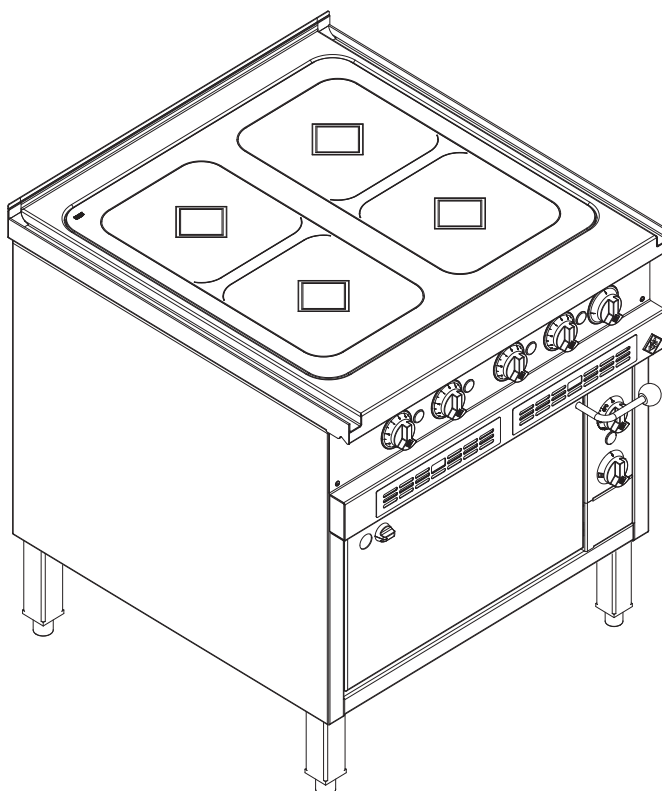




Read the operating instructions prior to commissioning

Installation instructions

Cooker with baking oven



Unit	Type of energy	Unit type	Model
Cooker with induction cooktop and baking oven	Electric	Floor-standing unit	OPEHEI4EB O7EHEI4EB
Cooker with full-surface induction cooktop and baking oven			OPEHEIFL4X5EB OPEHEIFL4X7EB O7EHEIFL2X10QEB

Manufacturer

MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG
Halberstädter Strasse 2a
38300 Wolfenbüttel
Germany

Phone +49 5331 89-0
Fax +49 5331 89-280
Internet www.mkn.eu

Copyright

All rights to text, graphics and pictures in this documentation are held by MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG. Distribution or duplication is only permitted with the prior written consent of MKN.

Copyright by MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG.

1 Introduction	5
1.1 About this manual	5
1.1.1 Explanation of signs	6
1.2 Use of the unit	7
1.3 Warranty	7
2 Safety information	8
3 Description of the unit	11
3.1 Overview of the unit	11
3.2 Equipment and connection data	12
4 Transporting the unit	15
4.1 Transporting the unit to the installation site	15
4.2 Unpacking the unit	16
5 Setting up the unit	17
5.1 Attaching and removing equipment legs	17
5.1.1 Attaching equipment legs	18
5.1.2 Removing equipment legs	18
5.2 Placing the unit on the equipment legs	18
5.3 Setting up the unit on the base	18
6 Aligning the unit	19
6.1 Aligning the unit on the equipment legs	19
6.2 Aligning a unit on a base	19
7 Connecting the unit	20
8 Connecting the unit	21
8.1 Opening and closing the housing	21
8.1.1 Removing and attaching the control panel of the baking oven	21
8.2 Establishing the power connection	22
8.2.1 Connecting the power connection cable	24
8.2.2 Connecting the power optimisation system (optional)	25
8.2.3 Connecting the potential equalisation	25
9 Checking the function	27
9.1 Checking the manual controls of the cooker	27
9.2 Checking the manual controls of the baking oven	28
10 Putting the unit into service	29
10.1 Filling out the commissioning report	29



1 Introduction

1.1 About this manual

The instruction manual is part of the unit and contains information on safe installation of the unit.

Observe and adhere to the following instructions:

- Read the instruction manual in its entirety prior to installation.
- Make the instruction manual available to the installer at the operating site at all times.
- Preserve the installation manual throughout the service life of the unit.
- Insert any supplements from the manufacturer.
- Pass on the installation manual to any subsequent operator of the unit.

Target group The target group for the installation manual is trained technical personnel that is familiar with installing and operating the unit.

Figures All figures in this manual are intended as examples. Discrepancies between these and the actual unit can arise.

1.1.1 Explanation of signs



DANGER
Imminent threat of danger

Failure to comply will lead to death or very severe injuries.



WARNING
Possible threat of danger

Failure to comply can lead to death or very severe injuries.



CAUTION
Dangerous situation

Failure to observe precautions can result in slight to moderately severe injuries.

ATTENTION
Physical damage

Failure to comply can cause physical damage.



Notes for better understanding and operation of the unit.

Symbol / sign	Meaning
•	Listing of information.
→	Action steps, which can be performed in any sequence.
1. 2.	Action steps, which must be performed in the specified sequence.
↳	Result of an action performed.

1.2 Use of the unit

This unit is not intended for the US and Canadian markets. It is not permitted to be used there.

This unit is intended to be used solely for commercial purposes, particularly in commercial kitchens.

1.3 Warranty

The warranty is void and safety is no longer assured in the event of:

- Improper conversion or technical modifications of the unit,
- Improper use,
- Incorrect startup, operation or maintenance of the unit,
- Problems resulting from failure to observe these instructions.

2 Safety information

The unit complies with applicable safety standards. Residual risks associated with operation or risks resulting from incorrect operation cannot be ruled out and are mentioned specifically in the safety instructions and warnings.

The installer must be familiar with regional regulations and observe them.

The installer must observe the safety instructions in these mounting instructions and in the "Safety information" chapter of the operating instructions.

Ensuring conformity with standards

Observe applicable international, European and national laws, regulations, standards and directives for the unit when transporting, setting up and connecting it.

Improper installation

Risk of property damage and personal injury from improper installation

- Install the unit only as specified in these installation instructions.
- Do not add anything to the unit or modify the unit.
- Use only original spare parts.

Transportation and storage

Risk of personal injury and property damage from improper transportation and improper storage

- Store the unit in a dry, frost-free environment.
- Observe the safety regulations for the lifting gear used.
- Attach the unit to the lifting gear securely during transport and setup, and prevent it from dropping.
- Transport the unit in an upright position, do not tilt or stack.
- Pay attention to protruding parts when transporting the unit without packaging.

Fire prevention

Risk of fire from combustible surfaces

- Observe general fire prevention regulations.
- When setting up the unit in close proximity to heat-sensitive substances or substances that pose a risk of fire, observe fire prevention regulations.

Organisational measures Risk of property damage and personal injury from lack of organizational measures

- Identify hazard areas when transporting, setting up and connecting the unit.
- Prior to starting the installation work, notify any operators present about the procedure.
- Prior to starting the installation work, discuss how to behave in an emergency.
- Use equipment and protective gear suitable for the activity.
- Brace housing components to prevent them from falling over and dropping.

Setup Risk of property damage and personal injury from improper setup

- Ensure that the installation area has adequate load-bearing capacity.
- Ensure that the unit is stable when set up and aligned.
- Wear safety shoes and protective gloves.

Electrical connection Risk of fire from improper connection

- Observe applicable regional regulations of the electrical utility.
- Ensure that only electricians licensed by the electric utility connect the unit.
- Ensure that the electrical system is earthed by a protective earthing conductor.
- Note the information on the nameplate.

Risk of electric shock from live components.

- Prior to working on the electrical system, switch off the unit, disconnect the electrical system from the mains and prevent power from being switched on again. Check to ensure absence of voltage.
- Use only insulated tools.
- Do not put a unit with damaged operating elements into service.

Risk of electric shock

- The unit must be incorporated into the potential equalisation circuit through use of the specified minimum wire sizes.

Unit on casters Risk of a line breaking if subjected to high tensile load

- Secure the unit with a chain as a strain relief for the power connection at the installation site so that no tensile load is applied to the power connection if the unit is moved.

- | | |
|-----------------------------------|---|
| Additional connection work | Risk of physical damage and personal injury from improper connection <ul style="list-style-type: none">• Prior to working on the unit, switch off the unit, disconnect the unit from the mains and prevent power from being switched on again. Check to ensure absence of voltage.• Route connection lines such that they cannot be damaged from heat. |
| Concluding activities | Risk of damage to property and personal injury from improper connections <ul style="list-style-type: none">• Reactivate all safety devices and check that they function properly. |
| Commissioning | Risk of property damage and personal injury from improper commissioning <ul style="list-style-type: none">• Read the operating instructions prior to commissioning. Observe the safety instructions in this installation manual and in the "Safety information" chapter of the operating instructions.• Put the unit into service only after a successful function test following assembly.• Put the unit into service only after it has reached room temperature.• Observe the units during operation. |

3 Description of the unit

3.1 Overview of the unit

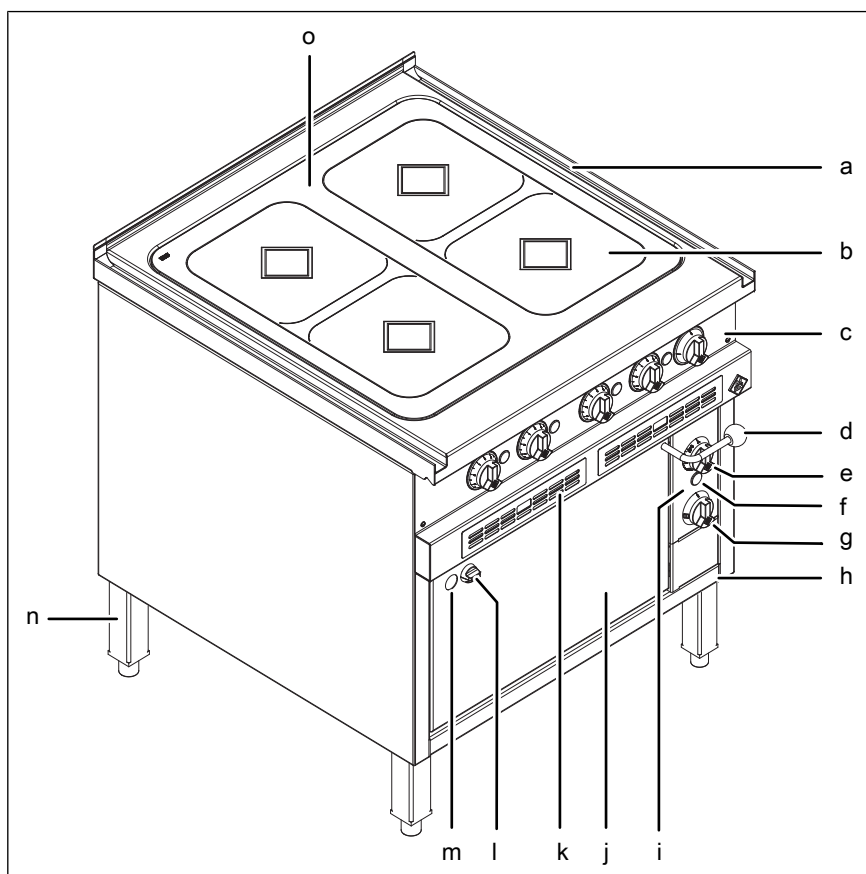


Image: Cooker with baking oven

- | | |
|------------------------------------|--------------------------------------|
| a Discharge channel | i Control panel of baking oven |
| b Heat zone | j Door of baking oven |
| c Control panel of cooker | k Air filter (drawer) |
| d Handle for door of baking oven | l <i>Extractor hood</i> control knob |
| e <i>Temperature</i> control knob | m Extractor hood |
| f <i>Heating</i> indicator light | n Equipment leg (optional) |
| g <i>Heating mode</i> control knob | o Glass ceramic cooktop |
| h Nameplate | |

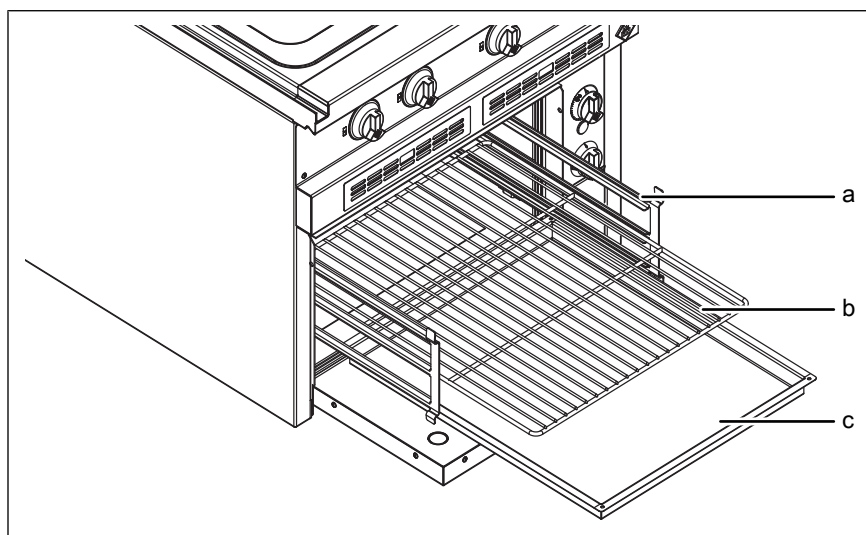


Image: Cooker with baking oven, door open

a Slide-in rail
b Grate

c Baking sheet

3.2 Equipment and connection data

Electric cooker with baking oven	Model		
	Optima 850		
	OPEHEI4EB	OPEHEIFL4X5EB	OPEHEIFL4X7EB
Dimensions			
Length x width x carcass height (mm)	800 x 850 x 700		
Weight			
Weight (kg)	148		
Heat output			
Latent (W)	2464	3104	
Sensible (W)	3290	3850	
Noise level (db(A))	< 70		
Ambient climate	5 – 40 °C, 95% relative humidity, non-condensing		
Power connection			
Type of connection	3NPE 400 V AC 50/60 Hz		
Protection class	IPX5		
Connected load (kW)	25.4	33.4	
Recommended fuse (A)	3 x 50		

Electric baking oven, individual operation	Model		
	Optima 850		
	OPEHEI4EB	OPEHEIFL4X5EB	OPEHEIFL4X7EB
Size			
Gastronorm (GN)	2/1		
Internal dimensions			
Length x width x height (mm)	535 x 670 x 250		
Heat output			
Latent (W)	864		
Sensible (W)	1890		
Power connection			
Type of connection	2 NPE AC 400 V		
Connected load (kW)	5.4		

Electric cooker with baking oven	Model	
	Optima700	
	O7EHEI4EB	O7EHEIFL2X10QEB
Cooker		
Dimensions		
Length x width x carcass height (mm)	800 x 700 x 700	
Weight		
Weight (kg)	136	108
Heat release		
Latent (W)	1848	1528
Sensible (W)	2752	2292
Noise level (dB(A))	< 70	
Ambient climate	5 – 40 °C, 95 % relative humidity, non-condensing	
Power connection		
Type of connection	3NPE 400 V AC 50/60 Hz	
Protection class	IPX5	
Connected load (kW)	18.6	14.6
Recommended fuse (A)	3 x 40	3 x 32

Description of the unit

Electric baking oven, individual operation	Model	
	Optima 700	
	O7EHEI4EB	O7EHEIFL2X10QEB
Size (GN)	1 ½	
Internal dimensions		
Length x width x height (mm)	535 x 520 x 250	
Heat output		
Latent (W)	736	
Sensible (W)	1610	
Power connection		
Type of connection	2 NPE AC 400 V	
Connected load (kW)	4.6	

4 Transporting the unit

4.1 Transporting the unit to the installation site

**CAUTION**

Risk of property damage and personnel injury from tipping equipment

- Do not linger next to or behind raised equipment.
- Move raised equipment carefully.

ATTENTION

Risk of physical damage from improper transport

- Transport the unit upright.
- Do not tilt or stack the unit.
- Pay attention to protruding parts when transporting the unpacked unit.

ATTENTION

Risk of physical damage from improper transport

- Lift unpacked floor-standing unit in the vicinity of the equipment legs.

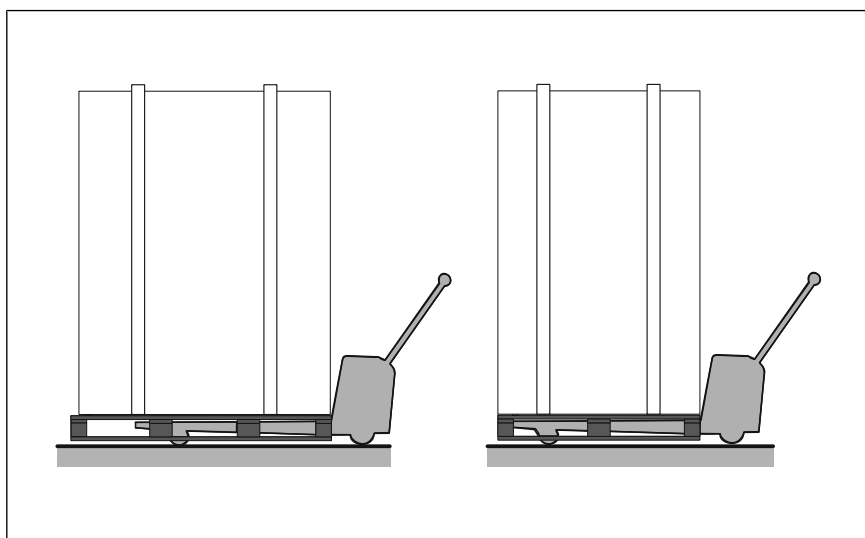


Image: Lengthwise and crosswise transport on pallet

→ Use suitable transport means to move unit to installation site.

4.2 Unpacking the unit



CAUTION**Risk of injury from sharp edges**

- Wear protective gloves.
-



When unpacking the unit, inspect it for transport damage.

Do not install damaged units or put into service.

1. Remove the packaging.
2. Pull the protective film off the unit.
3. Clean the unit (See Operating instructions).
4. Enter the information from the nameplate into the Commissioning report.
5. Enter the information from the nameplate into the Operating instructions.

5 Setting up the unit

Equipotential bonding

The unit must be included in a potential equalisation system.



CAUTION

Risk of fire from failure to observe applicable regional fire prevention regulations

- Observe applicable regional fire prevention regulations.



CAUTION

Risk of crushing from improper setup

- Protect the unit and work area during setup and alignment.

ATTENTION

Risk of physical damage from overheating of the unit

- Do not set up the unit close to heat sources.

Planning drawing

The planning drawing and additional documents are available on the manufacturer's Internet page by entering the equipment number (see Impressum).

5.1 Attaching and removing equipment legs



WARNING

Risk of injury from falling unit

- Secure the unit adequately when lifting and lowering.
- Do not linger under the unit when lifted.

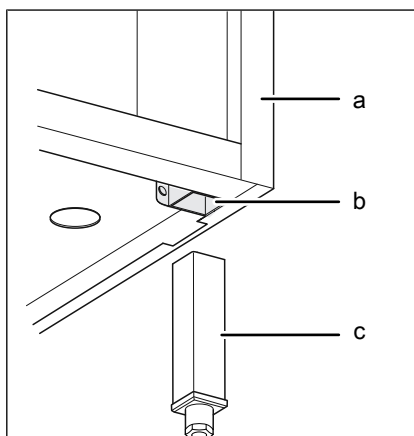


Image: Equipment leg

a Unit
b Leg socket

c Equipment leg

5.1.1 Attaching equipment legs

1. Use appropriate lifting gear to lift the unit.
2. Insert the supplied screw into the opening of the leg socket and turn the nut loosely on it.
3. Push the equipment leg into the leg socket as far as possible.
4. Tighten the screw of the leg socket.

5.1.2 Removing equipment legs

1. Use appropriate lifting gear to lift the unit.
2. Release and remove the screw and nut of the leg socket.
3. Pull out the equipment leg.

5.2 Placing the unit on the equipment legs

ATTENTION

Risk of physical damage from improper transport

- When transporting the unit without packaging, pay attention to protruding equipment components (e. g. handles).
-

Requirement The floor must support the weight of the unit

1. Use appropriate lifting gear to lift the unit.
2. Set up the unit in accordance with the planning drawing.
3. Align the unit lengthwise and crosswise (see "Aligning the unit").

5.3 Setting up the unit on the base

ATTENTION

Risk of physical damage from improper transport

- When transporting the unit without packaging, pay attention to protruding equipment components (e. g. handles).
-

ATTENTION

Risk of physical damage from improper transport

- Lift unpacked floor-standing unit in the vicinity of the equipment legs.
-

Requirement The floor must support the weight of the unit

1. If the base is not horizontal, identify the highest area of the base and start the setting-up procedure there.
2. Use appropriate lifting gear to lift the unit.
3. Lift the unit over the power connection cables and set it up in accordance with the planning drawing.
4. Align the unit lengthwise and crosswise (see "Aligning the unit").

6 Aligning the unit

6.1 Aligning the unit on the equipment legs

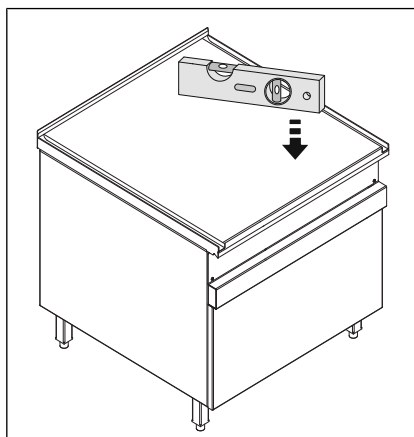


Image: Aligning a floor-standing unit

Requirement Floor is level

1. Place a spirit level on the covering of the unit.
2. Align the unit horizontally by screwing the equipment legs in or out.

6.2 Aligning a unit on a base

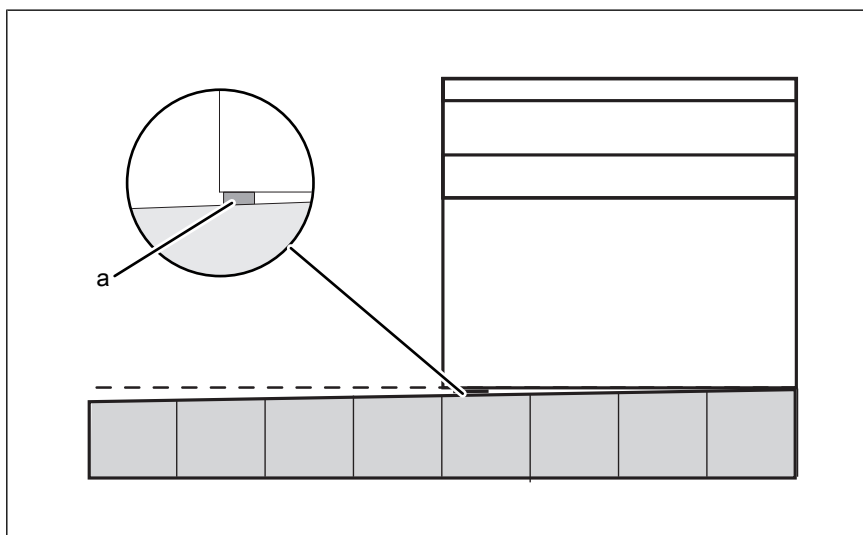


Image: Aligning the unit

a Spacer

1. Use appropriate lifting gear to lift the unit.
2. Use suitable spacers to correct for uneven areas and level the unit lengthwise and crosswise.

7 Connecting the unit

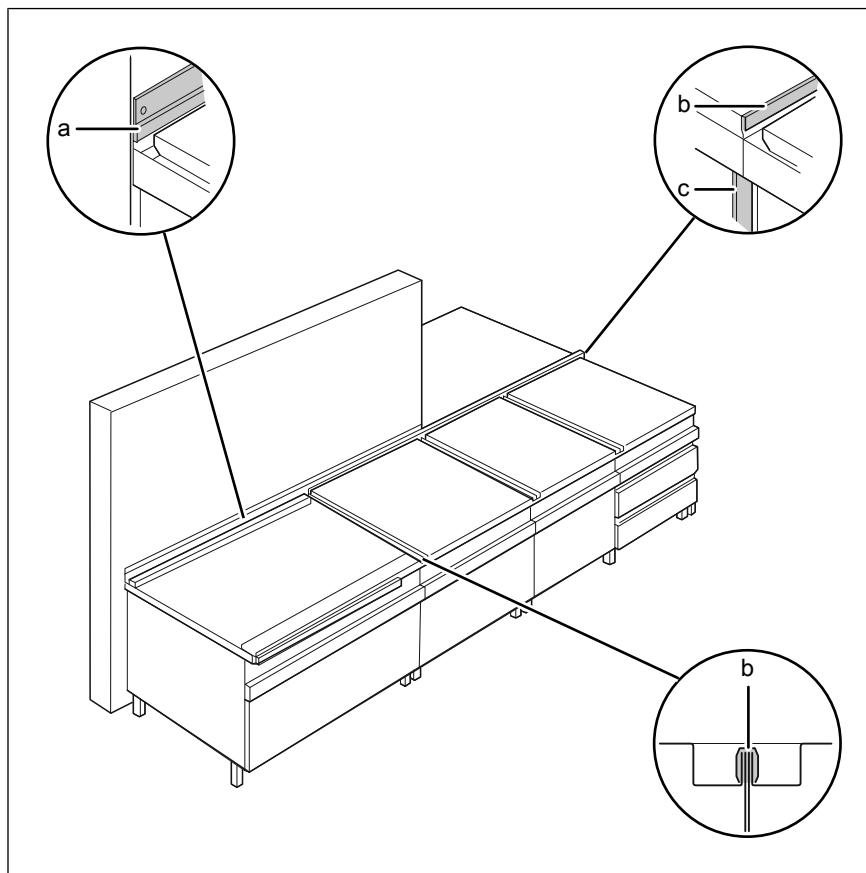


Image: Connecting a floor-standing unit

- a Wall attachment profile
- b Connecting profile

- c Cover plate

→ When setting up with other equipment from the same manufacturer, use end and connecting profiles.

8 Connecting the unit



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.



CAUTION

Risk of injury from sharp edges

- Wear protective gloves.

ATTENTION

Risk of physical damage from damage to the lines

- Remove and attach housing components carefully.

8.1 Opening and closing the housing

ATTENTION

Risk of physical damage from damage to the seals

- Check seals when attaching the housing parts.
- Change damaged seals.

8.1.1 Removing and attaching the control panel of the baking oven

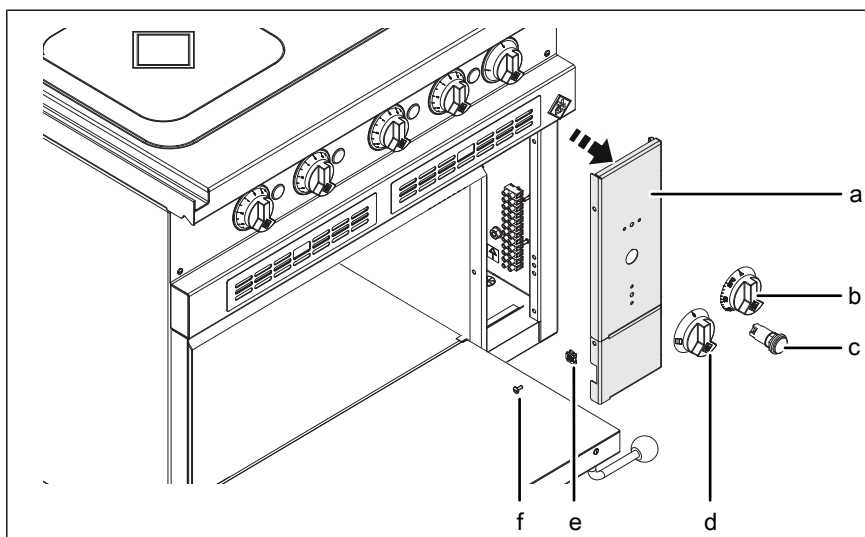


Image: Control panel of baking oven

- | | |
|--------------------------------|-----------------------------|
| a Control panel of baking oven | d Heating mode control knob |
| b Temperature control knob | e Nut |
| c Heating indicator light | f Screw |

Removing the control panel of the baking oven

Requirement Unit not live

Control knob removed

1. Unscrew the screws at the top and bottom of the control panel.
2. Carefully pull the control panel forward.

Attaching the control panel of the baking oven



Ensure that no lines are pinched.

Requirement Unit not live

1. Press the control panel against the housing.
2. Fasten the control panel with the screws.
3. Attach the control knob.

8.2 Establishing the power connection

The unit must be connected on the basis of the information on the nameplate and this manual.

Wiring diagram

The wiring diagram is included with the unit.

The wiring diagram and additional documents are available on the manufacturer's Internet page by entering the serial number of the unit (see Impressum).

Installation work

Electrical installation work must be carried out by an electrician. Comply with the local regulations of the electrical utility company.

Power connection cable

Minimum requirements for the unit's power connection cable to the electric mains:

Connection	Power connection cable
Permanent connection for fixed installation with a cable from the unit to a separate connection box.	Rubber sheath cable, oil-resistant, shrouded and flexible in accordance with IEC 60245-57 (for example H05RN-F).
Connection of the unit with a plug.	
Permanent connection for fixed installation with a permanently laid cable and direct connection to the unit.	PVC sheathed cable for permanent ducting in buildings or damp and wet rooms.

Residual-current protective device

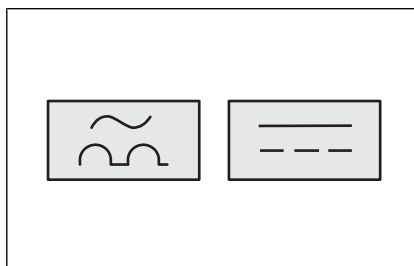


Image: RCD switch type B circuit symbol

The unit can be connected to a residual-current protective device.

If a residual-current circuit breaker is used, the residual-current circuit breaker installed must be a universal current-sensitive type B (RCD type B) to ensure that AC fault currents and pulsating DC fault currents and non-pulsating DC fault currents are detected.

Equipotential bonding

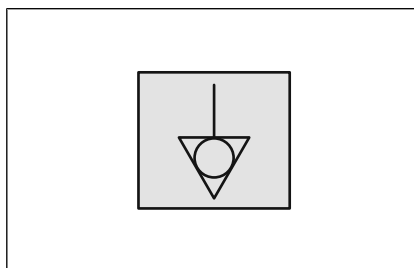


Image: Equipotential bonding symbol

The unit must be included in a potential equalisation system by means of appropriately sized wiring.

Permanent connection



CAUTION

Risk of property damage and personal injury from improper installation

- In the case of a permanent electrical connection, install an all-phase disconnect switch before the unit.

Install an all-phase disconnect switch if the unit will be connected permanently to the electric mains.

Disconnecter

An all-phase disconnecter with a contact gap of at least 3 mm must be installed in order to disconnect the unit from the electric mains at any time.

8.2.1 Connecting the power connection cable



DANGER

Risk of personal injury and physical damage from electric shock

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.

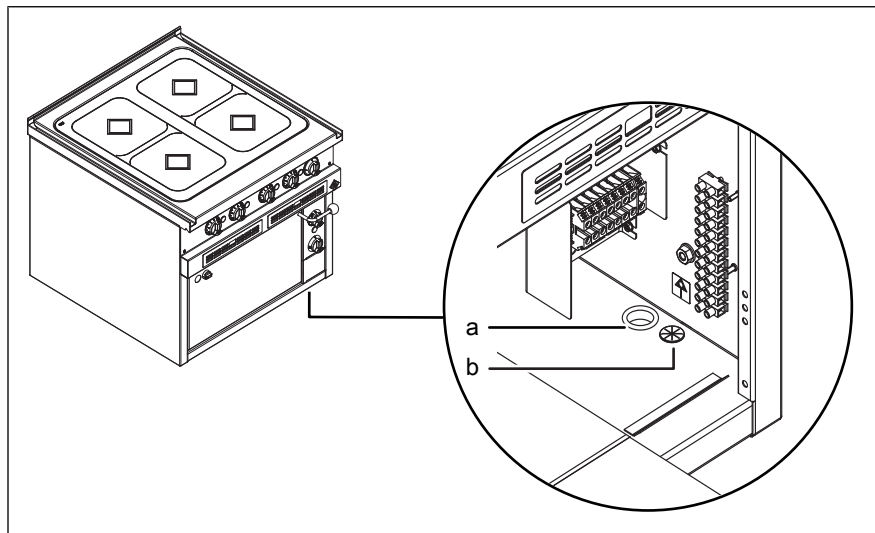


Image: Connection terminals and power optimisation

a Feeding the power connection

b Feeding the connection for power optimisation

Requirement Control panel of baking oven removed

1. Insert the power connection cable into the unit.
2. Connect the power connection cable in accordance with the wiring diagram.
3. Close the housing (see "Opening and closing the housing").
4. Fill out the commissioning report.

8.2.2 Connecting the power optimisation system (optional)



DANGER

Risk of personal injury and physical damage from electric shock

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.

Requirement Unit disconnected from power supply
Control panel of baking oven removed

1. Pull the power optimisation cable into the unit through the opening next to the entry for the power connection cable.
2. Bring the power optimisation cable to the connection terminals.
3. Connect the power optimisation cable in accordance with the wiring diagram.
4. Close the housing (see "Opening and closing the housing").
5. Fill out the commissioning report.

8.2.3 Connecting the potential equalisation



DANGER

Risk of personal injury and physical damage from electric shock

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.

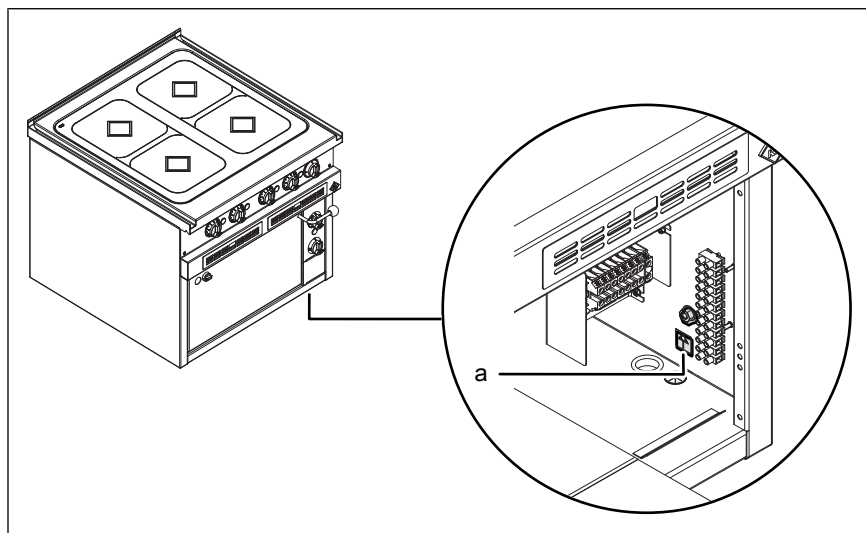


Image: Potential equalisation

a Potential equalisation

Requirement Control panel of baking oven removed

1. Run and attach the potential equalisation line to the marked connection.
2. Close the housing (see "Opening and closing the housing").
3. Fill out the commissioning report.

9 Checking the function



DANGER

Risk of personal injury and physical damage from unsuccessful operational check

- Do not put the unit into service.
- Contact customer service.

Requirement Power connection cable connected

Potential equalisation connected

Unit cleaned

9.1 Checking the manual controls of the cooker



CAUTION

Risk of injury due to hot surfaces

Hold the flat palm of your hand hovering above the cooker plate.

Before touching it, ensure that the cooker plate has cooled down to about 20 °C (warm to the touch).

ATTENTION

Risk of physical damage from heat sources

Before putting objects down on it, ensure that the cooker plate has cooled down to about 20 °C (warm to the touch).

Requirement Power connection established

Housing closed

Heat zone without pot

1. Switch on the unit (see Operating instructions).
2. Select the maximum output for the heat zone
 - ↳ The Heating indicator light illuminates (flashes).
 - ↳ Induction function is in standby mode.
 - ↳ Pot detection is active.
3. Fill a suitable pot with water (see Operating instructions).
4. Place pot in the centre of the heat zone.
 - ↳ The Heating indicator light illuminates (continuously).
 - ↳ Induction function is active.
 - ↳ The pot starts to heat.
5. Switch off the output for the heat zone.
6. Repeat the process in the same way for further heat zones.
7. Switch off the unit (See Operating instructions).
8. Complete the commissioning report.

9.2 Checking the manual controls of the baking oven

1. Switch on the unit (see Operating instructions).
2. Select the maximum temperature.
 - ↳ The *heating* indicator light illuminates.
3. Set the *heating display* control knob to "Top and bottom heating".
4. Check whether the inside of the unit heats up.
5. Set the minimum temperature.
 - ↳ The *heating* indicator light goes out.
 - ↳ The controls are functioning.
6. Set the *temperature* control knob to "Off".
7. Allow the unit to cool down.
8. Repeat the process in the same way for further heating modes.
9. Switch off the unit (See Operating instructions).
10. Fill out the commissioning report.

10 Putting the unit into service

Requirement Power connection made

Housing closed

Operation successfully tested

1. Instruct the operator.
2. Fill out the commissioning report.

10.1 Filling out the commissioning report

General	Yes	No
Information from the nameplate entered? SN: _____ Typ: _____ E: _____ Bez: _____ Item-Nr.: _____ (if listed)	☐	☐
Obvious damage to the unit? What and where?: _____	☐	☐
Unit levelled?	☐	☐

Electrical connection	Yes	No
Power connection made properly?	☐	☐
☐ Equipotential bonding ☐ Power optimizing system	☐	☐
☐ Floating contact ☐ ...		
Electrical connections made properly?	☐	☐
Residual-current protective device connected immediately before this unit?	☐	☐
Residual-current protective device connected before this and other units?	☐	☐

Function check for cooker	Yes	No
Controls are functioning?	☐	☐

Function check for baking oven	Yes	No
Controls are functioning?	☐	☐

Final notes	Yes	No
Was the unit put into service?	☐	☐
Comments:	☐	☐
Operator trained?		

Putting the unit into service

Electrical installation was provided by:			
Company	Installer	City, date	Signature

The function check was performed by:			
Company	Installer	City, date	Signature

Operator training was provided by:			
Company	Installer	City, date	Signature



www.mkn.com

