



# LifePods

**MOMENTUM**  
TECHNOLOGIES

## W-01 PROTECTIVE CAPSULE

Wave Version 1 (W-01)

The W-01 protective capsule has been designed to provide a high-level individual and family safety shelter against major natural hazards, including:

- **Tsunamis**
- **Severe flooding**
- **Coastal and river submersion**
- **Extreme weather events**



The current version is designed to accommodate 2 adults and 2 children, with an architecture allowing future evolutions (extended capacity and collective versions). The W-01 aims to ensure rapid sheltering, controlled buoyancy, and high mechanical and thermal resistance, while remaining transportable and quickly deployable.

### Main Structure

- Double-shell structure made of Aluminum 5083

- Outer shell: 4 mm
- Inner shell: 4 mm
- Marine-grade alloy recognized for:
- Corrosion resistance
- Mechanical resilience
- Suitability for saline and humid environments



### Access and physical security

- Main access door lockable from the inside
- Emergency window
- 12 mm polycarbonate
- Protected by an anti-intrusion grille
- Integrated lightning protection system
- Designed to divert electrical discharges safely

### Safety and Survival Systems

#### Ventilation & Oxygenation

- 6 ventilation channels (10 cm<sup>2</sup> each)
- Water ingress prevention design
- Ability to operate in fully sealed mode during submersion
- Internal air volume: approx. 2.5 m<sup>3</sup>
- Estimated autonomy: ~3 hours without external supply
- Optional oxygen cylinder
- Significantly extends survival autonomy

### Thermal, Fire Protection and Buoyancy

- Multi-functional insulating foam injected between shells
- Thermal insulation
- Fire resistance
- Contribution to overall buoyancy
- External thermal protective coating
- Reduction of heat transfer
- Additional protection during prolonged exposure to heat / solar radiation

### Reinforcements and rigidity

- Welded transverse reinforcements between both shells to increase:
  - Global rigidity
  - Resistance to impacts and compression forces
  - Reinforced lower section
  - Double thickness of Aluminum 5083 on the bottom and corner areas
  - Enhanced protection against impacts with rocks, debris and floating obstacles

### Interior Layout and Equipment

- Seats equipped with safety harnesses
- Protective helmets for each occupant
- Air filtration system
- Chemical toilet (Ensures hygiene during prolonged confinement)
- Food rations and drinking water (Up to 2 weeks autonomy - optional)
- GPS tracking beacon (optional)
- Inflatable emergency raft (optional)

The architecture is designed to allow integration of third-party systems such as communications, tracking, situational awareness and remote monitoring solutions

