Jøtul F 100 USA

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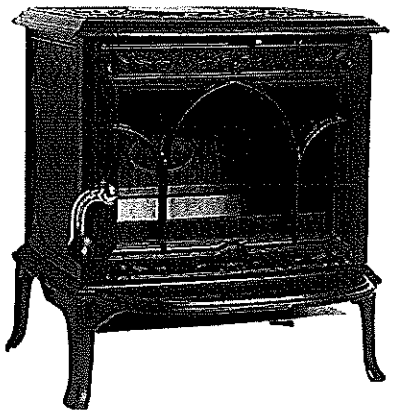
Installation and Operating Instructions for USA and Canada



JØTUL

Keep these instructions for future reference.

USA/Canada

Installation and Operation Instructions for USA/Canada
Installation et fonctionnement pour Canada

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. Save these instructions for future reference.

Avis de sécurité: Une installation non appropriée de ce poêle de chauffage risque de provoquer un incendie. Assurez votre sécurité en respectant les directives d'installation suivantes. Consultez les autorités locales du bâtiment ou de la prévention des incendies au sujet des restrictions et exigences relatives aux inspections d'installations dans votre région.

Tested and listed by ITS, Intertek Testing Services, Middleton, Wisconsin.
Tested to U.S. Standards: ANSI/UL 1482, Canadian Standards: CAN/ULC-S627-M93

Standards

The Jøtul F 100 USA woodstove has been tested and listed to:
U.S. ANSI/UL 1482
Canada: CAN/ULC-S627-M93

Tests performed by:
ITS, Intertek Testing Services, Middleton, WI

Manufactured by:
Jøtul AS, P.O. Box 1411, N-1602 Fredrikstad, Norway

Distributed by: Jøtul North America, P.O. Box 1157 100 Riverside Street, Portland, ME 04104

This heater meets the U.S. Environment Protection Agency's Emissions limits for wood heaters manufactured and sold after July 1, 1990.

Under specific test conditions, this heater has shown heat output at rates ranging from 7,700 to 27,000 BTU's per hour.

The Jøtul F 100 USA woodstove is *only* listed to burn wood. Do not burn any other fuels.

Read this entire manual before you install and use your new room heater.

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

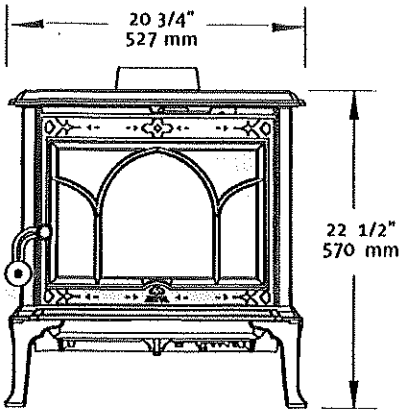
Check Building Codes

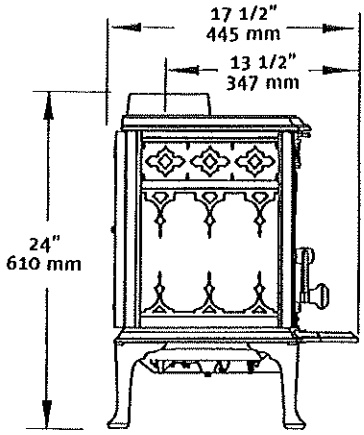
When installing, operating and maintaining your Jøtul F 100 USA woodstove, follow the guidelines presented in these instructions, and make them available to anyone using or servicing the stove.
Your city, town, county or province may require a building permit to install a solid fuel burning appliance.

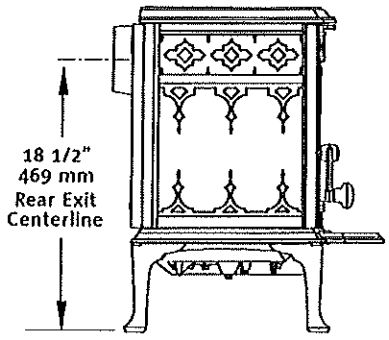
In the U.S., the National Fire Protection Association's Code, NFPA 211, *Standards for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*, or similar regulations, may apply to the installation of a solid fuel burning appliance in your area.

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.







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USA/Canada

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.
- *Install smoke detectors in the living areas and bedrooms of your home. Test them regularly and install new batteries twice annually.*
  When installed in the same room as the stove, a smoke detector should be located as far from the stove as possible to prevent it from sounding when adding fuel to the fire.
- Avoid creating a low pressure condition in the room where the stove is operating. Be aware that operation of an exhaust fan or clothes dryer can create a low pressure area and consequently promote flow reversal through the stove and chimney system. The chimney and building, however, always work together as a system - provision of outside air, directly or indirectly to an atmospherically vented appliance will not guarantee proper chimney performance. Consult your local 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.

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:
- Ash Lip
- Door Handle
- Hardware Bag
  - Flue Collar gasket
  - 6" Pipe Adaptor

Flue Collar Installation

The Flue Collar is oriented in the Top Exit position. Apply the gasket to the collar before installing the chimney connector.

Position Reversal

Follow this procedure to change the collar to a Rear Exit position if appropriate.

1. Remove the Flue Collar by reaching through the opening and removing the two bolts that secure it to the top plate.
2. Using tin snips, cut out the panel from the Rear Heat Shield for the Flue Collar to pass through. See **fig. 1.**
3. Remove the two screws that attach the Coverplate to the rear outlet. Hold onto the Coverplate while removing the second screw so that it does not fall out. See fig. 2.
4. Using the same screws, attach the Flue Collar to the rear outlet and the Coverplate to the Top Plate.
5. Install the Flue Collar gasket. Remove the protective paper from the adhesive side and apply the gasket to the inside of the Flue Collar.

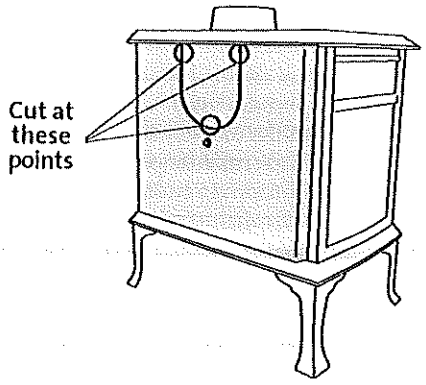


Figure 1. Rear flue collar cut-out.

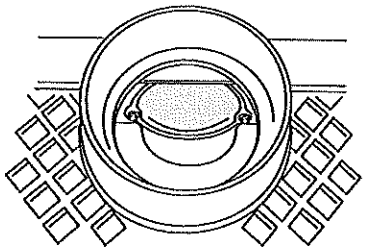


Figure 2. Remove the Rear Flue Outlet Coverplate.

Install the Ashlip

Attach the ashlip to the front by engaging the center tab with the slot located under the front door.

Assemble the Door Knob

Locate the white washer between the handle and the knob.

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. 3.
- Secure all connector joints with three sheet metal screws. The connection to the stove flue collar takes two sheetmetal 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.** Under no circumstance should horizontal pipe be allowed to slant down toward the chimney.
- No part of the chimney connector may pass through an attic or roof space, closet or other concealed space, or through a floor or ceiling. All sections of the chimney connectors must be accessible for cleaning. Where passage through a wall or partition of combustible construction is desired, the installation must conform with NFPA 211 or CAN/CSA-B365, and is also addressed in this manual.
- **Do not connect this stove to a chimney flue servicing another appliance.**

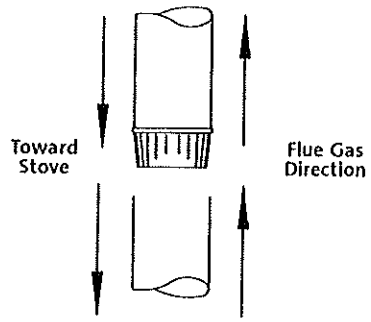


Figure 3. Chimney connector orientation.

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 **Figure 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.

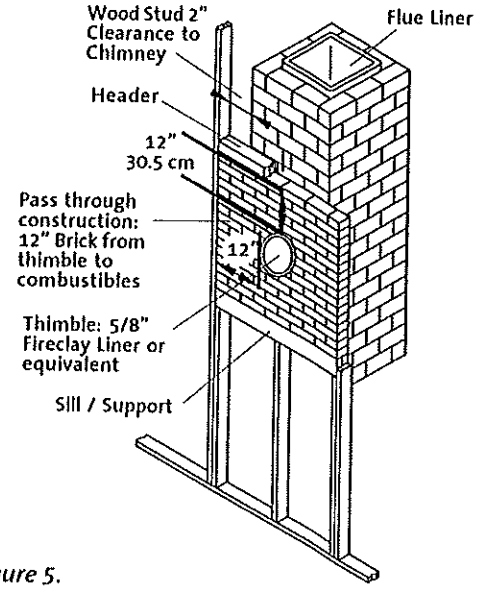


Figure 5.
Masonry Wall Pass-through.

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-B635 in Canada for other approved wall pass-through methods.

Prefabricated Chimneys

When connecting the Jøtul F 100 USA to a prefabricated metal chimney always follow the pipe manufacturer's instructions and be sure to use the components that are required. This usually includes a "smoke pipe adapter" that is secured to the bottom section of the metal chimney and allows the chimney pipe to be secured to it with two sheet metal screws. See figure 8.

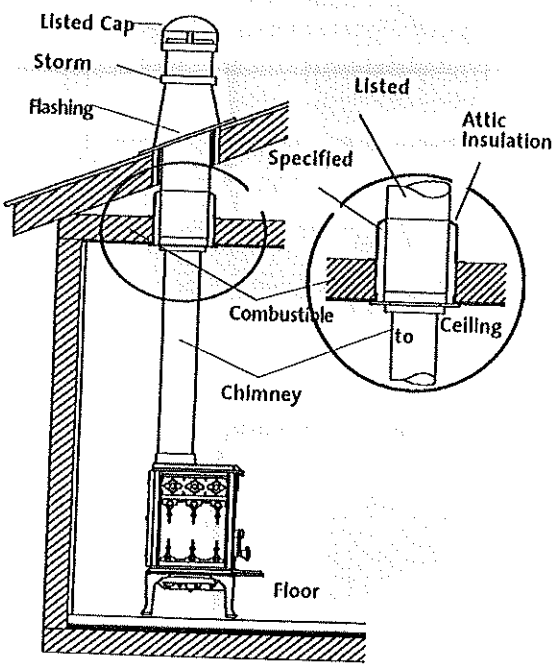


Figure 8. Prefabricated Listed Type HT Chimney.

Clearance to Combustibles

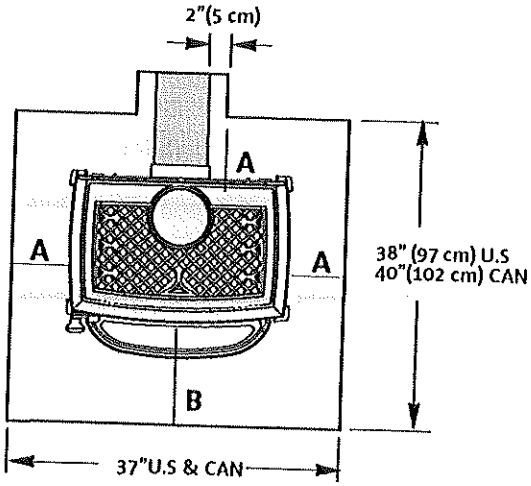


Figure 9. Hearth Protection.
A: 8" (21 cm)
B: 16" (US)
B: 46 cm (Can)

Floor Protection

The Jøtul F 100 USA requires one of the following forms of hearth protection:

1. Any UL, ULC or WH listed hearth board. (No bottom heat shield required).
2. Any noncombustible material with use of the bottom heat shield.

All forms of protection must include a noncombustible surface extending forward from the glass panel at least 16" for the U.S., or 18" (46cm) for Canada. Protection must extend 8" (21 cm) from the sides and rear for both: the U.S. and Canada.

This will result in a minimum floor protection of 37"W x 38" D for the U.S. or 37" W x 40" D for Canada. See figure 9.

In a rear vent installation, the floor protection must also extend under the stove pipe a minimum of 2" (5 cm) beyond either side of the pipe. See figure 9.

USA/CANADA

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 100 USA.

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 pages12-13 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. **When using double wall connector, Flue Collar Heat Shield Kit 154997 must be installed on the stove.**

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.

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.

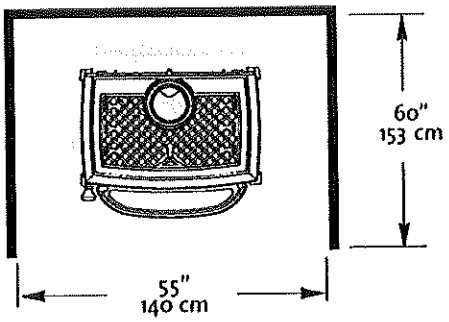


Figure 10. Alcove without Wall Protection.

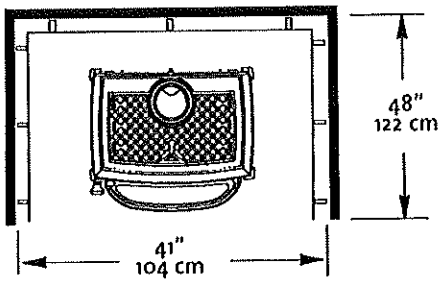


Figure 11. Alcove with Wall Protection.

Alcove Installation

The Jøtul F 100 USA can be installed in an Alcove as diagrammed in **figures 10 and 11.**

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. 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.

5. Minimum ceiling height in an unprotected installation, off the top of the stove is 60"(153 cm). The minimum ceiling height off the top of the stove in a protected ceiling installation is 48" (122 cm).

Clearances to Fireplace Mantels and Surround Trim

See the Clearance Chart on page 12 for approved clearances to combustible materials that may be part of fireplace construction. See also fig. 12 on page 12

USA/CANADA

Jøtul F 100 USA Clearance Chart

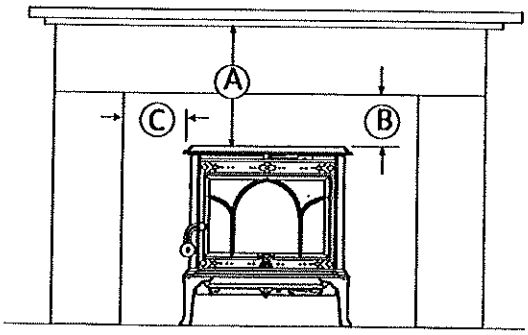
All clearances established with included stove rear heat shield installed.

Stove Clearances	Unprotected Surface Installation			Protected Surface per NFPA211 or CAN/CSA -B365-M93		
	Side	Rear	Corner*	Side	Rear	Corner*
Single-wall Connector	A 15" 381 mm	B 11" 280 mm	J 10" 254 mm	C 10" 254 mm	D 5" 127 mm	K 7" 178 mm
Single-wall Connector with Connector Shields or Double-wall Connector*	E 17" 432 mm	F 8" 203 mm	L 10" 254 mm	G 10" 254 mm	H 5" 127 mm	M 7" 178 mm
Chimney Connector Vertical Installation	**Unprotected Surface**			**Protected Surface** per NFPA211 or CAN/CSA-B365-M93		
Single-wall Connector	11" (280 mm)			6" (153 mm)		
Single-wall Connector with Connector Shields or Double-wall Connector*	8" (203 mm)			5" (127 mm)		
Chimney Connector Horizontal Installation	**Unprotected Surface**			**Protected Surface** per NFPA211 or CAN/CSA-B365-M93		
Single-wall Connector	18" (457 mm)			12" (305 mm)		
Double-wall Connector*	Manufacturer's Listing			Manufacturer's Listing		

** Double Wall Connector must be installed with Flue Collar Heat Shield Kit 154996.*

Mantel and Trim Clearances
Top and Side Trim is 1" thick or less
Maximum Mantel depth 12"

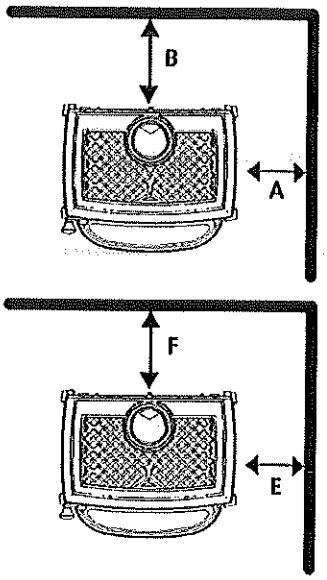
Figure 12



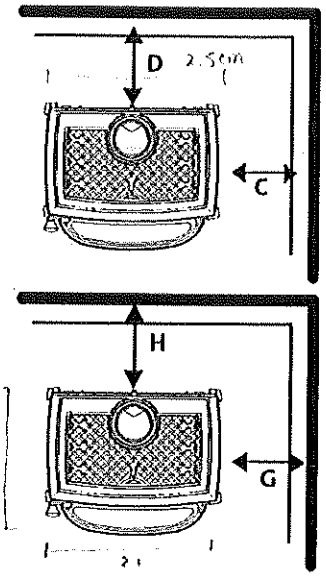
	Unprotected Surfaces	Protected Surfaces
A. Mantel	22" (560 mm)	9" (230 mm)
B: Top Trim	17" (430 mm)	8" (200 mm)
C: Side Trim	14" (355 mm)	7" (430 mm)

USA/Canada

Unprotected Surface
Parallel To The Wall

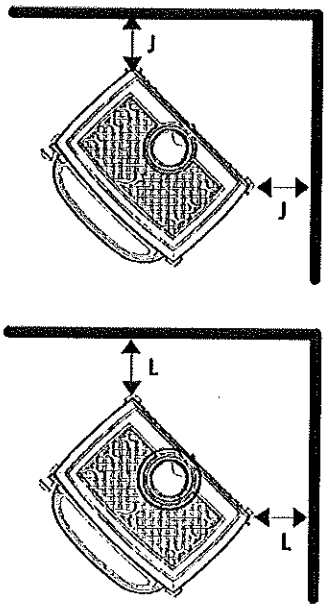


Protected Surface
Parallel To The Wall
PER NFPA 211 or
CAN/CSA-B365

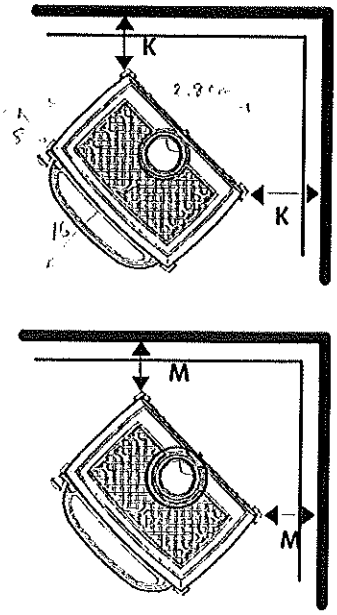


Important:
Connector heatshields and double wall pipe must be a listed product.
Always follow the manufacturer's instructions.

Unprotected Surface
Corner Installation



Protected Surface
Corner Installation
PER NFPA 211 or
CAN/CSA-B365



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. You should feel resistance as you pull. If it can be easily removed, the seal is too loose. Check several spots around the door.

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 away any excess cement that may have squeezed out from around the gasket.

Gasket List for the Jøtul F 100 USA

Description	Part #	Size	Length
Top Plate Gasket	100038	3/8" LD	7
Flue Collar Gasket	200028	3/16" LD/SA	3'
Glass Gasket	100038	3/8" LD	5' Door
Gasket	100030	5/16" LD	5'

Chimney System

The Jøtul F 100 USA 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

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 performance is 400° F - 600° F (205° C - 316° C).

Flue Collar Heat Shield (# 154996)

This unobtrusive heat shield must be installed on stoves using double wall chimney connector to provide additional protection to combustible materials from heat radiating from the flue collar of the stove. The insulating properties of double wall pipe result in higher flue temperatures in this area than are generated in single wall connectors.

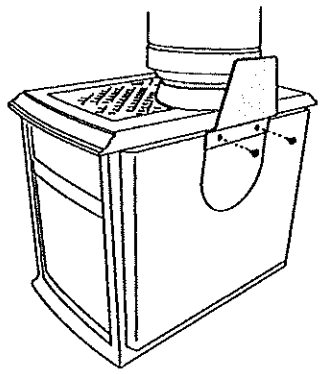


Figure 15. Attach flue collar heat shield.

Pos. no.	Description	Dim./Spec.
1	Side plate , left	
2	Gasket (for rear plate)	LD 250-2 Ø6,4x750mm
3	Cover for air manifold	
4	Heat shield rear, black	
5	Smoke outlet cover	
6	Rear plate	
7	Gasket (for top)	LD 375-2 Ø9,5x1620mm
8	Baffle	
9	Smoke outlet, dripless Ø125	for EU
10	Gasket (for smoke outlet)	LD 187-1 Ø4,8x500mm
11	Top plate , complete	
12	Inner bottom	
13	Burn plate, side	
14	Side plate , right	
15	Valve	
16	Valve plate	
17	Gasket (for valve plate)	LD 250-2 Ø6,4x835mm
18	Air Deflector	
19	Hinge pin, black chromated	Ø6x33mm
20	Gasket (for door)	LD 375-2 Ø9,5x1620mm
22	Glass Clip	
24	Gasket (for glass)	LD 250-2 Ø6,4x1300mm
25	Glass	379x270x4mm
26	Spring	
27	Spring Pin	Ø5x24mm
28	Latch	
29	Screw, machine pan head pozidrive	M6x40, DIN 7985
30	Washer	Ø6,4xØ12,5x1,6, St8,8, DIN 125
31	Sleeve	Ø8xØ6xL27,5mm
32	Wooden knob	
33	Washer, insulating	Special
34	Nut hexagon	M6, St8,8, DIN 934
35	Washer, black-chromated, special	Ø10,5x25x1,5
36	Door , complete excl/glass	
37	Gasket (for door)	LD V-125 Flat 8x30mm
38	Latch bolt	
39	Front plate	
40	Ash lip	
41	Log/Ash retainer	
42	Leg 155mm	
43	Valve/cover plate	
44	Bottom plate	
45	Heat shield, under	
46	Screw, hexagon cap	M6x50, St8.8, DIN 933
47	Screw, hexagon cap flange	M6x25, St8.8
48	Screw, hexagon cap flange	M6x16, St8.8
49	Screw, hexagon cap flange	M6x12, St8.8
50	Washer	Ø8,4xØ20x1,5, St8,8, DIN 522
51	Screw, machine pan head pozidrive	M6x8, DIN 7985
52	Nut hexagon cap flange	M6, St8,8, DIN 6923
53	Gasket (for rear plate)	LD V-125 Flat 8x30mm
76	Smoke outlet, dripless Ø150	for USA

USA/Canada

Illustrated Parts Breakdown.

Only use replacement parts provided through your authorized Jøtul dealer.