



RENAISSANCE RUMFORD™ 1000

INSTALLATION MANUAL

We recommend our products be installed and serviced by **certified U.S. National Fireplace Institute or Canadian Wood Energy Technology Transfer Inc.** professionals only.



Keep this manual for future reference.

NOTE TO THE INSTALLER

Dear Installer,

The Renaissance RUMFORD™ 1000 Fireplace is the world's first certified clean burning open fireplace. It combines technology with elegance, allowing you to enjoy an open fire without compromising environmental quality.

Our engineers designed the Renaissance RUMFORD™ 1000 to be easy to install, operate and maintain. This manual includes vital fireplace and chimney system planning, preparation, and installation details. Read this manual prior to starting the installation to ensure all requirements are met. For operation and maintenance guidelines, please refer to the Owner's Manual, included with the Fireplace.

Make sure to give both manuals, installation and owner's, to the homeowner or to leave them in a visible place.

Our team holds personal safety and protection with the highest regard, and we pride ourselves with the quality of our work. We welcome comments and feedback concerning the installation of the Renaissance RUMFORD™ 1000. Contact us by phone or email.

Sincerely,

The Renaissance Fireplaces™ Team



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400 J.-F. Kennedy, St-Jerome,
Quebec, Canada, J7Y 4B7
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RENAISSANCE RUMFORD™ 1000 LISTING LABEL

The listing label has been placed on the left counterweight channel. To be able to consult the label, fully open the firescreen and guillotine glass door. Use a portable lamp and look left in the guillotine bay.

The listing label is permanently affixed and should not be removed.

RENAISSANCE RUMFORD
LISTED FACTORY-BUILT FIREPLACE
COMPONENTS REQUIRED FOR INSTALLATION:

- ◆USE 4 IN. OR 5 IN. (102 OR 127 MM) DIAMETER FLEXIBLE DUCT AND COMBUSTION AIR INLET ASSEMBLY.
- ◆USE THE **ICC MODEL 10 IN. (254 MM) RIS CHIMNEY** AND LISTED COMPONENTS AS PER INSTALLATION INSTRUCTIONS.
- ◆REFER TO MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS FOR OPTIONAL COMPONENTS.
- ◆INSTALL AND USE ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS.
- ◆DO NOT OBSTRUCT COMBUSTION AIR INLET. ◆A FIREPLACE INSTALLED WITHOUT OUTSIDE PROVISION AIR COULD STARVE OTHER FUEL BURNING APPLIANCES OF COMBUSTION, VENTILATION AND DILUTION AIR AS A RESULT OF FIREPLACE OPERATION. ◆DO NOT USE A FIREPLACE INSERT OR OTHER PRODUCTS NOT SPECIFIED FOR USE IN THIS PRODUCT. ◆COMBUSTIBLE MATERIALS OTHER THAN MANTEL (SHELF AND/OR POSTS) ARE NOT PERMITTED ON FACE OF UNIT.
- ◆COMBUSTIBLE FLOOR MUST BE PROTECTED AS SPECIFIED IN THE INSTALLATION INSTRUCTIONS MANUAL. ◆GAS LOG SHALL BE CERTIFIED FOR THE APPLICATION. WHEN INSTALLED, THE CHIMNEY DAMPER SHALL BE PERMANENTLY SECURE IN AN OPEN POSITION TO EFFECTIVELY VENT THE APPLIANCE. ◆WARNING: THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO FIREPLACE. ◆REPLACE GLASS ONLY WITH 5MM CERAMIC GLASS. ◆OPERATE ONLY WITH FIREBRICKS IN PLACE. ◆FOR USE WITH SOLID WOOD FUEL ONLY.
- ◆**MODEL 1000: OPERATE THIS FIREPLACE WITH THE DOOR CLOSED OR THE FIRESCREEN CLOSED.**
- ◆**MODEL 1000CD: OPERATE THIS FIREPLACE WITH THE DOOR CLOSED ONLY.**
- ◆**DO NOT OVERFIRE UNIT.**

DO NOT REMOVE THIS LABEL
TESTED TO: UL 127 / CAN/ULC-S610



MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

	SIDEWALL	24 IN. / 610 MM FROM FIREPLACE OPENING
*HEIGHT OF MANTEL SHELF: 0-6 IN. (0-152 MM) DEEP		6 IN. / 152 MM FROM FIREPLACE OPENING
*MANTEL POSTS: 0-3 IN. (0-76 MM) DEEP		6 IN. / 152 MM FROM FIREPLACE OPENING
UNIT TOP, BACK, SIDES AND BOTTOM		0 IN. / 0 MM TO SPACERS

*SEE INSTALLATION INSTRUCTIONS FOR OTHER SPECIFICATIONS OF MANTEL SHELF AND/OR MANTEL POSTS.

WHEN LINED WITH VERMICULITE PANELS, THIS APPLIANCE MEETS THE PHASE 2 EMISSION LEVEL (g/kg) REQUIRED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), AS PER TEST PROTOCOL ASTM 2558 "STANDARD TEST METHOD FOR DETERMINING PARTICULATE MATTER EMISSIONS FROM FIRES IN LOW MASS WOOD-BURNING FIREPLACES".



FIREPLACE: FIRE CHAMBER FOR USE WITH ICC CERTIFIED MODEL RESIDENTIAL TYPE AND BUILDING HEATING APPLIANCE CHIMNEY. NUMBER: _____



SAFETY US-CA
SÉCURITÉ US-CA
MH61405

1000 SERIAL NO. / NO DE SÉRIE _____

1000CD DATE MANUFACTURED / DATE DE FABRICATION _____

MODEL / MODÈLE _____

MADE IN CANADA BY / FABRIQUÉ AU CANADA PAR
ICC, 400 J.F. KENNEDY, ST.-JEROME, QC,
CANADA, J7Y 4B7

936301

4

IMPORTANT INSTALLATION SAFETY PRECAUTIONS

Carefully follow all instructions. Improper installation of this fireplace and chimney system could result in a house fire. Detailed explanations are in the sections which follow.

For information about local building code requirements or the need for a permit, contact your local municipal jurisdiction or fire department.



YES! WHAT TO DO

1. **DO** read this entire manual as well as the owner's manual before starting the installation.
2. **DO** exercise caution when moving and positioning the fireplace.
3. **DO** respect the mandatory installation sections.
4. **DO** inspect the fireplace, chimney, and parts/components for damage prior to installation.
5. **DO** install all required parts and components as instructed.



NO! WHAT NOT TO DO

6. **DO NOT** modify this fireplace or install parts or components unapproved for use with this fireplace.
7. **DO NOT** install an unvented gas log set, gas lighter, wood-burning fireplace insert or other products unspecified for use with this fireplace.
8. **DO NOT** over fire this unit. Refer to operation instructions in the **Owner's Manual**.
9. **DO NOT** allow combustible material within the minimum clearance area of the fireplace and chimney system.
10. **DO NOT** install non-combustible materials in the required air flow spaces (e.g. do not install non-combustible insulation inside a radiation shield).

COMBUSTIBLE VS NON-COMBUSTIBLE MATERIAL

The National Fire Protection Association (NFPA) defines Non-Combustible Materials as materials that if used as directed, will not ignite, burn, support combustion, or release combustible vapors when subjected to heat or flame. Non-Combustible Materials have passed the ASTM E136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C¹.

Combustible Materials are thus any materials that did not pass the ASTM E136 test such as anything surfaced or including wood, plant fibers, plywood, Oriented Strand Board (OSB), compressed paper, plastic and gypsum board (often called drywall or sheetrock)² which can ignite and burn, whether it is flame-proofed or not, plastered or not plastered.

¹ NFPA 211, Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances

² Note that gypsum board, whether fire-rated or not is considered combustible.

PLANNING THE INSTALLATION

RECOMMENDATIONS

Before beginning, we strongly recommend adequate planning of your installation, including the chimney and the hearth protection.

Refer to Figure 1 for an installation overview including critical components and warnings. The planning process may involve your retail salesperson, installation personnel, outside contractors and local building officials.

A building permit may be required. Check with your local authority to obtain the necessary approvals before beginning. Close attention to detail and clear communication are important to be sure that your Renaissance RUMFORD™ 1000 Fireplace is installed according to the requirements in this manual and complies with local building codes.



IF THIS FIREPLACE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS AND CLEARANCE GUIDELINES.

CHOOSING A LOCATION AND RESTRICTIONS

When choosing a location for your fireplace, consideration should be given to best optimize the performance of your chimney.

Optimal performance is achieved when a large portion of the chimney is within the building envelope, centrally situated, allowing the chimney to terminate as close to the peak as possible.

An insulated chase enclosure may be an acceptable alternative for the fireplace and chimney.



THERE ARE LOCATIONS WHERE THE FIREPLACE IS STRICTLY PROHIBITED:
THE FIREPLACE MUST NOT BE INSTALLED OUTSIDE THE VAPOR BARRIER OF THE HOME.
THE FIREPLACE MUST NOT BE INSTALLED OUTDOORS OR WITHIN A THREE SEASON PORCH.

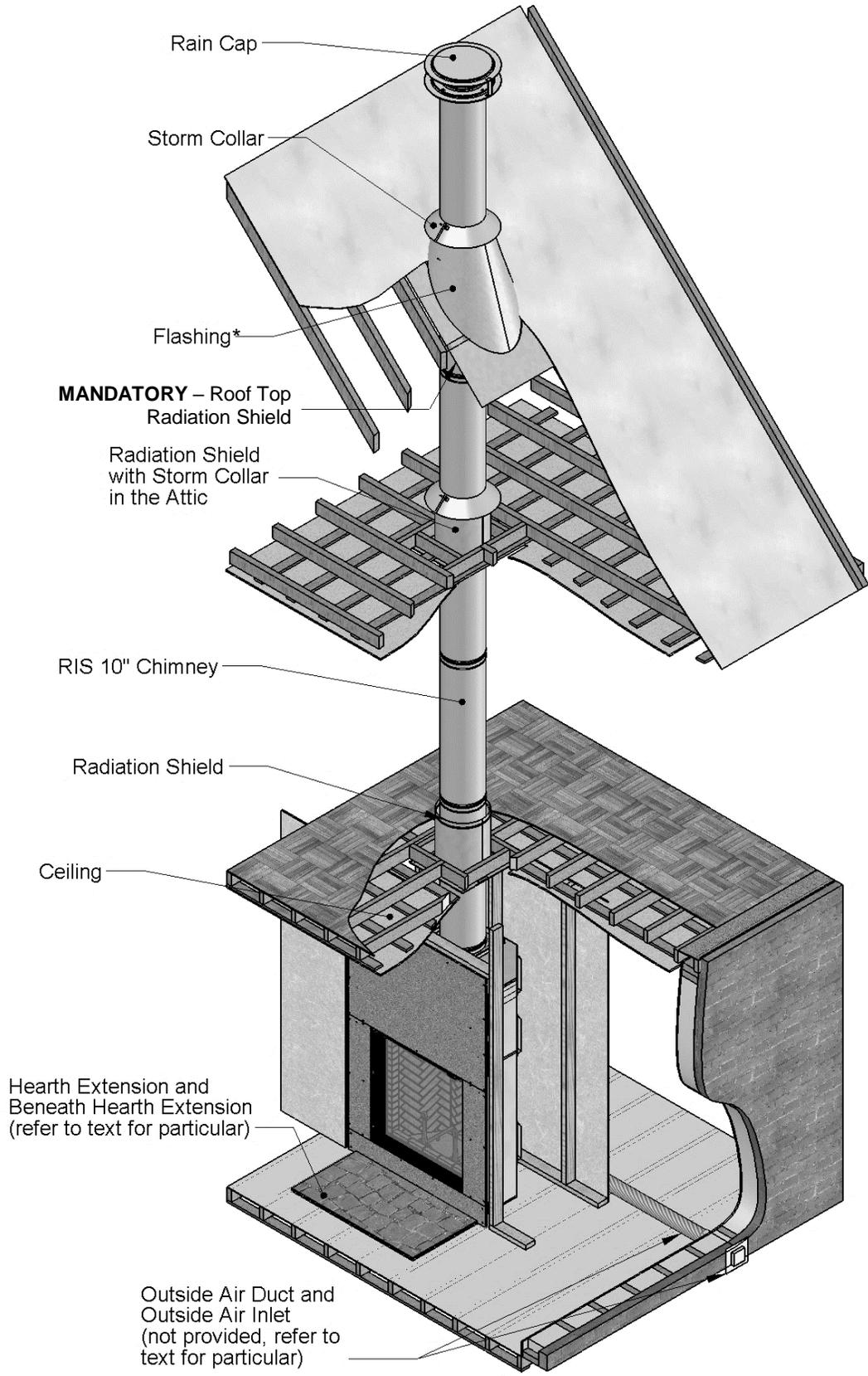
This fireplace is **NOT APPROVED** for use with a wood or gas fireplace insert.



IMPORTANT: A NON-COMBUSTIBLE HEARTH EXTENSION IS REQUIRED IN FRONT OF THIS FIREPLACE. REFER TO THE "HEARTH EXTENSION REQUIREMENTS" SECTION OF THIS MANUAL FOR MORE INFORMATION ON THE HEARTH EXTENSION AND ITS REQUIREMENTS.

For finishing specifications and allowable materials, refer to the "Fireplace Facing" section in this manual.

INSTALLATION OVERVIEW



*Refer to page 29 to determine the appropriate flashing (regular or vented)

FIGURE 1 GENERAL INSTALLATION OVERVIEW

GENERAL SPECIFICATIONS

Under the 2015 U.S. EPA (Environmental Protection Agency) regulation, the Renaissance RUMFORD™ 1000 is defined as a **fireplace** primarily for its decorative and aesthetic prominence offering more than 500 square inches of pure fire viewing (930 square visible inches).

When lined with the optional vermiculite panels, it has met the United States Environmental Protection Agency (EPA) Voluntary Wood Burning Fireplace Program Phase 2 emission level. It is:

- Typically burning at a rate of 4 kg/hr,
- Clean burning with an emission rate of 3.0 g/kg when burned with the door open and the firescreen closed as tested with ASTM 2558³ test protocol,
- Clean burning with an emission rate of 1.0 g/kg when burned with the door closed as tested with ASTM 2558³ test protocol, and
- Clean burning with an equivalent emission rate of 4.19 g/hr when burned with the door closed.

It comes fully equipped with a built-in guillotine glass door and a guillotine fire screen.

- Weight when crated is 740 lb. Floor reinforcement may be required.
- Do not remove the fireplace from its skid until it is ready to be installed.
- This fireplace is designed to burn wood logs; vented gas logs sets may also be used. For gas log installation instructions, visit www.renaissancefireplaces.com.
- Gas log lighters are not permitted because they will burn out prematurely.



WARNING

THIS FIREPLACE HAS NOT BEEN TESTED WITH AN UNVENTED GAS LOG SET. TO REDUCE RISK OF FIRE OR INJURY, DO NOT INSTALL AN UNVENTED GAS LOG SET INTO THIS FIREPLACE.

³ ASTM 2558: Standard Test Method for Determining Particulate Matter Emissions from Fires in Low Mass Wood-Burning Fireplaces.

FIREPLACE SPECIFICATIONS

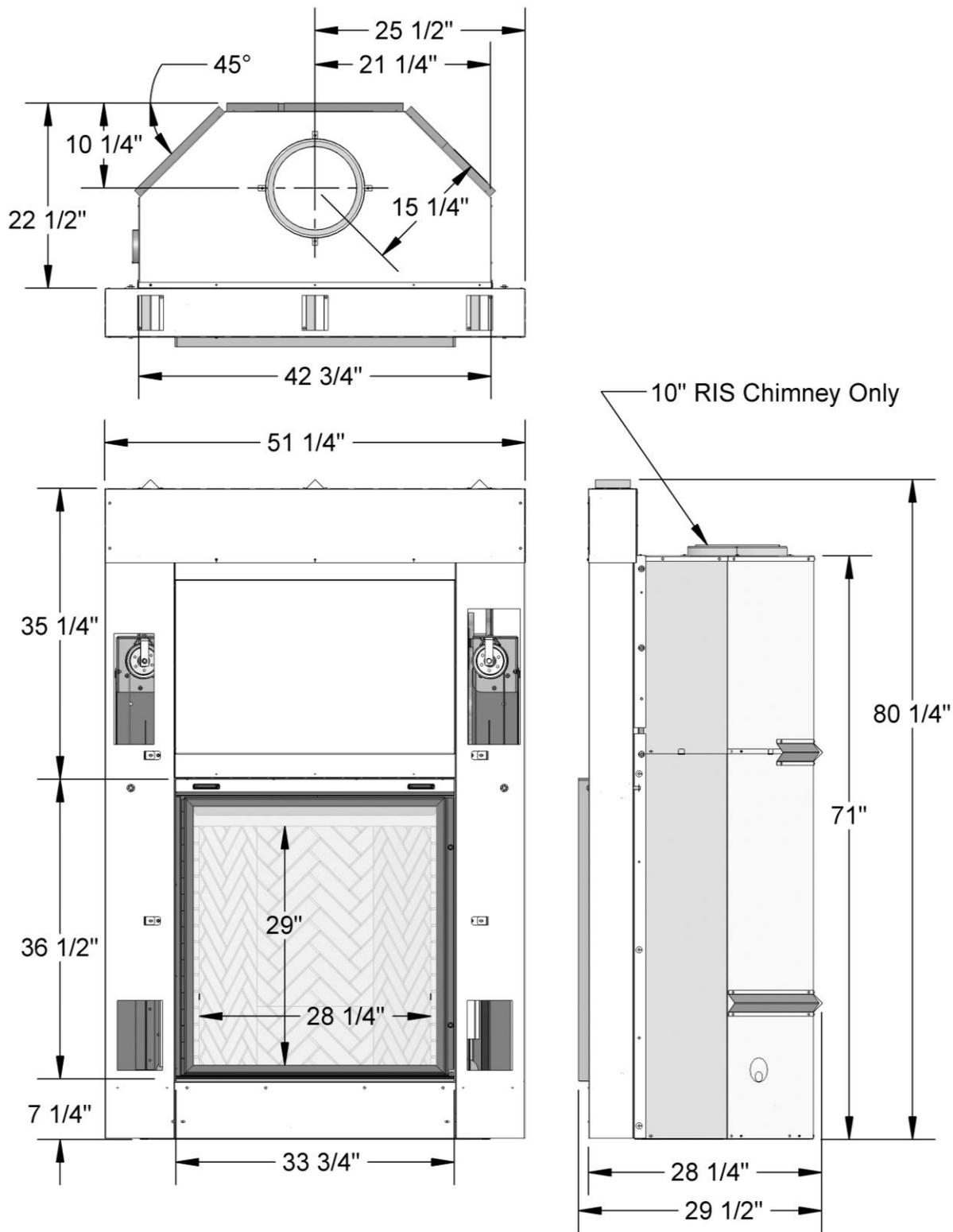
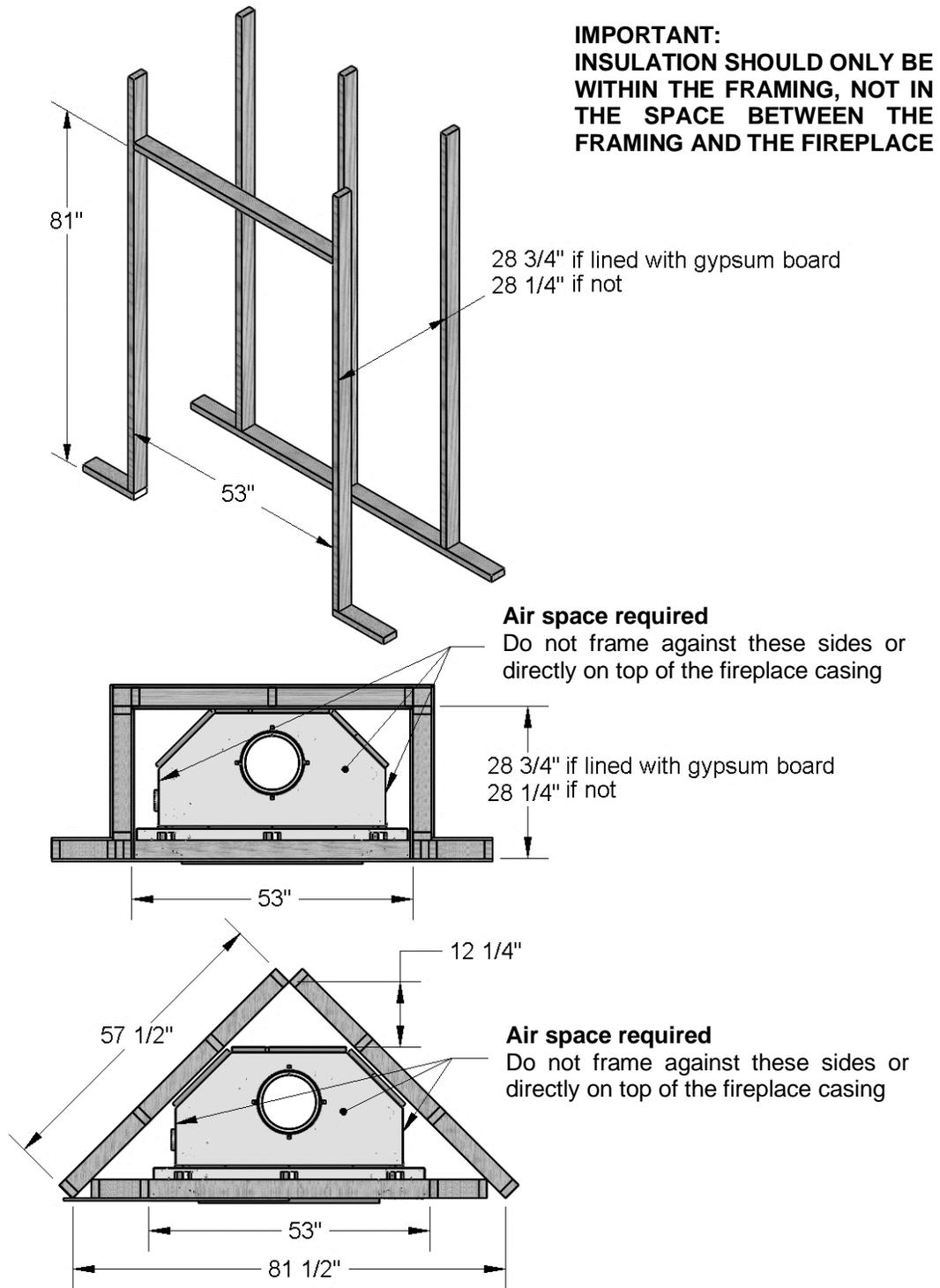


FIGURE 2 FIREPLACE DIMENSIONS

FRAMING OVERVIEW

Walls on all interior sides of the fireplace enclosure should be finished and flat. Insulation or other materials should not be placed within the required clearance spaces around the fireplace.



The minimal recommended framing dimensions do not take into consideration the space required for the outside air connection because the location for it and the space required are specific to your installation. Take the time to plan.

FIGURE 3 MINIMAL FRAMING DIMENSIONS

CHIMNEY OVERVIEW

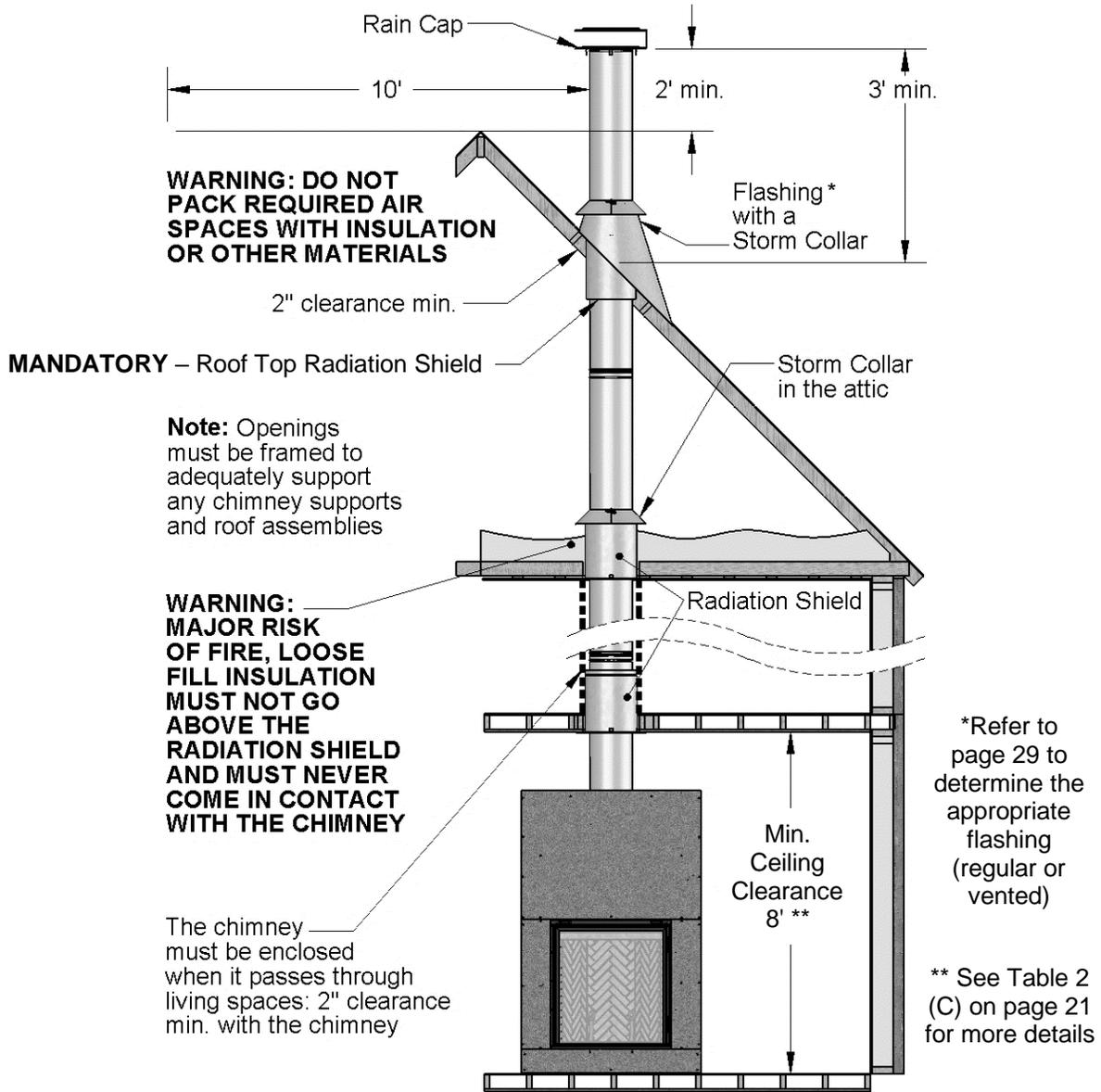


FIGURE 4 GENERAL CHIMNEY REQUIREMENTS

TABLE 1 CHIMNEY SPECIFICATIONS

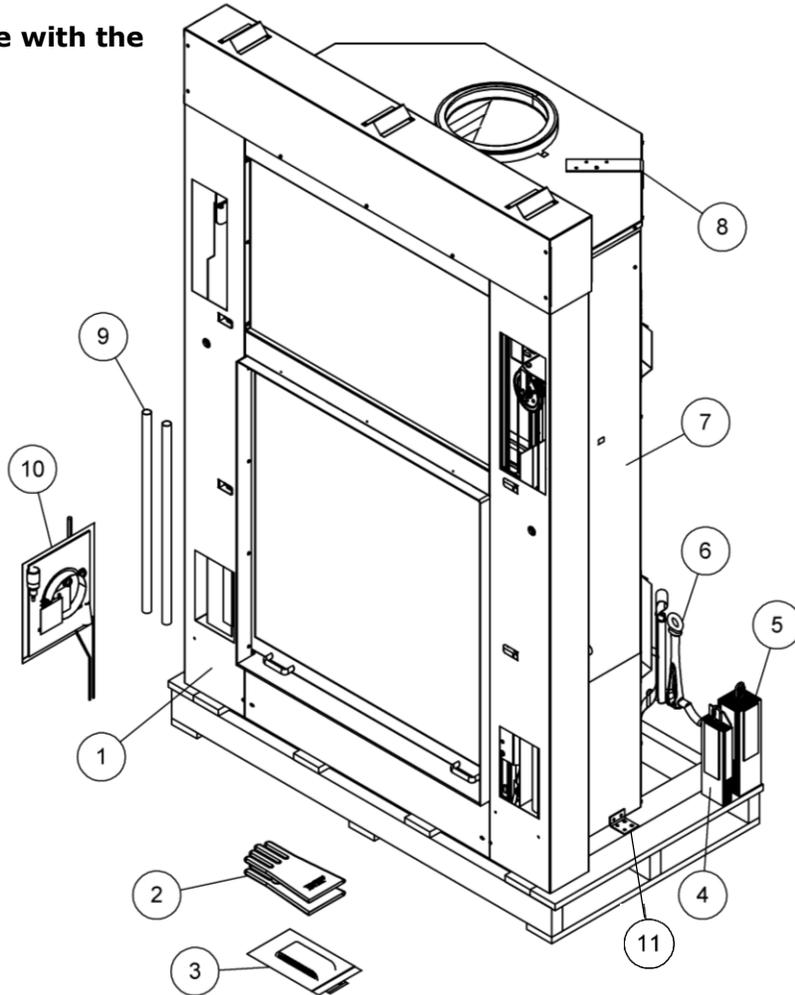
Chimney size and type	ICC RIS 10" only	
Minimum chimney height: from the top of the fireplace to the chimney cap	12'	3,66 m
Maximum chimney height from the top of the fireplace to the chimney cap	60'	18,28 m
Maximum chimney height supported by the fireplace without additional supports	15'	4,57 m
Minimum clearance between the exterior of the chimney and any combustibles	2"	51 mm
Maximum number of offsets (2 elbows per offset)	2	

FIREPLACE INSTALLATION

Move the fireplace on its crate. Only unpack and/or remove from crate once the fireplace is as close as possible to its final installation location.

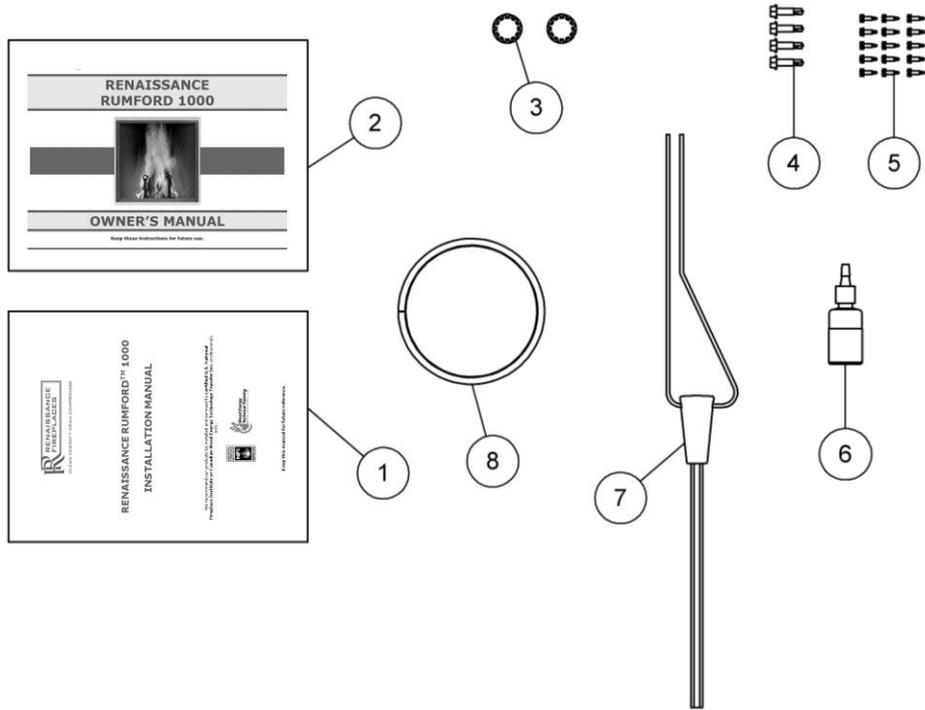
INCLUDED WITH THE RENAISSANCE RUMFORD™ 1000

On the crate with the fireplace



Item	Description	Quantity
1	Renaissance RUMFORD™ 1000 Fireplace	1
2	Pair of protective fireplace gloves	1
3	Chimney safety labels for each length of chimney in the attic	15
4	Smaller counterweight (approx. 10 lb, for the firescreen)	1
5	Bigger counterweight (approx. 25 lb each, for the glass door)	2
6	Pair of Renaissance andirons	1
7	Spark guard	1
8	Anti-tip bracket	1
9	Lifting handle	2
10	Manual bag (see list for contents)	1
11	Small brackets	4

In the bag with the manuals



Item	Description	Quantity
1	Installation manual (English and French)	1
2	Owner's manual (English and French)	1
3	Door cover button – round black	2
4	Screw – self tapping 1" long hex head	4
5	Screw – self tapping 1/2" long hex head	15
6	Bottle of high temperature door grease	1
7	Removable door handle	1
8	Collar for 5" outside air connection (if necessary)	1

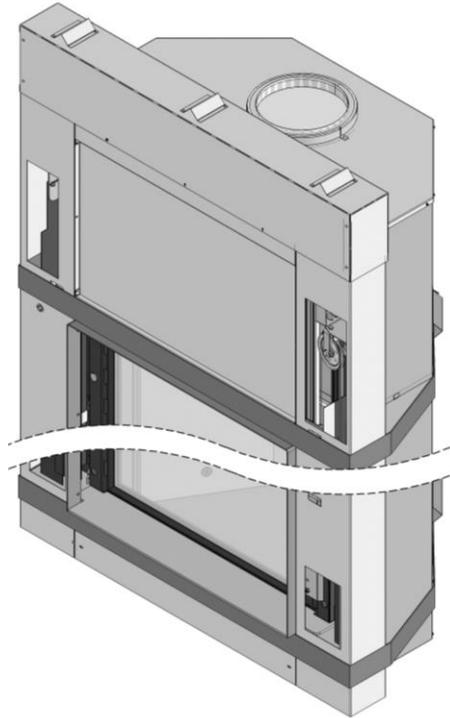
MOVING THE RUMFORD 1000

The RUMFORD 1000 weighs 740 lb crated. The RUMFORD 1000 fireplace is front heavy. To safely ship and transport the RUMFORD 1000, we have taken various parts from the front of the fireplace and attach them to the back of the crate rendering the overall crate rather well-balanced. As soon as you start removing heavy parts from the back of the crate, the rest of the crate becomes unbalanced.

Careful attention must be taken when moving the fireplace with or without its shipping crate. Whenever possible move the fireplace while it is still crated. We recommend using an Escalera or equivalent dolly to move the fireplace, however, use caution when placing the dolly holding strap, see Figure 5. Misplacement of the holding straps could result in damage to the guillotine system.

- **NEVER** lean the fireplace on its side; doing so may damage the guillotine system which is wider than the rest of the fireplace.
- **NEVER** lift the fireplace by the front or by the guillotine door opening; always handle the fireplace by its casing or by the lifting handles provided on each side.

To prepare the RUMFORD 1000, locate it as close as possible to its final installation position while on its crate.



The upper strap must be located just above the upper finishing lintel.
The lower strap must be located just under the metal front step.

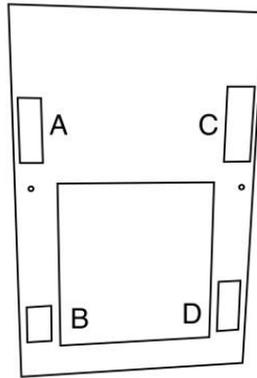
FIGURE 5 ATTACHMENT STRAPS



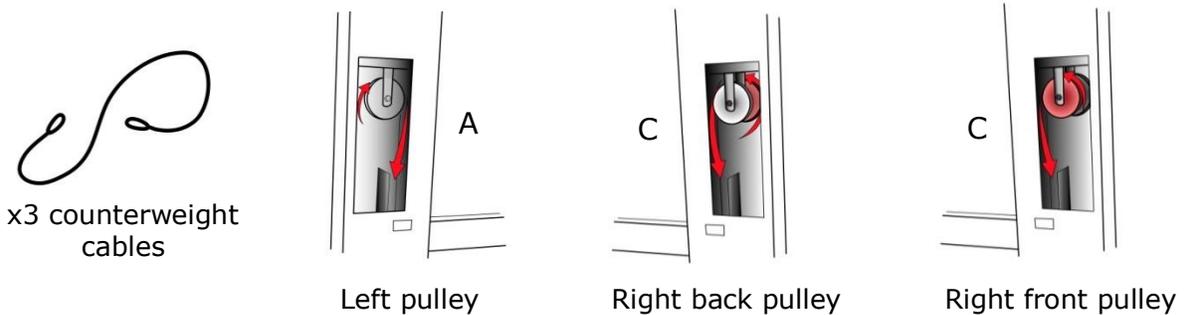
THE FIREPLACE IS FRONT HEAVY. MAKE SURE TO ALWAYS MAINTAIN CONTACT WITH THE FIREPLACE WHEN MOVING IT TO PREVENT ANY UNDUE TILTING.

ENGAGING THE GUILLOTINE SYSTEM

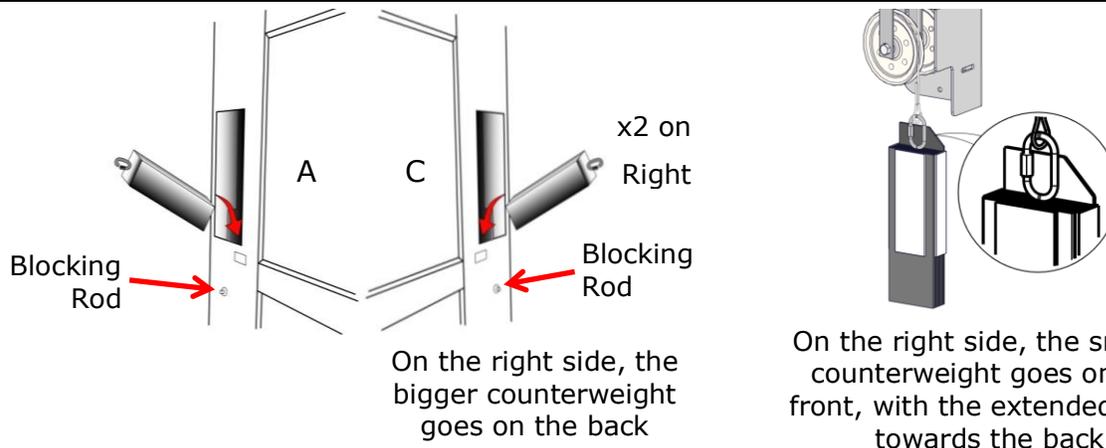
COUNTERWEIGHTS' INSTALLATION



1. Openings A and C allow the insertion of the counterweights. The openings will be covered by cement board and do not have finishing metal cover plates.

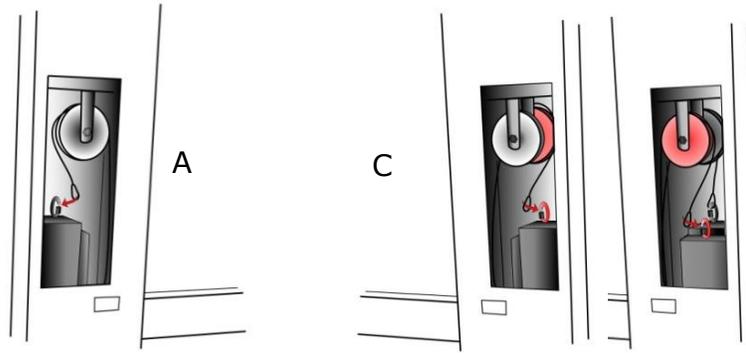


2. Start by placing the three counterweight cables through the openings A and C, and over the pulleys. Allow the cables to hang down towards the door.

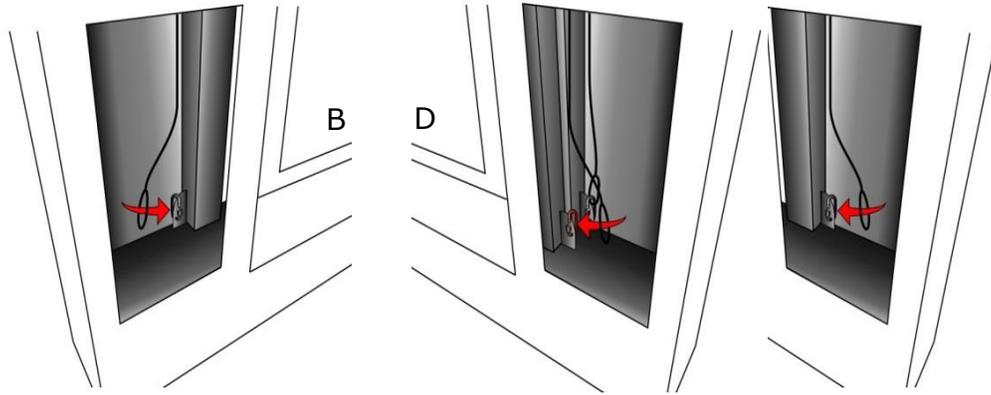


3. The counterweights will be supported by the pre-installed blocking rods. Ensure the blocking rods are in position before inserting the counterweights.

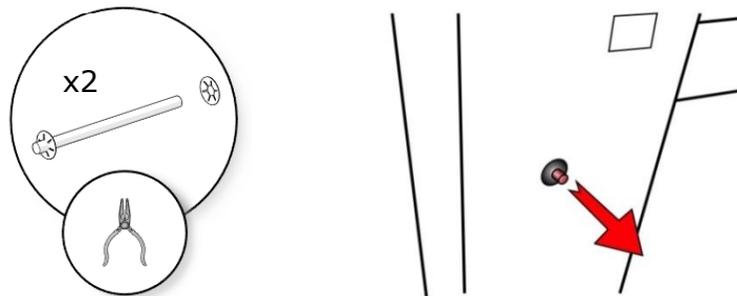
Place each counterweight in its respective channel opening (A or C). On the right side, the larger counterweight enters the rear channel and the smaller counterweight enters the front channel. Ensure the smaller counterweight's extended metal plate is oriented towards the back of the fireplace as shown above.



4. Connect the three cables to the three counterweights and tighten the nuts that hold them in place.



5. Connect the hanging cables to the bottom of the door left and right, and to the bottom of the firescreen at the front right.



6. Using pliers, remove the caps on the back side of each blocking rod. **Do not remove the blocking rods yet.**

Through opening A, ensure the cable is on the pulley, wearing gloves then grab hold of the cable and pull to lift the counterweight off the blocking rod. Remove the blocking rod. Gently release the cable so the weight is now hanging.

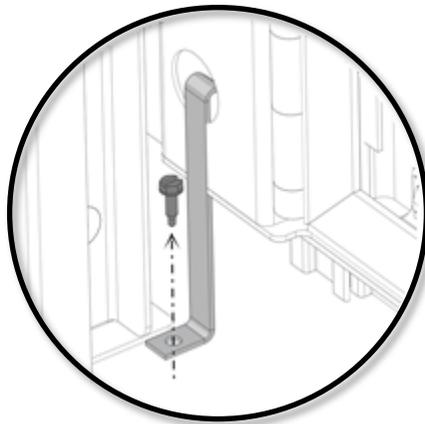
Repeat for the right side through opening C.

Do not attempt to lift the door at this point.

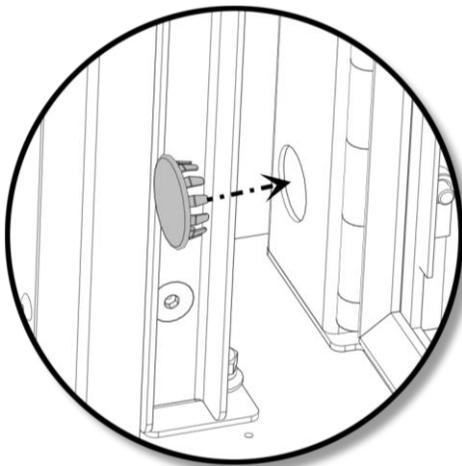
FIRESCREEN

Try moving the firescreen up and down slowly while looking at the cable and the pulley on the right. Make sure the firescreen cable can move freely and centered over its pulley in a straight line. If needed, realign the pulley. If you do so, do not forget to tighten the pulley's nut and bolt without over tightening.

UNLOCKING THE GLASS DOOR



1. The guillotine glass door is held closed by two transportation blocking brackets, located at the bottom of the door on each side. Remove the ¼" hex head screws and the blocking brackets.



2. Locate the two door cover buttons in the manual bag and push them into the holes in the door frame.

Lift the glass door to check the movement of the guillotine glass door. **Make sure the cable is centered in the pulleys and moves freely.** Close both the guillotine glass door and the firescreen.



WE RECOMMEND BOTH THE GUILLOTINE GLASS DOOR AND THE FIRESCREEN REMAIN CLOSED WHILE COMPLETING THE FIREPLACE AND CHIMNEY INSTALLATION.

MANDATORY INSTALLATIONS

MANDATORY - SPARK GUARD

Installation of the RUMFORD 1000 directly on the floor or on an elevated platform are acceptable.

The fireplace must be installed on a level surface. Standard framing will require reinforcement to distribute the weight of the fireplace.

The spark guard provided must be installed 2½" under the fireplace base and 2½" under the hearth extension, centered on the fireplace opening. It is dimensioned so that it will also cover the entire floor area under the metal front step of the fireplace. This guard prevents sparks from lodging in this area and starting a fire. See "Hearth Extension Requirements" on page 22.

If you are installing the fireplace on a combustible raised platform, you will need a second spark guard (not provided) with the same dimensions as the one we have provided. One spark guard will be installed below the hearth extension and the raised platform. The second spark guard will be installed below the fireplace. Both spark guards must be centered on the fireplace.

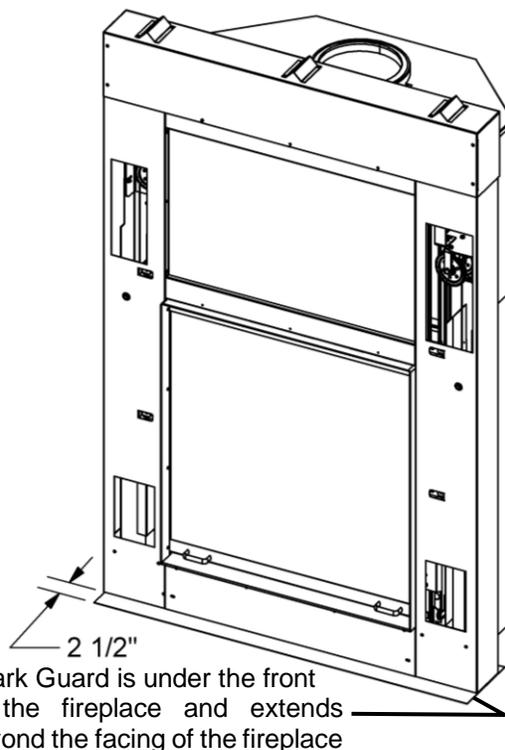


FIGURE 6 SPARK GUARD INSTALLATION

MANDATORY – SECURING THE FIREPLACE

Using the four small brackets that were securing the fireplace to the crate, attach the casing of the fireplace to the floor. Position the brackets all around the fireplace in the same fashion as they were on the crate. If possible, try to have the brackets screwed into the floor joists with 2" wood screws.

MANDATORY - FIREBOX LINING OPTIONS (ONE CHOICE REQUIRED)

The RUMFORD 1000 has two options for the bricks that line the interior of the firebox. One of the two options **MUST** be installed.

- Vermiculite panels with a herringbone brick pattern (EO-VP1000).** This choice offers the cleanest burning fireplace on the market and a very classic herringbone look.

Pros: super low emissions, very fast startup.

Cons: Less durable than cement refractory bricks, expect to see wear and cracking with these bricks over time.
- Cement refractory bricks with a running bond brick pattern (EO-RB1000)** which offers the most durable solution for the Rumford and a very traditional look.

Pros: Durable and dependable, less maintenance and degradation over time.

Cons: The fireplace will not light as quickly.

MANDATORY – ANTI-TIP BRACKETS

The RUMFORD 1000 fireplace MUST be securely fastened to the back wall. One anti-tip bracket has been provided. It is attached to the top of the fireplace. The bracket can be removed and repositioned as needed to ensure it aligns with the framing (see Figure 7). The anti-tip bracket MUST be attached to the top of the fireplace.

Use the four 1" self-tapping screws provided to attach the bracket to the fireplace. Use four wood screws (not included) to secure the bracket to the framing as shown in Figure 7.

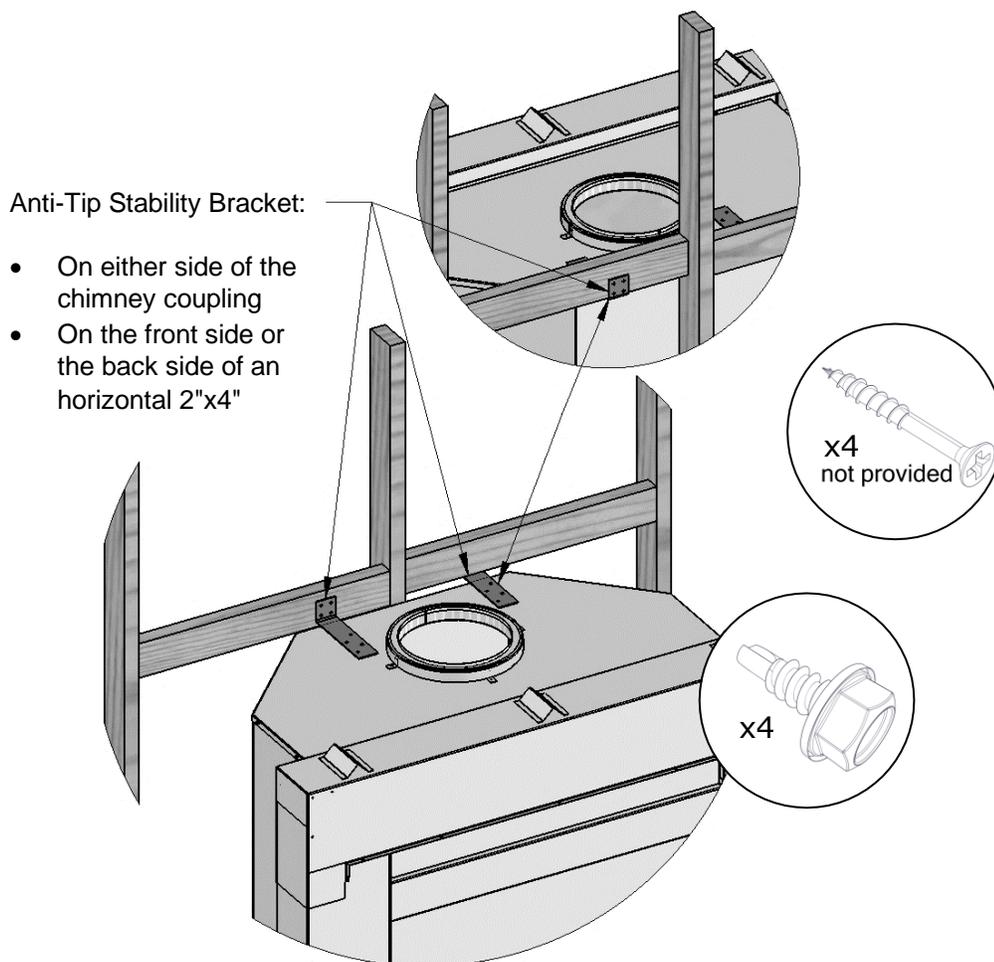


FIGURE 7 ANTI-TIP BRACKET INSTALLATION



OPTION: INSTALL THE ANTI-TIP BRACKETS TO THE FRONT OR BACK OF FRAMING AS ILLUSTRATED. SEE FIGURE 7.

MANDATORY CLEARANCES

FIREPLACE CLEARANCES

Clearance to combustibles are critical to the safe operation of this fireplace.

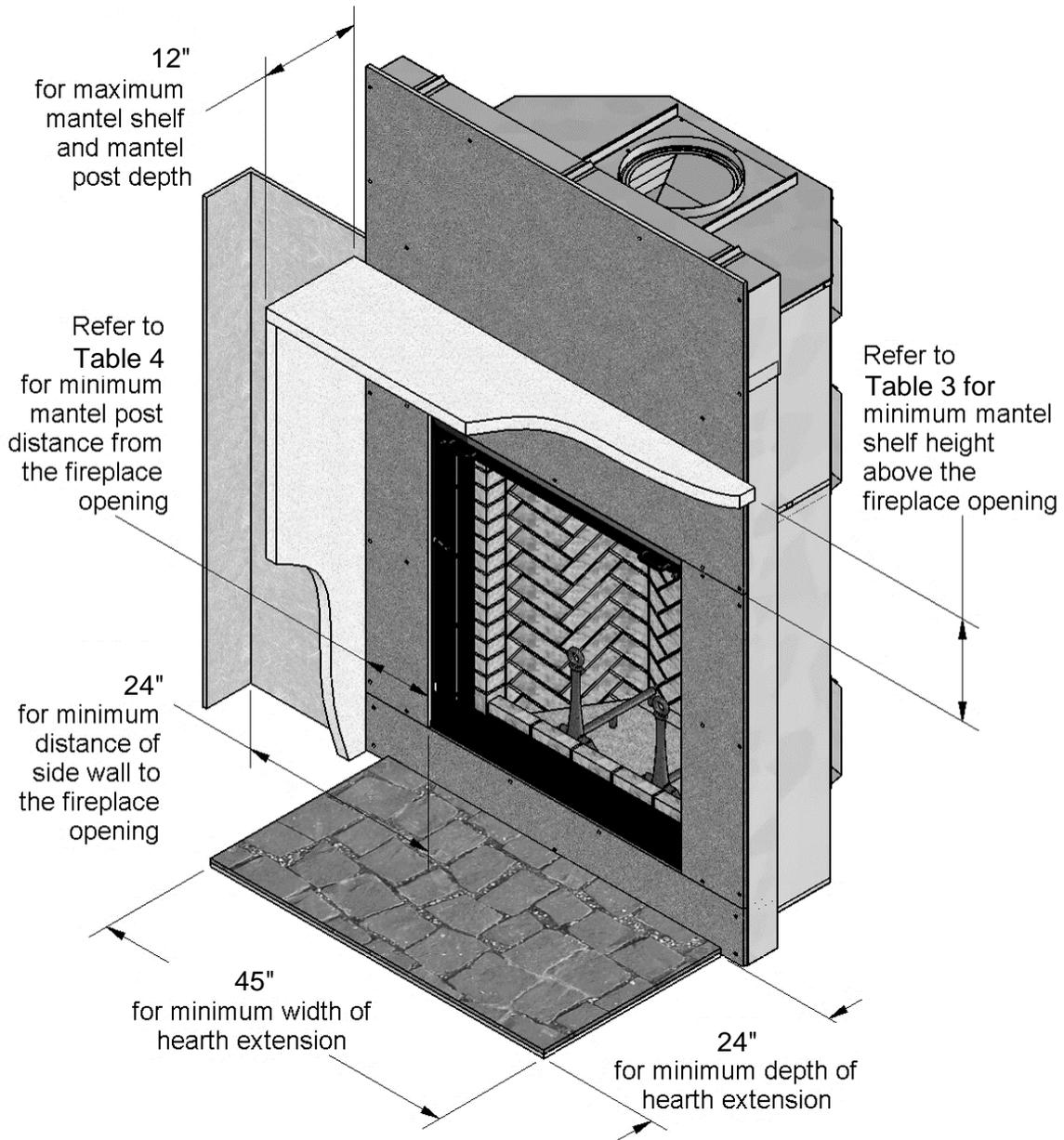


FIGURE 8 FIREPLACE CLEARANCES (SEE TABLE 2)

CEILING HEIGHT REQUIREMENTS

Using the components included with the RUMFORD 1000, the minimum ceiling height measured from the base of the fireplace to the ceiling is 8'. This requirement applies to ALL ceilings above the fireplace (room ceiling, enclosure ceiling).

TABLE 2 FIREPLACE CLEARANCES

A	Distance to combustible material from side, back and top standoffs. 	0"	0 mm
B	Minimum distance from the guillotine bay opening to a side wall.	24"	610 mm
C	Minimum ceiling height: measured from the base of the fireplace to the lowest point of the ceiling above the fireplace. Applies both to the inside and outside of the fireplace enclosure.	8'	2,44 m
D	Minimum width of non-combustible hearth extension and spark guard, centered on the fireplace opening.	45"	1,14 m
E	Minimum depth of non-combustible hearth extension: measured from the front of the fireplace.	24"	610 mm
F	Maximum depth of a combustible mantel shelf above the fireplace opening.	12"	305 mm
G	Minimum height of a combustible mantel shelf above the top of the guillotine bay opening: measured from the lowest point/bottom of the combustible mantel shelf.	See Table 3	
H	Maximum depth of a combustible mantel post extending beyond the fireplace facing.	12"	305 mm
I	Minimum distance of a combustible mantel post from the fireplace opening: measured from the closest point of the combustible mantel post.	See Table 4	



COMBUSTIBLE FRAMING IS NOT PERMITTED IN THE SPACE DIRECTLY ABOVE THE FIREPLACE. THE ONLY EXCEPTION IS FOR FRAMING USED TO SUPPORT THE FACING MATERIAL.

THE AREA ABOVE THE FIREPLACE MUST BE FREE OF COMBUSTIBLES FOR AT LEAST THE HEIGHT PROVIDED IN TABLE 2 (C).

TABLE 3 MANTEL SHELF DEPTHS AND CORRESPONDING CLEARANCE

Maximum Mantel Shelf Depth	Minimum Installation Height
0" to 6"	6"
7"	7"
8"	8"
9"	9"
10"	10"
11"	11"
12"	12"

Shelf Depth is measured from the fireplace actual facing not the front of the finishing materials.

Installation Height is measured from the guillotine bay opening (or lintel frame)

A combustible mantel shelf cannot be installed less than 6" above the top of the fireplace opening. A combustible mantel shelf cannot be deeper than 12".

If the combustible mantel shelf has a cross-section with variable depth, it has to be installed so that its widest part is not installed lower than the corresponding minimum installation height while making sure that the lowest point of the mantel shelf is not installed lower than the minimum installation height corresponding to its depth.

Refer to the "Mantel" section on page 31 for details.

TABLE 4 MANTEL POST DEPTHS AND CORRESPONDING CLEARANCE

Maximum Mantel Post Depth	Minimum Installation Distance
0" to 3"	6"
4"	6 7/16"
5"	6 7/8"
6"	7 5/16"
7"	7 13/16"
8"	8 ¼"
9"	8 11/16"
10"	9 1/8"
11"	9 9/16"
12"	10"

Post Depth is measured from the fireplace actual facing not the front of the finishing materials.

Installation Distance is measured from the guillotine bay opening (or lintel frame)

A combustible mantel post cannot be installed less than 6" from either side of the fireplace opening. A combustible mantel post cannot be deeper than 12".

If the combustible mantel post has a cross-section with variable depth, it has to be installed so that its thickest part is not installed closer than the corresponding minimum installation distance while making sure that the thinnest point of the mantel post is not installed closer than the minimum installation distance corresponding to its depth.

Refer to the "Mantel" section on page 31 for details.

HEARTH EXTENSION REQUIREMENTS

The minimum size of a non-combustible hearth extension for the RUMFORD 1000 is 45" wide by 24" deep centered in front of the fireplace glass door opening.

Whether the fireplace is installed on a non-combustible floor or a combustible floor, non-combustible flooring material such as brick, tile, stone, or slate must be used as finishing material over the hearth extension area.

The non-combustible flooring must have the same minimum dimensions as the hearth extension (45" wide by 24" deep) and must be installed on top of an adequate thermal protection.

If the floor immediately in front of the fireplace is COMBUSTIBLE (surface and/or structure), it must be protected.

The floor protection required includes:

1. Spark Guard – included with every fireplace

Every RUMFORD 1000 installed on a combustible floor must have a Spark Guard installed. The spark guard must extend 2 ½" under the fireplace base and 2 ½" in front of the front face of the fireplace.

2. Thermal protection of a minimum R-Value of 0.52

Adequate thermal protection must be provided for the combustible floor structure of the hearth extension. The thermal protection must have the same minimum dimensions as the hearth extension (45" wide by 24" deep), and it must be installed under the non-combustible flooring and above the spark guard.

See Table 5 for various possibilities on how to achieve the required thermal protection. If you want to use alternative materials, you simply need to add the R-Values of each material considered for the hearth extension. The R-Values are linked to the thickness of the material, if the material considered is twice the thickness in our table, just multiply by two the R-Value. For example:

- You could use 1" HardieBacker and ¼" ceramic tile: $(2 \times 0.26) + 0.02 = 0.54$ R-Value
- You could use 5" of limestone: $5 \times 0.108 = 0.54$ R-Value
- You could use 1" WonderBoard and 4 ½" of Sandstone: $(2 \times 0.15) + (4.5 \times 0.05) = 0.525$ R-Value

If the fireplace is raised by a minimum of 6", the thermal protection is NOT required **but the non-combustible hearth extension is still required.**

A raised hearth constructed of non-combustible cement board and metal studs will provide adequate thermal protection.

TABLE 5 THERMAL PROTECTION ALTERNATIVES FOR THE HEARTH EXTENSION

Material	Nominal Thickness	R-Value for nominal thickness
Cement board: Durock or HardieBacker ⁴	½"	0.26
Cement board: Wonderboard ⁵	½"	0.15
USG Micore 160 ⁴	½"	1.27
USG Micore 300 ⁴	½"	1.03
Common Brick ⁶	2 ¾"	0.475
Ceramic Tile	¼"	0.02
Granite ⁷	1"	0.038
Limestone ⁷	1"	0.108
Marble ⁷	1"	0.049
Sandstone ⁷	1"	0.05
Quartzite ⁷	1"	0.027

If the RUMFORD 1000 is installed on a non-combustible floor (a non-combustible floor surface with a non-combustible floor structure), the floor protection is not required, provided that the non-combustible floor (surface and structure) extends for the entire hearth extension area (45" wide by 24" deep).

⁴ From Manufacturers technical data

⁵ Hearth & Home Magazine, July 2008, page 70.

⁶ From the ColoradoENERGY.org

⁷ From the Marble Institute of America

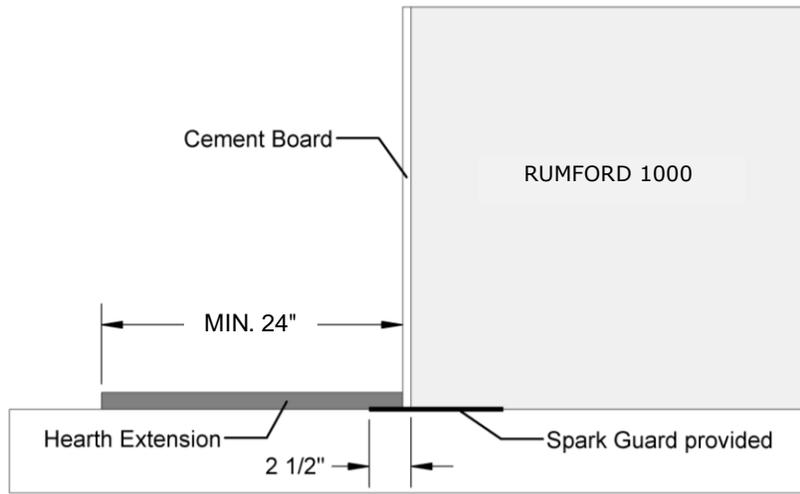


FIGURE 9 STANDARD HEARTH EXTENSION

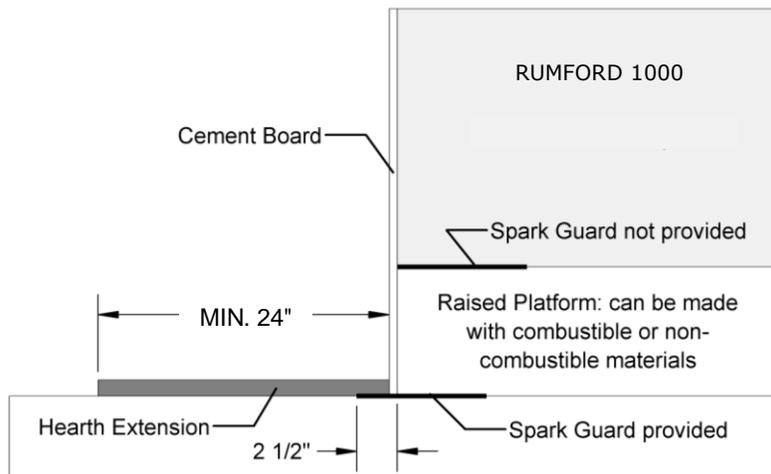


FIGURE 10 RAISED FIREPLACE

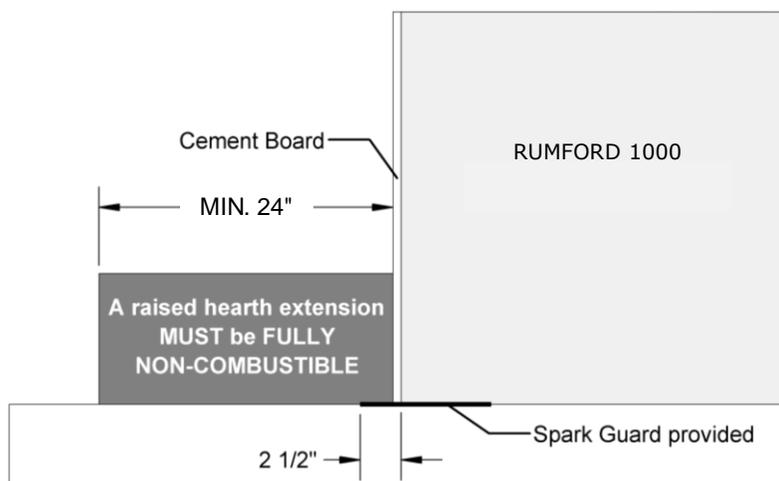


FIGURE 11 RAISED HEARTH EXTENSION

OUTSIDE AIR INTAKE

The use of outside air is not required unless specified by local building codes. The fireplace only accepts outside air on the left side of the fireplace and comes standard with a 4" connection collar on the fireplace.

For outside air runs of 10' or less, the Renaissance FO-INT outside air kit is recommended. The kit includes 10' of 4" flexible duct with insulation and an inlet hood. For outside air runs of 20' or more it is recommended to increase the duct size to 5", an optional 5" collar is also provided. It is not recommended to go beyond 30' and try to keep the bends to a bare minimum.

The outside air intake should not exceed 12' of vertical rise and can NOT terminate within 5' of the chimney top. It should also not terminate in an attic or crawl space.



WHEN RUNNING THE DUCT AROUND CORNERS, AVOID CRUSHING THE DUCT WHICH CAN RESTRICT AIRFLOW.

You can make a cold air trap by looping the outside air duct between its two extremities.

1. Find a convenient location for the outside air inlet hood.
2. Make a 4 ¼" (5 ¼" if using a 5" diameter duct) hole in the outside wall of the house. Push the round sleeve of the outside air inlet hood in from the outside. Seal the joint between the inlet hood and the outside wall with silicone sealant.
3. Pull back the insulation to expose the aluminum duct and slide the duct over the round sleeve on the outside air inlet hood. Attach the duct with metal screws to the Inlet Hood sleeve. Carefully push the insulation and plastic cover back over the duct and tape in place with 2" aluminum duct tape (not provided).
4. Create a cold air trap by looping the outside air duct within the run before attaching it to the fireplace.
5. Repeat step 3 to connect the duct to the air intake flange of the fireplace.

CHIMNEY

For the best chimney performance, we recommend an interior chimney installation over an exterior chimney installation. In climates with temperatures below 32°F (0°C) the use of an exterior chimney may adversely affect how the fire burns and how well smoke is vented through the chimney. Flue creosote accumulation may increase more rapidly due to a cold chimney. If the fireplace and chimney are installed within an exterior chase, the chase should be insulated. See "Outside Chase Enclosure" section on page 28.

Read the RIS Chimney installation manual concerning requirements for supports, bracing, anchors, etc. It can be found: www.icc-rsf.com/en/installation-instructions-model-ris-canada-and-usa.

CHIMNEY REQUIREMENTS

TABLE 1 CHIMNEY SPECIFICATIONS

Chimney size and type	ICC RIS 10" only	
Minimum chimney height: from the top of the fireplace to the chimney cap	12'	3,66 m
Maximum chimney height from the top of the fireplace to the chimney cap	60'	18,28 m
Maximum chimney height supported by the fireplace without additional supports	15'	4,57 m
Minimum clearance between the exterior of the chimney and any combustibles	2"	51 mm
Maximum number of offsets (2 elbows per offset)	2	

TABLE 6 RECOMMENDED MINIMUM FLUE HEIGHT

Elevation (ft)	Number of Offsets						
	Straight Chimney	1 x 15°	2 x 15°	1 x 30°	2 x 30°	1 x 45°	2 x 45°
0 - 1000	minimum 12'	13'	14'	15'	18'	16'	20'
1001 - 2000	12'6"	13'6"	14'6"	15'6"	19'	16'6"	20'6"
2001 - 3000	13'	14'	15'	16'	19'6"	17'	21'6"
3001 - 4000	13'6"	14'6"	15'6"	17'	20'	18'	22'6"
4001 - 5000	14'	15'	16'	17'6"	21'	18'6"	23'
5001 - 6000	14'6"	15'6"	17'	18'	21'6"	19'	24'
6001 - 7000	15'	16'	17'6"	18'6"	22'6"	20'	25'
7001 - 8000	15'6"	16'6"	18'	19'	23'	20'6"	25'6"
8001 - 9000	16'	17'	18'6"	20'	24'	21'	26'6"
9001 - 10000	16'6"	17'6"	19'	20'6"	24'6"	22'	27'

Flue height is measured from the top of the fireplace to the top of the chimney before installing the rain cap.

If you have two different offsets (two pairs of different elbows), simply use the column for two offsets of the biggest pair of elbows at your elevation to get your Minimum Flue Height.

OFFSETTING THE CHIMNEY

Use an elbow to offset the chimney to avoid cutting the roof and/or floor joists. An elbow may be installed directly on top of the fireplace. Use the RIS 10" offset chart (see Table 7) to correctly offset the chimney.

An offset requires additional chimney support in the form of an offset support or wall support to prevent the chimney from leaning.

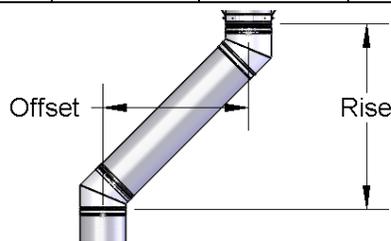
Maximum offset angle:

- In USA: 30°
- In Canada: 45°

The maximum number of elbows per system is four, resulting in two offsets and returns.

TABLE 7 10" RIS OFFSET

Length between elbows	15° Offset		30° Offset		45° Offset	
	Rise	Offset	Rise	Offset	Rise	Offset
No length	11 7/8"	1 5/8"	14 1/8"	3 3/4"	15 7/8"	6 5/8"
12" length	22 1/4"	4 3/8"	23 3/8"	9 1/8"	23 1/2"	14 1/8"
24" length	33 7/8"	7 1/2"	33 3/4"	15 1/8"	32"	22 5/8"
48" length	57"	13 5/8"	54 5/8"	27 1/8"	48 7/8"	39 5/8"
48" + 12"	67 3/8"	16 1/2"	63 7/8"	32 1/2"	56 1/2"	47 1/4"
48" + 24"	79"	19 1/2"	74 1/4"	38 1/2"	65"	55 3/4"
48" + 24" + 12"	89 3/8"	22 3/8"	83 5/8"	43 7/8"	72 5/8"	63 3/8"
48" + 48"	102 1/4"	25 3/4"	95"	50 1/2"	82"	72 3/4"



THROUGH THE WALL OFFSET

If necessary, the chimney can go through a wall at an angle as shown in Figure 12. You will need to use an Insulated Angled Wall Radiation Shield (RM-10WRSI30 or RM-10RWSI45) to protect the combustible wall structure from the heat of the chimney.

Ensure there is adequate ceiling height for your installation. If the ceiling height is too low for the planned installation, you may consider installing the fireplace in an outside chase.

TABLE 8 THROUGH THE WALL OFFSET INSTALLATION DIMENSIONS

	30° Offset Through the Wall US and Canada		45° Offset Through the Wall Canada Only	
Minimum required ceiling height*	10' 6"	3,2 m	9'	2,74 m
Height of the center of the hole in the wall*	8' 4 1/2"	2,55 m	7' 6 3/4"	2,31 m
Minimum height of the hole	47 1/2"	1,19 m	32 3/4"	812 mm
Minimum width of the hole	16"		406 mm	

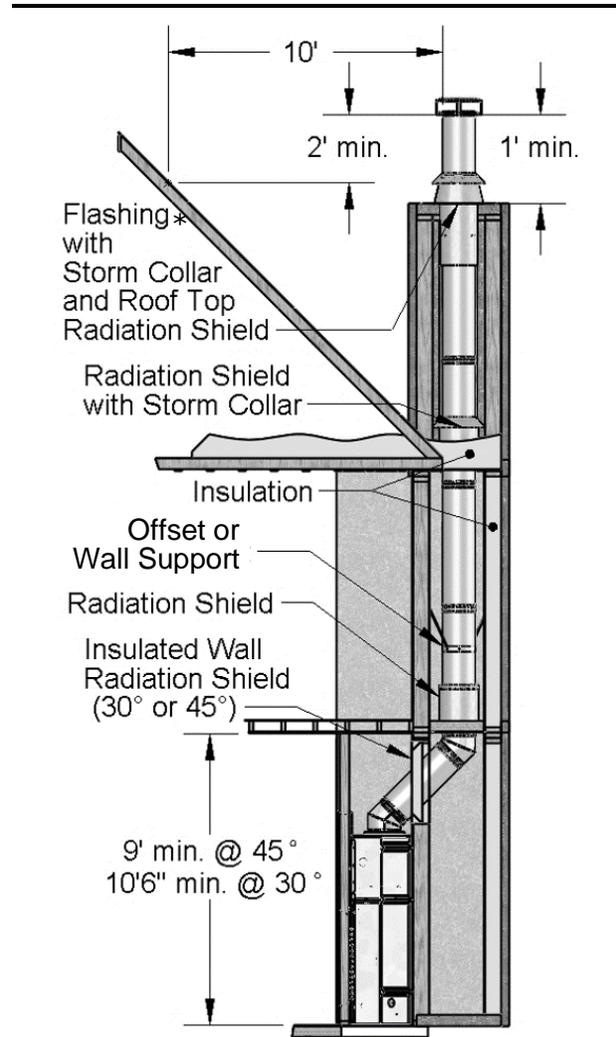
*These dimensions assume that the offset begins directly on the fireplace.

OUTSIDE CHASE ENCLOSURE

If the chimney runs up the outside of the house, we recommend that it be enclosed in a chase. The chase should be constructed in such a way that it is an extension of the home (see Figure 12). It should be well insulated between the footings and the floor of the home to prevent heat loss.



CHECK LOCAL CODES CONCERNING INSTALLATION REQUIREMENTS AND RESTRICTIONS FOR AN OUTSIDE CHASE.



*Refer to page 29 to determine the appropriate flashing (regular or vented)

FIGURE 12 EXTERIOR CHASE AND THROUGH THE WALL

CHIMNEY INSTALLATION

1. Cut and frame the required holes in the floor(s), ceiling(s) and roof where the chimney will pass through. The rough opening in the framing is 16" square (the opening can be slightly bigger, up to 16 1/2", but NEVER smaller).



THE CLEARANCE BETWEEN THE CHIMNEY AND COMBUSTIBLES MUST BE 2" OR MORE. DO NOT FILL THIS AREA WITH INSULATION.

2. At each floor where the chimney passes through, you must install a radiation shield (RM-10RRS). At the attic level, install a radiation shield and a storm collar as shown in Figure 4 and Figure 12.
3. Install the first chimney length on the fireplace flue adapter and secure it with the screws provided with the chimney.
4. Add additional lengths by lining up the seams and screwing into the pre-punched holes. Also add supports as required until the chimney penetrates the roof deck or on top of the chimney chase.

The chimney must extend at least 3' above its highest penetration of the roof and at least 2' higher than any wall, roof, or building within 10' horizontally of it. If the chimney extends higher than 5' above the roof, it must be secured using a roof brace (RM-10RRB)

5. At the roof, install the mandatory roof top shield (RM-10RTS). **The roof top shield MUST be installed so it extends 1" above the roof line.**
6. **A vented flashing (RF-10RVF) MUST be used if the chimney is in a chase or is enclosed to the roof.** The ventilated openings must permit air flow. Do not seal the ventilated openings with caulk. If the chimney passes through an open attic, a regular, unvented flashing is then allowed.
7. Seal the joint between the roof and the flashing with roofing tar. For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Secure the flashing to the roof with roofing nails or screws.
8. Place the storm collar over the chimney and flashing (see Figure 13). Seal the collar to the chimney with silicone (high temperature not required).
9. RIS Chimney requires the use of a Rain Cap (RM-10RRC) or Rain Cap Base (RM-10RRCB). Secure either to the chimney using the screws provided.

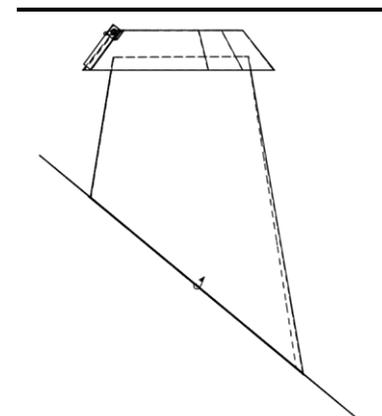


FIGURE 13 **STORM COLLAR POSITION**

FINISHING

LINTEL INSTALLATION

Lintels are installed on the fireplace to easily finish the border of the front opening.

These lintels protrude past the front of the fireplace by 1 ¼" allowing ½" for the cement board panels that must cover the front and ¾" for your non-combustible finishing materials.

If thicker lintels are required, you can use these lintels as a template to have custom lintels made.

FIREPLACE FACING

The facing **MUST** be covered with cement board panels that are at least ½" thick. Only fully non-combustible panels such as James Hardie HardieBacker® or USG Durock® cement board are acceptable. Both products will allow for face finishing with any non-combustible material and will allow you to create a seamless joint to the gypsum boards.

Only screw into the panels where allowed, see Figure 14.

Using longer screws may damage the guillotine system or impede operation.



DO NOT USE GYPSUM BOARD TO COVER THE FIREPLACE, IT IS CONSIDERED A COMBUSTIBLE MATERIAL, REGARDLESS OF THEIR FIRE RATINGS.

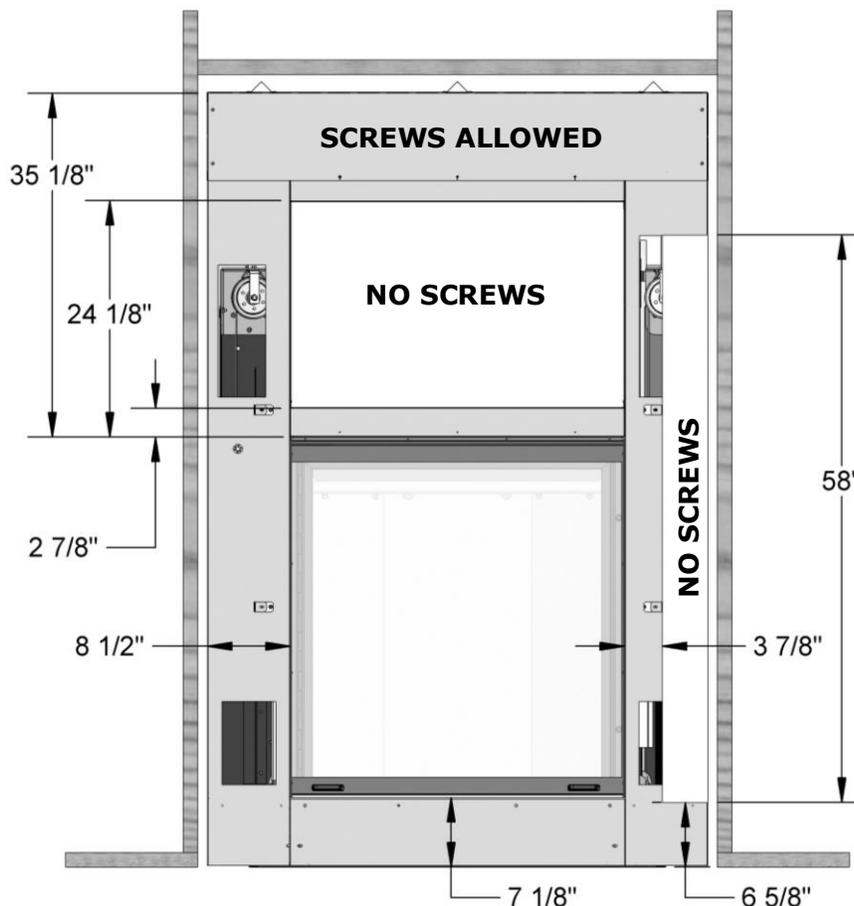
ENSURE THE GUILLOTINE GLASS DOOR AND FIRESCREEN ARE CLOSED BEFORE INSTALLING THE CEMENT BOARD PANELS.

IF ANY MATERIAL NEEDS TO BE SECURED TO THE FRONT OF THE FIREPLACE AFTER THE CEMENT BOARD HAS BEEN INSTALLED – use screws which penetrate the thickness of the cement board and which will not exceed the back of the panels by more than ½". Deeper penetration of the screw tip will prevent the proper operation of the fire screen and/or the guillotine glass door and may eventually cause difficulty dismantling the guillotine system. Confirm that you have not impeded the normal operation of the fire screen and the guillotine glass door by moving them slowly as you proceed with installing the screws.

DECORATIVE FACING FINISH

Facing materials must be **NON-COMBUSTIBLE** such as metal, brick, slate or ceramic tile. Gypsum board and sheet rock are **NOT** acceptable facing material. The only combustible material accepted on the facing of the fireplace is a mantel shelf when following the minimum installation distances as outlined.

The cement board can be painted, textured or tiled just as you would over gypsum board or sheet rock. The lintels provided with the fireplace are appropriate for thin facing materials. A wider steel lintel may be required for heavy rock facing. If so, contact your local metal contractor for a custom steel lintel.



SCREWS ALLOWED (grey) areas:

Screws can penetrate the fireplace facing at these locations by no more than $\frac{1}{2}$ ". If using one $\frac{1}{2}$ " sheet of cement board, 1" long screws are the maximum length permitted. Longer screws may damage the guillotine system.

NO SCREWS (white) areas:

Do not screw into this area with any length or type of screw.

FIGURE 14 PERMISSIBLE SCREWS AREAS

MANTEL

NON-COMBUSTIBLE or masonry mantels (shelf and posts) can be placed anywhere around the guillotine bay opening. To prevent damage to the guillotine door or firescreen, fasten screws only in the acceptable locations provided in the "Fireplace Facing" section of this manual.

For **COMBUSTIBLE** mantels and mantel posts, please see Table 2 (F-G-H-I) for the maximum depth of the mantel shelf and posts and their installation clearance requirements. See Figure 8 for an example.

- The only combustible material accepted on the facing of the fireplace is for a mantel shelf and posts.
- Televisions are considered combustible materials. Before installing a television above your fireplace, consult your television owner's manual for requirements.

Refer to the "Fireplace Facing" section for the permissible screw area.

MANDATORY - FIREBOX LINING INSTALLATION

The firebox lining installation instructions for the RUMFORD 1000 fireplace is packaged separately from the fireplace. You must make sure that all is properly installed inside the firebox before making your first fire. This is easily accomplished by following the instructions provided with the lining option you have chosen:

- EO-VP1000 for the Vermiculite panels with a herringbone brick,
- EO-RB1000 for the Cement refractory bricks with a running bond brick pattern.

The lining installation instructions can also be found on our website at www.renaissancefireplaces.com



THE FIREPLACE SHOULD NEVER BE BURNED WITHOUT THE FIREBOX INSULATION AND REFRACTORY BRICKS PROPERLY INSTALLED.

VERMICULITE REFRACTORY FIREBOX LINING INFORMATION

The primary design criteria for Renaissance fireplaces was ultra-low emissions and the Renaissance team incorporated a wide range of materials and design factors to enable Renaissance Rumford™ fireplaces to burn more cleanly than any other open fireplaces. One of the most important of these factors is the vermiculite firebox lining material.

Our research to date has found that using conventional high temperature firebrick results in much higher emissions and reduced efficiency. Vermiculite refractory panels, although much more expensive, is lightweight, insulating and reflective, which results in a hotter fire faster, reducing emissions and improving efficiency.

Vermiculite is not a new material, it has been used for lining the fireboxes of solid fueled boilers, furnaces, stoves and fireplaces in Europe for over 20 years and remains one of the most popular firebox lining materials where low emissions are a design criterion. Its long history of reliable performance and excellent durability is one of the primary reasons we selected vermiculite panels for the Renaissance.

Although the vermiculite panel surface is quite durable, impact from loading logs in the fireplace can be sufficient to mark the material somewhat. These marks are strictly cosmetic, and most people do not find them objectionable. With normal use it is also common for some portions of the vermiculite surface to change color, from beige to orange. This discoloration is the result of variable heating of the panels. It is permanent but strictly cosmetic; it does not affect durability. Unlike conventional firebrick which turns black over time from the accumulation of creosote on the bricks the high combustion temperatures in the Renaissance will burn the creosote when the unit is operated with the door closed resulting in clean firebox walls with no black deposits.

So, like most things, using vermiculite panels instead of firebrick has pros and cons. The pros: super low emissions, high efficiency and no black accumulation on the firebox, the cons: it is subject to some surface damage and discoloration over time. We believe the pros far outweigh the cons. That said the Renaissance firebox is assembled from several individual vermiculite panels which can be partially or completely replaced in the field at any time, very easily and relatively cheaply. In most cases the panels will never need to be replaced but in the rare case where replacement is desired see your Renaissance dealer for replacement panels and service.



THE FIREPLACE SHOULD NEVER BE BURNED WITHOUT THE FIREBOX INSULATION AND REFRACTORY BRICKS PROPERLY INSTALLED.

GLASS CLEANING

If the glass needs cleaning after installation is complete, use a glass cleaner specifically formulated for wood stove ceramic glass. Do not use an abrasive cleaner and do not clean the glass while it is hot. See the owner's manual for more details.

REPLACEMENT PARTS

A complete list of replacement parts are available at: www.renaissancefireplaces.com

30 YEAR LIMITED WARRANTY

All **Renaissance Fireplaces™** models are warranted against defects in material and workmanship for a period of 30 years, subject to the following conditions:

During the first year **Renaissance Fireplaces™** will repair or replace, at our option, any parts which upon examination by an authorized **Renaissance Fireplaces™** representative, are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **Renaissance Fireplaces™** will also pay reasonable labor costs for the repair work.

During the second through fifth years **Renaissance Fireplaces™** will repair or replace, at our option, any parts which upon examination by an authorized **Renaissance Fireplaces™** representative, are found to be defective, except the parts listed in the EXCLUSIONS portion of this warranty. **Renaissance Fireplaces™** shall not be responsible for any labor costs associated with this repair work.

During the sixth through thirtieth years **Renaissance Fireplaces™** will provide replacement parts, if available, at 50% of the published retail price, except for the parts listed in the EXCLUSIONS portion of this warranty. **Renaissance Fireplaces™** shall not be responsible for any labor costs associated with this repair work.

EXCLUSIONS:

- Glass and andirons.
- Damage due to normal wear and tear, such as paint discoloration, worn gaskets, eroded or cracked rigid insulation panels or firebox lining components.
- Repairs or replacements necessitated by vandalism, neglect, abuse, over-firing, improper fuel or fuel loads, or failure to adequately service the unit, as stated in the owner's manual.
- Repairs or replacements (particularly charges for travel and labor) not authorized by **Renaissance Fireplaces™** in advance.

LIMITATIONS:

- All items found to be defective will be replaced or repaired upon return of the defective part to an authorized **Renaissance Fireplaces™** dealer. **Renaissance Fireplaces™** will not be responsible for freight costs related to shipping replacement parts.
- Any complete fireplace, or part thereof, that is replaced or serviced under this warranty, will be warranted for a period not exceeding the remaining term of the original warranty.
- This warranty is not transferable.
- This warranty does not apply to damage to the appliance while in transit.
- This warranty does not apply if the installation does not conform to the installation requirements in the installation and owner's manuals.
- **Renaissance Fireplaces™** is free of liability for any damages caused by the appliance, as well as material and labor charges incurred in the removal or re-installation of any **Renaissance Fireplaces™** fireplace under this warranty. Incidental or consequential damages are not covered by this warranty.
- The remedies set forth herein are exclusive, and the liability of the seller shall not exceed the price of the fireplace or part thereof upon which the liability is based.
- This warranty is expressly in lieu of all other warranties expressed or implied, including the warranties of merchantability and fitness for use and all other obligations or liabilities on the part of **Renaissance Fireplaces™**.