



Kube Wood-Burning Soapstone Stove

Installation, Assembly and Operating Manual



INSTALLER: Leave this manual with the party responsible for use and operation.

OWNER: Save this manual for future reference. Do not discard!

QUESTIONS: Call your Authorized Dealer.

Installation and repairs of this appliance must be performed by authorized technicians. Norsk Kleber recommends trained professionals in HTT or NFI certified factories.



SAFETY NOTICE

If this solid fuel room heater is not properly installed, assembled and used, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

CAUTION

Tested and approved to use with dry, seasoned wood only. Do not burn wet or green wood. Burning any other type of fuel may be a danger and will void your warranty.

WARNING

Please read this entire manual before installation and use of this wood-burning room heater. Failure to follow these instructions could result in property damage, bodily injury, or even death.

1. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
2. Do not overfire - If any external part starts to glow, you are overfiring. Close air controls. Overfiring will void your warranty.
3. Comply with all minimum clearances to combustibles as specified.

IMPORTANT

Record the following information to help your dealer determine what you will need, should your stove ever require parts or service.

The serial number and manufacturing date are located on the Safety Label at the lower back part of the stove. Attach your sales receipt to this manual for future reference.

Model: Kube
Serial Number: _____
Purchase Date: _____
Dealer Name: _____
Dealer Phone: _____
Installed By: _____

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Test & Listing Standards

The Kube Solid Fuel Room Heater has been tested for compliance with the applicable requirements of the following standards:



UL 1482-2011 (R2015) “Solid-Fuel Type Room Heaters” and ULC-S627-00 (R2016) “Standard for Space Heaters for use with Solid Fuels”.

Certified Safety Tests performed by PFS-TECO – Clackamas, Oregon, USA
Report Number:19-497

Environmental Protection Agency (EPA): This appliance is a “Masonry Heater” and because of its efficiency is not subject to EPA regulation and certification.

Manufacturer: Norsk Kleber AS, Skansen 29, 2670 Otta, Norway

Safety Notices



Carefully read the instructions for assembly, use, and maintenance provided with the masonry heater before using the masonry heater.

- This manual describes the installation and operation of the Kube non-catalytic wood heater. Save these instructions and make them available to anyone using or servicing the stove. Read the entire manual before you install and use your new wood stove.
- This wood heater needs periodic inspection and repair for proper operation. See this manual for specific information. It is against federal regulations to operate this wood heater in a manner inconsistent with the operating instructions in this Owner’s Manual.
- **THIS APPLIANCE IS NOT APPROVED FOR USE IN MOBILE HOMES**
- The Kube is Listed to burn solid or compressed wood only. Do not burn any other fuels.
- Max. Log Length: 12 in. / 300 mm

Safety Notices




- **NOT USE CHEMICALS OR FLUIDS TO START THE FIRE. DO NOT BURN GARBAGE, TRASH, OR FLAMMABLE FLUIDS.**
- **IF THIS ROOM HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR LOSS OF LIFE.**
- **CONTACT THE LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA. WHEN NOT ADDRESSED IN THIS MANUAL, OR BY LOCAL CODE AUTHORITIES, INSTALLATION SPECIFICATIONS AND REQUIREMENTS DEFER TO NFPA 211 OR CSA B 365.**
- **DO NOT CONNECT THIS Stove TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.**
- **EXTREMELY HOT WHILE IN OPERATION! KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT WILL CAUSE SKIN BURNS.**
- **NEVER LEAVE SMALL CHILDREN UNSUPERVISED IN THE SAME ROOM WITH THE STOVE. USE A CHILD-GUARD SCREEN OR OTHER BARRIER TO PROTECT CHILDREN FROM ACCIDENTAL CONTACT.**
- **NEVER OPERATE THE Stove WITH A CRACKED OR BROKEN GLASS PANEL.**
- **Install smoke detectors in the living areas and bedrooms of your home. Test them regularly and install new batteries twice annually. When installed in the same room as the stove, a smoke detector should be located as far from the stove as possible to prevent it from sounding when adding fuel to the fire. Some jurisdictions require installation of CO (carbon monoxide) detectors. Check your local codes.**

- Avoid creating a low pressure condition in the room where the stove is operating. Be aware that operation of an exhaust fan or clothes dryer can create a low pressure area and consequently promote flow reversal through the stove and chimney system. The chimney and building, however, always work together as a system - provision of outside air, directly or indirectly to an atmospherically vented appliance will not guarantee proper chimney performance. Consult your local Norsk Kleber authorized dealer regarding specific installation or performance issues.
- Never fire while the stove door is open.
- In case of soot fire: close the stove's draft adjustment immediately and call 911.
- **WARNING: THIS WOOD-BURNING HEATER HAS A MANUFACTURER-SET MINIMUM LOW BURN RATE THAT MUST NOT BE ALTERED. IT IS AGAINST FEDERAL REGULATIONS TO ALTER THIS SETTING OR OTHERWISE OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN THIS MANUAL.**
- Check building codes.

When installing, operating and maintaining your Kube model, follow the guidelines presented in these instructions, and make them available to anyone using or servicing the stove. In the U.S., guidelines established by UL 1777, the National Fire Protection Association's Code, NFPA 211, Standards for Chimneys, Stoves, Vents and Solid Fuel Burning Appliances, or similar regulations, may apply to the installation of a solid fuel burning appliance in your area. For further information on using your heater safely, obtain a copy of the NFPA publication "Using Coal and Wood Stoves Safely," NFPA No. HS-8-1974, available from NFPA 470 Atlantic Ave. Boston, MA 02210.

In Canada, the guidelines are established by ULC-S635, and the CSA Standard, CAN/CSA-B365-M93, Installation Code for Solid-Fuel-Burning Appliances and Equipment. Always consult your local building inspector or authority having jurisdiction to determine what regulations apply and what permits may be required before installation of a solid fuel-burning appliance.

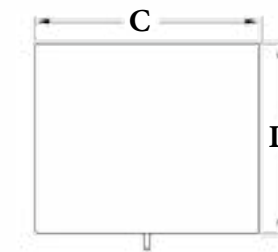
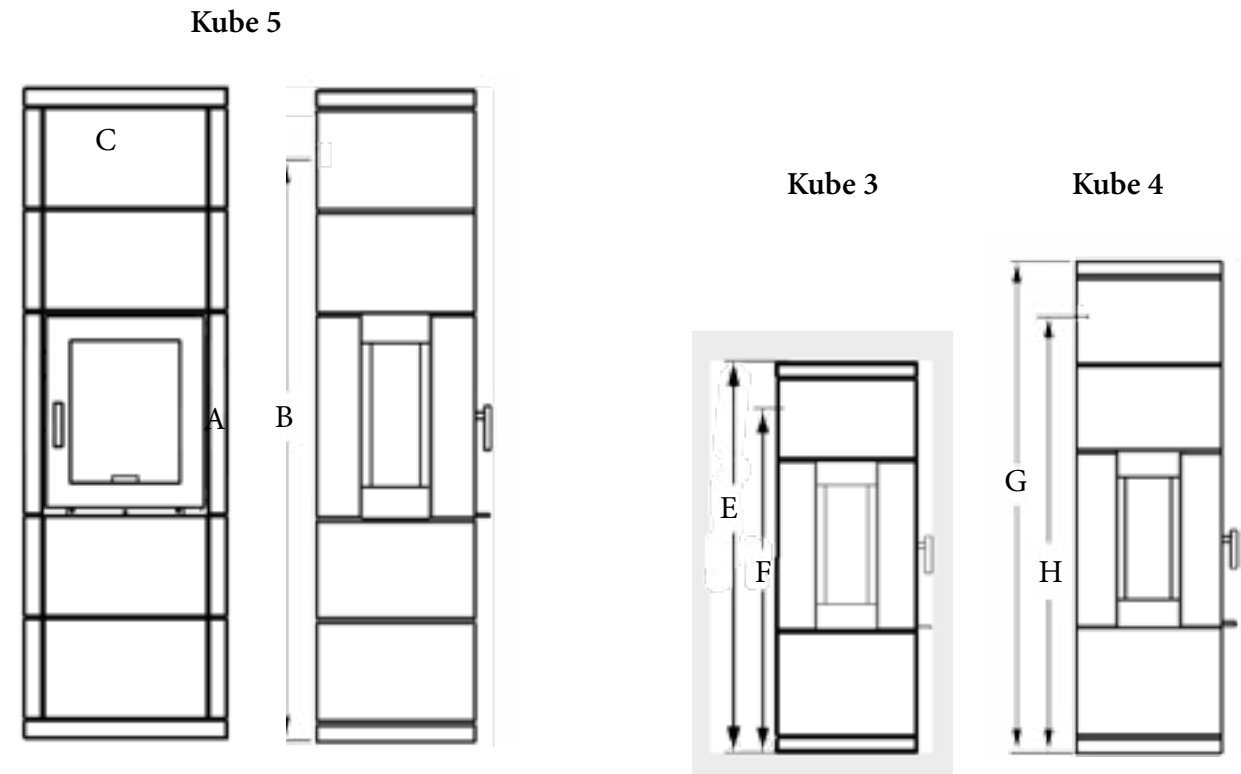
WARNING 

If glass requires replacement, only use: Schott or Nippon ceramic glass, with a thickness of 5 mm.

WARNING 

Chimney connector must be in good condition and kept clean.

KUBE Soapstone Stove Dimensions



A	B	C	D	E	F	G	H
65.4 in.	59.6 in.	19.75 in.	17.32 in.	47.6 in.	41.9 in.	57.9 in.	52 in.
1662 mm	1513 mm	520 mm	440 mm	1210 mm	1063 mm	1470 mm	1323 mm

California Safety Information

WARNING

This product and the fuels used to operate this product (wood), and the products of combustion of such fuels, can expose you to chemicals including carbon black, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov

Proposition 65 Warning: Fuels used in gas, woodturning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

California Health & Safety Code Sec. 25249.6

Design Considerations

When selecting a chimney type and the location for the chimney in the house, keep this in mind: It is the chimney that makes the stove work - not the stove that makes the chimney work. This is because a chimney actually creates a suction, called “draft” which pulls air through the stove.

Several factors affect draft: chimney height, cross-sectional area (size), and temperature of the chimney, as well as the proximity of surrounding trees or buildings.

A short exterior masonry chimney will give the poorest performance because it will be difficult to warm the flue and sustain the temperatures necessary to maintain draft strength. In extremely cold climates, it may be necessary to reline the chimney or extend the height to help establish draft.

A tall, interior masonry chimney is easier to keep warm and will perform the best under a variety of weather and environmental conditions.

The following guidelines give the necessary chimney requirements based on the national code (ANSI-NFPA 211 for the US. And CSA CAN-B365 for Canada). However, many local codes differ from the national code to take into account climate, altitude, or other factors. Your local building inspector is the final approving authority.

Masonry Chimneys

Follow these guidelines when installing the stove into a masonry stove:

- The masonry chimney must have a fireclay liner or equivalent, with a minimum thickness of 5/8” (14 mm) and must be installed with refractory mortar. There must be at least 1/2” (12.7 mm) air space between the flue liner and chimney wall.
- The fireclay flue liner must have a nominal size of 8” X 8” (20 cm x 20 cm), and should not be larger than 8”X 12” (20 cm x 30 cm). A round fireclay liner must have a minimum inside diameter of 6” (15 cm) and maximum inside diameter of 8” (20 cm). A larger chimney should be relined with an appropriate code approved liner.

- Brick or modular block must be a minimum of 4” (10 cm) nominal thickness. Stone construction must be at least 12” (30 cm) thick.
- A newly-built chimney must conform to local codes, or, in their absence, must comply with national regulations.
- An existing chimney must be inspected by a professional, licensed chimney sweep, fire official, or code officer to ensure that the chimney is in proper working order. Any repairs must be completed before installing the stove.
- No other appliance may be vented into the same flue.
- An airtight clean-out door should be located at the base of the chimney.

Chimney Height

- The chimney must be at least 15 feet high (4.57 m). The chimney must also be at least 3 feet (92 cm) higher than the highest point where it passes through the roof and at least 2 feet (61 cm) higher than the highest part of the roof or structure that is within 10 feet (3.05 m) of the chimney, measured horizontally. See Fig 2.
- Chimneys shorter than 15 feet may not provide adequate draft. Inadequate draft can result in smoke spillage when loading the stove, or when the door is open. Poor draft can also cause back puffing (ignition of gas build-up inside the firebox) and sluggish performance. The minimum height does not, in itself, guarantee proper chimney performance. Optimum draft force should be in the .05 - .10 in. w.c. range measured by a Magnehelic gauge. Draft at .07 w.c. is ideal.
- Excessive chimney height can promote over-strong draft resulting in high stove temperatures and short burn times. Excessive draft can be corrected by installing a butterfly damper. Your dealer is an expert resource to consult regarding draft issues or other performance-related questions.

INSTALLATION

NORSK KLEBER REQUIRES ALL INSTALLATION AND ASSEMBLY OF THIS STOVE TO BE PERFORMED BY TRAINED PROFESSIONALS.

CAUTION: 

Follow these installation instructions in all cases.

When installing, operating and maintaining your Kube model, follow the guidelines presented in these instructions, and make them available to anyone using or servicing the stove. In the U.S., guidelines established by UL 1777, the National Fire Protection Association's Code, NFPA 211, Standards for Chimneys, Stoves, Vents and Solid Fuel Burning Appliances, or similar regulations, may apply to the installation of a solid fuel burning appliance in your area. For further information on using your heater safely, obtain a copy of the NFPA publication "Using Coal and Wood Stoves Safely," NFPA No. HS-8-1974, available from NFPA 470 Atlantic Ave. Boston, MA 02210.

In Canada, the guidelines are established by ULC-S635, and the CSA Standard, CAN/CSA-B365-M93, Installation Code for Solid-Fuel-Burning Appliances and Equipment.

Always consult your local building inspector or authority having jurisdiction, to determine what regulations apply and what permits may be required before installation of a solid fuel-burning appliance.

Notify your insurance company before installing this stove.

Chimney Requirements

There are two types of approved chimneys:

1. A code-approved masonry chimney with a ceramic tile or Listed steel flue liner.
2. A prefabricated chimney complying with the requirements for Type HT (2100°F) chimneys per UL 103 HT or ULC S629 HT.

Chimney Flue Sizing

- The chimney size should not be less than the cross-sectional area of the flue collar, and not more than three times greater than the cross-sectional area of the flue collar.
- If the chimney flue is outdoors, its cross-sectional area may not exceed two times greater than the stove flue collar.
- A chimney flue having no walls exposed to the outside below the roof-line may be no larger than three-times the cross-sectional area of the stove flue collar.

Installation and repairs of this appliance must be performed by authorized technicians. Norsk Kleber recommends trained professionals in HTT or NFI certified factories.

hearthED
FACTORY TRAINING
Fuel Your Fire

NFI NATIONAL
FIREPLACE
INSTITUTE
A CERTIFICATION AGENCY

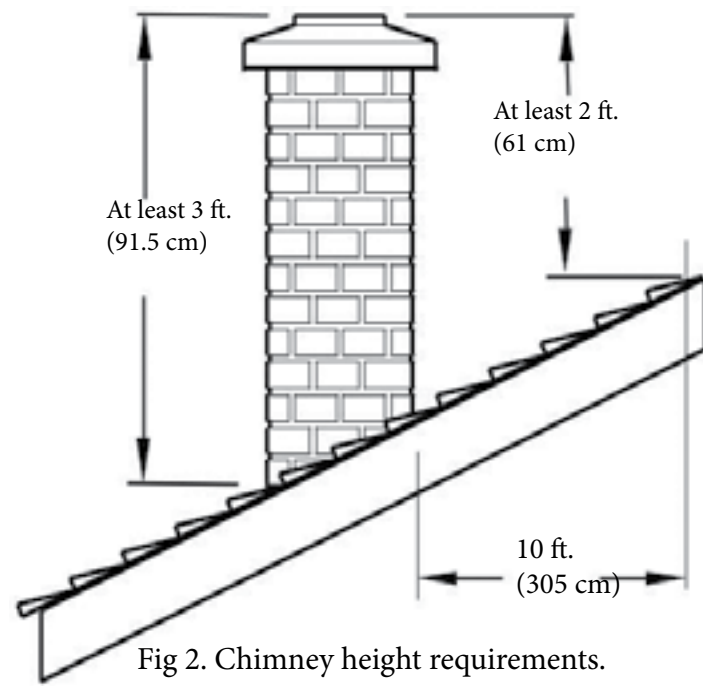


Fig 2. Chimney height requirements.

- The maximum horizontal run should not exceed 3 ft. (92 cm) with a 1/4" rise per foot. Under no circumstance should horizontal pipe be allowed to slant down toward the chimney.
- No part of the chimney connector may pass through an attic or roof space, closet or other concealed space, or through a floor or ceiling.
- All sections of the chimney connectors must be accessible for cleaning. Where passage through a wall or partition of combustible construction is desired, the installation must conform with NFPA 211 or CAN/ CSA-B365, and is also addressed in this manual.
- Do not connect this stove to a chimney flue serving another heating appliance.

Chimney Connector Requirements

Use 6" single wall or Listed 6" double-wall stovepipe to connect the stove to the chimney. Single wall stovepipe must be black steel or stainless steel and have a minimum thickness of 24 gauge.

Do not use aluminum or galvanized steel pipe for chimney connection - these materials are not suitable for use with solid fuel.

Follow these guidelines:

- Do not use chimney connector as a chimney. It is intended only as a connection device.
- Each connector section must be oriented with the male (crimped) end pointing toward the stove. See Fig 3.
- Secure all connector joints with three sheet metal screws. Use four self-tapping sheet metal screws at the connection to the stove flue collar adaptor.
- For the best performance, the chimney connector should be as short and direct as possible, including no more than two 90° elbows.
- The maximum vertical run of single wall stovepipe should not exceed 10 ft. (305 cm).

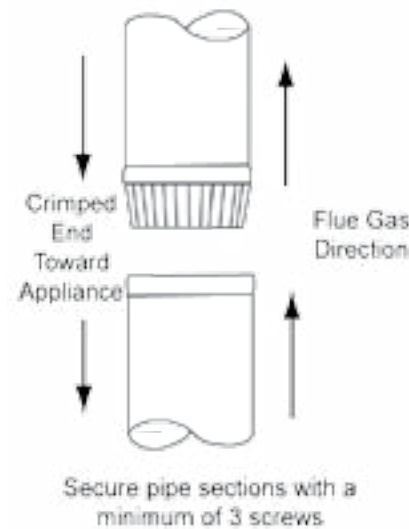


Fig 3

Connecting to the Chimney

Masonry Chimney

When installing a Stove into a masonry chimney through a "thimble" (the opening through the chimney wall to the flue), the thimble must consist of ceramic tile or steel and be securely cemented in place.

The chimney connector/stove pipe must slide completely inside the thimble to the inner surface or the flue liner. It may be necessary to make use of a thimble sleeve (a pipe with a slightly smaller diameter than standard stove pipe). See Fig 4.

The connector pipe or thimble sleeve must not protrude into the flue liner or otherwise restrict draft. Use refractory cement to seal the seam between the chimney connector, sleeve, and thimble.

Do not connect this stove to a chimney flue servicing another appliance of any kind.

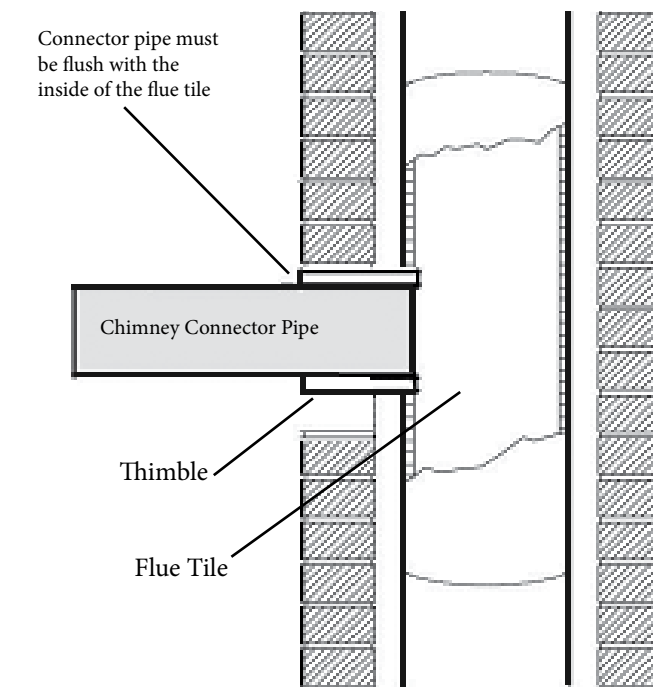


Fig 4 Masonry chimney connection through a thimble.

Prefabricated Chimneys

When connecting the Kube to a prefabricated metal chimney always follow the pipe manufacturer's instructions and be sure to use the components that are required. This usually includes a "smoke pipe adapter" that is secured to the bottom section of the metal chimney and allows the chimney pipe to be secured to it with two sheet metal screws. See Fig 5.

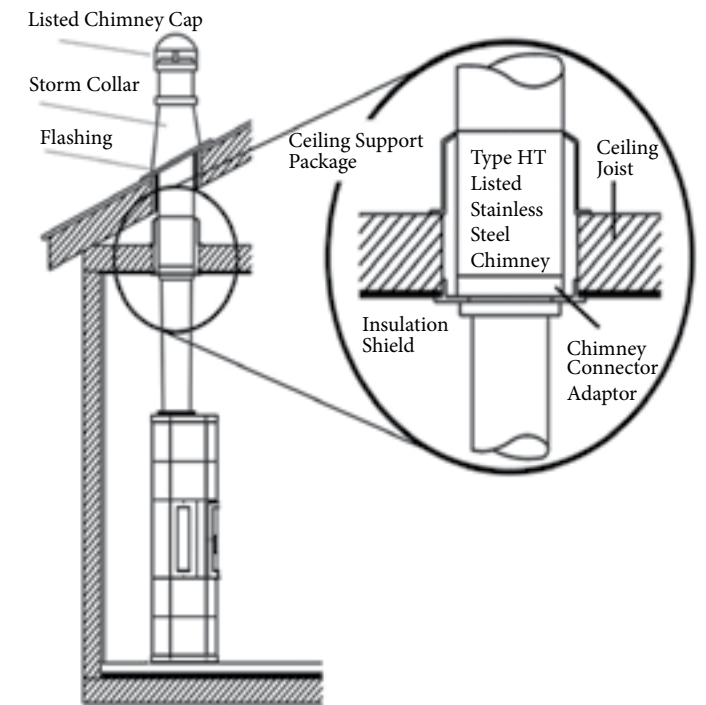


Fig 5. Connection to prefabricated chimney.

Note: In addition to the methods described here, any listed, prefabricated wall pass-through components available from chimney manufacturers may be used.

In the U.S.

The National Fire Protection Association's publication, NFPA 211, Standard for Chimneys, Stoves, Vents and Solid Fuel Burning Appliances permits four methods for passing through a combustible wall. Before proceeding with any method be sure to consult with your local building officials to discuss any local code requirements.

Common Method:

See Fig 6. Remove all combustible materials from the pass-through area (around the chimney connector), a minimum 12" (30.5 cm). A 6" (15.2 cm) diameter connector will require a 31 1/4" x 31 1/4" (79.4 x 79.4 cm) square opening.

The opening must be filled with at least 12" (30.5 cm) of brick around a fireclay liner. The liner must be ASTM C35 or equivalent, having a minimum wall thickness of 5/8" (16 mm).

The Pass-through must be at least 18" (45.7 cm) from combustible ceiling materials.

It will be necessary to cut wall studs, install headers, and construct a sill frame to maintain the proper dimensions and to support the weight of the brick.

The bricks must be solid brick with a minimum of 3 inches thick (nominal 4"/ 102 mm). Refractory mortar must be used at the junction of the chimney and the pass-through liner. The pass-through liner must not penetrate the chimney liner beyond the inner surface of the chimney liner. Use extreme care when constructing the hole in the chimney liner as the tiles can shatter easily.

Consult your local building inspector, authorized Norsk Kleber Dealer, NFPA 211 in the U.S. or CAN/CSA-B635 in Canada for other approved wall pass-through methods.

In Canada

The installation must conform to CAN/CSA-B365, Installation Code for Solid Fuel Burning Appliances and Equipment. Before proceeding be sure to consult your local building inspector.

Common Method:

This method requires the removal of all combustible materials from at least 18" (45.7 cm) around the chimney connector's proposed location. A 6" round liner requires a minimum opening 43 1/4" x 43 1/4" (109.8 x 109.8 wcm) square.

Locate the pass-through at least 18" from combustible ceiling materials. The space that is cleared of combustible materials must remain empty. Sheet metal panels can be used to cover the area. However, when using a panel on both sides of the wall, each cover must be installed on noncombustible spacers at least 1" from the wall. If one panel of sheet metal is to be used it may be installed flush to the wall.

See section 5.3.1 and 5.3.2 of CAN/CSA - B365-M91.

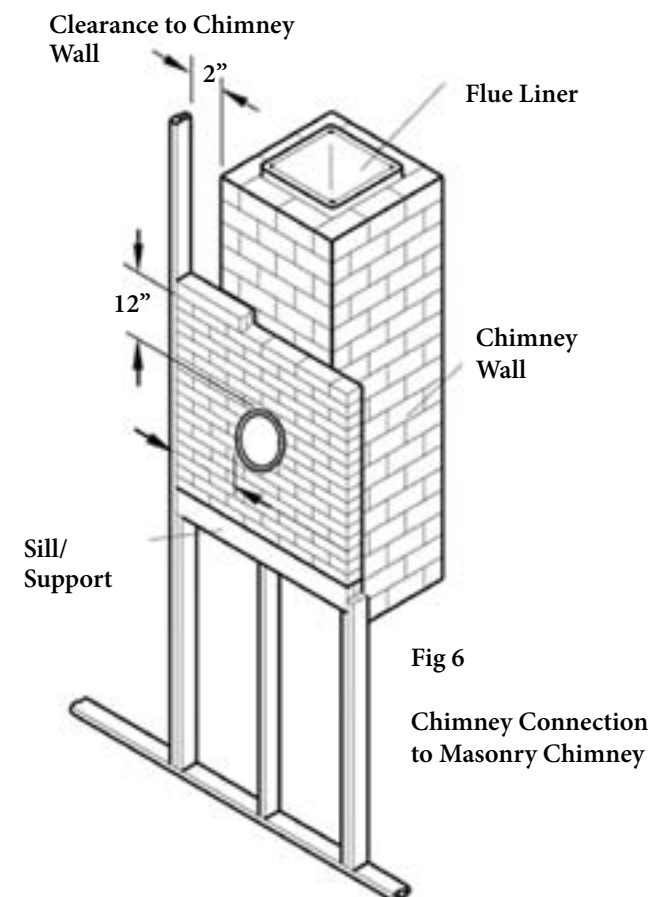


Fig 6

Chimney Connection to Masonry Chimney

Floor Protection

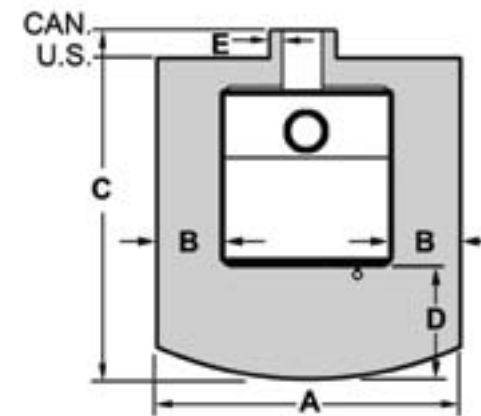
Any floor that is not composed of concrete poured on earth requires protection from sparks and embers. The Kube is approved for installation using one of the following forms of hearth protection:

1. Any UL, ULC, or Warnock Hersey Listed Type 1 hearth board.
2. Any noncombustible material.

In the U.S. floor protection must extend continuously forward from the door opening at least 16 in. and 8 in. from the sides of the door opening. Protection must also extend 2 in. under the chimney connector. This will result in a minimum floor protector 35 3/4" wide x 36 1/2" deep. See Fig 7.

In Canada, floor protection must extend continuously 18" from the front of the stove and 8 in. (460 mm) from the sides and rear. It must also extend 2 in. (51 mm) to both sides under a horizontal chimney connector section. This results in a floor protector 35 in. x 45 in. (89 cm x 114 cm). See Fig. 7.

Fig 7. Floor protection dimensions



	A	B	C	D	E
U.S.	36.47 in.	8 in.	35 in.	16 in.	2 in.
	926 mm	203 mm	889 mm	406 mm	51 mm
CAN	35.75 in.	8 in.	45 in.	18 in.	2 in.
	908 mm	203 mm	1143 mm	457 mm	51 mm

Clearance to Combustible Materials

The clearances listed and diagramed in this manual have been tested to UL and ULC standards and are the minimum clearances to combustible materials specifically established for the Norsk Kleber +models.

A combustible surface is anything that can burn (i.e. sheet rock, wall paper, wood, fabrics etc.). Any combustible material must be kept 36" (914 mm) away from the stove load door and at least 18" (457 mm) from the sides.

Combustible materials are not limited to those that are visible and also include materials that are behind noncombustible materials. "Fire Resistant" or "Fire-rated" materials are considered combustible; they are difficult to ignite, but will burn.

Consult your local fire officials if you are unsure of the combustible nature of any material.

Clearance to Walls & Ceilings

See the table in Fig. 8 for specific wall clearance requirements using either single or listed double-wall connectors.

Minimum Ceiling Height: 84"/ 213 cm
Minimum Ceiling Clearance: 30"/ 76 cm

The Kube is approved for use with Listed double wall pipe installed to conform to the clearances in Fig. 8a.

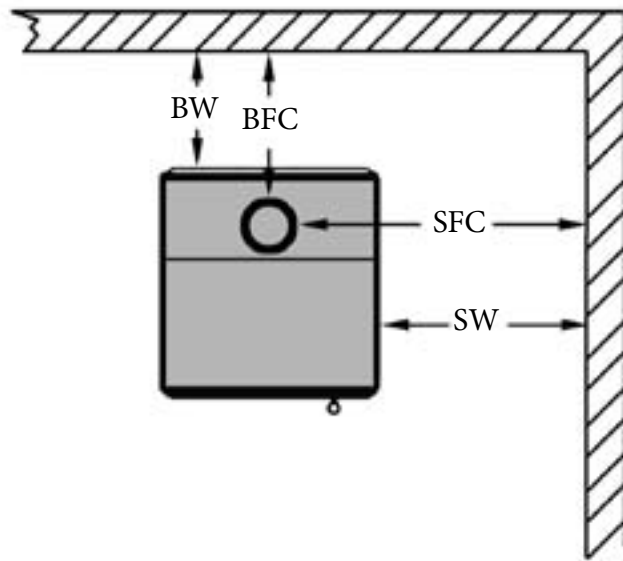
Wall-Mounted Protection: When reducing clearances through the use of wall-mounted protection: For the U.S., refer to NFPA 211, Standard for Chimneys, Stoves, Vents and Solid Fuel Burning Appliances, for acceptable materials, proper sizing and construction guidelines.

For Canada, refer to CAN/CSA-B365, Installation Code for Solid-Fuel Burning Appliances and Equipment, also for acceptable materials, proper sizing and construction guidelines.

Notice: Many manufacturers have developed woodburning stove accessories that permit clearance reduction. Use only those accessories that have been tested by an independent laboratory and carry that laboratory's testing mark. Be sure to follow all of the manufacturer's instructions.

Clearance to Combustible Materials

Fig 8




 Heat shield must be installed on the back of the stove at all times.

Fig 8 No Side Window

SW	Side Wall to Side	17 inch	432 mm
SFC	Side Wall to Flue Collar	24 inch	610 mm
BW	Back Wall to Unit	12 inch	305 mm
BFC	Back Wall Flue Collar	15 inch	381 mm

Fig 8a

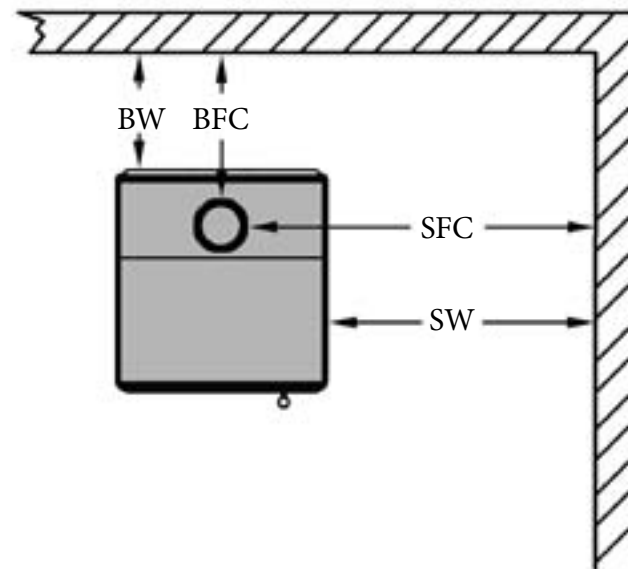


Fig 8a With Side Window

SW	Side Wall to Side	30 inch	762 mm
SFC	Side Wall to Flue Collar	37 inch	940 mm
BW	Back Wall to Unit	12 inch	305 mm
BFC	Back Wall Flue Collar	15 inch	381 mm

Fig 8c

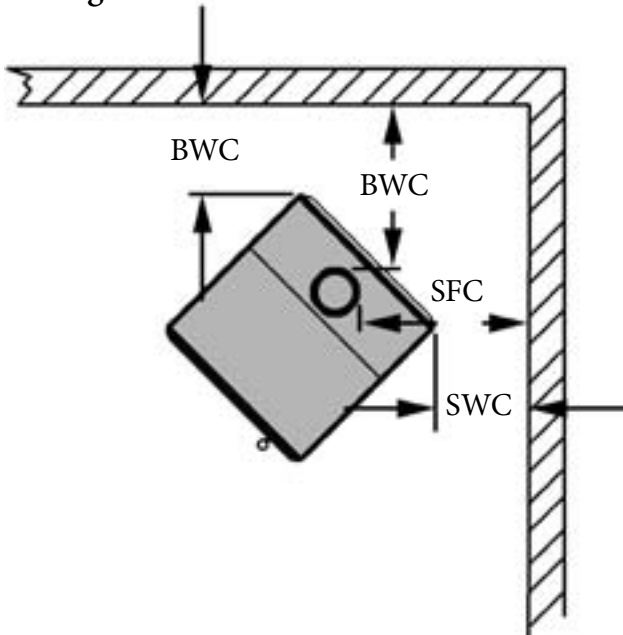


Fig 8c Corner installation

SWC	Side Wall to Corner	17 inch	432 mm
SFC	Side Wall to Flue Collar	24 inch	610 mm
BWC	Back Wall to Corner	17 inch	432 mm
BFC	Back Wall Flue Collar	24 inch	610 mm

Chimney Connector Clearances

The stove position will be determined by the greater of either the stove clearance or the chimney connector clearance above (x) and to the side (y). See Fig. 9.

Single Wall Pipe:

Unprotected Surface: 18"/485 mm

Protected Surface: 6"/153 mm

Double Wall Pipe: Mfg's Listing

Chimney Connection

Use 6 in. flue connector made from 24 gauge or heavier steel.

Chimney Connector Clearances:

The stove position will be determined by the greater of either the stove clearance or the chimney connector clearance above (x) and to the side (y).

(x) Connector to Ceiling 19"

(y) Connector to Parallel Wall 19"

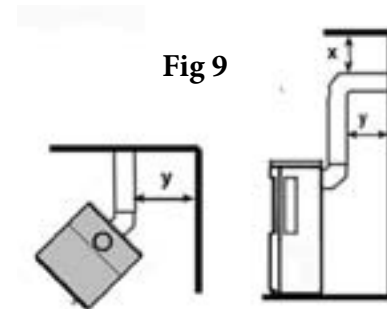


Fig 9
Rear exit chimney connector clearance

Notice: Many manufacturers have developed woodburning stove accessories that permit clearance reduction. Use only those accessories that have been tested by an independent laboratory and carry that laboratory's testing mark. Be sure to follow all of the manufacturer's instructions.

Clearance to Combustible Materials

- The clearances listed and diagramed in this manual have been tested to UL and ULC standards and are the minimum clearances to combustible materials specifically established for the Norsk Kleber Kube models.
- A combustible surface is anything that can burn (i.e. sheet rock, wall paper, wood, fabrics etc.).
- Any combustible material must be kept 36" (914 mm) away from the stove load door and at least 18" (457 mm) from the sides.
- Combustible materials are not limited to those that are visible and also include materials that are behind noncombustible materials. "Fire Resistant" or "Fire-rated" materials are considered combustible; they are difficult to ignite, but will burn.
- Consult your local fire officials if you are unsure of the combustible nature of any material.

Clearance to Walls & Ceilings

See the table in Fig. 8 for specific wall clearance requirements using either single or Listed double-wall connectors.

Minimum Ceiling Height: 84"/ 213 cm

Minimum Ceiling Clearance: 30"/ 76 cm

The Kube is approved for use with Listed double wall pipe installed to conform to the clearances in Fig. 9.

Wall-Mounted Protection: When reducing clearances through the use of wall-mounted protection:

For the U.S., refer to NFPA 211, Standard for Chimneys, Stoves, Vents and Solid Fuel Burning Appliances, for acceptable materials, proper sizing and construction guidelines.

For Canada, refer to CAN/CSA-B365, Installation Code for Solid-Fuel Burning Appliances and Equipment, also for acceptable materials, proper sizing and construction guidelines.

Kube 3 Parts List

Part No.	Description	Kube 3-0	Kube 3-1	Kube 3-2
08-01-01	Connection 125-150mm	1	1	1
01-21-17	Oscar small stone on door 360*60*42mm	1	1	1
01-21-60	Oscar baffle vertical 340*160*40mm	1	1	1
01-21-63	Oscar baffle square, 118*160*40mm	2	2	2
01-22-54	Heat shield bracket	2	2	2
01-22-55	Heat shield screws	2	2	2
01-25-02	Kube front- and backstone	2	2	2
01-25-07	Kube backstone door section	2	2	2
01-25-10	Kube corner stone for side without glass	2	1	0
01-25-11	Kube horizontal baffle 417*260*30mm	1	1	1
01-25-12	Kube burn chamber plate 418*246,5*50mm	1	1	1
01-25-28	Kube low model pillars under burn chamber plate	2	2	2
01-25-36	Kube 3 and 4 front stone below the door	1	1	1
01-25-37	Kube 3 and 4 back stone below door section with airconnection	1	1	1
01-25-39	Kube top plate for top exit, back part	1	1	1
01-25-40	Kube top plate for top exit, front part	1	1	1
01-25-67	Heat shield for Kube	1	1	1
01-25-71	Kube side stone back with side glass cut	0	1	2
01-25-72	Kube corner stone for side glass	0	1	2
01-25-73	Kube side stone under side glass, H=330mm	2	2	2
01-25-74	Kube side stone, H=260mm	2	2	2
01-25-75	Kube soapstone square above side glass	0	1	2
01-25-76	Complete Skamol set for Kube with 2 side glasses	0	0	1
01-25-77	Complete Skamol set for Kube with 1 side glass	0	1	0
01-25-78	Complete Skamol set for Kube without side glass	1	0	0
01-80-03	Black door for Kube	1	1	1
01-80-35	Kube inner and outer side glass	0	1	2
	Parts in separate box	1	1	1
01-00-24	Hinge for skamol top	0	1	2
01-00-75	Product documentation	1	1	1
01-00-90	Installation instructions	1	1	1
01-00-95	Sealing cord for smoke exit pipe	1	1	1
01-00-97	Reparation set	1	1	1
01-00-99	Steel pin	4	5	6
01-13-23	Thin steel rod, 52 cm	5	4	3
01-13-24	Thin steel rod, 26 cm	4	4	4
01-25-30	Steel ring Kube, h=15mm	4	4	4
01-25-31	Steel ring Kube, h=30mm	3	3	3
01-25-32	Steel ring Kube, h=15/30mm	1	1	1

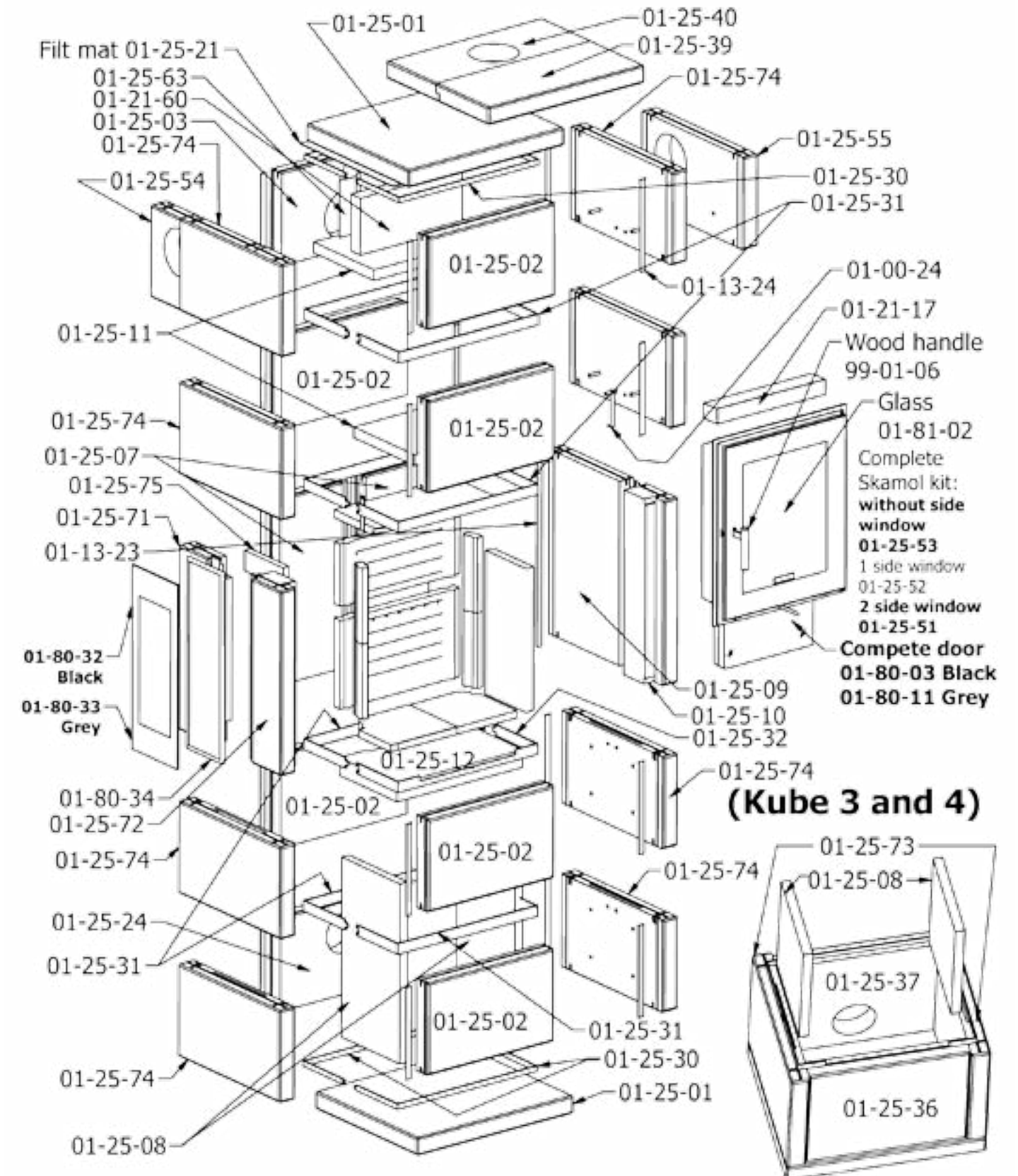
Kube 4 Parts List

Part No.	Description	Kube 4-0	Kube 4-1	Kube 4-2
08-01-01	Connection 125-150mm	1	1	1
01-21-17	Oscar small stone on door 360*60*42mm	1	1	1
01-21-60	Oscar baffle vertical 340*160*40mm	1	1	1
01-21-63	Oscar baffle square, 118*160*40mm	2	2	2
01-22-54	Heat shield bracket	2	2	2
01-22-55	Heat shield screws	2	2	2
01-25-02	Kube front- and backstone	4	4	4
01-25-07	Kube backstone door section	2	2	2
01-25-10	Kube corner stone for side without glass	2	1	0
01-25-11	Kube horizontal baffle 417*260*30mm	2	2	2
01-25-12	Kube burn chamber plate 418*246,5*50mm	1	1	1
01-25-28	Kube low model pillars under burn chamber plate, 317*250*25mm	2	2	2
01-25-36	Kube 3 and 4 front stone below the door	1	1	1
01-25-37	Kube 3 and 4 back stone below door section with airconnection	1	1	1
01-25-39	Kube top plate for top exit, back part	1	1	1
01-25-40	Kube top plate for top exit, front part	1	1	1
01-25-67	Heat shield for Kube	1	1	1
01-25-71	Kube side stone back with side glass cut	0	1	2
01-25-72	Kube corner stone for side glass	0	1	2
01-25-73	Kube side stone under side glass, H=330mm	2	2	2
01-25-74	Kube side stone, H=260mm	2	2	2
01-25-75	Kube soapstone square above side glass	0	1	2
01-25-76	Complete Skamol set for Kube with 2 side glasses	0	0	1
01-25-77	Complete Skamol set for Kube with 1 side glass	0	1	0
01-25-78	Complete Skamol set for Kube without side glass	1	0	0
01-80-03	Black door for Kube	1	1	1
01-80-35	Kube inner and outer side glass	0	1	2
	Part components in own box	1	1	1
01-00-75	Hinge for skamol top	1	1	1
01-00-90	Product documentation	1	1	1
01-00-95	Installation instructions	1	1	1
01-00-97	Sealing cord for smoke exit pipe	1	1	1
01-00-99	Reparation set	8	9	10
01-13-23	Steel pin	5	4	3
01-13-24	Thin steel rod, 52 cm	8	8	8
01-25-30	Thin steel rod, 26 cm	4	4	4
01-25-31	Steel ring Kube, h=15mm	5	5	5
01-25-32	Steel ring Kube, h=30mm	1	1	1

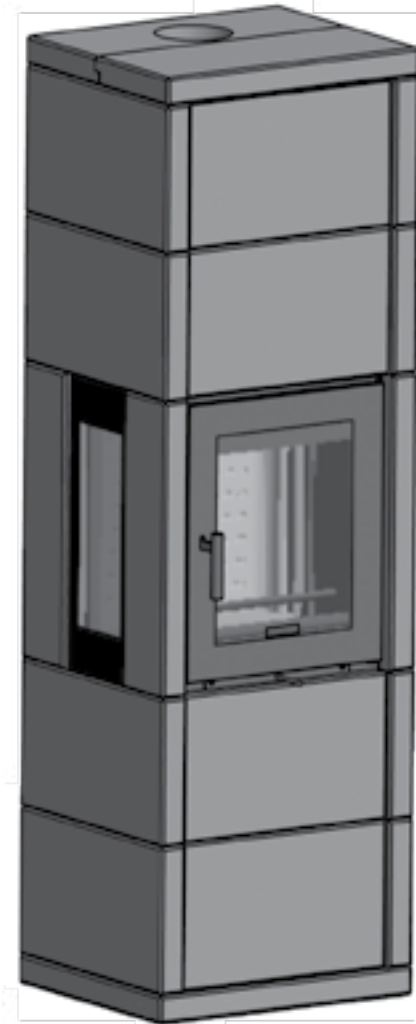
Kube 5 Parts List

Part No.	Description	Kube 5-0	Kube 5-1	Kube 5-2
08-01-01	Connection 125-150mm	1	1	1
01-21-17	Oscar small stone on door 360*60*42mm	1	1	1
01-21-60	Oscar baffle vertical 340*160*40mm	1	1	1
01-21-63	Oscar baffle square, 118*160*40mm	2	2	2
01-22-54	Heat shield bracket	2	2	2
01-22-55	Heat shield screws	2	2	2
01-25-02	Kube front- and backstone	7	7	7
01-25-07	Kube backstone door section	2	2	2
01-25-08		2	2	2
01-25-10	Kube corner stone for side without glass	2	1	0
01-25-11	Kube horizontal baffle 417*260*30mm	2	2	2
01-25-12	Kube burn chamber plate 418*246,5*50mm	1	1	1
01-25-24	Kube rear stone with air connection	1	1	1
01-25-39	Kube top plate for top exit, rear part	1	1	1
01-25-40	Kube top plate for top exit, front part	1	1	1
01-25-67	Heat shield for Kube	1	1	1
01-25-71	Kube side stone rear with side glass	0	1	2
01-25-72	Kube corner stone pillar for side glass	0	1	2
01-25-74	Kube side stone, H=260mm	8	8	8
01-25-75	Kube soapstone square over side glass	0	1	2
01-25-76	Complete Skamol set for Kube with 2 side glasses	0	0	1
01-25-77	Complete Skamol set for Kube with 1 side glass	0	1	0
01-25-78	Complete Skamol set for Kube without sideglass	1	0	0
01-80-03	Black door for Kube	1	1	1
01-80-35	Kube inner and outer sideglass, black	0	1	2
	Part components in separate box	1	1	1
01-00-24	Hinge for skamol top	0	1	2
01-00-75	Product documentation	1	1	1
01-00-90	Installation instructions	1	1	1
01-00-95	Sealing cord for smoke exit pipe	1	1	1
01-00-97	Reparation set	1	1	1
01-00-99	Steel pin	8	9	10
01-13-23	Thin steel rod, 52 cm	5	4	3
01-13-24	Thin steel rod, 26 cm	16	16	16
01-25-30	Steel ring Kube, h=15mm	4	4	4
01-25-31	Steel ring Kube, h=30mm	7	7	7
01-25-32	Steel ring Kube, h=15/30mm	1	1	1

Exploded Parts View



Model: Kube Assembly Manual



1893
NORSK
KLEBER

Before you begin:

- Please read and follow the assembly instructions carefully.
- Assembly should be done by two people as some of the components are very heavy.
- We recommend that you first sort the stones by size and shape.
- A repair kit is included for small repairs to the stones. Glue must not be used for assembly.

Suggested tools for assembly:

- Plastic or wooden mallet
- Multi-tip screwdriver
- Utility knife
- Work gloves
- Papertowel

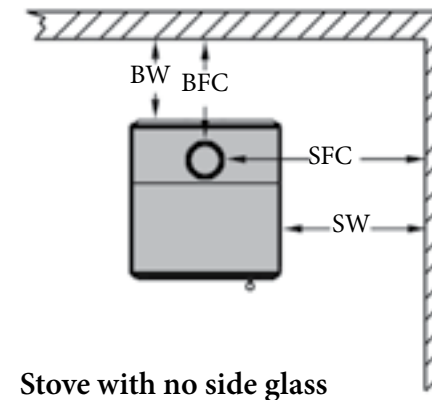
Handle the stones carefully. Soapstone can be easily chipped or damaged if not handled correctly.

IMPORTANT

Before beginning assembling the stove, you must determine where the stove will be located.

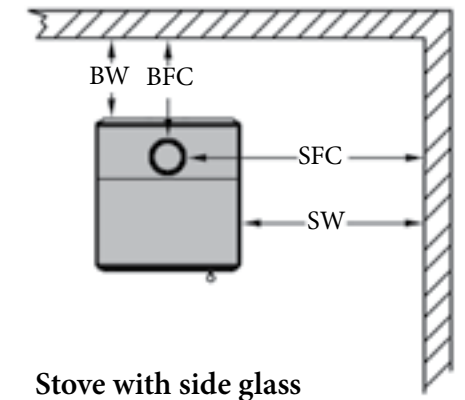
The stove must be located a safe distance from combustible materials including walls. Note that stoves with side glass require increased distance to walls as shown in (Fig. 2) whereas, stoves with no side glass require less distance. See (Fig. 2).

Fig. 1



Stove with no side glass

Fig. 2



Stove with side glass

Fig. 1

SW	Side Wall to Side	17 inch	432 mm
SFC	Side Wall to Flue Collar	24 inch	610 mm
BW	Back Wall to Side	12 inch	305 mm
BFC	Back Wall Flue Collar	15 inch	381 mm

Fig. 2

SW	Side Wall to Side	30 inch	762 mm
SFC	Side Wall to Flue Collar	37 inch	940 mm
BW	Back Wall to Side	12 inch	305 mm
BFC	Back Wall Flue Collar	15 inch	381 mm

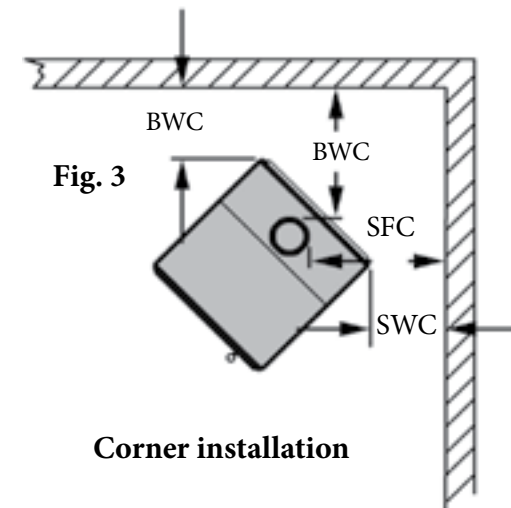


Fig. 3

Corner installation

Fig 3 Corner installation

SWC	Side Wall to Corner	17 inch	432 mm
SFC	Side Wall to Flue Collar	24 inch	610 mm
BWC	Back Wall to Corner	17 inch	432 mm
BFC	Back Wall Flue Collar	24 inch	610 mm



WARNING

Failure to locate the stove the minimum distances indicated, can result in a home fire and personal injury.

Floor Protection

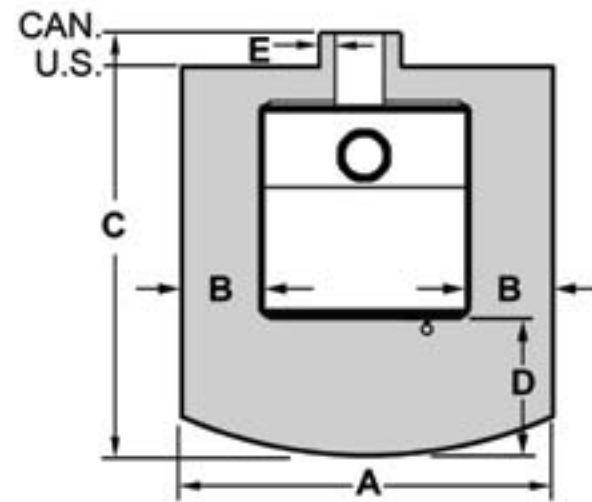
Any floor that is not composed of concrete poured on earth requires protection from sparks and embers. The Kube is approved for installation using one of the following forms of hearth protection:

Any UL, ULC, or Warnock Hersey Listed Type 1 hearth board.
Any noncombustible material.

In the U.S. floor protection must extend continuously forward from the door opening at least 16 in. and 8 in. from the sides of the door opening. Protection must also extend 2 in. under the chimney connector. This will result in a minimum floor protector 35 3/4" wide x 36 1/2" deep. See Fig 3.

In Canada, floor protection must extend continuously 18" from the front of the stove and 8 in. (460 mm) from the sides and rear. It must also extend 2 in. (51 mm) to both sides under a horizontal chimney connector section. This results in a floor protector 35 3/4 in. x 43 3/4 in. (85 cm x 111 cm). See Fig. 3.

Fig. 3

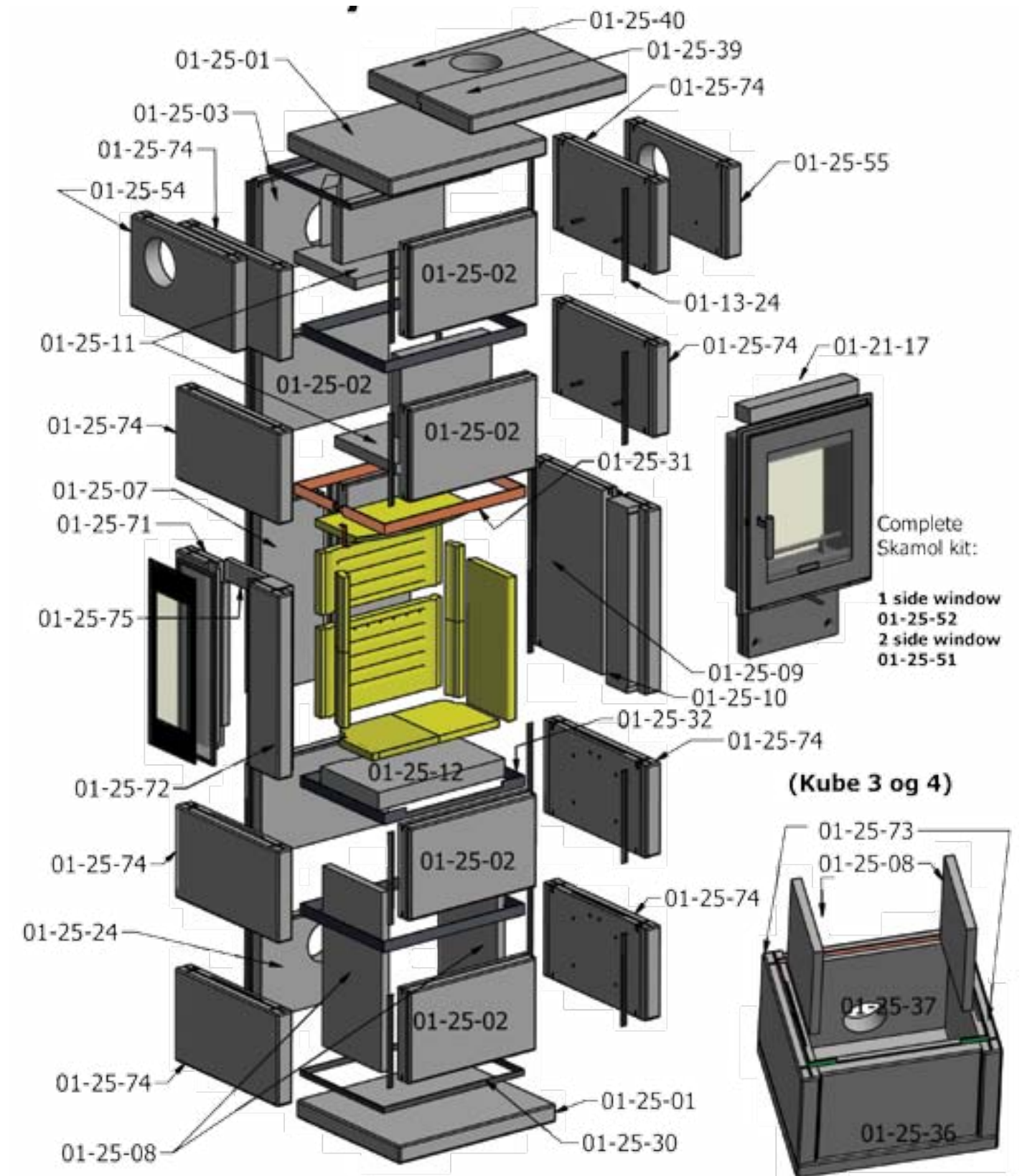


	A	B	C	D	E
U.S.	35.75 in.	8 in.	36.5 in.	16 in.	2 in.
	908 mm	203 mm	927 mm	406 mm	51 mm
CAN	35.75 in.	8 in.	43.75 in.	18 in.	2 in.
	908 mm	203 mm	1111 mm	457 mm	51 mm

WARNING ⚠

Failure to provide floor protection can result in a home fire and personal injury.

Exploded view



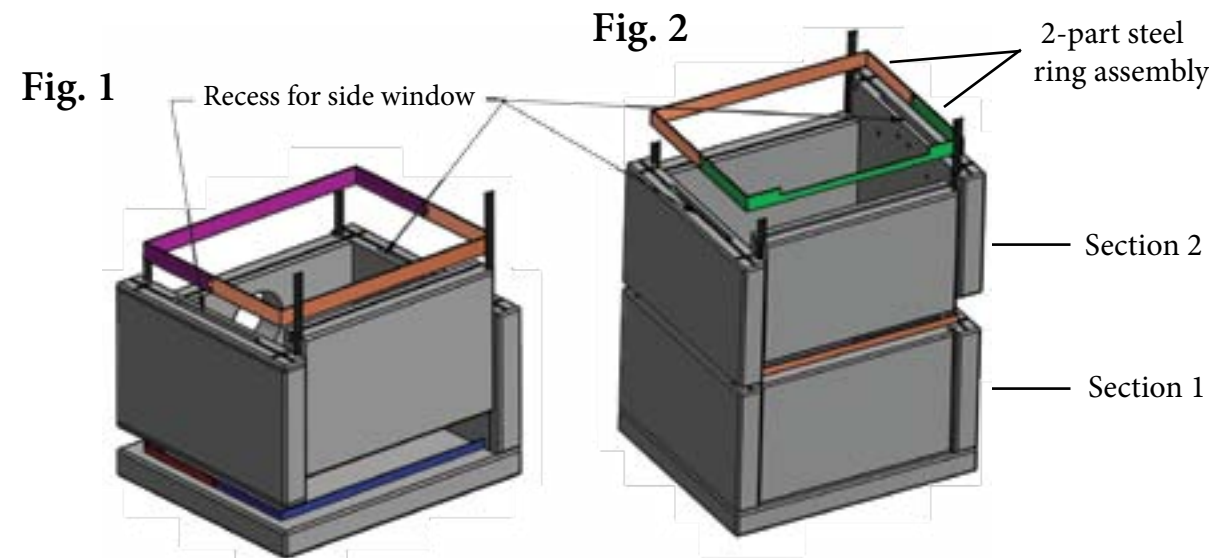
**Step 1 Assembling section 1,
Fig. 1 (all stoves)**

1. Lay the base plate into place (similar to the top plate but without the glued-on felt mat). The plate must be lined up so that it is level, and with the correct distance to the masonry and any flammable materials. See page 2 & 3.
2. Connect together the 2-part .6" steel ring (these will be the thinnest 2-part rings) and center them on the base plate.
3. Place the side stones onto the steel ring, making sure the stone drops into place. **Be careful not to chip the stones while placing them onto the steel ring assembly.** Do the same with the front stone and the rear stone. Note: the hole in the rear stone should be closest to the bottom.
4. Assemble the 2-part 1.2" steel ring. Place the ring assembly into the groove on the top of the stones that you just placed. Insert the (4) thin metal strips down into the vertical slots between the stones.

***If you are assembling a (3) section stove, skip Step 2, go to step 3**

**Step 2 Assembling section 2
Fig. 2 (4 or 5 section stove)**

1. Set in place (2) side stones, with the recess for the side window facing upwards.
2. Place the front and rear stones, with the widest groove facing down.
3. Place the 1.2 "steel ring assembly with the recess facing upwards and to the front.
4. Insert the (4) thin metal strips down into the vertical slots between the stones.



Step 3

1. Position the (2) fire-plate support blocks as shown in Fig. 3. They must rest against the side stones and the rear stones. (You may find it useful to use a clamp to hold the support blocks in place until the fire-plate is set in place.)

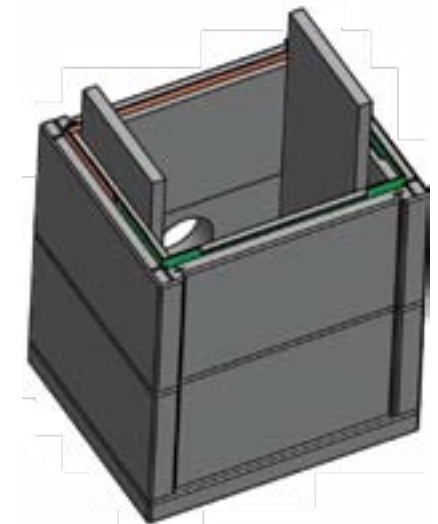


Fig. 3

Step 4

1. Place the door on the front stone so that the frame is just at the front of the steel ring assembly. (You will need assistance to hold the door because the door will tip backwards). Fig. 4
2. Tilt the door forward a little and slide the fire-plate into position. The plate must be positioned against the back wall with the recess facing towards the back.

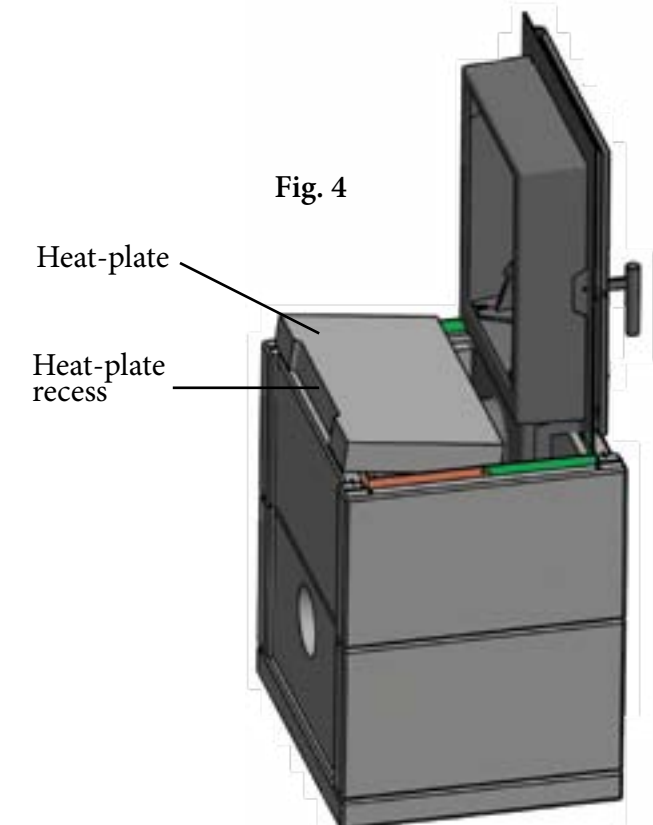


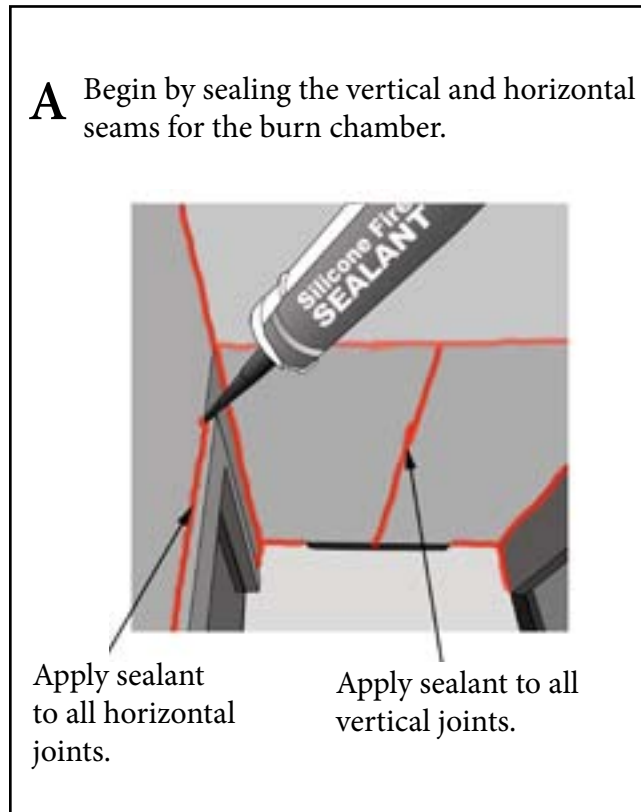
Fig. 4

Sealing joints and seams with silicone fire sealant

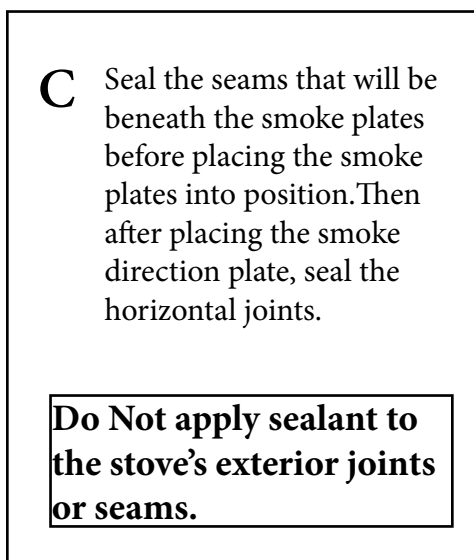
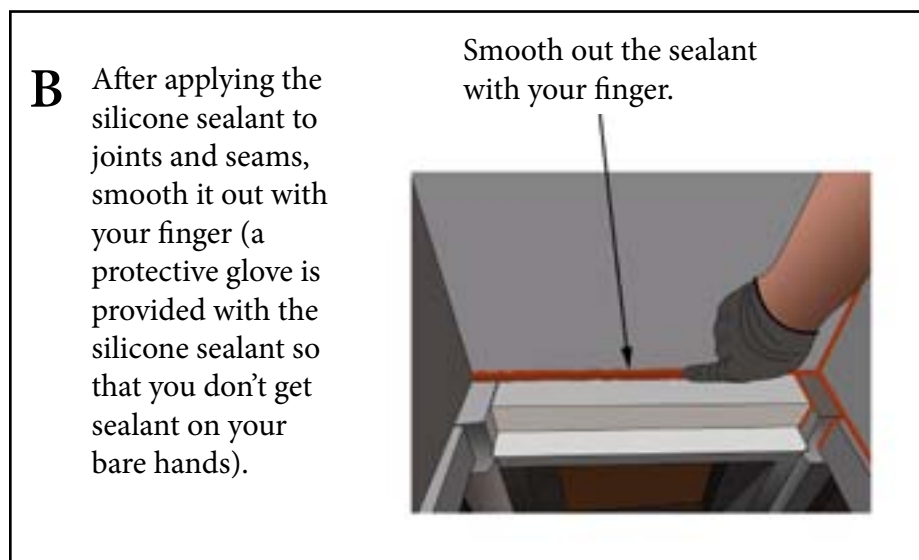
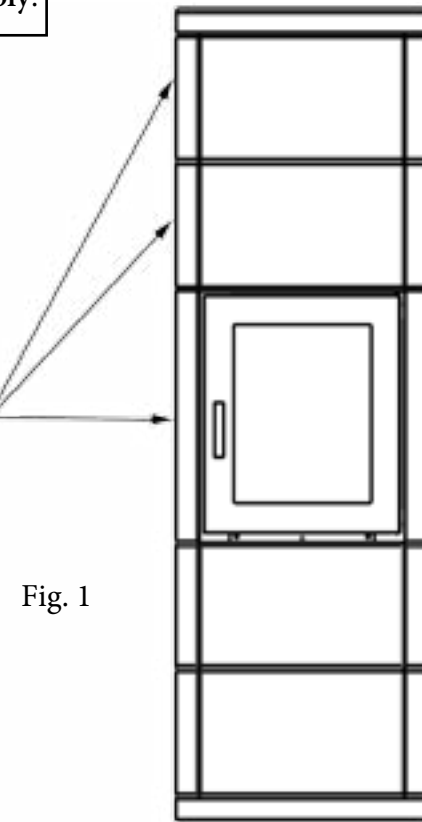
For best stove performance, we recommend that all the interior joints, except the Skamol assembly, be sealed with the Silicone Fire Sealant that is included with the stove.

As the fire chamber section and each section above it (Fig. 1) are assembled, the inside seams and joints should be sealed with the Silicone Fire Sealant, before assembling the next section.

Do Not seal the joints or seams on the Skamol assembly.



Only the burn chamber and the sections above it should be sealed.



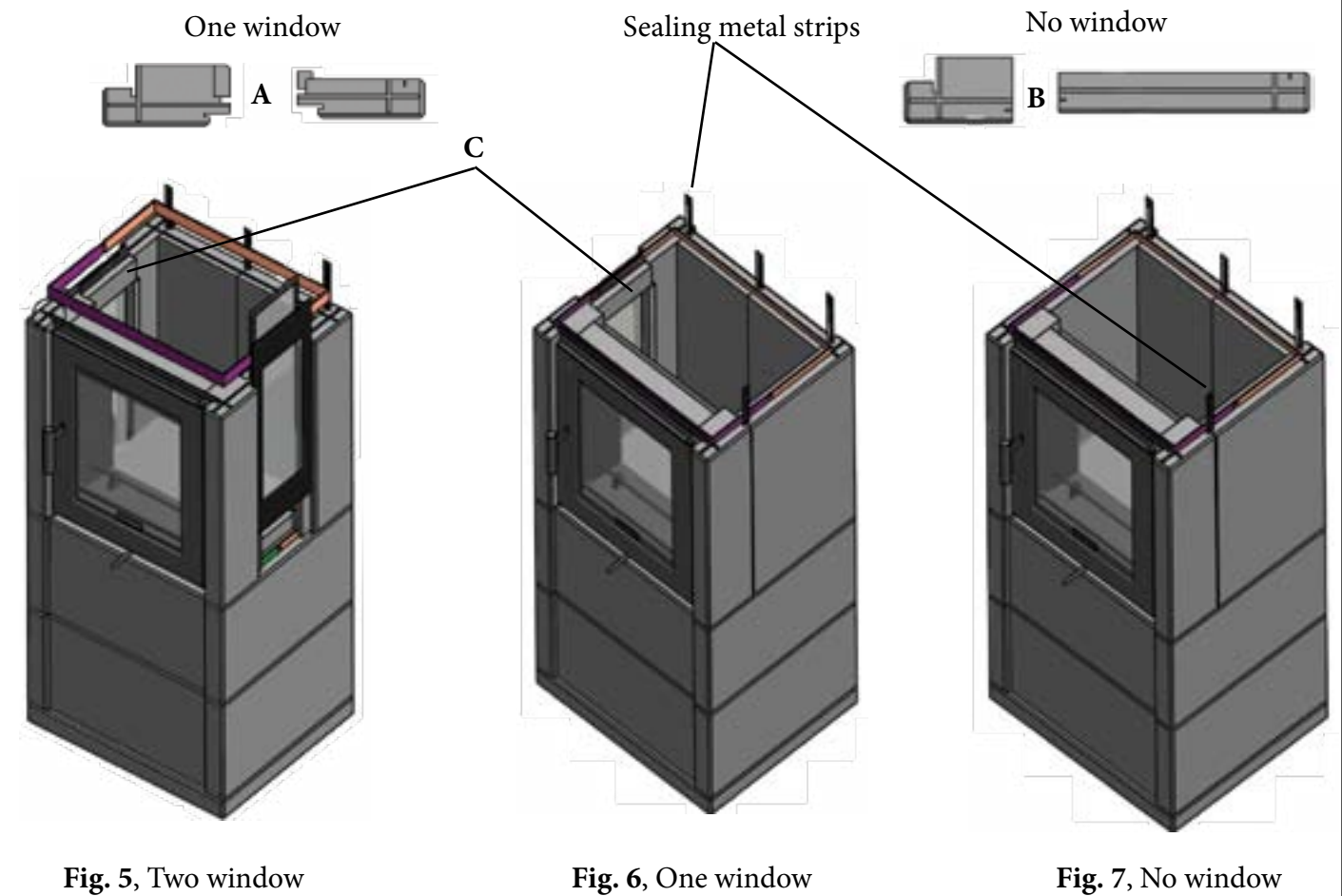
Step 5

Depending whether you are assembling a stove with one window Fig. 4, two windows Fig. 5, or no windows will determine how the burn-chamber section is assembled.

Fig. 5, 6, & 7

The front and rear side stones for the side windows have tracks for the side window (A), while the closed side (no window) only has one small bevel (B).

1. Set in place the two front side stones by the door.
2. Place the two rear side stones
3. Mount the two rear stones.
4. Place the stone on top of the door and next to the steel ring assembly.
5. Set in place the two-part steel ring assembly.
6. Set in place the small stones C. Slide into position the side windows.
7. Insert sealing metal strips down into the vertical tracks.
8. Squeeze rope between the door frame and the metal ring to stabilize the door.



Step 6

1. Slide the Skamol plate **A**, with the recess and row of holes for secondary air, into position up against the back wall and down onto the fire plate. (the row of holes must be at the top of the plate) **Fig. 8**
2. Place the Skamol plate **B** on top of Skamol plate **A**.
3. Slide the four Skamol pieces **C** into position, between the side window and Skamol plates **A** and **B**, **Fig. 9**. Place one on top of the other. Do this for both corners. Set in place the Skamol bottom plate **D** down onto the soapstone heat plate. Note: use **D** next to side windows. Use **D2** for no window. See **Fig. 10**.
4. For a no-window side, mount plate **F** in front of the Skamol strip(s) **C**.

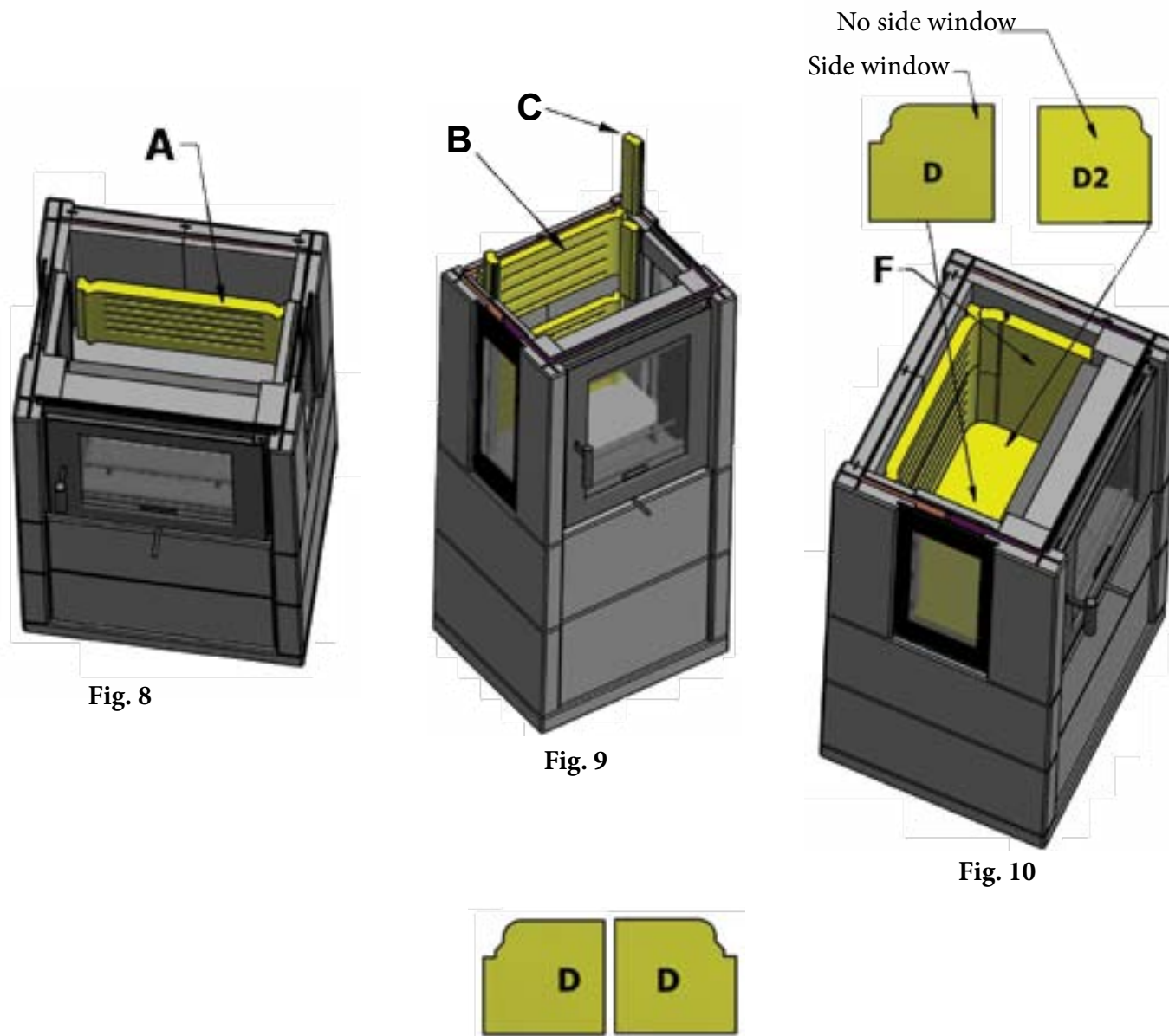


Fig. 8

Fig. 9

Fig. 10

Bottom Skamol configuration for two window stove

Step 7

1. Position the upper door frame block above the door frame and behind the steel ring assembly.
2. Set the rear wall in place.
3. Mount 2 side stones with the smallest distance to the holes for steel dowels facing down.
4. Place the 2-part steel ring assembly on top of the rear and side stones so that it is ready for when the front stone is put in place.
5. Place the front stone with the extra track for the door frame facing down.
6. Set the 2-part steel ring assembly in place.
7. Slide into position 4 metal strips, down in the vertical tracks between the stones.
8. Put 3 steel dowels into each side stone.
9. Slide suspension hooks for the Skamol ceiling onto the bottom steel dowel.
10. Mount the Skamol ceiling.

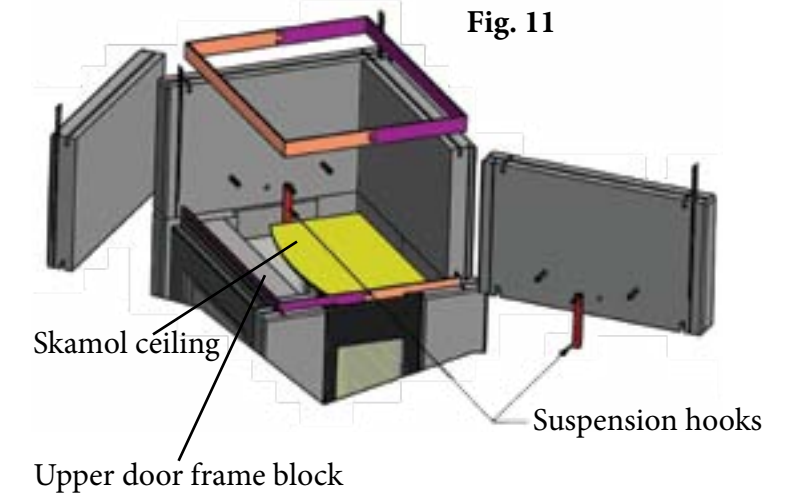


Fig. 11

Step 8

1. Set in place the horizontal smoke direction plate **H1** down onto steel dowels and next to the front stone **Fig. 12**



Fig. 12

Step 9

1. Set the rear wall with the smoke hood in place.
2. Assemble and hang the heat shield in position and complete the mounting of the flue.
3. Place the side stones with the smallest distance to the holes for steel dowels facing down.
4. Fit the front stone.
5. Set the 15mm 2-part steel ring in place.
6. Insert (4) 26cm metal strips, down into the vertical tracks between the stones.
7. Put 2 steel dowels into each side stone.
8. Set in place the horizontal smoke direction plate H2 down onto steel dowels and next to the rear wall, with the opening facing forwards.

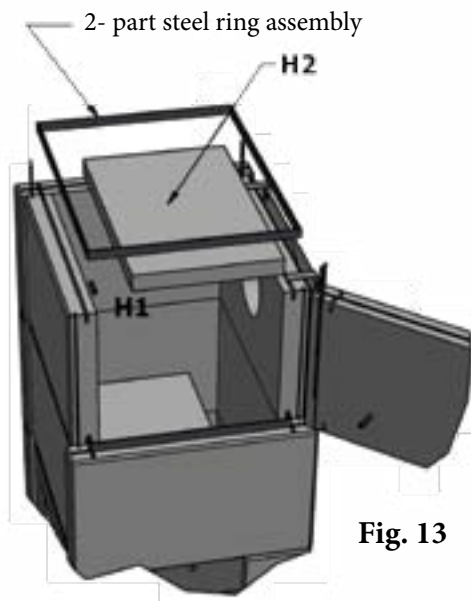


Fig. 13

Screw fastening brackets into the metal heat shield
Removed for optional rear flue installation



Fig. 14

Step 10

1. Place the middle labyrinth plate at an 8.5cm distance to the front edge of H2.
2. Position the two labyrinth bricks as shown in **fig. 15**.
3. Set the top plate in place.

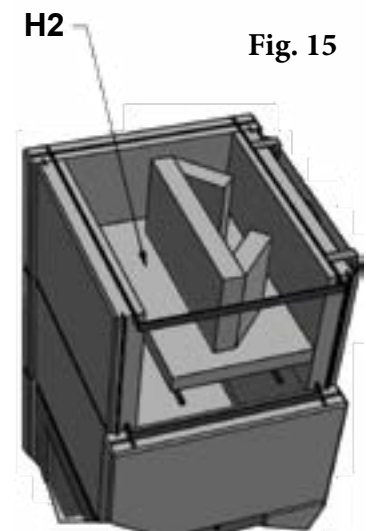


Fig. 15

How to use your Norsk Kleber Soapstone Stove

CAUTION: 

Do not use this stove in a manner that is not consistent with these instructions. Failure to do so can result in harm to people and property.

Ventilation of the room

The stove needs air (oxygen) to achieve good combustion. The air is supplied from the room where the stove is, or connected in a closed system. The air enters through the 4.5 inch hole in at the back of the stove. In case of insufficient ventilation, combustion becomes incomplete, so that toxic gases can enter the room.

Extra ventilation is required if the stove is in a well-insulated room, or in rooms with mechanical ventilation, eg. central exhaust system or extractor fan in an open kitchen. Additional ventilation is achieved by installing a ventilation grill in the outer wall. Make sure that other equipment that uses air (for example: kitchen fan or bathroom fan) has its own connection to fresh air or is switched off when firing with the stove. The stove can also be connected to fresh air supply in a closed system. When using such a set, extra ventilation is not required.

Supply of combustion air

The combustion air for the combustion chamber can be supplied directly or indirectly to the stove. In most cases the stove works great with indirect supply from wall valves in the outer wall. In newer more airtight houses, it may be necessary to supply the combustion air directly into the combustion chamber.

If the combustion air is to be supplied as described above, this must be prepared before the stove is mounted to the chimney. The supply air duct must be insulated so that condensation does not occur.

The air supply pipe has a diameter of 4 inches. If a straight pipe is used it can have a maximum length of 39 feet. If there are bends in the pipe, count each bend as 3 feet and subtract the total from 39 feet.

Floors and walls

- The floor on which the stove is mounted must have sufficient carrying capacity. Most standard floors can withstand stoves up to 950 lb. If you are in doubt, please contact a specialist.
- Provide sufficient distance between the stove and combustible material such as wooden walls and furniture. See the Safety Label for recommended distances.
- The connection pipe to the chimney also radiates heat. The minimum distance requirement from an un-insulated flue pipe to combustible material, is 12 inches.
- A blanket must be at least 32 inches from the fire.

Fuel

Use only natural cut and split wood that is sufficiently dried. Do not use other fuels as this may cause serious damage to the stove. It may also pollute the environment and/or cause a soot fire.

DO NOT USE :

- Treated wood
- Reclaimed lumber
- Impregnated wood
- Plywood
- Lacquer
- Chipboard
- Plastic
- Waste paper
- Household waste

A little more about wood

Use dry wood with moisture content of less than 17%. This means that the wood has dried for about 1-2 years.

Wood should be cut in 10 to 12 inch lengths.

Do not use unseasoned wood. Raw wood gives little heat because much of the energy is used to evaporate the water. It gives a lot of smoke and soot coating on the internal surfaces of the stove and in the chimney. The water vapor that condenses in the stove can leak out between the stones, causing black spots on the stone and floor. If the soapstone gets such soot stains, they can be removed with the help of soap and cloth, or possibly fine sandpaper (180). The water vapor can also condense in the chimney to form creosote. Creosote is highly flammable and can cause soot fire.

Firing

Your masonry heater does not need to be, and should not be, fired constantly to provide an even heat. Firing with several hours intervals is optimal for these type of stoves. Because of the heat retaining characteristics you will experience an even heat output when firing 3-4 times a day. We recommend using about 4 lbs (2 kg) of wood for one firing, and never more than 6 lbs (3 kg). In this way your stove will provide a heat output during the whole day and night of about 1-3 kW when firing 3 or 4 times a day. If you need more or less heat you can shorten or lengthen your firing intervals.

Make sure you have a good draft in your chimney. In the beginning of the firing cycle you should have full draft. This can be reduced a bit after the first five minutes. Never close the draft during the firing, since this will lead to a very inefficient combustion and release of particles in the air. After the fire has been extinguished, close the draft completely to make sure you do not vent the stove from the inside, losing the accumulated heat through the chimney. Your stove, depending on the size and how hard it has been fired, will keep you warm for 6 to 12 hours.

You should only fire with dry firewood with maximum moisture content of 20%, this is a prerequisite for the well functioning of your stove. Make sure your firewood is also cut in sufficiently small pieces. We recommend pieces of not more than one lb. each. The best results will be when firing from the top, with small pieces of wood lying on top of the wood-stack as the picture below shows.

Example of a wood stack and how to light it.



For further information see also our homepage www.norskkleber.com

The adjustment of the air into the burn chamber is done with the lever at the bottom of the door. When the lever is completely out you have maximum air supply. As long as you have fire the lever should never be less than half-way out to avoid incomplete burning of the wood.

Starting and maintaining a fire:

1. With primary air control lever in the full open position, place two short 1/4-split logs on the firebox floor, perpendicular to the rear wall, about 6 inches apart.
2. Place kindling across the base logs.
3. Place one or two smaller logs on top of the kindling.
4. Place newspaper between the two bottom logs under the kindling. Light the newspaper and close the door. Continue to add kindling and small logs as necessary to build the fire. Keep the air control fully open until the fire is well-established.

BURN ONLY SOLID WOOD DIRECTLY ON THE BOTTOM PLATE OF THE STOVE. DO NOT ELEVATE THE FIRE IN ANY WAY. DO NOT USE ANY STOVE GRATES.

WARNING

ALWAYS WEAR STOVE GLOVES WHILE TENDING THE FIRE.

NEVER ALLOW THE FIRE TO REST DIRECTLY ON THE GLASS. KEEP THE LOGS SPACED AT LEAST ONE INCH FROM THE GLASS TO ALLOW FOR PROPER AIR FLOW WITHIN THE STOVE. AVOID STRIKING THE GLASS WITH LOGS.

OPERATE THIS STOVE ONLY WITH THE FRONT DOOR AND ASH DOOR FULLY CLOSED. OPERATION WITH THE DOOR PARTIALLY OPEN MAY RESULT IN OVER-FIRING. IF THE DOOR IS LEFT PARTIALLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE STOVE CREATING SAFETY RISKS FROM BOTH FIRE AND SMOKE.

The Babina+ is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air-dried, seasoned hardwoods, as opposed to softwoods, green or freshly cut hardwoods. Wood that has been air-dried for a period of 6 to 14 months will provide the cleanest, most efficient heat. Wood seasoned more than 2 years will burn too quickly to take advantage of the stove's low-end efficiency strength.

A seasoned log will have check marks on the ends and be lighter than an unseasoned log which will show little or no check marks.

We recommend using a moisture meter to determine the moisture content of your wood. For purposes of home heating, your fuel should have a moisture content between 12 - 20%. Wood with higher moisture content will burn, however, very inefficiently. Most of its heat value will be lost to driving water out of the wood. Worse, that moisture will condense as creosote in the relatively cool chimney flue, increasing the potential for a chimney fire. Use of unseasoned wood defeats the purpose of any modern wood-burning stove.

Air control settings

A single lever regulates the primary air flow that controls the intensity of the fire and consequent heat output and burn time. The lever is located within the slot below the stove door.

Primary air enters the stove above the door and washes over the glass before reaching the fuel. Some air is also provided to the fuel at the bottom of the door through a small hole. This provision of air is also called *pilot air*. It is used to keep the fire going, preventing it from extinguishing when the air wash is regulated down to a minimum.

Unrestricted secondary air is delivered through manifolds at the rear and top baffle where it ignites volatile gases that would otherwise pass unburned into the environment. In this way, the wood is burned efficiently and exhaust is minimized. When the fire is burning well, little or no smoke will be evident from the chimney.

When first starting or reviving the fire, the control lever should be pulled out completely to allow the maximum amount of air into the stove. After the fire is well-established, the lever should be set at position to moderate incoming air, but never less than half its maximum, to maintain the desired long term burn time. However, always keep enough air to allow the fire to burn. A genuine soapstone stove does not need to be burned at a low burn rate to have heat for a longer time: most of the heat is stored in the stones and will be radiated out after the fire has extinguished.

In general, the more air made available to the fuel will result in the hottest fire intensity and the fastest fuel consumption. Do not smolder the fire in your genuine soapstone stove!

Adding firewood to a still hot soapstone stove

When reloading the stove while a bed of hot embers still exists, follow this reloading procedure:

- Never open the door when there is still fire (flames) in the burn chamber. The load has to burn out completely first.
- Always use the stove mitt when tending to the fire.

- Before you open the door, place the Air Control Lever in the full open position.
- Always wait a few seconds before opening the door. This allows the renewed air circulation to clear unburned gases from the firebox. Hold the door open just slightly for a couple of seconds before opening it fully. This will also help ensure that no smoke escapes into the room.
- Use a stove tool or poker to distribute the hot embers equally around the firebox and push ashes into the ash pan.
- Load the fuel, usually with smaller logs first.
- Close the door and secure the latch, the wood will start to burn after a few minutes.

Emptying ashes

Having some of the ashes always in the stove is beneficial for the firing. The ashes isolate to the cold bottom, leading quicker to high temperatures in the burn chamber, and give some space for air to get under and at the sides of the wood, thus improving the combustion.

After a number of firings it will be necessary to remove part of the ashes. Opening the door and simply using a suitable tool to dig out ashes can do this. This should not be done before the stove is completely cooled down! Wait at least 12 hours after the last firing before doing so. The ashes should be put in a bucket of incombustible material, such as an iron bucket.

After firing with wood, a relatively small amount of ash occurs. This ash bed is a good insulator and provides better combustion. Therefore, leave a thin ash layer on the bottom of the oven.

Regularly remove the excess ash.

Use an ash spade and fill the ash in a suitable ashtray which is then emptied at a fire-proof location, it is recommended that ash discharge be done at least 12 hours after firing is finished.

Only use a container of noncombustible material, like iron, to put the ashes into. Put a lock on the container until all ashes, coals and cinders, are thoroughly cooled.

Exterior cleaning

The stone can be washed easily with ordinary household detergent. Stains of soot and soot water are removed by brushing lightly with fine sandpaper (180).

Creosote Formation and the Need for Removal

When wood is burned slowly, it produces tar and other vapors that combine with moisture to form creosote. Creosote vapors condense in the relatively cool chimney flue, and creosote residue accumulates on the flue lining. When ignited, this creosote fuels an extremely hot fire.

The chimney connector and chimney flue should be inspected at least every two months during the heating season to determine if creosote buildup has occurred.

If creosote has accumulated, it should be removed to reduce the chance of a chimney fire. A qualified chimney sweep or other authorized service person can provide this service.

It is also important to remember that chimney size, temperature and height all affect draft which in turn affects the formation of creosote. An exterior chimney, whether masonry or prefabricated steel, will be exposed to cold outside temperatures, and consequently, will be more prone to creosote accumulation than an interior flue.

Creosote may also form inside the stove, at the top in the highest section. This happens since the flue gas temperature can be quite low, leading to condensation and the formation of some creosote on the inside of the stove at the stone surfaces. Creosote has an insulating effect, so it's important that the stove interior be cleaned annually.

Cleaning the stove interior

Caution: Make sure the stove is cold.

1. Locate necessary equipment such as: good lighting (head lamp), steel scraper / ice scraper, ashtray or ash vacuum and preferably a pair of gloves.
2. Cover the floor and furniture around the stove. For items 3 and 4 below, it is an advantage to have two people, since the top plate is heavy.
3. Tilt the top plate and scrape/vacuum away the soot on the underside of the top plate. (Two-piece top plate, for top-mounted chimney, the rear plate should not be removed for cleaning).
4. Lift off the top plate.
5. Scrape off soot on smoke conductor plates and pick out the parts. The ash is swept down the stove or sucked away eventually.
6. Pick out steel studs on which horizontal smoke conductor plates lie and scrape away the soot from the stones.
7. The ash is now in the bottom of the stove, and is removed with ash vacuum, or ash spade/bucket.
8. Inspect Skamol plates in combustion chamber and replace if defective.
9. Lift the cover over the draft control and inspect the draft control. If needed, lubricate the shaft and guide pin with copper grease.
10. Replace the steel dowel pins, the smoke guide plates, and put the top plate back in place.

When firing with dry wood and with good draft (full opening for combustion air while firing) there should be very little creosote formation, however we advise that you inspect for creosote formation inside the stove at the same time when inspecting the chimney.

Cleaning the glass

1. Remove dust and loose-fitting soot with a dry cloth.
2. Wet a newspaper or paper towel with water, dip the wet paper in the box and wipe the soot on the glass. Then wipe with a dry clean cloth or paper.
3. Clean the glass again with glass cleaner.

Do not use abrasive or corrosive products to clean the glass. If the stove's glass is crushed or cracked, the glass must be replaced before the stove is used again.

Replacing the glass

Always operate the door slowly and cautiously to avoid cracking or breaking the glass. Never use the door to push wood into the firebox. If the glass becomes cracked or broken follow the following replacement procedure:

1. First loosen and then carefully remove the four glass clips from the inside of the door. Remove all pieces of the glass panel and gaskets.
2. Remove all remaining debris from the glass area using a wire brush.
3. Apply a small bead of gasket/stove cement and the new gasket. Do not overlap the ends of the gasket rope.
4. Center the new glass panel over the gasket and loosely reinstall the glass clips. Tighten the clips, alternating at opposite corners. Avoid applying uneven pressure on the glass.
5. It may be necessary to retighten the glass clips after the stove has been used again and the gaskets has seated.

Warranty

Norsk Kleber and its U.S. importer, Hestia Industries, warrant this soapstone stove to be defect-free in material and workmanship to the original purchaser from the date of purchase as follows:

Check with your dealer in advance for any costs to you when arranging a warranty call.

Mileage or service charges are not covered by this warranty. This charge can vary from store to store.

Year 1 - COVERAGE: PARTS & LABOR

Norsk Kleber or its authorized agent will provide repairs deemed necessary to restore your stove to normal operation free of charge provided the stove was operated as directed in the Owner's Manual. See Conditions and Exclusions for any circumstances where your stove would not be covered by the Norsk Kleber warranty.

Years 2- 5 COVERAGE: PARTS

Norsk Kleber or its authorized agent will provide parts deemed necessary to restore your stove to normal operation at no charge. You will be responsible for all cost of labor associated with the repair and replacement of defective parts. See Conditions and Exclusions for any circumstances where your stove would not be covered by the Norsk Kleber warranty.

Years 5 -10 COVERAGE: SOAPSTONE(S)

Norsk Kleber or its authorized agent will provide replacement soapstone(s) at no charge when deemed they are defective by Norsk Kleber or its authorized agent. See Conditions and Exclusions for any circumstances where your stove would not be covered by the Norsk Kleber warranty.

CONDITIONS & EXCLUSIONS

1. This soapstone stove must be installed by a qualified installer. It must be installed, operated, and maintained at all times in accordance with the instructions in the Owner's Manual. Any alteration, willful abuse, accident, neglect, or misuse of the product shall nullify this warranty.
2. This warranty is nontransferable, and is made

to the ORIGINAL purchaser, provided that the purchase was made through an authorized Norsk Kleber dealer.

3. Discoloration and some minor expansion, contraction, or movement of certain parts and resulting noise, is normal and not a defect and, therefore, not covered under warranty.
4. This warranty does not cover misuse of the stove. Misuse includes over-firing of this appliance and can cause serious damage and will nullify this warranty. Misuse includes use of salt-saturated wood, chemically treated wood, or any fuel not recommended in the manual.
5. The warranty, as outlined within this document, does not apply to the chimney components or other non-Norsk Kleber accessories used in conjunction with the installation of this product. If in doubt as to the extent of this warranty, contact your authorized Norsk Kleber retailer before installation.
6. Damage to the fire chamber due to mishandling, removal, cleaning, or other handling is not covered. Degradation of the fire chamber due to burning of anything other than natural cord wood is not covered. Burning of trash, garbage, artificial or paper logs, gift wrappings, coal, lighter fluids, chemical starters, treated or painted wood, driftwood or chemical cleaners will void the fire chamber warranty.

Exclusions

1. Exclusions to this Warranty include: injury, loss of use, damage, failure to function due to accident, negligence, misuse, improper installation, alteration or adjustment of the manufacturer's settings of components, lack of proper and regular maintenance, damage incurred while the appliance is in transit, alteration, or act of God.
2. This 5 Year warranty excludes damage caused by normal wear and tear, such as stone discoloration or chipping, worn or torn gaskets. Also excluded is damage to the appliance caused by abuse, improper installation, modification of the appliance, or the use of fuel other than that for which the appliance is configured (use cord wood only).
3. Norsk Kleber and its U.S. importer Hestia Industries is free of liability for any damages caused by the appliance, as well as inconvenience expenses and materials. Incidental or consequential damages are not covered by this warranty. In some states, the exclusion of incidental or consequential damage may not apply.
4. This warranty does not cover any loss or damage incurred by the use or removal of any component or apparatus to or from the Norsk Kleber without the express written permission of Norsk Kleber or its U.S. importer, Hestia Industries. This warranty does not cover a stove repaired by someone other than a Norsk Kleber authorized dealer and is not part of this 5 year warranty.
5. This warranty is automatically voided if the appliance's serial number has been removed or altered in any way. If the appliance is used for commercial purposes, it is excluded from this warranty.
6. No dealer, distributor, or similar person has the authority to represent or warrant Norsk Kleber products beyond the terms contained within this warranty. Norsk Kleber assumes no liability for such warranties or representations.
7. If for any reason any section of this warranty is declared invalid, the balance of the warranty remains in effect and all other clauses shall remain in effect.

8. This 5 year warranty is the only warranty supplied by Norsk Kleber., the manufacturer of the appliance. All other warranties, whether express or implied, are hereby expressly disclaimed and purchaser's recourse is expressly limited to the warranties set forth herein.

IF WARRANTY SERVICE IS NEEDED:

1. If you discover a problem that you believe is covered by this warranty, you **MUST REPORT** it to your Norsk Kleber dealer **WITHIN 30 DAYS**, giving them proof of purchase, the purchase date, and the model name and serial number.
2. Norsk Kleber has the option of either repairing or replacing the defective component.
3. If your dealer is unable to repair your soapstone stove defect, he may process a warranty claim through Norsk Kleber, including the name of the dealership where you purchased the appliance, a copy of your receipt showing the date of the stoves purchase, and the serial number on your stove.
4. Check with your dealer in advance for any costs to you when arranging a warranty call. Mileage or service charges are not covered by this warranty. This charge can vary from store to store.
5. Any appliance or part thereof that is repaired or replaced during the limited warranty period will be warranted under the terms of the limited warranty for a period not to exceed the remaining term of the original limited warranty or three (3) months, whichever is longer.