



In the past, when companies needed more storage space, they could rent or build a permanent structure – which was very costly. Or set up a tent – which lacked strength and security.

Now, Temporary Warehouse Structures offers what more and more businesses are finding to be a superior alternative.

Used by Bechtel, Siemens, General Motors, and the U.S. Government, our warehouse structures are convenient, secure

 and surprisingly economical. Constructed of anodized aluminum and engineered to rigorous standards, our structures are durable enough to last decades.
 They are weather tight and can be insulated and climate-controlled for use as warehouses, production line facilities, fabrication shops, dining halls – whatever your business requires.

Yet these structures take just days to build. And, when your company no longer needs the extra capacity, our team will come to your site, disassemble the structure, remove the materials – and your space will return to its original condition. When you compare our costs to the significantly higher costs of renting – and transporting materials to and from a permanent offsite structure – you'll find that TWS provides the ideal all-around solution. For convenience. For your bottom line. For your business.



If your company is storing valuable product, why not go with a proven solution?

Our structures have been used extensively in Europe and Australia for decades. They are constructed of rust free galvanized steel and anodized aluminum. Best of all: they can be built at a fraction of the cost of a brick-and-mortar structure.

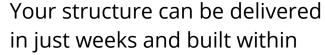
To further ensure that your contents remain safe, our thermo-roof and plastic wall panels provide a comfortable climate in all seasons. So whether it's automobile body panels, electronic components, or pallets of cement sacks, almost anything can be stored safely inside our weather tight structures for years to

come. Durable UVresistant roof panels also allow natural light inside the structure. And, once installed, little to no maintenance is required.

We make the process seamless. Before building, we discuss your company's needs and collaborate on the best solution. When it comes to installation, we provide all tools, equipment, supervision, and labor. There are no hidden costs and no extra procedures.



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days (as compared to months or years for permanent construction). And no special foundation is required. Which means your structure can be built on dirt, asphalt, existing concrete – allowing you to make smart use of available space.

What if another 2,000 square feet of storage are suddenly required? **Our structures** are easily expandable. In fact, we can add additional five-meterlength bays without entirely dismantling the original structure. Another plus: your structure can be customized with roll-up overhead doors or personnel doors to suit your operational needs.

Our structures are equally flexible when it comes to financing. Your company may choose to lease and write off the expense. When purchased, TWS also provides an attractive buy-back program should your business no longer require the structure. From beginning to end, we are committed to exceeding expectations – with the expertise and dedication of our team. And with the unsurpassed quality of our structures.



# STRUCTURE

### Frame:

- 6061T Aluminum box beam extrusions.
- 252mm x 122mm for 32' and 50' wide structures.
- 334mm x 122mm for 66' and 82' wide structures.
- Standard eave (lowest point) height = 15'.
- 18' and 21' eave heights available on 66' and 82' wide structures.
- Roof pitch = 18 degrees on all structures.
- Frame spacing = 5m (16' 3").
- No internal supports. Interior space is clear span.

**Frame Connections:** Galvanized steel inserts (50 ksi minimum) at all joints of rafters and eave uprights. Rafters and uprights are bolted with galvanized 3/4" (20mm) bolts.

**Purlins:** Eave, ridge, and internal roof areas - galvanized steel square tubing in 16' lengths provides bracing to the structural elements.

**Cables:** Roof and eave cables located in the first 5m and last 5m bays at a minimum. Structures exceeding 150' in length will have additional cabling.

**Walls:** 2" flame retardant plastic core. 1' x 15' 11" panels tongue-and-groove together and are stacked vertically to achieve desired eave height.

**Roof Fabric:** Air-inflated double layer of 20 oz/sq. yd. PVC coated polyester with 300 pli minimum tensile strength. Flame-retardant fabric meets fire codes. R-Value - 4 (estimated). Allows sunlight into the interior space. Requires a 110V, 20 amp outlet for air pump operations.

**Wind Load:** 115 mph Zone C exposure with Standard Importance Factor of 1.00 (20 psf at 100' height).

**Snow Load:** 25 psf (about 24" of snow at 13% density) snow-load support cables are placed every 5m, spanning eave to eave to prevent structural deflection under loading.

**Doors:** Overhead - chain-hoist-operated, single-ply steel sheeting roll-up doors. 14' height is standard. Widths in 15' 7" or 16', depending on placement in the structure perimeter.

- Optional motorized and/or wind lock overhead doors available.
- Personnel 3' x 6' 8", insulated, 20-gauge steel, hollow-core doors with lever handles.
   Non-locking.

# SIZES

Width	<b>Eave Height</b>	Ridge Height	Slope	Length
32' (10m)	15′	22'	18 deg.	Unlimited in 5m bays (50', 66', 82', etc.)
50' (15m)	15′	23′ 6″	18 deg.	Unlimited in 5m bays (50', 66', 82', etc.)
	18'	26′ 9″	18 deg.	Unlimited in 5m bays (66', 82', 100', etc.)
	15′	26′ 9″	18 deg.	Unlimited in 5m bays (66', 82', 100', etc.)
66' (20m)	*18′	29′ 9″	18 deg.	Unlimited in 5m bays (82', 100', 115', etc.)
	*21′	32′ 9″	18 deg.	
82' (25m)	15′	30'	18 deg.	
	*18′	33'	18 deg.	* - Wind bracing maybe necessary.
	*21′	36′	18 deg.	

# SURFACE

Structure can be erected on solid dirt, asphalt, or existing concrete. Base plates under each eave and gable upright are anchored to the surface by 3' long steel stakes or 5/8" concrete anchor bolts.

Slight terrain variances can be accommodated. Note: water can seep under walls if the interior is lower than the exterior ground level.

# SERVICE

TWS provides a straight, vertical-walled, steel-clad, clear-span structure with a commercial/industrial grade vinyl roof and gable panels. All materials are designed and engineered for long term use. Components bolt together for easy assembly and dismantling. The same structure can be used, relocated, and reerected repeatedly.

Due to our modular-framework design, a structure can be lengthened or shortened from one job site to the next. Large squarefootage requirements can be met by placing structure in a side-by-side configuration with no internal walls. A fabric gutter system between the abutted structures prevents almost all water from entering the structure. Our unique air-inflated roof panels add strength, eliminate condensation, eliminate fabric wind flutter, aid in shedding rain and snow, and add a dead-air-space insulation factor.

TWS will deliver, install, and dismantle our structure at your site. We are confident that our product and service will exceed your expectations.

# TESTIMONIALS

TWS provided us with a superior quality temporary warehouse. Extremely knowledgeable, creative and flexible in meeting our special needs, they assisted us in acquiring the proper permits and meeting code requirements, plus delivered and installed the structure on schedule. Overall product and service have exceeded our expectations.

#### **Ken Meador**

Senior Vice President, O2 Wireless Solutions

TWS has provided several quality structures that continue to exceed our expectations. The structures were easily adapted to meet our unique requirements and local building codes without affecting the tight delivery timeframes. TWS met, and in most cases exceeded, our strict safety guidelines as they provided professional installation with no business interruption.

## **Steve VanBrussel**

**General Motors** 

Without your commitment to the deadline our plans to start our slitter installation project would have been delayed further.

The temporary warehouses that you provided are the most practical and cost-effective option for us. We are pleased with your continued support and happy to be doing business with you!

## Joey Gamilla

Project Manager, Stainless Sales Corp.

Siemens Energy and Automation was extremely impressed with the quality of the structure as well as the team's level of workmanship and diligence in finishing three days ahead of schedule. For future projects, TWS will be Siemens' first choice.

## **Ron Roessler**

Senior Manufacturing Engineer, Siemens

Calpine is very happy with the warehouse and the service TWS provided. The structure has served our needs well, and we appreciated the quick mobilization and cooperation.

I recommend Temporary Warehouse Structures to other companies.

## **Howard Monahan**

Calpine Corp.

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