

VANGUARD®

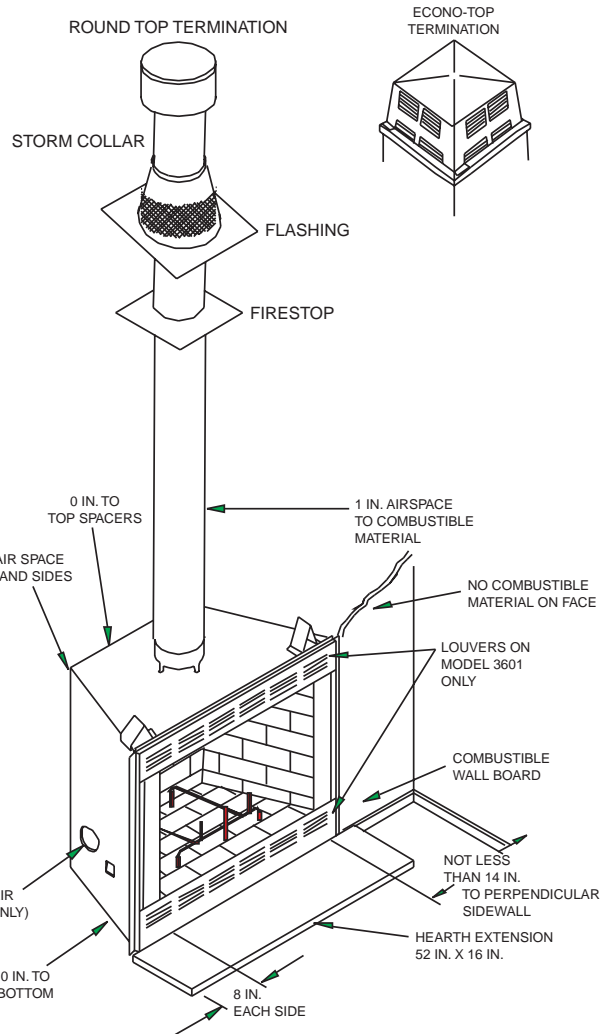
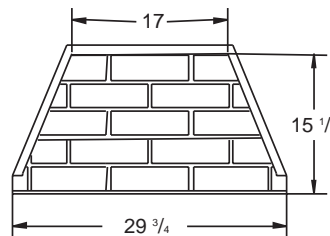
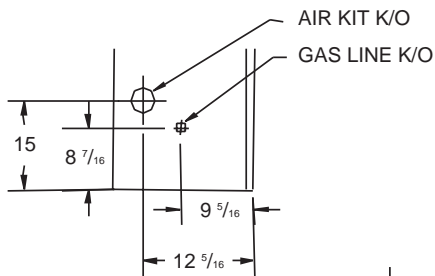
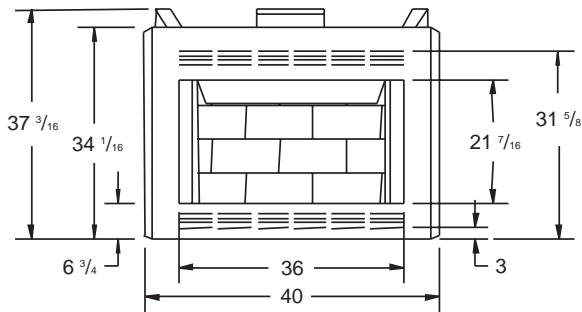
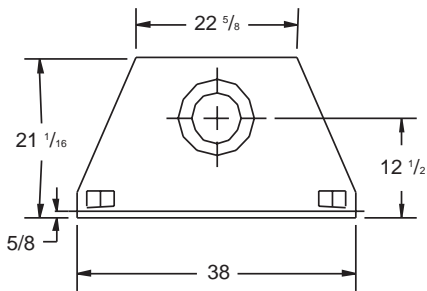
INSTALLATION INSTRUCTIONS

BARON™ WOODBURNING FIREBOX

V3600 Non-Circulating
V3601 Circulating

SAVE THIS BOOK

This book is valuable. In addition to instructing you on how to install and maintain your appliance, it also contains information that will enable you to obtain replacement parts or optional accessory items when needed. Keep it with your other important papers.



DESA INTERNATIONAL,
2701 INDUSTRIAL DRIVE
P.O. BOX 90004
BOWLING GREEN, KY
42102-9004

Model _____
Serial No. _____
Date Purchased _____

55506
Rev. B
08/99

FOR YOUR SAFETY

- Do not store or use gasoline or any other flammable vapors or liquids in the vicinity of this or any other appliance.
- Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- Do not place clothing or other flammable materials on or near the appliance.
- NEVER leave children unattended when a fire is burning in the firebox.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY, PROPERTY DAMAGE, OR LOSS OF LIFE. REFER TO THIS MANUAL. FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER OR LOCAL DISTRIBUTOR.

WARNING: THIS FIREBOX IS INTENDED FOR USE WITH WOOD, OR IF A VENT-FREE OR DECORATIVE GAS APPLIANCE IS INSTALLED, BURN PROPANE OR NATURAL GAS ONLY.

CHECK LOCAL CODES PRIOR TO INSTALLATION

INSTALLATION INSTRUCTIONS

INTRODUCTION

- Before beginning the installation of your firebox, read these instructions through, completely.
- These Vanguard Components and firebox are safe when installed according to this Installation Manual. Unless you use Vanguard components, which have been designed and tested for the firebox system, you may cause a fire hazard.
- The DESA International warranty will be voided by and DESA International disclaims any responsibility for the following actions:
 - a) Modification of the firebox, components, doors, blower, fans, air inlet system and damper control.
 - b) Use of any component part not manufactured or approved by Vanguard in combination with a Vanguard firebox system.

Refer to your Homeowners Guide for warranty information.

WARNING: DO NOT INSTALL A FIREPLACE INSERT IN THIS FIREBOX UNLESS THE MANUFACTURER'S INSTRUCTIONS WITH THE INSERT SPECIFICALLY STATE THIS FIREBOX HAS BEEN TESTED FOR USE WITH THE INSERT.

This wood burning fireplace complies with **UL 127** as a **FACTORY BUILT FIREPLACE** and is listed and tested by **Underwriters Laboratory Inc.**

This model is not for use in mobile homes.

PROPER INSTALLATION is the most important step in ensuring safe and continuous operation of the firebox. Consult the local building codes as to the particular requirements concerned with the installation of all factory built fireboxes. Although grounding may not be required by code the manufacturer recommends it.

This firebox is not intended to be used as a substitute for a furnace to heat an entire home. Use for supplementary heating only.

MINIMUM CLEARANCES TO COMBUSTIBLES

Framing and enclosures may safely make direct contact with the spacers on the top of the firebox. The firebox may sit directly on combustible flooring (see step 4). The firebox opening must not be less than 14 inches from a combustible perpendicular sidewall. A 1-inch minimum air space clearance between the combustible materials and the chimney must be absolutely maintained. A 14 1/2 inch inside chase dimension is required as a minimum size.

WARNING: DO NOT PACK REQUIRED AIR SPACES WITH INSULATION OR OTHER MATERIALS.

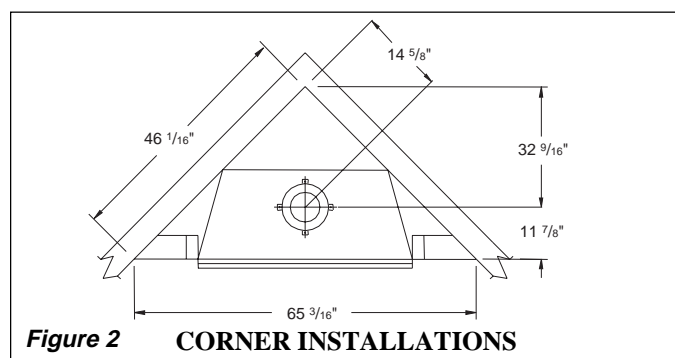
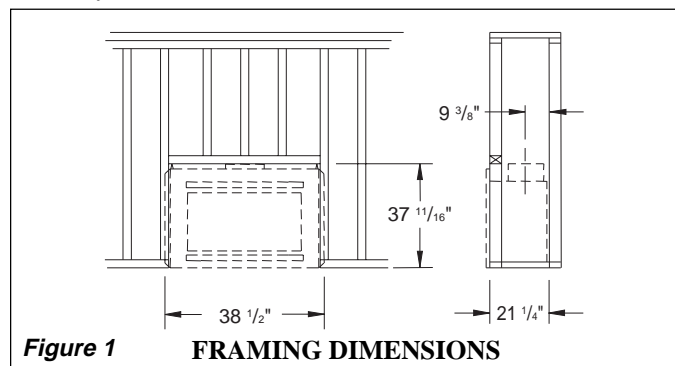
HEIGHT: The minimum height of the chimney, measured from the base of the firebox to the flue gas outlet, is 12 feet for straight flue or a flue with one elbow set. For systems with 2 elbow sets, the minimum height is 22 feet. The maximum height of any system is 42 feet. This measurement includes the firebox, chimney sections and the effective height of the termination assembly.

INSTALLING THE FIREBOX

STEP 1: Frame the opening for the firebox using the dimensions shown in Figure 1 or 2.

STEP 2: Set the firebox directly in front of this opening and slide the unit back until the mounting flanges touch the side framing (see Figure 19, page 7).

STEP 3: Check the level of the firebox and shim with sheet metal if necessary.



STEP 4: When the firebox is installed upon a combustible floor a galvanized steel ember protector (included) must be installed between the firebox and the hearth extension as illustrated in Figure 17, page 6 and Figure 18, page 7.

STEP 5: Secure the firebox to the framing through the nailing flanges located on the sides on the firebox with 8-penny nails or sheet rock screws.

NOTE: The 3/4" clearance is not required at the nailing flange (see Figure 18, page 7).

WARNING: Risk of fire; Replace grate only with Vanguard model 3600 GR. This grate has been designed to keep the operation of your firebox efficient and safe.

ASSEMBLING AND INSTALLING YOUR DOUBLE WALL CHIMNEY SYSTEM

Each double wall chimney section consists of an outer pipe, flue pipe and one wire spacer. The pipe sections are not joined and must be assembled independently as the chimney is installed. When connecting chimney directly to the firebox, the flue pipe section must be installed first with the lanced side up. The outer pipe section can then be installed over the flue pipe section with the hemmed end up.

Press down on each pipe section until the lances securely engage the hem on the firebox starter. The wire will assure the proper spacing between the inner and outer pipe sections.

WARNING: THE OPENING IN THE COLLAR AROUND THE CHIMNEY AT THE TOP OF THE FIREBOX MUST NOT BE OBSTRUCTED. NEVER USE BLOWN INSULATION TO FILL THE CHIMNEY ENCLOSURE.

Continue to assemble chimney sections as outlined above, making sure that both the inner and outer pipe sections are locked together.

When installing double wall "snap lock" chimney together, it is important to assure the joint between the chimney sections is locked. Check by pulling chimney upward after locking. The chimney will not come apart if properly locked. It is not necessary to add screws to keep the chimney together.

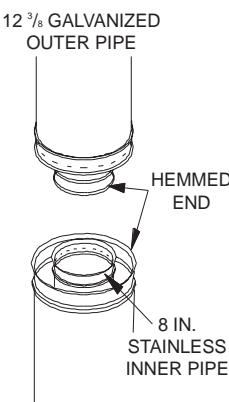
LINEAL GAIN: THE ACTUAL MEASURABLE LENGTH OF A PART AFTER TWO OR MORE PARTS ARE CONNECTED.	LINEAL GAIN		
	PART NO.	DESCRIPTION	GAIN (IN)
	V3600 V3601	FIREBOX	42
	V12-8DM	PIPE SECTION	10 5/8
	V18-8DM	PIPE SECTION	16 5/8
	V24-8DM	PIPE SECTION	23 5/8
	V36-8DM	PIPE SECTION	34 5/8
	V48-8DM	PIPE SECTION	46 5/8
	VRTL-8DM VRT-8DM VRTT-8DM VRTTL-8DM VADS-8DM	ROUND TERMINATION	6
	VETL-8DM VETO-8DM VETLO-8DM VET-8DM	CHASE TERMINATION	1 to 2

Figure 3

FIRESTOP SPACERS

Firestop spacers are required at each point where the chimney penetrates a floor or ceiling joist space. Their purpose is two fold; they establish and maintain the required clearance between the chimney and the combustible materials.

They also provide complete separation from one floor space to another floor or attic space as required by most codes.

When the double wall pipe passes through a framed opening into an attic space, the firestop must be placed into the attic floor as in Figure 4.

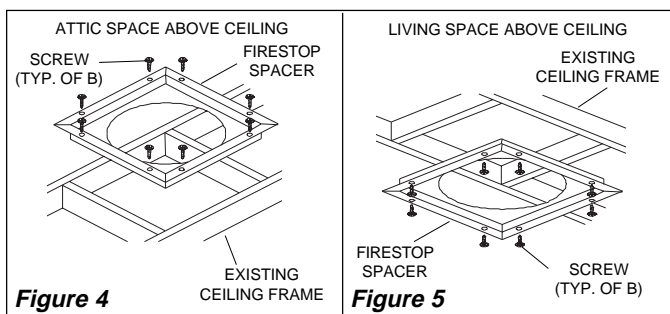


Figure 4

Figure 5

When the pipe passes through a framed opening into a living space above, the firestop must be placed onto the ceiling from below as Figure 5.

SUPPORT SECTIONS

The chimney support section is a strap 4-strap 12" length of pipe. A chimney support is required at the 30-foot level above the firebox after a straight chimney run (Figure 6). This support is designed to relieve the extra weight load on the firebox and elbows when high chimneys are installed.

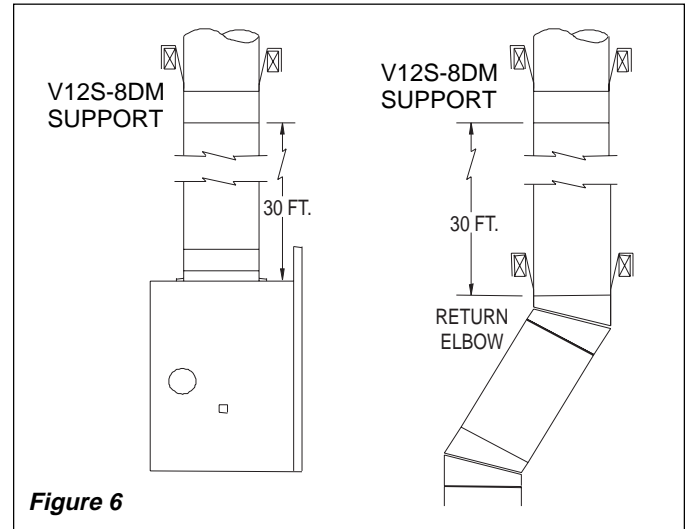


Figure 6

PENETRATING THE ROOF

To maintain a 1-inch clearance to the pipe on a roof with a pitch, a rectangular opening must be cut.

STEP 1: Determine the center point through which the pipe will penetrate the roof.

STEP 2: Determine the center point of the roof. Pitch is the distance the floor drops over a given span, usually 12 inches. A 6/12 pitch means that the roof drops 6 inches for each 12 inches measured horizontally.

STEP 3: From the center point determined in STEP 1, measure an opening 14 1/2 inches wide (8 5/8 inches to each side of the center point). For a roof pitch between 0/12 (flat) and 6/12, measure an opening 19 inches long (8 1/2 inches above and below the center point).

6/12 to 12/12 pitches: Measures 24 inches (12 above and below).

12/12 to 18/12 pitches: Measures 30 1/2 inches (15 1/4 above and below).

18/12 to 24/12 pitches: Measures 38 inches (19 above and below).

STEP 4: Remove the shingles around the opening measured and cut out this section.

STEP 5: Add the next sections of the pipe until the end penetrates the roofline. Check to see that the proper clearances are maintained. Extend chimney by adding sections of double wall pipe until pipe is a minimum of 30 inches above the highest point of the roof cutout. Termination and chimney must extend a minimum of 36 inches above the highest point where it passes through roof (see 10' Rule, Figure 8, page 4).

TERMINATIONS

The firebox and the chimney must be vented to the out-of-doors and must be terminated with the listed round top or chase terminations. If a chase termination is desired, refer to the instructions supplied with the termination.

FOR ROUND TOP TERMINATION ON ROOF

STEP 1: Slide the flashing over the pipe (no firestop is needed at the roof level). Tack the flashing down at the top two corners with roofing nails. Lay tiles over the top and sides of the flashing and secure them to the roof through the flashing with roof nails. Lay tiles under the lower edge and secure these to the roof. Mastic all nail heads.

STEP 2: Install the storm collar on double wall chimney, push collar down to flashing and seal (see Figure 7).

STEP 3: Place the VRT-8DM or VR TT-8DM on the pipe end as illustrated and secure with the screws provided.

IMPORTANT: If an exposed portion of chimney is greater than 5 feet above the roof line, use support wires to keep chimney secure. The wires may be attached to the outer pipe of the chimney with screws, provided the screws are not long enough to penetrate the flue pipe.

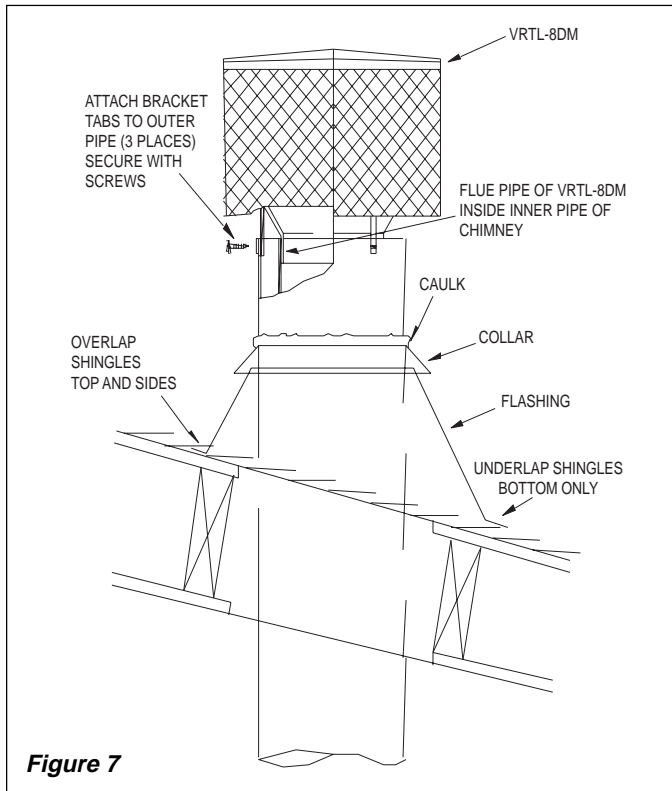


Figure 7

NOTE: The VRT-8DM may be installed on a roof chase. Follow the installation instruction supplied with the termination.

WARNING: Install only the terminations outlined in this instruction and manufactured by DESA International. A serious fire hazard could exist if using non-listed termination not approved or manufactured by DESA International.

The terminations to be used with this model are the VRT-8DM or VR TT-8DM for rooftop or chase style only.

DONOT SEAL THE VENTILATION OPENINGS ON THE ROOF-TOP FLASHINGS.

10 FOOT RULE

All chimney terminations must extend a minimum of 3 feet in height above the highest point where it passes through the roof and must be at least 2 feet above the peak of the roof if within a horizontal distance of 10 feet from the peak (see Figure 8).

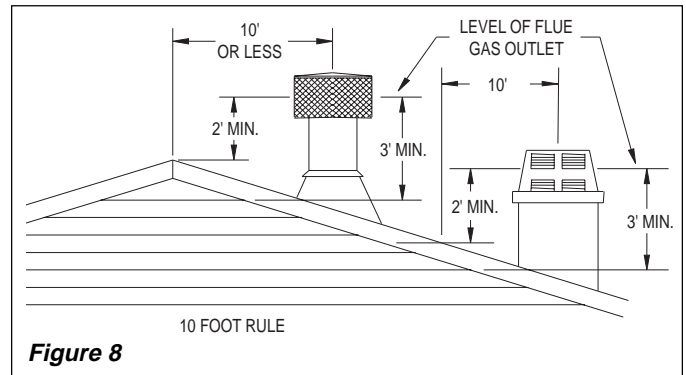


Figure 8

COMBUSTION AIR KIT (MODEL VAK4E)

Remove air inlet coverplate and attach the air inlet collar into the 4" hole on left side only.

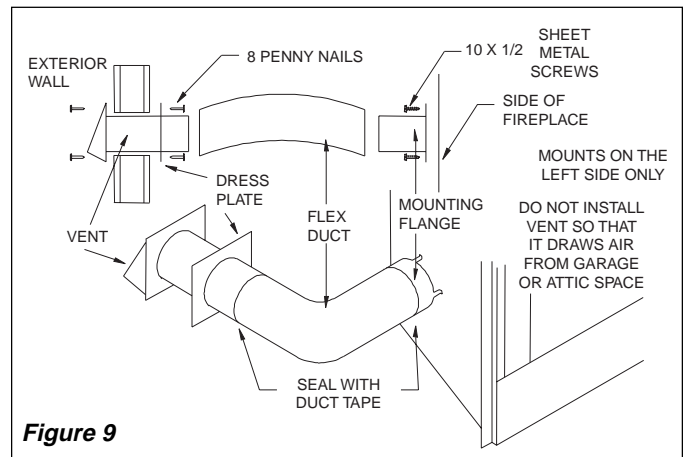


Figure 9

The outside air vent can be installed through an outside wall or ventilated crawl space. A plaster ground is provided for use on unfinished wall prior to apply finish surface. Attach combustion air inlet duct to outside air inlet (see Figure 9).

WARNING: AIR DUCTS ARE NOT TO TERMINATE IN ATTIC SPACE OR A GARAGE

Avoid installing outside air eyebrow in areas where inlet opening may be blocked by snow, bushes or other obstacles. Maximum height of air inlet above platform of firebox is 3 ft. below the termination gas outlet.

OUTSIDE AIR SHUTTER OPERATION:

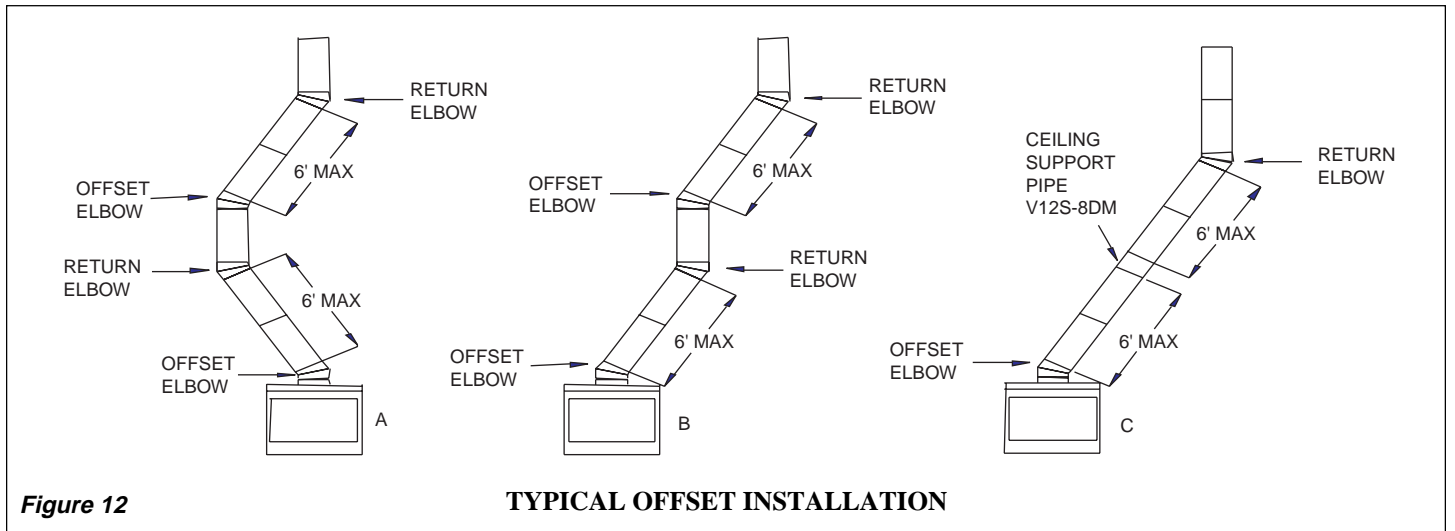
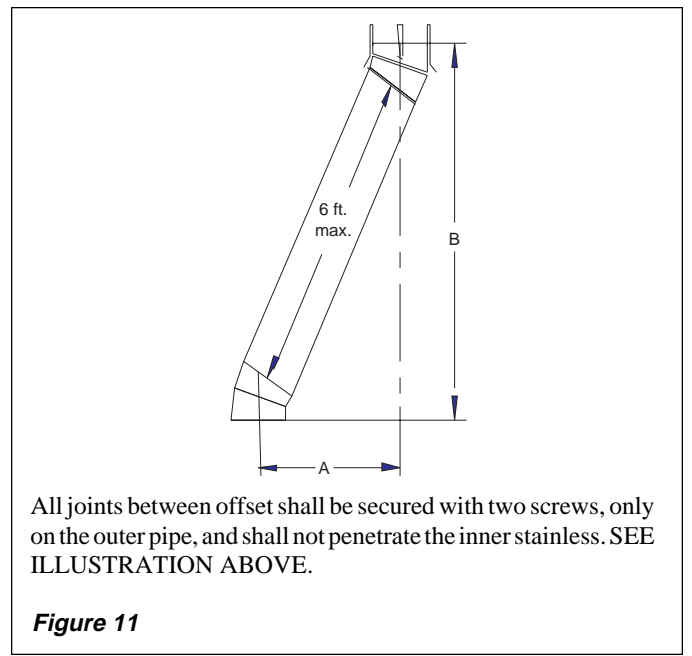
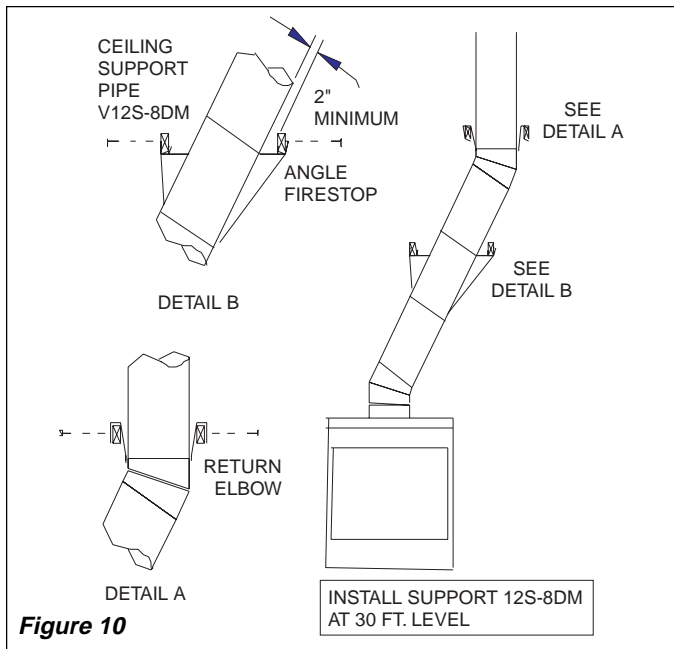
The handle or the outside air shutter is located inside the firebox on the left side above the side refractory. Lift the handle up to open the shutter.

INSTRUCTIONS WHEN OFFSET OF CHIMNEY IS NEEDED

TO INSTALL ELBOWS

1. To achieve desired offset, you may install combinations of 12", 18", 48" length of double wall pipe (see *Rise and Offsets* chart and Figures 11 and 12).
2. Chimney weight above offset rests on return elbow. Straps must be securely nailed to rafters or joists (see Figure 10, Details A and B).
3. Maximum length of pipe between supports (return elbow or V12S-8DM) is 6' of angled run. Maximum of two (2) 6' angled run sections per chimney system (see Figure 12).

RISE AND OFFSETS												
A	B	48	36	18	12	A	B	48	36	18	12	12S
4 ³ / ₈	16 ³ / ₈					41 ¹ / ₄	80 ¹ / ₄		1	1	1	1
9 ³ / ₄	25 ¹ / ₂				1	45	86 ³ / ₄		2			1
12 ³ / ₄	30 ³ / ₄			1		46 ³ / ₄	89 ¹ / ₂	1		1	1	1
15	34 ³ / ₄				2	51	97	1	1			1
18	40			1	1	53 ¹ / ₄	101		2	1		1
21 ¹ / ₄	46 ¹ / ₄	1				56 ¹ / ₄	106 ¹ / ₄	2				1
23 ³ / ₄	49 ¹ / ₄			1	2	59 ¹ / ₄	111 ¹ / ₂	1	1	1		1
27 ³ / ₄	56 ³ / ₄	1				61 ³ / ₄	115 ¹ / ₂	2			1	1
30	60 ³ / ₄	1	1			64 ³ / ₄	120 ³ / ₄	2		1		1
33	66	1			1	68 ¹ / ₄	127	1	2			1
36	71	1		1		70	130	2		1	1	1
38 ¹ / ₄	75		2			74 ¹ / ₄	137 ¹ / ₂	1	2		1	1
						76 ³ / ₄	141 ¹ / ₂	1	2	1		1
						79 ³ / ₄	146 ³ / ₄		4			1



GAS LINE

A gas line may be installed for the purpose of installing a gas appliance available through your local distributor. Use only 1/2" black iron pipe and appropriate fittings. When installing a gas line, a shut-off valve designed for installation outside the firebox is recommended.

To install, remove the gas line plug located in the side firebrick approximately 2" above the bottom. The plug must be tapped out from the finished side towards the unfinished side (see Figure 13).

TEST FOR GAS LEAKS:

All gas piping and connections must be tested for leaks after the installation is completed. Be sure gas valve is turned on. Apply soapsuds solution to all connections and joints. If bubbles appear, leaks **MUST** be detected and corrected. **DO NOT** use a match or open flame of any kind to test the leak. Never operate any appliance with leaky connections.

The gas pipe is intended for connection to an unvented gas log set or to a decorative gas appliance.

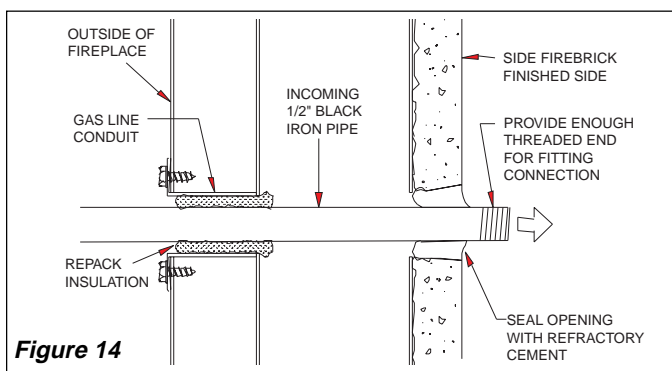
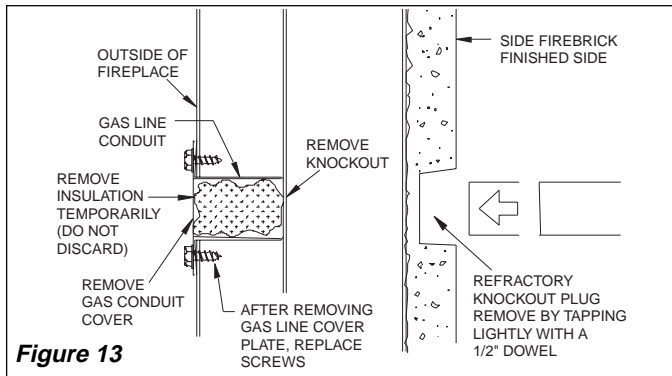
If you will install an unvented gas log set, **ONLY UNVENTED GAS LOG SETS WHICH HAVE BEEN FOUND TO COMPLY WITH THE STANDARD FOR UNVENTED ROOM HEATERS, ANS/IAS/AGA Z21.11.2, ARE TO BE INSTALLED IN THIS FIREPLACE.**

NOTE: An appropriate Vanguard hood must be installed when using an unvented gas log set.

WARNING: DO NOT OPERATE AN UNVENTED GAS LOG SET IN THIS FIREPLACE WITH THE CHIMNEY REMOVED.

If you will install a decorative gas appliance, the decorative gas appliance must comply with the **Standard for Decorative Gas Appliances for Installation in solid Fuel burning Fireplaces, ANS Z21.60-1996** and shall also be installed in accordance with the **National Fuel Gas code, ANS Z223.1-1996.**

WARNING: WHEN USING A DECORATIVE APPLIANCE, THE DAMPER MUST BE REMOVED OR PERMANENTLY LOCKED IN THE FULLY OPEN POSITION.

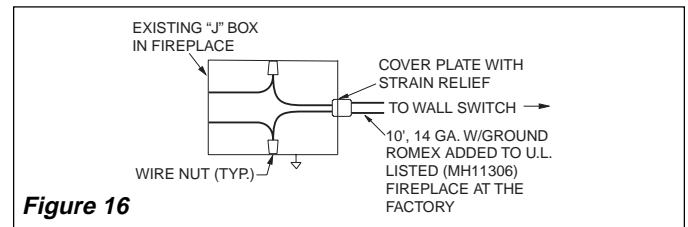
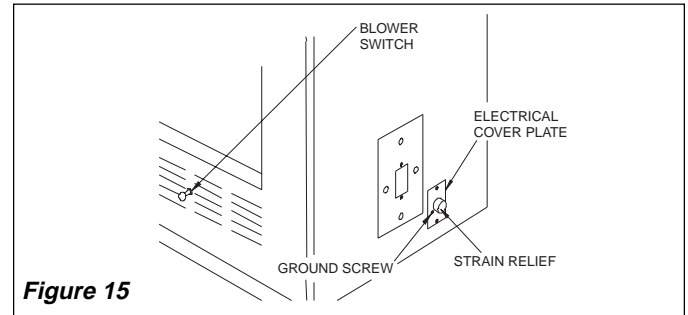


BLOWER ASSEMBLY FOR MODEL V3601 ONLY

A blower assembly is available for use with this firebox as an optional accessory. They are designed to be installed on Vanguard factory pre-wired fireboxes only. The blower assembly model VCBK3 can be installed prior to or after installation of the firebox. Use of blowers or fans other than manufactured by DESA International voids the warranty.

NOTE: Firebox must be wired to the house electrical system in order for blower to operate. This blower system does not require a wall switch. Refer to VCBK3 blower assembly installation instructions for installation details.

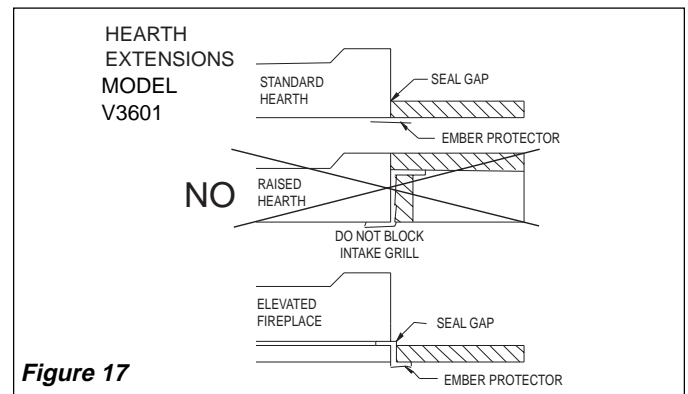
Electrical connections are made through the cover on the side of the firebox illustrated in Figure 15. Use 14 AWG copper wire for all connections. Be certain the firebox is properly grounded.



HEARTH EXTENSION

A heart extension projecting a minimum of 16" in front of and a minimum of 8" beyond each side of the firebox opening is required to protect combustible floor construction in front of the firebox. Use a layer of noncombustible, inorganic material having a thermal conductivity of $K=0.84 \text{ BTU IN/FT. HR. F}$ (or less) at 1" thick.

This must be covered by noncombustible material such as tile, slate, brick, concrete, metal, glass, marble, stone etc. Fasten the hearth extension to the floor to prevent shifting and seal the gap between the firebox frame and hearth extension with a noncombustible material (see Figure 17 and Figure 18, page 7).



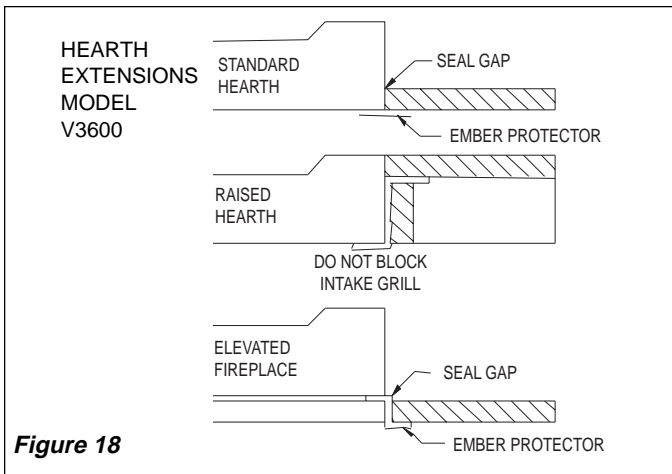


Figure 18

WARNING: HEARTH EXTENSION IS TO BE INSTALLED ONLY AS ILLUSTRATED.

FIREBOX ENCLOSURE COLD CLIMATE INSTALLATIONS

Before finishing the enclosure around the firebox, inspect all joints around the firebox periphery. Any gaps between the nailing flanges and the framing should be sealed with noncombustible insulation or caulking (Figure 19). Also, if the firebox is mounted on a raised platform, insulate below the platform to prevent cold air permeation by means of conduction.

The above steps are important, especially if the firebox is installed in cold weather climates.

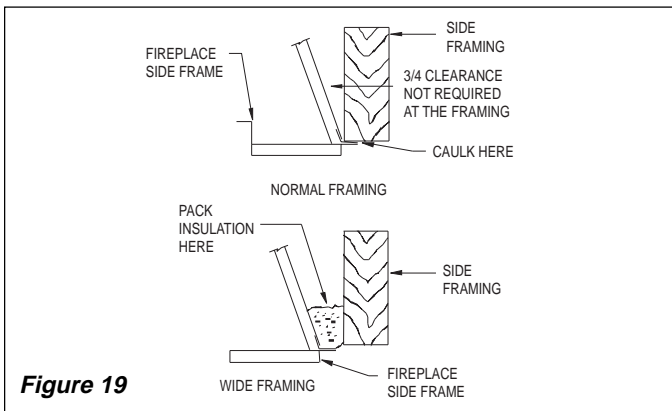


Figure 19

The opening around the chimney starter collar must remain open and free to circulate outside air is critical for maintaining proper operating temperatures (Figure 20).

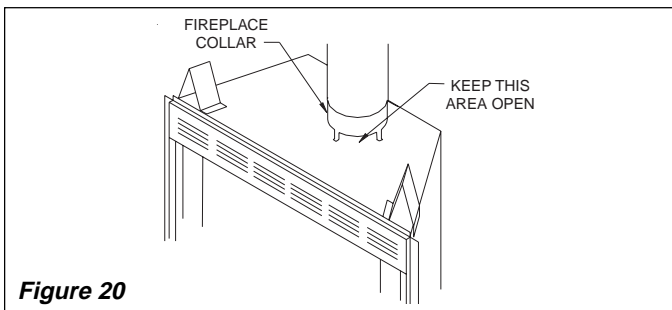


Figure 20

FINISHING YOUR FIREBOX

Combustible materials, such as wallboard, gypsum board, sheet rock, drywall, plywood, etc. may make direct contact with sides and top periphery of the firebox face. It is important that combustible materials do not overlap the face itself.

Brick, glass, tile or other noncombustible materials may overlap the front face provided they do not obstruct essential openings like louvered slots or any other opening. When overlapping with a noncombustible facing material use only noncombustible mortar or adhesive.

MANTELS

A mantel may be installed if desired. Woodwork such as wood trims, mantels, or any other combustible material projecting from the front face must not be placed within 6 inches of the firebox opening. Combustible materials above 6 inches and projecting more than 1 1/2 inches from the firebox face must not be placed less than 12 inches from the top of the opening of the firebox (NFPA STD 211, Sec. 7-3.3.3). If your firebox has vent slots or louvers, the firebox opening is considered from your highest to edge of those openings (Figures 21 or 22).

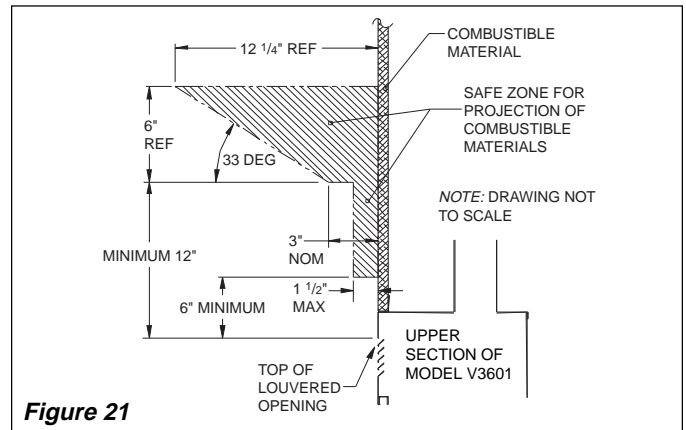


Figure 21

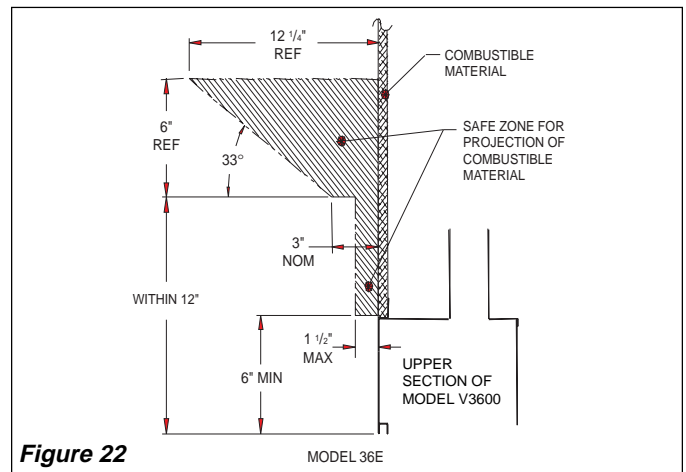


Figure 22

Mantels or any other combustible materials also may come up to the side periphery of the black metal face of the firebox just as the projection from the front face falls within the limits depicted in Figure 23.

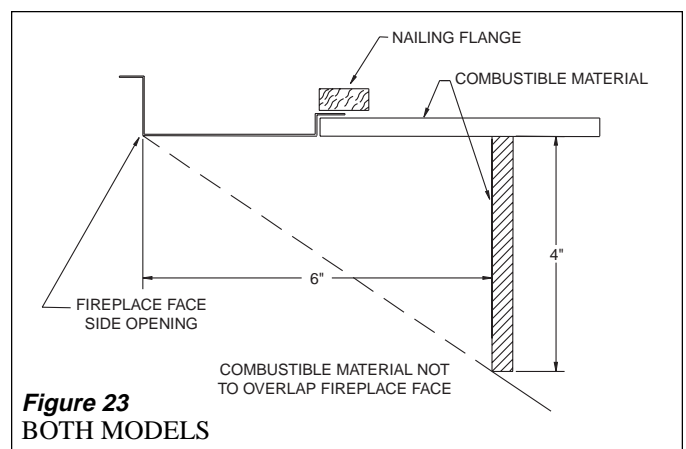


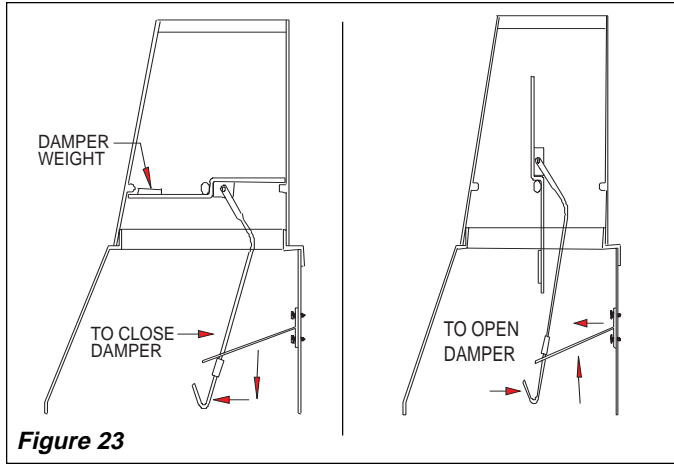
Figure 23
BOTH MODELS

REPLACEMENT AND ACCESSORY PARTS

Purchase replacement parts or accessories from your local dealer. If they can not supply these accessories, call DESA International's Parts Department at 1-800-972-7879 for referral information. You can also write to the address listed on the front cover of this manual. When calling DESA International, have ready

- model number of your firebox
- the replacement part number

NOTE: USE OF ANY OTHER GLASS DOOR ASSEMBLY NOT TESTED WITH THIS FIREPLACE MAY CONSTITUTE A FIRE HAZARD AND WILL VOID THE DESA INTERNATIONAL WARRANTY.



<p>DELUXE BLOWER KIT VCBK3</p>		<p>FIRESTOP SPACER VRS-8DM</p>	
<p>V12-8DM V18-8DM V24-8DM V36-8DM V48-8DM</p>		<p>3600 GR</p>	
<p>VSC2-20 (20 PACK) For use with VRTT-8DM and VRTTL-8DM ROOF PITCH V6F-8DM - 0 to 6/12 V12F-8DM - 6/12 to 12/12</p>		<p>FLASHING</p>	
<p>VETO-8DM VETLO-8DM</p>		<p>ROUND TOP TERMINATION</p>	
<p>ECONO TOP TERMINATION</p>		<p>ADJUSTABLE HOOD BLACK - GA6050 POLISHED BRASS GA6052 ANTIQUÉ BRASS GA6053</p>	
<p>EMBER PROTECTOR 20651</p>		<p>GLASS DOOR KIT VDG3600-01 (Brushed Brass) VDP3600-01 (Polished Brass)</p>	
<p>AIR KIT VAK-4</p>		<p>STORM COLLAR (20 PACK) VSC1-20-8DM (for use with VRT-8DM and VRTL-8DM) VSC2-20-8DM (for use with VRTT-8DM and VRTTL-8DM)</p>	

