

# CHECKLIST

## Contact Info:

Name \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

## VENTILATION *(more info on pg#7)*

I would like a Vent-Sure downdraft kiln vent, and I have adequate room ventilation for heat.

I am going to manually vent the kiln and I have adequate room ventilation for heat.

## INSTALLATION *(more info on pg#8)*

I can install the kiln at least 12" away from any wall (18" is preferred) **OR** I will need a rolling stand

My kiln room floor is non-flammable

I will have a dedicated fire extinguisher or sprinkler system for the kiln room or kiln (do not locate sprinkler above kiln.)

## CONTROL OPTION

Genesis (Wi-Fi enabled touchscreen controller with free phone app, comes standard on all kilns)

DynaTrol (traditional controller still available at same price)

## STANDARDS & CODES *(more info on pg#8)*

Commercial / Institutional Use

Home Use

## ACCESSORIES & UPGRADES

Kiln Furniture Kit

Rolling Stand

Quad Elements



BROWSE ONLINE  
CLICK OR SCAN TO USE  
OUR KILN SELECTOR

VOLTS \_\_\_\_\_

PHASE \_\_\_\_\_ (single vs three phase)

CIRCUIT BREAKER \_\_\_\_\_ AMPS

DISTANCE FROM BREAKER \_\_\_\_\_ Feet

Polygonal / Round

Click An Image To View The Sizes Online

Interest in:  
(check all that apply)

OTHER

(pull-apart, industrial, etc)

Specific Model?

Small



Medium



Large



Square/Rect



Front Loading



# HOW TO CHOOSE AN ELECTRIC KILN

## TOP-LOADING KILNS

### SIZE YOUR NEW KILN TO FIT YOUR WORK

Think about size in terms of the amount of work you are going to produce and the largest piece you need to put in the kiln. Assume you will get one firing per day. The larger kilns cost less to fire per piece if fully loaded.



### HEIGHT & LOADING

Most top-loading electric kilns are 18", 22.5", or 27" high. L&L also makes kilns up to 54" high inside (and larger upon request), designed to fit any size piece or production load. You may want to consider an 18" high or 22.5" high kiln if you have trouble bending over to load.

### SHAPE & CROSS SECTION

We make several different polygonal cross sections: 9", 13.5", 16.5", 22.3", and 28" diameters. We also make square and rectangular sectional kilns up to 34.5 cubic feet (our DaVinci series).

## OTHER LOADING STYLES

### FRONT-LOADING

Some people prefer front-loading kilns for ease of loading and better insulation. L&L makes two types of front-loading kilns. The eFL Series is an affordable studio or school kiln. The Easy-Load commercial-grade front-loaders are heavier production kilns with extra insulation and larger sizes.

### PULL-APART KILNS - UNIQUE TO L&L

L&L Jupiter and DaVinci sectional kilns are designed to be adjustable in height for firing different loads. (This is not true for most other sectional kilns including the Easy-Fire). Because of the flexible cords on the Jupiter and DaVinci kilns and the separate control panel, the sections are extremely easy to unplug and move around.

### BELL-LIFT KILNS - UNIQUE TO L&L

See our Bell-Lift design for easy loading in a production kiln.



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ONLINE GUIDE

# VOLTAGE & POWER

## NORMAL VOLTAGE IN THE USA

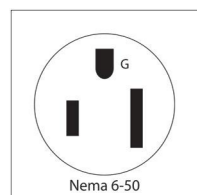
Most kilns are available in either **240** or **208 volts** and either **single** or **three phase**. Most household voltage in the United States is 240 volts single phase. Typically, only schools, institutions, and factories have 208 volts, 480 volts and/or three phase power. Check with your electrician if you are not sure what your voltage is.

## ENERGY SAVINGS?

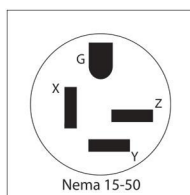
There are no energy savings for the various voltages or phases.

## 480 VOLT MODELS

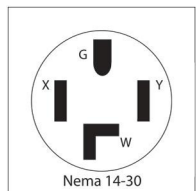
L&L makes 28" diameter Jupiter kilns, DaVinci, and Easy-Load kilns in 480-volt versions.



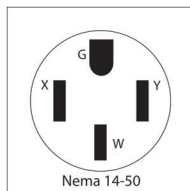
Typical Single Phase  
50 Amp Cord



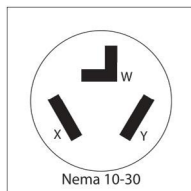
Typical Three Phase  
50 Amp Cord



Nema 14-30



Nema 14-50



Nema 10-30

See each kiln's electrical specs to see which option comes with your selection

## ORDERED THE WRONG KILN VOLTAGE?

*The kiln will not operate properly.*

A 240-volt kiln will lose 25% of its power when operated on 208 volts. A 208-volt kiln operated on 240 volts will draw too much power and trip your breaker. You may have to change elements and a power cord if you order the wrong voltage or phase (this is easy to do on an L&L if it happens).

## INTERNATIONAL VOLTAGES

Voltage outside the United States is typically 220 single-phase or 380 three-phase. We make special elements for both 220 volts and 380 volt/3 phase at no extra charge. All models work on either 50 or 60 Hz.



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## MAINTENANCE & DURABILITY

### CONSIDER THE COST OF MAINTENANCE

No matter how hard you use your kiln, you will want a kiln that is built from the ground up to be easy-to-maintain. Although the exact cost of maintenance savings is hard to calculate, owning an L&L can add up to significant savings in time and money, due to unique durability and easy-maintenance features.

### THE PROBLEM WITH MOST KILNS

In most electric kilns, elements lie in grooves routed in the soft firebrick. The elements are often pinned in for further support. After one or two element changes and a few years, the fragile firebrick starts to fall apart and pins become the primary element support. It only takes one accidental bump with a kiln shelf to permanently damage a kiln around the element groove.

### WHAT ABOUT PINS?

Pins can actually make the problem worse because as they expand and contract (at a different rate than the brick) the pins fracture the firebrick more.

### L&L SOLVES THESE PROBLEMS

L&L's proprietary hard ceramic element holders add years to the life of your kiln by protecting the fragile firebrick during element changes and from accidental bumps. Protecting both the elements and interior of the kiln and eliminating the need for pins. Without pins, your elements have the freedom to expand during firing, reducing strain on the elements and prolonging their life. Our element holders also make element changes fast and easy: there is no need to take the kiln apart, no pins to install, and no difficult crimping with special tools.



**ELEMENT HOLDERS**  
SCAN TO LEARN MORE  
ABOUT OUR CERAMIC  
ELEMENT HOLDERS

# ELEMENTS & ZONE CONTROL

## TYPES OF ELEMENTS

### HEAVY-DUTY ELEMENTS

Low-watt density and heavy-gauge elements are included on all L&L kilns.

### QUAD ELEMENTS

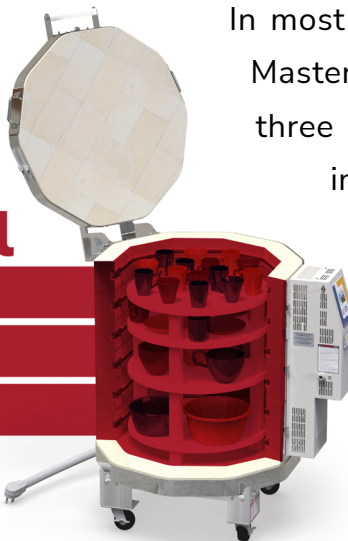
The combination of large 1/2" diameter element coils, the doubled surface area of the Quad element design, and the superior heat transfer of L&L's proprietary ceramic element holders, quadruples element life in high-fire and production kilns. Standard on JH and eQuad-Pro models, optional on many other models.

### APM ELEMENTS

APM alloy elements are available for extreme firing conditions like long high-fire soaks.



**3** Zone Control



## SINGLE-ZONE VS MULTI-ZONE

### THE PROBLEM WITH GRADED ELEMENTS

Many kilns on the market have all elements controlled as one zone. Typically in such designs, the elements are graded in power output from top to bottom (to adjust for temperature differences due to greater heat losses at the top and bottom). You cannot adjust for varying load conditions (which makes loading more complicated). Also, as elements age and lose power output (at varying rates) the built-in adjustment will shift and the kiln becomes more uneven. (Note: our School-Master kilns, designed specifically for low-fire, is the exception in our kiln line.)

### ZONE CONTROL IS MORE EVEN

In most L&L kilns (except for School-Master & Doll kilns), there are two or three separate zones controlled by individual thermocouples. The controller automatically adjusts the zones.

**ZONE CONTROL**  
SCAN TO LEARN MORE  
ABOUT OUR MULTI-ZONE  
CONTROL





# TEMPERATURE RATING, KILN FURNITURE, ROLLING STAND

Current Firing: Glaze

200  
800  
600

## **TEMPERATURE RATING**

### **DO YOU NEED A CONE 10 KILN?**

Many electric pottery kilns can fire up to Cone 10. This is primarily a function of the kiln power available. Even if you are not going to fire the kiln to Cone 10 you will still benefit from the higher power available. As elements age, the kiln firing will slow down. If you start with a more powerful kiln you will get more life out of your elements.

### **FIRING ABOVE CONE 10?**

See our special JH Series kilns for Cone 12 operation.

### **ROLLING STAND FOR TIGHT SPACE**

L&L's rolling kiln stand features heavy gauge (14-GA) aluminized steel construction with multiple bends for extra strength, rubber swivel locking casters, integrated vent collection box mounts, and guide posts for the kiln. Each size is fitted to the kiln.



## **KILN FURNITURE**

### **HIGH ALUMINA HIGH-FIRE SHELVES**

L&L shelves are made of strong, dense, press-molded (not cast) high alumina cordierite body designed for high fire with little warping.



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# KILN VENTILATION

## WHY VENT A KILN?

A powered kiln vent eliminates the need to crack the kiln lid to manually vent the kiln. Carbon, carbon monoxide, sulphur, water vapor, and other fumes are generated from firing clay and glazes. The fumes can damage the kiln or your ware and can be hazardous. A powered vent removes these fumes from your kiln and your kiln room.

## USE THE VENT-SURE DOWNDRAFT VENT

A downdraft vent that attaches directly to the kiln stand promotes kiln uniformity, extends element life, and improves glaze colors. It keeps fumes under vacuum and the motor is kept away from the heat of the kiln.

## ROOM VENTING

A room vent or open window is also recommended. Aim for room ventilation of at least 10-25 times the cubic feet of the kiln per hour. For example, if your kiln has a volume of 10 cubic feet, you should aim for 250 cubic feet of ventilation per hour (about 4 cubic feet per minute).

## DO YOU NEED A VENT CONTROL?

A vent control system allows the controller to turn the vent on and off during the program. This gives you more control over the firing and allows you to reduce the amount of air vented from the kiln and the room. Most fumes are produced at specific times during the firing process.

## CAN YOU VENT 2 KILNS WITH 1 VENT?

One vent can handle up to 20 cubic feet of kiln capacity so you could vent two 10-cubic-foot kilns (two e28T-3 kilns for instance) with one vent. You can purchase a Vent Doubler to do this.



**KILN VENT**  
SCAN TO LEARN  
MORE ABOUT OUR  
VENT SYSTEMS



# SAFETY, SERVICE & SUPPORT

## SAFETY

All L&L Easy-Fire, Jupiter, DaVinci, eFL, and Easy-Load kilns are listed to UL499 Standard by MET (a national testing laboratory). This may be required in certain schools, institutions, and factories. Only a few of our kilns are not listed (JH Series, some Bell-Lift kilns, and custom kilns).



## SERVICE

Ask any kiln tech and they will say they love working on L&L kilns - they are easy to fix and require minimal maintenance. So whether you service your kiln yourself or hire a kiln tech, you will save time and money with an L&L kiln. From the hard ceramic element holders and ceramic element terminal blocks to our unique dropdown-panel design, L&L Kilns are packed with features to keep them running longer and more reliably.

## GREAT SUPPORT

Customer support is our top priority. Our dedicated team can answer any question you have, by phone or email. And we ship most parts in one to two days, to get your kiln back up and running as soon as possible.



**KILN SUPPORT**  
SCAN TO USE OUR  
ONLINE SUPPORT

