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INSTALLATION CHECKLIST AND ACCEPTANCE FORM FOR HERCULES & EASY-LOAD FRONT-LOADING KILNS

Thank you for ordering an L&L Front-Loading kiln! In order to complete the process it will be necessary to complete the attached questionnaire. This form needs to be filled out by people with the most knowledge and responsibility. L&L must have this filled out form **BEFORE** the kiln is scheduled for production. You should keep a copy for your records and have it on hand when the kiln is received.

GENERAL

MODEL NUMBER: _____

Voltage: _____ Phase: _____ Fuse or Circuit Breaker Size: _____ amps

Will you be purchasing any additional accessories with your kiln order? If yes, check below:

Furniture Kit Vent System

CUSTOMER/COMPANY/INSTITUTION: _____

Person filling out this form: _____

Phone: _____

Email: _____

CONTACTS

Fill out as much of this as makes sense for your organization. Just make sure we have everyone's contact information that is involved with the kiln and may need to be contacted.

Main Contact (if different than above): _____

Phone: _____

Email: _____

Facilities (institutions and industry only): _____

Phone: _____

Email: _____

Contractor/Architect (only if involved in specifying): _____

Phone: _____

Email: _____

Other (describe): _____

Phone: _____

Email: _____

NOTE CONCERNING 480 VOLTS & UL LISTING: If 480 volts is required and the kiln is to be listed to UL499 then a NEMA1 control panel option must be ordered along with the 480 volt option.

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MOVING ON SITE

Moving and setting the kilns in place

All L&L front-loading kilns come on boards with shock absorbing donuts designed so you can move it from either the front or back with a pallet jack or forklift. If you use a forklift go slow and do not tilt the kiln too much.

1. Remove all the wood crating except the donut running boards. After the kiln is in position in the kiln room, raise the kiln off of the floor with a pallet jack and remove the lag screws that hold the donut running boards to the kiln base and lower the kiln to the floor.
2. Remove the steel door supports that keep the door bolted to the kiln body during shipment. There will be one or two depending on the model and are clearly marked with a red tag stating their purpose. Replace the bolts in the holes after removing the supports.
3. Open the door and carefully remove the wood and foam structure that is in place to support the arch and interior of the kiln during shipment.
4. Remove the ceramic pieces that are in the element holders to keep the elements in the holders during shipment.
5. Before the first firing make sure that the elements are seated properly in the element holders. Once the kiln is heated the elements will settle further into the element holders.

INSPECTION

Shipping inspection

The sooner any damage is found the easier it is to resolve any problems.

1. Understand the importance of inspecting the kiln for damage as soon as it is delivered.
2. Inspect the external crate for any obvious damage like broken wood.
3. Check the plastic air donuts that the skid is attached to. If the kiln has been dropped hard these will show damage and evidence of crushing.
4. Inspect the door seal. If the kiln has damage it is likely to show up in broken brick around the door.
5. If it is at all possible open the crate and open the door and look in the kiln. If you can't do this before the driver leaves at least make this your first priority.
6. If there is damage contact us immediately. Call L&L at 856-294-0077. We will contact the local agent of the transportation company immediately and an inspection will be arranged.
7. **THIS IS CRITICAL. DO NOT DISCARD ANY PACKAGING MATERIAL UNTIL YOU HAVE CAREFULLY CHECKED THE KILN FOR DAMAGE.** After that, if there is damage, you will be responsible. Once you sign for the kiln it is yours. Make your notations as specific as possible to protect yourself in the event that concealed damage is subsequently discovered.
8. Inspect kiln as soon as possible AND DEFINITELY **WITHIN 2 to 3 DAYS** –EVEN IF YOU ARE GOING TO STORE THE KILN. Claims must be filed within 2 to 3 days of receipt of goods.
9. **We suggest taking digital pictures as soon as you receive the kiln. This protects you.**
10. Hold damaged goods with any packing material undisturbed for an inspection by the carrier's agent. **DO NOT RETURN ANY DAMAGED GOODS TO L&L WITHOUT PRIOR AUTHORIZATION OF L&L AND THE CARRIER.**

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Safety Inspection

(For institutions and industry) Do you need a third-party safety or code inspection?

- Yes - No

Explain:

ELECTRICAL

See our electrical specifications to make sure your fuse and amperage available are sufficient. Also – we HIGHLY recommend actually putting a meter to your power unless you are absolutely certain of what you have. Many mistakes have been made by looking at some appliance nearby and assuming that the rating on that is what you have.

IMPORTANT NOTE: Local fire and safety codes supersede information that is provided here

Distance to Disconnect Box: ____ Feet (This should be under 15 feet according to the National Electrical Code)

Distance to Circuit Breaker Box: ____ Feet (may affect the size of the wires you need to run)

NOTE CONCERNING 480 VOLTS & UL LISTING: If 480 volts is required and the kiln is to be listed to UL499 then a NEMA1 control panel option must be ordered along with the 480 volt option.

PLACEMENT & LOCATION

L&L strongly recommends an 18" clearance to all walls. Make certain floor is not flammable. The Uniform Mechanical Code 2000 Edition states that "the sides and tops of kilns shall be located a minimum of eighteen (18) inches (457 mm) from any noncombustible wall surface and three (3) feet (914 mm) from any combustible wall surface."

The National Fire Protection Agency states that temperatures at combustible ceilings and floors be kept below 160 Deg F (71 Deg C) near industrial furnaces (which are like kilns).

Note that, when L&L tested kilns for UL, temperatures were measured 12" from the walls of the kiln and found to be safe from a flammability standpoint. However, locating a kiln just 12" from a wall may violate the Uniform Mechanical Code and possibly local fire codes, so do this at your own risk.

WALL MATERIALS

Check with local building codes for recommended non-combustible wall materials for walls that are adjacent to the kiln. Cement board, cinder blocks, and masonry tile are possible choices.

FLOORS

The Uniform Mechanical Code 2000 Edition states that "kilns shall be installed on noncombustible flooring consisting of at least two (2) inches (51 mm) of solid masonry or concrete extending at least twelve (12) inches (305 mm) beyond the base or supporting members of the kiln."

Recommended floor surfaces are cement, ceramic tile, stone, slate, cinder blocks or brick. Do not install on a wood floor or on carpet. Vinyl flooring may be combustible. Protect linoleum flooring from discoloration with a noncombustible covering.

BE VERY CAREFUL ABOUT IMPLEMENTING THESE SUGGESTIONS. Remember that the kiln is putting out heat over a long period of time and that this could very well start a fire under certain conditions. Also, if an overfiring occurs, materials like glass and glazes can be super-heated and electrically conductive, and they can melt right through the kiln floor. If there is a combustible floor, this

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could cause a fire. Also keep in mind the continued heat of the kiln can dry out combustible surfaces over time and reduce their flash point.

The NFPA 86 (Section 2-1.5 concerning Floors and Clearances) that might be construed as applicable to kilns requires that temperatures at combustible ceilings and floors be kept below 160°F (71°C). In general the NFPA recommends installing furnaces on noncombustible surfaces and has specific requirements if this is not possible.

MAINTENANCE ACCESS

Make sure you have 24" on the right side and 24" in the back to be able to perform maintenance functions on the kiln.

GENERAL DIMENSION DRAWINGS

General Dimension drawings are available on our website. See hotkilns.com/dimensions

Our location meets the above requirements: - Yes - No

Exceptions?: _____

VENT SYSTEM

All kilns should be vented. Some people have or intend to have a hood over the kiln. It is possible to have both a hood and the Vent-Sure. There are several advantages of having a Vent-Sure. You get the corrosive fumes out of the kiln using negative pressure. This means that the kiln will last longer. Uniformity is also improved. If you have both it is also possible to vent the output of the Vent-Sure into the Vent hood.

Are you getting a Vent-Sure installed on the kiln? - Yes - No

Is there a 120-volt standard wall outlet near the kiln? - Yes - No
(The Vent-Sure has a 6-foot cord but this can be hard wired or used with an extension cord if necessary)

Do you have a vent hood over the kiln area? - Yes - No

If so what is the height from the floor to the bottom of the hood? _____ inches

Is the kiln near an outside wall? - Yes - No

Is there any problem for you to make a 4" diameter penetration in the wall for the vent outlet?
 - Yes - No (If "No" have a look at our optional Multi-Mounting Bracket)

Is there good ambient ventilation to remove heat so the kiln room does not get too hot?
 - Yes - No (See hotkilns.com/calculate-kiln-room-ventilation)

OTHER

If you have sprinklers near the kiln have you checked their rating? - Yes - No
Too low a rating can cause a major and expensive problem by setting off the sprinklers. Generally speaking these are only found in institutions and industry.

Is the floor rated for the weight of the kiln? - Yes - No
(Probably only a potential issue with the Easy-Load kilns)

Are you going to have a fire extinguisher (rated ABC)? - Yes - No
This is a good idea no matter where you put the kiln.

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You should familiarize yourself with L&L's complete INSTALLATION & PREORDER INFORMATION FOR L&L KILNS (hotkilns.com/installation-checklist) for more information and guidance.

ACCEPTANCE AND INSPECTION

L&L Kiln Mfg Inc. makes great effort to ensure that our Easy-Load and Hercules line of front-loading kilns are manufactured to the highest standards of design, materials and workmanship. Due to the fact that these are so different than the more commonly used top loading kilns we have found it necessary to explain our how we ship these kilns, what to expect when you get the kiln, and what the customer's responsibilities are when the kiln is received.

Packaging

L&L goes to considerable effort to pack these front-loading kilns to prevent shipping damage. This includes the following special items:

1. We build a support cage inside the kiln interior to prevent kiln bricks from shifting and cracking – although, no matter what, some minor cracking of the firebrick is always going to be present.
2. We attach air cushions on the packing skids. (Those are the orange “donuts” you will see on the skids). These help protect the kiln from vibration during shipping.
3. We attach steel braces between the door and the case that keep the door slightly ajar from the front of the kiln so that the door does not rub against the front of the kiln. (These need to be removed to inspect and use the kiln).

We protect the outside of the kiln with wood and foam-in-place crating material to protect the outside surface and control panel.

We make sure that the kiln can be picked up and moved form either direction.

4. We make the skid larger than the outside dimension of the kiln.
5. We attach “Shockwatch” and “Tiltwatch” labels to the packaging. These can indicate whether the kiln has been subjected to rough handling during shipping.

When you take possession of the kiln

1. Examine the “Shockwatch” and “Tiltwatch” labels. If they indicate a problem note it on the Bill of Lading.
2. Remove the steel braces from the door and front of the kiln and open the door.
3. Remove the inside cage and inspect the firebrick carefully for signs of any cracking or damage. Note that there is almost always some minor patching that is done in the factory because of the nature of firebrick. This is normal. Compare with the photos in case you are uncertain. Do your best to do this when the kiln is delivered and before the driver leaves. If this is not possible do it immediately afterward even if you do not intend to move or use the kiln for a while.
4. **DAMAGES MUST BE REPORTED IMMEDIATELY. IF THERE IS ANY PROBLEM AT ALL YOU MUST CALL L&L (856-294-0077)** (preferably before the driver leaves and note any visible damage on the receiving documents). If you don't there is no recourse against the carrier who is responsible of the condition of the kiln when it is delivered. **TAKE PICTURES!! AND NOTE ON THE BILL OF LADING ANY DAMAGE.**
5. Once you accept the kiln it is not returnable.

Firebrick and Cracking

The basic material used in kilns of this nature is an insulating firebrick that can, under normal circumstances, crack and spall once it is fired. The design of the kiln is such that this will not affect the proper functioning of the kiln. Cracking is not a warranty issue, which is clearly stated in the Standard L&L Limited Warranty (see www.hotkilns.com/warranty for the full text of our limited warranty). In addition,

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although the utmost care is used in cementing the firebricks together, it is entirely possible that cracks may appear over time or immediately between cemented firebricks. Again the design of the kiln, in particular the arched top and backup insulation, prevents such cracking from becoming a performance issue when using the kiln.

The person signing this represents that they have the authority to make decisions with regard to accepting the kiln being purchased. And that they understand the conditions under which the kiln is being delivered.

Signed: _____ Date: _____

Printed: _____

Title or Position: _____