



**S.P.E.A.R.**

**Self-Propelled Electronic Armored Rack**

Elliptical Mobile Solutions' **S.P.E.A.R.** provides **2.5KW** and up to **6KW** of **Closed Loop Cooling** and safe storage for all of your sensitive electronic equipment, but also protects that equipment from harsh vibration and shock sustained in a mobile or adverse situation. The vibration isolated mobile rack creates a stable platform in an unstable environment.



### **Outer Frame and Panels**

The extruded aluminum outer frame mounts securely on a self propelled platform which supports up to 1,000 pounds of electronic equipment. The outer frame also creates a hermetically sealed environment, eliminating contaminants from collecting on the electronic components. EMS's **S.P.E.A.R.** is clad in threat level one aluminum armor plate.

### **Inner Frame**

The TIG welded extruded aluminum inner frame conforms to an industry standard 19" wide x 36" deep rack format. Reversible 3/8" square or 10-32 tapped rail mounts facilitates the use of any rack mounted equipment and accessory requirements.

### **Suspension and Drive System**

The patent pending suspension utilizes three layers of shock and vibration isolation. The inner rack floats within the outer frame using an innovative combination of magneto rheological, pneumatic, and elastomeric suspension systems. The drive system allows one person to move 1000 pounds of electronics up a 6% grade.

### **Temperature and Power Control**

The temperature of air surrounding the electronic equipment can be controlled by a combination of multiple closed loop A/C units or heat exchangers. **S.P.E.A.R.** has an optional 4.0 kVA line conditioner with an isolation transformer to decouple the **S.P.E.A.R.**'s electronic payload from external interference.

### **Security**

Access points to the I/O panel, front and rear doors, and motion systems can be secured by a tamperproof Cyber Lock<sup>®</sup> system with programmable electronic locks, multi-tier security, and audit trail.

### **All Weather Connectivity**

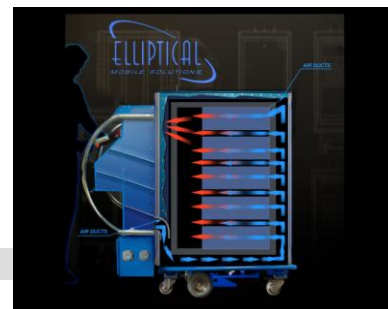
Self contained I/O panel provides connectivity with protected equipment inside the **S.P.E.A.R.** without breaching the environmental seal.

- **Mobile**
  - **Ruggedized**
  - **Compact**
  - **Secure**

**S.P.E.A.R.** contains three layers of shock and vibration dampening.



# S.P.E.A.R.



## About Elliptical Mobile Solutions (EMS)

EMS designs and manufactures mobile enclosures for sensitive electronic equipment. Based on a 'frame within a frame' approach, the EMS product line offers solutions that largely eliminate the deleterious effects of severe motion, shock and vibration.

Founded in Phoenix, Arizona, EMS provides high-tech solutions for the mobile and wireless markets.

By integrating existing technologies with their forward-thinking innovations in stability, security, and ease of mobility, EMS products bring advanced technological solutions into today's evolving business environments.

EMS believes that it's time to break with conformity and offer products that truly epitomize the future while providing real world solutions today.

## PATENTED TECHNOLOGY



## Product Features

**S.P.E.A.R.** is a **S**elf-**P**ropelled, **E**lectronic, **A**rmored **R**ack designed to protect equipment from environments and situations that would render standard rack mounted equipment inoperable. The shock protected, vibration isolated 19" rack is 36" deep and extremely durable. **S.P.E.A.R.** can be used to protect any combination of rack mounted electronic equipment. The mobile rack turns on its own axis and at 27.5" wide and 66" in length, the **S.P.E.A.R.** can deploy its stable and secure operating environment virtually anywhere.

The self-contained drive system is powered by 2 maintenance free gel cells, giving the self propelled enclosure a 1/2 ton payload capacity. The power assist makes, for the first time, 1000lbs of sensitive equipment and associated cooling systems easily portable by one person.

## Technical Specifications:

Dimensions.....	59" tall x 27.5" wide x 66" long*
Weight.....	900 lbs*
Capacity.....	1,000 lbs*
Mobility Range.....	10 miles*
Speed.....	2.6 mph
Armored Panels.....	Threat Level 1
Operational temperature .....	0° to 120°F*
Internal Storage Capacity.....	22 U
16R Nano-particle insulation	
* depending upon upgrade options selected	
<b>Total Cooling Capacity.....</b>	<b>2.5 KW Single A/C</b>
	<b>6.0 KW Dual A/C</b>

## Optional Upgrade Features:

- 4.0 kVA Power Conditioner and Isolation Transformer
- EMI Shielding
- Programmable electronic locks with multi-tier security and audit trail
- Top-mounted closed loop A/C - 3.5 KW
- Heat Exchanger
- Low ambient kit for Air Conditioner
- Secondary Patch Panel

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