

# STi

STi Electric Kiln | Reduction, Oxidation  
**Co.,Ltd.**



## \* STI Electric Kilns for Reduction and Oxidation firing are

### Governing Reduction Atmosphere when firing Pottery

It can create a reduction atmosphere like a firewood kiln or a gas kiln, so it provides perfect reduction firing. A reduction atmosphere occurs when the amount of available oxygen is reduced, so you can make special color potteries with STI Electric Kilns.

### Governing Oxidation Atmosphere when firing Pottery

The oxidation atmosphere occurs with an abundance of oxygen supply, which is not a neutral atmosphere like normal electric kilns. STI Electric Kilns provide sufficient oxygen in the electric kiln so that the glaze and the clay body materials oxidize.

### Providing Special Heat Circulation

The heat circulation system provides air circulation inside the kiln that is not visible in ordinary electric kilns.

### Convenient Installation

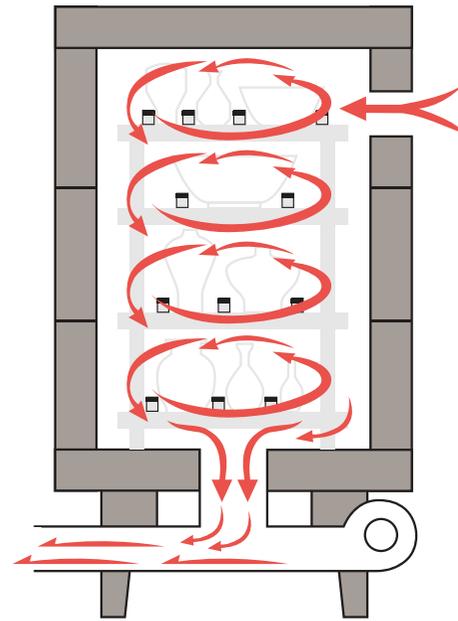
The kiln body is made of a separate assembly structure, so it can be installed in any places such as a narrow passage or a basement.

### STI Kiln is solid

The life span is long with the specially coated fireproof brick, double insulation structure, and the heat element with oxidation film treating.

### Convenient Operation

All products are equipped with automatic program controllers, which allows you to freely specify the desired temperature or maintenance time.



Heat Circulation System-Patent Registration 10-20030052635

### About Reduction firing

Types of ceramic kilns include traditional firewood kilns, gas kilns, and electric kilns.

In traditional kilns, reduction firing requires a specially designed fuel fired kiln that restricts the flow of incoming air, so the carbon generated by burning the firewood takes away the oxygen of the ceramic body and the glaze, which results different colors and visual effects.

Since the gas kiln uses the LPG gas as a reducing agent the amount of LPG gas is larger than the amount of oxygen at the time of reduction, so that the carbon of LPG gas takes away the oxygen of the ceramic body and the glaze.

In typical electric kilns, it is performed without generating any carbon, so that the reduction firing cannot be expected without carbon-based material.

Since the STI solid reducing agent is composed of minerals of carbon components, oxygen is taken away from the inside of the kiln and ceramics body and glaze.

### About Oxidation Firing

The oxidation firing of ceramics refers to the supply of oxygen to the clay and glaze, unlike the reduction firing. STI Electric Kilns are fully operated by supplying sufficient oxygen using a heat circulation device without adding reducing agents at the time of firing.



Reduction fire



Solid Reductant

Reduction

Oxidation

Before firing After firing



Solid reductant (Patent application No.0063519)



Color changes based on the reduction conditions

### We use a solid reducing agent.

STI Electric Kilns are different from a conventional reduction kiln using firewood or LPG gas for reduction. As STI electric kilns use a solid reducing agent, you can produce ceramics in a safe and convenient way without any risk. Until now, firewood kiln and gas

kiln have been widely used for reduction firing, but the installation site has become a problem. STI Electric Kilns are the products that can be easily and conveniently used by anyone indoors regardless of the places in solving the various problems of gas kilns.

### About a reducing agent

The mineral mass of the carbon component is crushed to make power, and then it is synthesized with various binders, and then re-coated to form a solid reductant through drying and heat treatment.

## \* STI Electric Kiln Parts Information

Model : DK1022(E)

- Convenient device**  
A part that allows convenient opening of the upper lid
- Heat wire**  
A part to bring the heat inside the kiln
- Fire hole**  
A part used to infiltrate air into the kiln
- Connection ring**  
A part used to connect the section rings
- Program**  
Innovative computer program
- Control panel**  
Automatic program control
- Heat-resistant brick**  
Precisely processed heat resistant insulation brick
- Moisture removal bar**  
Moisture removal
- Section-ring**  
A part that allow transport and installation to freely separate electric kilns
- Heat circulation apparatus**  
A part to circulate air inside the kiln

## \* STI Electric Kiln Specification

### Reduction / Oxidation Kiln

Model	Max.Temp.(°C)	I/D (cm)	Height(cm)	Voltage	Capacity	Vol.(m³)
DK735	1300	36	34.5	220	3	0.035
DK746	1300	36	46	220	4	0.046
DK807	1300	45	46	220/380	6	0.07
DK810	1300	45	58	220/380	8	0.10
DK1015	1300	62	46	380	8.5	0.15
DK1022	1300	62	69	380	10.5	0.22
DK1220	1300	74	46	380	10	0.20
DK1230	1300	74	69	380	12.5	0.30

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