

GLASS FUSING KILNS – GM1414

CLASSROOM STANDARD

The GM1414 is likely the most widely used kiln by professional glass instructors in the country. It's big, it's reliable, and it's accurate. (Shown without a Lid Lifter which is now standard. This model is no longer available without a Lid Lifter installed)



FEATURES

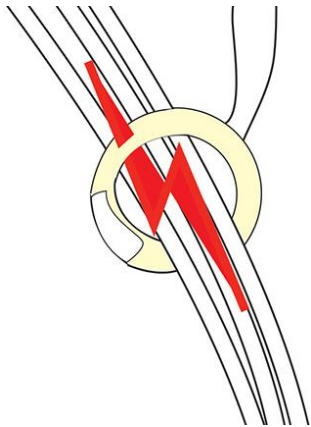
Sophisticated, Yet Easy to Use

- The **GlassMaster Controller** is the only controller on the market with **GlassFire Mode**. GlassFire Mode allows you to run a program simply by entering the type of effect you want: **Fuse**, **Tack Fuse** or **Slump** and a speed based on the size and thickness of the project. It really is that easy and it works on most projects.



- If you prefer to write your own firing programs simply use the **Ramp/Hold** programming mode which can store up to 8 of your custom programs with up to 8 Segments. When you are ready to use one of your stored programs just load it and press start.
- **Built in Diagnostics** give you or our technicians the ability to diagnose kiln problems with just a few button presses.
- **Active Keys** allow you to make adjustments to the program while it is running based on a visual inspection. The **Anneal Now** key allows you to skip to the annealing phase of the program with a single key press. **Add Time** allows you to add 5 minutes to the final heating segment of the program if your project needs more time and **Add Temp** allow you to increase the temperature in the final heating segment if you want the glass to get hotter.

Current Sensing Technology



Skutt is one of the few brands that installs a **Current Sensor in every GlassMaster Kiln**. This allows you to read the **Amperage** of each section of the kiln as well as the **Voltage** and **Voltage Under Load**. Now with the touch of a few buttons you can give those readings over the phone to your kiln repair technician so they can troubleshoot the problem and make sure they have the correct parts when they come out for the repair. This **Saves Time and Money**. Prior to the use of these current sensors someone would have to come to your house and test the amperage and voltage inside the control box with live wires exposed. This system is **Much Safer**.

Balanced Elements

As most of you probably already know, glass is very susceptible to uneven heating. The more uneven the heat is in the kiln chamber, the slower you need to fire the kiln. Side fired kiln owners understand this, and are willing to trade the disadvantages of having to slow their programs down for advantages of being able to fire on multiple levels. Our Studio Kiln Series have lid elements and side elements. This does not mean you can fire on multiple levels. The side elements are there to replenish heat on the bottom of the kiln. This not only keeps the shelf warm (which is important), it also provides for uniform heat top to bottom for artists working with deep molds and drop molds.



The Thermocouple

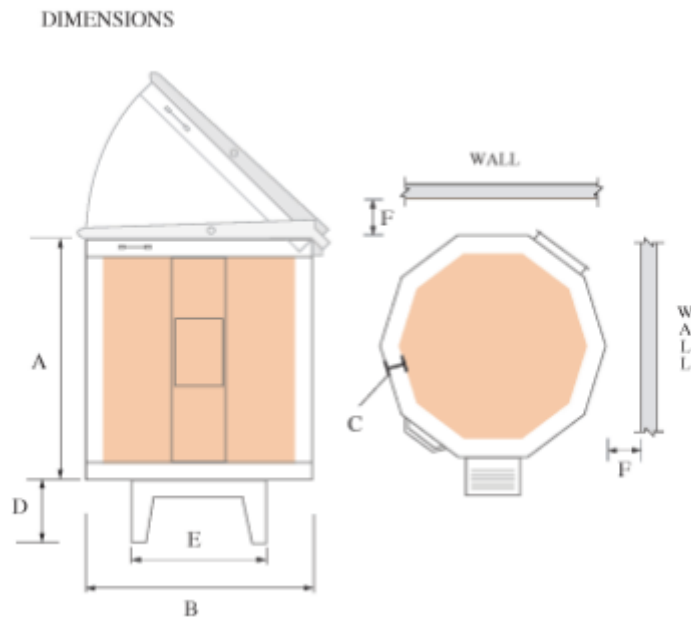
- Thin-walled inconel cover equals faster reaction time and higher accuracy.
- Easy and quick to replace.

The Lid Lifter

- Now standard on all GM1414 models.
- Lift 100lbs with ease!
- All stainless construction.
- Easy and safe to tension.



PRODUCT SPECIFICATIONS & DIMENSIONS



Model	Phase	Volts	Maximum		Power		Copper Wire Size	NEMA Receptacle	BTU's
			Cone	Temp(F)	Amps	Watts			
GM-1414	1	240	0	1800	34.7	8320	8	6-50	17400
GM-1414	1	208	0	1800	40	8320	8	6-50	17400
GM-1414	3	240	0	1800	20	8320	10	15-50	17400
GM-1414	3	208	0	1800	23.1	8320	10	15-50	17400

O.D. Dimensions					
A	B	C	D	E	F
18.5	46.5 x 29.5	2.5	8	2 - 17.5	18

Chamber Capacity

Approximately 42 in. x 25 in. opening and 13.5 in. high. 6.7 cubic feet.

Chamber Capacity			
Depth	Opening Width	Opening Length	Cubic Ft.
13.5 in.	42.0 in.	25.0 in.	6.7



Controller

Thermocouple: K

Clock: 60 Mhz

Voltage: 24 DC Relays

Output: 12 Volts DC

Fuse: 0.5 AMP

Furniture Kit

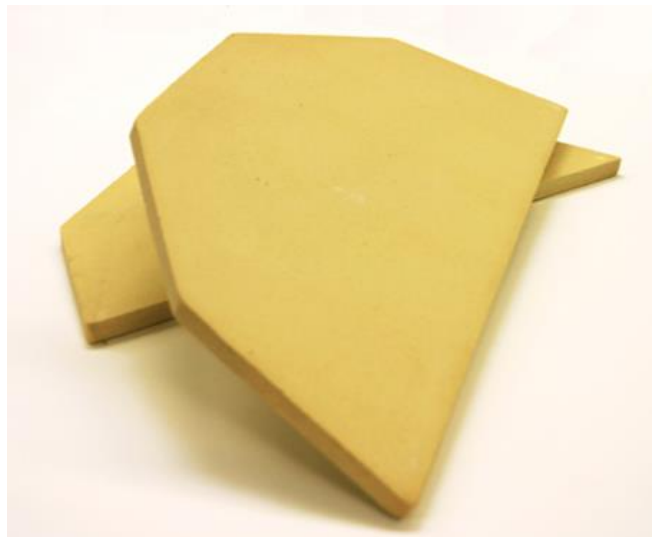


Quality

We search the world over to find kiln furniture of the quality our customers expect. There are a lot of “cheap” shelves out on the market as well as very expensive shelves that provided little added value for most customers needs. Our primary goal is to maximize value for our customers. This means we are looking for shelves that are reasonably priced, will not warp or crack when fired to the temperatures for which they are designed and are free from major chips and scratches. If you ever receive a defective shelf from Skutt we will replace it for free within the warranty period.

Choosing A Furniture Kit

A furniture kit is a collection of properly sized shelves coupled with a post assortment that is recommended for your specific model kiln. The shape, quantity and thickness are predetermined and based on the most common practices for that model.



The quantity of the posts in the assortments included with the furniture kit are based on the number of layers of shelves common in that model and include varied height posts to give you flexibility in loading.

If your situation is unique and you have very specific needs you can order all of these items separately to make your own kit. Here are some of the factors you will want to consider:

Shape

Shelves can be round, multi-sided, square or rectangle. Round and multi-sided shelves are usually available in what is called “half-shelves”. Half shelves are exactly what they sound like, they are half of a full shelf. People like them for several reasons.

Pros

- Provide a path for convection in the center of the kiln.
- Half the weight of a full shelf therefore easier on the back to load in the kiln.
- More flexibility in loading your kiln.
- Less likely to warp or crack than full shelves.

Cons

- Full Shelves can be more suitable for larger pieces that take up more than half the diameter of the kiln because there is no gap.

Thickness

The thickness of the shelf can determine whether or not it can withstand high temperatures without warping. This is usually only an issue if you are working with a large kiln such as a 1227. Since the KM1227-3PK is rated to cone 10 we only recommend 1” thick half shelves. For kilns designed more for low fire applications it is ok to use a 5/8” thick shelf which will be lighter.

Quantity

The quantity you will need will be based on the height of your kiln, the height of the pieces you are putting in your kiln and whether you are using full shelves or half shelves. When you are contemplating how many layers of shelves you want to have on hand, remember, it is always a good idea to have at least 1 element radiating between each layer. If you have a glass kiln with elements radiating down from the lid, you can only fire on one layer because the top shelf will block the radiant heat to the layers below.



Posts

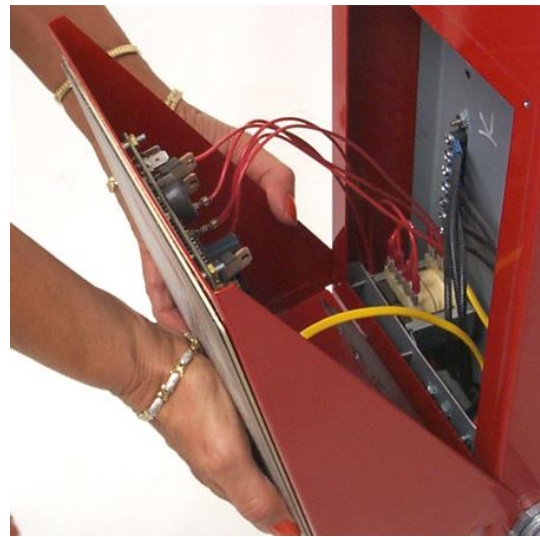
Posts are the supports that hold the shelves up. Generally you want to use 3 posts for each shelf you are supporting. Half shelves can share 2 posts on a common layer so you can use 4 posts instead of 6 posts. They come in varying heights from 1” tall all the way to 12” tall. They can also be stacked but are more stable when used alone.

Kiln Wash

You will need to order kiln wash to coat your shelves. Kiln wash is a material that comes in a powdered form that you mix with water to a cream consistency and paint on your shelves. The coating protects the shelves from clay and glaze sticking to them.

Easy View For Glass Fusing Kilns

An Easy View is a simple wedge shaped piece of powder coated sheet metal that simply angles the touch pad out so it is easy to see and program. It is especially helpful to people who own older Skutt models that had the touch pad located near the bottom of the control box. It is very easy to install without have to disconnect any wires. One size fits all full size KilnMaster or GlassMaster control box. They are inexpensive and can make programming much easier. you can also order it with a LinkBoard to upgrade your kiln with KilnLink or to plug in an EnviroLink.



EnviroVent 2



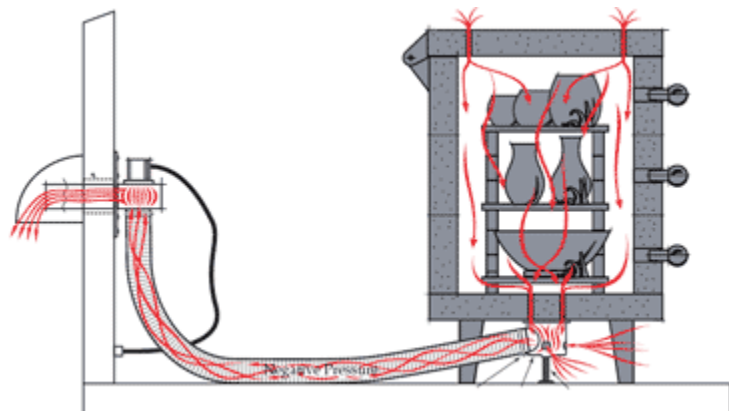
What Is The EnviroVent 2

The EnviroVent 2 is what is known as a **Downdraft Vent**. Downdraft vents actively remove fumes from your kiln before they can enter the room and vent them outside keeping your studio free of smell. It works by using a wall mounted fan to draw a very small amount of air

through holes drilled in the slab (floor). The amount of air drawn is determined by the number and size of the holes drilled. Holes are also drilled in the lid in a specific pattern designed to direct the air in a way that does not affect your ware.

These holes can be drilled in the factory when you order your kiln or easily drilled in your classroom or studio simply by following the instructions in the manual. We even provide you with the drill bits!

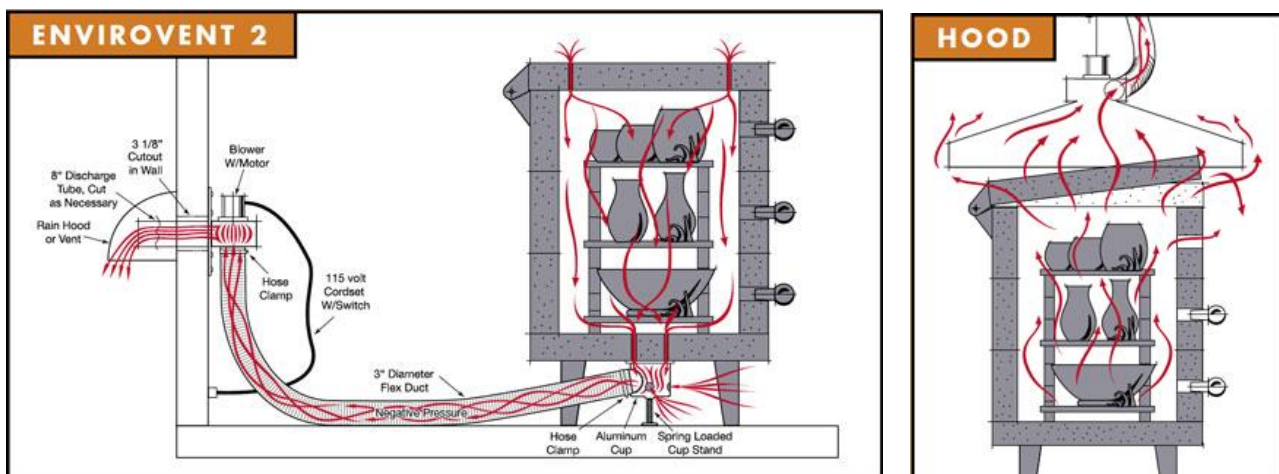
The Skutt EnviroVent was the very first commercially available downdraft venting system on the market, introduced in 1987. To get a more complete understanding of how the EnviroVent works, watch the video by clicking the link on the website.



Why You Should Want An EnviroVent 2

- **Removes fumes, odors and vapors.** Particularly useful when firing materials such as metallics, and high sulfur clays, which can emit strong odors
- **Improves firing consistency.** The vent also helps to prevent different color glazes from migrating. You can now fire greens and reds on the same shelf with excellent results.
- **Fits popular kilns.** The EnviroVent 2 fits Skutt 16, 12, 10, and 8-sided kilns as well as many other kiln brands.
- **Fits popular kilns.** The EnviroVent 2 has a spring-loaded collection cup that keeps a tight seal on the kiln as it expands and contracts without stressing the bottom slab.
- **Ideal for automatic kilns.** The EnviroVent 2 makes firing kilns such as the Skutt KM series much more convenient. There's no lid propping. Just put plugs in all the peepholes and press start.
- **Never Pro-Rated.**
- **Serviced by the most extensive, knowledgeable and talented distributor network in the industry.**
- **Backed by a company whose mission statement is "We help you make great things".** When your kiln is down, you can't make great things.

Downdraft Vs Overhead



There is nothing inherently wrong with overhead venting. It does a great job of removing heat from the room and it will get rid of the majority of fumes. The problem is that many people make false assumptions (sometimes induced through advertising) about the true function and capabilities of overhead vents marketed for kilns.

Not UL Listed

The Skutt EnviroVent2 is the only UL listed venting system available on the market today. Other vents may use UL parts, but they are not UL listed because they have not been tested with a kiln. Your insurance company will like this!

Not Engineered to Remove Heat

It is true that any overhead vent will remove heat from the room, how much still needs to be determined by a qualified HVAC technician. You may find that it is cheaper to remove the heat through existing ventilation. Either way, you still need to pay someone to make these calculations based on the size of the room, the insulation and the BTUs that will be produced by the kiln.

Not 100% of the Fumes

The Envirovent creates a negative pressure system to remove the fumes before they enter into the room. An overhead vent needs to wait until they escape from the kiln to collect them.

Does Not Improve Chamber Atmosphere

Overhead vents do nothing to improve the atmosphere in the kiln which is one of the most beneficial outcomes of kiln venting. And as much as the overhead guys would like to make you believe that downdraft vents are “expensive to fire” because they bring in cool air and exhaust warm air, it is not true. The energy use is affected by less than 1%. in fact it is more efficient to vent with a downdraft because you completely seal the kiln unlike an overhead vent where it is necessary to leave the top peep out and prop the lid to 1000 F.

Ease Of Installation

The EnviroVent2 is easy to install whether you order it with your kiln or decide to add it later. You don't even need to take it off the stand. Don't believe us? Watch the video listed on the website or click on the link to the Installation Manual.



Rolling Stand



Why You May Want A Rolling Stand

Almost every kiln that Skutt sells comes with a stand but most of them are designed to stay put. Trying to move them with the kiln setting on them could result in a broken stand or even worse a broken kiln, or even worse, a broken you.

Often times you may want to move your kiln to clean under it or just get it out of the way when it is not being used. Think how nice it would be to get that car in the garage every once in a while.

Our rolling stands are constructed out of heavy duty, welded square tubing and fitted with high quality, locking steel castors on models designed for large kilns. Steel castors will not develop flat spots if they sit too long in one spot unlike rubber or plastic wheels. They provide the recommended clearances from the kiln to the floor and many are adjustable in order to raise the loading level to a height that is comfortable for you.



Kiln Stands

Choosing The Right Stand

Use the table below to choose the correct stand for your kiln. The heights listed in the table are based on the height of the surface of the stand that the kiln will sit upon. To calculate the height of the kiln opening (loading height) just measure from the bottom of the kiln to the kiln opening and add it to the stand heights.

MODEL	PART#	ADJUSTABLE	HT 1	HT 2	HT 3	HT 4	HT 5
1414	2840	YES	11"	16"	21"		
1214-3	2846	YES	11"	16"	21"		
1014	2845	YES	11"	16"	21"		
814	2848	YES	11"	16"	21"		
22CS	2841	YES	11"	16"	21"		
1231,1227,1222,1218	2842	NO	8"				
1027,1022,1018	2843	NO	8"				
822,818	2844	NO	8"				
SCARAB (REGULAR)	2970	YES	11"	16.5"	22"	27.5"	33"
FIREBOX 14	2847	NO	30"				

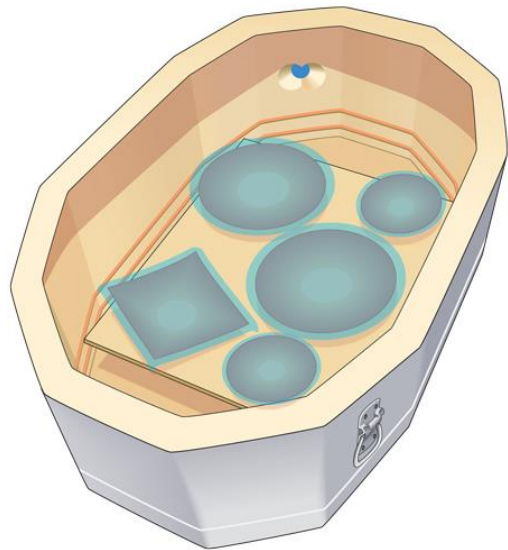
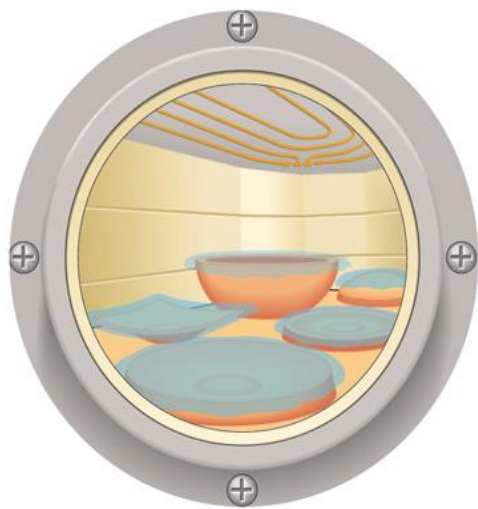
UPGRADES

Viewing Window

Why Brave The Heat?

See Inside Your Kiln While It Is Firing

This is one of the coolest features we have. It is a viewing window that mounts on the side of the kiln. It is made of quartz so it can hold up to the heat. We drill a hole in the brick and then carve it out on the inside to give you a wider viewing area. With the View Window you no longer need to lift the lid to see if your piece slumped just right. plus, it's just really cool to look into the kiln while it is firing. We do recommend you wear protective glasses such as the ones that framemakers or welders use.



THE WARRANTY

- Unlike most warranties, ours covers **Parts AND Labor**.
- Never Pro-Rated.
- Serviced by the most extensive, knowledgeable and talented distributor network in the industry.
- Backed by a company whose mission statement is “We help you make great things”. When your kiln is down, you can’t make great things.



SHIPPING

Weights listed are only approximations. Actual weight will vary due to humidity levels and varying brick density.

Weight (LBS): 310

Skutt Kilns should arrive fully assembled.

Packed with the kiln you will find the following items:

- Kiln Stand
- Stand Feet
- Peep Plugs – attached to the kiln stand, enough to fill each peephole on your particular model.

