



# ELECTRIC KILNS

Kilns and Pottery Equipment since 1943

## Alpine® Electric Kilns

Alpine® has been the premium electric fired kiln manufacturer for 60 years and continues to set the standard for high quality kiln construction, firing performance and durability. Many Alpine® kilns have been in use for 35 years and are still dependable, firing after firing.

Constant changes in design through new technology, customer suggestions and years of data on the kilns assure Alpine® purchasers of receiving the most up-to-date features for firing ease, safety and reliability. Today, Alpine® kilns are noted for

state-of-the-art electronic controls and sophisticated safety features. However, this new technology is not only available on current models. Many older Alpine® electric fired kilns may be refitted with modern controls to improve operation and meet today's stringent safety requirements.

Construction of every Alpine® kiln begins with precision cut heavy-duty structural steel (3/16) industrially welded for superior strength and stability. The shell of the kiln is then sanded and buffed for a smooth finish. A high temperature, rustproofing paint is applied to protect the kiln against moisture and heat damage prior to bricking.

Following the metal work, the kiln is bricked with 2800°F insulating firebrick. Due to health factors and the lack of durability, we do not use fiberfax lining. To provide even greater strength to the kiln, a high temperature mortar is used. The bricks are fitted and mortared by an expert mason. A layer of heat resistant insulation material is then added for maximum firing efficiency and minimum heat loss to lower energy costs and ensure high quality firings. The typical finished wall thickness of an Alpine® kiln is 7 1/2 to 8 inches. Alpine® kilns feature sprung arch construction, which means the arch extends completely out to the door opening. This allows full utilization of the inside height while firing and during loading and unloading.

Every door is recessed and custom fitted to the jamb. This allows for a tight seal for safety and optimum firing without any manual adjustments. Heavy-duty steel hinges assure extremely smooth movement of the door. Star knobs allow the door to be effortlessly secured. Two peepholes in the door provide easy access viewing.

## Technical Support

Replacement parts and upgrades are always available. Alpine® representatives are located throughout North America to provide technical assistance and service.

See [www.alpinekilns.com](http://www.alpinekilns.com) for a list of distributors.

## Planning Your Kiln Purchase

- 1) What voltage is the electric service to the building where the kiln will be located?
- 2) Will the available electric service provide 25% additional amperage above what is required by the kiln?
- 3) Is three-phase electric service available for a kiln larger than 16 cubic feet?
- 4) Where will the kiln be located?
- 5) After checking dimensions of the proposed kiln, is there complete access (through doorways, hallways, etc.) to where the kiln will be installed?
- 6) If the kiln is going to be outside in a shed type structure, will it be adequately protected from the weather?
- 7) Is there a loading dock for accepting delivery of a kiln from a common carrier truck?
- 8) If there is no dock, can you rent a heavy-duty forklift and/or do you have personnel with experience in moving heavy equipment?
- 9) If you do not have the above, can you contract for a rigger or heavy-equipment mover to unload the kiln and place it on site?
- 10) Do you have personnel that can handle electrical installations such as direct wiring a single or three phase electric kiln?
- 11) Confirm lead-time for the kiln ordered. Specify any delivery requirements.
- 12) Have you planned for adequate room around the kiln for the instrument panel, access to the control panel and enough room at the rear of the kiln to go in back and change or adjust the thermocouples?
- 13) Electrical requirements for electrical panel 110V, 20 amp.
- 14) The standard Alpine® electric kiln has the door hinged on the right (viewed facing the kiln) and controls on the right-hand side. Other configurations are available. If you require anything other than the standard kiln, contact us for a price quote.
- 15) Alpine® prefers to choose the carrier for shipment of kilns, as they must be nose-loaded in a semi-trailer for safe transport. Please contact Alpine® if you must make other shipping arrangements.
- 16) Inspect immediately upon delivery.
- 17) If there is any damage in transportation take digital pictures, call (845) 987-9589 for customer service and note on the bill of lading. Freight claims will be reviewed on an individual basis.



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### EF Series Kilns Cone 10 -2350°F

Alpine® designs, engineers and manufactures electric kilns and furnaces for those who require quality and reliability in every respect. Alpine® kilns installed more than thirty five years ago and still in use today attest to the unsurpassed quality of Alpine® products. All of the EF Series kilns are designed to fire up to 2350°F and will provide many years of dependable service in schools, institutions and potters' studios. The solid construction of Alpine® furnaces also makes them practical in industrial and commercial applications for heat treating, tempering, annealing, hardening and stress relieving.

### Construction

Materials used in construction are the best obtainable. All models are built using heavy gauge steel chosen especially for the size, weight and firing temperature of the EF Series, guaranteeing strength, stability and long life even under constant use. All models are lined with 2800°F insulating firebrick backed with a high-temperature insulating material to provide a wide margin of safety and maximum insulation efficiency. The access panel for electrical connections and contacts is hinged for convenience and a durable, enamel paint is the finishing touch on Alpine® electric kilns.

### Front Loading Features

Alpine® front-loading kilns are manufactured with a well-insulated, front-opening, swing door which moves smoothly on heavy steel hinges. The door is recessed and custom fitted to the jamb. This allows for a tight seal providing safety and optimum firing without any manual adjustments. The door is effortlessly secured with star knobs. Two peepholes on the door provide easy access viewing.

Alpine® kilns feature sprung arch construction, which means the arch extends completely out to the door opening. There are no "hanging ledges" at the door opening to interfere with loading the kiln. This allows full utilization of the inside height while firing and during loading and unloading.

### Kiln Controls

New state-of-the-art soft touch digital controller.

The use of electronic controls is the hallmark of Alpine® kilns. Electronic controls offer the user repeatable firing modes and freedom from continual kiln sitting.

### Premium

Standard on all Alpine® electric kilns:

- Soft Touch Digital Control
- Solid state relays
- Door Safety Limit Switch
- S-Type Thermocouples, optional

### Heating Elements

Electric heating elements are wound from Kanthal APM alloy wire. This alloy is recognized in the industry as the finest material available for kiln elements. The heating elements are installed in special concave slots grooved into the brick creating an outer retaining wall and eliminating the need for element holders.

### Safety

The new soft-touch digital controller has a cone-fire and ramp/hold firing modes of operation.

Critical safety features are incorporated in the design of every Alpine® kiln. The controller has a high limit shutoff and soaking capabilities to prevent over-firing. Lights on the control panel indicate when elements are on and the kiln is firing. A limit switch located in the door will cause the kiln to shut down if an attempt is made to open the door during firing.

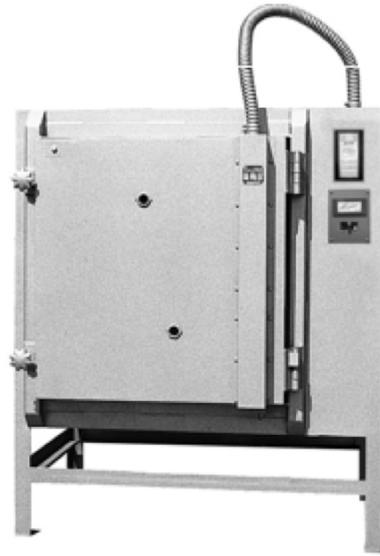
### EF Series Kiln Controller Options

- Digital Soft Touch Controller
- Touch Screen Controller
- Programmable PID Controller
- Non-programmable High Limit Controller



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MODEL NO.	EF-4	EF-6	EF-8	EF-10	EF-12	EF-16	EF-20	EF-24	EF-30	EF-40
Capacity	4 cu. Ft.	6 cu. Ft.	8 cu. Ft.	10 cu. Ft.	12 cu. Ft.	16 cu. Ft.	20 cu. Ft.	24 cu. Ft.	30 cu. Ft.	40 cu. Ft.
Temperature Range	All models fire to 2350° Fahrenheit (cone 10)									
Time to 2350°F	8-9 hours	8-9 hours	8-9 hours	8-9 hours	8-9 hours	8-9 hours	9-10 hours	9-10 hours	10-11 hours	10-11 hours
*Electrical Rating										
Volts	240-1 PH	240-1 PH	240-1 PH	240-1 PH	240-1 PH	240-1 PH	240-3 PH	440-1 PH	440-1 PH	440-3 PH
Amps	42	56	75	85	108	125	89	100	116	84
KW	10	13.5	18	20.5	26	30	37	44	51	64
Inside Kiln Dimensions	20" W x 18" D x 20" H	23" W x 21" D x 24" H	23" W x 21" D x 29" H	24" W x 21" D x 35" H	24" W x 24" D x 36" H	32" W x 24" D x 36" H	32" W x 24" D x 45" H	32" W x 29" D x 45" H	32" W x 30" D x 55" H	36" W x 34" D x 57" H
Outside Kiln Dimensions (including conduit)	45" W x 42" D x 78" H	48" W x 47" D x 78" H	48" W x 47" D x 78" H	49" W x 47" D x 82" H	49" W x 50" D x 82" H	57" W x 50" D x 84" H	57" W x 55" D x 84" H	57" W x 54" D x 84" H	57" W x 55" D x 98" H	61" W x 59" D x 100" H
Door Opening	20"W x 20" H	23"W x 24" H	23"x29" H	24"W x 35"H	24"W x 36"H	32"W x 36"H	32"W x 45"H	32"W x 45"H	32"W x 55"H	36"W x 57"H
Setter Slab Information	2- 9" x 16" for shelf size 18" x 16"	2- 9" x 20" for shelf size 18" x 20"	2- 9" x 20" for shelf size 18" x 20"	2 - 11" x 20" for shelf size 22" x 20"	2 - 11" x 20" for shelf size 22" x 20"	2 - 11" x 28" for shelf size 22" x 28"	2 - 11" x 28" for shelf size 22" x 28"	2 - 14" x 28" for shelf size 28" x 28"	2 - 14" x 28" for shelf size 28" x 28"	3 - 11" x 28" for shelf size 33" x 28"
Approximate Shipping Weight	1400 lbs.	1900 lbs.	2200 lbs.	2500 lbs.	2800 lbs.	3400 lbs.	3800 lbs.	4000 lbs.	4400 lbs.	6700 lbs.

**Crating costs: Add \$200 to freight.**

## Specifications

**\*IMPORTANT:** The above kilns can be designed to operate on voltages other than those indicated above. It is important that the voltage available be specified when ordering the kilns so that the kiln will operate properly. Please specify whether available voltage is 208 volts, 220 volts or 240 volts, single or three phase. Model EF-20 must be operated on 208 to 240 volts, three phase. Models EF-24 through EF-60 must be operated on 440 to 480 volts, single or three phase. Please specify when ordering. Models EF-6 through EF-20 are subject to an additional charge for voltage above 240 volts.

**NOTE:** Specifications are subject to change without notice.