

ENGINEER YOUR SHELTER FOR OPTIMAL PROCESS PERFORMANCE



MOLDED EXTERIOR BRICK PATTERN

$\frac{19}{32}$ " OSB PLYWOOD REINFORCEMENT

1"X #14 SS FASTENER 12"ON CENTER

$\frac{3}{8}$ " PLYWOOD REINFORCEMENT

$1\frac{1}{2}$ " FOAM CORE (~R-11)

$\frac{1}{8}$ " GLASS COMPOSITE MIN. THICK TYP.

$1\frac{1}{2}$ " FOAM CORE (~R-11)

$2\frac{11}{32}$ " TYP.

SILICONE SEALANT

Seven Questions To Ask To Design Your Perfect Custom Engineered Field Equipment Shelter



Is Your Field Equipment Protection Properly Engineered?

Engineers spend a lot of time engineering the best system to achieve the desired outcome. A lot of attention is spent on the equipment required, but it's important that the shelter that protects that field equipment be equally suited to the application, the environment and the needs of the project. Each system is an interdependent group of processes. The performance of that system is dictated by the weakest process. This ebook outlines the seven most critical questions every engineer needs to ask when designing and specifying a shelter that will support optimal process performance, minimize expense and risk, and properly protect valuable field equipment.



1 What Environment Is Best Suited For The Process To Operate Most Efficiently?

That's the basic question you should start with when developing specifications for your field equipment protection. In our homogenized, cookie-cutter, mass-production-based world, most people are accustomed to buying "off-the-shelf" from an array of competitive choices. If they are lucky, they may be able to choose from a limited set of options ("comes in three different colors" or "available in small, medium, large and extra-large") . . . But "custom engineered exactly to your specifications" requires you to think differently about how to approach this task.

Think Strategically

The purpose of this guide is to help you think through all the aspects of a process in order to make sure all elements are engineered to best protect the critical equipment and the processes needed to run smoothly: the equipment, the environment, the application, and the professionals who work with the equipment - from the beginning to the end.

Protect Your Investment; Don't Make It An Afterthought

Because the field equipment represents such a large investment, protection of that equipment and the process should be just as critical and thoroughly thought through. A properly engineered and built field equipment shelter should outlast the equipment it protects.

Asking The Right Questions

Many engineers will ask manufacturers, "What sizes do you offer?" or "What type of bases do you have?" when the better question to ask is "What is the optimal outcome for this process?" Start with that question and you're sure to engineer a more strategically matched field equipment shelter for your project.

Elevate the Conversation

If your thought process starts with the problem that you are trying to solve, your solution will be more closely grounded in something that exactly suits your needs.





2 What Are The Physical Requirements Of The Equipment?

How large does the structure need to be? How wide? How tall? Think through how much room the equipment needs, as well as how much room the professionals who operate and service the equipment will need to move around the enclosure in order to do their jobs.

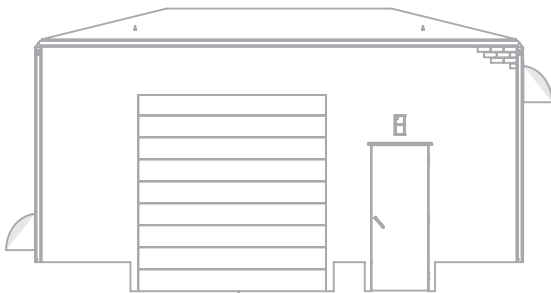
Are there any constraints due to the dictates of the equipment? If the equipment handles or produces a potentially hazardous material, you

may need a containment basin in order to keep dangerous liquids separate in the event of a spill. If the equipment creates or manages dangerous gases, you might need an explosion-proof electrical package for your lighting and HVAC needs.

Does the equipment require a ventilation, heating or cooling system to regulate the temperature of the equipment? Is it critical that the equipment never fail? Battery backups, generators or repeaters can be set up to accommodate a variety of scenarios.

Does some of the equipment need to be isolated within an environment? Partition walls can easily solve this problem.

How much does the equipment weigh? Do you need to hang something heavy from the walls or ceiling? If so, can the walls or ceiling be reinforced to accommodate that? What about electrical service to the equipment? Where will it come from? Are there different needs (1Ø vs 3Ø or AC vs DC)?



3 What Type of Access Do You Need?

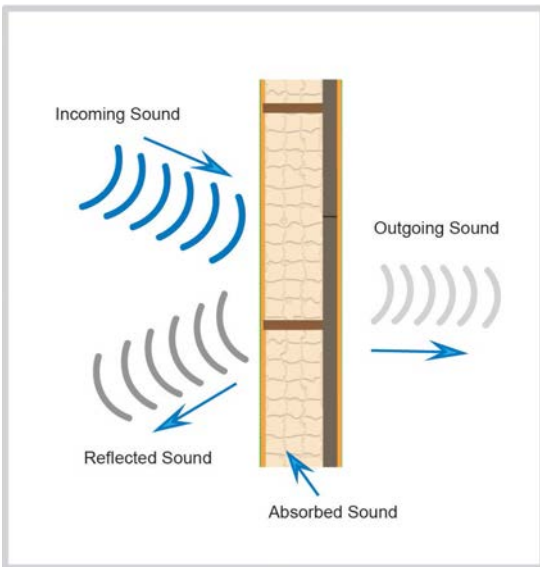
Most people think of single doors, double doors, or maybe even overhead doors to gain entry into this shelter and to access to the equipment. Think about where you need these points of entry. Will there be equipment that can be reached through access hatches, or panels built into the walls or roof in order to facilitate ease of service or to meet other various operational needs? How will pipes or electronics hooked up to the equipment be accessed?

4 What Environmental Considerations Need To Be Made?

Field equipment shelters are often in remote locations that are prone to Mother Nature's worst, so think through the most extreme conditions this shelter may need to endure. Is it located in Hurricane Alley? Does it need to be able to withstand desert heat or sub-zero Arctic cold? What about high humidity, salty or acidic air quality or above average snowfalls?

What about the ground it's going to stand on? Is it located on or near a fault line? Does the shelter itself need to be "tucked in" to a tightly constrained space? Is it on a steep slope or a hill? Is it on an uneven or oddly constructed elevation?

If your field equipment shelter is to be housed in an urban area where buildings are prone to being tagged with graffiti, specify a structure that can be easily cleaned off in order to maintain the aesthetic beauty of the neighborhood. In addition, if you are adding a building to the site where other buildings have already been installed, you may need to match a pre-existing custom paint color or building design style.



Does the building have any insulation or sound attenuation needs? You should be able to adjust the amount of insulation in both the walls and roof to meet your individual needs. Installation can also become a defining factor, if there are severe site restrictions. How will you bring the building to your site? Can you airlift it in via helicopter? Deliver it on a truck and install within hours using equipment you already have on site?

5 What Are Your Time And Overall Budget Constraints?

How long will it take to get your shelter built, installed and operational? Is it dependent on other aspects of the project being completed, or is it a stand-alone project? In today's industrial construction sites, time is money, so be sure to take "ease of installation" into account when specifying your field equipment building.

In addition to the typical cost of the structure, you also need to think about the potential hidden costs for installation, maintenance, and repairs.

Does the structure come with a one-year, five-year, 10-year or even 25-year warranty? Do you need to build in a replacement plan and how will that get funded?



6 What Non-Traditional Functionality Do You Need?

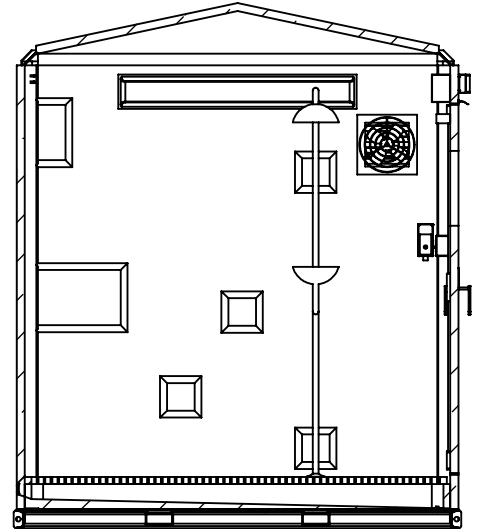
Does the structure need to accommodate anything other than the equipment itself? Is there a potential safety hazard? Do you need an emergency shower or a “safe room” that can be used by service personnel at any time?

7 What Is It Like To Do Business With The Supplier?

From beginning to end, the company supplying your shelter should make it as easy as possible to do business with them. You should be able to see examples of their shelters on their website, watch videos and read success stories about other people they’ve helped and get easy online access to a “Request For Quote Form”.

The quoting process should take no more than 48-hours, submittal package drawings should be complete and accurate. You should know throughout the process where the project stands and when it will be ready for the job site.

You should be able to expect a high level of customer service throughout the sales process. A high-quality company will want to keep in touch with you even after your project is complete, via newsletter or some other regular communications vehicle. This indicates that the supplier is relationship focused, not transactionally focused. This type of company will know that your success means their success, and you will be able to see their commitment throughout your dealings with them.



Choose A Strategic Partner, Not A Building Supplier

If you focus on making sure you answer the strategic question “What is the optimal outcome for this process?” the individual details will become apparent. Rather than starting with the type of door or window to

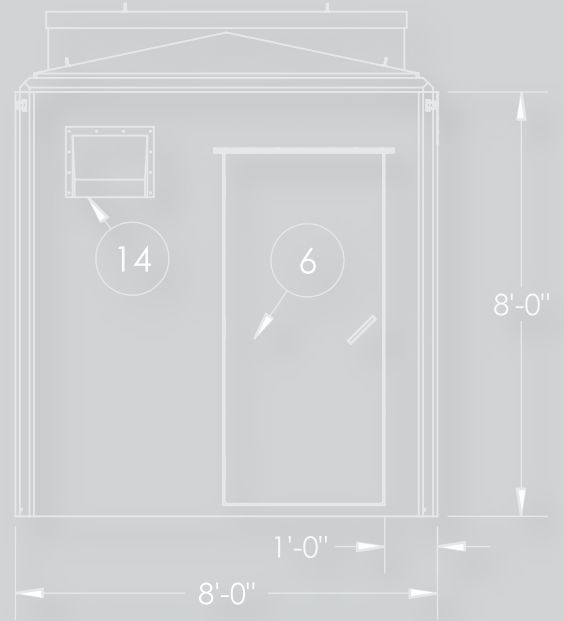
be installed, elevate the conversation you’re having with your field equipment protection suppliers. Make sure they are a strategic partner interested in helping you think through the details of what your project needs are. This will ensure an end product that will support the most effective outcome of the process.



Thinking about a shelter that is truly “custom engineered to your exact needs” requires a mindset shift. But, once you’ve made that change, you’ll feel more in control and more certain of the end product. You will be happier with the process of specifying, ordering and installing your equipment protection shelter. If you take the time to think through these questions, your process and design will include the

shelter that will properly house the process and the associated field equipment.

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BRICK PATTERN



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