



sturdi-built
GREENHOUSE MANUFACTURING CO.

Hand crafted in Portland, Oregon
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Sturdi-built Greenhouse Manufacturing can trace its beginnings back nearly 50 years. The original owner ran a commercial orchid nursery, subsequently converting the facilities from growing orchids to manufacturing greenhouses.

In 1968, the Warner family bought the company, making a commitment to produce exceptional greenhouses individually crafted to meet the needs of each customer. Over the years styles have changed. We've retired a few designs and introduced new ones – most recently our Garden Deluxe and Nantucket models. Subtle engineering changes have also been made to improve the function of our greenhouses as well, but our commitment to quality has never changed.

Many of the improvements we have made are the result of visits with customers across the nation to make sure they are getting optimal results and enjoyment from their purchase. We learn a lot when we see how people use and care for their greenhouse and how our greenhouses perform in different climates. We are proud of the fact that we have customers from Alaska to Florida and have worked with each one of them to provide not just a greenhouse but an ideal growing environment.

Sturdi-built remains a small, family business. We never want to forget that this business was built on providing individualized service before, during, and after the sale of our products. If you have questions or need help, we are only a phone call away. Our years of experience are here to share anytime. We encourage you to call and talk with us. With a Sturdi-built greenhouse you get a quality product as well as the support to give you years of gardening enjoyment.

Sincerely,

The Warners

Rick, Debbie, Jeff,
Bill and Barbara Warner

I am impressed with the completeness of the kit. You seem to have included every screw, nail and brad that would be needed. I really appreciate that.

- W. Eckbreth, Virginia

Quality features found in all our greenhouses

Clear, all heart kiln-dried redwood is warm, beautiful and durable. It can be stained to enhance its beauty or to match your home. (We sometimes use a small amount of "A" grade Western Red Cedar in areas where it is better or equivalent to redwood).

Standard window glass assures fine appearance and long life. Tempered glass or twin-wall polycarbonate is available as an option. We combine glazing materials which make sense for your situation.

Handcrafted, wood doors are made in our factory using our best materials.

Roof vents provide all natural, quiet, humidity saving ventilation.

Energy efficient wood structures mean no interior ice buildup in the winter. Add our double pane Thermal Option™ to further increase efficiency.

Each greenhouse is individually designed and built to incorporate the features and options your conditions demand. Our greenhouses are engineered to be functional as well as beautiful.

Our greenhouse kits are uniquely prefabricated for efficient installation. End walls are factory assembled and shipped in large sections. Doors are pre-hung. Roof and sidewall components are precision pre-cut, ready for you to assemble in sections prior to installation.

Our complete greenhouse kits come with everything you need for installation – glass, barcaps, corrosion resistant hardware, pre-hung door, caulking and instructions.

Each greenhouse is carefully packed in protective wooden crates and shipped by truck to your home.

Personalized customer service is offered before, during and after the sale. We are a small family business and care about your satisfaction. No voice mail help line here, just real people!

Options available for all greenhouses

Base Walls

- Framed with construction grade redwood.
- Faced with rough cut, premium grade, exterior cedar plywood.
- Complete with vents for natural air flow.

Thermal Option™

- Exclusive double glazing system insulates and/or shades your greenhouse.
- Adds a second layer of clear acrylic or twin-wall polyethylene.
- A combination of exterior twin wall polycarbonate and interior twin wall polyethylene results in the highest R-value in the industry.
- Can be added at any time. See price list for more details.

Hand Crafted Wood Doors

- An individually made wood door is included with each greenhouse.
- Doors can be hinged on the right or left, and made to swing in or out. We recommend the door swing in.
- Dutch doors are available.
- Doors can be added to both ends (door in side wall requires changes to the greenhouse frame).



Custom Doors

Benches

- Made of construction heart redwood or select western red cedar with metal legs.
- Slat benches (for potted plants and flats) or soil benches (for propagating and in-bench growing).
- Combination slat/soil benches available.
- Special all wood benches with one or two levels are also available.



Special All-Wood Benches

Partition Walls

- Divide the interior of your greenhouse.
- Ability to create two environments in one greenhouse (tropical/dry, cool/hot, sitting/planting area).
- Available for any model.

Custom Units

- Special sizes and modifications can be made to work around house styles, existing foundations, or special needs.
- Decorative scallops, finials and overhangs may be added to most models.
- We will work directly with you to come up with workable modifications.



Jalousie Windows

Accessories

- Jalousie Louvered Windows – these easy to operate screened windows can be mounted in doors or end walls to provide cross-flow ventilation.
- Heating, cooling, and humidifying systems, shade cloth, automatic roof vent openers, circulation and exhaust fan systems, screens, wood or glass shelves, dutch doors and more.
- Call or email for our Greenhouse Accessory Catalog for a complete listing of options and equipment.



Complete line of accessories

the Tudor

The Tudor has an efficient layout with lots of overhead plant hanging space. It is one of our stronger units which, combined with its steep roof pitch, makes it ideal for heavy snow areas.



Create a garden get-away for yourself!



9' x 28' Custom Tudor Lean-to on stone base wall



12' x 18' Tudor - stained gray by customer

In my 57 years, no other weekend project has given me more satisfaction or pride as our Tudor greenhouse. Your design, engineering and follow through have been exceptional. We can't congratulate nor thank you enough.

- L&T Brodek, California



FEATURES

- Appealing design with many decorative accents including arched door with designer wood handle, decorative base wall vents, and interior arches.
- Steep roof pitch is excellent in heavy snow.
- Several sizes available in free-standing and lean-to models.
- Well suited for custom sizes and applications.
- Mounts on our 32" base wall with decorative vents, or build one of your own.
- Includes roof vents and our unique factory prefabrication for efficient installation.
- Also available with decorative ridge scallop and finials (see the Nantucket, page 12).



Top Left:
10' x 14' Tudor on Sturdi-built base wall

Above:
12' x 12' Custom Tudor on brick base wall



Above Left:
12' x 18' Tudor on stone base wall

Above:
8' x 12' Tudor stained brown on a brick base wall with one end attached

Left:
7' x 14' Tudor Lean-to on Sturdi-built base wall



the Deluxe

With its traditional design, good value and excellent quality, the Deluxe has long been a favorite. It is good looking, highly functional and the straight wall design lends itself to modifications, making it an excellent choice for customizing.



Above:
9' x 16' Deluxe Regular on brick base wall, stained gray, with jalousie window in the top half of the dutch door.

Right:
10' x 12' Custom Deluxe integrated into customer's house.

Far Right:
9' x 12' Custom Deluxe Lean-to attached to garage.





Top Left:
9' x 20' Deluxe Regular on customer built brick base. Note two jalousie windows beside the door for extra ventilation

Above:
9' x 14' Deluxe Glass to Ground stained gray.

Left:
9' x 16' Deluxe on Sturdi-built wood base wall.



FEATURES

- Traditional greenhouse design, fits with any architecture.
- Vertical walls maximize bench-top and shelf growing space.
- Available in free-standing and lean-to models, both regular and Glass to Ground versions, in a variety of sizes.
- The Deluxe can use several base wall heights — a 32" base wall for our Deluxe Regular; 18" base for the Garden Deluxe; 9½" for the Glass to Ground style. Build your own wall or use one of ours.
- To increase useable space and maximize solar efficiency, consider the Deluxe Glass to Ground or the Garden Deluxe.
- Standard with our unique pre-fab construction — end walls are factory assembled, doors are pre-hung and the balance is precision pre-cut.
- The Garden Deluxe is ideally set up for our special all wood, double tier benches.

Garden Deluxe

The Garden Deluxe features 60" tall glass side walls and an 18" base wall providing spacious vertical height. Nantucket style roof overhangs, decorative finial, interior gussets, and roof trusses give this model both architectural appeal and growing space.

Right:
9' x 12' Garden Deluxe on wood Sturdi-built base wall.

Below:
12' x 16' Custom Garden Deluxe, with optional roof scallop, on brick base wall.



the Tropic

A classic greenhouse, the Tropic is good looking, practical, and easy to heat. The slanted wall design captures winter sun efficiently, making the Tropic a favorite of Sturdi-built customers in colder climates.



Above:
10' x 14' Tropic set on customer built stone base wall.

Right:
The same greenhouse as above, in the middle of an Alaskan winter.



It would be hard to describe ... the hours of pleasure for me, visitors and family, and the memories of the kindness of the Sturdi-built staff towards someone who knew nothing about greenhouses but loves gardening.

- J.Pazlar, Minnesota



FEATURES

- Traditional, practical design.
- Available in lean-to and free-standing versions.
- Includes roof vents, for gentle, effective ventilation.
- Mounts on 32" base wall; yours or one of our redwood/cedar base walls with vents.
- Several sizes available in both free-standing and lean-to versions.
- Unique prefabrication for do-it-yourself installation.
- The Tropic is available in widths up to 16' which can accommodate a center bench.



Top Left:
16' x 20' Tropic on customer installed brick base wall.

Above:
16' x 20' Tropic on customer built base wall attached at one end.

Left:
10' x 18' Tropic on Sturdi-built wood base wall.



Above:
9' x 14' Tropic Lean-to on brick base wall.

Left:
7' x 14' Tropic Lean-to on Sturdi-built base wall.



the Solite

The Solite is one of our most popular models due to its combination of strength, beauty and maximum growing space.



Top:
11' x 12' Solite, stained gray with
Jalousie window in door.

Right:
9½' x 16' Solite Lean-to in snow.

Far Right:
5½' x 9' Solite Junior Lean-to,
with one end attached, painted to
match the house.



We've enjoyed our greenhouse so much – I almost feel guilty about having this much fun. ... Thank you for manufacturing such a wonderful product, in a kit that had everything you said it would.

- L&G Eastep, Washington



FEATURES

- Ample space and strength for shelves and hanging plants.
- Attractive Glass to Ground design provides extra growing space under the benches.
- Slanted walls maximize winter solar heating.
- Both free-standing and lean-to versions provide maximum utility and beauty.
- Designed for a 9½" base wall — build your own or buy our redwood/cedar base wall with vents. Other base wall heights can be accommodated also.
- Unique prefabrication for efficient installation.
- Includes roof vents and pre-hung wood door.
- Available in a variety of widths and lengths, free-standing or lean-to.
- Our Solite Junior model has all the same features, just smaller.



Top Left:
8' x 14' Solite Jr. on 18" Sturdi-built wood base wall.

Above:
11' x 20' Solite with jalousie window in door on Sturdi-built base wall.

Left:
8' x 11' Solite Junior stained gray.



Above:
11' x 18' Solite with all Twin-wall polycarbonate glazing.

Left:
9½' x 20' Solite Lean-to.



the Nantucket

Spacious design and custom decorative details make the Nantucket a wonderful sitting area as well as an effective greenhouse.

FEATURES

- Spacious design with great vertical height.
- Asymmetrical roof with decorative scallops and finials.
- Exterior eave overhangs.
- Jalousie windows and roof vents included for quiet, natural ventilation.
- Double doors in the side wall.
- All double strength glass.
- Mounts on an 18" base wall, yours or one of ours.
- A nice addition is our double tiered all-wood bench.



8' x 16' Nantucket on Sturdi-built wood base wall.



Above:
Custom 10' x 12' Nantucket on 18" Sturdi-built wood base wall.



Left:
Custom 12' x 16' Nantucket on customer built stone base wall.

the Garden Sunroom

A perfect choice for enclosing a patio or deck, the Garden Sunroom provides an ideal environment for casual use, gardening, spa enclosure, or solar heating.



Above and left:
9' x 12' Garden Sunroom with customer built base wall. Inside there is a triangular hot tub.

Below left:
9' x 20' Garden Sunroom painted white on Sturdi-built base wall.

Below right:
7' x 16' Garden Sunroom.



FEATURES

- A garden room environment at half the price of a solarium.
- Top-of-the-line in wood, attached greenhouses.
- Easily customized to fit special situations or architectural demands.
- Tall glass walls maximize winter light and solar heating.
- Roof glazed with tempered safety glass, walls glazed with double-strength glass.
- Double glazing Thermal Option™ is included.
- Roof vents include automatic openers.
- Mounts on an 18" base wall – use one of ours or build your own.
- Available in a variety of lean-to sizes, custom sizes available.

A Guide ...

to selecting and planning your new greenhouse

What kind of structure do you want?

A *greenhouse* is for plants. The plants you grow affect the design and equipment you need, especially warm weather tropical plants. Greenhouses are Sturdi-built's specialty.

A *Garden room/ Sunroom* combines a gardening greenhouse and incidental living space (spa enclosure, sitting area, etc). Sturdi-built greenhouses easily adapt to meet these needs.

A *Solarium* is designed for primary living space. Our structures are not designed for this use.

Where should you put your greenhouse?

Think about how a greenhouse best fits with your landscaping; exposure to sun, wind, and weather; convenience of access; and physical ease of construction. Generally a southeasterly exposure is best, with east, south, and west exposures following in order. Consider whether your greenhouse should be freestanding or attached to your house, garage, or shed. Attachment can either be as a lean-to or a free-standing attached at one end. With attached greenhouses, be aware of overhead issues (height available, snow avalanches off a roof, icicles dropping, etc.). Attached units usually have building code restrictions.

What size do you need?

Select a greenhouse as large as your site and budget allow. Greenhouse gardeners usually wish they had more space. The first consideration for size is the area of the greenhouse. Adequate height is also important both for your comfort as well as providing room for tall and hanging plants. (Often a greenhouse less than 150 square feet does not require a building permit – especially if it is free standing).

Which architectural design is best?

Choose a greenhouse that looks best with your house and landscape. Also, consider your environment and gardening needs. Sturdi-built offers a wide variety of architectural styles which can be modified to meet your specific needs. The result is a structure that is a garden focal point instead of an eyesore.

Which materials should be used?

Wood is the only choice for a Sturdi-built Greenhouse. Wood has a natural beauty that fits well with residential architecture. Clear Heart redwood is naturally resistant to deterioration (others use lesser grades of redwood and cedar, which are not as rot resistant). The wood can be left natural or stained to match your home. We recommend a stain or clear oil to preserve the wood's beauty. For energy efficiency in a greenhouse, the framing and door materials are key factors. Wood is warmer and more heat efficient than aluminum (1400 times better). Finally, wood allows easy addition of accessories such as shelves, hanging bars, and light fixtures.

Sturdi-built prefers glass glazing. Glass is strong, economical, attractive, clear, and long lasting. With a



high risk of breakage (areas with large hail) or when safety glazing is required, tempered glass or twin-wall polycarbonate can be used. A good combination is twin-wall in the roof for overhead light diffusion and heat retention, with glass in the walls for visual clarity and beauty.



Call us!
We will help you
design your
perfect
greenhouse.

What basic environmental conditions do you want to create in the greenhouse?

A greenhouse's purpose is to create a different environment than what is outside. Each gardener's environment is different, and the plants they grow vary, so each individual's needs are slightly different. However, there are five basic environmental conditions to be looked at: ventilation, heat, circulation, shade, and humidity.

Ventilation: Top-opening roof vents provide gentle, quiet venting and are standard in each Sturdi-built Greenhouse. When combined with base wall vents and/or Jalousie (louvered) windows, cool air flows in low and hot air exits through the roof, helping preserve humidity. Fan venting systems move air effectively but can dehumidify the greenhouse during dry weather, plus they are noisy. Ideally, vents and venting systems should be automatic in operation.



Heat: Gas (natural or LP) or electric (120V or 240V) heaters can be used. Heater size depends on the type and size of greenhouse, as well as inside and outside temperatures involved. To make heating more effective, base walls can be insulated and a second layer of glazing material can be used (see our Thermal Option™).

Air Circulation: Air movement is essential for a healthy greenhouse environment, reducing heating costs and condensation. We recommend gentle air movement 24/7.

Humidity: Wetting down a porous (bricks, gravel) floor periodically helps create humidity. An automatic humidifier or a misting/fogging system may also be used. (For combating harsh summer conditions the combination of shade, ventilation and humidity is key for your plants.)

Shade: Options include shade cloth, shading paint, roll-up shades, etc. We prefer custom-fit shade cloth panels for all or part of the greenhouse. Attached to the outside of the greenhouse, shade cloth is effective, neat in appearance, economical and reusable.



Other things you should keep in mind:



Good design and engineering are essential

A greenhouse must be designed to handle a harsh environment both inside and outside. At Sturdi-built, every board in the greenhouse frame is milled to a specific pattern, with sloped profiles and grooves to channel moisture away. Joints are designed for strength and longevity. Each piece is designed to maximize light by keeping structural members small. Condensation control is handled with a smooth inside roof surface and sufficient roof pitch. We incorporate interior gutters and downspouts to carry condensed water to the floor. Our Thermal Option™ also minimizes condensation. The quality and design of the structure play a role in creating the right environment.

A solid foundation is important



Generally a 6" perimeter foundation, approximately 4" above grade, with a depth below frost level will suffice. Foundation materials include concrete, concrete block, railroad ties or treated timber on gravel. For the greenhouse floor, gravel on dirt is best. The aisle can be concrete, patio blocks, stone or bricks set in sand.



Shipping

Our greenhouses are carefully packed in wooden crates for maximum protection. Shipment is via truck with freight prepaid, not C.O.D or freight collect.

Building codes

Local codes and code interpretations vary greatly between areas, so it is the responsibility of the buyer to ensure compliance. Should you choose to obtain a permit, get it *before* your greenhouse is manufactured in case there are extra requirements to be met. We will do our best to help you through the process.



Installation (set up)

Sturdi-built greenhouses are designed for do-it-yourself installation. Our prefabricated greenhouses are shipped with pre-assembled end walls and pre-hung doors. Roof and side wall components are precision precut, ready for assembly into sections. Many greenhouse kits are built like erector sets, one piece at a time. We have improved on this concept by building sections first and then assembling the complete structure. This way most of the work is at ground level instead of on a ladder. If you like building things it is a fun project, if not, we suggest you hire help.



With many variables, each greenhouse is unique and must be individually designed and equipped. This is truly what separates Sturdi-built Greenhouses from the rest. We have 50 years of experience in thousands of different situations.

- Rick Warner, Owner



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