INSTRUCTIONS FOR INSTALLATION, USE AND MAINTENANCE

## **PHAROS INTERIOR**







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- Convection slots Ceramic glass Control flap Spark guard 1.
- 2.
- 3.
- 4.

#### Dimensions in mm



## **General instructions and regulations**

#### Maintenance

Have the appliance serviced regularly by a qualified technician. Ensure that the flue-gas connection and the chimney are cleaned regularly. Check to ensure that the chimney is still open before lighting the stove again if it has not been used for an extended period of time. If, in spite of the precautions taken, there should occur a chimney fire (usually accompanied by a roaring noise in the chimney), proceed as follows: Shut off the air supply and close the door of the stove immediately Call the fire brigade Quickly extinguish the fire in the stove with sand to prevent smoke from getting into your house Ventilate the house Never use water to extinguish the fire Ensure that after a fire the chimney is first swept and inspected for any damage and leaks. Service

It is not allowed to make any modifications to the appliance without prior authorization of the manufacturer.

Only use replacement parts recommended by the manufacturer.

#### **Declaration**

The undersigned, representing the following:

Harrie Leenders Haardkachels, Industrieweg 25, 5688 DP, Oirschot, Nederland

herewith declare that the product Pharos Interior is in conformity with the provisions of the following EC

Directives when installed in accordance with the installation instructions contained in the product documentation: EN 13240:2001/A2:2004 (E) "Roomheaters fired by solid fuel"

Product: Roomheaters fired by solid fuels as covered under the scope of this standard intended use: Space heating in residential buildings.

#### Characteristics Report

Fire safety Emission of combustion products Release of dangerous substance Surface temperature Mechanical resistance (to carry a chimney / flue) Thermal output / energy efficiency 2005PMC/12 2005PMC/12 2005PMC/12 2005PMC/12 2005PMC/12 2005PMC/12

#### Description of the room heater Pharos Interior:

Wood stove made of sheet metal. The stove is designed to be installed on the wall. It is provided with a self-closing window door, fixed secondary air supply and controllable air wash air supply. The combustion chamber is insulated with refractory ceramic elements. The flue-gas connection is located at the top of the appliance.

Notified body: Report number: Manufacturer: SGS Environmental Services, Postbus 5252, 6802 EG Arnhem 2005PMC/12 Harrie Leenders Haardkachels

Name: Bart Leenders Position: General Manager

#### READ THE INSTRUCTION BOOKLET AND THESE SUPPLEMENTARY INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

These instructions together with those in the instruction booklet cover the basic principles to ensure the satisfactory installation of the stove, although detail may need slight modification to suit particular local site conditions.

In all cases the installation must comply with current Building Regulations, Local Authority Byelaws and other specifications or regulations as they affect the installation of the stove. It should be noted that the Building Regulations requirements may be met by adopting the relevant recommendations given in British Standards BS 8303, BS EN 15287-1:2007 as an alternative means to achieve an equivalent level of performance to that obtained following the guidance given in Approved Document J.

Please note that it is a legal requirement under England and Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at <u>www.hetas.co.uk</u>.

#### CO Alarms:-

Building regulations require that when ever a new or replacement fixed solid fuel or wood/ biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturer's instructions. Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

#### HEALTH AND SAFETY PRECAUTIONS

Special care must be taken when installing the stove such that the requirements of the Health and Safety at Work Act are met.

#### Handling

Adequate facilities must be available for loading, unloading and site handling.

#### **Fire Cement**

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash immediately with plenty of water.

#### Asbestos

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment. **Metal Parts** 

When installing or servicing this stove care should be taken to avoid the possibility of personal injury.

#### STOVE PERFORMANCE

Please refer to the table in the main instruction manual for details of the stoves' performances

#### PREPARATORY WORK AND SAFETY CHECKS

#### **IMPORTANT WARNING**

This stove must not be installed into a chimney that serves any other heating appliance.

There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room.

#### Chimney

In order for the stove to perform satisfactorily the chimney height must be sufficient to ensure an adequate draught of approximately 15 Pa so as to clear the products of combustion and prevent smoke problems into the room.

NOTE: A chimney height of not less than 4.5 metres measured vertically from the outlet of the stove to the top of the chimney should be satisfactory. Alternatively the calculation procedure given in EN 13384-1 may be used as the basis for deciding whether a particular chimney design will provide sufficient draught.

The outlet from the chimney should be above the roof of the building in accordance with the provisions of Building Regulations Approved Document J.

If installation is into an existing chimney then it must be sound and have no cracks or other faults which might allow fumes into the house. Older properties, especially, may have chimney faults or the cross section may be too large i.e. more than 230 mm x 230 mm. Remedial action should be taken, if required, seeking expert advice, if necessary. If it is found necessary to line the chimney then a flue liner suitable for solid fuel must be used in accordance with Building Regulations Approved Document J.

Any existing chimney must be clear of obstruction and have been swept clean immediately before installation of the stove. If the stove is fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

If there is no existing chimney then any new system must be to the designation described above and in accordance with Building Regulations Approved Document J.

A single wall metal fluepipe is suitable for connecting the stove to the chimney but is not suitable for use as the complete chimney. The chimney and connecting fluepipe must have a minimum diameter of 150 mm and its dimension should be not less than the size of the outlet socket of the stove.

Any bend in the chimney or connecting fluepipe should not exceed 45°. 90° bends should not be used.

Combustible material should not be located where the heat dissipating through the walls of fireplaces or flues could ignite it. Therefore when installing the stove in the presence of combustible materials due account must be taken of the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

If it is found that there is excessive draught in the chimney then a draught stabiliser should be fitted. Fitting of a draught stabiliser will affect the requirement for the permanent air supply into the room in which the stove is fitted in accordance with Approved Document J (see also combustion air supply).

Adequate provision e.g. easily accessible soot door or doors must be provided for sweeping the chimney and connecting fluepipe where it is not intended for the chimney to be swept through the appliance.

#### Hearth

The hearth should be able to accommodate the weight of the stove and its chimney if the chimney is not independently supported. The weight of the stove is indicated in the brochure.

The stove should preferably be installed on a non-combustible hearth of a size and construction that is in accordance with the provisions of the current Building Regulations Approved Document J.

The clearance distances to combustible material beneath, surrounding or upon the hearth and walls adjacent to the hearth should comply with the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

If the stove is to be installed on a combustible floor surface, it must be covered with a non-combustible material at least 12mm thick, in accordance with Building Regulations Approved Document J, to a distance of 30 cm in front of the stove and 15 cm to each side measuring from the door of the combustion chamber.

#### **Combustion air supply**

In order for the stove to perform efficiently and safely there must be an adequate air supply into the room in which the stove is installed to provide combustion air. The provision of air supply to the stove must be in accordance with current Building Regulations Approved Document J. An opening window is not appropriate for this purpose.

#### **Connection to chimney**

Stoves may have a choice of either a rear or top flue gas connector that allows connection to either a masonry chimney or a prefabricated factory made insulated metal chimney in accordance with their instructions. In some cases it may be necessary to fit an adaptor to increase the diameter of the flue to the minimum required 150 mm section of the chimney or liner.

#### Commissioning and handover

Ensure all parts are fitted in accordance with the instructions.

On completion of the installation allow a suitable period of time for any fire cement and mortar to dry out, before lighting the stove. Once the stove is under fire check all seals for soundness and check that the flue is functioning correctly and that all products of combustion are vented safely to atmosphere via the chimney terminal.

On completion of the installation and commissioning ensure that the operating instructions for the stove are left with the customer. Ensure to advise the customer on the correct use of the appliance and warn them to use only the recommended fuel for the stove.

Advise the user what to do should smoke or fumes be emitted from the stove. The customer should be warned to use a fireguard to BS 8423:2002 (Replaces BS 6539) in the presence of children, aged and/or infirm persons.

### <u>Manual</u>

We congratulate you on the purchase of your stove. This manual will inform you about the best way of using the stove and the art of keeping a perfect fire. Before using the stove, carefully read the text about breaking in the stove.

These heating instructions apply to the Pharos Interior. They are merely intended as a guideline as your stove will behave differently according to the place where it is installed, simply

because the conditions are different. The flue, the weather, the quality of the wood used and the climate conditions in the house determine your stove's burning behaviour. In time you will develop your own directions for use, based on these heating instructions.

#### What you should know about the Pharos Interior

It is an open stove with convection heat being released by the stove pipe, which ensures a fine heat distribution once the stove is burning properly.

The bottom of the combustion chamber is lined with high-grade ceramic fire bricks. These bricks are subject to the greatest impacts (being hit by logs), and so have been additionally reinforced.

The draught in the flue can be reduced using the control flap, if necessary. When the stove is not being used, close the flap so that no heat will leave the room through the chimney.

#### The three basic rules for proper burning are:

1 Use dry and clean wood.

The stove is suitable for burning so-called 'stackable fuels': wood and briquettes. We assume you will be using dry fuels only. So, this also holds for the kindling paper and cardboard. Wet fuel costs more energy, leaves moisture on the glass and soils the flue.

2 Do not temper the burning process excessively.

Allow the stove sufficient time to warm up (stay with it at this stage) and do not temper the fire too quickly. Bear this rule in mind: you must not temper a stove until it has warmed up properly.

3 Always make sure there is enough fresh air.

In houses today, cracks and gaps have often been sealed. Opening a small grate or cantilever window will ensure sufficient fresh air, provided no fresh-air-supply system is used.

The main thing when making the fire is that both the flue and the stove reach the proper temperature.

## READ THE INSTRUCTION BOOK AND THESE INSTRUCTIONS CAREFULLY BEFORE USING THE STOVE

#### WARNING NOTE

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate action should be taken:-

- (a) Open doors and windows to ventilate the room and then leave the premises.
- (b) Let the fire go out.
- (c) Check for flue or chimney blockage and clean if required
- (d) Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

The most common cause of fume emission is flue way or chimney blockage. For your own safety these must be kept clean at all times.

#### **IMPORTANT NOTES**

#### General

Before lighting the stove check with the installer that the installation work and commissioning checks described above have been carried out correctly and that the chimney has been swept clean, is sound and free from any obstructions. As part of the stoves' commissioning and handover the installer should have shown you how to operate the stove correctly.

#### CO Alarm

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

#### Use of fireguard

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2002 (Replaces BS 6539).

#### **Chimney cleaning**

The chimney should be swept at least twice a year. It is important that the flue connection and chimney are swept prior to lighting up after a prolonged shutdown period.

If the stove is fitted in place of an open fire then the chimney will require sweeping after a month of continuous operation. This is a precaution to ensure that any "softer" deposits left from the open fire usage have not been loosened by the higher flue temperatures generated by the closed stove.

In situations where it is not possible to sweep through the stove the installer will have provided alternative means, such as a soot door. After sweeping the chimney the stove flue outlet and the flue pipe connecting the stove to the chimney must be cleaned with a flue brush.

#### Periods of Prolonged Non-Use

If the stove is to be left unused for a prolonged period of time then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open.

#### Extractor fan

There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit smoke and fumes into the room.

#### Aerosol sprays

Do not use an aerosol spray on or near the stove when it is alight.

#### Use of operating tools

Always use the operating tools provided when handling parts likely to be hot when the stove is in use.

#### **Chimney Fires**

If the chimney is thoroughly and regularly swept, chimney fires should not occur. However, if a chimney fire does occur turn off the stove immediately and isolate the mains electricity supply (if applicable), and tightly close the doors of the stove. This should cause the chimney fire to go out. If the chimney fire does not go out when the above action is taken then the fire brigade should be called immediately. Do not relight the stove until the chimney and flue ways have been cleaned and examined by a professional.

#### Permanent air vent

The stove requires a permanent and adequate air supply in order for it to operate safely and efficiently. In accordance with current Building Regulations the installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion air. This air vent should not under any circumstances be shut off or sealed.

#### **USER OPERATING INSTRUCTIONS**

#### **Recommended fuels**

Stoves may be designed to burn dry seasoned wood logs and/or solid mineral fuel as indicated in the main stove manuals.

#### HETAS Ltd Approval

HETAS approval may be limited to specific fuel types as detailed in the main instruction manuals. Approval does not cover the use of other fuels either alone or mixed with the recommended fuel, nor does it cover instructions for the use of other fuels.

## The fine heat from wood

You have purchased a wood stove. In many respects, wood used as fuel is an ideal choice. But what exactly is wood? Under the influence of sunlight, a tree builds up wood cells from CO2 (carbon dioxide), water and minerals. So, in fact, wood is stored solar energy. In its growth process, the tree takes CO2 from the air and gives off oxygen in return. Also in terms of the environment, wood is an ideal fuel. When it is left to rot, the same amount of CO2 is released as when it is burned. In environmental terms, we then say that wood is 'CO2neutral'.

#### Only dry wood is stove wood

Not all wood qualifies as stove wood. Good burning is obtained by using wood that has been seasoned for at least eighteen months. That is to say: preferably chopped wood that, stored

under a shelter and protected from the rain, can slowly let its moisture evaporate. Dry wood does not sizzle in the fire and does not soot the glass.

#### The Woodstocker. Getting firewood good and dry.



Erik Bendien created the wood store that allows wind access from every side. This is logical - wind dries wood. Hence the basic grid, which is free of the ground to avoid damp, the perforated side-panels and the extra space above. The uprights and the grid are in stainless - galvanized - steel. After a while the corten-steel side panels start to oxidise. It's designed that way because the thin layer of rust is both highly decorative, and protects the panels against further corrosion. The basic module, with a single compartment, can handle 1.3 cubic meters of wood. This can be widened by the same dimensions. It looks good as a garden partition or alongside the drive. With the user-friendly instruction you can put together The WoodStocker in no time at all. The highly robust finished item can be manoeuvred when empty. And disassembling The WoodStocker is just as easy, when you move house.

#### Initial fire-up, a good start

You have purchased a brand-new stove, 'zero on the meter', has not seen a flame yet. This means you are going to take care of the initial 'miles'.

The ceramic firebricks will start evaporating moisture and your wood burning stove will start setting.

For this reason, the first few times, do not make your fire too hot because otherwise the bricks could crack.

You need not worry about any shrinkage cracks.

The initial fire-up requires some additional time and attention, as well as the approach we have outlined below for you in steps.



#### Initial fire-up in steps



1. Open the flap.



2. Light a large ball of dry paper in the middle of the combustion chamber and allow the fire to go out again.



3. Fill the stove with a handful of dry and thin kindling wood and light it.



4. Allow the fire to burn up and the stove to cool off for an hour so that the moisture in the firebrick can evaporate. Some liquid might come free from the ceramic fire-brick. Therefore place an old towel underneath the stove before firing-up



5. After an hour, start bringing the entire stove to the proper temperature using first some thin kindling wood.



6. Then use thicker logs,  $\pm$  5x5 cm thick and 20 cm long. Allow some time for the fire to build up.



7. Caution: when firing up the new stove for the first time, the stove's paint will soften and give off a bad smell. Make sure there is sufficient ventilation in the room. Try to touch the stove as little as possible. The paint will have hardened after the first burn.

#### How to use the Pharos Interior



1. Open the flap.



2. Put 4 slightly larger logs on the bottom of the stove. Stack some kindling wood on top of it. Stack lightly so that the flame can take hold. Light the kindling wood up in the stove (at the top) with a firelighter or some paper. Allow the stove to develop a good fire, in order to obtain a good draught and a proper fire at the bottom. This way, you will also keep the flue cleaner.



3. When the fire gets smaller, add solid wood varying in thickness from 5 to 7 cm. The amount depends on the heat required. Stack lightly. Do not add more than 3 to 4 logs at a time.

#### Preferred order of wood thicknesses to be used when you start burning the stove.



1. kindling wood (± 2x2x30cm)



2. thicker wood  $(\pm 4x4x30cm)$ 



3. solid log (± 7x7x30cm)

The power of fire

As a matter of fact just a few things withstand a real hot fire. Your fireplace can also be damaged by overheating.

Just to prevent this, take account of not burning more than 3,5 kilograms of wood at the same time. 3,5 Kilograms is approximately equal to 3,5 large logs; oak with 15% moisture. The construction and the materials used from the fireplace are chosen to control and resist a fire in a considered way. So heat with consideration.

#### A few tips

Make the fire always on a bed of ash. This is an insulating layer for the fire and an excellent bed for the fuel.

You also control the temperature by the amount and kind of fuel used for each load. Remove excess ashes using a scoop or an Ash Cleaner.

Never remove ashes using a vacuum cleaner because fire may still continue to smoulder for days.

Make sure you leave a layer of ashes (± 3 cm) for the next fire to be made.

When the weather is foggy, it is preferable not to use the fireplace since the draught in the flue will be too low.

## Maintenance

#### Maintenance



Dust the stove using a non-fibrous cloth.

Damaged spots can be touched up using an abrasive cloth and Harrie Leenders stove paint. Ask you supplier for advice

#### Maintenance ceramic firebricks

You need not worry about any cracks in the ceramic firebrick elements as long as the flame does not come into direct contact with the metal behind them.

#### <u>Glass</u>



The glass can steam up when burning wet fuel or too little oxygen is supplied. Also, the glass may steam up if the fire does not start fiercely enough. This happens, for instance, when you start with small logs instead of thin kindling wood. Moisture will then remain in the fireplace for too long, and will settle on the coldest part: the glass.

#### Light moisture:

Use paper towel and then remove the light moisture using a damp cloth. Counter pressure a little at the outside so that the glass panel does not move.

#### Thicker deposits:

These can be treated with special fireplace- glass cleaner (this can also be done with a piece of moist paper towel and white ash). Allow a moment for this to have its effect. Always make sure that these agents do not come into contact with the painted surfaces in order to prevent stains from being formed.

#### Moving parts

Moving and squeaking parts can be lubricated using graphite grease. Ask your supplier for advice.

#### Collecting soot when sweeping the chimney



1. Open the flap.



2. Place a newspaper on the bottom of the stove to collect the soot so that it can be easily removed. Tape up completely the opening of the stove.

## Installation instructions

- All local regulations including those referring to national and European standards must be observed when installing the appliance.
- Ensure there is sufficient ventilation / air supply in the room from which your stove gets the combustion air. This is the room where the stove is installed if you do not use a wall or stove-base air-supply system.
- The stove is not suitable for a shared flue system.
- Ensure adequate access for cleaning the appliance, the flue gas connection and the chimney.
- When installing the stove, take into account the minimum distances from the wall so as to avoid any fire risk. The minimum distances to heat sensitive / flammable walls (sizes in cm) are shown in the figure below. Distances to solid / non combustible will be less. i.e. 52cm to the centre of the appliance.



<u>Specifications Pharos Interior</u> Nominal power of the stove is 9 kW. Flue gas mass flow = 26.7 g/s Appliance weight = 100 kg Minimum chimney draught = 8.0 Pa Flue gas temperature directly over the stove = 387 °C

#### INSTALLATION INSTRUCTIONS PHAROS INTERIOR

The installation of the Pharos Interior with decorative casing must be carried out by a skilled person employed by a dealer recognized by Harrie Leenders Haardkachels. The casing parts are susceptible to scratching. Handle them gently. After the stove has been properly installed, burn some kindling wood to check the draught.

Please Note, the Pharos Interior has been tested by the manufacturers on a 4m straight flue.

#### Safety recommendations:

Glass tends to break easily, and broken glass is quite sharp. Take therefore adequate safety precautions.

For general safety, we refer to guidelines or regulations issued by a relevant official body. Note: ensure there is no inflammable and/or explosion-hazardous material in or on the stove such as a spray can, packing material or the like.





# Nut M8 (4x) Bodywork-ring M8 (4x) Ceiling-floor support plate Treaded rod M8 (4x)

#### 1. Preparation

Have a hole of 280 mm diameter drilled by a concrete driller.

Allow for the minimum distance (X) from any flammable materials (see: "General instructions and regulations".)



Cut the four threaded rods included in the delivery to the proper length, long enough to be put through the ceiling and fitted.

Fix the ceiling-floor support plate and the pipe with ring plate in the manner as shown in the picture. Keep the indication mark (provided on both plates) at the rear of the stove.



#### 3. For sloping roof



4. Preparing the stove pipe

Grease inside of bearing plate sufficiently for balls (using grease supplied with the stove).

Place the ball-holding ring into the bearing plate and add the 16 balls.

Slip this assembly on the stove pipe so that the flange of the stove pipe rests on the balls; this fits one way only. (Turn until the three screws fit into the recess).

Push the mounting ring against the bearing plate and fasten it with the 3 M8x20 bolts

Note: Place the mounting ring so that the long hexagon-head bolts (M8 x120) are at the lower part and the three short screws (M8 x20) at the upper part of the ring.



#### 5. Fixing the stove pipe

The bearing plate has a rear side: when installing it, ensure it is in fact at the back (see mark on bearing plate);

Slip the stove-pipe support on the Pharos lifting jack (the lifting jack must be in its lowermost position); Determine the centre of the pipe on the stove-pipe support (plumb line);

Place the stove pipe on the stove-pipe support; Jack the stove pipe up using the Pharos lifting jack;



#### 6. Levelling

Then fit the M6x20 bolts (A) into the holes that are still open.

Level the stove pipe by turning the A bolts in or out (spirit level).

Tighten the B bolts when the stove pipe is hanging level (Check this).

Remove the mounting ring.



#### 7. Rotation ...?

The stove can be made to rotate if the customer so desires.

The 3 bolts provided at the back of the bearing plate serve this purpose.

Possibilities: Fixed (no rotation): leave screws A and B in place (stove is locked);

2 x 60° rotation: slacken or remove 2x screws A (crosshead screwdriver small) and leave B in place; 360° rotation: slacken or remove screws A and B.



8. Installing the finishing cover

Note: First, make the stove rotatable if desired (see step 7).

Slip the finishing cover on the stove pipe and move it upwards.

Fasten the finishing cover with 3 M4 x 8 screws (cross -slotted) (crosshead screwdriver small).



<u>9. Installing the decorative pipe and column</u> Slide the decorative pipe (the slots at the upper end) and the column on the stove pipe and move them upwards as far as possible) (the decorative pipe slides over the cord and into the finishing cover). Also slip the mounting ring on the stove pipe moving it as tightly as possible against the column and fasten it with the 3 M8 x 20 bolts.

Note: Place the mounting ring so that the long hexagon-head bolts (M8 x120) are at the lower part and the three short screws (M8 x20) at the upper part of the ring.

Tighten the bolts firmly!



11. Hanging the stove

Ensure that the welded seam in the stove pipe is on the right-hand side and the fire opening on the front side.

Jack the frame up until it fits over the stove pipe. Fasten the frame to the stove pipe with 3 M8x20 bolts.



10. Preparing the stove

Bring the pre-assembled frame to the place of installation using a sack truck.

Remove the stove-pipe support from the Pharos lifting jack.

Place the sliding pieces under the lifting jack. Place the pre-assembled frame on the Pharos lifting jack (Ensure that the lifting jack is in its lowermost position).

Push the lifting jack holding the frame under the stove pipe; keeping the fire opening at the front.



#### 12. Mounting the flap

Hook the flap-control handle into the eye. Fasten the flap-control handle to the flap with the M6 x 20 bolt together with an M6 washer on both sides.

Fit a self-locking M6 nut on the bolt and tighten it.

Check the flap for proper operation.



#### 13. Installing the shell parts

Place both shell parts with the hollows on the points of the positioning screws.

Note: The shell parts bear stamped numbers: the stamped numbers must be on the front side of the stove.

Place the bottom shell on the Pharos lifting jack and jack it up against the bottom of the frame. Insert the M6x75 bolt with an M6 nut and an M6 washer on it into the hole of the bottom shell, and tighten it until it cannot go any further (there is still some thread left).

Tighten the M6 nut against the bottom shell in order to secure the shell.



14. Lowering the column

Remove the two bolts (M8 x 120) from the mounting ring, and carefully lower the column on the shell parts.

Note: The column bears stamped numbers as well: they must be on the front side of the stove. Remove the Pharos lifting jack.

The Pharos Interior is now ready for use. Check its performance.



Robeys Ltd. Riverside, Goods Road, Belper, Derbyshire. DE56 1UU Tel 01773 820940 Fax 01773 820477





PHAROS OPTIONAL ADJUSTABLE FIXING BRACKET





PHAROS OPTIONAL ADJUSTABLE FIXING BRACKET





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