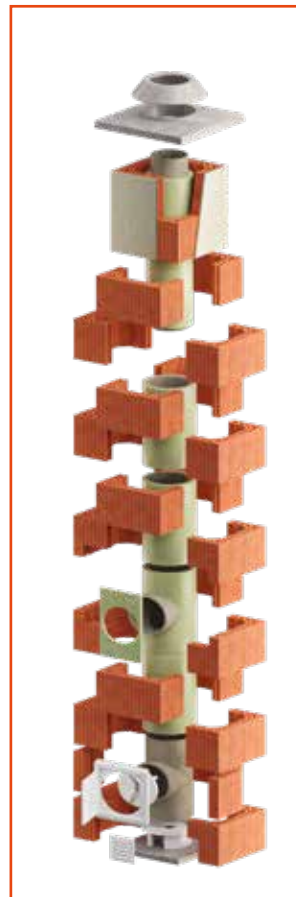


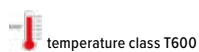


# CHIMNEY SYSTEM HELUZ KLASIK

You can select an optimum chimney system depending on the energy standard of your house, type of appliance selected, and the type of fuel. Select the correct solution so your home runs safely and properly.



Three-layer chimney system with ground blocks in the peripheral shell, thermal insulation, and a fire clay lining. HELUZ KLASIK is primarily intended for solid fuel appliances such as fireplaces, stoves, and boilers with natural discharge of combustion products. Safety and a long service life are ensured thanks to the back chimney ventilation. For this reason, this system is not suitable for houses with increased sealing requirements. The system can be freely combined with another HELUZ system, with either complete or half ventilation and an installation shaft. The HELUZ KLASIK system has been developed with emphasis on the quality of the individual components and operational safety.



## ACCESSORIES FOR HELUZ CHIMNEY SYSTEMS

As well as its chimney systems, HELUZ also offers a wide range of accessories. Besides chimney adapters and roofs, accessories include vapour-tight penetration for easy incorporation of the chimney into your building. We recommend consulting a specific chimney system design and suitable auxiliary components with our technical department.

# GENERAL INSTALLATION PRINCIPLES

Three-layer chimney system with ground blocks in the peripheral shell, thermal insulation, and a fire clay lining. HELUZ KLASIK is primarily intended for solid fuel appliances such as fireplaces, stoves, and boilers with natural discharge of combustion products. Safety and a long service life are ensured thanks to the back chimney ventilation. For this reason, this system is not suitable for houses with increased sealing requirements. The HELUZ KLASIK system has been developed with emphasis on the quality of individual components and operational safety.

## BEFORE YOU START

It is necessary to ensure suitable thermal conditions before starting installation. The minimum temperature acceptable for installation is +5 °C (during installation and for the following 72 hours). Installation is not permitted if the ambient temperature is lower. If the ambient temperature is higher than 25 °C, it is necessary to moisten the contact surfaces of the bricks with water.

It is also necessary to provide a solid base with sufficient load bearing capacity which will transfer the chimney load into the foundation subsoil. Hydroinsulation to prevent ground moisture rising into the chimney shell should be applied on this base. Before starting the installation, it is necessary to measure the chimney body layout properly including the condensate dis-

charge method, flue height, and where necessary, the air supply to the appliance itself. At the same time, a sufficiently large passage for the chimney through ceilings and floors, and where necessary, the passage for future flue gas ducting through the wall to the flue, should also be prepared.

**From our experience, we know that it is advisable to assemble and cut the chimney up to the height of the flue in dry conditions and only then mix the cementing compound and fix all components together. THE FLUE SHOULD NOT BE CONNECTED THROUGH THE EDGE (CORNER) OF THE CHIMNEY.**

You will need suitable tools and instruments for the chimney construction (measuring tape, spirit level, spatula, trowel, angle, drill

mixing adapter, hod, angle grinder or brick cutting saw, cross screwdriver, knife for cutting insulation, plumb line, brush, disc for stone cutting or diamond disc for angle grinder).

Clean dust and soil from all components of the chimney system (using e.g. a damp brush) before use. If the construction of the chimney is interrupted, the uncompleted chimney should be covered in order to avoid damage caused by rain or construction debris.

If the chimney is located outside the building, we recommend applying thermal insulation (do not use polystyrene) at least 50 mm thick. If any installation system (cables, sewerage line) are led in the empty shaft, the materials for these lines should be able to withstand temperatures of at least 70 °C.

## LAYING BRICK BLOCKS

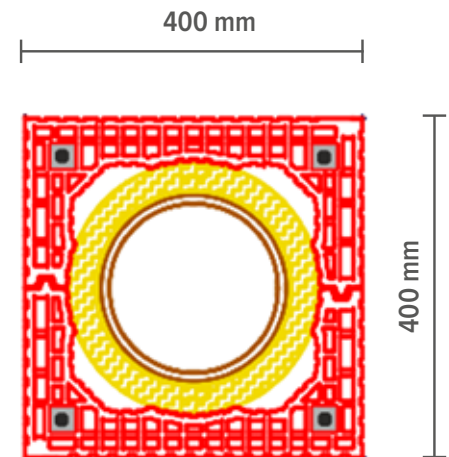
**Apply adhesive mortar (HLM) to the brick blocks using an application roller (HSN), specifically on both the bearing and contact (horizontal as well as vertical) surfaces of the blocks. Always follow the applicable instructions when mixing and using the adhesive! Always position the blocks so that individual layers are turned through an angle of 90° with respect to each other to create brick binding. All ventilation ducts should remain unobstructed within the complete height of the chimney body in order to ensure the correct operation of the chimney body ventilation.**



## CHIMNEY STATIC REINFORCEMENT

Running anchoring of the chimney body to the adjacent structure is necessary at least after **each 4 m of its height**. If the part of the chimney above the roof exceeds **1.3m above the last anchoring point, it is necessary to reinforce the chimney statically** (this requirement always applies to Grand rings). **Corner holes in the chimney block or Grand ring are intended for this purpose**. It is possible to insert reinforcements into them and fill them with filling compound (HCZ). We do not recommend using mixtures with a high shrinkage rate, as they can reduce the

strength of the peripheral shell of the chimney. In this way, four reinforced concrete columns will be created with a high bending resistance, which will increase the strength of the chimney body in the part above the roof considerably. If reinforcing is carried out, remember to insert blinding plugs in time in the corner holes in the course of chimney construction. The distance of the blinding plugs **under the roof plane should be as high as the height of the part above the roof**. These blinding plugs prevent the filling compound flowing into the



lower parts of the chimney (the blinding plugs form part of the reinforcement). Any exceptions should be consulted with the chimney manufacturer or designer.

## BEFORE COMMISSIONING THE CHIMNEY



Each chimney must be approved by an authorised person (safety inspector) before commissioning. The inspector will review the correctness of the basic details and the correct connection of the appliance to the chimney. This rule also applies when connecting a provisional heater before the construction is completed. **CAUTION: a surface finish should be applied to the whole height of the chimney.**

## RULES FOR CHIMNEY USE

The chimney can be commissioned **3 days** after completing installation (at ambient temperatures higher than 10 °C). When temperatures are lower (below 10 °C), the period between completing installation and commissioning **is prolonged considerably (5–10 days)!** We recommend consulting potential uncertainties with your supplier.

**It is necessary to avoid direct contact between flames and the fire clay lining (average flame temperature is approximately 900 °C)!** Direct flame contact or **temperatures exceeding 600 °C** can **cause cracks to form** (e.g. when the building is provisionally heated, excessive heating of a local stove, when using an unsuitable type of fireplace lining – without a top curtain or when using a wood gas boiler which is not fitted with controlled regulation of combustion products temperature for initial heating).

## **FOR THE REASONS MENTIONED ABOVE, THE FOLLOWING RULES APPLY TO THE USE OF THE CHIMNEY ▼**

- All relevant standards and building regulations must be observed during construction
- Only original components and cementing compounds must be used for construction
- The chimney may only be constructed on a base (foundation) with a sufficient load bearing capacity
- If the ambient temperature is higher than 25 °C, it is necessary to moisten the contact surfaces of the brick blocks with water. Chimney installation may not be carried out if the ambient temperature drops below 5 °C. If the chimney construction is interrupted, the uncompleted chimney should be covered so as to avoid damage caused by rain or construction debris.
- Joining materials and cementing compounds should be stored in a dry area and protected against rain
- The flue should not be connected through the edge of the chimney
- Each chimney lining block should first be knocked. If no ringing sound is produced, the block should not be incorporated into the chimney body
- In all circumstances, the internal space of the chimney should allow back ventilation (where necessary, air suction to the appliance)
- The flue gas ducting must be connected using a chimney-flue-gas duct adapter
- The chimney body must always be anchored in the area of passage through the roof structure
- The brick blocks in the part above the roof should be protected against weather effects (plaster, lining, etc.)
- Proceed in the same way as described in the installation instructions when installing additional chimney doors (loft, next floor, etc.). However, it is necessary to take into consideration the dilatation of the lining
- Static securing of the chimney against deflection should always be carried out after 4 metres. The penetration through the ceiling or roof structure is also considered to be such securing
- When the chimney is located outside the building, we recommend applying thermal insulation at least 50 mm thick (do not use polystyrene)
- For a non-flammable structure, reduce the distance to at least 10 mm as a dilatation joint. For flammable structures, proceed according to the chimney installation instructions
- Before the chimney is commissioned, it is necessary to have an initial inspection with a positive inspection report. No claims can be submitted without this report. It is essential to avoid flames directly on the internal fire clay or ceramic lining and to maintain the correct firing procedure with a gradual growth of temperature – max. 100 °C/1 minute

# INSTALLATION INSTRUCTIONS – HELUZ KLASIK



## 1. CHIMNEY FOUNDATIONS

The HELUZ chimney system foundations should be above the hydroinsulation either at the floor level on the prepared base or using foundation blocks. Clean dust and soil from the foundation (using a damp brush) and apply the mortar prepared according to the instructions on the packing using a trowel. On the rough floor, place the underlying fittings in the mortar bed (they can be filled with concrete), which can be adjusted to any height



## 2. PREPARATION OF INSTALLATION HOLES

Measure an opening for the ventilation screen on the blocks fitted in the first row of the chimney shell. Draw a hole on the blocks and then cut it with a saw or angle grinder. When cutting an opening for the chimney door (opening 190x320 mm), proceed in the same way.

Assemble the blocks dry without cementing in order to verify the correctness of the measuring.



## 3. CEMENTING THE BRICK BLOCKS AND SUMP POSITIONING

Apply a concrete slab to the prepared foundation or foundation blocks (the concrete slab must be fitted at least on the level of the final floor). Level the concrete slab using a rubber mallet and a spirit level. It is necessary for the slab to be positioned perfectly horizontally.

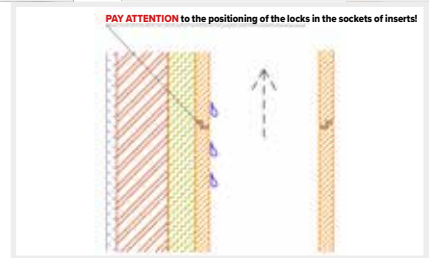
Clean dust and soil (using e.g. a damp brush) from the concrete slab, bottom bearing surface, and the tongue and groove (i.e. the contact surface) of the brick blocks. Repeat the process of cleaning the brick blocks for all blocks fitted in the chimney shell. Apply cementing mortar to the cleaned concrete slab using the attached application set – roller. Apply cementing mortar to the bearing and contact surface (i.e. tongue and groove) of the cleaned chimney block.

Lay the brick blocks (with the pre-prepared opening for the ventilation screen) with the mortar on the concrete block and push them together. Level it using a rubber mallet and a spirit level.

Apply cementing mortar to the centre of the concrete slab. Place the condensate sump with an outlet allowing the condensate to drain.

**For wet use** – connect the sump to a pipe for condensate drainage. Cover the discharging hole in the sump from the top during installation in order to avoid soiling (clogging) of the hole for condensate drainage. Turn the drainage fitting in the direction of the planned outlet. **Remember to cover the outlet after completing the chimney installation!!!**

**For dry use of the chimney** – close the outlet in the sump with a concrete plug, which can be cemented with the delivered sealant for fire clay lining after connecting the appliance for solid fuel. Install the plug in order to avoid spreading fire under the sump of the chimney body in the event of ignition of soot in the chimney.



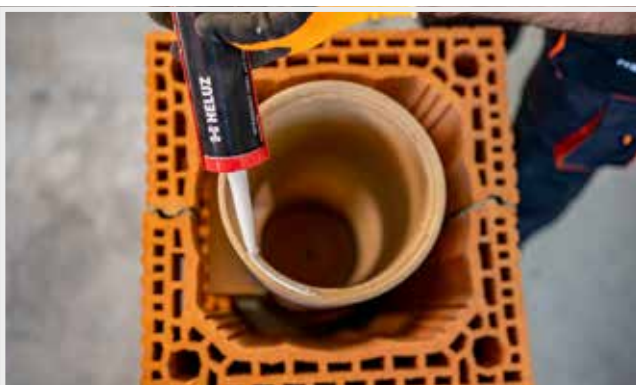
#### 4. INSTALLATION OF THE CHIMNEY CLEANING DOOR BLOCK

Clean the joint of the condensate sump with a damp brush, apply sealant using the cartridge included in the delivery along the complete periphery and install the door fitting. Remove excess sealant with a sponge immediately. **PAY ATTENTION** to the positioning of the locks – always position the chimney blocks with tongue (protrusion) downwards and with the groove upwards – see the figure.

Position the brick blocks with the pre-prepared opening for the chimney cleaning block around the cleaning chimney block.

**Always install each subsequent layer of blocks turned through an angle of 90° so as to maintain binding!**

When constructing, it is necessary to make sure that all ventilation channels within the complete height of the chimney body remain free and continuous.



#### 5. INSTALLATION OF CHIMNEY LINING BLOCKS AND INSULATION

Start installing the chimney lining blocks and insulation above the chimney cleaning block or flue block.

Fit the next pair of brick blocks above the chimney cleaning block. Apply sealant to the socket of the chimney cleaning block and fit the chimney lining block. Remove excess sealant with a sponge immediately.

Insert insulation into the space between the shell made of brick blocks and the chimney lining.

Proceed in this way up to the required height for the flue block fitting.

Make sure not to exceed the maximum height of the flue axis, see paragraph 6.

**CAUTION** – If the part above the roof exceeds 1,300 mm, it is essential to reinforce the chimney during construction, see paragraph 7!!!



## 6. FITTING THE FLUE BLOCK

Measure and cut an opening for the flue in the thermal insulation – draw the socket for the flue on the thermal insulation – on the side with mesh. Cut an opening in the thermal insulation (e.g. using a knife).

Cut the edge of the opening at a 45° angle, so that the insulation and flue adhere smoothly to each other.

Put the insulation on the flue with the mesh side out.

Wrap the insulation around the flue and secure it with 2 bands.

Apply sealant to the chimney cleaning block or chimney lining block and put the flue block with thermal insulation on it.

The flue opening should always be positioned perpendicularly with respect to the chimney shell wall (never through a corner). The minimum height of the flue axis is 1,300 mm from the bottom edge of the foundation component. The maximum height of the flue axis is 500 mm under the ceiling for safety reasons.

Measure the opening (265x320 mm) for the flue block in the brick block and then cut it.

Position the brick blocks with the pre-prepared openings around the flue block. Proceed identically as for the chimney cleaning block, see paragraph 4.

**A dilatation gap should remain between the flue block and the brick blocks which form the chimney shell.**



## 7. THE PART OF THE CHIMNEY ABOVE THE ROOF – REINFORCING

If the part of your chimney above the roof is not higher than 1,300 mm or does not contain any reinforcements – continue to paragraph 9

If the part of the chimney is higher than 1,300 mm, it is necessary to use reinforcement the length of which corresponds to one and a half times the height of the part above the roof (the part above the roof is calculated from the chimney anchoring on the level of the roof plane).

Fit blinding plugs in the corner openings in the brick blocks in the place of the chimney shell which is in the distance which equals half of the height of the part above the roof from the passage through the roof structure.

Lay another four rows of chimney blocks, insert and centre the threaded rods. Connect the threaded rods using the cap nuts included in the delivery.

Fill the corner openings continuously with filling compound within a max. length of 2,000 mm in order to ensure complete reinforcement filling. Mix the filling compound in accordance with the instructions on the packing. Always use original filling compound.

To anchor a roof on the legs, cut the reinforcement after the filling compound has hardened so that it protrudes above the top surface of the covering plate (min. 30 mm).

If you are not going to anchor a roof on the legs, cut the reinforcement so that it ends with the top edge of the last brick block of the chimney shell.

If the part above the roof is constructed from GRAND rings, cut the reinforcement flush with the top edge of the last GRAND ring.





## 8. THE PART ABOVE THE ROOF – GRAND RINGS

If your chimney does not contain **GRAND** rings, continue to paragraph 9

For a chimney with **GRAND** rings, end the brick blocks in the part under the roof. Moisten the last layer of blocks and using a trowel, apply a thicker layer (min. 5 mm) of **GRAND** cementing compound in order to allow the alignment of the first ring. Clean the ring, position it, and level it using a spirit level and a rubber mallet. Then apply a thinner layer of compound and lay rings up to the required height.

Always apply the cementing compound between the rings within the complete area – **PAY ATTENTION** to the corner parts around the reinforcement holes.

When the part above the roof is higher than 1,300 mm, it is necessary to reinforce from a lower level when constructing the chimney shell – see the paragraph above.



## 9. INSTALLATION OF THE COVERING PLATE AND CHIMNEY TERMINATION

Position the last chimney lining block, covering plate and chimney collar. Then shorten the lining block using an angle grinder so that there is a gap of 15 mm between the top surface of the covering plate and the bottom collar edge. Cement the shortened lining block with sealing compound and smooth the joint.

Cut the thermal insulation so that it ends a min. of 50 mm under the level of the last brick block or GRAND ring.

**If you mount the roof on legs, measure the holes on the covering plate through which the reinforcing components or anchoring set will pass. Spacing will be 310 x 310 mm.**

Support the plate firmly and carefully drill holes without hammering. Always drill from the top in order to avoid the hole edge chipping away on the top side of the covering plate.

**If you have a chimney without reinforcements** and are going to mount a roof on legs, use the mounting set.

Insert the blinding plugs and screws from the mounting set into the corner holes in the brick blocks. Then cover the anchoring with filling compound.

Apply cementing mortar on the last brick chimney block or GRAND ring and lay and centre the covering plate in it. A uniform gap should be maintained between the covering plate and the chimney lining along the periphery.

Apply sealant on the shortened chimney lining and fit the chimney collar. Clean excess sealant. A gap of 15 mm should remain for chimney ventilation between the top surface of the covering plate and the bottom edge of the collar.



## 10. ROOF INSTALLATION

If your chimney does not contain a roof, continue to paragraph 11

Assemble the roof on the legs. Fit it on the covering plate and mount it to the threaded rods using the nuts included in the delivery.

**Installation of the roof on legs can only be carried out after the filling compound has hardened!**

**Note: We do not recommend using the roof on legs for chimney ducts for gaseous and liquid fuels.**

If you have a plug-in roof, just bend the locking lugs out and plug the roof onto the last lining block with the attached collar.



## 11. COMPLETING THE CONSTRUCTION – INSTALLATION OF THE VENTILATION SCREEN, CHIMNEY DOOR AND FLUE INSULATION

Finally, fit the flue insulation, ventilation screen and chimney door. Insert the flue insulation around the flue block.

Draw holes around the chimney cleaning block and then drill the holes for the chimney door mounting carefully. Then mount the chimney door in the drilled holes using a connection set.

Fit the ventilation screen in the cut out hole.

Apply the chimney label on the internal side of the chimney door and install the spring (delivered together with the door). Insert a fire clay closure in the frame of the cleaning opening. This closure is then pressed through the door with the spring which ensures tight closing of the cleaning hole.

**The chimney is complete!**

## **HELUZ cihlářský průmysl v.o.s.**

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**April 2022**

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