



# Designing A Kiln Room

## SKUTT CERAMIC PRODUCTS



*Alex & Catherine Rudinsky  
owners of "Ceramica" Portland, Oregon*

*Skutt Ceramic Products* has been manufacturing quality kilns for over 40 years. Skutt kilns have become the kiln of choice for Contemporary Studios throughout the country.

Catherine and Alex Rudinsky, owners of "Ceramica" contemporary studios in Portland, have 3 locations, all firing Skutt KM1227-3 kilns. Catherine notes, "Almost every piece we fire is a gift or has special personal significance. We need perfect firing every load."

Alex agrees, "We looked at all the kilns. The KM-1227-3 fills all of our needs: convenience, large capacity, ease of programming, and most important total **reliability**. We just don't have problems with firing. In over a year of constant 24 hour a day firing cycles with our 4 kilns we have had nothing but success."

Each one of their kilns is also equipped with a Skutt Envirovent. The Envirovent uses the patented down-draft ventilation method of removing fumes from your

firing room and is UL listed system when used with a Skutt Kiln.

### Easy to Use

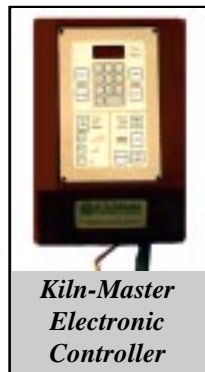
One of the reasons The KM1227-3 is so popular with contemporary studio owners is because it is so easy to use, the controller does all of the work. The sealed touchpad is laid out in an easy to understand format with single function buttons. Simply input the program you wish to fire and press start. There are no special codes to memorize

### Precision Firing

The controller cycles the kiln with precision through the various stages of maturity, slowing the temperature rate at critical stages. The result is consistent repeatable firings.

### Designed for Long Life and Ease of Maintenance

Skutt kilns are designed to handle the heavy demands of a high volume studio. Our brick is hand selected for strength and insulative properties and milled to precise specifications. Our elements are made only from high quality wire and then computer designed for maximum life. When it does come time to replace a component in your kiln you will find our patented hinged box and sectional design make it a breeze.



*The Production Workhorse.  
KM-1227-3*



# The EnviroVent

## Downdraft Ventilation System

The Skutt EnviroVent is a downdraft ventilation system designed to draw fumes from your kiln before they have a chance to escape into the room.

The vent fits easily into the stand of your kiln and the kiln then is set on the vent. The vent pulls a small amount of air through the kiln chamber via small holes that are drilled in the lid and the slab of the kiln. The contaminated air is diluted with cooler room air at a ratio of 400 to 1 and then vented outdoors just like your dryer.



Not only is the air in your firing room fresher the atmosphere in your kiln is cleaner which results in brighter glaze firings.

### We Guarantee The Quality

We understand the importance of quality which is why every Skutt kiln and EnviroVent is backed by one of the best warranties in the industry. If any part on your kiln or vent fails within the first 2 years of operation we will replace it.

## SPECIFICATIONS

### KM1227

#### Electrical Specifications

<u>VOLTS</u>	<u>PHASE</u>	<u>AMPS</u>	<u>°F TEMP</u>	<u>BTU'S</u>	<u>WATTS</u>	<u>COPPER WIRE SIZE</u>	<u>BREAKER SIZE</u>	<u>NEMA RECEPT. CONFIG.</u>
240	1 PH	48	2300	23000	11520	# 6	60 AMP	6-50
208	1 PH	48	2185	23000	9980	# 6	60 AMP	6-50
240	3 PH	29.3	2300	23000	11520	# 8	40 AMP	15-50
208	3 PH	31.7	2300	23000	1100	# 8	40 AMP	15-50

#### Chamber Dimensions

<u>Opening</u>	<u>Depth</u>	<u>Cu. Ft.</u>	<u>Width</u>	<u>Height</u>	<u>Cu/ft</u>	<u>Weight</u>
28.13"	27"	9.9	38"	41"	10.82	330 lbs

#### Shipping Dimensions

## ENVIROVENT

#### Motor

115V  
60 Hz  
1.1 Amp  
0.18 Horsepower

#### Maximum Exhaust Air Temperature

161°F - Center at end of 18" exit duct.

#### Air Flow

60 to 80 CFM  
(only 2% from kiln chamber )

#### Maximum Skin Temperature of 18" Exit Duct

120°F - 9in. from blower housing.

#### Static Pressure

.2 inches  
.4 inches for distances greater than 50 ft.



# PLANNING YOUR STUDIO

A great deal of effort and money can be saved by taking the time to properly plan the layout for your studio. The most important things to consider when laying out your kiln room are:

- Proper Kiln Clearances
- Storage For Unfired and Fired Ware
- Electrical & HVAC Requirements
- Venting Requirements
- Future Needs

## Kiln Clearances

Most building codes refer to the manufacturers recommendations when judging proper clearances from combustible walls. Skutt suggests that the kilns be at least 18" from any wall. Part of the reason for the clearance is to minimize the heat which is reflected back to the kilns circuit board. Kilns without circuit boards may be placed as close as 9" to a wall.

## Storage

It will be convenient to have shelving in the kiln room to place ware that is to be fired and ware that is unloaded from the kiln. Be sure not to place shelves above the kilns and also allow for proper clearance.

## Electrical & HVAC Requirements

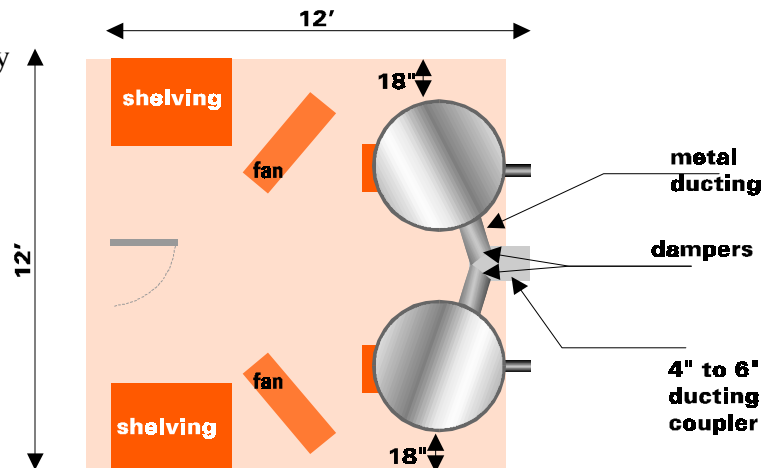
Before you can order your kiln you must determine what sort of power you have available in your building. The most common voltages are 208 volt and 240 volt. Many people think they have 220 volt power because most appliances are designed to run off either voltage and are labeled 220. To have 220 voltage is very uncommon in the USA. Have an electrician check to be sure.

If you are in the process of finding a location it would be advisable to have an electrician test the strength of the power to the building. Power supplies with low voltage can cause problems with your firing and are very expensive to remedy.

Next determine what phase power is in your building. Most residential buildings have single phase power which consists of 2 hot wires and a ground wire. Many commercial areas have 3 phase power available which consists of 3 hot wires and a ground. Either phase power supply will work.

When choosing a spot to locate your kilns try and stay within a 50 ft wire run from your breaker box. If it is necessary to run the power farther then 50 ft you will need to increase the wire gauge to the breaker box.

Make sure that the total amount of amperage available is enough to run all of the equipment and fixtures you will be using. Increasing the amperage supply to your building can be very expensive.



The KM1227-3 kilns come with a plug attached to the power cord. It will be necessary to have an electrician install a receptacle to fit your particular plug configuration.

EnviroVents will require standard 120 volt outlets within 8 ft of each kiln. It is also a good idea to have additional 120 volt outlets available to run fans. The fans will help keep the room temperature down and help the kilns cool significantly faster.

If your studio is going to be located in a location such as a mall where heating, ventilation, and air conditioning or HVAC, are shared by the whole building structure the leasing office will want to know how your equipment will effect this system. Specifically they will want to know how much heat the kilns are generating, which is measured in BTU's, and how much room air you are venting out with the EnviroVent, which is measured in CFM's. All of this information can be found in the specifications section of this pamphlet.

### Venting Requirements

The Skutt EnviroVent is easy to install. It is a lot like venting a household dryer. The vent fits easily into the kiln stand and the kiln sits right on top of it. If you order it with your kiln we can pre-drill the venting holes in the lid and slab at the factory. Be sure to mention this to your distributor. You will need enough 4" rigid or flexible metal ducting to run from the vent to the wall or ceiling where you are venting.

The fumes extracted from the kiln by the EnviroVent must be ducted outside of the building. If it is not possible to vent up through the roof be sure to locate your kiln near an exterior wall. Be sure that you do not vent directly under a window.

If you are venting more than 1 kiln it make sense to vent them all out the same hole. You will need to purchase a coupler that connects the multiple 4 inch ducts and exits them through a single duct which will be larger in diameter. The diameter of the exit duct will be determined by the number of ducts you have feeding it. Consult the manual to determine what size coupler you will need. You will want to be sure the coupler is equipped with dampers so you can close off a duct when a vent is not running.

The 4" ducting can be run up to 50 ft with a maximum of 3 bends. If you need to vent it farther than this or exceed 3 bends, it will be necessary to increase the diameter of the vent.

### Future Needs

Remember to keep in mind future growth of the business when you are planning the layout of your kiln room. Are you allowing enough room to add another kiln? Is the electrical supply designed to allow for the additional amp draw of another kiln? Are there enough outlets available for additional vents and fans? You can save a lot of frustration down the road by addressing these issues now.



For more information, contact us at  
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