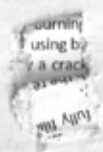


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INSTRUCTION MANUAL
for installation and operation of room heaters
and inset appliances fired by solid fuel



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1. Introduction.

The fireplaces (appliances) are designed and tested in accordance with the requirements of European standard EN 13240:2001 and the fireboxes (appliances) according to the European standard EN 13229:2001 and conform to the approved technical documentation. They are designed for intermittent burning and operate with fire doors closed.

Please, do not leave this instruction unread. The assembly and the exploitation of an appliance are connected with different legal obligations, which are explained in this instruction. According to the laws and regulations for safety, when using an appliance of such class, the buyer and the user are obliged, with the help of this instruction, to inform themselves for the assembling and the right operation of the appliance.

2. Appliance assembling.

2.1. Fireplace.

The technical parameters of the fireplace are given in Appendix 1.

Schematic diagrams for connecting a fireplace with an integral boiler to heating systems are given in Appendix 2.

It is necessary the following conditions to be kept in order to ensure a safe and correct work of the fireplace:

The fireplace should be installed in rooms with sufficient air flow which is required for the combustion.

Not every fireplace could be connected to any chimney. Before assembling the fireplace check if the static pressure and the chimney dimensions conform to the required parameters for the fireplace. If the fireplace does not conform to the chimney, it will lead to a lower burning rate and polluting the glass with soot.

The chimney should be high enough (not less than 5 meters). Only one more appliance is allowed to be connected to the same chimney. The flue draught should be higher than 10 Pa, and for fireplaces with a boiler higher than 15 Pa. If the chimney is too high (the draught exceeding 35 Pa) then it is necessary to mount a supplementary valve to diminish the draught.

The fireplace should not be connected to a chimney when there is another boiler connected to it.

The floor where the fireplace is placed should be flat and horizontal, made of non-combustible materials (mosaic, marble, terracotta, etc.). If the floor is not heat resistant (carpets, linoleums or others of the same kind) a stable, non-combustible plate should be used, made of steel, glass or stone plates. If a heat resistant plate is used, it should come out: 50 cm in front and 30 cm from both sides, measured from the fire door of the fireplace.

If there are any combustible materials or constructions, the fireplace should be away from them at 80 cm, or an additional incombustible screen should be placed. The distances to which a fireplace should be installed, in order to escape fire hazards, are given in Appendix 1.

After placing the fireplace it is connected to the chimney by chimney pipes. The joints between the chimney pipes and the socket should be tight. The chimney pipe should not enter into the chimney.

2.2. Firebox.

Please, observe all the requirements shown in point 2.1. In addition, it is necessary to observe the following conditions:

It is recommended that the mounting of the fireboxes to be done by special organizations.

When mounting the firebox into surrounding, heat resistant and **inflammable** materials should be used only.

The firebox can be installed in a special made niche or in a surround.

The floor, where the firebox will be placed, should be smooth and leveled, made of inflammable materials, possessing the required load capacity, otherwise additional suitable measures should be taken, as building a supportive concrete plate or reinforced putty. **The fire chamber should be fixed steadily to its base.** Fireboxes from the type "Diplomat" and "Uyut", after being placed should be leveled by means of four bolts M12x50 situated on the bottom of the firebox, the access to them will be through the ash pan. Any eventual inaccuracy when building the niche could be compensated by the stripes, mounted on the side of the firebox by means of bolts M6x10.

If the floor in front of the firebox is made of combustible materials it is necessary to dispose inflammable plate (steel, ceramic, glass etc.) which can comprise the space of 50 cm in front of the fire door and 30 cm of both sides.

If there are any easy combustible materials or constructions, the firebox should be away from them at 80 cm, or an additional incombustible screen should be placed.

It is necessary to ensure enough distance between the firebox and the niche (surround), as well as enabling the natural air flow for blowing the walls and the floor.

Close to the walls of the niche (surround) isolation is mounted, which protects it from heat and heat loss. The isolation must be specially made for appliances of such type, and should endure up to 700°C-1200°C (usually it is a

sheet and obligatory foil). The foil serves as a deflector of the beam heat and reduces the heat loss. Despite wadding round the fire chamber it is compulsory to enable 5 cm air flow for heat exchange and cooling.

By means of suitable decorative ventilation grilles ensure the flow of cold air in the bottom of the firebox and outflow of hot air in the upper part of the decorative lining.

For proving the heat exchange and efficiency of the heating system it is admitted to build in the air system a suitable electric fan, otherwise you can only count on the natural convection.

If your firebox is supplied with an integral boiler, additional elements (as pump, valves, etc) can be mounted, so that they can be visible and easy for access. You should foresee openings (lids) for servicing of the internal space and the connections.

The firebox should be mounted in rooms, where there is sufficient air flow, required for burning.

3. Appliance operation.

3.1. Fuels.

The most appropriate fuels are dry cleaved wood (wood logs) and briquettes. The wood logs, stored in the open under sheds, reach a humidity level of 10%-15% after 2 years, when they are most suitable for combustion. We recommend to burn wood dried as much as possible. The maximum heat output is reached after burning wood logs dried for at least 2 years period of time.

The newly cut wood has little calorific value, high humidity and burns poorly—they extract a lot of flue gases and additionally contaminate the environment. This leads to minimizing the longevity of the appliance and chimney as well. The increased condensate and tar content in the flue gases leads to blocking up the flue pipes and the chimney, and an appreciable impurity of the glass. When using them, the heat output of the appliance falls to 50%, and the fuel consumption grows twice. The type and the recommended quantity of fuel for the appliance are given in Appendix 1.

It is not recommended to use the following fuels in the appliance: wet or tarred wood, shavings, fine coal, paper and cardboard (except for the ignition), polymeric materials.

Do not use liquid fuels.

Do not use the appliance like a furnace for burning waste matters.

If the appliance is used for burning unalloyed fuels then the warranty is not valid.

3.2. Components.

Glass

The mounted glass is ceramic, and it stands up to 850°C so it cannot be damaged by the temperature which is achieved when the appliance is operating. But it could be damaged by a mechanical influence when installing or transporting the appliance, or by putting big wooden logs into the firebox.

The glass belongs to the spare parts which are quickly worn out, and that is why it is not included in the warranty conditions.

Polluting the glass with soot

The construction of the appliance helps during exploitation not to pollute the glass with soot. The soot is accumulated only when there is bad burning, which may be caused by some reasons: the static pressure and the dimension of the chimney do not conform to the required parameters of the appliance, the air flow necessary for combustion process is stopped too early, or the right fuel is not used. In order to keep the glass as clean as possible from soot, the wood logs must be placed in such a manner that the cut surface is not facing to the glass.

We cannot influence those factors and that's the reason why we cannot guarantee that the glass won't be polluted with soot.

Refractory plates /fireclay, vermiculite/

The firebox is supplied with refractory plates. These plates keep the heat and give it back into the firebox in order to increase the burning temperature. The higher is the burning temperature, the higher is the efficiency of the burning process. As a result of too high temperatures or mechanical influences the refractory plates might be damaged. Extremely high temperatures may be achieved when with high flue draught of the chimney, the primary and secondary air controls are open, and thus it makes a burning out of control. Under mechanical influence it is understood e.g. throwing a wood log into the firebox or using bigger wood logs.

The refractory plates might be easily exchanged. If there is only a crack then it is not necessary to change them. It is necessary only in case when the metal parts between them or under them can be visibly seen.

The refractory plates are quickly worn out, and that is why they are not included in the warranty conditions.

Sealing

The sealing of the appliance are made of special glass fiber and does not contain asbestos. This material is worn out during usage and the sealing must be periodically exchanged. Your shopkeeper could order these sealing to us.

The sealing is quickly worn out part and that is why it is not included in the warranty conditions.

Bottom grate

The lower part of the firebox is supplied with a cast-iron grate. This grate could be blocked up by nails in the wooden material, small wooden parts, the residue etc. You are advised to clean regularly the grate in order to keep its functionality. The grate could burn when using inappropriate fuel or reaching high temperatures due to incorrect servicing.

The grate is quickly worn out, and that is why it is not included in the warranty conditions.

Paint

The appliance is painted with highly temperature-resistant paint. This paint is resistant to high temperatures, but it is not resistant to rust. Please do not put any objects on the paint. When dust eventually accumulates then clean by brush or dry towel, but not by wet towel or water.

When the appliance is set to work for the first time it is necessary to leave the paint to be heated for a few hours to be baked and to reach its ultimate stability. During that period do not put anything on the appliance or do not touch the outer surface, so that it can remain unaffected. The smell which is produced is caused by the baking of the paint and disappears after a few hours. That is why the room should be well aired.

If as a result of overheating or incorrect servicing the color changes into white-grey, or a stain of rust appears or a part of the surface is damaged, then it is not a problem. You may order a spray in the appropriate color to your shopkeeper.

Handles and knobs

The handles and knobs of the appliance are made of brass or nickel-plated. This is an advantage because they cannot be worn out. They are heated to such a degree as the front part of the appliance is, that is why they must be serviced by using a heat-resistant glove.

Tea shelf and Bottom niche

They are decorative parts and it is not allowed storage of easy combustible materials in them.

Integral boiler

If your appliance is supplied with an integral boiler, before assembling and the first ignition of the appliance you should be acquainted with the information given in Appendix 2.

An appliance with an integral boiler should be assembled by authorized organization only!

Oven

You can use your appliance for heating the room and at the same time for warming dishes and baking different pastry products. It is necessary to put the grate on the bottom of the oven, which is inseparable part from the product. The inner part of the oven is painted with heat resistant paint, which can be damaged by boiled over food and grease. It is advisable to use deeper dishes with lids. In order to obtain even baking the baking dish should be rotated few times, and this is achieved after using the oven for some times and obtaining the needed experience.

From constructive point of view the fireplace "Komfort" 21 FT is characterized with the presence of damper for changing the direction of the flue gases with a regulator (situated in the center under the oven door) the same serves for adjusting the temperature for baking; and the fixed upper plate with cover serves for periodical cleaning. When the valve is closed—operating mode (pushed regulator) the gas flows on the oven walls, and when opened (pulled regulator)—the gases come out directly from the chimney. At initial ignition of the fireplace the valve should be opened. Periodically cleaning of the fireplace requires cleaning the flue outlet of the oven as well, which can be done through the upper plate cover.

3.3. Control devices.

Before the first ignition of the appliance pay attention to the function of all control devices.

The primary air passes through the ash pan, the grate and goes into the firebox. When the fuel is wood, primary air is not necessary. Primary air is necessary for faster ignition and better combustion of the coal. The control over the quantity of the primary air is done by slightly pulling the ash pan, or through the valve mounted on the ash pan door. If the chimney has a strong flue draught it is recommended to entirely close the ash pan or the valve. The ash pan should not be fully filled for the primary air to be let in the firebox undisturbed. It is necessary to clean the ash pan regularly.

Secondary air provides the fire with the required quantity of oxygen for combustion and assists for the better combustion of the fuel. The quantity of the secondary air is adjusted through the regulator mounted above of the fire door. The appliance design enables the preliminary heating of secondary air which results in an increase of the combustion temperature, the efficiency of the appliance and prevents fumigation of the glass. While the appliance is working, the secondary air regulator ensures control over the combustion process both qualitatively and quantitatively. The secondary air regulator should not be closed when the appliance is working. In many cases the secondary air regulator has been closed shortly after the ignition, despite our directions, in order to reduce

the fuel consumption. This leads to limitation of the flow of oxygen, which bothers the combustion and the glass is covered with soot. Also there are harmful emissions which may cause burning in the chimney.

Adjusting the primary and secondary air is made manually, by moving the handle of the particular regulator.

3.4. Initial ignition of the appliance.

At the first ignition of the appliance pay attention to the following:

- Take all the supplementary tools out of the ash pan;
- The regulators for the primary and secondary air control must be opened.

If your model appliance has sealing on the door, at first ignition it is necessary to leave the fire door slightly open, in order to prevent sticking of the sealing of the fire door onto the paint.

The first ignition must be slow and still, with little quantity of sticks and paper. After burning them you may put two or three wood logs.

3.5. Ignition during exploitation.

Your appliance is constructed and designed for intermittent condition of burning. At each ignition you must do the following:

- The secondary air control is opened;
- Put the basic combustion materials, ignite them and close the door. After they burn well, the wished heat output is achieved by regulating the combustion air.

If a continuous heating is necessary, fuel is added additionally into the appliance, but only after the volatile materials have burned and the basic fire bed is reached.

The ash-tray is taken out for cleaning only after it cools down.

3.6. Ventilation requirements.

An important factor for the right combustion of the appliance is the supply of additional quantity of air in the room, which must be minimum $4\text{m}^3/\text{h}$ per kW from the total heat output. If there are other working appliances in the same room, then it is necessary for them additional minimum of $1.6\text{m}^3/\text{h}$ air at each hour and at each kW from the total heat output.

A ventilator for suction the air from the room (desiccators, tumble driers, etc.) working at the same time with the appliance leads to change in the flue draught and consequently to bad burning conditions of the appliance. In this case for the right burning to be achieved it is necessary to let additional air into the room.

3.7. Heating during the transitional period.

For the good functioning of the appliance, it is necessary to have enough flue draught of the chimney. This depends both on its height and the ambient temperature. At a temperature exceeding 14°C of the environment, disturbances in the combustion caused by insufficient draught might occur. In this case it is necessary to load the appliance with less fuel and the regulators to be left open so that the fuel to be burned faster (with flame) and thus reaching a stable flue draught in the chimney. In this case it is necessary to clean the ash pan more often.

4. Important directions for fire-precaution and safety regulations.

- The appliance is not designed to be used by children and persons with limited physical, sensuous and mental abilities, or by people with not enough experience and knowledge, except in cases when they are watched and instructed how to work with this type of heater, by someone who is responsible for their own safety.
- The door of the firebox should always be firmly closed even when the appliance is not working.
- The appliance should be installed only on a non-combustible floor.
- The appliance and the flue draught pipes should be at least 80cm away from combustible objects or constructions.
- Installation, repairs and adjustment of the water heating system should be done only by authorized organizations
- Using easily inflammable liquids is not allowed at ignition.
- Vertical connection of flue draught pipes with the chimney through floor structures is not allowed.
- The presence of easily inflammable and explosive substances in the heated room is not allowed.
- The ash disposal and the cleaning of the appliance should be done only at safe places and when the appliance has cooled down.
- It is prohibited to put combustible materials and objects on the appliance or in immediate proximity of it.
- Please pay attention during the operation of the appliance children to be kept away from it, because its surface is too hot. **Incineration danger!**

We recommend the following instructions in case of a chimney fire:

- Close the combustion air regulator!
- Call the fire brigade in your neighborhood!

- Don't try to extinguish the fire with water by yourself!
- All easily inflammable materials to be away from the chimney!
- When the appliance is set to work again it is necessary the chimney to be checked by a competent person for eventual damages.

When the appliance has been overworked over the limited heat output or for a longer period and also when using fuels other than the recommended by the manufacturer, then we cannot guarantee reliable work of the appliance.

Please do regularly with the help of a specialist a full check of the appliance regarding its functionality. If necessary, replace the defected parts only with the spare parts manufactured and supplied by the manufacturer.

5. Cleaning.

The correct maintenance and cleaning of the appliance guarantee its reliable work and keeping its good appearance.

The flue draught pipes and the interior of the appliance should be cleaned at least once per year.

The painted surfaces should be cleaned with a dry and soft brush, or with dry and soft towel.

The glass should be cleaned after cooling down by washing with a soap solution and should be dried afterwards.

While cleaning do not use sharp objects or abrasive materials!

6. Possible defects and their causes.

At ignition the appliance is smoking (not enough flue draught pressure):

- The chimney and the flue pipes are not sealed;
- The chimney is with wrong size;
- open doors of another appliance connected to the same chimney;

The room can't be heated:

- Bigger heat is needed;
- Bad fuel;
- There is a lot of ash on the grate;
- The air supply is not enough;

The appliance releases too much heat:

- The air supply is too much
- The flue draught is really high.
- The fuel is too much or the fuel is very calorific.

There are damages on the grate:

- The appliance is overloaded many times;
- The used fuel is not from the recommended types;
- The primary air supply is too much;
- The chimney flue draught pressure is really high;

When the appliance does not work well:

- Open the regulator for the primary air. The regulator for the secondary air needs to be completely open;
- Put less fuel;
- Clean the ashtray regularly;
- The coals have to be well fired when you close the primary air supply;
- Check the chimney for blockage;
- Check if the fluepipe has entered the chimney;
- If the appliance is connected together with a second appliance in the chimney check the proper operation of the second product;
- Check if the needed pressure of the flue gas flow in your chimney requires the appliance characteristics;
- Check if the passage to the chimney is not closed with top cover.

The manufacturer is not responsible for changes made on the appliance by the user.

Fireplace / Fireplace	Space heating output (kW)				Water heating output (kW)				Efficiency (%)				Fuel values °C/kWh				Distance to closest combustible materials (mm)				Thermal mass (J)	Fuel quantity (kg/h)	Overall dimensions (mm)				Weight (kg)
	wood		coal		wood		coal		wood		coal		wood		coal		wood		coal				wood		coal		
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Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
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Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5							68.80	68.84			209.13.152	209.13.152	30	80			2.7	2.5	421	392	660	660	58		
Am. Lin. Dignel	3	5																									

Friction / Friction	Speed loading cutoff (g)		Inter-loading cutoff (g)		Efficiency (%)		Trade-offs % g/g		Distance to cause combustible materials (m)				Mass pressure (bar)	Thermal shock (°C)	Fuel capacity (g/h)		Overall dimensions (mm)				Height (kg)
	Speed loading cutoff (g)		Inter-loading cutoff (g)		Efficiency (%)		Trade-offs % g/g		Distance to cause combustible materials (m)						Fuel capacity (g/h)		Overall dimensions (mm)				
	wood	coals	wood	coals	wood	coals	wood	coals	coals	back	front	wood			coals	L	B	H			
General	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 5	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 10	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 15	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 20	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 25	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 30	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 35	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 40	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 45	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 50	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 55	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 60	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 65	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 70	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 75	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 80	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 85	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 90	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 95	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 100	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 105	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 110	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 115	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 120	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 125	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 130	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 135	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 140	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 145	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 150	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 155	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 160	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 165	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 170	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 175	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 180	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 185	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 190	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 195	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 200	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 205	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 210	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 215	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 220	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 225	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 230	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 235	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 240	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 245	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 250	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 255	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 260	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 265	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 270	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 275	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 280	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 285	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 290	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 295	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 300	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 305	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 310	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 315	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 320	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 325	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 330	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 335	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 340	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 345	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 350	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 355	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 360	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 365	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 370	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 375	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 380	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 385	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 390	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 395	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 400	5.5	77.2			77.2		547.77	897.9	45	45	100				3.77	600	600	600	500		
General 405	5.5	77.2			77.2		547.77	897.9	45												

The given distances to adjacent combustible materials (cm) are relevant for firebox Type Diplomat 21880 and Diplomat 22880 are for valid for fireboxes with isolation. The fireplace Type Lotus Max 825 and Lotus Max FTB18 are designed to operate in open system for connection and can be built-in a niche.

INSTRUCTION

for assembling and operation of room heaters
and inset appliances fired by solid fuel with integral boilers

Attention!

The design and connection of the heating installation should be obligatory made by an authorized organization. The installation should conform to all standard documents which are in force (in reference with the operation and safety).

Purchased by you appliance with an integral boiler gives you the great possibility of heating the nearby premises with radiators.

The maximum allowed temperature value of the water in the boiler should be 85°C.

In the combustion chamber of the appliance there is an integral boiler with heat output according to Appendix 1.

When connecting the heating system the following rules and recommendations should be observed:

- Before connecting the installation, it is advisable to calculate the heat loss in the particular case. In case of connecting loads with greater heat output, than the declared one in the referent appendix, a cooling down of the heating surfaces of the integral boiler occurs, which leads to condensation and pitching.
- At opened system type B, the installation should be connected to the atmosphere with an opened expansion container. Do not connect any blocking components between the appliance and the expansion container. This system works under pressure of 1 bar.
- At closed system type BO, safe protecting components should be integrated in the installation, which do not allow exceeding of the working pressure in the appliance over 2 bar.
- Deaeration in each branch and component of the installation should be ensured, in each moment of its operation, and the appliance as well.
- In the installation, immediately near the integral boiler, in the lowest point, drains tap not less than 1/2" should be mounted.
- All components of the installation should be ensured against freezing, especially if the expansion container or other parts of it are situated in non heated rooms.
- At installations with forced circulation, the pump should be ensured with long term power supply device -automatic mode /UPS/. We recommend the circulation pump to be switched on and switched off by means of thermostat, doubled with manual electric switch.
- When an old installation is used, then it should be repeatedly washed from the accumulated filth, which could be precipitated on the walls of the integral boiler.
- The circulation water should not be drowned off the installation during the non-heating season.

For appliances with integral boiler it is better to clean the surfaces of the boiler from soot and resinous matters at least once a month.

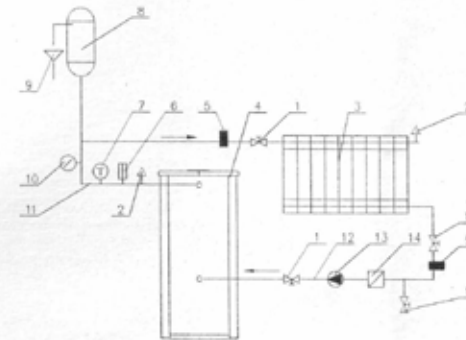
By inserting appropriate isolation materials between the wall and the radiators you will achieve radiation heating with approved advantages.

This water heater provides another opportunity -installing a coil into the boiler, for warm sanitary water.

The manufacturer cannot guarantee the work of the heating installation, except for the appliance. The design and mounting of the heating installation should be done by an authorized and legal organization!

In case of incorrect connecting caused by increased pressure an inflation of the integral boiler and welding rupture occur. The manufacturer does not take any responsibility for such defects.

INSTALLATION DIAGRAM
for connecting of room heaters and inset appliances fired by solid fuel
with integral boilers type "B" (open heating system)

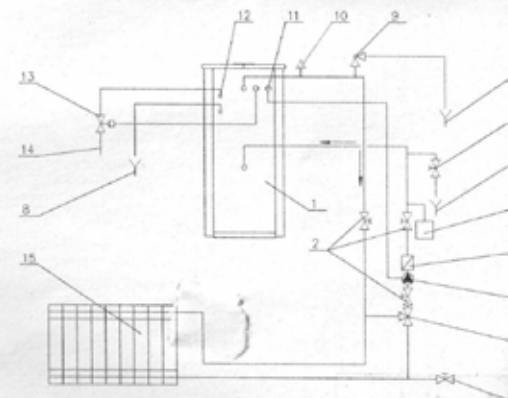


1. Blocking Valve
2. Deaerator
3. Radiator
4. Appliance
5. Flue spigot
6. Thermometer

7. Pump thermo regulator
8. Opened Expander tank
9. Overflow drain
10. Manometer
11. Hot water pipes
12. Cold water pipes

13. Pump
14. Filter
15. Turn cock for filling and draining the system

INSTALLATION DIAGRAM
for connecting of room heaters and inset appliances fired by solid fuel
with integral boilers type "BO" (close heating system)



1. Appliance
2. Turn-cock
3. Turn-cock for filling and draining the system
4. Main thermo valve
5. Pump

6. Safety back-pressure valve
7. Expansion container
8. Waste water sewerage
9. Safety valve
10. Automatic deaerator
11. Temperature regulator

12. Cooler
13. Thermal cock for letting the cool water into the cooler
14. Entry (from the water conduit)
15. Radiator