

The Meridian™

FAQ

INTRODUCTION

The tradition of tiled ceramic stoves, though little known in this country, has its beginning in the 13th century ... the earliest glimmerings of the Renaissance, when art, knowledge and curiosity inflamed the minds of men. Not only has the efficiency of ceramic stoves been proven by nearly 700 years of use, but people who live with these stoves attest that heat from them is gentler and more comfortable than that of metal stoves.

A ceramic stove (or fireplace insert) is superior in so many ways to a black box made of steel or iron that it is difficult to absorb all of the advantages at once. As superior as ceramic is to metal, the Meridian is to ceramic stoves of the past. The Meridian is the FIRST to incorporate the most recent breakthroughs in the field of thermal technology. In fact, some of the materials used in the Meridian are employed by NASA in the space shuttle.

This booklet is provided to inform and educate the potential stove or insert buyer of the incomparable advantages of ceramics in general, and the Meridian in particular. The following information is in a "Question and Answer" format for quick and easy reference.

"A house without a firelight is like
a home without soul or spirit"
Benjamin Franklin

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QUESTION What are Ceramics?

ANSWER Derived from the Greek work KERAMOS (which means a vessel of baked clay), ceramics is the art of making objects from clay or similar materials. Ceramics include earthenware, stoneware, porcelain, tile and glass. In spite of volumns of research, it is a technology whose origins are still lost in obscurity, although porcelain is believed to have evolved in Ancient China.

Traditionally, to produce an item of ceramic, the clay is first prepared, shaped (either by hand, molds or castings), and then fired until hard. Materials made in this way vary depending on the formula, the kinds of clay and ash employed, and the temperature and length of time they are fired.

Since World War II, modern technology has dramatically expanded the field of ceramics, making them appropriate for a wide variety of industrial uses. Some of these modern applications include lining steel making furnaces, minute electronic components and the heat shields used for space vehicle re-entry into the earth's atmosphere.

QUESTION How durable are these stoves and inserts?

ANSWER The Meridian Stove and the Meridian Fireplace Insert are designed to last for generations. It is a fact that many of the famous 'Kachelofens' - a European ceramic stove - have been in seasonal use since the 13th century.

The Meridian Stove and the Meridian Fireplace Insert are made from a special kind of industrial ceramic material. The material is easily shaped, yet resistant to incredibly high temperatures and is impervious to THERMAL SHOCK. (Thermal shock is the physical "shock" a material goes through when it is subjected to rapid changes in temperature.) Also, this material has virtually no THERMAL EXPANSION (the increase in size some substances achieve when subjected to heat).

Our special formula ceramic has been specially developed for the needs of the wood and coal user. This uncommonly stable and extremely reliable ceramic allows us to offer very durable stoves and fireplace inserts which are among the most durable in the industry.

QUESTION What are the advantages of ceramic over steel and iron?

ANSWER After centuries of experimentation and development, few materials have yet been discovered with the low THERMAL CONDUCTIVITY of ceramic fireclay.

Thermal conductivity is the rate at which heat moves through a material. Ceramic has 1/45th the thermal conductivity of steel or iron. While only 20% as dense as these metals, ceramic can hold 80% more heat.

The result is that instead of harshly blasting the heat of the firechamber directly into your home, the Meridian captures and stores the heat, releasing it slowly and evenly into your home. The cumulative effect is a more comfortable heat.

Additionally, ceramic is not susceptible to rust or chemical deterioration. It is the only material that can maintain the high firechamber temperatures necessary for the complete consumption of volatile gases. (see DESIGN: "Creosote", and HEATING CHARACTERISTICS.)

QUESTION What kind of tile is used for covering the Meridian?

ANSWER We are proud to feature the finest ceramic mosaic tile available. Our standard tile is porcelain -- which means that it is vitreous (completely dry), dent proof, stain proof, rust proof and frost proof.

QUESTION What is used to hold the tile in place?

ANSWER Initially, the tile is applied with an incredibly strong thinset mortar compound. The holding strength of this material, our own special formula, is an incredible 400 p.s.i. (pounds per square inch). Most importantly, this bonding strength will not break down with repeated thermal shock. In our exacting tests, we have found that the material does not even begin to break down until well over 600 F -- about three times higher than temperatures ever reached on the Meridian's surface.

QUESTION What kind of paint is used for the black heat exchanger?

ANSWER The metal trim parts of the Meridian are coated with a high temperature, silicate base paint which can withstand temperatures up to 1400 F. It is the finest paint available for this purpose and relieves you of the drudgery of "stove blackenings".

DESIGN

Before the revolutionary design aspects of the Meridian can be appreciated, it may be necessary to discuss the actual process of combustion, i.e., the way in which wood burns.

In order for wood to ignite, both oxygen and a high temperature must be supplied to the fuel. Moisture, which all wood contains, is then taken from the wood by the surrounding flames.

The fuel ignites at about 300 F. As the temperatures increase, the wood deteriorates into charcoal and volatile gases. At this point, in the average stove or fireplace, CREOSOTE begins to form.

Creosote, the wood burner's bane, is formed by the condensation of the volatiles. As wood is consumed, the volatiles leave the flames and condense when they find something cooler to collect on -- like the inside of your chimney.

There are two kinds of creosote, non-pyrolized, which is powdery soot-like substance and pyrolized, which is like tar.

In the average woodstove or fireplace, non-pyrolized creosote must be frequently cleaned from the chimney. Pyrolized creosote, however, cannot be easily cleaned and will sometimes bake onto the side of your chimney in widths several inches thick, seriously effecting the draft.

Creosote is the major cause of chimney fires. Not only can sparks shoot out of the chimney, and threaten your roof, but creosote fires are often hot enough to turn chimney mortar into glass.

If the volatiles are in some way restricted (as they are in the Meridian) and rerouted into the flames and in the combustion temperature inside the firechamber is hot enough (about 1,100 F), then the volatiles are burnt with the charcoal. In addition to the safety factor involved, this results in a 50% to 60% increase of combustion and heating efficiency.

QUESTION Why do the Meridian Stove and Meridian Fireplace Insert utilize a spherical combustion chamber?

ANSWER A spherical combustion chamber is an integral part of the Meridian's unique design and was especially chosen to promote the swirling and mixing of the volatile gases so as to force them to mix with the incoming combustion air. This caused the gases to be burnt along with the fuel, resulting in an incredible fuel efficiency of 95%.

QUESTION Are spherical combustion chambers a new idea?

ANSWER No! A spherical combustion chamber in a stove goes as

far back as 1600 B.C. to the early kilns. In a kiln, uniform heat is important for the even hardening of ceramic pottery. The spherical shape allows the natural convective air patterns to distribute evenly, which allowed pieces of pottery on the edge of the kiln to be cured as evenly as those in the middle.

In this country, Benjamin Franklin experimented with a spherical combustion chamber in 1771. Franklin discovered that by mixing the volatiles with oxygen, they could be burned as the stove's heating efficiency increased. In his own words, taken from his autobiography:

"The efficiency of this machine is to burn not only the coals, but to burn all of this smoke from the coals, so that when you go outside and observe the top of your chimney, you will see no smoke issuing, nor anything but clear, warm air."

Franklin achieved some but not complete success with his "smoke consuming stove". His success was limited because he failed to use the principles involving ceramics, which would have maintained a high enough combustion temperature to consume the smoke. Not only did his early stove have a problem with "back-puffing" (leakage of smoke into the room), but Franklin felt a strong aesthetic need to view the fire. (see SPECIAL INTEREST QUESTIONS: "Why should I consider installing a Meridian Insert into my fireplace"?)

QUESTION Is the Meridian 'air tight'?

ANSWER Few stoves are truly 'air tight'; that is, they will not hold air under pressure. The Meridian does, however, feature controlled combustion, which gives it many of the advantages of the, so called, 'air tight', i.e., long burns and controlled heat.

QUESTIONS What are the advantages of bringing outside air to the combustion chamber?

ANSWER One of the startling, yet still little known facts about wood burning, is that when using an 'open' stove or fireplace, your home's electric, gas or oil furnace must work harder to keep your home warm.

As was discussed in the introduction to this section, a fire required air to burn. An exposed fire draws this air from your home for combustion and then, if not checked, expels it up and out of your chimney. When the weather is cold, the warm air leaving is replaced by cold air drawn through the cracks and crevices in your home. The rate of this air exchange can be anywhere from 1/2 to 2 complete air changes per hour. As your furnace works harder to compensate for the loss of warm air, your fuel bills continue to rise.

The Meridian can draw air for combustion from outside of the home directly into the firechamber, negating this phenomenon and eliminating the use of your furnace.

In fact, in several of the very coldest parts of the country, such as Alaska and Colorado, the Meridian has been installed into homes where it is the ONLY source of heat. We have been told by the owners that the Meridian does an excellent job of warming their homes, even when the temperatures drop to sub-zero levels.

The way in which outside air is brought into the Meridian gives this air one additional advantage. It is pre-heated when it enters the combustion chamber.

QUESTION What are the advantages of pre-heating the combustion air?

ANSWER Pre-heated combustion air is one of the major factors contributing to the Meridian's superior performance. The pre-heated combustion air helps to maintain the extremely hot combustion chamber temperatures, which increases combustion efficiency, consumes the smoke and volatile gases and insures that your glass door stays clean.

HEATING CHARACTERISTICS

QUESTION How does the Meridian heat my home?

ANSWER Heat is transferred in three ways.

1. CONDUCTION - the direct transference of heat through a solid material from a hotter to a warmer surface.
2. RADIATION - heat transmitted through infra-red rays (see next question)
3. CONVECTION - the movement of heat through air currents.

The Meridian heats primarily by way of convection. This is why it can effectively heat your entire home. As fire burns in the combustion chamber, heat moves through the structure of the stove, turning it into a source of radiant heat. The air space between the fire chamber and outer wall is then heated. As the air is heated, it rises and is then forced out into the room, pushing the cold air towards the floor. This cold air is then drawn back into the bottom of the stove, repeating the process. While this process is occurring, the Meridian provides supplemental heat by radiating heat both through the glass and from the surface of the stove.

QUESTION What are infra-red rays?

ANSWER Infra-red rays are light rays of a wave length greater than 0.0008 millimeters.

In 1800, Sir William Herschell discovered this phenomenon while measuring the actual temperatures of light. When he accidentally placed his thermometer below the red area of the visual spectrum, his thermometer registered an immediate increase in temperature ... greater than that which he had previously measured. These rays, emitted from a hot or warm object, heat the objects that they strike, but not the surrounding air space.

The special glass door used in the Meridian is designed to make optimum use of this principle. While the ceramic structure of the stove is storing heat for eventual release into your home, you immediately receive warmth through the glass.

QUESTION How efficient is the Meridian?

ANSWER Because of the ceramic material used and the spherical combustion chamber, the Meridian is the most efficient solid fuel heating appliance on the market. Its combustion efficiency (how well it burns wood) is a remarkable 95%. This means that the Meridian releases 95% of the potential heat in a load of wood. This compares to 40 to 50% in the average box stove.

Of this heat, the Meridian will return 70% into the living area of your home. In practical terms, taking 95% combustion efficiency and multiplying it by a 70% thermal transference rating, the overall efficiency of the Meridian is an outstanding 66.5%.

QUESTION How many square feet will the Meridian heat?

ANSWER Depending on the type and condition of the fuel, how well your home is insulated and the climate in which you live, the Meridian Stove can effectively heat between 2,000 and 2,500 square feet. In fact, in exceptionally well insulated homes, we have heard reports of it heating over 3,000 square feet.

The Meridian Insert, which performs superbly in relation to other inserts on the market, easily heats from between 900 and 1,100 square feet.

QUESTION What is the Meridian's rate of burn?

ANSWER A wood or coal stove's rate of burn (how quickly it will consume wood) is measured by pounds of wood per hour. The Meridians stainless steel damper can slow this rate of burn down to between 3 and 4 pounds per hour. Of course, as in any stove, the burn rate can vary depending upon the moisture content of the wood.

QUESTION How long will the Meridian burn on a single fuel loading?

ANSWER Depending on the damper setting and the size of the fuel load, the Meridian can burn between 8 to 10 hours without a loss of heat or increase of creosote formations.

QUESTION How does this burn rate compare to that of the typical 'air tight' box stove?

ANSWER In order for an 'air tight' metal stove to achieve a 40 to 50% fuel combustion efficiency, it must be run at an extremely high rate of burn. When these same 'air tight' are dampened down to a lower burn rate, their efficiency is decimated. At this point, in the typical box stove, an increase of the pollutant emissions will occur. There will also be a substantial loss of potential heat as the volatile gases escape out of the chimney. (See DESIGN; Creosote) Often, in these metal 'air tight', were you able to see through their smokey glass doors and you could actually witness creosote dripping out of the chimney and dropping into the flames.

QUESTION What are B.T.U.'s? Are they an accurate method for measuring heat?

ANSWER B.T.U. stands for British Thermal Units and is the amount of heat required to raise one pound of water by one degree Fahrenheit. Heating appliances are measured in B.T.U.'s per hour. Giving a B.T.U. rating to a gas, oil or electric heater is relatively simple because these units burn fuel in a constant manner. Assigning a B.T.U. rating to a wood or coal stove is different because within the period of an hour there are considerable temperature fluctuations inside of the combustion chamber as the amount of fuel available to burn varies. Because of the ceramic material used in the Meridian, there is less of a temperature fluctuations than in other stoves. Although most wood and coal stove manufacturers assign a B.T.U. rating to their product, the stove buyer should be aware that these are rough estimations at best.

QUESTION What are the B.T.U. ratings for the Meridian?

ANSWER Our conservative estimations place the stove at 80,000 B.T.U.'s per hour and the Meridian Insert at 40,000.

INSTALLATION

QUESTION Is it possible to install the stove myself or will I need a contractor?

ANSWER Anyone proficient with woodworking tools can install a Meridian into their home. In fact, we have shipped stoves and inserts all over the United States and Canada to people who have installed them by themselves. A wide variety of ingenious methods have, consequently, been developed for these 'do-it-yourselfers' including pipes to roll the units into place, wood dowels for placing the inserts and the use of 'come-alongs' to get them up stairways. We are always pleased to share these

techniques with the home handyman. Contact us for complete details.

An important consideration is the installation of the 7", Class A all fuel chimney. When installed properly, the use of this chimney will prevent safety hazards from developing in your home. This is a vital concern, as the safety of your home and loved ones is at stake. If you do not understand how to install an all fuel chimney, we strongly recommend that you get help from someone who does.

Of course, before installing your stove or insert, you should apply for and obtain a building permit. Code requirements for your area may be obtained from your local building department.

QUESTION At 550 pounds, will I need to strengthen my floor before I install a Meridian?

ANSWER The Meridian will not exceed the "live load capacity" of modern building standards -- those that have been in effect since the 1920's.

If, however, your home was built before this time, we strongly recommend that you have your flooring checked by an expert. (This is always a good idea, as every home is vulnerable to termites and rot.)

QUESTION Is the hearth for the stove the only protection I need for my floor?

ANSWER Again, it is wise to check your local building codes. In most cases, in the widely varying fire codes of this country, our ceramic tiled hearth will be the only protection your floor will need. In fact, you can place this hearth directly on your floor's carpeting without the necessity of placing a protective covering between the carpet and the hearth.

QUESTION Will the stove damage my ceramic tiled floor if I slide the Meridian across it into place?

ANSWER This problem was cleverly solved by one of our customers, who wrapped some old towels around the legs of the stove. The Meridian slid effortlessly across his expensive floor without leaving a trace.

QUESTION My floor is carpeted. How do I move the stove into place without ruining my carpet?

ANSWER In this situation, you should procure a piano dolly or other caster type device.

QUESTION How do I connect outside air?

ANSWER Outside combustion air is brought through the floor of your home using a 4" aluminum dryer vent. The pipe is connected

into a notch on the bottom of the stove. Alternately, one can connect pipes directly to the flexible metal tubes which can be found inside the notch. An easy way to connect these pipes is to fit the pipe tightly inside the flex tubing, or better still, to fit a pipe tightly over the flex tubing.

If your home is built on a solid concrete slab, then it is also possible to vent the air through a wall. It is important that you make sure to vent the air from outside and not from another room or your garage.

QUESTION Can a stove pipe (flue) take a 90 degree turn?

ANSWER Yes, we do feature 90 degree elbow and thimble assemblies just for this kind of installation. Although there is a slight loss of heat from the shorter flue assembly, there is usually no need to add chimney pipe to increase the draft as you would with most stoves.

OPERATION: WOOD

QUESTION Is there a 'break-in period' required for the Meridian?

ANSWER As with any new stove, the Meridian does require a short break-in period. Instead of seasoning the metal, you are curing the refractory material. This period is very brief -- 1-1/2 to 2 days. Complete instructions are provided with the stove and insert.

QUESTION How do I control the fire?

ANSWER The Meridian stove and the Meridian Insert are the simplest solid fuel appliances to operate on the market. The combustion air is pre-set at the factory so that only enough air to burn the fuel efficiently and cleanly is allowed into the firechamber. All that is required is an occasional adjustment of the damper.

QUESTION How do I remove the ashes?

ANSWER The Meridian consumes wood so thoroughly that, unlike most stoves, it requires emptying of the ashes infrequently. This is accomplished by the use of an ash hoe and ash pan. Wood ash, incidentally, makes an excellent fertilizer.

Because of the high ash content of coal, more ash will accumulate requiring more frequent ash removal. Make sure that you deposit ashes into a METAL container with a snug, secure lid. This will keep your home safe from possible "live coals" hidden in the ashes, which have been known to ignite a combustible container.
NEVER USE A CARDBOARD BOX OR PAPER BAG FOR STORING YOUR ASHES.

QUESTION What kind of wood is recommended for the Meridian?

ANSWER The Meridian does a splendid job on virtually any type of wood you have available. However, properly seasoned oak, hickory, dogwood, elm, birch and maple have the highest available B.T.U. content per pound. Apple is also excellent and especially well suited for cooking.

QUESTION What length of wood is recommended for the Meridian?

ANSWER The stove will accept logs up to 18 inches in length and the insert up to 16 inches in length. However, because of the fantastic air circulation within the combustion chamber of both the stove and insert, it is often not even necessary to split the wood.

QUESTION How do I build my first fire?

ANSWER After the stove has been properly cured (instructions for this are included with each unit that leaves the factory), lighting a fire in the Meridian is probably easier than in any other stove.

First make sure that the damper of the stove is open, which will insure a good draft. Then lay some crumpled newspaper on the bottom of the firechamber. On top of this, place your kindling. Kindling can be any fast burning wood (such as white pine) split to about two inches in width. Once the kindling has been ignited, place two of three small logs onto it. Gradually add the larger pieces of wood. At this point, you can adjust the damper to control the heat.

OPERATION: COAL

QUESTION Are there any advantages to burning coal instead of wood?

ANSWER Pound for pound, coal does put out more B.T.U.'s than wood (13,500 B.T.U.'s for a pound of coal as compared to 7,500 for a pound of wood), but in some areas of the country, coal is more expensive -- especially if you have access to your own wood lot. The prime consideration should be your cost per B.T.U.'s.

QUESTION Will I need a grate to burn coal?

ANSWER Unlike most stoves and inserts on the market, the Meridian does not require a grate to burn chunk coal. This is because of the marvelous air circulation characteristics of our spherical combustion chamber. For the same reason, the Meridian does not require secondary air.

QUESTION What kind of coal should I burn in the Meridian?

ANSWER Again, because of the unique properties of the spherical combustion chamber, the Meridian is capable of successfully burning most types of coal:

ANTHRACITE (hard coal) burns well in the Meridian if you use

the larger Chestnut and Stove sizes.
BITUMINOUS (soft coal) burns well.

QUESTION Can I burn COKE in the Meridian?

ANSWER It is possible to burn coke in the Meridian if you wish to add a forced draft blower to the air intake. This item is not currently offered as a Meridian option, but we will be glad to provide technical information to the home experimenter.

SAFETY

QUESTION How safe is the Meridian?

ANSWER Both the Meridian Stove and the Meridian Insert have been designed as the safest solid fuel appliances available. The materials used in these stoves and inserts have undergone the most stringent testing and analysis modern science can allow and to further insure your confidence and safety. The stove and insert have been tested by the Warnock - Hersey Testing Laboratory. The Meridian Stove has been tested to U.L. standard 1482 in the United States and to U.L.C. standard S627 in Canada. The Meridian Insert has been tested to U.L. standard 907 in the United States and to U.L.C. standard S628 in Canada.

QUESTION If the exterior of the stove is a heat radiating surface, will it burn me if I touch it?

ANSWER Because the ceramic material stores the heat and gives it off gently, the surface never gets as hot as a metal stove. The surface will be warm to the touch ... but there is never the danger of suffering a serious burn should you happen to brush against it. This makes the Meridian an ideal choice for homes with small children and pets.

QUESTION I have heard that sometimes, for apparently no reason, a glass door will explode. Will this happen with the Meridian?

ANSWER NO. The reason a glass door will do this on some stoves is because of THERMAL SHOCK -- breakage occurring because of a difference of temperature on opposite sides of the glass. We use the finest glass available in the woodstove industry and because of this, we have had no reported cases of glass breakage from thermal shock. Though we by no means suggest it, in our tests we have thrown buckets of ice cold water on the door when the stove was burning at its hottest point. RESULT: the glass did not break.

MAINTENANCE

QUESTION How do I clean the exterior?

ANSWER All that is required to clean the tile is a sponge, water and a mild detergent.

QUESTION Will the bright brass metal parts tarnish?

ANSWER As with all bright brass finishes, the metal surfaces can tarnish after a few years. All that is required to bring them to original luster is a non-abrasive metal cleaner which is available from your local wood stove dealer or hardware store. We recommend a metal polishing product called FLITZ.

QUESTION If needed, where can servicing be obtained for my Meridian?

ANSWER Since evolving to its current state of excellence, the Meridian will, as been our experience, require much less servicing than any other stove or insert on today's market. However, should your Meridian require servicing, the materials can be obtained from either your local dealer or the Meridian Research and Development Corp.

COLOR SELECTION

QUESTION How do I select the color of the tile?

ANSWER Color selection is a very special, creative process. Because the Meridian Stove and Insert are built to last for generations, we understand that you must make sure the color you select matches your decor. Your Meridian dealer features a complete selection of tile samples and colors and will be happy to aid you in this highly personal phase of purchasing your unit.

If there is no dealer in your vicinity, then mail your name and address to the Meridian Research and Development Corp of Long Beach, California and we will send you a sample of the beautiful tile and grout colors that are available.

QUESTION Are the tiles uniform in color or are there variations in them?

ANSWER There are variations in the tiles which give the stoves and inserts a handcrafted elegance simply not available in other stoves or inserts. These variations allow our tilers to indulge themselves in intricate and often spectacular designs that greatly enhance the beauty of each unit.

QUESTION Could I have the Meridian covered in something other than your tile selection?

ANSWER Aesthetically, one of the prime advantages of a Meridian is in the wide range of decorative effects that can be achieved. On custom orders, we can provide virtually any tile between the sizes of 1 square inch to 1-3/8 square inches. At our last count, there were well over 200 colors and patterns available in this size range to choose from. If you have seen a mosaic tile that you prefer over our selection and if it is no larger than 1-3/8 inches square, send us a sample and we will

custom order the tile for you. On very special custom orders, we can cut your tile selection down to size. Of course, there is an additional charge and waiting time for these custom orders.

QUESTION If I provide my own tile, how many square feet will I have to purchase to cover the stove or insert?

ANSWER 25 square feet for a stove and 14 square feet for an insert.

QUESTION Could I purchase an un tiled stove or insert and tile it myself?

ANSWER By special arrangement, approved by the designer, special artists and ceramics people with enough experience in this medium to perform the intricate work necessary, can receive an un tiled unit. Please contact your local dealer or the factory for further details.

QUESTION Could I have the stove or insert covered with a material other than tile? (For example; if I wanted the unit to have an adobe appearance.)

ANSWER Some alternative coatings are available for special custom orders. Please contact your local dealer or the factory for details.

SHIPPING

QUESTION How much will it cost to have a Meridian shipped to my home?

ANSWER If there is no Meridian dealer in your area, then shipping charges are prepaid by the Meridian Research and Development Corp.

QUESTION How long from the time I place my order until the Meridian is shipped from the factory?

ANSWER Due to the handcrafted nature of our stoves and inserts, each unit is custom made to order. We are usually able to ship a stove or insert within 4 to 7 days from the time we receive your 50% deposit. An exact shipment date can be quoted at the receipt of your order.

QUESTION What should I do if the Meridian is damaged when it reaches my home?

ANSWER We are proud of the fact that literally no damage has occurred to these units while being shipped. They are crated on pallets in such a way that the shippers can see what they are handling. As a result, the shippers tend to take greater care in the handling of your unit.

In the unlikely event that there is damage to the unit during

shipping, advise the shipper of the problem. Also, notify us immediately so that we can file a damage claim with the shipper and then promptly ship you a new stove or insert.

OPTIONS AND OTHER APPLICATIONS

QUESTION Can I get a fire viewing screen for the stove?

ANSWER A fire viewing screen for the stove and insert is unnecessary because the glass door stays clean. In fact, it is almost as if the glass wasn't there.

QUESTION What kind of chimney should I purchase?

ANSWER Only the finest chimney available should be considered for the Meridian or any other stove. We recommend a 7", class 'A' all fuel chimney.

QUESTION Is it possible for me to obtain the metal parts of the stove in other colors?

ANSWER Although we do not currently offer the heat exchanger in other colors (See: Retail price list, Optional plating), it is possible for you to paint it a different color if you wish. We suggest a high temperature spray paint which will withstand temperatures up to 1400 degrees.

QUESTION Could the stove or insert be adapted to heat water?

ANSWER YES. As nearly 30 to 35% of your fuel bill can go for heating water, both the Meridian Stove and Insert can be adapted with water heating coils. Our system mounts the coils directly inside of the fire combustion chamber. They are molded directly into the body of the stove or insert, discreetly out of view. Here they are protected from burn out and damage due to careless placement of firewood. All in all, it is the best system on the market.

There are two methods of installing a water system in conjunction with your stove. The easiest and least expensive system would be to opt for a 'passive system' with the water storage tank mounted higher than the stove. This will allow the water to circulate through the coils and into the tank by means of natural convection, without the noise and expense of a pump.

If this system is not possible in your home, you may wish want an 'active system'. This is necessary if the water storage tank is level with or below the stove. One advantage of this system is that it has a greater water heating capacity. In either case, a water heating specialist should be consulted.

QUESTION Is it possible to vent heated air from the Meridian to other parts of my home?

ANSWER It is certainly possible to vent air to other rooms by

means of a fan, however, in our experience it is not necessary. Natural convective air currents will carry heated air through your home with no additional assistance by artificial means. Simply open the doors of the desired rooms that need to be heated.

QUESTION Can I cook in the Meridian?

ANSWER YES. Every culture in the world agrees that foods cooked inside of a ceramic stove taste and look more appealing than foods cooked in the conventional metal stove. Here are a few hints for cooking in the Meridian:

BROILING: All that is required to broil foods in the Meridian is an 18" Barbeque grill. This item is readily available in most hardware stores.

First, build a fire using your favorite wood (applewood is great for cooking) and heat the ceramic walls of the stove. Then let the fire burn down until only the glowing embers remain. Wait until the temperature is about 400 degrees and then insert the 18" BBQ grill. Place your steak, chicken, hamburgers or hot dogs on the grill. Close the glass door and watch your food cook to perfection.

BAKING: (Pot Roast, Prime Rib, Turkey, Potatoes) Although it is not absolutely necessary, it is a good idea to purchase a baker's rack. Three or four hours in advance, fire your stove and get a good, hot fire going to heat the stove's walls. This is what will do the actual baking. Then, let the flames die down so that the logs have become hot embers (about 300 degrees). For example, if you are baking corn on the cob, peel back the husk, butter the corn, wrap the husk around it again and then wrap the corn in aluminum foil. Cook for about 15 minutes or until desired tenderness. Try a baked potato too. The flavor is indescribable!

SPECIAL INSERT QUESTIONS

The Meridian Ceramic Fireplace Insert, a relatively new product in the wood/coal burning market, is becoming the fastest growing sensation in the solid fuel appliance industry. The Meridian Insert features many of the superb design features of the stove and is manufactured to the same exacting standards.

QUESTION Why should I consider placing a Meridian Insert into our fireplace?

ANSWER As we discussed in the section DESIGN ("What are the advantages of outside combustion air?"), an open and exposed fireplace can and will take more heat from a room than it puts in. The purpose of an insert is to civilize this lazy, wood guzzling monster of a fireplace into an efficient source of heat. The Meridian Insert accomplishes this beautifully, not only increasing your fireplaces efficiency (by about 40%) but

enhancing its appearance.

The Meridian Fireplace Insert enables you to introduce the grace and charm of mosaic tile into your home, while bringing in the gentle, yet penetrating comfort of true Ceramic heat. Not only do you consume less fuel, but you retain the satisfying pleasure of viewing the fire through a self-cleaning glass door.

QUESTION What are the advantages of an insert over a glass door conversion kit?

ANSWER At their best, glass door kits are purely ornamental. At their worst, they are a waste of time, energy and worst of all, money. When a fire is at a low burn rate, they do prevent a very small amount of warm air from escaping through the chimney. However, with the exception of minute amount of infra-red rays coming through the glass, they do not provide additional heat. Even with this miniscule fraction of efficiency, their glass doors get dirty rapidly eliminating this minimum heat. Even the more elaborate conversion kits with their vents and fans do not generate enough heat to make them worthwhile. Their absolute maximum output is between 10,000 and 15,000 B.T.U.s as compared to the Meridian Insert's 40,000 B.T.U.s.

QUESTION Is it possible to connect the insert directly to the chimney by means of a flue pipe?

ANSWER This kind of installation can be done with the Meridian. The Meridian Insert draws its outside combustion air from the chimney and into the back of the combustion chamber. Connecting a flue pipe to the chimney cuts off the outside air, necessitating a vent through your masonry for the combustion air.

QUESTION Can you explain, in detail, how outside air gets to the Meridian Insert through the chimney?

ANSWER In the 1700's, Benjamin Thompson (later known, somewhat bitingly, as Count Rumfort), discovered that there is always a downdraft (air coming down the chimney into the fireplace) even when the smoke is rising up from it. Warm air rises (carrying smoke) and cold air descends.

QUESTION I have read that the type of installation you recommend for the Meridian (without direct flue connection to the chimney) is least desirable, that the smoke can loiter in the fireplace and cool before it reaches the chimney forming Creosote. Is this true?

ANSWER For every fireplace insert but the Meridian, this is true. The Meridian Fireplace Insert, like the stove, emits virtually NO creosote or smoke and, therefore, is ideal for this kind of simple and uncomplicated installation.

QUESTION I have heard that an oversized chimney can result in a decreased draft and an increase in creosote accumulation. How and why does this happen?

ANSWER An oversized chimney will tend to dissipate the heat more quickly than one of proper size, causing a lower flue temperature, a poor draft situation and, in many cases, creosote.

The Meridian Insert is unaffected by this phenomenon because, again, the Meridian emits virtually no creosote.

QUESTION My fireplace is 'non-self starting', that is, it is susceptible to downdraft. Will I have to make special adjustments, such as installing a draft inducing fan when I install a Meridian?

ANSWER The Meridian has been put into several of these 'non-self starting' fireplaces but seem to have less difficulty getting started than other inserts. In fact, we have never had to install a draft inducing fan.

Simply take a roll of lighted newspaper and hold it next to the damper for a few minutes. As the dampers warm up, the air begins to circulate and a draft pattern is established. Then start a small kindling fire and gradually work your way up to a larger fire.

QUESTION How do you seal off the remainder of the fireplace opening?

ANSWER The gap between the insert and the masonry is filled with a custom 'surround' made of tiled WONDERBOARD. Wonderboard is a U.L. tested and listed product approved for use around fireplaces. This material is completely non-combustible and because of its excellent adhesive properties, makes an ideal surface on which to place tile. Its use allows us to offer extraordinary elegant design work never before available for fireplace inserts.

QUESTION How often after I have had my Meridian installed should I have my chimney inspected for creosote deposit?

ANSWER If by this time you still do not believe it is possible to burn wood without producing creosote, then we cordially invite you to drag out your ladder, climb up onto your roof and physically inspect your chimney, just as you would do with any other insert on the market. We know that you will be pleasantly surprised by what you don't find.

FINALLY, A WORD ABOUT MOSAICS

Until you experience the extraordinary heating characteristics of a Meridian, its most striking feature is its breathtaking beauty. This is due, in part, to the intriguing art form of tile mosaics.

Because of the multitude of shades and colors available, tile mosaics are experiencing a renaissance in the art world. In the recent past, such eminent painters as Renoir and Monet have turned from their easels and embraced this medium with exciting results. And, unlike oil pigment which can blacken with time, the vibrancy of color tile remains undiminished through the ages.

Indeed, mosaics are timeless as they are world wide. We know, for example, that the ancient Orientals decorated with tile. We know too that the Uxmal, Aztec and Mayan civilizations created elaborate panels and facades, in Mexico, at Oacaca, Uxmal and Chichen Itza.

In fact, the art of mosaics can be traced to the seventh and eighth centuries B.C., in the Phygian city of Gordium in Asia Minor. The skill was further developed in classical and Hellenistic Greece. A famous artifact from this period was 'Dionysus Riding a Panther', constructed of black and white pebbles with fragments of colored glass. This was the predominate medium of the time, but eventually abandoned for the greater control of line and detail offered by ceramic tile.

The first color glazes are believed to have been produced in Ancient Egypt during the fourth millenium B.C. and fully developed during the reign of Amenhotep (1411 - 1375 B.C.). This innovation gradually spread from Egypt into what is now Southern Italy. History tells us of a fabulous ship built for Herron II of Syracuse, which featured intricately detailed flooring of color tile mosaics, with scenes designed into the flooring depicting Homer's Ilyiad.

Some of the finest mosaics ever discovered were found in the ruins of Pompeii during the excavations of the 18th century. These include a mosaic copy of the famous 'lost painting', The Battle of Isus. The mosaic, from the painting by Philoxenus, was most probably assembled during the 1st century B.C..

Mosaics continued to flourish during the Roman Empire, but declined in Europe during the Middle Ages. However, the practice was kept alive and further developed in the Byzantine Empire, reaching its zenith during the 11th and 12th centuries A.D. The art was then brought back into to Italy as the rulers of Sicily and Venice invited Byzantine craftsmen to decorate their churches. As the Byzantine Empire collapsed into ruin, the Venitians, learning the craft through Byzantine masters, continued this skill through the Dark Ages and into the Renaissance. Here the ancient art of mosaics was introduced to the then radically innovative ceramic stove.

It is in this spirit of painstaking craftsmanship that the tilers of the Meridian practice their trade. Their artistry transforms these units into something more than superbly efficient heating appliances. In their hands, each Meridian becomes an exquisite work of art, individual and unique, in a world cluttered with mass produced, unattractive black boxes.

