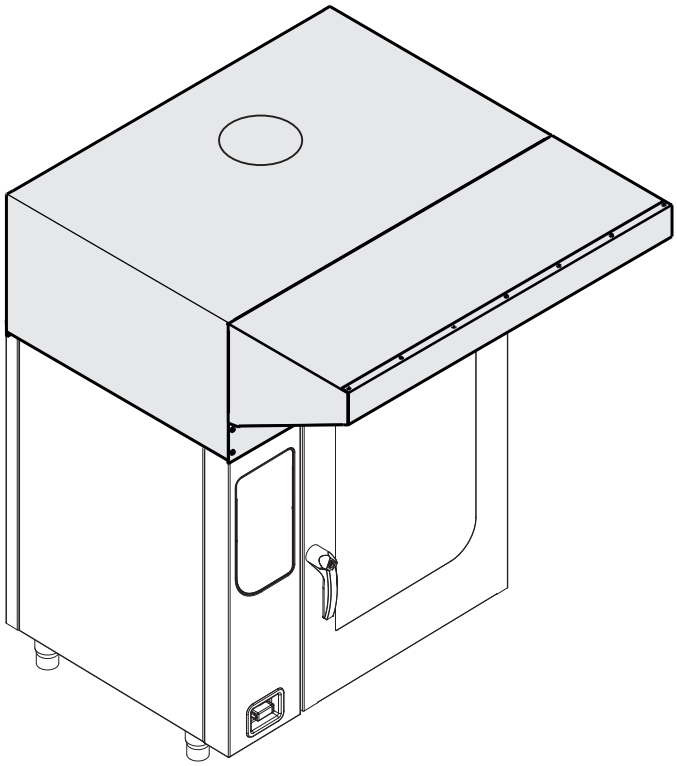
Read the operating instructions prior to commissioning

Installation instructions

Condensation hood



Unit	Type of energy	Model	For unit type
FlexiCombi Air	Electric	10010259	FKXCOD**615**
			FKXCOD**621**
			FKXCOD**115**
			FKXCOD**121**
			DKECOD**XXXXXX**
		10010260	FKXCOD**215**
			FKXCOD**221**

Translation from the original document • 10010259-1AIDE-C • 27/10/2016

Manufacturer

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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
Material damage

Failure to comply can cause material 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 intended to be used solely for commercial purposes, particularly in commercial kitchens.

The use of the unit is prohibited in the following countries:

- USA
- Canada

1.3 Warranty

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

- Modifications or technical changes to 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.
- Attach the unit to the lifting gear securely during transport and setup, and prevent it from dropping.

Organisational measures

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

- 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

- 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.

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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.

Risk of electric shock

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

Additional connection work

Risk of physical damage and personal injury from improper connection

- 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.

Commissioning

Risk of property damage and personal injury from improper commissioning

- Put the unit into service only after it has reached room temperature.
- Use the unit only in combination with a HansDampf or a FlexiCombi.

3 Description of the unit

3.1 Overview of the unit

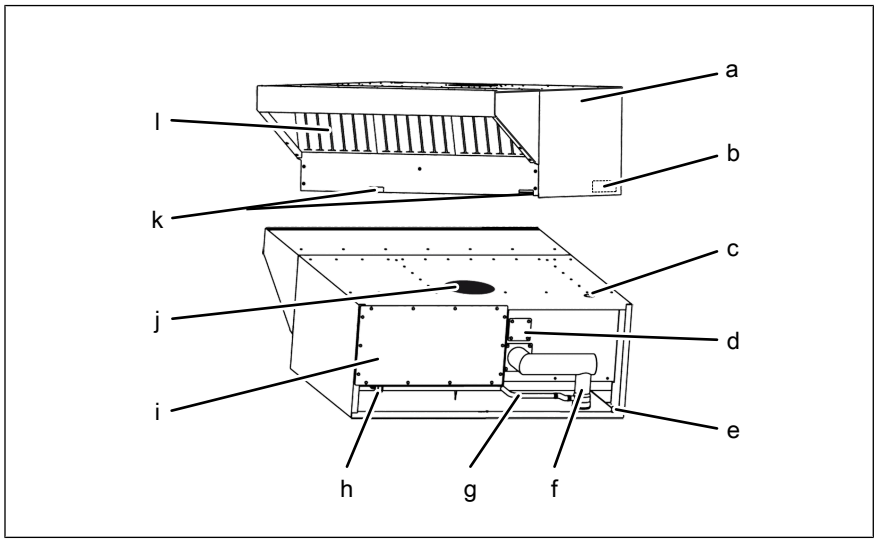


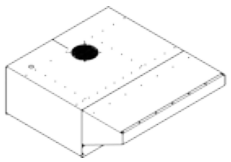
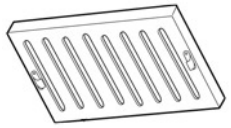
Image: Overview of the unit

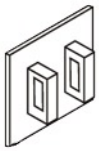
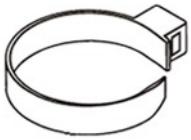
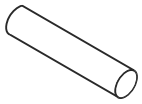
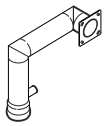
a	Condensation hood	g	Condensate pipe
b	Nameplate	h	Cable gland
c	Predetermined breaking point for the exhaust gas pipe	i	Cover panel for connection terminals
d	Connection for the second exhaust air pipe, if used on a FlexiCombi Team or a Stapelkit	j	Exhaust air connection
e	Connection for potential equalisation	k	Predetermined breaking point for the door hinge
f	Exhaust air pipe	l	Filter

3.2 Scope of delivery

Prior to the installation, check parts for completeness and transport damage.

The following parts are included in delivery.

Part	Quantity	Designation	Part number
	1	Condensation hood	-
	3	Filter	10011493

Part	Quantity	Designation	Part number
	1	Screw	101401
	1	Auxiliary contact for contactor	BCXML20
	2	Plug	ZEC 1.5/2-ST-5.0 C1
	10	Adhesive base	203650
	10	Cable tie	203618
Gas version only			
	1	Exhaust gas pipe	10011445
Only FlexiCombi Team and Stapelkit			
	1	Exhaust air pipe	10011753
	1	Seal	211079
	1	Second power connection cable for condensation hood	10014458

3.3 Equipment and connection data

FlexiCombi Air	10010259	10010260
FlexiCombi	**615, 621, 115, 121, Team**	**215, 221**
Dimensions		
Unit Length x Width x Height (mm)	1002 x 1142 x 394	1080 x 1142 x 394
Unit with packaging Length x Width x Height (mm)	1200 x 800 x 1400	1200 x 800 x 1400
Weight		
Unit (kg)	75	80
Unit with packaging (kg)	90	95
Ambient climate	5 – 40 °C, 95 % relative humidity, non-condensing	
Noise level (dB(A))	< 65	
Power connection		
Type of connection	1NPE 220 — 240 V AC 50/60 Hz	
Type of connection	2PE 400 — 440 V AC 50/60 Hz	
Protection class	IPX5	
Connected load (kW)	0.4	
Fuse (A)	16	

3.4 Minimum clearances

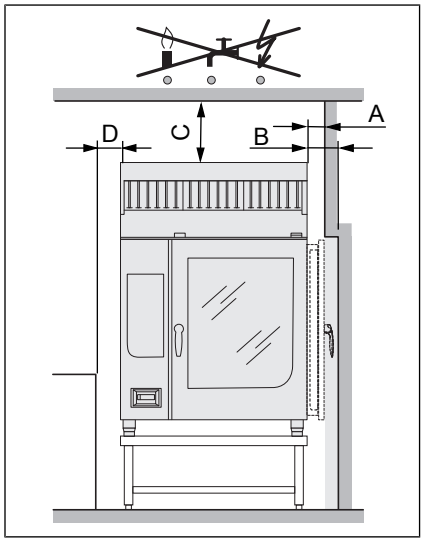


Image: Minimum clearances to walls, ceiling or equipment

A	B	C	D
50	100	500	50
All dimensions in mm			

The following clearances from walls, ceilings or other equipment must be maintained when setting up the unit:

- Left, right and rear at least 50 mm.
- For service work, 500 mm on the left is recommended.
- For parking the tray trolley, 800 mm on the left.
- Clearance from heat sources (baking oven), 500 mm on the left.
- Clearance to deep-fat fryers, at least one length of the hand shower on the left and right.
- There must be no water, gas or electric lines in the ceiling above the unit.

4 Transporting the unit

Prior to transporting the unit to the installation site, ensure that:

- The roadway has adequate load-bearing capacity.
- Wall openings are large enough.

4.1 Transporting 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.

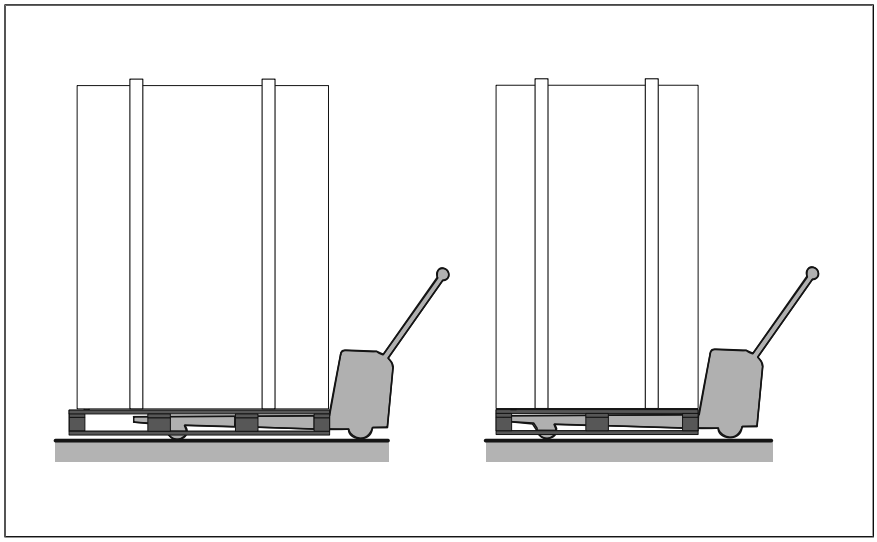


Image: Lengthwise and crosswise transport on pallet

→ 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. Lift the unit off the pallet and place in position.
4. Clean the unit with warm water and a commercially available detergent.
5. Separate and dispose of the packaging material.

5 Assembling the unit

CAUTION
Risk of crushing from improper setup

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

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

- Observe applicable regional fire prevention regulations.

CAUTION
Danger due to heavy weight of the unit (over 60 kg)

- Erect the unit with several people.
- Raise / lower the unit with suitable lifting equipment.

5.1 Installing the condensation hood

Requirement Unit disconnected from the electric mains
Screw on the lid is removed

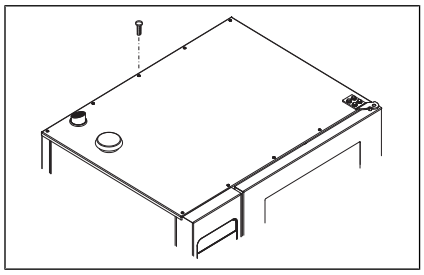


Image: Remove the middle screw on the unit lid.

1. Remove the predetermined breaking point for the door hinge on the condensation hood. (see Overview of the unit)
2. Place the condensation hood on the Combisteamer.
3. Align the condensation hood so that it is flush with all sides of the Combisteamer.
4. Screw a new, longer screw into the lid of the Combisteamer.
   ↳ The old screw is too short and must be replaced.
5. Suspend the filter in the condensation hood.

Additionally for gas units

1. Remove the predetermined breaking point for the exhaust gas pipe on the condensation hood. (see Overview of the unit)
2. Attach the extension to the exhaust gas pipe by inserting it through the housing of the condensation hood.

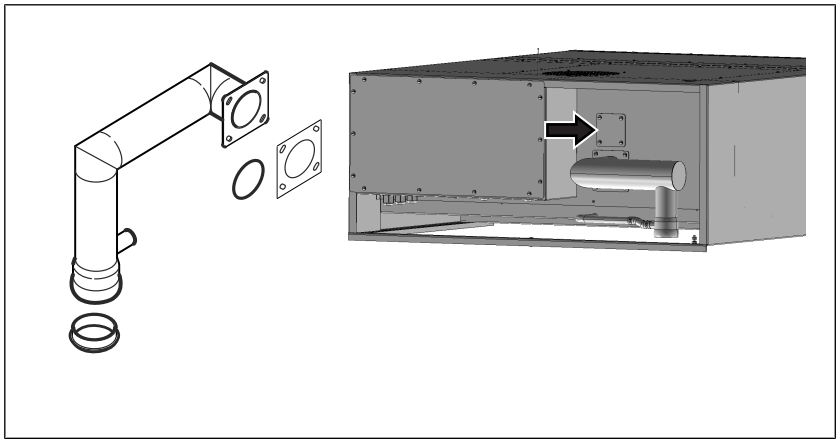


Image: Second exhaust air pipe with seals

Additionally for FlexiCombi Team and Stapelkit

1. Unscrew the lid of the connection for the second exhaust air pipe.

   ↳ A flat seal is situated behind the lid.
2. Fit the second exhaust air pipe and flat seal to the condensation hood.
3. Insert the pipe seal onto the free side of the second exhaust air pipe.

6 Connecting the unit

6.1 Opening and closing the housing

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.

DANGER
Risk of personal injury and physical damage from electric shock

- Before working on the **FlexiCombi Team**, ensure that **both** power circuits within the unit are not live.
- 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.

6.1.1 Removing and attaching the FlexiCombi side wall

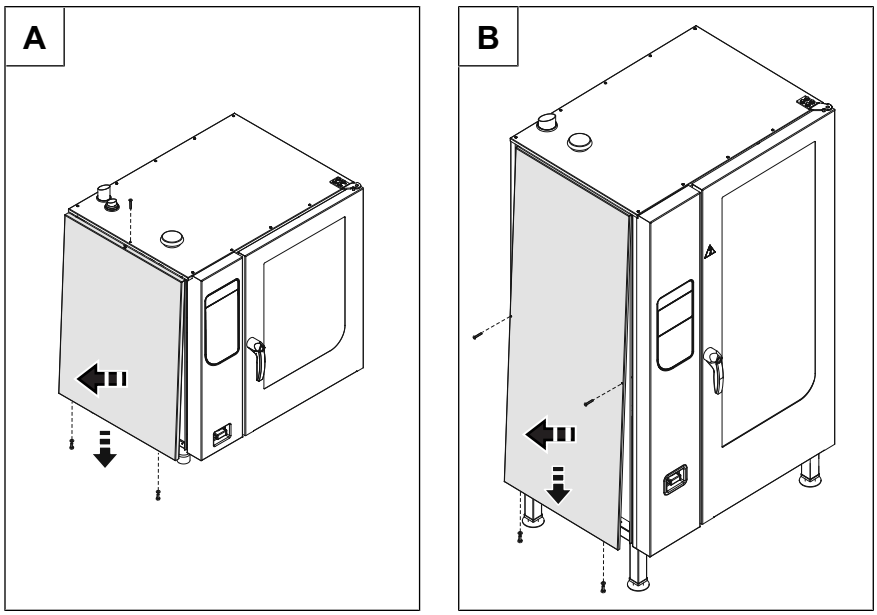


Image: A Size 6XX and 1XX; B Size 2XX

Removing the side panel

1. Unscrew the screws on the side wall.
2. Pull the bottom edge of the side wall forwards.
3. Remove the side wall.

Attaching the side panel

ATTENTION
Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
- Replace damaged gaskets.

1. Insert the top edge of the side wall.
2. Carefully push the bottom of the side wall inwards.
3. Fasten the side wall with the screws.
4. Check that the side wall is in contact with the unit on all sides.

FlexiCombi Team

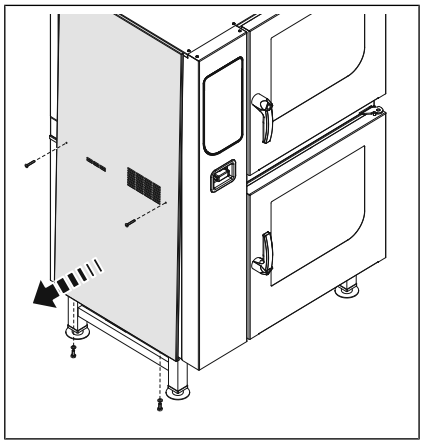


Image: Removing the side wall

Removing side wall

1. Unscrew the screws in the middle of the side wall.
2. Unscrew the screws at the bottom of the side wall.
3. Pull the side wall forwards at the bottom edge.
4. Remove the side wall.

Attaching side wall

ATTENTION
Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
- Replace damaged gaskets.

1. Insert the side wall at the top edge.
2. Carefully press the side wall in at the bottom.

3. Fasten the bottom of the side wall with the screws.
4. Fasten the screws in the middle of the side wall.
5. Check that the side wall is in contact with the unit on all sides.

6.1.2 Removing and attaching the cover panel for the connection terminals on FlexiCombi Air

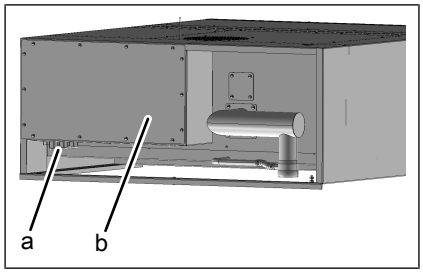


Image: Cover panel for connection terminals

a Cable gland
b Cover panel for connection terminals

Removing the panel over the connection terminals

1. Loosen screws in cover panel over the connection terminals.
2. Remove the cover panel over the connection terminals.

Attaching the panel over the connection terminals

→ Press the panel into place and fasten it.

6.2 Making the electrical 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.

Fault current device

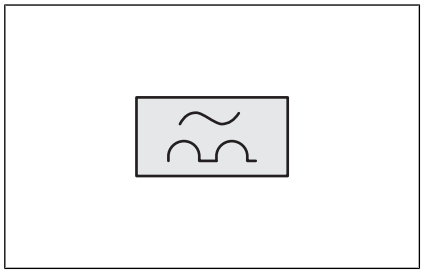


Image: RCD switch type A, circuit symbol

The unit can be connected to a fault current device.

If a fault current device is used, a fault current device type A (RCD type A) must be installed, to ensure that AC fault currents and pulsating DC currents are detected.

Equipotential bonding

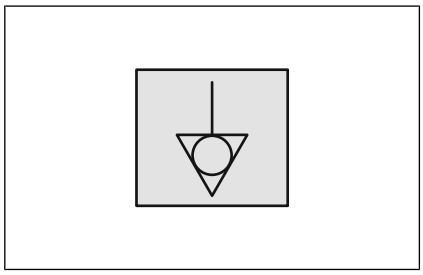


Image: Equipotential bonding symbol

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.

Plug-in connection

CAUTION
Risk of property damage and personal injury from improper installation

- The plug-in connection must be readily accessible.

If the unit is connected with a plug to the power-supply mains, use plugs and sockets according to IEC60309.

The socket must be readily accessible so that the unit can be disconnected from the electric mains at any time.

6.2.1 Connecting the electric power cable

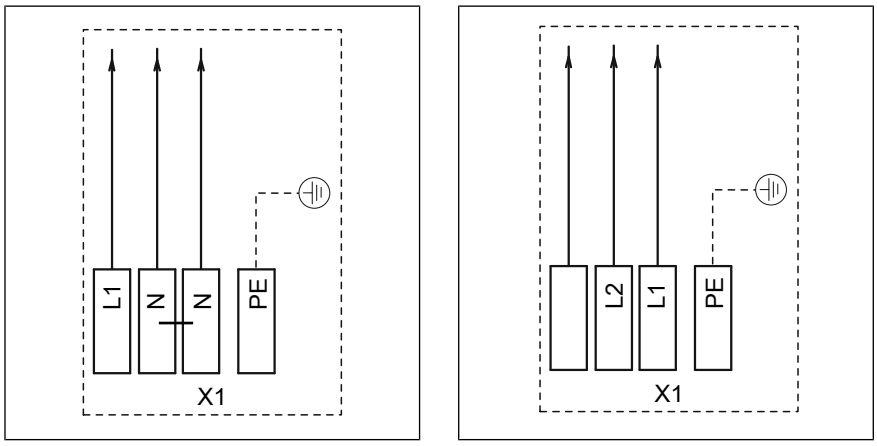


Image: Terminal allocation for 220 — 240 V and for 400 — 440 V

L1, L2	Line conductors	PE	Protective conductor
N	Neutral conductor	X1	Mains connection

Requirement Unit not live

Power connection cable not live

Housing opened

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

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6.2.2 Connecting the potential equalisation circuit

Equipotential bonding

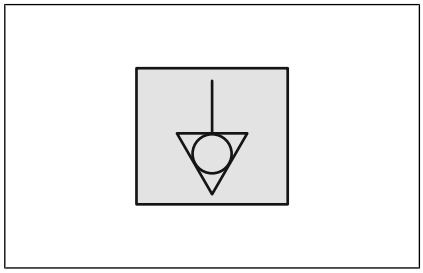

Image: Equipotential bonding symbol

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

1. Run and attach potential equalisation line to the identified terminal.
2. Fill out the commissioning report.

6.3 Connecting the power connection cable of the condensation hood to the Combisteamer

6.3.1 Preparing connection to the circuit board

1. Strip the insulation off the grey wire and blue wire (7 mm).
2. Attach both wires to the two-pin plug.
3. Use a screwdriver to press down each release mechanism.
4. Insert the stripped wire into the guide as far as the bottom.
5. Remove the screwdriver from the release mechanism.

   ↳ The wire is attached.
6. Ensure that the wire is attached firmly to the plug.

6.3.2 Running and securing the power connection cable for the condensation hood on the outside of the unit

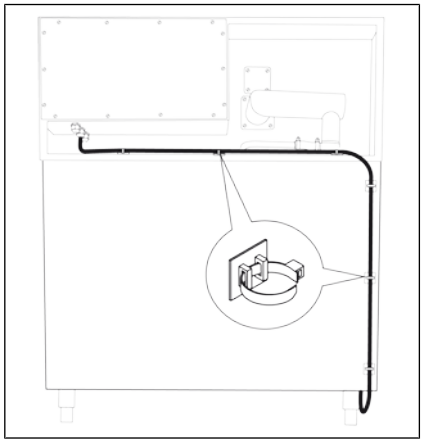

Image: Condensation hood power connection cable

Requirement Unit disconnected from the electric mains

1. Run power connection cable for the condensation hood to rear of unit.
2. Use adhesive base and cable ties to secure power connection cable for the condensation hood.

6.3.3 Connecting the power connection cable for the condensation hood to the contactor and circuit board in the unit

DANGER
Risk of personal injury and physical damage from electric shock

- Before working on the **FlexiCombi Team**, ensure that **both** power circuits within the unit are not live.
- Do not operate the unit with the housing open.

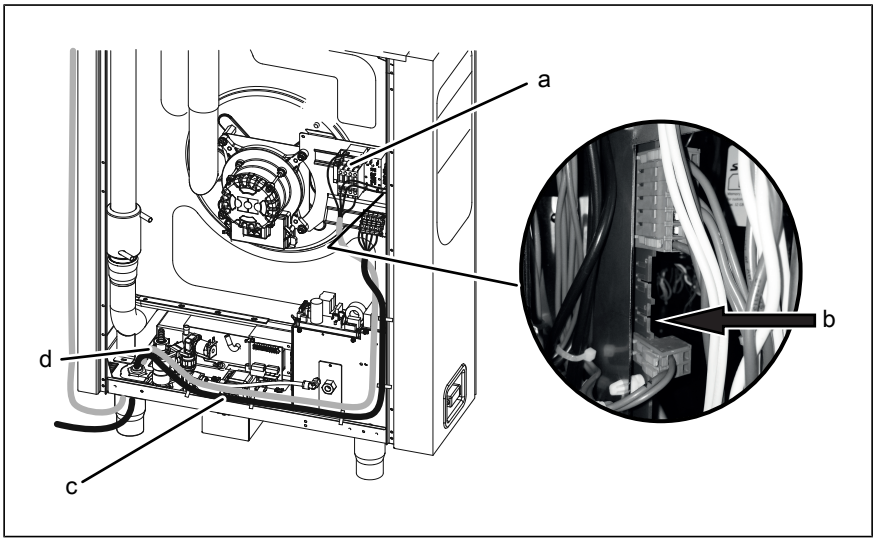

Image: Connecting the power connection cable for the condensation hood to the contactor and circuit board

a	Contactor "Q1"	c	Cable tie
b	Slot "X13"	d	Condensation hood power connection cable

Requirement Unit not live

Left side wall removed

1. Remove the centring bushing from the floor of the unit next to the entry point of the power connection cable.
2. Pull the centring bushing over the power connection cable for the condensation hood and then insert it.
3. Run the connection cable for the condensation hood inside the unit next to the power connection cable.
4. If necessary, strip insulation off the power connection cable for the condensation hood.

5. Run the power connection cable for the condensation hood up to the connection terminals and the slot for the circuit board.
6. Connect the power connection cable for the condensation hood in accordance with the terminal diagram.
7. Connect the two-pin plug of the control line to slot "X13".
8. Use cable ties to secure the power connection cable for the condensation hood.

Connecting to the contactor

1. Strip insulation off brown wire and black wire (7 mm).
2. Connect both wires to contactor "Q1".
3. Connect brown wire to terminal "13".
4. Connect black wire to terminal "14".

Connecting to the auxiliary contact

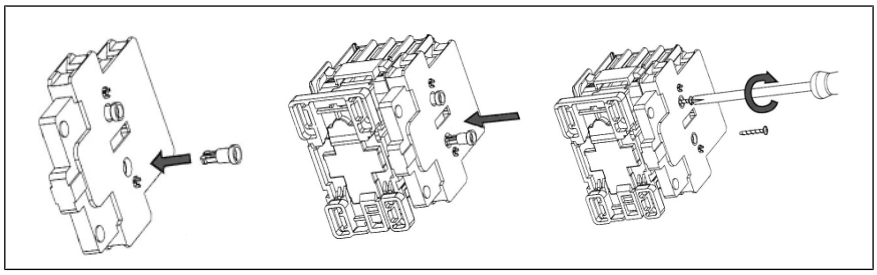

Image: Mounting the auxiliary contact to the side of the contactor and connecting the power connection cable

Requirement Wires already attached to terminal "13" and terminal "14" of contactor

1. Remove contactor Q1 with attached wires from base.
2. Mount auxiliary contact "Q1.1" to contactor "Q1".
3. Install contactor "Q1" together with auxiliary contact "Q1.1" on base.
4. Strip insulation off brown wire and black wire (7 mm).
5. Connect both wires to contactor "Q1.1".
6. Connect brown wire to terminal "13".
7. Connect black wire to terminal "14".

↳ Auxiliary contact is mounted to side and connected.

6.3.4 Second power connection cable for FlexiCombiTeam and Stapelkit

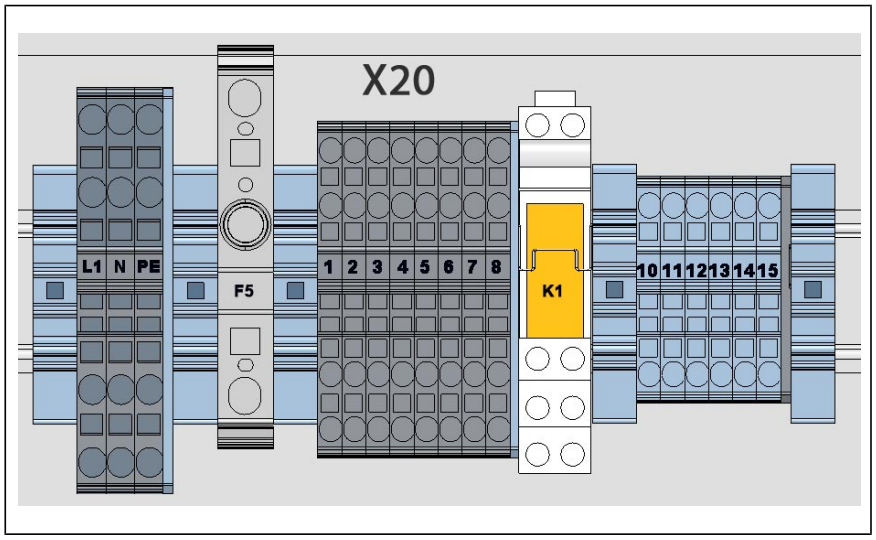

Image: Air terminal strip

L1/ NP/ PE	Supply voltage	5/ 6	Unit 1 "Cooking zone door open"
F5	Fuse 6.3 A	7/ 8	Unit 2 "Cooking zone door open" Only with stacking kit
1/ 2	Unit 1 "On"	K1	Relay for switching slow/fast
3/ 4	Unit 2 "On" Only with stacking kit	10 - 13	Motor connection

Requirement Unit not live

1. Insert the second power connection cable into the terminal box through the cable gland.
2. Strip the insulation off the required wires (7 mm).
3. Connect the brown wire to terminal "3".
4. Connect the black wire to terminal "4".
5. Connect the grey wire to terminal "7"
6. Connect the blue wire to terminal "8".
7. Tighten the cable gland securely to provide strain relief.
8. Run the second power connection cable parallel to the first power connection cable.

↳ Condensation hood is prepared for connection to a second unit.

6.4 Making the exhaust air connection

When setting up the unit under a ventilation system, observe the regional regulations for heating, ventilation and air conditioning systems.

ATTENTION
Risk of physical damage from fouling of the exhaust air ducts

- Do not connect the exhaust air line directly to an exhaust air system.

ATTENTION
Risk of corrosion damage from condensate

- Install the exhaust air line such that condensate cannot collect.

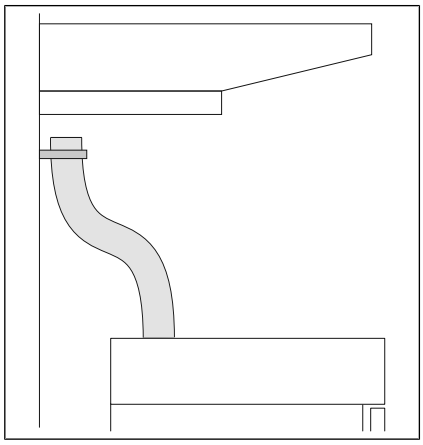

Image: Connecting the exhaust air line

Requirement Exhaust air line complies with the specifications (see "Equipment and connection data")

1. Connect the exhaust air line to the steam outlet.
2. Route the exhaust air line with a 3° rise as far as the ventilation system.
3. Fasten the end of the exhaust air line 50 mm — 200 mm underneath the ventilation system.
4. Fill out the Commissioning report.

6.5 Checking operation

Requirement Power connection cable and power connection cable for the condensation hood connected

1. Close the cooking zone door with pressure.
2. Switch on the FlexiCombi.
   ↳ Fan in the condensation hood runs continuously
3. Open cooking zone door.
   ↳ Fan in the condensation hood runs faster.

↳ Condensation hood is connected correctly.

7 Putting the unit into service

Requirement Power connection made
Exhaust connection made (if required by the customer)
Housing closed

1. Instruct the operator.
2. Fill out the commissioning report at the end of this manual.

7.1 Filling out the commissioning report

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

Exhaust air connection	Yes	No
Setting up below ventilation system?	☐	☐
Connected to exhaust air duct? Connection dimension of exhaust air line: _____ mm Length of exhaust air line: _____ mm	☐	☐

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	Yes	No
Controls are functioning?	☐	☐

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

Final notes	Yes	No
Operator trained?	☐	☐

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

Exhaust air connection was provided by:			
Company	Installer	City, date	Signature

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

8 Manufacturer's declaration

CE

EC Declaration of Conformity

Manufacturer

MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG • Halberstädter Straße 2a • 38300 Wolfenbüttel, Germany

We hereby declare, that the following product:

Description of the unit
Unit for extracting vapour and steam in commercial applications

Unit type
FlexiCombi Air electric condensation hood

Unit number			
HDEDAH11XXEXXX	HDEDAH12XXEXXX	HDEDAH21XXEXXX	HDEDAH61XXEXXX
HDEDAH61XXGXXX	HDEDAH62XXEXXX		
			X: Equipment feature

complies with the relevant provisions of the following directives, but does not contain any assurance of properties:

- Directive 2006/42/EC dated 17 May 2006 on machinery
- Directive 2011/65/EU (RoHS) dated 01 July 2011
- Directive 2014/30/EU dated 26 February 2014 on electromagnetic compatibility
- REGULATION (EC) No. 1935/2004 dated 27 October 2004 on materials and objects, which are intended to come into contact with food

Adduced basis for verification
EN ISO 12100:2010
EN 60335-1:2002 + A11:2004 + A1:2004 + A12:2006 + A2:2006 + A13:2008 + A14:2010 + A15: 2012
DIN EN 55014-1:2006 + A1:2009 + A2:2011
EN 55014-2:1997 + Corrigendum 1997 + A1:2001 + A2:2008
EN 60335-2-42:2003 + A1:2008

The manufacturer bears the sole responsibility for issuing this Declaration of Conformity. This Declaration of Conformity becomes invalid, if changes are made which are not agreed with us.

Translation from the original document • 10010259-1KODE-B

Wolfenbüttel, 20/05/2016

ppa. Peter Helm

Person authorised to compile the technical documents:

ppa. Peter Helm, Chief Technical Officer (address as manufacturer)


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