

Installation manual

Matrix 1050/500 I,II,III H

Matrix 1050/650 I,II,III H

ENG



40012085-2345

 **faber**



Commissioning gas fire			
Model:		Date:	
Installation performed by:			
I. Before starting the appliance, check:			
1. <input type="checkbox"/> If the front glass is taken out of the appliance and the decoration material has not been installed yet.			
2. <input type="checkbox"/> If the appliance is levelled.			
3. <input type="checkbox"/> If the safety hatches are cleaned and closed.			
4. <input type="checkbox"/> If there's a flue restrictor needed and is installed?			
<input type="checkbox"/> Yes, _____ mm			
<input type="checkbox"/> No, not needed.			
5. <input type="checkbox"/> If the position of the wall- or roof terminal is according to the correct operation and building regulations.			
6. <input type="checkbox"/> If the ventilation grids are installed and have in total min. 400cm ² of free passage.			
7. <input type="checkbox"/> If all tie wraps are removed from the burner pipes and wiring.			
8. <input type="checkbox"/> Whether the ignition cable hang freely under the appliance and have no contact with any metal part.			
9. <input type="checkbox"/> If the lockable service door is installed and gives access to the control unit.			
II. Installation:			
1. <input type="checkbox"/> Check main gas connection for leakage.			
2. <input type="checkbox"/> Check the standing pressure (unloaded) and compare with the rating plate:			
<input type="checkbox"/> Measured standing pressure unloaded: _____ mbar (min./max. 20%, chapter 7).			
<input type="checkbox"/> Deviation with the rating plate: _____ mbar.			
3. <input type="checkbox"/> Connect your APP to the I.T.C. and start the fire (at dealer level).			
4. <input type="checkbox"/> Run the appliance on max. settings and all burners.			
5. <input type="checkbox"/> Check <u>all</u> gas connections for leakage.			
6. <input type="checkbox"/> Check the standing pressure (loaded) and compare with standing pressure (unloaded):			
<input type="checkbox"/> Measured standing pressure loaded: _____ mbar.			
7. <input type="checkbox"/> Navigate through the APP to the actual measured values and check the data.			
Check the ionization in the APP (1.5mA is required).			
<input type="checkbox"/> Value ionization: _____ mA.			
8. <input type="checkbox"/> Check the working pressure and compare it with the working pressure specified in the "Technical Specifications" (Installation manual, Chapter 14).			
<input type="checkbox"/> Measured burner pressure: _____ mbar (min./max. 20%, chapter 7).			
<input type="checkbox"/> Burner pressure given in the manual: _____ mbar.			
9. <input type="checkbox"/> Check the burner on high and low setting.			
10. <input type="checkbox"/> Close and check all measuring nipples on leakage.			
11. <input type="checkbox"/> Switch the appliance off and let it cool down. Place the decoration material.			



III. Decoration:

1. The decoration material is placed according to the instructions (chapter 6 or the decoration instruction card).
2. Keep the ionization and ignition pin free from the decorative material.

IV. Representation of the flames and flue gas analyses:

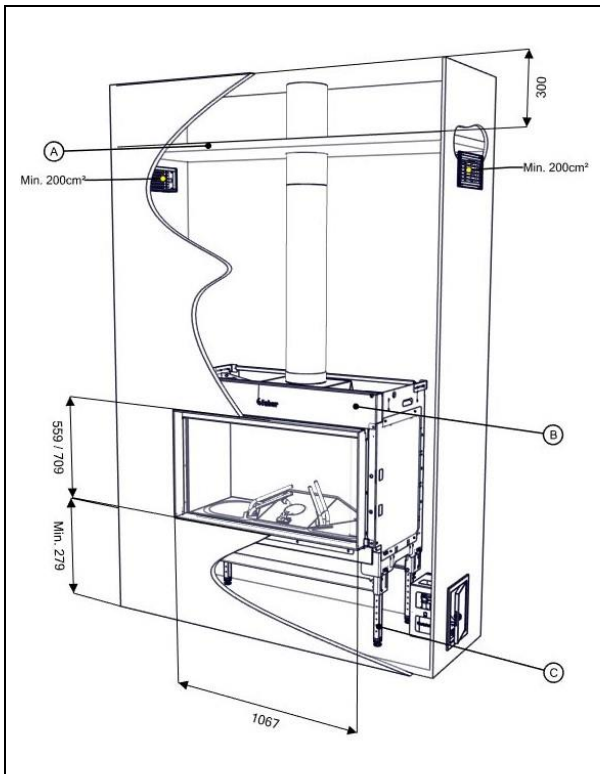
1. The glass is cleaned on both sides (chapter 5, 8 and 9).
Please note! Avoid fingerprints on the glass, these are no longer removable once the fire is used!
2. Let the fireplace burn for at least 20 minutes at highest setting and check the flame for (chapter 7.1):
 - Flame distribution;
 - Colour of the flames.
3. Perform a flue gas analysis (see chapter 7.2).
4. Close and check all the measuring nipples on leakage.

V. Information and material for the customer:

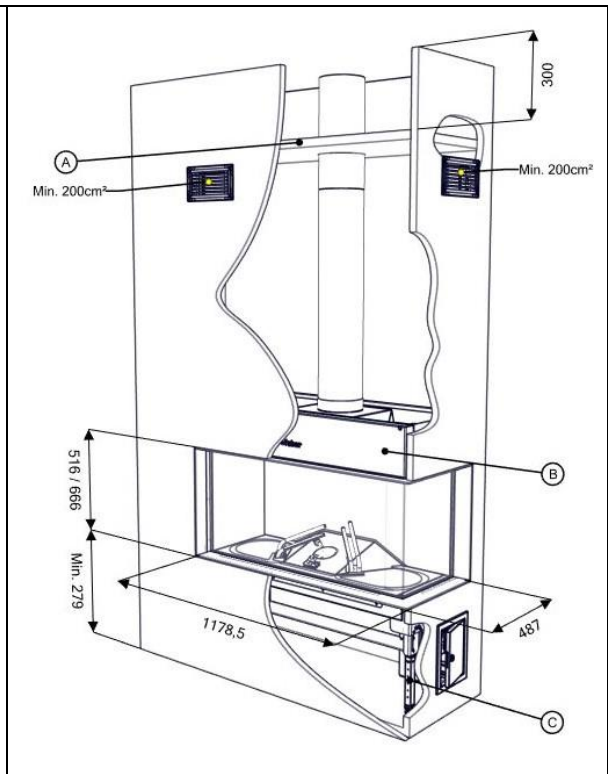
1. Inform the customer personally about the correct use of:
 - the appliance;
 - the remote control;
 - the APP and it's settings;
 - the maintenance process.
2. Handover to the customer:
 - the installation manual;
 - the user manual;
 - the decoration instruction card;
 - the suction cups;
 - the Faber glass polish sample.

Please note! Before leaving the customer, save your company data in the Faber APP.

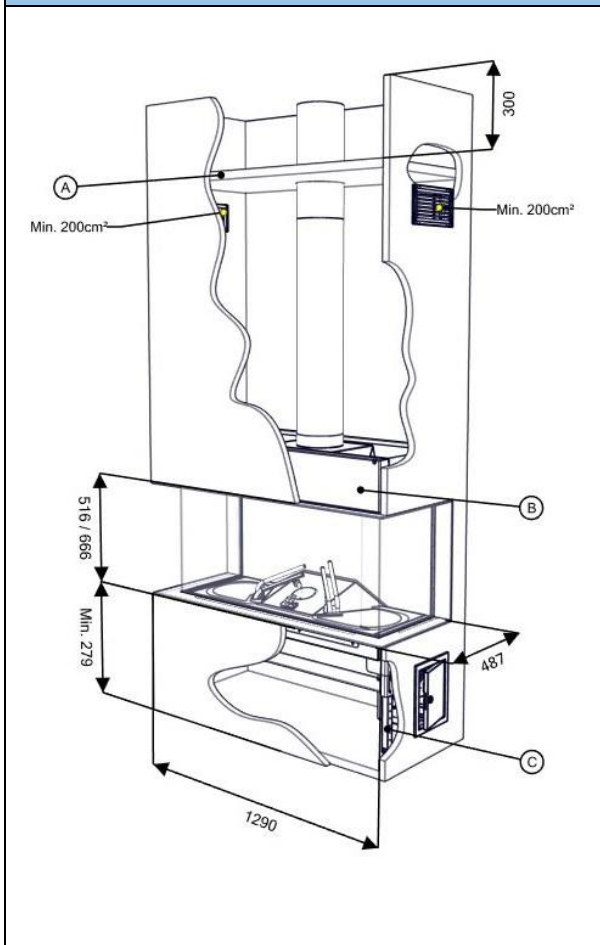
VI. Comments:



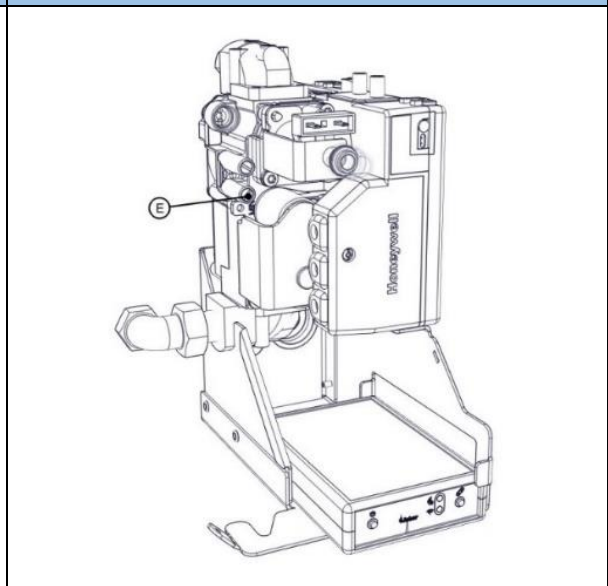
1.0



1.1



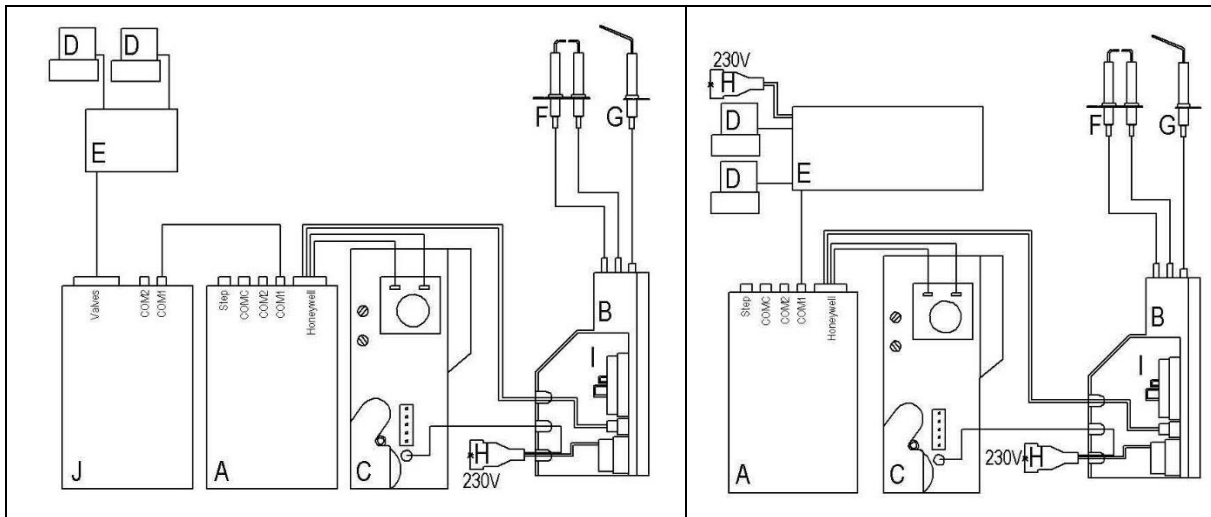
1.2



1.3

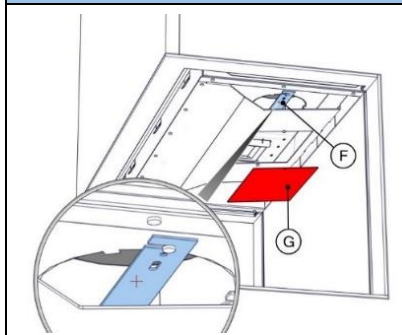


1.4



1.5a

1.5b



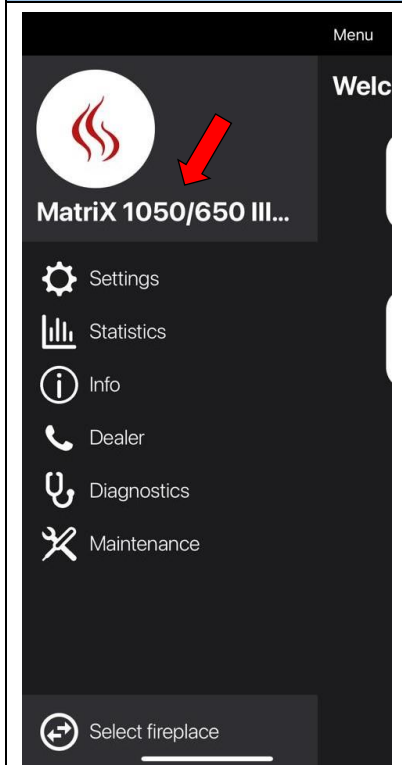
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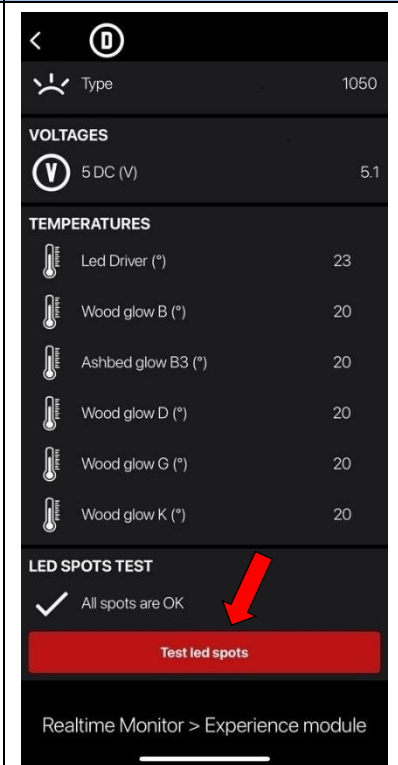
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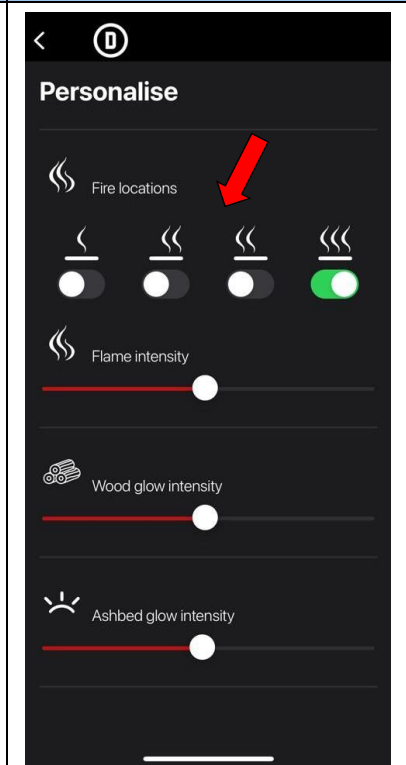
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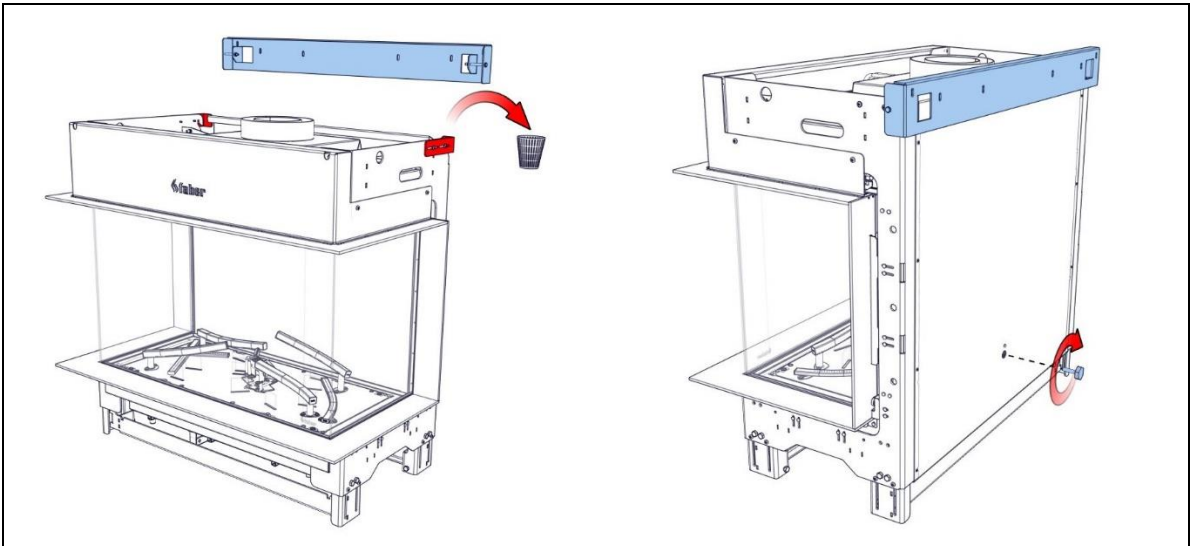
1.9a



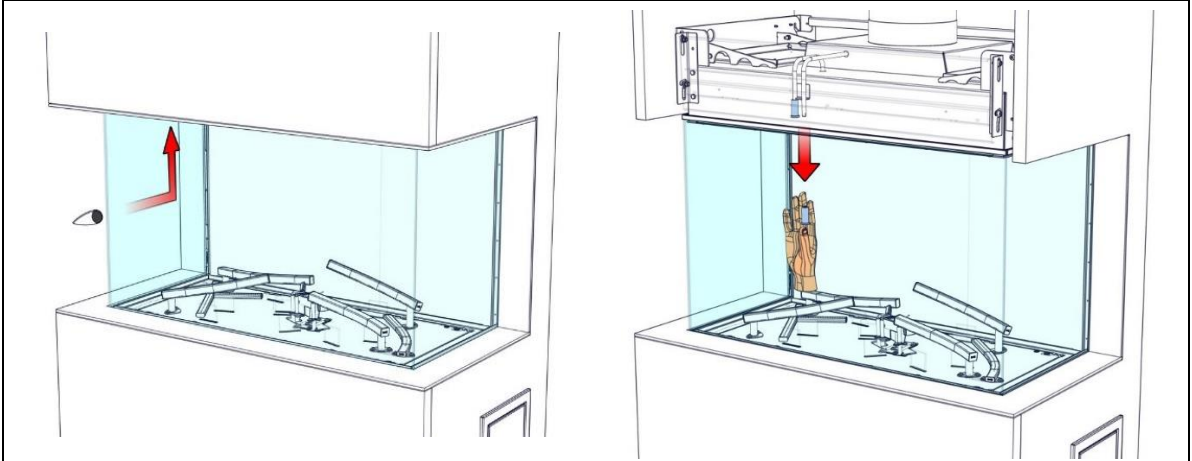
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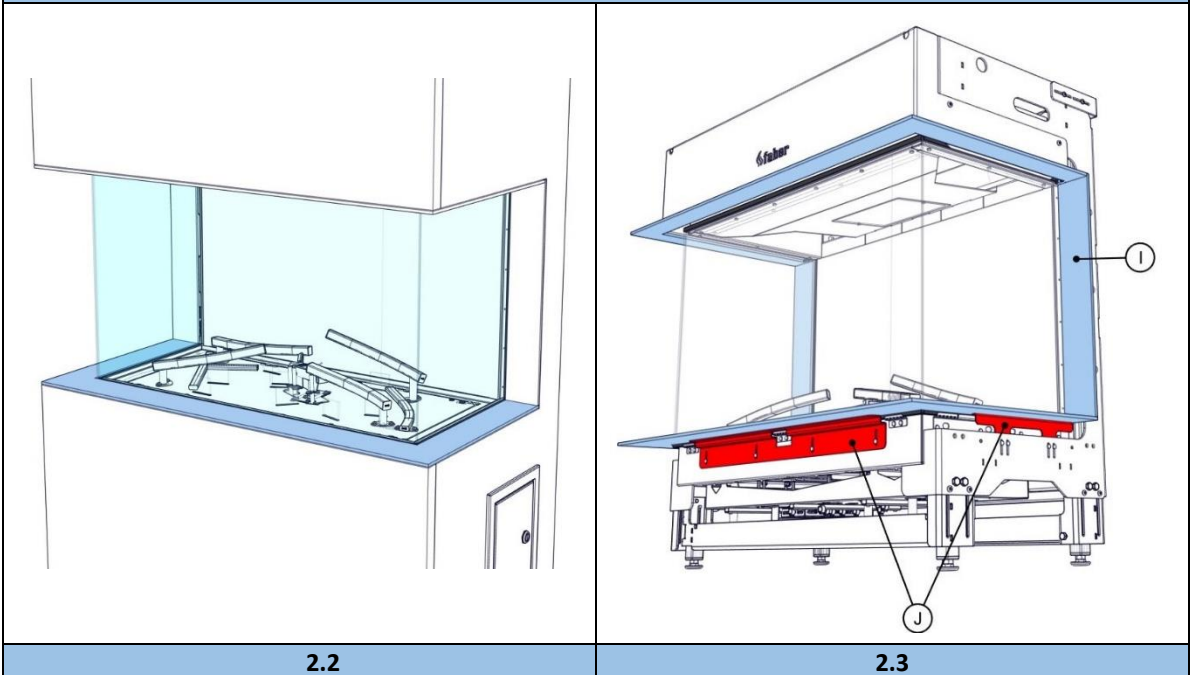
1.9c



2.0



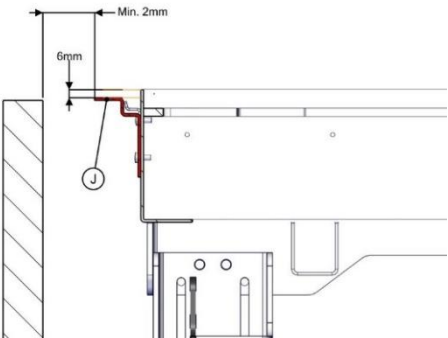
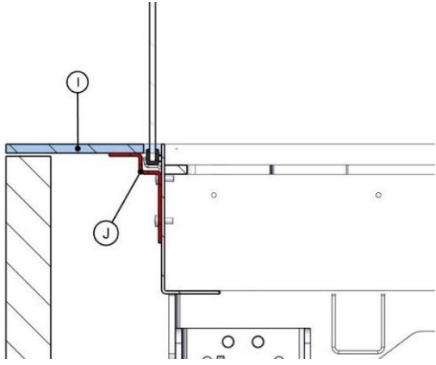
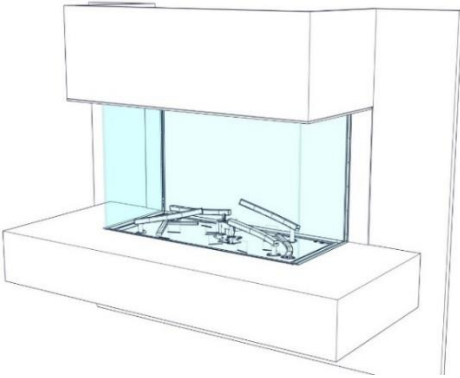
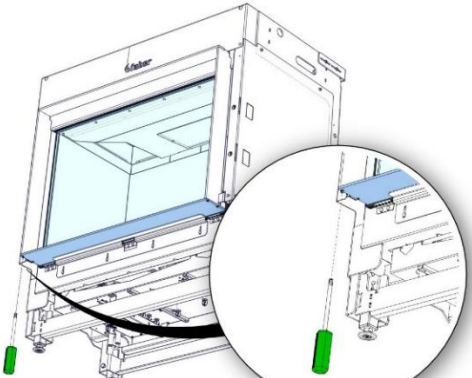
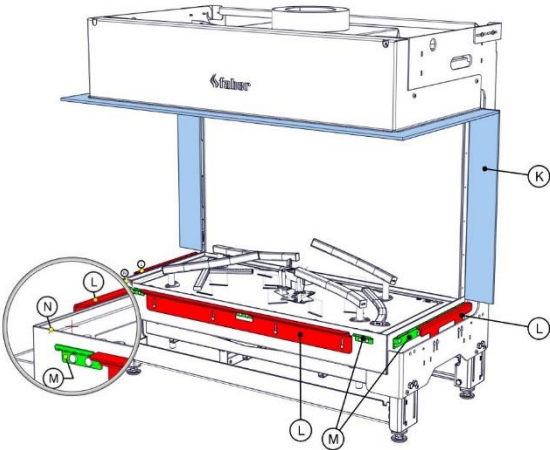
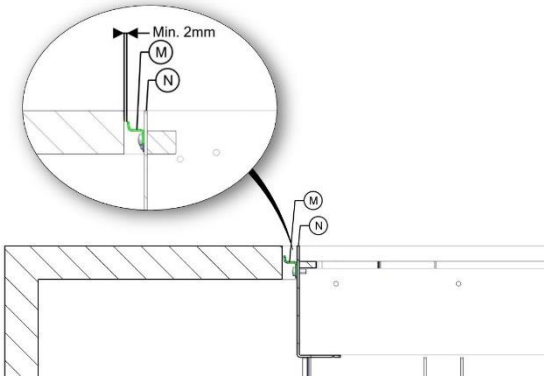
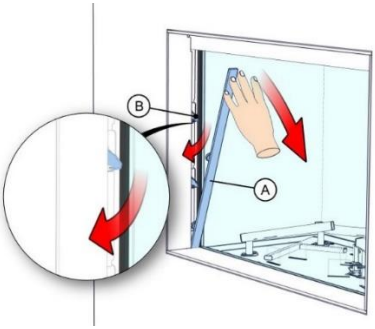
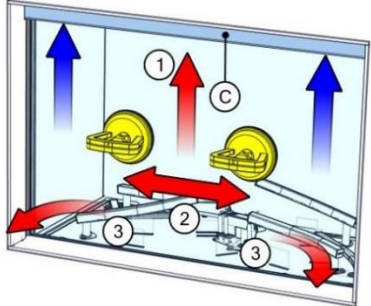
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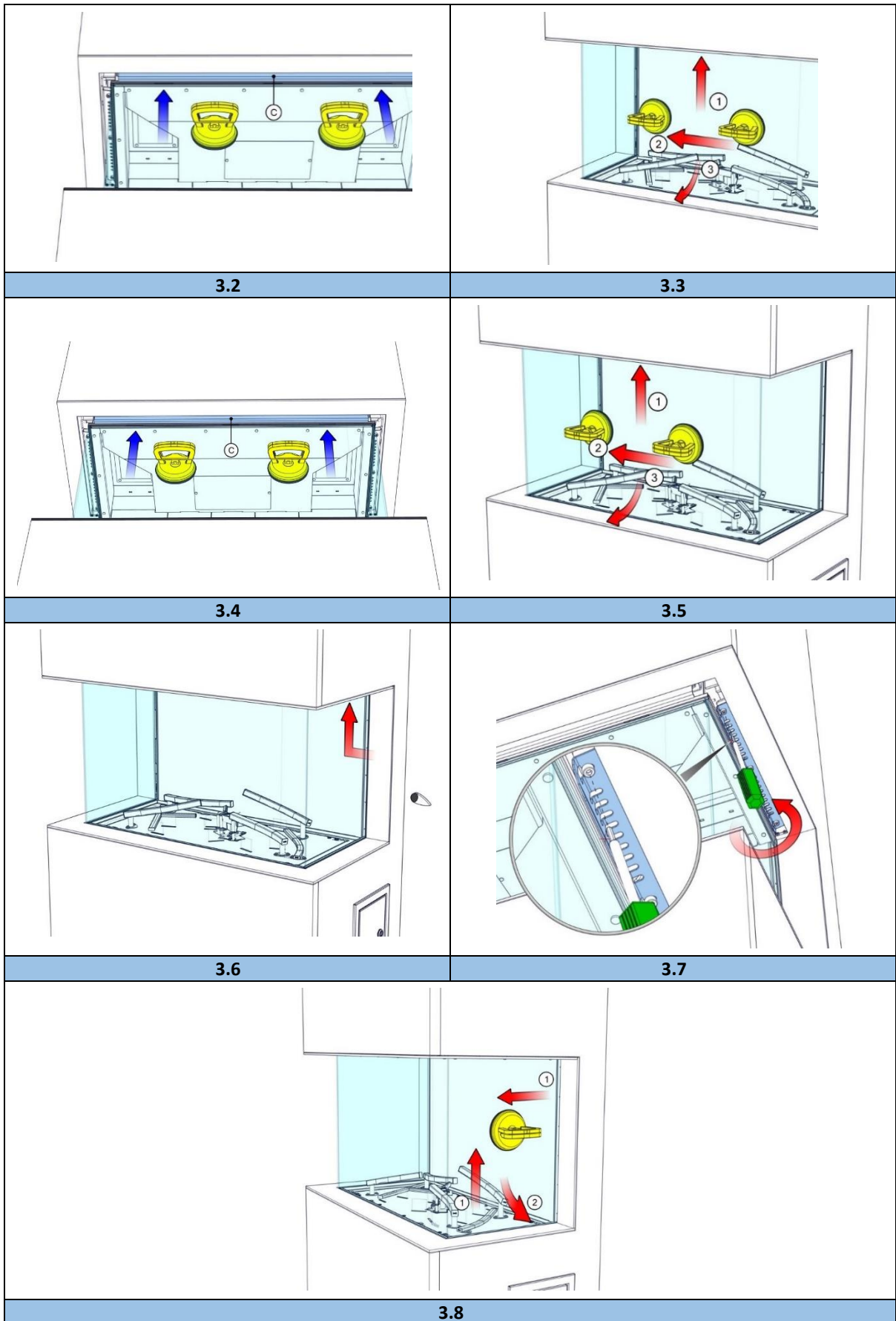


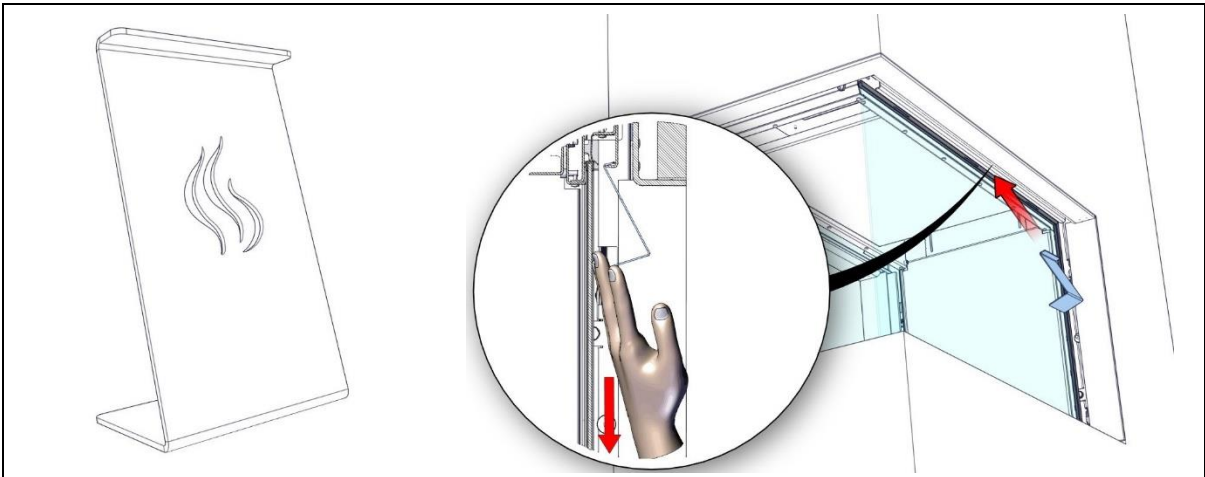
2.2

2.3

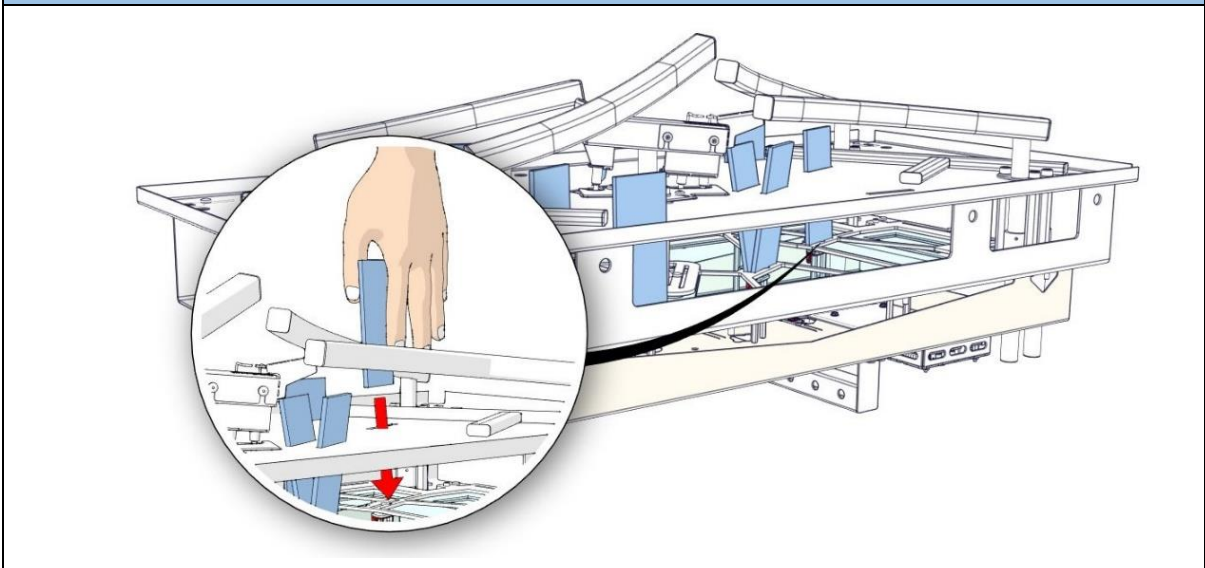


 <p>Min. 2mm 6mm J</p>	 <p>I J</p>
<p>2.4a</p>	<p>2.4b</p>
	
<p>2.5</p>	<p>2.6</p>
 <p>K L M</p>	 <p>Min. 2mm M N</p>
<p>2.7</p>	<p>2.8</p>
 <p>A B</p>	 <p>1 2 3 C</p>
<p>3.0</p>	<p>3.1</p>

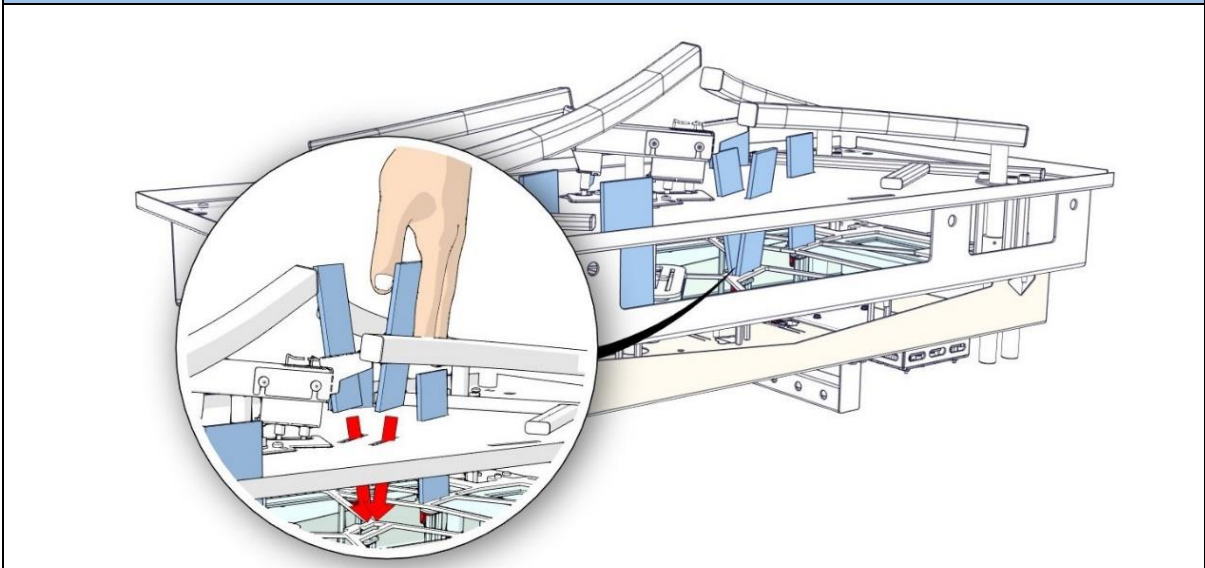




3.9



4.0



4.1





1 Dear user

Congratulations on your purchase of a Faber fire! A quality product from which you will experience warmth and atmosphere for many years. We recommend that you read this manual carefully before using the fireplace. If any problem arises despite our strict quality control, you can always contact your dealer.

For any warranty claims, it is essential you first register your fireplace.

➤ **Please note!**

The details of your fireplace can be found in the user manual.

You can register your fire at: www.faberfires.com

Glen Dimplex Benelux B.V.

Address: Saturnus 8

NL-8448 CC

Heerenveen

Tel: +31 (0)513 656 500

Email: contact@faberfires.com

Info: www.faberfires.com

1.1 Introduction

Installation and maintenance of the appliance must be carried out by a professional with proven knowledge and competence. A professional takes into account all technical aspects such as heat radiation and gas connection as well as flue gas exhaust requirements.

Where the installation instructions are not clear, national/local regulations must be followed.

1.2 Check

Check the fireplace for transport damage and immediately report any damage to your supplier.

1.3 CE Declaration

We hereby declare that Glen Dimplex Benelux B.V. released Faber gas-atmosphere heating appliance by its design and construction method complies with the Regulation (EU): 2016/426 and (EU) 2015/1188.

Product: gas room heater

Model: MatriX 1050/500-I,II,III H

MatriX 1050/650-I,II,III H

This declaration will become null and void as soon as the unit is in any way modified without written authorization of Glen Dimplex Benelux B.V.

2 Safety instructions

➤ **Please note!**

It is advisable to always install a screen for the fireplace if children, elderly or disabled people are present in the same room as the fireplace. **If regularly vulnerable persons can be present in the room without supervision, sufficient protection must always be placed around the fireplace.**

- This appliance must be installed according with the rules in force and used only in a sufficiently space.
- The appliance must be checked annually in accordance with this installation manual and the applicable national and local regulations.
- Ensure that the data on the type label matches the local gas type and pressure.
- The appliance is designed for atmosphere and heating purposes. This means that all visible surfaces, including the glass, can become hotter than 100°C. An exception by free standing models is the underside of the fireplace and the control buttons.
- The settings and the construction of the fireplace must not be changed!
- Do not place extra imitation wood or other material on the burner or in the combustion chamber.
- Do not place any combustible materials within 0,5m of the radiation area of the fire.
- Through the natural air circulation of the fireplace moisture and uncured volatile components from paint, building materials and carpeted floors, etc. are attracted. These parts can settle as soot on cold surfaces. Therefore do not light the fireplace shortly after installation.

2.1 Using the fire for the first time

Provide extra ventilation and open all the windows of the room during the initial start-up of the fire. Let the fire burn at the highest setting for a few hours so that the paint gets the chance to harden and any released vapours are safely removed. Keep vulnerable people and pets out of this room during this process.



3 Installation requirements

3.1 Appliance

- This appliance may not be installed in a chlorine-containing environment. (Pools etc.).
- This appliance must be built into an existing or new false chimney.
- For appliances with flexible gas pipes, the control unit (fig. 1.3) is mounted at the bottom of the crate. **Detach and mount it together with the control box and remote access door in as low as possible position in the false chimney.** (See supplied instruction manual 40011721). *(To prevent damage to cables and pipes during transport, they are bound together by tie wraps. Remove these to ensure proper operation of the appliance.)*
- This appliance comes standard with a 2 meter pipe set (article number 20901589).

3.2 False chimney

- The false chimney should be of non-combustible material.
- The space above the fire should always be ventilated using (optional) grids with minimal free passage of 200cm² per grid.
- The false chimney construction should not rest on the built-in frame of the fireplace.

3.3 Discharge and outlet requirements

First, carry out a flue calculation (see chapter 11) and place the right flue restrictor before installing the outlet! (Generally a 30mm flue restrictor is installed, see fig. 1.6-F).

- For supply and discharge always use the prescribed and to be supplied Faber flue materials. Please contact Glen Dimplex Benelux B.V.. Only with use of these materials Faber can guarantee proper performance.
- The distance to combustible materials must be min. 50mm, calculated from outside of the flue material (EN 1856-1 T600 N1 D Vm – L20040 O(50)).

Outlets (fig. 1.4)

The balanced flue pipe for combined air supply and discharge can use a wall terminal or a roof terminal. Verify that the desired outlet meets the local regulations regarding pollution and ventilation openings.

➤ Please note!

For proper functioning, the outlet must at least be 0,5m away from:

- Corners of the building;
- Roof overhangs and balconies;
- Roof edges (with the exception of the ridge edge, see chapter 15).

C11, outlet via facade

Through a wall or façade, use a Faber wall outlet (130/200mm).

C31, outlet via roof

For a (flat) roof, use a Faber roof outlet with a diameter of 100/150mm.

C91, existing chimney

For an existing chimney, use a Faber chimney outlet with a diameter of 100/150mm.

In this case the existing chimney acts as air inlet an inserted flexible stainless steel pipe discharges the flue gas. The top (Faber chimney cover plate) and the bottom (Faber chimney connection set) should be airtight.

Depending on the calculated flue diameter, you must use a flexible stainless steel pipe of Ø100mm (article number AJ005503) or Ø130mm (article number AJ005603) as specified by Faber. For this, contact Glen Dimplex Benelux B.V.

➤ Please note!

- The minimum chimney diameter for a 130mm flexible stainless steel pipe must be 200x200mm and for a 100mm flexible stainless steel pipe and 150x150mm.
- Don't connect more than one fire at the existing chimney.
- The chimney must be in good condition:
 - No leakage;
 - Well cleaned.

For more information about the connections to existing chimney ducts, please request the installation instructions "Chimney Connection Set".



4 Preparation and installation instructions

4.1 Gas connection

The gas connection must comply with the applicable local standards.

➤ **Please note!**

Calculate the gas pipe so that no pressure drop occurs.

We advise using a gas connection directly from the gas meter to the appliance, with a shut-off valve in the proximity of the appliance, which must always be freely accessible. Position the gas connection so that it is easily accessible for service and the burner unit can be disassembled at any time.

4.2 Electrical connection

Place a double wall socket 230VAC - 50Hz near the fire for connecting the HPL module and the controller (control box FAB1806).

See wiring diagram without HPL (fig. 1.5a) or with HPL (fig. 1.5b):

- A = I.T.C. (Intelligent Technical Controller)
- B = electronics
- C = gas valve
- D = solenoid valve
- E = step module or HPL module (optional)
- F = ignition pin
- G = ionization pin
- H = connection cable
- I = configuration plug

4.3 Smart Home installation

The controller can be connected to an external source, such as a Domotica system, by using a Faber Interface Unit (article number A9323000).

4.4 Preparing the fireplace

- Remove the fireplace from its packaging. Ensure that the gas supply pipes under the appliance are not damaged.
- Prepare the gas connection on the gas valve. Prepare the gas connection on the gas valve. Provide a flexible gas connection with at least 0,5m extra length, so that the control unit can be removed for installation and service!

4.5 Positioning the fireplace

Take into account the installation requirements (see chapter 3). Place the fireplace at the right place and level it.

Rough height adjustment:

- With the adjustable (optional) legs. Accurate height adjustment:
- With the adjustable feet.

Hanging on the wall

The fireplace can also be mounted on the wall by using the optional wall bracket, see attachment 18.9 (article number A9325996).

Therefore remove the existing brackets and use the supplied spacer for vertical alignment, see fig. 2.0.

4.6 HPL (experience) module

Place the power supply (see fig. 1.7) of the HPL module in a cool place and near the control box.

➤ **Please note!**

Before installing the false chimney, a functional test of the HPL module is recommended.

Physical check HPL module

Switch on the HPL module with the remote control and check whether the LED spots are on (fig. 1.8).

Electronic check HPL module in the ITC-V3 App

(Only possible in dealer setting).

Make sure the app is connected to the fire, see fig. 1.9a.

1. Navigate to:
Menu (top left) -> Diagnostics -> Real time Monitor -> Experience module.
2. Click on "Test led spots", see fig. 1.9b.

If any LED spots are defective, this will be indicated in the App. Use the overview in section 16.1 for the position.

Testing burner sections (step valves)

Make sure the fire is switched on.

1. Click on "Personalise" and switch the various modes (Fire locations), see fig. 1.9c.

If a step valve is defective, this will be indicated in the App.

4.7 Installing the flue pipes

Install the flue pipes according to the installation manual supplied with the appliance (40011968)!

- The distance to combustible materials must be min. 50mm, calculated from the outside of the flue pipe.
- Never start immediately with an adjustable flue pipe on the appliance.
- Horizontal sections should be installed to allow a slope towards the appliance (3 degrees).



- Built the system from the appliance. If this is not possible you can make use of an adjustable flue pipe.
- For fitting of the flue system, the 0,5m length-adjustable pipe must be used. Make sure that the inner pipe is always 15mm longer than the outer pipe. Wall- and roof terminal can also be cut. These components must be secured with a self-tapping screw.

4.8 Constructing the false chimney

Before positioning the false chimney, we advise to perform a functional test with the fireplace as defined in chapter 7 “Checking the installation”.

False chimney

- Construct the false chimney of non-combustible material in combination with metal profiles or of masonry/concrete blocks.
- Always use a lintel or reinforcing bars while bricking the false chimney. They should not be placed directly on the fireplace.
- Make sure that the fireplace never functions as a load-bearing construction, because of the expansion of the fireplace through warmth.

Ventilation

Correct ventilation prevents damaging overheating of the gas control block and its electronics and also limits the temperature of the convection air. Use the (optional) Faber ventilation grids (article number A9296400) or a similar alternative with a minimum free passage of 200cm² per grid, in the space above the fire, when building the false chimney. Within the false chimney, an horizontal screen plate, made of non-combustible material, must be installed just above the ventilation openings. (See “A” in fig. 1.0, 1.1 or 1.2).

Installation and finishing

- **Please note!**
 - Take into account a minimum distance of 2mm due to expansion of the fireplace.
 - Take into account the thickness of any finishing layer!

Method I: installation WITH cover strip (fig. 2.2)

For installation and finishing the following points are of interest (fig. 2.3):

I = built-in frame
J = spacer profile

- Build the false chimney against the built-in frame I and the spacer profile J (fig. 2.3).
- Do not build the false chimney (underneath the appliance) higher than the top of spacer profile J (fig. 2.4a).

Method II: installation WITHOUT cover strip (fig. 2.5)

- **Please note!**
At the MatriX front glass versions only, the cover strip is fixed by screws, remove those first! (See fig. 2.6).

For installation and finishing the following points are of interest, see fig. 2.7:

K = built-in frame
L = spacer profiles
M = glass supports
N = top edge of the combustion chamber

- Remove all spacer profiles L.

- **Please note!**
Ensure that the screws of the spacer profiles L are replaced to ensure the air tightness of the device.

- For the height of the plateau, observe point N (fig. 2.7 and 2.8).
- Due to the expansion of the fireplace, there should be at least 2mm clearance between the plateau and the glass supports M (fig. 2.8).

5 Removing glass

5.1 Front glass

MatriX I H:

- Disassemble cover strip “A” on both sides (fig. 3.0).
- Rotate clamp “B” clockwise on both sides (fig. 3.0).
- Place the suction cups on the glass, slide frame “C” upwards and disassemble the front glass (fig. 3.1).

For replacing the glass repeat the steps in reverse order. (If necessary, use the tool provided to pull the “C” frame back down, see fig. 3.9).



➤ **Please note!**

Avoid fingerprints on the glass, these are no longer removable once the fire is used.

MatriX II H:

- Disassemble cover strip “A” (fig. 3.0).
- Rotate clamp “B” (anti) clockwise (fig. 3.0).
- Place the suction cups on the glass and slide frame “C” upwards (fig. 3.2).
- Disassemble the front glass (fig. 3.3).

For replacing the glass repeat the steps in reverse order. *(If necessary, use the tool provided to pull the “C” frame back down, see fig. 3.9).*

➤ **Please note!**

Avoid fingerprints on the glass, these are no longer removable once the fire is used.

MatriX III H:

- Place the suction cups on the glass and slide frame “C” upwards (fig. 3.4).
- Disassemble the front glass (fig. 3.5).

For replacing the glass repeat the steps in reverse order. *(If necessary, use the tool provided to pull the “C” frame back down, see fig. 3.9).*

➤ **Please note!**

Avoid fingerprints on the glass, these are no longer removable once the fire is used.

5.2 Side glass

For cleaning only it’s not necessary to remove the side glass.

MatriX II H and III H:

- First, disassemble the front glass (section 5.1).
- Disassemble the glass strip at the top (fig. 3.6 and 3.7).
- Place a suction cup and disassemble the side glass (fig. 3.8).

For replacing the glass repeat the steps in reverse order.

➤ **Please note!**

Avoid fingerprints on the glass, these are no longer removable once the fire is used.

6 Placing decoration material

➤ **Attention!**

It is not allowed to add other or more decoration material in the combustion chamber.

Scan the QR code for a clear video instruction on decorating the burner:



Keep the included decoration instruction card close.

Chapter 17 provides an overview of the complete log setup.

6.1 Switching on HPL (experience) module

➤ **Please note!**

To get the right glow effect, the HPL module must be switched on at 100% intensity.

Click on “Personalise” and set the wood- and ash-bed glow intensity to maximum.

Tip:

Regularly check the glow effect on the wooden logs while decorating.

6.2 Installing HPL light guides

Insert the light guides through a slotted opening of the burner plate into a matching recess in the bottom, see section 16.2 and fig. 4.0.

With LED spot **G** two light guides must be placed in one recess, see chapter 16.1, 16.2 and fig. 4.1.

When the light guide is placed correctly, light will shine from the top side of the glass. If this is not the case, the light guide must be repositioned.

6.3 Creating ash bed

- Spread the glass granules over the entire bottom plate, with a slightly increasing thicker layer towards the center burner.

➤ **Attention!**

Keep some glass granules for correction later on.

- By simultaneously placing (large) chips in front of the light guides (standing be-



tween the light guide and the glass granules), this can be largely hidden from view. Cut or break the chips so that they do not protrude higher than the light guide itself, to the detriment of the glow effect on the logs. (See instruction video!)

- Divide the grey mini chips from the center over the glass granules.

6.4 Placing log set

- Place wood log 2 over the center burner. Make sure the ignition and ionization pin are not obstructed by the wood log. Keep checking during decorating!
- Place wood log 3 in the back, under wood log 2.
- Place the wooden logs 4 through 7 over the curved burner tubes.

➤ Attention!

The wood logs should be able to slide slightly over the burner tubes.

- Place the remaining wood logs.
- Distribute the black mini chips around the edge of the bottom plate.
- Distribute the large chips (grey and black) over the bottom plate.

6.5 Checkpoints

Check:

1. That the ignition and ionization pin do not make contact with ash material or a wooden log.
2. The glow effect on the wooden logs:
 - That all wooden logs have the right position.
 - That the light guides are not covered by ash material.
3. That no glow effect is visible at the back wall.
4. On an even ash bed glow.

➤ Attention!

Start the fire for the first time without the glass installed!

- Start the fire as described in the user manual.
- Assess the flame distribution and the glow effect on the wooden logs. Move or remove chips if necessary to create an even ash bed glow.
- Switch off the fire.
- Place the glass (see Chapter 5).

7 Checking the installation

Checking for gas leaks

Check the gas main connection with a gas leak finder.

Check inlet pressure

Check if the inlet pressure correspond to the data on the rating plate.

Measuring the inlet pressure:

- Close the shutoff valve. Turn the measuring nipple "E" (fig. 1.3) a few turns to open and connect a measuring hose to the gas valve.
- Take this measurement when the fireplace runs at high and low settings.
- Do not use the device if the inlet pressure deviates (+20% and -20%).

➤ Please note!

Close the pressure measuring nipple and check for gas leakage.

Check ignition and burner

Ignite the fire by using the remote control as described in the user manual.

Check:

All section settings of the burner.

Now repeat the above check using the App. (App set at Dealer level).

Navigate to: *Menu (top left) -> Diagnostics and:*

- *Diagnostic messages;*
- *Realtime Monitor.*

Now use a gas leak finder to check all gas pipes from the gas valve to the burner.

7.1 Checking the flame image

Let the fireplace burn for at least 20 minutes at highest setting and check the:

- flame distribution;
- colour of the flames.

When the fire image is acceptable let the fireplace burn at the maximum setting for at least 4 hours. See chapter 2.1.

If one or both points are not acceptable then check:

- The position of the wooden logs and/or the amount of glass granules;
- The pipe connections for leaks. (in case of blue flames);



- That the correct flue restrictor is fitted (see fig. 1.6-F);
- The outlet:
 - Wall terminal has the correct position and the correct side up;
 - Roof terminal has the correct position.
- If the maximum lengths of the flue gas outlet is not exceeded.
- If possible, carry out a flue gas analysis (see section 7.2).

7.2 Flue gas analysis

It is possible to check the combustion gases and supply air with a CO/CO₂ flue gas analyser. There are two measuring pipes between the built-in frame and the front glass (fig. 2.1).

X = measuring pipe air supply
Y = measuring pipe flue gas

The ratio CO₂ and CO must not be greater than 1:100.

Example:

CO₂ is 4% and CO is 400ppm, measured at the highest point. If the ratio is greater than 1:100 or flue gases are measured in the air supply, check the points in section 7.1.

8 Instructions for client

- Recommend that the fire should be checked annually by a qualified specialist to ensure the safe use and to guarantee a long service life.
- Provide instructions on the operation of:
 - the appliance;
 - the remote control;
 - the App and its settings.
- Give advice and instructions on care and cleaning of the glass:



- Emphasize the danger of fingerprint burn-in at the glass.
- Handover to customer:
 - installation manual;
 - user manual;
 - decoration instruction card;
 - suction cups;
 - sample Faber glass polish.

9 Annual maintenance

Check

Check and clean if necessary:

- the combustion chamber;
- the burner;
- the wooden logs for breakage;
- the glass(es);
- the outlet.

Replace ash material and/or glass granules if necessary.

Cleaning

Remove the front glass (see chapter 5).

You can clean the glass with Faber glass polish. This is a specially formulated cleaning agent that can be ordered at authorized Faber dealers.

Never use aggressive cleaning agents or abrasive products.

➤ Please note!

Avoid fingerprints on the glass; these are no longer removable once the fire is used.

Now carry out check-up as described in chapter 7.

For an extensive maintenance instruction "maintenance protocol gas fires" see:



10 Conversion to other gas type

This can only be done by replacing the burner. To do so, please contact your dealer. Always provide the type and serial number of the appliance when ordering.



11 Flue calculation

A simple way to calculate whether the exhaust configuration is possible in combination with your fireplace, use the “Faber Flue App V2”:



This is available free of charge and can be downloaded via:

Internet:

Android and PC (Windows Store, (Windows 10)).

App Store:

iPhone, iPad and Mac.

Google Play:

Android smart phones and Android tablets.

Alternatively, you can use the calculation sheet (see chapter 13).

The options for flue lengths and any flue restrictors are defined in a restrictor table, see 11.1 and 11.2. Start Length (STL), Total Vertical Height (TVH) and Total Horizontal Length (THL) are used in the table.

- **Start length (STL):**
The first part that is placed on the fireplace and represents a certain value (fig. 12.1, 12.2 and 12.3 A, N and F). You can find this value in the upper row of the restrictor table.
- **Total Vertical Height (TVH):**
TVH is the height difference measured from the top of the appliance to the outlet. This can be measured or determined in the building plan. For clarification, see also the TVH indication in the drawings (fig. 12.1, 12.2 and 12.3).
- **Total Horizontal Length (THL):**
THL is the Total Horizontal Length and consists of elbows and pipes entirely in the horizontal plane. See elbows I, K and Q and the elements H, J, L, M, P and R (fig. 12.1 and 12.2).

- **Horizontal length:**
The Horizontal Length consists of the elements H, J, L, M, P and R (fig. 12.1 and 12.2).
- **Elbows 90° in the horizontal plane:**
Horizontal elbows are elbows entirely in the horizontal plane (fig. 12.1, 12.2 and 12.3 I, K and Q).
- **Elbows 45° or 30° in the horizontal plane.**
Horizontal elbows are elbows entirely in the horizontal plane.
- **Elbows 90° vertical to horizontal:**
These are 90° elbows, which proceed from horizontal to vertical (fig. 12.2 and 12.3 G, O and S).
- **Elbows 45° or 30° vertical to horizontal plane:**
These are 30° or 45° elbows vertically offset less than 45° (fig. 12.1 B and D).
- **Pipes at an angle of inclination:**
These are pipes vertically ascending at an angle of 30° or 45° (fig. 12.1 C). Fill in only in combination with at least two 30° or 45° elbows in the vertical part.
- **Restrictor table:**
See restrictor table for the correct vertical (TVH) and horizontal length (THL).

In case of an “X” or if the values are outside the restrictor table, the combination is not permitted. Then adjust TVH or THL.

If a value is indicated, check that the calculated STL value is not lower than indicated in the restrictor table. In this case STL must be adjusted.

The value found indicates the width of the flue restrictor to be placed (“0” means no flue restrictor). Generally a 30mm flue restrictor is installed (fig. 1.6-F), first remove hatch “G”.



11.1 Restrictor table (100/150) MatriX 1050/500 I,II,III H and MatriX 1050/650 I,II,III H

Start length (STL) Vertical (TVH) and Horizontal (THL)

STL	1					
THL	0	1	2	3	4	
TVH	0	x	x	x	x	x
	0,5	x	x	x	x	x
	1	0,2	x	x	x	x
	1,5	0,2	x	x	x	x
	2	30,2	x	x	x	x
	3	30,2	x	x	x	x
	4	40,2	x	x	x	x
	5	40,2	x	x	x	x
	6	40,2	x	x	x	x
	7	50,2	x	x	x	x
	8	50,2	x	x	x	x
	9	50,2	x	x	x	x
	10	60,2	x	x	x	x
	11	60,2	x	x	x	x
	12	60,2	x	x	x	x
	13	70,2	x	x	x	x
	14	70,2	x	x	x	x
	15	70,2	x	x	x	x
	16	70,2	x	x	x	x
	17	70,2	x	x	x	x
	18	80,2	x	x	x	x
	19	80,2	x	x	x	x
	20	80,2	x	x	x	x
	21	80,2	x	x	x	x
	22	80,2	x	x	x	x
	23	80,2	x	x	x	x
	24	80,2	x	x	x	x
	25	80,2	x	x	x	x
	26	80,2	x	x	x	x
	27	80,2	x	x	x	x
	28	80,2	x	x	x	x
29	80,2	x	x	x	x	
30	80,2	x	x	x	x	

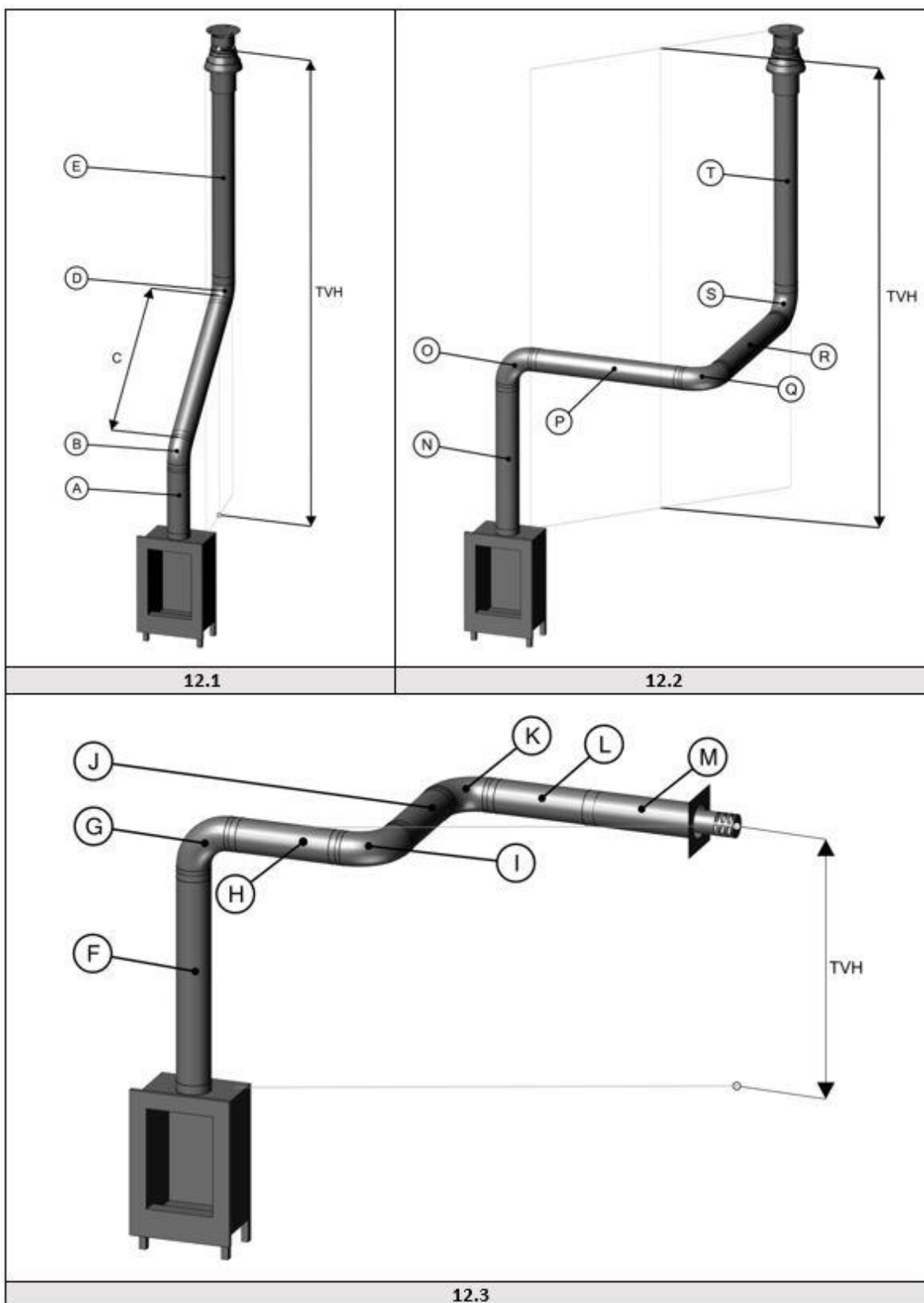


11.2 Restrictor table (130/200) Matrix 1050/500 I,II,III H and Matrix 1050/650 I,II,III H

Start length (STL) Vertical (TVH) and Horizontal (THL)

STL	0,2	0,5	1	1	1	1	1	1	1,5	1,5	1,5		
THL	0	1	2	3	4	5	6	7	8	9	10		
TVH	0	x	x	x	x	x	x	x	x	x	x		
	0,5	x	x	x	x	x	x	x	x	x	x		
	1	30,4	0,4	0,4	0,4	0,4	0,4	0,4	x	x	x		
	1,5	30,4	30,4	0,4	0,4	0,4	0,4	0,4	0,4	x	x		
	2	45,4	30,4	30,4	0,4	0,4	0,4	0,4	0,4	0,4	x	x	
	3	45,4	45,4	30,4	30,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	
	4	50,4	45,4	45,4	30,4	30,4	0,4	0,4	0,4	0,4	0,4	0,4	
	5	50,4	50,4	45,4	45,4	30,4	30,4	0,4	0,4	0,4	0,4	0,4	
	6	60,4	50,4	50,4	45,4	45,4	30,4	30,4	0,4	0,4	0,4	0,4	
	7	70,4	60,4	50,4	50,4	45,4	45,4	30,4	30,4	0,4	0,4	0,4	
	8	80,4	70,4	60,4	50,4	50,4	45,4	45,4	30,4	30,4	0,4	0,4	
	9	80,4	80,4	70,4	60,4	50,4	50,4	45,4	45,4	30,4	30,4	0,4	
	10	80,4	80,4	80,4	70,4	60,4	50,4	50,4	45,4	45,4	30,4	30,4	
	11	80,4	80,4	80,4	80,4	70,4	60,4	50,4	50,4	45,4	45,4	30,4	
	12	80,4	80,4	80,4	80,4	80,4	70,4	60,4	50,4	50,4	45,4	45,4	
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	20	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	
	21	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	x	
	22	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	x	x
	23	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	x	x	x
	24	80,4	80,4	80,4	80,4	80,4	80,4	80,4	80,4	x	x	x	x
	25	80,4	80,4	80,4	80,4	80,4	80,4	80,4	x	x	x	x	x
	26	80,4	80,4	80,4	80,4	80,4	80,4	x	x	x	x	x	x
	27	80,4	80,4	80,4	80,4	x	x	x	x	x	x	x	x
28	80,4	80,4	80,4	x	x	x	x	x	x	x	x	x	
29	80,4	80,4	x	x	x	x	x	x	x	x	x	x	
30	80,4	x	x	x	x	x	x	x	x	x	x	x	

12 Examples flue material





13 Calculation sheet

Start length (STL)				
First part on top of the appliance			Value	Value
Flue length from 0,1m till 0,45m			0,2	
Flue length from 0,5m till 0,90m			0,5	
Flue length from 1m till 1,4m			1	
Flue length from 1,5m till 2m			1,5	
Flue length 2m or more			2	
Bend 90°			0,1	
Bend 45°, 30° or 15°			0,2	
Roof terminal			1	
Wall terminal			0	
			
Total Vertical Height (TVH)				
Measured height				Rounded value
..... meter			 meter
Total Horizontal Length (THL)				
Calculation				
Part	Number	x	Value	Result
Total Length in meters	x	1
90° Bend, vertical to horizontal	x	0,4
45° Bend, vertical to horizontal	x	0,2
90° Bend in horizontal direction	x	1,5
45° Bend in horizontal direction	x	1
flue pipes at an angle in meters	x	0,7
Total			+
			 meter
Rounded value				



Search in the table at TVH and THL and enter the value that is found.		Found value
	
If the detected value is a number, check whether the completed STL is higher or equal to the value in the table.		
Is the STL value lower as specified in the table then the installation is not possible. Solution: Start length to low, see for the minimum length in the top row of the table.		
Is the found value X, then the installation is not possible. Solution: Change the TVH or THL.		
Results		
Restrictor size = Value for the comma	 mm
Extra information = Value behind the comma		Mark
Install the air restrictor plate, see installation manual.	0,1	<input type="checkbox"/>
Install adapter 100/150 direct on top of the fire.	0,2	<input type="checkbox"/>
In case of wall terminal, install adapter 100/150 before the last bend, incase of roof terminal just before the terminal.	0,3	<input type="checkbox"/>
In case of roof terminal (always size 100/150) install the 100/150 adapter just before the terminal. In case of wall terminal always 130/200.	0,4	<input type="checkbox"/>
Install from the fire first an adjuster to 130/200 and 1 meter 130/200, after that reduce to 100/150 again and continue with 100/150.	0,5	<input type="checkbox"/>



14 Technical data

14.1 MatriX 1050/500 I,II,III H

Technical data						
Type indication(s)	MatriX 1050/500 I,II,III H					
Type appliance	C11/C31/C91					
Diameter outlet/inlet	130/200					
Gas connection	3/8"					
Indirect heating functionality	no					
Category	II2H3P					
	Symbol					Unit
Reference gas/inlet pressure		G20-20		G31-37		mbar
Emissions in space heating	NOx	97		110		mg/kWh _{input} (GVC)
Direct heating output						
Nominal heat output	P _{nom}	10,0		10,1		kW
Minimum heat output (indicative)	P _{min}	1,6		1,6		kW
Useful efficiency (NCV)						
At nominal heat output	η _{th,nom}	87,2		88,1		%
At minimum heat output (indicative)	η _{th,min}	67,8		69,5		%
Appliance input data						
Input	Hi	11,5		11,5		kW
Gas rate at full mark		1,23		0,48		m ³ /h
				0,91		kg/h
Burner pressure at full mark		13,0		28,3		mbar
Power requirement for permanent pilot light						
Power requirement for permanent pilot light (if applicable)	P _{pilot}	0		0		kW
Additional electricity consumption						
At nominal heat output	e _{l,max}	0,0309		0,0309		kW
At minimum heat output	e _{l,min}	0,0114		0,0114		kW
In standby mode	e _{l,SB}	0,0021		0,0021		kW
Energy-efficiency						
Energy-efficiency class		B		B		
Energy-efficiency index	EEl	86		87		
Type heating output/control room temperature			Other control options			
One step heat output, no control of room temperature	no		Control of room temperature, with presence detection			no
Two or more manually adjustable stages, no control of room temperature	no					
With mechanical control of the room temperature by thermostat	no		Control of room temperature, with open window detection			yes
With electronic control of the room temperature	no					
With electronic control of the room temperature plus day-time switch	no					
With electronic control of the room temperature plus week-time switch	yes		With optional remote control			yes
Glen Dimplex Benelux Saturnus 8 Heerenveen The Netherlands						



14.2 MatriX 1050/650 I,II,III H

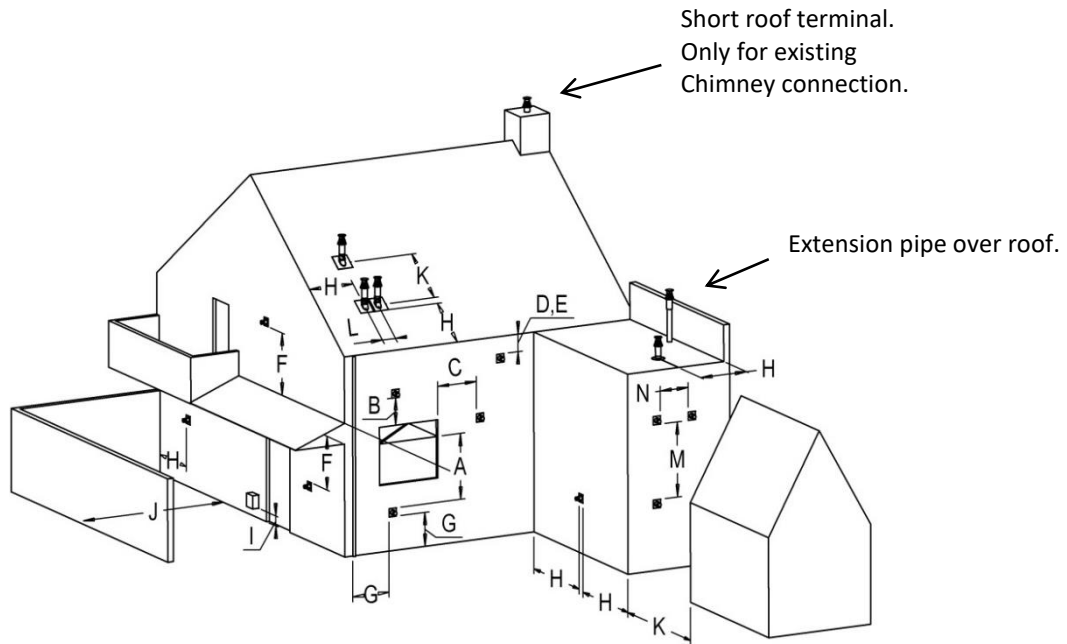
Technical data						
Type indication(s)	MatriX 1050/650 I,II,III H					
Type appliance	C11/C31/C91					
Diameter outlet/inlet	130/200					
Gas connection	3/8"					
Indirect heating functionality	no					
Category	II2H3P					
	Symbol					Unit
Reference gas/inlet pressure		G20-20		G31-37		mbar
Emissions in space heating	NOx	94		101		mg/kWh _{input} (GVC)
Direct heating output						
Nominal heat output	P _{nom}	10,1		10,1		kW
Minimum heat output (indicative)	P _{min}	1,6		1,6		kW
Useful efficiency (NCV)						
At nominal heat output	η _{th,nom}	87,5		87,8		%
At minimum heat output (indicative)	η _{th,min}	69,5		67,6		%
Appliance input data						
Input	Hi	11,5		11,5		kW
Gas rate at full mark		1,23		0,45		m ³ /h
				0,86		kg/h
Burner pressure at full mark		13,0		28,3		mbar
Power requirement for permanent pilot light						
Power requirement for permanent pilot light (if applicable)	P _{pilot}	0		0		kW
Additional electricity consumption						
At nominal heat output	e _{l,max}	0,0309		0,0309		kW
At minimum heat output	e _{l,min}	0,0114		0,0114		kW
In standby mode	e _{l,sb}	0,0021		0,0021		kW
Energy-efficiency						
Energy-efficiency class		B		B		
Energy-efficiency index	EEl	86		86		
Type heating output/control room temperature			Other control options			
One step heat output, no control of room temperature	no	Control of room temperature, with presence detection			no	
Two or more manually adjustable stages, no control of room temperature	no					
With mechanical control of the room temperature by thermostat	no	Control of room temperature, with open window detection			yes	
With electronic control of the room temperature	no					
With electronic control of the room temperature plus day-time switch	no	With optional remote control			yes	
With electronic control of the room temperature plus week-time switch	yes					
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15 Outlet position

➤ **Please note!**

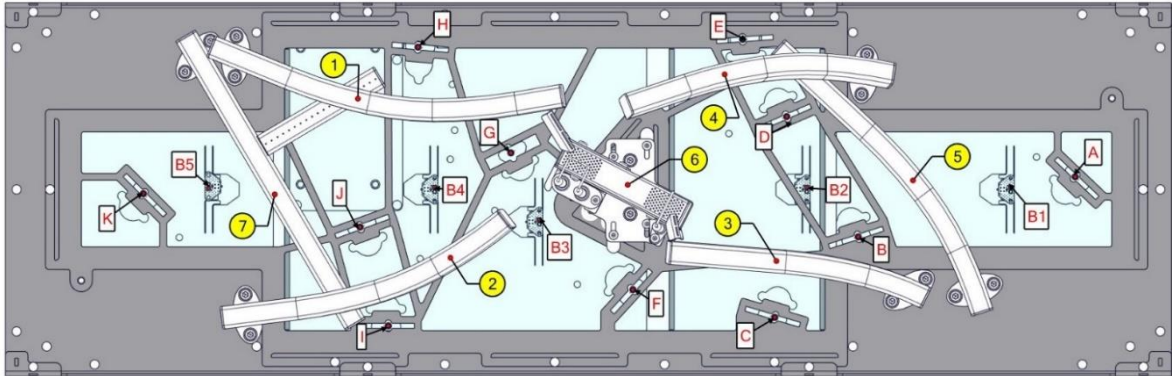
These rules apply only for the proper functioning of the unit, for ventilation and environmental protection you need to comply with the applicable rules as defined in the building regulations.



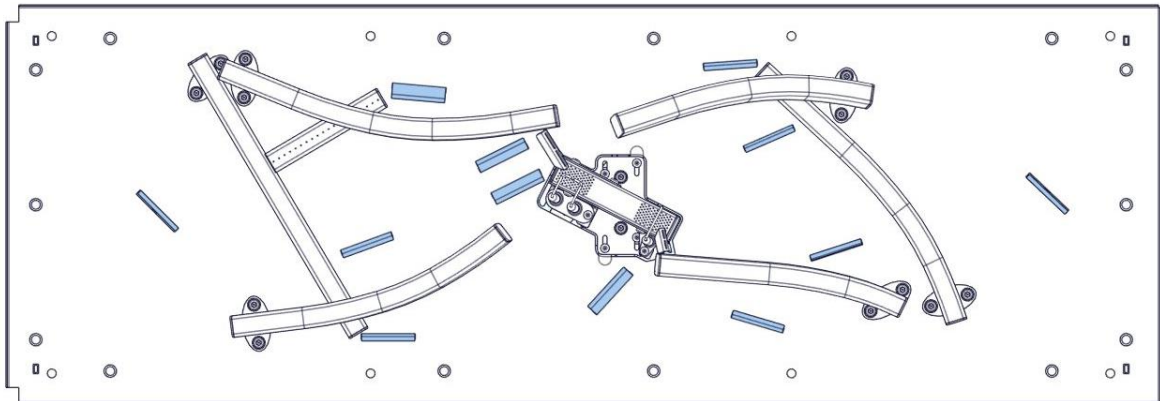
Location	Position outlet	Distance mm
D	Under a gutter	500
E	Under a roof edge	500
F	Under a carport or balcony	500
G	Vertical downpipe	300
H	Inside and outside corners	500
J	From wall surface to a wall outlet	1000
K	Two gable outlets against over each other	1000
L	Distance between two roof outlets	450
M	Two roof outlets above each other on a pitched roof	1000
N	Two gable outlets next to each other	1000

16 Top view sectional burner MatriX 1050 I,II,III H

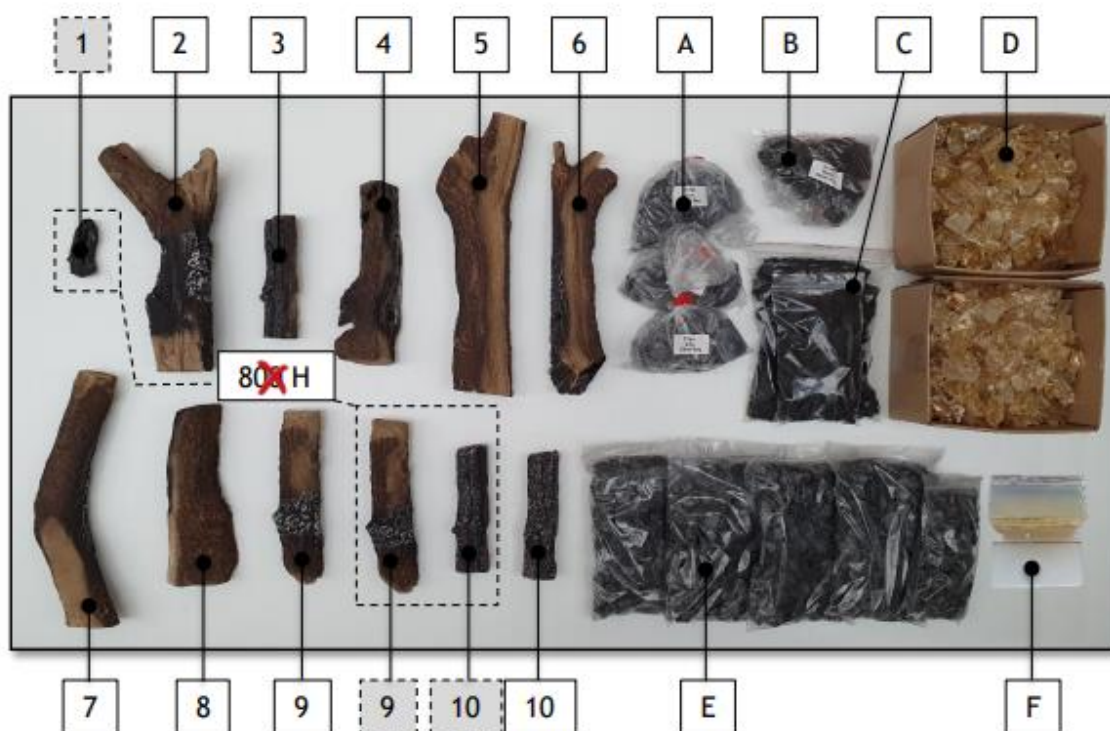
16.1 Position led spots and burners



16.2 Position light guides



17 Log set lay out MatriX 1050 I,II,III H

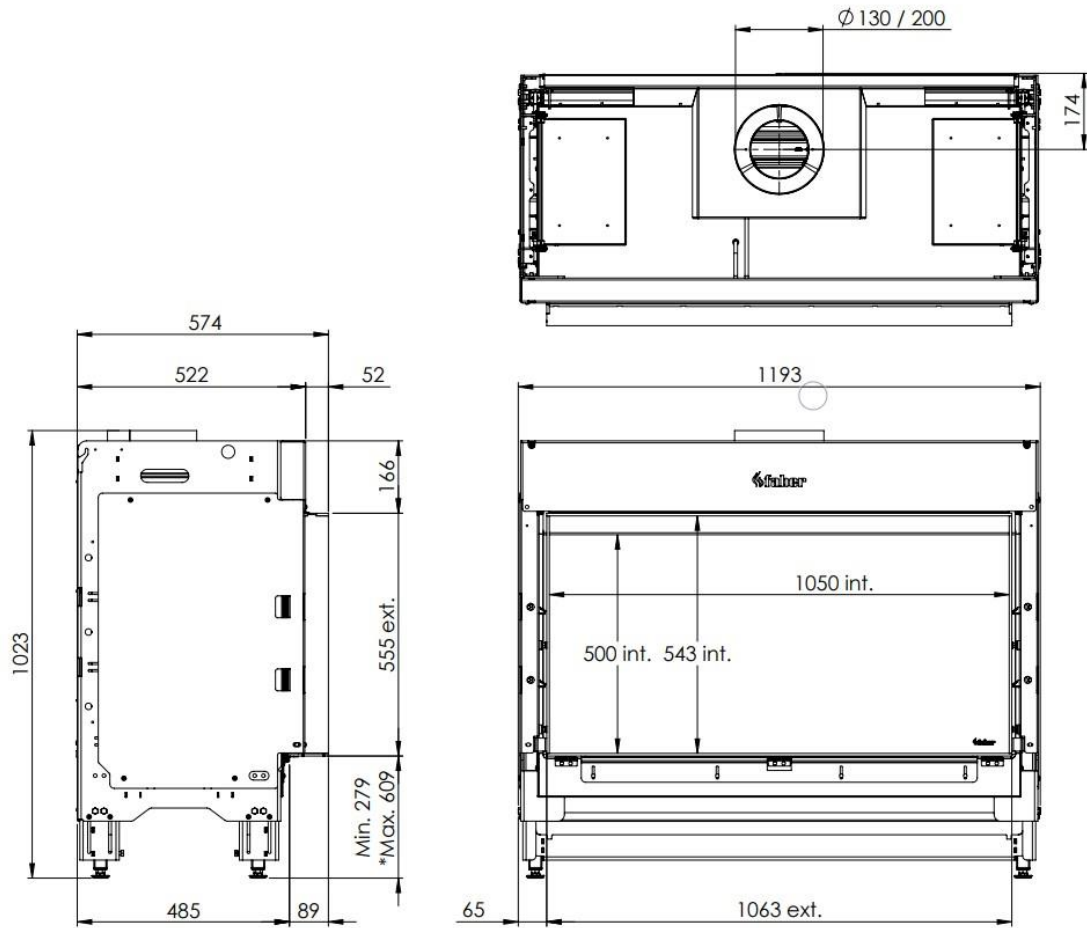


Use the included decoration instruction card, or for a clear instruction video, scan the QR code



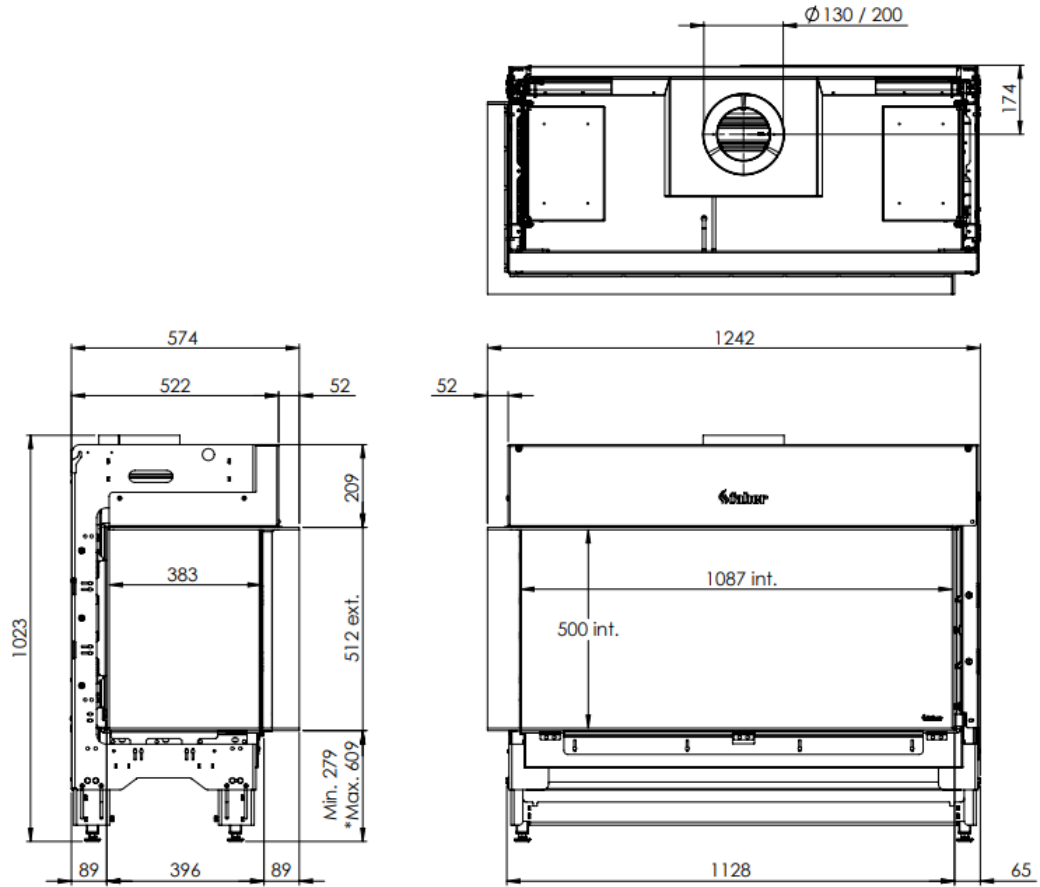
18 Dimensional drawings

18.1 MatriX 1050/500 I H



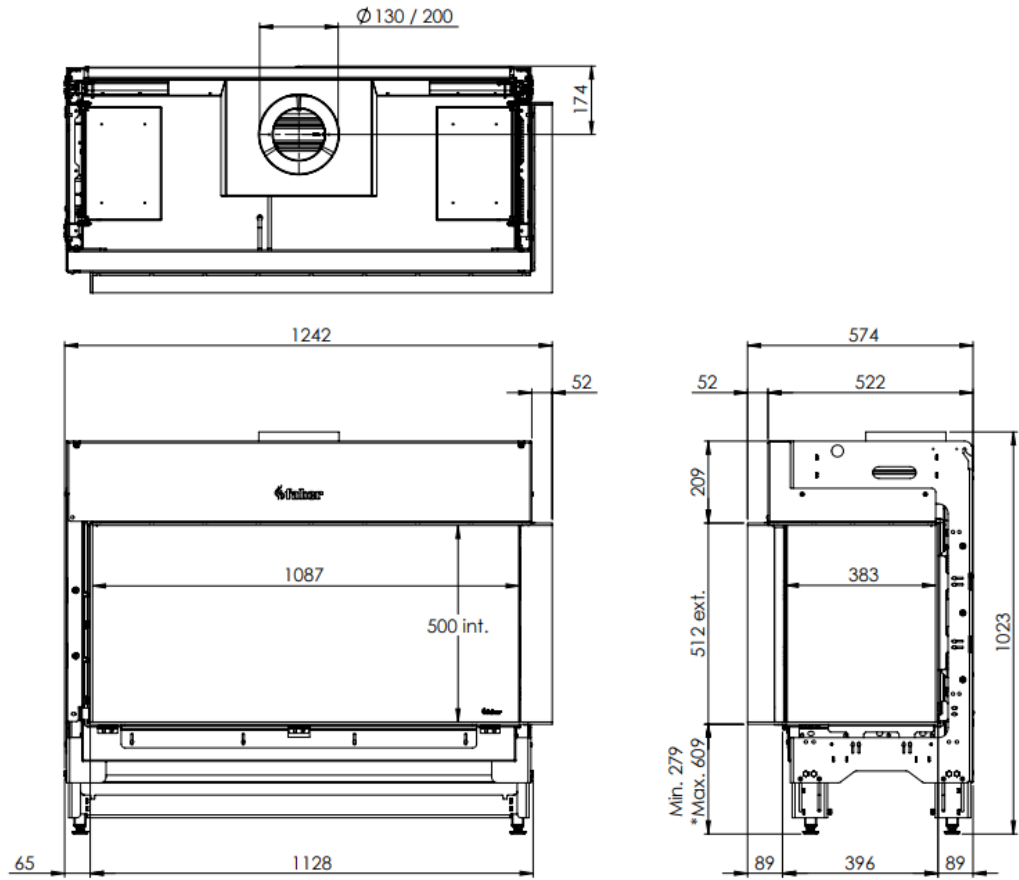
* Incl. optional adjustable feet

18.2 MatriX 1050/500 IIL H



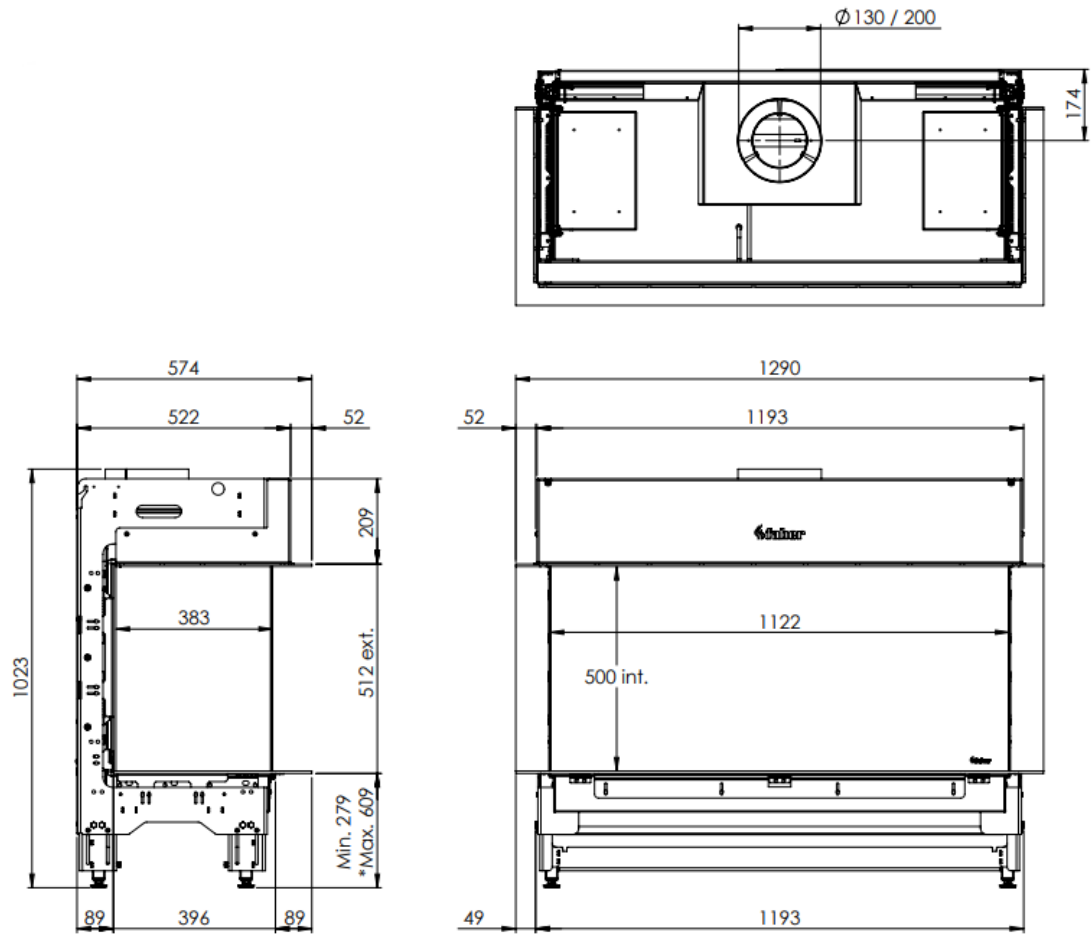
* Incl. optional adjustable feet

18.3 MatriX 1050/500 IIR H



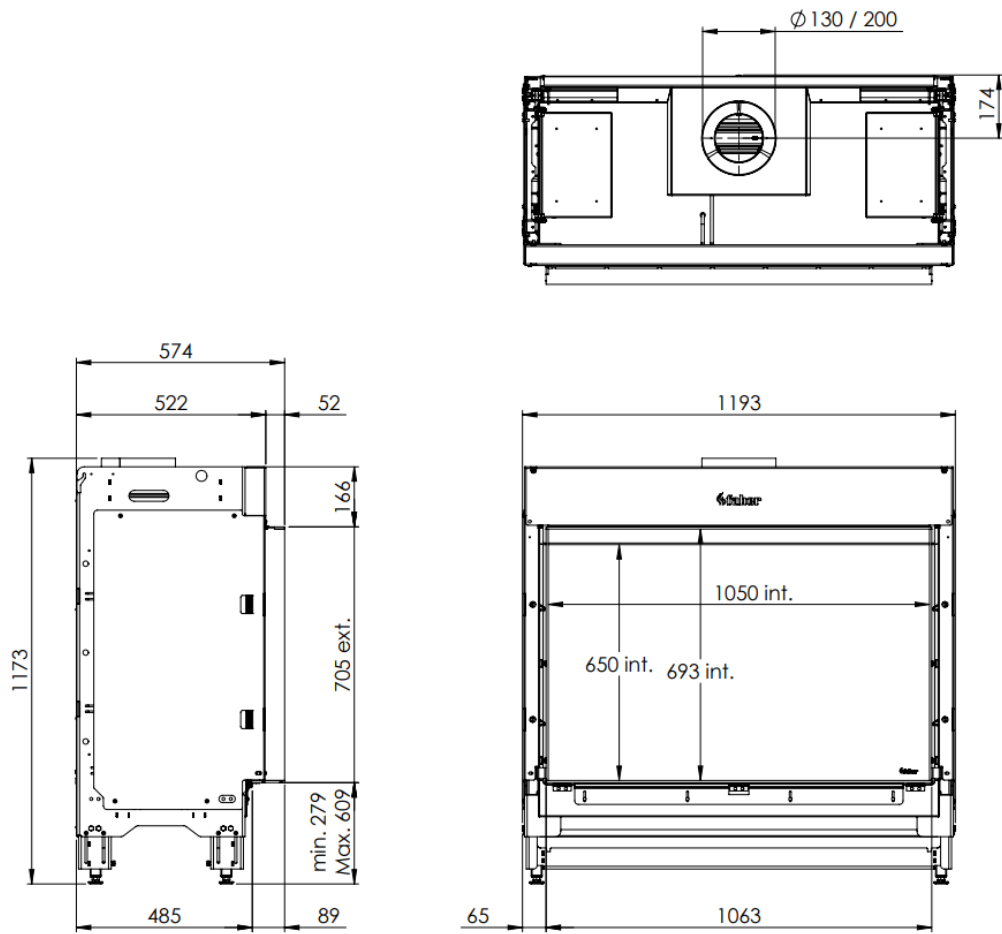
* Incl. optional adjustable feet

18.4 MatriX 1050/500 III H



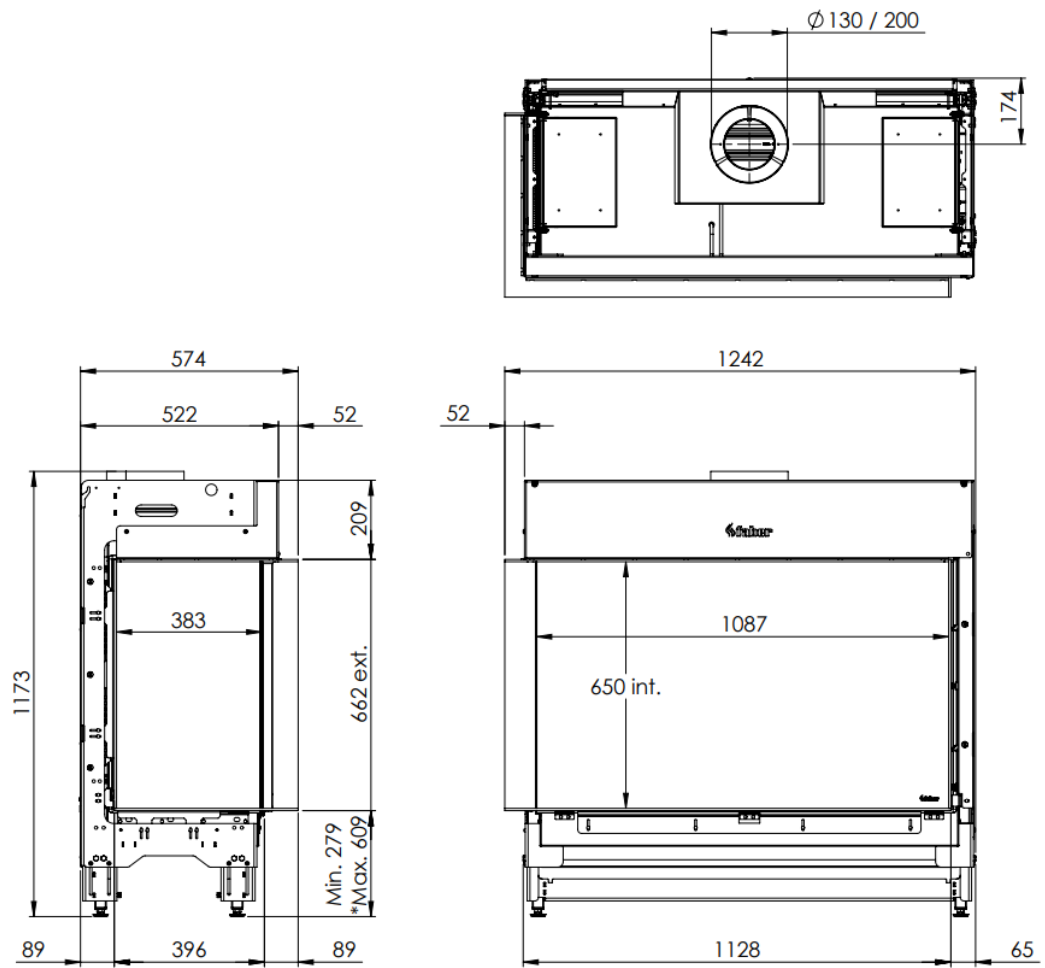
* Incl. optional adjustable feet

18.5 MatriX 1050/650 I H



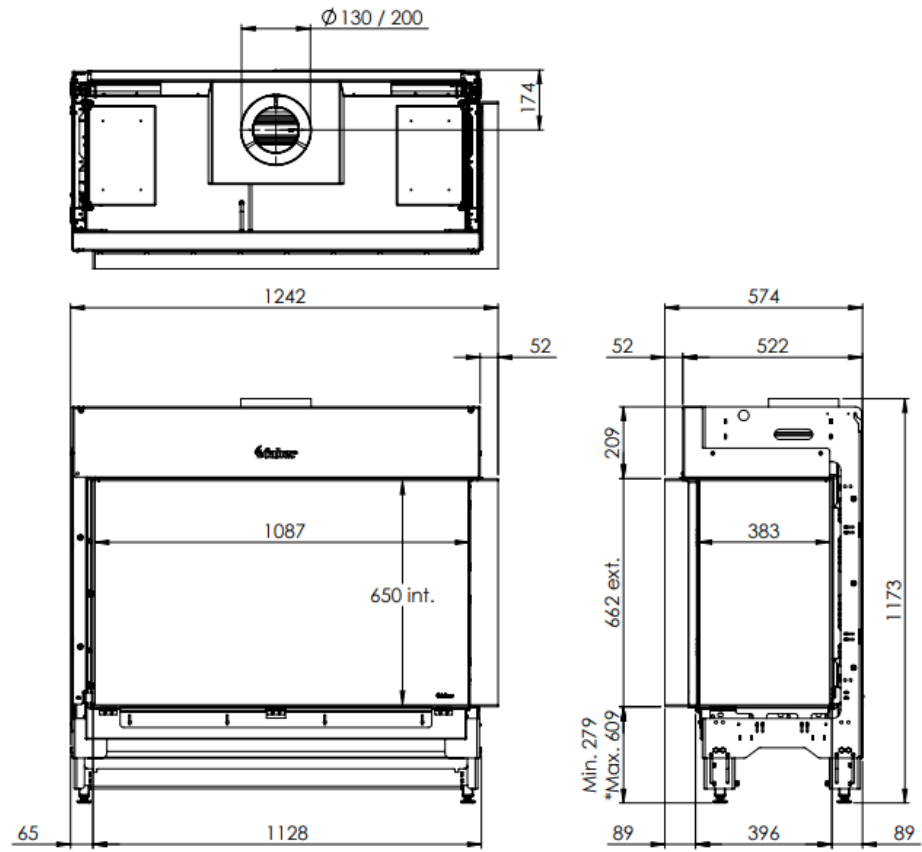
* Incl. optional adjustable feet

18.6 MatriX 1050/650 IIL H



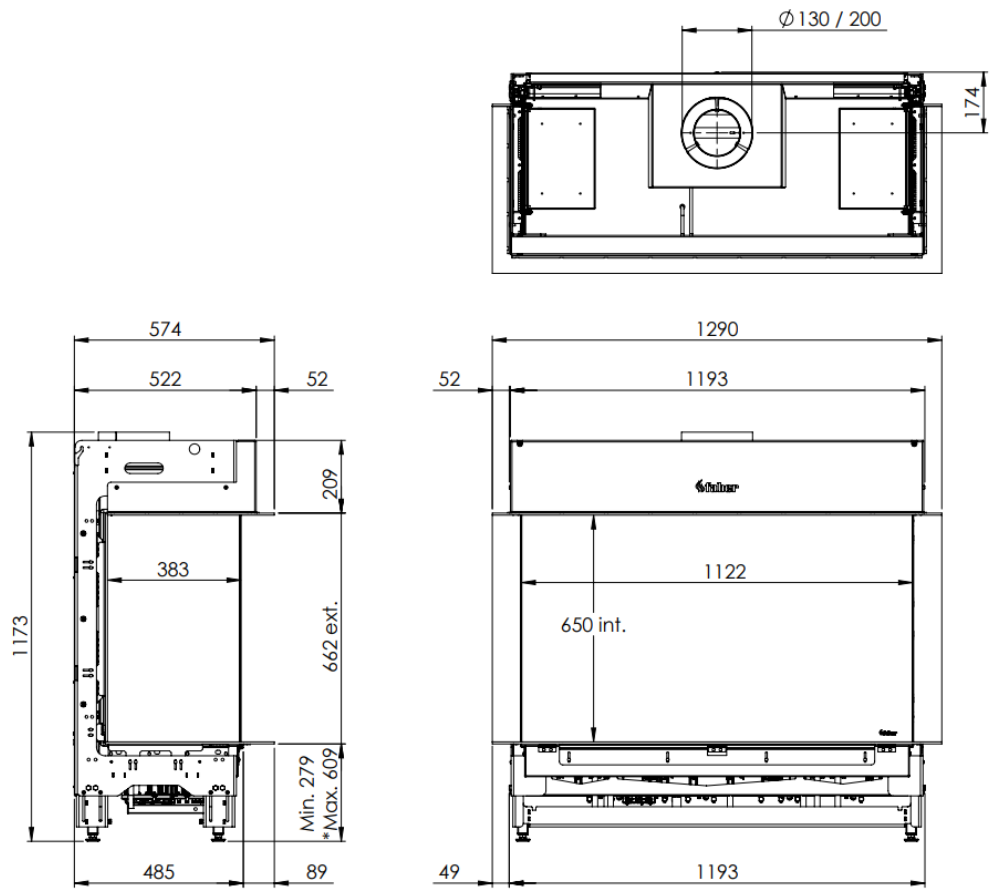
* Incl. optional adjustable feet

18.7 MatriX 1050/650 IIR H



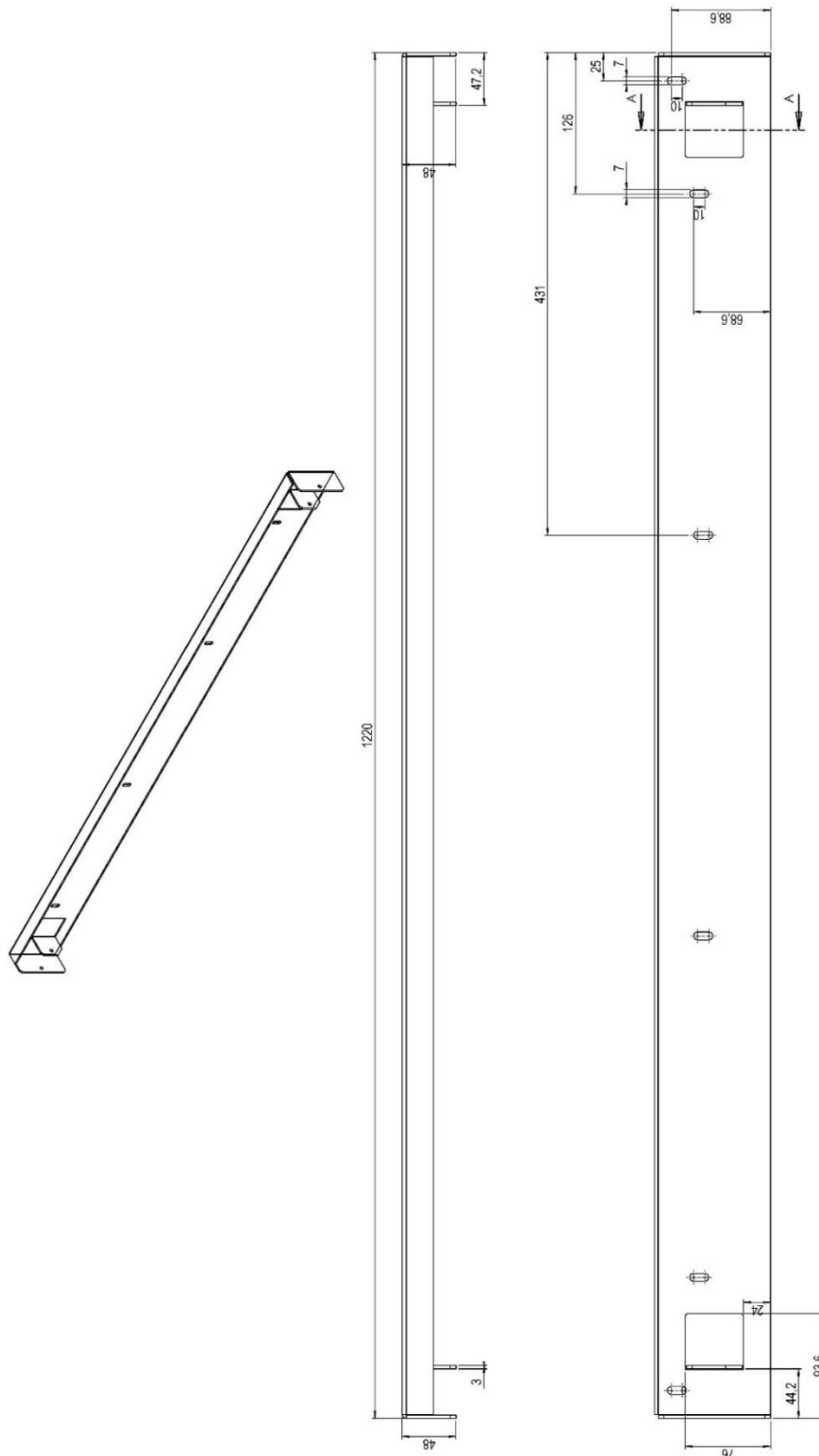
* Incl. optional adjustable feet

18.8 MatriX 1050/650 III H

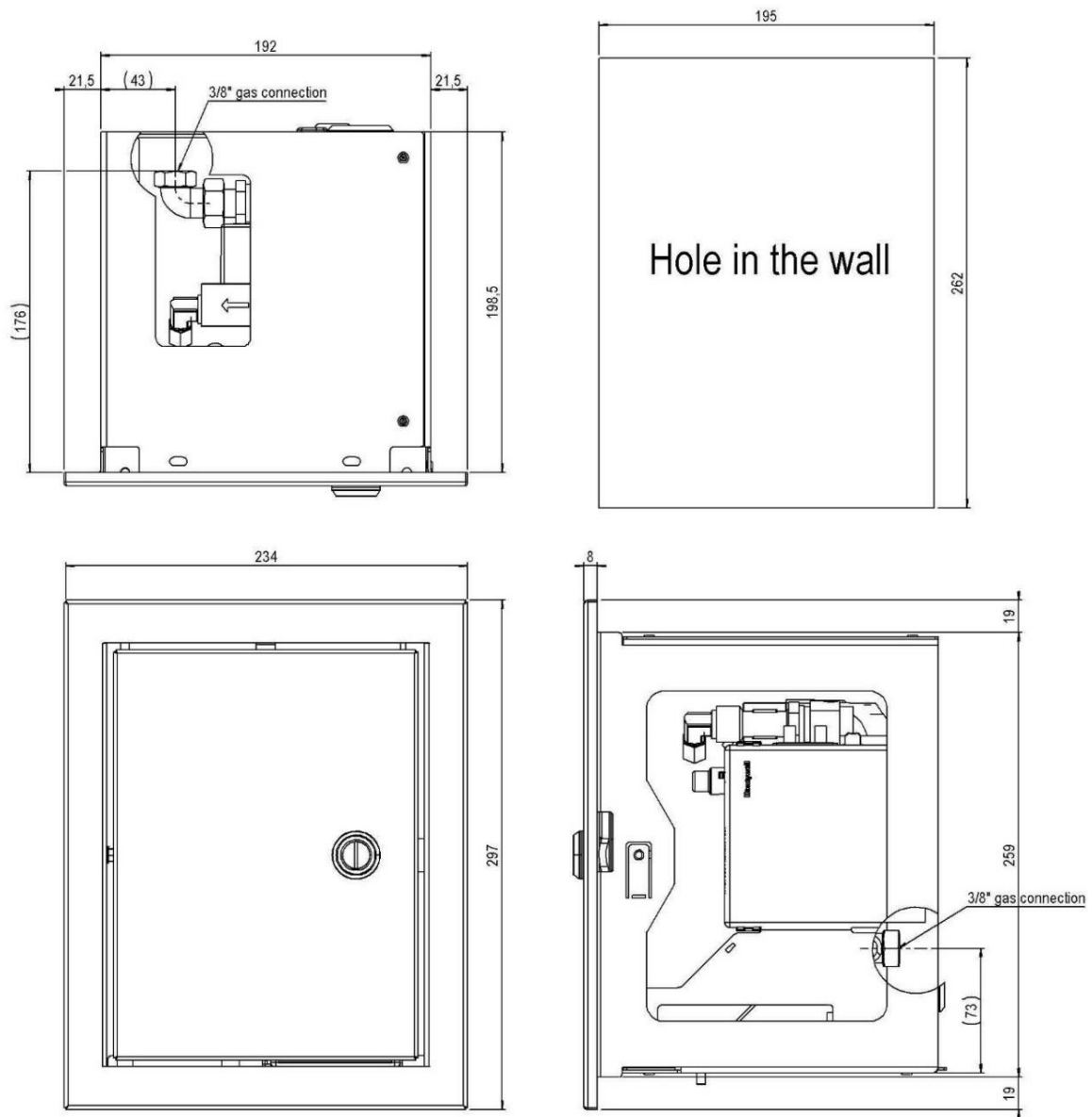


* Incl. optional adjustable feet

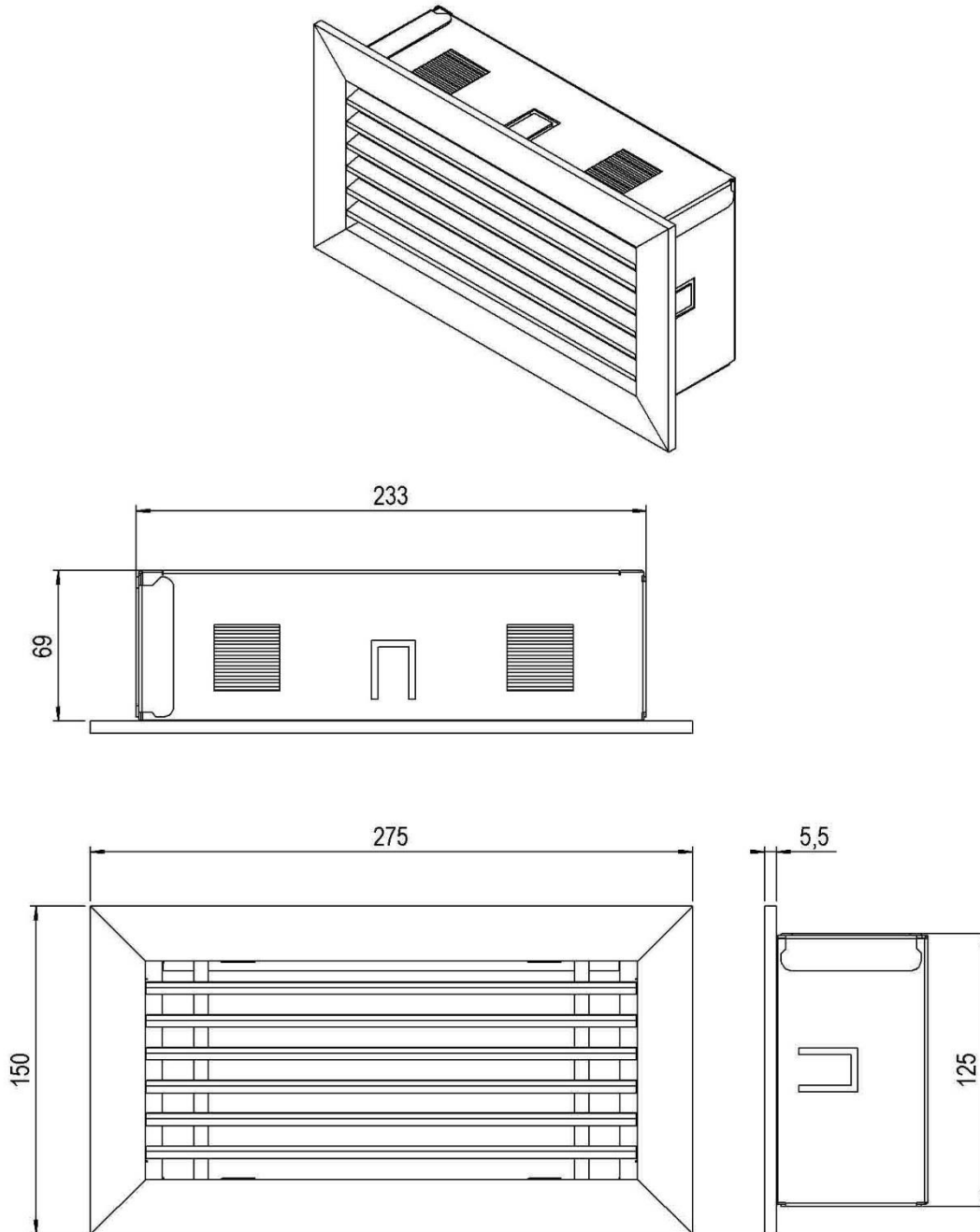
18.9 Wall bracket MatriX 1050/500 I,II,III H and MatriX 1050/650 I,II,III H (article number A9325996)



18.10 Control box FAB1806

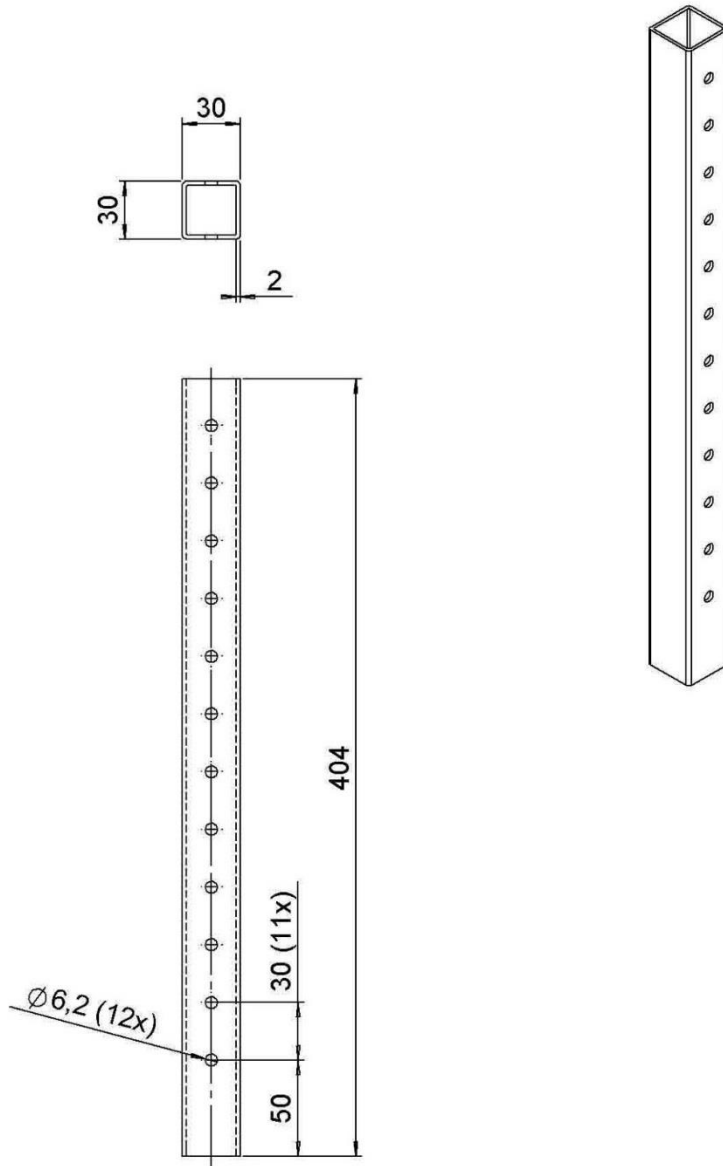


18.11 Ventilation grid (article number A9296400)





18.12 Adjustable feet (article number A9319696)











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NL 8440 AE Heerenveen