

NORD*flam*



MANUAL
AND WARRANTY CARD

▼
WATER JACKED
FIREPLACE INSERTS

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1. General information

Thank you for purchasing a NORDflam fireplace insert.

Prior to using the insert, please read the hereby manual carefully. For further information about this insert, please visit our website: www.nordflam.pl.

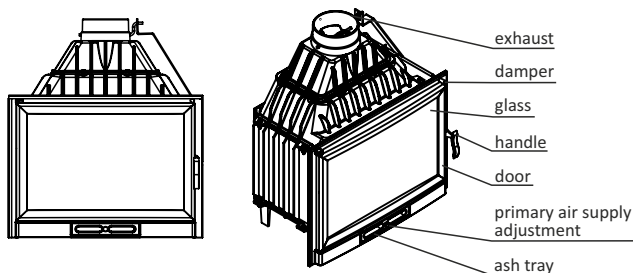


Fig.1. Fireplace insert schematics.

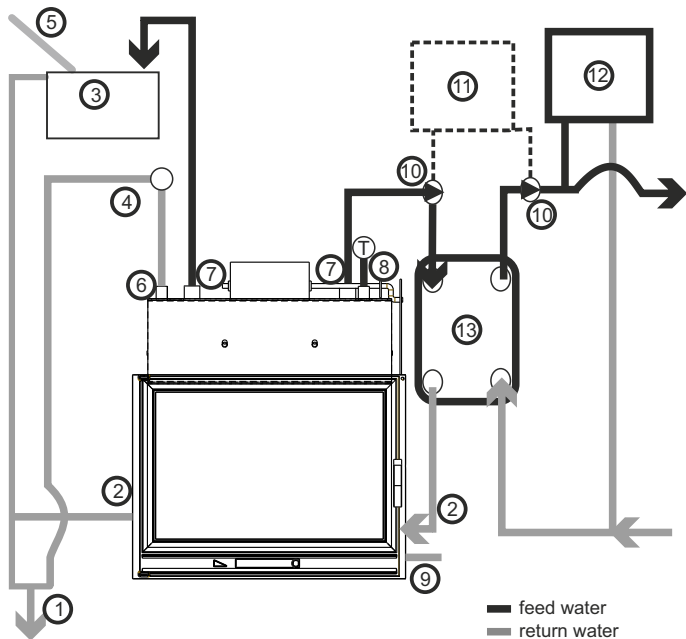
1.1. Fireplace insert intended use

Fireplace insert is intended to be installed and to be used as an additional source of heating in the room it is installed.

1.2. Provisions of law

Provisions of law regarding the fireplace inserts:

- Construction law Journal of Laws No 89 pos. 414 from 1994 – Bill from 07.07.1994. as amended,
- Ministry of Infrastructure regulation dated 12.04.2002 for technical conditions regulation the buildings and its positions – Journal of Laws no. 75 from 2002, pos. 690 as amended,
- EN 13229 standard, as amended: „Heating inserts with open fireplaces, for solid fuels. Tests and requirements”,
- PN-91/B-02413 standard.



Warning:

The water pipes can be connected to the right or left side of the fireplace insert.
Unused pipes must be blocked.

Fig. 2. Draft of central heating connection:

- 1. Drainage, 2. Return water stub pipe, 3. Collector, 4. Safety valve, 5. Fresh water supply*
- 6. Safety valve stub pipe, 7. Hot water stub pipe, 8. Temperature sensor*
- 9. Wastewater discharge stub pipe, 10. Circulating pump, 11. River, 12. Electric, gas stove*
- 13. Exchanger*

1.3. Opis techniczny

The front of the fireplace insert is made of cast-iron elements connected by tonguing-and-grooving method, sealed with heat-resistant refractory and screwed together. The doors of the furnace and the glass are fixed with non-flammable seals (fiberglass), which ensures the correct air-tightness of the heating device. The air supply adjustment is located in the ash drawer in the lower part of the furnace. Stainless deflector, prolonging the burning process, is located in the upper part of the furnace, above horizontal flame pipes. The fireplace insert is equipped with adjustable damper. The water jacket of the insert is a welded tank, made of 4 mm thick st3 steel and is equipped with the connection stub pipes, two horizontal flame pipes made of boiler steel, the bottom of the furnace is lined with chamotte bricks. Additionally, the fireplace insert is adjusted to external air supply system. It is possible by purchasing and installing CDP adapter, available in stores. Fireplace insert is equipped with insulation casing which increases its efficiency.

The furnace is heated by:

- the convection of air taken from the interior of the room by the orifice of min 800 cm² area located for example under the cast-iron insert and released by air grates, located in the upper part of the housing or spread with hot air ducts to other rooms, with combined area of 1000 cm²,
- releasing heat from the heated cast-iron and glass elements of the heating device,
- releasing heat from water obtaining heat energy from the burning fuel.

1.4. Water heating installation

Fireplace insert can be connected to water installations working in the open system. Safety measures must be taken in accordance with PN-91/B-02413 standard.

Central heating water installation must be designed by persons or companies specialising in this type of activity. The inserts can work on open system with max pressure of 1 Bar.

The inserts are equipped with a number of feed and return stub pipes, enabling the connection of the water installation on the left or right side of the insert. Moreover, the insert is equipped with stub pipes enabling the connection of the pressure meter and thermometer to control the working of the device.

It is advised to use the valve mixing feed and return water in order to obtain the temperature of above 50°C on return. It protects the insert from the condensation of the water vapour on the cool walls of the insert, which may lead to rust creation.

Warning: Water jacket insert cannot work without water supply.

2. Selecting the device

When selecting the device appropriate for the interior, apart from its aesthetic values, it is necessary to meet the regulations of the Minister of Infrastructure regulations from 12.04.2002 (Journal of Law 02.75.690 as amended) and the applicable provision of the construction law. Selection of the output of the device depends on the insulation level of the interior and the heated area. It is accepted that for sufficiently insulated room, 1 kW of output is sufficient for heating 10m² with the standard height of 2,5 m. It is required under the condition of the loss of warranty to choose the output of the device appropriately for the area of the heated room.

3. Installation

Installation of the fireplace must be performed in accordance with the applicable laws, norms and standards, recommendations of this manual as well as the construction principles. Installation must be performed by a qualified installer or a company. National and local terms must be met.

3.1. Chimney ducts

Each device should be connected to a separate chimney duct in accordance with applicable law. It is advised that:

- the minimum height of the chimney is equal to 3.5-4 m, optimal height is 5-6 m, measuring from the bottom of the furnace,
- the chimney duct is airtight, with the same diameter throughout the length and protrudes approx. 0.5 m above the roof ridge of the building, in order to prevent any interference in the draft,
- in exceptional cases (II & III wind load zone, due to local topography) should use chimney cowls to prevent the reverse draft.

Attention!

In cases when the chimney ducts:

- are of smaller size and diameter than recommended,
- are in buildings located in a spot at a disadvantage (i.e. , surrounded by tall buildings, buildings in the valleys),
- are tilted vertically and/or contain long horizontal parts,

it may lead to the lack of the desired vacuum (draft) in a duct, which will not ventilate the exhaust, and as a result, the device may emit smoke into the interior of the room.

Before installing the fireplace insert it is necessary to get feedback determining the draft strength of the chimney duct chimney and the possibility of using the existing chimney duct to connect the fireplace insert.

It is assumed that the strength of the draft in the exhaust pipe should be 12 +/-2 Pa. The exhaust pipe with the draft above 12 Pa can lead to overheating of the furnace and loss of the warranty. Minimum draft should be at least 6 +/-1 Pa.

3.2. Ventilation and air access

In rooms with solid fuel furnaces with gravity fumes extraction it is prohibited to use mechanical ventilation devices. Exception: inserts adapted for recuperation systems.

When using the fireplace insert, a sufficient amount of air needs to be supplied to the room the fireplace insert is in. The interiors with the functional fireplace insert should have the air supply to the furnace of min. 10 m³/h to 1 kW of nominal output of the fireplace insert. Insufficient air causes incomplete combustion of the fuel and the exhaust gases containing carbon monoxide may cause smoking to the interior of the house. This is dangerous to life and health, reduces the output of the fireplace insert and does not constitute the basis for warranty claim.

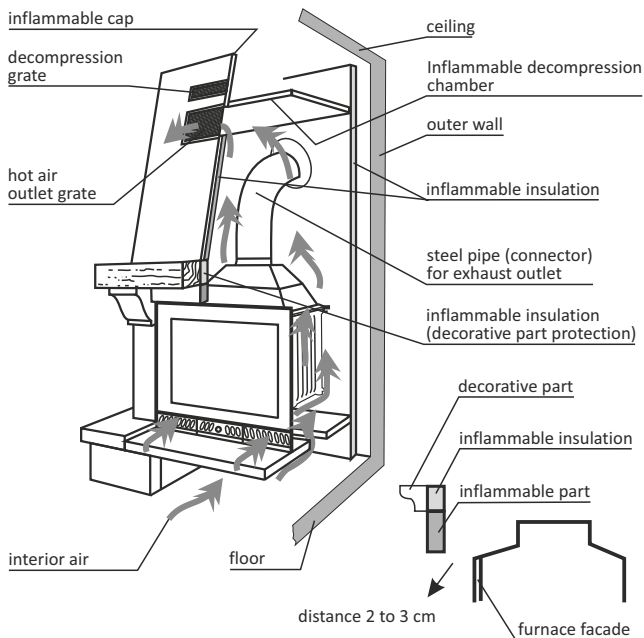


Fig.3. An example of how to install the fireplace inserts.

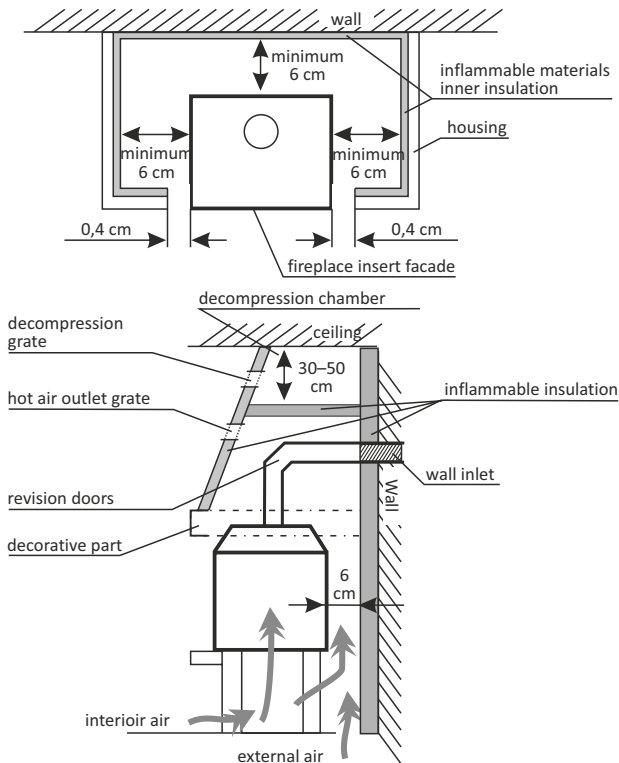


Fig. 4. Example of installing the fireplace insert - top and side.

3.3. Fireplace insert installation

Prior to installation, check if it is complete, check the operation of all the mechanisms and the durability of the surround. Fireplace insert should be placed on non-flammable surface with the thickness of min. 0,15 m. The floor in front of the fireplace insert should be secured by a layer of non-combustible material with a width ensuring safe use (min. 0.6 m, but not less than the length of the the opened door).

While constructing the housing of the fireplace insert, one should:

- place the fireplace insert on surfaces with sufficient load-bearing capacity,
- allow the convection of air between the walls of the fireplace insert and the walls of the housing. To do this, between the wall insulation of the housing, made of non-combustible materials and the ribbing of the fireplace insert a gap must be left of the width of min. 6 cm,
- ensure that the air supply under the furnace and its outlet via air grilles above the furnace (air grates has a combined area of 800 cm² and be constructed as to not get obstructed),
- ensure the proper ventilation via the decompression grate of 200 cm². Decompression chamber should be 30-50 cm high, measuring from the ceiling,
- ensure the distance of min. 150 cm from the front of the fireplace insert to the combustible materials,
- remove any third elements and securing elements,
- ensure the sufficient distance required to clean the fireplace and the connector.

After installation, the furnace it must be accepted by qualified chimney sweeper and acceptance protocol must be made and signed.

Between the fireplace insert and insulation, a distance of min. 6 cm should be provided (measuring from the external part of the insert to the insulation material) A distance of 2 to 3 cm must be provided between the upper part of the façade and the elements of the housing. Lack of the dilatation (above mentioned gaps) can be the cause of the damage of the device, which can lead to the loss of the warranty.

4. First burning

First burning in the fireplace insert can be made only after thorough drying of the construction materials. During the first burning a rapid fire cannot be set in order to avoid sudden changes in temperature. During first burning a specific smell will occur - it is an effect of hardening the protective materials. The smell shall subside after several burnings.

When igniting the fire, primary air supply must be opened fully and gradually closed (see: [5.2. Adjusting the air supply](#)).

5. Usage

5.1. Safety

In the course of operation of the device, you must take special care due to the high temperature, risk of burns and the possibility of fire:

- a thermal glove supplied by the manufacturer must be used while using the heating device,
- children must not be allowed to come in the direct contact with the heating device - adult supervision is required when children are close to the device,
- it is forbidden to disassemble and perform any structural changes of the fireplace insert,
- do not use water to extinguish the furnace,
- it is advised to install the carbon level sensor in the room where the heating device is installed,
- it is forbidden to leave the heating device unsupervised while the fire is live,

- it is forbidden to use the device to dry fabrics (i.e. clothes) and to keep the fabrics in its proximity,
- the insert must not be overheated,
- it is forbidden to ignite the fire in the fireplace insert that is not installed,
- during normal use of the fireplace insert, its doors must remain closed at all times.

In case of the soot ignite, notify the closest Fire Station and chimney sweeper. Until their arrival try to put out the fire using powder extinguisher, directing the spray directly to the chimney duct.

5.2. Adjusting the air supply

The burning process should be adjusted with the designated manipulators:

- the handle adjusting the damper, by adjusting the chimney draft, (see fig. 5),
- the cover in the façade of the ash tray, by adjusting the air supply to the bottom of the furnace (see fig. 6).

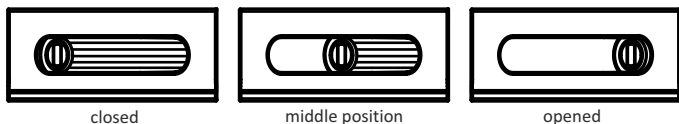


Fig. 5. The example adjustment of the air supply to the furnace (ash tray façade).

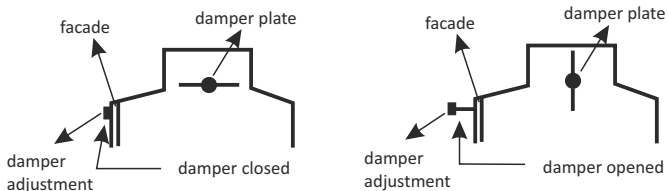


Fig. 6. The example of the damper adjustment

5.3. Fuel

The only acceptable fuel to be used is seasoned wood or wood briquette. The net calorific value of wood is on average 3,5 - 3,7 kW/kg with the moisture content of below 20%. Only wood with moisture content not exceeding 20% can be used for burning. The moisture content is achieved after approximately 2 years of dry storage. The freshly cut wood has the moisture content of 50-60%. Apart from increased wood use (twice as much) burning of freshly cut wood can lead to corrosion of the elements of the insert, glass getting dirty and faster settling of the soot (creosote) in the insert and in the chimney duct. It is recommended for single fuel loading not to exceed the height of 1/3 of the height of the furnace. It is unacceptable to use of materials other than those recommended, in particular waste materials and flammable liquids.

Dependency between the calorific value of the wood and its moisture level		
Wood condition	Water content	Calorific value
Freshly cut	50-60%	2,0 kWh/kg = 7,2 MJ/kg
Stored in the summer	25-35%	3,4 kWh/kg = 12,2MJ/kg
Stored for a few years	15-25%	4,0 kWh/kg = 14,4 MJ/kg

6. Maintenance and cleaning

The insert must be cleaned regularly, with the exhaust pipes in particular. It is advised to perform an inspection of the furnace by the qualified person or a company at least twice a year. The chimney ducts must be checked for being airtight and cleaned by a chimney sweeper 4 times per year. The maintenance check and cleaning of the chimney duct must be performed according to the applicable provisions, with particular reference to potential obstructions to the chimney ducts (i.e. clogging due to a bird nest, fallen leaves etc.)

Cleaning of the fireplace glass is only allowed using dedicated cleaning products. It is advised to clean the glass regularly in order to avoid permanent stains/dirt. It is advised to use liquid cleaning products so as to prevent the seals and/or sealants to soak them in. Ash should be removed before a thorough filling of the ash tray, so that the ash does not block the air flow and cooling the grate in the furnace.

7. Spare parts

Only the original spare parts available from the distributor of the fireplace inserts must be used.

Potential sources of furnace malfunction

Consequences	Possible origin of the fault	Remedies
Droplets, water condensing in the furnace	Burning of wet wood with reduced burning and closed damper Water going down a chimney duct	Use only recommended fuel Secure the chimney outlet
Damaging the sealing ropes of the glass and the doors	Using too much of too strong fireplace glass cleaning products	Use appropriate amount of dedicated fluids to clean the fireplace glass so as not to dribble on the sealing ropes
Excessive wearing of the moving cast-iron parts	Insufficient ventilation of the furnace, lack of ventilation of the grill via the ash tray, inadequate fuel	Regularly empty the ash tray, check the air circulation around the furnace, enlarge the orifices and air grates
Glass gets dirty fast	Lack of correct draft. lack of external air supply, using wet wood	Check the compatibility of the installation with the regulations, ensure air supply to furnace (i.e. air grate 20x20 cm), use dry seasoned wood
Insufficiently heated room	Bad quality wood, insufficient heat from the furnace, choice of the right output of the fireplace insert to the size of the room	Use the recommended fuel, check the air circulation around the furnace - air grates
Smoking into the interior of the room while burning	Inappropriate chimney draft	Check the chimney duct, its compliance with the regulations, clean the chimney duct, install the
Smoking into the interior of the room while igniting	Cold chimney duct	Pre-heat the chimney duct using more paper while igniting the fire
Too big of a fire in the furnace	Too big air supply to the furnace, too big draft, bad quality wood	Limit partially or completely the air supply to the furnace (adjustment on the ash tray façade) check if the damper is not blocked, use recommended fuel
Fire difficult to ignite	Wet wood, logs too big, bad quality wood, lack of air supply required for burning, bad draft	Use recommended fuel (hard oak wood) with appropriate moisture level, use small pieces of wood for ignition, supply adequate amount of air for burning, check if the chimney ducts are installed correctly

WARRANTY TERMS AND CONDITIONS

1. Duration of the warranty:

The warranty period for an efficiently working NORDflam fireplace insert is granted for 24 months for the cast-iron elements and the body of the furnace. The purchase must be confirmed by a stamp from the retailer (on the receipt or the invoice) and legible signature of the seller and the stamp and signature of the company installing the device.

2. The Warrant ensures free-of-charge repairs when manufacturing defect is discovered.

3. The warranty repair is free-of-charge, the Warrant ensures to answer the customer warranty claim within 14 days from the date of the claim and to settle the claim in the fastest possible time period. If removing the fault requires an increased effort and /or importing the spare parts, the above mentioned time can extend and the customer shall be notified about the fact.

4. Defects and damage of the device must be reported in writing at the point of sale where the product was purchased. The Buyer is obliged to present the correctly filled warranty card along with the document of purchase (i.e. receipt).

5. The warrant does not bear any responsibility for the lack of and the damages caused by faulty installing and using of the device (installed and used not in accordance with the provisions of the hereby manual and the provisions of the applicable law) The warranty is given for the device installed only by the persons and companies specialised in this field of work.

The warranty does not cover the damages caused by:

- using fuel other than recommended wood,
- flushing furnace with water,
- rapid lightening of the fire in cold furnace,
- mechanical damages,
- inadequate conservation,
- corrosion - the insert must be protected from moisture,
- inadequate chimney draft,
- transport - related faults and damages.

6. The warranty does not cover:

- heat-resistant glass ceramics - the furnace is equipped with the heat resistant glass up to 750°C, which significantly exceeds the temperature in the furnace during burning process The damage of the glass can be caused only due to inadequate manipulation or conservation of the equipment and as such does not fall under warranty,
 - seals and ropes - are subject to natural wear during operation of the device,
 - the elements of the furnace (the horizontal grill, the chamotte bricks, the deflector, the fireguard, the inner decorative wall), which may be damaged by using inadequate fuel (other than wood), over exploiting the furnace or inadequate installation of the device,
 - decorative layers on the surface of the fireplace insert.
7. Any damage caused by improper installation, operation or maintenance of the device and other causes not attributable to the manufacturer, can be removed only at the expense of the user.
8. The warranty is given only for the devices purchased and installed in Poland.
9. The warranty does not exclude, does not limit nor does not suspend the buyer's rights arising from the provisions of the implied warranty for defects (OJ no. 2014, pos. 827 and OJ 2014, pos. 121, as amended) Provisions of the Civil Code shall apply in matters not regulated by this warranty.
- I hereby accept and agree to the warranty conditions.

Buyer's signature.....

WARRANTY CARD FOR THE BUYER

NORDflam Fireplace insert

Name of the device

Date of purchase (warranty start date)

BUYER:

Name:

First name:

Address: street house no.....

Citypost code

.....
Stamp and signature of the dealer

.....
Stamp and signature of the company
installing the device

**MANUAL AND THE INSTALLATION INSTRUCTIONS OF THE NORDflam FIREPLACE INSERT
ARE THE INTEGRAL PART OF THE WARRANTY CARD.**

**I hereby declare that I have read the instructions for the installation and operation of the
NORDflam fireplace insert and its warranty terms.**

.....
owner's signature

WARRANTY REPAIRS

Notes	Date	Signature of the service technician



NORDFLAM Spółka z ograniczoną odpowiedzialnością Sp. k.

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The manual is valid from 17.03.2017 until the next version is released