SENKO

For a perfect warm home!

INSTRUCTION MANUAL - **INSTALLATION**

CENTRAL HEATING COOKERS

- C-20
- C-25
- C-30
- C-35
- C-20 PREMIUM
- C-25 PREMIUM
- C-35 PREMIUM

SN-EN-4/23

Dear client, thank you for choosing a SENKO cooker!

This product was designed and manufactured to its minutest details in order to fulfill your every need for functionality and safety

With the help of *Instruction manual - INSTALLATION* you will learn to correctly install the product, and using the *Instruction manual - HANDLING* you will learn to use the product

Both manuals can be found at http://en.senko.hr/, or you can request them at info@senko.hr.

Senko managment

CONTENTS

1. INSTALLATION

Once you have removed packaging from the cooker, it is necessaryto **make a detailed inspection in order to determine any potential damages** that might have occurred during transport. Nay detected damages must instantly be reported to the manufacturer.

In places of any connection points on the cooker (chimney, air inlet), **inspection hatches must be installed for system maintenance and servicing purposes.**

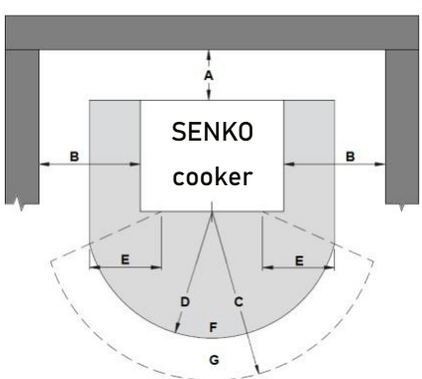
IMPORTANT! Before you start using your cooker, it is OBLIGATORY to insert the automatic regulator probe into the corresponding connector!

1.1. POSITIONING

A spirit level must be used to place the cooker in a horizontal position with no incline. It is necessary to ensure **the minimum distance of the cooker from any flammable objects**; such as wood, chipboard, cork and similar. If the materials are easily combustible such as PVC, polyurethane and similar, the necessary safety distances need to be doubled. Before positioning adjust the height according to chapter 1.7.

The minimum distance from any flammable surfaces above is 1000 mm and in front of the cooker is 800 mm, and 50 mm in all other directions.

When mounting the cooker on the floor made from easily combustible material (**wooden floors**), the cooker must be **mounted on an insulating non-combustible surface**.



A	**50 mm** from the rear wall
B	**50 mm** from the side wall
C	**800 mm** from the front side
D	**500 mm** floor protection
E	**50 mm** (measured from the maximum angle of firebox door
F	Floor protection
G	Radiation area

A cooker should not be placed in rooms where there are gas stoves or cookers, and in the bathroom, in buildings intended as laundries or similar. The same applies for **rooms or flats with air circulation or hot air circulation with ventilation systems (air condition, extractor or kitchen hoods), EXCEPT** if such ventilation systems have safety mechanisms, which sustain the air pressure above 4 Pain a room, where the cooker is mounted or in rooms which are in direct contact with exterior air**.**

It is recommended to place the cooker as close as possible to the chimney hole, i.e. next to the chimney hole itself in order to avoid using an additional smoke uptake pipe (*Figure 1a*)**!**

If you want to place the cooker **between the kitchen elements,** it is necessary to **ensure the safety distances** (spacing between the cooker and the kitchen element intended for air circulation - cooling) **depending on the temperature durability shown in the certificate of the material used to make the kitchen element**.

Here also you should take care on how to ensure **accessto a cooker for maintenance and servicing.**

1.2. CHIMNEY PREPARATION AND CONTROL

Prior to cooker mounting, it is necessaryto check the chimney – the diameter, height, possible clogging or damages. The chimney must be **certified by an authorized local chimney-sweeper.** The effective **chimney height** must be **at least 5 meters** from the point of flue gases outlet (*Figure 1c*).

Flue draught must be within parameters:

- **for C-20 ⇒ 13 ± 2 Pa,**
- **for C-30 ⇒ 15 ± 2 Pa,**
- **for C-25 ⇒ 13 ± 2 Pa,**
- **for C-35 ⇒ 15 ± 2 Pa,**

The chimney must be **at least 0,5 meters above the roof ridge. The minimum distance between the two connections on the same chimney must be 60 cm** (*Figure 1d*).

Chimney diameter is chosen according to information provided by the chimney manufacturer – e.g., for flue draught of 15 Pa, the diameter is usually 160 mm.

The chimney must be smooth on the inside, well insulated and well fastened. All cleaning hatches must be well fastened. All gaskets must be regularly inspected and replaced when necessary.

1.3. CONNECTING TO CHIMNEY

When connecting the cooker to the chimney it is necessary to adhere to local, national and European regulations (norms) – **DIN 4705**.

It is necessary to ensure that **the connection between the cooker and the chimney is executed tightly and impermeably**. Smoke outlet pipe must have **a suitable incline (minimum 3°) in cases where the cooker is removed from the chimney opening**.

Smoke outlet pipe must not penetrate into the chimney clear opening (*Figure 1b*).

It is not allowed to reduce the prescribed pipe diameters!

Differences between the proper and improper connection of the cooker to the chimney are displayed in the following figure.

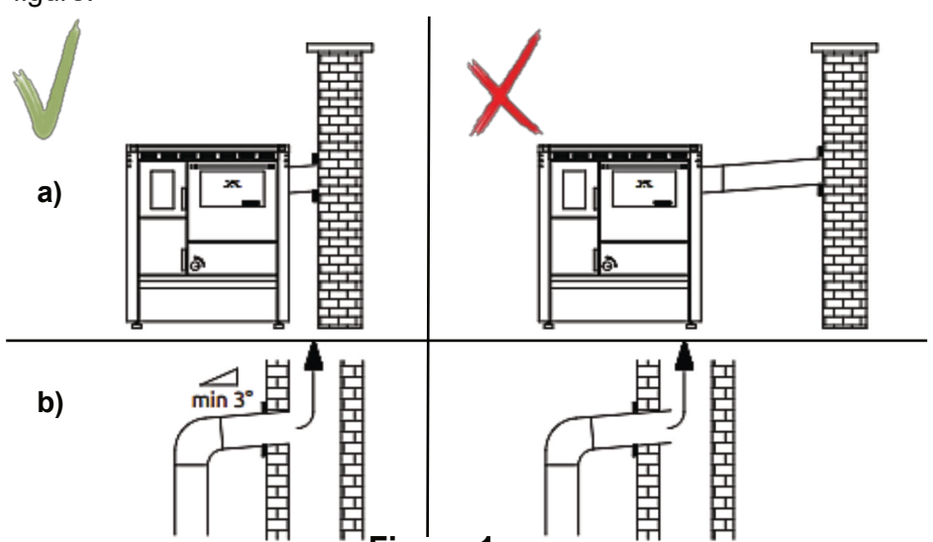


Figure 1

Differences between the proper and improper connection of the cooker to the chimney

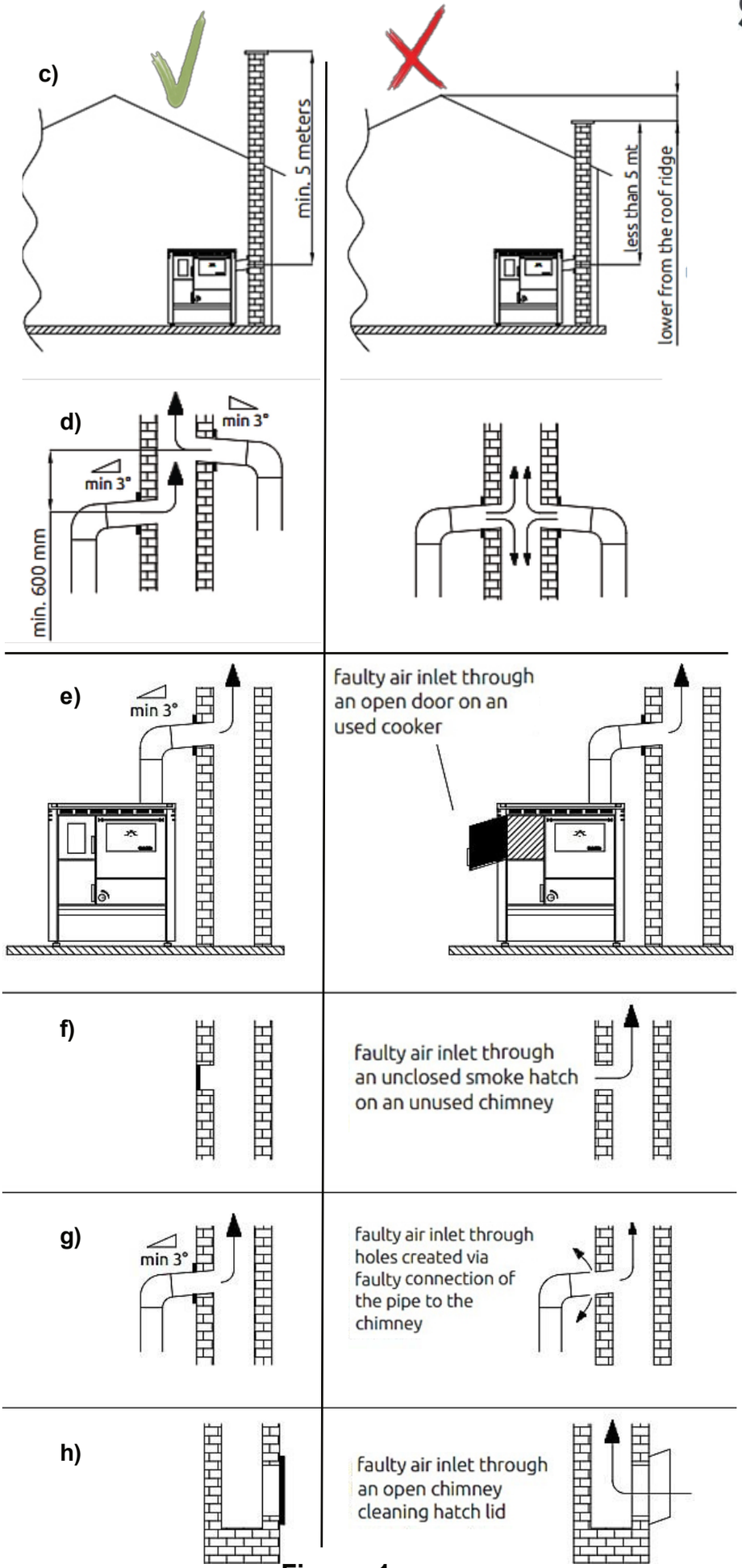


Figure 1

Differences between the proper and improper connection of the cooker to the chimney

Connect the cooker to the chimney **using a sliding rosette, 140 mm (150 mm)** in diameter. Specially designed sliding rosette enables the adjustment of the chimney opening in tolerance of 1,5 cm upwards, i.e. downwards.

In case it is necessary to connect the cooker to the chimney **with vertical uninsulated pipe**, use the smoke outlet pipe, **up to 125 cm maximum length**. It is not allowed to reduce the prescribed pipe diameters!

If the cooker is further removed from the chimney opening, it is connected via extension tube and an elbow. The extension **smoke inlet pipe must have an appropriate incline** (see *Figure 1*) **and must not exceed 100 cm in length**. The connection of the chimney and the smoke inlet pipe must be completely fastened!

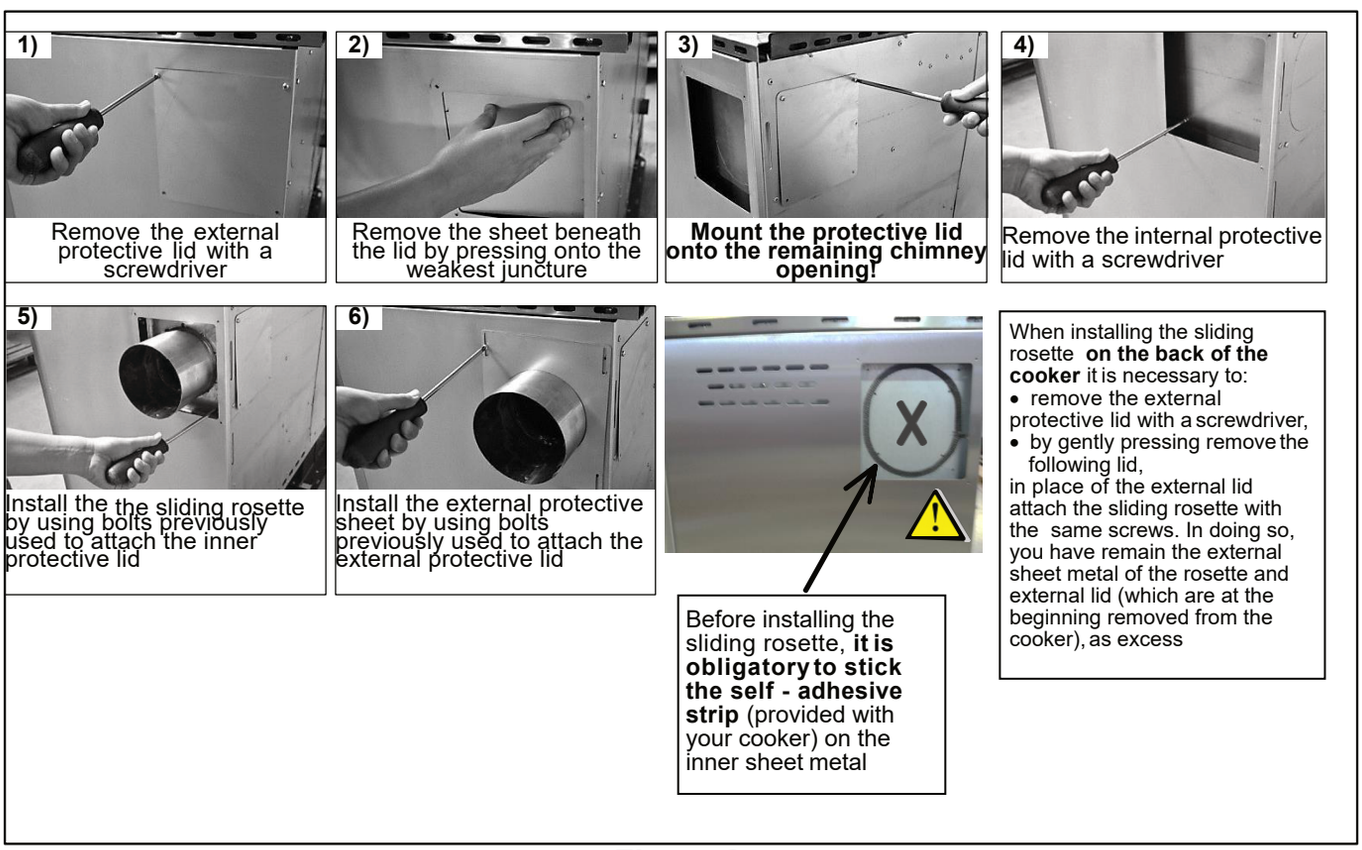


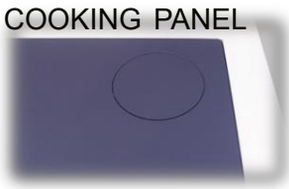
Figure 2

Installation process of sliding rosette

1.3.1 CONNECTING TO THE CHIMNEY FROM THE UPPER PART OF THE COOKING PANEL

Remove the smaller cooking panel

Carefully lift the bigger cooking panel and remove the protective cover



First, unscrew the center bolt, which fastens the center cover

4)

Remove the center cover

5)

After removing the remaining four bolts, remove the center protective cover

6)

Now place the chimney extension into the hole

7)

Afterwards, connect the chimney extension to the protective round cover and re-tighten the previous four bolts

8)

Put back the covers into their previous positions and you can use the cooker with the chimney up!

IMPORTANT: before re-tightening of the bolts, place the seal that you received with the cooker!

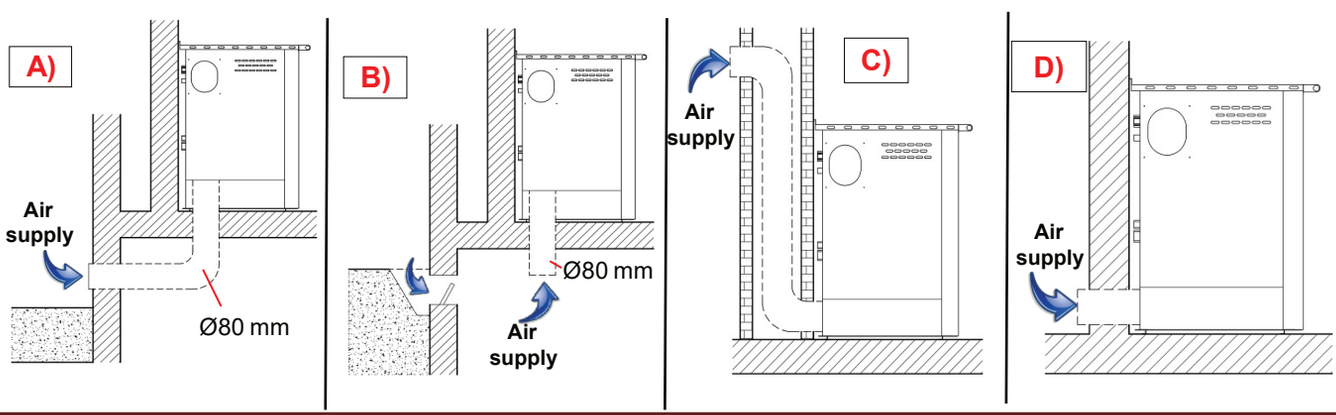
1.4. FRESH AIR VENTS

The room where the cooker is installed **must be provided with sufficient air inflow to ensure combustion**. The area must be regularly ventilated.

The fresh air vent must be situated **near the room floor** and allow the inflow of fresh air into the room. **The minimum dimension of the vent must be 6 cm² per kW of nominal power** (e.g.for 30 kW ⇒ 180 cm² ⇒ 10 x 18 cm vent).

A pipe can also be installed on the **existing opening Ø120mm on the rear side of the cooker**, for the purpose of entering fresh outside air.

ORIENTEERING and SIMPLIFIED schemes of connecting to the combustion air supply



A) Combustion air supply via pipe line through a basement room

The combustion air is preheated with this connection option, which is favorable to a clean combustion. The routing in the basement room is easy to make.

B) Combustion air supply via a basement room

The combustion air is preheated. The basement room must be excluded from the home ventilation system and be open to the outside. High levels of dust and moisture should be avoided.

C) Combustion air supply from above

An air supply from above may only be performed with tested chimney systems. A chimney calculation is mandatory here!

D) Combustionair supply directly from outdoor

With an air supply directly through the outside wall, the combustion air is only slightly preheated, which is unfavorable to a clean combustion. There is also the danger of condensation!

NOTE: This version of the air supply is not recommended!

Please be aware!

- A prerequisite for the connection of cooker used in combination with domestic ventilation systems is that the approval of the local qualified chimney sweep is obtained!
- It is not permitted to install cut-off devices in the supply air duct (dampers, sliders, etc.). To prevent air from permanently flowing through the appliance when it is not in use, close the dampers in the appliance.
- Make sure that the outdoor air inlet is protected against blockage by meansof a protective grating.
- For the supply air duct to the combustion air connecting piece it is best to use a non-combustible, flexible aluminium hose. Max. length 4 m with 3 bends.
- The supply air duct must be insulated to avoid condensation and must be protected against wind!
- According to the regulations for chimney sweeping and inspection ventilation systems must be checked for blockages once a year by the local qualified chimney sweep. To facilitate this, appropriate inspection doors should be provided. Please consult your local qualified chimney sweep regarding this matter.

1.5. OVEN THERMOMETER

Thermometer indicates the oven temperature; this value is informative. **If the oven temperature exceed 300°C, the oven must be partly opened to prevent damage to the thermometer, oven door hinge and oven door**.

The warranty will be void in case the damage to the parts listed before occurred from excessive oven temperature.

1.6. CENTRAL HEATING SYSTEM CONNECTION

Prior to commencing the firing procedure, the cooker must be connected to waterworks and central heating system and the boiler must be filled with water. **Continuous circulation of water through the boiler** must be ensured. The boiler must be well devoid of air prior to operations commencement.

The pipe installation **must be executed in accordance with valid technical regulations** and DIN 4751 norm – part 1 for open systems and DIN 4751 – part 2 for closed systems, following **professional standards**, and **only by an authorized expert**.

It is not allowed to reduce the diameter of the pipe connecting the boiler to the heating installation connection point. Otherwise, the warranty will be void.

Prior to connecting the boiler to the heating installation, **the pipelines are to be thoroughly cleansed from potential filth sediments**. This prevents boiler overheating, system noise, pump malfunctions and mixing valve malfunctions. **The connection** to the heating system **is executed via union flat joint, with or without the mixing valve** onto an open or closed system.

Installation of an approved safety valve with opening overpressure set to 3 bar is mandatory in closed systems.

Safety and expansion conduits must not have any kind of block elements.

ORIENTEERING and SIMPLIFIED scheme of connecting to an open central heating system

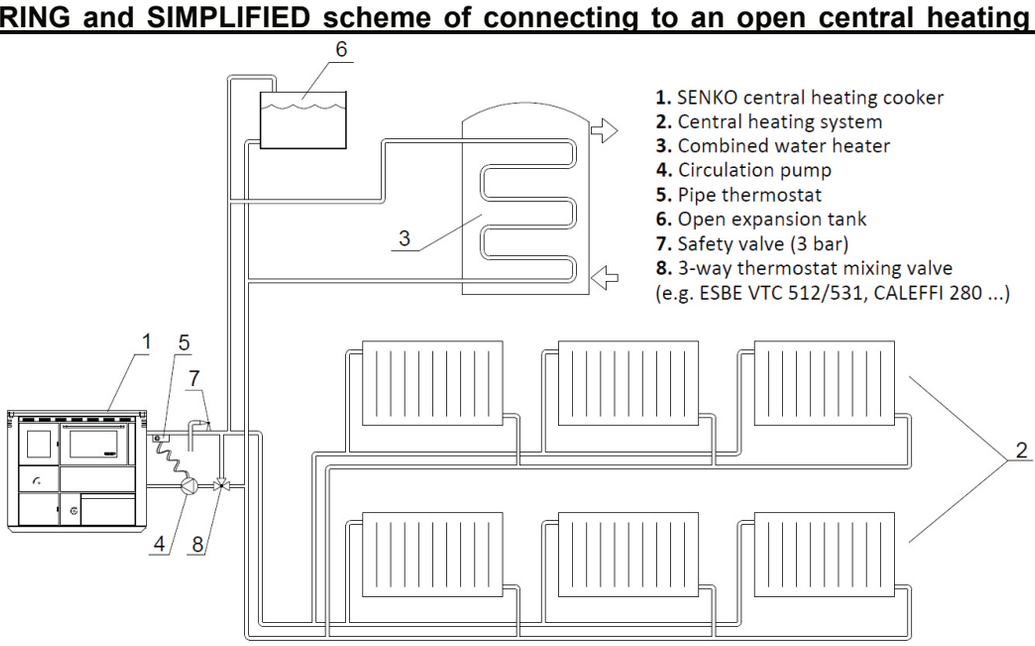


Figure 3

ORIENTEERING and SIMPLIFIED scheme of connecting to a closed central heating system

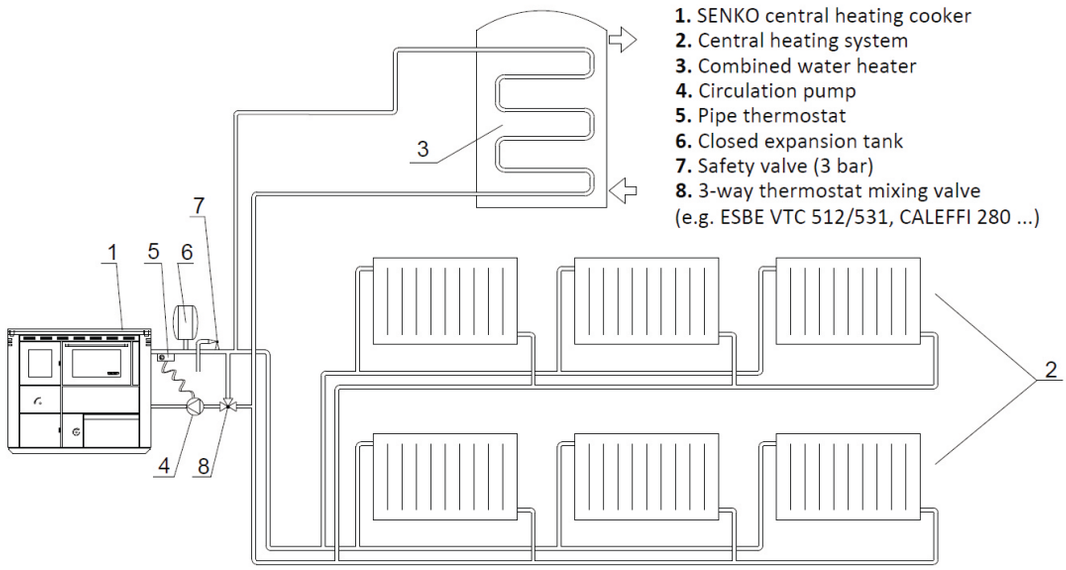


Figure 4

It is necessary to **install the deaerating valve**. When filling the boiler and the radiator system it is necessaryto open the mixing valve, if one had been installed; adequately deaerate the boiler and the heating system.

The mixing valve (**8** – *Figure 4*) **maintains the boiler temperature at minimum 55°C,thus preventing the boiler from condensation**. If one had not been installed, it is necessary to ensure firing conditions that will prevent boiler condensation **pipeline thermostat** (**5** – *Figure 4*) **which activates the circulation pump must not be adjusted to values lower than 55°C!** Condensation may appear at the beginning of the firing process or due to insufficient feeding**.**

1.6.1. COOKER THERMAL PROTECTION

When connecting the cooker to the central heating system it is **necessary to install the safety thermal valve.** It shall be installed on the **cooker rear side to R3/4" connection point** – inner thread ⇒ see *Figures 5 and 6*.

Water outlet into the sewer (or SW tank – sanitary water) is connected

- **R3/4" (7) - *figure 5*,**
- **R1/2" (9) - *figure 6*,**

THE BOILER MUST NOT BE USED WHEN EMPTY OF WATER!

The sensor (probe) **of the safety thermal valve** is connected to the **connection point (5)** ⇒ broken line in *Figures 5 and 6*.

On the front side of the cooker is the **thermometer (6)** which indicates the boiler **water temperature which is an informative value**. **This temperature can vary ± 20°C and cannot be considered as a real water temperature in boiler**.

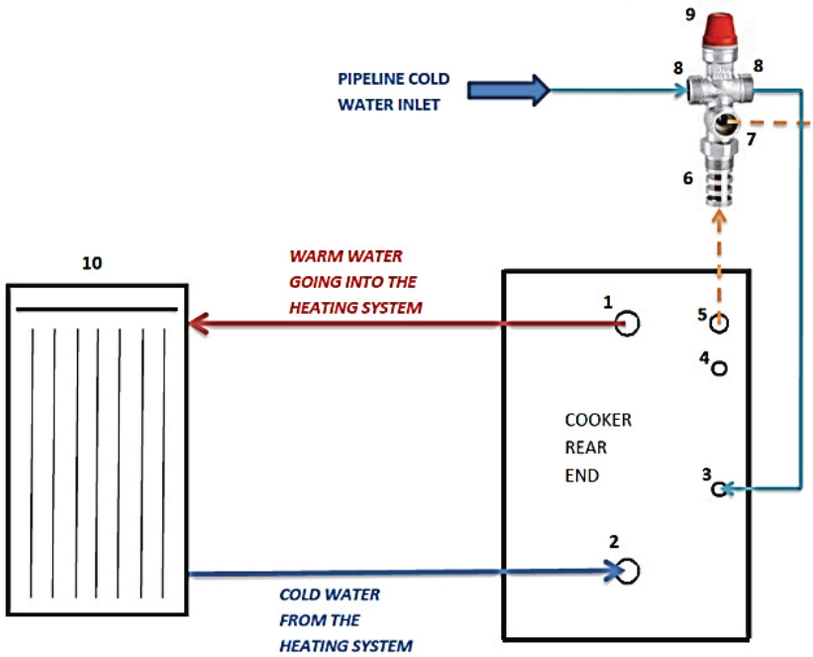
At the outlet of hot water from the boiler, the central heating system must be fitted with **thermo-manometer which shows the real water temperature!**

Connection schemes for central heating system are shown in the following figures.slikama.

Displayed schemes are for guidance only and do not have the project value!

1.6.1.1. THERMAL TWO-WAY SAFETY VALVE

Orientational schematic for connecting cookers to a central heating system with a thermal two-way safety valve



NOTE: Execute the installation in accordance with valid technical regulations and the DIN 4751 norm – part 1 for OPEN SYSTEMS and DIN 4751 – part 2 for CLOSED SYSTEMS, following all professional rules, and only by an authorized expert.

THE KEY :

1 – R1'' warm water connection point
2 – R1'' cold water connection point
3 – R1/2'' inlet water connection point of the boiler thermal protection
4 – R1/2'' connection point CLOSE!
5 – R3/4" safety valve connection point of the boiler thermal protection
6 – R3/4'' safety valve thermostatic element connection point
7 – R3/4'' outlet warm water connection point
8 – R3/4'' inlet cold water connection point
9 – thermal two-way safety valve
- CALEFFI 544501, REGULUS DBV1, HERMAN TDS1...
  ⇒ valve maximum operational pressure: 6 bar
  ⇒ maximum temperature valve can withstand: 120°C
  ⇒ maximum water flow with 1 bar pressure difference: 1,8 m^3/h at 110°C

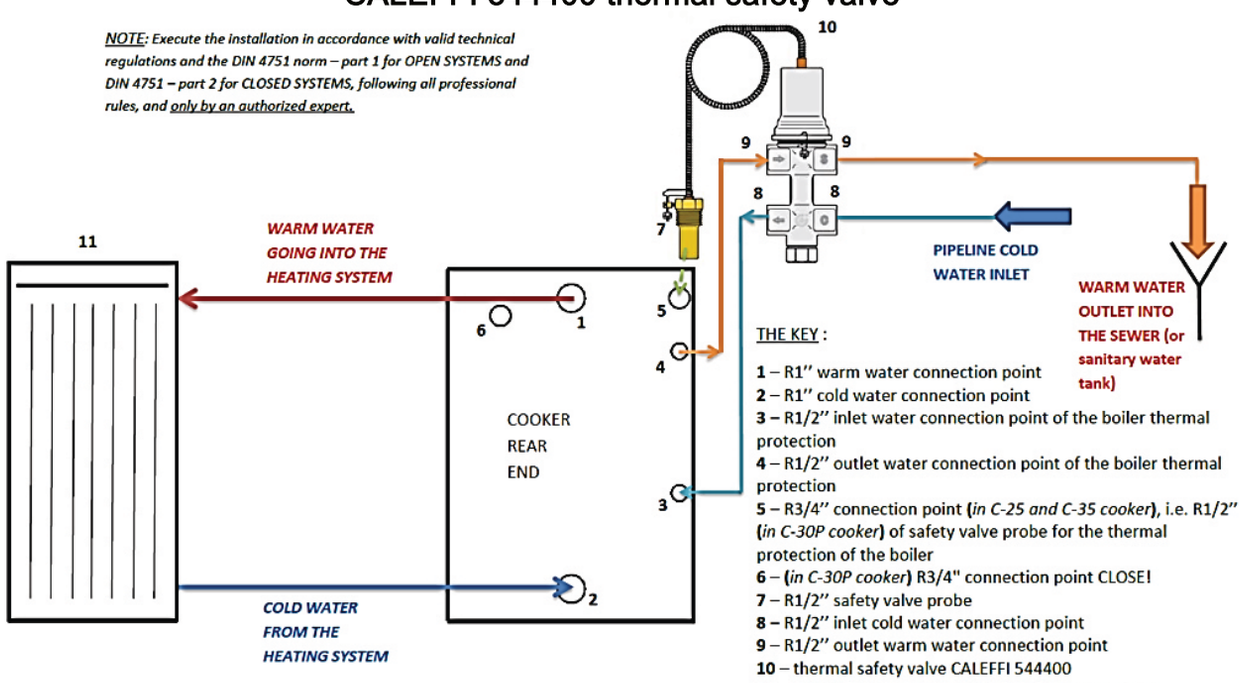
10 – heating system

Figure 5

1.6.1.2. THERMAL SAFETY VALVE

Orientational schematic for connecting the cooker to the central heating system with CALEFFI 544400 thermal safety valve

NOTE: Execute the installation in accordance with valid technical regulations and the DIN 4751 norm – part 1 for OPEN SYSTEMS and DIN 4751 – part 2 for CLOSED SYSTEMS, following all professional rules, and only by an authorized expert.



THE KEY :

1 – R1'' warm water connection point
2 – R1'' cold water connection point
3 – R1/2'' inlet water connection point of the boiler thermal protection
4 – R1/2'' outlet water connection point of the boiler thermal protection
5 – R3/4'' connection point (*in C-25 and C-35 cooker*), i.e. R1/2'' (*in C-30P cooker*) of safety valve probe for the thermal protection of the boiler
6 – (*in C-30P cooker*) R3/4" connection point CLOSE!
7 – R1/2'' safety valve probe
8 – R1/2'' inlet cold water connection point
9 – R1/2'' outlet warm water connection point
10 – thermal safety valve CALEFFI 544400
⇒ valve maximum operational pressure: 6 bar
⇒ working temperature: 5-110°C
⇒ maximum water flow with 1 bar pressure difference: 1600 l/h

11 – heating system

Figure 6

1.6.2. INSTALLATION TESTING

Prior to initial firing it is necessary to check if the boiler and the entire heating system are filled with water and well deaerated. Also check if the smoke uptake pipe is properly fastened.

After initiation makes sure:

- there is no leakage of any kind,
- that the entire installation is deaerated,
- that the water temperature in the boiler is increasing,
- that boiler operations do not result in condensation ("sweating") in the chimney.

Repeat the entire inspection after several days of constant feeding! Also, PRIOR TO INSTALLATION **activate the safety valve and check its proper functionality**.

1.6.3. RECEIVING AND MAINTAINING THE INSTALLATION

When receiving the installation, inspect the installation in its entirety with the contractor. **The contractor is obligated to provide basic information about the installation operations and indicate the position and function of the installation key components**. Also, the contractor is obligated to complete the installation report which can be found at the end of this *Manual*!

Deaerate the entire heating system after several days and refill it with water if necessary.

Inspection of installation working performance is to be executed at least once a year by an authorized maintenance technician. This will ensure safe working performance of the boiler, as well as economic and immaculate heating.

In case of installation faulty operation, contact your central heating installation contractor exclusively!

1.7. HEIGHT ADJUSTMENT

On the cooker base (3) there are 4 feet with screw to **adjust the height 850 – 920 mm of the cooker**.

Adjustment is made by turning the screw M10 to the desired height. After that, the M10 nut needs to be tightened with a wrench OK17 to avoid damaging of the feet.

Figure 7

Important:

- **BEFORE ADJUSTMENT, lift UP the cooker to a suitable position so that the height adjustment process can be performed easier.**
- **For easier tightening of the nut, two key slots are available on the pedestal.**

2. TECHNICAL DATA

SENKO cooker		C-20	C-20 PREMIUM	C-30	C-25	C-35	C-25 PREMIUM	C-35 PREMIUM
Nominal heat output, kW		15,8-25	15,8-25	19,1-35	17,2-25	21-35	17,2-25	21-35
Boiler, kW		5,8-20	5,8-20	5,2-23	4,5-18	5,4-21	4,5-18	5,4-21
Room, kW		10-5	10-5	13,9-12	12,7-7	15,6-14	12,7-7	15,6-14
Amount of water in boiler, L		20	20	28	20	28	20	28
Weight, kg		160	184	200	235	270	260	300
Cooking plate (W×D), mm		457×437	457×437	567×455	860×440	860×567	860×440	860×567
Oven (W×H×D), mm		-	-	-	-	-	-	-
Flue gases exhaust, mm		Ø 130		Ø 140	Ø 130	Ø 150	Ø 130	Ø 150
Primary air dampers, mm		Ø 120		Ø 120	Ø 120	Ø 120	Ø 120	Ø 120
Required flue draught, Pa		13	13	15	13	15	13	15
Efficiency, %		84,7	84,7	83,32	82,9	82	82,9	82
Regulation	Primary air	automatic						
	Secondary air	by hand						
Boiler protection		Prearranged for thermal protection against overheating						
Movable firebox grate		Mechanism						
Oven (height), mm		850-920						
Firebox door		Fireproof glass						
Energy efficiency class		A+	A+	A+	A+	A+	A+	A+

- technical specification apply to wood logs and wooden briquettes used as fuel
- technical specifications are indicative and may vary as such. The manufacturer withholds the right to change any technical specification to further improve the products

3. TECHNICAL SUPPORT

Dear client,

If you were unable to find the solution to the malfunctions, that potentially developed while using your product, in the table above, please feel free to contact our complaint and support service:

- Tel: 040 337-344
- E-mail: info@senko.hr, podrska@senko.hr

WE'D LIKE TO TAKE THIS OPPORTUNITY TO REMIND YOU WHAT YOU NEED TO POSSES WHEN CONTACTING OUR COMPLAINT AND SUPPORT SERVICE:

Before you contact us, prepare the following documents:

- **purchase receipt with the date of purchase**,
- **warranty** (at the back of this *Manual*),
- **written installation report** (at the back of this *Manual*),
- **Instruction manual**.

The documents listed above are necessary to ensure the quickest and clearest removal of the occurring malfunction !

4. TERMS OF WARRANTY

These warranty conditions are valid in all European countries, in which SENKO products are sold. The client addresses the manufacturer/dealer or the nearest authorized servicing agent for all complaints; providing the purchase receipt with the date of purchase, warranty and installation report in the process.

DURATION OF THE WARRANTY
Manufacturer SENKO d.o.o. provides a **2-year** warranty for its product, in the case of production faults and construction materials. Oven thermometer, oven grid, manual regulator, regulation buttons, oven door hinges) have a **6-months** warranty.
The manufacturer guarantees that the product was produced according to the EN 12815 norm and that it complies with all the demands set by the norm. The user is obligated to adhere to the Instruction manual.

EXCEPTIONS
Exceptions are parts subject to wear such as chamotte and chamotte plates, firebox grate, ash box, seals and glass panes.
Chamotte plates – changes in colour or cracks are dependent on the material and can never be completely ruled out. However, they do not impair the functioning of the appliance (as long as the plates remain in the firebox) and they are not a motive for compliant.
Glass (door, panels, CERAN cooking plate) - breakage or damage of the glass because of external hazard, changes on the surface due to thermal influences such as fly-ash or soot at the surface of the glass.
Discolouring of paint due to overload of thermal strain.
Seals - e.g. hardening or breakage due to thermal or mechanical strain. **Surface coatings** - frequent cleaning or cleaning with abrasive cleaning agents.
Castings and **parts which are subject to high thermal stress** - firebox grate, cooking plate or ash box.
Heat exchanger (boiler) is not subject to the warranty in the event in which it is not secured with adequate anti-condensate circuit which guarantees a minimum return water temperature of at least 55°C (*only at central heating cookers*).

REPAIRS
Possible repairs within the warranty will be executed within 30 days from the date of product delivery to the manufacturer. Should the repairs not be executed within 30 days from the delivery to the manufacturer, the product will be replaced with a new one. The manufacturer will notify the client about the executed repairs. The client is obligated to take over the product within 5 days from the repair completion.

COSTS
The manufacturer does not defray any delivery and return costs.
Prior to commencement of repairs within the warranty (for damages caused by incorrect use, cooker transport and mounting), the manufacturer will notify the client about the repair price in written form. Once the client agrees, the manufacturer will execute the repairs and charge the client for the repairs.

SPARE PARTS
Original parts replaced within the warranty do not have to match the removed parts in external physical appearance, but they must match them in quality and functionality.

DISCLAIMER OF LIABILITY
Manufacturer cannot accept any liability for the loss or the damage of an appliance through theft, fire, vandalism or similar causes. Indirect or direct damage caused to the product, which is the result of improper transportation of the product, are excluded from the liability. We cannot accept any liability for damages caused by chemical or electrochemical effects (e.g. pollutants in the combustion air and similar) which are the result of improper installation of the product and violation of this Instruction manual - Installation and Instruction manual - Handling.

ADDITIONAL TERMS
Small dimensional differences in construction materials and parts of the cooker are not a reason for complaint. During the period in which the product was inefficient, we will not grant any compensation. This warranty applies only to the customer specified in the warranty sheet and cannot be transferred to others.

The warranty is void if the user made alterations to the product without manufacturer's prior knowledge. If the user was negligent and performed maintenance on the wrong way. If the user is using fuel that is not compliant with the types and quantities indicated in this Manual
The warranty is valid if the installation was executed by an authorized professional and upon presenting the written installation report.
Possible disputes to be settled by the competent Court in Čakovec

SENKO

INSTALLATION REPORT

COMPLETED BY THE CHIMNEY-SWEEPER

Chimney connection executed by the company:

Company/Business: _____ Person in charge: _____
stamp and signature

Street: _____ City: _____

Telephone: _____ Country: _____

Date: _____ Client signature: _____

Chimney
Type: .....
Dimensions (mm): .....
Height (m): .....
Draught (Pa): .....
Flue gases exit temperature (°C): .....
Last inspection date: .....
Number of connections: .....

Smoke venting pipe (if connected)
Cross-section (mm): .....
Length (m): .....
Number of elbows: .....
Air supply pipe (if connected)
Cross-section (mm): .....
Length (m): .....
Number of elbows: .....

COMPLETED BY THE CENTRAL HEATING INSTALLATION CONTRACTOR

Central heating system connection executed by the company:

Company/Business: _____ Person in charge: _____
stamp and signature

Street: _____ City: _____

Telephone: _____ Country: _____

Date: _____ Client signature: _____

Open system ☐ yes ☐ no
Closed system ☐ yes ☐ no
Connection execute in accordance with DIN 4751 ☐ yes ☐ no
Heated space volume (m^3): .....
Expansion tank volume (m^3): .....
Pump type: ..... Water flow (m^3/h): .....
Safety valve type: ..... Safety valve approved at .....bar
Water temperature (°C) ⇒ inlet: ..... ⇒ outlet: .....

SENKO

WARRANTY

WARRANTY No. _____

SOLID FUEL CENTRAL HEATING COOKER:

☐ C-20 L ☐ C-30 L ☐ C-25 L ☐ C-35 L
☐ C-20 D ☐ C-30 D ☐ C-25 D ☐ C-35 D
☐ C-35 D PREMIUM ☐ C-35 L PREMIUM
☐ C-25 D PREMIUM
☐ C-25 L PREMIUM
☐ C-20 D PREMIUM
☐ C-20 L PREMIUM

SERIAL NUMBER: _____

DATE OF MANUFACTURE: _____

STORE NAME AND ADDRESS: _____

CLIENT NAME AND ADDRESS: _____

DATE OF PURCHASE: _____

STORE STAMP AND DEALER SIGNATURE: _____

Faulty product date of receipt: _____	Faulty product date of receipt: _____
Malfunction description (client): _____ _____ _____	Malfunction description (client): _____ _____ _____
Servicing agency comments: _____ _____	Servicing agency comments: _____ _____
Servicing completed on date: _____	Servicing completed on date: _____
Stamp and servicing technician signature: _____	Stamp and servicing technician signature: _____

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NOTES:

CE declaration

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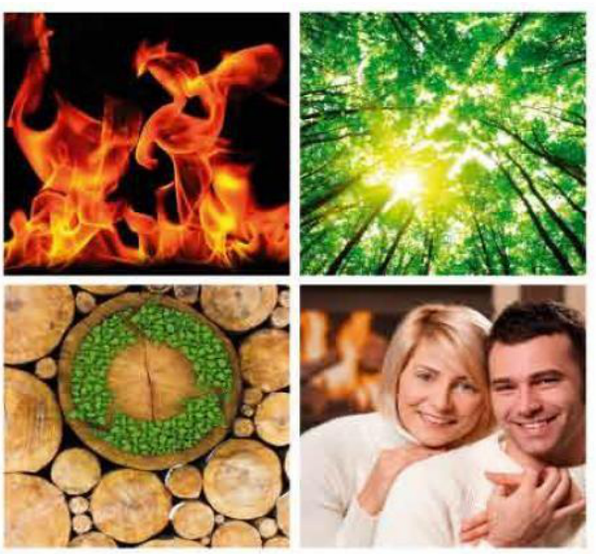

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