INSTALLATION GUIDE NVI 2000 Chimneysystem

23.06.2017 | JAN - 2019



THE SAFEST CHIMNEY ON THE MARKET

Congratulations on your choice of a chimney from Jøtul

The choice of chimney at least as important as the fireplace itself. Jøtul's chimenys are suitable for all stoves and fireplaces, they are CE-marked and satisfy all the EU's health, safety and environmental requirements – which means you can rest assured that the chimney is safely removing all the smoke. The system is adapted for modern homes, and the design means that the chimney can be a conscious choice when creating your interior design. The choice of NVI ensures a safe and secure product for you and your family.



SINTEF 123-023



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Advice and provisions

General

This installation guide describe how to install, commission and maintain your Jøtul pipe.

You should keep the installation guide, both to show to the local fire/chimney sweep authority at the time of the first inspection, and for subsequent fire safety checks that are performed at regular intervals. It is important for you to fill out the relevant details on page 36 of this installation guide.

The installation guide should be kept together with your property's operating and maintenance guides.

Remember that the surface on which you locate your fireplace must also be able to cope with the weight of the chimney.

This installation guide assumes that installation is performed in a single-family dwelling. Different rules apply if the Jøtul pipe is going to be installed in a building with multiple dwellings, as such buildings have different fire cells – a fire-protection shaft in the building's lowest fire class is often a requirement.

Building application

In the case of work for which an application is required, you must always submit a form to your local authority before installing and erecting a chimney. All the information you need for the building application can be found in the pipe's performance declaration in this installation guide, and which can also be downloaded from our website – www.jotul.no.

Fire protection and safety distance

The following safety distances to the nearest flammable materials apply:

- Fully insulated chimney modules 50 mm.
- Semi-insulated chimney modules 80 mm.
- Uninsulated connection ducts and bends 300 mm (See diagram on page 11).

It is of the utmost importance to ensure that you comply with the safety distances to flammable materials that are specified in this installation guide.

Anticipated usage

The NVI chimney is approved and CE marked in accordance with standard SS EN 1856-1's requirements for metal chimneys, with the following standardised definitions:

SS-EN 1856-1: T450-N1-D/W-V2-L50100-G50

SS-EN 1856-1	Applicable standard
T450	Temperature class
N1	Pressure class
D/W	Operating class*
V2	Corrosion class
L50xxx	Stainless steel EN 1.4404 (SS 2348, ANSI 316L)
Lxx100	Flue duct's material thickness 1.0 mm
G50	Pipe fire resistant with safety distance 50 mm

* The NVI chimney is approved for flue gases from the combustion of gas, light oil and wood (including wood pellets) with a maximum flue gas temperature of 450°C. The fireplace's maximum permitted output is 120 kW.

Approved for 600° (T600) for straight, fully insulated module, with a safety distance of 50 mm.

Lateral offset of NVI 2000

NVI 2000 can be offset laterally to an angle of between 15° - 90°. If the pipe bend i greater than 45°, i.e. 46° - 90°, the cleaning hatch(es) must be positioned in order to facilitate chimney sweeping of the first vertical section from the fireplace as well as the diagonal section between the bends. The lateral offset must be anchored using either a wall fitting, suspension bracket, support leg, load-bearing plate or a combination of these. Each bend must be fitted with one or more of the specified anchors. The maximum c/c distance between the anchors is 1500 mm.

NVI 2000 has no restrictions as regards the number of bends that may be used. If more than two bends are used, the cleaning hatches must be positioned so that the entire flue duct can be cleaned without difficulty.

It is possible to sweep chimneys with changes of direction limited to $2 \times 45^{\circ}$ bends and max. 200 cm straight modules between the bends. In order to sweep such solutions, a handheld pole with a star brush made of fibre must be used.

Lengthwise expansion

The flue duct in the chimney module expands due to hot flue gases (lengthwise expansion). The flue duct extends by 1 mm/m/100°C. These forces cannot be limited, and for this reason the flue duct's lengthwise expansion must be taken into consideration in relation to safety distances to flammable materials, so that the chimney's safety distances do not decrease when the fireplace is in use. Example: If the flue gas temperature is 400°C, the flue duct will extend by 4 mm/m of chimney module.

Multiple fireplaces using the same chimney

Using NVI's chimney system, it is possible to connect multiple fireplaces to the same pipe. Certain normative regulations and requirements, informative guidelines and calculation methods are set out in EN standards that must be complied with. See the diagram on page 17. This only applies to the standard pipe (not the Combi).

Installation in enclosed shaft

If it is set out in the installation instructions, it is permitted to enclose the chimney fully using non-flammable plates or drywall plates. The plates must be joined together at the corners using plate brackets or external binding (see diagram). The distance between the outside of the chimney and the inside of the shaft wall must be at least 50 mm. Enclosing in this manner may be relevant where the chimney passes through a converted attic without a fireplace. If the shaft is not connected to a ventilated hood above the roof, it is necessary to install a valve with an opening of at least 30 cm² at the top of the shaft for ventilation. There must also be an inspection hatch measuring at least 300 x 300 mm in an accessible location in the shaft wall. When the enclosing of the chimney terminates at a floor, the same rules apply.

If the floor separates functional units, it is necessary to have fire cell-limiting structures. In such circumstances, the shaft must be fitted with fire resistance EI60 (B60). The developer must clarify this with the local building authorities.



Technical specifications

SAFETY RESISTANCE TO THE NEAREST FLAMMABLE MATERIALS			
	VERTICAL (MM)	HORIZONTAL (MM)	
Fully insulated modules	50	50	
Semi-insulated modules	80	80	
Uninsulated modules	300	300	

DIMENSIONS AND WEIGHTS, FULLY INSULATED SYSTEM CHIMNEY

INT. Ø MM	EXT. Ø MM	WEIGHT KG/M
125	260	11
150	280	14
190	315	17
250	380	22
For construction dimensions for hands/hand connections and other		

For construction dimensions for bends/bend connections and other sections, see the product catalogue.

DIMENSIONS, CHIMNEY SHAFT		
FLUE PIPE DIAMETER (MM) MINIMUM INTERNAL DIMENSIONS, SHAFT (M		
Ø125	360 x 360	
Ø150	380 x 380	
Ø190	420 x 420	
Ø250	480 x 480	

MAXIMUM LOAD ON THE CHIMNEY ELEMENT

All dimensions = 13 kN

PRESSURE DROP

Pressure drop in bends and bend connections $90^{\circ} = 1.12$

HEAT RESISTANCE

 $R = 0.40 \text{ (m}^2 \text{ K/W)}$ at T450

WIND LOAD

Max. 1.8 metres above roof without stay. Maximum length of square hood = 4100 mm.

BENDING RESISTANCE

Maximum load on the mounting device

Support leg	3 kN
Suspension bracket	0.7 kN
Wall fitting	1.5 kN
Load-bearing plate	0.9 kN

CHIMNEY HEIGHT ABOVE ROOF

If the distance from the roof ridge is <2.3 meter, an installation height of 0.4 metres above the roof ridge is recommended.

Distance from roof ridge

Pipe height above roof

		DISTANCE FROM ROOF RIDGE TO CENTRE OF FLUE PIPE						
		0	50	100	150	200	250	300
	15°	80	85	85	85	85	85	85
ш	20 °	80	97	116	116	116	116	116
١GL	25°	80	103	127	150	150	150	150
FAN	30°	80	108	137	166	185	185	185
00	35°	80	115	150	185	220	225	225
R	40°	80	122	164	206	248	270	270
	45°	80	130	180	230	280	321	321

Getting started

Chimney sign

When the installation of the system's chimney is complete, one chimney sign (label) must be attached to the upper part of the chimney. The other can be glued into this installation guide and kept with your household paperwork. Two chimney signs are included in the installation kit. The installation date must be indicated on the label.

Using the fireplace for the first time

It is common for an odour to arise the first time you use the fireplace. This is due to the burning of residues of e.g. paint, grease and other substances from the manufacture of the fireplace. In the same way, the chimney's pipe insulation gives off an odour the first few times. These odours normally disappear after your new fireplace has been used a few times.

	e-märkt för Europa
	0402
	NVI, Näldenvägen 40, SE-835 40 Nälden 04 0402-CPR-265403 NVI20151000 & NVI20151001
	SS EN 1856-1
	Flerväggig systemskorsten av metall
NVI 2000	& NVI 2000 Combi: SS EN 1856-1:2009 T450-N1-D/W-V2-L50100-G
	Tryckhällfasthet: Maximalt 20 m skorstenssektioner Flödesmotständ: 0.15um
	Värmemotstånd: 0,40 m²K/W vid T450
	Resistens mot soteld: Godkänd Böihållfasthet: 2 m
	Draghållfasthet: 0,6 kN
	Icke vertikal installation: Maximalt 1.5 m mellan fästnunkter 15°-90°
	Hällfasthet för vindlast utomhus:
	Maximalt 1,8 m fristående över tak utan stag
	Resistens mot trysning/upptining: Godkand
	MONTERINGSDATUM

Climbing arrangements

If pipe's outlet is **higher than 1.2 m** at the point where you climb up, a work platform or a module must be installed with a sweeping hatch according to the same dimensions. This solution may only be used in the case of a round, external pipe above the roof.



Maintenance guidelines

Operation

The NVI 2000 system chimney is designed to cope with flue gas temperatures of up to 450°C and a fireplace output of max. 120 kW in the case of continuous operation. Ignoring these values through the use of different combustion methods, fuels and fuel quantities can lead to serious damage to the fireplace and, in the worst case scenario, to your home.

The fireplace must not give off flue gases that are hotter than 450°C in normal operation.

Use the fireplace properly

It is important to use the fireplace properly and ensure that its instructions are followed. There is a great deal to learn about fires – see our website www.jotul.no.

Maintenance and servicing

The painted outer casing of the system chimney can be cleaned with most detergents that are suitable for painted surfaces. NB: Distinguish between detergents and solvents! Thinning solvents can damage the powder-painted outer casing.

Grease spots, which can arise on outer casings made of brushed, stainless steel, must be removed using detergents specially designed for stainless steel kitchen appliances. Note that cleaning should take place in the metal's griding direction, as otherwise the outer casing's surface structure can be altered.

In conjunction with the annual maintenance of your roof, you should ensure that the chimney is in good order. Check that adapters are still sealed, and remove moss and other waste that prevents runoff from taking place as it should.

Pipe fires

In the event of a pipe fire, you must naturally call the emergency services on 110. In addition, a chimney sweep must inspect the chimney before you use the fireplace again to check that the chimney is in good condition.



Choice of installation method for chimneys

Structure of the chimney and component names



Standard assembly, internal

Insulated modules



Uninsulated modules



The chimney is installed from the bottom up.

Start by measuring the hole in the ceiling based on the fireplace's flue connecting piece. Cut out the hole in the ceiling to ensure the correct safety distance to any flammable material.

If necessary, install an adapter on the fireplace's flue connecting piece.

If the fireplace does not have a protection grid for sweep ball, you are recommended to install one (accessory) in the fireplace's connecting piece.

Then position the ceiling plate with the painted side facing down towards the fireplace. Install the connecting piece on the fireplace and then modules, fully and semi-insulated.

Tap together the inner tube using a wooden block during the course of the installation.

Then install the connecting piece's wide ring over the connecting piece to conceal the bare flue pipe. Leave a 10 mm air gap at the bottom by the fireplace.

NB: Ensure that the tongue/groove system is pressed firmly together; also applies to the cladding pipe.

Start by measuring the hole in the ceiling based on the fireplace's flue connecting piece. Cut out the hole in the ceiling to ensure the correct safety distance to any flammable material.

Start by installing modules from the bottom by the stove. Some stoves need an adapter at the bottom in order for installation to be successful.

Then install the ceiling plate with the painted side facing down towards the fireplace.

Install the connecting piece on the fireplace and then modules.

Tap together the inner tube using a wooden block during the course of the installation.

Observe a distance of 300 mm to any flammable materials (this applies to the uninsulated part).

Rear connection directly behind the fireplace



Cladding pipe for support leg (accessory)



The length of the cladding pipe must be adapted to the existing installation.

Start by removing the ring from the bottom of the rear connection.

Place the cladding pipe to the side of the rear connection with the rubber ring end at the top. Cut the cladding pipe so that it just reaches the bottom of the rear connection.

Turn the cladding pipe so that the cut side is facing the floor. Attach the cladding pipe and lock it in place against the rear connection using the ring.

This creates a gap by the floor, which you conceal with the enclosed wide ring.



Cut a hole in the insulation panel that is supplied with the ceiling plate. The hole must be the same size as the cladding pipe. Cut the panel in half and insert the pieces up into the floor structure around the chimney.

Move the ceiling plate up against the ceiling without damaging the paint, and secure it centrally by pressing down the silicone moulding between the chimney and the ceiling ring.

Then screw the ceiling ring into position with the supplied screws, and cut off the moulding so that it seals evenly around the circumference.

The round cover plate can be split by tapping it by the perforation.

Installation of cover plate for sloping ceiling (round/square)



Cut a hole in the insulation panel that is supplied with the ceiling plate. The hole must be the same size as the cladding pipe. Cut the panel in half and insert the pieces up into the floor structure around the chimney.

ROUND COVER PLATE in degree interval, 2-part

Screw the two-part ring into position with the supplied screws so that there is an even gap of 3-4 mm around the chimney.

Then install the moulding in the gap with the round profile visible (the upper diagram – applies to the round cover plate). Cut off the moulding so that it seals evenly around the circumference.

NB: When installing the round cover plate, the moulding must be installed with the rounded part of the moulding facing in towards the room (see diagram).

SQUARE COVER PLATE

Template. This is used to ensure the correct holes, depending on the dimensions and the roof pitch.

Find the template, cut it out and draw a line along the edge. Then cut along the marking.

The edge will then be covered by the supplied moulding.

Through-connections

Adapter in flammable floor structure



Adapter, semi-insulated to fully insulated module

If a semi-insulated module ends up fully or partially in the floor structure, it must be provided with additional insulation with a 30 mm thick, mesh-reinforced mat that comes with the adapter.

Note that the semi-insulated module and the narrower part of the adapter should protrude a maximum of 300 mm into the floor structure (see diagram).

Remember that the safety distance to flammable material must always be observed.

The diffusion barrier must seal around the entire chimney; slits must **not** be cut in the hole in the membrane. Can be installed from above, down against the existing moisture barrier, or from beneath up against the moisture barrier.

Important: Make sure that it is completely sealed against the moisture barrier.

Fully insulated module in flammable floor structure



Fully insulated chimney passes through a flammable floor structure, up to 300 mm insulation with required distance without accessories. Rock wool insulation (supplied with ceiling ring) is then used next to the ceiling.

Where the floor structure's insulation is up to 400 mm thick (not loose wool), rock wool insulation made of a mesh-reinforced mat weighing 105 kg/m3 (t=50 mm) can be used adjacent to the chimney (addition) for extra rock wool insulation

The rock wool insulation that comes with the ceiling ring is not used in this case.

If the floor structure's insulation (not loose wool) is between 400-800 mm thick, the pipe can be installed with rock wool insulation with a mesh-reinforced mat of type 140 kg/m3 (t=100 mm) adjacent to the chimney for extra insulation. The rock wool insulation that comes with the ceiling ring is not used in this case.

The diffusion barrier must seal around the entire chimney; slits must **not** be cut in the hole in the membrane. Can be installed from above, down against the existing moisture barrier, or from beneath up against the moisture barrier.

Important: Make sure that it is completely sealed against the moisture barrier.

Floor structure with blown insulation

When blown insulation is used in the floor structure, a plate shaft, spiral pipe or similar round pipe module must be installed with a minimum distance of 5 cm.

Non-flammable material

In the case of a through-connection in non-flammable material of class EI60, no safety distance is required. Some distance is required for clearance and space for a length extension.

Standard installation through outer wall

Through-connection, flammable wall



In the case of a through-connection in a wall where the insulation material comprises chipboard, loose wool or equivalent, a shaft must be built with measurements in accordance with the table on page 5.

The shaft must be insulated with the enclosed rock wool mat.

Walls and roofs in houses

When making a hole in a house, it is extremely important for the installation to be completely airtight, as otherwise there is a risk of condensation forming in the roof structure; the use of a diffusion barrier is therefore necessary.

The diffusion barrier must seal around the entire chimney; slits must not be cut in the hole in the membrane.

The diffusion barrier must also seal against the plastic film around the entire installation. Glue the diffusion barrier to the plastic film. If the diffusion barrier's outer dimensions need to be cut to a smaller size, more tape must be used to ensure the seal. Use the tape recommended by the company that produces the plastic film. For example, diffusion barrier tape or butyl tape.

Through-connection, flammable wall



- Mark on the wall the location of the centre of the fireplace's flue gas output.
- If the wall is made of non-flammable material, make a hole that is sufficiently large for cladding and a seal against draughts.
- Test-mount the connecting piece, chimney module and rear connection. Measure the distance from the fireplace to the vertical cladding.
- Then measure the corresponding distance from the fireplace's terminal connecting piece to the outside of the facade, and add a minimum of 50 mm as a safety distance. The difference between these measurements is compensated by cutting the chimney module (cutting instructions can be found on page 26).
- After cutting, test-mount and check that the safety distance of 50 mm is satisfied throughout the installation.

NB: Do not place the adapter in the wall through-connection.

Installing wall bracket



- Secure the bracket to the wall in the height-adjusted grooves with distance A below the middle of the hole.
- Insulate the shaft in the wall using the enclosed mineral wool. Install the cover plate centred over the hole.
- Place the rear connection on the square pin, then adjust so that the desired B measurement is still at least 50 mm (max. 550 mm). Tighten the screw on the underside of the bracket.
- Then install 8 screws in the fixed holes A on the bracket to ensure the attachment to the facade.
- Install the moulding in the opening between cover plate and module pipe. Then screw the cover plate in place.

DIAMETER, FLUE PIPE	A (MM)
ø125	258
ø150	258
ø190	258
ø250	318

Wall bracket for rear connection, continued



The wall bracket comes with a pre-installed load-bearing plate. This distributes the load out towards the stronger edges. The load-bearing plate must be used when installing through an outer wall.

If an extension piece is required for the wall bracket, the extension piece must be assembled on the bracket before it is installed on the wall. Note that the extension piece and bracket must be assembled with an even upper/lower edge. In other words, they must not be out of line, as this would affect the bracket's load-bearing capacity.

The bracket must be attached to the wall via the 8 fixed holes in the rear edge of the bracket, or the extension piece if one is used.

NB:

When installing a wall bracket with an extension piece – start by assembling the wall bracket and extension piece with screws and nuts in the fixed holes. Note that both parts must be assembled with an even upper/ lower edge. If they are out of line, there is a risk of reduced durability. The load distributor between bracket and module MUST be used.

Note that the B measurement must not exceed 550 mm. See diagram on page 16.

Chimney with multiple fireplaces



General requirements installation of multiple fireplaces

When installing multiple fireplaces to the same chimney, fireplace 2/3 must always be top-mounted for installation on T-piece.

IMPORTANT!

When only this fireplace is in use, the other fireplace's hatches and dampers must be closed.

Installation of rectangular hood above roof

Bottom fitting



Check the surface after making a hole in the roof and make sure that the bottom fitting has a load-bearing, stable attachment. If not, build a frame attachment.

Cut a hole in the roofing felt and insert the bottom fitting at the upper edge to ensure that condensation does not run out into the roof structure.

Then install locking band for the bottom fitting. (When installing a Ø250 pipe there is no locking band, in which case the chimney must be attached directly to the bottom fitting using screws.)

Solder the pipe.

Secure the bottom fitting to the ceiling, then tighten the screws for the stay ring in the bottom fitting.

Note the distance of 50 mm from cladding to flammable material.

Felt roof / Sarnafil



Check with the roof producer that it is permitted to make a roof through-connection in the roof in question. Then follow the producer's guidelines for the roof through-connection.

• In the event of a square cover, you are recommended to use both the bottom and the lower fittings.

All work with this type of roof sealing system must be performed by a professional in accordance with applicable regulations.

Lower fitting, steel

Roofing tiles



Build a frame around the bottom fitting's connecting piece at the same height as the roofing. Return the cornice and then the roofing. In some cases, it may be necessary to cut roofing tiles.

Install the enclosed weatherstrip at the bottom edge to prevent moisture being blown in.

Then place the lower fitting in position, centre over the bottom fitting and screw into place.

Ensure that the roofing tiles and lower fitting are clean. Glue the aluminium-reinforced rubber membrane onto the top edge of the lower fitting, then slide it in under the first row of roofing tiles. Press the membrane onto the top of the roofing tile, then shape the membrane so that it seals tightly over the entire row of tiles.

Pay attention to runoff. Ensure that the rubber membrane is shaped so that there can be no standing water. Take particular care at the transition between roofing tiles and the lower fitting at the upper edge.

Steel plate roof – extension plate



In the case of a steel plate roof, the lower fitting must extend in under the next steel plate joint with a minimum overlap of 10 cm or up to the roof ridge. If this is not satisfied, extension plates (accessories) must be used.

Loosen the roof ridge plate.

Start by installing the enclosed weatherstrip at the bottom edge of the lower fitting to prevent moisture being blown in. Then place the lower fitting in position, centre over the bottom fitting and screw into place.

Then extend with plates if necessary from below, up towards the roof ridge. Ensure that runoff takes place.

Reinstall the roof ridge plate over the lower fitting or the extension plate.

Lower fitting, aluminium membrane for roofing tiles, slates, roofing tile profiles made of steel and roofs made of corrugated plastic



Eaves

Build a frame around the connecting piece at the same height as the roofing.

Return the cornice and then the roofing. In some cases, it may be necessary to cut the roofing.

Then place the lower fitting in position, centre over the bottom fitting and screw into place.

Make sure that the roofing is clean. Roll out the aluminium membrane and remove the protective tape, then shape the membrane so that it seals tightly over the entire row of roofing. Make sure that the aluminium membrane is under the joint above.

Pay attention to runoff. Make sure that the aluminium-reinforced rubber membrane is shaped so that there can be no standing water, particularly at the transition between the lower fitting and the roofing at the upper edge.

Installation of telescopic section and rain protection



The telescopic section is pre-installed with the roof.

The roof has guides regarding where the curved rain guard should be installed, and there are two directions to choose between.

Before installing the telescopic section on the casing kit or on the lower fitting, note which location of the curved rain guard is most appropriate in relation to the wind direction. Thread the telescopic section down over the casing so that the roof bottoms out against the insulation. The inner pipe should now be level with the upper edge of the hood (max. 10 mm above).

Then screw the rain guard onto the telescopic section's pipe hood in the indicated holes.

Finishing by screwing the rain guard's locks into place on the opposite side, in the indicated holes. Place the rain protector piece in the flue pipe (must not be glued in place).

Extension casing



The casing comprises four plates and one stay plate. The plates for the casing are attached with the aid of a "snap lock" and cannot be separated once they have been assembled, so make sure that the ends of the plates are completely even before you assemble them.

Use a wooden mallet or similar, but make sure you protect the plates so that they do not sustain damage when you are assembling them.

Once this has been done for all the supplied telescopic sections, the stay plate's edges are folded down and the locking lips are bent up.

Assemble the casings with the stay plates.

The casing must then be cut at an angle along the roof pitch in accordance with the table. As the hood is rectangular, make sure that you cut along the casing's long side.

Then install the casing on the lower fitting. Adjust the casing so that it is correctly positioned before attaching it with the enclosed screws along the long side. Pre-drill using a 3 mm drill bit.

If several casings are used, assemble these and secure them at the joints with screws on all sides. Pre-drill using a 3 mm drill bit. Minimum 10 cm overlap at the joints.

Installation above roof, round hood, stay plate





After making a hole in the roof, inspect the surface and make sure that the stay plate is supplied with a load-bearing, stable attachment. If not, build a frame for attachment.

Install the lower half of the stay plate (the part without the folded up edge). Solder the chimney and then secure it to the roof.

Cut a hole in the roofing felt and insert the upper half of the stay plate. This is done to prevent condensation running out into the roof structure. Secure it to the roof.

Then build a frame around the bottom fitting's connecting piece at the same height as the roofing.

Return the cornice and then the roofing.

Thread the roof seal over the chimney module, and lower it carefully towards the roofing tiles (so that the system chimney's paintwork does not sustain any damage).

Continued: See pages 23-24, depending on roofing.

The cone



If the cone's opening does not correspond with the roof angle, cut it horizontally before screwing the cone/roof seal into place.



Thread the roof seal over the chimney module, and lower it carefully towards the roofing tiles (so that the system chimney's paintwork does not sustain any damage).



Roof seal

Felt roof/Sarnafil



Check with the roof producer that it is permitted to make a roof through-connection in the roof in question. Then follow the producer's guidelines for the roof through-connection.

• In the event of round roof fittings, use both stay plates and roof seal

All work with this type of roof sealing system must be performed by a professional in accordance with applicable regulations.

Roofing tiles, slates and roofing tile profiles made of steel



Build a frame around the connecting piece at the same height as the roofing.

Return the cornice and then the roofing. In some cases, it may be necessary to cut roofing tiles.

Then place the roof seal in position, centre over the roof plate and screw into place.

Make sure that the roofing is clean. Roll out the aluminium membrane and remove the protective tape, press the membrane into place on top of the roofing, then shape the membrane so that it seals tightly over the entire row of roofing.

Pay attention to runoff. Ensure that the aluminium-reinforced rubber membrane is shaped so that there can be no standing water. Pay particular attention at the transition between the roofing and the roof seal at the upper edge.

Metal roof



For roofs made of metal, the roof seal must reach up to the roof ridge. If this is not satisfied, extension plates must be used.

Loosen the roof ridge plate.

Start by installing the enclosed weatherstrip at the bottom edge of the roof seal to prevent moisture being blown in.

Then place the roof seal in position, centre around the chimney. If the cone's opening does not correspond with the roof angle, it can be cut horizontally (see diagram 2, The cone). Screw the roof seal in position.

Then extend with plates if necessary from below, up towards the roof ridge. Ensure that runoff takes place.

Reinstall the roof ridge plate over the roof seal or extension plate.

Installation advice, Alumembrane.

Installation advice, alumembrane.

It is important to seal the transition between the roofing and pipe/wall/boxes/skylight or other parts of the roof where there is a requirement for a mouldable solution. Our alumembrane with its self-adhesive sealing edge provides secure protection against the penetration of snow and rain. NB: It is important for the surface to be cleaned of dirt before installing the membrane.



The membrane must not end with an open edge facing the roofing at the top edge. It must be inserted underneath to ensure an overlap, at least 10 cm.

There must not be any pockets where standing water can collect. This is particularly important at the top edge. It may be necessary to install bushings here of the same height as the top of the profile on the roofing.

Rain collar



Place the vulcanising tape over the roof seal and module pipe in order to seal the gap that arises. The tape must be stretched so that there is pressure around the entire chimney.

The tape is secured by overlapping the ends and by having **at least 20 mm overlapping** at the joint.

Thread the rubber moulding onto the module pipe, and ensure that the longest part is located against the casing.

Assemble the rain collar and the rubber moulding on the module pipe above the vulcanising tape.

Install the rain collar as close to the vulcanising tape as possible without compressing the vulcanising tape. Adjust the height and location of the rain collar.

Then secure the mounting screw in the lower joint on the rain collar. This must be done before the attachment bolt has been completely tightened, to ensure that the rain collar is not pulled crooked, leading to leaks. Finally tighten the attachment bolt as far as possible without affecting the shape of the module pipe.

Rain/top protection (not Combi)



Place the rain/top protection on the uppermost module pipe, secure with the three enclosed screws, as illustrated. The protection must be installed so that it is level with the inner pipe.*

Open the rain/top protection and place the rain protector piece in the flue pipe. Close the rain/top protection and check the installation.

*The inner pipe may protrude max. 10 mm above the top protection.

Adaptation of chimney modules



When there is a requirement to adapt the length of modules, all components must be cut by the same amount.

The adjustable end is the lower part, as illustrated. The rubber ring on the cladding pipe must be retained.

Cladding pipes and flue pipes can be cut with an angle grinder, jigsaw or hack-saw.

Cut the cladding pipe with care, as this part is visible.

The insulation can be cut with an insulation saw or knife. Cut the insulation on the "male" side, as this is easier to shape. After cutting the insulation, recreate the male shape at the lower end in accordance with the drawing.

Installation of laterally offset chimney



If the pipe is angled more than 45° from the vertical, or if the distance between 15-45° bends is more than 200 cm, a cleaning hatch is required. The max. distance between cleaning hatches is 5 meter.

Start by installing any ceiling ring/plate.

When installing with suspension brackets to relieve the load, these must be installed before the chimney modules are put in place.

If wall fittings are used to relieve the load, these can be installed at the same time as the chimney modules.

Install the first bend in the chimney module in the correct position.

Continue to install the correct chimney sections bearing in mind the location of any cleaning hatches, so that they are easily accessible. **NB: In the case of external installation, a special cleaning hatch must be used.**

Install the next bend where the chimney is to revert to vertical. Consider installing a ceiling ring/ plate before making the penetration through the roof.

The chimney must be stayed in connection with each angle. The maximum distance between the stays is 1500 mm.

(When installing two bends put together, they are held with a wall fitting, or alternatively a ceiling ring with a load-bearing function.)

Finally install the enclosed tapping screws in all the joints, from the first to the last bend (4 screws per bend joint).

NVI 2000 Combi

Special advice and provisions for NVI2000 Combi

- NVI 2000 Combi is only approved as a chimney that is connected at the top.
- Approved with an angle up to 45°.
- Installation with cleaning hatch is not permitted.
- The NVI 2000 Combi is approved and CE marked in accordance with standard SS EN 1856-1's requirements for metal pipes, with standardised definitions: NVI 200COMBI SS EN 1856-1:2009 T450-N1-D/W-V2 L50100-G50
- The NVI 2000 Combi is not intended for the use of several fireplaces in the same pipe.
- Otherwise, the same advice and provisions apply as for NVI 2000.

In order for the approval/CE marking to be valid, the NVI 2000 Combi must be used as a supply air pipe and be connected to the fireplace with the enclosed supply air duct.

Reminder of safety distances

SAFETY DISTANCES TO THE NEAREST FLAMMABLE MATERIALS			
VERTICAL HORIZONTA (MM) (MM)			
Fully insulated modules	50	50	
Semi-insulated modules	80	80	

Rain protector piece Telescopic section Stay plate **∢** Rain protector piece **∢** Rain top **∢** Rain collar **∢**Roof seal Casing) **♦** Stay plate Lower fitting **▲** Diffusion barrier Locking band Bottom fitting **▲ Module**, fully insulated (flue duct + 60 mm insulation) Diffusion barrier **▲** Diffusion barrier Adapter from semi-insulated to fully insulated module Ceiling ring Module 🕨 Fully and semi-insulated. Standard and Combi. Connecting piece **♦** Connecting piece Connecting duct **♦** Connecting duct

NVI2000 Combi (integrated supply air) structure and designation of parts

Installation of NVI2000 COMBI

Internal installation



Start the installation with the connecting piece, install the rectangular connecting piece in the direction in which the connection duct is subsequently to be installed.

If there is a difference between the fireplace's flue pipe and the chimney, use a suitable adapter.

Continue upwards with modules, fully or semi-insulated, depending on the installation.

The insulation for NVI2000 COMBI is not guaranteed in the delivery. You should therefore take care during handling, to ensure that the insulation is not damaged.

Ensure that the spacer washer is in place between the insulation and the outer casing for each module, so that the insulation is secured during installation..

Connecting duct



Read through the fireplace producer's guidelines regarding supply air.

Depending on the fireplace, use the accessory that is suitable for your installation.

The connecting duct's distance to flammable material is 5 mm and this must be satisfied to enable component parts to be ventilated. The recommended distance between the supply air duct and the stove is 5 mm.

For optimum stability of the supply air duct, perform installation with "the hook" – see figure 2.

It is important for the entire installation to be sealed at all joints in order to minimise the risk of condensation.

Roof through-connection, adapter, semi to fully insulated



If a semi-insulated module ends up fully or partially in the joisting, it must be provided with additional insulation with a 30 mm thick, mesh-reinforced mat that comes with the adapter.

Remember that the safety distance to flammable material must always be observed.

When making holes, the sealing plastic film will be opened. Use the diffusion seal, which is threaded over the module and then secured to the plastic film. The diffusion barrier is glued to the existing moisture barrier/plastic film. It can be glued from below or above.

Important! Slits must not be cut in the diffusion membrane opening, but rather the membrane must be threaded on the outside of the module.

Important: Make sure that it is completely sealed against the moisture barrier.

Roof through-connection, fully insulated module



If fully insulated Combi modules are used, no additional insulation is required. However, bear in mind that the safety distance of 50 mm to flammable materials must always be observed.

Use the insulation that is supplied with the ceiling plate, as this acts as protection against draughts.

When making holes, the sealing plastic film will be opened. Use the diffusion seal, which is threaded over the module and then secured to the plastic film. The diffusion barrier is glued to the existing moisture barrier/plastic film. It can be glued from below or above. Make sure that it is completely sealed at the point where it is glued.

Important! Slits must not be cut in the diffusion membrane opening, but rather the membrane must be threaded on the outside of the module.

Important: Make sure that it is completely sealed against the moisture barrier.

Rain/top protection around hood



When adapting the chimney length, it is important to ensure that the supply air is able to pass freely through the top of the chimney. Leave a distance of at least 30 mm between the roof and the end of the cladding pipe.

Install the rain/top protection by threading it over the uppermost cladding pipe.

Roof hood, square



When adapting the chimney length, it is important to ensure that the supply air is able to pass freely through the top of the chimney. Leave a distance of at least 30 mm between the roof and the end of the cladding pipe.

Allow the top of the hood to rest against the protruding "male" insulation, in order to leave a sufficiently large air gap for the supply air chimney.

Extra cladding pipe for round hood



Installation guide, accessories, NVI2000

Individual products have separate installation and assembly guides. These guides can be downloaded from our website, www.jotul.no.

READ MORE ABOUT NVI's CHIMNEY MODULES AT WWW.JOTUL.NO

Warranty provisions

25-year warranty

The NVI 2000 chimney system is made from materials of the highest quality, which means we can guarantee that the NVI 2000 has a long service when handled correctly and when our installation guide has been followed.

- This 25-year warranty is conditional on our chimney system being complete and not being mixed with other makes, as well as on it being inspected and approved by a qualified professional. The 25-year warranty covers fully, semi and uninsulated chimney modules. Other parts of the chimney are covered by a 10-year warranty.
- 2. The warranty applies from the delivery date to the customer, and only covers the defective part, which means that Jøtul will supply a replacement part that is in perfect condition. Jøtul is not responsible for costs arising from downtime or other direct or indirect costs, nor for any injuries or damage. The fact that Jøtul has sent a replacement part does not result in a new or extended warranty period. There is also no separate warranty period for the replacement part.
- 3. The warranty is valid on the condition that the chimney is connected to a CE-certified, type approved or environmentally approved fireplace. The use of the fireplace must be in accordance with the produces recommendations, and the fireplace must be used with fuel that is approved for the chimney. In addition, the chimney must not be exposed to flue gas temperatures in excess of 450°C in continuous operation. The warranty assumes that:
 - Installation and commissioning are carried out in accordance with Jøtul's installation instructions.
 - The product is used, looked after and maintained in accordance with Jøtul's installation instructions.
 - The product has been stored in heated, dry environment prior to installation.
- 4. Important! The warranty does not apply to chimney rain tops such as rain protection, curved rain guards, ballerina or spirovac pipe hoods, flue gas fans or equivalent components installed on the top of the chimney.
- 5. The warranty does not cover
 - Changes in colour or damage to paintwork
 - Damage as a result of a pipe fire

- Corrosion damage as a result of incorrect installation, insufficient maintenance or other external influences on the product.

- Force majeure, such as new or amended legislation, fire, lightning strike or other incident over which Jøtul has no control.

- 6. Complaints must be submitted to the dealer who sold the product within fourteen days of the fault being discovered.
- 7. Damage that has arisen in connection with the transport of the product must be notified to the haulage company when the product is delivered to the purchaser or at the latest seven days thereafter.

Checklist and confirmation of completed inspection of chimney installation

Address of the property:

Address	Post code	Town/city
Owner's name		
Installer (company)		Name
Address	Post code	Town/city

Chimney's designation:

Type of chimney	Dimensions	No. of fireplaces connected to the chimney
Height of chimney	Offset	Roofing

The installation has been checked by an installer during installation:

Inspection certificate

The installation has been checked with the aid of the completed checklist and a visual inspection. The installation has been checked and been found to be in order:

Town/city

Installer's signature

A confirmation of the inspection of the installation is a precondition for the chimney being able to be used. The existence of such a confirmation is also essential for Jøtul's warranty for the product. Ensure that this page is filled out and that a copy is sent to the local authority's chimney sweep service.

Look after the original, as this is an important document for your home.

CE marking

The installation kit comes with CE marking. These must be affixed to the chimney in conjunction with installation. The marking must be supplied with the installation date. One of the labels must be affixed in this installation guide.

1		
1		
<u> </u>		

Jøtul order number:	Installation date:	
Dealer	Dealer's order number:	
	Dealer's order humber.	
Installed by:		
Inspected by:	Date of inspection:	Report no.:

Angles and measurements for the dimensions $\emptyset 125 - \emptyset 190$ D = 165 mm for all bends.

125-190



Angle 15° B

650

890

1180

1420

1760

2000

2290

2530

2870

A 85

150

230

290

380

450

525

590

680

С

330

580

880

1130

1480

1730

2030

2280

2630

Description of measurements

D = 165 mm for all bends

Bend 90°, two segments

Structure length A and B 275 mm applies to the dimensions 125, 150 and 190 semi and fully insulated bend. Cleaning hatch can be installed in a 90° bend. When ordering – specify location 1 or 2 according to diagram.

Bend 90°, three segments

Structure dimension A = 310 mm for fully or semi-insulated bend up to a diameter of 190 mm.

Combi bends only 15°, 30° and 45°.

Angle 30°				
A	В	C		
165	615	330		
290	830	580		
440	1090	880		
565	1310	1130		
740	1610	1480		
865	1830	1730		
1015	2090	2030		
1140	2300	2280		
1315	2600	2630		

	Cleaning h location 2	atch Br	nm	
Cleaning hatch location 1 (STANDARD) E E		•		



Angle 45°				
A	В	С		
235	565	330		
410	740	580		
620	950	880		
800	1130	1130		
1050	1380	1480		
1220	1550	1730		
1440	1770	2030		
1610	1940	2280		
1860	2190	2630		
2670	3000	3780		
3490	3820	4930		
4300	4630	6080		
5110	5440	7230		

Angle 52° (for roof pitch 38°)				
А	В	С		
260	535	330		
460	690	580		
690	870	880		
890	1025	1130		
1170	1240	1480		
1360	1400	1730		
1600	1580	2030		
1800	1730	2280		
2070	1950	2630		
2980	2660	3780		
3885	3370	4930		
4790	4070	6080		
5700	4780	7230		

Angle 63° (for roof pitch 27°)			
A	В	СС	
295	480	330	
515	590	580	
750	730	880	
1010	840	1130	
1320	1000	1480	
1540	115	1730	
1810	1250	2030	
2030	1370	2280	
2340	1520	2630	
3370	2050	3780	
4380	2570	4930	
5420	3090	6080	
6440	3610	7230	

Structure sections				
C		Sections		
330	=	2 x V°		
580	=	2 x V° + 250		
880	=	2 x V° + 550		
1130	=	2 x V° + 250 + 250		
1480	=	2 x V° + 1150		
1730	=	2 x V° + 1150 + 250		
2030	=	2 x V° + 1150 + 550		
2280	=	2 x V° + 1150 + 250 + 550		
2630	=	2 x V° + 2 x 1150		
3780	=	2 x V° + 3 x 1150		
4930	=	2 x V° + 4 x 1150		
6080	=	2 x V° + 5 x 1150		
7230	=	2 x V° + 6 x 1150		

Angles and measurements for the dimensions Ø250 D = 275 mm for all bends.



Description of measurements

D = 275 mm for all bends

Angle 90°, three segments Structure dimension A = 350 mm



Angle 15°			
В	C		
1081	550		
1322	800		
1610	1100		
1850	1350		
2190	1700		
2430	1950		
2720	2250		
2960	2500		
3300	2850		
	Angle 15° B 1081 1322 1610 1850 2190 2430 2430 2720 2960 3300		

Angle 30°					
А	В	С			
275	1025	550			
400	1240	800			
550	1500	1100			
675	1720	1350			
850	2020	1700			
975	2240	1950			
1125	2500	2250			
1250	2715	2500			
1425	3020	2850			

А

	Angle 45°	
А	В	С
390	940	550
565	1115	800
780	1330	1100
955	1500	1350
1200	1750	1700
1379	1930	1950
1590	2140	2250
1770	2320	2500
2015	2565	2850
2830	3380	4000
3640	4190	5150
4455	5005	6300
5270	5820	7450

Angl	e 63° (for roof p	itch 27°)		Stru	cture sections
	В	С	C		Sections
0	800	550	550	=	2 x V°
0	910	800	800	=	2 x V° + 250
0	1050	1100	1100	=	2 x V° + 550
00	1160	1350	1350	=	2 x V° + 250 + 250
15	1320	1700	1700	=	2 x V° + 1150
10	1435	1950	1950	=	2 x V° + 1150 + 250
)5	1570	2250	2250	=	2 x V° + 1150 + 550
30	1685	2500	2500	=	2 x V° +1150 +250 +55
10	1845	2850	2850	=	2 x V° + 2 x 1150
55	2370	4000	4000	=	2 x V° + 3 x 1150
90	2890	5150	5150	=	2 x V° + 4 x 1150
15	3410	6300	6300	=	2 x V° + 5 x 1150
10	3930	7450	7450	=	2 x V° + 6 x 1150

Angle 52° (for roof pitch 38°)			
А	В	С	
435	890	550	
630	1040	800	
870	1230	1100	
1065	1380	1350	
1340	1600	1700	
1540	1750	1950	
1770	1935	2250	
1970	2090	2500	
2245	2305	2850	
3150	3010	4000	
4060	3720	5150	
4965	4430	6300	
5870	5140	7450	

PRESTANDADEKLARATION Nr: DOPSE-T450-CPR-265403



Produkttypens identifikationskod:

Flerväggig systemskorsten av metall, modell NVI2000: T450 – N1 – D/W – V2 – L50100 – G50

Avsedd användning:

Skorsten för att leda bort rökgaser från eldstäder som eldas med ved, pellets, lättolja, gas, torv och kol som avger maximal effekt 120kW och maximal rökgastemperatur 450°C.

Tillverkare:

Näldens Värmeindustri AB Näldenvägen 40 835 40 Nälden

System för bedömning och fortlöpande kontroll av prestanda: 2+

Harmoniserad standard:

EN 1856-1:2009

Tillverkningskontroll av godkänt organ:

SP Sveriges Tekniska Forskningsinstitut, NB 0402 Rapportnummer: 0402-CPR-265403 2004-06-21

D

Väsentlig egenskap	Prestanda	Harmonisk teknisk specifikation
Tryckhållfasthet	Max skorstenslängd: 20m	
Brandmotstånd	T450-G50	
Gastäthet/läckage	N1	
Flödesmotstånd	0,15 μm Rördelar(flödesmotståndskoefficient) - Böj 45° : 0,4 - Böj 90° : 1,6	
Värmemotstånd	0,4 m ² k/w beräknad vid T450	EN 1856-1
Motstånd mot termiskchock (Soteld)	Uppfyller	
Draghållfasthet	0,6kN	
Icke vertikal installation	Maximalt 1,5 m mellan fästpunkter 15° - 90°	
Hållfasthet för vindlast	Maximalt 1,8 m fristående över tak utan stag	
Resistens mot vatten och ångdiffusion	Uppfyller	
Resistens mot kondensat	Uppfyller	
Resistens mot korrosion	Uppfyller, V2	
Resistens frysning/upptining	Uppfyller	

Prestandan för ovanstående produkt överensstämmer med den angivna prestandan. Denna prestandadeklaration har utfärdats i enlighet med förordning (EU) nr 305/2001 på eget ansvar av Näldens värmeindustri AB.

Undertecknat för tillverkaren av:

Nälden den 1 mars 2018

U anattelstrom

Maria Hallström VD Näldens Värmeindustri AB



PRESTANDADEKLARATION NVI 2000 COMBI Nr: DOPSE-T450-CPR-265403



Produkttypens identifikationskod:

Flerväggig systemskorsten av metall, modell NVI 2000 COMBI: T450 – N1 – D/W – V2 – L50100 – G50

Avsedd användning:

Skorsten för att leda bort rökgaser från eldstäder som eldas med ved, pellets, lättolja, gas, torv och kol som avger maximal effekt 120kW och maximal rökgastemperatur 450°C.

Tillverkare:

Näldens Värmeindustri AB Näldenvägen 40 835 40 Nälden

System för bedömning och fortlöpande kontroll av prestanda: $2^+\,$

Harmoniserad standard:

EN 1856-1:2009

Tillverkningskontroll av godkänt organ:

SP Sveriges Tekniska Forskningsinstitut, NB 0402 Rapportnummer: 0402-CPR-265403, 2004-06-21

Deklarerad prestanda:

Väsentlig egenskap	Prestanda	Harmonisk teknisk specifikation
Tryckhållfasthet	Max skorstenslängd: 20m	
Brandmotstånd	T450-G50	
Gastäthet/läckage	N1	
Flödesmotstånd	0,15 μm Rördelar(flödesmotståndskoefficient) - Böj 45° : 0,4	
Värmemotstånd	0,4 m²k/w beräknad vid T450	
Motstånd mot termiskchock (Soteld)	Uppfyller	EN 1856-1
Draghållfasthet	0,6kN	
Icke vertikal installation	Maximalt 1,5 m mellan fästpunkter 15° - 45°	
Hållfasthet för vindlast	Maximalt 1,8 m fristående över tak utan stag	
Resistens mot vatten och ångdiffusion	Uppfyller	
Resistens mot kondensat	Uppfyller	
Resistens mot korrosion	Uppfyller, V2	
Resistens frysning/upptining	Uppfyller	

Prestandan för ovanstående produkt överensstämmer med den angivna prestandan. Denna prestandadeklaration har utfärdats i enlighet med förordning (EU) nr 305/2001 på eget ansvar av Näldens värmeindustri AB.

Undertecknat för tillverkaren av:

Nälden den 1 mars 2018

đ Ustom 10

Maria Hallström VD Näldens Värmeindustri AB



PRESTANDADEKLARATION

Produkttyp:

Flerväggig systemskorsten av metall.

Typ enligt standard:

NVI 2000: SS EN 1856-1:2009 T600-N1-D/W-V2-L50100-G50

Avsedd användning:

Skorsten för att leda bort rökgaser från eldstäder som eldas med ved, pellets, lättolja, gas och torv som avger maximal effekt 120kW och maximal rökgastemperatur 600°C.

Tillverkare:

Näldens Värmeindustri AB Näldenvägen 40 835 40 Nälden

System för bedömning och fortlöpande kontroll av prestanda: 2+

ZΤ

Harmoniserad standard:

EN 1856-1:2009

Tillverkningskontroll av godkänt organ:

SP Sveriges Tekniska Forskningsinstitut Box 857, SE-501 15 BORÅS Rapportnummer: 0402-CPR-265403, 2004-06-21

Deklarerad prestanda:

Väsentlig egenskap	Prestanda	Harmonisk teknisk specifikation
Tryckhållfasthet	Max skorstenslängd: 20m	
Brandmotstånd	T600-G50]
Gastäthet/läckage	N1	
Flödesmotstånd	0,15 μm	
Värmemotstånd	0,4 m²k/w	1
Termisk prestanda	SS EN 1859-1	1
Böjhållfasthet	2 m	EN 1856-1
Draghållfasthet	0,6kN	
Icke vertikal installation	N/A]
Hållfasthet för vindlast	Maximalt 1,8 m fristående över tak utan stag]
Resistens mot vatten och ångdiffusion	Uppfyller]
Resistens mot kondensat	Uppfyller	
Resistens mot korrosion	Uppfyller, V2]
Resistens frysning/upptining	Uppfyller]

Prestandan för ovanstående produkt överensstämmer med den angivna prestandan. Denna prestandadeklaration har utfärdats i enlighet med förordning (EU) nr 305/2001 på eget ansvar av Näldens värmeindustri AB.

Undertecknat för tillverkaren av:

Nälden den 1 mars 2018

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Maria Hallström VD Näldens Värmeindustri AB







Jøtul AS Postboks 1411 1602 FREDRIKSTAD E-mail: stålpipe@jotul.no www.jotul.no



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Jøtul continuously strives to improve its products and reserves the right to modify specifications, colours and fittings without prior notice.

