# GranView Masonry

**Clean Burning Fireplace** 





Keep these instructions for future use











### **Table of Contents**

Before You Begin Installation	3
Clearances and Mantel Height Requirements	4
Locating Your Fireplace	5
Hearth Extension Requirements	5
Chimney Requirements	7
Chimney Height, Offset and Clearance Requirements	7
The Chase Enclosure	8
Combustion Air Requirements	
Enclosure Framing	9
Doors for the GranView	9
Optional Blower Assembly	9
Installing the Refractory Liner and Baffle	10
Painted and Plated Surfaces	10
Installation of the GranView Masonry	11
Unit Diagrams	6, 15
Care and Maintenance	16
Generating Maximum Heat Output	17
Refueling Your Fireplace	18
Troubleshooting	18
Starting the Fire	19
Negative Pressure in the Home	19
Important Notices	20



## **IMPORTANT SAFETY INSTRUCTIONS**

# Read this section before you begin installation of the GranView Masonry fireplace.

This manual will enable you to make your installation safe, efficient and dependable. **Read and understand these** instructions completely before starting the installation.

Do not alter or modify any of the components. Do not obstruct the air circulation vents as over-heating will result. Any alteration or modification of the fireplace system or components will void the warranty, listing and approvals which could result in an unsafe or potentially dangerous installation. Use of this product in an altered installation or with altered components may result in fire, loss of property and loss of life. Keep this manual for future reference.

#### - Read and follow these safety rules -

- Before starting installation, read and understand this manual. Failure to follow instructions will result in an unsafe condition, malfunction, property damage or loss of life.
- 2. Check with your local building official regarding codes and permits. If local codes are more restrictive than this manual they must be followed.
- 3. This fireplace must be installed with a chimney system that is listed in the Chimney Section of this manual.
- 4. To ensure a safe, efficient fire, always check the fireplace prior to use for creosote build-up, excessive ash and soot. Clean the fireplace and chimney regularly.
- 5. Use solid wood or processed solid fuel fire logs only. Do not use chemical chimney cleaner, gas logs, gas starters or flame colorants. Do not use coal or charcoal in this fireplace unit.
- 6. Do not connect this appliance to a chimney flue that is serving another appliance.
- 7. **Never** use gasoline, gasoline type lantern fuel, kerosene, lighter fluid or any liquid to "freshen" the fire. Keep all such highly combustible liquids well away from the fire.

- 8. Never leave children unattended when there is a fire burning in the fireplace. It is recommended that each user of this appliance familiarize themselves with its operation prior to initial use.
- 9. Allow the fireplace to cool before performing any service to it. Always shut off any electrical supply prior to working on the system. This will eliminate the chance of electrical shock.
- 10. Wilkening Fireplace Co. is not responsible for any smoking issues due to inadequate draft or poor burning which results from lack of combustion air or chimney draw.
- 11. Wilkening Fireplace Co. does not warrant "smoke free" operation and is not responsible for inadequate draft caused by mechanical systems, construction conditions, inadequate chimney height, negative pressure or environmental conditions beyond our control.
- 12. Do not use any fireplace insert or other product in conjunction with this fireplace that is not specified by Wilkening Fireplace Co. for use with this fireplace.
- 13. Never, under any circumstances, install a fireplace or chimney component that is suspect of having been damaged in transit or handling. When in doubt, contact your dealer.



**WARNING:** This fireplace has not been tested for use with a gas log set, either vented or unvented. To reduce the risk of fire or injury, do not install a gas log set into this fireplace.

### **Clearances, Dimensions and Specifications**

The GranView Masonry fireplace is a wood burning, high efficiency, heat circulating fireplace system designed for installation into a masonry structure.

The illustrations shown in this manual reflect typical installations with minimum dimensions and are designed for framing reference only. Additional clearance to combustibles is permitted. The actual installation may vary due to individual design preferences. No matter what the design, **always** maintain the minimum clearances to combustible materials and follow these instructions.

This fireplace has been safety tested and is listed to UL 127-2011 standards by Intertek Testing. Install in accordance to the National Fire Protection Standard for chimneys, fireplaces and solid fuel burning appliances (NFPA 211) and in accordance with all state and local building codes. Failure to follow these instructions or adapt parts for use with this unit that are not intended will create a fire hazard and will void your warranty.

### **Clearances and Height Requirements**

The GranView masonry structure must be created with either 2-4" thick walls of masonry with 4" of insulation between them or 1-4" thick wall of masonry with 6" of insulation between the outer wall and combustibles. The masonry structure must be supported by a masonry foundation extending from the frost footing all the way through any combustible floor. The outside air kit, fire stop spacer and roof flashings may be placed directly on or next to normal construction materials.

The chimney requires a minimum 2" clearance to combustibles and must be supported on top of the upper concrete slab that is cast as the top of the heat chamber (consult the chimney mfg. instructions if using a factory built chimney or NFPA 211 for a clay tile lined masonry chimney).

A combustible mantle must be a minimum of 24" above the door opening of the fireplace and at least 8" below the upper heat outlet vent. **Maximum combustible mantle depth is 14". Non-combustible mantles may be placed at any height.** 

If you have any questions regarding this product or installation, call your dealer or Wilkening Fireplace Co. at 800-367-7976.



**WARNING:** Do not pack or fill the required air spaces with insulation or other material. No material of any kind is allowed inside the masonry heat chamber. Insulate ONLY on the outside of the masonry chamber.

#### NOTICE:



- 1. For exterior installations it is recommended that you insulate at least the sidewalls and the first floor ceiling of the chase to prevent heat loss in a wood framed chase.
- 2. Local codes may require a one hour fire rating on one or all sides of the fire chase. Check with local code authorities prior to construction.

### **Selecting the Location of Your Fireplace**

To determine the best location for your fireplace, take into consideration the location of windows, doors, adjacent side walls and the general traffic flow pattern of the room, allowing space in front of the fireplace for a hearth extension and mantle. Heat circulation ability of the unit and ducting ability for combustion air must also be considered when selecting the location.

A full masonry foundation will have to be constructed to support this fireplace. Do not attempt to place this structure on combustible framed materials or an interior slab on grade cement floor.

If possible, install the fireplace and chimney on the interior of the structure as it will provide better draft performance. In areas that experience below 0° Fahrenheit temperatures, the use of an exterior chimney increases the possibility of poor draft, increased creosote formation and slow starting of the fire. Installations which are located low in the house such as the basement, in combination with an outside chimney, are especially prone to flow reversal on start up.

### **Hearth Extension Requirements**

The GranView can be installed on a raised hearth provided there is a minimum of 88" measured between the floor level and finished ceiling. Raised hearths must extend 16" in front of and 8" to each side of the fireplace opening. Floor level hearths may have a minimum of a 16" noncombustible protrusion, but 20" is recommended for extra spark protection along with the 8" side protection.

Raised hearths must be constructed of all non-combustible material. Floor level hearths may be placed on top of combustible material provided there is 1/2" thick Micore 300 placed between the combustible floor material and the non-combustible hearth material. **This provides thermal protection for the combustibles.** 

The room air inlet vent at the base of the fireplace must not be obstructed by any hearth material abutting the unit.



Diagram 1

Diagram 2

Set the unit in place on top of 2 piers of 4" concrete block. See diagrams 3 for placement. The base of the upper concrete slab must be at least 72" and no more than 80" from the finished floor. The bottom of the burning chamber must be at least 8" up from the top of the hearth extension height to allow for the lower louver to fit below the firebox. Do not block this louver. Lack of proper circulation and overheating of the masonry will occur. This may create a fire hazard.

#### Top view masonry wall with insulation (when installed in a wood framed outer chase)



Diagram 3 - Intake Louver in Hearth

Мос	lel GVM
Dimension	
А	4"
В	8"
D	60" as shown
E	38" as shown
I	69" as shown

5/8" fire code sheet rock. 2x4 stud wall shown.

Refer to other drawings for other important dimensions.



Under the Door

### **Chimney Requirements**

The GranView requires an 8" inner diameter factory built chimney or a minimum 8 x 12 clay lined masonry chimney. Any factory built chimney listed to UL-103HT may be used. The use of one brand of chimney is required. Do not mix components from several manufacturers as this may cause a fire hazard. Follow the chimney manufacturers' specifications or NFPA 211 for installation procedures and components necessary to create a code complying installation.



**NOTE:** An anchor plate for a factory built chimney must be used to adapt the chimney to the unit. Secure the anchor plate using 4 self tapping metal screws and seal it to the flue adaptor using 600 degree RTV silicone. See the diagram on page 13.

A firestop and/or a radiation shield is required at each location where the chimney penetrates combustible materials, except at the roof level where a flashing or chase top is employed. Install and seal a storm collar to the section of chimney penetrating the flashing to prevent moisture from entering the chimney structure.

The roof penetration must meet the minimum clearance to the chimney just as any other combustible must. Use a roof support to secure the chimney as it passes through the upper roofing system.

A chimney cap is required on all installations to validate the warranty. Do not connect this fireplace to a chimney that serves another appliance.

### **Chimney Height, Offset and Clearance Requirements**

The total height of chimney used on this installation must be a minimum of 15' from the base of the unit to the cap with a maximum of 36'. Roof supports or other listed supports must be used for factory built chimney systems. The chimney must extend at least 2' higher than any roof or wall that is within 10' of it or a minimum of 3' above a chase top or flat roof. If a factory built chimney is exposed more than 6' above the roof, a roof brace must be used to secure it in place. Read the chimney manufacturer's instructions for complete details and specifications.

The maximum offset that can be used with this appliance is 30 degree. Use no more than two sets of 30 degree elbows for the installation. Our factory offset pipe, if used, constitutes 1 set of offsets. To ease cleaning, elbows should have at least one pipe section between them. Support the elbows as required by the chimney manufacturer.

The chimney must be enclosed when it is installed in or passing through a living area where combustible material or people may come in contact with it. This is important to prevent personal injury or a fire hazard. Consult the chimney manufacturers instructions for details and clearances.

All framing material, supports and insulation must maintain a 2" minimum clearance to any portion of the chimney. This area must not be filled with **any** material. Failure to maintain the 2" minimum clearance will result in a fire hazard. Follow the chimney manufacturer's installation instructions and clearance recommendations. Typical minimum framing for 8" 2100 degree HT chimney is 14-1/2" x 14-1/2". **Consult the manual for the chimney brand selected to verify all dimensions.** 

When a chimney chase is to have multiple flues in it, it is recommended that their terminations be at least 16" horizontally apart and 12" vertically apart. This is done to reduce the chance of smoke migrating from one chimney to the other.

### The Chase Enclosure

The chase is a framed structure created to encase the fireplace and chimney system when a full masonry encasement is not used. A chase should be constructed just like any other wall. Exterior chase construction must be insulated on the sides, back and ceiling. The R value of the chase should be the same as the rest of the exterior walls. Any insulated chase walls must be covered with sheetrock or sheeting with vapor barrier to contain the insulation.

### **Combustion Air Requirements**

The GranView fireplace is designed to use outside air to supply each and every combustion air port inside of the fireplace. This creates a sealed system for air supply, eliminating fireplace odor due to negative pressure in the home. The supply air hook up is located on the lower left of the fireplace as you face it. A minimum 4" diameter supply pipe is required for combustion air ducting. If ducting more than ten feet for combustion air, use a 6" pipe and reduce it to 4" at the unit connection. Do not duct over 25' for combustion air, or have more than three 90 degree bends in the supply pipe. **Do not terminate the air supply duct in an attic, garage or unventilated crawl space.** An insulated class 1 duct must be used outside of the masonry chamber to reduce the effect of cold transfer. To duct 5' or less, use the standard air kit provided with the fireplace. The standard kit includes a screened exterior vent termination. Use this termination on the exterior of your structure. Install this duct with an "S" trap to minimize air flow when the unit is not operating.

The combustion air inlet pipe must not rise vertically inside the heat chamber. This could cause a reverse flow of exhaust when the doors are opened to refuel. To duct combustion air from above the fireplace unit, the inlet duct must pass through the back or side wall of the masonry chamber using the 90 degree elbow attached to the unit intake. Attach the 5' of flexible aluminum provided to the elbow and penetrate the masonry wall. Once outside the masonry, you must use insulated class 1 duct for routing of the air supply to the exterior. This will eliminate condensation of moisture on the air inlet line. Use only noncombustible air supply lines inside the masonry chamber.



Masonry chamber

### **Enclosure Framing**

The framing of the fireplace enclosure must not infringe on the area above the fireplace unit to ceiling level. The only combustible material permitted in this space is a header across the opening, and this must not be closer than 12" to the upper concrete slab.

Framing materials must be at least 1-1/2 x 3-1/2" covered with sheeting. **The minimum finished frame opening is 60"** wide, 88" tall and 40" deep from the finished face of the fireplace.



**NOTE:** No framing material may be located above the fireplace structure less than 12" above the upper concrete slab. See page 6 for diagrams.

### **Doors for the GranView**

Each fireplace requires a door provided by Wilkening Fireplace Co. to complete the listed unit. To install the door, a heat resistant gasket and mounting screws are provided in the door carton. Remove the paper backing from the heat resistant gasket, exposing the adhesive backing. Apply this gasket on the unit face on the outside edge of the predrilled holes surrounding the fireplace opening. Use the 8 screws provided in the door carton to attach the metal frame to the unit face. Use the anti-seize provided on screws before installing. Do not operate this unit without doors. Do not use any other door with this unit. If your door wears and needs replacement over time, contact your dealer or Wilkening Fireplace Co. for the appropriate replacement.

### **Optional Blower Assembly**

An onboard blower is available to boost the performance of the heat circulation system when using the lower louver for air inlet. This blower is a two speed, twin squirrel cage fan. The blower is mounted at the base of the fireplace, at center, 4" behind the lower grill.

#### Wire nut all connections.

Make sure that no wire contacts the steel surface of the unit, as melting of the insulation could occur. The fireplace must be grounded through a metal electrical box located behind the lower louver. This will eliminate the risk of electrical shock.

The high side of the blower may be connected to a wall-mounted rheostat for variable speed operation using the white as a neutral.



Internal fan for unit

### **Refractory Liner and Baffle Assembly**

The GranView utilizes a super reflective inner lining of Skamol. These panels protect the metal surfaces and increase the operating temperature of the burning chamber.

The diagram below shows the placement of this liner and upper baffles. Care must be taken when handling these pieces as not to damage them. Do not operate this unit without all the baffles and inner liner in place as overheating of the chimney connector and fireplace components may occur.

Once in place, the liner is supported by brackets. If a hair line crack occurs in the liner and it remains in place, it does not have to be replaced. Replacement of a refractory is necessary if it becomes damaged to the point of falling loose or having gaps between pieces.

Install the steel baffle with holes notched into it in the upper throat of the fireplace. This baffle is placed on the metal tabs which extend into the upper area, above the secondary combustion air tubes. To install the refractory liner and baffle assembly, install the two upper side refractory panes above the side air tube first (part #6) then place the two bottom refractory pieces (part #1 & 2) in place. Position the two piece back panel in place (part #3) using the "U" shaped stainless steel clip to connect them on the top center edge. Place the four side pieces in place (part #4) start by sliding the front ones in position before each back one. Place the refractory panel (part #5) over the top edge of the air tubes and slip into place allowing it to rest on the top edge of the back panel. Position the 2 piece refractory top baffle plate in place on top of the dual stainless steel air tubes. See the diagrams on page 15 for placement of the refractory and baffle assemblies.

### **Painted and Plated Surfaces**



**Refractory Liner Placement** 



Baffle placement

This appliance is painted with a 1200 degree high heat paint. This paint is an open cell material that allows for heating and cooling without cracking or chipping. During the first several fires this paint will cure, giving off an odor with some visible smoke.

Due to the open cell nature of this paint, moisture can impregnate the surface causing rust to form. If this occurs, lightly sand the surface and repaint with Stove Bright Satin Black paint (#1990) available from your dealer.

Plated surfaces require no polishing to retain their luster. If a plated surface is polished it may remove the plating, exposing the base materials below. To maintain plated surfaces simply wipe them with a damp, soft, cotton cloth.

Remove all plated finish items and store them in a safe location during installation to ensure that they do not become damaged. Sheet rock compound will discolor any plated surfaces.

**Failure to follow these installation instructions will void your warranty and cause a fire hazard and property damage, which may result in loss of life.** These installation instructions are an integral part of this tested listed unit. Strict adherence is required. Prior to installation, check with state and local building officials regarding: building permits or licenses and codes that apply to your area. DO NOT alter dimensions B or G stating the width and depth of the inner block heat chamber. If the owner wants a wider fireplace structure, move the outer veneer walls to the desired dimension. If you have any questions, call your dealer or (218) 547-3393 for factory direct assistance.

- 1. Pour a properly reinforced concrete base for the fireplace footings with a minimum foundation not less than (12) twelve inches in thickness extending at least (6) six inches on each side of the footing. This footing and base MUST extend below the frost line. Use no less than (8) eight pieces of #4 reinforcement rod laid at right angles to each other in the base. For the base size, refer to dimensions D and E and add (12) twelve inches to each. The concrete base must be no less than a 4000 PSI mixture, poured on fill material in accordance with state and local codes. Failure to create a properly reinforced footing will result in structural damage and may create a fire hazard.
- 2. Construct the footing using 8 x 12 x 16 cement block up to a height of 4" below the finished floor level. At this point, the foundation block should be reduced to allow for the thickness of the outer veneer material, and if an outside installation, a minimum of a 4" insulation barrier. A 4" concrete slab is to be cast on this footing level with the finished floor height with no less than 4 pieces of #4 rerod cross lapped and tied. See diagrams on page 12. CAUTION: DO NOT ALLOW THE CONCRETE SLAB TO CONTACT THE OUTER VENEER WALL ON AN OUTSIDE CONSTRUCTION. If this would occur, severe cold transfer will occur. Note: A metal plate is provided to rest the hearth stone onto for raised hearth installations. Position this plate on top of a 4 x 8 x 16 cement block. See Diagram 3 on page 6.
- 3. The minimum side distance from a combustible wall to the fireplace opening is (19) nineteen inches. If a raised hearth is used, it must be noncombustible and extend at least (16) sixteen inches in front of and at least (8) eight inches to each side of the fireplace opening. The hearth height should be no less than (10) ten inches and no more than (14) fourteen inches in height. The burning chamber sets on cement block piers (typically a 4" block turned on its side). If installing a fan into this unit, refer to the instruction and electrical information in each fan kit, and refer to Diagram 1, 2 & 3 for this type of installation. If a non-raised hearth is used, it must extend (16) sixteen inches in front of and must extend completely across the face of the fireplace. Refer to Diagram 3s for this type of installation.
- 4. Some installations require (2) two (4) four inch thick masonry walls (consult diagrams). The inner heat chamber walls may be constructed either of (4) four inch lightweight or (4) four inch SOLID cement block. The outer veneer walls may be constructed of either brick, stone or block with a minimum thickness of (4) four inches. As the inner heat chamber is being constructed, recess the side walls to allow for the veneer wall on the face of the fireplace. Insert metal ties into each course on the side walls to ensure proper bond to the face material. **IMPORTANT:** Maintain clearances between the side walls of masonry and the burning chamber as shown by dimension C. Whenever any portion of the masonry chamber extends outside of the frame wall of the home or into a garage a (4) four inch barrier of unfaced fiberglass insulation must be used between the inner heat chamber walls and the outer veneer wall. This insulation must extend below the lower concrete slab to grade level. **WARNING: If this space is not insulated on an outside wall construction, severe cold transfer will occur. DO NOT use styrofoam or expanded polystyrene as this will melt and burn. An optional construction method is to construct the (4) four inch inner heat chamber walls as described and assemble a chase with an inner lining of 5/8" fire code sheet rock. Maintain a (6) six inch clearance from the outside of the block to the inside of the sheet rock. This area is to be filled with unfaced fiberglass insulation. Never use polystyrene or plastic insulation as this may melt or burn. The chase may be covered with any approved building material.**

- 5. Position the burning chamber on the block piers. The front legs adjust for leveling. Attach the 90 degree elbow and flex pipe to the air inlet with the clamp (both of these items are furnished). If ducting more than 10 feet, increase the duct size to 6 inch at or before 10 feet. This is done to allow ample combustion air for the fire. Continue with the air intake pipe to its termination point. The termination must be to the building exterior, screened and terminate above the snow line. DO NOT terminate this duct in an attic, garage or unventilated crawl space. A screened vent is included. Always source the combustion air from the closest point to the exterior. No more than a 25' run in length.
- 6. Permanently secure all pipe connections with sheet metal screws or pop rivets and seal with furnace cement. If the air intake pipe runs through the building interior, adapt the aluminum pipe to class 1 insulated plastic duct after it exits the heat chamber, or condensation will occur.
- 7. The finished height of the upper concrete slab to be cast must not be closer than 12 inches to the ceiling headers or any other combustible material above it. In rooms with vaulted ceilings, the base of the upper concrete slab must not exceed 80" in height, measured from the floor. Construct the inner heat chamber walls. The maximum height is determined by the ceiling height. The top row of concrete block must allow at least a 16" clearance to the finished ceiling height. See Diagram 2 on page 6. WARNING: No combustibles may be closer than 12" to the upper concrete slab.
- 8. The air control rod protrudes through the lower left side of the door frame. Check that the air intake control operates freely.
- 9. Install the flue connection pipe by setting it into the flue outlet on the burning chamber and attach with metal screws. Offset pipe are available through your dealer. The maximum angle of an offset pipe or any approved chimney system is 30 degrees. If this angle is exceeded, poor draft and back smoking will occur. Never extend the single wall metal pipe outside of the heat chamber in any manner other than shown in Diagram FC1 or FC2 (shown on page 13), as a fire hazard may result.



This drawing shows position of plywood form for pouring upper concrete slab on. Refer to step 10.



10 ft. chimney height



18 ft. chimney height



#4 reinforcement bar



28 ft. chimney height

**NOTICE: All forms and temporary supports MUST BE REMOVED when concrete is cured.** Drawing NOT to scale.

10. A (4) four inch minimum thickness, 3000 psi mixture, concrete slab reinforced with a minimum of (7) seven pieces of reinforcement rod (see reinforcement rod placement diagrams) must be cast. As this slab is cast allow for a minimum of a 12 inch clearance from the top of this slab to any wooden frame materials. This space is to be insulated with (6) six inches of unfaced fiberglass insulation after the chimney is completed. AN UPPER SLAB POUR PLATE IS AVAILABLE FROM YOUR DEALER for a permanent form to cast the slab onto. The pour plate comes with most of the reinforcement rod necessary and is designed for a straight run face wall. The pour plate overlaps the side and back heat chamber walls by (2) two inches and is prestressed to carry the weight of the slab until it cures. To ensure that the upper slab does not contact the outer veneer walls on an outside installation, place (4) four inch cement block around the perimeter of the pour plate, creating the spacing required. Another alternative to the pour plate is to build a temporary form from plywood, as shown in the preceding diagram, and support with temporary posts until the slab cures. Cut the form in half and cleat together to ease removal. Position a board across the front of the form ensuring room for the face material to pass by it. Take care that the concrete being poured does not infiltrate the insulation space on an outside installation. This will cause cold transfer to occur. NOTE: ALL PLYWOOD AND TEMPORARY SUPPORTS MUST BE REMOVED AFTER THE SLAB CURES. Any combustible within the heat chamber will BURN.

#### NOTICE FOR INSTALLING IN SEISMIC ZONES



When installing this product in seismic zones, the reinforcement in the upper concrete slab must be cast in place with no less than the minimum number of #4 reinforcement rods (see reinforcement rod placement diagrams). These rods must conform to chapter 10 of the IRC (International Residential Code). The upper slab must be no less than (4) four inches thick and of a 3000 psi mixture. All reinforcement rods must be end bent and tied to all vertical fireplace reinforcement rods and anchored to the wall where applicable. A minimum of (4) four #4 reinforcement rods must be end bent and tied to the horizontal rods embedded in the slab. These rods are to extend vertically and be spaced in accordance with the width of the masonry chimney. This fireplace and chimney structure must have reinforcement rods tied and space in accordance with chapter 10 of the IRC. This chimney must be built in accordance with NFPA 211 standards.

11. Place the chimney adapter into the flue connection pipe. Fill the void between the bottom of the adapter and the top of the concrete slab with masonry cement. The base of the adapter must be suspended above the pipe to provide expansion of the pipe when heated. Position brick or block around the perimeter of the adapter to hold the cement in place. This provides support for the chimney to the concrete slab. For a class A 2100 degree metal chimney, a different adapter is available from your dealer. For use of a metal chimney, skip step 12 and go to step 13. See Diagram FC2. Failure to use a chimney adapter may result in a creosote leak and void your warranties.



Diagram FC1 - Clay flue adapter

Diagram FC2 - High temperature chimney adapter

- 12. Set the first flue tile into the clay tile adapter and install the block or brick around it. See Diagram FC1. **This unit requires a minimum 8x12 O.D. clay flue tile.** For chimneys that use less than 12 foot of clay tile liner, a 12 x 12 O.D. flue is recommended for a proper draft. Wilkening does not warrant "smoke free" operation, nor are we responsible for inadequate system draft caused by mechanical systems, general construction conditions, inadequate chimney height, adverse wind conditions and/or unusual environmental factors beyond our control. This chimney must conform to chapter 10 of the IRC, NFPA 211 and other building codes.
- 13. If a class A 2100 degree metal chimney is used, do so in accordance with the chimney manufacturer's directions. An (8) eight inch inner diameter chimney is required. Attach a chimney starter plate to our adapter. See Diagram FC2. Place one section of liner in place at a time, supporting and maintaining clearances as recommended by the manufacturer.
- 14. Construct the chimney to the proper height. All masonry chimneys must have a (4) four inch minimum encasement of masonry, preferably insulated between the liner and the encasement. Maintain at least a (2) two inch clearance between the chimney structure and any combustibles **(see state and local building codes)**. The chimney should terminate at least (3) three feet above any flat roof, or (2) two feet above any point that is within (10) ten feet of the closest peak (measured from the inside of the liner horizontally to the roof slope.) The chimney or fireplace structure must not be used as a structural support for any framing material. Combustible material embedded into this structure is a fire hazard.
- 15. Finish the outer veneer walls of the fireplace, IMPORTANT: Use unfaced fiberglass insulation as an expansion joint between the side walls of the burning chamber and the masonry and between the back and bottom of the lintel and the top of the burning chamber. This fiberglass should be 1/2 inch thick and (4) four inches wide. Allow at least 3/8 inches of expansion room between the masonry face and the burning chamber. A lintel iron must be used across the face wall opening. NO metal or masonry may contact the burning chamber as cracking of the face wall will occur from thermal expansion during use.
- 16. When using a combustible mantle, a minimum of 24 inches of clearance is required between the top of the fireplace opening and the bottom of the mantle. The top of the mantle must be no closer than (8) eight inches to the bottom of the heat outlet louver. Non-combustible mantle can be placed at any height. The masonry work must be structurally capable of supporting all imposed loads of the mantle. The maximum mantle depth is (14) fourteen inches.
- 17. Position the upper louver so that the top of it is flush with the bottom of the upper concrete slab. If a pocket is created at this location, reduced natural circulation will result. The fins on the louvers point downward. Improper placement of the heat outlet louver will result in excessive temperatures due to increased heat. This may cause unit failure and a fire hazard. If a masonry inlet and/or outlet is used instead of our louver, the open surface area must be 210 sq. inches and be positioned as stated above.
- 18. Continue with the face wall to the ceiling height. Fill the void between the face wall and upper slab with cement. If this void is not sealed, heat will flow through the void into the upper cavity and may create a fire hazard. For additional circulation of heated air throughout the home, it is recommended to position a cold air return to your forced air system in the ceiling directly above the heat outlet louver. DO NOT directly connect this fireplace to your forced air system.
- 19. Clean the face wall to remove any cement residue on the masonry material. CAUTION: Caustic cleaning solvents will discolor any painted surface they contact and cause rust to appear.
- 20. Install the doors according to the instructions in the door carton. The door is provided with a roll of thermotape to be used as a seal between the back of the door and the burning chamber. To do this, remove the paper backing and stick it to the outer perimeter of the fireplace front. Install skamol/refractory panels and steel baffle as shown on page 10.
- 21. If you or your contractor have any questions, contact your dealer or call (218) 547-3393 for factory-direct assistance. **Read and understand these instructions before beginning.**
- 22. Save these and other instructions provided for future reference. **Do not allow the owner to operate this unit for at least 3 weeks from completion.** Premature usage may result in deterioration of the masonry cement, which will cause cracking. Refer the owner to warranty card and operation instructions packaged inside. Save for subsequent home owner.



8" x 12" clay flues with 4" of masonry shown. Gaps between walls are 4" insulated spaces.

## Corner model installation and stacking of units on two levels

	Model GVM				
Dimension			Dimension		
А	44"		Н	10"	
В	40"		I	65"	
С	28"		J	128"	
D	90"		Х	80"	
E	32"		Y	86"	
F	18"		Z	64"	
G	28"				

Dimensions shown are for (2) masonry wall (4") thick with (2") of insulation. Footing size must exceed perimeter by 6" on all sides.

### Consult instructions for complete dimensions before starting.

No hearth extension shown. Minimum hearth width=56" Minimum hearth depth=16"



#### **Creosote Formation and the Need for Removal**

When wood is burnt, it produces organic vapors and tar which combine with moisture that is expelled from the wood and forms a black deposit called creosote. The creosote forming vapors condense in the relatively cool flue liner of a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, creosote burns extremely hot. Excessive accumulation of creosote, if ignited, can cause over heating of the chimney, chase and fireplace structure. Overheating is a fire hazard. Creosote accumulation can be minimized by burning hot fires using only well-seasoned, air dried fuel. Any wood that sizzles in the fire will produce excessive creosote formation in the flue and should not be used.

Regular chimney maintenance combined with the proper burning techniques will prevent chimney fires. Keep the chimney area, cap and flue lining free of build-up. Do not allow more than 1/8 inch to accumulate between cleanings to avoid a chimney fire. Cleaning intervals will depend on individual use practices and your fuel. Do not use wood with more than 20% moisture content. Moisture meters are available through your dealer.

We recommend monthly inspection of the chimney system and cleaning if needed. At a minimum the chimney should be inspected at least twice during the heating season to determine if a buildup has occurred. This will allow you to learn how your burning style affects the formation of creosote in the flue. Have your chimney professionally cleaned. If you choose to maintain it yourself, remove the cap on top of the chimney and use a stiff plastic/poly brush. Metal brushes will damage the stainless steel chimney due to scratching of the inner surfaces. Prior to cleaning the chimney, remove the steel and refractory baffles located in the throat of the fireplace and the angled refractory above the fire chamber so any creosote that falls into the system during cleaning falls down to the base of the fireplace. Remove the creosote from the firebox prior to starting the next fire. Creosote left inside the fireplace will burn at an extremely high temperature and may damage the fireplace or chimney system.

### If You Have a Chimney Fire

If a chimney fire occurs, close the combustion air control by pushing it into the locked position. Verify that the doors are fully closed, summon the fire department, alert your family of the possible danger and evacuate the premises. A chimney fire is a serious condition that may result in loss of property and life.

Do not use the fireplace if you suspect that you have had a chimney fire until the entire system has been inspected by a certified sweep or others qualified in the area of chimney/fireplace safety.

### Ashes

Removal of ashes should be done when the fire is out and the ash is cold. A special ash bucket is available from your dealer to ease the ash removal process. Always empty ash into a metal container with a lid. Close the lid tight and set it on a non-combustible surface well away from any combustible material. Do not store ash in your home. Never use a cardboard box for ash removal.

**Disposal of ashes:** The closed container of ashes should be placed on a noncombustible surface or the ground, well away from combustible materials, pending final disposal. If ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Hot coal in the ash can remain potentially dangerous several days after removal.

### **Care of the Glass Panels**

The glass used in this fireplace is a 1400 degree ceramic glass. If for some reason it ever breaks, replace it with a similar material as a regular glass or tempered glass cannot withstand the intense temperature that the fire creates. Contact your dealer or Wilkening Fireplace Co. for proper replacement parts. To replace the glass remove the screws from the outside perimeter of the glass frame, lift the U channels with gasket out and clean any fragments before reinstalling the new glass.

To clean the glass, use an ammonia based cleaner, locally available fireplace glass cleaners or Speedy White. Contact your dealer or Wilkening Fireplace Co. to obtain Speedy White glass cleaner. Take care not to apply the cleaner in a manner that it contacts painted areas or electroplated surfaces as discoloration may occur. Cleaner combined with the creosote will cause the gaskets to harden.

Use a soft cotton cloth or paper towel to remove the smoke/cleaner residue. Do not scrape the glass with razor blades or abrasive pads. This will damage the glass and may cause failure. Clean the glass only when the unit has cooled to room temperature.

### Heat Output

The GranView fireplace generates the greatest BTU output when smaller, split fuel is used. The unit is operating at peak performance when the flames burn clean and clear.

This is a single burn rate appliance. Never close the combustion air supply when the fire is burning. The fire requires air for combustion and closing the air supply will exhaust the fire and create a buildup of gasses in the combustion chamber.

### Front Clearance

Keep any combustible materials at least 3 feet away from the front of this fireplace. This includes furniture.

### Refueling

When adding fuel to the fire it is important to crack open the doors for 15 seconds to clear any smoke. For optimum performance always maintain a hot firebox temperature. This is achieved by maintaining a hot coal bed and not stacking or overloading the unit with fuel. Failure to do so can create a smoldering, smoky fire. Maintaining a hot firebox will minimize smoke on the glass and creosote in the chimney.

### Doors

**WARNING:** Fireplaces equipped with doors must be operated with BOTH doors fully open or fully closed. If the doors are partially open, gas and flame may be drawn out of the fireplace opening, creating risks of both fire and smoke damage. Doors may be cracked open on a cold start up or when refueling for up to 15 minutes.

### **Back Smoking**

To minimize smoke from entering the room when refueling, crack both doors open slowly at the same time and refuel.

Excessive amounts of fuel or wet fuel will also create the potential for back smoking when the door is open due to over capacity of burning fuel or low draft due to low firebox temperature.

Chimney blockage due to foreign objects (leaves, nest, etc.) or excessive creosote in the flue will minimize draft of the chimney and can be a cause of poor draw.

Lack of chimney height will also contribute to poor draw. The chimney must extend at least 2' taller than any roof or structure that is within 10' of it. When this unit is installed with offsets, it may also be necessary to compensate for the decrease in draw with additional chimney height.

Open both doors at the same time, slowly. This will minimize the vortex action created by the air flowing into the fireplace and will reduce the possibility of back smoking once the doors have been opened fully.

If the fireplace has been operating properly and all of a sudden starts to smoke, check that the chimney cap has not become plugged or that loose creosote has not fallen down the chimney and is obstructing the holes in the upper most baffle.

### **Annual Inspections**

Every fireplace should have an annual inspection before the first fire of the year to verify that all components are working properly and that the chimney is ready for use. We recommend contacting a Certified Chimney Sweep or your dealer for this yearly inspection even if you clean your own chimney during the year. This will assure you that there has not been any breakdown in components or blockages that could result in a fire. As trained professionals, they can fully assess your system.

### **Starting the First Fire**

#### **The First Fire**

The first two fires should be small, short in duration (less than one hour) and not contain rapidly combustible material such as building scrap or siding. The first fire should be especially short as this will remove most of the moisture in the refractory liner and heat cure the gasket cement. The first several times of use will produce a slight odor or smoke as the painted surfaces are curing.

For this reason the room should be well ventilated during the initial fires. During the curing process, the glass may develop creosote stains as the fire is not hot enough for it to "self-clean".

#### **Starting the Fire**

To start a fire, open the combustion air supply by lifting up slightly on the handle on the lower left of the fireplace front. An internal spring will open the supply. Place 8-10 sheets of newspaper crumpled into balls in the center of the firebox. Lay two, small diameter, split logs on each side of the paper with the cut end facing you. Build the fire directly on the base of the unit. Do not use a grate or andirons to elevate the fire. Place dry kindling on top of the paper and logs in a crisscross fashion, leaving room for air to flow between them. Light the paper and leave the door ajar for 8-10 minutes. This will induce a draft in the chimney and start the wood burning.

Place additional kindling on top of the burning matter and close the doors. Once this fuel load is about half consumed, add several pieces of cord wood up to 4" in diameter. Once the unit has been heated, larger cord wood can be added. For the cleanest burn and most active fire, it is recommended that the wood be placed in a crisscross fashion to allow air to enter under the fire.

Tightly stacked wood will result in slower fires and smoke on the glass panels.

#### Negative Pressure in the Home

With the advent of tighter homes, it has become apparent that the lower levels of these homes will have a lower pressure level than the upper areas. This is caused by the "stack effect" of the house (the structure acts like a chimney). To overcome stack effect, close any windows in levels above the fireplace installation and open a window on the level the fireplace is installed. The best window to open is one that the wind is blowing toward. With no fire in the fireplace the chimney should still draw air from the room into it when the doors are opened. If air drops down the chimney and enters the home when the door is opened a negative pressure exists in the home. To overcome this when starting a fire, crumple several pieces of newspaper and place them in the firebox and light, closing the doors with the combustion air supply open. The heat of the fire will create draw in the chimney, which will help overcome the pressure difference between the room the fireplace is located in and the chimney.

# 

- Never block the air circulation grills, either the inlet or outlet. This will create overheating of the structure and a possible fire hazard.
- Never use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "freshen up" a fire in this fireplace. Keep all such liquids well away from the fireplace while it is in use.
- Use only solid wood or processed solid fuel fire logs. Do not poke or stir the fire logs while they are burning. Use only fire logs that have been evaluated and listed for use in a fireplace. Refer to the fire log warnings and caution markings on the packaging prior to use. Do not burn coal.
- Contain the fire behind the internal log retainer. Accidental spillage of burning fuel may occur when the door is opened if fuel exists in front of the retainer.
- Never load the fireplace with cardboard, paper or rapidly combustible material. This will cause overheating of the steel structure and a possible fire hazard.
- Do not allow this unit to smolder or burn without flame. This will create excessive creosote formation which may lead to a chimney fire.
- Always have a fire extinguisher, rated for multi-purpose, readily available near the fireplace in case of a dangerous condition.
- Failure to use or install this fireplace as stated in this manual will void all warranties and may create a dangerous condition which may result in loss of property or life.
- Never plug the outside air supply. Unlike "normal" fireplaces, the GranView fireplace cannot leak cold air into the home due to our totally sealed air connection and air tight doors on the unit.
- Never use this unit with broken or missing firebrick panels.
- Do not burn treated wood or wood that has been immersed in saltwater.
- Do not use a fireplace insert or other products not specified for use with this fireplace.
- It is recommended to install a smoke detector and CO detector in the room where the fireplace is located.
- If any part becomes damaged contact your dealer or Wilkening Fireplace Co. for an appropriate replacement. Do not replace any part with substitute materials.
- Warning: Do not slam the doors closed as damage to the glass panels and door frames and gaskets can occur. Cracked or broken glass must be replaced prior to use.
- Caution: Do not build the fire directly against the glass.
- Caution: This fireplace requires air to operate. Do not operate this appliance with the outside air supply closed as a buildup of gasses inside the fireplace may cause an explosion or excessive creosote buildup.
- Warning: **Do not over fire** this appliance. Damage to this appliance will occur which may cause a structure fire and result in a loss of life.

	Description	Part Number			
	Inner Liner Components (see diagram)	Inner Liner Components (see diagram)			
Stainless "U" Connector	Bottom	GV-01/GV-02			
	2 piece back	GV-03			
	4- Lower side panels (each)	GV-04			
	Back Angle liner	GV-05			
	Upper side liner (each)	GV-06			
	Top Tube Refractory (2 pc.)	GV-07			
	Door Gasket kit ¾" braided gasket includes enough for entire door assembly	GVDGK			
	Glass Panel for Rectangular Tudor	GVRCGTD			
	Glass Panel for Arched Tudor	GVACGTD			
	Glass Panel for Rectangular Single Door	GVRCGSD			
J <u>JJJ</u>	Removable Log Retainer	GVLR			
_	Door Handle Right	GVHANDR			
1" x ½" x %"Channel ound asket rame	Door Handle Left	GVHANDL			
	%" flat gasket with adhesive to seal channel to	GV5/8WADH			
	¾" flat gasket with adhesive to seal glass to door frame	GV3/4WADH			
Wood Handle					

### **About Wilkening Fireplace**

The **"Wilkening Fireplace"** was invented in the fall of 1972 by Albert Wilkening of Walker. Al was frustrated with the inefficiency of the "Heatilator" fireplace recently installed in his retirement home. Being a steel fabricator all his life, he set out to build a better model. A steel heat exchanger that used outside air to feed the fire with a masonry surround to store heat and a circulation system that did not rely on fans.

This venture was never intended to be a business. All Albert wanted to do was make his fireplace heat better. Within months neighbors who had seen his fireplace at work wanted one. In the early years Al fabricated the units and installed them. The Fireplace Home Heater was born.

As the word spread about this new invention Al and his wife Ruth had people from all over the state and country visiting their home. Their living room turned into a show room with sales transactions at the kitchen table. Many evenings and weekends were spent showing customers their products as people traveling through the area stopped to see the fireplace in operation. Production in the early years was done in their 40' x 40' detached garage.

The 1975 Minnesota Inventors Congress proved to be a turning point for this company. As the winner of two awards, the Fireplace Home Heater and Wilkening Fireplace Company were an instant hit. Orders increased to the point where a new facility was needed. Our present location was purchased and constructed.

In 1977 Albert and Ruth's oldest son Don joined the team as production manager with Albert on design and Ruth running the office. By the late 1970s Wilkening Fireplace was shipping units to contractors and masonry supply houses nation wide. In July of 1979 Albert passed away, leaving the family business to Ruth and two of his seven children. Ruth, Don and Gary continued the endeavor promoting the now famous "Wilkening Fireplace" at regional and national shows. Ruth was active in the business through 1984 when she retired.

Don and Gary, now in charge, set off to refine the line by improving the combustion technology of their fireplaces. A firebox with multiple air inlet ports was designed to create a carburetor like effect, mixing super heated outside air into the fire at the precise location to create secondary combustion of the smoke without a catalytic converter . Arched air tight doors were designed to fit the units with 24 carat gold plating to complement the finish. Air tight fireplace doors and heat circulating fireplace inserts were also added to the line broadening their product offering.

In 2001, after years of dedication to the design and manufacture of their lines, Don retired. Gary, along with his elite staff, continues the family tradition today.

Wilkening Fireplace Co. Walker, Minnesota Visit our website at wilkeningfireplace.com