

Installation and User Guide

Declaration of Guarantee

For Air-Heated Fireplaces



Installation and application description

1. Suggested installation

The installation of the combustion chamber must be carried out by a certified and qualified professional. This is an essential requirement to ensure safe and efficient operation, as well as the maximum durability of the combustion chamber.

1.1. Chimney

The chimney must comply with the requirements of the applicable standards:

- ✓ Only chimneys that have been inspected and approved by the competent authority will be accepted.
- ✓ The appliance may be connected to a chimney with a diameter equal to or greater than the flue stack diameter.
- ✓ When connecting, it is prohibited to reduce the cross-section of the chimney in the direction of the smoke.
- ✓ The chimney must be properly cleaned.
- ✓ It is forbidden to connect a solid fuel burning appliance to a gas chimney.
- ✓ Only one appliance may be connected to the chimney.
- ✓ The chimney must have adequate draft capacity.

1.2. Fireplace surrounding

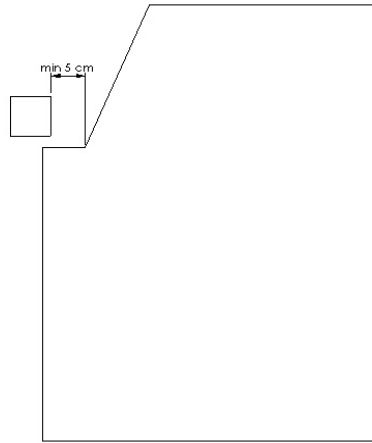
The installation of the combustion chamber must in any case be carried out by a professional and in compliance with the regulations.

Fireplace inserts should only be operated with a properly installed lining. During installation, ensure that there is even heat distribution within the fireplace. The airflow around the fireplace must also be even, with an air gap of 2-3 mm between the fireplace surrounding and the fireplace on the side of the door frame and at least 5 cm towards the wall. At the top, there should be a gap of at least 5 mm between the firebox and the ledge, and a gap of at least 5 cm between the firebox and the wall. The gap to the top cone of the firebox should be at least 5 cm, or 10 cm if the facing allows it.

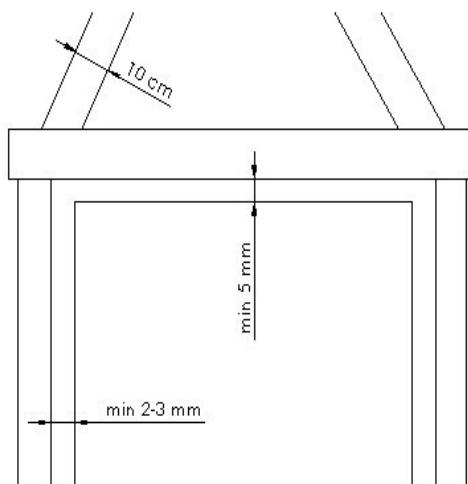
IMPORTANT: Air circulation must be ensured both above and below by an opening or ventilation grille of appropriate size with a free area of at least 30 cm² above and below per kW. These are considered a basic requirement for installation.

WARNING: When designing the surrounding of LD fireplaces, ensure that sufficient space is left for maintenance of the lifting gear.

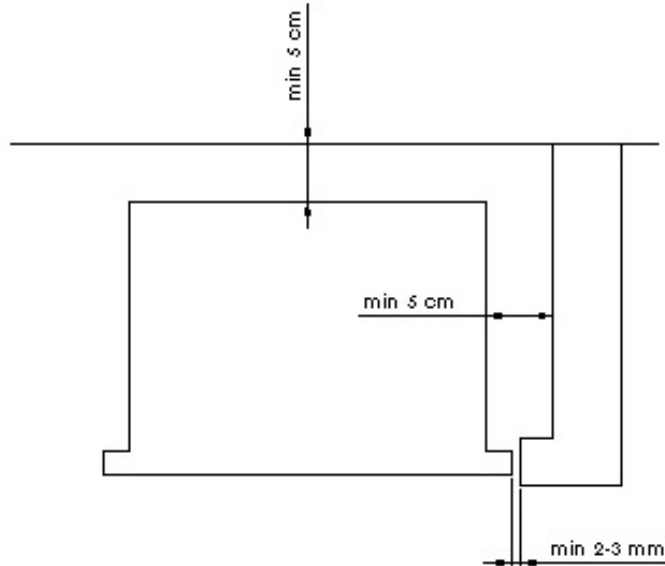
WARNING: Uniform heat release must be ensured to avoid overloading the combustion chamber.



1. Figure



2. Figure



3. Figure

The controls of the firebox insert must have sufficient clearance for their operation, keeping at least 2 cm away from any obstruction that would limit their movement.

Failure to comply with these requirements may result in serious damage to the firebox and void the warranty.

Flammable materials cannot be used or placed near the appliance. The minimum safety distance is 100 cm, and thermal insulation is required for distances smaller than that.

1.3. Effects of the extraction unit:

If exhaust systems are located in the same room as a fireplace, including rooms with a ventilation grille behind a door or with an open door, they may interfere with the proper operation of the fireplace if there is insufficient ventilation. To avoid this issue, ventilation systems must have an adequate air supply to ensure proper operation.

IMPORTANT: For instance, if your extraction hood only has an air outlet to the outside, it will not function effectively since it cannot draw in air. In the case of an extraction hood with a capacity of 600 m³/h that only delivers 200 m³/h of air, the air pressure in the living space will decrease, potentially affecting our well-being negatively. In some situations, if the fireplace is not entirely closed, smoke may flow back into the living area when the fireplace is not in use or when the doors are open. Additionally, insufficient ventilation leads to increased soot accumulation on the fireplace glass pane.

2. Structure of the fireplace:

The PanTech fireplaces are made of 4- and 5-mm-thick steel plates as well as heat-resistant glass that can withstand temperatures of up to 700 °C.

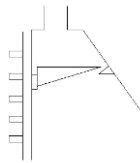
WARNING: The threaded sockets, each measuring 4 ¾ inches, are positioned at specific intervals along the needle and serve as attachment points for the drum eye.

2.1. Use of the fireplace:

Door: The fireplace should not be lifted and tilted by the door, and it should not be leaned on or held during operation as it cannot bear such loads. For combustion chambers with corner glazing (type CG), the handle should only be loaded horizontally. Otherwise, the glass may be damaged, leading to breakage or cracking

Glass: To clean fireplaces with Nero glazing, it is recommended to avoid using strong chemical glass cleaners directly on the glass. The cleaning agents, dust, and soot that accumulate on the cord around the glass can cause it to stiffen and, in the worst case, even break the glass.

Spark deflector:



4. Figure

The combustion chamber must not be operated without the spark deflector!

In PanTech fireplace inserts, the spark deflector consists of a vermiculite plate, which should be positioned in the same way.

Grid: On the PanTech EVO and PanTech Classic models, it is important to ensure that the burning wood receives adequate air through the ash boxes and that the ash falls into the boxes to maintain the position of the grate. However, for the PanTech JOY and PanTech B combustion chambers, the air supply is concealed and is regulated by the wood handle

The heat-resistant lining of the fireplace: The vermiculite covering used to protect the sheet metal combustion chambers in the PanTech family of combustion chambers can disintegrate when damp wood with a moisture content greater than 15-20% is used, making its **use prohibited**. However, for PanTech EVO combustion chambers, the typical covering material used is Accutech.

Convection cover: Optional steel sheet cladding is available for the fireplace, which allows it to be operated with a fan only. Convection cladding slows down the airflow around the firebox, resulting in low heat output. In some cases, the airflow may not even start, causing insufficient heat release during operation and leading to

overloading. This poor efficiency can damage the fireplace, which is not covered by warranty.

3. Ignition of the fire

Glass cleaning: If there is more than a thin veil-like coating visible on the glass, it is definitely worth cleaning the glass with a special fireplace pane cleaner. Using other products such as kitchen cleaners is prohibited as they can damage the glass.

Overload: Overloading occurs when you burn more firewood than the appropriate amount for the capacity of the firebox or when an even heat output of the firebox is not guaranteed. In addition to mobile appliances, overloading can also occur with lower loads due to inadequate installation.

Warning: Burning more wood than the firebox can hold can overload the firebox over time, which can lead to serious damage and failure of the cladding and chimney.

Sudden heatstroke: This type of damage typically occurs during the warm-up phase when the fireplace is suddenly subjected to an excessive heat load.

3.1 Warning: Burning 1 kg of firewood produces approximately 3.65 kW of heat. To calculate the maximum load capacity of our combustion chamber in kilograms per hour, we can divide the capacity of the chamber by 3.65, which will give us the amount of wood that can be used:

E.g.: $15\text{kW power} / 3,65 = 4,1\text{kg wood/hour}$


PROHIBITED : Overloading and sudden thermal shocks will void the warranty.

Only hardwood should be used for heating, including beech, oak, acacia, ash, and various fruit trees. Hardwood burns longer than softwood, produces little ash, has a higher calorific value, and contains little resin. Softwood is only suitable as kindling. Softwoods such as birch, elder, pine, alder, and aspen burn quickly, produce a lot of ash, and the embers cool down quickly. As they burn out quickly, there is a risk of overloading the firebox. The use of resin-rich softwoods is prohibited as they burn quickly with bright flames, often crackle and hiss due to the resin crystals, and frequently produce flying sparks during burning. The firewood for the fireplace should be 30-60 cm long, depending on the size of the combustion chamber, and stored in a dry place.

To achieve greater efficiency and avoid increasing sooting of the chimney-flue and glass, you should only use dry wood that has a moisture content of 15-20% or less.

3.1. The ignition process runs as follows:

- Before starting a new fire, the ash from the previous combustion must be removed, and if necessary, the glass must also be cleaned.
- The air regulators on the underside of the door must be opened, or the supply air regulator must be opened.

- On PanTech fireplaces, the triangular cut-outs indicate the opening and closing directions ("open"  "close"). The regulator with a cut-out ensures the air supply for combustion. On EVO models, this regulator also provides the air supply for post-combustion and for the air curtain (glass cleaning air). This regulator must also be opened during lighting.
- On the **PanTech JOY and PanTech B fireplaces**, the regulator with two cut-outs must also be opened. This regulates the air curtain during lighting. If not only kindling but also thicker firewood is burning, the burning intensity must first be continuously reduced with the supply air regulator until it drops to the permitted level (see 3.1). If the burning is still too intense despite the supply air regulator being completely closed, the desired or permitted amount of firewood can be achieved by reducing or completely closing the main combustion air, based on the average hourly value. The regulator with two cut-outs is only used as a last resort for reduction **in PanTech JOY and PanTech B fireplaces**. By using larger firewood, slower combustion can also be achieved.
- **IMPORTANT!** The maximum output of the fireplace should only be reduced by 50%. A lower intensity can lead to increased deposits in the fireplace, chimney, and glass.
- After reinserting the ash pan, place a finger-thick layer of dry softwood in the firebox, followed by 3-4 kg of firewood on top.
- Next, light the softwood with paper and a lighting aid.
- To achieve even combustion, the combustion air must be continuously supplied through the regulator.
- The fireplaces may emit a burning smell when first used, which will disappear after 7-8 hours of continuous burning. It is important to use the fireplace at maximum power during this time. Additionally, it is necessary to ventilate the room, as the gases released can be harmful to health in high concentrations and can also cause aesthetic damage
- A constant supply of outside air must be ensured, especially in small rooms or in rooms with perfectly sealed windows and doors.

Draught regulation: The control knob located at the top of the door allows for maximum airflow in the horizontal position and gradually reduces the airflow in the vertical position. During ignition, it should be fully open, and it can be turned to the vertical position to reduce the intensity of combustion. However, even in this position, there is a minimum draft.

Moisture content (%) of firewood (hardwood) after average drying time			
Fresh cut	75-78 %	1 év	35-36%
3 months	48-62%	1.5 év	18-27%
6 months	37-46%	2 év	16-24%
9 months	33-38%	2.5 év	15-24%

Freshly cut wood: 1750 Kcal/kg, Dry wood: 3200 Kcal/kg

The maximum amount of firewood that can be loaded at any one time is determined by dividing the maximum capacity of the fireplace by the weight of one unit of firewood. It is important not to exceed this maximum amount, as overloading the fireplace can cause permanent damage to the whole system.

To achieve optimal burning and avoid overloading, the firewood should be burned evenly over a period of three hours or more.

3.2. Draught requirement: 10-15Pa

3.3. ESPECIALLY PROHIBITED FUELS:

- mineral fuels (all types of coal)
- Horticultural and agricultural waste (e.g. windrows, corn stalks, nut husks, discarded parquet or varnished wood, etc.)
- flammable mineral liquids (petrol, diesel, chemical solvents, oils, etc.)
- Alcohol for lighting
- Paper or cardboard (only for lighting)

3.3.1. NOT RECOMMENDED FUELS:

- Pellets and other compressed wood fuel

Type	Unit	PH 68 EVO	PH 68 EVO 2D	PH 80 EVO	PH 80 EVO 2D	PH 110 EVO	PH 110 EVO 2D
Nominal power	KW	14	14	17	17	21	21
Exhaust-gas temperature	°C	260-290	270-300	260-290	270-300	260-300	270-310
Efficiency (h)	%	>80	>80	>80	>80	>80	>80
CO emissions according to MSZ EN 13229	%	0,09	0,1	0,09	0,1	0,09	0,1
Exhaust gas mass flow at nominal power	g/s	15	15	18	18	21	21

Type	Unit	PH 45 BCG	P H 50 BT	PH60 B	PH 60BC GL/R	PH60 BU	PH 69 BCG	PH 68B	PH70 BU	PH75B CGR/L	PH 80B
Nominal power	KW	6	8	6	6	6	8	8	7	9	10
Exhaust-gas temperature	°C	260-290	260-290	260-290	260-290	260-290	260-290	260-290	265-285	270-300	260-290
Efficiency (h)	%	>80	>80	>80	>80	>80	>80	>80	>80	>80	>80
CO emissions according to MSZ EN 13229	%	0,09	0,09	0,09	0,1	0,09	0,09	0,09	0,1	0,1	0,09
Exhaust gas mass flow at nominal power	g/s	8	9	8	9	8	9	9	9	10	11

8. Table

Outer dimensions		PH 68 EVO	PH 68 EVO 2D	PH 80 EVO	PH 80 EVO 2D	PH 110 EVO	PH 200 EVO	PH 110 EVO 2D
Thickness	mm	570	610	570	610	570	659	610
Width	mm	680	680	800	800	1100	1928	1100
Height	mm	1070	1120	1070	1120	1170	1449	1170
Size of the filling opening:								
Width	mm	640	640	760	760	1060	1800	1060
Height	mm	465	465	465	465	515	600	515
Total mass	kg	180	200	203	225	283	560	307
Recommended size of the ventilation grilles	cm ²	420	420	510	510	630	630	630
Exhaust gas nominal connection	mm		200					
Effective outlet diameter of the combustion product	mm		187					
Required chimney cladding	Pa		12,0-19,0					
	mbar		0,12-0,19					

9. Table

Type	Mérték- egység	PH 80 JOY CGL/R	PH 100 JOY	PH 80 JOY ULD	PH 80 JOY VLD	PH JOY 100 CG LD
Nominal power	KW	7	7	7	7	10
Exhaust-gas temperature	°C	240-260	240-260	240-260	240-260	260-290
Efficiency (h)	%	>80	>80	>80	>80	>80
CO emissions according to MSZ EN 13229	%	0,09	0,09	0,09	0,09	0,09

Exhaust gas mass flow at nominal power	g/s	8	8	8	8	11
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Fuel consumption at nominal power						
Type		PH160	PH130	PH110	PH80	PH 68
Average consumption:	kg/h	5,8	5,8	5,8	4,7	3,8
Average length of the wooden bars:	cm	70	70	70	55	40
Maximum fill height	cm	25	25	25	25	25

10. Table

Standards

MSZ EN 13229:2001 Built-in fireplace inserts, incl. appliances

MSZ EN 13229:2001/A1:2003 with open firebox. Requirements and

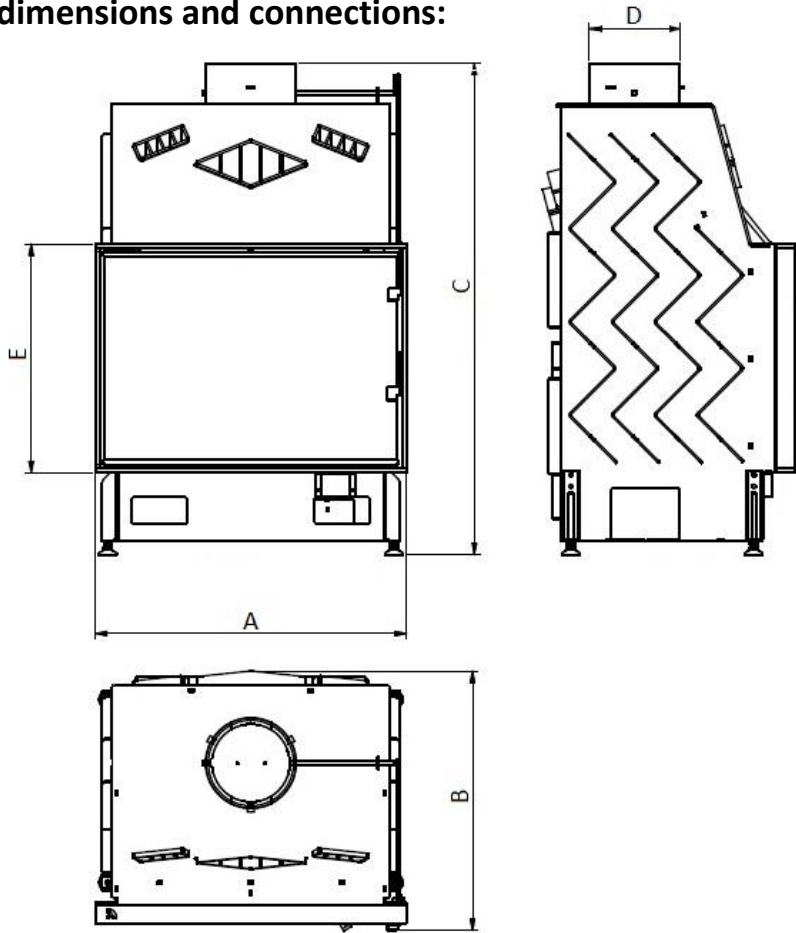
MSZ EN 13229:2001/A2:2005 test procedures.

MSZ EN 1443:2003 Exhaust gas venting systems - General requirements.

MSZ EN 13384-1 Exhaust gas venting system. Thermal and electrical dimensioning procedures..

Main dimensions and connections:

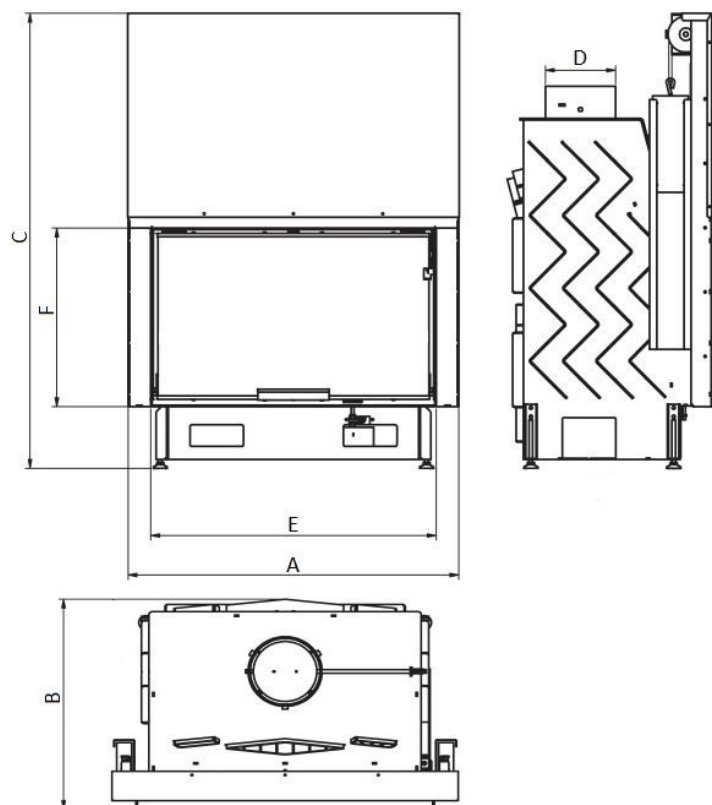
10. Figure



11. Table

Main dimensions(mm)				
Picture	Description	Type		
		PH110	PH80	PH68
A	Width	1100	800	680
B	Depth	569	571	567
C	Height	1170-1265	1070-1170	1070-1170
D	Chimney connection	200	200	200
E	Frame height	550	500	500

Variants with sliding door (LD)



11. Figure

12. Table

Main dimensions (mm)					
Picture	Description	Type			
		PH200 LD	PH160 LD	PH130 LD	PH100 LD
A	Width	1926	1526	1226	926
B	Depth	646	595	595	595
C	Height	1470-1565	1470-1565	1370-1465	1270-1365
D	kémény csatlakozás	300	200	200	200
E	Chimney connection	1800	1400	1100	800
F	Frame height	600	600	550	500

Before opening the lift door, please ensure that the shut-off flap is fully open. Raise the door slowly and close it gently by pulling it down.

To clean the fireplace, follow these steps:

1. Release the spring-loaded locking mechanism located above the door frame to carefully swing the glass out until it swings open.

2. Using a glass cleaner, clean the glass thoroughly.
3. Gently push the glass down slightly, and then return it to the upright position.
4. Secure the glass again with the locking mechanism.



Please ensure that you stick the type plate from the fireplace door, as this is the only way to validate the warranty certificate.

Warranty card

Manufacturer: Technical Kft.
1103 Budapest, Kőér Street 16.

Model:

Type:

The warranty period is years for the firebox.

1 year guarantee for: Grille, flame deflector and moving parts (hinges, handle, fittings).
The guarantee does not apply to adhesives, paint applications, sealants, door sagging, trim, and glass.

The place for warranty repairs of appliances is Technical Kft, Kőér Street 16, 1103 Budapest. Telephone: +36203411217.

Date of purchase: 202..... Year Month ... Day.....Signature Stamp

Installation of fireplace, firebox carried out by:				
Contractor, company name:				
Address:				
Authorisation number:				
Mobile:				
On 202..... Stamp				
Legible signature:				
Warranty card for the compulsory guarantee period				
Date of report:				
Reported error:				
Method of repair:				
On 202..... Stamp				
Legible signature:				
Date of report:				
Reported error:				
Method of repair:				
Worksheet no.:				
On 202..... Stamp				
Legible signature:				

Heating installation carried out by				
Contractor, company name:				
Address:				
Authorisation number:				
Mobile:				
On 202..... Stamp				
Legible signature:				
Warranty card for the compulsory guarantee period				
WARRANTY CARD				
Type:				
Serial number:				
Datum of Sale: 202.....year.....month.....day				
Seller				
(Stamp , Signature)				
ARRANTY CARD				
Type:				
Serial number:				
Datum of Sale: 202.....year.....month.....day				
Seller				
(Stamp , Signature)				

Important information

1. The purchaser can only make a warranty claim in conjunction with the warranty card and the invoice, so these should be kept carefully.
2. Lost warranty cards will not be replaced.
3. Warranty and repair work will only be carried out on the basis of a valid warranty card.
4. Any repair, deletion, or alteration on the warranty card, as well as the entry of incorrect information, will invalidate the warranty.
5. The fulfillment of claims made on the basis of an incorrectly issued warranty card is the responsibility of the dealer. An incompletely or illegibly completed warranty card is invalid.
6. The guarantee is only valid if the installation of both the fireplace and the heater for fireplaces with water-flushed firebox has been carried out by a professional.

Start of the warranty period

7. The warranty period starts from either the date of delivery to the customer or, if the installation is carried out by Technical Ltd. or an authorized reseller, from the date of installation. If commissioning does not take place within three months of the purchase date, the warranty period will commence from the date of purchase.

The buyer's rights under the guarantee and warranty:

8. The buyer is entitled to the rights set out in Articles 306-307 of Act No. IV of 1959 on the Civil Code, Article 6, Paragraph 1 of Legislative Decree No. 2 of 1978, and Government Decree No. 117/1991 (IX.10.).
9. If a customer requests a repair, it must be initiated within 30 days of the notification of the defect and completed within an additional 30 days.

I have read and accepted the direction for use!

.....Signature (Stamp)