# THE PREMIUM SCHOOL KILN "SQ SERIES"

UNIQUE
DYNA-GLOW
ELEMENT
HOLDERS

Provide easier maintenance and more efficient firing of the kiln, helps prevent dusting! Firebrick lasts much longer. Safe retention of elements.

- INFINITE ZONE CONTROL Three zones of control from top to bottom - allows you to even out the heat for perfect firing results.
- 2350°F CONE 10 1287°C
  With enough power to get there!
- **✓** 3" PREMIUM FIREBRICK
- STANDARD ELEMENTS OR HEAVY DUTY ELEMENTS
- STAINLESS STEEL CASE
- "DYNA-TROL" PROGRAM CONTROL OPTION
- 2 YEAR LIMITED WARRANTY

## SAFETY FEATURES

- DAWSON KILN SITTER/TIMER
- DOUBLE SPRING COUNTER-BALANCED LID
- **V** DOOR CUT OFF SWITCH
- KEY ON/OFF SWITCH
- SAFETY LID LATCH
- SUPERIOR VENT SYSTEM
- ✓ ELECTRICAL COMPONENTS ARE UL LISTED



SAFETY DESIGNED FOR SCHOOLS AND INSTITUTIONS



FOR OVER 50 YEARS... THE KILN TECHNOLOGY LEADER

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# DYNA GLOW ELEMENT HOLDERS

## WHAT DOES IT MEAN TO YOU?



- **✓** Better Heat distribution
- **✓** Better Gradient Uniformity
- ✓ Add Years to Kiln Life
- ✓ Longer Element Life
- **✓** Longer Firebrick Life

The new design of the **Dyna Glow** element holders allows a larger diameter element to be used. This also makes it easier to replace elements.

Any number of element replacements will not affect the hard ceramic element holders or brick walls, unlike other kilns where elements are pinned into the soft firebrick grooves. All pinning problems are eliminated and full firing space is always insured.

**Dyna Glow** element holders secure and protect the elements so that the elements can not accidentally come out and cause damage to themselves, the kiln or your ware. Yet, replacement is simple.

**Dyna Glow** element holders reflect the infra-red heat instantly into the kiln and therefore operate at a lower temperature relative to the internal kiln temperature. They require less firebrick insulation to be cut out. This means L&L Kilns are more efficiently insulated than other kilns of this type. This results in better, more accurate firing, lower electrical cost, lower case temperatures and, most significantly, longer element life.

**Dyna Glow** element holders have a hard smooth surface. This allows the elements to expand and contract freely. No loose particles will fall in the kiln and ruin ware. Element life is longer because elements do not get easily snagged and bunched up (which causes hot spots and burn outs.)

# **MODEL SQ1818**

**INSIDE DIMENSIONS:** 18" (45.7 CM) Square  $\times$  18" (45.7 CM) high **EXTERIOR DIMENSIONS:** 27" (68.6 CM) wide  $\times$  31" (78.7 CM) high  $\times$  35" (88.9 CM) deep.

FIRING CAPACITY:
3.37 Cubic Feet,
5832 cubic inches,
.095 Cubic Meters

**POWER:** 6.8 K.W., 6816 watts

# 240 VOLT, SINGLE PHASE AMPS:

28.4 Amps, Fuse 30 Amps, 50 amp 6-50P cord supplied

# 208 VOLT, SINGLE PHASE AMPS:

32.7 Amps, Fuse 40 Amps, 50 amp 6-50P cord supplied

#### 240 VOLT, 3 PHASE AMPS:

16.3 Amps, Fuse 20 Amps, Direct Wire.

#### 208 VOLT, 3 PHASE AMPS:

18.9 Amps, Fuse 20 Amps, Direct Wire.

SHIP WEIGHT: 350 lbs, 160 KG



# **MODEL SQ1827**

**INSIDE DIMENSIONS:** 18" (45.7 CM) Square  $\times$  27" (68.6 CM) high **EXTERIOR DIMENSIONS:** 27" (68.6 CM) wide  $\times$  40" (101.6 CM) high  $\times$  35" (88.9 CM) deep.

FIRING CAPACITY: 5.06 Cubic Feet,

8748 cubic inches, .143 Cubic Meters

**POWER:** 8.4 K.W., 8424

watts

# 240 VOLT, SINGLE PHASE AMPS:

35.1 Amps, Fuse 40 Amps, 50 amp 6-50P cord supplied

# 208 VOLT, SINGLE PHASE AMPS:

40.5 Amps, Fuse 50 Amps, 50 amp 6-50P cord supplied

## 240 VOLT, 3 PHASE AMPS:

20.2 Amps, Fuse 30 Amps, Direct Wire.

# 208 VOLT, 3 PHASE AMPS:

23.3 Amps, Fuse 30 Amps, Direct Wire.

SHIP WEIGHT: 390

lbs, I77 KG



**Pyrometer System** 

# THE SAFEST MOST RUGGED KILN FOR SCHOOLS

- PRESTRESSED CASE DESIGN KEEPS BRICKS TIGHT The firebrick side walls and bottom are prestressed. The stainless steel case will expand and contract with all the joints (as well as firebrick cracks which may develop) and maintain a tight refractory structure. In the 10 years that the SQ SuperVent kilns have been made almost no firebrick sides have needed to be replaced!
- **OPTIONAL SAFETY SUPER VENT SYSTEM** A venting space between the brick side walls and the stainless steel sheath allows efficient venting of fumes and some of the case heat when the optional blower system is installed. The vent system can easily be added at any time. Vent motor is wall mounted away from heat for long life.
- 3" OF FIREBRICK INSULATION Finest quality firebrick. Firebrick has reflective ceramic coating - reduces dusting, aids brick life and increases operating efficiency. The shallow cut required by the unique L&L Dyna Glow element holders makes brick even more efficient.
- **HEAT RESISTANT CASE** Furnace case is stainless steel; floor is aluminized steel.
- THREE ZONE CONTROL Infinitely Variable Input Switches (top - middle - bottom) adjust thermal gradients to prevent uneven heating. Much better than simple High-Medium-Low type switches used on many kilns. Pilot lights indicate when zones are firing.

- ✓ POWER RELAYS INDUSTRIAL QUALITY WIRING All power is switched to the elements with power relays. Zone switches last much longer. Wiring connections are "positive" to stable components. Panel is well ventilated.
- DAWSON KILN SITTER/TIMER A Dawson LT3 (with back up safety timer) is included to shut kiln off. This is used as a back up with the Dyna-Trol.
- **KEY LOCKING ON/OFF SWITCH** Prevent unauthorized use of kiln.
  - **DOOR CUT OFF SWITCH** Door switch automatically shuts power off to the elements when the door is opened - an important safety feature!
- ✓ SAFETY SPRING LOADED COUNTERBALANCED LID Lift lid with one hand. No back strain!
- SAFETY LID LOCK AND LOCKING LID LATCH There is a thumb screw latch that locks lid in open position. Prevents lid from falling while loading. There is a latch to close the lid. This has a hasp for locking with a pad lock.
- ✓ LARGE DIAMETER PEEPHOLES Full one inch diameter front to back (not tapered) peepholes with insulating plugs for ventilation and cone sighting. These allow greater visibility into kiln.
- SERVICE AND QUALITY WITH TWO YEAR WARRANTY Ask anyone about L&L's unsurpassed 50 year reputation for service and quality products. 2 Year Limited Warranty.

# **MODEL SQ2418**

INSIDE DIMENSIONS: 24" (61 CM) Square x 18" (45.7 CM) high

EXTERIOR DIMENSIONS: 33" (83.8 CM) wide x 31" (78.7 CM) high x 41" (104.1 CM) deep.

FIRING CAPACITY: 6 Cubic Feet, 10,368 cubic inches, .169 Cubic Meters

POWER: 10.0 K.W., 10,000 watts

240 VOLT, SINGLE PHASE AMPS: 41.6 Amps, Fuse 50 Amps,

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50 amp 6-50P cord supplied



# 24.0 Amps,

Fuse 30 Amps, Direct

208 VOLT, 3 PHASE **AMPS:** 27.7 Amps,

Fuse 30 Amps, Direct Wire.

SHIP WEIGHT:

420 lbs, 190 KG

# MODEL SQ2427

INSIDE DIMENSIONS: 24" (61 CM) Square x 27" (68.6 CM) high

EXTERIOR DIMENSIONS: 33" (83.8 CM) wide x 40" (101.6 CM) high x 41" (104.1 CM) deep.

FIRING CAPACITY: 9 Cubic Feet, 15,552 cubic inches, .254 Cubic Meters

POWER: 13.0 K.W., 13.000 watts

## 240 VOLT, SINGLE PHASE AMPS:

54.0 Amps, Fuse 60 Amps, Direct Wire.

## 208 VOLT, SINGLE **PHASE AMPS:**

63.0 Amps, Fuse 70 Amps, Direct Wire.

#### 240 VOLT, 3 PHASE AMPS:

31.2 Amps, Fuse 40 Amps, Direct Wire.

#### 208 VOLT, 3 PHASE AMPS:

36.3 Amps, Fuse 40 Amps, Direct Wire.

SHIP WEIGHT:

460 lbs, 208 KG



# EASY TO USE OPTIONAL "DYNA-TROL"

The DYNA-TROL packs a tremendous amount of precision and power in an easy to use reliable package.

The DYNA-TROL features an "Easy-Fire" cone fire mode:

- Press "Slow Bisque", "Fast Bisque", "Slow Glaze" or "Fast Glaze".
- 2 Enter your end cone number and then "ENTER".
- 3 Enter an optional "Hold" time. Enter an optional "Delay Start" time.
- 4 Press "START" and you are on your way!

Or use the separate sophisticated "Vary-Fire" Programmer: This allows you to have 6 separate repeatable storable programs with up to 8 segments (cooling or heating ramps, temperature setpoint and an optional hold time per segment). The DYNA-TROL allows you to soak at a low temperature for a long time (i.e. you can have an automatic drying period) and then automatically ramp up to your high fire at different rates. It also allows a controlled cool down to avoid heat shock.

Additional Features: ✓ Cone/temperature equivalent look up table

- ✓ Audible Temperature Alarm
  ✓ Program Review
  ✓ Segment Review
- ✓ Change of Program During Firing ✓ Thermocouple Burnout Protection
- ✓ Automatic Restart after brief power interruption
- ✓ Kiln temperature is digitally indicated in either degrees F or C
- ✓Adjust a "cone offset" to match your own firing characteristics
- ✓ Delay start up by up to 99 hours and 99 minutes
- ✓ Dust sealed panel is graphically designed to be user friendly
- ✓ The DYNA-TROL control is made under license from Orton (Patent #4,461,616 and 4,730,101)

## UNIQUE OPTIONAL VENT SYSTEM **VENTS THE WHOLE CASE**

**ENTER** 

Review

Program

Slow

**Bisque** 

Fast Bisque

Glaze

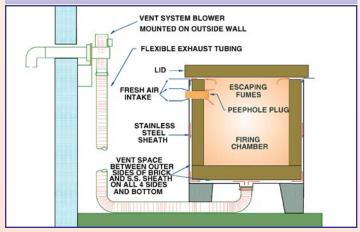
Fast

Glaze

Segment

S

R



## CHOICE OF ELEMENTS YOU CAN IMPROVE ELEMENT LIFE

## STANDARD ELEMENTS

Programs

STOP

**VARY-FIRE** 

PROGRAMMER

RECALL

Delay

Alarm

Othe

Cone

Table

ENTER

0

P

T

0

N

S

Standard elements are finest grade Iron-Aluminum-Chrome alloy. They offer excellent life under normal conditions.

## **OPTIONAL HEAVY DUTY ELEMENTS**

The new larger crossection Dyna Glow element Holders allow L&L to offer a larger diameter, heavier gauge and lower watt density element for demanding applications such as constant production firing, long soaks and very high temperature firing. Elements can be upgraded at anytime. Power ratings (watts and ohms) are the same for both types of elements, making them interchangeable.

## TRU-VIEW PYROMETER SYSTEM ALLOWS YOU TO SEE & ADJUST GRADIENTS

The TRU-VIEW P3 pyrometer system, with three thermocouples and a selector switch allows you to "see" the temperature gradients in your kiln and adjust them out with the three infinite switches. It can also act as a check against your Dawson Kiln Sitter. Another important advantage is that you may place your load to best advantage without regard to temperature differences. Perfect firings are possible at all times. Pyrometer has a heavy duty bakelite case with precision ALNICO magnetic mechanism.



## CHOICE OF VOLTAGE TO MEET YOUR REQUIREMENTS

## 240 OR 208 - SINGLE OR THREE PHASE

Kilns can be ordered with either 240 or 208 volts in single or three phase. It is important to order the correct voltage and phase. (If not elements and switches need to be changed in the field). L&L uses different elements for the two voltages which insures full rated K.W. power and proper heat up times. A 240 volt kiln will have about 25% less power than it should if operated on 208 volts resulting in slow heat up times. Special 220 volt single phase and 380 three phase versions for overseas are available.