



FIELD EQUIPMENT SHELTERS FOR THE NATURAL GAS INDUSTRY

CASE STUDIES AND SUCCESS STORIES





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INTRODUCTION

The versatility of Shelter Works products makes our shelters ideal for the demands of the natural gas industry. Often our customers need unique access to the equipment with special doors or roof hatches, special wall construction elements to accommodate heating or air conditioning units, explosion proof electrical packages or any other specifications they may require. Shelter Works buildings are made exactly to suit each individual project, each individual site and each individual application. The purpose of this e-book is to present a broad range of projects we've done for our customers in the Natural Gas industry. We hope they illustrate the versatility of our shelters and inspire you about what you might specify for your next project.

Here are just a few of the applications we can cover:

- Gas Storage
- Well Heads
- City Gates
- Distribution & Transmission
- Instrumentation/ SCADA
- Regulator Stations
- Metering Stations
- Odorizer Buildings
- Analyzer Shelters
- Power Generation Equipment

TWENTY-TWO BIGGER FIBERGLASS BUILDINGS

"We're going to need bigger buildings!" That was the assessment that a natural gas field engineer made as he discussed equipment upgrades with Randy Cunningham, Sales Representative at Control Equipment Sales Company, who represents Shelter Works to the natural gas industry in Illinois.

Throughout America, there are underground fields that provide local storage of natural gas supplies in rural areas outside of major metropolitan cities. When gas companies store the gas in this way, it lowers the stress on our limited gas pipelines and increases availability near the point of usage (versus housing at the point of collection). Gas stored deep underground mixes with water which can be salty and corrosive, so specialized equipment is installed at the wellheads to separate the gas from the water right at the point of retrieval.

For this particular project, simple, smaller tanks were being replaced with larger, higher-capacity tanks that allowed for greater efficiency. As demand for gas has increased, more gas and water flows in and out of the field. Because there is a greater volume of water to deal with, larger, higher-velocity water separators were specified.



"Safety and overall lifetime cost were top priorities for this project. Metal buildings tend to corrode quickly in this environment, while fiberglass is extremely low maintenance. Shelter Works builds such a high-quality, structurally sound shelter, the engineers were very happy to specify the Shelter Works buildings," Cunningham explained. *"They did look at other suppliers, but in the end, they chose Shelter Works for their field equipment protection. We have had a long-standing relationship with the people of Shelter Works, so we knew they would deliver a strong product."*



Shelter Works worked with Cunningham and his client to design and build twenty-two 12' x 14' x 10' fiberglass buildings. They also called for additional reinforcements to be embedded within the walls, and because this particular field is in a cold weather climate, they specified two and half inch foam in the walls and 3 inch foam for the roof. Any heat coming from the equipment gets trapped in the building, heating it nicely. In addition to upgrading the equipment, the engineers wanted to improved safety features to protect the equipment and the people who service that equipment and therefore specified more structurally sound buildings for the project. The ten-foot tall buildings and hipped roofs made it more comfortable for employees to service equipment, and strategically located windows allowed more light to enter the building.

“Shelter Works builds such a high-quality, structurally sound shelter, the engineers were very happy to specify the Shelter Works buildings.”

Randy Cunningham, Sales Representative

OPTIONS AVAILABLE:

- Customer Sizes & Colors
- Insulation Value up to R-21
- Skids, Bases & Floors
- Molded Openings
- Partition Walls & Knock Outs
- Sound Attenuation
- Mounting Reinforcements
- Single, Double, Sliding or Roll-Up Doors
- Awnings, Weather Canopies
- Panic, 3-point Door Hardware
- Electrical Packages Including C1 D1
- Lighting
- Vents, Windows & Skylights
- HVAC Packages

If you'd like to see some videos that outline the various options available, please [visit the video page](#) on our website.

CUSTOMIZED FIELD EQUIPMENT PROTECTION AT HIGH ELEVATIONS

High up in the Rocky Mountain range, our fiberglass shelters are hard at work, protecting our clients' field equipment from the harsh elements throughout the winter months.

Randy Kenyon, Professional Engineer for CGRS, Inc. explains, *"This shelter was installed in a high elevation area (above 6000 ft), so the structure had to withstand really low temperatures and heavy snow loads. It protects some control valves and water piping that needed to be accessible on the sides. Installation was easy; it fit exactly as promised."*

In addition to special sizing of the structure, the shelter was customized in two different ways:

- Hatches mounted and controlled by gas springs on either side allowed access the equipment and protection from the elements during service
- Custom gel coats were used to match customer color preferences maximizing the attractiveness of the building

Kenyon told us that the client was extremely happy with the shelter, so much so that they will be ordering more! He sent a photo of the building in use and commented, *"It is working very well, and we will need additional units too. It is heated inside to about 70 degrees, but you will notice that it is insulated so well that the snow didn't even melt off the top!"*





FROM PREFABRICATED EQUIPMENT SHELTERS TO A FULLY INTEGRATED ANALYZER SHELTER

Shelter Works prefabricated equipment shelters have long been a trusted resource for our OEM customers. One such customer is turning them into a fully-integrated analyzer shelter. These OEMs provide value by designing and incorporating many different components to create a turn-key package. Precision Pipeline Equipment, Inc. serves the natural gas industry with a unique, fully integrated analyzer shelter that they sell to companies operating throughout the Midwest and into the Northeast.

Co-Owner Ray Schnebelen explains why they chose Shelter Works prefabricated equipment shelters. “These shelters have superior durability and longevity for the needs of the natural gas industry. Everybody loves how maintenance-free they are. We get lots of repeat customers, because of the 25 year warranty, because of the high quality, and because of the clean rugged design. Our analyzer shelters are very popular, because it provides a dry, comfortable place for the field technicians to work on the equipment. Shelter Works prefabricated equipment shelters offer a dry and secure building, and there are no wind gaps. Most clients prefer to have analyzer systems housed in temperature controlled environments, which means they need heat in the winter and air conditioning in the summer.” This equipment is necessary for very accurate and repeatable measurement of various key components contained in the natural gas and this equipment needs to be properly protected and secure.”



These fiberglass enclosures can be smaller (perhaps 6' x 6'), sometimes an 8' x 8' and often a larger 10' x 12' size shelters. Every analyzer shelter is customized to the client specifications, following each state's requirements for wind loads, seismic loads, etc. Every analyzer shelter has an explosion proof electrical package for the many electronics inevitably included in the building. The engineers in each area need to follow whatever the state-mandated specifications are, and the flexibility of the Shelter Works equipment shelter makes that easy to accommodate.



“They are one of the few equipment shelter manufacturers that can meet state label requirements. In fact, they are currently the only fiberglass manufacturer that is approved in Ohio, which is very stringent in their requirements.” Schnebelen continued, “We’ve been with Shelter Works since the inception of the company, and we love the fact that we can customize these prefabricated equipment shelters exactly as needed.”

Another advantage of these equipment shelters are that they are much more transportable than the metal alternatives that some engineers consider. That means that the prefabricated equipment shelters (which arrive fully constructed) can be stored in a storage yard and then moved to the final site at a time that is convenient for the construction crews.

Interior Wall Supports In Each Analyzer Shelter

Precision Equipment appreciates these prefabricated equipment shelters because for each individual analyzer shelter, Shelter Works provides a convenient system for interior wall support in any configuration required. This allows for equipment to be easily hung anywhere on the wall in a manner that is a lot less complicated than what would be required to accomplish the same effect in a metal building.



PREFABRICATED FIBERGLASS BUILDINGS CUSTOMIZED TO MEET THE CUSTOMER'S NEED

Question: How do you protect ultrasonic and coriolis meter runs as well as flow control valves and instrumentation from severe winter weather and allow for regular inspections of the equipment without disturbing the pipes that run throughout the wilds of Montana?

Answer: Knockout Panels

All of the Shelter Works buildings are custom-made, so every day we design buildings with customized knockout panels, bulkheads, or other special formed openings to meet the specific requirements of our customers.



One such customer was a manufacturer of pipeline equipment for the natural gas and liquid petroleum industries, including measurement, regulation, filtration, flow control, testing and analysis. We spoke with their General Manager to ask why he uses Shelter Works buildings for his projects: "Shelter Works provides the perfect solution for our needs, allowing access to our meters and piping for inspection and services without disturbing the shelter."

Flexible in Design: Typically the gas measurement or regulation instrumentation being installed hooks up to pipes 2 to 36 inches in diameter. While the equipment needs to be in a temperature controlled environment, the pipes extend out from the building. Fessenden explains, "By having the knockout panels, the piping sections can be easily removed, pulling a single spool for regularly-occurring inspections without disturbing the whole building."



Fully Equipped: Because of the equipment they house, the interiors can be considered potentially hazardous locations. To meet electrical codes, Shelter Works equips these shelters with explosion-proof electrical packages including lights, heaters and ventilation for the benefit of the equipment and the people who service it.

Resilient in all types of weather: The shelter has to pass certain snow load and wind load requirements due to the harsh environment of northern Montana. Temperatures can drop below -50° in winter and rise to over 100° in summer.



“Shelter Works provides the perfect solution for our needs, allowing access to our meters and piping for inspection and services without disturbing the shelter.”

General Manager, Pipeline Equipment Manufacturer



CUSTOM-ENGINEERED NATURAL GAS REGULATOR STATION BUILDING



What do you do when something is too large to ship?

And what if the location has low-hanging electrical wires that prohibit a building being lifted up and over the equipment (which is how our shelters are typically installed)?

Split it in half, of course!

That's just what we did recently for a Midwest Natural Gas company that needed a brand new natural gas regulator station building.

Normally, our shelters come fully assembled and ready to install—

complete with electrical wirings and fittings, specified HVAC needs and predetermined openings. In this case, however, the pre-fabricated building needed to be 30'W x 26' L x 10' H, so we shipped it in two large pieces so that it could be assembled on-site. The split building also allowed installation to be done without any difficulties by bringing each half in from the side, thus avoiding the overhead electrical wires.

Because of the environmental conditions, the company chose an explosion-proof electrical package. Despite the fact that the building was split in two, the wiring was done in such a way that the building could be put together in the field and still quickly be ready for use. The building will protect regulators, heaters and other electronics that sit on a concrete pad and need to be secured. The company wanted to minimize labor costs but still ensure high-quality field equipment protection, so they specified a Shelter Works building to meet their needs.





FEATURES & BENEFITS

Features	Benefits
Molded surfaces with encapsulated core materials	Improves strength, longevity, structural integrity and energy efficiency
Maintenance-free design	Lowest lifetime cost of ownership
50+ year lifespan w/25yr limited warranty	Confidence and peace of mind
Lightweight design	Shrinks construction costs such as freight and crane costs
Corrosion Resistant	Will not corrode, rot ,rust, or decay
Impact Resistant	Can absorb impact without damage
Energy Efficient	Lowers energy costs
UV Resistant	Minimizes fading and chalking on exterior surfaces
Exclusive FiberBeam™ Construction	Ultra Strong--Pound for pound stronger than steel!
Easy to Install	Cuts transportation, construction and labor costs
Non-Conductive	Reduces grounding requirements
Field Erectable	Allows freedom to build on site in hard-to-reach locations
Custom, Flexible Designs	4'-16' wide up to 40' long



OUR 25-YEAR WARRANTY LETS YOU SPECIFY WITH CONFIDENCE

Shelter Works products are engineered specifically to meet the rigid requirements of industrial applications because they need to live up to the tagline: “Built for Life.” We take a tremendous amount of care in designing the highest quality shelters, engineering each aspect, from the submittal drawings and the construction process to core materials, resin and gel coats, door construction and hardware, to final electrical wiring and installation. All of our shelters go through extensive quality assurance program to ensure that every shelter will perform to expectations.

We view our relationships with our clients as long-term partnerships; they rely on us to provide long-term solutions that protect for years and years. A 25-year warranty conveys that sense of partnership and gives customers peace of mind. They know they can trust the quality of our products to protect their critical field equipment.



If It's Built By Shelter Works, It's Built for Life!

Need a creative solution for your field equipment protection needs?

Give us a call at 800-794-8037 or [Click Here](#) to Submit a Field Equipment Enclosure RFQ

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