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Cowl, SS/FM top

Chimney module, MM 300 mm

Rubber flashing

Sheeting support/gasket

Chimney support

Pass-through flange Height 400 mm

Pass-through insulation Height 200 mm

Vapour barrier flange

Pass-through flange, FM 0–22 degrees

Locking band, MM

Damper module, KKM 1,170 mm - bottom flange

Support collar, SS

Uninsulated connector Brushed SS 1,000 mm

## Kota 15 steel chimney 125 mm, T600

## 6015

- Chimney modules painted black with a heat-resistant powder coat (KKM)
- Stencil
- Installation kit:
  - Installation instructions
  - Data plate
  - Vapour barrier sealing tape,
  - ALUMINIUM + BLUE

- Sheeting pass-through support sealing tape, BLUE

- Aluminium collar, 4 pcs
- Mounting screws
- 3 pcs screw M6  $\times$  16
- 3 pcs nut M6 nyloc
- 32 pcs roofing screw, black
- 8 pcs screw 4.5  $\times$  25, black
- 3 pcs perforated strap
- 3 pcs screw 5 × 50
- Mounting strap, 1 m + fastener



#### KOTA STEEL CHIMNEY SYSTEM INSTRUCTIONS – INSTALLATION, USE & MAINTENANCE

Before installation, check that all products received match the order confirmation and are free of surface defects.

The purpose of the steel chimney system is to safely conduct combustion gases from a stove or other fireplace to outdoor air (in dry conditions when burning wood, for example).

## The steel chimney system's temperature class is T600 – check your fireplace's compatibility before installation!

The chimney's temperature class (T600) must meet or exceed the fireplace's average combustion gas temperature. The number of the class refers to the temperature in Celsius. The fireplace must also be used

in accordance with the manufacturer's instructions regarding heating and fuel amounts to prevent the combustion gas temperature from exceeding the manufacturer's rating.

Chimney system CE marking:

Manufacturer: Jalotakka Oy, Kangaskatu 1, 48600 Kotka, Finland

Year of manufacture: 2023

Standard number: EN 1856-1:2009

Product description: Chimney systems

Chimney system

T600 – N1 – D/W – Vm L20100 – G70

T600 = temperature class, 600 °C

N1 = negative-pressure chimney (2 L/sm<sup>2</sup> at 40 Pa)

D/W = chimney suitable for both dry and wet conditions

Vm L20100 = corrosion resistance and liner thickness

G70 = soot fire tested, safety distance from chimney to combustibles is 70 mm or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1)



#### STEEL CHIMNEY DIAMETER AND WEIGHT PER METRE

STEEL CHIMNEY	CHIMNEY 125
Flue inside diameter	125
Shell outside diameter	255
Weight, kg/m	10
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Note! The dimensions are in millimetres.

#### STEEL CHIMNEY SYSTEM SAFETY DISTANCES

The chimney's safety distance refers to the distance that must be kept from combustible materials whose fire class is not A1. The safety distance of the JT steel chimney system is 70 mm at the pass-through connections. In open ventilated spaces, the safety distance is 40 mm (Eurofins report number EUFI29-2000360-T1). For the uninsulated connector, the safety distance to combustibles is 700 mm. The chimney system's rated safety distance must also be considered for the installation of vapour barriers, sheeting, and roofing. If battens or other lightweight building materials are located within the safety distance, they must not be attached to chimney. This excludes the collars and similar products included in the delivery. For safety distances, see Appendices 2 and 4.

#### STEEL CHIMNEY SYSTEM LOCATION AND HEIGHT

The steel chimney system should be installed as close to the ridgeline as possible. For fire safety reasons, the minimum distance between the chimney's mouth and the roofing is 80 cm at the ridge if the roofing's fire class is at least A1 or B<sub>roof</sub> (t2). For chimneys installed to a side, add 10 cm to the height of the chimney for every metre away from the ridge (for typical roof pitches). If the roofing is not rated for the above fire classes, the minimum distance to the roofing is 1.5 metres. The fireplace also affects the length of the chimney – contact the fireplace's manufacturer for their requirements. See Appendix 1 for dimensioning the chimney for your roof. If a natural material is used (dry peat or moss), the cowl must include a spark catcher.

In steam rooms, the insulated part of the chimney must reach 400 mm or more inside the room from the bottom of the ceiling. See Appendix 5. For sauna stoves, we recommend a minimum separation of 100 mm between the stove's stones and the insulated part.

#### STEEL CHIMNEY SYSTEM BRACING AND SUPPORTS

When designing your steel chimney system, note that the maximum unsupported height of the chimney above the roofing is 1.5 metres. If the chimney's height exceeds 1.5 metres above the roofing, check that your delivery includes the necessary mounting hardware and roof braces for the installation. The delivery includes a chimney brace collar and three half-metre perforated straps. The chimney is supported against the rafters or the roof by folding the straps under the rubber flashing (Figure 4). The chimney support may be installed permanently into the roof structure. Once the chimney support has been permanently installed, the stove can be replaced by simply opening the uninsulated connector's collar and sliding the connector inside the insulated chimney module. The damper must be open for the uninsulated connector to slide inside the insulated module.

#### STEEL CHIMNEY SYSTEM DAMPER

The Kota steel chimney includes a damper. The damper is not used for fireplaces with a continuous fuel feed: oil- and gas-fired boilers, wood pellet fireplaces with a feed system, etc.

#### STEEL CHIMNEY SYSTEM INSTALLATION

#### Note! Refer to the first page of the installation instructions for your chimney's delivery contents.

Handle the chimney modules with care, avoid scratching the paint.

A protective plastic film is attached to the shells. Wait until installation is complete before removing the film from the visible parts – **must be removed before using the fireplace**. Remove the plastic film from the hidden parts during installation.

Begin the installation by planning the connection holes in the ceiling and roof. Use the included stencil to cut the holes, observing the safety distance requirements (Appendices 2 and 4).

First, install the connector to the fireplace's connection. Note the instructions of the fireplace's manufacturer regarding chimney connections. Fit the connector with the two grooves facing up – the grooves are used to mount the support collar (M6  $\times$  12 + M6 nyloc), which will make stoves easier to remove later without moving the chimney. If the connector must be shortened, take the length off the opposite side (bottom). For the connector's safety distances, see Appendix 5.

Next, fit the chimney's damper section to the connector. Lower the chimney onto the support collar. (For correct orientation, the damper section's floor plate must face down.)

If the damper section has already been passed through the ceiling, it should be supported with the two-part flange (fixed to the ceiling with eight screws). Before fixing the chimney in place, check that it is straight. Note! When fitting the flange, leave a 3 mm gap between the flange's inner edge and the chimney. During heating, the chimney may shift vertically by up to 15 mm. Leaving a gap between the chimney and the flange prevents damage to the paint.

Install the middle section's modules with the liners' flare and the shells' corrugation facing up. The liners must overlap by 60 mm. The shells must overlap by about 25 mm. Attach the shells with the locking bands. The shells are in the correct position when the band sets easily into both mounting grooves. Also see that the tongue of the upper insulation fits into the groove of the lower insulation (check that the shell's top and the insulation's tongue are level, for example; see Figure 5).

Fit the cowl. Check that the cowl is flush with chimney's mouth and fix it with two roofing screws (Figure 4).

The chimney must be insulated inside and outside the roof as explained in Appendices 2 and 4.

The extra insulation consists of 70 mm of fire-rated ceramic kaolin wool. The wool sheet is wrapped around the chimney three times. The pass-through insulation is finished by enclosing the wool in a metal covering (Appendices 2 and 4). The metal covering must reach 100 mm above the base insulation. Carefully install the vapour barrier sealing flange around the chimney in front of the extra insulation. Next, use the aluminium tape to seal the gap between the flange and the chimney and then tape the flange's outer edges with the blue tape to the vapour barrier membrane. If necessary, shape the vapour barrier flange with tin snips. The vapour barrier membrane must be installed at least 70 mm away from the chimney. The flange and aluminium vapour barrier tape are allowed to touch the chimney (Appendices 2, 4, and 5).

If the building has an insulated sloping roof structure, taller extra insulation and pass-through covering must be ordered (optional extras). If the order states the angle required, the extra insulation and covering can be modified at the factory to match. Note! The height of the extra insulation (wool) may not exceed 200 mm. The extra insulation and covering can be shaped with a wool knife and tin snips.

Carefully seal the roof around the chimney or hire a professional to do the job. The delivery includes rubber flashing that is suited for felted roofs, for example. See the last pages for detailed installation instructions. Place the rubber flashing over the chimney, pull it down against the roof, and fix it to the roof with five roofing screws per side at the mounting points. We recommend using a sealant under the mounting points (Würth or Soudal polymer adhesive and sealant, for example) and at the junction of the chimney and

rubber. For timber houses, note any sagging of the house. Jalotakka offers flashing kits for all chimney sizes. Also note the winter snow load of the roof.

Pay special attention to the correct installation of sheeting around the chimney to prevent condensation and melting snow from dripping down along the chimney into the insulation or room. The delivery includes a top brace/sheeting pass-through that is suitable for most installations (chimney bracing and sheeting insulation). The sheeting support/gasket can be modified with tin snips. If the building or sheeting makes it impossible to install the included top brace/sheeting pass-through, see the sheeting supplier's instructions.

Mount the sheeting pass-through plate to the roof battens with roofing screws and make sure it supports the chimney. Tape the sheeting to the plate with the blue tape (note safety distances). The safety distance from the sheeting to the chimney's shell is 70 mm.

If the chimney rises more than 1.5 metres above its load-bearing mounting point, it must be supported with a roof brace or thimble and steel cables, for example.

No additional equipment may be attached to the cowl!

Jalotakka offers various wall mounts and other special parts for its chimneys.

The steel chimney has been tested in an enclosed configuration as well. Contact the manufacturer for enclosure instructions. Enclosures must be constructed according to the manufacturer's instructions.

#### STEEL CHIMNEY SYSTEM USE AND MAINTENANCE

Check that the damper is open before lighting a fire in the fireplace. The damper may not be used to restrict the chimney's flow – it may only be closed once the embers have died completely.

The chimney must be swept regularly according to the applicable legislation (in Finland, once a year for permanent dwellings and once every three years for recreational dwellings). The rescue authorities may order more frequent sweeps, if necessary.

Note! The chimney brush must be suitable for acid-resistant steel pipe (contact the local chimney sweep).

Make sure that the chimney sweep has safe access to the chimney and can sweep it safely.

Inspect the chimney regularly from the roof (annually, for example) – check that it is watertight and that the cowl is intact and secure.

## Install the chimney's data plate on the shell or near the fireplace for easy access. Mark the chimney's size, installation date, and installer on the data plate.

#### **ENQUIRIES:** Manufacturer

# 745/2017, Decree of the Ministry of the Environment on Chimney Structures and Fire Safety

Chimney certification and other documents: nettitakka.fi/ladattavat-materiaalit

Manufacturing

Jalotakka Oy Kangaskatu 1 48600 Kotka, Finland

Tel. +358 10 239 4770 Fax +358 5 266 653 info@jalotakka.com Niko Muurinen Mobile +358 50 378 2974 niko.muurinen@jalotakka.com

(open in the evening and on weekends):

Technical support

## RUBBER FLASHING, oval, 530 × 600 mm

The rubber flashing is suitable for felted and tin roofs, pitches 0–38. It may also be used on certain fibre cement and tiled roofs if their profiles pose no issue for shaping the aluminium mounting and proper glue adhesion. A square 430 × 430 mm flashing with a shoulder is available for roof pitches 0–22.

For tin, tiled, and fibre cement roofs, we recommend extended rear flashing (our 1,250 × 800 mm roofing collar extension, for example). The extension must reach up to the ridge and over the rubber flashing's rear edge (use as many extensions as required). The extension must overlap the rubber flashing by at least 50 mm and the junction must be sealed with a sealant.

If the roof connection intersects the seam of a mechanically jointed roof, the extension must be installed by a professional.

The rubber flashing is glued to the roof (with a Würth or Sikaflex adhesive or sealant, for example). The roof must be completely dry before the flashing may be glued into place. The surface feeling dry is not enough – the roof must be dry within as well. Also note the adhesive manufacturer's instructions regarding installation temperatures.

### **Rubber flashing installation**

- 1. Open up the rubber flashing to fit the chimney as follows:
- 1. Make a cut on the front side of the tear-off part at the correct location for the chimney's outside diameter.
  - Tear off the excess (smaller sections).
  - Carefully stretch the rubber over the chimney's shell.
- 2. Check that the rubber sits flush with the roof, appropriate to the pitch. On a tiled roof, the flashing's mounting points must be shaped by pressing to the profile of the tiles. The upper part must be installed under the upper tiles by at least 50 mm and over the lower tiles by at least 50 mm.
- 3. Use an adhesive or sealant to glue the roof part of the rubber flashing to the roof and secure it with roofing screws every 60 mm or so.
- 4. Fix the mouth of the rubber flashing to the chimney with the strap and sealant.

# (Please note that sealant is not included in the delivery. Choose the appropriate adhesive or sealant for your roof's material.)



Delivery includes:

- Roofing screws 4.8 × 28, 30 pcs
- Mounting strap + fastener

Figure 4.



If necessary, trim the top module's insulation down to the shell's level.

LOCKING THE COWL



The liner must pass the cowl's flange. The cowl must be fixed to the chimney with two roofing screws.

#### CHIMNEY SUPPORT INSTALLATION



For example, the straps can be fixed to the rafters with  $5 \times 60$  mm screws.

Shape the three straps and fasten them under (between) the collar.

Figure 5.



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Appendix 1



If the chimney is located on a side away from the ridge, add 10 cm to the chimney's height for every metre away from the ridgeline.

The above-roof chimney's safety distance to the roof is 1–1.5 metres vertically and three metres to other structures horizontally.

If the chimney passes through a side that slopes by 30 degrees or more, the minimum safety distance is three metres horizontally to other structures and 1–1.5 metres vertically.

To calculate the height of the chimney, combine two measurements: take 0.8 metres above the highest point of vertical roof and combine with the height of the point directly above the eave at the level of the roof's highest point.

When deciding the height of the chimney, note the minimum safety distance to make-up air vents and ventilation windows: eight metres from the chimney, or five metres if there is at least three metres of horizontal clearance.

**Note!** The safety distance is always 1.5 metres to roofing other than classes A1 or  $B_{roof}$  (t2).

#### Appendix 2

## Insulated roof connection G



- 1) Chimney
- 2) Sheeting sealing plate + blue tape
- 4) Rubber flashing
- 5) Roofing
- 6) Roof batten
- 7) Roof batten
- 8) Sheeting
- 9) Load-bearing structure/insulation

- 10) Extra insulation (pass-through)
- 11) Ceiling
- 12) Vapour barrier
- 13) Ceiling pass-through flange
- 14) Vapour barrier sealing flange and tape
- 14 a) Aluminium tape
- 14 b) Blue tape

Note! The safety distance to combustibles is 70 mm (40 mm in open and ventilated spaces).

Appendix 4

## Uninsulated roof connection G (70)



- 1) Roof batten
- 2) Rubber flashing
- 4) Sheeting
- 5) Roofing
- 6) Connection safety distance, 70 mm
- 7) Chimney
- 8) Load-bearing structure
- 9) Chimney brace/sheeting passthrough + blue sealing tape



## **Ceiling connection G**

- 1) Chimney
- 2) Insulation
- 3) Ceiling
- 4) Pass-through flange
- 5) Extra insulation (pass-through)
- 6) Vapour barrier sealing flange and tape

6 a) Aluminium tape

6 b) Blue tape

7) Metal covering, prevents the base insulation material from touching the chimney's shell

8) Support collar

Appendix 5



## Drop ceiling (steam room) ceiling connection G (70)

If the drop ceiling includes wool or SPU insulation, the gap between the chimney and the base insulation must be filled with extra insulation (optional extra). If no base insulation is present, no extra chimney insulation is installed. The drop ceiling mounting accessories/wool + vapour barrier are optional extras.

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Building:	STEEL CHIMNEY INSTALLATION RECORD Date:// (attach to the building's operating and maintenance instructions)
Fitter/builder:         Installation date:         Installation date:         Steel chimney liner diameter:         125 mm         Liner thickness: 1.00 mm         Steel chimney system temperature class: T600         Safety distance to combustible building materials: 70 mm, or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1)         Type of connected fireplace:	Building:
Installation date:          Steel chimney liner diameter:         125 mm         125 mm         Liner thickness: 1.00 mm         Steel chimney system temperature class: T600         Safety distance to combustible building materials: 70 mm, or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1)         Type of connected fireplace:         Maximum fireplace combustion gas temperature, °C:         Sweeping method: Nylon brush         Important notes about connections, waterproofing, safety distances, etc.:	Fitter/builder:
Steel chimney liner diameter:         125 mm         Liner thickness: 1.00 mm         Steel chimney system temperature class: T600         Safety distance to combustible building materials: 70 mm, or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1)         Type of connected fireplace:         Maximum fireplace combustion gas temperature, °C:         Sweeping method: Nylon brush         Important notes about connections, waterproofing, safety distances, etc.:	Installation date:
125 mm	Steel chimney liner diameter:
Liner thickness: <u>1.00 mm</u> Steel chimney system temperature class: <u>T600</u> Safety distance to combustible building materials: 70 mm, or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1) Type of connected fireplace: Maximum fireplace combustion gas temperature, °C: Sweeping method: Nylon brush Important notes about connections, waterproofing, safety distances, etc.:	125 mm
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Safety distance to combustible building materials: 70 mm, or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1) Type of connected fireplace: Maximum fireplace combustion gas temperature, °C: Sweeping method: Nylon brush Important notes about connections, waterproofing, safety distances, etc.:	Steel chimney system temperature class: T600
Type of connected fireplace: Maximum fireplace combustion gas temperature, °C: Sweeping method: Nylon brush Important notes about connections, waterproofing, safety distances, etc.:	Safety distance to combustible building materials: 70 mm, or 40 mm in open and ventilated spaces (Eurofins report number EUFI29-2000360-T1)
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Important notes about connections, waterproofing, safety distances, etc.:	Sweeping method: Nylon brush
	Important notes about connections, waterproofing, safety distances, etc.: