

Jøtul F 500 Oslo

Jøtul F 500 Oslo

Noncatalytic Wood Stove

USA/CAN - Installation and Operating Instructions



Save these instructions for future reference.



Installation and Operation Instructions for North America

Safety Notice: If this solid fuel room heater is not properly installed, 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.

This manual describes the installation and operation of the Jøtul F 500 Oslo non-catalytic wood heater. Read this entire manual before you install and use your new stove. Save these instructions for future reference.

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.

Standards

The Jøtul F 500 CB Oslo solid fuel heater has been tested and listed to:

U.S. Standards: ANSI/UL 737 and ANSI/UL 1482.

Canadian Standards:

CAN/ULC-S627-M00 and CAN/ULC-S628-M93

Certified Safety Tests performed and listed by:

Intertek Testing Services, Middleton, Wisconsin U.S.A.

Manufactured by:

Jøtul AS

P.O. Box 1411, Fredrikstad, Norway

and

Jøtul North America, Inc.

55 Hutcherson Drive

Gorham, Maine 04038, USA

Combustion Specifications

Heat Output*: Under specific test conditions, this heater has been shown to deliver heat ranging from **12,000 to 34,700 BTU's**.

Efficiency*: 63%

CO Emissions: N/A

Pariculate Emissions: 3.2 g/hr

* Default values per previous Federal Register 40 CFR Part 60, Subpart AAA.

EPA validated efficiency and CO values were unavailable at the time of this printing. These values will be made available in the manual and on the Jotul website (www.jotul.us) for your reference in the near future.

WARNING !

THIS WOOD 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.

This heater meets the 2015 U.S. Environmental Protection Agency's emission limits for wood heaters manufactured after May 15, 2015. This heater may not to be sold after May 15, 2020.

See Sect. 5.0 of this manual for important information regarding the safe, proper, and most efficient operation of your stove.

Check Building Codes

When installing, operating and maintaining your Jøtul F 500 CB woodstove, follow the guidelines presented in these instructions, and make them available to anyone using or servicing the stove.

Your city, town, county or province may require a building permit to install a solid fuel burning appliance.

In the U.S., the National Fire Protection Association's Code, NFPA 211, *Standards for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*, or similar regulations, may apply to the installation of a solid fuel burning appliance in your area.

In Canada, the guideline is established by 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 in your area.



We suggest that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).



www.nficertified.org

Save these instructions and make them available to anyone using or servicing the stove.

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Safety Notices

- **BURN SOLID, NATURAL WOOD FUEL ONLY. DO NOT BURN ANY OTHER FUEL.**
 - **DO NOT USE CHEMICALS OR FLUIDS TO START A FIRE. DO NOT BURN GARBAGE OR FLAMABLE FUELS.**
 - **DO NOT USE A GRATE OR ELEVATE THE FIRE. BUILD THE FIRE DIRECTLY ON THE HEARTH.**
 - **IF THIS ROOM HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTRUCTIONS IN THIS MANUAL. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR LOSS OF LIFE.**
 - **CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.**
 - **ANY EXISTING CHIMNEY SYSTEM MUST BE INSPECTED BEFORE INSTALLATION OF THIS APPLIANCE.**
 - **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. USE A CHILD GUARD SCREEN TO PREVENT ACCIDENTAL CONTACT BY SMALL CHILDREN.**
 - **INSTALL SMOKE DETECTORS IN THE LIVING AREA AND BEDROOMS OF YOUR HOME. TEST THEM REGULARLY AND INSTALL FRESH BATTERIES TWICE ANNUALLY.**
- WHEN INSTALLED IN THE SAME ROOM AS THE STOVE, A SMOKE OR CARBON MONOXIDE DETECTOR SHOULD BE LOCATED AS FAR FROM THE STOVE AS POSSIBLE TO PREVENT THE ALARM SOUNDING WHEN ADDING FUEL.**
- **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 strongly 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.**

1.0 Installation

1.1 Assembly before Installation

The Jøtul F 500 is shipped with the flue collar, gasketing and hardware inside the stove.

- To install the flue collar in the top or rear exit position remove the tape from the gasketing and adhere to the groove on the back of the stove around the flue opening.
- Place the flue collar on the stove in the top or rear exit position and secure with the nut, bolt and washer.
- The nut and washer are placed on the inside of the stove.
- Take out the ash lips, which are inside the burn chamber, and install. The one in front is placed loosely on top of the base plate, while the side ash lip is fastened with the screw that is pre-installed on the base plate.

2.0 Chimney and Chimney Connector

The chimney connector is a single walled pipe used to connect the stove to the chimney. For use with the Jøtul F 500, the chimney connector **must** be 6" (152mm) in diameter, with a minimum thickness of 24 gauge black steel.

- Aluminum and Galvanized steel pipe is not acceptable for use with the Jøtul F 500. These materials cannot withstand the extreme temperatures of a wood fire and can give off toxic fumes when heated.
- **Do not use the connector pipe as a chimney.**
- Each chimney connector or stove pipe section must be installed to the stove flue collar and to each other with the male (crimped) end toward the stove. **See figure 2.**
- This prevents any amount of condensed or liquid creosote from running down the outside of the pipe or the stove top.
- All joints, including the flue collar connection must be secured with three sheet metal screws.
- For the best performance the chimney connector should be as short and direct as possible, with no more than two 90° elbows.
- **The maximum horizontal run is 36" (915mm) and a recommended total length of stove pipe should not exceed 10 feet.**
- Always slope horizontal runs upward 1/4" (6,35mm) per foot 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 unit to a chimney flue servicing another appliance.**

2.1 Chimney Requirements

There are two types of chimneys suitable for the Jøtul F 500:

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

An existing chimney system must pass a UL 1482 Level II inspection conducted by a qualified technician or building official.

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.

As a result, 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 northern areas it may be necessary to reline the chimney or extend its height to help establish draft.

Conversely, a tall masonry chimney inside the house is easier to keep warm and will perform the best.

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.

Notice:

It is important that you check with your local building officials to find out what codes apply in your area before installing your new Jøtul F 500.

Remember: Your local inspector(s) have the final authority in approving your installation. It is always best to consult with them prior to the installation.

2.2 Masonry Chimneys

When installing the Jøtul F 500 into a masonry chimney you must conform to all of the following guidelines:

- The chimney flue size should not be less than the cross-sectional area of the stove flue collar.
- The cross-sectional area of the flue of a chimney with no walls exposed to the outside below the roofline shall not be more than three times the cross-sectional area of the stove flue collar.
- The cross-sectional area of the flue of a chimney with one or more walls exposed to the outside below the roofline shall not be more than two times the cross-sectional area of the stove flue collar.
- Larger chimney flues should be relined with a listed or code approved liner.

- The masonry chimney must have a fireclay liner or equivalent, with a minimum thickness of 5/8" (16mm) and must be installed with refractory mortar. There must be at least 1/4" (6,35mm) air space between the flue liner and chimney wall.
- The fireclay flue liner must have a nominal size of 8" X 8", and should not be larger than 8" X 12". If a round fireclay liner is to be used it must have a minimum inside diameter of 6" (157mm) and not larger than 8" (208mm) in diameter.
- If a chimney with larger dimensions is to be used, it should be relined with an appropriate liner that is code approved.
- The masonry wall of the chimney, if brick or modular block, must be a minimum of 4" (106mm) nominal thickness. A mountain or rubble stone wall must be at least 12" (310mm) thick.
- A newly-built chimney must conform to local codes and in their absence must recognize national regulations. When using an existing chimney, it must be inspected by a licensed professional chimney sweep, fire official, or code officer, to ensure that the chimney is in proper working order.
- No other appliance can be vented into the same flue.
- An airtight clean-out door should be located at the base of the chimney.

2.3 Prefabricated Chimneys

If a prefabricated metal chimney is to be used it must be a chimney type that is tested and listed for use with solid fuel burning appliances.

That means a chimney that is tested to the following:

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" (56mm), although it may vary by manufacturer or for certain chimney components.

2.4 Chimney Height

The minimum chimney height is 15 feet (4.57 m). The chimney must also be at least 3 feet higher than the highest point where it passes through the roof and at least 2 feet higher than the highest part of the roof or structure that is within 10 feet of the chimney, measured horizontally. **See figure 3.**

Chimneys shorter than 14 feet may not provide adequate draft. This could result in smoke spilling into the room from the stove when loading the stove, or when the door is open. In addition, inadequate draft can cause back puffing, which is a build up of gases inside the firebox.

Other times, chimney height can create excessive draft which can cause high stove temperatures and short burn times. Excessive drafts can be corrected by installing a butterfly damper. If you suspect you have a draft problem, consult your dealer.

2.5 Wall Pass-throughs

When your installation unavoidably requires the chimney connector to pass through a combustible wall to reach the chimney, always consult your local building officials, and be sure any materials to be used have been tested and listed for 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:

- When passing through a combustible wall to a masonry chimney this method requires the removal of all combustible materials from at least 12" (310mm) around the chimney connectors proposed location. With a 6" (157mm) round liner the minimum area required would be 31" x 31" (792x792mm) square.
- The space is then filled with at least 12" (310mm) of brick around a fireclay liner. Remember, the liner must be ASTM C35 or equivalent, with a minimum wall thickness of 5/8" (16mm).
- It is important to remember to locate the pass-through at least 18" (457mm) from the ceiling for proper clearance to combustibles.
- 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 1/4" (83mm) thick (4" (106mm) nominal).
- 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, the tiles can shatter easily. **See figure 4.**

In Canada

In Canada the standard has been established by the Canadian Standard Association. 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" (457mm) around the chimney connector's proposed location. With a 6" (157mm) round liner the minimum area required would be 43" x 43" square (1092x1092mm).

It is important to remember to locate the pass-through at least 18" (457mm) from the ceiling to maintain the proper clearance to combustibles.

The space that is cleared of combustible materials must then remain empty. Sheet metal panels can then 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" (25,4mm) 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-B635 in Canada for other approved wall pass-through methods.

3.0 Connecting to the Chimney

3.1 Masonry Chimney Thimbles

When installing a Jøtul F 500 into a masonry chimney through a “thimble” (the opening through the chimney wall to the flue), the thimble must be lined with ceramic tile or metal 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). This special pipe can be easily installed into a thimble. See figure 5.

Make sure the connector pipe or thimble sleeve does not protrude into the flue liner, thereby restricting the area the smoke has to flow through. This bottle-neck will have a negative affect on the chimney system.

The chimney connector should be sealed at the thimble with refractory cement and the stove pipe leading to the stove should have a minimum of three screws.

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

3.2 Hearthmount Into a Masonry Fireplace

The Jøtul F 500 has a rear exit flue collar height of 28 1/4” (718 mm) when installed with standard legs. Substitution of Short Legs will lower the height to 26” (660 mm).

When installing the Jøtul F 500 into a masonry fireplace, 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’s flue exit, and cannot be more than three times greater than the cross sectional area of the stove’s flue exit.

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).

Fireplace installation must also observe the proper clearances to surrounding trim and mantels (addressed in clearance section of this manual). In addition, fireplace installations must also adhere to the floor protection guidelines specified in the following section.

3.3 Prefabricated Chimneys

When installing the Jøtul F 500 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.

4.0 Clearances to Combustibles

4.1 Floor Protection

Floor protection under the stove must be a UL 1618 Type I Ember Protector composed of non-combustible material for protection from radiant heat, sparks, and embers.

Individual sections of floor protection must be mortared together to prevent sparks from falling through to combustible materials. Any carpeting must be removed from under the floor protection.

In the U.S. and Canada

The Jøtul F 500 must be installed on a non-combustible surface extending:

A minimum of **18” (457mm)** in front of the stove and the left side load door (measured from the legs).

And **8” (200mm)** on the right side and back of the stove (measured from side and back panels).

This will result in a minimum floor protection of **54,25”W X 50,5”D.(1378mm x 1283mm)** See figure 8.

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

Alternate hearth protection

A hearth pad measuring **46” wide X 50,5” deep (1168mmx1283mm)** can be used **only if the left side door is locked to prevent use.** Door Lock Kit #155850 is available for this purpose.

4.2 Clearances to Walls and Ceilings

The following clearances have been tested to UL and ULC standards and are the minimum clearances specifically established for the Jøtul F 500.

The following diagrams give the required clearances you must maintain when installing the Jøtul F 500 near combustible surfaces. See pages 17-18.

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 non-combustible materials.

If you are not sure of the combustible nature of a material, consult your local fire officials. Contact your local building officials about restrictions and installation requirements in your area.

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

Using Shields to Reduce Clearances

Pipe shields: When using listed pipe shields to reduce the connector clearance to combustibles, it must start 1” (25,4mm) above the lowest exposed point of the connect pipe and extend vertically a minimum of 25” (635mm) above the top surface of the stove.

Double wall pipe: Listed double wall pipe is an acceptable alternative to connector pipe heatshields.

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 Heatshield: A stove rear heatshield has been specifically designed for the Jøtul F 500. Rear heatshield part # 154332.

No other heat shield may be used.

See pages 17-18 for complete clearance requirements and diagrams.

Notice

Accessories for wood stoves for clearance reduction have been developed by many manufacturers. If not following the methods of the installation codes, be sure that any accessory you choose has been tested by an independent laboratory and carries the laboratory’s testing mark. Make sure to follow all of the manufacturer’s instructions.

Always contact your local building inspector or fire officials about restriction and requirements in your area. Reminder, it is the local officials who have final authority for the installation approval.

4.3 Alcove Installation

The Jøtul F 500 CB can be installed in an alcove situation provided: **See figures 9 and 10.**

1. The stove must be installed with listed double walled 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” (24,5mm) from the floor and at least 1” (24,5mm) off the combustible wall to allow for an air-flow.
3. The height of the wall protection including the bottom air space must be 48” (1219mm).

4. The bottom heatshield **is required in all** alcove installations.
5. Hearth protection material must consist of:
 - a) a UL/ULC listed Type II Thermal Floor Protector or,
 - b) material having a minimum r value of 1.6 (**see appendix a**).
6. Minimum ceiling height in an unprotected installation, off the top of the stove is 41” (1041 mm). The minimum ceiling height off the top of the stove in a *protected* ceiling installation is 15” (380mm).

Use of the left side load door is prohibited in alcove installations.

4.5 Mobile Home Installations

The Jøtul F 500 CB has been approved for use in mobile homes in the U.S. and Canada, provided:

1. The stove is secured to the floor or the mobile home. Floor mounting kit #750304. The structural integrity of the mobile home must be maintained.
2. All chimney components, including chimney sections, supports, spark arrestor, etc., shall comply with the Standard for Factory-built Chimneys for Residential Type and Building Heating Appliances, UL 103 and/or CAN/ULC-S629 Standard for 650°C Factory-built Chimneys.
3. The chimney shall be attached directly to the stove and extend at least 3 ft. (0.9m) above the roof. Termination must be at least 2 ft. (0.6m) above the highest elevation of any part of the mobile home within 10 ft. (3m).
4. In order to allow for transportation of the mobile home, the chimney termination shall be readily removed at or below an elevation of 13,5 ft. (4.1 m) above ground level and reinstalled without use of special tools or instructions.
5. A spark arrester must be installed at the termination. The net free area of the arrester above the chimney outlet must not be less than four times the net area of the chimney outlet, and the vertical height of the arrester must not be less than one-half the diameter of the chimney flue. Openings shall not permit the passage of a sphere having a diameter larger than 1/2” (12.7 mm), and shall permit the passage of a sphere having a diameter of 3/8” (9.6 mm).
6. Direct connection of the stove to an outside air source is required. Use Outside Air Kit 154333. Do not substitute any other connection method or device. See page 11 for more details. Duct termination must not be installed at a level that is higher than the air inlet located at the bottom of the stove.
7. When the chimney exits the mobile home at a location other than through the roof, and exits at a point 7 ft. (2.1 m) or less above the ground level, a guard or other method of enclosing the chimney, must be provided at the point of exit for a height up to 7 ft. Openings of this chimney guard shall not permit penetration of a 3/4 in. (19.1 mm) diameter rod, or contact with the chimney by a 1/2 inch (12.7 mm) diameter rod inserted through the opening a distance of 4 inches (102 mm).

DO NOT INSTALL THE STOVE IN A BEDROOM OR SLEEPING AREA.

Always consult your local building inspector or fire officials about restrictions and requirements in your area prior to installing the stove.

5.0 Operation

Please read the following section completely before building a fire in your new Jøtul F 500 Oslo.

5.1 Combustion Efficiency

EPA qualified tested efficiency values are not currently available for the F 500. The EPA default efficiency for non-catalytic wood heaters is 63% per Federal Register 40 CFR Part 60, Subpart AAA.

There are, however, aspects of efficiency that you should be aware of in order to get the most from your stove.

Operation habits and fuel moisture can have a significant effect on efficiency. Poorly seasoned wood having a higher than optimum moisture content, can reduce the amount of energy transferred to the living area as a result of the energy expended to evaporate the excess fuel moisture in order for the wood to burn. Operational aspects, such as not building a robust kindling fire to readily ignite the larger fuel pieces, can result in an inefficient smoldering fire. Additionally, most modern wood heaters' optimum performance and efficiency are at the medium to medium-low burn rates.

The location of the stove can have a significant effect on heating efficiency, primarily in regards to distribution of the heat. For example, a wood heater centrally located in the residence in an open living area will likely provide better circulation of heat than will a stove located in a room adjacent to the larger living area.

5.2 CO Emissions

EPA qualified tested carbon monoxide (CO) values are not currently available for the F 500. There are, however, aspects of CO that you should know. Most all means of combustion produce CO, including wood fires. Maintaining a well-established fire and avoiding operation that produces a smoldering, smoky fire, will greatly reduce CO levels.

It is highly recommended that a CO monitor (detector) be installed in the same room as the stove. The monitor, however, should be located as far away as possible from the stove to avoid alert soundings when adding fuel to the fire.

5.3 Wood Fuel and Performance

The F 500 CB 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.

DO NOT BURN:

- Coal;
- Garbage;
- Synthetic fuel or logs;
- Material containing rubber, including tires;
- Material containing plastics;
- Waste petroleum products, asphalt products, paints, paint thinners or solvents;
- Materials containing asbestos;
- Construction or demolition debris;
- Railroad ties or pressure-treated wood;
- Manure or animal remains;
- Salt water driftwood or other previously salt-water saturated materials;
- Unseasoned wood; or
- Paper products, cardboard, plywood, or particle board. (The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, saw dust, wax or similar substances for the purpose of starting a fire.)

The burning of any of these materials can result in the release of toxic fumes, or render the heater ineffective and cause smoke. 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.

NOTE: Avoid letting logs rest directly on the glass panel. The logs should be spaced off of the glass enough to allow for proper air flow within the firebox.

5.4 Air Flow and Control

Your F 500 CB is designed to support efficient combustion and heat transfer by directing air through the stove in two separate channels; **Primary and Secondary**. See figure 11.

Primary air is manually regulated by a lever and valve at the front of the stove. The valve position controls the volume of primary air entering the firebox and thereby affects fire intensity, heat output and burn time. Primary air is directed to the main body of the fire through air ports at the front of the stove. Separate manifolds at each side also deliver pre-heated primary air at top of front plate to create an "air-wash" to help keep the viewing glass clean.

Secondary air allows combustion of volatile gas and other by-products of primary combustion that would otherwise enter the atmosphere unburned. This unregulated air is preheated as it passes over the back of the stove and through a stainless steel manifold at the top of the firebox. This additional hot oxygen allows any unburned gasses to be burned inside the stove. The action of secondary combustion can be readily seen through the viewing glass a slow, rolling flames suspended over the main fuel bed and smaller jets of flame extending from the secondary manifold ports. At the same time, no smoke will be observed exiting the chimney. This is evidence that the stove is operating at the so-called "sweet-spot" wherein optimum efficiency is realized.

When first starting or reviving the fire: the primary control lever should be set to the far right position, which permits 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.

Use a Stove-top Thermometer

Determining the primary air setting for the best overall performance for your particular needs and installation will be established over time through trial and error. Each installation has unique characteristics that will affect stove performance. You should use a stove-top thermometer to monitor the status of the fire. Place the thermometer on the stove top, centered two one side or the other. See fig. 12. Generally speaking, once the stove temperature has reached 400°F - 600°F, the air control may be set in a mid-range position to allow adequate oxygen to support efficient combustion throughout the burn cycle.

5.5 Break-In Procedure

The Jøtul F 600 Firelight is constructed of cast iron and stove furnace cement. Cast iron, while very durable, expands and contracts as it is heated and cooled. This type of construction requires the stove to be “broken-in” gradually so that thermal expansion does not occur too quickly. The following steps describe the proper break-in procedure for the Jøtul F 400 CB:

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.

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.

5.6 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.

- **WARNING: THE ASH PAN DOOR MUST ALWAYS BE SECURELY CLOSED WHEN THE STOVE IS IN OPERATION. BURNING THE STOVE WITH THE ASH DOOR OPEN WILL PROMOTE UNEVEN THERMAL EXPANSION AND CAN RESULT IN DAMAGE TO THE STOVE AND VOID YOUR WARRANTY.**

Traditional Fire Building

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). for the best locations to place a stove-top thermometer.

Top-Down Fire Building - See fig. 14.

Many people find this method to be superior to the traditional method.

1. With the primary air control lever in the full open position (*to the right*), 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.
5. Place newspaper between the two bottom logs under the kindling. Light the news paper 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.

WARNING: DO NOT OVERFIRE THIS HEATER. IF ANY PART OF THE STOVE OR CHIMNEY CONNECTOR GLOWS, YOU ARE OVERFIRING. A HOUSE FIRE OR SERIOUS DAMAGE TO THE STOVE OR CHIMNEY COULD RESULT.

ATTEMPTS TO ACHIEVE HEAT OUTPUT RATES THAT EXCEED HEATER DESIGN SPECIFICATIONS CAN RESULT IN PERMANENT DAMAGE TO THE HEATER.

Creosote and Soot Formation and the Need for Removal

When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. These creosote vapors condense in the relatively cool chimney flue of a slow burning fire. The creosote that accumulates in the flue is highly flammable and is the fuel of chimney fires. To prevent a chimney fire, the creosote needs to be removed by sweeping the chimney and flue connector. The frequency of sweeping will depend on how you operate your stove. An accumulation of 1/4" or more on the sides of the flue or connector is considered hazardous and should be removed.

In the event that creosote in your chimney or flue connector ignites, the resulting fire is often accompanied by a roaring noise and a crackling sound as flakes of burned creosote break loose. If you suspect you are having a chimney fire, immediately close the primary air control and make sure the stove door is closed. Call the fire department and get everyone safely out of the house.

Trying to extinguish the fire in the stove will not help. In fact it can make the matter worse by allowing more oxygen through the door, which then accelerates the fire in the chimney. When the roaring and crackling has stopped, you should resist the temptation to open the door and look at the fire. The fire may have suffocated, but could rekindle when you open the door. After a chimney fire, do not use your stove until the chimney and the flue connector has been cleaned and inspected to ensure that no damage has occurred.

5.7 Adding Fuel

When reloading the stove while it is still hot and a bed of hot embers still exists, 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 and away from the air inlet ports at the front center of the firebox floor.
- 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).

6.0 Maintenance

Regular maintenance will prolong the life of your stove and ensure satisfactory performance.

6.1 Annual Stove Inspection

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

6.2 Ash removal

Ash removal will be required periodically depending on how frequently the stove is used. Conveniently, the Jøtul F 500 is equipped with an ash pan assembly for easy ash removal, without the need for opening the front doors.

The ash pan door is located under the front ashlip of the stove. To open the ash door, rotate the door knob counterclockwise to unlatch the door and clockwise to latch the door. Always use stove gloves when handling the ash pan.

When the stove is in operation always close the ash 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. Only use a vacuum for this job if the vacuum is specifically designed for ashes.

It is advisable to keep a thin (1") bed of ashes on the firebox floor to help maintain a hot charcoal bed.

Warning. Do not, at any time, operate this stove with the ash pan door open. This condition will lead to overfiring and will damage the stove. This damage is not covered under warranty. Only empty the ash drawer before refueling, when the fire is low or out. The ash door should be open only long enough to empty the ash drawer and then securely closed. Inspect the gasket on the ash pan door regularly and replace as necessary.

6.3 Chimney System

The Jøtul F 500 CB 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 the beginning of each heating season and then every other month during the heating season.** Clean the chimney whenever creosote and fly ash accumulation exceeds 1/4 inch in any part of the system.

Chimney brushes are available from your local Jøtul dealer or hardware supply store. Your dealer can also refer you to a reputable, professional chimney sweep who will have all the equipment to ensure a complete and proper job. Failure to keep the chimney system free of creosote and build-up could result in a serious chimney fire.

6.4 Enamel Care

- **DO NOT ATTEMPT TO CLEAN HOT ENAMEL SURFACES.** Clean only cold enamel surfaces with a soft damp cloth and polish with a clean dry cloth. Most stains can be removed with a solution of baking soda and vinegar. Let this solution sit on the stain for a minute or two before rubbing it dry with a damp cloth. Organic cleaning commercial cleaning solutions, such as Citra-Solv®, can also be effective.
- **DO NOT USE SOAPY OR ABRASIVE SOLUTIONS.** These can cause stains. Coffee, tea, and fruit juices will also cause stains.
- **AVOID CONTACT WITH METAL OBJECTS.** Trivets, kettles, or pots, can damage the enamel.

6.5 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.

DO NOT ATTEMPT TO CLEAN HOT GLASS. CLEAN ONLY AT ROOM TEMPERATURE.

6.6 Glass Replacement

1. Remove the doors 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 all pieces of the glass panel and gasketing.
4. Remove all remaining debris from the glass area using a wire brush.
5. Apply a small bead of gasket/stove cement and the new gasket. Do not overlap the ends of the gasket rope.
6. Important: Gradually tighten the glass clips in an alternating pattern as you would tighten the lugs on an automobile wheel. See figure 13.

6.7 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.

F 500 Oslo Gaskets

Description	Size	Length
Top Cover	3/8 in.	3.5 ft.
Top Plate	3/8 in.	7 ft.
Smoke Outlet	1/4 in.	3 ft.
Ash Housing	1/4 in.	4 ft.
Ash Pan Door	3/8 in.	4 ft.
Front Door	3/8 in.	6 ft.
Left Side Door	3/8 in.	4.5 ft.
Glass	3/8 in.	5 ft.

8.0 Accessories

Only use accessories that are specifically designed for the Jøtul F 500.

Firescreen - 129172

The Jøtul F 500 has been approved for use as an open fireplace, with front doors open. This feature is especially nice when the ambience of a fire is desired. Some care should be taken when operating the stove as a fireplace.

- Always have the firescreen in place, attached to the stove front.
- Never over load the stove: For the best appearance burn in the traditional three log configuration.
- Reminder, when burning the stove with the screen in place, you are sacrificing efficiency for aesthetics, and you will be consuming wood at a much faster rate.

Warning: Operate your Jøtul F 500 with the front doors fully open and the firescreen in place or fully closed. Partially opened doors may result in overfiring. Also, if doors are left partly open, gas and flame may be drawn out of the stove opening, creating risks from both fire and smoke.

Stove Gloves, pair - 157363

Heavy duty, flame retardant, with full gauntlet.

Outside Air Kit - 154335

Provision for outside air may be required by your local building codes.

The outside air kit includes an adapter used to connect an air duct directly to the stove combustion chamber. The following additional materials will be required:

- A. The appropriate length of metallic flex pipe for a conduit of the outside air.
- B. A rain/weather resistant cap for the outside of the house.
- C. A rodent screen - that is no larger than 1/4" (6,4mm) mesh.

Follow the instructions provided with the kit.

Please be aware that provision of outside air to support combustion will not necessarily eliminate performance issues associated with negative pressure within the home or chimney system.

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 Heatshield - 154332

A stove rear heatshield has been specifically designed for the Jøtul F 500 to reduce clearances off the rear of the stove to combustible materials. Use of the heatshield does not affect the clearance off the sides of the appliance.

See pages 17-18 for specific clearance requirements. Complete installation instructions are supplied with the heatshield. No other type of heatshield may be used on the rear of the Jøtul F 500.

Bottom Heatshield - 154330

A bottom heatshield has been specifically designed for the Jøtul F 500 and is included with your stove. It is required in all alcove installations. Use of the bottom heatshield does not affect the floor protection requirements described on page 7 of this manual. No other type of heatshield may be used on the bottom of the Jøtul F 500.

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°.

Side Door Lock Kit - 155850

The side load door must be locked to permit installation of the F 500 in a corner or alcove constructed of combustible materials.

Leg Leveler Kit - 156096

Replacement Door Knob Kit - 155991

Fig. 1 a

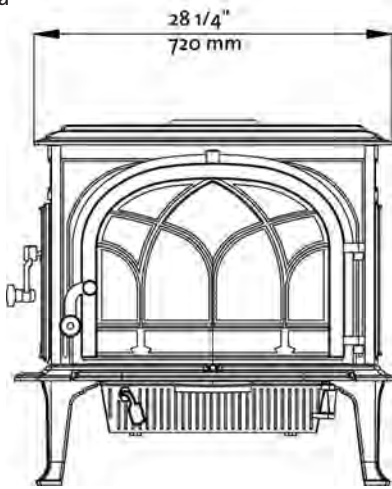


Fig.1

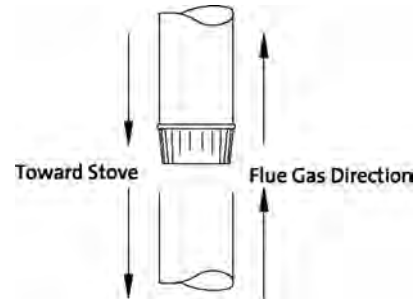


Fig. 1 b

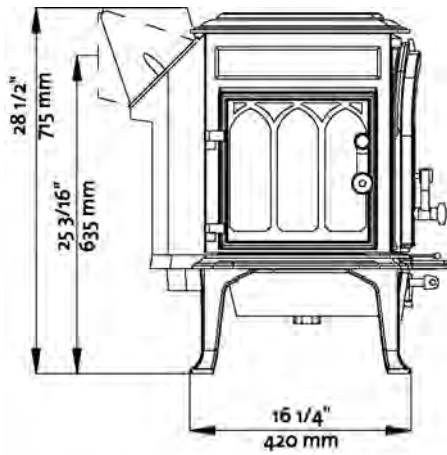


Fig. 3

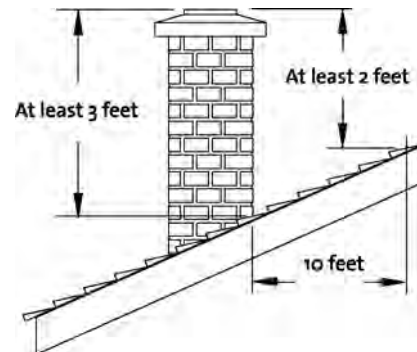


Fig. 1 c

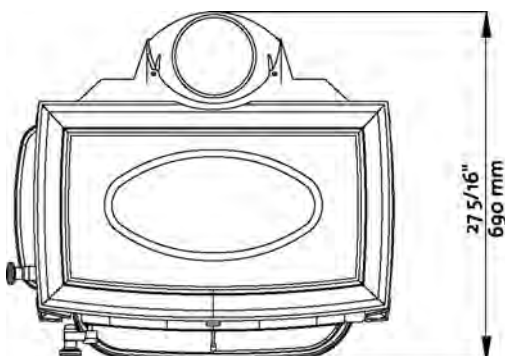


Fig. 4

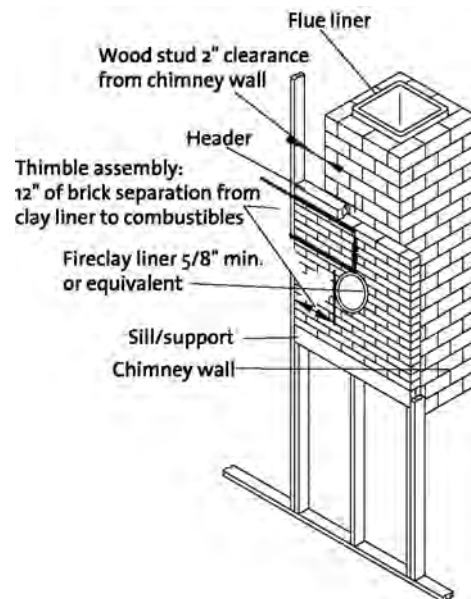


Fig. 5

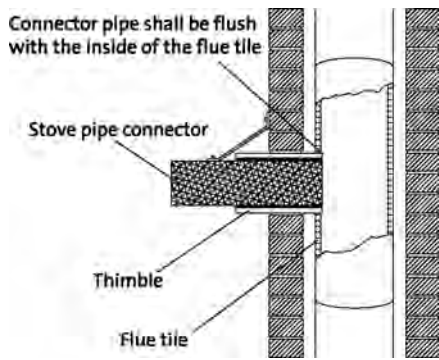


Fig. 8

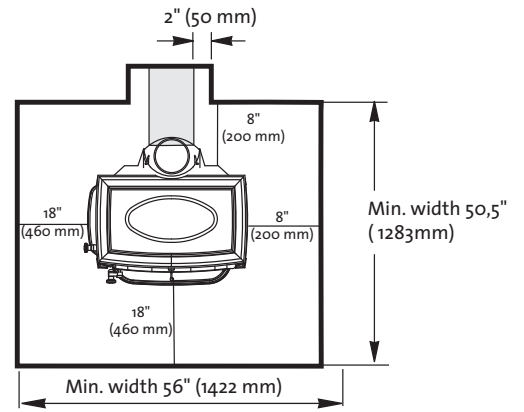


Fig. 6

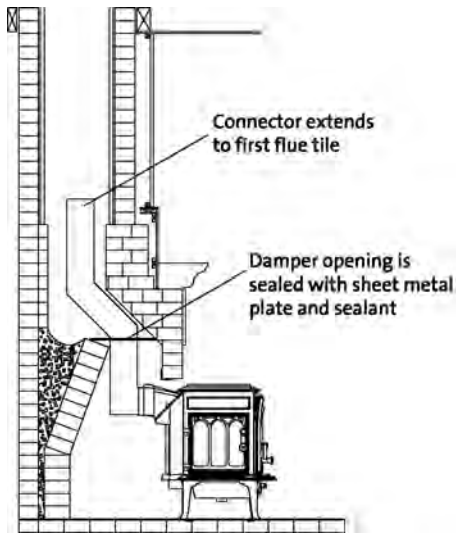
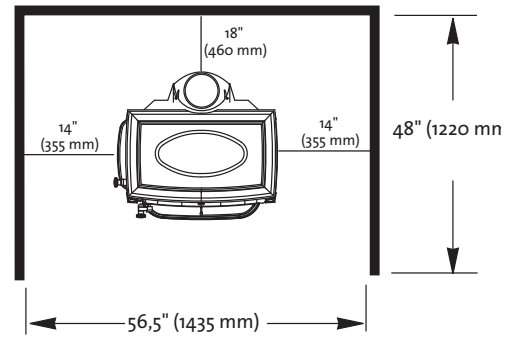


Fig. 9



Side Loading Door must be locked in alcove installations.

Fig. 5

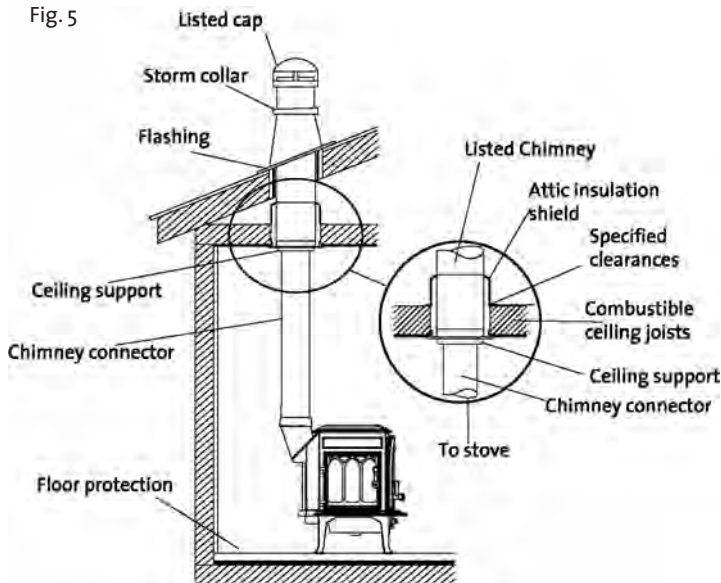


Fig. 10

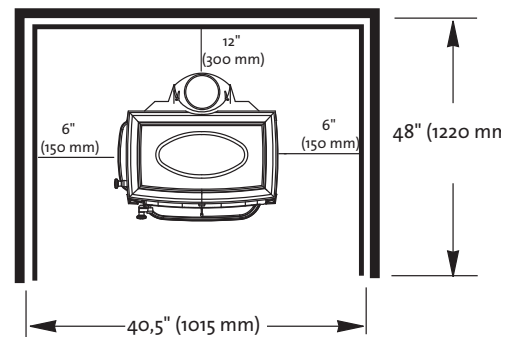


Fig.11

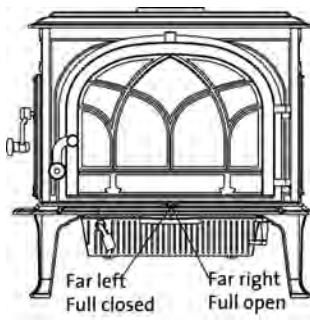


Fig. 14

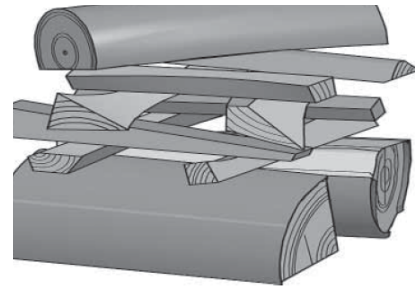


Fig.12

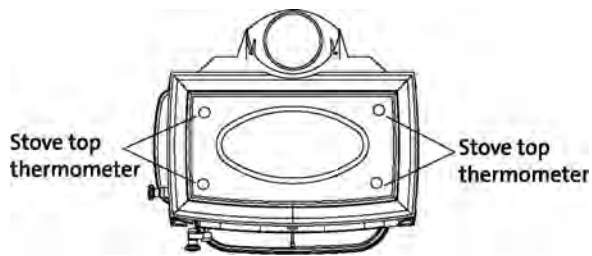
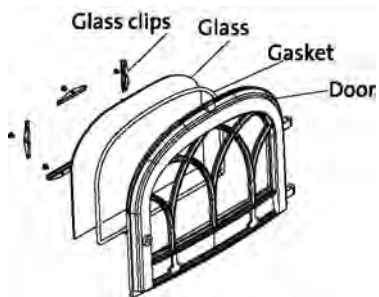


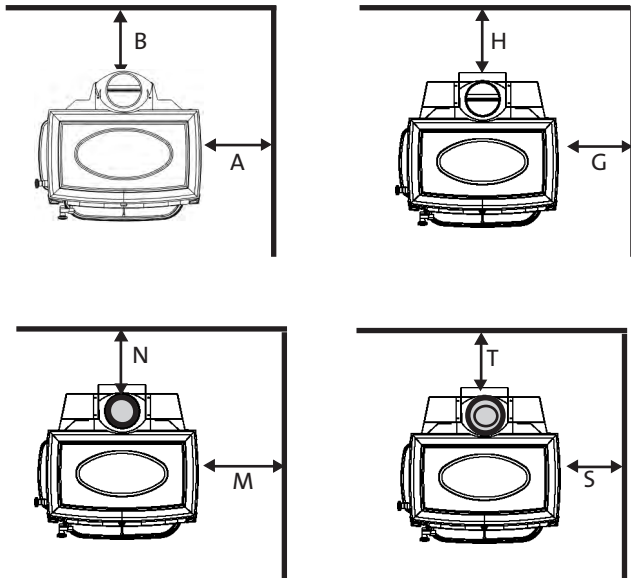
Fig.13



Jøtul F 500 Woodstove Clearances

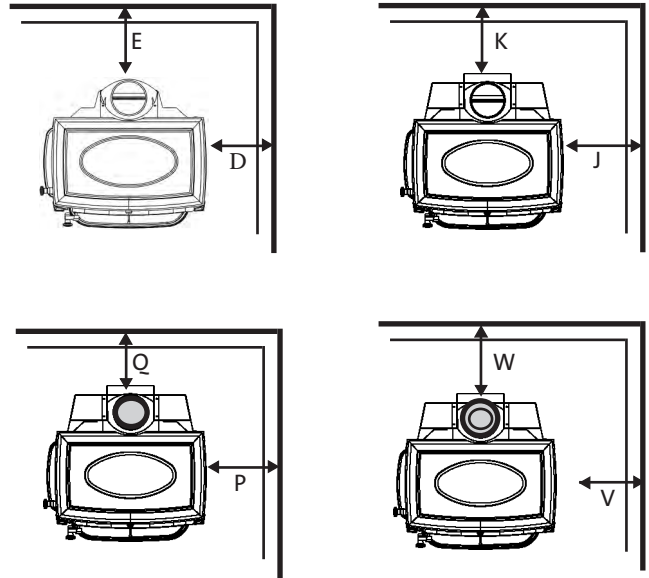
Minimum clearance from Left Side Load Door to combustibles is 36".
 The side door must be locked in alcove and corner installations. Use Side Door Lock Kit 155850.

Unprotected Surface Parallel to the Wall



Protected Surface Parallel to the Wall

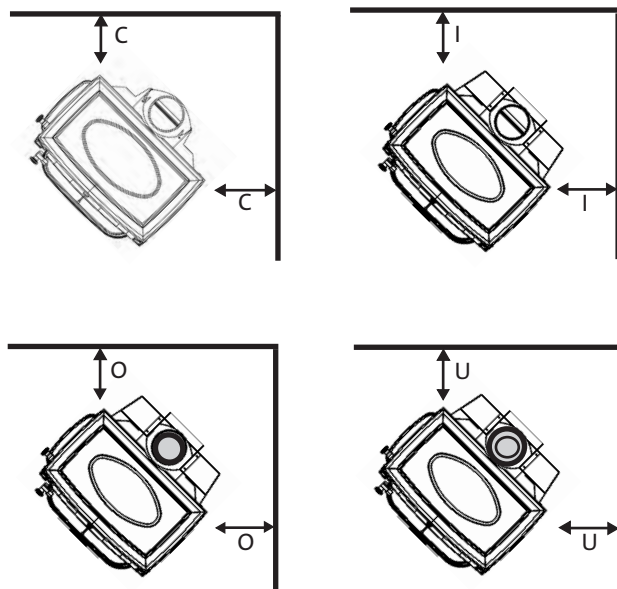
PER NFPA 211 or
CAN/CSA-B365



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

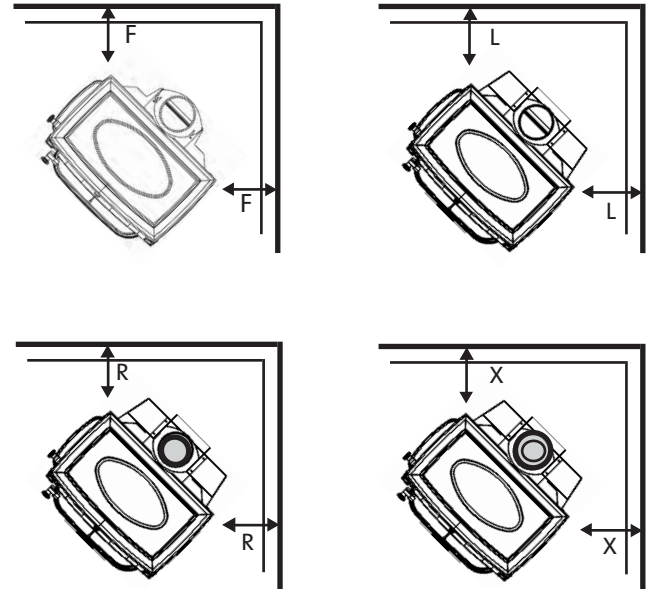


Unprotected Surface Corner Installation



Protected Surface Corner Installation

PER NFPA 211 or
CAN/CSA-B365



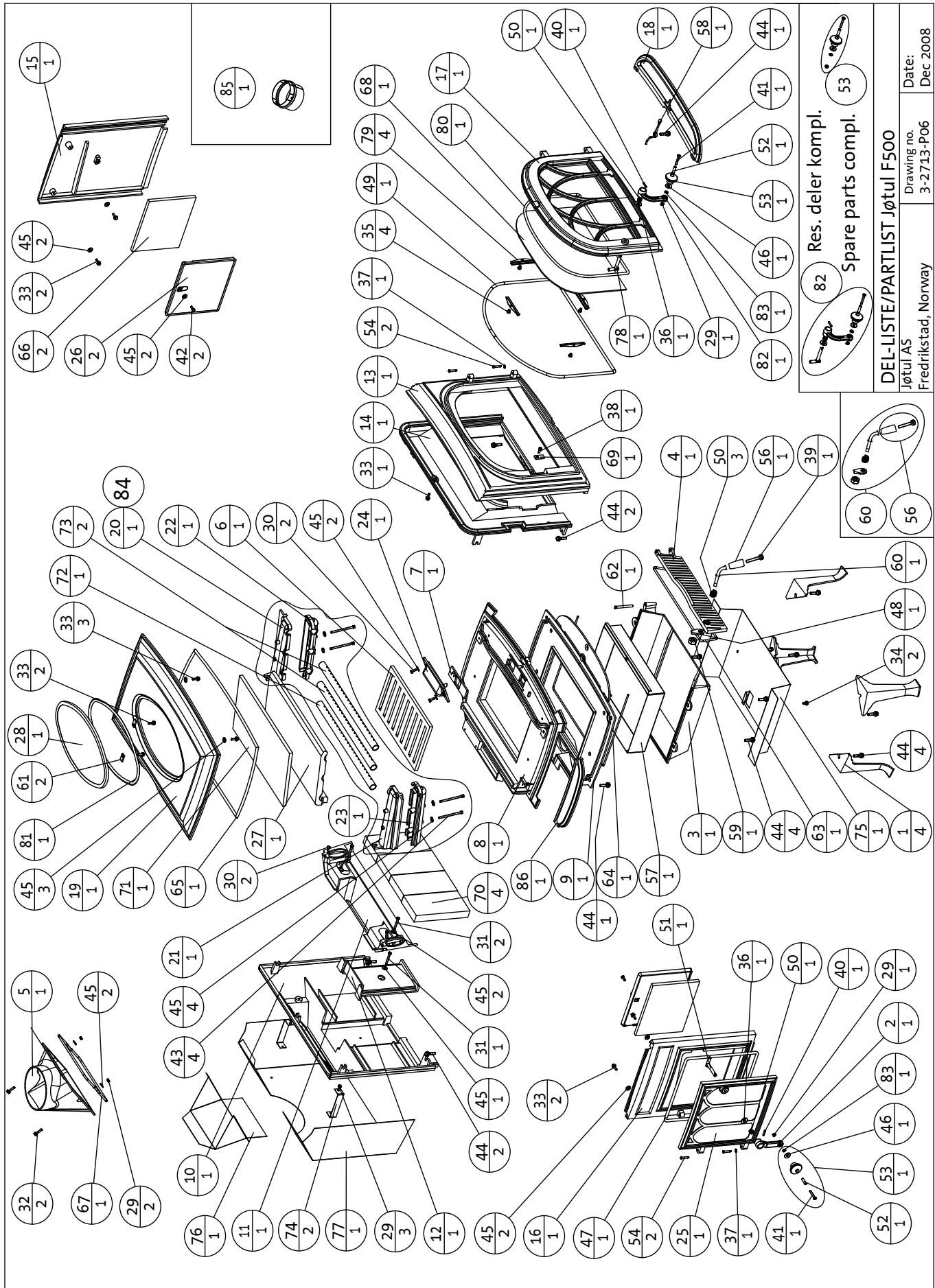
Jøtul F 500 Woodstove Clearances

Stove clearances	Unprotected surface Parallel installation			Protected surface NFPA 211 Parallel installation		
	Side	Rear	Corner*	Side	Rear	Corner*
Stove- no heatshields Single wall pipe	14" A 355mm	18" B 460mm	13" C 330mm	6" D 150mm	12" E 300mm	9" F 230mm
Stove with rear heatshield Single wall pipe	14" G 355mm	10" H 255mm	9" I 230mm	6" J 150mm	10" K 255mm	9" L 230mm
Stove with rear heatshield With connector shield	14" M 355mm	6" N 150mm	9" O 230mm	6" P 150mm	6" Q 150mm	6" R 150mm
Stove with rear heatshield With double wall pipe	14" S 355mm	6" T 150-mm	9" U 230mm	6" V 150mm	6" W 150mm	6" X 150mm

Connector clearances (pipe)	Unprotected surface Vertical installation		Protected surface NFPA 211 Vertical installation	
Single wall pipe	18" 460mm		12" 300mm	
Single wall pipe with connector shields	6" 150mm		6" 150mm	
Double wall pipe	6" 150mm		6" 150mm	

Connector clearances (pipe)	Unprotected surface Horizontal installation		Protected surface NFPA 211 Horizontal installation	
Single wall connector	18"	460mm	12"	300mm
Double wall pipe	6"	150mm	6"	150mm
Mantel and trim clearances	Stove to 1" thick or less, side trim		12"	300mm
	Stove to 1" thick or less, top trim		16"	410mm
	Stove to mantel- maximum mantel depth 12"		30"	765mm

* Use of the left side load door is prohibited in alcove or corner installations. Use Side Door Lock Kit # 155850.



82 Res. deler kompl.
Spare parts compl. 53

DEL-LISTE/PARTLIST Jøtul F500	
Jøtul AS	Drawing no.
Fredrikstad, Norway	3-2713-P06
Date:	Dec 2008

Pos. No.	Description	Pos. No.	Description
1	Leg	51	Latch Bolt Side Door
2	Latch (Side Door)	52	Sleeve
3	Ash House Complete	53	Wooden Knob + Small Parts
4	Ash Door	54	Hinge Pin Front/Side Door
5	Smoke Outlet	56	Wooden Knob Ash Door
6	Fire Grate	57	Ash Pan
7	Air Valve	58	Handler for Air Vent
8	Bottom	59	Nut M10
9	Inner Bottom	60	Handle Ash Door Complete
10	Rear Plate	61	Clip
11	Tube Frame Holder	62	Hinge Pin, Ash Door
12	Air Manifold	63	Gasket (Ash Door)
13	Front	64	Gasket (Ash House)
14	Inner Front	65	Gasket (Top)
15	Side Right	66	Insulation Blanket
16	Side Left	67	Gasket (Smoke Outlet)
17	Front Door	68	Glass
18	Ash Lip	69	Catch
19	Top	70	Refractory Brick
20	Tube Holder Upper Right	71	Insulation Blanket Top
21	Tube Holder Upper Left	72	Tube Rear
22	Tube Holder Bottom Right	73	Tube, Middle and Front
23	Tube Holder Bottom Left	75	Heat Shield Bottom
24	Inspection Cover	77	Heat Shield Rear + Top Exit
25	Side Door	78	Latch Bolt Front Door
26	Burnplate Side/Door	79	Glass Clip
27	Baffle Plate	80	Gasket (Door Glass)
28	Top Cover	81	Gasket (Top Cover)
29	Nut	82	Latch (Front Door)
30	Screw Hexagon Stainless	83	Washer
31	Screw Hexagon	84	Air Chamber Complete
32	Screw Collar Hexagon	85	Adapter Outside Air
33	Screw Hexagon		
34	Screw Hexagon Stainless		
35	Screw Panh.		
36	Washer Blackchromating		
37	Washer ELZN		
38	Screw Cylinder Head		
39	Screw Cylinder Head		
40	Spring Pin		
41	Screw Panh.		
42	Screw Hexagon Stainless		
43	Screw Allen		
44	Screw Collar Hexagon		
45	Washer		
46	Washer Insul.		
47	Gasket (Side Door)		
48	Latch Ash Door		
49	Gasket (Front Door)		
50	Spring		

Only use replacements parts provided through your Authorized Jøtul dealer.

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

- Convert the specification to R-value;
 - If R-value is given, no conversion is needed.
 - If k-value is given with a required thickness (T) in inches:
 $R=1/k \times T$.
 - If C-value is given: $R=1/C$.
- Determine the R-value of the proposed alternate floor protector.
 - Use the formula in Step 1 to convert values not expressed as "R".
 - For multiple layers, add R-values of each layer to determine overall R-value.
- 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 =

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

Thermal conductivity =

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

Thermal resistance =

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

Alcoves require use of a bottom heat shield and hearth protection having a minimum R-value of 1.6.

9.0 Jøtul North America Wood-burning Product Limited Lifetime Warranty

Effective January 1, 2013

This warranty policy applies to wood-burning products identified by Jøtul and Scan trade names, as set forth below.

A. LIMITED LIFETIME WARRANTY, parts only:

Jøtul North America Inc. (JØTUL) warrants, to the original retail purchaser, that those baffle and air manifold components of the Jøtul or Scan Stove or Fireplace Insert specified above will be free of defects in material and workmanship for the life of the product. This warranty is subject to the terms, exclusions and limitations set forth below.

B. LIMITED FIVE YEAR WARRANTY - Cast Iron and Steel Components:

JØTUL warrants, to the original retail purchaser, that those components of the Jøtul or Scan Stove or Fireplace Insert specified above will be free of defects in material and workmanship for a period of five (5) years from the date of purchase. This warranty is subject to the terms, exclusions and limitations set forth below.

C. LIMITED TWO YEAR WARRANTY - Enamel Finish:

JØTUL warrants, to the original retail purchaser, the enamel finish on cast iron components of the Jøtul Stove or Fireplace Insert specified above against peeling or fading for a period of two (2) years from the date of purchase. This warranty is subject to the terms, exclusions and limitations set forth below.

D. LIMITED ONE YEAR WARRANTY - Electrical Components (blowers, thermostatic switches):

JØTUL warrants, to the original retail purchaser, that those components of the Jøtul or Scan Stove or Fireplace Insert specified above will be free of defects in material and workmanship for a period of one (1) year from the date of purchase. This warranty is subject to the terms, exclusions, and limitations set forth below:

JØTUL will repair or replace (including parts & labor), at its option, any of the above components determined by JØTUL to be covered by this warranty. You must, at your own expense, arrange to deliver or ship the component to an authorized Jøtul or Scan dealer and arrange for pickup or delivery of the component after repairs have been made. If, upon inspection, JØTUL determines that the component is covered by this warranty, the repair or replacement will be made as set forth above. This warranty is not transferable and is extended only to, and is solely for the benefit of, the original retail purchaser of the Jøtul or Scan Stove or Fireplace. This paragraph sets forth the sole remedy available under this warranty in the event of any defect in the Jøtul or Scan Stove or Fireplace.

The warranty period for any replaced component will be the remaining unexpired portion of the warranty period for the original component.

Please retain your dated sales receipt in your records as proof of purchase.

Exclusions and Limitations

Notice: This warranty is void if installation or service is performed by someone other than an authorized installer or service agency, or if installation is not in conformance with the installation and operating instructions contained in this owner's manual or local and/or national fire and building regulations. A listing of local authorized installers, service agencies and gas suppliers can be obtained from the National Fireplace Institute at <http://www.nficertified.org/>.

This warranty does not cover the following:

1. Repair or replacement of parts that are subject to normal wear and tear during the warranty period or to parts that may require replacement in connection with normal maintenance. These parts include paint, gaskets, burn plates, baffles, air manifolds, firebricks, fire grates, or glass (glass is only warranted against thermal breakage).
2. Damage due to incorrect installations not in conformance with the installation instructions contained in this owner's manual or local and/or national fire and building regulations.
3. Damage, including damage to enamel surfaces, caused by improper operation, over-firing, and/or misuse. Improper operation, such as burning the stove with the ash door open, can damage the stove. Over-firing occurs when any part of the stove glows red. Over-firing can also be identified by warped plates, rust-colored cast iron, paint pigment that has turned dusty white, or bubbling, cracking and discoloration of the enamel finish. Misuse includes, without limitation, use that is not in conformance with the operating instructions contained in this owner's manual.
4. Damage due to service performed by an installer or service agency, unless otherwise agreed to in writing by JØTUL.
5. Damage caused by unauthorized modification, use or repair.
6. Costs incurred by travel time and/or loss of service.
7. Labor or other costs associated with the repair of components beyond the warranty period.
8. Damage incurred while the Jøtul or Scan Stove or Fireplace is in transit.

IN NO EVENT SHALL JØTUL, ITS PARENT COMPANY, SHAREHOLDERS, AFFILIATES, OFFICERS, EMPLOYEES, AGENTS OR REPRESENTATIVES BE LIABLE OR RESPONSIBLE TO YOU FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SIMILAR DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR DAMAGES TO A STRUCTURE OR ITS CONTENTS, ARISING UNDER ANY THEORY OF LAW WHATSOEVER. ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WRITTEN WARRANTY. EXCEPT AS EXPRESSLY SET FORTH HEREIN, JØTUL MAKES NO ORAL, WRITTEN OR OTHER WARRANTY WITH RESPECT TO JØTUL OR SCAN STOVES OR FIREPLACES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on the length of implied warranties. Therefore, the above exclusions or limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

JØTUL reserves the right to discontinue, modify or change the materials used to produce the Jøtul or Scan Stove or Fireplace. JØTUL shall have the right to replace any defective component with substitute components determined by JØTUL to be of substantially equal quality and price.

The dollar value of JØTUL's liability for breach of this warranty shall be limited exclusively to the cost of furnishing a replacement component. JØTUL shall not in any event be liable for the cost of labor expended by others in connection with any defective component. Any costs or expenses beyond those expressly assumed by JØTUL under the terms of this warranty shall be the sole responsibility of the owner(s) of the Jøtul or Scan Stove or Fireplace.

No dealer, distributor, or other person is authorized to modify, augment, or extend this limited warranty on behalf of JØTUL. **NO MODIFICATION OR CHANGE TO THIS WARRANTY WILL BE EFFECTIVE UNLESS IT IS MADE IN A WRITTEN DOCUMENT MANUALLY SIGNED BY AN AUTHORIZED OFFICER OF JØTUL.**

An authorized installer may have been provided with certain information related particularly to the Jøtul or Scan Stove or Fireplace; however, no authorized installer or other person who may service the appliance is an agent of JØTUL. No inference should be made that JØTUL has tested, certified, or otherwise pronounced any person as qualified to install or service the appliance. JØTUL shall not be liable or otherwise responsible for any error or omission by a person installing or servicing a Jøtul or Scan Stove or Fireplace.

If you believe your Jøtul or Scan Stove or Fireplace is defective, you should contact your nearest authorized Jøtul or Scan dealer, who will process a warranty claim. **IN ORDER TO QUALIFY FOR WARRANTY COVERAGE, JØTUL MUST RECEIVE NOTICE OF A POSSIBLE DEFECT WITHIN SIXTY (60) DAYS OF THE DATE THE DEFECT IS FIRST DISCOVERED, OR REASONABLY COULD HAVE BEEN DISCOVERED.**

*This warranty is given by Jøtul North America, Inc.,
55 Hutcherson Drive, Gorham, Maine 04038 USA*

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MAY 15, 2015

Jøtul pursues a policy of continuous product development. Products supplied may therefore differ in specification, colour and type of accessories from those illustrated and described in the brochure.



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