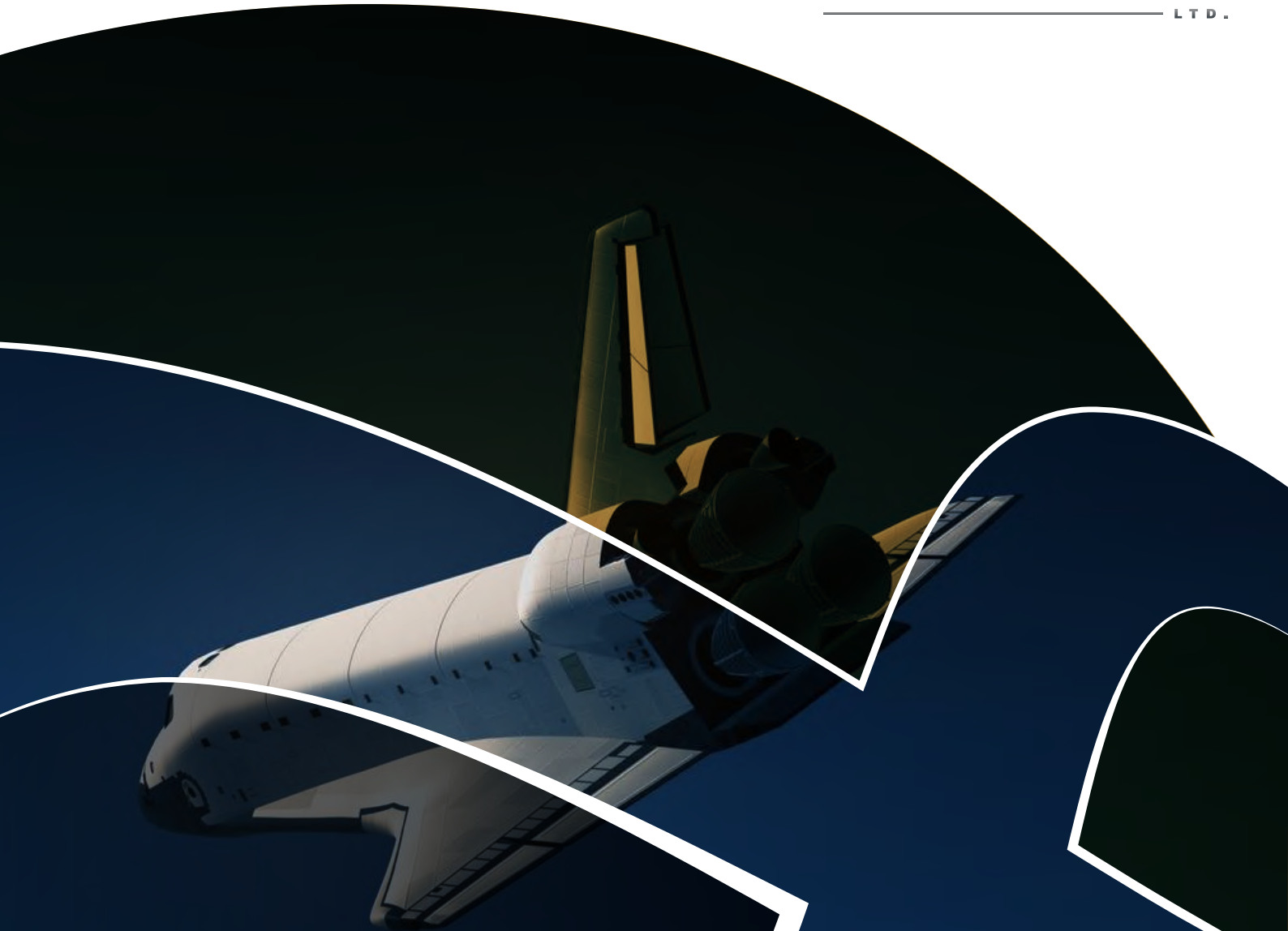
BLOOH SOLUTION LTD.



HONEYCOMB TECHNOLOGY FOR AEROSPACE

SPACE-GRADE MATERIALS FOR EXTREME WEIGHT SAVINGS AND THERMAL RESISTANCE.

www.blooh-solution.com

AEROSPACE

HONEYCOMB TECHNOLOGY FOR AEROSPACE

For aerospace applications, we manufacture robust structural panels made of high-quality aluminum with the option to integrate heat pipes.

The honeycomb cores of the aerospace panels can be made from carbon fibers, glass fibers, or other materials such as Nomex® or Kevlar®. If required, the panels or their edges can be reinforced with profiles or fitted with inserts.

SURFACE MATERIAL

Various aluminum alloys and surface treatments are used for the outer layers. Additionally, glass fibers or carbon fibers combined with various resins can also be used.

HONEYCOMB MATERIAL

The honeycomb cores can be made from aluminum and glass fiber, as well as from premium materials such as Nomex® and Kevlar®. The cores can be produced with or without perforation.

MATERIALS FOR INSERTS AND EDGE PROFILES

Standard raw panels can be reinforced with edge profiles and adapted for specific requirements. Available materials for profiles and inserts include aluminum, titanium, Invar, as well as CFRP and GFRP.

QUALIFIED AND PERFORATED HONEYCOMB PANELS

Thanks to new manufacturing methods, the honeycomb core can also be perforated. Our aerospace honeycomb panels have been qualified by ESA and can therefore be safely used for various space projects.

HONEYCOMB PANELS WITH INTEGRATED HEAT CONDUCTORS

For various applications where it is important to heat the honeycomb panels, heat pipes can be directly integrated into the panels.

The honeycomb panels from BLOOH Solution are lightweight and structurally stable, making them a popular choice across many industries. By integrating heat pipes into the panels, they provide even and efficient heating.

BLOOH Solution's heating pipes are designed to deliver the required amount of heat and distribute it evenly across the panel. This prevents ice formation on the aircraft's surfaces.

EMBEDDED HEAT PIPE PANELS FOR TELECOMMUNICATION SATELLITES

MODEL

MODAL

- Frequency
- Mass contribution
- Testing
- Subsystem

STATIC

Testing the structure under static loads

- Force
- Pressure
- Deformation
- Speed
- Acceleration

DYNAMIC

- Low-frequency sine wave
- Randomized response

THERMAL

- Interface verification Forces

COMPLETED PROJECTS

- PROBA-V-SATELLITE

Structural panels (aluminum sandwich) and solar array substrate panels (CFRP sandwich) for the PROBA-V satellite.

- EROSITA-SATELLITE
- EXOMARS ROVER

Multiple SM, STM, PFM, and FM panels as well as protective covers for various projects (e.g. eRosita, Solar Orbiter, Exomars, BIRD, TET-1 & TET-2, AstroSat).

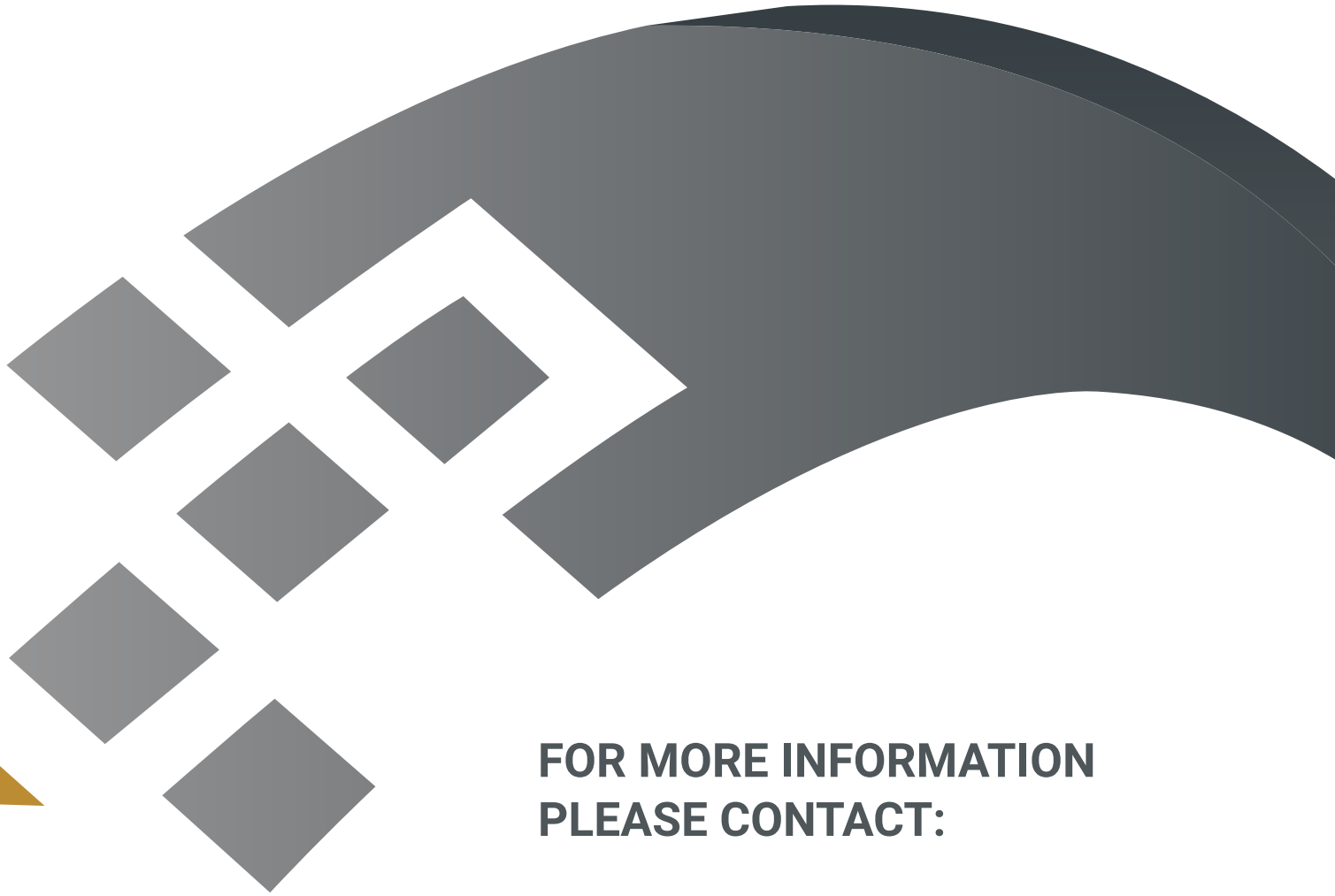
CURRENT PROJECTS

EUCLID | **PROBA NEXT (P200)** | **PROBA3**

PRODUCTION FACILITY

- 5-axis CNC machine tailored to spatial requirements (X = 5,000 mm +/- 0.008 mm, Y = 2,500 mm +/- 0.008 mm, Z = 1,000 mm +/- 0.005 mm).
- ISO 8 cleanroom (upgradeable to ISO 5), area of 650 m² (climate-controlled air & humidity: 21°C +/- 1°C, 45% +/- 10%), working height: 13 m.
- Production hall > 2,000 m² including climate control (controlled temperature: 21°C +/- 1°C and humidity: 45% +/- 10%).

DRIVING INNOVATION FORWARD!



FOR MORE INFORMATION PLEASE CONTACT:

BLOOH Solution Ltd.
1055 Dunsmuir St
Vancouver, BC V7X 1L4

Tel: +1 604 260 6692