Installation instructions

PremiumEdition | Wood burning fireplace

SPARTHERM®
The Fire Company

PREFACE - QUALITY PHILOSOPHY

You have decided to purchase a SPARTHERM fireplace. Thank you for showing confidence in our product.

In a world of surplus and mass production, our company stands for the values expressed by our owner, Gerhard Manfred Rokossa:

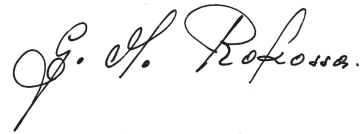
"High technical quality combined with contemporary design and service to the customer and their satisfaction and further recommendation."

We offer first-class products that touches your customers emotionally and address their feelings such as the feeling of safety, security and comfort. In order to become completely familiar with your purchase in the shortest possible time, we recommend that you read through these installation instructions carefully. In addition to detailed instructions on installing your product, this document also contains important safety information, advice on how to keep your fireplace insert in good condition, valuable tips and helpful recommendations. Should you have any further questions or problems, please contact us directly. We are always happy to receive your questions, suggestions and any comments.

On behalf of the whole team at Spartherm, we wish you every success with the installation of your fireplace insert and many hours of happiness in front of your new fire.

The SPARTHERM team

G.M. Rokossa



CONTENT INSTALLATION INSTRUCTIONS

1. GENERAL INSTRUCTIONS

These installation instructions comply with the provisions outlined in DIN EN 13229 "Solid-fuel fireplaces".

All national and regional regulations, standards and norms, methods of installation and material specifications must be observed. Naturally, all our fireplace inserts are subject to our own quality criteria, from incoming goods inspection to the approval before shipping.

Small children, elderly or infirm persons:
As is the case with all heating devices, it is expedient that you attach a protective fixture for these groups of persons, as the view pane and the cladding parts of the fireplace can become extremely hot!

➔ Danger of burn injuries! ←

Never leave these groups of persons unattended near the fireplace insert when a fire is burning or has just been extinguished! Please ensure that persons belonging to these groups are made aware of the dangers.

No combustible objects, materials or substances should be placed on or near the free surfaces of the fireplace system. Do not attempt to dry out clothing on the hot tiles of the fireplace system. When drying clothes, use a proper drying stand or clothes' horse and ensure it is placed outside the area of direct radiant heat!

The surfaces of your fireplace system such as the operating handles, doors, viewing glass, etc. are getting hot by energy released during the combustion process. Do not attempt to touch these components without adequate protection (i.e. **heat-resistant gloves**).

The fireplace insert must never be modified! In particular, never install any components into the combustion chamber, combustion passages or the gas flue that have not been approved by SPARTHERM. Your fireplace warranty will be rendered invalid by any fireplace modification carried out using components not approved by SPARTHERM.

You may find that extractor hoods, ventilation equipment, etc., installed in the same room (or linked space) as your fireplace or stove, have a negative effect on the fireplace insert (such as the release of smoke into the room). These devices should not be used at the same time as your fireplace or stove, without first ensuring that the necessary room heating system precautions have been taken.

When using more than one fireplace in a single room or linked space , ensure that sufficient air is available for complete combustion!

This is an intermittent appliance, so longer burn times are achieved by reloading every 45 minutes. It is not allowed to achieve longer burn times by reducing the combustion air and thereby smothering the fire.
According to the type of fireplace inserts used low-pressure values of more than 20-25Pa can have an impact on the correct use of the fireplace insert. Those values may lead to stains on the glass or create noise.

Transport damage: immediately on arrival, please check the goods delivered (visual inspection). Make a note of any damage on your delivery document. Inform your stove or fireplace fitter of the damage before the installation work begins. When installing the casing of your fireplace insert, take care to protect the viewing glass from damage or soiling.

The technical data of your fireplace insert can be found from page 25.

1.1 LOADING DOOR

The suitability of the fireplace insert for multiple allocation (two or more fireplace inserts on the same chimney) depends on if the door has a self-locking function:

Self-locking door function: fireplace insert is suitable for multiple allocation

No self-locking door function: multiple allocation is not permitted, thus, the fireplace insert must be connected to its own chimney line.

Note: with a multiple allocation of the chimney, this must be built and designed accordingly.

In doing so, the question must be asked if the fireplace insert is an “open fireplace” or not. In Germany, an “open fireplace” is not subject to the emission requirements of the BImSchV level 1 (Ordinance in the Implementation of the Federal Emission Control Act), but may be operated “occasionally”. The manufacturer specifies the mode of operation of the fireplace insert and determines if the device can be used correctly when open and thus must be termed as “open chimney”: open burning permitted according to the manufacturer: open fireplace only with occasional operation of open burning according to the manufacturer is not permitted: closed chimney, not limitations in use.

Note: the former terms from “Design A1” or “Design A” that are derived from the standard DIN 18895 that is no longer valid frequently resulted in the mixture of the features specified above and are no longer valid.

Generally, Spartherm fireplace inserts are operated correctly when the loading door is closed. thus, with the exception of feeding or cleaning, the fireplace insert doors must be shut.

Fireplace inserts for burning with loading door open tested by ourselves are marked in the installation instructions for the fireplace insert enclosed separately in the technical data.

When operating on a chimney with single allocation (one fire area for each chimney line), the operator can choose if the combustion chamber door is self-locking or not self-locking. The correct position of the loading door when operating the fire is always the responsibility of the operator and must be observed.

1.1.1 SELF CLOSING AND NON-SELF CLOSING LOADING DOOR

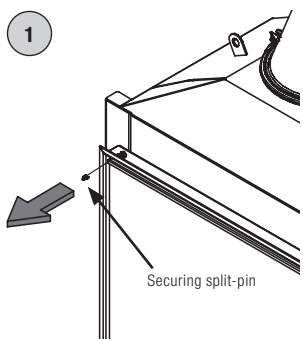
Spartherm inserts equipped with a sliding door are not self-closing when delivered, Fireplace insert with a hinged do have a self closing installed. The fireplace inserts with sliding door can be converted to a self closing door by removing some of the door counter weights.
Hinged door inserts can be converted to non-self closing by relieving the door spring. The door locking type with folding fireplace insert with non-locking combustion chamber door can be converted into a self-locking combustion chamber door by relieving the door closing spring.

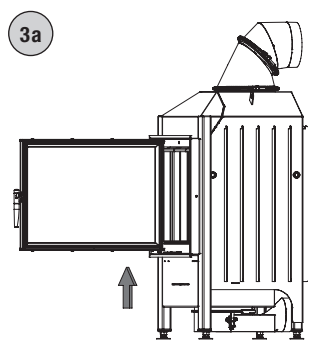
The next chapter will show you how to do this.

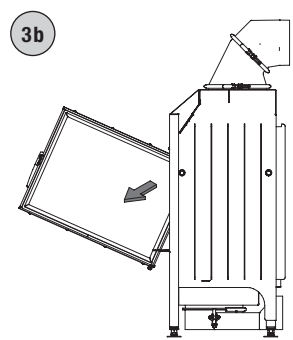
1.2 CONVERSION FROM SELF CLOSING LOADING DOOR TO NON-SELF CLOSING AND VICEVERSA

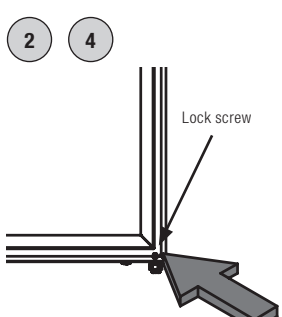
1.2.1 HINGED LOADING DOORS

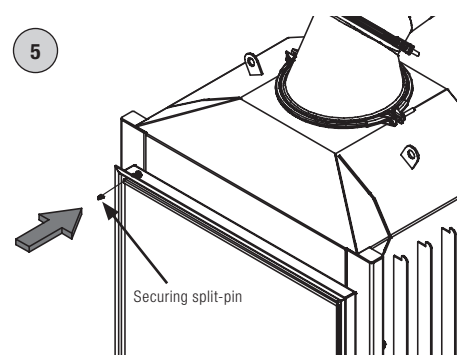
Conversion of a self closing hinged door to a non - self closing door by relieving the door spring.











1. Remove the securing split-pin between the frame and door.

2. Secure the door locking spring (Allen key 2.5). Tighten the locking screw located at the bottom right in the corner of the door at the bottom pivot point. This may be located a little under the grey cord seal. Be careful to not damage the seal!

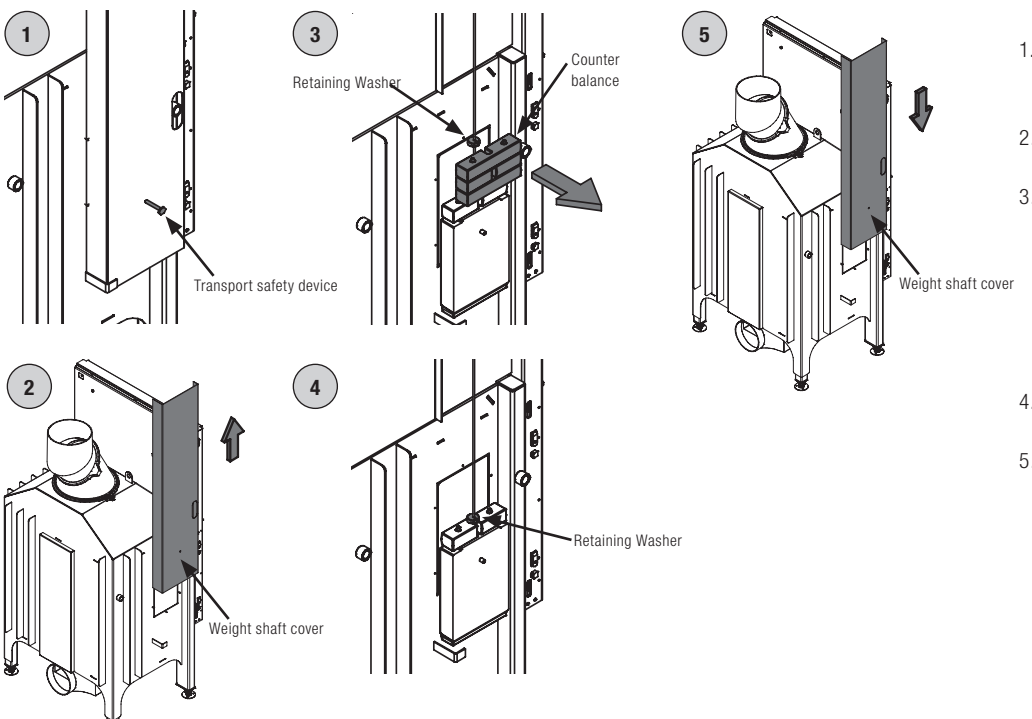
3. Take out the loading door

4. Relieve the locking screw (Allen key 2.5). A significant clicking sound should be heard.

5. Place the loading door back and mount the securing split-pin.

1.2.2 SLIDING DOORS - BEFORE INSTALLATION

Conversion of a non-self closing loading door to a self closing loading door by removing counterweights. Carry out the fireplace inserts with two weight shafts in the same procedure on both sides.

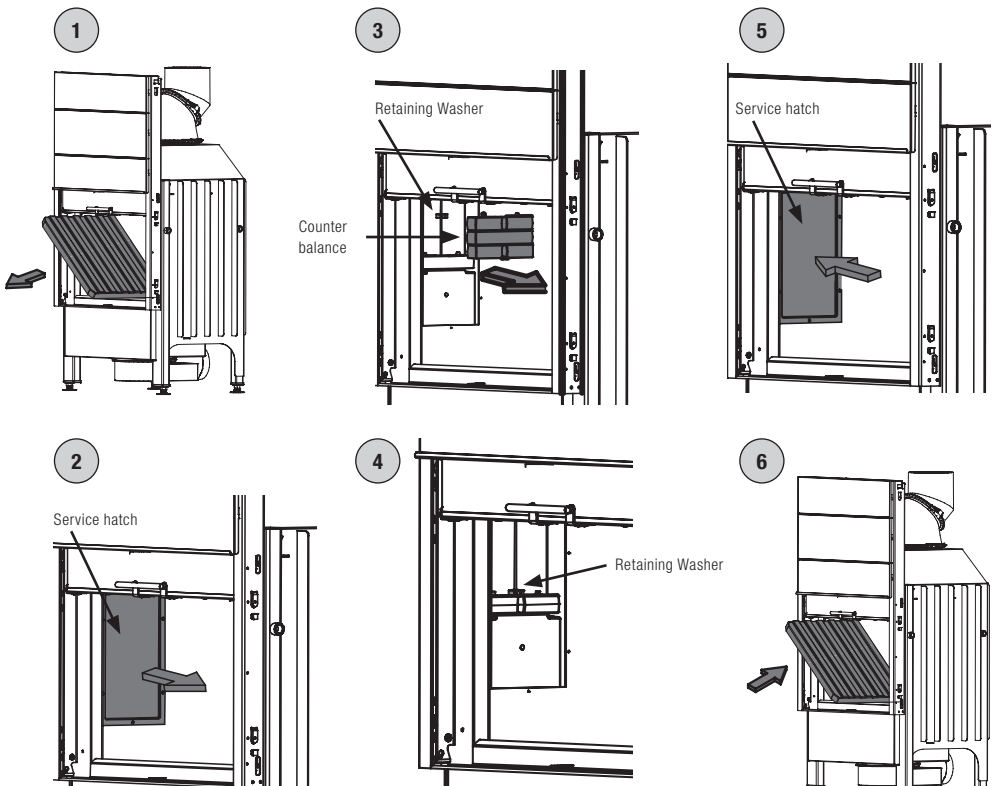


Follow the next steps for BOTH sides:

1. Remove the transport safety device and fasten screws.
2. Pull the weight shaft cover upwards.
3. Release the locking ring (Allen key 2.5). Remove the necessary counter-weights. The number of weights to be removed must be selected in such a manner that the door closes slowly with a constant speed, check the function.
4. Tighten the locking ring (Allen key 2.5).
5. Mount the weight shaft cover and secure with a fastening screw(s).

1.2.3 SLIDING DOOR - AFTER INSTALLATION

Conversion from a non-self closing loading door to a self closing loading door. Carry out the fireplace inserts with two weight shafts in the same procedure on both sides!



Follow the next steps for BOTH sides:

1. Remove the refractory panels.
2. Remove the service hatch.
3. Release the locking ring (Allen key 2.5). Remove the necessary counter-weights. The number of weights to be removed must be selected in such a manner that the door closes slowly with a constant speed, check the function.
4. Tighten the locking ring (Allen key 2.5).
5. Mount the service hatch.
6. Reinsert the refractory panels.

1.3 ASSEMBLY SEQUENCE

1. For fireplace inserts with a vertical sliding door, first unscrew the transport safety screws which hold the counter weights!
2. If required, use the clamp or the one-hand clamping lock to attach the external combustion air swivel to the adapter in the desired position.
3. The fireplace insert has to stand absolutely level!
4. Horizontal connection to the chimney is possible by rotating the flue gas dome. To do this, open the clamp, put the flue gas dome in position and clamp it in place again.

2. BASIC REQUIREMENTS FOR SETTING UP A FIREPLACE SYSTEM

Before installing the fireplace insert, make sure that the air controls function perfectly and repair if necessary. Consult a local expert to establish the condition of the chimney and combustion air intake before beginning installation. Note and apply DIN 18160 and DIN 18896. The responsible standard DIN EN 13229 must be used. Every fireplace system requires its own chimney. Multiple allocation is only permitted for fireplaces with closing loading door.

In the use of an outer chimney systems, especially when using double stainless steel chimney systems, we recommend the use of an approved draft limiters.

The chimney calculation is based on DIN 4705 T1, T2 or EN 13384-1 with the value triplet specified in these instructions. The optionally available convection jacket is not required for tiled fireplaces. The fireplace system must be set up as per the professional tiled stoves and ventilation engineer regulations (TROL-Richtlinien für den Bau von Kachelöfen, available from the German Central Association for Sanitation, Heating, and Air Conditioning (ZVSHK), Rathausallee 5, 53729 St. Augustin, Germany).

3. SETUP AND COMBUSTION AIR SUPPLY

3.1 LOCATION OF THE FIREPLACE

Fireplace systems may only be installed in rooms and places in which the location, construction situation and type of use do not lead to hazards. In particular, when the model is dependant on indoor air, sufficient combustion air must flow into the room in which the fireplace is set up. The floor area must be of sufficient size and of a suitable design to allow an open fireplace to be used correctly.

3.2 THE OPERATION OF THE FIREPLACE SYSTEM IS NOT AT DANGER IF

- the chimney system has integrated safety equipment that automatically and reliably prevents the negative pressure in the installation room.
- the required combustion air volume flow and the volume flow of the ventilation system as a whole do not require any greater negative pressures than 0.04 mbar in the installation room and the room and the rooms of the ventilation network.

3.3 DO NOT INSTALL THE FIREPLACE IN THE FOLLOWING LOCATIONS

- in stairways, unless they are in residential buildings with two or fewer flats.
- in hallways with general access.
- in garages.
- in rooms in which highly combustible or potentially explosive substances or mixtures are processed, stored or manufactured in quantities that would be hazardous in the event of ignition or explosion
- fireplace systems in rooms or flats that are ventilated through ventilation systems or warm air heating through the use of fans, unless the safe operation of the fireplace system is ensured.

3.4 COMBUSTION AIR SUPPLY

Fireplace systems may only be installed in rooms with at least one door or window opening to the outside of the building or in rooms, directly or indirectly "linked with other rooms by the same combustion air". When installing fireplaces in apartments or building units with multiple living quarters, only the rooms in the same apartment or building unit are deemed to be "linked by the same combustion air".

Fireplace systems may only be installed in the aforementioned rooms, where the flow of combustion air is at least 360 m^3 per hour for every m^2 door opening. If other fireplace systems are installed in the same installation room or in rooms that are joined to the installation room, according to technical guidelines the fireplace systems must be provided with at least 540 m^3 of combustion air per hour for every m2 door opening, and the other types of fireplace systems must have at least 1.6 m^3 of combustion air per hour and per kW total nominal heat output at a calculated pressure difference of 0.04 mbar with respect to atmospheric conditions. An air flow velocity of around 0.15 m/s is generally used for calculating supply pipe diameter. For a fireplace insert with a door size of 51x60 cm, a feed pipe cross-sectional area of 175 cm^2 is required, i.e. a supply pipe diameter of ca. 15 cm.

Where the volume of combustion air at the installation is inadequate (e.g., in houses with ventilation systems), a combustion air feed pipe must be connected to the appliance. The combustion air feed pipe is designed to supply the appliance with air from another room. (The source room must have a plentiful supply of air. If in doubt, consult a local expert and refer to the FeuVo and DIN 18896).

A shut-off valve must be installed, where the combustion air feed pipe runs outside the building. It must be possible to easily determine the shut-off valve setting. This arrangement allows the feed pipe to be isolated, in order to guard against the formation of condensation. The pipe must be positioned, so that any condensation formed can run out of the pipe and water or other foreign substances cannot get in.

NOTE
In the interests of providing adequate amounts of combustion air, the January 1980 issue of Furnace Regulations for instructions on system design and the May 1998 issue of Furnace Regulations for examples of working systems should be consulted. These can be found in Institute of Building Technology Report No. 3/1980, 17th. Ann. Issue (see also the commentary to DIN 18895).

3.5 COMBUSTION AIR PIPING

In accordance with local regulations (Landesbauordnung) pursuant to Article 37 Paragraph 2 of the German Model Building Code, combustion air piping crossing a fire wall in buildings with more than two fully-sized floors must be installed such that smoke or fire cannot be transmitted to other floors or fire compartments.

NOTE
For information on how to comply with the above-mentioned specifications, see the fire inspection guidelines for the fire prevention requirements of ventilation systems (draft) – January 1984 version.

4. EXHAUST CIRCUIT SHUT-OFF DEVICE

Fireplace systems with Spartherm fireplace inserts may have a cut-off device in the vent. These devices must not be self-closing and must not be positioned such as to prevent or hinder the inspection and cleaning of connecting pipework. The position of the shut-off device must be visible from the outside, e.g., from the position of the operating handle. Shut-off devices may only be installed in the exhaust manifold or collecting pipe, the flue gas pipe stub or the pipeline connecting piece. Instead of cut-off devices, fireplace inserts with combustion chamber doors can have throttle devices.

4.1 FLUE DAMPER

Flue dampers may only be installed in the flue gas pipe stub or pipeline connecting piece. The damper devices must be easy to operate. They should have cross-sectional areas at the pipe of at least 20 cm² and not less than 3% of connecting pipe cross-sectional area. The throttling device setting must be readily discernible at the operating handle.

5. FIRE PROTECTION ON / IN THE FIRE-PLACE SYSTEM

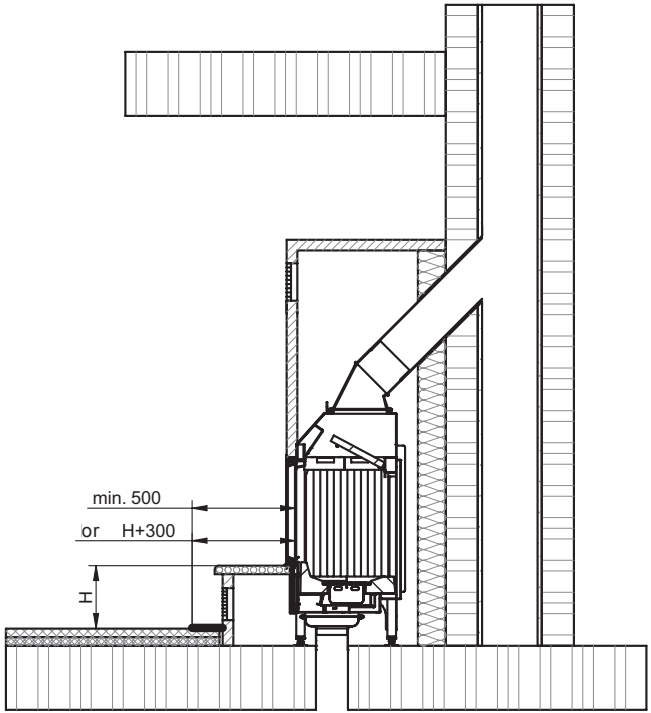
5.1 SPECIAL PRECAUTIONS FOR FIRE PROTECTION

5.1.1 FLOOR COVERINGS NEAR THE FIREPLACE

With a floor covering that is not fireproof made from combustible materials (e.g., carpet, parquet, etc.), a fireproof spark protection covering made from non-combustible material (e.g., respectively loadable glass, natural stone, glazed tiles, tiles, marble, granite or other mineral construction materials) must be installed. If this material is metal, it must have a minimum thickness of 1 mm.

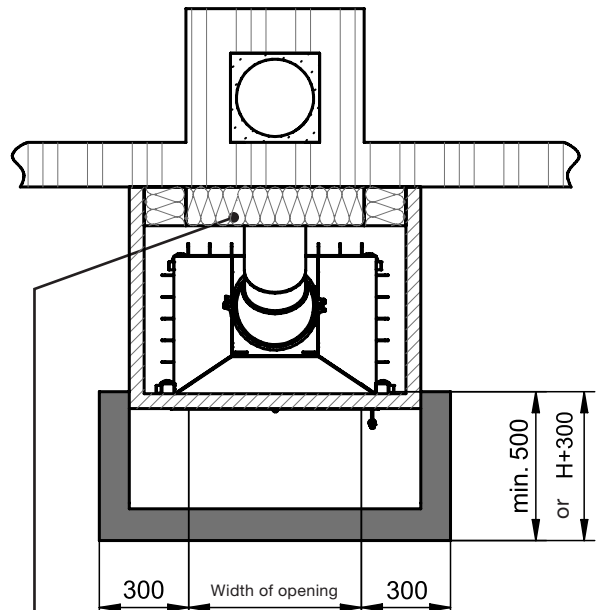
The flooring must be fastened down and secured against sidewards movement. In front of fireplaces that are run with closed combustion chamber door the spark protection material needs to cover a surface of 500mm to the front and 300mm to the side.
In front of fireplaces that are run with open combustion chamber door the spark protection material needs to cover a surface corresponding to the height of the combustion chamber base above floor level (H) + 300mm (minimum at least 500mm) to the front and the height of the combustion chamber base above floor level (H) + 200mm (minimum at least 300mm) to the side.

If a log guard (not included) with a height of at least 10 cm is fitted, the minimum distances listed above are sufficient and can be measured from the log guard.



The figure shows the installation situation using the Varia 1V-51-4S as an example and applies as an example for all fireplace inserts.

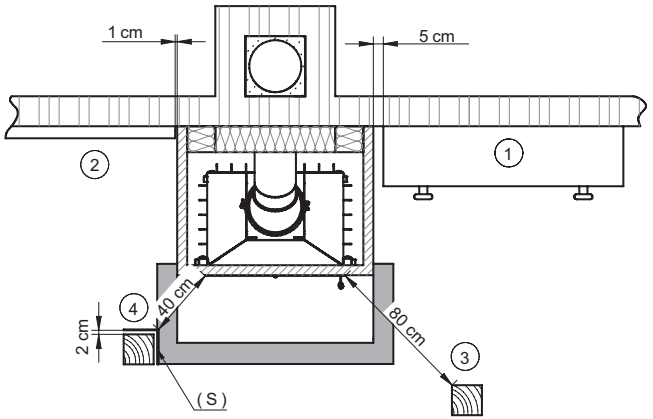
The area starting from the straight area of direct radiant heat of the effective combustion chamber opening must also each be 300 mm to the left and right for protection reasons (see figure).



The figure shows the installation situation using the Varia 1V-51-4S as an example and applies as an example for all fireplace inserts.

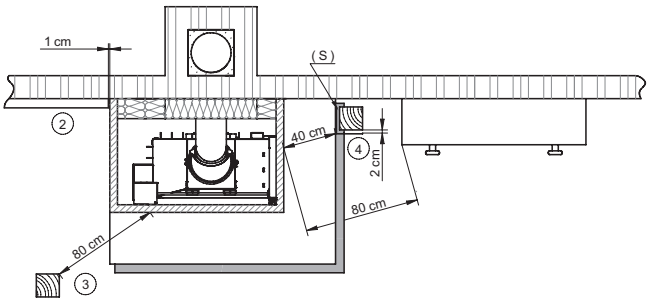
If and how the chimney walls in your installation situation have to be insulated, please consult your responsible stove fitter and the chimney sweeper.

5.1.2 COMBUSTIBLE COMPONENTS



The figure shows the installation situation using the Varia 1V-51-4S s an example and applies as an example for all fireplace inserts.

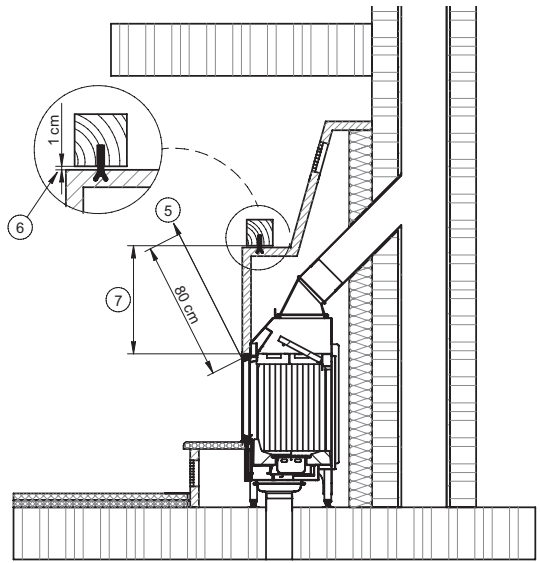
1 A distance of at least 5 cm has to be maintained between furniture (e.g., a wardrobe) and the fireplace cladding.
2 A clearance of at least 1 cm is recommended for components with small contact areas (wall, floor or ceiling cladding) .
3 A clearance of at least 80 cm must be maintained between the front and top as well as to the sides of the combustion chamber opening and all flammable fixtures, fittings as well as built-in furniture, unless stated otherwise in component-specific safety instructions.
4. A reduced minimum clearance of 40 cm is allowable where ventilated radiant heat protection facilities (S) are provided on both sides. The ventilated distance to the radiant heat protecting device (S) must be at least 2 cm.



The figure shows the installation situation using the Varia 2R-80h-4S as an example and applies as an example for all fireplace inserts.

2 A clearance of at least 1 cm is recommended for components with small contact areas (wall, floor or ceiling cladding) .
3 A clearance of at least 80 cm must be maintained between the front and top as well as to the sides of the combustion chamber opening and all flammable fixtures, fittings as well as built-in furniture, unless stated otherwise in component-specific safety instructions.
4. A reduced minimum clearance of 40 cm is allowable where ventilated radiant heat protection facilities (S) are provided on both sides. The ventilated distance to the radiant heat protecting device (S) must be at least 2 cm.

5.1.3 SILL BEAM MADE OF HARDWOOD



The figure shows the installation situation using the Varia 1V-51-4S as an example and applies as an example for all fireplace inserts.

5. The sill beam must be located outside the area of direct radiant heat.
6 A ventilated distance of 1 cm must be guaranteed. For fastening, non-combustible holders must be used, e.g., from metal. These must be arranged and carried out so that the fee flow of air is not obstructed.
7. The gap between the inner edge of the combustion chamber and the sill beam has to be at least 165 cm.

5.2 CONCRETE AND REINFORCED CONCRETE LOAD-BEARING COMPONENTS

Fireplace systems must be installed so that no load-bearing structural elements made of concrete or reinforced concrete are located within 30 cm of the warm air exit points at the sides and up to a height of 50 cm above the exit points.

5.3 WOODEN BEAMS

Wooden beams may not be installed within the radiation area of the fireplace insert. Air has to circulate around with a minimum distance of 1 cm. Direct anchorage with thermal bridges is not permitted.

5.4 INSULATING LAYERS

(See chapters 7 and 8)

Mineral wool is the insulating material normally referred to in testing institute data and current insulating material regulations. Other suitable insulating materials may be used as an alternative. The materials used must be approved by the DIBt (German Institute of Building Technology) and provided with certificates or marking in confirmation thereof.

5.4.1 INSULATING MATERIAL THICKNESS

Details for the insulating material thickness can be found under chapter „11. Technical details“on page 25.

The minimum insulation thicknesses to protect combustible materials are only valid for insulation materials with a thermal transmittance value (U-value) $\geq$ 0.4 W/m^{2}K. From a U-value < 0.4 W/m^{2}K, additional measures must be made for fire protection (see DIN 18896:2013-12).

Mats, sheets or shells of silica-based insulation material (stone or slag and ceramic fibres) of material class A1 as per DIN 4102, part 1 with an upper application limit temperature of at least 700°C when measured as per DIN 52271 and a rated gross density of 80 kg/m3 are to be used to produce the insulating layers (see Special information on insulation of the mounting wall/side wall). When using insulating materials of this type, ensure they are provided with an AGI-Q 132 code number.

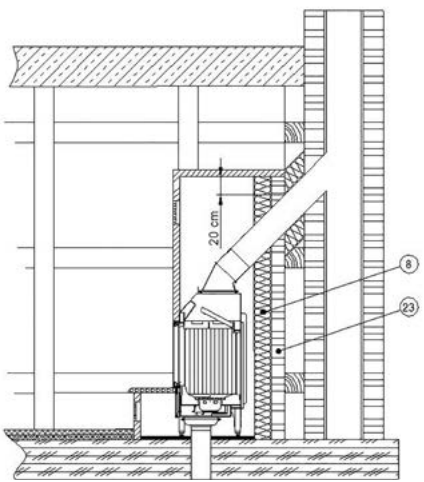
The code number of the insulating material used must not, however, contain the code sequence "99"! Where the insulating layer is not held in place by walls, cladding or plating, it should be pinned into position at a maximum distance of 33 cm between the pins. Other insulation materials, e.g., gas concrete or mineral construction materials, must be approved by the German Institute of Building Technology in Berlin (DIBt). It has to be installed according to the manufacturer's instructions.

The individual insulation materials have different coefficients of thermal conductivity which means the insulation material thicknesses will vary. The required insulation material thickness can be taken from the diagram provided by the insulation material manufacturer.

Some thermal insulation materials can be used as a protective and insulation at one and the same time. This significantly reduces installation depth. Thermal insulation made of non-abrasive material such as, e.g., stone and slag fibre must be abrasion-resistant, e.g., with steel plate cladding, so that the recirculating air does not transport insulation particles into the room. Other thermal insulation sheets leave the factory with added abrasion resistance as required. This type of insulation material may only be installed offset and all joints must be sealed. Where multiple insulation layers are required, the joints should be arranged to overlap. The installation must be correct and abrasion-resistant. Moreover, the exact position must be permanently ensured.

5.4.2 PROTECTING THE MOUNTING WALL WITH A STUD WALL

- A protective wall must be constructed when installing a wall-mounted fireplace system. The stud wall must protrude at least 20 cm above the connecting piece?
- A protective wall is not needed, where the walls of the building are:
  - at least 11.5 cm thick
  - made from non-combustible components
  - is not a bearing concrete or reinforced concrete wall
- Protective walls are normally of brick construction, but may also be constructed from the heat-insulating panels referred to above, in order to reduce the total thickness of the protective wall and insulating material.



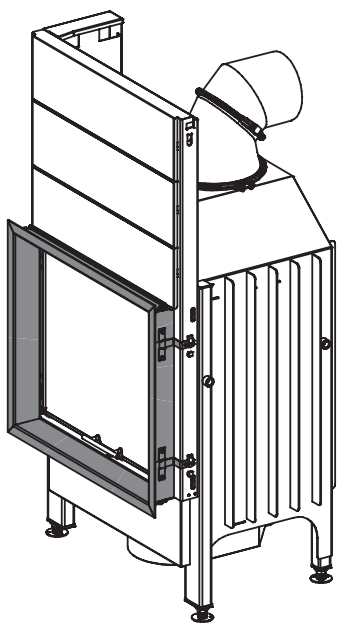
8 Insulation of the heating chamber using, e.g., dimensionally stable mineral wool according to the heat insulation thickness technical data.
23 Stud wall, 10 cm thick*

* If necessary, use a substitute insulation material (e.g. calcium silicate) in the place of front-mounted masonry and insulation (point 8), in accordance with the technical data provided by the manufacturer.

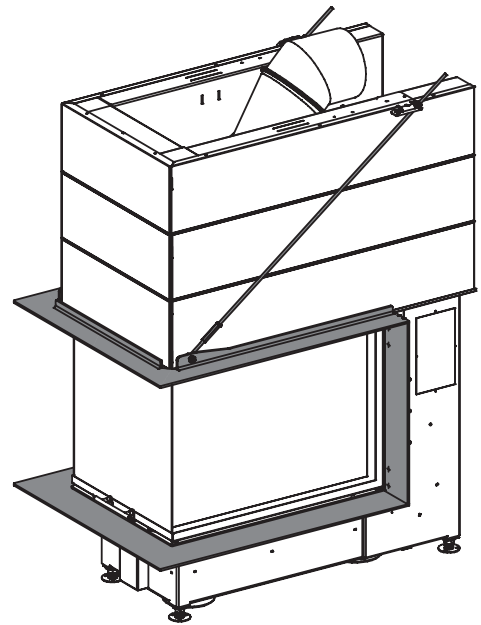
6. INSTALLATION GUIDELINES

6.1 IMPORTANT INFORMATION FOR WINDOW FRAME INSTALLATIONS

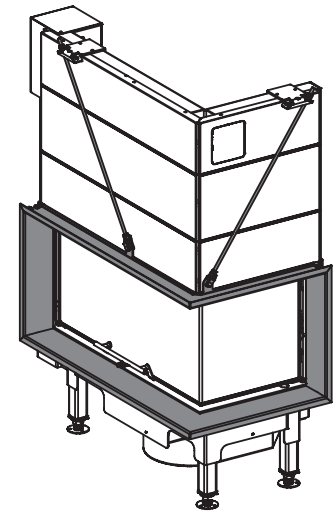
Generally, a difference is made in slide on frames and self-supporting frames (solid and folded edge version).



Slide on frame (1V fireplace inserts only)



Self-supporting solid frame



Self-supporting folded edge frame

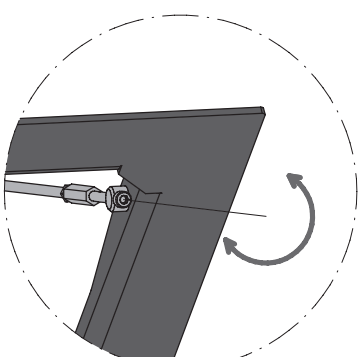
After completing the hollow chimney breast, slide on frames can be pushed on and create a clean transition from the fireplace opening to the fireplace. When installing the fireplace take care that sufficient space is considered for mounting the slide on frame!

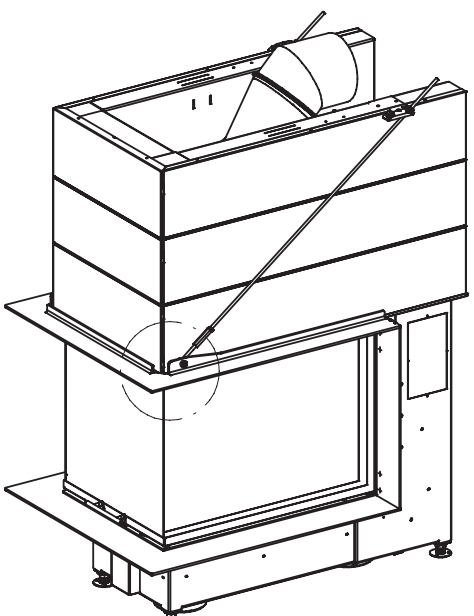
No cladding material may be mounted on silde on frames! A supporting frame must be installed to carry the weight of the cladding.

Self-supporting frames are fixed to the fireplace and are suitable for direct wall mounting. In doing so, the maximum weight load to be applied is 200 kg Depending on the combustion chamber type, you have the possibility to readjust the frame when installed in order to, e.g., compensate settlements.

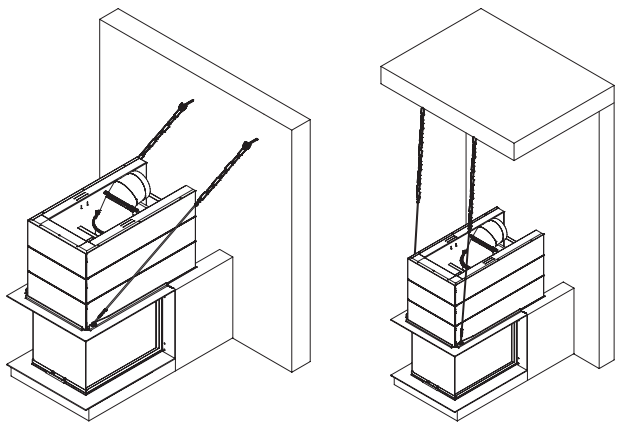
We recommend that insulation material, e.g., fibre glass ceramic or 2 mm fibre glass paper is inserted between the self-supporting frame and the body of the fireplace. This allows minor thermal expansion of the fireplace insert to be compensated.

Hollow chimney breasts with self-supporting frames should always be created with fibre glass grating / expansion joints in order to reduce the risk of expansion cracks!

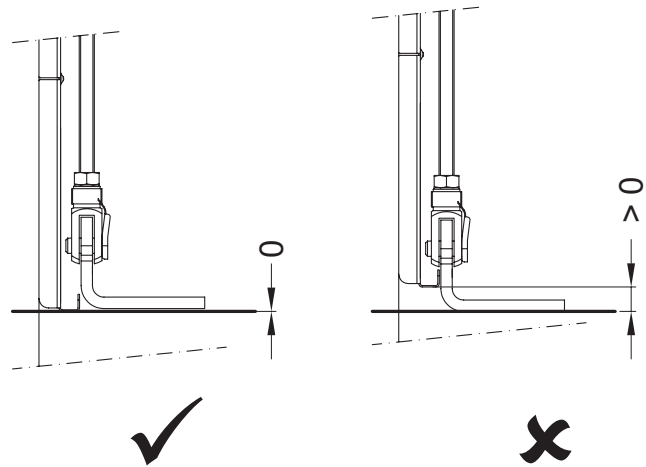




For large and heavy chimney breasts, the self-supporting frame must be fastened on site. For this purpose, the connecting rod must be released from the fireplace insert and secured to the body wall or on the ceiling. You can use e.g., impact anchors in combination with links made of steel for this, depending on the wall construction.
The alignment of the frame should be carried out using a spirit level.



During assembly and creating the chimney breast, take care that the supporting frame and frame are not positioned lower than the door hood of the fireplace insert. For cleaning purposes, check the ability to slide or pivot the loading door. **The loading door must be able to be moved freely and open without resistance.**



6.2 EXPANSION GAP BETWEEN THE CASING AND THE FIREPLACE INSERT

There must be no direct connection between the fireplace insert and the casing. An expansion joint must be provided and sealed by means of an appropriate sealing strip. Please note that there must be a minimum distance of 6 mm between the door frame and the fireplace hood/installation frame in order to be able to disassemble the fireplace insert door if necessary (e.g. replace the pane).

6.3 FIREPLACE MANTEL

A fireplace mantel must never be connected directly to the fireplace insert. The apron must be self-supporting. Please note that there must be a minimum distance of 6 mm between the door frame and the fireplace hood/ installation frame in order to be able to disassemble the fireplace insert door if necessary (e.g. replace the pane).

6.4 CONNECTING PIECE

The neck tube for the connection piece is on the flue dome of the fireplace insert. The connection to the chimney must be carried out as directly as possible and can be established vertically as well as horizontally. Connection of the chimney must be carried out using a wall lining in the brickwork, or arranged according to the specifications of the flue manufacturer. Connecting pieces for house chimneys are made to shape from fire-clay or steel piping (2 mm sheet steel according to DIN 1623, DIN 1298 and DIN EN 1856 is normally used).

NOTE
Requirements to the connecting piece in accordance with DIN 18160 Part 2.

6.5 HEAT DISSIPATION

Since it is possible to have different installation configurations with our fireplace inserts, it is essential to consult a professional company when planning a fireplace setup.. Make sure that the level of heat dissipation is sufficient. This can be achieved by using convection air ducts in the cladding, via heat-dissipating cladding elements or using a combination of both.

6.5.1 HOT AIR SYSTEMS

Fireplace systems designed to transfer heat generated by convection (stoves, fireplaces, etc.) must comply with the following points:

- The cross-section for the air inlet opening and for the air outlet opening must be obtained from the technical data. Deviating cross-sections are possible on calculated verification.
- It must not be possible to close at least 50% of the air inlet and air outlet openings.
- Convection air jackets must be attached at all four connecting stubs. It must not be possible to close the air inlet and air outlet openings.
- Air circuit pipes must be manufactured from a non-flammable, non-deformable material.
- No flammable objects or materials (wooden ceiling components, furniture) may be positioned within an area 30 cm to the side of, and 50 cm above the system hot air discharge grilles.

6.5.2 FIREPLACE SYSTEMS WITH A CLAY LINED CHIMNEY

Spartherm fireplace inserts that are tested according to EN 13229 are suitable to connect to a clay lined chimney. The dimensioning and the layout of clay lined chimney must be carried out according to applicable set of rules.

Make sure the clay lined chimney has the right dimensions and creates suffient draft in combination with the fireplace insert.

The stove fitter must inform the operator about the mode of operation and the correct handling of the fireplace system.

6.5.3 CLOSED FIREPLACE SYSTEM CASING

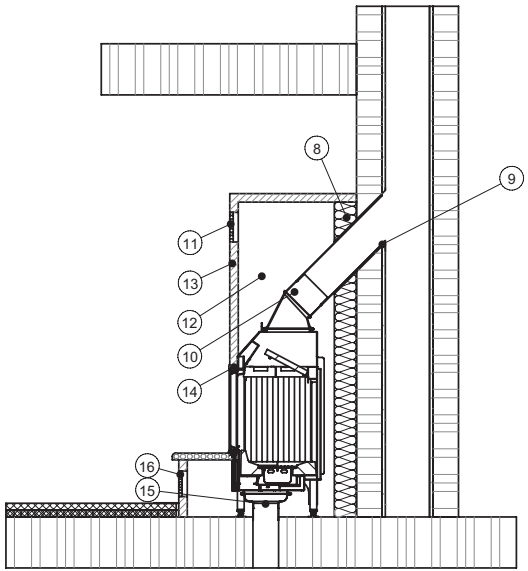
Systems, in which heat dissipation is transmitted across the external surfaces of the fireplace (stoves, hypo-caustic units, devices with closeable convection air openings, etc.), i.e. to the surroundings via radiation from the casing surfaces, must comply with the following:

- The fireplace system must be designed and installed in accordance with KL industry specifications (TR OL 2006).
- We recommend the use of sufficient storage material (e.g. Magnetherm), in order to guarantee optimal heating and prevent over-heating due to temperature peaks.
- Stove dimensions, i.e. the size of the heat-transmitting surfaces, will be dependent on thermal output and heating requirements!
- Fireplace casing components must be selected to meet the heightened requirements.
- The installer is obliged to inform the operator (preferably in writing) of any special constructional or operating features. The amount of wood used must correspond to the heat-transmitting properties of the surface and the storage capacity of the storage medium (as a general rule, the fire should not need refuelling more than 2 - 3 times per day).
- It is recommended, that contacting surfaces manufactured from flammable substances be protected by ventilation.
- In systems fitted with sliding firebox doors, the guide roller and bearing temperature must not exceed 270°C. Wherever possible, the area around the fireplace insert should be insulated separately by means of moveable mechanical components.
- When fitting components, ensure that the manufacturer's installation guidelines are strictly adhered to, especially in respect of allowable operating or ambient temperature and (wherever possible) accessibility.

7. GENERAL INSTALLATION INSTRUCTIONS FOR INSTALLATION SPACES MADE FROM NON-COMBUSTIBLE CONSTRUCTION MATERIALS

Important note: fireplace inserts must not be mounted on floating floor screed, these must be mounted on composite screed with sufficient load-bearing capacity. There must be a cleaning opening for the exhaust pipe in the chimney cladding and with the respective products, water, heating and power connections must be provided!

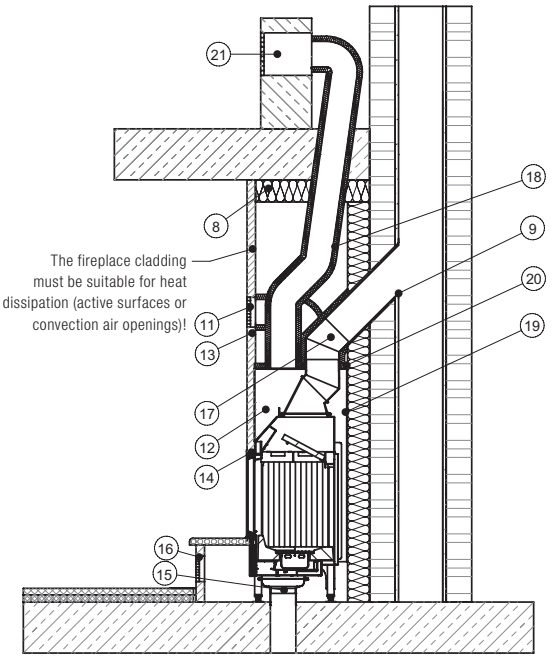
7.1 FLOORS AND WALLS



The figure shows the installation situation using the Varia 1V-51-4S as an example and applies as an example for all fireplace inserts.

8 Insulation of the heating chamber according to the heat insulation technical data.
9 If necessary, wall sleeve with sealing cord
10 Exhaust pipe (connecting piece)
11 Supply air grille (hot are outlet) The position must be selected in such a manner, that a distance of 500 mm is between the top edge of the grille and the ceiling..
12 Chimney breast
13 Chimney system cladding made from non-combustible construction material
14 Mounting frame with insulation strips
15 Separate combustion air connection
16 Air circulation grille (cold air supply)

7.2 FLOORS, WALLS AND CEILING

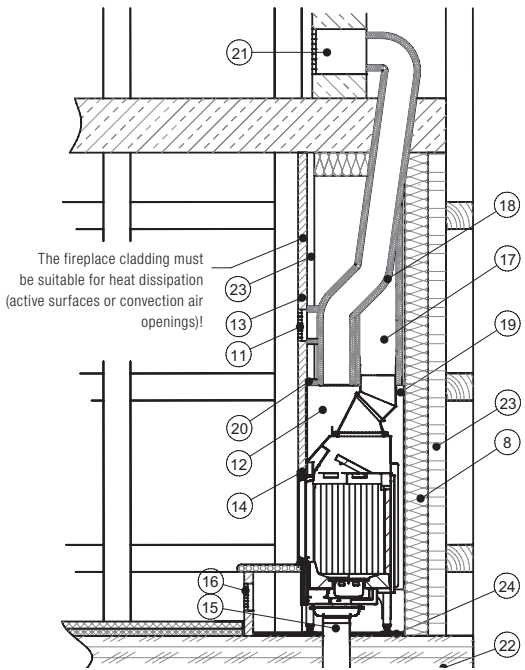


The figure shows the installation situation using the Varia 1V-51-4S as an example and applies as an example for all fireplace inserts.

8 Insulation of the heating chamber all-round according to the heat insulation technical data.
9 If necessary, wall sleeve with sealing cord
11 Supply air grille (hot are outlet) The position must be selected in such a manner, that a distance of 500 mm is between the top edge of the grille and the ceiling.
12 Chimney breast
13 Chimney cladding made from non-combustible construction material
14 Mounting frame with insulation strips
15 Separate combustion air connection
16 Air circulation grille (cold air supply)
17 Insulated flue gas pipe (connecting piece) with at least 3 cm thick dimensionally stable mineral wool
18 Insulation of the connecting lines with at least 3 cm thick dimensionally stable mineral wool
19 Convection air housing
20 Top insulation of the convection air housing min. 3 cm
21 Observe the air return!

8. GENERAL INSTALLATION INSTRUCTIONS FOR INSTALLATION SPACES MADE FROM COMBUSTIBLE CONSTRUCTION MATERIALS

8.1 FLOORS, WALLS AND CEILING



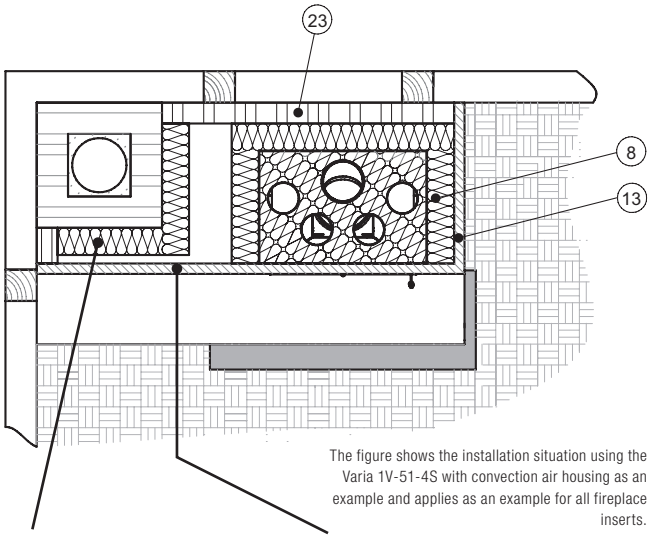
The figure shows the installation situation using the Varia 1V-51-4S with convection air housing as an example and applies as an example for all fireplace inserts.

8 Insulation of the heating chamber using, e.g., dimensionally stable mineral wool according to the heat insulation thickness technical data.
11 Supply air grille (hot air outlet) The position must be selected in such a manner,that a distance of 500 mm is between the top edge of the grille and the ceiling.
12 Heating chamber
13 Chimney cladding made from non-combustible construction material
14 Mounting frame with insulation strips
15 Separate combustion air connection
16 Air circulation grille (cold air supply)
17 Insulated flue pipe (connecting piece) with at least 3 cm thick dimensionally stable mineral wool
18 Insulation of the connecting lines with at least 3 cm thick dimensionally stable mineral wool
19 Convection air housing made of steel plate
20 Top insulation of the convection air housing min. 3 cm
21 Observe the air return!
22 Combustible construction material (wooden floor)
23 Protective wall, 10 cm thick*
24 Floor protection covering within the heating chamber made from non-combustible material as long as no insulation is necessary according to the heat insulation thickness of the technical data!

* If necessary, use a substitute insulation material (e.g. calcium silicate) in the place of front-mounted masonry and insulation (point 8), in accordance with the technical data provided by the manufacturer.

8.2 INSULATION

Special measures for fire protection with combustible construction materials (flooring and / or mounting walls) relating to the insulation.



The figure shows the installation situation using the Varia 1V-51-4S with convection air housing as an example and applies as an example for all fireplace inserts.

If and how the chimney walls in your installation situation have to be insulated, please consult your responsible stove fitter and the chimney sweeper.

The fireplace cladding must be suitable for heat dissipation (active surfaces or convection air openings)!

8 Insulation of the convection air housing all-around using, e.g., dimensionally stable mineral wool according to the heat insulation thickness technical data.
13 Chimney cladding made from non-combustible construction material
23 Stud wall, 10 cm thick*

* If necessary, use a substitute insulation material (e.g. calcium silicate) in the place of front-mounted masonry and insulation (point 8), in accordance with the technical data provided by the manufacturer.

9. CLEANING THE FIREPLACE SYSTEMS

Fireplace systems must be designed in such a manner that the air inlets and air outlets can easily be cleaned and the distance area to the ceiling, the walls and built-in furniture can be viewed easily and kept free. The service openings must always be installed easy to access so that cleaning is not made difficult.

10. SPECIAL INFORMATION FOR SPARTHERM FIREPLACE INSERTS

10.1 FLUE GAS OUTLET

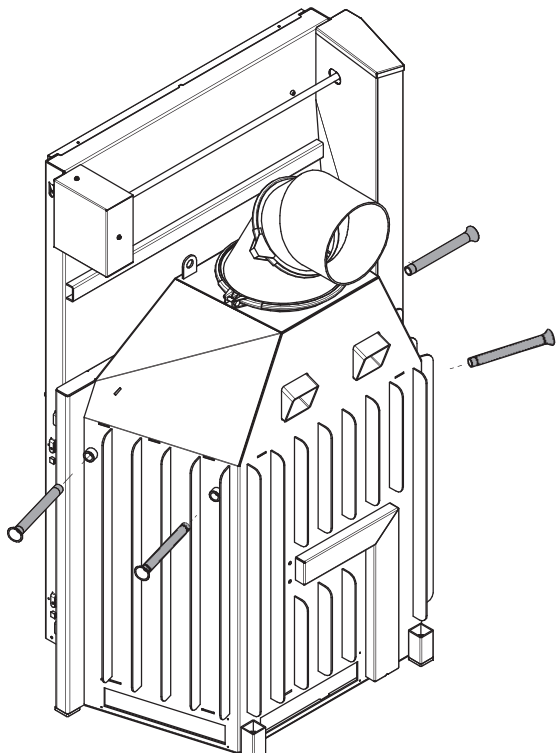
The flue gas outlet can be turned. It can be connected to the chimney vertically as well as horizontally. For connecting to the side, there is a 90° flue gas dome and a favourable 0 degree flue gas dome available in the delivery program.

10.2 FIREPLACE INSERT WITH VERTICAL SLIDING DOOR

Completely remove the transport safety device before installing. Check the function of the sliding loading door before the cladding is mounted on the fireplace insert.

10.3 CARRYING AIDS

Certain fireplace inserts are prepared for the use of carrying aids.



11. TECHNICAL DATA

11.1 **PREMIUM**EDITION

		Premium V-ASh	Premium V-ASh (Export)	Premium V-ASh NSHF	Premium V-2L-80h V-2R-80h	Premium V-2L-80h V-2R-80h (Export)	Premium A-U-70h	Premium A-U-70h (Export)	Premium A-3RL-60h	Premium A-3RL-60h (Export)	Premium A-3RL-80h
General data	Energy efficiency class	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	Nominal heat output kW (closed operation)	7,0	11,0	11,0	10,5	16,8	11,4	15,6	10,0	13,4	11,4
	Thermal output range kW	4,9-9,1	7,7-14,3	7,7-14,3	7,4-13,7	11,8-21,2	8,0-14,8	10,9-20,3	7,0-13,0	9,4-17,4	8,0-14,8
	Efficiency %	>80	80,0	>85	80,0	80,0	>80	>80	>80	>80	80,0
	Required chimney diameter (mm)	180	180	180	250	250	250	250	250	250	250
	Flue gas connection: Ø mm	180	180	180	250	250	250	250	250	250	250
	Possible flue gas connection Ø mm	–	–	–	200	200	200	200	200	200	200
	Weight (approx.) kg	212	212	212	322	322	365	365	321	321	360
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	700	700	700	700	700	700	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	1000/1200	1000/1200	1000/1200	1360/1625	1360/1625	650/1200	650/1200	650/860	650/860	830/990
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	–	–	–	–	–	–	–	–
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Operation with open combustion chamber (multiple allocation not permitted)	Mass flow of flue gas g/s	–	–	–	–	–	–	–	–	–	–
	Flue gas temperature °C	–	–	–	–	–	–	–	–	–	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	–	–	–	–	–	–	–	–
	Required supply pressure: in Pa	–	–	–	–	–	–	–	–	–	–
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	7,0	9,5	9,6	12,2	14,3	11,2	12,0	10,5	10,9	12,6
	Flue gas temperature °C (on the flue gas outlet)	275	340	347 (197 behind NSHF)	272	321	296	321	270	284	296
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12	13	12
	CO_2 %	8,4	9,5	8,8	8,2	10,2	9,6	11,0	8,9	10,3	8,6
	Required diameter after M-FeuVo. cm	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15
	Combustion air requirement m^3/h	25,1	35,4	35,1	38,9	50,3	35,7	42,2	33,7	38,2	39
Heating chamber distance	To the heating chamber wall cm	10	10	10	8	8	8	8	8	8	8
	To the setup floor cm	0	0	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	-	-	0	0	0
	Mounting wall cm	13	13	13	7	7	7	7	7	7	9
	Side wall cm	13	13	13	7	7	–	–	–	–	–
	Ceiling cm	–	–	–	0	0	–	–	0	0	0
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	-	-	0	0	0
	Mounting wall cm	10	10	10	6	6	6	6	6	6	8
	Side wall cm	10	10	10	6	6	–	–	–	–	–
	Ceiling cm	-	-	-	0	0	–	–	0	0	0
Heat distribution	Convection %	59	59	59	46	46	32	32	32	32	35
	Viewing panel %	41	41	41	54	54	68	68	68	68	68
	H_2O %	-	-	-	-	-	-	-	-	-	-

Changes and mistakes reserved

11.2 WOOD BURNING FIREPLACE

		Mini R1V-51	Mini R1V-57	Mini R1V-51 NSHF	Mini R1V-57 NSHF	Mini R1Vh-57	Mini R1Vh-57 NSHF	Mini Z1-51	Mini Z1-57
General data	Energy efficiency class	A+	A+	A+	A+	A+	A+	A	A
	Nominal heat output kW (closed operation)	5,2	5,0	6,2	6,2	5,0	6,2	7,0	7,0
	Thermal output range kW	4,5-6,8	4,5-6,5	4,5-8,1	4,5-8,1	4,5-6,5	4,5-8,1	4,9-9,1	4,9-9,1
	Efficiency %	80	> 80	> 85	> 85	> 80	> 85	>78	>78
	Required chimney diameter (mm)	160	160	160	160	160	160	180	180
	Flue gas connection: Ø mm	160	160	160	160	160	160	180	180
	Possible flue gas connection Ø mm	–	–	–	–	–	–	–	–
	Weight (approx.) kg	125	126	125	126	150	150	160	160
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	–	–	700	–	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	780/850	780/650	970/930	970/930	780/650	970/930	950/1140	950/1140
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	–	–	–	–	✓	✓
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓	✓	✓	✓	✓	✓
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	–	–	–	–	–	–	20,9	20,9
	Flue gas temperature °C	–	–	–	–	–	–	240	240
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	–	–	–	–	60,1	60,1
	Required supply pressure: in Pa	–	–	–	–	–	–	12	12
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	4,7	4,0	6,0	5,0	4,0	5,0	7,5	7,5
	Flue gas temperature °C (on the flue gas outlet)	358	334	355 (164 behind NSHF)	355 (193 behind NSHF)	334	355 (193 behind NSHF)	330	330
	Required supply pressure: in Pa	12	12	12	12	12	12	14	14
	CO_2 %	9,8	11,3	8,0	10,0	11,3	10,0	8,6	8,6
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	16,2	13,4	21,4	17,2	13,4	17,2	25,5	25,5
Heating chamber distance	to the heating chamber wall cm	9	9	11	11	9	11	10	10
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	12	12	12	12	12	12	8	8
	Side wall cm	12	12	12	12	12	12	8	8
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	9	9	9	9	9	9	6	6
	Side wall cm	9	9	9	9	9	9	6	6
	Ceiling cm	–	–	–	–	–	–	–	–
Heat distribution	Convection %	62	60	62	60	60	60	68	68
	Viewing panel %	38	40	38	40	40	40	32	32
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Mini Z1-51 NSHF	Mini Z1-57 NSHF	Mini S	Mini Sh	Speedy 1V-51	Speedy 1V-57	Speedy 1V-51 NSHF	Speedy 1V-57 NSHF	Speedy 1V-51 (Export)	Speedy 1V-57 Export)	Speedy 1Vh-51	Speedy 1Vh-57	Speedy 1Vh-51 NSHF	Speedy 1Vh-57 NSHF
A+	A+	A	A	A+	A+	A+	A	A	A	A+	A+	A+	A+
10,0	10,0	7,0	7,0	9,0	9,0	10,0	10,0	14,5	14,5	9,0	9,0	10,0	10,0
7,0-13,0	7,0-13,0	4,9-9,1	4,9-9,1	6,3-11,7	6,3-11,7	7,0-13,0	7,0-13,0	10,2-18,9	10,2-18,9	6,3-11,7	6,3-11,7	7,0-13,0	7,0-13,0
>85	>85	>78	>78	80	80	> 85	> 85	> 78	>78	80	80	> 85	> 85
180	180	180	180	200	200	200	200	200	200	200	200	200	200
180	180	180	180	200	200	200	200	200	200	200	200	200	200
–	–	–	–	180	180	180	180	180	180	180	180	180	180
160	165	205	205	200	200	200	200	200	200	230	235	230	235
–	–	700	700	700	700	–	–	700	700	700	700	700	–
1360/1640	1360/1640	810/980	810/980	1420/1710	1420/1710	1420/1710	1420/1710	1420/1710	1420/1710	1420/1710	1420/1710	1420/1710	1420/1710
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
–	–	✓	✓	–	–	–	–	–	–	–	–	–	–
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓*	✓*	✓	✓	✓	✓	✓*	✓*	✓	✓	✓	✓
–	–	17,8	17,8	–	–	–	–	–	–	–	–	–	–
–	–	230	230	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	85,8	85,8	–	–	–	–	–	–	–	–	–	–
–	–	12	12	–	–	–	–	–		–	–	–	–
7,6	7,6	8,8	8,8	7,2	7,5	9,3	8,8	10,9	10,2	7,2	7,5	9,3	8,8
470 (240 behind NSHF)	470 (240 behind NSHF)	290	290	342	299	391 (163 behind NSHF)	392 (170 behind NSHF)	346	327	342	299	391 (163 behind NSHF)	392 (170 behind NSHF)
14	14	14	14	12	12	12	12	12	12	12	12	12	12
11,1	11,1	7,9	7,9	12,2	11,7	9,4	10,0	12,2	13,2	12,2	11,7	9,4	10,0
15	15	15	15	15	15	15	15	15	15	15	15	15	15
17,2	17,2	27,6	27,6	21,1	23,4	29,8	27,7	36,8	34,0	21,1	23,4	29,8	27,7
11	11	9	9	10	10	10	10	10	10	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	8	8	8	16	16	16	16	16	16	16	16	16	16
8	8	8	8	16	16	16	16	16	16	16	16	16	16
–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	10	10	10	10	10	10	10	10	10	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	6	6	6	12	12	12	12	12	12	12	12	12	12
6	6	6	6	12	12	12	12	12	12	12	12	12	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	68	58	58	64	62	64	62	64	62	64	62	64	62
32	32	42	42	36	38	36	38	36	38	36	38	36	38
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

11.2 WOOD BURNING FIREPLACE

		Speedy 1Vh-51 (Export)	Speedy 1Vh-57 (Export)	Varia 1V-51	Varia 1V-57	Varia 1V-51 S	Varia 1V-57 S	Varia 1V-51 (Export)	Varia 1V-57 (Export)
General data	Energy efficiency class	A+	A+	A+	A+	A+	A+	A	A
	Nominal heat output kW (closed operation)	14,5	14,5	11,0	11,0	7,0	7,0	17,5	17,5
	Thermal output range kW	10,2-18,9	10,2-18,9	7,7-14,3	7,7-14,3	4,9-9,1	4,9-9,1	12,3-21,2	12,3-21,2
	Efficiency %	> 78	>78	>80	>80	> 80	> 80	>78	>78
	Required chimney diameter (mm)	200	200	200	200	200	200	200	200
	Flue gas connection: Ø mm	200	200	200	200	200	200	200	200
	Possible flue gas connection Ø mm	180	180	180	180	180	180	180	180
	Weight (approx.) kg	230	235	200	205	200	205	200	205
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	700	700	700	700	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	1420/1710	1420/1710	1420/1710	1420/1710	900/1090	900/1090	1420/1710	1420/1710
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	–	–	–	–	–	–
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓*	✓*	–	✓	✓	✓	–	✓*
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	–	–	–	–	–	–	–	–
	Flue gas temperature °C	–	–	–	–	–	–	–	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	–	–	–	–	–	–
	Required supply pressure: in Pa	–	–	–	–	–	–	–	–
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	10,9	10,2	9,6	9,0	5,6	5,6	13,1	13,4
	Flue gas temperature °C (on the flue gas outlet)	346	327	288	305	300	300	330	333
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12
	CO_2 %	12,2	13,2	10,9	11,8	10,3	10,3	12,2	12,1
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	36,8	34,0	36,1	36,1	19,9	19,9	44,7	45,3
Heating chamber distance	to the heating chamber wall cm	10	10	10	10	7	7	10	10
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	16	16	13	11	13	13	13	11
	Side wall cm	16	16	13	13	13	13	13	13
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	12	12	10	9	10	10	10	9
	Side wall cm	12	12	10	10	10	10	10	10
	Ceiling cm	–	–	–	–	–	–	–	–
Heat distribution	Convection %	64	62	65	62	65	65	65	62
	Viewing panel %	36	38	35	38	35	35	35	38
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Varia 1Vh-45	Varia 1Vh-51	Varia 1Vh-57	Varia 1Vh-45 S	Varia 1Vh-51 S	Varia 1Vh-57 S	Varia 1Vh-51 (Export)	Varia 1Vh-57 (Export)	Varia 1V-100h	Varia 1V-100h (Export)	Varia Sh	Varia AS	Varia AS NSHF	Varia AS (Export)
A+	A+	A+	A	A+	A+	A+	A+	A+	A	A	A	A+	A+
11,0	11,0	11,0	7,0	7,0	7,0	17,5	17,5	10,4	17,0	11,0	7,0	11,0	11,0
7,7-14,3	7,7-14,3	7,7-14,3	4,9-9,1	4,9-9,1	4,9-9,1	12,3-21,2	12,3-21,2	7,3-13,5	11,9-21,2	7,7-14,3	4,9-9,1	7,7 - 14,3	7,7 - 14,3
>78	>80	>80	> 80	> 80	> 80	>78	>78	80	80	80	> 80	> 85	> 80
200	200	200	200	200	200	200	200	250	250	200	180	180	180
200	200	200	200	200	200	200	200	250	250	200	180	180	180
180	180	180	180	180	180	180	180	200	200	180	-	-	-
220	245	250	220	245	250	245	268	351	351	272	171	171	171
700	700	700	700	700	700	700	700	700	700	700	700	700	700
1430/1720	1420/1710	1420/1710	900/1090	900/1090	900/1090	1420/1710	1420/1710	1200/1500	1200/1500	750/900	1000/1200	1000/1200	1000/1200
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	–	–	–	–	–	–	–	–	–	–	✓	–	–
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
–	–	✓	✓	✓	✓	–	✓*	✓	✓	✓	✓	✓	✓
43,1	–	–	–	–	–	–	–	–	–	–	103	–	–
236	–	–	–	–	–	–	–	–	–	–	117	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
72,8	–	–	–	–	–	–	–	–	–	–	88,9	–	–
8	–	–	–	–	–	–	–	–	–	–	11	–	–
10,0	9,6	9,0	5,6	5,6	5,6	13,1	13,4	11,4	15,9	9,5	7,0	9,6	9,5
355	288	305	300	300	300	330	333	275	319	300	275	347 (197 behind NSHF)	340
11	12	12	12	12	12	12	12	12	13	11	12	12	12
9,5	10,9	11,8	10,3	10,3	10,3	12,2	12,1	7,9	9,3	10,1	8,4	8,8	9,5
15	15	15	15	15	15	15	15	15	15	15	15	15	15
36,0	36,1	36,1	19,9	19,9	19,9	44,7	45,3	40	55,7	33,1	24,9	35,1	34,5
11	10	10	7	7	7	10	10	10	10	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	13	11	13	13	13	13	11	12	12	11	13	13	13
13	13	13	13	13	13	13	13	12	12	8	13	13	13
–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	10	10	10	10	10	10	10	10	10	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	10	9	10	10	10	10	9	9	9	9	10	10	10
10	10	10	10	10	10	10	10	9	9	6	10	10	10
–	–	–	–	–	–	–	–	–	–	–	–	–	0
65	65	62	65	65	65	65	62	61	61	57	59	59	59
35	35	38	35	35	35	35	38	39	39	43	41	41	41
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

11.2 WOOD BURNING FIREPLACE

		Varia ASh	Varia ASh NSHF	Varia ASh (Export)	Varia Ah	Varia Ah-2	Varia Bh	Varia Bh S	Varia B-120h
General data	Energy efficiency class	A+	A+	A+	A+	A+	A	A	A
	Nominal heat output kW (closed operation)	7,0	11,0	11,0	10,4	9,0	10,4	9,0	15,0
	Thermal output range kW	4,9-9,1	7,7 - 14,3	7,7 - 14,3	7,3-13,5	6,3-11,7	7,3-13,5	6,3-11,7	10,5-19,5
	Efficiency %	> 80	> 85	> 80	> 80	> 80	>78	>78	78
	Required chimney diameter (mm)	180	180	180	200	200	250	250	250
	Flue gas connection: Ø mm	180	180	180	200	200	250	250	250
	Possible flue gas connection Ø mm	-	-	-	180	180	200	200	-
	Weight (approx.) kg	212	212	212	300	306	350	350	370
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	700	700	700	700	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	1000/1200	1000/1200	1000/1200	1410/1690	990/1190	1270/1520	1270/1520	1600/1910
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	✓	–	–	✓	–	–	–	–
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓	✓	–	✓*	✓*	✓*
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	103	–	–	36,2	13,7	–	–	–
	Flue gas temperature °C	117	–	–	260	168	–	–	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	88,9	–	–	126,2	124,4	–	–	–
	Required supply pressure: in Pa	11	–	–	12	12	–	–	–
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	7,0	9,6	9,5	8,5	9,0	9,5	8,5	15,4
	Flue gas temperature °C (on the flue gas outlet)	275	347 (197 behind NSHF)	340	310	267	311	278	296
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12
	CO_2 %	8,4	8,8	9,5	11,1	9,0	10,3	9,7	8,9
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	2x15
	Combustion air requirement m^3/h	24,9	35,1	34,5	28,5	30,1	31,4	28,7	52,6
Heating chamber distance	to the heating chamber wall cm	10	10	10	8	8	6	6	10
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	0	0	12
	Mounting wall cm	13	13	13	13	13	13	13	16
	Side wall cm	13	13	13	13	11	8	8	16
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	0	0	9
	Mounting wall cm	10	10	10	10	10	10	10	12
	Side wall cm	10	10	10	10	9	6	6	12
	Ceiling cm	–	–	–	–	–	–	–	–
Heat distribution	Convection %	59	59	59	64	55	53	53	53
	Viewing panel %	41	41	41	36	45	47	47	47
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Varia M-60h	Varia M-80h	Varia M-100h	Varia M-60h GET	Varia M-60h GET+DH	Varia M-80h GET	Varia M-80h GET + DH	Varia M-100h GET	Varia M-100h GET + DH	Arte 1Vh-66	Arte 1Vh-66 NSHF	Arte 1Vh-66 (Export)	Arte Bh	Arte Xh
A	A	A	A+	A+	A+	A+	A+	A+	A+	A+		A	A
7,0	9,0	11,0	8,0	8,0	9,0	9,0	10,4	10,4	6,6	10,4	14,0	11,0	11,0
4,9-9,1	6,3-11,7	7,7-14,3	5,6-10,4	5,6-10,4	6,3-11,7	6,3-11,7	7,3-13,5	7,3-13,5	4,6-8,6	7,3-13,5	9,8-18,2	7,7-14,3	7,7-14,3
>78	>78	>78	80	80	> 80	> 80	80	80	> 85	> 85	> 80	> 78	> 78
200	200	200	180	180	180	180	180	180	180	180	180	200	250
200	200	200	180	180	180	180	180	180	180	180	180	200	250
180	180	180	–	–	–	–	–	–	–	–	–	180	–
205	291	350	260	290	225	255	350	380	243	243	243	260	433
700	700	700	–	–	–	–	–	–	700	–	700	700	700
870/1050	1090/1310	1300/1560	930/1250	930/1250	950/1130	950/1130	860/1415	860/1415	770/970	770/970	770/970	1230/1480	1320/1580
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	–	–	–	–	–	–	–	–	–	✓	✓
✓	✓	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓*	✓*	✓*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓*	✓*
22,8	21,7	45,8	–	–	–	–	–	–	–	–	–	22,4	28,5
250	230	230	–	–	–	–	–	–	–	–	–	260	250
–	–	–	–	–	–	–	–	–	–	–	–	–	–
85,8	115,6	145,5	–	–	–	–	–	–	–	–	–	151,3	195,3
12	10	12	–	–	–	–	–	–	–	–	–	10	10
6,8	9,1	11,9	7,3	7,3	7,0	7,0	8,7	8,7	5,0	9,7	11,9	10,7	11,6
330	310	340	311	311	279	279	308	308	241	292 (169 behind NSHF)	322	350	300
12	12	12	12	12	12	12	12	12	12	12	12	12	12
9,9	8,9	8,5	9,3	9,3	11,4	11,4	11,0	11,0	11,6	8,2	10,3	9,7	8,6
15	15	15	15	15	15	15	15	15	15	15	15	15	15
22,1	31,6	40,0	26,2	26,2	23,7	23,7	28,8	28,8	15,9	34,9	40,9	35,2	39,8
7	8	9	6	6	6	6	6	6	6	6	6	11	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	4
11	11	8	**	0	**	0	**	0	10	10	13	11	11
11	11	8	**	0	**	0	**	0	10	10	13	11	11
–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	10	10	**	0	**	0	**	0	10	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	3
9	9	6	**	0	**	0	**	0	8	8	10	9	9
9	9	6	**	0	**	0	**	0	8	8	10	9	9
–	–	–	–	–	–	–	–	–	–	–	–	–	–
62	60	59	57	57	53	53	51	51	76	76	76	56	60
38	40	41	43	43	47	47	49	49	24	24	24	44	40
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

** Deviating insulation guidelines apply for GET fireplace inserts.
This can be obtained from the separate GET manual.

11.2 WOOD BURNING FIREPLACE

		Mini S-FDh-51	Mini S-FDh-57	Varia FD-51	Varia FD-57	Varia FDh-51	Varia FDh-57	Varia AS-FD	Varia AS-FD NSHF
General data	Energy efficiency class	A	A	A+	A+	A+	A+	A+	A+
	Nominal heat output kW (closed operation)	6,0	6,0	11,6	11,6	11,6	11,6	7,0	11,0
	Thermal output range kW	4,5-7,8	4,5-7,8	8,1 - 15,1	8,1 - 15,1	8,1 - 15,1	8,1 - 15,1	4,9-9,1	7,7 - 14,3
	Efficiency %	> 78	> 78	80	80	80	80	> 80	> 85
	Required chimney diameter (mm)	200	200	250	250	250	250	180	180
	Flue gas connection: Ø mm	200	200	250	250	250	250	180	180
	Possible flue gas connection Ø mm	180	180	–	–	–	–	–	–
	Weight (approx.) kg	266	266	213	213	265	265	171	171
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	700	700	700	700	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	640/770	640/770	1060/1270	1060/1270	1060/1270	1060/1270	800/1000	800/1000
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	✓	✓	–	–	–	–	–	–
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓*	✓*	✓	✓	✓	✓	✓	✓
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	23,8	23,8	–	–	–	–	–	–
	Flue gas temperature °C	280	280	–	–	–	–	–	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	171,5	196,3	–	–	–	–	–	–
	Required supply pressure: in Pa	9	9	–	–	–	–	–	–
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	5,4	5,4	12,3	12,3	12,3	12,3	6,1	9,9
	Flue gas temperature °C (on the flue gas outlet)	360	360	305	305	305	305	290	272 (142 behind NSHF)
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12
	CO_2 %	10,0	10,0	8,9	8,9	8,9	8,9	9,2	8,4
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	18,7	18,7	39,6	39,6	39,6	39,6	24,9	35,3
Heating chamber distance	to the heating chamber wall cm	7	7	6	6	6	6	6	6
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	4	4	0	0	0	0	0	0
	Mounting wall cm	–	–	–	–	–	–	–	–
	Side wall cm	11	11	7	7	7	7	11	11
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	3	3	0	0	0	0	0	0
	Mounting wall cm	0	0	0	0	0	0	0	0
	Side wall cm	9	9	6	6	6	6	9	9
	Ceiling cm	–	–	–	–	–	–	–	–
Heat distribution	Convection %	53	51	48	48	48	48	59	59
	Viewing panel %	47	49	52	52	52	52	41	41
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Varia AS-FD (Export)	Varia AS-FDh	Varia AS-FDh NSHF	Varia AS-FDh (Export)	Varia A-FDh	Varia B-FDh	Arte X-FDh	Mini 2L-51 / 2R-51	Mini 2L-57 / 2R-57	Mini 2L-51 / 2R-51 (Export)	Mini 2L-57 / 2R-57 (Export)	Mini 2LRh-51	Mini 2LRh-57	Mini 2LRh-51 (Export)
A+	A+	A+	A+	A+	A	A	A+	A+	A	A	A	A	A
11,0	7,0	11,0	11,0	10,4	11,0	11,0	7,0	7,0	11,0	11,0	7,0	7,0	11,0
7,7 - 14,3	4,9-9,1	7,7 - 14,3	7,7 - 14,3	7,3-13,5	7,7-14,3	7,7-14,3	4,9-9,1	4,9-9,1	7,7-14,3	7,7-14,3	4,9-9,1	4,9-9,1	7,7-14,3
> 80	> 80	>80	> 80	>80	>78	>78	80	80	77	77	80	80	77
180	180	180	180	250	250	300	180	180	180	180	180	180	180
180	180	180	180	250	250	300	180	180	180	180	180	180	180
–	–	–	–	–	–	–	–	–	–	–	–	–	–
171	203	203	203	315	341	500	145	145	145	145	165	165	165
700	700	700	700	700	700	700	700	700	700	700	700	700	700
800/1000	800/1000	800/1000	800/1000	1030/1240	1030/1230	1060/1270	750/900	750/900	750/900	750/900	750/900	750/900	750/900
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
–	–	–	–	✓	✓	✓	–	–	–	–	–	–	–
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓*	✓*	✓	✓	–	–	✓	✓	–
–	–	–	–	21,4	23,8	28,5	–	–	–	–	–	–	–
–	–	–	–	240	240	250	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	252,4	285	195,3	–	–	–	–	–	–	–
–	–	–	–	12	10	10	–	–	–	–	–	–	–
6,8	6,1	9,9	6,8	8,9	11,5	11,6	6,2	6,2	10,0	10,0	6,2	6,2	10,0
320	290	272 (142 behind NSHF)	320	300	300	300	343	343	366	366	343	343	366
12	12	12	12	12	12	12	12	12	13	13	12	12	13
9,5	9,2	8,4	9,5	10,2	8,4	8,6	10,3	10,3	9,5	9,5	10,3	10,3	9,5
15	15	15	15	15	2x15	15	15	15	15	15	15	15	15
34,5	24,9	35,3	34,5	30,9	40,3	39,8	20,7	20,7	36,6	36,6	20,7	20,7	36,6
6	6	6	6	8	11	10	10	10	10	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	4	4	0	0	0	0	0	0	0
–	–	–	–	–	–	–	10	10	10	10	10	10	10
11	11	11	11	11	11	11	10	10	10	10	10	10	10
–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	10	10	10	10	10	10	10	10	10	10	10	10	10
0	0	0	0	0	3	3	0	0	0	0	0	0	0
0	0	0	0	0	0	0	8	8	8	8	8	8	8
9	9	9	9	9	9	9	8	8	8	8	8	8	8
–	–	–	–	–	–	–	–	–	–	–	–	–	–
59	59	59	59	47	47	48	54	54	54	54	54	54	54
41	41	41	41	53	53	52	46	46	46	46	46	46	46
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

11.2 WOOD BURNING FIREPLACE

		Mini 2LRh-57 (Export)	Varia 2L-50 / 2R-50	Varia 2L-55 / 2R-55	Varia 2L-50h / 2R-50h	Varia 2L-55h / 2R-55h	Varia 2L / 2R	Varia 2L / 2R S	Varia 2L / 2R NSHF
General data	Energy efficiency class	A	A+	A+	A+	A+	A+	A	A+
	Nominal heat output kW (closed operation)	11,0	7,0	7,0	7,0	7,0	11,0	7,0	12,0
	Thermal output range kW	7,7-14,3	4,9-9,1	4,9-9,1	4,9-9,1	4,9-9,1	7,7-14,3	4,9-9,1	8,4-15,6
	Efficiency %	77	>80	> 80	>80	> 80	80	> 78	80
	Required chimney diameter (mm)	180	180	180	180	180	200	200	200
	Flue gas connection: Ø mm	180	180	180	180	180	200	200	200
	Possible flue gas connection Ø mm	–	–	–	–	–	180	180	180
	Weight (approx.) kg	165	136	170	136	220	210	210	210
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	700	700	700	700	700	-
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	750/900	530/640	860/985	530/640	860/985	1250/1500	750/900	1280/1540
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	✓	–	✓	✓	–	–
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	–	✓	✓	✓	✓	✓	✓*	✓
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	–	–	36,8	–	36,8	21,2	–	–
	Flue gas temperature °C	–	–	170	–	170	270	–	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	161	–	161	176,1	–	–
	Required supply pressure: in Pa	–	–	12	–	12	14	–	–
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	10,0	7,9	6,1	7,9	6,1	9,6	7,7	10,0
	Flue gas temperature °C (on the flue gas outlet)	366	243	325	243	325	330	245	350 (218 behind NSHF)
	Required supply pressure: in Pa	13	12	12	12	12	12	12	12
	CO_2 %	9,5	8,2	10,8	8,2	10,8	10,0	8,3	10,0
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	36,6	25,3	19,7	25,3	19,7	36,5	26,4	33,8
Heating chamber distance	to the heating chamber wall cm	10	8	10	8	10	12	8	13
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	10	7	13	7	13	6	13	6
	Side wall cm	10	7	8	7	8	6	11	6
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	8	6	10	6	10	5	10	5
	Side wall cm	8	6	6	6	6	5	9	5
	Ceiling cm	–	–	–	–	–	–	–	–
Heat distribution	Convection %	54	56	42	56	42	53	53	53
	Viewing panel %	46	44	58	44	58	47	47	47
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Varia 2Lh-51 / 2Rh-51	Varia 2Lh-57 / 2Rh-57	Varia 2Lh-51 / 2Rh-51 S	Varia 2Lh-57 / 2Rh-57 S	Varia 2Lh-51 / 2Rh-51 NSHF	Varia 2Lh-57 / 2Rh-57 NSHF	Varia AS-2Lh / AS-2Rh	Varia AS-2Lh / AS-2Rh (Export)	Varia 2L-80h / 2R-80h	Varia 2L-80h / 2R-80h (Export)	Varia 2L-100h / 2R-100h	Varia 2L-55h / 2R-55h GET	Varia 2L-55h / 2R-55h GET DH	Varia 2LR-55h / 2RR-55h
A+	A+	A	A	A+	A+	A+	A+	A+	A+	A	A+	A+	A+
11,0	11,0	7,0	7,0	12,0	12,0	7,0	11,0	10,4	16,0	11,0	7,0	7,0	7,0
7,7-14,3	7,7-14,3	4,9-9,1	4,9-9,1	8,4-15,6	8,4-15,6	4,9-9,1	7,7-14,3	7,3-13,5	11,2-20,8	7,7-14,3	4,9-9,1	4,9-9,1	4,9-9,1
80	80	> 78	> 78	80	80	80	80	> 80	> 80	>78	> 80	> 80	80
200	200	200	200	200	200	200	200	200	200	250	180	180	180
200	200	200	200	200	200	200	200	200	200	250	180	180	180
180	180	180	180	180	180	180	180	180	180	200	–	–	–
270	270	270	270	270	270	181	181	275	275	280	180	210	200
700	700	700	700	–	–	700	700	700	700	700	–	–	700
1250/1500	1250/1500	750/900	750/900	1280/1540	1280/1540	1200/1400	1200/1400	1200/1400	1200/1400	1120/1350	810/970	810/970	590/700
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	–	–	–	–	–	–	–	–	✓	–	–	–
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓*	✓*	✓	✓	✓	✓	✓	–	✓*	✓	✓	✓
21,2	21,2	–	–	–	–	–	–	–	–	20,2	–	–	–
270	270	–	–	–	–	–	–	–	–	210	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
176,1	176,1	–	–	–	–	–	–	–	–	266,4	–	–	–
14	14	–	–	–	–	–	–	–	–	10	–	–	–
9,6	9,6	7,7	7,7	10,0	10,0	6,6	8,7	9,6	12,9	12,0	6,5	6,5	6,1
330	330	245	245	350 (218 behind NSHF)	350 (218 behind NSHF)	311	349	283	305	280	276	276	325
12	12	12	12	12	12	12	12	12	12	12	12	12	12
10,0	10,0	8,3	8,3	10,0	10,0	11,2	9,7	10,1	10,9	8,2	9,7	9,7	10,8
15	15	15	15	15	15	15	15	15	15	15	15	15	15
36,5	36,5	26,4	26,4	33,8	33,8	19	34,5	31,3	44,7	41,8	22,6	22,6	19,8
12	12	8	8	13	13	10	10	10	10	10	7	7	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	4	0	0	0
6	6	13	13	6	6	11	11	16	16	11	**	0	13
6	6	11	11	6	6	11	11	16	16	11	**	0	8
–	–	–	–	–	–	–	–	–	–	✓	–	–	–
10	10	10	10	10	10	10	10	10	10	10	**	0	10
0	0	0	0	0	0	0	0	0	0	4	0	0	0
5	5	10	10	5	5	9	9	12	12	8	**	0	10
5	5	9	9	5	5	9	9	12	12	8	**	0	7
–	–	–	–	–	–	–	–	–	–	–	–	–	–
53	53	53	53	53	53	58	58	53	53	51	50	50	42
47	47	47	47	47	47	42	42	47	47	49	50	50	58
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

** Deviating insulation guidelines apply for GET fireplace inserts. This can be obtained from the separate GET manual.

11.2 WOOD BURNING FIREPLACE

		Varia 2LRh / 2RRh NSHF	Arte 2LRh-66	Arte 2LRh-66 NSHF	Arte 2LRh-66 (Export)	Varia AS-3RLh	Varia AS-3RLh (Export)	Varia C-45h	Varia Ch
General data	Energy efficiency class	A+	A+	A+	A+	A+	A+	A+	A+
	Nominal heat output kW (closed operation)	12,0	6,4	10,4	12,0	8,4	11,7	8,0	9,0
	Thermal output range kW	8,4-15,6	4,5 - 8,3	7,3-13,5	8,4-15,6	5,9-10,9	8,2 - 15,2	5,6-10,4	6,3-11,7
	Efficiency %	80	> 80	> 85	80	80	80	> 80	80
	Required chimney diameter (mm)	200	180	180	180	200	200	180	250
	Flue gas connection: Ø mm	200	180	180	180	200	200	180	250
	Possible flue gas connection Ø mm	180	–	–	–	–	–	–	200
	Weight (approx.) kg	270	202	202	202	200	200	230	300
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	–	700	–	700	700	700	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	1280/1540	620/750	620/750	620/750	620/750	620/750	1120/1470	890/1070
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	–	–	–	–	–	✓
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓	✓	–	–	✓	✓
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	–	–	–	–	–	–	–	18,4
	Flue gas temperature °C	–	–	–	–	–	–	–	240
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	–	–	–	–	–	199,8
	Required supply pressure: in Pa	–	–	–	–	–	–	–	10
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	10,0	6,6	8,6	9,3	8,9	10,4	7,5	8,8
	Flue gas temperature °C (on the flue gas outlet)	350 (218 behind NSHF)	275	327 (174 behind NSHF)	350	283	305	255	340
	Required supply pressure: in Pa	12	12	13	12	12	12	12	14
	CO_2 %	10,0	9,0	9,2	11,2	8,8	9,5	9,2	9,7
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	33,8	21,1	31	32,7	29	37,6	25,8	28,3
Heating chamber distance	to the heating chamber wall cm	13	8	8	8	6	6	12	8
	To the setup floor cm	0	0	0	0	12	12	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	7	10	10	10	10	10	11	8
	Side wall cm	7	10	10	10	–	–	8	8
	Ceiling cm	–	–	–	–	13	13	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	6	8	8	8	8	8	9	6
	Side wall cm	6	8	8	8	–	–	7	6
	Ceiling cm	–	–	–	–	10	10	–	–
Heat distribution	Convection %	53	63	63	63	40	40	56	52
	Viewing panel %	47	37	37	37	80	80	44	48
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Arte U-50h (Ø 250)	Arte U-50h (Ø 200)	Arte U-70h (Ø 250)	Arte U-70h (Ø 200))	Arte U-90h (Ø 250)	Arte U-90h (Ø 200)	Arte 3RL-60h (Ø 250)	Arte 3RL-60h (Ø 200)	Arte 3RL-80h (Ø 250)	Arte 3RL-80h (Ø 200)	Arte 3RL-100h	Speedy MR-51	Speedy MR-57	Speedy MR-51 S
A+	A+	A	A	A	A	A+	A+	A+	A+	A	A+	A+	A+
9,0	9,0	11,0	11,0	13,0	13,0	7,5	7,5	9,0	9,0	11,0	9,0	9,0	7,0
6,3-11,7	6,3-11,7	7,7-14,3	7,7-14,3	9,1-16,9	9,1-16,9	5,3-9,8	5,3-9,8	6,3-11,7	6,3-11,7	7,7-14,3	6,3-11,7	6,3-11,7	4,9-9,1
80	80	> 78	> 78	> 78	> 78	> 80	> 80	> 80	> 80	> 78	> 80	> 80	> 80
250	250	250	250	250	250	250	250	250	250	250	180	180	180
250	250	250	250	250	250	250	250	250	250	250	180	180	180
200	200	200	200	200	200	200	200	200	200	–	–	–	–
235	235	375	375	393	393	250	250	310	310	380	200	200	200
525	525	700	700	700	700	700	700	700	700	700	700	700	700
630/760	630/760	810/970	810/970	940/1130	940/1130	630/760	630/760	770/920	770/920	930/1110	1110/1330	1110/1330	1110/1330
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
–	–	–	–	–	–	✓	✓	✓	✓	✓	–	–	–
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	ü	✓
✓	✓	✓*	✓*	✓*	✓*	✓	✓	✓	✓	✓*	✓	✓	✓
–	–	–	–	–	–	23,7	23,7	26,5	26,5	40	–	–	–
–	–	–	–	–	–	140	140	155	155	180	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	178,7	178,8	243,5	243,5	314,5	–	–	–
–	–	–	–	–	–	7	7	7	7	12	–	–	–
8,6	8,6	11,3	11,3	13,4	13,4	7,0	7,0	7,3	7,3	10,3	7,1	7,1	6,2
310	310	310	310	310	310	310	310	335	335	360	360	360	341
12	12	12	12	12	12	12	12	12	12	12	12	12	12
9,3	9,3	9,2	9,2	9,2	9,2	9,3	9,3	10,1	10,1	9,8	11,7	11,7	9,9
15	15	15	15	15	15	15	15	15	15	15	15	15	15
29,5	29,5	37,1	37,1	44,0	44,0	23,4	23,4	26,8	26,8	35	23,3	23,3	21,6
8	8	9	9	10	10	5	5	5	5	10	10	10	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	4	4	4	4	0	0	0	0	4	0	0	0
5	5	8	8	8	8	8	8	8	8	11	8	8	8
5	5	5	5	5	5	8	8	8	8	11	8	8	8
–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	10	10	10	10	10	10	10	10	10	10	10	10	10
0	0	3	3	3	3	0	0	0	0	3	0	0	0
4	4	6	6	6	6	6	6	6	6	9	6	6	6
4	4	4	4	4	4	6	6	6	6	9	6	6	6
–	–	–	–	–	–	–	–	–	–	–	–	–	–
35	35	37	37	36	36	42	42	43	43	42	60	60	60
65	65	63	63	64	64	58	58	57	57	58	40	40	40
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

11.2 WOOD BURNING FIREPLACE

		Speedy MR-57 S	Speedy MRh-51	Speedy MRh-57	Speedy MRh-51 S	Speedy MRh-57 S	Speedy R-51	Speedy R-57	Speedy R-51 NSHF
General data	Energy efficiency class	A+	A+	A+	A+	A+	A	A	A+
	Nominal heat output kW (closed operation)	7,0	9,0	9,0	7,0	7,0	9,0	9,0	10,0
	Thermal output range kW	4,9-9,1	6,3-11,7	6,3-11,7	4,9-9,1	4,9-9,1	6,3-11,7	6,3-11,7	7,0-13,0
	Efficiency %	80	> 80	> 80	> 80	> 80	78	78	> 80
	Required chimney diameter (mm)	180	180	180	180	180	200	200	200
	Flue gas connection: Ø mm	180	180	180	180	180	200	200	200
	Possible flue gas connection Ø mm	–	–	–	–	–	180	180	180
	Weight (approx.) kg	200	240	240	240	240	190	190	190
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	700	700	700	700	700	700	700	–
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	1110/1330	1110/1330	1110/1330	1110/1330	1110/1330	780/930	780/930	1040/1250
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	–	–	–	✓	✓	–
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓	✓	✓	✓*	✓*	✓
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	–	–	–	–	–	26,4	26,4	–
	Flue gas temperature °C	–	–	–	–	–	257	257	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	–	–	–	105,2	105,2	–
	Required supply pressure: in Pa	–	–	–	–	–	12	12	–
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	6,2	7,1	7,1	6,2	6,2	9,2	9,2	10,7
	Flue gas temperature °C (on the flue gas outlet)	341	360	360	341	341	336	336	430 (233 behind NSHF)
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12
	CO_2 %	9,9	11,7	11,7	9,9	9,9	9,2	9,2	7,5
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	21,6	23,3	23,3	21,6	21,6	30,6	30,6	39,6
Heating chamber distance	to the heating chamber wall cm	10	10	10	10	10	11	11	9
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	3	3	3
	Mounting wall cm	8	8	8	8	8	5	5	5
	Side wall cm	8	8	8	8	8	5	5	5
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	0	0	0	3	3	3
	Mounting wall cm	6	6	6	6	6	4	4	4
	Side wall cm	6	6	6	6	6	4	4	4
	Ceiling cm	–	–	–	–	–	–	–	–
Heat distribution	Convection %	60	60	60	60	60	52	52	52
	Viewing panel %	40	40	40	40	40	48	48	48
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Speedy R-57 NSHF	Speedy Rh-51	Speedy Rh-57	Speedy Rh-51 NSHF	Speedy Rh-57 NSHF	Speedy Ph	Magic	Speedy MDRh	Speedy M-51	Speedy M-57	Speedy M-51 NSHF	Speedy M-57 NSHF	Speedy Mh-51	Speedy Mh-57
A+	A	A	A+	A+	A+	A+	A	A+	A+	A+	A+	A+	A+
10,0	9,0	9,0	10,0	10,0	7,0	12,0	9,0	8,0	8,0	9,0	9,0	8,0	8,0
7,0-13,0	6,3-11,7	6,3-11,7	7,0-13,0	7,0-13,0	4,9-9,1	8,4-15,6	6,3-11,7	5,6-10,4	5,6-10,4	6,3-11,7	6,3-11,7	5,6-10,4	5,6-10,4
> 80	78	78	> 80	> 80	> 80	80	>78	> 80	> 80	> 80	> 80	> 80	> 80
200	200	200	200	200	160	180	200	180	180	180	180	180	180
200	200	200	200	200	160	180	200	180	180	180	180	180	180
180	180	180	180	180	–	–	180	–	–	–	–	–	–
190	210	210	210	210	210	295	300	180	180	190	190	210	210
–	700	700	–	–	700	700	700	700	700	–	–	700	700
1040/1250	780/930	780/930	1040/1250	1040/1250	630/750	260/430	810/980	830/990	830/990	920/1100	920/1100	830/990	830/990
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
–	✓	✓	–	–	–	–	✓	–	–	–	–	–	–
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓*	✓*	✓	✓	–	✓	✓*	✓	✓	✓	✓	✓	✓
–	26,4	26,4	–	–	–	–	28,4	–	–	–	–	–	–
–	257	257	–	–	–	–	210	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	105,2	105,2	–	–	–	–	161,2	–	–	–	–	–	–
–	12	12	–	–	–	–	10	–	–	–	–	–	–
10,7	9,2	9,2	10,7	10,7	5,7	9,0	9,4	5,4	5,4	8,8	8,8	5,4	5,4
430 (233 behind NSHF)	336	336	430 (233 behind NSHF)	430 (233 behind NSHF)	290	370	310	324	324	330 (240 behind NSHF)	330 (240 behind NSHF)	324	324
12	12	12	12	12	12	11	12	12	12	12	12	12	12
7,5	9,2	9,2	7,5	7,5	10,5	11,6	9,2	13,1	13,1	9,1	9,1	13,1	13,1
15	15	15	15	15	15	15	15	15	15	15	15	15	15
39,6	30,6	30,6	39,6	39,6	20,1	31,6	30,4	18,2	18,2	29,1	29,1	18,2	18,2
9	11	11	9	9	9	9	12	12	12	13	13	12	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	3	3	3	0	0	11	0	0	0	0	0	0
5	5	5	5	5	6	11	11	12	12	8	8	12	12
5	5	5	5	5	6	0	11	12	12	8	8	12	12
–	–	–	–	–	–	–	–	–	–	–	–	–	–
10	10	10	10	10	10	10	10	10	10	10	10	10	10
3	3	3	3	3	0	0	9	0	0	0	0	0	0
4	4	4	4	4	5	9	9	9	9	6	6	9	9
4	4	4	4	4	5	0	9	9	9	6	6	9	9
–	–	–	–	–	–	–	–	–	–	–	–	–	–
52	52	52	52	52	40	47	45	51	51	51	51	51	51
48	48	48	48	48	60	53	55	49	49	49	49	49	49
0	0	0	0	0	0	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

11.2 WOOD BURNING FIREPLACE

		Speedy Mh-51 NSHF	Speedy Mh-57 NSHF	Speedy K-51	Speedy K-57	Speedy K-51 NSHF	Speedy K-57 NSHF	Speedy Kh-51	Speedy Kh-57
General data	Energy efficiency class	A+	A+	A	A	A+	A+	A	A
	Nominal heat output kW (closed operation)	9,0	9,0	9,0	9,0	10,0	10,0	9,0	9,0
	Thermal output range kW	6,3-11,7	6,3-11,7	6,3-11,7	6,3-11,7	7,0-13,0	7,0-13,0	6,3-11,7	6,3-11,7
	Efficiency %	> 80	> 80	78	78	> 80	> 80	78	78
	Required chimney diameter (mm)	180	180	200	200	200	200	200	200
	Flue gas connection: Ø mm	180	180	200	200	200	200	200	200
	Possible flue gas connection Ø mm	–	–	180	180	180	180	180	180
	Weight (approx.) kg	190	190	190	190	190	190	220	220
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	–	–	700	700	–	–	700	700
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	920/1100	920/1100	1120/1340	1120/1340	1240/1490	1240/1490	1120/1340	1120/1340
Testing and values	Non-self-closing combustion chamber door (Design A)	✓	✓	✓	✓	✓	✓	✓	✓
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open combustion chamber door	–	–	✓	✓	–	–	✓	✓
	Level 2 BImSchV [Ordinance in the Implementation of the Federal Immission Control Act]	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓*	✓*	✓	✓	✓*	✓*
Operation with open combustion chamber (multiple allocation **not** permitted)	Mass flow of flue gas g/s	–	–	26,4	26,4	–	–	26,4	26,4
	Flue gas temperature °C	–	–	257	257	–	–	257	257
	Flue gas temperature behind the NSHF °C	–	–	-	-	–	–	–	–
	Combustion air requirement m^3/h	–	–	151,2	151,2	–	–	151,2	151,2
	Required supply pressure: in Pa	–	–	12	12	–	–	12	12
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	8,8	8,8	9,2	9,2	10,7	10,7	9,2	9,2
	Flue gas temperature °C (on the flue gas outlet)	330 (240 behind NSHF)*	330 (240 behind NSHF)*	336	336	430 (233 behind NSHF)	430 (233 behind NSHF)	336	336
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12
	CO_2 %	9,1	9,1	9,2	9,2	7,5	7,5	9,2	9,2
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	29,1	29,1	30,6	30,6	39,6	39,6	30,6	30,6
Heating chamber distance	to the heating chamber wall cm	13	13	10	10	11	11	10	10
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	3	3	3	3	3	3
	Mounting wall cm	8	8	5	5	5	5	5	5
	Side wall cm	8	8	5	5	5	5	5	5
	Ceiling cm	–	–	–	–	–	–	–	–
	Stud wall with a wall that must be protected cm	10	10	10	10	10	10	10	10
Substitute insulation material, calcium silicate	Setup floor cm	0	0	3	3	3	3	3	3
	Mounting wall cm	6	6	4	4	4	4	4	4
	Side wall cm	6	6	4	4	4	4	4	4
	Ceiling cm	–	–	-	-	–	–	–	–
Heat distribution	Convection %	51	51	62	62	62	62	62	62
	Viewing panel %	49	49	38	38	38	38	38	38
	H_2O %	0	0	0	0	0	0	0	0

Changes and mistakes reserved

* Fulfils 15a 2015 only with AT hand piece, attention: flue gas connection + 160 mm

Speedy Kh-51 NSHF	Speedy Kh-57 NSHF
A+	A+
10,0	10,0
7,0-13,0	7,0-13,0
> 80	> 80
200	200
200	200
180	180
220	220
–	–
1240/1490	1240/1490
✓	✓
✓	✓
–	–
✓	✓
✓	✓
–	–
–	–
–	–
–	–
–	–
10,7	10,7
430 (233 behind NSHF)	430 (233 behind NSHF)
12	12
7,5	7,5
15	15
39,6	39,6
11	11
0	0
3	3
5	5
5	5
–	–
10	10
3	3
4	4
4	4
–	–
62	62
38	38
0	0

Changes and mistakes reserved

11.3 CLASSIC

		Nova E - H_2O with NSHF	Nova F-51 - Air with NSHF	Nova F-57 - Air with NSHF	Renova A - H_2O with NSHF	Renova B-51 - Air mit NSHF	Renova B-57 - Air mit NSHF	Renova C - Air with NSHF (wood logs)	Renova C - Air with NSHF (lignite)
General data	Energy efficiency class	A+	A+	A+	A+	A+	A+	A+	A+
	Nominal heat output kW (closed operation)	14,0 / 9,0	10,1	10,1	13,4 / 6,9	8,8	8,8	8,5	7,8
	Thermal output range kW	9,8-18,2	7,1-13,1	7,1-13,1	9,4-17,4	6,2-11,4	6,2-11,4	6,0-11,1	5,5-10,1
	Efficiency %	> 85	> 85	> 85	> 85	> 85	> 85	> 85	> 85
	Required chimney diameter (mm)	180	180	180	180	180	180	160	160
	Flue gas connection Ø mm	180	180	180	180	180	180	160	160
	Possible flue gas connection Ø mm	–	150	150	150	150	150	150/180	150/180
	Weight (approx.) kg	290	195	195	200	140	140	110	110
	Required minimum cross-section for supply and recirculating air (with WLM) cm^2	–	–	–	–	–	–	–	–
	Required minimum cross-section for recirculating and supply air (without WLM) cm^2	370/450	1580/1900	1580/1900	690/830	1060/1280	1060/1280	1030/1240	1030/1240
Testing and values	Non-self-closing combustion chamber door (Design A)	–	–	–	–	–	–	–	–
	Self-closing combustion chamber door (Design A1)	✓	✓	✓	✓	✓	✓	✓	✓
	Operation with open door	–	–	–	–	–	–	–	–
	BImSchV [Ordinance in the Implementation of the Federal Immission Control Act] 2nd level	✓	✓	✓	✓	✓	✓	✓	✓
	15a BVG	✓	✓	✓	✓	✓	✓	✓	✓
Operation with closed combustion chamber (multiple allocation permitted)	Mass flow of flue gas g/s	12,7	9,2	9,2	12,8	9,4	9,4	8,2	9,1
	Flue gas temperature °C (on the flue gas outlet)	top: 193 / side: 340 (166 behind NSHF)	355	355	396 (165 behind NSHF)	357	357	495 (142 behind NSHF)	483 (142 behind NSHF)
	Required supply pressure: in Pa	12	12	12	12	12	12	12	12
	CO_2 %	8,2	8,1	8,1	7,7	7,0	7,0	7,7	7,1
	Required diameter after M-FeuVo. cm	15	15	15	15	15	15	15	15
	Combustion air requirement m^3/h	46,3	34,1	34,1	47,3	34,7	34,7	30,3	31,4
Triple value for the chimney calculation when connecting to downstream lines	Mass flow of flue gas g/s	25	26	26	25	25	25	20	20
	Flue gas temperature at the insert connecting piece °C	520	600	600	480	590	590	650	650
	Required supply pressure Pa	14	15	15	12	15	15	15	15
	CO_2 %	~ 9	~ 9	~ 9	~ 9	~ 9	~ 9	~ 9	~ 9
	Fuel amount kg/h	10	8	8	8	7	7	4	4
	Combustion air requirement m^3/h	103	77	77	82	68	68	41	41
Operation with open fireplace (multiple allocation not permitted)	Mass flow of flue gas g/s	–	–	–	–	–	–	–	–
	Flue gas temperature °C	–	–	–	–	–	–	–	–
	Flue gas temperature behind the NSHF °C	–	–	–	–	–	–	–	–
	Combustion air requirement m^3/h	–	–	–	–	–	–	–	–
	Required supply pressure: in Pa	–	–	–	–	–	–	–	–
Heating chamber distance	To the heating chamber wall cm	6	6	6	6	10	10	10	10
	To the setup floor cm	0	0	0	0	0	0	0	0
Heat insulation (example rock wool matting to AGI-Q 132)	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	10	13	13	12	13	13	15	15
	Side wall cm	10	13	13	12	13	13	15	15
	Primary walling for wall that must be protected cm	6	6	6	6	6	6	6	6
Heat insulation (example calcium silicate according to EN 13501-2)	Setup floor cm	0	0	0	0	0	0	0	0
	Mounting wall cm	8	10	10	9	10	10	12	12
	Side wall cm	8	10	10	9	10	10	12	12
	Primary walling for wall that must be protected cm	6	6	6	6	6	6	6	6
	As a replacement for the front-mounted masonry and thermal insulation for the mounting wall cm	10	12	12	10	12	12	13	13
	As a replacement for the front-mounted masonry and thermal insulation for the side wall cm	10	12	12	10	12	12	13	13

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