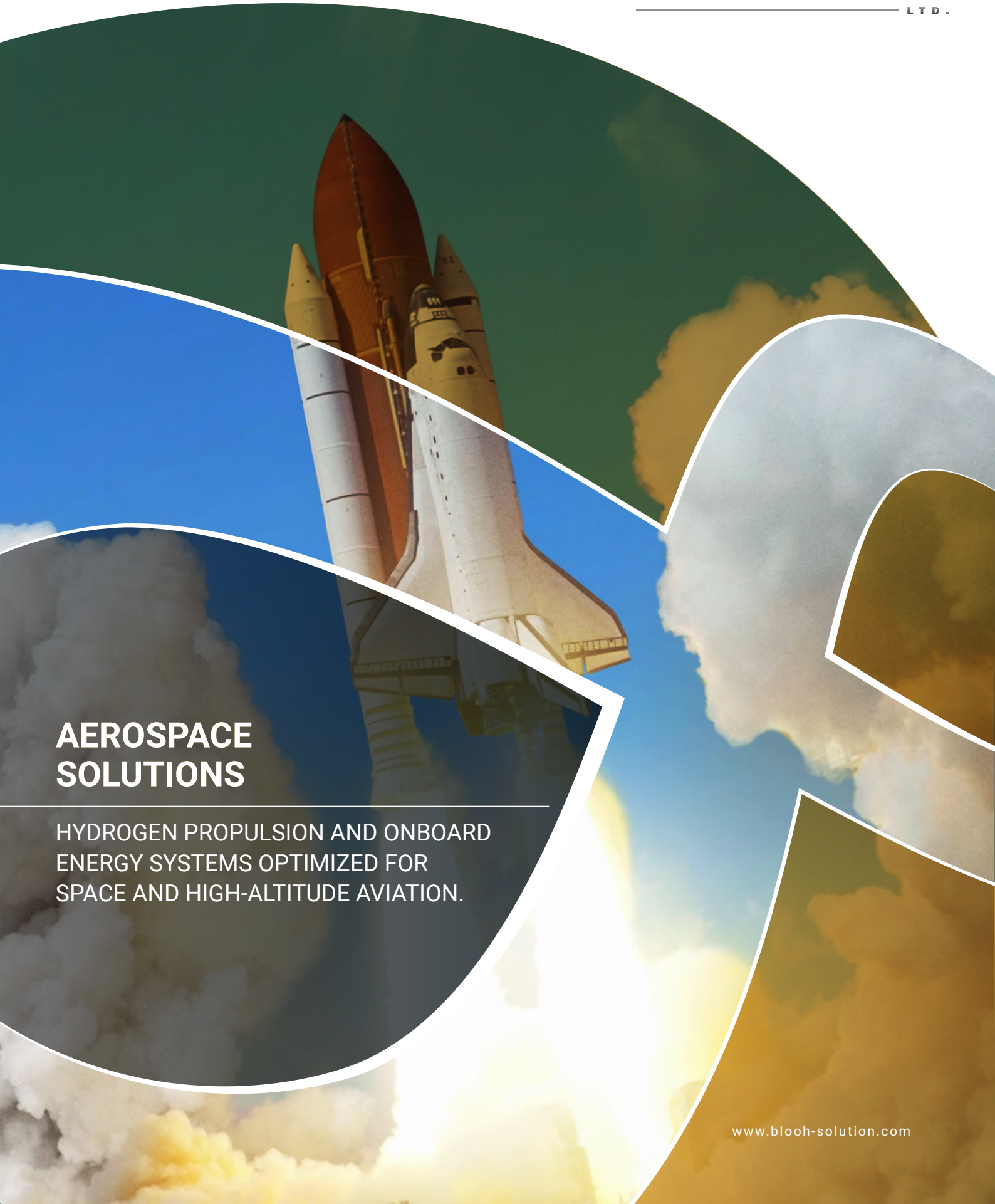
BLOOH SOLUTION LTD.



AEROSPACE SOLUTIONS

HYDROGEN PROPULSION AND ONBOARD ENERGY SYSTEMS OPTIMIZED FOR SPACE AND HIGH-ALTITUDE AVIATION.

www.blooh-solution.com

HYDROGEN-DRIVEN AEROSPACE

At BLOOH Solution, we are passionate about developing sustainable and environmentally-friendly technologies and solutions for the aerospace industry. Our focus is on the use of hydrogen as a fuel for aircraft, and we have developed high-pressure storage systems for gaseous and liquid fuels, as well as for hydrogen to power fuel cells on board aircraft.

We are committed to providing access to reliable, affordable, and modern hydrogen fuel that is sustainable for the environment. Our expertise in hydrogen fuel is specifically appl ied to the aerospace industry, and we are collaborating with various companies to develop hydrogen fuel applications for aircraft.

We understand the obstacles that come with commercializing hydrogen as a fuel, such as the scarcity of electrolyzers and the expense of renewable energy sources. However, we remain dedicated to working on projects that promote the use of hydrogen as a clean and sustainable alternative to fossil fuels. Our ultimate goal is to reduce the dependence on kerosene and other non-renewable energy sources in the aerospace industry.

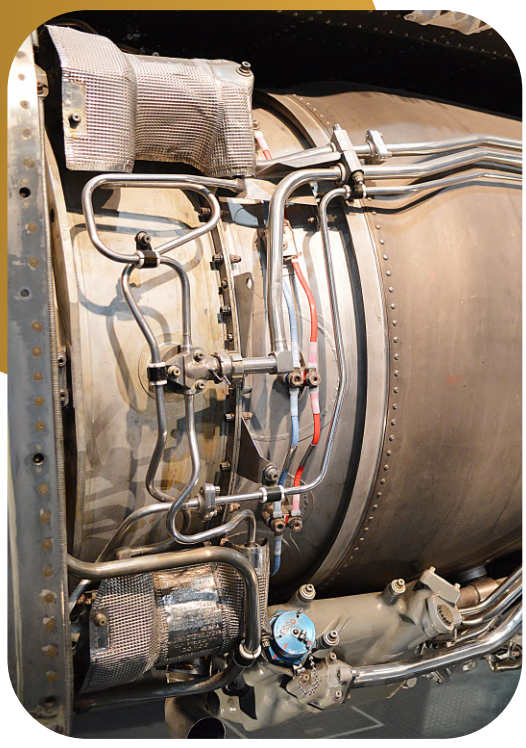
At BLOOH Solution, we strive to advance innovative solutions that contribute to the growth of our customers while also being environmentally responsible. We believe that our work will have a positive impact on the aerospace industry and the world as a whole, and we are proud to be at the forefront of this sustainable technology revolution.

HYDROGEN FUEL STORAGE SYSTEMS

BLOOH Solution offers two types of hydrogen fuel storage systems:

GASEOUS FUEL STORAGE

Our gaseous fuel storage system stores hydrogen in high-pressure cylinders made of advanced composite materials, such as carbon fiber reinforced plastic (CFRP) or glass fiber reinforced plastic (GFRP), with a storage pressure of up to 700 bar (10,000 psi), which provide high strength and durability while keeping the weight low. These cylinders are designed and tested to meet rigorous safety standards, including burst and impact tests. The system is equipped with a pressure regulator that reduces the pressure of the hydrogen gas to the level required by the fuel cell stack. The compact and lightweight design of the cylinders makes them easy to install and maintain in aircraft systems, enabling greater fuel efficiency and reduced emissions.



LIQUID FUEL STORAGE

Our liquid fuel storage system stores hydrogen in liquid form at very low temperatures (-253°C or -423°F) in insulated tanks made of lightweight materials such as aluminum alloys or CFRP, which are designed to minimize heat transfer and boil-off losses. The tanks are equipped with pressure relief valves and level sensors to ensure safe and efficient operation. The liquid hydrogen is vaporized using a heat exchanger and fed to the fuel cell stack as needed. The system also includes a hydrogen recirculation loop that enables the recovery of any unreacted hydrogen from the fuel cell exhaust, increasing overall efficiency.

FUEL CELL POWER SYSTEMS

BLOOH Solution offers two types of fuel cell power systems:

PROTON EXCHANGE MEMBRANE (PEM) FUEL CELL

Our PEM fuel cells are highly efficient electrochemical devices that convert the chemical energy of hydrogen fuel into electrical energy, with water as the only byproduct. Our PEM fuel cells consist of two electrodes (anode and cathode) separated by a thin, permeable polymer membrane that serves as the electrolyte. We use a platinum catalyst in the anode to facilitate the oxidation of hydrogen into protons and electrons, and at the cathode, the electrons recombine with the protons and oxygen to form water. The thin membrane allows for efficient transport of protons, enabling high current densities and fast response times.

SOLID OXIDE FUEL CELL (SOFC)

At BLOOH Solution, we also offer solid oxide fuel cells (SOFCs), which are high-temperature electrochemical devices that operate at temperatures between 600-1000°C. Our SOFCs can generate electrical power from a variety of fuels including hydrogen, methane, biogas, and propane. The basic structure of our SOFCs consists of a ceramic electrolyte, two porous electrodes (anode and cathode), and interconnects that provide electrical contacts between the cells. Unlike PEM fuel cells, our SOFCs do not require a precious metal catalyst at the anode, as the high temperature allows for the oxidation of fuel without the need for a catalyst. Our SOFCs have a high efficiency (up to 60%) and the ability to generate electricity from a wide range of fuels.

HYDROGEN FUELING STATIONS

BLOOH Solution is developing hydrogen fueling stations that are designed to be compact, modular, and easy to use. The fueling stations include:

COMPRESSION SYSTEM

This system compresses hydrogen gas to the required pressure for fueling aircraft, typically up to 700 bar (10,000 psi). The compression system includes a compressor, dryer, and storage tanks.

DISPENSER

This is the part of the fueling station that delivers the hydrogen to the aircraft. The dispenser includes a hose, nozzle, and safety features such as pressure and temperature sensors.

CONTROL SYSTEM

This system monitors and controls the fueling process, ensuring safe and efficient operation. The control system includes software that manages the fueling process and communicates with the aircraft's fuel management system.

HYDROGEN SENSORS

BLOOH Solution offers hydrogen sensors that are designed to be used in aerospace applications, providing accurate and reliable measurement of hydrogen levels in the atmosphere. The sensors include:

ELECTROCHEMICAL SENSORS

These sensors use a chemical reaction to produce an electrical signal that is proportional to the hydrogen concentration in the air.

OPTICAL SENSORS

These sensors use a light source and detector to measure the absorption of light by hydrogen molecules in the air.

ELECTROLYZERS

BLOOH Solution is developing electrolyzers that are used to produce hydrogen from water using renewable energy sources such as solar or wind power. The electrolyzers are designed to be hi ghly efficient and reliable, with the following features:

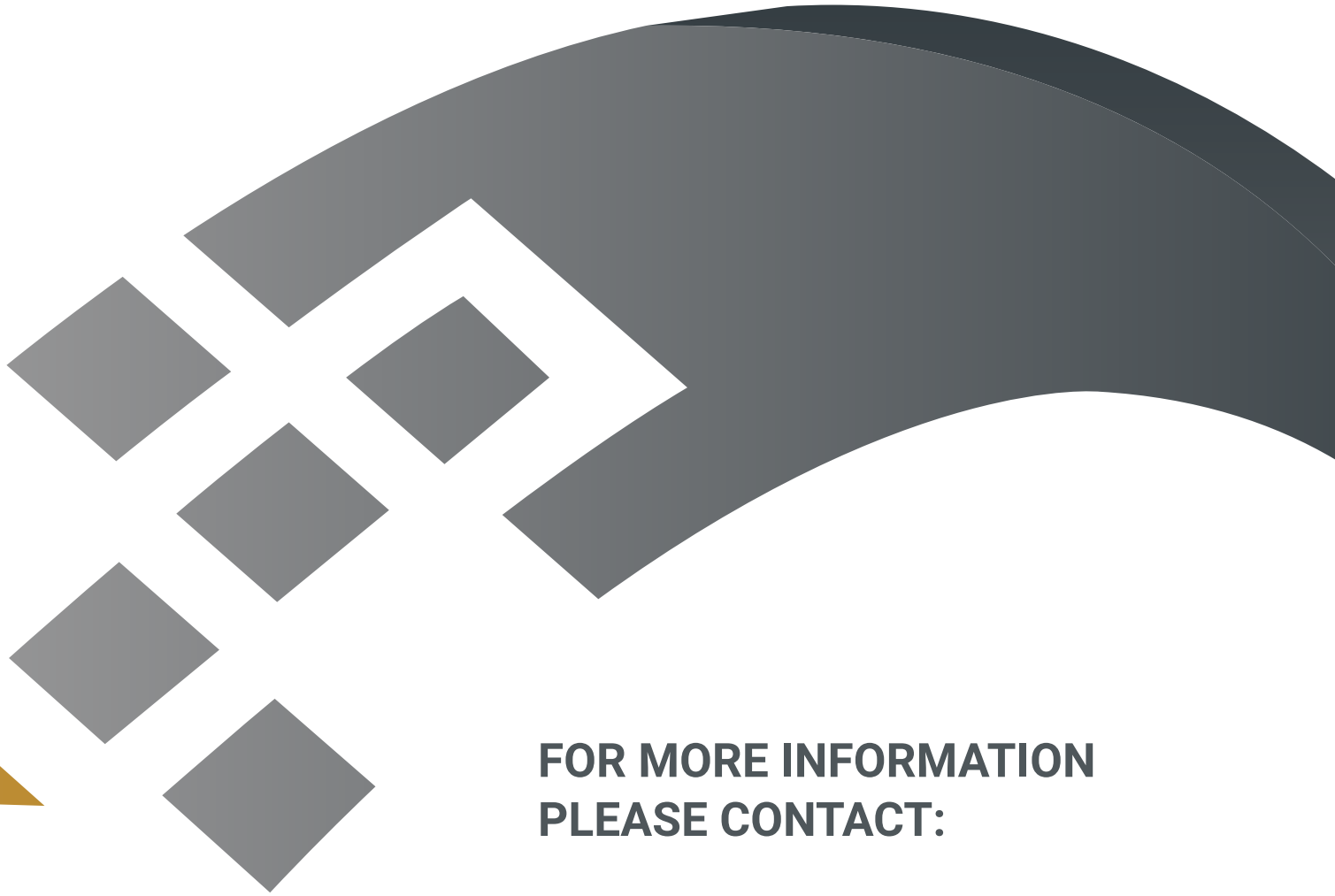
High e□ciency:
The electrolyzers have a high conversion efficiency, typically greater than 70%, which reduces the energy required to produce hydrogen.

Scalability:
The electrolyzers can be scaled up or down to meet different production requirements, from small-scale systems for on-site hydrogen production to large-scale systems for industrial applications.

Durability:
The electrolyzers are designed to be durable and long-lasting, with low maintenance requirements and a long service life.

Overall, BLOOH Solution's hydrogen-related products are designed to be highly efficient, reliable, and environmentally friendly, providing a viable alternative to traditional fossil fuels in the aerospace industry.

DRIVING INNOVATION FORWARD!



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