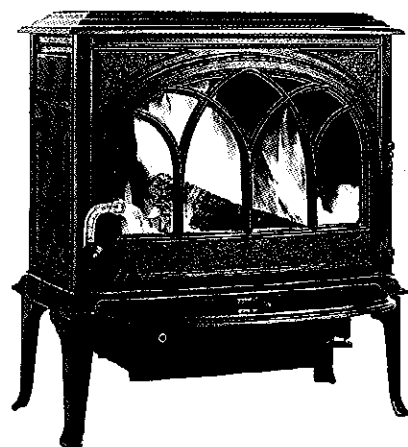


# Jøtul F 400

Installation and Operating Instructions for USA/Canada	2
Montering- og bruksanvisning - Norsk	20
Installation and Operating Instructions - English	26
Manuel d'installation et d'utilisation - Français	31
Instrucciones para instalación - Español	36
Manuale di installazione ed uso - Italiano	42
Montage- und Bedienungsanleitung - Deutsch	47
Installatie- en montagehandleiding - Nederlands	53



## Table of Contents

### Standards and Safety Notices

Standards / Codes .....	2
Safety Notices .....	3
Installation .....	3

### Assembly Before Installation

Unpack the Stove .....	4
Flue Collar Reversal .....	4
Chimney Connector .....	4
Chimney Requirements .....	4
Masonry Chimneys .....	4
Prefabricated Chimneys .....	5
Chimney Height .....	5
Wall Pass-Throughs .....	5

### Connecting to the Chimney

Masonry Chimney .....	6
Hearthmount / Fireplaces .....	6
Prefabricated Chimneys .....	6

### Clearances to Combustibles

Floor Protection .....	6
Clearances to Walls and Ceilings .....	6
Using Shields to Reduce Clearances .....	7
Alcove Installation .....	7
Mobile Home Installation .....	7
Clearance Diagrams .....	8
Clearance Chart .....	9

### Operation

Wood Fuel .....	10
Controls .....	10
Break-in Procedure .....	10
Starting / Maintaining the Fire .....	10
Adding Fuel .....	11
Formation of Creosote .....	11

### Maintenance

Ash Removal .....	11
Glass Care .....	11
Cleaning .....	11
Glass Removal .....	12

### General Maintenance

Gaskets .....	12
Gasket replacement .....	12
Gasket List .....	12
Chimney System .....	12

### Accessories

Firescreen .....	12
Stove-top Thermometer .....	12
Outside Air Kit .....	12
Floor Bracket Kit .....	13
Rear Heat Shield .....	13
Bottom Heat Shield .....	13

### Illustrations

Figures .....	14 - 17
Parts Diagram and List .....	18
Appendix A .....	
Alternate Floor Protection .....	18

## Safety Notices

- **Burn solid wood fuel only.**
- **Do not use chemicals or fluids to start the fire. Do not burn garbage 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.**
- **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.**
- **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. In some cases, the optional Outside Air Kit #154335 can be used to alleviate this condition. 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 Jøtul authorized dealer regarding specific installation/performance issues.**
- **Jøtul recommends that this stove be installed by a professional solid fuel technician or that you consult one if you do the work yourself. Also, consult your insurance company regarding any other specific requirements.**

## Installation

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

Your local officials have final authority in determining if a proposed installation is acceptable. Any requirement by the local authority having jurisdiction that is not specifically addressed in this manual, defaults to NFPA 211, and local codes in the U.S. or in Canada, CAN/CSA-B365-M and local codes.

# USA/Canada

## Assembly Before Installation

### Unpack the Stove

Inspect the stove for damage. Contact your dealer immediately if any damage is found. Do not install the stove if any damage is evident.

#### Contents:

- Inspection Cover (Not for use in US/Canada)
- Door Handle
- Hardware Bag

### Flue Collar Reversal

The Flue Collar is oriented in the Top Exit position. If a Rear Exit position is required, remove the two mounting bolts, and turn the collar 180 degrees. Secure the collar using the same bolts, nuts and washers.

### Chimney Connector

Use 6" single wall or listed 6" double-wall stovepipe to connect the stove to the chimney. Single wall stovepipe must be black iron 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 regarding chimney connector construction:

- **Do not use chimney connector as a chimney. It is intended only for use as a connection device.**
- Each connector section must be oriented with the male (crimped) end pointing toward the stove. See **fig. 2**.
- Secure all connector joints with three sheet metal screws.
- 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). The maximum horizontal run should not exceed 3 ft. (92 cm) with a 1/4" rise per foot.**
- 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 servicing another appliance.**

## Chimney Requirements

There are two types of chimneys suitable for the Jøtul F 400:

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 or ULC S629.

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.

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 masonry chimney on the exterior of a house will give the poorest performance. This is because it can be very difficult to warm the chimney thereby creating inadequate draft. In extremely cold climates, it may be necessary to reline the chimney or extend its 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. Consult them prior to installation.

**Do not connect the stove to any air distribution duct or system.**

## Masonry Chimneys

When installing the Jøtul F 400 into a masonry chimney you must conform to all of the following guidelines:

- 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 1/4" (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.
- No other appliance may be vented into the same flue.
- An airtight clean-out door should be located at the base of the chimney.

## Prefabricated Chimneys

A prefabricated metal chimney must be tested and listed for use with **solid fuel burning appliances**. High Temperature (HT) Chimney Standard UL 103 for the U.S. and High Temperature Standard ULC S-629 for Canada.

The manufacturer's installation instructions must be followed precisely. Always maintain the proper clearance to combustibles as established by the pipe manufacturer. This clearance is usually a minimum of 2", although it may vary by manufacturer or for certain chimney components.

## Chimney Height

The chimney must 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 **figure 3**.

Chimneys shorter than 14 feet (4.27 m) 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.

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 Jøtul dealer is an expert resource to consult regarding draft issues or other performance-related questions.

## Wall Pass-Throughs

### In the U.S.

The National Fire Protection Association's publication, NFPA 211, *Standard for Chimneys, Fireplaces, 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 **figures 4 and 5**. 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" x 31" (78.7 x 78.7 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 fh 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.

### 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" x 43" (109.2 x 109.2) 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**. Consult your local building inspector, authorized Jøtul Dealer, NFPA 211 in the U.S. or CAN/CSA-B365 in Canada for other approved wall pass-through methods.

# USA/Canada

## Connecting to the Chimney

### Masonry Chimney

When installing a Jøtul F 400 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 **figure 5**.

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.**

### Hearthmount into a Masonry Fireplace

The Jøtul F 400 may be installed into a masonry fireplace provided the height of the opening is a minimum of 29 1/2". Use of the Short Leg Package will reduce the stove height by 2 1/4" (57 mm).

Building code requires that the fireplace damper plate be removed or securely fixed in the open position. A connector pipe must then extend from the stove's flue exit through the damper area of the fireplace and into the chimney tile liner. See **figure 6**.

The inside area of the flue liner must not be less than the area of the stove flue collar and cannot be more than three times greater than the cross sectional area of the stove flue collar.

If the chimney liner is too large to accommodate the stove, an approved relining system must be installed to resize the flue.

A new sheet metal damper block-off plate must be installed around the connector pipe at the damper frame and sealed with the proper sealant (usually High-Temp Silicone).

### Prefabricated Chimneys

When connecting the Jøtul F 400 to a prefabricated metal chimney always follow the pipe manufacture's instructions and be sure to use the components that are required. This usually includes some type of “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 three sheet metal screws. See **figure 7**.

## Clearance to Combustibles

### Floor Protection (For both U.S. and Canada)

The Jøtul F 400 requires *one* of the following three forms of hearth protection:

1. Any UL, ULC or WH listed hearth board. (No bottom heat shield required).
2. Any noncombustible material that has a minimum R-value of 2.0. (No bottom heat shield required.)
3. Any noncombustible material with the use of the stove's bottom heat shield.

All forms of protection must include a noncombustible surface extending a minimum of 18" (460 mm) in front of the stove, and 8" (200 mm) from the sides and back of the stove (measured from side and back panels).

This will result in a minimum floor protection of 42"W X 44"D. See **figure 8**.

In a rear vent installation, the floor protection must also extend under the stove pipe a minimum of 2" (50 mm) beyond either side of the pipe. See **figure 8**.

Consult appendix A at the back of this section for alternate floor protection methods and materials.

### Clearances to Walls and Ceilings

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 Jøtul F 400.

A combustible surface is anything that can burn (i.e. sheet rock, wall paper, wood, fabrics etc.). These surfaces are not limited to those that are visible and also include materials that are behind noncombustible materials.

If you are not sure of the combustible nature of a material, consult your local fire officials.

Remember: “Fire Resistant” materials are considered combustible; they are difficult to ignite, but will burn. Also “Fire-rated” sheet rock is also considered combustible.

Contact your local building officials about restrictions and installation requirements in your area.

**See pages 8-9 for complete clearance requirements and diagrams.**

## Using Shields to Reduce Clearances

**Chimney Connector Heat Shields:** Use only connector heat shielding listed for use with solid fuel heaters. The connector heat shield must begin 1" above the lowest exposed point of the connector pipe and extend vertically a minimum of 25" (640 cm) above the top surface of the stove.

**Double Wall Connector:** Listed double wall pipe is an acceptable alternative to connector pipe heat shields.

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

- **In the U.S. refer to NFPA 211, Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances**, for acceptable materials, proper sizing and construction guidelines.
- **In Canada, refer to CAN/CSA-B365, Installation Code for Solid-Fuel Burning Appliances and Equipment**, also for acceptable materials, proper sizing and construction guidelines.

**Stove Mounted Heat shield:** Rear Heat Shield #154385 is approved for use with the Jøtul F 400 in the US. and Canada. **No other heat shield may be used.**

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

## Alcove Installation

The Jøtul F 400 can be installed in an Alcove as diagrammed in **figures 9 and 10.**

1. The stove *must be* installed with listed double wall pipe.
2. In a protected alcove installation both side walls and rear wall must be protected per NFPA 211 or CAN/CSA-B365. The wall protection must be elevated 1" (25 mm) from the floor and spaced at least 1" (25 mm) off the combustible wall, using noncombustible spacers, to allow for air circulation behind the shield.
3. The height of the wall protection including the bottom air space must be 48" (121 cm).
4. The Bottom Heat Shield **is required in all** Alcove installations.
5. Alcove floor protection must consist of a UL/ULC or WHI listed hearth pad **or** a non combustible material with a minimum R value of 2.0.
6. Minimum ceiling height in an **unprotected** installation, off the top of the stove is 58" (148 cm). The minimum ceiling height off the top of the stove in a **protected** ceiling installation is 36 (91.5 cm).

## Mobile Home Installation

The Jøtul F 400 has been approved for use in mobile homes in the U.S. and Canada with the following stipulations:

1. The stove must be secured to the floor of the mobile home. Use Floor Bracket Kit #750304.
2. The stove is provided outside air for combustion. Outside Air Kit #154335 (see page 16 for more details).
3. Use only listed double-wall pipe for the chimney connection.
4. The stove must be grounded to the mobile home chassis.
5. The stove must otherwise be installed in accordance to 24CRR, Part 3280 (HUD).

Consult with your local building inspector or fire officials about restrictions and requirements in your area, prior to installing the stove.

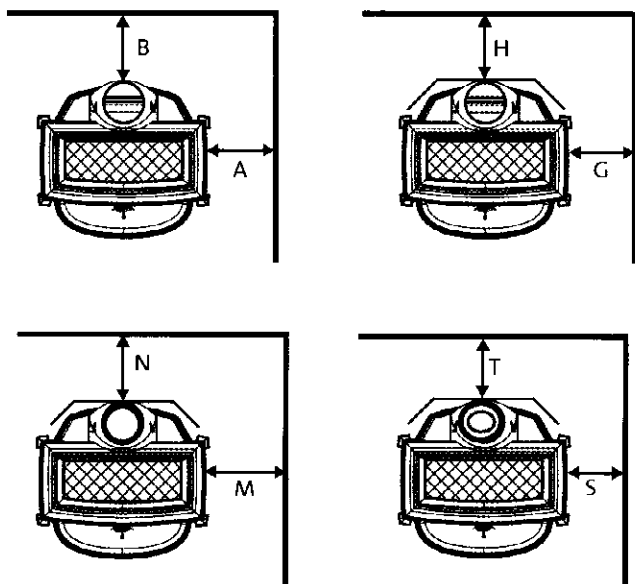
### Warning!

**Do not install this stove in a bedroom/sleeping room. Do not install the stove in any way that might compromise the structural integrity of the mobile home floor, walls, ceiling, or roof.**

USA/Canada

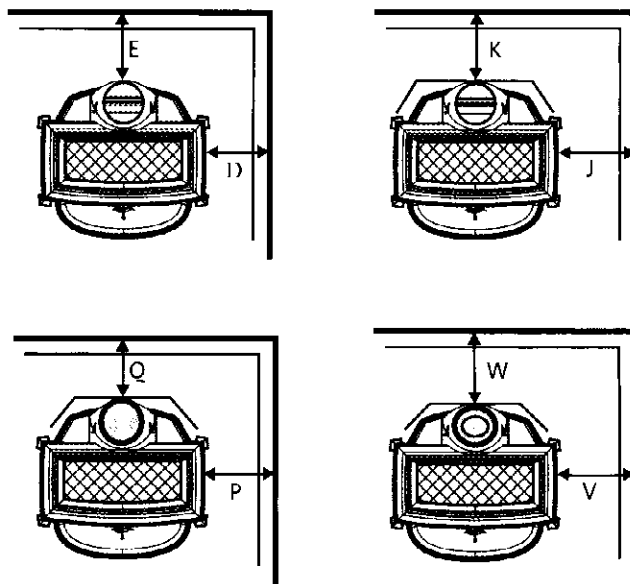
## Jøtul F 400 Woodstove Clearances

### Unprotected Surface Parallel to the Wall



### Protected Surface Parallel to the Wall

PER NFPA 211 or  
CAN/CSA-B365



**Important:**  
Connector heatshields and double wall pipe must be a listed product.  
Always follow the manufacturer's instructions.

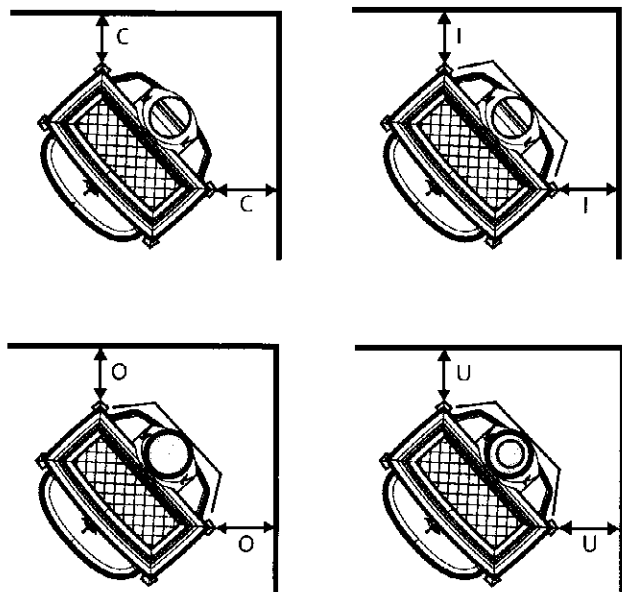


= SINGLE WALL PIPE WITH CONNECTOR SHIELDS



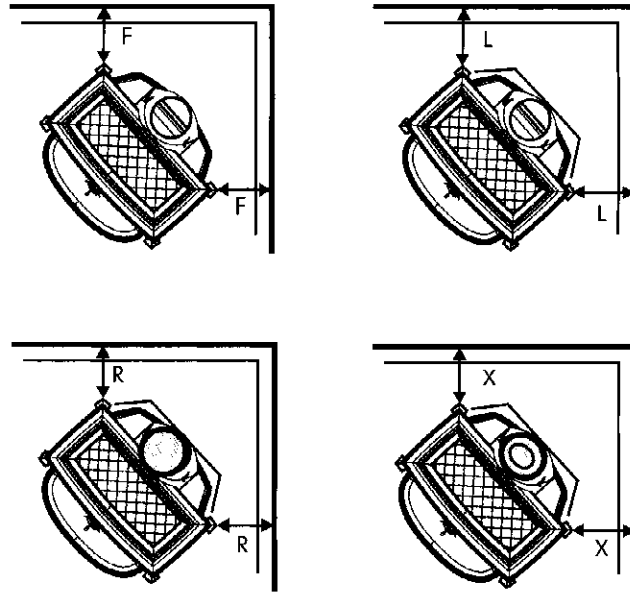
= DOUBLE WALL PIPE

### Unprotected Surface Corner Installation



### Protected Surface Corner Installation

PER NFPA 211 or  
CAN/CSA-B365



# Jøtul F 400 Woodstove Clearances

Stove Clearances	Unprotected Surface Installation			Protected Surface Installation PER NFPA211 OR CAN/CSA -B365-M93		
	<b>Side</b> 19" A 485mm	<b>Rear</b> 25" B 635mm	<b>Corner*</b> 18" C 460mm	<b>Side</b> 11" D 280mm	<b>Rear</b> 7" E 180mm	<b>Corner*</b> 8" F 205mm
Stove -no heatshield single wall pipe						
Stove -with rear heatshield single wall pipe	18" G 460mm	18" H 460mm	13" I 330mm	11" J 280mm	7" K 180mm	8" L 205mm
Stove -no heatshields double wall pipe	16" 405mm	19" 485mm	13" 330mm	8" 205mm	7" 180mm	6" 150mm
Stove -with rear heatshield with connector shield	15" M 380mm	7" N 180mm	11" O 280mm	8" P 205mm	7" Q 180mm	6" R 150mm
Stove -rear heatshield with double wall pipe	15" S 380mm	7" T 180mm	11" U 280mm	8" V 205mm	7" W 180mm	6" X 150mm
<b>Connector Clearances (Pipe)</b>	<b>Unprotected Surface Vertical Installation</b>			<b>Protected Surface Vertical Installation</b> per NFPA211 OR CAN/CSA-B365-M93		
Single wall pipe	25" 635mm			12" 300mm		
Single wall pipe with rear heatshield	18" 460mm			7" 180mm		
Single wall pipe with connector shields	7" 180mm			7" 180mm		
Double wall pipe	7" 180mm			7" 180mm		
<b>Connector Clearances (Pipe)</b>	<b>Unprotected Surface Horizontal Installation</b>			<b>Protected Surface Horizontal Installation</b> per NFPA211 OR CAN/CSA-B365-M93		
Single wall connector	18" 460mm			7" 180mm		
Double wall Pipe	6" 150mm			6" 150mm		
<b>Mantel and Trim Clearances</b>	Stove to 1" thick or less, side trim			13" 300mm		
	Stove to 1" thick or less, top trim			23" 585mm		
	Stove to mantel- maximum mantel depth 12"			25" 635mm		



USA/Canada

## Operation

Please read the following section completely, before building a fire in your new Jøtul F 400.

### Use Solid Wood Fuel Only

First this stove is designed to burn natural wood only. Wood that has been air-dried for a period of 6 to 14 months will provide the cleanest, most efficient heat.

#### Do not burn:

- |            |                             |
|------------|-----------------------------|
| *Coal      | *Treated or painted wood    |
| *Garbage   | *Chemical Chimney cleaners  |
| *Cardboard | *Colored paper              |
| *Solvents  | *Any synthetic fuel or logs |

The burning of any of these materials can result in the release of toxic fumes. Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen-up" the fire. Always keep such liquids away from the heater at all times.

**Important:** Never build or allow the fire to rest directly on the glass panel. The logs should always be spaced at least one inch from the glass to allow for proper air flow within the firebox.

### Controls on the Jøtul F 400

Combustion air is controlled by the Primary Air Lever, located above the ashlip on the front of the stove. The lever actuates a shutter over the air inlet which regulates the volume of primary air entering the firebox and affects heat output and burn time.

**When first starting or reviving the fire: the primary control lever should be at the far right position**, which allows the maximum amount of air into the stove. The greater the amount of air entering the stove, the hotter and faster the fire will burn. **Moving the lever to the left** reduces the airflow into the stove which prolongs the fire at a lower heat output. See figure 11.

### Air Flow / Performance

Primary air enters the firebox directly above the glass panel on the door. The incoming air creates a turbulent barrier or "airwash" between the glass and the fire. Reducing the flow of primary air directly reduces the effectiveness of the airwash. Determining the primary air setting for the best overall performance for your particular needs and installation will only be established over time through trial and error.

### Break-In Procedure

The Jøtul F 400 is constructed of cast iron and stove furnace cement. This type of construction requires the stove to be "broken-in" gradually so that heat expansion

# IMPORTANT

does not occur too quickly and cause damage. The following steps describe the proper break-in procedure for the Jøtul F 400:

1. Light a small fire of newspaper and kindling. Only allow the stove to reach a maximum surface temperature of 200°F (93°C). Burn for approximately 1 hour.
2. Allow the stove to cool to room temperature.
3. Light a second fire, allowing the stove to reach a maximum temperature of 300°F (149°C) for 1 hour.
4. Cool the stove to room temperature.
5. Light a third fire and gradually allow the stove to reach a surface temperature of 400°F (204°C).
6. Cool stove to room temperature. This completes the "break-in" procedure.

To monitor the stove's temperature, use a magnetic stove-top thermometer, *placed directly on the corner of the stove's top plate.*

**Note:** Keep the stove under 400°F (204°C) surface temperature during any "break-in fire", with the exception of the last "break-in" fire. If the temperature exceeds 400°F, move the primary air control lever all the way to the left to shut off the air supply completely. It is normal that the stove top temperature will continue to climb until the fuel burns down somewhat. Once the fire is out and the stove has cooled to room temperature, continue the break-in procedure. **Never attempt to reduce the temperature by removing burning logs from the fire.**

**Note:** It is normal for a new painted stove to emit an odor and smoke during its first several fires. This is caused by the seasoning of the high temperature paint and will diminish with each fire. Opening a window or door to provide additional ventilation will alleviate this condition.

### Starting and Maintaining a Fire

Burn only solid wood directly on the bottom grate of the stove. Do not elevate the fire in any way.

- The ash pan door on the stove must always be securely closed when the stove is in operation.
  - Burning the stove with the Ash Door open will over-fire the stove and cause interior damage.
1. With the primary air control lever in the full open position (*to the right*), start with several sheets of crumpled newspaper placed directly on the grate. On top of the newspaper, place several pieces of small dry kindling (approx. 1" in diameter) with two to three larger logs (approx. 3" to 5" in diameter) on top.
  2. Light the fire and close the door, slowly building the fire by adding larger and larger logs. Be sure to follow the break-in procedure before creating a hot fire that might damage the stove.
  3. Once the stove has reached a surface temperature range of between 400° and 600°, (204°C - 316°C), adjust the primary air control lever as necessary to generate the heat output and burn time desired. Jøtul recommends use of a magnetic stove top thermometer to monitor the surface temperature of the stove. The optimum surface temperature range for

the most efficient burn is between 400° and 600° (204°C-316°C).

See **figure 12** for the best locations to place a stove-top thermometer.

***Never overfire the stove. If any part of the stove or chimney glows, you are overfiring. A house fire or serious damage to the stove or chimney could result. If this condition occurs, immediately close down the air control.***

## Adding Fuel

When reloading the stove while it is still hot and a bed of hot embers still exist, follow this reloading procedure:

- Always wear gloves when tending to the stove.
- Push the air control lever to the full open position (far right).
- Wait a few seconds before opening the door.
- Use a stove tool or poker to distribute the hot embers equally around the firebox.
- Load the fuel, usually with smaller logs first.
- Close the door, be sure to latch the door tightly.
- Wait 5 – 10 minutes before adjusting the primary air to the desired heat output setting. (If you have at least a 2" thick ember bed when reloading, it may be possible to close the door and immediately adjust the air control setting).

## The Formation of Creosote

When wood is burned slowly and at low temperatures, it produces tar and other organic vapors, which combine with moisture to form creosote. The slow moving smoke carries the creosote vapors, which condense in the cooler chimney flues, and this creosote then sticks to the chimney walls.

The creosote that accumulates in the chimney is highly flammable and is the fuel of chimney fires. To prevent chimney fires it is important to have the chimney and chimney connector pipe inspected and/or cleaned semiannually. 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. Be sure to follow the installation and operation guidelines established in this manual.

# Maintenance

## Ash Removal

For your protection always wear safety gloves when handling the ash pan.

Ash removal will be required periodically depending on how frequently the stove is used. The Jøtul F 400 is equipped with an exterior ash pan assembly that allows easy ash removal without opening the front door.

The ash pan door is located under the front ashlip of the stove. To open the ash door, engage the receptacle end of the door handle with the square fitting on the ash door latch. Rotate the door counterclockwise to unlatch the door and clockwise to latch the door.

**With a gloved hand**, grasp the ash pan handle and remove the ash pan. Always close the ash pan door before leaving to dispose of the ashes.

The ashes should be placed in a metal container equipped with a tight sealing lid. The container should be placed on a noncombustible 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.

## Glass Care

### Cleaning

On occasion it will be necessary to clean the carbon deposits and fly ash off of the glass. If the carbon and fly ash are allowed to remain on the glass for an extended period of time it could eventually cause the glass to become etched and cloudy. Any creosote that might develop on the glass will burn off during the next hot fire.

Follow this cleaning procedure:

1. Glass needs to be **completely cool**.
2. Only use a cleaner that is specifically designed for this purpose. The use of abrasives will damage the glass and ultimately leave the glass frosted.
3. Rinse and dry glass completely before burning the stove.

**Caution!** Always operate the door slowly and carefully 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 replacement procedure below. **Never operate the stove with a cracked or broken glass panel.**

**Important:** Replace glass only with ceramic glass panel specifically designed for the Jøtul F 400. Do not use substitutes. Replacement glass is available from your local Jøtul dealer.

# USA/Canada

## Glass Removal

1. Remove the door from the stove and place on a flat surface.
2. Carefully remove all of the glass clips from the inside of the door.
3. Gently remove the glass panel and gasketing.
4. Using a wire brush, remove all remaining debris from the glass area .
5. Apply a small bead of gasket/stove cement and the new gasket. Do not overlap the ends of the gasket rope.
6. Center the new glass panel over the gasket and reinstall the glass clips. See **figure 13**.
7. It may be necessary to retighten the glass clips after the stove has be burned and the gasketing has been seated.

**Important:** It is extremely important to tighten the glass clips slowly and in an alternating pattern as you would tighten the lugs on an automobile wheel.

## General Maintenance

As with your car, regular maintenance will prolong the life of your stove and ensure satisfactory performance.

At least once per year you should perform the following maintenance procedures:

- Thoroughly clean the stove. Use a soft cloth with soap and water to clean enamel surfaces. Be sure the stove is cold, before cleaning.
- Empty stove of all soot and ashes. Only use a vacuum for this job if the vacuum is specifically designed for ashes.
- Inspect the stove seams. Use a utility light to inspect the stove inside and out for cracks or leaks. Replace all cracked parts and repair any cement leaks with furnace cement.

## Gaskets

Check door and glass panel gaskets for tightness. To check the seal of the front door, close and latch the door on a dollar bill and slowly try to pull the dollar bill free. If it can be easily removed, the seal is too loose. Check several spots around the door, and repeat the procedure on the ash pan door as well.

## Gasket Replacement

1. Use pliers and a putty knife to remove the old gasket from the door.
2. Thoroughly clean the channel with a wire brush.
3. Apply a small bead of cement to the channel.

4. Gently press the new gasket into the cement to seat it in the channel. Close and latch the door and then reopen. Wipe any excess cement squeezed out from around the gasket.

## Gasket List for the Jøtul F 400

Description	Size	Length
Top Plate Gasket	3/8" LD	7'
Smoke Outlet Gasket	3/16" LD/SA	3'
Ash Housing Gasket	3/16" LD/SA	4'
Ash Door Gasket	5/16" LD	4'
Glass Gasket	3/8" LD	5'
Door Gasket	5/16" LD	5,8'

## Chimney System

The Jøtul F 400 is designed to burn cleanly and efficiently when used according to the guidelines in this manual. In order to maintain proper performance, you should inspect the chimney and chimney connector at least twice a year and clean when creosote and fly ash deposits exceed 1/4" in any part of the system. Failure to keep the chimney system free of creosote and build up could result in a serious chimney fire.

## Accessories

Use only accessories that are specifically designed for use with the Jøtul F 400 .

## Firescreen (# 129650)

The Jøtul F 400 has been approved for use as an open fireplace, with front door open. Care should be taken when operating the stove as a fireplace.

- Always have the Firescreen in place, attached to the stove front.
- Never overload the stove. For the best appearance, burn logs in the traditional three log configuration.
- When you operate the stove with the screen in place, efficiency is sacrificed for the sake of aesthetics, much as with a conventional fireplace. Wood will burn at a much faster rate as combustion air is uncontrolled. Most of the heat value of the wood will be lost up the chimney.

Not all installations will support the use of the firescreen. Moderate or low draft conditions may result in smoke spillage from the stove when using the firescreen.

**Warning:** Operate your Jøtul F 400 with the front door fully open and the firescreen in place or fully closed. A partially opened door may result in overfiring. Also, if the door are left partly open, gas and flame may be drawn out of the stove opening, creating risks from both fire and smoke.

## Stove-Top Thermometer (# 5002)

Jøtul recommends the use of a magnetic stove-top thermometer to monitor the surface temperature of the stove. The optimum surface temperature range for the most efficient, clean burn is between 400° and 600°.

## Outside Air Kit (#154335)

Your local building code may require that an outside air supply be connected to the stove. Jøtul Outside Air Kit 154335 must be used in these installations unless otherwise specified by the local code official. While the use of outside air may be beneficial in some installations, in itself, such a system does not guarantee proper chimney performance.

The Outside Air Kit includes an adapter collar to attach the air duct to the stove. Installation will require these additional materials not included in the kit:

1. 3" (80 mm) diameter flexible metallic Air Duct - of appropriate length to reach from the stove to the outside of the house.
2. Weatherproof Duct Cap for the duct termination on the outside of the house.
3. Rodent Screen - no larger than 1/4" (5 mm) mesh.

### Outside air should be considered if:

1. The stove does not "draw" steadily. Smoke rollout occurs when the door are opened. Fuel burns poorly. Backdrafts occur with or without a fire burning.
2. Other fuel-fired equipment in the house, such as fireplaces or other heating appliances, smell, do not operate properly, suffer smoke roll-out when opened, or back-draft whether or not there is combustion present.
3. Opening a window slightly on a calm (windless) day alleviates any of the above symptoms.
4. The house is equipped with a well-sealed vapor barrier and tight fitting windows and/or has any powered devices that exhaust house air.
5. There is excessive condensation on the windows in the winter.
6. A ventilation system is installed in the house.

If these or other indications suggest that infiltration air is inadequate to supply sufficient air for the stove, additional combustion air should be provided from the outdoor. Outside combustion air can be provided to the appliance by the following means:

1. **Direct connection:** The Jøtul F 400 has been tested and approved for use with the outside air kit listed above.
2. **Indirect method:** Outside air is ducted to a point no closer than (12") 300 mm from the stove, to avoid affecting the performance of the appliance.
3. **A mechanical ventilation system:** If the house has a ventilation system (air change or heat recovery):
  - a. The ventilation system may be able to provide sufficient combustion makeup air for the solid-fuel appliance.
  - b. The homeowner should be informed that the ventilation system might need to be rebalanced by a ventilation technician after installation of the appliance.

**Note:** *Provision of outside air to the stove, directly or indirectly, may fail to remedy the problems outlined above. Chimney performance is determined by a variety of interelating factors which may not be affected by the air supply. Your local Jøtul authorized dealer is your best resource for information regarding chimney and stove performance issues.*

## Floor Bracket Kit (#750304)

Use of the Floor Bracket Kit is required in all mobile home installations to secure the stove to the floor. Complete installation instructions and diagrams are supplied with each Floor Bracket Kit.

## Rear Heat Shield (# 154385)

A stove rear heat shield has been specifically designed for the Jøtul F 400 to reduce clearances off the rear of the stove to combustible materials. Use of the heat shield **does not** affect the clearance off the sides of the appliance. See pages 8-9 for specific clearance requirements. Complete installation instructions are supplied with the heat shield.

No other type of heat shield may be used on the rear of the Jøtul F 400 .

## Bottom Heat Shield (# 154384)

The bottom heat shield supplied with your stove has been specifically designed for the Jøtul F 400 . It is required in all alcove installations. Use of the bottom heat shield **does not** affect the floor protection requirements described on page 6 of this manual.

No other type of heat shield may be used on the bottom of the Jøtul F 400 .

USA/Canada

Fig. 1

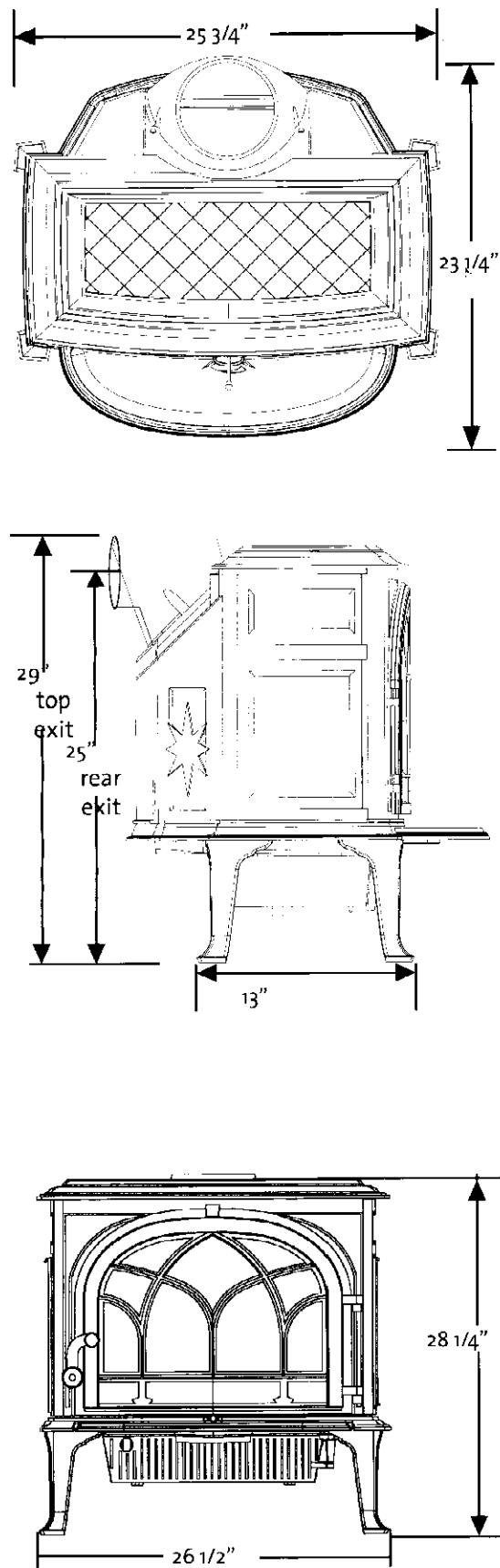


Fig. 2

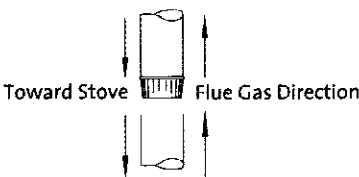


Fig. 3

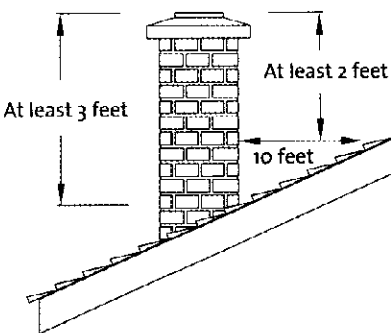


Fig. 4

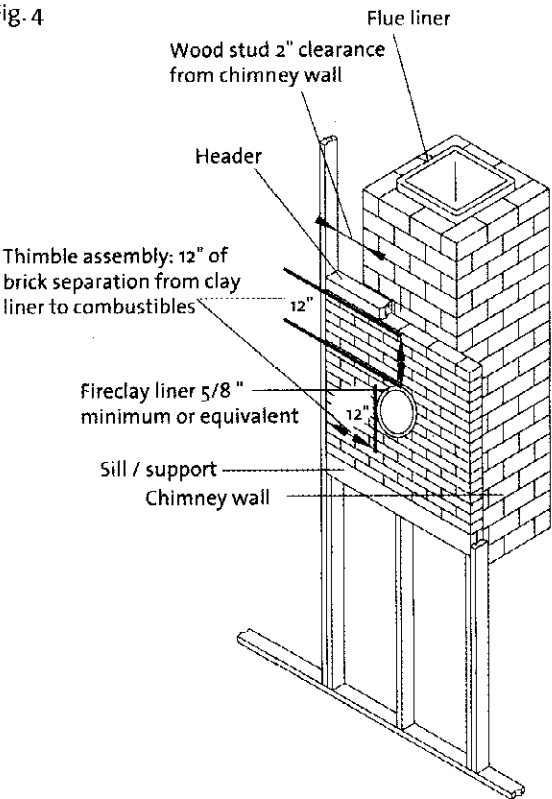


Fig. 5

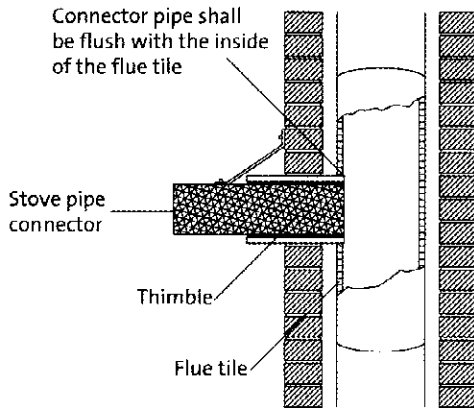


Fig. 8

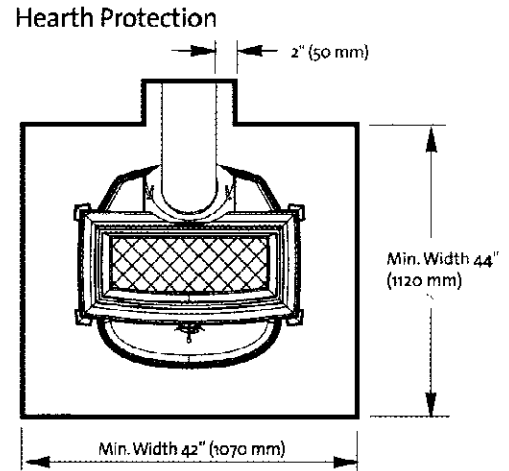


Fig. 6

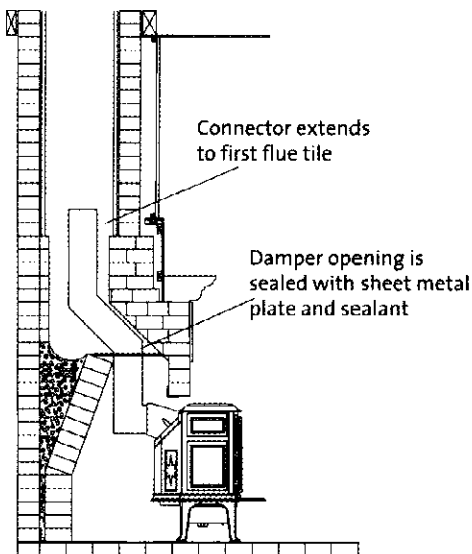


Fig. 9

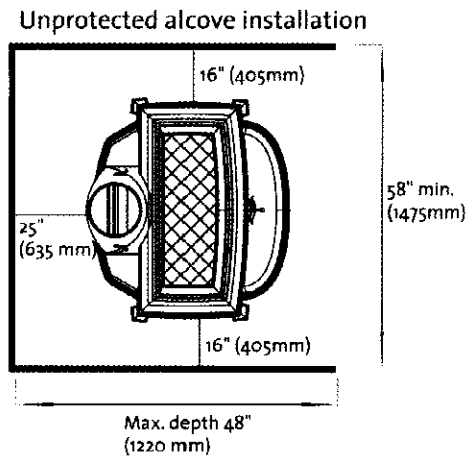


Fig. 7

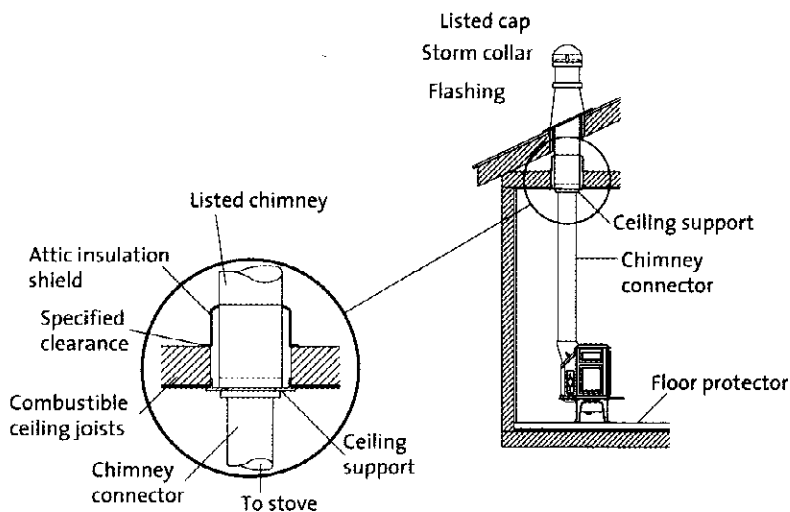
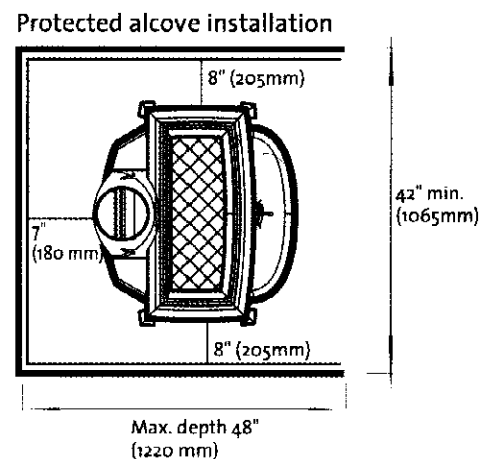


Fig. 10



Protection and air space must comply with NFPA 211OR CAN/CSA-B365.

Fig. 11

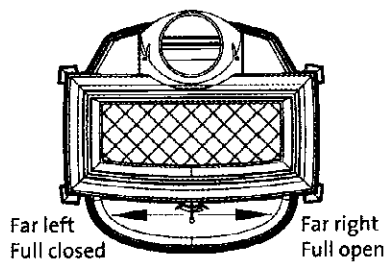


Fig. 12

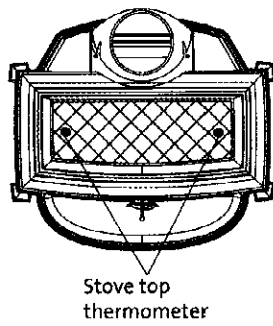
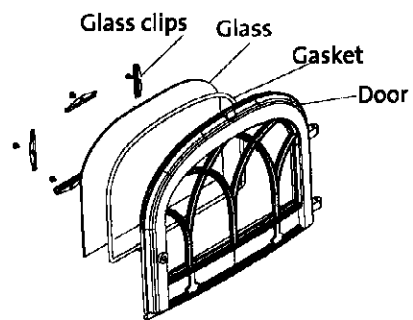
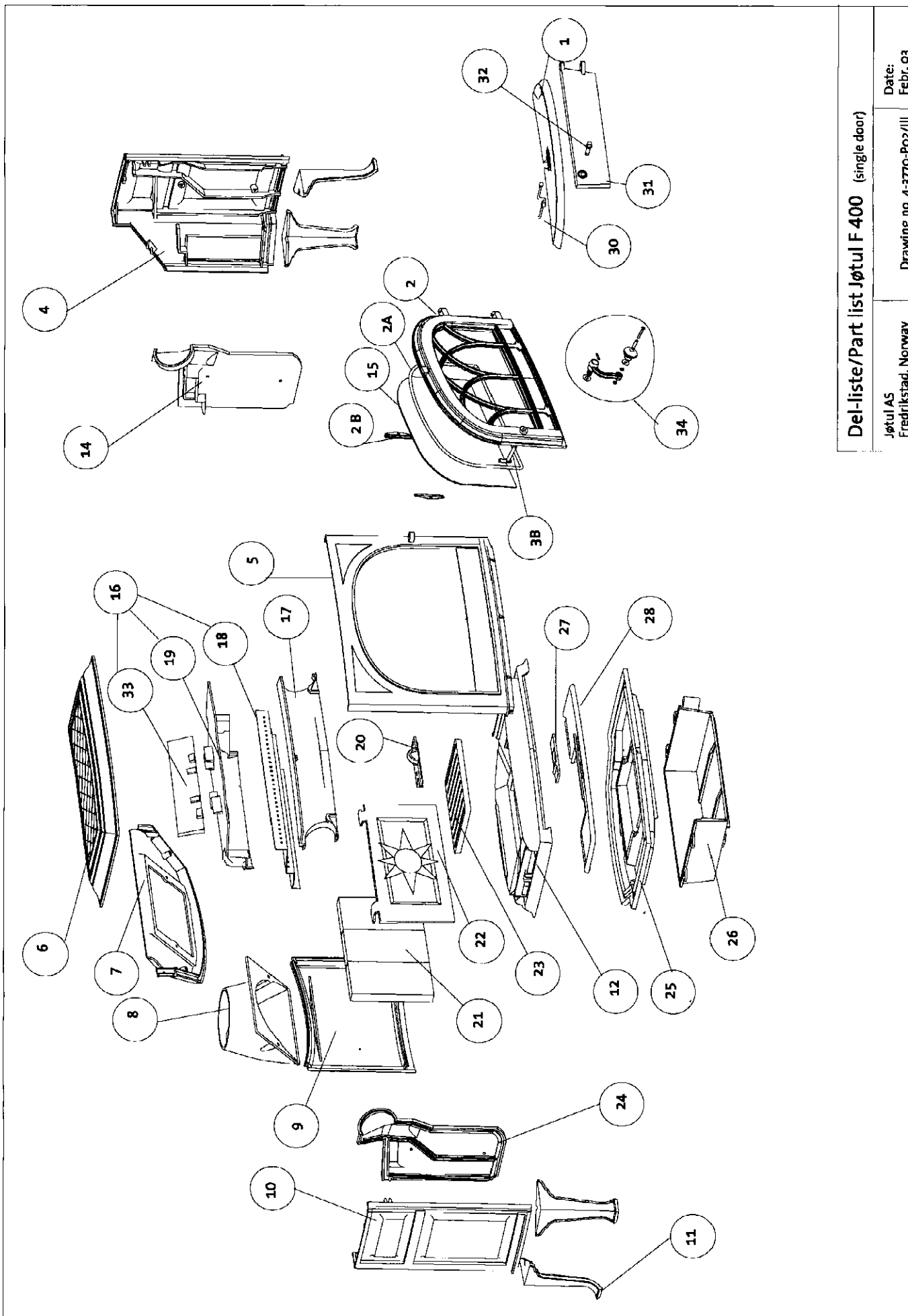


Fig. 13





Del-liste/Part list Jøtul F 400 (single door)

Jøtul AS  
Fredrikstad, Norway

Drawing no. 4-3770-P02/III.

Date:  
Febr. 03



# USA/Canada

## Parts list for the Jøtul F 400 woodstove

Consult your dealer for part numbers and replacement parts.

- 1 Ashlip
- 2 Door
- 2A Gasket
- 2B Glass clips
- 3B Latch
- 4 Right side panel
- 5 Front panel
- 6 Top casting
- 7 Upper back panel
- 8 Smoke outlet
- 9 Back panel
- 10 Left side panel
- 11 Leg (long leg)
- 12 Upper bottom panel
- 13 Front door handle
- 14 Right burn plate
- 15 Glass panel
- 16 Airchamber
- 17 Air wash manifold
- 18 Top baffle (stainless steel)
- 19 Baffle cover (cast iron)
- 20 Air inspection cover
- 21 Rear burn plate
- 22 Fire brick (3)
- 23 Bottom grate
- 24 Left burn plate
- 25 Lower bottom panel
- 26 Ashpan housing
- \* Ashpan
- 27 Air slider/valve
- 28 Air divider
- 30 Air control lever (chrome)
- Allen head screw
- 31 Ashpan door
- \* Ashpan door pin
- 32 Ash door handle
- 33 Baffle plate II
- 34 Latch compl.
  
- \* Not shown

## Appendix A

### Alternate floor protection

All floor protection materials must be non-combustible (ie. metal, brick, stone, mineral fiber boards). Any combustible material may not be used.

The easiest means of determining if a proposed alternate floor material meets requirements listed in this manual is to follow this procedure.

R-value = thermal resistance

k-value = thermal conductivity

C-value = thermal conductance

1. Convert the specification to R-value;
  - a. If R-value is given, no conversion is needed.
  - b. If k-value is given with a required thickness (T) in inches:  $R = 1/k \times T$ .
  - c. If C-value is given:  $R = 1/C$ .
2. Determine the R-value of the proposed alternate floor protector.
  - a. Use the formula in Step 1 to convert values not expressed as "R".
  - b. 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" thick material with a k-factor of 0.84. The proposed alternate is 4" brick with a C-factor of 1.25 over 1/8" mineral board with a k-factor of 0.29.

**Step A.** Use formula above to convert specifications to R-value.  $R = 1/k \times T = 1/.84 \times .75 = .893$

**Step B.** Calculate R of proposed system.

- 4" brick of C-1.25, therefore
- $R \text{ brick} = 1/C = 1/1.25 = 0.80$ .
- 1/8" mineral board of  $k = 0.29$  therefore
- $R \text{ mineral board} = 1/.29 \times 0.125 = 0.431$

Total R = R brick + R mineral board =  
 $0.8 + 0.431 = 1.231$

**Step C.** Compare proposed system R = 1.231 to specified R of 0.893. Since R is greater than required, the system is acceptable.

#### Definitions:

Thermal conductance =

$$C = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{F})} = \frac{\text{W}}{(\text{m}^2)(\text{K})}$$

Thermal conductivity =

$$k = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{F})} = \frac{\text{W}}{(\text{m}^2)(\text{K})} = \frac{(\text{Btu})}{(\text{hr})(\text{ft})(\text{F})}$$

Thermal resistance =

$$R = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{F})} = \frac{(\text{m}^2)(\text{K})}{\text{W}} = \frac{(\text{Btu})(\text{inch})}{(\text{hr})(\text{ft}^2)(\text{F})}$$

The Jøtul F 400 Castine woodstove requires floor protection with a minimum insulating R value of 0.5.

Alcove installation require a minimum R value of 1.6. (If a ul/ulc or whi listed hearth pad is not used.)

# ENGLISH

## Table of contents

### Relationship to the authorities

Technical data of Jøtul F 400 .....	27
General safety precautions .....	27
Measures to prevent fires .....	27

### Installation of Jøtul F 400

Foundations .....	27
Chimney .....	27
Air circulation .....	27
Assembly prior to installation .....	28
Control of functions .....	28
Mounting of flue pipe .....	28
Connection to chimney .....	28

### Operating instructions

Initial lighting and daily use .....	28
Initial lighting .....	29
Daily use .....	29

### Maintenance

Cleaning the glass .....	29
Ash removal .....	29
Cleaning and soot removal .....	29
Sweeping of flue pipes to the chimney .....	29
Control of the stove .....	29
External maintenance .....	30
The length, quantity and quality of logs .....	30
Jøtul's definition of quality wood .....	30

### Service

Changing the burn plates .....	30
Changing the baffle plate .....	30

### Optional equipment

Fire screen .....	30
Short legs .....	30

Figures - drawings .....	58– 59
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## Relationship to the authorities

Jøtul F 400 is a clean-burning product for solid fuel.

Installation of a fireplace must be according to local codes and regulations in each country. Always contact your local building inspector or the appropriate authority responsible for local codes and regulations in your district. **Your dealer has been specially selected for his knowledge of your local codes and may provide assistance in ensuring that your installation is safe and legal.**

Instructions for mounting, installation and use are enclosed with the product. The installation may only be used when it has been inspected and a certificate of completion has been issued.

The product data plate is located on the bottom heat shield and is made of heat-resistant material. The following information is listed on the data plate: Manufacturer and address, model number, manufacturing number, rated heat output, registration number (after assignment), style, and safety measurements.

## Pre-installation checks

**Warning!** Please ensure that there is adequate ventilation to the room in which the stove is to be installed. An air brick or wall vent with a minimum size of 9" x 3" (230 x 75mm) is needed to supply air to the fire.

Insufficient ventilation may cause oxygen depletion in the room. This can lead to drowsiness, nausea and sickness and is extremely dangerous.

It is important to ensure that the chimney or flue system to which the stove is to be connected is working properly. Combustion by-products which pervade enclosed spaces such as a room represent a serious health risk. The chimney and/or flue system **must** therefore be inspected and approved by a qualified professional prior to installation.

### Special attention must be paid to the following:

The chimney or flue system must comply with the Building Regulations for heat producing appliances.

The minimum height of the chimney must be 12' (4m). This height should be measured from the hearth to the top of the flue. Any damper plates or flue restrictors must be removed and no restrictor plates should be fitted. Where it is impractical to remove dampers or restrictors, these **must** be secured in the open position.

The chimney or flue must be sound and clean. If it has been used with a wood, coal or other solid fuel fire, it **must** be swept before the stove is installed. Ensure that only one stove is served by the chimney or flue system.

Ensure that the chimney or flue is structurally sound. In particular, it must not be possible for products of combustion to come into contact with combustible materials in the structure of the building. In some situations it may be advisable to fit a flue liner prior to the installation of the stove. Your installer will advise if this is necessary.

**NOTE:** A guide is published by the British Flue and Chimney Manufacturers' Association that contains general information on chimneys and flues.

**If any of the pre-installation checks reveal inadequacies, do not proceed with the installation of the stove until all defects or deficiencies have been rectified.**

## Technical data of Jøtul F 400:

Material:	Cast iron
Finish:	Black paint and enamel
Fuel:	Wood
Log length, max.:	50 cm
Draught system:	Air wash system
Combustion system:	Secondary combustion
Flue outlet:	Top/back
Flue dimension:	150 mm dia.
Approx. weight:	158 kg
Optional extras:	Fire screen, short legs
Product measures, distance measures unprotected wall.	See fig. 1

## General safety precautions

**Distance to wall made of flammable material and requirements for the floor plate:**

Contact your local authority to inform you about the local codes and to ensure that your installation is safe and legal. See fig. 1.

**Requirements for the floor plate:** If the stove will be installed on a combustible floor, a robust, solid, non-combustible layer should cover the floor beneath the stove. This layer should cover an area of at least **300 mm** in front of the stove door, and at least **150 mm** either side of the opening. (See Building Regulations.) We recommend that you contact the local Jøtul dealer prior to installation.

**Uninsulated flue pipe:** If uninsulated flue pipes go through floors or walls, the opening must be made of brick or masonry, in such a way that the external surface of the pipe does not get closer to flammable materials than 300 mm. Isolated flue pipes may have a different distance, if necessary refer to fire technical product documentation for the flue pipe.

## Measures to prevent fires

**Any use of the fireplace may represent some danger.** Therefore, respect the following instructions:

- Always use a spark catcher if the product is to be utilised with an open door.
- Ensure that furniture and other flammable materials do not get too close to the fireplace. There ought to be a clear distance from the front of the fireplace of at least 600 mm.
- Let the fire die. Never put it out with water as this may damage the product.
- The fireplace gets warm when used and may cause burns if touched.
- Ash must be properly disposed of outdoors, or emptied where it does not entail a fire hazard. Refer to local regulations.
- Any stove should have a storage container made of non-flammable material as a standard accessory for the safe disposal of soot and ashes. Soot and ashes must be stored in this container for at least a week in order to be certain that the last ember has been extinguished. If the container needs to be emptied before this, add plenty of water to the container and stir.
- You may want to keep the ash. It is a first class fertilizer for roses and other plants.

## Installation of Jøtul F 400

**Note!** Check that the stove is free of any damage prior to commencing installation.

**The product is heavy! Make sure you have assistance when erecting and installing it.**

## Foundations

If Jøtul F 400 is to be installed on a wooden floor, ensure that the floor under the stove has the dimensions to carry it.

## Chimney

The stove can be connected to a masonry chimney, a brick, pre-fabricated element or a steel chimney. **See separate section.** Minimum chimney cross section is recommended to be 177 cm<sup>2</sup>. (Corresponding to 150 mm dia.). Connection to chimney must be done in accordance with the installation instructions from the supplier of the chimney.

## Air circulation

Using a fireplace requires a plentiful supply of fresh air to the room where the product is installed. If the house is sealed, the room ought to be equipped with extra fresh air supply through vents. Avoid using mechanical fan vents in a room with a fireplace. This may cause negative pressure and draw poisonous gasses into the room. In

# ENGLISH

order to avoid this, it is possible to bring in outside air directly to the stove by using an adapter (extra unit) that is mounted to the air inlet of the stove. From there a flexible hose is conducted out of the house. The installation instruction for this is enclosed with the installation unit.

## Assembly prior to installation

Jøtul F 400 is sold in many countries with varying demands on fireplaces. This means that the buyer of the fireplace in Europe must make a few small changes before installing the product.

1. Just inside the door is an inspection cover fastened by 2 screws on the outer edge. The inspection cover is to be removed and replaced by a corresponding part stored in the ash box. It is marked: **Europa**. Remove the safety screw (fig.6) located in the centre and mount it on the new inspection cover marked Europa.  
**Note! The washer must be on the outside.**
2. The top plate is fastened by means of 2 transport screws. These must be removed due to the regulation regarding free access for sweeping smoke pipes. This is done by first unscrewing the smoke outlet so that the 2 transport screws situated on the inside of the product between the side panels and the top plate are within reach.

**NB! Be aware of that the top plate is laying loose on the top of the product, and shall not be fastened.**

Insert the ash lip, which is stored inside the burn chamber, into the grooves under the door.

The burn chamber also contains a heat shield, which is to be mounted under the ash house. Unfold the heat shield (see fig. 2a) and fasten it with the two screws attached to the ash house (2b).

## Control of functions (fig. 3)

When the product is set up, *a/ways* check the control functions. These shall move easily and function satisfactorily.

### Draught vent (A)

Left position = closed.

Right position = fully open.

### Doorhandle (B)

Towards the left= open.

Towards the right=closed.

### Ash door (C)

Use the loose handle, open the door by turning the knob counter-clockwise one half rotation. Use a glove or similar and pull out the tray.

**Note! Only remove the ashes when the stove is cold.**

## Mounting of flue pipe

It is advisable to carry out a test assembly prior to making a hole in the chimney. See fig. 1 for measures to wall made of inflammable materials. The stove is installed with a 150 mm diameter flue pipe. **This must be an approved thickness.**

Jøtul F 400 is factory-assembled for a top flue outlet. If a rear flue outlet is preferred, loosen the two screws on the sides and rotate the connecting pipe 180 °. Then fasten the screws securely.

- The 150 mm diameter flue pipe is placed directly with the narrowest outer end onto the product flue outlet. There is a screw on each side of the product flue outlet (fig. 4-A). These will be used to fasten the flue pipe.
- Indicate with marks where the screws hit the flue pipe when the pipe is at the bottom of the flue outlet and drill a 5,5 mm hole in the flue pipe for the screw.
- Use a gasket rope and cement to seal the space between the flue pipe and the product flue outlet. Put the gasket rope around the bottom part of the flue pipe and fill the space in-between with cement.
- Fasten the flue pipe with the screws.

**Note! It is important that the joints are completely sealed.** Air leakage etc. may lead to malfunction.

## Connection to chimney

Drill a hole for the flue pipe. Distance from stove to firewall/ chimney should be as shown in fig. 1. Always use a chimney collar when connecting to chimney. Use the supplier's recommended chimney collar when connecting to an element chimney. Follow the supplier's assembly and usage instructions closely with regard to mortar/furnace cement before starting to use the fireplace.

Ensure that the flue pipe never slopes down towards the chimney. It should at least be horizontal, preferably have an incline of a few millimeters.

**Note! A correct and sealed connection is very important for the proper functioning of the product.**

Be alert to the fact that it is particularly important that connections have a certain flexibility. This is to prevent setting of the house from leading to fissuration.

## Operating instructions

### Initial lighting and daily use

Jøtul F 400 is a clean-burning product and with additional supplies of combustion air, it allows for afterburning of hazardous gases and particles. It is important that the system is used correctly.

The stove is equipped with certain functions that are described in the chapter: **Control of functions.**

## Initial lighting

Open the draught vent fully by pushing the vent all the way to the right (**fig. 3-A**). Put in some crumpled newspaper, kindling wood and firewood and start a small fire. Add more firewood gradually and let the fire burn briskly for a couple of hours. Let the fire die out and repeat one more time.

### **Note! Odors when using the stove for the first time.**

*Painted products.* The stove may emit an irritating gas when used for the first time, and it may smell a little. The gas is not toxic, but it is recommended to open a window or a door to provide additional ventilation in the room. Let the fire burn with a high draught until all traces of gas have disappeared and no smoke or smells can be detected.

*Enameled products:* Condensation may form on the surface of the stove the first few times it is used. This must be wiped off to prevent permanent stains forming when the surface heats up.

## Daily use

Fire up with the aid of newspapers and some kindling wood. Place two medium sized logs in/out on each side of the base. Crumple some newspaper (or birch bark) between these and add some kindling wood in a criss-cross pattern on top and light the newspaper. Increase the size of the logs gradually.

**Draught vent (fig. 3- A).** Regulate when the wood is properly lit and burns well. Check that the afterburning (secondary combustion) starts. This is best indicated by yellow, flickering flames in the air chamber. Then regulate the rate of combustion to the desired level of heating by adjusting the draught vent.

*Always use good quality firewood. It gives the best results and doesn't damage the product.*

### **Never burn the following materials in the stove:**

- household waste, plastic bags etc.
- painted or impregnated wood (highly toxic)
- chipboard or laminated boards
- driftwood

*This may harm the product and pollute the atmosphere.*

**Note! Never use flammable liquids such as petrol, kerosene, red spirit or similar to start the fire. This may cause harm to both yourself and the product.**

**Note! Danger of overheating: The stove must never be used in a manner that causes overheating.**

Overheating is defined as overfilling the stove with firewood and/or leaving the draught vent fully open.

*The chimney draught should never exceed 2,5 mmVs (25 Pa).* A sure sign of overheating is when parts of the stove glows red. When this happens, reduce the draught vent opening immediately.

*Warning! Each fire should burn down to embers before new firewood is added.*

## Maintenance

### Cleaning the glass

Jøtul F 400 is equipped with an air wash system. Through the draught vent air is sucked in above the fireplace and washed down along the inside of the glass. This system has the advantage that it provides better combustion and reduces the buildup of soot deposits on the glass.

Still, some soot will always stick to the glass, but the quantity will depend on the local draught conditions and adjustment of the draught vent. Most of the soot layer will normally be burned off when the draught vent is opened all the way and a fire is burning briskly in the fireplace.

**Good advice!** For normal cleaning, moisten a paper towel with warm water and add some ash from the burn chamber. Rub it over the glass and then clean the glass with clean water. If it is necessary to clean the glass more thoroughly, a glass cleaner is recommended (follow the instructions for use on the bottle).

### Ash removal

Jøtul F 400 has an ash pan which makes it easy to remove the ash. Scrape the ash through the grate in the base plate and into the ash pan. Use something like a glove to grab the handle on the ash pan and take away the ash. Make sure that the ash pan doesn't fill up so high that it keeps ash from coming through the grate into the pan.

**Make sure the door to the ash pan is securely shut when the stove is in use.**

Also see the description of how to handle ashes under: **Measures to prevent fires.**

### Cleaning and soot removal

Soot deposits may build up on the internal surfaces of the stove during use. Soot is a good insulator and will therefore reduce the stove's heat output.

An annual internal cleaning is necessary to get the best heating effect from the product. It is a good idea to do this in connection with the sweeping of the chimney and flue pipes.

### Sweeping of flue pipes to the chimney

It is possible to sweep through the sweeping hatch in the flue pipe or to remove the top plate and sweep through the smoke outlet.

### Control of the stove

Jøtul recommends that you personally control your stove carefully after sweeping/cleaning. Check all visible surface areas for cracks. Also check that all joints are sealed and

# ENGLISH

that the gaskets are in the correct position. Any gaskets showing signs of wear or deformation must be replaced. Thoroughly clean the gasket grooves, apply ceramic glue (available from your local Jøtul dealer), and press the gasket well into place. The joint will dry quickly.

## External maintenance

*Painted products* may change color after several years usage. The surface should be cleaned and brushed free of any loose particles before new Jøtul stove paint is applied.

*Enamelled products* must only be cleaned with a clean, dry cloth. Do not use water and soap. Any stains can be removed with a cleaning fluid (Oven cleaner etc.).

## The length, quantity and quality of logs

The maximum length of logs to be used is 50 cm. Logs should be placed parallel to the back wall of the combustion chamber. Minimum heat emission from a Jøtul F 400 is **2.5 kWh**, and the nominal capacity **8,0 kWh**. The calculated requirement for nominal heat emission is approx. **3,2 kg** quality wood per hour.

## Jøtul's definition of quality wood

Good quality wood should be dried so that the water content is approx. 20-25%.

To achieve this, the wood should be cut during late winter or early spring. It should then be cut and stacked to ensure proper airing. The stacks should be covered to prevent them from absorbing too much rainwater. The logs should be taken indoors in autumn for use during the winter season.

With good quality firewood we mean logs from trees, such as birch, beech and oak.

The amount of energy obtainable from 1 kg of wood varies very little. On the other hand, the specific weight of the different kinds of wood varies considerably. As an example, a certain volume of birch will provide less kWh than the same volume of oak, which has a higher specific weight. The amount of energy in 1 kg quality wood is approx. 3,8 kWh. 1 kg of completely dry wood (0 % humidity) produces approximately 5 kWh, while wood with a humidity level of 60% produces only around 1.5 kWh/kg.

# Service

## Replacing the burn plates

- The fireplace has side burn plates, which are fastened with screws. The rear burn plate is not fastened and is kept in place by the side burn plates.
- When replacing remove the baffle plate first, then loosen the screws and remove the burn plates.

## Replacing the baffle plate

- Lift off the top plate.
- The baffle plate rests on top of the burn plates.
- To remove the baffle plate, loosen the brackets that push it down against the burn plates. Use a hammer and beat them carefully out towards the door. See **fig. 5**
- Lift the baffle plate a little upwards and remove it edgewise out through the top.
- For re-installation follow the same procedure in the opposite sequence.

# Optional equipment

## Fire screen catalouge no. 350693

If the fireplace is to be used with the door open, always make sure to use a fire screen in front of the opening. The fire screen is available as optional equipment.

## Short legs - height 155 mm

Black paint -	cat. no. 350173
Blue-black enamel -	cat. no. 350174
Ocean green enamel -	cat. no. 350328
Ivory enamel -	cat. no. 350176