

Heterofocus 1400

Design Installation & Operating Manual v.8 EN
Tested by OMNI-Test Laboratories, Inc. and approved to
ULC-S610-M87 (A1998), UL 737-2011 And ULC S627-00



OMNI-Test Laboratories, Inc.

Report Number: 304-F-20-2

US EPA exempt



this document was packed with the appliance.

KEEP THESE INSTRUCTIONS FOR FUTURE USE

TABLE OF CONTENTS:

1 – INTRODUCTION

2 – SPECIFICATIONS

- a) Characteristics
- b) Roof outlet requirement
- c) Chimney requirement
- d) Structural requirement
- e) Connectors
- f) Fresh air intake
- g) Clearances to combustibles

3 – INSTALLATION

- a) Included parts, materials and required tools for installation
- b) Options
- c) Assembly details

4 – OPERATING INSTRUCTIONS

- a) Storage/use of flammable liquids
- b) Insulating hearth
- c) Ashes
- d) Fuel
- e) Before lighting your first fire
- f) Building, starting and maintaining the fire
- g) Protective glove and separable handle
- h) Damper

5 – MAINTENANCE

- a) Taking out the ashes
- b) Inspection, maintenance and cleaning of the chimney
- c) Surfaces
- d) Replacement parts

6 – WARRANTY



1 – INTRODUCTION:

Please read this entire manual before you install and use your focus fireplace. Failure to follow instruction may result in property damage, bodily injury or even death. When this room heater is not properly installed, a house fire may result. To reduce the risk of fire, follow the installation instructions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

KEEP THIS MANUAL HANDY FOR EASY REFERRAL.

All **WARNING** and **CAUTION** statements will appear in bold font and upper case letters: **THEY SHOULD BE STRICTLY OBSERVED.**

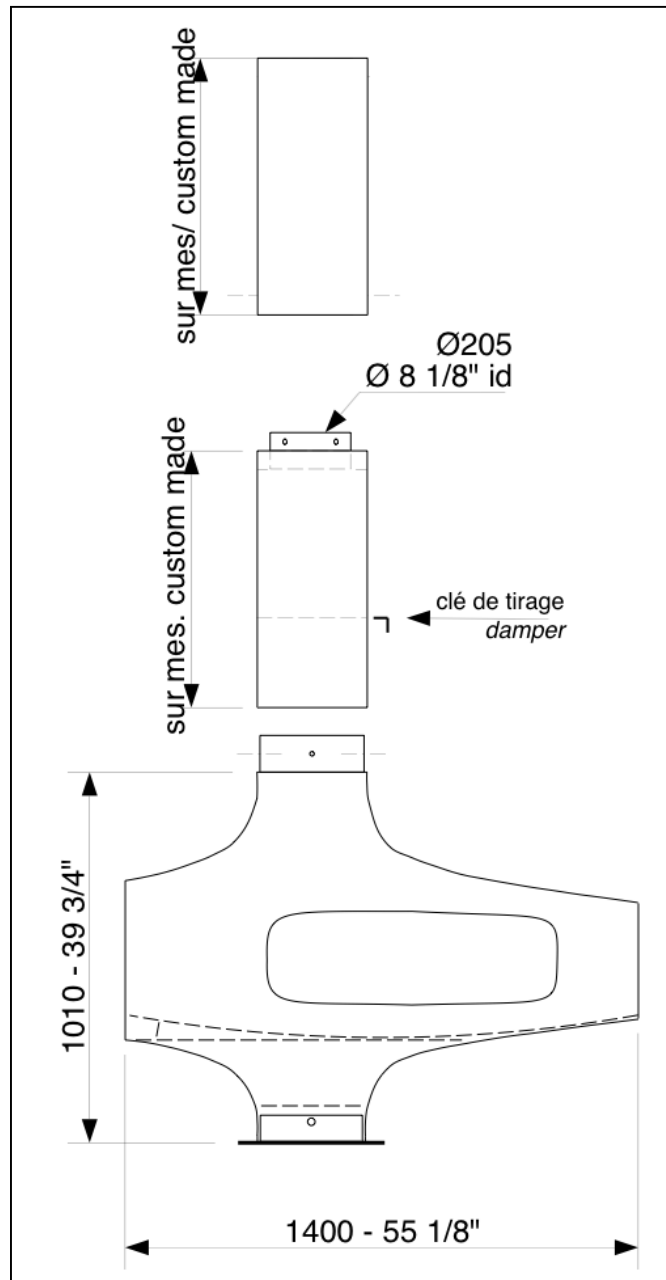
Thank you for choosing Focus. Appliance designation: *heterofocus 1400*
Manufacturer: *focus - atelier dominique imbert – le fort – 34380 viols le fort – France.*

2 – SPECIFICATIONS:

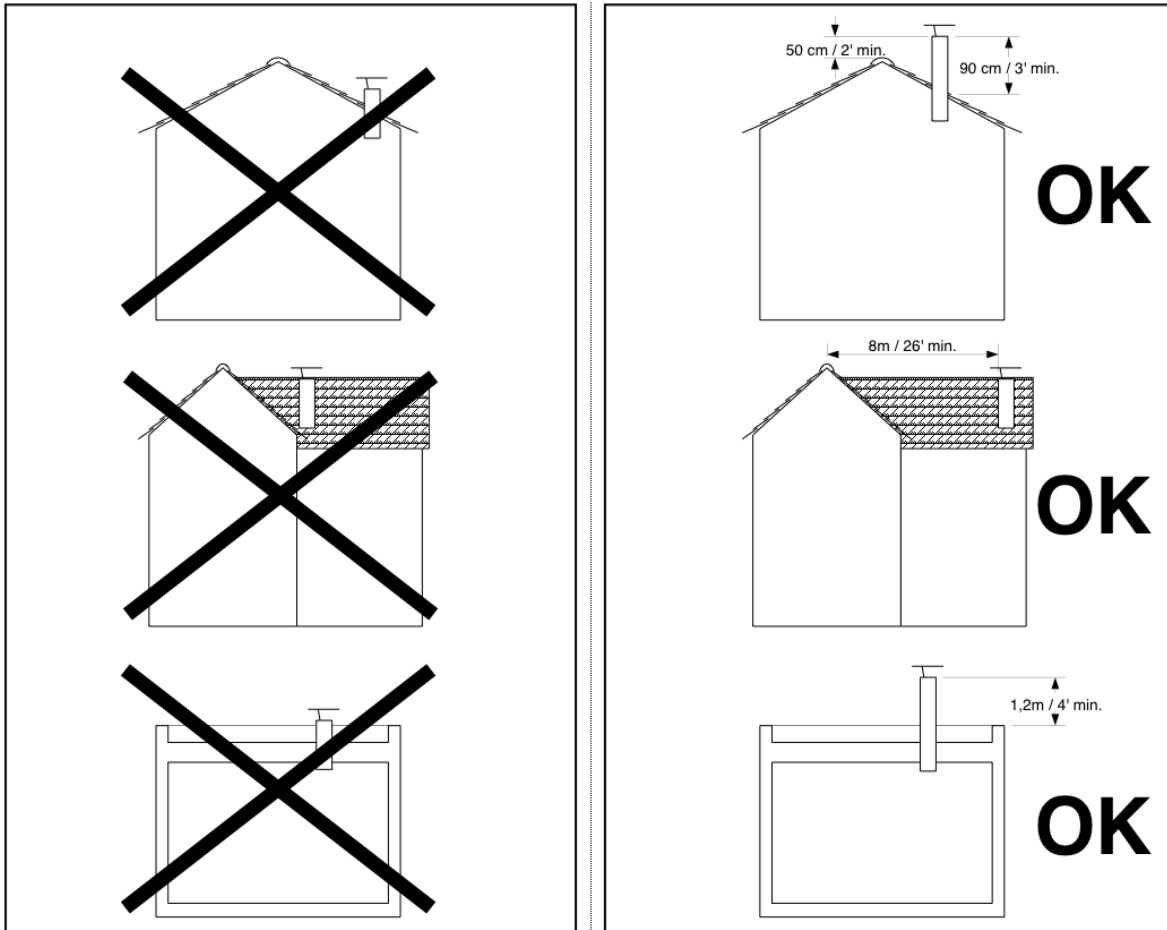
- **CAUTION : DO NOT INSTALL IN A MOBILE HOME. NOT FOR EXTERIOR INSTALLATION!**
- **CAUTION : NOT TO INSTALL WITH MASONRY CHIMNEY SYSTEM.**
- **CAUTION : DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK!**
- THE AUTHORITY HAVING JURISDICTION (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) SHOULD BE CONSULTED BEFORE INSTALLATION TO DETERMINE THE NEED TO OBTAIN A PERMIT.**
- USING MAKE-SHIFT COMPROMISES DURING INSTALLATION CAN CAUSE DAMAGE . SUCH INSTALLATION IS NOT COVERED UNDER FOCUS LIMITED WARRANTY.**
- WHEN THIS ROOM HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.**

a) Characteristics:

- Hearth 1.40 m (55-1/8-inch) long ; weight : 90 kg (200 lbs)
- Smoke outlet diameter : 205 mm ID (8-1/16-inch) ; length custom-made
- Flue weight : 27 kg per meter (18 lbs per foot)
- Ceiling mount weight : 15 kg (33 lbs)
- 3 mm (1/8-inch) thick steel
- Polished raw steel finish (except cover disc and cold handle)



b) Roof outlet requirement:



c) Chimney requirement:

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE!

Heterofocus 1400 requirements: the floor to top of chimney length must be 15 feet minimum (18 feet for an installation less than 3 miles from the ocean or if a 30° elbow is necessary). Elbows should not be more inclined than 30° (USA) or 45° (Canada) from vertical, and with maximum number of 2. Maximum inside + outside height (without use of a fan) : 30 feet.

The heterofocus 1400 must be connected to a chimney complying with the requirements for Type HT chimneys in the standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, UL 103 / ULC S629. For example, a class A insulated stainless steel flue chimney system with a 8" minimum inside diameter.

d) Structural requirement:

CAUTION: THE SUPPORT OF THIS UNIT (FLOOR) MUST BE SIZED IN CONGRUENCE WITH THE FIREPLACE STATIC AND DYNAMIC CHARGES (WEIGHT). THE SIZE CALCULATION FOR THE SUPPORT IS NOT THE RESPONSIBILITY OF FOCUS OR ITS AFFILIATES. IT IS YOUR RESPONSIBILITY TO CONSULT WITH AN ENGINEER OR ARCHITECT FOR YOUR PROJECT.

e) Connectors:

Connectors are all non-insulated chimney parts including focus flue and the chimney manufacturer single wall slip adaptor. To avoid heat traps the chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor, or ceiling.

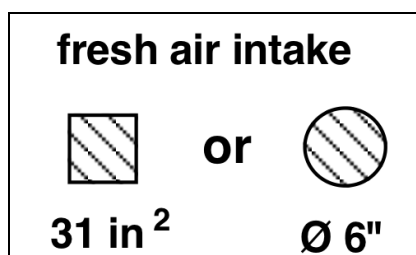
Passage through an attic, roof frame floor, or ceiling must be done using an insulated chimney respecting all chimney manufacturer clearances. For Canada the installation should conform to CAN/CSA-B365.

CAUTION: PASSAGE THROUGH A WALL OR PARTITION OF COMBUSTIBLE CONSTRUCTION IS NOT AN APPROPRIATE INSTALLATION FOR THIS FOCUS FIREPLACE.

Refractory compound must be used to seal each connection. Connectors should always be in good condition and kept clean. Minimum thickness : 1/32" (1 mm). Please refer to installation details in this manual.

f) Fresh air intake:

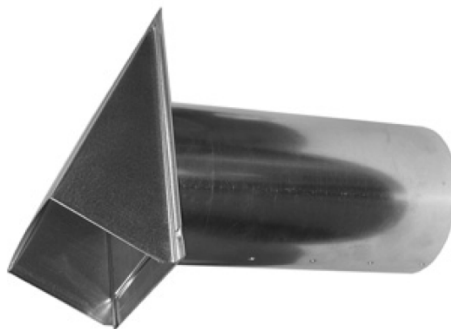
To balance room air pressure with outdoors air pressure, we recommends a fresh air intake in the room. Fresh air intake shall only take combustion air from outdoors and not terminate in attic spaces. We recommend Ø6" deflect-O ID0625 UL listed 181 class 1 insulated air duct. Minimum fresh air intake size:



Important: this fresh air intake is compulsory when operating venting appliances such as kitchen hoods, permanent air extractors or any appliances creating an air depression in the habitation. Fresh air intake must remain unrestricted while appliance is in use to prevent room air starvation, which can cause smoke spillage and an inability to maintain a fire. A lack of air intake may alarm smoke detectors. Duct maximum length : 30 feet.

Guidance on how to seal at the penetration of the building envelope :

Installation of the combustion air inlet system will require a 6" diameter penetration through the wall and then insert the passive air vent with pipe extension through this opening. Take note that proper caulking is to be used between the vent and exterior wall to insure no air leaks in or out of building envelope. For in depth detail refer to your local building code having jurisdiction. For vertical external façade building termination, we recommend Deflect-O fresh air intake galvanized hood and pipe with screen ref. GFAI6 (see image hereunder and technical specs at the end of this manual).



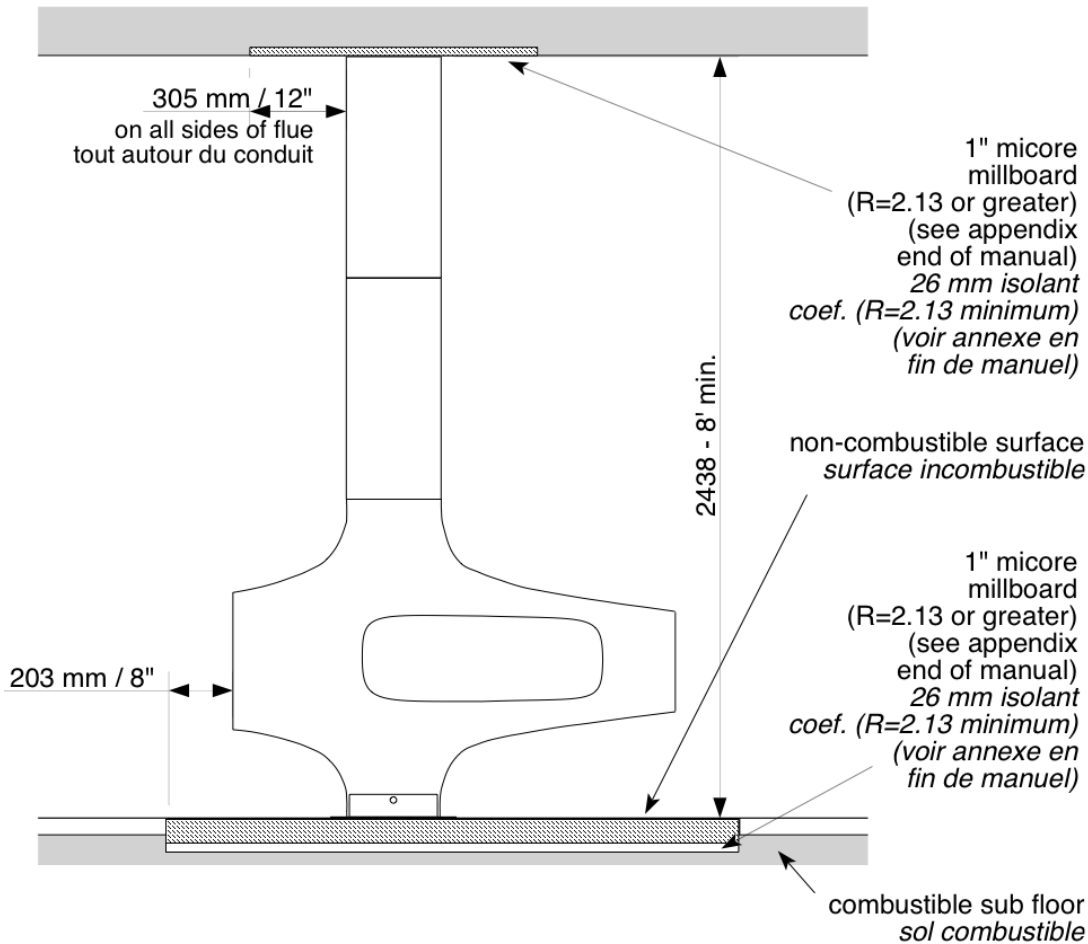
Internal termination must finish with a standard ventilation grill.



g) Clearances to combustibles:

- Clearances to floor and ceiling:

MINIMUM FLOOR TO CEILING HEIGHT: 8 feet.



- Clearance from front of the fireplace to any combustible material:

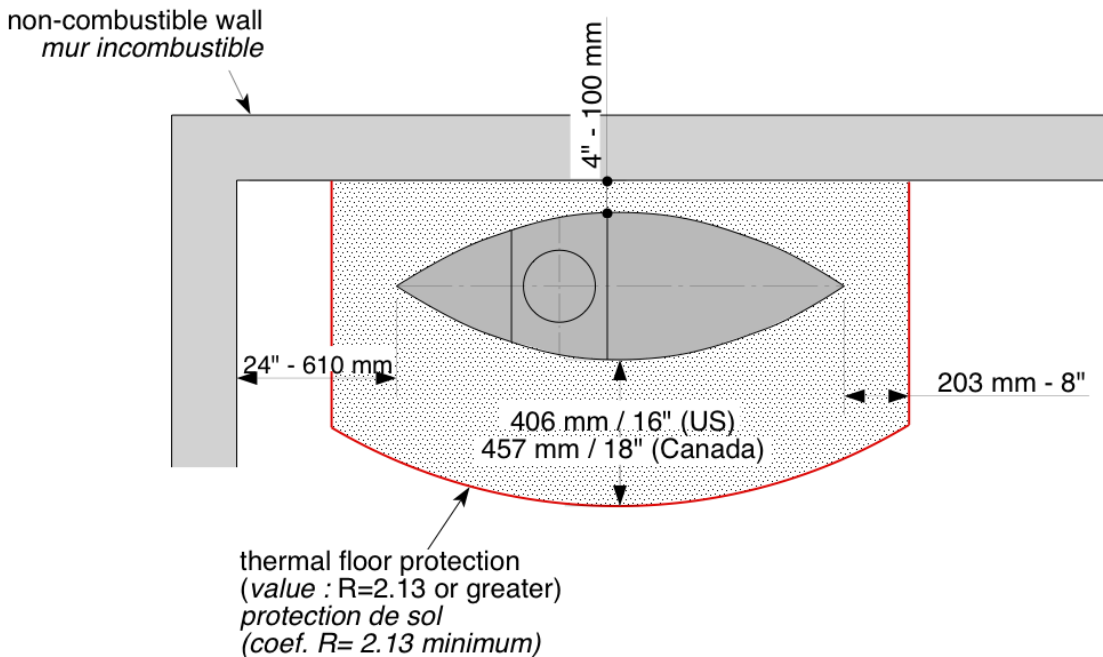
CAUTION: THE DISTANCE TO A COMBUSTIBLE MATERIAL MUST BE MAINTAINED AT 36" FROM THE FIREPLACE FRONT. PROPERTY DAMAGE OR DEATH CAN OCCUR IF THIS DISTANCE IS NOT MAINTAINED.

- Clearances to side walls :

CAUTION: THE DISTANCE TO A COMBUSTIBLE SIDE WALL MUST BE MAINTAINED AT 24" FROM THE FIREPLACE (38" FROM CONNECTOR). PROPERTY DAMAGE OR DEATH CAN OCCUR IF THIS DISTANCE IS NOT MAINTAINED. DRYWALL PRODUCTS LINED WITH PAPER SUCH AS SHEETROCK ARE COMBUSTIBLE. CLEARANCES AS INDICATED FURTHER APPLY.

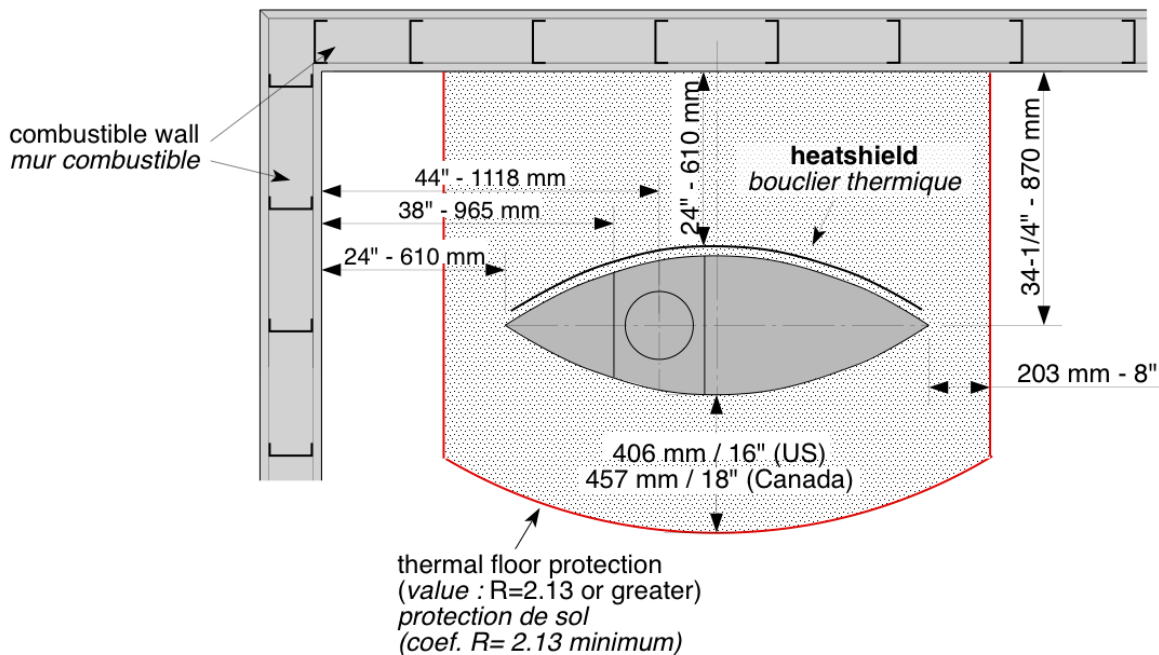
- Clearances to non-combustible back wall:

FIREPLACE MUST BE MAINTAINED AT 4" OFF A NON-COMBUSTIBLE BACK WALL IN ORDER TO MAINTAIN VENTILATION AND AIR CIRCULATION IN THIS AREA.



- Clearances to combustible back wall:

WHEN INSTALLING THE HETEROFOCUS NEAR A COMBUSTIBLE BACK WALL A HEATSHIELD IS THEN REQUIRED AND A CLEARANCE OF 24" FROM WALL TO BACK OF THE UNIT (AND CONNECTOR) IS NECESSARY.



CLEARANCES MAY ONLY BE REDUCED BY MEANS APPROVED BY THE REGULATORY AUTHORITY.

Important - manufacturer specifications:

- To avoid premature aging of your painted walls, only use mineral or acrylic paints. With other paints, above clearances apply.
- Fire clearance from window glass or combustible frame (vinyl for eg.) : refer to window technical specifications.

3 – INSTALLATION:

a) Included parts, materials and required tools for installation:

-Appliance and designated parts are : hearth insulated support, spark-guard, fire bricks, fire back protection, 3 (or 4, in central situation) sides top cover, polished raw steel flue pipe, separable handle, and focus kit (heat protective glove, mounting gloves, Zebraline© renewing wax tube, manual).

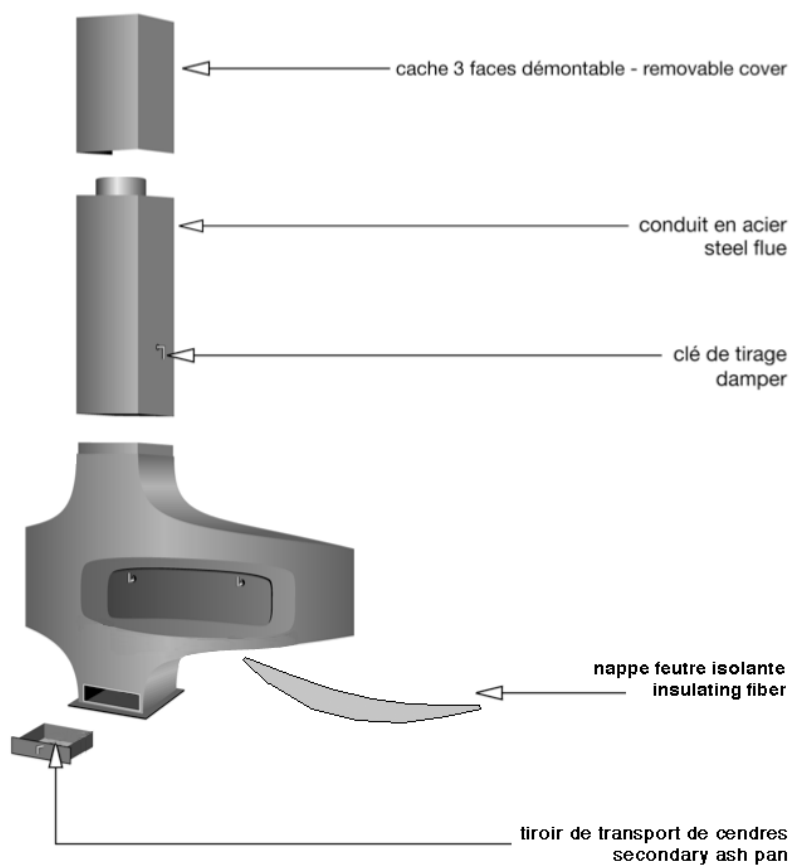
-Required tools: drill, M8 allen key, level, screwdrivers, M12 key, scaffolding (up to underceiling height), refractory compound.

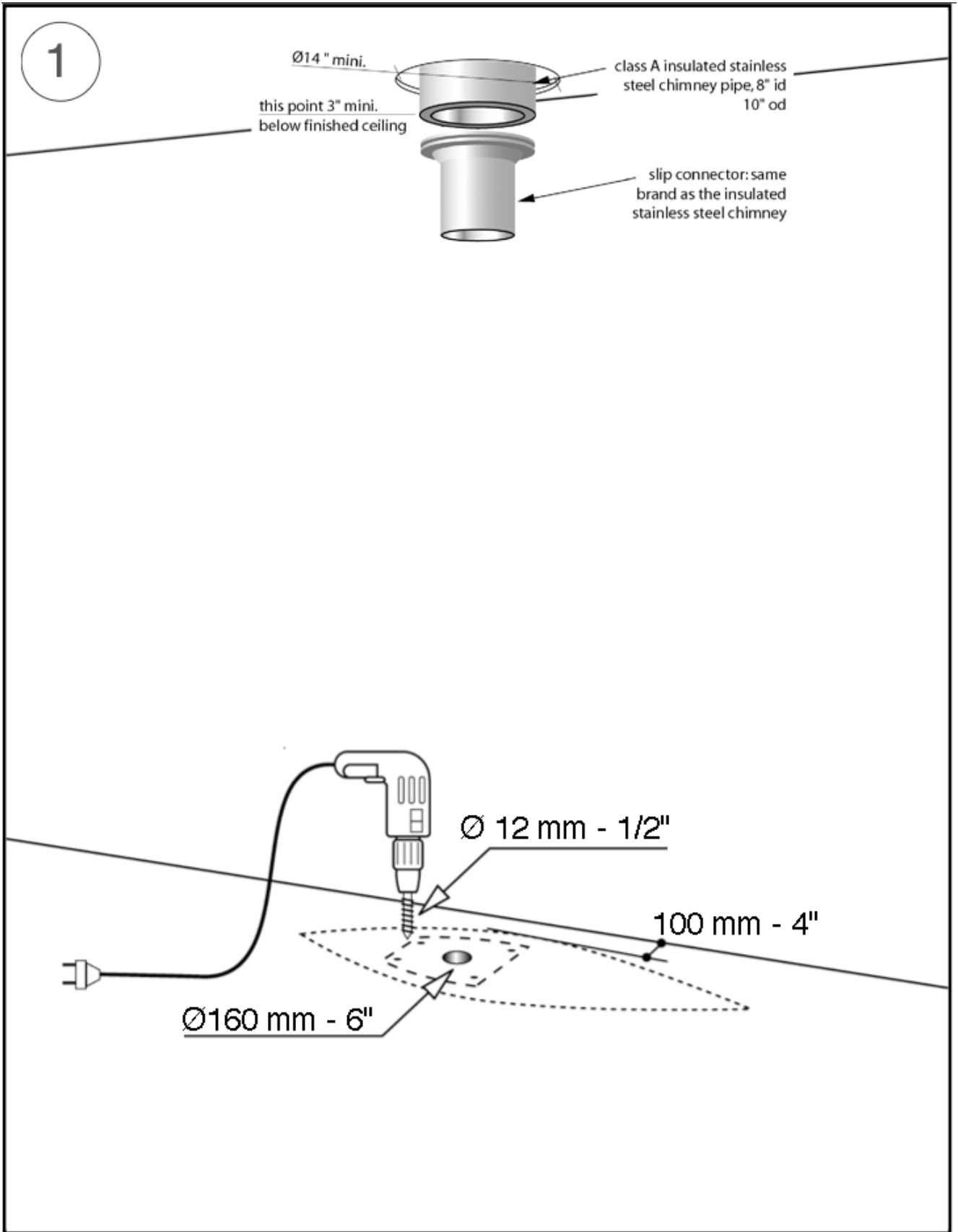
-2 persons minimum are required for installation.

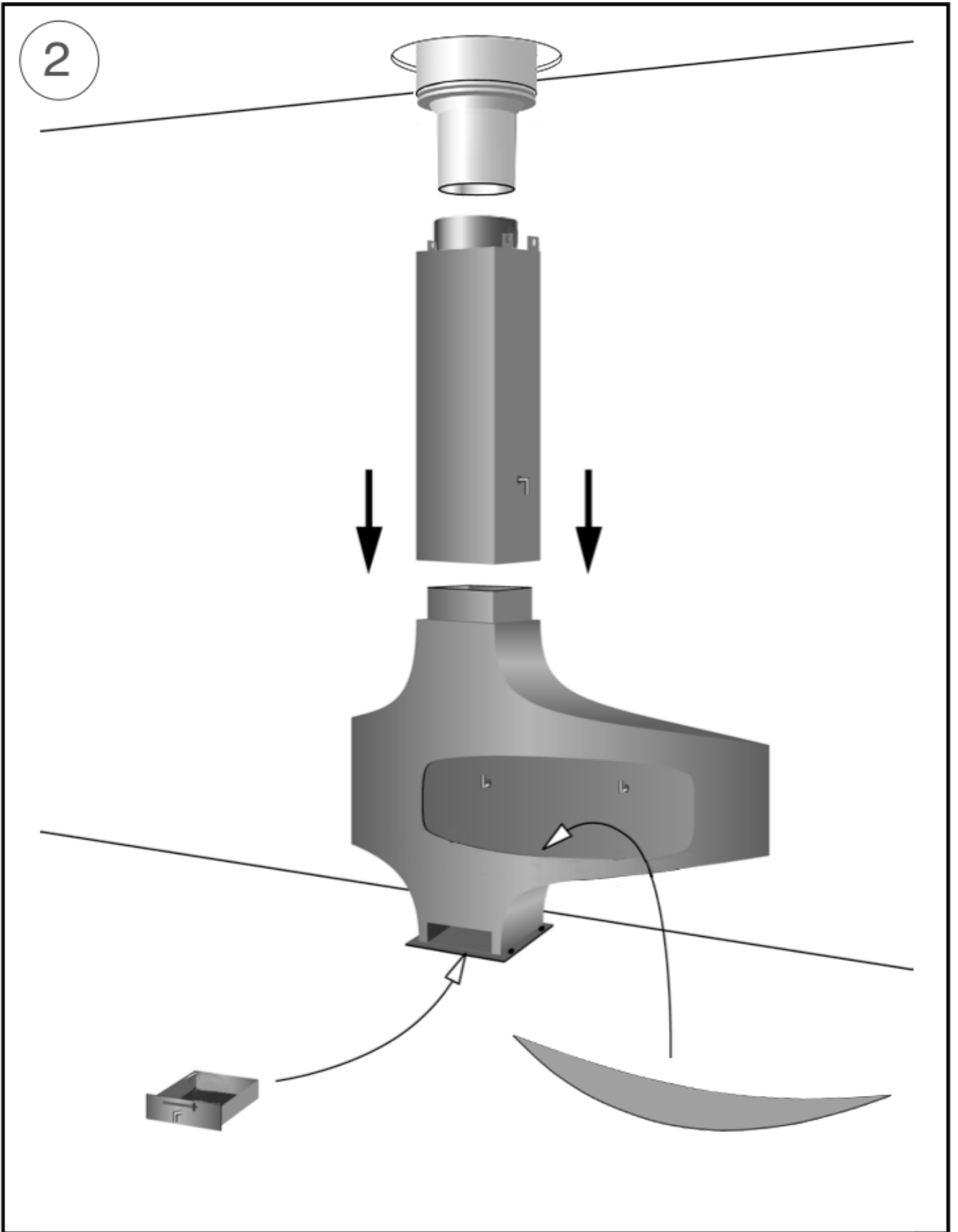
b) Options:

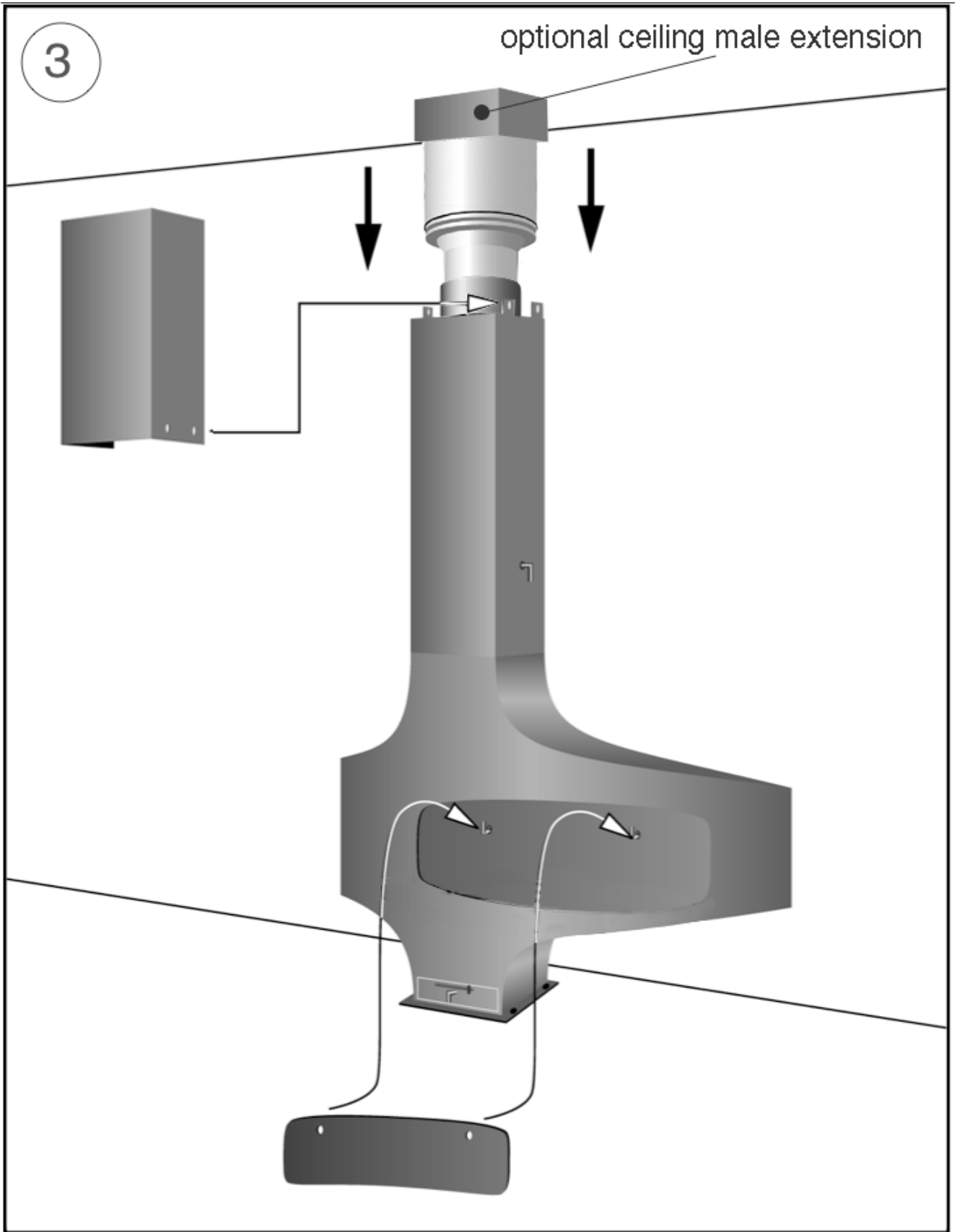
- custom ceiling cover disc (polished raw steel steel disc)
- focus flue extension

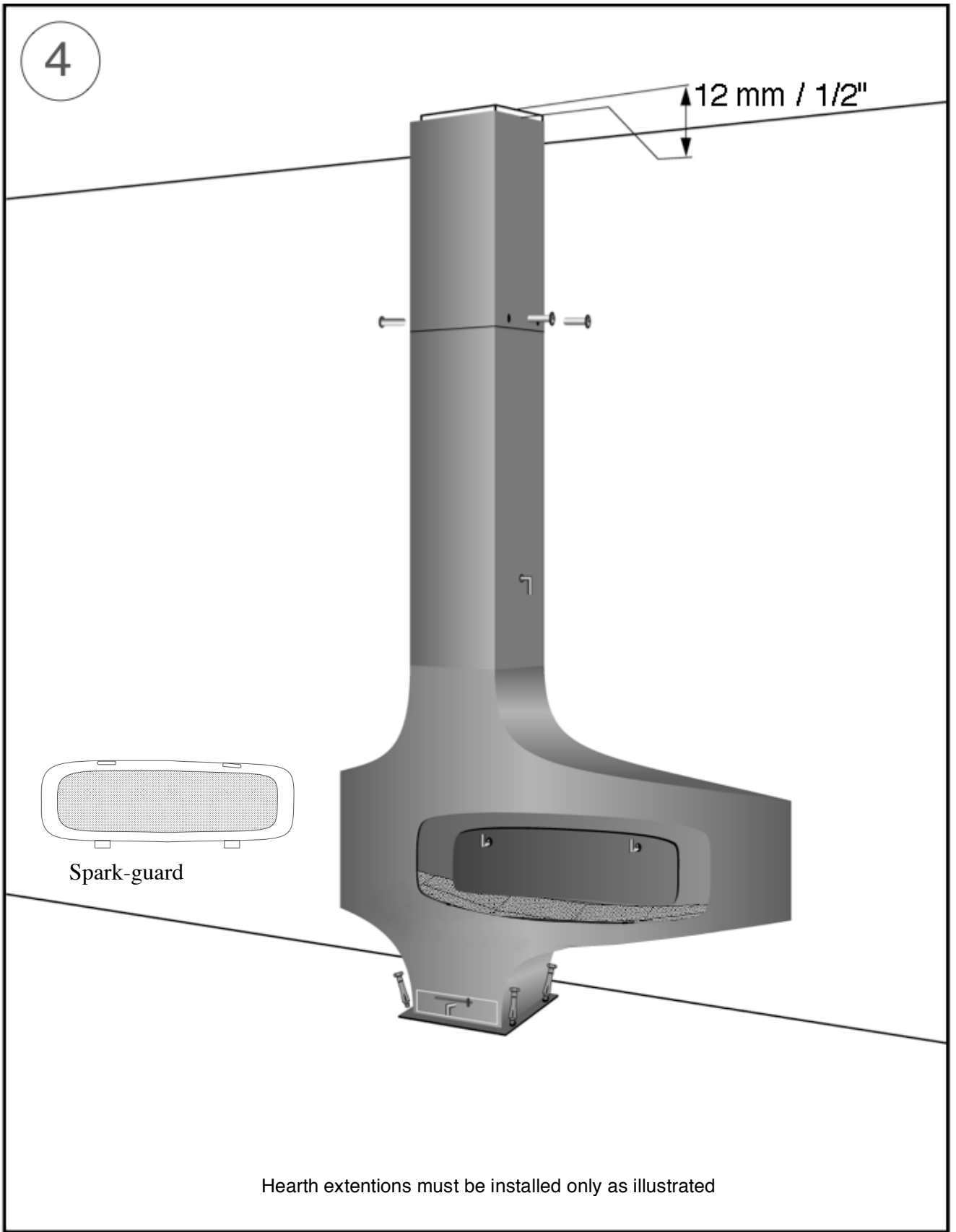
c) Assembly details:











4 – OPERATING INSTRUCTIONS:

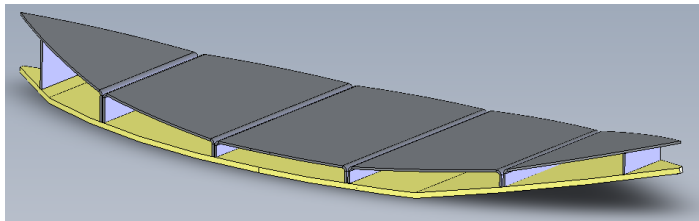
CAUTION: HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

a) Storage/use of flammable liquids:

CAUTION : DO NOT USE CHEMICALS OR FLUIDS, GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR « FRESHEN UP » A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.

b) Insulated Hearth:

The insulating hearth is located inside the fireplace. An insulating fiber material is applied underneath the removable curved steel fire hearth (made of several parts). They must not be removed except for cleaning, once all cinders have thoroughly cooled. Fire must only be built on the fire hearth.



c) Ashes:

DISPOSAL OF ASHES – ASHES SHOULD BE PLACED IN A METAL CONTAINER WITH A TIGHT FITTING LID. THE CLOSED CONTAINER OF ASHES SHOULD BE IMMEDIATELY PLACED OUTDOORS ON A NON-COMBUSTIBLE FLOOR OR ON THE GROUND, WELL AWAY FROM ALL COMBUSTIBLE MATERIALS, PENDING FINAL DISPOSAL. IF THE 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.

d) Fuel:

CAUTION: DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL. DO NOT STORE THE FUEL WITHIN THE SPACE HEATER INSTALLATION CLEARANCES OR WITHIN THE SPACE REQUIRED FOR CHARGING AND ASH REMOVAL.

Only burn dry, natural, untreated well-seasoned wood. Wood moisture content should not be more than 20%. We recommend using 2 year dry stored wood. For the best efficiency use a covered storage. Hazards may occur with some fuels (e.g., charcoal). Such fuels may generate dangerous gas like carbon monoxide.

WARNING: THIS FIREPLACE HAS NOT BEEN TESTED FOR USE WITH DOORS, TO REDUCE THE RISK OF FIRE INJURY, DO NOT INSTALL DOORS!

e) Before lighting your first fire:

For all focus models it is necessary to clean off (with a dry cloth) any dirt collected during transport or installation.

The heterofocus finish is raw waxed steel. A tube of « Zebraline » (graphite wax) is provided to solely look after your fireplace . **It is highly recommended to wax your fireplace upon completion of installation and then twice a year or more if needed.** The graphite wax will help to avoid rusting.

The first fire should be a modest one; do not use packing material or pallet wood for fuel.

f) Building, starting and maintaining the fire:

DO NOT OVERLOAD YOUR FOCUS FIREPLACE TO AVOID OVER-FIRING.

Build the fire without elevating it, directly on the fire bricks, in the center.

DO NOT USE GRATES, ANDIRONS OR OTHER METHODS OF SUPPORTING THE FIRE.

For starting the fire, we recommend using a small amount of fire starter with enough kindling (small logs or mill ends) to establish a primary fire. Fresh air intake into the room must be fully open.

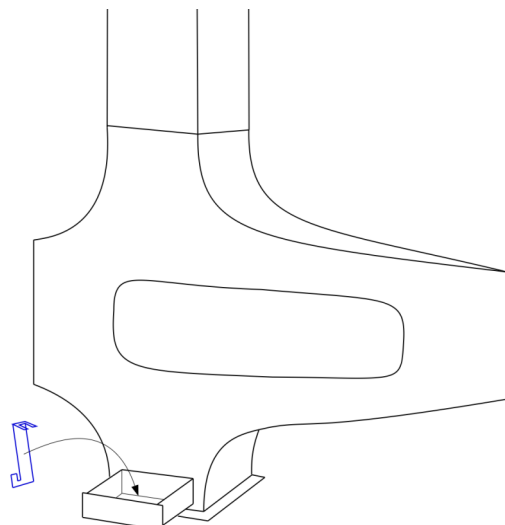
After a few minutes, and making sure the primary fire is well started, add larger wood (between 3 and 7 pieces, depending on their size), directly on top, making sure not to smother the fire. Leave some spaces between the logs for air intake. Adapt the air intake position into the room in order to avoid spillage.

To maintain or refuel your fire, add when needed (see note), a few larger logs.

Note: For the same weight of fuel, 10 logs will burn more intensely (and faster) than 3 logs, but you will get the same heat power at the end. The log size you buy will determine the heating and refuelling time.

g) Protective glove and separable handle :

The use of the focus special protective glove supplied with our models is required upon handling the cold handle, damper, etc. The separable handle must be stored inside the pedestal drawer.



h) Damper operation and use:

Use of supplied cold handle tool or protective glove is recommended to operate the damper. Do not touch the damper handle without protection when a fire is operating.

The heterofocus damper has four positions. The obturant panel is in the same direction as the handle: when the handle is vertical, the damper is fully open. Handle can rotate at 30°, 60° and 90° (horizontal : closed). In closed position the damper obturates by 75% the flue section.

To modify the damper position, first pull the handle, then rotate and push again the handle in order to lock on a preset position.

CAUTION : NEVER ADJUST THE DAMPER HANDLE ON AN INTERMEDIATE POSITION !

The damper position must be adapted to the fire intensity : during the lighting it must be fully open. Then it must be adjusted in order to reduce the smoke flow, so the heat efficiency will be optimal. If the fireplace spills out it means the damper is too obstructive : re-open the damper at the first signs of spillage.

5 – MAINTENANCE:

a) Taking out the ashes:

CAUTION: BE SURE THE FIRE IS OUT AND THE FIREPLACE BODY COLD BEFORE REMOVING ASHES!

To remove ashes we recommend to use a brush and a shovel. Dispose of ashes in an ash container (you can use the pedestal tray or any appropriate container). After cleaning, be sure to secure the fireplace properly!

CAUTION : DO NOT LIGHT OR FUEL A FIRE USING CARDBOARD OR PLASTIC OR ANY UNSTABLE OR VOLATILE FUEL SOURCE OR WITH FIRE BRICKS REMOVED, AS THIS WILL PRODUCE OVER-FIRING OR HOUSE FIRE. DAMAGE CAUSED FROM NON-OBSERVANCE OF THIS CAUTION IS NOT COVERED UNDER FOCUS LIMITED WARRANTY.

b) Inspection, maintenance and cleaning of the chimney:

CAUTION: CHEMICAL SWEEP NOT PERMITTED: ONLY MECHANICAL SWEEP ALLOWED!

Referring to focus raw steel flue : the internal surface of the flue must absolutely be swept with a nylon brush. Never use metal brushes! Damage caused from non-observance of this caution is not covered under the focus limited warranty.

Referring to chimney pipe : Creosote formation and need for removal:

When wood is burned slowly, it produces tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. The chimney and chimney connector should be inspected at least once every two months during the heating season to determine if a creosote build-up has occurred. If a significant layer of creosote has accumulated (3mm or more) it should be removed to reduce the risk of a chimney fire.

In that case, call a professional chimney sweeper or buy a brush at your local focus retailer and clean the chimney this way :

Remove rain cap, use appropriately sized brush and sweep the entire system to remove all debris or refer to chimney manufacturer recommendations.

Communicate with the authorities (municipal, regional or provincial fire protection agency) to obtain all instructions concerning the measures to be taken when or before there is a risk of chimney fire.

Maintain all seals in good condition.

In case of soot or creosote fire in the connector or in the chimney : get everyone out of the house, because fire can flash right through the house with incredible speed. Then call the fire department from a safe distance such as a neighbour's house or from your car. Do not try to put out the fire and do not hesitate leave immediately.

Afterwards fire department has secured the installation, call a chimney service professional to clean and inspect the chimney as well as assess the damage. Your chimney will need to be repaired and probably relined to make it safe for further use.

Do not light another fire in the fireplace until you have had the chimney professionally inspected and repaired.

c) Surfaces:

CAUTION : DO NOT SCRUB!

The outer surfaces can be wiped with a soft, dry rag (making sure the metal is cool).

Use the supplied tube of « Zebraline » (graphite wax) to look after your fireplace when needed (twice a year or more).

d) Replacement parts:

WARNING : DO NOT USE SUBSTITUTE MATERIALS.

For ordering replacement parts, please contact the focus North American exclusive importer :

CF + D | custom fireplace design

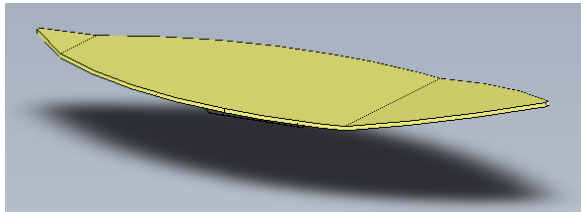
5490 Harvester Rd. Burlington Ontario

L7L 5V4 Canada

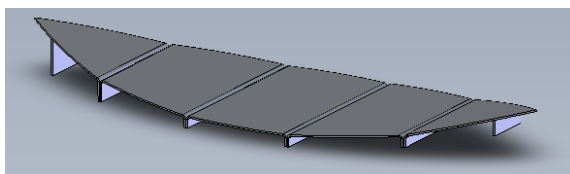
Tel: 905-681-3070

Toll Free: 1-866-909-3070

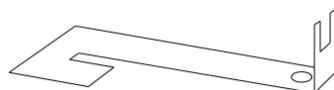
- Hearth insulating fiber material:



- metal fire hearth:



- Separable handle :



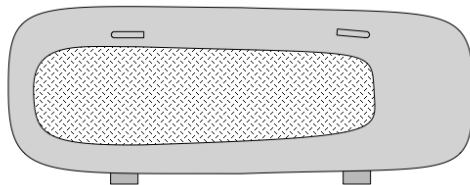
- Zebraline Tube :



- Fire back protection :



- Spark-guard :

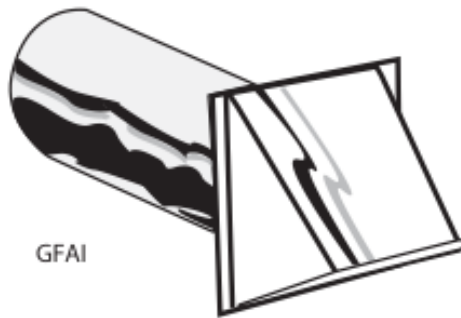


6 – WARRANTY:

All of our focus models are guaranteed against any defect in design, construction, or manufacture, and guaranteed to function properly for 5 years from date of order. Our product guarantees are applicable only when our fireplaces have been installed with respect to all local building codes and with strict attention to the technical details outlined in our Plan Study as well as our installation, maintenance, and user's manuals. Our guarantees exclude accidental damages such as those occurring during transport without written notification upon receipt, damages incurred during installation, and damages resulting from improper use.

Fresh Air Intake Technical Product Specification

Fresh Air Intake – Galvanized Hood and Pipe with Screen



Model	Description	Screen Size
GFAI4	4" hood, pipe & screen	1/4"x1/4" mesh
GFAI5	5" hood, pipe & screen	1/4"x1/4" mesh
GFAI6	6" hood, pipe & screen	1/4"x1/4" mesh
GFAI7	7" hood, pipe & screen	1/4"x1/4" mesh
GFAI8	8" hood, pipe & screen	1/4"x1/4" mesh

Performance Data

For Fresh Air Intake Hoods

HOOD

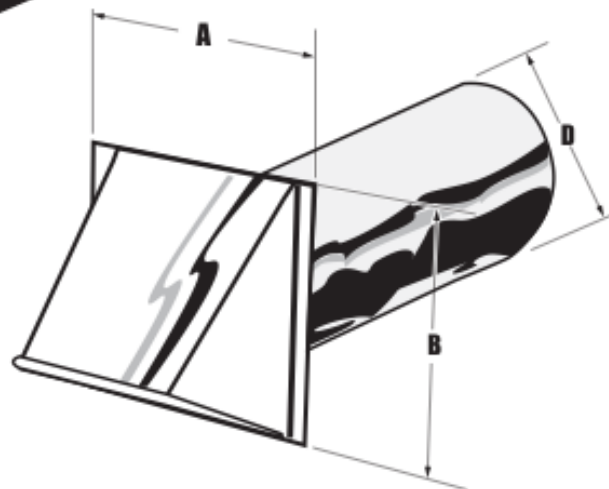
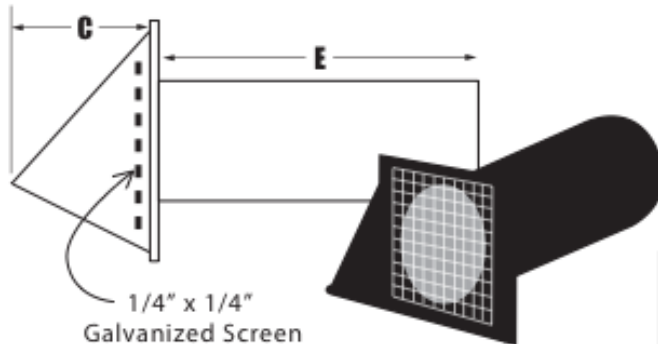
- Galvanized metal
- Galvanized metal 1/4"x1/4" screen

PIPE

- Galvanized

General Information

- 4" - 8" (10-20 cm) wide mouth vent design
- Screen keeps out unwanted animals
- Galvanized metal screen protects against rust



Model	A	B	C	D	E
GFAI4	6"	6"	3 1/2"	4" dia.	12"
GFAI5	8"	9 3/8"	4 1/2"	5" dia.	12"
GFAI6	8"	9 3/8"	4 1/2"	6" dia.	12"
GFAI7	10"	11 7/8"	5 3/4"	7" dia.	12"
GFAI8	10"	11 7/8"	5 3/4"	8" dia.	12"

5/09

© 2009
 DEFLECTO Canada Ltd. - St. Catharines, Ontario - Canada L2M 3Y2 - www.advp-deflecto.com
 DEFLECTO CORPORATION - P.O. Box 50057 - Indianapolis, IN 46250 - www.deflecto.com
 Deflecto's policy is one of continual product improvement in design and manufacturing wherever possible,
 therefore all specifications and designs are subject to change without notice and without incurring obligations.

GFAItps-A

Appendix.

How to determine if alternate floor protection materials are acceptable.

All floor protection must be non-combustible (i.e., metals, brick, stone, mineral fiber boards, etc.). Any organic materials (i.e., plastics, wood paper products, etc.) are combustible and must not be used. The floor protection specified includes some form of thermal designation such as R-value (thermal resistance) or k-factor (thermal conductivity).

PROCEDURE:

1. Convert specification to R-value:

- i. R-value given - no conversion needed.
- ii. k-factor is given with a required thickness (T) in inches:

$$R = \frac{1}{k} \times T$$

- iii. K-factor is given with a required thickness (T) in inches:

$$R = \frac{1}{K \times 12} \times T$$

- iv. r-factor is given with a required thickness (T) in inches:

$$R = r \times T$$

2. Determine the R-value of the proposed alternate floor protector.

- i. Use the formula in step (1) to convert values not expressed as “R”.
- ii. For multiple layers, add R-values of each layer to determine overall R-value.

3. If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

EXAMPLE: The specified floor protector should be 3/4-inch thick material with a k-factor of 0.84. The proposed alternate is 4” brick with an r-factor of 0.2 over 1/8” mineral board with a k-factor of 0.29.

Step (a): Use formula above to convert specification to R-value.

$$R = \frac{1}{k} \times T = \frac{1}{0.84} \times 0.75 = 0.893$$

Step (b): Calculate R of proposed system.

4” brick of r = 0.2, therefore:

$$R_{\text{brick}} = 0.2 \times 4 = 0.431$$

1/8” mineral board of k = 0.29, therefore

$$R_{\text{mineral board}} = \frac{1}{0.29} \times 0.125 = 0.431$$

$$R_{\text{total}} = R_{\text{brick}} + R_{\text{mineral board}} = 0.8 + 0.431 = 1.231$$

Step (c): Compare proposed system R_{total} of 1.231 to specified R of 0.893. Since proposed system R_{total} is greater than required, the system is acceptable.

DEFINITIONS:

$$R = \frac{(\text{ft}^2)(\text{hr})(^\circ\text{F})}{\text{Btu}} \quad k = \frac{(\text{Btu})(\text{in})}{(\text{ft}^2)(\text{hr})(^\circ\text{F})} = K \times 12 \quad K = \frac{(\text{Btu})(\text{ft})}{(\text{ft}^2)(\text{hr})(^\circ\text{F})} \quad r = \frac{(\text{ft}^2)(\text{hr})(^\circ\text{F})}{(\text{Btu})(\text{in})} = \frac{1}{k}$$