

OPERATION AND INSTALLATION MANUAL

CONVENTIONAL FIREPLACES:

ALBERO, HST, STMA, ARDENTE

WATER JACKET FIREPLACES :

ALBERO AQUASYSTEM

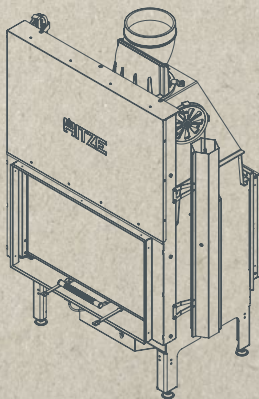


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BEFORE USING THE PRODUCT FOR THE FIRST TIME,
READ THE OPERATION AND INSTALLATION MANUAL.

In accordance with the requirements of the Ecodesign Directive in the EU Member States: "This product can not be used as a basic source of heating".

1. INTRODUCTORY INFORMATION

Dear Customer, thank you for buying Hitze product!

Natural heating – these words perfectly reflect the philosophy of HITZE brand. In line with this philosophy, we produce fireplaces and stoves fired with wood or wood pellets, i.e. the raw materials which are the least harmful for the environment. Using a state-of-the-art technology, we have created innovative solutions offering modern designs and high heating efficiency.

Our products have been designed to provide you with trouble-free operation and cosy warmth!

Before installing and connecting the fireplace insert, it is absolutely essential to become familiar with the Operation and Installation Manual and check if all components are included.

NOTE:

This device must not be used by children.

Never leave your children or animals unattended when the fire is burning or when the fireplace is still hot.

Use protective gloves to open the door of the insert after and during its use.

Danger of burns (the glass and parts of the fireplace installation can be very hot).

In order to improve the product, the Manufacturer reserves the right to make changes in drawings, photographs and descriptions or to modify the parameters of equipment without notice at any time. The Operation and Installation Manual may not be copied as a whole or in part without prior consent of the Manufacturer. Please make sure that the Operation and Installation Manual is stored out of reach of children. If the Operation and Installation Manual is destroyed, lost or damaged, contact your purchase point or the Manufacturer and provide the identification data of your device to obtain a replacement copy.

It is required that the assembly of the insert is made by a qualified person or company, and the technical inspection by a chimney master and a specialist in fire protection.

1.1. GENERAL INFORMATION / SAFETY

Compliance with the Manual is essential for ensuring the correct functioning of the fireplace and avoiding damage and accidents caused by improper use. Please observe the following safety rules:

- before installing the insert or performing any maintenance work on it, make sure that you have read and understood the Operation and Installation Manual;
- the fireplace insert should be installed at the most convenient location and in conformity with the applicable construction and fire prevention laws;
- installation, maintenance and operation control activities may only be performed by qualified specialists;
- the device may only be used in accordance with its intended purpose;
- it is absolutely necessary to provide the installation site with appropriate ventilation and air intake sources;
- a clothes dryer may be placed at least 1.5 m away from the insert (to minimize the risk of a fire);
- check the permissible load carrying capacity of the substructure (floor, ceiling) at the intended location of the insert (taking into account the total weight of the insert and its encasing);

- provide an appropriate chimney installation to ensure safe operation (e.g. chimney made from non-combustible materials with poor heat-absorbing properties);
- avoid installation in rooms with B type gas devices, hoods (with or without exhaust), heat pumps, collective ventilation conduits or multiple flue pipes; the insert must not be fitted in the vicinity of the staircase or rooms with appliances capable of creating negative pressure;
- **avoid direct contact with the insert (it becomes very hot during use) and wear suitable protective equipment (protective clothing or heat-resistant gloves);**
- install the insert in a room equipped with appropriate firefighting equipment and all utilities, including air, water, electricity and smoke outlets;
- if you encounter any problems, please contact your point of purchase or the Manufacturer (and always request original spare parts for repairs);
- check and periodically clean the combustion gas outlet pipe in accordance with the applicable provisions of law;
- if the device is sold or lent to another user, make sure to enclose the Operation and Installation Manual.

1.2. NEVER:

- lean on the fireplace insert or climb onto it;
- use the appliance in the event of fault or malfunctioning;
- place flammable materials closer than 1.5 m to the fireplace;
- light the fire with flammable materials or burn waste in the fireplace.

1.3. HITZE COMPANY IS RELEASED FROM CIVIL OR CRIMINAL LIABILITY IN THE CASE WHEN:

- the insert is not used in accordance with the Operation and Installation Manual;
- the fireplace insert is modified or its parts are replaced with non-original parts in an authorized manner (any such modification or replacement immediately renders the guarantee null and void);
- incorrect installation or improper maintenance (non-compliant with the Operation and Installation Manual) lead to injuries or damage to property.

1.4. NORMS

The device is compliant with the PN-EN-16510-1:2018 standard and has a CE certificate.

Before assembling, installing and using freestanding stove, read the Operation and Installation Manual carefully and follow the instructions contained in it. It will ensure safe and efficient operation of the fireplace. Non-compliance with this Operation and Installation Manual may invalidate the guarantee and put the user at risk of injury or loss of life.

The product must be assembled, installed and used in accordance with the national and local laws and standards, including in particular:

- Regulation of the Minister of Infrastructure of 12.04.2002 Dz.U. [Polish Journal of Laws] No. 75, item 690 amended on 07.05.2004 Dz.U. [Polish Journal of Laws] No. 109, item 1156;
- PN - B - 03406 Standard: 1994 Heating engineering. Calculated heat demand;
- PN - 89 / B - 10425 Standard: Flue pipes, combustion gas ducts and ventilation ducts made from bricks;
- PN - 78 / B - 03421 Standard: Ventilation and air conditioning. Parameters for calculating indoor air;
- PN-EN 16510-1:2018 Standard „Residential solid fuel burning appliances - Part 1: General requirements and test method“.

1.5. NAMEPLATE

The nameplate is located on the back of the device and allows for precise identification of your model with a set of technical data and a serial number.

2. PURPOSE, DESCRIPTION AND OPERATION

- CONVENTIONAL FIREPLACES INSERTS

Conventional fireplace inserts are intended for use as an additional source of indoor heat. They are equipped with slow-burning hearth and manual loading of fuel and are closed with a standard door (hinged) or a guillotine-type door (a pull-down door). The inserts have been designed to be fuelled, most of all, with the wood of deciduous hardwood of 12-20% humidity. We especially recommend seasoned birch wood. During the burning process, thermal energy is released and transferred from the combustion chamber by conduction and radiation. In conformity with PN-EN-16510-1:2018 standard, the hearth of the insert is classified as 1b, with manual loading of fuel and closed doors and it can be encased or built into a recess in the wall.

2.1. ALBERO SERIES

Structure

Fig. 9. ALBERO insert - with standard doors (left) and guillotine doors - page 61.

Tab. 2-5. Technical data of ALBERO fireplace inserts - pages 28-31.

The fireplace insert consists of a body (2) and of a front (10). The body (shell) is made from P265GH boiler steel with a thickness of 3 mm. The front panel consists of a steel door made from a special profile and profiled steel sheet metal, heat-resistant glass and a handle (11). The handle has been specially designed to remain cool when the fireplace burns. The door is screwed to the bars (12), which are fastened to the body of the insert. The front is available in two options. The first one is a hinged door opening to the right or left, the second one is a guillotine-type door which can be lifted upwards. The bottom of the combustion chamber (1), its side walls and the back wall are lined with ceramic concrete (a kind of chamotte) (8). It has a double floor (3) with primary and secondary air inlets, as well as an ash pan (6) and a grate (7). Air inlet (4) is provided through a connection pipe with a diameter of 125 mm, which incorporates an additional connection pipe with a diameter of 60 mm, and a mechanism regulating the flow of air - throttle (5). With such a solution, the insert needs only one pipe for supplying air from outside.

Operation

Fig. 10. General structure of the ALBERO insert - page 62.

Tab. 18-23. Dimensions of ALBERO fireplace inserts - pages 44-46.

The throttle is regulated with a lever (9) installed under the front panel. The throttle is regulated by turning the lever to the right or to the left. When the lever is placed in its rightmost position, the inflow of air is cut off. The maximum inflow of air can be ensured by moving the lever to its leftmost position. After passing through the throttle, the air finds its way to the ash pan (6) and then to the grate (7). The air is directed to the combustion chamber through slots in the grate. Secondary air enters the combustion chamber through the combustion gas after-burning system (14), i.e. through apertures in the rear top part of the shell and through apertures made in the chamotte (ceramic concrete) lining (in some insert models). The insert is also equipped with an air curtain which reduces soot deposition on the glass pane, which ensures a "clean glass" effect. Above the combustion chamber, there is a special ceramic concrete plate called a deflector (15). Some insert models have two deflectors. The decorative masking frame (13) should be

removed during the installation of the fireplace insulation (the masking frame is a non-detachable part and has a guillotine-type door, like the insert itself). Radiators (pipes) (16) are welded to the body of the insert. The radiators and the deflector form a convection channel, which optimizes the heat exchange. During the burning process, combustion gases float around the walls of the combustion chamber, the deflector and the horizontal radiators. Then they pass through the flue (19) and the ducts and finally reach the chimney. The air surrounding the encased insert is heated (by convection) and escapes into the room through appropriate ventilation slots in the encasing of the fireplace. This ensures heat recovery and provides an additional source of indoor heating.

Door opening and closing

Fig. 17. Guillotine-type door – opening and closing of the door – page 67.

ATTENTION!

Do not slam the door when closing - this may cause the glass to crack or break.

The guillotine type door, apart from moving up and down, can be opened to the side. **Side opening or tilting guillotine door is used only to service the insert (cleaning the glass, etc.) It is not intended for everyday use.**

To open the guillotine door sideways do the following:

- move the guillotine type door to its lowest position until it touches the adjustment screws on the stopper of the sliding device;
- press down the lever protruding from the side of the wall to release the pin in the door holding the handle;

After opening the door, perform maintenance activities or clean the insert.

The door of the insert is closed in the following way: by performing a swinging movement and pressing the door down - the pin will click into its place in the lock, then lift the door upwards, simultaneously pressing it down (until you hear a characteristic clicking sound). Hold the handle when lifting the door.

2.2. HST SERIES

Structure

Fig. 11. HST insert with standard doors (on the right) and guillotine doors - page 63.

Tab. 6-9. Technical data of fireplace inserts - pages 32-35.

The fireplace insert consists of a body (6) and of a front (9). The body (shell) is made of 4 mm thick P265GH boiler steel. The front panel consists of steel door made of a special profile and profiled steel metal sheet, heat-resistant glass and a handle (10). The door is screwed to the bars (11), which are fastened to the body of the insert. Front is available in two options. The first one is a wing door opening to the right or left side, and the second one is a guillotine - a door lifted up. Combustion chamber (1) is lined with acubette (6) on the bottom (furnace pan), side walls and rear wall. It consists of a banded floor (5), which is the primary and secondary air inlet, as well as the location of the air supply mechanism. Air supply (3) is realized by a spigot with a diameter of 125 mm, above which there is a mechanism to regulate the air flow (4) with the appropriate number of slots. Adjustment of the mechanism is done with lever (8) located under the front.

Operation

Fig. 12. General structure of the HST insert line - page 63.

Tab. 24-29. Dimensions of the HST insert line - pages 47-49.

The adjustment is made by moving the lever to the left. In the maximum position of the right hand lever the air supply is cut off. By moving the lever to the left, the primary and secondary air supply is opened until the primary air supply is completely closed and the secondary air supply is restricted. The air passing through the mechanism goes under the furnace basin (made of acubette) and the slots between the fittings escapes into the combustion chamber. Secondary air enters the combustion chamber through a duct underneath the chamber and the space in the rear and top of the jacket. The space is limited by channel (7). Secondary air enters the combustion chamber through openings made in the acubette. A special acubette plate called deflector (13) is located above the combustion chamber. Models with standard doors have a second deflector (14). Deflectors are a convection channel that strengthens heat exchange. During combustion, the combustion chamber walls and deflectors flow through the flue gases. Then they get out of the flue pipe at pin (15) and through the ducts they get to the chimney. The air surrounding the encased insert is heated (by convection) and escapes into the room through appropriate ventilation slots in the encasing of the fireplace. This ensures heat recovery and provides an additional source of indoor heating.

Door opening and closing

Fig. 18. Guillotine-type door - opening and closing of the door - page 67.

ATTENTION!

Do not slam the door when closing - this may cause the glass crack or break.

The guillotine door, in addition to up-down shifting, can also be opened sideways. **Sideways opening serves only to service the insert (cleaning the glass pane, etc.). It is not intended for everyday use.**

To open the door sideways:

- move the guillotine type door to its lowest position until it touches the adjustment screws on the stopper of the sliding device;
- press down the lever protruding from the side of the wall to release the pin in the door lock (the lever is on the right or left side of the insert);
- open the door holding the handle;

After opening the door, perform maintenance activities or clean the insert.

The door of the insert is closed in the following way: by performing a swinging movement and pressing the door down - the pin will click into its place in the lock, then lift the door upwards, simultaneously pressing it down (until you hear a characteristic clicking sound). Hold the handle when lifting the door.

2.3. STMA SERIES

Structure

Fig. 13. STMA fireplace inserts with standard door - page 64.

Tab. 17. Technical data of fireplace inserts with standard door - page 36.

The fireplace insert consists of a body (1) and of a front (2). The body (coat of the insert) is made of 3 mm thick P265GH boiler steel. The front panel consists of steel door made of a special profile and profiled steel metal sheet, heat-resistant glass and a handle (3). The door is screwed to the bars (4), which are fastened to the body of the insert. The front is available in one version. The hinged door is opened on the right or left side. The

bottom of the combustion chamber (5), side walls and the back wall (6) are lined with warmth accumulating ceramic lining. It has a double floor (7) which is also the primary and secondary air inlet, as well as the place for the ash pan (8) and grate (9). The air intake is applied through a spigot (10) of diameter 125mm, which contains the air flow control mechanism - throttle (11). Thanks to this solution, the inserts requires only one air supplying pipe from the outside. The throttle is regulated with a lever (12) installed under the front panel.

Operation

Fig. 14. General structure of the STMA insert line - page 65.

Tab. 31-33. Dimensions of STMA fireplace inserts - page 50-51.

It is regulated by turning the lever to the front or back. In the maximum retracted position of the lever, the air supply is shut off, while in the extended position, the maximum air inflow is opened. The air goes through the throttle to the ash pan (8), and then to the grate (9). It escapes to the combustion chamber through the slots in the grate reach. Secondary air enters the combustion chamber through the combustion gases after burning system (13), which are holes made in the ceramic concrete. Above the combustion chamber, there is a special plate made of ceramic concrete called a deflector (14), over it, there is a second deflector made of heat resistant sheet metal (15). The double deflector system is a conventional channel enhancing heat exchange. During burning, the combustion gases flow over the walls of the combustion chamber, the ceramic deflector and then the steel deflector. Then they get out to the flue (16) and through the wires they reach the chimney. The air surrounding the encased insert is heated (by convection) and escapes into the room through appropriate ventilation slots in the encasing of the fireplace. This ensures heat recovery and provides an additional source of indoor heating.

Installation of the air intake pipe:

An air intake pipe for self-assembly is separately attached to each fireplace. To mount the pipe, place the feet adjusting the fireplace insert on a sufficiently high ground so that it is possible to install the air intake pipe in the mounting hole, place the air intake pipe in the mounting hole and turn the pipe to tighten it.

Fig. 5. Installation of the air intake pipe in the mounting hole - page 59.

Door opening and closing

ATTENTION!

Do not slam the door when closing - this may cause the glass crack or break.

2.4. ARDENTE SERIES

Structure

Fig. 15. ARDENTE insert - with standard doors (on the right) and guillotine door (on the left) - page 65.

Tab. 11-14. Technical data of fireplace inserts - page 37-40.

The fireplace insert consists of a body (1) and a front (4). The body (coat of the insert) is made of 4 mm P265GH boiler steel. The front of the insert consists of steel door made of a special profile and profiled steel metal sheet, heat-resistant glass and a handle (3). The door is screwed to the bars (2), which are fastened to the body of the insert. The front comes in two options. The first one is a swing door that opens to the right or left and the other one, is a guillotine - the door is raised up. The configuration of the coats also occurs in two configurations. Double-sided, where the steel door is located on the front

and rear of the insert, replacing the rear part of the chamber and one-sided, where the door is located only at the front. The combustion chamber (12) is lined with the ceramic concrete (13) on the bottom, side walls and back wall (for single-sided models only). It is made of a double-walled floor (9) which is the intake of primary and secondary air, as well as the location of the ash pan (10) and grate (11). The air inlet (8) is realized through a spigot of 125 mm diameter and an expansion box (6) distributing air to the individual primary and secondary air intake pipes (7). Thanks to this solution, the insert needs only one pipe supplying air from the outside. The throttles are regulated by levers (5) located under the front.

Operation

Fig. 16. General structure of the ARDENTE insert series - page 66.

Tab. 33-36. Dimensions of ARDENTE fireplace inserts - pages 51-53.

To regulate throttles, turn the lever to the right or left. In the maximum right lever position, the air supply is cut off and in the left position, the maximum air supply is opened. The primary air, passing the throttle, goes to the ash pan (10) and then to the grate (11). And through slots in the grate, it reaches the combustion chamber. The secondary air enters the combustion chamber through the afterburner (14), that is, pipes with openings located in the upper part of the combustion chamber. The insert is also equipped with an air curtain to keep the glass pane clean (double-sided inserts have air curtains on both sides). Above the combustion chamber, there are special ceramic concrete panels called (15) deflectors (each ARDENTE series insert in has 2 deflectors). Radiators (pipes) (16) are welded to the body of the insert. The radiators and deflector create a convective channel enhancing heat exchange. During combustion, the combustion gases float around the walls of the combustion chamber, the deflector, and horizontal radiators. Then they get out to the flue (17) and through the wires go to the chimney. The air surrounding the built-in insert is heated (convection) and escapes into the room through the appropriate ventilation slots in the fireplace encasing - heat recovery and additional room heating.

Door opening and closing

ARDENTE ARD68x43.G, ARD68x43.DGS, ARD68x53.G, ARD68x53.DGS, ARD90x41.G, ARD90x41.DGS

Fig. 18. Guillotine type door - opening. - page 67.

In order to open the front guillotine door sideways:

- pull the guillotine door completely down until it touches the adjusting screws to the end stop of the gantry;
- press the lever protruding from the side of the wall down - release the door bolt in the lock (the lever is on the right or left side of the insert);
- open the door by holding the handle

After opening the door, you can start maintenance or cleaning the insert.

The door of the insert is closed in the following way: by performing a swinging movement and pressing the door down - the pin will click into its place in the lock, then lift the door upwards, simultaneously pressing it down (until you hear a characteristic clicking sound). Hold the handle when lifting the door.

ARDENTE ARD68x43.DGS, ARD68x43.DSS, ARD68x53.DGS, ARD68x53.DSS, ARD90x41.DGS, ARD90x41.DSS

Fig. 20. Rear door - opening and closing. - page 68.

The rear door can be also set ajar to yourself to clean the glass pane.

In order to open the door:

- hooks protruding at the top of the door pull towards yourself - release the door from the handle;
- open the door slowly, holding it while opening by the upper part to the end of the opening stops;
- after opening the door, you can start maintenance or cleaning the insert.

Closing the door of the insert consists in:

- restore the door to its initial position;
- move the hooks right and left side so that their position is parallel to the insert - fixing the door in the handles;

ARD105x43.DGS, ARD105x43.G, ARD120x43.DGS, ARD120x43.G**Fig. 21. Guillotine type door – opening - page 69.**

Larger models with a guillotine door, in addition to up-down shifts, can be also pulled down to clear the glass pane in selected models.

In order to open the front guillotine door:

- unlock the lock located in the central part of the door above the glass, turning it with the key to the right - release the door from the handle;
- open the door slowly, holding it while opening by the upper part to the end of the opening stops;

After opening the door, you can start maintenance or cleaning the insert.

Closing the door of the insert consists in:

- execution of the swinging movement and pressing the door - the bolt jumps into the lock, then the door should be raised up with simultaneous pressing (until you hear the characteristic clicking sound).

When lifting, hold the handle.

ARDENTE ARD105x43.DGS, ARD120x43.DGS**Fig. 19. Tilt-type door - opening the door – page 68.**

The rear door can be opened in the above models to clean the glass.

In order to open the door:

- hooks protruding at the top of the door pull towards you - release the door from the handle;
- open the door slowly opening it, holding it by the upper part to the end of the opening stops;

After opening the door, you can start maintenance or cleaning the cartridge.

In order to close the door of the insert:

- restore the door to its initial position;
- move the latches right and left so that their position is parallel to the insert - fixing the door in the handles;

**3. INTENDED USE, STRUCTURE AND OPERATION
- FIREPLACE INSERTS WITH WATER JACKET**

ALBERO AQUASYSTEM fireplace inserts with water jacket are water heating devices in central heating systems. The fireplace inserts can independently cooperate in an opened system or cooperate in closed systems with other devices like gas and oil boilers, heat

pumps, solar and photovoltaic systems. Apart from central heating function, inserts can prepare usable warm water and cooperate with usable water storage heaters. The connection of an opened fireplace with a closed system should be conducted by the plate exchanger or the buffer system equipped with a coil (devices ensure systems division and enable the energy exchange). AQUASYSTEM fireplace inserts heat rooms too. Thermal energy is by the convection and radiation. In conformity with PN-EN-16510-1:2018 standard, the hearth of the insert is classified as 1b, with manual loading of fuel and closed doors; It can be encased or built into a recess in the wall.

3.1. SERIA ALBERO AQASYSTEM

Structure

Fig. 22. AQUASYSTEM insert - general diagram – page 69.

Tab. 15-16. Technical data of fireplace inserts series ALBERO AQUASYSTEM – page 41-42 .

Tab. 17. Additional technical data of AQUASYSTEM fireplace inserts – page 43.

The fireplace insert with water jacket consist of a body (2), heater (water jacket) (16) and of the front (10). The body (shell) is made of 3 mm thick P265GH boiler steel, and heater (water jacket) of 4 mm thick. The front panel consists of steel door made of a special profile and profiled steel sheet metal, heat-resistant glass and a handle (11). The handle has been specially designed to remain cool when the fireplace burns. The door is screwed to the bars (12) which are fastened to the body of the insert. The bottom (8) of the combustion chamber (1) its side walls and the back wall are lined with ceramic concrete (a kind of chamotte). It has a double floor (3) with primary and secondary air inlets, as well as an ash pan (6) and a grate (7). The air inlet (4) is provided through a connection pipe with a diameter of 125 mm or 150 mm (depends on the model), which incorporates an additional connection pipe with a diameter of 60 mm, and a mechanism regulating the flow of air – throttle (5). With such a solution, the insert needs only one pipe for supplying air from outside.

Operation

Fig. 23. Structure of the ALBERO AQUASYSTEM insert - page 70.

Tab. 37-42. Dimensions of AQUASYSTEM fireplace inserts with a guillotine door - page 53-56.

The throttle is regulated by a lever (9) installed under the front panel. The throttle is regulated by turning the lever to the right or to the left. When the lever is placed in its rightmost position, the inflow of air is cut off. The maximum inflow of air can be ensured by moving the lever to its leftmost position. After passing through the throttle, the air finds its way to the ash pan (6), and then to the grate (7). The air is directed to the combustion chamber through slots in the grate. Secondary air enters the combustion chamber through the combustion gas after-burning system (14), i.e. through apertures in the rear top part of the shell and through holes made in the chamotte lining (in some insert models). The insert is also equipped with an air curtain which reduces soot deposition on the glass pane, which ensures a “clean glass” effect. Above the combustion chamber, there is a special ceramic concrete plate called a deflector (15). The decorative masking Frome (13) should be removed during the installation of the fireplace installation. Water jacket – vertical heater 3 is mounted to the body. Radiators (pipes) (17) are welded to the body of the insert. The radiators and the deflector form a convection channel optimize the heat exchange. During the burning process, combustion gases float around the walls of the combustion chamber, the deflector and the horizontal radiators. Then they pass through the flue (19) and the ducts, and finally reach the chimney. The water jacket has four 1 inch welded couplers (G1” – inner thread),

one ½ inch coupler 23 (G½"), two ½ inch spigots (G ½" – outer thread) and mounting socket. Terminals are for connecting installation of heated water, thermal sensor and system receiving heat excess – the coil. Central heating system may be connected with 1 inch couplers (20) located on the narrow walls (right and left side) in the lower part of the insert. In the upper part of the insert, there are 1 inch couplers (G1") (21) enabling the connection of the heated water return to the central heating system (right and left side of the insert). Water supply and water return cross connection recommended. The coil (18) is ended with ½ inch spigots (22). The capillary of thermostatic valve sensor connect with ½ inch coupler (G ½") 24 - it controls water flow through the coil. The coil protects the insert against overheating. Lesser heat reception by the central heating system than the power generated by the insert might cause too big temperature. When the temperature exceeds $95 \pm 2^{\circ}\text{C}$, in order to cool water in the jacket, the thermostatic valve opens the cold water flow from the water supply network through the coil. After passing through the coil, used water reaches the sewage system. There is a mounting socket on the upper wall of the insert (spigot) (23). It connects the temperature sensor of the controller regulating work of central heating pumps.

3.2. CONNECTING ALBERO AQUASYSTEM INSERTS TO THE CENTRAL HEATING SYSTEM.

All connections and tests must be conducted by a qualified installer in accordance with the regulations and this Operating and Installation Manual. Before the installation, the heating system must be checked for correctness and ventilation of the heating system and the components of its protection. Once the insert has been assembled, the installer has to carry out the installation and perform a water test - confirm its correct entry with the Warranty Card.

NOTE: It is forbidden to carry out a leak test of a fireplace using compressed gas.

ALBERO AQUASYSTEM inserts can operate in the system:

- opened (with the open expansion vessel);
- closed (in the closed system, fireplaces must have a coil protection – removes excess heat. The system must also have a diaphragm – the closed expansion vessel);
- closed - pressure (the system of the fireplace in the opened system is separated from the pressure installation – closed with the plate exchanger);
- closed of the fireplace and the closed system of central heating installation, for example: with the gas boiler – separated from the pressure installation – closed with the plate exchanger.

The fireplace is adjusted to operating pressure in the installation up to 0.2MPa (2 bar). The temperature of the heating medium can not be higher than 95°C . Water hardness should be up to 10^{th} .

Each ALBERO AQUASYSTEM fireplace insert with water jacket is equipped with a copper coil – protecting against excess heat.

The fireplace insert with water jacket can work ONLY in a water-filled system OR NON-FREEZING LIQUID (in a room at risk of freezing).

General recommendations for assembly:

- to connect the fireplace to the installation, use steel or copper pipes;
- **the insert should be „cross“ connected – spigot G1”:**
 - **first option:** power supply inlet in the lower left corner and hot water output in the upper right corner;
 - **second option:** power supply inlet in the lower right corner and hot water output in the upper left corner – Picture 5;

- remaining spigots can be used to connect the safety or drain valve or to plug;
- The coil (spigot G ½") must be connected to the cold water supply by the thermostatic valve with a temperature probe mounted in the fireplace body.
- **the valve is connected directly to the coil and to the cold water system without intermediate components;**
- mesh filter must be installed before each pump and non-return valve after the pump;
- fittings by the fireplace should be easily accessible (through vents or revisions) and the connections easily disassembled, e.g. using screws;
- the installation must be able to vent and drain water;
- in the case of installation of fireplaces in a room at risk of freezing, fill the system with antifreeze liquid and provide drain valves. If the fireplace is not used in the winter, drain all the water from the installation;
- do not allow the installation to become contaminated during installation, e.g. sand, chips, etc. After installation, flush the system and perform a hydraulic test;
- all components of the installation: pumps, valves, etc., must be installed in easily accessible locations to improve their maintenance, repair or replacement; insulate elements from the heat of the fireplace;
- the water in the installation should be raw and its hardness must not exceed 10°n;
- in the event of contamination of the tap water, a sediment filter must be used in front of the tap valve, which is used to fill the central heating system;
- corrosion inhibitors and oxygen-binding agents, as well as agents limiting limescale formation are recommended to use;
- cold water cannot be supplied through the fireplace if the water temperature of the central heating system is above 40°C.

3.3. ELEMENTS OF CENTRAL HEATING INSTALLATION

The installation is assembled with:

- **circulation pump** (or pumps), which purpose is to force the circulation of water. The pump is started up by the central connected to the insert;
- **plate exchanger**, in order to separate the fireplace pressure system with the central heating system. The part of the installation, which is behind the plate exchanger, should have own safety elements. It is necessary to remember about proper exchanger connection – use suitable inlet and outlet spigots, and that not all rinsing agents are appropriate to rinse the exchanger.

Fig. 24. Spigots for connecting insert with water jacket - page 71.

Necessary conditions for connecting fireplace in the opened system:

- the system of the fireplace is additionally secured with the opened expansion vessel, which compensates the water rise in the installation during the temperature growth, without the growth of pressure. The vessel should be installed in a place where it won't freeze;
- overflow pipe, which drains excess water from the system, should be installed inside the vessel. Tank of the overflow pipe must be open, without valves;
- safety pipe should come out of the fireplace into the expansion vessel; no valves, reductions etc. must be installed on the pipe between the fireplace and the vessel (the diameter of the expansion pipe, safety and overflow pipe should be at least 2.5cm in diameter, the safety pipe should have very few bends as possible and no valves);

- after the assembly, the fireplace insert and the installation must be filled up with the water through the open expansion vessel.

Fig. 25. Connection of the fireplace insert in the opened system - page 72.

Necessary conditions for connecting the fireplace in the closed system:

- in addition to the coil receiving too high temperature, a diaphragm expansion vessel should be installed;
- the coil must be connected to the water supply with cold water through a thermostatic valve with temperature probe installed in the fireplace body;
- (connection of the valve is made directly to the coil and to the installation of cold water without intermediate components);
- the insert should be secured with a safety valve of 0.2 MPa (2 bar);
- water refilling in the fireplace installation and warm heating should be made outside the fireplace, on the return water pipe (above 1 m).

Fig. 26. Connection the fireplace insert in the closed system. – page 73

3.4. AUTOMATIC CONTROL - CENTRAL

Hitze is not responsible for damage caused by improper connections made by people with insufficient qualifications or improper use of the device.

The water jacket assembly must be directed by the central with the thermostat (temperature) sensor, which will enable the startup of the circulation pump, the sounder indicating that the water temperature in the system has been exceeded. For the fireplaces of the ALBERO AQUASYSTEM series by Hitze, the control automatics in the form of a heating circuit controller with a fireplace can be used.

Basic functions that a regulator should have:

- the controller controls the central heating circulating pump and the pump charging tank with hot water;
- the pump is running from the time the water temperature exceeds the set value (the controller has a clock controlling warm water priority at selected times of the day);
- the controller prevents the installation from freezing, automatically switches on the circulation pump when the measured temperature is less than 4°C;

More information on the setting options, service and warranty conditions can be found on the appropriate manufacturer's website.

WARNING:

The controller should be installed away from heat sources.

Do not mount it on the housing.

The connection wires should not touch the metal construction.

4. TRANSPORT, ASSEMBLY, INSTALLATION OF THE INSERT

4.1. TRANSPORT AND HANDLING

- the insert is delivered as an assembled unit, fastened to a palette and wrapped in stretch foil;
- the fireplace should be transported in a vertical position;
- after unpacking, check the insert for any transport related damage;
- unpack the insert in the vicinity of the installation site; exercise caution when moving the insert (preferably on a cart) (paying special attention to the door and glass);
- the packaging materials of the fireplace insert are not toxic or harmful and should be recycled or stored by the User;

- to facilitate the assembly of the fireplace in hard-to-reach places, the ceramic lining (shielding the hearth) can be removed; after the assembly, every element made of ceramic concrete should be correctly placed in its intended location.

The order of carrying out work on the assembly of the insert:

- preparation of the place where the insert is to be placed, checking the bearing capacity of the floor;
- connecting the insert to the chimney and performing the air supply;
- using the insert and observing if there are any defects and irregularities (about 2 weeks);
- housing assembly.

4.2. RECOMMENDATIONS CONCERNING THE FLOOR:

- check the bearing capacity of the floor before the installation (whether it meets the load capacity conditions for a given type of device depending on its weight);
- the floor must be made of non-flammable material with a minimum thickness of 30 cm; a safety area of least 50 cm must be ensured in front of the fireplace door, and of at least 30 cm from the edges of the door.

4.3. CHIMNEY DUCT

The fireplace insert must be appropriately selected to match the cross section of the combustion gas duct (flue pipe) and the height of the flue.

The cross-sectional area of the flue and of the combustion gas duct is calculated in accordance with the following formula:

$$F=0,003 \times Q/\sqrt{h} \text{ [m}^2\text{]}$$

where:

F – cross-sectional area of the flue and of the combustion gas duct [m²];

Q – rated thermal input [kW];

h – the height of the chimney [m].

In accordance with the applicable provisions of law, the flue may not be smaller than 14x14cm or its diameter must be 15cm. Inserts with a higher thermal input require a flue with a larger cross section. The cross section also depends on the height of the chimney.

The fireplace should be connected to the combustion gas duct or the vertical duct in accordance with the applicable national standards.

The chimney draught should be as follows:

- minimum draught – 6 ± 2 Pa;
- MEDIUM, RECOMMENDED DRAUGHT – 12 ± 2 Pa;
- maximum draught – 15 ± 2 Pa.

NOTE: To ensure the correct functioning of the insert, there must be a correct chimney draught in the connector of the flue pipe:

- the insert will not function properly if the chimney draught is not sufficient, resulting in excessive soot deposits on the glass and in combustion gas ducts and reducing the total thermal power of the insert (due to which combustion gases may escape to the room);
- if the draught is too strong, the burning process may be too intense, causing high consumption of fuel and resulting in permanent damage of the insert.

The chimney should be regularly inspected by a chimney sweep company.

4.4. CONNECTION TO THE CHIMNEY DUCT:

- before installing the fireplace insert, the chimney ducts and its technical parameters and condition must be inspected and approved by a chimney expert;
- the fireplace insert may be only installed after the flue pipe has been inspected and approved by a chimney expert.

The chimney duct must satisfy the applicable national or European standards. The fireplace insert must be mounted and connected to the chimney in accordance with the supplied Operation and Installation Manual (together with deflector plates - if they are to be used, and the insulation of the flue pipe). The manufacturer **does not recommend** the assembly and installation of the appliance by the user on his or her own. To make sure that the insert is installed and put to use in a correct and safe manner and to satisfy the guarantee conditions, the user should have the appliance installed and put to use by a qualified installer or an installation company. The installer is required to confirm in the guarantee card (signature and stamp) that the fireplace has been installed in accordance with good building practices and the applicable legal provisions. If the above-mentioned activities are not performed, it will invalidate the guarantee.

4.5. THE COMBUSTION GAS OUTLET SHOULD HAVE THE FOLLOWING FEATURES:

- the cross section of the flue pipe may not be smaller than the cross section of the chimney duct and it may not become narrow towards the chimney (between the flue pipe and the chimney, the diameter can be increased through the use of mounting adapters);
- the path of the combustion gas duct should be as short and straight as possible (bends increase flow resistance and facilitate the accumulation of condensed moisture);
- it is forbidden to connect the insert to the same chimney duct with another heating device;
- the fireplace insert should be connected to its own chimney duct;
- the combustion gas duct may not have more than two inclinations of 45° when its length does not exceed 5 m and of 20° when it is more than 5 m long;
- the combustion gas duct must be made from non-combustible materials and it must be thermally insulated;
- the insulation of the flue pipe must ensure fire resistance for at least 60 minutes;
- the flue exit should be followed by a straight pipe with a minimum length twice as long as the diameter of the fireplace flue;
- the connector must be leak-proof;
- the end of the chimney should ensure a trouble-free outlet for combustion gases and it should be placed at least 60 cm above the highest point of the roof;
- the connectors must be made from stainless, heat-resistant steel 1.4401 (316) or fireplace steel, painted with a special paint. The metal sheet must have an appropriate thickness (heat-resistant and stainless steel must be 1mm thick, fireplace steel - 2mm) and be resistant to high temperature, the acidity of combustion gases and condensed moisture.

Fig. 6. Diagram of connecting the insert to the chimney - page 59.

4.6. VENTILATION OF THE INSERT:

- fresh air must be supplied to the combustion chamber from outside (if the amount of air is too small, it will hinder the burning process and toxic combustion gases may be

- produced, including carbon monoxide);
- the fireplace must be encased in such a way so as to ensure a supply of fresh air from the outside (by using an air inlet pipe with a diameter of 150+200mm);
- it is estimated that about 8m³ of air is required for burning 1kg of wood;;
- in the case of using a system of distributing air to other rooms, it is essential to ensure the return of cooled air to the room where the fireplace insert is installed so that the air can circulate freely (otherwise, the work cycle of the fireplace insert may become disrupted, which will hinder the distribution of warm air);
- when choosing the site for the appliance and during its installation, attention should be paid to ensuring the correct circulation of air and a proper balance between air inflow and outflow in the room
- ventilation must be provided in the room where the fireplace is installed;
- the ventilation of the insert should have a cold air inlet and a warm air outlet (ventilation should be provided for the convection space to make sure that air comes into contact with the heatable parts of the insert and enters the flue pipe).

Fig. 7. The recommended method of installing the insert - page 60.

4.7. INSTALLATION OF THE INSERT

The appliance must be installed in accordance with the applicable provisions of the building law. The fireplace must be installed and assembled by qualified specialists.

- the insert must be placed at a safe distance from any flammable materials (the walls or other surfaces surrounding the fireplace may have to be secured);
- the encasing should ensure easy access to adjusting handles and operating handles (it should be possible to assemble and disassemble the insert without having to dismantle and damage the encasing);
- installation of the fireplace insert is forbidden in bedrooms, bathrooms and rooms where there is another heating device without an independent air supply;
- the insert is a uniform construction and do not require additional supports;
- the fireplace is equipped with regulated feet for adjusting the height (levelling) of it (with an adjustment range of up to 20 mm)if the fireplace has to be raised above the adjustment range of the feet, make a brick base and place the fireplace on it (do not remove the feet as they are needed for levelling purposes);
- incorrect levelling of the fireplace will hinder the functioning of the door (it will not close properly);
- an inlet vent (inspection window) at the front or side is required, in the lower part of the encasing of dimensions 20cmx30cm - allowing easy access to the throttle mechanism enabling maintenance of the counterweight mechanism (replacement of each of the counterweight wheels, replacement of the lines of the guillotine mechanism, smoke pipe and chimney without disassembly of the housing;**
- if there are no inspection windows, the manufacturer is not liable for damage to the cartridge during the service and warranty works.**

4.8. GENERAL RECOMMENDATIONS CONCERNING THE HOUSING

- the fireplace insert can be placed anywhere, as long as it is positioned at an appropriate distance from the insulation and the housing;
- the supporting structure and the housing of the fireplace insert must be made from non-flammable heat-resistant materials of thermal resistance;

$$2 \left[\frac{\text{m}^2\text{K}}{\text{W}} \right]$$

- the housing should be made from non-flammable materials;
- distance between the insulation materials and the insert should be at least 10 cm;
- there should be a warm air outlet vent in the housing, positioned 80cm from the ceiling (in the case of flammable materials);
- during regular use, the housing of the fireplace extends (due to the heat), therefore there should be tiny gaps between stone, marble or ceramic elements;
- preferable insulation material should be resistant to temperatures over 500°C;
- preferably, no insulation should be provided for the flue (it will ensure more effective dissipation of heat into the room);
- the housing cannot lean on the fireplace;
- the thickness of the insulation depends on the thermal conductivity coefficient λ (the ability of a material to conduct heat) and heat resistance of a given material;
- in the housing of the insert, there should be a cold air inlet vent (at the bottom of the encasing) and a warm air outlet vent;

The λ coefficient is specified by the manufacturer of the insulation, e.g. for mineral wool it is 0.035-0.045. The lower the λ coefficient, the better the insulation ("thermal insulation in the room")

Fig. 8. Standard fireplace construction (all dimensions in Fig. In [cm]) - page 61.

The thickness of the insulation is calculated in accordance with the formula:

$$g = R \cdot \lambda$$

where:

g – thickness of the insulation (partition) [m];

λ – thermal conductivity coefficient [W/m·K];

R – coefficient of thermal resistance of a layer of material [m²·K/W].

For materials with thermal resistance of $2 \left[\frac{m^2 K}{W} \right]$, with $\lambda=0,035$ and $R=2$, the thickness of the insulation layer is 0.07 m i.e. 7 cm.

Tab. 1. The surface of the inlet and outlet vents in the insert housing - page 27.

5. START-UP AND USE

After the fireplace insert has been mounted and connected to the chimney, the first start-up of the fireplace must be performed by an installer or a qualified service technician.

As part of the start-up procedure, the installer should show the User how to operate the fireplace correctly. The installer is obliged to refuse to put the fireplace into use if he or she finds any assembly-related irregularities which make it unsafe to use. A correctly performed start-up should be confirmed in writing in the guarantee card.

5.1. GETTING READY FOR THE START-UP

Series: ALBERO, HST, STMA, ARDENTE,

Before lighting the fireplace for the first time, it is necessary:

- to remove any labels, paper stickers and accessories from the body of the insert or hearth to eliminate the risk of fire; the same applies to transport safety devices;
- to check if the deflector/s, ceramic fittings are mounted correctly and were not dislodged from their correct position during installation (any discovered mounting errors must be corrected). Non-removal of such errors may hinder proper functioning of the fireplace insert. In the case of inserts with multi-pane glass doors, it should be checked if particular glass panes did not become loose during transport or use;

- to check the operation of:
 - mechanism regulating the air inflow into the combustion chamber (cold air inflow throttle);
 - front door closing mechanism (hinges, handle);
- to check the correctness of the installation in accordance with this Operation and Installation Manual and the applicable legal provisions, especially in terms of the following safety-related issues:
 - is the fireplace levelled;
 - is a proper ventilation system provided for the room and the fireplace;
 - -does the air intake ensure unobstructed flow of air from outside and into the room;
 - is the connection to the chimney sealed properly;
 - has the fireplace encasing been built correctly.

Series ALBERO AQUASYSTEM

Before lighting the fireplace for the first time, it is necessary:

- to remove any labels, paper stickers and accessories from the body of the insert, ash pan or hearth to eliminate the risk of fire; the same applies to transport safety devices;
- to check if the deflector/s, ceramic concrete fittings and the grate are mounted correctly and were not dislodged from their correct position during installation (any discovered mounting errors must be corrected). Non-removal of such errors may hinder proper functioning of the fireplace insert. In the case of inserts with multi-pane glass doors, it should be checked if particular glass panes did not become loose during transport or use;
- to check the operation of:
 - mechanizmu regulacji dopływu powietrza do komory spalania (przepustnica dolutu zimnego powietrza);
 - mechanizmu działania zamknięcia drzwi przednich (zawiasy, klamka);
- to check if the hydraulic system has been installed correctly and in accordance with this Operation and Installation Manual and the applicable legal provisions, especially in terms of the following safety-related issues:
 - correct installation of the open expansion vessel and safety valve (opened system);
 - correct installation of the drain valve, diaphragm expansion vessel, safety valve and connection of the cooling coil (closed system);
 - has the fireplace been levelled?
 - has the fireplace been efficiently filled up with the water?
 - has the heating system been vented?
 - has a proper ventilation system been provided for the room and the fireplace?
 - does the air intake ensure unobstructed flow of air from outside and into the room?
 - is the connection to the chimney sealed properly?
 - has the fireplace housing been built correctly?

NOTE: Before you start and use (fire up), fill up the water jacket installation with water - dry work will destroy the insert. In the open system, fill up the installation with water jacket through the open expansion vessel.

5.2. RECOMMENDED FUEL

Considering the design of our appliances, the most suitable type of fuel is the deciduous hardwood, including: oak, hornbeam, ash, beech, birch. **In particular, we recommend using birch wood.** The best fuel is wood which has been seasoned (for at least two year in a well-ventilated and dry place), cut and chopped into logs. We advise against using the wood of coniferous trees and freshly cut or damp wood is not a good fuel because it has low calorific value. The burning of insufficiently dried wood may result in increased deposits of creosote in the combustion gas ducts, which may cause the glass panel to break.

NOTE: It is forbidden to burn waste fuel, liquid fuels and other types of fuel not recommended by the manufacturer of the fireplace insert.

It is strictly forbidden to use the following as fuel for the fireplace: bituminous coal, the wood of tropical trees, all types of products containing chemical compounds such as petrol, alcohol, naphthalene, oil, waste and laminated panels containing adhesives.

5.3. GETTING READY FOR LIGHTING THE FIREPLACE

Model: ALBERO, HST, STMA, ARDENTE,

Before lighting the fireplace, please do the following:

- arrange a stack of firewood in the hearth, starting with larger pieces of wood, followed by medium-sized pieces of wood and then by small chips of wood for fire lighting – light it with a match;
- set the primary air regulator in the fully open position and secondary in the minimum;
- after lighting the fire, the door of the fireplace must be closed;
- when the fuel is burning properly, adjust the burning process with air regulators to ensure a steady and calm rate of burning (opening the throttle at 50% - a small part of the primary air is fed under the fireplace grate, the remaining amount of air is fed into the air curtain system, protecting the glass from sooting and to the afterburning gas system in the rear and the front of the insert; opening of the throttle at 100% - causes very intensive burning of the fuel); it is recommended, at the final stage of burning, to open the door and move the remaining embers onto the grate, using a poker, so that all fuel is used up;
- test the functioning of other components of the installation (when the fire is lit for the first time).

Series ALBERO AQUASYSTEM

Before lighting the fireplace, please do the following:

- check if the radiator valves in the system are open permanently (open system);
- connect the control automatics and program it;
- arrange a stack of firewood in the hearth, starting with larger pieces of wood, followed by medium-sized pieces of wood and then by small chips of wood for fire lighting – light it with a match;
- set the primary air regulator in the fully open position;
- after lighting the fire, the door of the fireplace must be closed;
- when the fuel is burning properly, adjust the burning process with air regulators to ensure a steady and calm rate of burning (setting the throttle to its half-open position 50% - the lever positioned at the front, perpendicularly to the front of the insert, will direct a small part of primary air under the grate of the fireplace, whereas the remaining part of the air will be directed to the air curtain system, which protects the glass from soot deposits, and to the combustion gas after-burning system at the

back and in front of the insert; if the air throttle is open at 100%, i.e. in its leftmost position, the fuel will burn with high intensity);

- it is recommended, at the final stage of burning, to open the door and move the remaining embers onto the grate, using a poker, so that all fuel is used up;
- set the circulation pump controller thermostat between $40 \div 70$ °C;
- Activate a basic heat source, e.g. a boiler;
- test the functioning of other components of the installation (when the fire is lit for the first time).

5.4. FIRST LIGHTING AND AIR SETTINGS

Fig. 1-4. Air settings - pages 57-58.

During the first hours of operation, it is recommended to use the insert at low load, i.e. up to 50% of normal load. For about 2 weeks, the manufacturer recommends maintaining a small flame by burning a smaller quantity of fuel at a lower temperature. This method of lighting the fireplace is intended to prevent cracks in the ceramic lining, to avoid deformation of the fireplace structure or damage to the protective (paint) layer of the insert.

The surface of the insert is covered with a special heat-resistance paint. After lighting the fireplace, this paint initially becomes soft (care must be taken not to scratch it then) and then hardens. Due to this process, an unpleasant smell is produced when the fireplace is lit for the first few times. It is recommended to make sure that the room is well aired during that time. If pets or birds are kept in the room, they should be temporarily moved to another place.

When the fireplace is lit for the first time, water may condense on the internal walls of the combustion chamber. This phenomenon is normal and is caused by the condensation of water vapour contained in combustion gases. It should disappear after the combustion chamber has heated up.

Because of too big amount of air is fed under the pan of the hearth and to the after burning system, too much fuel in the combustion chamber causes the production of a large amount of wood gas and the glass pane may become temporarily covered with soot.

If combustion gases escape from the fireplace chamber, the position of the combustion gas throttle should be adjusted and the chimney draught should be increased.

When the throttle is maximally pushed in, it will completely cut off the inflow of air to the combustion chamber and the fire will be gradually put out. If necessary, the grate will be cut off by a poker.

Before the next lighting, clean the hearth from remaining ash.

5.5. REFUELLING:

- fuel should be added when flames disappear over the layer of embers in the hearth; it is best to heap embers into a pyramid-like shape onto the grate (from both sides, to ensure a sufficient flow of air from underneath the grate for flames to appear) and then add slivers of wood;
- embers should not be heaped over the grate in an even layer because it would significantly reduce the flow of air from under the grate and result in a build-up of gas in the hearth chamber and in the whole insert, which might lead to an explosion;
- wooden logs in the combustion chamber should be arranged in parallel to the plane of the door;

- before loading a fresh portion of fuel into the furnace, the grate should be cleaned when it is necessary to empty the ash pan.

5.6. PREVENTING THE ESCAPE OF COMBUSTION GASES

To prevent the escape of combustion gases from the insert to the room during the opening of the door, it is recommended to:

- about 10 seconds before opening the door, the primary air regulator must be fully opened (throttle lever maximally to the left);
- slightly open the door and after waiting a few seconds (time needed to draw the fumes) slowly open the door of the insert;
- exercise caution when opening the door and after opening it because burning pieces of wood may fall from the hearth;
- after adding an appropriate quantity of fuel, close the door of the hearth;
- when the fuel is well alight, set the air regulator in its original position;
- the optimal amount of fuel is given in tables with technical data for individual inserts.

NOTE: Take care not to overload the insert with fuel. Overloading may cause permanent damage to its structure.

5.7. KEEPING THE GLASS PANE CLEAN

The cleanliness of the glass pane depends on using appropriate fuel, as well as on:

- supplying a sufficient quantity of air for the burning process;
- optimum chimney draught;
- the method of operating the fireplace insert;
- the use of fuel with a moisture content of between 12%-20%

To keep the glass pane clean, it is advised to add the recommended quantity of fuel and to position it centrally on the grate and as far from the glass panel as possible. In the case of a build-up of tar on the glass pane, we recommend increasing the intensity of the burning process by opening the primary air regulator. The tar will burn off when the appliance is operating at full capacity.

5.8. OPERATION IN ADVERSE WEATHER CONDITIONS AND IN THE TRANSITIONAL PERIODS

In the transitional periods or in adverse weather conditions (e.g. during a fog, on damp and rainy days, in weather with strong gusty winds or when outdoor temperature exceeds +15°C), the chimney draught may become too weak to remove all combustion gases. To offset this negative effect, the fireplace should be loaded with the smallest possible amount of fuel or additional draught regulators should be used.

5.9. ASH REMOVAL

Depending on the amount and type of fuel to be burned:

- use a poker to grab the ashes from the grate into the ash pan;
- after scraping ash, raise the clamp with the grate, then remove the ash pan and empty it;
- the ash pan can be emptied only when it's cold, we recommend that this operation be carried out at the latest before each lighting;
- before emptying the ash pan, check that it contains no burning fuel residue that could cause a fire in the waste container,
- every few months, depending on the use of the fireplace, it is necessary to remove the grate pan (ceramic fittings) and vacuum off the ash residue from the bottom of the insert.

NOTE: The manufacturer recommends that the ashtray should not be overfilled. Overfilling the ashtray leads to a limitation of the air supply under the grate, which results in a deterioration of combustion parameters, and in extreme cases may prevent the fireplace from firing up.

If ash remains in the ash pan too long, it may result in premature **corrosion**. Ash from burnt wood can be used for compost or as a fertilizer.

5.10. GENERAL COMMENTS

Things to be done:

- make sure that the **door of the hearth (combustion chamber) and the door of the ash pan (if installed in a given insert) are closed (unless they need to be opened for maintenance purposes);**
- prior to lighting up after a prolonged shutdown period, check the flue pipe in the chimney and the hearth to make sure that they are unobstructed and clean;
- during the performance of any maintenance or operation-related tasks, remember that the components of the insert can be very hot. Therefore, it is necessary to wear protective gloves;
- for any repairs of the insert use only spare parts produced by its manufacturer;
- all repairs must be performed by a qualified installer;
- during the operation and use of the fireplace insert, follow the basic safety rules.

It is forbidden:

- to leave any flammable materials or items sensitive to high temperature near the glass of the insert;
- to use the appliance when its glass is broken;
- to extinguish the hearth fire with water;
- **to let children come near the appliance;**
- to make any structural changes or to alter the rules of installation and use without prior written consent of the manufacturer;
- **if any malfunctions are detected, the fire must be extinguished immediately.**

5.11. EMERGENCY EXTINGUISHING

NOTE: In emergency situations, extinguish the fire by covering the fuel with sand or cold ash. DO NOT USE WATER! If the fireplace does not function correctly, any maintenance work may only be carried out after ensuring good ventilation of the rooms, as well as the assistance of another person equipped with a dry-powder extinguisher.

When the burning process is slow, large quantities of organic products of combustion are produced, which may lead to the build-up and ignition of creosote in the chimney duct. As a result, the so-called chimney fire breaks out, which may spread to the whole building.

In the case of a chimney fire, please do as follows:

- cut off the inflow of air to the fireplace by closing the throttle of the cold air inlet;
- close the rotary damper valve of the combustion gas flue (if installed in a given model);
- close the door of the fireplace tightly;
- dial 112 to alert the local Fire Department.

6. MAINTENANCE

To ensure safe and problem-free operation of the appliance, observe the following guidelines:

- perform periodic maintenance tasks in a timely manner – have the fireplace inspected by a specialized servicing company at least once a year;
- keep the following components clean: glass pane, combustion chamber with the ash pan and the chimney duct;
- systematically empty the ash pan - left ash can lead to corrosion of the ash pan;
- make sure that the combustion chamber is cleaned and serviced with a frequency which is appropriate for a given type of fuel;
- make sure that steel or cast-iron elements inside the insert are cleaned with appropriate tools such as: brush, scraper and poker; use protective gloves;
- any maintenance activities may be only performed after the fire has been extinguished and the fireplace has cooled down;
- clean the ceramic glass pane of the insert with a kitchen paper (paper towel). It should be moistened with water and then collected with a bit of clean ash from the inside of the grate, avoiding direct contact with steel elements and cast-iron devices. By rubbing the glass with so prepared moistened paper, we can effectively dissolve the tarnish - so that it can be wiped with a dry paper towel. All agents used to clean the glass must not contain abrasive materials causing its damage (scratching);
- at least twice a year, carry out the cleaning of chimney ducts, documented in the Warranty Card, by an authorized chimney sweeper;
- clean the interior of the fireplace, check the supply and exhaust gas outlet;
- replace all gaskets after each heating season.

To ensure an efficient burning process in the hearth of the fireplace insert, the combustion chamber, the grate, the flue and combustion gas ducts must be cleaned periodically.

Component	Frequency	Tools and resources
The convection surfaces of the fireplace insert and the pipes connecting it with the chimney duct - cleaning	As needed, but not less frequently than once a year or after a prolonged shutdown period	A brush made from a resilient material, vacuum cleaner, fireplace cleaning products.
Combustion gas duct, chimney - checking if the chimney is not obstructed and that the combustion gas installation is in a good condition	At least twice a year, after the heating season and after a prolonged shutdown period	Specialist chimney sweep company
Front glass pane	As needed	Cooled - moistened paper towel with a bit of clean ash, no abrasive materials causing its damage
Grate and internal components of the insert	As needed	Vacuum cleaner, fireplace cleaning products
Maintenance of the combustion gas throttle - replacement of the gaskets of the glass pane and of the hearth door	At least once a year, after the heating season or as needed, depending on the degree of wear and tear	Servicing company authorized by the manufacturer

7. THE MOST FREQUENT MALFUNCTIONS AND WAYS OF ELIMINATING THEM

During everyday use of the fireplace insert, the below described anomalies may become apparent in the case when the fireplace insert has been installed in a manner contrary to this Operation and Installation Manual and the applicable provisions of law.

	Problem	Solution
Smoke escapes to the room when the door is opened	the door may be opened too abruptly, causing negative pressure in the combustion chamber	open the door slowly
	the adjustable damper valve of the flue of the chimney duct is closed (if such a valve has been installed)	open the damper valve
	insufficient amount of air in the room where the fireplace insert is installed	check the efficiency of the ventilation and make sure that the room is well aired
	weather conditions	
	inadequate chimney draught	check the efficiency of the chimney installation
The heating efficiency is low or the fire in the hearth goes out	insufficient quantity of fuel in the hearth	add as much fuel as is required
	the moisture content of the fuel is too high	use fuel with a moisture content of up to 20%
	inadequate chimney draught	check the efficiency of the chimney installation
The heating efficiency is low despite the correct burning process in the hearth	inappropriate wood with a low calorific value is used	use wood with a higher calorific value instead
	the moisture content of the fuel is too high	use fuel with a moisture content of up to 20%
	the fireplace has been fuelled with thin and small pieces of wood which burn very quickly	place thicker logs in the fireplace
Soot accumulates on the glass and it does not burn off	the fuel burns too slowly and the temperature in the combustion chamber is too low	increase the amount of air in the combustion chamber, use fuel with a moisture content of up to 20%
	the fireplace has been fuelled with wood of coniferous trees with a high resin content	use dry deciduous hardwood instead
The appliance may be functioning incorrectly due to external factors	tall objects are situated too near the chimney	increase the height of the chimney or use a rotary chimney cowl cap or another type of chimney cowl cap
	adverse weather conditions, e.g. wind or windless weather, low atmospheric pressure, high air humidity, fog, etc.	use a chimney cowl cap and, if it does not help, seek advice of a chimney expert to establish the cause of the problem

SPECIFICATION

Symbol Обозначение	Jednostki Unit Einheit Jedn. Единица измерения	Parametry / Parameters / Parameter / Parametry / Параметры
P_N	[kW]	Moc nominalna / Nominal power / Nennleistung Nominální výkon / Номинальная мощность
Pog	[kW]	Zakres obciążenia grzewczego / Heating load range Bereich der Heizbelastung / Rozsah topného zatížení Диапазон тепловой нагрузки
Psh	[kW]	Moc cieplna oddana do pomieszczenia / Heating load range Wärmeleistung in den Raum abgegeben Tepelný výkon dodávaný do miestnosti Тепловая мощность отданная в помещение
Pw	[kW]	Moc cieplna obiegu wodnego / Maximum fuel load weight Wärmeleistung des Wasserumlaufs / Tepelný výkon vodního okruhu Тепловая мощность водяного контура
C	[kg]	Maksymalna masa załadunku paliwa / Maximum fuel load weight Max. Masse der Brennstoffbelastung Maximální hmotnost zatížení pohonných hmot Максимальная масса загрузки топлива
Pr	[MPa]	Dopuszczalne ciśnienie robocze / Heating capacity Zulässiger Betriebsdruck / Povolný pracovní tlak Допустимое рабочее давление
Tr	[°C]	Maksymalna temperatura wody / Maximum water temperature Max. Wassertemperatur / Maximální teplota vody Максимальная температура воды
B	[kg/h]	Średnie zużycie paliwa / Average fuel usage Durchschnittlicher Brennstoffverbrauch Průměrná spotřeba paliva / Средний расход топлива
η	[%]	Sprawność cieplna / Heating capacity / Thermischer Wirkungsgrad Tepelná účinnosť / Тепловая эффективность
CO₁₃	[g/m ³]	Emisja CO (przy 13% O ₂) / CO emission (by 13% O ₂) CO-Emission (bei 13% O ₂) / Emise CO (při 13% O ₂) Эмиссия CO (при 13% O ₂)

Ep	[g/m ³]	Emisja pyłków (przy 13% O ₂) / Dust emission (by 13% O ₂) / Pollenemission (bei 13% O ₂) Emise plynů (při 13% O ₂) / Эмиссия пыли (при 13% O ₂)
tśr	[°C]	Średnia temperatura spalin / Average fumes temperature / Durchschnittliche Abgas-temperatur Průměrná teplota spalin / Средняя температура продуктов сгорания
Awy	[cm ²]	Minimalne pole czynne kraterk wylotowych / Minimum active field of outlet vents Die minimale aktive Fläche der Auslassgitter Minimální aktivní plocha výstupních mřížek Минимальное активное поле решетки на выходе
Awl	[cm ²]	Minimalne pole czynne kraterk wlotowych / Minimum active field of inlet vents Die minimale aktive Fläche der Einlassgitter / Minimální aktivní plocha vstupních mřížek Минимальное активное поле решетки на входе
Dcz	[mm]	Średnica rury na czopuch / Flue diameter / Durchmesser des Rohres am Fuchs Průměr potrubí na sorouch / Диаметр трубы дымоборника
Dd	[mm]	Średnica rury dolotu / Intake pipe diameter / Durchmesser des Zuluft-Rohres Průměr sacího potrubí / Диаметр трубы воздухозаборника
Sz	[mm]	Wymiar szyby w kominku / Glass pane dimensions in the fireplace Dimension der Kaminscheibe / Rozměr skla v krbu / Размер стекла в камине
m	[kg]	Masa wkładu / Insert weight / Gewicht des Einsatzes / Hmotnost vložky / Вес вклада
K		Klasa kominka / Fireplace class / Kaminklasse / Krbová třída / Класс каминной топки
Ip_{MAX}	[mm]	Maksimalna długość polan (przy obwodzie 25±30 cm) / Maximum log length (by the perimeter 25±30 cm) Max. Länge der Holzscheiten (bei Umkreis von 25±30 cm) / Maximální délka polena (při obvodu 25±30 cm) Максимальная длина полена (с окружностью 25±30 см)
Ip₁		Ilość polan na 1 załadunek / Number of logs per one load / Anzahl der Holzscheiten pro 1 Ladung Počet polen na jedno zatížení / Количество поленьев на 1 загрузку
F		Typ paliwa / Fuel type / Brennstofftyp / Druh paliva / Тип топлива
H		Wilgotność paliwa / Fuel humidity / Feuchtigkeit des Brennstoffs / Vlhkost paliva Влажность топлива
E		Współczynnik efektywności / Efficiency / Wirksamkeit / Faktor účinnosti / Энергоэффективность
A		Klasa energetyczna / Energy class / Energieklasse / Energetická třída / Энергетический класс

TABELS

**Powierzchnia kratki wlotowych i wylotowych w obudowie wkładu.
The surface of the inlet and outlet vents in the insert housing.**

Tab. 1. Oberfläche der Einlass- und Auslassgitter im Einsatzgehäuse.

Povrch vstupních a výstupních mřížek v obestavbě vložky.

Активное поле входных и выходных решеток в обшивке вклада.

Moc kominka Nominal power Kaminleistung Výkon krbové vložky Мощность камина	[kW] [кВт]	Min. powierzchnia pomieszczenia Min. room space Min. Fläche des Raumes Min. plocha místnosti Мин. площадь помещения	[m ²] [м ²]	Min. kubatura pomieszczenia Min room cubature Min. Kubatur des Raumes Min.objem místnosti Мин. кубатура помещения	[m ³] [м ³]	Powierzchnia kratki wlotowej Outlet vent surface Fläche der Einlassgitter Povrch vstúpních mřížek Активное поле решетки на входе	[cm ²] [см ²]	Powierzchnia kratki wylotowej Inlet vent surface Fläche der Auslassgitter Povrch výstupních mřížek Активное поле решетки на выходе	[cm ²] [см ²]
6		28		70		240-390		420-480	
8		40		100		320-520		560-640	
9		45		115		360-590		630-720	
10		50		125		400-650		700-800	
11		55		140		440-720		770-880	
12		60		150		480-780		840-960	
13		65		165		520-850		910-1040	
14		70		175		560-910		980-1120	
15		75		190		600-980		1050-1200	
16		80		200		640-1040		1120-1280	
17		85		215		680-1100		1190-1360	
18		90		225		720-1170		1260-1440	
19		95		240		760-1240		1330-1520	
20		100		250		800-1300		1400-1600	
22		110		275		880-1430		1540-1760	
25		125		315		1000-1630		1750-2000	

Tab. 2. ALBERO

Dane techniczne wkładów kominkowych z drzwiami typu standard.

Technical data of fireplace inserts with standard door.

Technische Daten von Kamineinsätzen mit Standard-Tür.

Technické vlastnosti krbových vložek se standardními dvířky.

Технические данные каминных топок со стандартной дверцей.

		AL9S.H	AL11S.H	AL14S.H	AL16S.H	AL19S.H	AL9S.V	AL11S.V	AL14S.V
P_N	[kW]	9,0	11,0	14,0	16,0	19,0	9,0	11,0	14,0
Pog	[kW]	4,5-12,0	5,5-14,0	7,0-18,0	8,0-20,0	9,5-24,0	4,5-12,0	5,5-14,0	7,0-18,0
C	[kg]	3,5	3,7	4,6	5,3	6,6	3,5	3,7	4,5
B	[kg/h]	3	3	4	5	6	3	3	4
η	[%]	78	83	83	80	81	78	84	84
CO₁₃	[g/m ³]	0,818	1,243	0,845	0,786	1,2	1,029	1,205	1,2
Ep	[g/m ³]	0,036	0,038	0,032	0,033	0,029	0,030	0,031	0,038
t_{sr}	[°C]	285	221	241	274	314	316	235	256
Awy	[cm ²]	630-720	770-880	980-1120	1120-1280	1330-1520	630-720	770-880	980-1120
Awl	[cm ²]	360-590	440-720	560-910	640-1040	760-1240	360-590	440-720	560-910
Dcz	[mm]	180	200	200	200	220	180	200	200
Dd	[mm]	125	125	125	125	150	125	125	125
Sz	[mm]	545x390	590x430	680x430	680x530	900x415	390x545	430x590	430x680
m	[kg]	112	132	150	162	183	110	127	150
K		1c	1c	1c	1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	350	350	500	500	500	300	300	500
Ip₁	[szt.]	3	4	4	5	5	3	4	4
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)							
H		pomiędzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %							
E		104,1	111,4	111,4	107,0	108,5	104,1	112,8	111,4
A		A	A+	A+	A+	A+	A	A+	A+

Tab. 3. ALBERO

Dane techniczne wkładów kominkowych z drzwiami standardowymi - wersja prawa i lewa.

Technical data of fireplace inserts with standard door - left and right version.

Technische Daten von Kamineinsätzen mit Standard-Tür - rechte und linke Version.

Technické vlastnosti krbových vložek se standardními dvířky - verze pravá a levá.

Технические данные каминных топок со стандартной дверцей - версии правая и левая.

		AL9L.H AL9R.H	AL11L.H AL11R.H	AL14L.H AL14R.H	AL16L.H AL16R.H	AL19L.H AL19R.H
P_N	[kW]	9,0	11,0	14,0	16,0	19,0
Pog	[kW]	4,5-12,0	5,5-14,0	7,0-18,0	8,0-20,0	9,5-24,0
C	[kg]	3,5	3,7	4,6	5,3	6,6
B	[kg/h]	3	3	4	5	6
η	[%]	78	83	83	80	81
CO₁₃	[g/m ³]	0,818	1,243	0,845	0,786	1,200
Ep	[g/m ³]	0,036	0,038	0,032	0,033	0,029
tśr	[°C]	285	221	241	274	314
Awy	[cm ²]	630-720	770-880	980-1120	1120-1280	1330-1520
Awl	[cm ²]	360-590	440-720	560-910	640-1040	760-1240
Dcz	[mm]	180	200	200	200	220
Dd	[mm]	125	125	125	125	150
Sz	[mm]	545x390x325	590x430x375	680x430x375	680x530x375	900x415x375
m	[kg]	112	132	153	157	206
K		1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	350	350	500	500	500
Ip₁	[szt.]	3	4	4	5	5
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)				
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %				
E		104,1	111,4	111,4	107,0	108,5
A		A	A+	A+	A+	A+

Tab. 4. ALBERO

Dane techniczne wkładów kominkowych z drzwiami typu gilotyna.

Technical data of fireplace inserts with guillotine door.

Technische Daten von Kamineinsätzen mit Guillotine-Tür.

Technické vlastnosti krbových vložek s gilotinovými dvířky.

Технические данные каминных топок с дверцей гильотинного типа.

		AL9G.H	AL11G.H	AL14G.H	AL16G.H	AL19G.H	AL 120x43 G.H	AL9G.V	AL11G.V
P_N	[kW]	9,0	11,0	14,0	16,0	19,0	25,0	9,0	11,0
Pog	[kW]	4,5-12,0	5,5-14,0	7,0-18,0	8,0-20,0	9,5-24,0	12,5-32,5	4,5-12,0	5,5-14,0
C	[kg]	3,5	3,7	4,6	5,3	6,6	3,5	3,7	3,7
B	[kg/h]	3	3	4	5	6	8	3	3
η	[%]	78	83	83	80	81	80	78	84
CO₁₃	[g/m ³]	0,818	1,243	0,845	0,786	1,200	1,215	1,029	1,205
Ep	[g/m ³]	0,036	0,038	0,032	0,033	0,029	0,028	0,030	0,031
t_{sr}	[°C]	285	221	241	274	314	316	235	221
Aw_y	[cm ²]	630-720	770-880	980- 1120	1120- 1280	1330- 1520	1750- 2000	630-720	770- 880
Aw_l	[cm ²]	360-590	440-720	560-910	640- 1040	760- 1240	1000- 1630	360-590	440-720
Dcz	[mm]	180	200	200	200	220	250	180	200
Dd	[mm]	125	125	125	125	150	150	125	125
Sz	[mm]	545x390	590x430	680x430	680x530	900x415	1200x430	545x390	590x430
m	[kg]	160	184	200	228	262	431	162	183
K		1c	1c	1c	1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	350	350	500	500	500	800	300	300
Ip₁	[szt.]	3	4	4	5	5	6	3	3
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)							
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %							
E		104,1	111,4	111,4	107,0	108,5	107,0	104,1	112,8
A		A	A+	A+	A+	A+	A+	A	A+

Tab. 5. ALBERO

Dane techniczne wkładów kominkowych z drzwiami typu gilotyna - wersja prawa i lewa.

Technical data of fireplace inserts with guillotine door - right and left version.

Technische Daten von Kamineinsätzen mit Guillotine-Tür - rechte und linke Version.

Technické vlastnosti krbových vložek s gilotinovými dvířky - verze pravá a levá.

Технические данные каминных топок с дверцей гильотинного типа - версии правая и левая.

		AL9LG.H AL9RG.H	AL11LG.H AL11RG.H	AL14LG.H AL14RG.H	AL16LG.H AL16RG.H	AL19LG.H AL19RG.H
P_N	[kW]	9,0	11,0	14,0	16,0	19,0
Pog	[kW]	4,5-12,0	5,5-14,0	7,0-18,0	8,0-20,0	9,5-24,0
C	[kg]	3,5	3,7	4,6	5,3	6,6
B	[kg/h]	3	3	4	5	6
η	[%]	78	83	83	80	81
CO₁₃	[g/m ³]	0,818	1,243	0,845	0,786	1,200
Ep	[g/m ³]	0,036	0,038	0,032	0,033	0,029
tśr	[°C]	285	221	241	274	314
Awy	[cm ²]	630-720	770-880	980-1120	1120-1280	1330-1520
Awl	[cm ²]	360-590	440-720	560-910	640-1040	760-1240
Dcz	[mm]	180	200	200	200	220
Dd	[mm]	125	125	125	125	150
Sz	[mm]	545x390x325	590x430x375	680x430x375	680x530x375	900x415x375
m	[kg]	164	183	215	217	275
K		1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	350	30	500	500	500
Ip₁	[szt.]	3	4	4	5	5
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)				
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %				
E		104,1	111,4	111,4	107,0	108,5
A		A	A+	A+	A+	A+

Tab. 6. HST

Dane techniczne wkładów kominkowych z drzwiami standardowymi.

Technical data of fireplace inserts with standard door.

Technische Daten von Kamineinsätzen mit Standard-Tür.

Technické vlastnosti krbových vložek se standardními dvířky.

Технические данные каминных топок со стандартной дверцей.

		HST54x39.S	HST59x43.S	HST68x43.S
P_N	[kW]	5,9	7,6	9,3
P_{og}	[kW]	3,0-8,0	4,0-10,0	4,5-12,0
C	[kg]	1,4	1,7	2,1
B	[kg/h]	1,8	2,3	2,8
η	[%]	76	77	78
CO₁₃	[g/m ³]	0,480	0,719	0,957
Ep	[g/m ³]	0,038	0,036	0,033
t_{śr}	[°C]	251	254	257
Awy	[cm ²]	420-480	560-640	630-720
Awl	[cm ²]	240-390	320-520	360-590
Dcz	[mm]	160	160	160
Dd	[mm]	125	125	125
Sz	[mm]	540x390	590x430	680x430
m	[kg]	150	165	180
K		1c	1c	1c
Ip_{MAX}	[mm]	300	330	350
Ip₁	[szt.]	3	3	3
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)		
H		pomiędzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %		
E		101,2	102,7	104,1
A		A	A	A

Tab. 7. HST

Dane techniczne wkładów kominkowych z drzwiami standardowymi - wersja prawa i lewa.
 Technical data of fireplace inserts with standard door - right and left version.
 Technische Daten von Kamineinsätzen mit Standard-Tür - rechte und linke Version.
 Technické vlastnosti krbových vložek se standardními dvířky.
 Технические данные каминных топок со стандартной дверцей.

		HST54x39.L HST54x39.R	HST59x43.L HST59x43.R	HST68x43.L HST68x43.R
P_N	[kW]	5,9	7,6	9,3
Pog	[kW]	3,0-8,0	4,0-10,0	4,5-12,0
C	[kg]	1,4	1,7	2,1
B	[kg/h]	1,8	2,3	2,8
η	[%]	76	77	78
CO₁₃	[g/m ³]	0,480	0,719	0,957
Ep	[g/m ³]	0,038	0,036	0,033
t_{śr}	[°C]	251	254	257
Awy	[cm ²]	420-480	560-640	630-720
Awl	[cm ²]	240-390	320-520	360-590
Dcz	[mm]	160	160	160
Dd	[mm]	125	125	125
Sz	[mm]	540x390x295	590x430x295	680x430x295
m	[kg]	142	155	170
K		1c	1c	1c
Ip_{MAX}	[mm]	300	330	350
Ip₁	[szt.]	3	3	3
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуются выдержанная лиственная древесина (бук, береза, граб)		
H		pomiędzy 12 a 20% / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %		
E		101,2	102,7	104,1
A		A	A	A

Tab. 8. HST

Dane techniczne wkładów kominkowych z drzwiami typu gilotyna.

Technical data of fireplace inserts with a guillotine door.

Technische Daten der Kamineinsätze mit Guillotine-Tür.

Technické vlastnosti krbových vložek s gilotinovými dvířky.

Технические данные каминных топок с дверцей гильотинного типа.

		HST54x39.G	HST59x43.G	HST68x43.G
P_N	[kW]	11,2	12,2	13,2
Pog	[kW]	5,5-14,0	6,0-16,0	6,5-17,0
C	[kg]	2,5	2,6	2,8
B	[kg/h]	3,3	3,5	3,7
η	[%]	75	77	79
CO₁₃	[g/m ³]	0,507	0,716	0,925
Ep	[g/m ³]	0,037	0,038	0,038
tśr	[°C]	296	282	268
Awy	[cm ²]	770-880	840-960	910-1040
Awl	[cm ²]	440-720	480-720	520-850
Dcz	[mm]	160	160	160
Dd	[mm]	125	125	125
Sz	[mm]	540x390	590x430	680x430
m	[kg]	193	210	228
K		1c	1c	1c
Ip_{MAX}	[mm]	300	330	350
Ip₁	[szt.]	3	3	3
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)		
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %		
E		99,8	102,7	105,6
A		A	A	A

Tab. 9. HST

Dane techniczne wkładów kominkowych z drzwiami typu gilotyna - wersja prawa i lewa.

Technical data of fireplace inserts with guillotine door - right and left version.

Technische Daten von Kamineinsätzen mit Guillotine-Tür - rechte und linke Version.

Technické vlastnosti krbových vložek s gilotinovými dvířky - verze pravá a levá.

Технические данные каминных топок с дверцей гильотинного типа - версии правая и левая.

		HST54x39.LG HST54x39.RG	HST59x43.LG HST59x43.RG	HST68x43.LG HST68x43.RG
P_N	[kW]	11,2	12,2	13,2
Pog	[kW]	5,5-14,0	6,0-16,0	6,5-17,0
C	[kg]	2,5	2,6	2,8
B	[kg/h]	3,3	3,5	3,7
η	[%]	75	77	79
CO₁₃	[g/m ³]	0,507	0,716	0,925
Ep	[g/m ³]	0,037	0,038	0,038
tśr	[°C]	296	282	268
Awy	[cm ²]	770-880	840-960	910-1040
Awl	[cm ²]	440-720	480-780	520-850
Dcz	[mm]	160	160	160
Dd	[mm]	125	125	125
Sz	[mm]	540x390x295	590x430x295	680x430x295
m	[kg]	195	205	225
K		1c	1c	1c
Ip_{MAX}	[cm]	300	330	350
Ip₁	[szt.]	3	3	3
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)		
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %		
E		99,8	102,7	105,6
A		A	A	A

Tab. 10. STMA

Dane techniczne wkładów kominkowych z drzwiami standardowymi.

Technical data of fireplace inserts with standard door.

Technische Daten von Kamineinsätzen mit Standard-Tür.

Technické vlastnosti krbových vložek se standardními dvířky.

Технические данные каминных топок со стандартной дверцей.

		STMA 54x39S	STMA 59x43S	STMA 68x43S	STMA 54x39R/L	STMA 59x43R/L	STMA 68x43R/L
P_N	[kW]	9,0	11,0	12,5	7,5	9,0	11,0
P_{og}	[kW]	4,5-11,5	5,0-13,5	6,0-16,0	3,5-9,5	4,5-11,5	5,5-14,0
C	[kg]	2,0	2,45	2,9	1,75	2,15	2,6
B	[kg/h]	2,7	3,3	3,9	2,4	3	3,5
η	[%]	80,5	78,5	76,5	78	76,5	75,5
CO₁₃	[g/m ³]	0,717	0,825	0,932	0,931	0,902	0,873
Ep	[g/m ³]	0,026	0,030	0,033	0,034	0,036	0,037
t_{sr}	[°C]	249	277	305	249	267	284
Aw_y	[cm ²]	630-720	770-880	910-1040	490-560	630-720	770-880
Aw_l	[cm ²]	360-590	440-720	520-850	280-460	360-590	440-720
D_{cz}	[mm]	180	180	180	180	180	180
D_d	[mm]	125	125	125	125	125	125
Sz	[mm]	540x390	590x430	680x430	540x390x347	590x430x347	680x430x347
m	[kg]	100	111	119	90	99	109
K		1c	1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	300	330	350	300	330	350
Ip₁	[szt.]	2	2	2	2	2	2
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)					
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %					
E		107,7	104,8	101,9	104,1	101,9	100,5
A		A+	A	A	A	A	A

Tab. 11. ARDENTE

Dane techniczne wkładów kominkowych z drzwiami standardowymi.

Technical data of fireplace inserts with standard door.

Technische Daten von Kamineinsätzen mit Standard-Tür.

Technické vlastnosti krbových vložek se standardními dvířky.

Технические данные каминных топок со стандартной дверцей.

		ARD68x43.S	ARD68x53.S	ARD90x41.S
P_N	[kW]	12,0	14,5	17,0
P_{og}	[kW]	6,0-15,5	7,0-19,0	8,5-22,0
C	[kg]	2,7	3,3	3,8
B	[kg/h]	3,6	4,4	5,1
η	[%]	78	78	79
CO₁₃	[g/m ³]	0,979	0,941	0,903
Ep	[g/m ³]	0,029	0,031	0,034
t_{śr}	[°C]	262	267	273
Awy	[cm ²]	840-960	1050-1200	1190-1360
Awl	[cm ²]	480-780	600-980	680-1100
Dcz	[mm]	200	200	200
Dd	[mm]	125	125	125
Sz	[mm]	680x430	680x530	900x410
m	[kg]	251	270	307
K		1c	1c	1c
Ip_{MAX}	[mm]	350	350	500
Ip₁	[szt.]	4	4	5
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)		
H		pomiędzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %		
E		104,1	104,1	105,6
A		A	A	A

Tab. 12. ARDENTE

Dane techniczne wkładów kominkowych z drzwiami typu gilotyna.

Technical data of fireplace inserts with a guillotine door.

Technische Daten der Kamineinsätze mit Guillotine-Tür.

Technické vlastnosti krbových vložek s gilotinovými dvířky.

Технические данные каминных топок с дверцей гильотинного типа.

		ARD68x43.G	ARD68x53.G	ARD90x41.G	ARD 105x43.G	ARD 120x43.G
P_N	[kW]	12,0	14,5	17,0	19,0	22,0
Pog	[kW]	6,0-15,5	7,0-19,0	8,5-22,0	9,5-24,5	11,0-28,5
C	[kg]	2,7	3,3	3,8	4,4	4,9
B	[kg/h]	3,6	4,4	5,1	5,9	6,5
η	[%]	78	78	79	75,5	79
CO₁₃	[g/m ³]	0,979	0,941	0,903	1,217	0,827
Ep	[g/m ³]	0,029	0,031	0,034	0,035	0,038
t_{sr}	[°C]	249	277	305	249	267
Awy	[cm ²]	840-960	1050-1200	1190-1360	1330-1520	1540-1760
Awl	[cm ²]	480-720	600-980	680-1100	760-1240	880-1430
Dcz	[mm]	200	200	200	200	200
Dd	[mm]	125	125	125	125	125
Sz	[mm]	680x430	680x530	900x410	1050x430	1200x430
m	[kg]	301	327	363	409	435
K		1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	350	350	500	500	500
Ip₁	[szt.]	4	4	5	6	6
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)				
H		pomiędzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %				
E		104,1	104,1	105,6	100,5	105,6
A		A	A	A	A	A

Tab. 13. ARDENTE

Dane techniczne wkładów kominkowych z drzwiami dwustronnymi standard standard.

Technical data of fireplace inserts with double-sided door standard standard.

Technische Daten der Kamineinsätze mit zwieseitigen Standard-Tür Standard.

Technické vlastnosti krbových vložek s oboustrannými dvířky standard a standard.

Технические данные каминных топок с двухсторонней дверцей стандарт стандарт.

		ARD68x43.DSS	ARD68x53.DSS	ARD90x41.DSS
P_N	[kW]	12,0	15,0	18,0
Pog	[kW]	6,0-15,5	7,5-19,5	9,0-23,0
C	[kg]	2,8	3,4	4
B	[kg/h]	3,7	4,5	5,3
η	[%]	77	78	79
CO₁₃	[g/m ³]	0,856	0,72	0,584
Ep	[g/m ³]	0,034	0,035	0,035
t_{sr}	[°C]	266	273	279
Aw_y	[cm ²]	840-960	1050-1200	1260-1440
Aw_l	[cm ²]	480-780	600-980	720-1170
Dcz	[mm]	200	200	200
Dd	[mm]	125	125	125
Sz	[mm]	680x430	680x530	900x410
m	[kg]	242	256	294
K		1c	1c	1c
Ip_{MAX}	[mm]	350	350	500
Ip₁	[szt.]	4	4	5
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)		
H		pomiedzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %		
E		102,7	104,1	105,6
A		A	A	A

Tab. 14. ARDENTE

Dane techniczne wkładów kominkowych z drzwiami typu dwustronne gilotyna standard.
 Technical data of fireplace inserts with double-sided door type standard guillotine.
 Technische Daten der Kamineinsätze mit zweiseitiger Guillotine-Tür Standard.
 Technické vlastnosti krbových vložek s dvířky typ oboustranné gilotina a standard.
 Технические данные каминных топок с дверцей типа гильотина стандарт.

		ARD 68x43.DGS	ARD 68x53.DGS	ARD 90x41.DGS	ARD 105x43.DGS	ARD 120x43.DGS
P_N	[kW]	12,0	15,0	18,0	20,0	22,0
Pog	[kW]	6,0-15,5	7,5-19,5	9,0-23,0	10,0-26,0	11,0-28,5
C	[kg]	2,8	3,4	4	4,5	5,1
B	[kg/h]	3,7	4,5	5,3	6	6,8
η	[%]	77	78	79	78	76,5
CO₁₃	[g/m ³]	0,856	0,72	0,584	0,508	0,431
Ep	[g/m ³]	0,034	0,035	0,035	0,036	0,036
tśr	[°C]	266	273	279	290	301
Awy	[cm ²]	840-960	1050-1200	1260-1440	1400-1600	1540-1760
Awl	[cm ²]	480-780	600-980	720-1170	800-1300	880-1430
Dcz	[mm]	200	200	200	200	200
Dd	[mm]	125	125	125	125	125
Sz	[mm]	680x430	680x530	900x410	1050x430	1200x430
m	[kg]	294	313	350	395	421
K		1c	1c	1c	1c	1c
Ip_{MAX}	[mm]	350	350	500	500	500
Ip₁	[szt.]	4	4	5	6	6
F		zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)				
H		pomiędzy 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %				
E		102,7	104,1	105,6	104,1	101,9
A		A	A	A	A	A

Tab. 15 / 16
ALBERO
AQUASYSTEM

Dane techniczne wkładów kominkowych serii ALBERO AQUASYSTEM.
Technical data of fireplace inserts of ALBERO AQUASYSTEM series.
Technische Daten der Kamineinsätze der Serie ALBERO AQUASYSTEM.
Technické vlastnosti krbových vložek série ALBERO AQUASYSTEM.
Технические данные каминных топок серии ALBERO AQUASYSTEM.

		ALAQ554x39 S, L/R	ALAQ559x43 S, L/R	ALAQ568x43 S, L/R	ALAQ568x53 S, L/R	ALAQ590x41 S, L/R
P_N	[kW]	10,3	13,5	16,0	19,0	21,0
Pog	[kW]	5,0-13,5	6,5-17,5	8,0-21,0	9,0-24,0	10,5-27,0
Psh	[kW]	6,8	8,2	9,7	12,3	14,8
Pw	[kW]	3,5	5,4	7,2	7,2	7,2
C	[kg]	2,9	3,8	3,5	5,4	6,0
η	[%]	82	83	84	83	82
CO₁₃	[g/m ³]	1,018	0,830	0,641	0,666	0,691
t_{sr}	[°C]	205	203	240	245	252
Pr		<0,2	<0,2	<0,2	<0,2	<0,2
Tr		95	95	95	95	95
Awy	[cm ²]	700-800	980-1120	1120-1280	1330-1520	1470-1680
Awl	[cm ²]	400-650	560-910	640-1040	760-1240	840-1370
Dcz	[mm]	180	200	200	200	220
Dd	[mm]	125	125	125	125	150
Sz	[mm]	540x390, 540x390x375	590x430, 590x430x375	680x430, 680x430x375	680x530, 680x530x375	900x410, 900x410x375
K		1b	1b	1b	1b	1b
Ip_{MAX}	[mm]	350	500	500	500	500
Ip_i	[szt.]	3	4	4	5	5
E		109,9	111,4	112,8	111,4	109,9
A		A+	A+	A+	A+	A+

		ALAQ554x39 G, LG, RG	ALAQ559x43 G, LG, RG	ALAQ568x43 G, LG, RG	ALAQ568x53 G, LG, RG	ALAQ590x41 G, LG, RG
P_N	[kW]	10,3	13,5	16,0	19,0	21,0
Pog	[kW]	5,0-13,5	6,5-17,5	8,0-21,0	9,5-24,0	10,5-27,0
Psh	[kW]	6,8	8,9	10,8	12,3	13,2
Pw	[kW]	3,5	4,6	5,7	6,7	7,8
C	[kg]	2,9	3,8	4,8	5,4	6,0
η	[%]	82	82	82	81	81,5
CO₁₃	[g/m ³]	1,018	0,997	0,977	0,956	0,935
tśr	[°C]	205	203	240	245	252
Pr		<0,2	<0,2	<0,2	<0,2	<0,2
Tr		95	95	95	95	95
Awy	[cm ²]	700-800	980-1120	1120-1280	1330-1520	1470-1680
Awl	[cm ²]	400-650	560-910	640-1040	760-1240	840-1370
Dcz	[mm]	180	200	200	200	220
Dd	[mm]	125	125	125	125	150
Sz	[mm]	540x390, 540x390x375	590x430, 590x430x375	680x430, 680x430x375	680x530, 680x530x375	900x410, 900x410x375
K		1b	1b	1b	1b	1b
Ip_{MAX}	[cm]	350	350	500	500	500
Ip₁	[szt.]	3	4	4	5	5
E		109,9	109,9	109,9	108,5	109,2
A		A+	A+	A+	A+	A+

F	zalecane sezonowane drewno liściaste (buk, brzoza, grab) Recommended seasoned hardwood (beech, birch, hornbeam) Empfohlenes gelagertes Laubholz (Buche, Birke, Hainbuche) Doporučené suché listnaté dřevo (buk, bříza, habr) Рекомендуется выдержанная лиственная древесина (бук, береза, граб)
H	po między 12 a 20 % / between 12 and 20% / zwischen 12 und 20 % mezi 12 a 20% / между 12 и 20 %

Dodatkowe dane techniczne wkładów kominkowych AQUASYSTEM.

Additional technical data of AQUASYSTEM fireplace inserts.

Zusätzliche technische Daten der AQUASYSTEM-Kamineinsätze.

Dašší technické vlastnosti krbových vložek AQUASYSTEM.

Дополнительные технические данные каминных топок AQUASYSTEM.

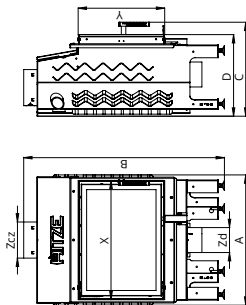
Tab. 17.

Wkłady kominkowe AQUASYSTEM / AQUASYSTEM fireplace inserts / AQUASYSTEM-Kamineinsätze Krbové vložky AQUASYSTEM / Каминные топки AQUASYSTEM			
Rodzaj kominka Insert model Art des Kamins Druh krbu Тип камина	Masa kominka / Insert weight / Kamingewicht / Hmotnost krbu / Масса камина [kg] / [кг]		Pojemność nagrzewnicy Heater capacity Volumen des Erwärmers Objem ohřivače Объем водяной рубашки
	bez wody without water Ohne Wasser Bez vody Без воды	z wodą with water Mit Wasser S vodou С водой	
ALAQ54x39.G ALAQ54x39.S	198 148	225 178	27 30
ALAQ59x43.G ALAQ59x43.S	222 172	260 210	38
ALAQ68x43.G ALAQ68x43.S	246 193	291 238	45
ALAQ68x53.G ALAQ68x53.S	276 217	321 262	45
ALAQ90x41.G ALAQ90x41.S	323 250	388 315	65
ALAQ54x39.L / .R ALAQ54x39.LG / .RG	143 194	170 221	27
ALAQ59x43.L / .R ALAQ59x43.LG / .RG	164 217	196 249	32
ALAQ68x43.L / .R ALAQ68x43.LG / .RG	185 240	223 278	38
ALAQ68x53.L / .R ALAQ68x53.LG / .RG	205 269	243 307	38
ALAQ90x41.L / .R ALAQ90x41.LG / .RG	254 312	311 369	57

Wykładow kominkowych serii ALBERO z drzwiami standardowymi. / Dimensions of ALBERO fireplace inserts with standard door.
 Abmessungen der Kamineinsätze der Serie ALBERO mit Standard-Tür. / Technische vlastnosti krbových vložek série ALBERO se standardními dvířky.
 Размеры каминных топок серии ALBERO со стандартной дверцей.

Tab. 18.

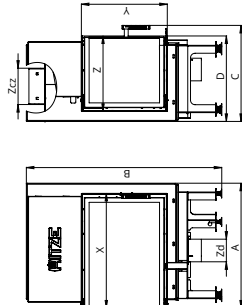
	AL9S.H	AL11S.H	AL14S.H	AL16S.H	AL19S.H	AL9S.V	AL11S.V	AL14S.V
A	642	687	777	777	997	487	527	527
B	989	1049	1049	1149	1324	1144	1209	1549
C	463	523	518	518	533	463	528	528
D	402	462	457	457	472	402	467	467
X	588	633	723	723	943	433	473	473
Y	425	426	466	566	451	581	626	716
Zcz	180	200	200	200	220	180	200	200
Zd	125	125	125	125	150	125	125	125



Wykładow kominkowych serii ALBERO z drzwiami standardowymi - LEWA strona. / Dimensions of ALBERO fireplace inserts with standard door - LEFT side.
 Abmessungen der Kamineinsätze der Serie ALBERO mit Standard-Tür - LINKE Seite. / Technische vlastnosti krbových vložek série ALBERO se standardními dvířky - LEVA strana. / Размеры каминных топок серии ALBERO со стандартной дверцей - ЛЕВАЯ сторона.

Tab. 19.

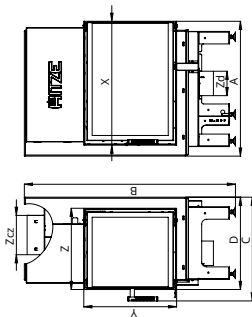
	AL9L.H	AL11L.H	AL14L.H	AL16L.H	AL19L.H
A	636	679	769	769	989
B	989	1063	1063	1163	1324
C	474	523	523	523	523
D	417	465	465	465	473
X	580	624	714	714	933
Y	427	467	467	567	450
Z	360	409	409	409	409
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominkowych serii ALBERO z drzwiami standardowymi – PRAWA strona. / Dimensions of ALBERO fireplace inserts with standard door – RIGHT side.
 Abmessungen der Kamineinsätze der Serie ALBERO mit Standard-Tür – RECHTE Seite. / Technische vlastnosti krbových vložek série ALBERO se standardní dvířky –
 PRAVA strana. / Размеры каминных топок серии ALBERO со стандартной дверцей – ПРАВАЯ сторона.

Tab. 20.

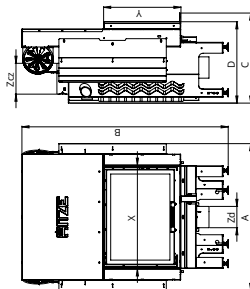
	AL19R.H	AL11R.H	AL14R.H	AL16R.H	AL19R.H
A	636	679	769	769	989
B	989	1063	1063	1163	1324
C	474	523	523	523	523
D	417	465	465	465	473
X	580	624	714	714	933
Y	427	467	467	567	450
Z	360	410	409	409	409
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominkowych serii ALBERO z drzwiami typu gilotyna. Dimensions of ALBERO fireplace inserts with a guillotine door.
 Abmessungen der Kamineinsätze der Serie ALBERO mit Guillotine-Tür. / Technische vlastnosti krbových vložek série ALBERO s gilotinovými dvířky.
 Размеры каминных топок серии ALBERO с дверцей гильотинного типа.

Tab. 21.

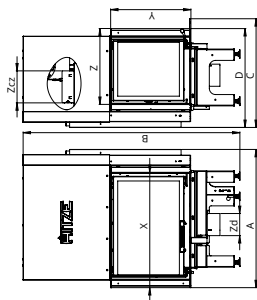
	AL19G.H	AL11G.H	AL14G.H	AL16G.H	AL19G.H	AL120x43 G.H	AL19G.V	AL11G.V
A	848	893	983	983	1203	1513	693	733
B	1191	1231	1231	1431	1324	1762	1461	1551
C	520	580	575	575	590	700	520	585
D	470	530	525	525	540	640	470	535
X	598	643	733	733	953	1236	443	483
Y	447	487	487	587	472	492	602	647
Zcz	180	200	200	200	220	250	180	200
Zd	125	125	125	125	150	150	125	125



Wykłady kominkowych serii ALBERO z drzwiami typu gilotyna – LEWA strona. / Dimensions of ALBERO fireplace inserts with a guillotine door – LEFT side.
 Abmessungen der Kaminleinsätze der Serie ALBERO mit Guillotine-Tür – LINKE Seite. / Technische vlastnosti krbových vložek série ALBERO s gilotinovými dvířky – LEVA strana.
 Размеры каминных топок серии ALBERO с дверцей гильотинного типа – ЛЕВАЯ сторона.

Tab. 22.

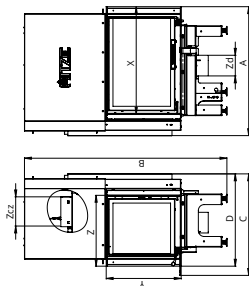
	AL9LG.H	AL11LG.H	AL14LG.H	AL16LG.H	AL19LG.H
A	769	814	904	904	1124
B	1206	1231	1231	1431	1324
C	605	655	655	655	655
D	550	600	600	600	600
X	641	686	776	776	996
Y	447	487	487	587	472
Z	422	472	472	472	472
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wykłady kominkowych serii ALBERO z drzwiami typu gilotyna – PRAWA strona. / Dimensions of ALBERO fireplace inserts with a guillotine door – RIGHT side.
 Abmessungen der Kaminleinsätze der Serie ALBERO mit Guillotine-Tür – RECHTE Seite. / Technische vlastnosti krbových vložek série ALBERO s gilotinovými dvířky – PRAVA strana.
 Размеры каминных топок серии ALBERO с дверцей гильотинного типа – ПРАВАЯ сторона.

Tab. 23.

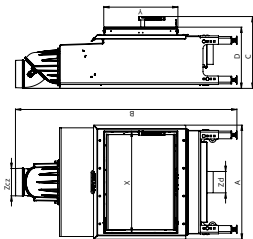
	AL9RG.H	AL11RG.H	AL14RG.H	AL16RG.H	AL19RG.H
A	769	814	904	904	1124
B	1206	1231	1231	1431	1324
C	605	655	655	655	655
D	550	600	600	600	600
X	641	686	776	776	996
Y	447	487	487	587	472
Z	422	472	472	472	472
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominkowych serii HST z drzwiami standardowymi. / Dimensions of HST fireplace inserts with standard door.
 Abmessungen der Kamineinsätze der Serie HST mit Standard-Tür. / Technische vlastnosti krbových vložek série HST se standardními dvířky.
 Размеры каминных топок серии HST со стандартной дверцей.

Tab. 24.

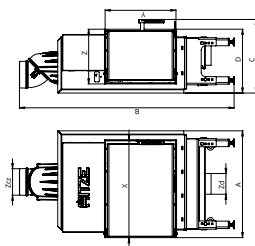
	HST54x39.S	HST59x43.S	HST68x43.S
A	656	701	791
B	1273	1313	1313
C	413	413	413
D	353	353	353
X	588	633	723
Y	427	467	467
Zcz	160	160	160
Zd	125	125	125



Wymiary wkładów kominkowych serii HST z drzwiami standardowymi - LEWA strona. / Dimensions of HST fireplace inserts with standard door - LEFT side.
 Abmessungen der Kamineinsätze der Serie HST mit Standard-Tür - LINKE Seite. / Technische vlastnosti krbových vložek série HST se standardními dvířky - LEVÁ strana.
 Размеры каминных топок серии HST со стандартной дверцей - ЛЕВАЯ сторона.

Tab. 25.

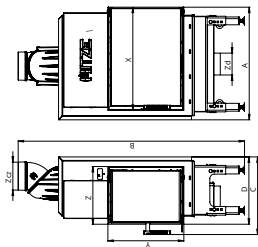
	HST54x39.L	HST59x43.L	HST68x43.L
A	634	679	769
B	1273	1313	1313
C	437	437	437
D	378	378	378
X	580	625	715
Y	427	467	467
Z	324	325	325
Zcz	160	160	160
Zd	125	125	125



Wymiary wkładów kominkowych serii HST z drzwiami standardowymi - PRAWA strona. / Dimensions of HST fireplace inserts with standard door - RIGHT side.
 Abmessungen der Kamineinsätze der Serie HST mit Standard-Tür - RECHTE Seite. / Technische vlastnosti krbových vložek série HST se standardními dvířky - PRAVA strana.
 Размеры каминных топок серии HST со стандартной дверцей - ПРАВАЯ сторона.

Tab. 26.

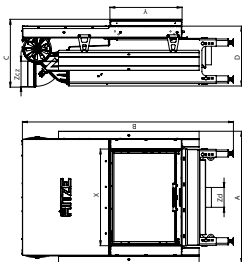
	HST54x39.R	HST59x43.R	HST68x43.R
A	634	679	769
B	1273	1313	1313
C	437	437	437
D	378	378	378
X	580	625	715
Y	427	467	467
Z	324	325	325
Zcz	160	160	160
Zd	125	125	125



Wymiary wkładów kominkowych serii HST z drzwiami typu gilotyna. / Dimensions of HST fireplace inserts with a guillotine door.
 Abmessungen der Kamineinsätze der Serie HST mit Guillotine-Tür. / Technische vlastnosti krbových vložek série HST s gilotinovými dvířky.
 Размеры каминных топок серии HST с дверцей гильотинного типа.

Tab. 27.

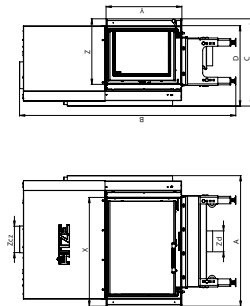
	HST54x39.G	HST59x43.G	HST68x43.G
A	819	884	954
B	1308	1388	1388
C	420	420	420
D	371	378	378
X	598	643	733
Y	447	487	487
Zcz	160	160	160
Zd	125	125	125



Wymiary wkładów kominkowych serii HST z drzwiami typu gilotyna - LEWA strona. / Dimensions of HST fireplace inserts with guillotine - LEFT side.
 Abmessungen der Kamineinsätze der Serie HST mit Guillotine-Tür - LINKE Seite. / Technische vlastnosti krbových vloček série HST s gilotinovými dvířky - LEVÁ strana.
 Размеры каминных топок серии HST с дверцей гильотинного типа - ЛЕВАЯ сторона.

Tab. 28.

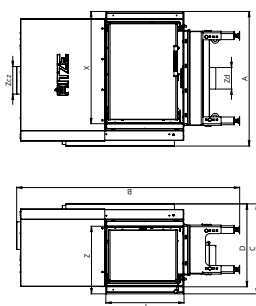
	HST54x39.LG	HST59x43.LG	HST68x43.LG
A	769	814	904
B	1273	1313	1313
C	514	514	514
D	471	471	471
X	641	686	776
Y	447	487	487
Z	386	386	386
Zcz	160	160	160
Zd	125	125	125



Wymiary wkładów kominkowych serii HST z drzwiami typu gilotyna - PRAWA strona. / Dimensions of HST fireplace inserts with guillotine - RIGHT side.
 Abmessungen der Kamineinsätze der Serie HST mit Guillotine-Tür - RECHTE Seite. / Technische vlastnosti krbových vloček série HST s gilotinovými dvířky - PRAVÁ strana.
 Размеры каминных топок серии HST с дверцей гильотинного типа - ПРАВАЯ сторона.

Tab. 29.

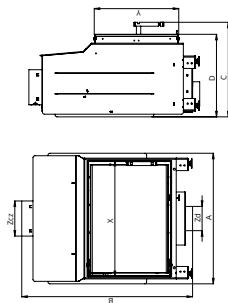
	HST54x39.RG	HST59x43.RG	HST68x43.RG
A	769	814	904
B	1273	1313	1313
C	514	514	514
D	471	471	471
X	641	686	776
Y	447	487	487
Z	386	386	386
Zcz	160	160	160
Zd	125	125	125



Wymiary wkładów kominkowych serii STMA z drzwiami standardowymi. / Dimensions of STMA series fireplace inserts with standard door.
 Abmessungen der Kamineinsätze der Serie STMA mit Standard-Tür. / Technische vlastnosti krbových vložek série STMA se standardními dvířky.
 Размеры каминных топок серии STMA со стандартной дверцей.

Tab. 30.

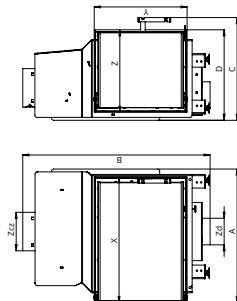
	STMA54x39S	STMA59x43S	STMA68x43S
A	662	707	797
B	866	906	906
C	480	480	480
D	418	418	418
X	589	634	724
Y	428	467	467
Zcz	180	180	180
Zd	125	125	125



Wymiary wkładów kominkowych serii STMA z drzwiami standardowymi - LEWA strona. / Dimensions of STMA fireplace inserts with standard door - LEFT side.
 Abmessungen der Kamineinsätze der Serie STMA mit Standard-Tür - LINKE Seite. / Technische vlastnosti krbových vložek série STMA se standardními dvířky - LEVÁ strana.
 Размеры каминных топок серии STMA со стандартной дверцей - ЛЕВАЯ сторона.

Tab. 31.

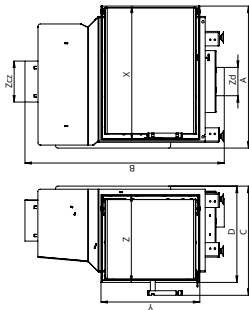
	STMA54x39L	STMA59x43L	STMA68x43L
A	617	662	752
B	866	906	906
C	475	475	475
D	418	418	418
X	581	626	716
Y	429	469	469
Z	382	382	382
Zcz	180	180	180
Zd	125	125	125



Wymiary wkładów kominowych serii STMA z drzwiami standardowymi - PRAWA strona. / Dimensions of STMA series fireplace inserts with standard door - RIGHT side.
 Abmessungen der Kamineinsätze der Serie STMA mit Standard-Tür - RECHTE Seite. / Technische vlastnosti krbových vložek série STMA se standardními dvířky - PRAVÁ strana.
 Размеры каминных топок серии STMA со стандартной дверцей - ПРАВВАЯ сторона.

Tab. 32.

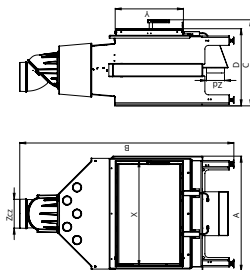
	STMA54x39R	STMA59x43R	STMA68x43R
A	617	662	752
B	866	906	906
C	475	475	475
D	418	418	418
X	581	626	716
Y	429	469	469
Z	382	382	382
Zcz	180	180	180
Zd	125	125	125



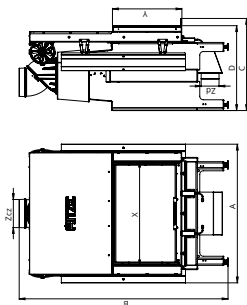
Wymiary wkładów kominowych serii ARDENTE z drzwiami typu standard. / Dimensions of ARDENTE fireplace inserts with standard door.
 Abmessungen der Kamineinsätze der Serie ARDENTE mit Standard-Tür. / Technische vlastnosti krbových vložek série ARDENTE se standardními dvířky.
 Размеры каминных топок серии ARDENTE с дверцей типа стандарт.

Tab. 33.

	ARD68x43.S	ARD68x53.S	ARD90x41.S
A	787	787	1007
B	1464	1564	1554
C	589	589	589
D	528	528	528
X	723	723	943
Y	466	566	451
Zcz	200	200	200
Zd	125	125	125

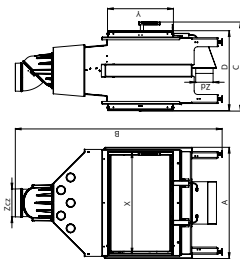


Wymiary wkładów kominkowych serii ARDENTE z drzwiami typu gilotyna. / Dimensions of ARDENTE fireplace inserts with a guillotine door.
 Abmessungen der Kamineinsätze der Serie ARDENTE mit Guillotine-Tür. / Technische vlastnosti krbových vložek série ARDENTE s gilotinovým dvířky.
 Размеры каминных топок серии ARDENTE с дверцей гильотинного типа.



	ARD68x43.G	ARD68x53.G	ARD90x41.G	ARD105x43.G	ARD120x43.G
A	972	972	1192	1324	1474
B	1464	1593	1554	1604	1604
C	646	646	647	662	662
D	595	595	596	595	595
X	733	733	956	1103	1254
Y	487	587	472	492	492
Zcz	200	200	200	200	200
Zd	125	125	125	125	125

Wymiary wkładów kominkowych serii ARDENTE z drzwiami dwustronne standard. / Dimensions of ARDENTE fireplace inserts with double-sided doors standard standard.
 Abmessungen der Kamineinsätze der Serie ARDENTE mit zweiseitiger Standard-Tür standard. / Technische vlastnosti krbových vložek série ARDENTE s dvířky oboustrannými standard a standard. / Таб. 34. Размеры каминных топок серии ARDENTE с двухсторонней дверцей стандарт стандарт.



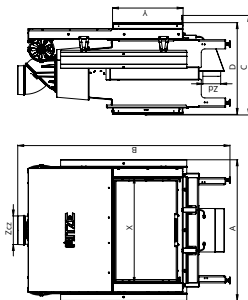
	ARD68x43.DSS	ARD68x53.DSS	ARD90x41.DSS
A	787	787	1007
B	1464	1564	1554
C	630	638	638
D	566	566	568
X	723	723	943
Y	466	566	451
Zcz	200	200	200
Zd	125	125	125

Tab. 35.

Wymiary wkładów kominowych serii ARDENTE z drzwiami typu dwustronne gilotyna standard. / Dimensions of ARDENTE fireplace inserts with double-sided door type standard guillotine. / Abmessungen der Kamineinsätze der Serie ARDENTE mit zweiseitiger Guillotine-Tür Standard. / Technické vlastnosti krbových vložek série ARDENTE s dvířky typu oboustrannými gilotinové a standard. / Размеры каминных топок серии ARDENTE с дверцей типа двухсторонняя гильотина стандарт.

Tab. 36.

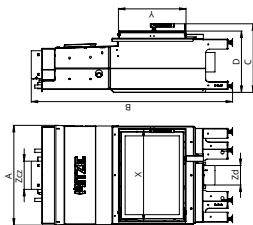
	ARD68x43.DGS	ARD68x53.DGS	ARD90x41.DGS	ARD105x43.DGS	ARD120x43.DGS
A	972	972	1192	1324	1474
B	1464	1593	1554	1604	1604
C	687	693	694	708	708
D	634	634	635	634	634
X	734	734	956	1103	1253
Y	487	587	472	492	492
Zcz	200	200	200	200	200
Zd	125	125	125	125	125



Wymiary wkładów kominowych AQUASYSTEM z drzwiami standardowymi. / Dimensions of AQUASYSTEM fireplace inserts with standard door. / Abmessungen der Kamineinsätze der Serie AQUASYSTEM mit Standard-Tür. / Technické vlastnosti krbových vložek série AQUASYSTEM se standardními dvířky. / Размеры каминных топок серии AQUASYSTEM со стандартной дверцей.

Tab. 37.

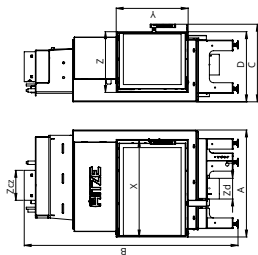
	ALAQ55x39.S	ALAQ59x43.S	ALAQ568x43.S	ALAQ568x53.S	ALAQ590x41.S
A	630	675	765	765	985
B	1270	1330	1330	1530	1415
C	450	510	505	505	519
D	389	449	444	444	458
X	588	633	723	723	943
Y	427	467	467	567	452
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominowych serii ALBERO AQUASYSTEM - drzwi LEWA strona. / Types of fireplace inserts of the ALBERO AQUASYSTEM series - LEFT side door.
 Arten der Kamineinsätze der Serie AQUASYSTEM - Tür LINKE Seite. / Drůhy krbových vloček s\u00e9rie ALBERO AQUASYSTEM - dv\u00ed\u017eka LEVA strana.
 Виды каминных топков серии ALBERO AQUASYSTEM - дверца ЛЕВАЯ сторона.

Tab. 38.

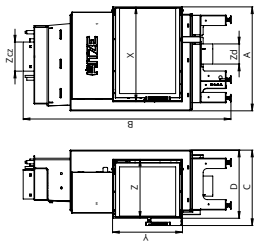
	ALAQ54x39.L	ALAQ59x43.L	ALAQ568x43.L	ALAQ568x53.L	ALAQ590x41.L
A	635	679	769	769	989
B	1270	1330	1330	1530	1415
C	474	523	523	523	523
D	416	465	465	465	465
X	580	624	714	714	933
Y	427	467	467	567	450
Z	361	410	410	410	410
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominowych serii ALBERO AQUASYSTEM - drzwi PRAWA strona. / Types of fireplace inserts of the ALBERO AQUASYSTEM series - RIGHT side door.
 Arten der Kamineinsätze der Serie AQUASYSTEM - Tür RECHTE Seite. / Drůhy krbových vloček s\u00e9rie ALBERO AQUASYSTEM - dv\u00ed\u017eka PRAVA strana.
 Виды каминных топков серии ALBERO AQUASYSTEM - дверца ПРАВВАЯ сторона.

Tab. 39.

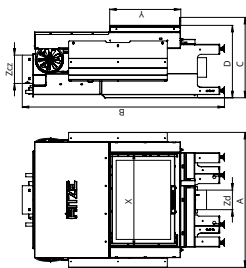
	ALAQ54x39.R	ALAQ59x43.R	ALAQ568x43.R	ALAQ568x53.R	ALAQ590x41.R
A	635	679	769	769	989
B	1270	1330	1330	1530	1415
C	474	523	523	523	523
D	416	465	465	465	465
X	580	624	714	714	933
Y	427	467	467	567	450
Z	361	410	410	410	410
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominowych AQUASYSTEM z drzwiami typu gilotyna. / Dimensions of AQUASYSTEM fireplace inserts with a guillotine door.
 Abmessungen der AQUASYSTEM Kamineinsätze mit Guillotine-Tür. / Technische vlastnosti krbových vložek série AQUASYSTEM s gilotinovými dvířky.
 Размеры каминных топок AQUASYSTEM с дверцей гильотинного типа.

Tab. 40.

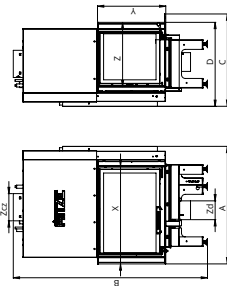
	ALAQ54x39.G	ALAQ59x43.G	ALAQ568x43.G	ALAQ568x53.G	ALAQ590x41.G
A	848	893	983	983	1203
B	1270	1330	1330	1530	1415
C	507	567	562	562	576
D	457	517	512	512	527
X	598	643	733	733	953
Y	447	487	487	587	472
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Wymiary wkładów kominowych AQUASYSTEM z drzwiami typu gilotyna - LEWA strona. / Dimensions of AQUASYSTEM fireplace inserts with a guillotine door - LEFT side.
 Abmessungen der Kamineinsätze der Serie AQUASYSTEM mit Guillotine-Tür - LINKE Seite. / Technische vlastnosti krbových vložek série AQUASYSTEM s gilotinovými dvířky. - LEVA strana. / Размеры каминных топок AQUASYSTEM с дверцей гильотинного типа - ЛЕВАЯ сторона.

Tab. 41.

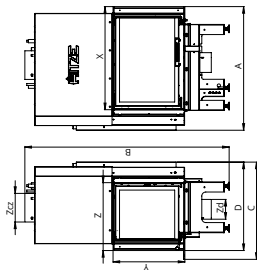
	ALAQ54x39.LG	ALAQ59x43.LG	ALAQ568x43.LG	ALAQ568x53.LG	ALAQ590x41.LG
A	769	814	904	904	1124
B	1270	1330	1330	1530	1415
C	605	655	655	648	655
D	550	600	600	600	600
X	642	686	776	776	996
Y	447	487	487	587	472
Z	422	472	472	472	472
Zcz	180	200	200	200	220
Zd	125	125	125	125	150



Внутрішні вкладки комбінованих АQUASYSTEM з дривіями типу гілотуна - PRAWA strona. / Dimensions of AQUASYSTEM fireplace inserts with a guillotine door - RIGHT side.
 Abmessungen der Kamineinsätze der Serie AQUASYSTEM mit Guillotine-Tür - RECHTE Seite. / Technische vlastnosti krbových vložek série AQUASYSTEM s gilotinovým
 dvířky - PRAVA strana. / Размеры каминных топок АQUASYSTEM с дверцей гильотинного типа - ПРАВВАЯ сторона со стандартной дверцей.

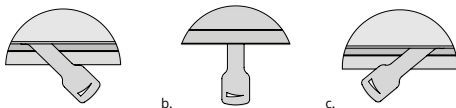
Tab. 42.

	ALAQ554x39.RG	ALAQ559x43.RG	ALAQ568x43.RG	ALAQ568x43.RG	ALAQ568x53.RG	ALAQ590x41.RG
A	769	814	904	904	904	1124
B	1270	1330	1330	1330	1530	1415
C	605	655	655	655	648	655
D	550	600	600	600	600	600
X	642	686	776	776	776	996
Y	447	487	487	487	587	472
Z	422	472	472	472	472	472
Zcz	180	200	200	200	200	220
Zd	125	125	125	125	125	150



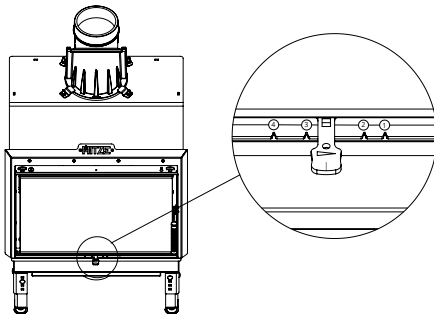
FIGURES

Rys. 1. Nastawy powietrza ALBERO / Air settings of ALBERO / Lufteinstellung ALBERO
Nastavení vzduchu ALBERO / Регулировка подачи воздуха в каминной топке ALBERO



- minimalna nastawa powietrza / minimum air settings / min. Lufteinstellung
minimální nastavení vzduchu / минимальная подача воздуха
- powietrze otwarte w 50% / 50% open air / Luft in 50% geöffnet / vzduch otevřen v 50%
подача открыта на 50%
- maksimalna nastawa powietrza / maximum air settings / max. Lufteinstellung
maximální nastavení vzduchu / максимальная подача воздуха.

Rys. 2. Nastawy powietrza wkładu HST / Air settings of HST insert / Lufteinstellung des HST-Einsatzes
Nastavení vzduchu vložky HST / Регулировка подачи воздуха в каминной топке HST



Dopływ powietrza realizowany jest w sposób płynny, od prawej strony ku lewej stronie.

The air supply is carried out smoothly, from the right to the left.

Die Luftzufuhr erfolgt reibungslos von rechts nach links.

Prívod vzduchu se provádí plynule, zprava doleva.

Подача воздуха регулируется плавно, справа налево.

POZYCJA 1 / POSITION 1 / POSITION 1 / ПОЛОЖА 1 / ПОЗИЦИЯ 1

Dopływ powietrza zamknięty - Zamknięty dopływ powietrza pierwotnego i wtórnego.

Air supply closed - Closed primary and secondary air supply.

Luftzufuhr geschlossen - Geschlossene Primär- und Sekundärluftzufuhr.

Uzavřený prívod vzduchu - Uzavřený prívod primárního a sekundárního vzduchu.

Подача воздуха закрыта - Закрытая первичная и вторичная подача воздуха.

POZYCJA 2 / POSITION 2 / POSITION 2 / ПОЛОЖА 2 / ПОЗИЦИЯ 2

Rozpalanie - Powietrze pierwotne otworzone na 100%, otworzone dodatkowe otwory. Powietrze wtórne zamknięte.

Lighting-up - Primary air opened at 100%, additional holes opened. Secondary air closed.

Anzündung - Primärluft geöffnet auf 100%, zusätzliche Öffnungen geöffnet. Sekundärluft geschlossen.

Zapalování - Primární vzduch je otevřen v 100%, otevřeny jsou další otvory. Sekundární vzduch uzavřený.

Разжигание - первичный воздух открыт на 100%, открыты дополнительные отверстия. Вторичный воздух закрыт.

POZYCJA 3 / POSITION 3 / POSITION 3 / POLOHA 3 / ПОЗИЦИЯ 3

Intensywne spalanie - Powietrze pierwotne otworzone na 100%, dodatkowe otwory zamknięte.

Powietrze wtórne otworzone na 100%.

Intense combustion - Primary air opened at 100%, additional holes closed. Secondary air opened at 100%.

. Intensive Verbrennung - Primärluft geöffnet auf 100%, zusätzliche Öffnungen geschlossen. Sekundärluft geöffnet auf 100%.

Intenzivní spalování - Primární vzduch otevřený v 100%, další otvory uzavřeny. Sekundární vzduch otevřen v 100%.

Разжигание - первичный воздух открыт на 100%, открыты дополнительные отверстия. Вторичный воздух закрыт.

POZYCJA 4 / POSITION 4 / POSITION 4 / POLOHA 4 / ПОЗИЦИЯ 4

Powolne spalanie - Powietrze pierwotne zamknięte Powietrze wtórne otworzone na 50%.

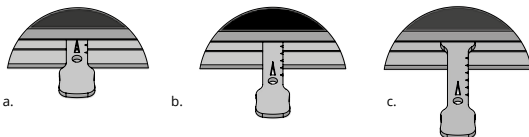
Slow burning - Primary air closed. Secondary air opened at 50%.

Langsame Verbrennung - geschlossene Primärluft Die Sekundärluft geöffnet in 50%.

Pomalé spalování - Primární vzduch uzavřený. Sekundární vzduch otevřen v 50%.

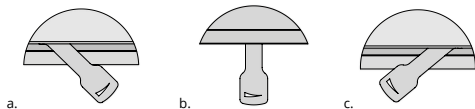
Медленное горение - первичный воздух закрыт. Вторичный воздух открыт на 50%.

Rys. 3. Nastawy powietrza wkładu STMA / Air settings of STMA insert
Lufteneinstellungen des STMA-Einsatzes / Nastavení vzduchu vložky STMA
Регулировка подачи воздуха в каминной топке STMA



- minimalny nastaw powietrza / minimum air settings / min. Lufteneinstellung
minimální nastavení vzduchu / минимальная подача воздуха
- powietrze otwarte w 50% / 50% open air / Luft in 50% geöffnet / vzduch otevřený v 50%
подача открыта на 50%
- maksymalny nastaw powietrza / maximum air settings / max. Lufteneinstellung
maximální nastavení vzduchu / максимальная подача воздуха.

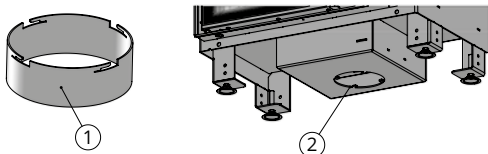
Rys. 4. Nastawy powietrza wkładu ARDENTE / Air settings of ARDENTE insert
Lufteneinstellungen des ARDENTE-Einsatzes / Nastavení vzduchu vložky ARDENTE
Регулировка подачи воздуха в каминной топке ARDENTE



- minimalna nastawa powietrza / minimum air settings / min. Lufteneinstellung
minimální nastavení vzduchu / минимальная подача воздуха
- powietrze otwarte w 50% / 50% open air / Luft in 50% geöffnet / vzduch otevřen v 50%
подача открыта на 50%
- maksymalna nastawa powietrza / maximum air settings / max. Lufteneinstellung
maximální nastavení vzduchu / максимальная подача воздуха.

Rys. 5.

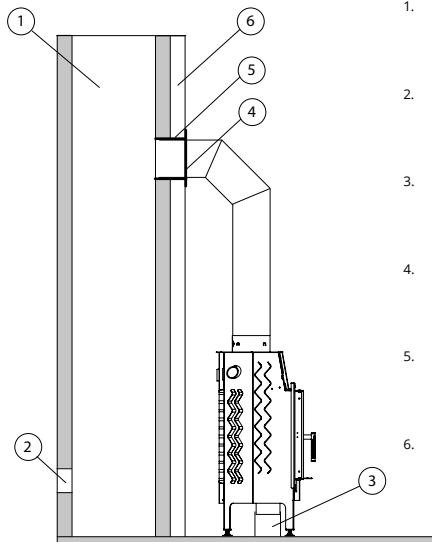
Instalacja rury dolotu powietrza w otworze mocującym.
 Installation of the air intake pipe in the mounting hole.
 Montage des Zuluft-Rohrs im Montageloch.
 Instalace potrubí přívodu vzduchu v upevňovacím otvoru.
 Установка воздухозаборной трубы в крепежное отверстие.



1. Rura dolotu powietrza / Air intake pipe / Zuluft-Rohr / Potrubí přívodu vzduchu / Труба воздухозаборника
2. Otwór mocujący / Mounting hole / Montageloch / Upevňovací otvor / Крепежное отверстие.

Rys. 6.

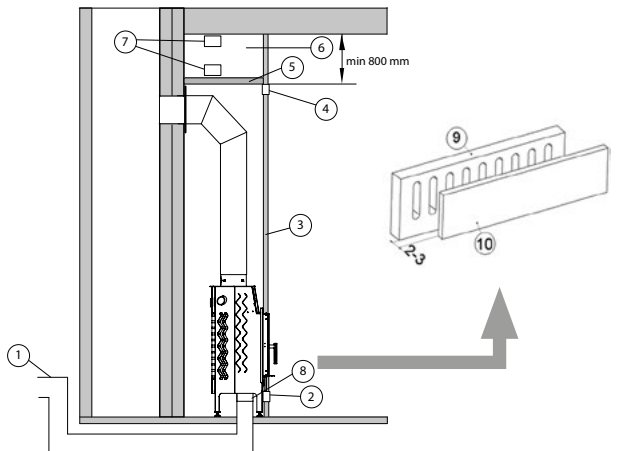
Schemat podłączenia wkładu do przewodu kominkowego.
 The scheme of connection of the insert to the chimney duct.
 Schema des Anschlusses des Einsatzes an den Schornstein.
 Schéma zapojení vložky do komínového průduchu.
 Схема подключения вклада к дымоходному каналу.



1. przewód kominowy
chimney duct
Schornstein
kominový průduch
дымоходный канал
2. wyczystka
cleaning hole
Waschluke
čistící tvarovka
ревизия
3. dolot zimnego powietrza z zewnątrz
inflow of cold air from the outside
Kaltluftzufuhr von außen
přívod studeného vzduchu zvenčí
подача холодного воздуха снаружи
4. rozeta
rosette
Rosette
růžice
розетка
5. zaprawa uszczelniająca
sealing mortar
Dichtungsmörtel
těsnící malta
герметик
6. materiał niepalny
non-flammable material
Nicht brennbares Material
nehořlavý materiál
негорючий материал.

Zalecany sposób instalacji wkładu.**The recommended method of installing the insert.****Empfohlene Installationsweise des Einsatzes.****Doporučený způsob instalace vložky.****Рекомендуемый способ установки каминной топки.**

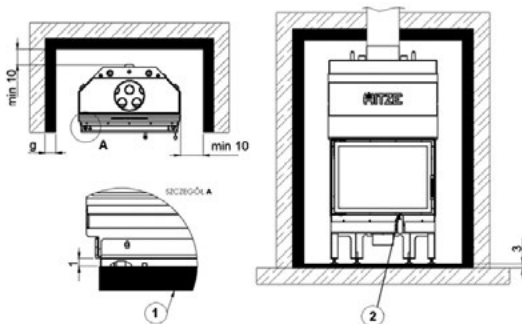
Rys. 7.



1. dolot zimnego powietrza z zewnątrz do komory spalania
the intake of cold air from the outside into the combustion chamber
Kaltluftzufuhr von außen in die Verbrennungskammer
přívod studeného vzduchu zvenčí do spalovací komory
подача холодного воздуха снаружи в камеру сгорания
2. krata nawiewna powietrza konwekcyjnego pod kominkiem
convention air supply vent under the fireplace
Einlassgitter für Konvektionsluft unter dem Kamin
větrací mřížka (přívod vzduchu) pro konvekční vzduch pod krbem
решетка входа конвекционного воздуха под камином
3. zabudowa + izolacja
housing + insulation
Bebauung + Isolation
konstrukce + izolace
обстройка + изоляция
4. kratka wywiewna nad kominkiem
outlet vent above the fireplace
Auslassgitter über dem Kamin
větrací mřížka (odvod vzduchu) nad krbem
ытяжная решетка над камином
5. izolowana półka dekompresyjna
insulated decompression tray
isoliertes Dekompressionsbrett
izolovaná dekompresní police
изолированная декомпрессионная полка
6. komora dekompresyjna
decompression chamber
Dekompressionskammer
dekompresní komora
декомпрессионная камера
7. kratki wentylacyjne komory dekompresyjnej
decompression chamber vents
Lüftungsgitter der Dekompressionskammer
větrací mřížky dekompresní komory
вентиляционные решетки декомпрессионной камеры
8. przepustnica
throttle
Drosselklappe
škrťací klapka
дроссельная заслонка
9. obudowa kominka
fireplace encasing
Kamingehäuse
krbová obestavba
обшивка камина
10. obudowa
housing
Gehäuse
obestavba
обшивка.

Rys. 8.

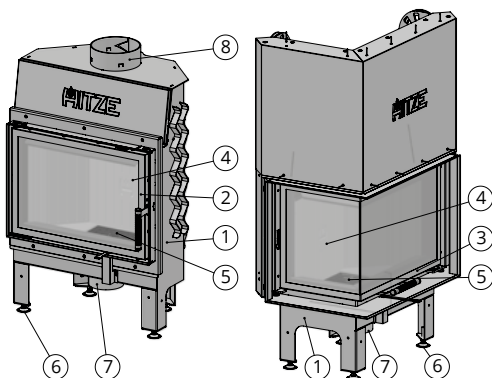
Standardowa zabudowa kominka (wszystkie wymiary na rys. w [cm]).
 Standard fireplace encasing (all dimensions in Fig. in [cm]).
 Standard Kaminverbauung (alle Maßen in der Zeichnung in [cm]).
 Standardní konstrukce krbu (všechny rozměry na obrázku v [cm]).
 Стандартная обстройка камина (все размеры на рис. в [см]).



1. izolacja lub zabudowa / insulation or encasing / Isolierung oder Verbauung izolace nebo konstrukce / изоляция или обстройка
2. mechanizm przepustnicy / throttle mechanism / Drosselklappemechanismus mechanismus škrtící klapky / механизм дроссельной заслонки.

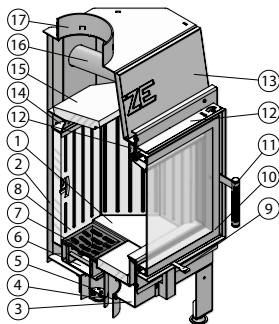
Rys. 9.

Wkład ALBERO - z drzwiami standardowymi (po lewej) i drzwiami typu gilotyna.
 ALBERO insert - with standard door (left) and guillotine doors.
 Einsatz ALBERO - mit Standardtüren (links) und Guillotine-Tür.
 Vložka ALBERO - se standardními dvířky (zleva) a gilotinovými dvířky (zprava).
 Каминная топка ALBERO - со стандартной дверцей (слева) и дверцей гильотинного типа.



1. płaszcz wkładu / shell of the insert / Wasserführung des Einsatzes / plášť vložky / рубашка вклада
2. front typ standard / standard front type / Vorderseite Typ Standard
přední část typ standard / фасад стандартного типа
3. front typ gilotyna / guillotine front type / Vorderseite Typ Guillotine-Tür
přední část typ gilotyna / фасад гильотинного типа
4. beton ceramiczny / ceramic fittings / Keramik-Beton / keramický beton / керамический бетон
5. ruszt z popielnikiem / grate and ash pan / Rost mit Aschenkasten / rošt s popelníkem
колосниковая рубашка с зольником
6. regulowana nóżka / regulated foot / verstellbarer Stellfuß / nastaviteľný podstavec
регулируемая ножка
7. rura doprowadzająca powietrze / air supply pipe / Zuluft-Rohr / potrubí přívodu vzduchu
труба воздухозаборника
8. czoruch / flue / Fuchs / sorouch / дымосборник.

Rys. 10. **Ogólna budowa wkładu serii ALBERO.**
General structure of the ALBERO series insert.
Allgemeiner Aufbau des Einsatzes der Serie ALBERO.
Общая конструкция вložky série ALBERO.
Общая конструкция каминной топki серии ALBERO.

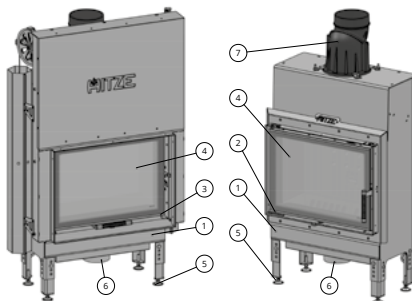


1. komora spalania / combustion chamber / Verbrennungskammer / spalovací komora / камера сгорания
2. korpus / body / Gehäuse / těleso / корпус
3. dwupłaszczowa podłoga / double floor / zweischichtiger Boden / dvouplášťová podlaha / двойное дно
4. miejsce dopływu powietrza / air intake / Ort der Luftzufuhr / místo přívodu vzduchu / место притока воздуха
5. przepustnica / throttle / Drosselklappe / škrtící klapka / дроссельная заслонка
6. pojemnik na popiół / ash pan / Aschenkasten / popelník / зольник
7. ruszt / grate / Rost / rošt / колосниковая решетка
8. beton ceramiczny / ceramic fittings / Keramik-Beton / keramický beton / керамический бетон
9. dźwignia regulacji przepustnicy / handle regulating throttle / Drosselklappenhebel / páka regulace škrtící klapky / рычаг регулировки дроссельной заслонки
10. front / front / Vorderseite / přední část / фасад
11. żaroodporna klamka / heat resistant handle / hitzebeständiger Griff / tepelně odolná rukojeť / термостойкая ручка
12. listwy / bars / Leisten / lišty / рейки
13. maskownica / masking frame / Abdeckungsrahmen / maska / маскирующая рамка

14. dopalacz spalin / combustion gases afterburner / Nachbrenner- Abgase / přidavné spalování / дожигатель дымовых газов
15. deflektor / deflector / Abweiser / deflektor / дефлектор
16. opłomki / radiators / Wasserrohr / topící trubka / жаровые трубы
17. czopuch / flue / Fuchs / sorouch / дымосборник.

Rys. 11.

Wkład HST – z drzwiami standardowymi (po prawej stronie) i drzwiami typu gilotyna.
HST insert - with standard door (on the right) and a guillotine door.
HST-Einsatz mit Standardtüren (rechts) und Guillotine-Tür
Vložka HST – se standardními dvířky (vpravo) a gilotinovými dvířky (vlevo)
Каминная топка HST – со стандартной дверцей (справа) и дверцей гильотинного типа

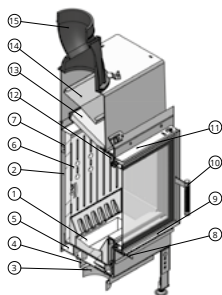


1. płaszcz wkładu / shell of the insert / Wasserführung des Einsatzes / plášť vložky / рубашка вклада
2. front typ standard / standard front type / Vorderseite Typ Standard / přední část typ standard / фасад стандартного типа
3. front typ gilotyna / guillotine front type / Vorderseite Typ Guillotine-Tür / přední část typ gilotina / фасад гильотинного типа
4. beton ceramiczny / ceramic fittings / Keramik-Beton / keramický beton / керамический бетон
5. regulowana nóżka / regulated foot / verstellbarer Stellfuß / nastaviteľný podstavec / регулируемая ножка
6. rura doprowadzająca powietrze / air intake pipe / Zuluft-Rohr / potrubí přívodu vzduchu / труба подачи воздуха
7. czopuch / flue / Fuchs / sorouch / дымосборник.

Rys. 12.

Ogólna budowa wkładu serii HST.
General construction of the HST series insert.
Allgemeiner Aufbau der Einsätze der Serie HST.
Obecná konstrukce série HST.
Общая конструкция каминной топки серии HST.

1. komora spalania / combustion chamber / Verbrennungskammer / spalovací komora / камера сгорания
2. korpus / body / Gehäuse / těleso / корпус
3. dopływ powietrza / Air supply / Luftzufuhr / Přívod vzduchu / Воздухозаборник
4. mechanizm regulacji powietrza / Air refulation mechanism / Luftreglungsmechanismus / Mechanismus regulace vzduchu / Механизм регулировки подачи воздуха
5. dwupłaszczowa podłoga / Zweischichtiger Boden / Dvouplášťová podlaha / Двойное дно
6. beton ceramiczny / ceramic fittings / Keramik-Beton / keramický beton / керамический бетон
7. ceownik ograniczający / Limiting channel / Einschränkendes C-Profil / U-profil / Ограничительный швеллер



8. dźwignia regulacji powietrza / Air regulation handle / Luftregulungshebel / Páka regulace vzduchu
Рычаг регулировки подачи воздуха
9. front / front / Vorderseite / Přední část / Фасад
10. żaroodporna klamka / heat resistant handle / hitzebeständiger Griff / tepelně odolná rukojeť / термостойкая ручка
11. listwy / bars / Leisten / lišty / рейки
12. kątowniki / Brackets / Winkel / Úhelníky / Уголок
13. deflektor / deflector / Abweiser / deflektor / дефлектор
14. drugi deflektor (wybrane modele) / Second deflector (selected models) / Zweiter Abweiser (ausgewählte Modelle) / Druhý deflektor (vybrané modely) / Второй дефлектор (выбранные модели)
15. czopuch / flue / Fuchs / sorouch / дымосборник.

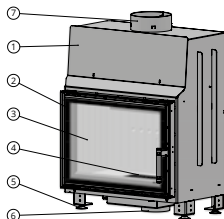
Wkład STMA – z drzwiami standardowymi.

STMA insert - with standard door.

Rys. 13. STMA-Einsatz – mit Standardtür

Vložka STMA – se standardními dvířky

Каминная топка STMA – со стандартной дверцей

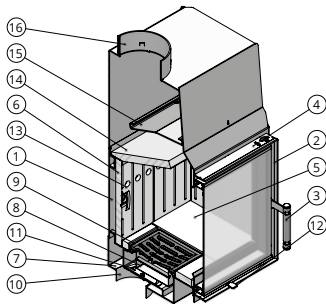


1. płaszcz wkładu / shell of the insert / Wasserführung des Einsatzes / plášť vložky / рубашка вклада
2. front typ standard / standard front type / Vorderseite Typ Standard / přední část typ standard / фасад стандартного типа
3. płyty z betonu ceramicznego / ceramic fittings / Platten aus Keramik-Beton / desky z keramického betonu / плиты из керамического бетона
4. ruszt z popielnikiem / grate with ash pan / Aschenkasten / rošt s popelníkem
колосниковая решетка с зольником
5. regulowana nóżka / regulated foot / verstellbarer Stellfuß / nastaviteľný podstavec / регулируемая ножка
6. rura doprowadzająca powietrze / air supply pipe / Zuluf-Rohr / potrubí přívodu vzduchu / труба подачи воздуха
7. czopuch / flue / Fuchs / sorouch / дымосборник.

Ogólna budowa wkładu serii STMA.
General construction of the STMA series insert.
Allgemeiner Aufbau der Einsätze der Serie STMA.
Obecná konstrukce vložky série STMA.
Общая конструкция каминной топки серии STMA.

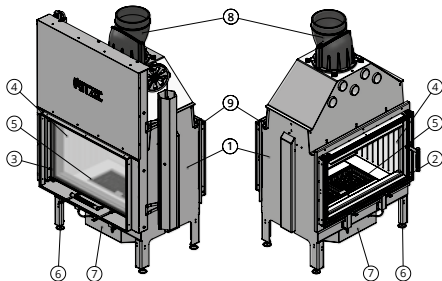
Rys. 14.

1. korpus / shell / Körper / těleso / Корпус
2. front / front / Vorderseite / přední část / Фасад
3. żaroodporna klamka / heat resistant handle / Hitzebeständiger Griff / tepelně odolná rukojeť / Термостойкая ручка
4. listwy / bar / Leisten / Lišty / Рейки
5. komora spalania / combustion chamber / Verbrennungskammer / spalovací komora / Камера сгорания
6. beton ceramiczny / ceramic concrete / Keramikbeton / keramický beton / Керамический бетон
7. dwupłaszczowa podłoga / double floor / Zweischichtiger Boden / dvouplášťová podlaha / Двойное дно
8. popielnik / ash pan / Aschenkasten / popelník / Зольник
9. ruszt / grate / Rost / rošt / Колосниковая решетка
10. dokręcany króciec / tightened spigot / Zugezogener Stutzen / utahovací hrdlo / Закручивающийся патрубок
11. przepustnica / throttle / Drosselklappe / škrtící klapka / Дроссельная заслонка
12. regulacja przepustnicy / throttle adjustment / Drosselklappenregler / regulace škrtící klapky / Регулировка дроссельной заслонки
13. dopalacz spalin / combustion gases afterburner / Nachbrenner-Abgase / přidavné spalování / Дожигатель дымовых газов
14. deflektor / deflector / Abweiser / deflektor / Дефлектор
15. deflektor z blachy żaroodpornej / heat resistant metal sheet deflector / Abweiser aus hitzebeständigem Blech / deflektor z tepelně odolného plechu /
16. szoruch / flue / Fuchs / sorouch / дымосборник.



Wkład ARDENTE - z drzwiami standardowymi (po prawej stronie) i drzwiami typu gilotyna (po lewej stronie).
ARDENTE insert - with standard door (on the right) and guillotine door (on the left).
ARDENTE-Einsatz - mit Standardtüren (rechts) und Guillotinen-Tür (links).
Vložka ARDENTE - se standardními dvířky (vpravo) a gilotinovými dvířky (vlevo).
Вклад ARDENTE - со стандартной дверцей (справа) и дверцей гильотинного типа (слева).

Rys. 15.



1. płaszcz wkładu / shell / Wasserführung des Einsatzes / plášť vložky / рубашка вклада
2. front typ standard (skrzydłowe) / standard front type (hinged) / Vorderseite Typ Standard (Flügel) / přední část typ standard (křídlové) / фасад стандартного типа (створчатый)
3. front typ gilotyina / guillotine front type / Vorderseite Typ Guillotine / přední část typ gilotyina / фасад гильотинного типа
4. wkład ceramiczny / ceramic fittings / Keramikeinsatz / keramická vložka / керамическая вставка
5. ruszt z popielnikiem / grate with ash pan / Rost mit Aschenkasten / rošt s popelníkem / колосниковая решетка с зольником
6. regulowana nóżka / regulated foot / verstellbarer Stellfuß / nastaviteľný podstavec / регулируемая ножка
7. puszka rozprężna z rurką doprowadzającą powietrze / expansion box with air supply pipe / Ausdehnbare Dose mit Luftzufuhrrohr / expanzní nádoba s potrubím přívodu vzduchu / расширительная коробка с трубкой подачи воздуха
8. czoruch / flue / Fuchs / sorouch / дымосборник
9. front typ standard (serwisowy) / standard front type (maintenance) / Vorderseite Typ Standard (Service) / přední část typ standard (servisní) / фасад стандартного типа (сервисный).

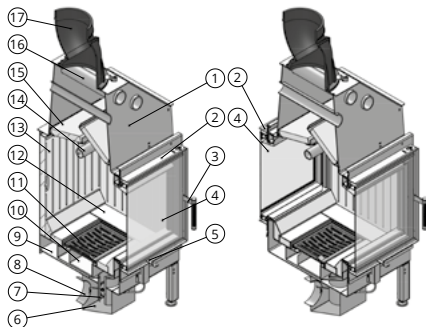
Ogólna budowa wkładu serii ARDENTE.

General structure of the ARDENTE series insert.

Rys. 16. Allgemeiner Aufbau des Einsatzes der Serie ARDENTE.

Общая конструкция вložky série ARDENTE.

Общая конструкция каминной топki серии ARDENTE

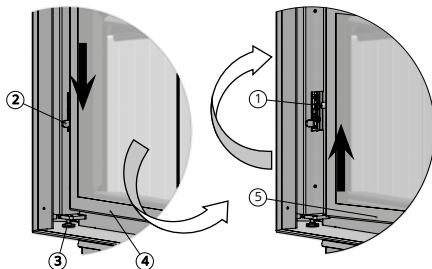


1. korpus / shell / Gehäuse / těleso / Корпус
2. listwy mocujące / bars / Befestigungsleisten / upínací lišty / Крепежные рейки
3. żaroodporna klamka / heat resistant handle / Hitzebeständiger Griff / tepelně odolná rukojeť / Термостойкая ручка
4. front / front / Vorderseite / přední část / Фасад
5. dźwignia regulująca / adjustment lever / Einstellhebel / nastavovací páka / Рычаг регулировки
6. puszka rozprężająca / expansion box / Ausdehnungsdose / Expanzní nádoba / Расширительная коробка
7. rury dołotu powietrza pierwotnego i wtórnego / primary and secondary air intake pipes / Zuluf-Rohre für Primär- und Sekundärluft / Potrubí přívodu primárního a sekundárního vzduchu / Трубы подачи первичного и вторичного воздуха
8. dopływ powietrza (króciec) / Air intake (spigot) / Luftzufuhr (Stutzen) / Přívod vzduchu (hrdlo) / Воздухозаборник (патрубок)
9. dwupłaszczowa podłoga / double floor / Zweischichtiger Boden / dvouplášťová podlaha / Двойное дно
10. popielnik / ash pan / Aschenkasten / popelník / Зольник
11. ruszt / grate / Rost / rošt / Колосниковая решетка
12. komora spalania / combustion chamber / Verbrennungskammer / spalovací komora / Камера сгорания

13. beton ceramiczny / ceramic concrete / Keramikbeton / keramický beton
Керамический бетон
14. dopalacz spalin / combustion gases afterburner / Nachbrenner / přídavné spalování / Дожигатель
дымовых газов
15. deflektor / deflector / Abweiser / deflektor / Дефлектор
16. oprłomki / radiators / Wasserrohr / Topící trubky / Жаровые трубы
17. czoruch / flue / Fuchs / sorouch / дымосборник.

Rys. 17.

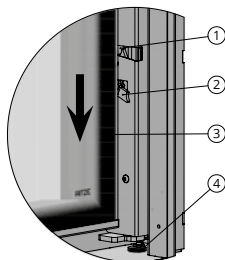
Drzwi typu gilotyna - otwieranie i zamykanie drzwi.
Guillotine door - opening and closing the door.
Guillotine-Tür - Öffnen und Schließen der Tür.
Gilotinová dvířka - otevírání a zavírání dvířek.
Дверь гильотинного типа - открывание и закрытие дверцы.



1. sworzeń drzwi / door pin / Türbolzen / svorník dvířek / дверной штифт
2. dźwignia / lever / Hebel / páka / рычаг
3. odbojnik / stopper / Anschlag / dveřní zarážka / отбойник
4. drzwi / door / Tür / dvířka / дверца
5. drzwi / door / Tür / dvířka / дверца.

Rys. 18.

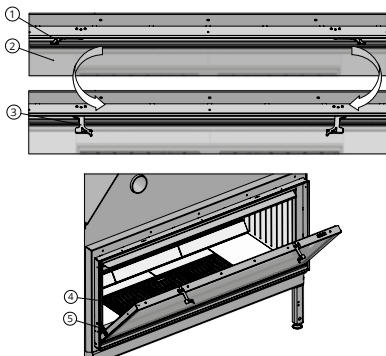
Drzwi typu gilotyna - otwieranie.
Guillotine door - opening.
Guillotine-Tür - Öffnen.
Gilotinová dvířka - otevírání.
Дверца гильотинного типа - открывание.



1. sworzeń drzwi / door pin / Türbolzen / svorník dvířek / дверной штифт
2. dźwignia / lever / Hebel / páka / рычаг
3. drzwi / door / Tür / dvířka / дверца
4. odbojnik / stopper / Anschlag / dveřní zarážka / отбойник.

Rys. 19.

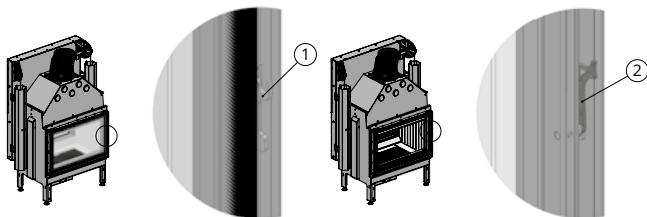
Drzwi typu uchylnego - otwieranie drzwi.
Tilt-type door - opening the door.
Kipptür - Tür öffnen.
Dvířka výklonného typu - otevírání dvířek.
Дверца наклонного типа - открывание дверцы.



1. zaczepy / hooks / Anzapfung / závěsy / защелки
2. drzwi / door / Türen / dvířka / дверца
3. odblokowane zaczepy / unlocked hooks / entriegelte Anzapfung / uvolněné závěsy / разблокированные защелки
4. uchylone drzwi wkładu / tilted insert door / angekippte Einsatztüren / pootevřená dvířka vložky / наклонные дверцы вклада
5. ogranicznik otwarcia / opening stopper / Öffnungsbegrenzer / omezovač otevření / ограничитель открывания.

Rys. 20.

Drzwi tylne - otwieranie i zamykanie.
Rear door - opening and closing.
Hintere Tür - Öffnen und Schließen.
Zadní dvířka - otevírání a zavírání.
Задняя дверца - открывание и закрытие.

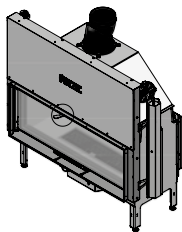


1. zaczep otwarty / opened hook / Anzapfung geöffnet / závěs otevřený / открытая защелка
2. zaczep zamknięty / closed hook / Anzapfung geschlossen / závěs uzavřený / закрытая защелка.

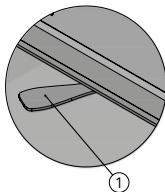
Rys. 21.

Drzwi typu gilotyna - otwieranie.
 Guillotine door - opening.
 Guillotine-Tür - Öffnen.
 Gilotinová dvířka - otevírání.
 Дверца гильотинного типа - открывание.

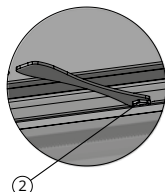
Drzwi zabezpieczone / Door secured / Tür gesichert / dveře zajištěny / дверь защищена



widok z góry / view from above /
 Ansicht von oben / pohled shora /
 вид сверху

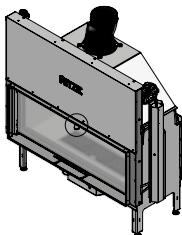


widok z góry / view from above /
 Ansicht von oben / pohled shora /
 вид сверху

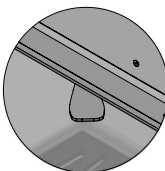


1. klucz / key / Schlüssel / klíč / ключ
2. zamek / lock / Blockade / blokáda / блокада.

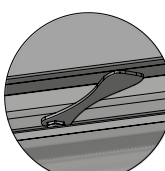
Drzwi odbezpieczone / Door unlocked / Tür entriegelt / Dveře odemčené / Дверь не заперта



widok z góry / view from above /
 Ansicht von oben / pohled shora /
 вид сверху



widok z góry / view from above /
 Ansicht von oben / pohled shora /
 вид сверху

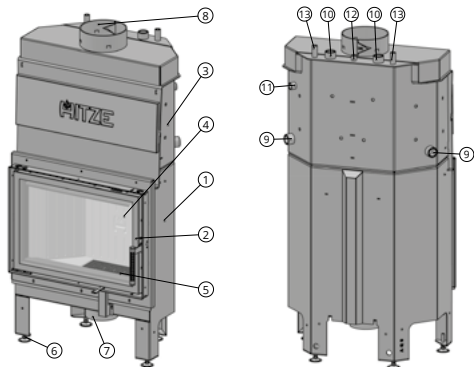


Rys. 22.

Wkład AQUASYSTEM - schemat ogólny.
 AQUASYSTEM insert - general diagram.
 AQUASYSTEM-Einsatz - Allgemeinschema.
 Vložka AQUASYSTEM - obecné schéma.
 Каминная топка AQUASYSTEM - общая схема.

1. płaszcz wkładu / shell / Wasserführung des Einsatzes / plášť vložky / рубашка вклада
2. drzwi / door / Tür / dvířka / дверца
3. nagrzewnica / heater / Erwärmer / ohřívač / нагреватель (водяная рубашка)
4. beton ceramiczny / ceramic concrete / keramischer Beton / keramický beton / керамический бетон
5. ruszt z popielnikiem / grate with ash pan / Rost mit Aschenkasten / rošt s popelníkem / колосниковая решетка с зольником
6. regulowana nóżka / regulated foot / verstellbarer Stellfuß / nastaviteľný podstavec / регулируемая ножка
7. rura doprowadzająca powietrze / air intake pipe / Zuluft-Rohr / potrubí přívodu vzduchu / труба подачи воздуха
8. czopuch / flue / Fuchs / sorouch / дымосборник

9. mufa G1" / coupler- G1" / G1"-Muffe / spojka G1" / разъем G1"
10. mufa G1" / coupler- G1" / G1"-Muffe / spojka G1" / разъем G1"
11. mufa G1/2" / coupler-G1/2" / G1/2"-Muffe / spojka G1/2" / разъем G1/2"
12. gniazdo montażowe czujnika temp. / Temp. sensor mounting socket / Montagebuchse für Temperatursensor / montážní zásuvka teplotního čidla / монтажное гнездо датчика температуры
13. króciec G1/2" (wyjście z węzownicy) / spigot G1/2" (exit from the coil) / G1/2"-Stutzen (Ausgang vom Schlangenrohr) / hrdlo G1/2" (výstup z hada) / патрубок G1/2" (вход/выход из змеевика).



Budowa wkładu ALBERO AQUASYSTEM.

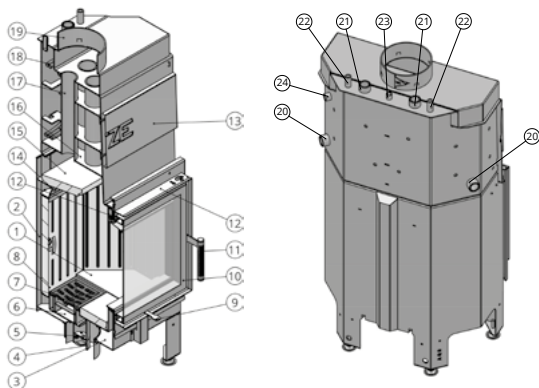
ALBERO AQUASYSTEM insert structure.

Konstruktion des Einsatzes ALBERO AQUASYSTEM.

Конструкция вložky ALBERO AQUASYSTEM.

Конструкция каминной топki ALBERO AQUASYSTEM.

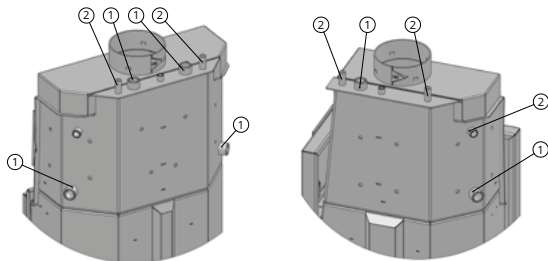
Rys. 23.



1. Komora spalania / combustion chamber / Verbrennungskammer / Spalovací komora /
2. Korpus / Shell / Gehäuse / Těleso / Камера сгорания / Корпус
3. Dwupłaszczowa podłoga / Double floor / Zweischichtiger Boden / Dvouvrstvá podlaha / Двойное дно
4. Dopyw powietrza (króciec) / Air supply (spigot) / Luftzufuhr (Stutzen) / Přívod vzduchu (hrdlo) / Воздухозаборник (патрубок)
5. Przepustnica / Throttle / Drosselklappe / Škrťací klapka / Дроссельная заслонка
6. Popielnik / Ash pan / Aschenkasten / Popelník / Зольник /
7. Ruszt / Grate / Rost / Rošt / Колосниковая решетка
8. Betony ceramiczne / Ceramic fittings / Keramikbetone / Keramické betony / Керамический бетон
9. Dźwignia regulująca przepustnicę / Throttle adjustment lever / Regelungshebel der Drosselklappe / Páka regulující škrťací klapku / Рычаг регулировки дроссельной заслонки
10. Front / Front / Vorderseite / Přední část / Фасад
11. Żaroodporna klamka / Heat resistant handle / Hitzebeständiger Griff / Tepelně odolná rukojeť / Термостойкая ручка /
12. Listwy mocujące / Bars / Befestigungsleiste / Upinací lišty / Крепежные рейки /
13. Maskownica / Masking frame / Abdeckungsrahmen / Maska / Маскирующая рамка /
14. Dopalacz spalin / Combustion gases afterburner / Nachbrenner / Přídavné spalování / Дожигатель дымовых газов
15. Deflektor / Deflector / Abweiser / Deflektor / Дефлектор
16. Nagrzewnica / Heater / Erwärmer / Ohříváč / Нагреватель
17. Płomieniówki / Radiators / Fallrohre / Kouřové roury / Дымогарные трубы
18. Wężownica / Coil / Schlangenrohr / Had / Змеевик
19. Czopuch / Flue / Fuchs / Sopouch / Дымосборник
20. Podłączenie mufy 1cal / Coupler connector 1 inch / Anschluss 1-Zoll-Muffe / Připojení jednopalcové spojky / Подключение 1-дюймовый разъем
21. Mufa 1cal (G1") / Coupler 1 inch (G1") / 1-Zoll-Muffe (G1") / Jednopalcové spojky (G1") / 1-дюймовый разъем (G1")
22. Króciec ½ cala / Spigots ½ inch / ½-Zoll-Stutzen / Hrdla ½ palce / ½-дюймовые патрубки
23. Gniazdo montażowe (króciec) / Mounting socket (spigot) / Montagebuchse (Stutzen) / Montážní zásuvka (hrdlo) / Монтажное гнездо (патрубок)
24. Podłączenie mufy ½ cala (G1/2") / Coupler connecting ½ inch (G1/2") / Anschluss mit ½-Zoll-Muffe (G1/2") / Připojení spojky ½ palce (G1/2") / Подключение через ½-дюймовый разъем (G1/2").

Rys. 24. Króciec do podłączenia wkładu z płaszczem wodnym.
Spigots for connecting the insert with a water jacket.
Stutzen zum Anschluss des Einsatzes an Wasserführung.
Hrdla pro připojení vložky s vodním pláštěm.

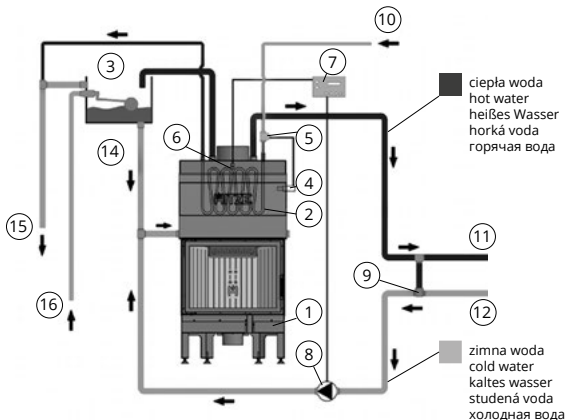
Патрубки для подключения каминной топки, имеющей водяную рубашку.



1. Króciec G1" / Spigot G1" / G1"-Stutzen / Hrdlo G1" / Патрубок G1"
2. Króciec G1/2" / Spigot G1/2" / G1/2"-Stutzen / Hrdlo G1/2" / Патрубок G1/2".

Rys. 25.

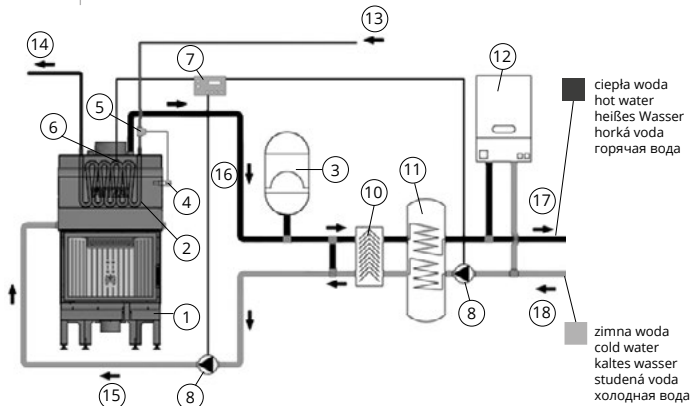
Połączenie kominka w układzie otwartym.
Fireplace connection in an open system.
Anschluss des Kamins in einem offenen System.
Propojení krbu v otevřeném systému.
Подключение камина в открытой системе.



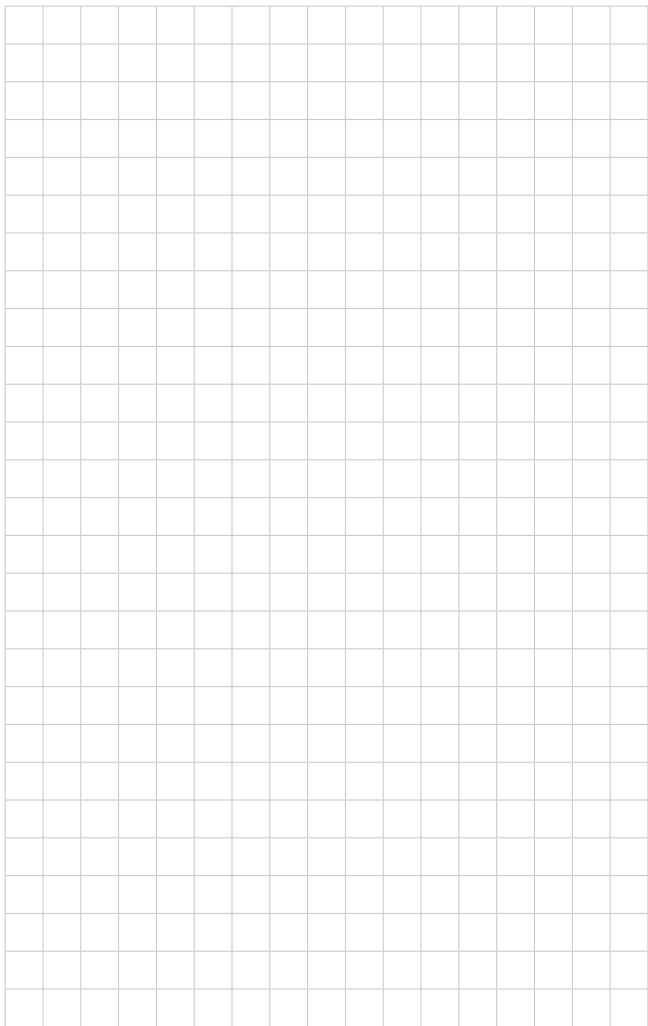
1. Wkład kominkowy / Fireplace insert / Kamineinsatz / Krbová vložka / Каминная топка
2. Wężownica (chłodnica układu) / Coil (system cooler) / Schlangenrohr (Kühler des Systems) / Had (chladicí) / Змеевик (охладитель системы)
3. Naczynie wzbiornicze z pływakiem / Expansion vessel with float / Ausdehnungsgefäß mit Schwimmer / Expanzní nádoba s plovákem / Расширительный бак с поплавком
4. Kapilara zaworu termostaticznego / Thermostatic valve capillary / Kapillar des Thermostatventils / Kapilára termostatického ventilu / Капилляр термостатического клапана
5. Zawór termostaticzny / Thermostatic valve / Thermostatventil / Termostatický ventil / Термостатический клапан
6. Czujnik temperatury / Temperature sensor / Temperatursensor / Teplotní čidlo / Датчик температуры
7. Centralka sterująca / Control unit / Steuereinheit / Řídicí jednotka / Центральный блок управления
8. Pompa obiegowa / Circulation pump / Umlaufpumpe / Oběhové čerpadlo / Циркуляционный насос
9. Zawór temperaturowy / Temperature valve / Temperaturventil / Teplotní ventil / Температурный клапан
10. Zasilanie z sieci wodociągowej / Power from the water supply network / Versorgung aus dem Wasserversorgungsnetz Zasilanie instalacji c.o. / Central heating system power supply / Versorgung der ZH-Installation / Napájení z vodovodní sítě / Подача из сети водоснабжения
11. Zasilanie instalacji c.o. / Central heating system power supply / Versorgung der ZH-Installation / Podacha в систему центрального отопления
12. Powrót z instalacji c.o. / Return from central heating system / Rückkehr aus der ZH-Installation / Napájení ústředního topení / Возврат из системы центрального отопления
13. Powrót do wkładu / Return to the insert / Rückkehr in den Einsatz / Návrat z ústředního topení / ВВозврат во вклад
14. Rura wzbiornicza / Expansion pipe / Ausdehnungsrohr / Návrat k vložce / Расширительная труба
15. Kanalizacja / Sewage system / Kanalisation / Expanzní potrubí / Kanalizace / Канализация
16. Zasilanie z sieci wodociągowej / Power from the water supply network / Versorgung aus dem Wasserversorgungsnetz / Napájení z vodovodní sítě / Подача из сети водоснабжения.

Rys. 26.

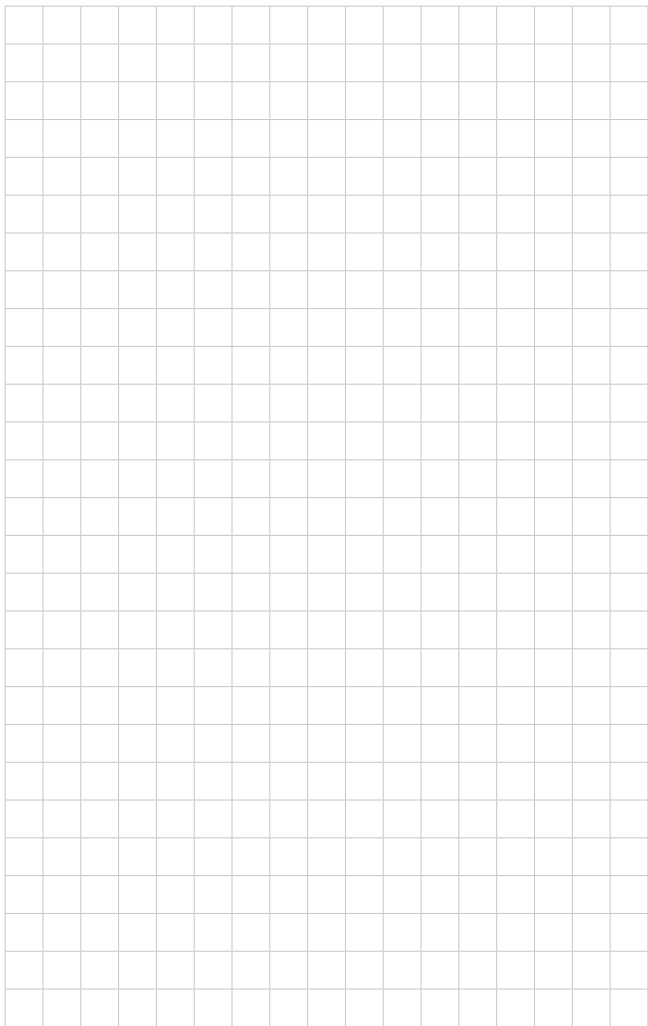
Połączenie kominka w układzie zamkniętym.
Fireplace connection in the closed system.
Anschluss des Kamins in einem geschlossenen System.
Propojení krbu v uzavřeném systému.
Подключение камина в закрытой системе.

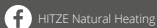


1. Wkład kominkowy / Fireplace insert / Kamineinsatz / Krovová vložka / Каминная топка
2. Wężownica (chłodnica układu) / Wężownica (chłodnica układu) / Schlangenrohr (Kühler des Systems) / Had (chladící) / Змеевик (охладитель системы)
3. Naczynie wzbiorcze zamknięte / Closed expansion vessel / Ausdehnungsgefäß geschlossen / Uzavřená expanzní nádoba / Закрытый расширительный бак
4. Kapilara zaworu termostaticznego / Thermostatic valve capillary / Kapillar des Thermostatventils / Kapilára termostatického ventilu / Капилляр терmostатического клапана
5. Zawór termostacyjny / Thermostatic valve / Thermostatventil / Termostatický ventil / Терmostатический клапан
6. Czujnik temperatury / Temperature sensor / Temperatursensor / Teplotní čidlo / Датчик температуры
7. Centralka sterująca / Control unit / Steuerungseinheit / Řídicí jednotka / Центральный блок управления
8. Pompa obiegowa / Circuit pump / Umlaufpumpe / Oběhové čerpadlo / Циркуляционный насос
9. Zawór temperaturowy / Temperature valve / Temperaturventil / Teplotní ventil / Температурный клапан
10. Wymiennik ciepła (rozdzielacz c.o.) / Heat exchanger(central heating distributor) / Wärmetauscher (ZH-Verteiler) / Výměník tepla (rozdělovač ústředního topení) / Теплообменник (разделитель центрального отопления)
11. Zbiornik akumulacyjny (bufor) / Accumulation tank (buffer) / Sammelbehälter (Puffer) / Akumulační nádrž (pufri) / Накопительный бак (буфер)
12. Piec c.o. / Central heating furnace / ZH-Ofen / Kotel ústředního topení / Kotel центрального отопления
13. Zasilanie z sieci wodociągowej / Power from the water supply network / Versorgung aus dem Wasserversorgungsnetz / Napájení z vodovodní sítě / Подача из сети водоснабжения
14. Kanalizacja / Sewage system / Kanalisation / Kanalizace / Канализация
15. Powrót do wkładu / Return to the insert / Rückkehr in den Einsatz / Návrat k vložce / Возврат во вклад
16. Zasilanie instalacji c.o. / Central heating system power supply / Versorgung der ZH-Anlage / Napájení ústředního topení / Подача в систему центрального отопления
17. Zasilanie instalacji c.o. / Central heating system power supply / Versorgung der ZH-Anlage / Napájení ústředního topení / Подача в систему центрального отопления
18. Powrót z instalacji c.o. / Central heating system return / Rückkehr aus ZH-Installation / Návrat k ústřednímu topení / Возврат из системы центрального отопления.









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