# **Installation** Guide

**BSK 02** 

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### 1 BASIC INFORMATIONS



All instructions delivered with products must be observed. We do not accept any warranty claim or liability for damage resulting from failure to observe these installation instructions! Improper installation can cause injury and material damage!

The installation may only be carried out by a registered specialist.

Fireplaces equipped with a water boiler must be pressure-tested after hydraulic connection to the heating system. Masonry work may follow only after this pressure test. Ulrich Brunner GmbH does not cover any costs incurred by necessary dismantling of masonry for rework at water boiler installation or replacement of the boiler.

The floor space of the room must have a suitable structure and sufficient dimensions to ensure proper functioning of the fireplace.

Please note that other installation and assembly instructions are included in other packaging units!

Dimensioning of downstream heat accumulator must be according to valid stove-setting rules.

During installation of the fireplace, all dimensions and minimal clearances of the fireplace casing must be held as specified by the manufacturer.

Fireplaces that meet the requirements of DIN EN 13240 or DIN EN 13229 and that can only be operated as intended with closed combustion chamber door or that have a self-closing firebox door are suitable for multiple occupancy.

All binding national or EU standards and local regulations for the installation of fireplaces must be observed.

All valid stove fitting rules and regulations of local construction law must be observed and followed.

Please follow the relevant regulations of your country.

When these instructions are followed and all works are done properly, this will ensure a safe, energy-saving and environmentally friendly operation of the stove. Pictures shown are not to be considered as complete representations of any kind.

Subject to technical and assortment changes.

Please notify your supplier of any damage which might have occurred during transport.

Please keep these instructions.

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## **2 GENERAL INFORMATION**

### Fireplace insert

The fireplace casing sets of the Brunner System fireplace series are suitable only for the indicated fireplace inserts offered by Ulrich Brunner GmbH.

| Brunner System Fireplace | Suitable fireplace insert   |
|--------------------------|---|
| BSK 01                   | Eck-Kamin lifting door 57/52/52 with 50 mm mounting frame Eck-Kamin side-opening door 57/52/52 with door frame  |
| BSK 02                   | Eck-Kamin lifting door 57/67/44 L/R with 50 mm mounting frame   |
| BSK 03                   | Eck-Kamin lifting door 57/82/48 L/R with 50 mm mounting frame   |
| BSK 04                   | Stil-Kamin side-opening door 62/76 with 50 mm mounting frame<br>Stil-Kamin Tunnel 62/76 S/S as well as S/K with 50 mm mounting frame<br>Kamin-Kessel 62/76 (support frame, art. no. N002072 necessary)  |
| BSK 05.1                 | Panorama-Kamin 57/40/60/40 with fire table  |
| BSK 06                   | Architektur-Kamin lifting door 45/101 with 50 mm mounting frame Architektur-Kamin Tunnel 45/101 S/S as well as S/K with 50 mm mounting frame Kamin-Kessel Tunnel 45/101 S/S as well as S/K with 50mm mounting frame Kamin-Kessel 45/101 and Kamin-Kessel Tunnel 45/101 (For the horizontal outlet rear or left/right, "Smoke pipe branch BSK", art.no. I019490 is necessary.) |
| BSK 07                   | Architektur-Kamin 38/86/36 corner with 50 mm mounting frame   |
| BSK 08                   | Kompakt Kamin 51/67 lifting door, flat<br>Kompakt Kamin 51/67 side-opening door, flat   |
| BSK 09                   | Eck-Kamin 42/42/42 side-opening door with frame   |
| BSK 10                   | Panorama-Kamin 42/42/42 with firetable  |
| BSK 11                   | Panorama-Kamin 70/25/40/25 with firetable   |
| BSK 12                   | Eck-Kamin 42/57/30<br>Kamin-Kessel Eck 42/57/30   |
| BSK 13                   | Panorama-Kamin 51/66/50/66 with firetable and support frame   |

The above indicated combinations of BSK casing set and fireplace inserts are tested according to EN 13229. As a result, there are certain distances and insulation thickness data to be followed and applied.



The Brunner System Fireplace components fulfil the requirements of exposed concrete class SB2.

#### **Floor**

On flammable floors, the fireplace must be placed on a plate made of non-flammable material. This plate must be at least 500 mm long in front and 300 mm wide on both sides of the fireplace.

The base plate of fireplace casing must be carefully set to level; please pay attention, that it lies on the floor over the entire surface. It is recommended to use the wall as reference and set the base plate at 90 degrees. The completely set fireplace cannot be moved or turned afterwards.

### Acrylic adhesive

Used pointwise to stick elements together and to fill the gaps.

#### **Painting**

24 hours after assembly you can paint the fireplace casing. Plastered walls must be previously sanded with fine abrasive paper.

#### Hairline cracks

Joints between the elements of fireplace casing and the between the house wall and the fireplace casing can tend to the formation of small cracks. This is normal and no cause for concern. Small cracks can be removed with the revision set (Art.Nr.: 900300).

After 24 hours the joint can be painted over.

### **Bigger cracks**

Transportation damage must be reported immediately to the shipping company. Replacement parts can be order at Ulrich Brunner GmbH.

In the case of bigger defects that cannot the repaired with the revision set (Art.Nr.: 900300), it is possible to request for exchange at Ulrich Brunner GmbH as part of your warranty.

#### Replacement requests:

When ordering replacement parts it is necessary to mark the damaged parts on the attached packing list and make a picture of the damage. Then, the printed picture and packing list should be sent back to Ulrich Brunner GmbH. The replacement part will be sent as soon as possible.

#### Fireplace casing with concrete look

The fireplace casings with concrete look, despite the best possible care during manufacturing and shipping, can show slight irregularities like air inclusions, small cracks or unclean edges. This corresponds entirely to the concrete look and does not constitute a reason for a claim. Cracked or significantly damaged elements will be replace as part of your products' warranty.

### **Built-in components**

If any additional components like electronics (EOS) or similar are installed inside the fireplace casing, the max. allowed ambient temperature must be followed. Electronics must be installed in such a way to provide for rear ventilation.

All safety distances are minimal required distances.

Subject to errors and changes!



Please follow the separate installation instructions for the fireplace insert.



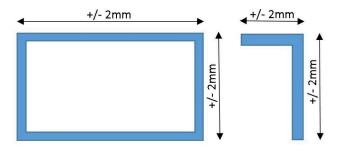


### 3 TOLERANCES OF THERMAL CONCRETE PARTS

The following tolerances are valid for all parts of our system fireplace/stove casings. Except where otherwise indicated, all data refer to the nominal dimensions, as found in dimensional drawings.

### **Length Tolerances**

For each part, the indicated tolerances apply.



### **Height Tolerances**

For each part, the indicated tolerances apply.



#### **Tolerances of Flatness**

For parts with nominal dimensions up to 950 mm, a tolerance of +/- 2.5 mm applies. Above this dimension, a tolerance of +/- 3 mm applies.

These tolerances apply also for the base support and top cover parts. The leveling board (R) must be placed in parallel to the basic body!

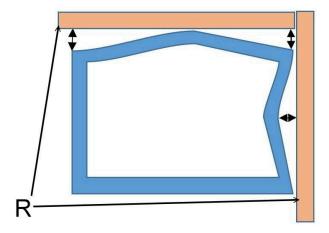


Illustration 1: Leveling boards placed correctly

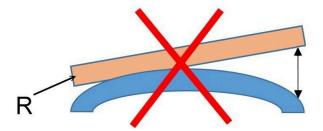


Illustration 2: Incorrectly placed leveling board

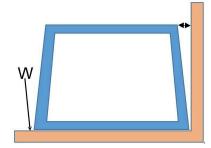
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### **Tolerances of Angle**

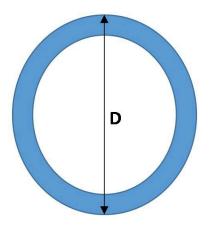
In order to determine the deviations of angles, place the square measuring tool along the long edge!

For nominal dimensions up to 600 mm, a tolerance of 0.28%, i.e. 1.7 mm applies. For nominal dimensions up to 900 mm, a tolerance of 0.30%, i.e. 2.4 mm applies.



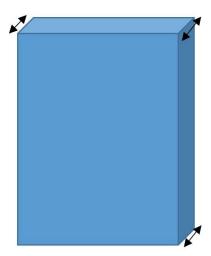
#### Roundness

Up to a nominal diameter of 650 mm, a tolerance of 0.25%, i.e. 1.62 mm applies. For diameters above this value, a tolerance of 0.28%, i.e. 2.38 mm applies.



### Wall thicknesses

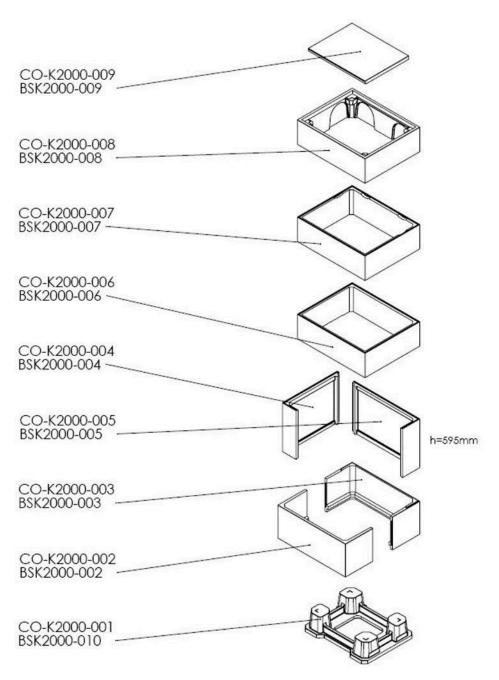
For wall thicknesses, a tolerance of 3.5% applies.



The overall appearance with color shade differences being present or not can be assessed in general only after a longer period of time (several weeks in some cases). The uniformity of color should be assessed from a typical viewing distance.



## 4 CONSTRUCTION ELEMENTS OF THE BSK 02



If a corner fireplace 45/67/44 or a waterbearing corner fireplace 45/67/44 is installed, then the side parts BSK2000-011 and BSK2000-012 are required. In this case the side parts BSK2000-004 and BSK2000-005 are not needed.

If a corner fireplace 57/67/44 or a waterbearing corner fireplace 57/67/44 is installed, then the side parts BSK2000-004 and BSK2000-005 are required. In this case the side parts BSK2000-011 and BSK2000-012 are not needed.



# **5 SEQUENCE OF ASSEMBLY**

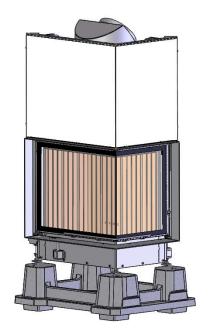


Illustration 4: set up the corner fireplace on the bottom plate

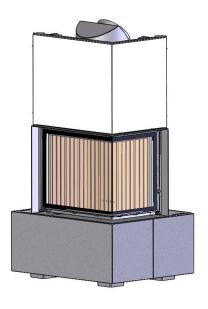


Illustration 5: set up the bottom element on the bottom plate

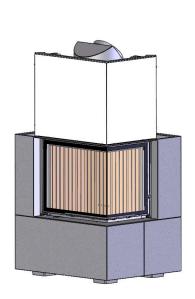


Illustration 3: align the bottom plate

Illustration 6: set up the parts of the second ring

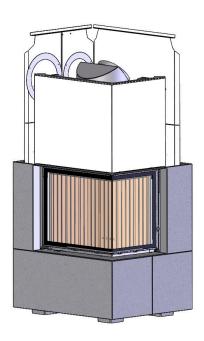


Illustration 7: insert the radiation panel (if ordered)

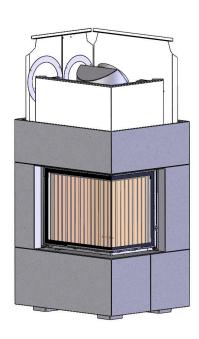
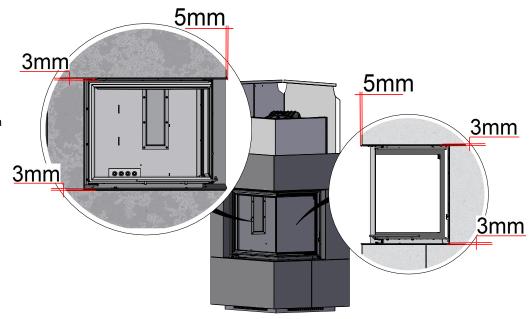
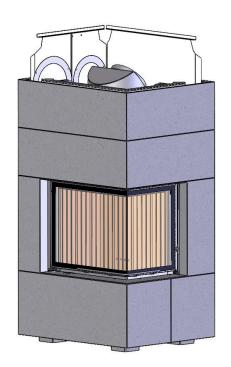


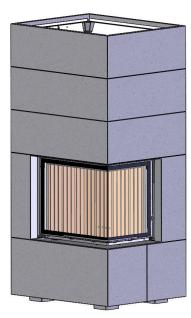
Illustration 8: lift up the third ring



Please measure! The supernatant to the concrete parts of the mounting frame must be continuously 5 mm wide. Between the mounting frame and the form must be a continuously gap of 3 mm. Undershooting these measurements can cause damage to the BSK.







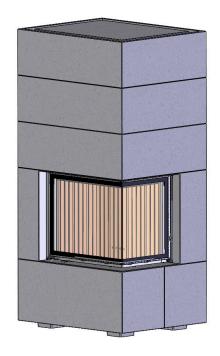


Illustration 9: lift up the fourth ring

Illustration 10: lift up the fifth ring

Illustration 11: set up the cover plate

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Brick lining or equiva-

alternative insulation

material, insulating panel

### **6 MINIMAL DISTANCES**

### Minimal distances to adjacent walls

Thermal concrete slabs (as-

sembled by craftsman, with

exposed joints)

Depending on wall type (flammable or non-flammable wall), the minimal distances are different. With installed heat protection screen it is possible to minimize the distance to adjacent wall.

### With installed heat Without heat protection screen: protection screens: Other walls: ≥ 5 cm aerated concrete ceramic bricks sand-lime bricks mineral building materials with wall thicknesses > 10 cm ≥ 5 cm Walls requiring protection: 1≥ 10 cm flammable walls and wall structures load-bearing reinforced concrete walls other walls up to 10 cm thickness walls with built-in furniture behind them (heat accumulation) ≥ 10 cm ≥ 5 cm Walls requiring protection with 10 cm brick lining or alternative insulation ≥ 5 cm

Flammable walls

requiring protection

Non-flammable wall,

(other walls)

not requiring protection

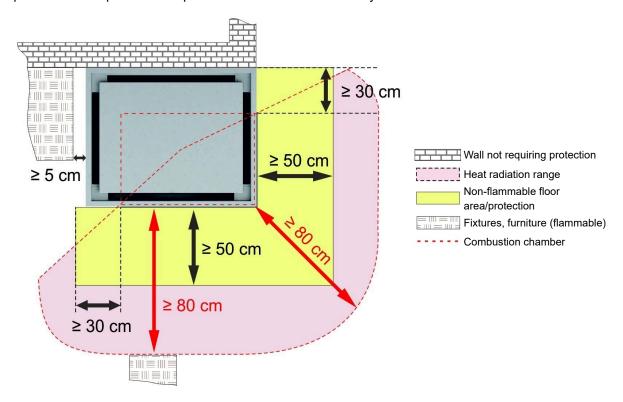


### 7 HEAT RADIATION RANGE

Within the range of heat radiation through the fireplace door (glass pane) there must be a minimal distance to all flammable parts (e.g. built-in furniture, fixtures) of at least 80 cm.

Outside the heat radiation range, any flammable fixtures cannot be exposed to temperatures above 85°C. Large-dimensioned parts from flammable materials or built-in furniture must have a clearance of at least 5 cm to external fireplace cladding. In this clearance, the room air must be able to circulate without any obstacles.

In general, parts of external fireplace cladding are allowed to be installed without any clearances, if such parts are not exposed to temperatures above 85°C under any circumstances.



## 8 ASSEMBLY

### Sequence of assembly

For sequence of assembly, please follow the instructions in chapter 'Sequence of assembly'. It shows each and every step of assembly.

Always keep to the specified order!

The single elements must be examined closely before installation to ensure correct position. Don't forget the pointwise bonding of elements with acrylic adhesive.

The assembly sequence of protective panels is only an example and can be different in various cases.



#### Fireplace insert

To compensate for the different thermal expansions between the fireplace insert and casing, a gap of ca. 2-3 mm must be left around the doors.



If the fireplace casing is in direct contact with the fireplace insert, it leads to damage of the fireplace casings, which are not covered by our warranty.



The mounting frame must have an overlap of about 4 mm.

#### **Breakthroughs and breakouts**

Breakthroughs for smoke pipe connection, air gratings or other components within the fireplace casing must be created on site. These are to be made with extreme caution to prevent breakage of the components.

Damage caused by improper work is not covered by the warranty.

The safest way to create the breakthroughs is using a jigsaw.

### Setting of the ring elements

The ring elements of the fireplace casings must be lifted over the fireplace insert previously set on the base plate. To avoid damages during setting, it is recommended to place the elements on pieces of wood, and then set down the ring element carefully after pulling out the wood pieces.



Illustration 12: Wood pieces as supports

#### **Plastering**

Before plastering the fireplace casing, the fireplace should have been heated once. As a result, the fireplace casing can expand and break down the biggest stresses. This prevents or reduces subsequent cracks in the surface of the plastered fireplace.

The surface of the fireplace casing must be cleaned with a damp cloth. A pre-wetting of the surface is not required.

Keep processing temperature above 5°C (41 deg. Fahrenheit).

To avoid stress cracks as much as possible, a fiberglass mesh is applied with adhesive plaster (optional) Brunner Universal (Art.Nr.: 900384) or Brunner Spezial (Art.Nr.: 900284) on the fireplace casing.

The actual plaster layer is then drawn with adhesive plaster over this layer.



Please note the processing instructions for the adhesive plaster.



Excerpt from the processing instructions: Mix dry mass before removal of processing volumes in a clean container. Set small quantities in a mason pan with a spatula or trowel with clean tap water into application-specific consistency and process quickly; for large-area coating, stir with a mortar agitator in low speed intensively, allow to soak, stir again and then process quickly.

### **Heat protective panels**

Heat protective panels are always necessary, when the BSK is set directly adjacent to a wall, i.e. if the minimal distance (see 'Technical Data') cannot or should not be held there. The heat protective panels are necessary only on this part of the BSK interior, that is adjacent to a wall.



The assembly steps of heat protective panels shown in assembly sequence is only an example.

With limited ceiling height, the heat protective panels may not be inserted from the top into the BSK fireplace casing. In this case, the heat protective panels must be inserted before the upper rings are set.

Please follow the heat protective panels' enclosed instructions.

#### Inlet air (combustion- and convection air)

The required combustion- and convection air flows to the fireplace insert over the openings in the base area. If one of these openings are blocked, you need to make a correspondingly large opening in the components of the Brunner fireplace kits.

The hot air outlet is structurally guaranteed by the free cross sections in the ceiling region. If they are blocked, it is necessary to provide for a sufficient warm air outlet (see section 'Technical Data'). **Risk of overheating!** 

The openings for air supply and hot air outlets with the specified cross sections are required, even if the fireplace is provided with external air supply.



The stove cannot be used without sufficient air intake or hot air outlets.

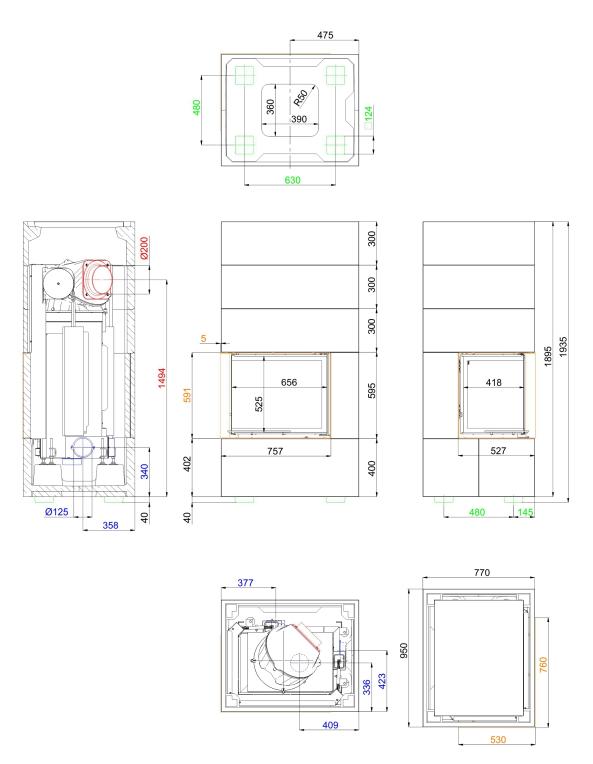
Please observe the installation instructions provided with the fireplace/stove insert.

### Installation of BSK 02 with a Kamin-Kessel Eck 57/67/44 L/R

For the installation of a Kamin-Kessel Eck 57/67/44 in the BSK 02 with a lateral flue outlet an additional concrete ring is required and a 90 ° bend. The height of the BSK 02 in this case reaches 2195 mm. Please pay attention that a sufficient distance from the ceiling (see "technical data") is needed!

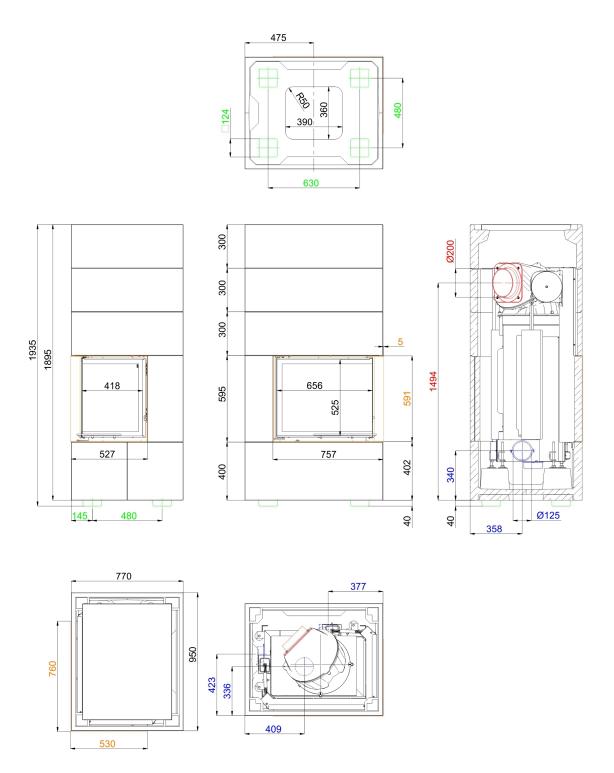
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### Dimension sheets - BSK 02 with Eck-Kamin 57/67/44



... left (frame (orange), combustion air nozzle (blue), levelling feet (green) marked in color)

### Dimension sheets - BSK 02 with Eck-Kamin 57/67/44



... right (frame (orange), combustion air nozzle (blue), levelling feet (green) marked in color)

We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

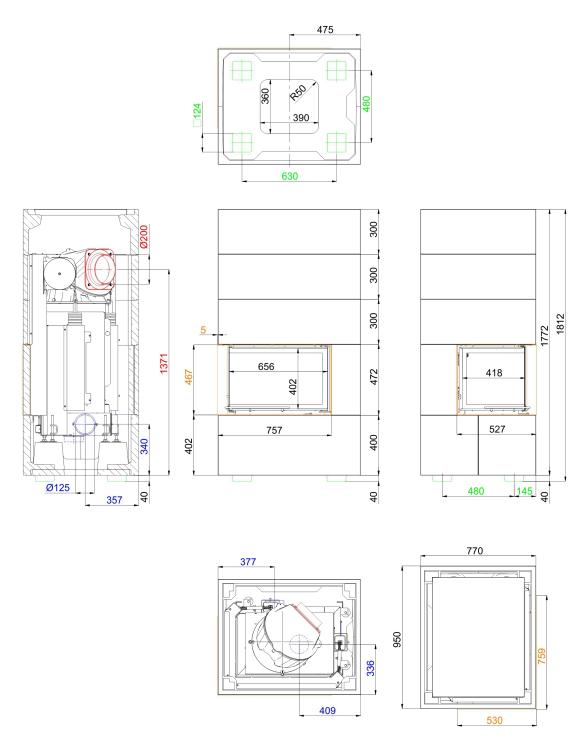
# Planning and installation - BSK 02 with Eck-Kamin 57/67/44

| Tested according to                                      |                 | EN 13229  |
|--|-----------------|---|
| Data for functional demonstration                        |                 |   |
| Rated heat power   | kW              | 11  |
| Fire wood volume   | kg/h            | 3.2   |
| Flue gas mass flow                                       | g/s             | 13  |
| Flue gas temeperature                                    | °C              | 225   |
| Necessary supply pressure 1)                             | Pa              | 13  |
| Combustion air consumption                               | m³/h            | 32  |
| Combustion air connection Ø                              | mm              | 125   |
| Cladding components                                      |                 |   |
| Foot print (W x D)                                       | mm              | 950 x 770   |
| Overall height   | mm              | 1935  |
| Height of extension ring                                 | mm              | 300   |
| Minimal distances  |                 |   |
| to mounting wall   | cm              | 5   |
| to mounting wall with heat protection panels             | cm              | 0   |
| to combustible mounting wall                             | cm              | 10  |
| to combustible mounting wall with heat protection panels | cm              | 5   |
| from top of fireplace to ceiling                         | cm              | 50  |
| Cross-section of gratings 2)                             |                 |   |
| Convection air   | cm <sup>2</sup> | 965   |
| Supply air   | cm <sup>2</sup> | 900   |
| Weight   |                 |   |
| Total weight   | kg              | 709   |
| Meets requirement/limit values for:                      |                 |   |
| Germany/ Austria / Switzerland / Norway                  |                 | 1.BlmSchV (Stufe 2) / 15a<br>BVG (2015) / LRV / NS 3059 |

<sup>1)</sup> Damper flap recommended

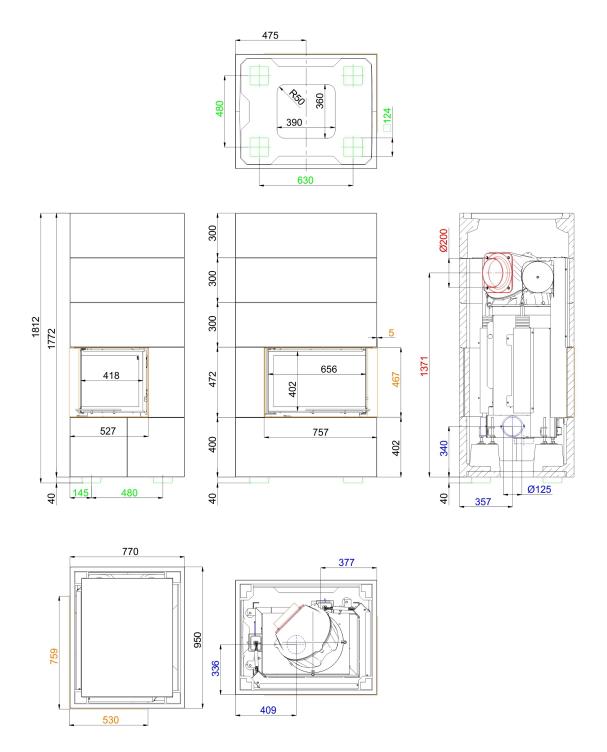
<sup>2)</sup> Existing convection air openings. If the construction differs from the supplied system kit (e.g. construction up to the ceiling or closed construction), the information in the data sheet is decisive for carrying out the cross section of the convection air openings.

### Dimension sheets - BSK 02 with Eck-Kamin 45/67/44



... left (frame (orange), combustion air nozzle (blue), levelling feet (green) marked in color)

### Dimension sheets - BSK 02 with Eck-Kamin 45/67/44



... right (frame (orange), combustion air nozzle (blue), levelling feet (green) marked in color)

We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

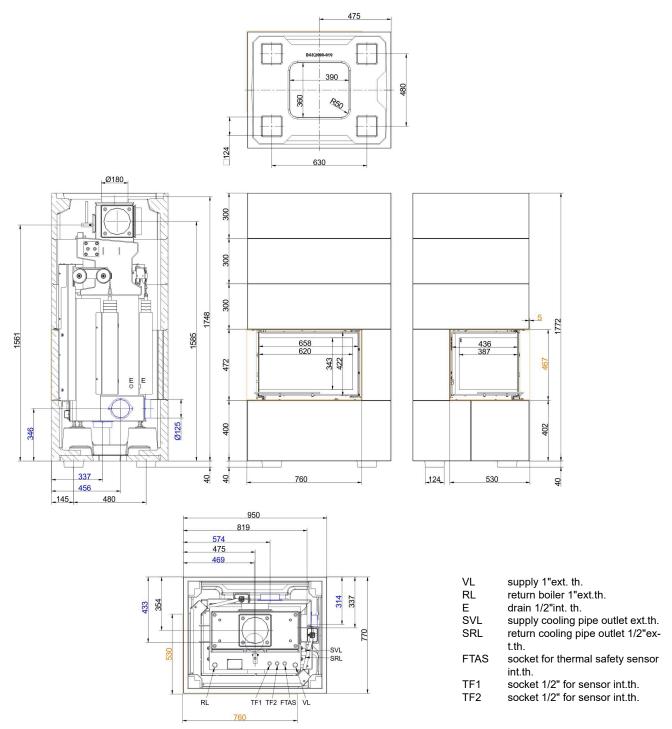
# Planning and installation - BSK 02 with Eck-Kamin 45/67/44

| Tested according to                                      |                 | EN 13229   | <u>-</u>       |
|--|-----------------|--|----------------|
| Values measured at                                       |                 | Rated power  | Practical avg. |
| Data for functional demonstration                        |                 |  |                |
| Rated heat power   | kW              | 11   | -              |
| Fire wood volume   | kg/h            | 3.2  | -              |
| Flue gas mass flow                                       | g/s             | 13   | -              |
| Flue gas temeperature                                    | °C              | 225  | -              |
| Necessary supply pressure 1)                             | Pa              | 13   | -              |
| Combustion air consumption                               | m³/h            | 32   | -              |
| Combustion air connection Ø                              | mm              | 125  | -              |
| Cladding components                                      |                 |  |                |
| Foot print (W x D)                                       | mm              | 950 x 770  | -              |
| Overall height   | mm              | 1812   | -              |
| Height of extension ring                                 | mm              | 300  | -              |
| Minimal distances  |                 |  |                |
| to mounting wall   | cm              | 5  | -              |
| to mounting wall with heat protection panels             | cm              | 0  | -              |
| to combustible mounting wall                             | cm              | 10   | -              |
| to combustible mounting wall with heat protection panels | cm              | 5  | -              |
| from top of fireplace to ceiling                         | cm              | 50   | -              |
| Cross-section of gratings 2)                             |                 |  |                |
| Convection air   | cm <sup>2</sup> | 965  |                |
| Supply air   | cm <sup>2</sup> | 900  |                |
| Weight   |                 |  |                |
| Total weight   | kg              | 709  |                |
| Meets requirement/limit values for:                      |                 |  |                |
| Germany/ Austria / Switzerland / Norway                  |                 | 1.BImSchV (Stufe<br>2) / 15a BVG (2015) /<br>LRV / NS 3059 | -              |

<sup>1)</sup> Damper flap recommended

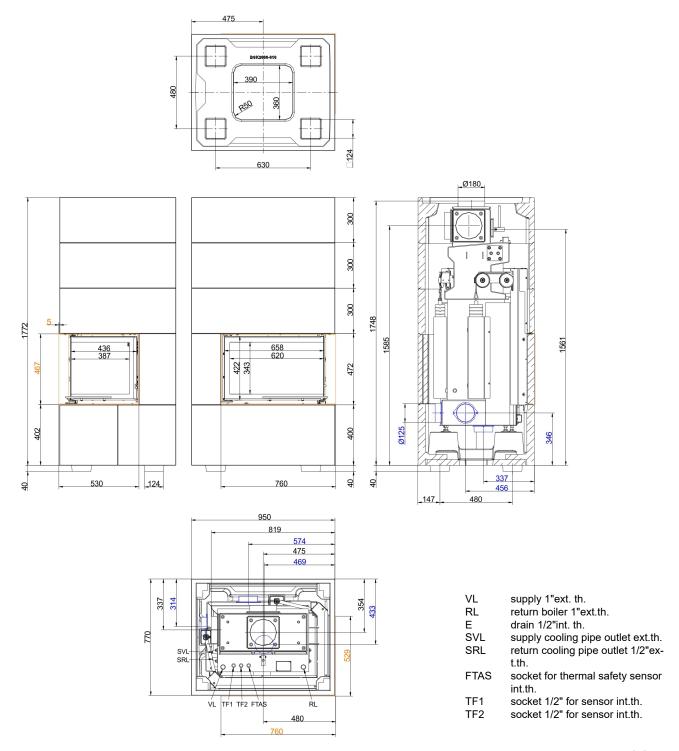
<sup>2)</sup> Existing convection air openings. If the construction differs from the supplied system kit (e.g. construction up to the ceiling or closed construction), the information in the data sheet is decisive for carrying out the cross section of the convection air openings.

### Dimension sheets - BSK 02 with Kamin-Kessel Eck 45/67/44



... left

### Dimension sheets - BSK 02 with Kamin-Kessel Eck 45/67/44



... right

We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

# Planning and installation - BSK 02 with Kamin-Kessel Eck 45/67/44

| Tested according to                                      |  | EN 13229 W  | EN 13229 W     |
|--|--|-------------|----------------|
| Values measured at                                       |  | Rated power | Practical avg. |
| Data for functional demonstration                        |  |             |                |
| Rated heat power   | kW   | 12          | _              |
| Room heating power                                       | kW   | 5           | _              |
| Water heating power                                      | kW   | 7           | _              |
| Fire wood volume   | kg/h   | 3.6         | 5.7            |
| Flue gas mass flow                                       | g/s  | 12.5        | 19.5           |
| Flue gas temeperature                                    | °C   | 155         | 200            |
| Necessary supply pressure                                | Pa   | 12          | 12             |
| Combustion air consumption                               | m³/h   | 40          | 50             |
| Combustion air connection Ø                              | mm   | 125         | 125            |
| Cladding components                                      |  |             |                |
| Foot print (W x D)                                       | mm   | 950 x 770   | 950 x 770      |
| Overall height   | mm   | 1812        | 1812           |
| Height of extension ring                                 | mm   | 300         | 300            |
| Minimal distances  |  |             |                |
| to mounting wall   | cm   | 5           | 5              |
| to mounting wall with heat protection panels             | cm   | 0           | 0              |
| to combustible mounting wall                             | cm   | 10          | 10             |
| to combustible mounting wall with heat protection panels | cm   | 5           | 5              |
| from top of fireplace to ceiling                         | cm   | 40          | 40             |
| Cross-section of gratings 1)                             |  |             |                |
| Convection air   | cm <sup>2</sup>                                | 965         | 965            |
| Supply air   | cm <sup>2</sup>                                | 900         | 900            |
| Weight   |  |             |                |
| Total weight   | kg   | 798         | 798            |
| Meets requirement/limit values for:                      |  |             |                |
| Germany/ Austria / Switzerland / Norway                  | 1.BlmSchV (Stufe 2) / 15a BVG (2015) / LRV / - |             |                |

<sup>1)</sup> Existing convection air openings. If the construction differs from the supplied system kit (e.g. construction up to the ceiling or closed construction), the information in the data sheet is decisive for carrying out the cross section of the convection air openings.



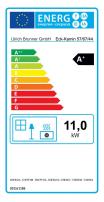
### Product data sheet according to (EU) 2015/1186:

Ulrich Brunner GmbH Supplier's name or trademark Eck-Kamin 57/67/44 Model identifier:

Energy efficiency class: Α+ Direct heat output: 11.0 kW Indirect heat output: N.A. kW 109 Energy efficiency index: Fuel energy efficiency (at nominal heat output): 82.0 % Fuel energy efficiency (at minimum load): N.A. %

Special precautions: see supplied product documenta-

tion



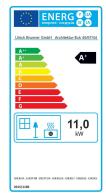
### Product data sheet according to (EU) 2015/1186:

Ulrich Brunner GmbH Supplier's name or trademark Architektur-Eck 45/67/44 Model identifier:

Energy efficiency class: A+ Direct heat output: 11,0 kW Indirect heat output: N.A. kW Energy efficiency index: 109 Fuel energy efficiency (at nominal heat output): 82,0 % Fuel energy efficiency (at minimum load): N.A. %

Special precautions: see supplied product documenta-

tion



### Product data sheet according to (EU) 2015/1186:

Ulrich Brunner GmbH Supplier's name or trademark Kamin-Kessel Eck 45/67/44 Model identifier:

Α+ Energy efficiency class: Direct heat output: 5,0 kW Indirect heat output: 7,0 kW Energy efficiency index: 109 Fuel energy efficiency (at nominal heat output): 82.0 % Fuel energy efficiency (at minimum load): N.A. %

Special precautions: see supplied product documenta-

tion



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