TECHNICAL DATA SHEET

Underground Bunkers & Bunker Homes

Wonderful Structures designs and manufactures biophilic construction systems. Our core technologies are based on different patents of invention that use advanced composites, innovative technologies, and scalable manufacturing. Our products are currently sold in 25 countries.

Here we present the general technical information of the **Ark-Bunkers** and the basic information of the different models, which will give you a better understanding of what we offer.

	Interior Area	Assembly Time	Required Team	Pallets #	Units x 40ft Container	Production Time
Fortress Bunker Compact	12.20 m² 131.31 Ft²	1 day	3 people	3	8	2 weeks
Kratos Bunker Small	16.56 m² 178.25 Ft²	2 days	3 people	6	4	2 weeks
Chronos Bunker Medium	29.53 m² 317.85 Ft²	2 days	3 people	10	2	3 weeks
Hyperion Bunker Large	58.57 m² 630.57 Ft²	3 days	4 people	15	1	4 weeks
Titan Bunker X-Large	106.51 m² 1,146 Ft²	4 days	4 people	25	1	4 weeks
Studio Bunker-Home	16.56 m² 178.25 Ft²	2 days	3 people	6	4	2 weeks
1 Bedroom Bunker-Home	29.53 m² 317.85 Ft²	2 days	3 people	10	2	3 weeks
2 Bedroom Bunker-Home	58.57 m² 630.57 Ft²	3 days	4 people	15	1	4 weeks
3 Bedroom Bunker-Home	106.51 m² 1,146 Ft²	4 days	4 people	25	1	4 weeks

Our **Ark-Bunkers** are a construction technology, we provide the modular system, not a finished Bunker. To get a turnkey price, you must consult a local builder. We offer certified training for your local builder.

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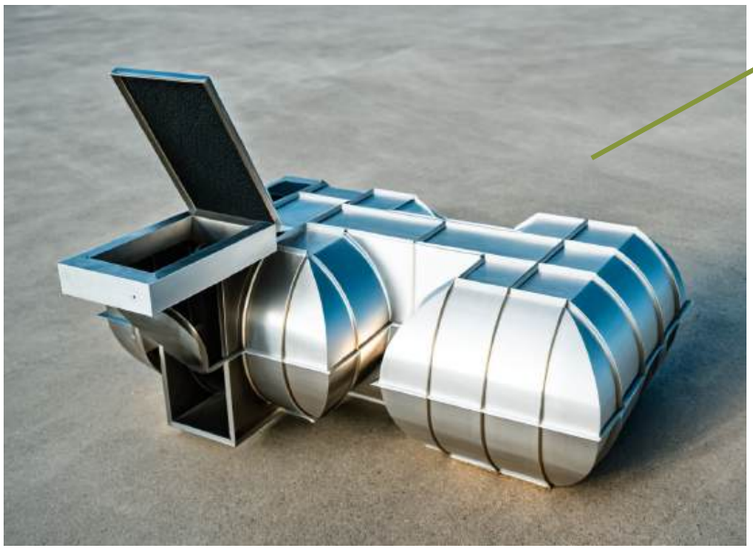
WHAT IS INCLUDED AND NOT INCLUDED

Prices include: FRP shell components, galvanized nuts, bolts, and expansion bolts. generic building dossier, which includes structural memories, material properties, fire code compliance and waterproofing test report and engineering for the technology, Floor Plans Set, assembly guide, construction manual and repair kit.

Prices do not include: The installation of the foundation, Internal Partition Walls, electrical, plumbing, HVAC, doors and windows, interior finishings, cabinets, fixtures and appliances, water sealants, insulation, covering finishing.

CUSTOM DESIGN

If you want to modify any of our designs or want a custom design, we will gladly attend your request for any design you have in mind.



Domed structures are the strongest human shelter ever conceived. The symmetrical shape allows domes to evenly and efficiently distribute the weight and stress along the entire structure.

UNDERSTANDING OUR PATENTED
EARTH SHELTERED FRAMING TECHNOLOGY

WONDERFUL STRUCTURES is a patented and revolutionary construction system for Underground Bunkers & Bunker Homes, made with cutting-edge polymeric compounds and aero-space technology which offers the ability to live integrated in nature, with total comfort and high energy savings at very affordable prices.

ARK BUNKERS mark the next chapter in the evolution of **underground bunkers**.

Originally designed as **military shelters** for wartime survival, these structures have transformed into advanced, **luxury survival homes** equipped for modern living.

By merging **aerospace technology, ergonomic design**, and **self-sustaining systems, ARK BUNKERS** redefine what it means to be prepared. No longer cold or claustrophobic, these **high-performance bunkers** now offer a blend of **comfort, security, and innovation**, an ideal balance for uncertain times.

Blending science fiction aesthetics with cutting-edge functionality, ARK BUNKERS feature modular architecture, smart home automation, and space-colony-inspired interiors. These aren't just bunkers, they're futuristic living pods with a sleek, high-end finish. Where once there was darkness and confinement, now there is sophistication, efficiency, and complete environmental control.

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ADVANCED MODULAR TECHNOLOGY

Completely waterproof, Ark-Bunkers are engineered with modular systems built from advanced fiber-reinforced polymer composites. These structures ensure design flexibility, occupant comfort, rapid deployment, and maximum structural security grounded in professional engineering standards.

We integrate cutting-edge technologies, structural materials, and high-performance construction methods that are rapid, efficient, low-waste, and sustainable—delivering resilient, future-ready designs that seamlessly merge architecture with environment.

GREEN ARCHITECTURE
Constructed using next-generation fiber-reinforced composite materials, ensuring sustainability and durability.

CUSTOMIZABLE INTERIOR WALL FINISHES
Ranging from cozy to refined, walls can be painted, wallpapered, or finished with virtually any material to suit aesthetic and functional preferences.

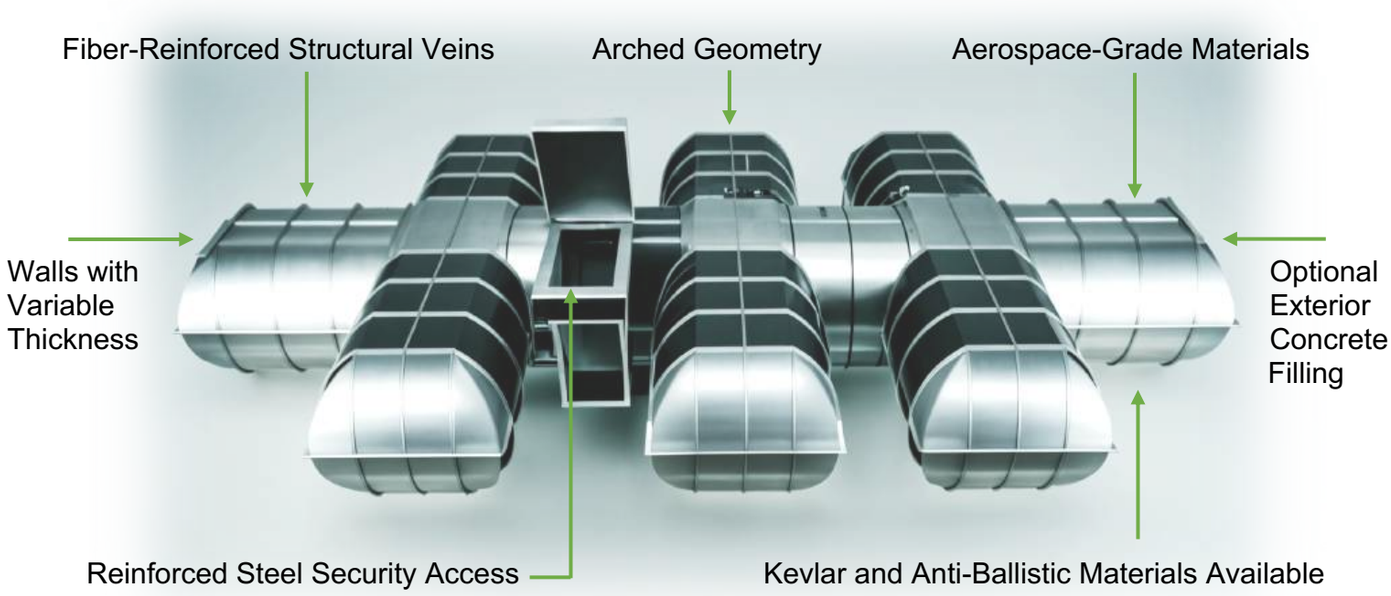
ARCHITECTURE + ENGINEERING
Design and comfort at the highest standard—within a fully secure and structurally sound environment.

MOISTURE-FREE ENVIRONMENT
Advanced insulation techniques using earth-based barriers and water-sealed membranes ensure a completely dry interior space.

HIGH-STRENGTH STRUCTURES
Engineered to meet or exceed all relevant international building codes and structural safety standards.

UNLIMITED DESIGN POTENTIAL
Fully customizable configurations to realize your ideal bunker or bunker-home layout.

WHAT MAKES OUR TECHNOLOGY STRUCTURALLY UNIQUE?



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SYSTEM ADVANTAGES

- **Highly Transportable:** Designed for ease of logistics and rapid deployment.
- **Ultra-Lightweight, Ultra-Resilient Materials:** Engineered with aerospace-grade composites for exceptional strength-to-weight ratio.
- **Compact Packaging:** Shipped in palletized units and durable cardboard boxes for optimized space and handling.
- **Quick and Simple Assembly:** Intuitive design enables fast setup with minimal tools and labor.
- **Non-Corrosive Materials:** Resistant to oxidation and degradation in harsh environments.
- **Fully Waterproof:** All components are 100% impermeable to water ingress.

TECHNOLOGY BENEFITS

- **Spacious, Cool, and Well-Lit Interiors:** Engineered for comfort and livability in extreme conditions.
- **Washable, Hygienic Walls:** Mold- and impurity-resistant surfaces for optimal sanitation.
- **Modular Expansion Capability:** Scalable architecture allows for seamless growth.
- **Multi-Level Connectivity Options:** Vertical integration enables stacked configurations.
- **Flexible Installation Types:** Can be deployed as above-ground, semi-buried, or fully underground bunkers.
- **Non-Degradable Aerospace Materials:** Built for long-term durability with minimal maintenance.
- **Secure Access Points:** Options include reinforced hatches or ergonomic stairways.
- **Limitless Design Possibilities:** Customizable layouts to suit various operational or residential needs.
- **Suitable for Shelter or Permanent Habitation:** Adaptable to emergency or long-term living scenarios.
- **Variable Levels of Autonomy:** Configurable for partial to full self-sufficiency.
- **Off-Grid Capability:** Can be designed to operate independently from conventional infrastructure.

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SUITABLE CLIMATES:
Engineered for all climate zones and latitudes, including tropical, desert, and tundra (snow) environments.

FIRE AND EXPOSURE DATA
Flash Point Material is classified as nonflammable.
Ignition Temperature: typically, 650°F or higher for FRP panels.
Extinguishing Media: Water, CO2, dry chemical.

Fire Fighting Procedures
Use media best suited to fire environment. Use water to cool fire-exposed containers and to flush spills from ignition sources. Use self-contained breathing apparatus for large scale fires.

Unusual Fire or Explosion Hazards
With other building materials, combustion will yield toxic materials such as carbon monoxide (CO) and carbon dioxide (CO2) and may also yield aliphatic and aromatic hydrocarbons and halogenated compounds. Fabricating, cutting, drilling, etc., may produce a class ST-1 dust. Safety precautions and ventilation requirements recommended by NFPA- 68 should be followed.

REACTIVITY DATA

Stability and Incompatibility
Stable under normal use conditions. Hazardous polymerization will not occur.
Avoid contact with alkali, strong mineral acid, or other oxidizers.

Hazardous Decomposition Products
See information in Fire and Explosion Data above.

PERSONAL PROTECTION INFORMATION

Respiratory Protection
Use adequate ventilation to control dust when machining, cutting, drilling, etc.
Cover nose and mouth with mask approved by NIOSH/OSHA.

Eye Protection
Use goggles or safety glasses when machining, cutting, drilling, etc.
Have eye washes available.

Skin Protection
Wear protective gloves, long pants, and long sleeves when machining, cutting, drilling, etc. Wash skin with soap and water after handling. Wash dusty work clothes separately.

CORROSION RESISTANCE:
High resistance to corrosion and oxidation (rust).
Materials are highly durable in all environments and climates.

THERMAL TRANSFER COEFFICIENT:
The technology has high insulating properties and low thermal conductivity (heat transfer coefficient of 0.05 W / Km). Energy consumption for heating and cooling is low.

SOUND TRANSMISSION COEFFICIENT:
The technology has good soundproofing parameters, the Noise Reduction Coefficient (NRC) is 16 dB.

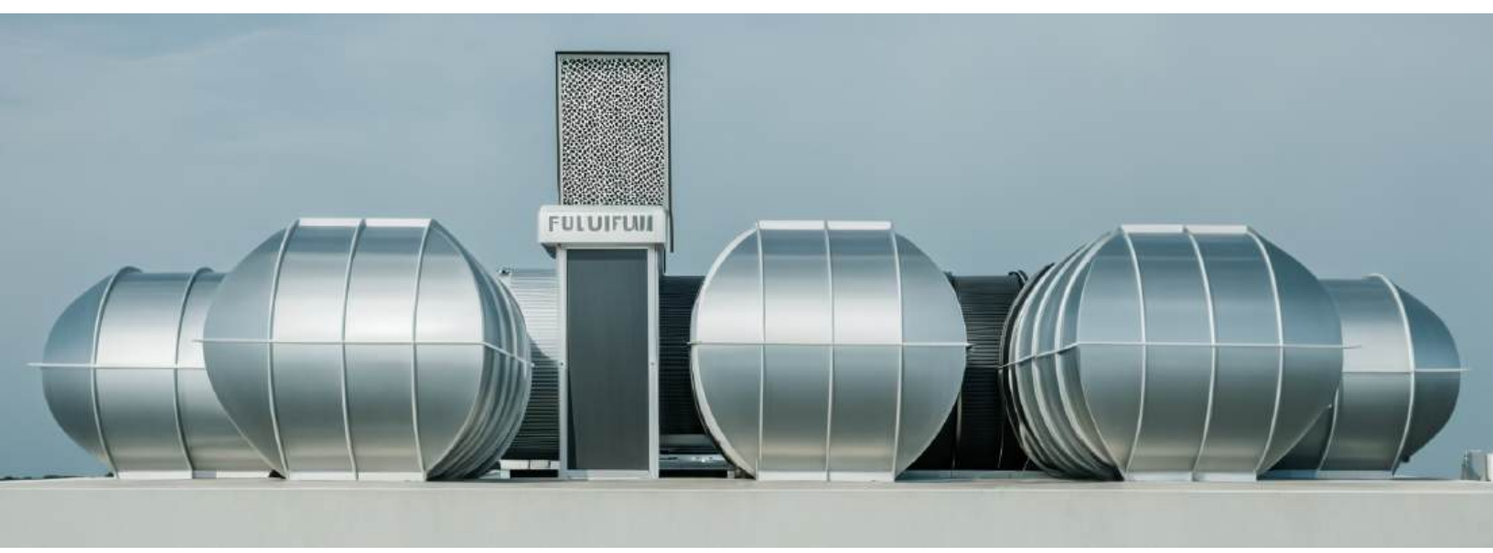
HAZARDS IDENTIFICATION

Threshold Limit Value (TLV)
Fabricating, cutting, drilling, etc. of FRP may produce dust, which should be controlled. Particulate level should not exceed the following OSHA standard: TWA 15 mg/m3 (Total Dust) and TWA 5 mg/m3 (Respirable Particulate).

Primary Route of Entry
Inhalation of or skin contact with dust.

WATERPROOFING:
The Ark-Bunkers include precision sealing fins, which makes the technology 100% waterproof, resistant to all types of weather, from deserts with high temperatures, to areas of extreme cold and perpetual snow.

COLORS: White color inside – Gray color outside.



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