# **School-Master**

**Top-Loading Kilns made for K-12 Schools** 

The School-Master Kiln Series was designed with the One-Touch™ Intuitive Kiln Control specifically with busy school teachers in mind. One touch and you are ready to fire the bisque and glaze programs most often used in K-12 schools. No programming is necessary. Simple adjustments are easy (like cone level, heating and cooling speed, hold time and delay time), yet sophisticated programming is also possible.



- Ceramic Element **Holders**
- Simple Control
- Easy-Service Panel
- Protected **Thermocouple**
- Spring Hinge
- Super-Strong Stand
- Extended Warranty





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**KILNS BUILT TO LAST** 

Bulletin No: SM-0520



# **Unique Features - Lasting Benefits**

#### **CONE 6 TEMPERATURE RATING**

Cone 6, 2230°F, 1220°C (cone 5 on SM28T-3, 208 volts, single phase)

#### **CHOICE OF INSULATION**

Choice of 2.5" or 3" K23 firebrick. (3" only on SM28-3 Model).

#### PATENTED CERAMIC ELEMENT HOLDERS

Protect brick from loading damage, keep elements from falling out of grooves, make changing elements easy, and optimize heat transfer to load. Kiln lasts longer! No pins. (hotkilns.com/ceramic-holders)



#### **BRICK COATING FOR DURABILITY**

Proprietary reflective brick coating. This helps firebrick stay strong on the surface, helps prevent dusting on your work, and keeps the kiln clean inside. (hotkilns. com/reflective-coating)

#### **HEAVY-DUTY LARGE ELEMENTS**

Six heavy-duty elements. Elements are graded for uniformity.

#### **EXTRA CASE CLAMPS**

Stainless worm gear case clamps keep case together and allow for adjustment over time. Three per 9" ring, Two on the top and bottom. (hotkilns. com/case-clamps)

#### "EASY-OPEN, EASY-LOAD" SPRING-LOADED LID OPENS WIDE FOR LOADING

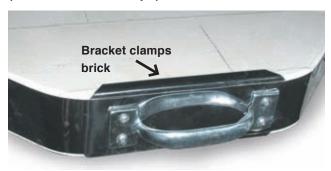
The whole kiln supports the lid (not just one section). Our positive safety pin secures the lid safely. No support bars get in the way of loading when the lid is fully tilted back. (hotkilns.com/spring-hinge)





#### LID BRICK IS SECURED WITH CLIPS

Stainless Steel clips secure lids - not friction. (hotkilns.com/lid-clips)



#### **EASY ASSEMBLY WITH SECTIONAL** CONSTRUCTION

Three 9" sections stack on top of each other. Easy to assemble or disassemble for moving. Bottom is reversible. (hotkilns.com/sectional-easy-fire)

#### **CORROSION RESISTANT CONSTRUCTION**

Stainless steel wrapped around brick. All stainless screws on case. Stand is galvannealed. Vent parts are stainless steel. Hinge is stainless steel. Control box is powder coated steel. (hotkilns.com/case)

#### **SOLID PEEPHOLE PLUGS**

Non-fragile solid ceramic with heat-locked head. 1" diameter full-view non-tapered.

(hotkilns.com/peephole-plugs)



#### **HEAVY-DUTY FULL-SUPPORT STAND**

Heavy-duty 14 gauge solid stand with multiple bends for strength. Bolt on legs. Feet protectors included. Optional Vent Bypass Collection Box bolts onto bottom of stand with included studs.

(hotkilns.com/full-stand)







### School-Master Electric Kilns

#### **ONE-TOUCH PROGRAM CONTROL**

Control: One-Touch™ Intuitive Kiln Control easily fires the bisque and glaze programs typically used in schools. It is also easy to adjust simple parameters like cone, delay, hold, heat-up and cool-down rates. Also four custom ramp/hold programs with 8 segments each. (hotkilns.com/one-touch)



# HEAVY-GAUGE TYPE K THERMOCOUPLE PROTECTED WITH CERAMIC TUBE

Type K 8 gauge thermocouple is protected by a ceramic protection tubes. (hotkilns.com/protected-thermocouples)



#### **POWER CORD & PLUG INCLUDED**



50 Amp NEMA 6-50 six foot cord included for one phase.



50 Amp NEMA 15-50 six foot cord included for three phase. (All Non-USA kilns are direct wired).

Same price for all voltages and phases.

#### SEPARATED COOL-FIRING CONTROL PANEL

All controls and components are mounted in a separate control panel that is piggy-backed to the element connection box. In addition a layer of insulation keeps the controls cool - which is critical for long term health of the electronics.

The control panel and element box are hinged for easy access and maintenance. The control box can be easily removed for servicing. On/off switch and control fuse are included.

(hotkilns.com/easy-fire-panel)



#### **CERAMIC ELEMENT CONNECTIONS**

Proprietary all-ceramic element connection block makes changing elements easy. (hotkilns.com/ceramic-terminal)





#### **MERCURY FREE RELAYS**

Mercury free relays are standard.

#### **COMPLETE VISUAL INSTRUCTIONS**

No one has a better or more complete instruction manual. Our visual instructions address the needs of the artist, the installer, and the repair person. You get a fully illustrated operation and service manual. Various instructional videos are available. (hotkilns.com/videos)

#### L&L KILNS ARE EASY TO TROUBLESHOOT

Open up any L&L kiln control panel and see how easy it is to check amps, element resistance, and voltage. No other kiln can be serviced as quickly, easily, or inexpensively as an L&L kiln.

#### **IN-DEPTH SUPPORT**

One customer said: "I am truly impressed with your website, it is more than informative and your products are well designed. The fact that all the information, including repair manuals, are listed, speaks well of your dedication to customer service." Our website has thousands of pages of technical help - all easily searchable - plus we provide expert support with phone and email.

#### SPECIAL FIVE-YEAR WARRANTY

See **hotkilns.com/warranty.** Email, web and phone support.

#### SUSTAINABLE MANUFACTURING

We use solar energy as our primary energy source.

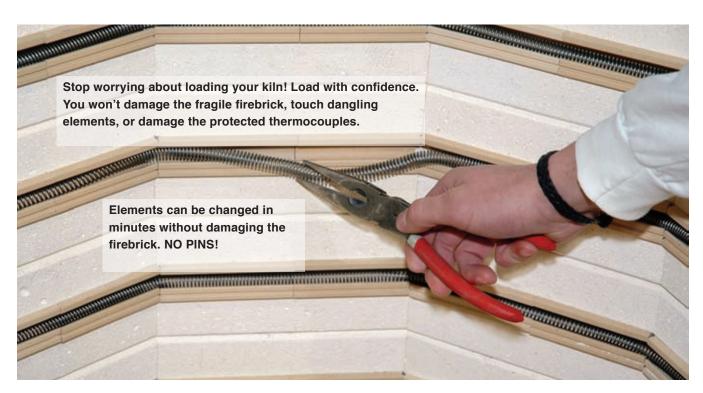
#### SUPERIOR PACKAGING

Kilns are securely packed with tubes of foam molded to the kiln. Kilns are shipped in skidded cartons.

#### **MET UL499 LISTING**



c-MET-us listed to UL499 standards assures highest safety standards. (hotkilns.com/met)





# **Kiln Furniture & Stand Options**

#### **CONE 11 FURNITURE KITS**



Shelves are high alumina cone 11 shelves. Each post kit includes six each 1/2", 1", 2", 4", 6" and 8" high 1.5" square cordierite posts. All furniture kits include one pair heat-resistant gloves.

(hotkilns.com/kiln-furniture)

#### THE POSITIVE DOOR INTERLOCK SWITCH

Features a strong mechanical latch that must be turned before the door can be opened. The turning of this latch breaks all power to the kiln as if you had used an external power disconnect switch or pulled the power cord from its socket.

(hotkilns.com/door-interlock)



#### **ROLLING STAND WITH LOCKING CASTERS**

Allows kiln to be moved out of the way while not firing. L&L's rolling kiln stand features heavy gauge (14 ga) galvannealed steel construction with multiple bends for extra strength, steel swivel locking casters, integrated vent collection box support, and guide rails for the kiln. (hotkilns.com/





#### **SEISMIC BRACE**

This special stand is designed to prevent a top-loading sectional kiln from falling over during an earthquake. (hotkilns.com/ seismic-brace)

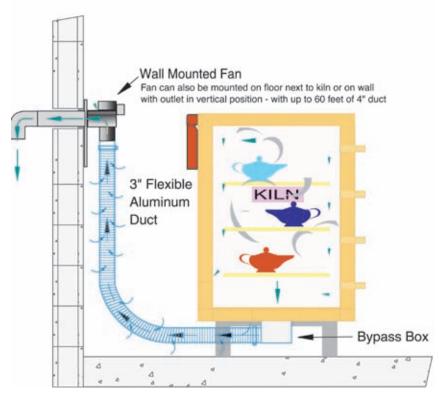
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# Ventilation Options & Accessories

#### **DOWNDRAFT VENT SYSTEM**

Vent-Sure downdraft vent vents fumes from kiln out of room and away from kiln. (hotkilns.com/vent)



#### **VENT DOUBLER**

This accessory allows you to connect two kilns to a Vent-Sure vent system. It can be added to an existing vent system or can be ordered with a new vent. In some cases you may be able to fire two kilns

at once. The
Vent-Sure has
enough force to
vent at least 25
cubic feet of kiln.
That means, for
instance, that two
SM28T-3 kilns
could be vented
while firing at
the same time.
(hotkilns.com/
doubler)



#### **VENT-SURE FEATURES**

- Downdraft venting pulls air down to bottom of kiln
- Improves temperature uniformity inside the kiln
- Powerful 130 CFM fan motor, typically mounted on wall, allows fumes to be under vacuum in your studio
- The strong fan motor helps overcome static pressure in long exhaust lines. The duct may be up to 60 feet in length, and include up to four 90° bends
- 120 volts with on/off switch on cord (240 volts available)
- 15 foot long flexible aluminum duct
- Bypass collection box mounted on kiln allows adjustment of venting.
- Fan motor, mounted away from the kiln, stays cool and no vibration is transmitted to the kiln
- The included Multi-Mounting Bracket allows you to mount the vent on the floor or, alternately, to mount the vent on a wall so that the output of the vent is pointing up.
- Three-year Limited Warranty
- c-MET-us Listed to UL499 standards for use on c-MET-us L&L Kilns

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# **Electrical Specifications**

Model Numbers	Part Number	Voltage/ Phase	Cone Limit	Watts	Amps	Wire Size	Fuse Size	Power Connection	
SM23T-240	K-S-23T2/31	240/1P	6	11,500	48.0	6 ga	60 Amps	6-50 Cordset	
SM23T-240-3P	K-S-23T2/32	240/3P	6	11,500	27.8	8 ga	40 Amps	15-50 Cordset	
SM23T-208	K-S-23T2/21	208/1P	6	9,980	48.0	6 ga	60 Amps	6-50 Cordset	
SM23T-208-3P	K-S-23T2/22	208/3P	6	11,000	30.7	8 ga	40 Amps	15-50 Cordset	
SM23T-3-240	K-S-23T3/31	240/1P	6	11,500	48.0	6 ga	60 Amps	6-50 Cordset	
SM23T-3-240-3P	K-S-23T3/32	240/3P	6	11,500	27.8	8 ga	40 Amps	15-50 Cordset	
SM23T-3-208	K-S-23T3/21	208/1P	6	9,980	48.0	6 ga	60 Amps	6-50 Cordset	
SM23T-3-208-3P	K-S-23T3/22	208/3P	6	11,000	30.7	8 ga	40 Amps	15-50 Cordset	
SM28T-3-240	K-S-28T3/31	240/1P	6	11,500	48.0	6 ga	60 Amps	6-50 Cordset	
SM28T-3-240-3P	K-S-28T3/32	240/3P	6	16,620	40.2	6 ga	60 Amps	15-50 Cordset	
SM28T-3-208	K-S-28T3/21	208/1P	5	9,980	48.0	6 ga	60 Amps	6-50 Cordset	
SM28T-3-208-3P	K-S-28T3/22	208/3P	6	14,340	40.0	6 ga	50 Amps	15-50 Cordset	
WORLD VOLTAGES									
SM23T-220	K-S-23T2/41	220/1P	6	10,560	48.0	6 ga	60 Amps	Direct Wire	
SM23T-380-3PY	K-S-23T2/42	380/3PY	6	11,400	17.7	12 ga	25 Amps	Direct Wire	
SM23T-3-220	K-S-23T3/41	220/1P	6	10,560	48.0	6 ga	60 Amps	Direct Wire	
SM23T-3-380-3PY	K-S-23T3/42	380/3PY	6	11,400	17.7	12 ga	25 Amps	Direct Wire	
SM28T-3-220	K-S-28T3/41	220/1P	6	10,560	48.0	6 ga	60 Amps	Direct Wire	
SM28T-3-380-3PY	K-S-28T3/42	380/3PY	6	15,058	24.2	8 ga	40 Amps	Direct Wire	

MET UL499 Listing: All models are c-MET-us listed to UL499 standard. .

Power connection: A six foot cord with a 50 amp NEMA 6-50 for single phase units or a 15-50 plug for 3 phase units is included. (No neutral is necessary). World voltage kilns do not include a cord - they are direct wired. All kilns may be direct wired.

Wiring Diagrams: See hotkilns.com/wiring-diagrams for wiring diagrams.

Other voltages for any country in the world are available. Examples are 200V/3 Phase Delta, 220V/3 Phase Delta, 415V/3 Phase Wye and 400V/3 Phase Wye. CE Listing available in some countries. See 380 Volt diagrams for electrical specifications for 400V/3 Phase Wye and 415V/3 Phase Wye.

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# **Dimension & Weight Specifications**

Model Number	Inside Dimensions	Cubic Feet	Brick Thick	Furniture Kit	Furn Kit Part No.	Outside Dimensions	Shipping Dimensions (w Kit)	Ship Wght Kiln Only	Ship Wght Kiln + Kit		
SM23T	23.3"D x 27"H	7.0	2.5"	(2) 21" full, (4) half	H-E-K23T/00	30" W x 68" H x 40" D	48" W x 60" H x 40" D	360 lbs	460 lbs		
SM23T-3	22.3"D x 27"H	6.7	3"	(2) 20" full, (4) half	H-E-K23T/30	30" W x 68" H x 40" D	48" W x 61" H x 40" D	380 lbs	470 lbs		
SM28T-3	28"D x 27"H	10.2	3"	(8) 25.5" half	H-E-K28T/00	35" W x 74" H x 46" D	48" W x 61" H x 40" D	480 lbs	615 lbs		
METRIC DIMENSIONS (CM, LITERS & KG)											
SM23T	59.2 D x 68.6 H	199	6.35	(2) 53.3cm full, (4) half	H-E-K23T/00	76 W x 173 H x 102 D	122 W x 153 H x 102 D	163 KG	209 KG		
SM23T-3	56.6 D x 68.6 H	190	7.62	(2) 50.8 cm full, (4) half	H-E-K23T/30	76 W x 173 H x 102 D	122 W x 155 H x 102 D	172 KG	213 KG		
SM28T-3	71.1 D x 68.6 H	289	7.62	(2) 50.6cm full, (4) half	H-E-K28T/00	89 W x 188 H x 117 D	122 W x 155 H x 102 D	218 KG	279 KG		

MORE: See each model page on hotkilns.com to download PDF General Dimension Drawings for more outside and inside dimensions, minimum space requirements, BTU ventilation requirements, and kiln weight. See the Shipping Tab on the model page for complete shipping dimension and shipping weight information.

Moving and installation: The kiln comes assembled but can be quickly disassembled and reassembled to move through any door or up stairs. It comes packed in a skidded carton with secure foam-in-place packaging.



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# **SM23T**

Temperature Rating: Cone 6

Volume: 7 Cubic Feet

**Brick Thickness: 2.5" Brick** Inside: 23.3" Diam x 27" High

Outside Dimensions: 30" W x 68" H x 40" D

Shipping Dim with Vent & Furn Kit: 48" W x 60" H x 40" D

Ship Weight (Kiln): 360 LBS

Ship Weight (Kiln, Vent & Furn Kit): 460 LBS



#### **FURNITURE KIT FOR SM23T**

Part Number: H-E-K23T/00

Includes: Two 21" (53.3 cm) full shelf and four half shelves, One post kit with 6 each 1/2", 1", 2", 4", 6", and 8" square posts, and one pair heat resistant gloves.







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# **SM23T-3**

Temperature Rating: Cone 6

Volume: 6.7 Cubic Feet Brick Thickness: 3" Brick Inside: 22.3" Diam x 27" High

Outside Dimensions: 30" W x 68" H x 40" D

Shipping Dim with Vent & Furn Kit: 48" W x 61" H x 40" D

Ship Weight (Kiln): 380 LBS

Ship Weight (Kiln, Vent & Furn Kit): 470 LBS



#### **FURNITURE KIT FOR SM23T-3**

Part Number: H-E-K23T/30

Includes: Two 20" (50.8 cm) full shelf and four half shelves, One post kit with 6 each 1/2", 1", 2", 4", 6", and 8" square posts, and one pair heat resistant gloves.









# **SM28T-3**

Temperature Rating: Cone 6 (except for 208 volt, single phase)

Volume: 10.2 Cubic Feet Brick Thickness: 2.5" Brick Inside: 28" Diam x 27" High

Outside Dimensions: 35" W x 74" H x 46" D

Shipping Dim with Vent & Furn Kit: 48" W x 61" H x 40" D

Ship Weight (Kiln): 480 LBS

Ship Weight (Kiln, Vent & Furn Kit): 615 LBS



#### **FURNITURE KIT FOR SM28T-3**

Part Number: H-E-K28T/00

Includes: Eight 25.5" (25.5 cm) half shelves, One post kit with 6 each 1/2", 1", 2", 4", 6", and 8" square posts, and one pair heat resistant gloves.







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#### **What Makes School-Master Kilns Built to Last? Reflective Coating** on all brick surfaces helps protect brick and seals pores. **Piggy-Back Control Intuitive One-**Panel makes servicing **Touch Control** easy and safe, keeps **Protected** for easy firing in a electronics cool. **Thermocouple** school environment. Spring Assisted Lid for easy opening. Includes Extra safety pin for securing in up insulation position. No side supports in panel makes loading easy. keeps electronics cool. **Hard Ceramic Element** Channels protect elements and **Molded Ceramic** fragile firebrick. Improves kiln **Element Terminals** life dramatically. Provides wider make connecting and more reflective surface for elements easy and infrared heat transmission. trouble free. Solid Ceramic Peephole Plugs with 1" diameter Heavy-Duty Fullstraight view have wide Support Stand

# **School-Master Kilns come with a FIVE-YEAR Warranty**

Chest Handles make

lifting rings easy when moving or setting up kiln.



makes kiln sturdy.

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**KILNS BUILT TO LAST** 

viewing area and won't

easily fall out or break.

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