



5000 Board Foot Container Lumber Kiln Plans List by Global Energy

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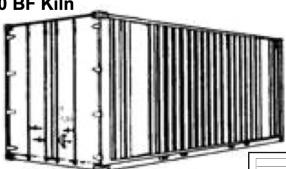
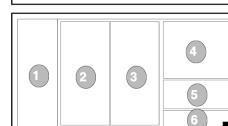
<https://globalmicroturbine.com/5000-bf-container-lumber-kiln-plans-list-by-global-energy.html>

List of the plans for the complete assembly of a 5000 lumber dimensional slab wood firewood or high temperature kiln.



This webpage QR code

PDF Version of the webpage (maximum 10 pages)

GLOBAL CONTAINER KILN INSTALLATION DRAWINGS		Completion Steps
<p>5,000 BF Kiln</p>  <p>FOLLOW THESE PROCEDURES</p> <ol style="list-style-type: none"> 1. Review the Drawings 2. Read the Installation and Overview Notes 3. Measure Twice / Cut or Install Once 4. Additional Information Can be Obtained From Global Energy 5. Assistance Phone Numbers are Provided for Start-Up and Installation Help 6. Use Detailed Parts list for Component Identification-- replacement, returns,etc. <p>Global Kiln Overview and Component Installation Drawings</p> <p>How to Use this Blueprint/Drawing Guidebook</p> <p>TOP</p>  <p>BOTTOM</p>  <p>Note: Each Component Installation page has its own electrical wiring diagram</p> <p>Completion Steps</p> <ol style="list-style-type: none"> 1. Drawings <ul style="list-style-type: none"> • Blueprints • Manufacturer Suggested Installation • Dimensions • Fasteners 2. Completion Steps <ul style="list-style-type: none"> • Order / Progression <p>BOTTOM</p> <ol style="list-style-type: none"> 1. Installation Overview Notes 2. Detailed Guidelines 3. Detailed Guidelines 4. Additional Information 5. Parts List for Section 6. Assistance Phone Numbers <p>Completion Steps</p> <ol style="list-style-type: none"> 1. GENERAL <ul style="list-style-type: none"> • Insulation • Dimensions / Layout 2. FAN RACK <ul style="list-style-type: none"> • Fan Rack View and Assembly • Wiring & Conditioning System • Baffles 3. KILN HEATING COILS <ul style="list-style-type: none"> • Location / Mounting • Hot Water • Wiring 4. VENTS <ul style="list-style-type: none"> • Vent Location / Mounting • Wiring 5. CONTROLLER <ul style="list-style-type: none"> • Location/Mounting • RTD Mounting • Wet Bulb / Humidity Sensor 6. CONTROLLER OP <ul style="list-style-type: none"> • Overview / Guidelines 7. PANEL DESIGN <ul style="list-style-type: none"> • Electrical Panels Mounting 8. MATERIALS & PARTS LIST 9. KILN START-UP <ul style="list-style-type: none"> • Start-up & Operation • Operational Considerations 		

We've gone to a 8 1/2 x 11 page format so that our customers can easily print out plans, and so that we can fax or email .pdf changes and updates as necessary.

Lumber • Firewood • Heat Treating Pallet

Global Container Kiln Kit

Kiln Drawings : Plan View

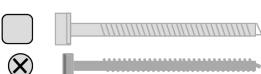
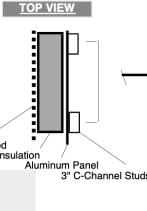
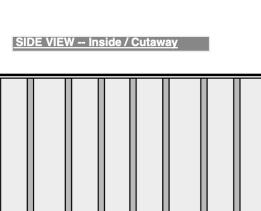
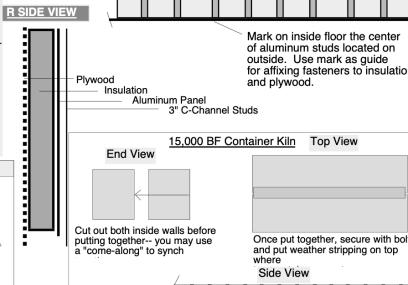
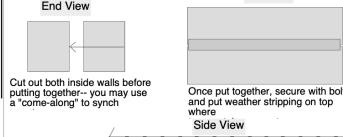
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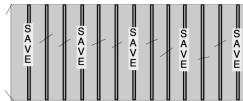
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1. GENERAL		Global Kiln Kit	Completion Steps
Using Containers or a Prefab Building For the Kiln Chamber			
<p>24" On Center 3" C-Channel Aluminum Studs</p>			
<p>Fasteners: Fastenal TEK or Equivalent Fasteners 3" to 3 1/2" as required Recommend Stainless Steel or Roofing Screws if longer than 3"</p> <p>DIMENSIONS: • Four Corner Steel Plate Ends: 5 1/2" H • Aluminum "C" Channel studs on Container Wall: 3" 24" on center • Door Clearance: 78" W x 85" H</p> <p>Container: • Dry Freight: Hi-Cube Shipping Container : Aluminum • Outer Dimensions: 40' L x 96" H x 8' W • Inside Dimensions: 39'6" L x 89" H x 78" W • TARE: 8,710 Lb. • MGW: 67,200 • Max PL: 59,490 • Capacity: 2,295 Cu. Feet</p> <p>FASTENERS Example of Self-tapping TEK Screws and Roofing Screws</p> 	<p>TOP VIEW</p>  <p>SIDE VIEW - Inside / Cutaway</p>  <p>R SIDE VIEW</p>  <p>Mark on inside floor the center of aluminum studs located on outside. Use mark as guide for affixing fasteners to insulation and plywood.</p> <p>15,000 BF Container Kiln Top View</p>  <p>Cut out both inside walls before putting together- you may use a "come-along" to sync</p> <p>Once put together, secure with bolts and put weather stripping on top where</p>	<p>INSULATION OF KILN CHAMBER & CONTAINER PREPARATION</p> <p>1. Use 3" C-Channel Studs with kit mark and cut openings for:</p> <ol style="list-style-type: none"> Vents: 2 (see vents page for access dimensions) 15,000 BF Kiln Cut out entire interior wall (with corners). Save aluminum panels and install over insulation on each container ceiling. Cut out with Sawzaw, Circular saw with diamond cutting grinder bit or jigsaw. 2. Drill 1/2" holes in floor inside kiln - discard. Mark floor where studs are for applying fasteners/insulation. 3. A 40' Kiln Chamber will require approximately 35 sheets of 2" Thermax or equivalent insulation. Then apply 4x8' sheets. It is recommended that apply 35 sheets of 4x8' 1/2" tongue and groove plywood (treated) to protect insulation from packs. 4. Apply Thermax or similar insulation (at least 3" along with Plywood using 3" Stainless TEK Screws or Roofing Screws. You may use up to 3 1/2" without going through outside ALUM. stud. Recommend using 3" C-Channel studs and 3" TEK Screws. Side walls, Back, Front Doors and ceiling/roof. 5. Cut out Vent Holes, Spray entire inside of kiln with water-sealant (Such as Thinner) 3 coats, especially the floor. Drill several 3/8" Holes in floor for drainage. <p>Using A Building</p> <ol style="list-style-type: none"> 1. Be sure to leave at least 3 feet vertical height for kiln back and sides. 2. Insulate and put down a vapor barrier if you have a concrete floor or pad. 3. Insulate to at least R-14. 4. Use any standard door, including roll-up, garage or even hanger door. Insulate well, may use Reflectix or other bubble-pack aluminum insulation. 	

Note: Try to use Stainless Steel to prevent corrosion. Most TEK Screws do not exceed 3 1/2" in length -- substitute roofing screws for thicker insulation. Both drive nicely into the aluminum skin of the container. RECOMMEND: Fastenal Fasteners® PASTENAL CC

Leave every third vertical support in, or cut entire wall out and install at least four (4) vertical.



GENERAL

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1a GENERAL	Global Kiln Kit	Completion Steps
<p>5,000 BF Kiln</p> <p>BEFORE YOU BEGIN...</p> <ol style="list-style-type: none"> 1. Unpack and check that all component and parts with PACKING LIST. 2. If there are any damaged parts, please note and fax or call Global with part number and a new part will be forwarded immediately to your location. 3. Thoroughly read this Blueprint & Drawing Guide before you start cleaning, installing or moving the components. While the set-up and installation is very basic, it is important to have a working knowledge of exactly how and where the parts fit together. 4. If you do not understand any of the component installation, please call Global or the numbers listed for assistance. 5. If you have a suggestion or improvement for the Global Container Kiln we would appreciate those comments to make installation for others more simplified. 6. It is very important to follow Building and Electrical Codes for your area. If you are not sure of the Codes, please contact your local mechanical or electrical contractor. 7. When using Bolts be sure to use LOC WASHERS on all bolts. Vibration will back off bolts without lockwashers. <p>Set Up</p> <p>The kiln chamber itself provides a insulated capsule for the lumber to dry in. The chamber must be able to withstand the moderately high temperature and high humidity which accompanies drying lumber.</p> <p>When your Container Kiln arrives try to set it down exactly where you want it. Since the Container itself weighs 10,000 lb., moving it may be an inconvenience without heavy lifting equipment.</p> <p>You may set the Container down on a cement pad or on ground with the support of railroad tie timbers supporting the corners. It is important to have the Container level.</p> <p>Upon opening the Container thoroughly sweep out the interior. Next remove any plywood protective covering on the walls. Use a sharp utility knife to cut. Discard the plywood. It is convenient at this time to put some packing grease on the hinges of the doors. This will make the doors swing open and shut without any friction.</p> <p>Next you will want to mark the centers of the aluminum studs on the walls. Do this by using a very heavy black marker or wax pencil. Make sure the pencil is perpendicular to the wall where the center of the stud is. You will need this reference point when installing the insulation and plywood shell. You will notice that the walls of the container are made from a aluminum "C" channel "stud" system. The studs are spaced 16" apart. There are about 24" apart (on center). This stud allows enough room to affix a TEK self-driving screw (enclosed). Use the driver attached to a simple Insulating: <i>Installing the Thermax Insulation</i></p> <p>Step 1 -- The Interior Walls: Apply insulation to the walls, starting at the end where the doors are. Leave room for the door to close shut with about 3 inches to spare for the door insulation.</p> <p>To begin start with one sheet of Thermax (insulation) and one sheet of plywood. Make sure the insulation and plywood are aligned by applying to both sides of the Thermax. Place Thermax against wall, 1/2 plywood on top, then screw into place with TEK (self driving) screws. Use 1/2" hex head screws. Use 1/2" hex head screws only 1 per stud. Use your markings on the floor as a reference. Use hex driver attachment to affix screws. Affix construction adhesive into the tongue and groove or straight edge of plywood to ensure a good seal. Side, Opposite then back wall and finally to</p> <p>Note: This is for using containers as the kiln chamber, if you use a prefab building, you may skip this setup page.</p> <p>If you use your own building or use a prefab, be sure to insulate and put down a water vapor barrier on the floor.</p> <p>THERMAX Foil Face Sheathing Manufactured by Celotex®</p> <p>Manufacturing Plants: Charleston, IL; Pennsauken, NJ; Texarkana, AR; Tracy, CA</p> <p>Sales: Celotex Corporation</p> <p>PARTS LIST</p> <p>35-40 Tongue & Groove Plywood at least 1/2", Treated Preferred 4 x 8' sheets</p> <p>35 Thermax Insulation (R-14) 22" x 4 x 8' sheets</p> <p>1 Loc 3" or 3 1/4" TEK Stainles Steel</p>	<p>Global Kiln Kit</p> <p>Completion Steps</p> <p>Note: This is for using containers as the kiln chamber, if you use a prefab building, you may skip this setup page.</p> <p>If you use your own building or use a prefab, be sure to insulate and put down a water vapor barrier on the floor.</p> <p>THERMAX Foil Face Sheathing Manufactured by Celotex®</p> <p>Manufacturing Plants: Charleston, IL; Pennsauken, NJ; Texarkana, AR; Tracy, CA</p> <p>Sales: Celotex Corporation</p> <p>PARTS LIST</p> <p>35-40 Tongue & Groove Plywood at least 1/2", Treated Preferred 4 x 8' sheets</p> <p>35 Thermax Insulation (R-14) 22" x 4 x 8' sheets</p> <p>1 Loc 3" or 3 1/4" TEK Stainles Steel</p>	

Interior/Exterior Paint

After affixing the insulation and the plywood shell you will need to seal and paint the interior.

We recommend painting the interior **white** so that it is easy to see in your kiln.

First begin by thoroughly sweeping the floor of the Container. Next paint the entire inside shell of the plywood with at least two coats of white or off-white paint. Next, apply at least three coats of Thompson's Waterseal to the floor. You may wish to also paint the exterior. Wash the aluminum and paint with a good antirust machine exterior paint.

the doors. A rubber or foam gasket may be purchased at your local store for the edges.

Step 2 Interior -- Ceiling: Mark on side the studs are on the ceiling. Next you will need a step ladder and a "T" shaped 2x4 "helper" to hold the insulation and plywood in place. Make two of these Ts out of 2x4's. Make the horizontal part of the T about 12 inches in length. Make the vertical part of the T about 8 feet in length. You may prop up the ply and insulation with this simple device. Once these are in place you may affix both to the ceiling stud with TEK screws. Start from the opening end of the Container.

Drain Holes: You may find that small pools of water form inside your kiln during the kiln dry out process. This is normal. You should drill small 1/4" holes in the floor to accommodate this moisture to drain any pools which form.

Fasteners or Hooting Screws

1a GENERAL

1a

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	How to Use this Blueprint/Drawing Guidebook	
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	<small>Note: Each Component Installation page has its own electrical wiring diagram.</small>	3. KILN HEATING COILS <ul style="list-style-type: none"> • Hot Water • Heating
		4. VENTS <ul style="list-style-type: none"> • Location/Mounting • Vent Location / Mounting • Vents
		5. CONTROLLER <ul style="list-style-type: none"> • Location/Mounting • Temperature • Wet Bulb / Humidity Sensor
		6. PANEL DESIGN <ul style="list-style-type: none"> • Electrical Panel Mounting
		7. MATERIALS & PARTS LIST
		8. KILN <ul style="list-style-type: none"> • Start-up & Operation • Operational Considerations
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