

HOME PRODUCT GUIDE



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Build Your Dream Quonset Hut Home

Your home should reflect the way you want to live.

SteelMaster provides a durable steel shell with the flexibility to transform it into a comfortable residential space designed around your needs.

Quonset homes have been used for everything from full-size family residences and modern homes to barndominiums, tiny homes, cabins, vacation properties, and off-grid retreats.

Ready to Build Something Different?

Your dream home does not have to start with a traditional set of walls.

Start with a SteelMaster arch building kit and create a home designed around your property, your lifestyle, and your ideas.

Before you contact your building specialist, have as many of these details ready as possible:

- Property location
- Approximate home size (in square feet)
- General floor-plan concept
- Preferred building model (Q, S, A, X)
- Approximate project timeline

BEFORE



AFTER



What Kind of Quonset Home Can You Build?

Start With an Arch. Make It Your Own.

There isn't one standard Quonset home.

Your SteelMaster building provides the structural starting point. From there, your home's size, floor plan, endwalls, finishes, and architectural details can reflect your own style.

Barndominium Farmhouse

Bring together the openness of a barndominium and the unmistakable shape of an arch-style steel building.

Use custom endwalls, large doors, rustic materials, and open living spaces to create a home with both character and function.



Modern Home

Clean lines, dramatic windows, and contemporary materials pair naturally with the curved steel structure.

The result can feel modern, minimal and unique.



Lake or Vacation Home

Create a distinctive second home or getaway with custom windows and endwalls designed to showcase the surrounding property.



Tiny Home/Cabin

A smaller Quonset can become a compact primary residence, guest house or downsized living space with plenty of personality.

Steel arch buildings can also be engineered for demanding environments, making them an option for cabins and remote residential projects.

Planning Your Home Project

Preparing for Your Quonset Home

Building a home is more involved than just purchasing the steel structure itself. Before choosing your building, it is important to understand the complete scope of your project,

Start With Your Property

Before purchasing your building, determine where it will be constructed. Consider:

- Property ownership or purchase
- Available building area
- Site access
- Natural drainage
- Utility access
- Septic or sewer requirements
- Driveway access
- Space for future additions

Talk to Your Local Building Department

Before moving too far into the design process, confirm that a Quonset hut residence is permitted on your property.



Understand Your Total Project Budget



Before moving too far into the design process, confirm that a Quonset hut residence is permitted on your property.

In addition to the shell of the building, your overall budget may need to include:

- Foundation
- Building assembly (if hiring a contractor)
- Custom endwalls
- Doors and windows
- Insulation
- Interior framing
- Electrical & Plumbing
- HVAC

Planning the complete project early can help you choose a SteelMaster building size and design that aligns with your goals.

Your Quonset Hut Project Roadmap

Building your home involves two overlapping projects: creating the SteelMaster structure and completing the residential construction inside and around it.

1

Confirm your site is approved for a Quonset home

2

Consult with a SteelMaster home specialist to help you with the best model, size, and cost estimates

3

Calculate your total project costs, including land, site prep, foundation, utilities, the Quonset hut, end walls, and interior finishes.

4

Plan to fund the project out of pocket using savings or available assets, as traditional financing is typically *not* an option.

5

Send your floor plan to your SteelMaster specialist. Architectural plans are preferred, but a rough sketch may work for early planning.

6

Order your building about six months before you want it on site. A deposit is required with the purchase agreement.

7

Receive state-stamped engineered blueprints, typically 6-8 weeks after your order is placed.

8

Obtain any required permits before construction begins.

9

Pour your foundation according to the engineered plans.

10

Schedule your building delivery. Final payment is due upon delivery.

Install and finish your dream home!



Transportation & Delivery

SteelMaster offers speed, efficiency, and logistics expertise.

Whether your building is delivered by a tractor-trailer or bundled on pallets in containers to be shipped overseas, our knowledge of logistics will ensure your building arrives with everything you need.

Shipping and Transportation

SteelMaster is proud to serve and ship to all 50 states, including Alaska, Hawaii, and the U.S. territory of Puerto Rico. We have also delivered buildings across six continents and to more than 50 countries.

We set up and manage the shipping and delivery process. Our international logistics expertise assists customers worldwide in importing and exporting details. Our team of professionals has extensive knowledge of transportation document requirements, including:

- Bill of lading
- Certificate of conformity
- Export and import licensing requirements



Delivery

Once your order has been approved by engineering, our dispatching team will call to schedule delivery.

Typically, they will call to confirm five to seven days before the order is due to ship.

The day the order leaves the factory, the transportation company will email you the estimated arrival day and contact information of the driver. Once the driver is within 24 hours of delivery, they will contact you for a final confirmation of arrival time.

SteelMaster prides itself on being able to deliver a building anywhere a customer needs it and is accessible by a flatbed truck in the continental United States. Because a SteelMaster structure is composed of an easy-to-assemble multi-panel system, accessing difficult-to-reach locations can be achieved.

Do It Yourself or Do It With Help

One of the reasons customers choose a Quonset building is the straightforward assembly of the steel shell.

Your approach will depend on the size of the building, the complexity of the project, your construction experience, and how much work you want to complete yourself.

Do It Yourself

Smaller projects or projects with a simpler design may be suitable for experienced DIY builders who want to take an active role in constructing their own home.

Do It With Help

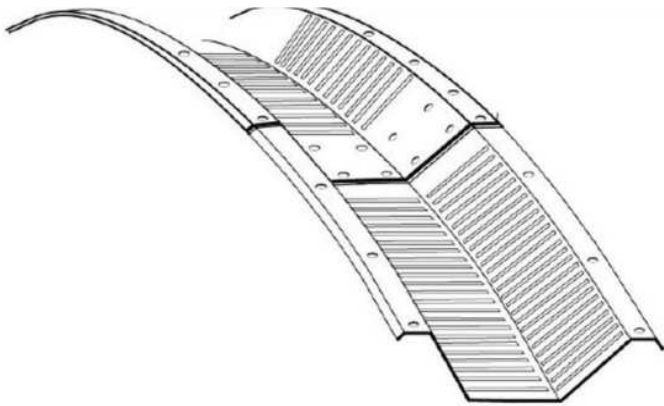
For larger or more complex residential projects, assembling the shell with a small team can make construction easier while still allowing you to participate directly in building your home.

Hire Professional Help

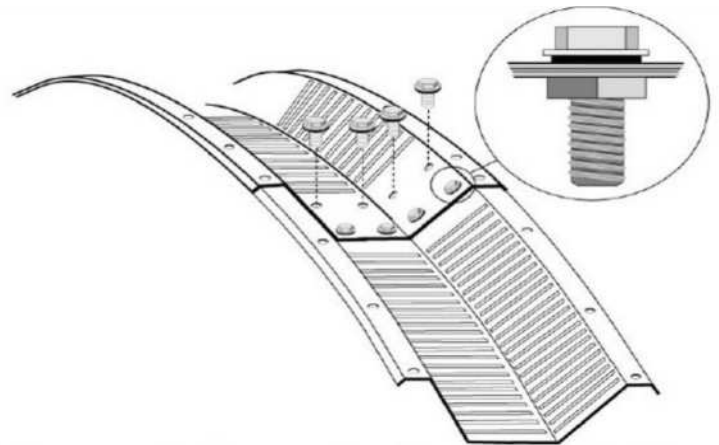
You can also choose to hire professionals for the shell assembly, foundation, end walls, or other stages of construction.

Most residential projects will require additional skilled trades at some point to complete the house, which may include electricians, plumbers, HVAC professionals, contractors, and other local specialists.

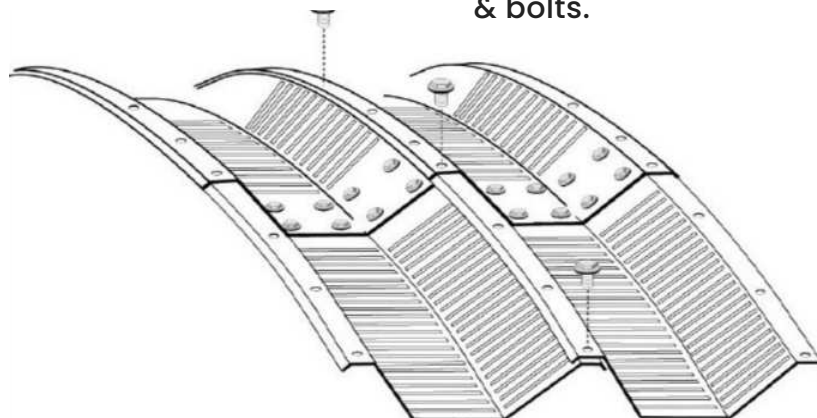
Arch Construction Details



Arches are put over each other with an overlap of 9 inches.



Connect panels with commercial grade nuts & bolts.



Connect arch to arch during construction.

Real SteelMaster Homes

Real Homes. Real Ideas.

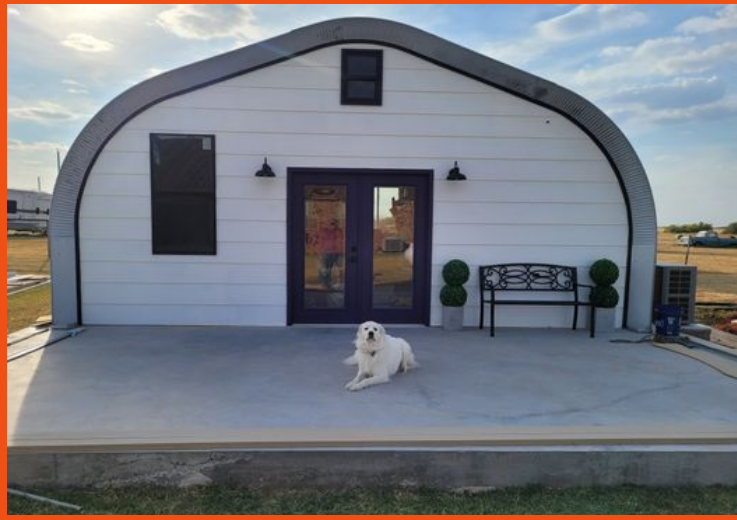
No two SteelMaster homes have to look the same.



855-400-9193

WWW.STEELMASTERUSA.COM

Real SteelMaster Homes



Technical Specs & Certifications

Company Designations:

- GSA Number GS-07F-0458T
- Florida Product Approval #FL-15623
- Cage Code: 8A2W4
- Duns Number: 555569065
- NAICS: 444190, 332311
- SIC Code: 3448
- CSA - A660 QA
- High Velocity Hurricane Zone Certified (HVHZ)
- CE Marking Certification: 2797 CPR 734085
EN 1090-1:2009+A1:2011

Company Overview:

SteelMaster is a manufacturer and distributor of pre-fabricated steel storage buildings with an emphasis on clear span arch structure design. The company was founded in 1982 by Rhae Adams, Jr., CEO. SteelMaster provides structures ranging from sheds to garages, workshops to warehouses as well as complex custom designs for architects and the government/military. SteelMaster has delivered more than 50,000 buildings throughout the United States and on 6 continents worldwide.

Product Capabilities:

- Specialize in buildings from 10' to 80' wide to any length.
- Buildings are clear span and easy to assemble.
- Buildings can be portable and/or designed to be liftable.
- Galvalume Plus® is maintenance free with a 50 year mill (ArcelorMittal NYSE MT) & manufacturer-backed warranty.
- In-house factory design and engineering.
- Designed to meet wind, snow and seismic load requirements worldwide (subject to local variations).
- Rapid turn around on high priority projects.
- International distribution expertise.

Design Requirements:

"International Building Code"; as required

Design Criteria: This cold-formed steel building shall be designed based on the "International Building Code", published by the International Code Council, the "North American Specification for the Design of Cold-formed Steel Structural Members", published by the American Iron and Steel Institute (AISI), and the "Minimum Design Loads for Buildings and Other Structures", published by the American Society of Civil Engineers (ASCE 7).

Harmonized Standard:

CE Marking: EN 1090-1:2009+A1:2011 - Execution of steel structures and aluminum structures. The design, manufacturing (including welding) and installation of structural work in steel up to and including Execution Class 2.

All designs and calculations will be stamped by a licensed Professional Engineer.

Size and fabricate wall and roof systems free of distortion or defects materially detrimental to appearance or performance.

The structures are designed to meet code requirements in effect at the time of purchase. Unless otherwise requested, it will maintain a clear span with no immediate vertical supports and no intrusion on the floor area.

The structure shall comply with the current version of AISC, AISI, NEMA and ASTM specifications at the time of manufacturing.

Storage and Handling:

Materials delivered to the site shall be immediately unloaded and stored on site in a clean, dry environment, stored at least 6" above ground in a secure area, well ventilated, protected from the weather and secure from leaning or toppling in accordance with storage guidelines supplied.

Warranty:

SteelMaster provides a written, manufacturer and steel mill (ArcelorMittal NYSE MT) backed 50-year non-prorated warranty for rust protection due to oxidation of the metal arch building.

Materials:

Unless otherwise specified, all standard metal components of the structure including, but not limited to, the arch panels, end wall panels, sliding doors, service doors, door frames, headers, wind and snow bracing, specialty foundation base connectors, and other framing materials are fabricated from Heavy Commercial AZM180/AZ60 minimum triple spot Galvalume Plus steel, in accordance with ASTM A792 & A792M.

Grade Steel	Gauge	Yield Strength (min. ksi)	Tensile Strength (min. ksi)
80	22, 20, 18	80,000	82,000
50	14 & 16	50,000	65,000

Arch Panels: Arch panels shall be precision cold-formed and manufactured to specifications of exacting form and fit. Each arch panel shall be 7.5" or 9.75" deep corrugation with cross corrugations to produce the required curvatures. Arch panels shall be pre-cut, die-punched, and designed to overlap and align perfectly with each adjacent panel. Bolt holes shall be punched 6.9375" apart down each seam with a double row of holes at 9" overlap to create a weather tight seal. Dimensions above are design dimensions which may vary within tolerable production and construction allowances. Said tolerances also provide enhanced ease of construction.

Hardware:

I. Bolt: Zinc Aluminum Hex Flange; Nominal Diameter 5/16" x 3/4" (18 threads/inch). Bolt consists of hex flange with an indented head to receive the pre-set sealing washer.

Mechanical Properties	(Optional) Grade 2 (SAE)
Tensile Strength	74,000 psi
Yield Strength	57,000 psi
Proof Load Test	55,000 psi
Coating	NZF3000

II. Sealing Washer: Low-Density Polyethylene Washer.

The washer is pre-set into the bolt and when fastened properly, it will fit within the bolt's head, sealing the bolt to the building and ensuring a watertight fit.

Properties of polyethylene washers:

Tensile Strength: up to 2,000 psi

Water Absorption Potential: less than 0.04% when fully exposed and submerged.

Brittleness Temperature: When exposed to less than -180F for prolonged periods.

Softening Temperature: When exposed to 212F for prolonged periods.

III. Nut: 5/16" Serrated Hex Head Locking Nut - Grade 5

Coatings:

Unless otherwise specified, the structure shall be produced from AZM180/AZ60 Galvalume Plus steel. The Galvalume Plus coating, which is applied by the continuous hot-dip process, shall be an alloy consisting of approximately 55% aluminum, 43.4% zinc, and 1.6% silicon by weight.

Galvalume Plus has a clear, organic resin coating, which is applied to both sides. Once applied, the coating is then thermally cured. Galvalume Plus provides a bright, attractive appearance with a fine spangle and gentle sheen. It also reduces the need for lubricating oils during panel-forming which can be dirty and slippery.

Test results qualified Galvalume Plus coated steel as an approved roof product by ENERGY STAR Program, both for low-slope and high-slope applications. On newly-manufactured Galvalume Plus, heat reflectivity was also rated above the minimum EPA requirement of 0.65. For weathered roofs over three years of age, the solar reflectance also exceeded the minimum EPA requirement of 0.50 for maintenance.

Hear From Our Homeowners

Watch: Tom & Kim's House Tour



When Tom and Kim W. decided it was time to replace their aging lakeside cabin, they didn't just upgrade. They completely reimagined what a lake house could be.

"We looked at prefab homes and log cabins. I wanted something that was maintenance-free and neat-looking. [My wife] found [a Quonset hut] and fell in love with it. We love the open floor plan and efficiency of such a modern structure.

–Tom W., Missouri

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SteelMaster has been a very good company to work with. I would recommend if someone wants to do this, they would use SteelMaster as the company.

–Hope S., North Carolina

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**Click here to schedule an
appointment with a
building specialist!**

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