



Structural security for mission critical technology and assets.

iGUARD ARMOR PANEL™ AND MODULAR iBUNKER™ OVERVIEW

The Modular iBunker™ is a self contained, watertight, fire, thermal and bullet resistant, hermetically sealed, Faraday Cage.

iFORTRESS' MODULAR iBUNKER™

- **iGuard Armor Panel™**, a structural element that provides a hardened, protective barrier and is the primary component used in the assembly of a Modular Bunker™.
- **Penetration Management Devices (PMD's)** engineered to maintain enclosure integrity.
- **Mechanical Dampers** used to manage air exchange and provide an airtight, watertight isolation when closed during an emergency.
- **Electrical/Plumbing Transfer Portals** that manage cables, wires, and plumbing while maintaining the performance integrity of the enclosure even under duress, and
- **Door System** for managing human traffic and equipment exchange.

Fig 1. Rendering of the Modular iBunker™.



THE iGUARD ARMOR PANEL™ TECHNOLOGY AND THE MODULAR iBUNKER™.

The iGuard Armor Panel™.

The iGuard Armor Panel™ is a composite component technology that consists of:

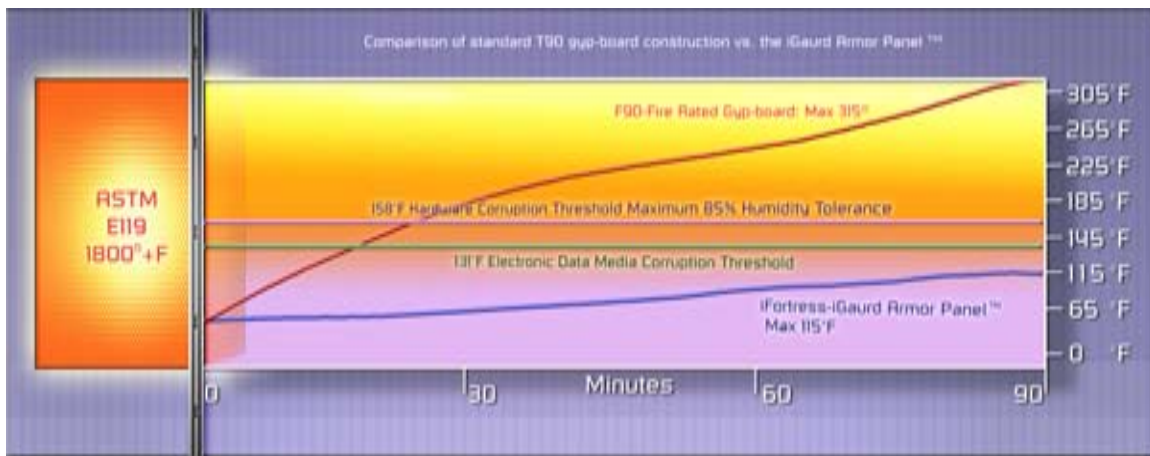
- 4" deep by 2' wide reinforced steel pan/skin construction,
- Proprietary structural/hydro-dynamic/thermal core made up of 4 multi-functioning layers,

- A series of high performance mechanical locking devices, and
- Propriarily developed inert, non-conductive, non-combustible gaskets.

The testing criteria that governed the development of and ultimately subjected this technology to were based on the following structural standards:

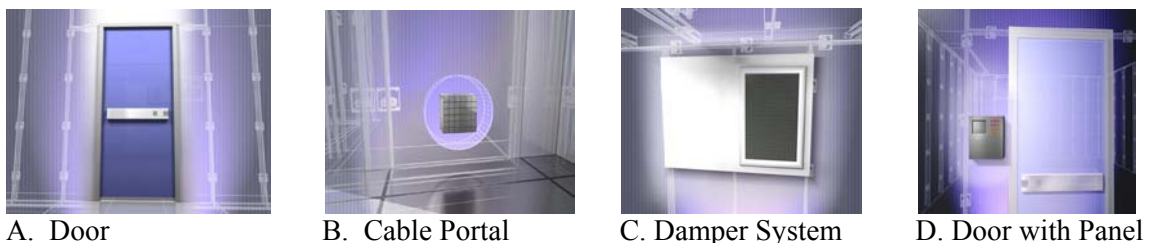
- **Static and hydrostatic tolerances and standards**
 - Self-contained/Waterproof (Roof/6”+ sitting water)/Water resistant
- **Fire and thermal building standards**
 - 115° 90 minute tolerance vs. 320° (ASTM E119) 90 minute allowable tolerances (see Fig. 2.)
- **Structural/Vertical axial load capacity building standards**
 - Solid core, 14 gauge steel tubular construction - ¼” steel reinforced internal frame
- **Sheer/Stress building standards**
 - Reinforced steel construction with interlocking assembly
 - 1000 Lbs. per linear foot joint tensile strength

Fig. 2. Fire and thermal results/comparison based on ASTM E119 standards.



Assembled with individual system components, two-foot wide iGuard Armor Panels™, Penetration Management Devices (PMD’s), see Fig 3., and a control panel, the Modular iBunker™ functions as a significant structural barrier protecting mission critical technology and assets from a wide array of consequential damage. This barrier will protect sensitive contents from failure and/or degradation due to outside threats while at the same time containing contaminants in that would otherwise spread to other areas of the building. When assembled, the Modular iBunker™ is a six-sided enclosure complete with a floor, walls, and a ceiling. Each Panel is installed and connected with a series of cam-locks one at a time – See Fig 4. As a result the configuration possibilities are endless.

Fig 3. Penetration Management Devices (PMD’s).



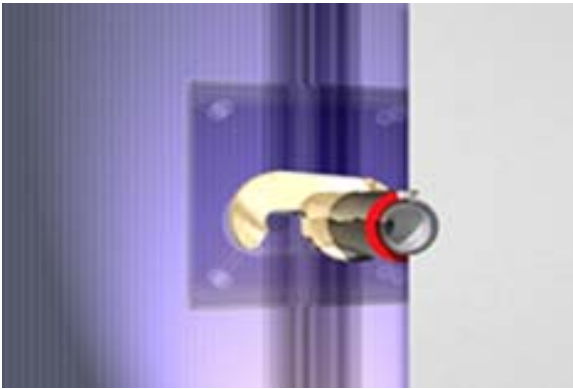
A. Door

B. Cable Portal

C. Damper System

D. Door with Panel

Fig. 4. Threaded Cam-lock detail with Visual Indicator Rim (VIR); mechanically locking steel structures, the iGuard Armor Panels™, at 1,000 lbs psi tensile strength per linear foot.



Conclusion.

The iFortress iGuard Armor Panel™ and Modular iBunker™ maintain significant standards for the structural security© of mission critical technology and assets. This revolutionary technology/product permanently changes the accepted paradigms previously established for building mission critical facilities by providing:

- **Certified** self contained, watertight, fire resistant, thermal resistant, hermetically sealed, bullet resistant, blast tolerant, Faraday Cage, six-sided, modular enclosures;
- **Scalable** structural platform, capable of adapting to various levels of probable and required security with minor modification to baseline/level product;
- **Cost effective;**
- **Exceeds current building standards;**
- **Lightweight**, flexible, modular design, simple and easy to assemble, reconfigure, dismantle, and relocate;
- Requires **little maintenance;**
- **Rapid deployment** in new construction or existing architecture;
- **Interior and exterior** applications; and
- **Seamless “side by side” integration** with existing mechanical, electrical, and plumbing (MEP) practices/protocols.