

TectoCore WMC5/WMF5



1	User support.....	4	7.6.1	Power supply	17
1.1	Structure of the operating manual.....	4	7.6.2	Connecting the power supply to the cold room and the door contact switch.....	17
1.1.1	Warnings.....	4	7.6.3	Connecting the alarm	18
1.1.2	Other symbols	4	7.6.4	RS485 interface.....	19
1.2	Personnel requirements.....	4	7.6.5	Connect the condensate overflow (optional)	19
1.3	Target groups.....	5	8	Commissioning	19
1.3.1	Maintenance personnel.....	5	9	Operation.....	19
1.3.2	Qualified electricians	5	9.1	Locked refrigeration unit	20
1.3.3	Refrigeration engineer	6	10	Cleaning	20
1.3.4	Heating engineers	6	10.1	Working equipment	20
1.3.5	Setup personnel.....	7	10.2	Notes regarding cleaning	20
1.3.6	Authorised qualified personnel.....	7	10.3	Cleaning.....	21
1.4	Other applicable documents.....	8	10.3.1	Cleaning the condenser	21
1.5	Retention.....	8	10.3.2	Cleaning the evaporator tray	21
1.6	Symbols on the product	8	10.3.3	Cleaning the evaporator	21
1.6.1	Type plate	8	11	Maintenance	22
1.6.2	Notice and safety signs.....	9	11.1	Safety notes.....	22
2	Safety and hazards.....	9	11.2	Notes regarding maintenance	22
2.1	Procedure in the event of an eye injury	9	12	Taking out of service	22
2.2	Procedure in the event of refrigerant burns.....	10	13	Decommissioning	22
2.3	Procedure following inhalation of refrigerant	10	14	Disposal.....	23
2.4	Procedure for safe operation.....	10	14.1	Refrigeration unit.....	23
2.5	Procedure for extracting the refrigerant	10	14.2	Refrigerant.....	23
2.6	Before starting any soldering work on the refrigeration circuit.....	10	15	Technical data	23
2.7	Procedure for charging with refrigerant.....	10	15.1	Standard refrigeration unit TectoCore WMC5.....	24
3	Intended use.....	10	15.2	Standard deep-freeze refrigeration unit TectoCore WMF5.....	25
4	Foreseeable misuse	10	16	Operating limits	26
5	Personal protective equipment.....	11	16.1	Normal-cooling refrigeration units	26
6	Product designation	11	16.2	Deep-freeze refrigeration units.....	26
7	Transport and installation.....	11	17	Standards and laws.....	27
7.1	Notes regarding transport.....	11	18	Spare parts.....	27
7.2	Scope of delivery	11	19	Refrigeration circuits and measurement points.....	28
7.3	Goods inspection.....	11	19.1	TectoCore WMC5 single-circuit and TectoCore WMF5 single-circuit.....	28
7.4	Unpacking.....	11	20	Measuring points.....	30
7.5	Installation.....	12	20.1	Condenser.....	30
7.5.1	Installation requirements.....	12	20.2	Evaporator.....	30
7.5.2	Making perforations.....	13	20.3	Temperature sensor positioning	31
7.5.3	Dismantling the cladding panels	13			
7.5.4	Crane transport.....	14			
7.5.5	Installing the refrigeration unit	15			
7.6	Connecting the refrigeration unit	17			

21 Dimensional drawings	32
21.1 TectoCore WMC5 size 1 / TectoCore WMF5 size 1	32
22 Dimensional drawings of the perforations and drill holes	33
22.1 TectoCore WMC5 size 1 / TectoCore WMF5 size 1	33
23 Maintenance	34
23.1 Maintenance checklist	34
24 Recommendations for refrigerated and deep-frozen storage	35
24.1 Refrigerated storage	35
24.1.1 Meat products	35
24.1.2 Fish	35
24.1.3 Milk and dairy products	35
24.1.4 Vegetables	35
24.1.5 Fruit	35
24.2 Deep-freeze storage	35
24.2.1 Meat products	35
24.2.2 Fish	35
24.2.3 Baked goods	35
24.2.4 Miscellaneous	35

1 User support

The assembly and operating manual contains all the essential information required for assembly, installation and commissioning.

If you have any questions, please contact your local Viessmann trade partner. You will find the current address on the back page.

1.1 Structure of the operating manual

1.1.1 Warnings

Structure of warnings

Warnings are structured as follows:

	SIGNAL WORD!	Source of danger! Consequences of non-compliance. ➔ Action to avoid the hazard.
---	---------------------	--

Classification of warnings

Warnings are classified as follows, according to the type of hazard:

	DANGER!	This signal word indicates an imminent danger. Failure to avoid this source of danger will result in death or serious injury.
---	----------------	---

	WARNING!	This signal word indicates a potential source of danger. Failure to avoid this source of danger may result in death or serious injury.
---	-----------------	--

	CAUTION!	This signal word indicates a potentially dangerous situation. If this dangerous situation is not avoided, it may result in minor to moderate injuries.
---	-----------------	--

NOTE	This signal word indicates actions that must be taken to prevent damage to property. Observing these notes will prevent damage or destruction of the overall system or its components.
-------------	--

Tips, advice and recommendations

- ① Provides the user with tips, advice or recommendations on how to efficiently use the product.

1.1.2 Other symbols

Action instructions

Action instructions prompt the reader to carry out an action or a work step. Always carry out the action instructions one at a time and in the specified order.

Structure of the action instructions:

- ➔ Instructions for an action.

Outcome statement, if required.

Lists

Structure of unnumbered lists:

- List level 1
- List level 2

Structure of numbered lists:

1. List level 1
- 1.1 List level 2

1.2 Personnel requirements

- ➔ Make sure that exclusively authorised and trained personnel operate, service or repair the machine.
- ➔ Make sure that all persons operating, servicing or repairing the machine meet the prescribed minimum age.
- ➔ Make sure that personnel training covers theoretical information (technical and safety aspects) and hands-on training on the machine.
- ➔ Make sure that the personnel have read and understood the operating manual and the documentation supplied.
- ➔ Make sure that personnel undergoing apprenticeship, induction, instruction or general training operate the machine exclusively under the constant supervision of an experienced person.
- ➔ Regularly monitor personnel to ensure they work in a safety-conscious and risk-aware manner.
- ➔ Clearly define the responsibilities of personnel in terms of operation, set-up, service and repair.

1.3 Target groups

This manual is intended exclusively for authorised technicians.

- Electrical work must exclusively be carried out by qualified electricians. For further information, refer to VDE 0105-100 and IEC 60050-826.
- Assembly and initial commissioning must be carried out exclusively by the manufacturer or by authorised qualified personnel appointed and authorised by the manufacturer.
- Work on the refrigeration system must exclusively be carried out by qualified refrigeration engineers.

1.3.1 Maintenance personnel

Responsibilities

Maintenance personnel has the following duties:

- Read the assembly and operating manual.
- Read the documentation supplied.
 - Operating manuals for components
 - Operating manuals from third-party manufacturers
 - Additional instructions and manuals
- Service the machine to ensure safe and reliable operation.
- Carry out all the prescribed maintenance tasks.
- Wear protective clothing.
- Observe the safety regulations at the site of operation.
- Inform the owner of any changes to the machine that may compromise safety.
- Modifications to the machine must be carried out exclusively after consulting the manufacturer.
- Always use original spare parts if possible.

Requirements

Maintenance personnel has the following qualifications and abilities:

- Has reached the minimum age required by law.
- Is physically and mentally capable of servicing the machine.
 - Has good eyesight
 - Can hear well
 - Is fast to react
- Holds the necessary authorisation to carry out maintenance on the machine.
- Is able to judge distance, height and spacing.
- Has good knowledge of the machine and the associated hazards.
- Is familiar with all maintenance procedures and precautions that must be taken.

- Knows how to use specialised tools for maintenance and repair work.
- Has no physical or mental impairment that would compromise any of the prescribed requirements.
- Is not under the influence of alcohol.
- Is not under the influence of drugs.

1.3.2 Qualified electricians

Responsibilities

Duties of qualified electricians:

- Read the operating manual.
- Read the documentation supplied.
 - Operating manuals for components
 - Operating manuals from third-party manufacturers (tools for add-ons, etc.)
 - Special publications
- Service and repair the machine to ensure it operates safely and reliably.
- Carry out all prescribed maintenance and repair work.
- Disconnect the main isolator of the power supply system and ensure that it cannot be switched back on accidentally.
- Clearly define and mark the work area.
- Wear protective clothing.
- Use the right tools for the job.
- Observe the safety regulations at the site of operation.
- Inform the owner of any changes to the machine that may compromise safety.
- Modifications to the machine must be carried out exclusively after consulting the manufacturer.
- Always use original spare parts if possible.

Requirements

Qualifications and abilities of qualified electricians:

- Has reached the minimum age required by law.
- Is physically and mentally capable of servicing the machine.
 - Has good eyesight
 - Can hear well
 - Is fast to react
- Holds the necessary authorisation to carry out maintenance on the machine.

- Is able to:
 - ▣ Judge distance, height and spacing.
 - ▣ Assess work properly.
 - ▣ Identify sources of danger.
 - ▣ Take safety measures.
- Has good knowledge of the machine and the associated hazards.
- Is familiar with all maintenance procedures and precautions that must be taken.
- Knows how to use specialised equipment for maintenance and repair work.
- Has no physical or mental impairment that would compromise any of the prescribed requirements.
- Is not under the influence of alcohol.
- Is not under the influence of drugs.

1.3.3 Refrigeration engineer

Responsibilities

Duties of refrigeration engineers:

- Read the operating manual.
- Read the documentation supplied.
 - Operating manuals for components
 - Operating manuals from third-party manufacturers (tools for add-ons, etc.)
 - Special publications
- Service and repair the machine to ensure it operates safely and reliably.
- Carry out all prescribed maintenance and repair work.
- Disconnect the main isolator of the power supply system and ensure that it cannot be switched back on accidentally.
- Clearly define and mark the work area.
- Wear protective clothing.
- Use the right tools for the job.
- Observe the safety regulations at the site of operation.
- Inform the owner of any changes to the machine that may compromise safety.
- Modifications to the machine must be carried out exclusively after consulting the manufacturer.
- Always use original spare parts if possible.

Requirements

Qualifications and abilities of refrigeration engineers:

- Has reached the minimum age required by law.

- Is physically and mentally capable of servicing the machine.
 - ▣ Has good eyesight
 - ▣ Can hear well
 - ▣ Is fast to react
- Holds the necessary authorisation to carry out maintenance and repair work on the machine.
- Is able to:
 - ▣ Judge distance, height and spacing.
 - ▣ Assess work properly.
 - ▣ Identify sources of danger.
 - ▣ Take safety measures.
- Has good knowledge of the machine and the associated hazards.
- Is familiar with all maintenance procedures and precautions that must be taken.
- Knows how to use specialised equipment for maintenance and repair work.
- Has no physical or mental impairment that would compromise any of the prescribed requirements.
- Is not under the influence of alcohol.
- Is not under the influence of drugs.

1.3.4 Heating engineers

Responsibilities

Duties of heating engineers:

- Read the operating manual.
- Read the documentation supplied.
 - Operating manuals for components
 - Operating manuals from third-party manufacturers (tools for add-ons, etc.)
 - Special publications
- Service and repair the machine to ensure it operates safely and reliably.
- Carry out all prescribed maintenance and repair work.
- Disconnect the main isolator of the power supply system and ensure that it cannot be switched back on accidentally.
- Clearly define and mark the work area.
- Wear protective clothing.
- Use the right tools for the job.
- Observe the safety regulations at the site of operation.
- Inform the owner of any changes to the machine that may compromise safety.
- Modifications to the machine must be carried out exclusively after consulting the manufacturer.
- Always use original spare parts if possible.

Requirements

Qualifications and abilities of heating engineers:

- Has reached the minimum age required by law.
- Is physically and mentally capable of servicing the machine.
 - ▣ Has good eyesight
 - ▣ Can hear well
 - ▣ Is fast to react
- Holds the necessary authorisation to carry out maintenance and repair work on the machine.
- Is able to:
 - ▣ Judge distance, height and spacing.
 - ▣ Assess work properly.
 - ▣ Identify sources of danger.
 - ▣ Take safety measures.
- Has good knowledge of the machine and the associated hazards.
- Is familiar with all maintenance procedures and precautions that must be taken.
- Knows how to use specialised equipment for maintenance and repair work.
- Has no physical or mental impairment that would compromise any of the prescribed requirements.
- Is not under the influence of alcohol.
- Is not under the influence of drugs.

1.3.5 Setup personnel

Responsibilities

Responsibilities of setup personnel:

- ➞ Read the operating manual.
- ➞ Read the documentation supplied.
 - Operating manuals for components
 - Operating manuals from third-party manufacturers
 - Additional instructions and manuals
- ➞ Set up the machine for safe and reliable operation.
- ➞ Wear personal protective equipment.
- ➞ Observe the safety regulations at the site of operation.
- ➞ Inform the owner of any changes to the machine that may compromise safety.
- ➞ Modifications to the machine must be carried out exclusively after consulting the manufacturer.
- ➞ Always use original spare parts if possible.

Requirements

Qualifications and abilities of setup personnel:

- Has reached the minimum age required by law.
- Is physically and mentally capable of setting up the machine.
 - ▣ Has good eyesight
 - ▣ Can hear well
 - ▣ Is fast to react
 - ▣ Is able to judge distance, height and spacing.
- Holds the authorisation required to set up the machine.
- Is familiar with the machine and the associated hazards.
- Is familiar with all setup procedures and precautions that must be taken.
- Knows how to use specialised tools for setup.
- Has no physical or mental impairment that would compromise any of the prescribed requirements.
- Is not under the influence of alcohol.
- Is not under the influence of drugs.

1.3.6 Authorised qualified personnel

Responsibilities

Responsibilities of authorised qualified personnel:

- ➞ Read the operating manual.
- ➞ Read the documentation supplied.
 - Operating manuals for components
 - Operating manuals from third-party manufacturers
 - Additional instructions and manuals
- ➞ Service, repair, adjust and modify the machine to ensure safe and reliable operation.
- ➞ Carry out all maintenance and repair tasks specified in the maintenance schedule for authorised qualified personnel.
- ➞ Adjust all the necessary parameters.
- ➞ Carry out all the planned modifications.
- ➞ Clearly define and mark the work area.
- ➞ Wear personal protective equipment.
- ➞ Use tools that are suitable for the intended task.
- ➞ Observe the safety regulations at the site of operation.
- ➞ Inform the owner of any changes to the machine that may compromise safety.
- ➞ Always use original spare parts if possible.

Requirements

Qualifications and abilities of authorised qualified personnel:

- Has reached the minimum age required by law.
- Is physically and mentally capable of servicing, repairing, adjusting and modifying the machine.
 - Has good eyesight
 - Can hear well
 - Is fast to react
 - Is able to judge distance, height and spacing.
- Authorised qualified personnel has undergone training that complies with country-specific laws, standards and regulations.
- Abilities of authorised qualified personnel:
 - Is able to assess work properly.
 - Is able to identify sources of danger.
 - Is able to implement safety measures.
- Has knowledge and experience in the relevant field of work.
- Is familiar with the relevant national standards.
- Holds the necessary authorisation to carry out maintenance, repairs, adjustments and modifications to the machine.
- Is familiar with the machine and the associated hazards.
- Is able to provide evidence of their documented qualifications.
- Is familiar with all procedures and precautions relating to maintenance, repairs, adjustment and modification.
- Knows how to use specialist tools for maintenance, repair, adjustment and modification.
- Has no physical or mental impairment that would compromise any of the prescribed requirements.
- Is not under the influence of alcohol.
- Is not under the influence of drugs.

1.4 Other applicable documents

- ➔ Please refer to the additional documentation supplied and the relevant standards and laws to ensure the machine is used safely and correctly.

Documents that must be observed:

- Safety data sheets for operating media
 - R290 (propane: C3H8)
- Control system user manual

1.5 Retention

- ➔ Keep the assembly and operating manual within easy reach, close to the machine.

1.6 Symbols on the product

1.6.1 Type plate

 Kältesatz Refrigeration unit / Groupe frigorifique	
Herstell - Daten / Manufacturing data / Données de fabrication	XXXXXXX
Serialnummer / Serial number / N° de fabrication	XXXXXXXXXXXX
Typ / Type / Type	Tecto RF WMx5
Baujahr / Production year / année de fabrication	2026
Kältemittel / Refrigerant / Fluide frigorigène	R290
Kältemittelfüllmenge Kreis I / Refrigerant filling quantity circuit I / Quantité de réfrigérant circuit I	XXX g
Kältemittelfüllmenge Kreis II / Refrigerant filling quantity circuit II / Quantité de réfrigérant circuit II	-
GWP / PRP	0.02
max. zul. Betriebsüberdruck PS (HD/ND) / Max. permissible operating overpressure PS (HP/LP) / Surpression de service max. adm. (HP/BP)	XX bar(a) / XX bar(a)
Nennspannung / Nominal voltage / Tension nominale	1 / N / PE 230 V~ / 50 Hz
max. Betriebsstrom / max. operating current / courant de fonctionnement max.	XX A
Blockierter Rotorstrom je Verdichter / locked rotor current per compressor / Courant rotor bloqué par compresseur	XX A
notwendige Absicherung [Charakteristik] / Necessary fuse protection [rated] / Protection électrique nécessaire [caractéristique]	XX A [C]
Kälteleistung am Normpunkt / Cooling capacity at standard point / Puissance frigorifique au point de norme	L0 / L32 XXXX W
Nennleistungsaufnahme / Rated power consumption / Puissance nominale absorbée	XXX W
Leistungsaufnahme während Abtauung / Power consumption during defrosting / Puissance consommée pendant le dégivrage	XXXX W
Leistungsaufnahme Heizsysteme / power consumption heating systems / Consommation électrique systèmes de chauffage	XXX W
Gewicht / Weight / Poids	XX kg
Dichtheit des Kältekreis geprüft / Tightness of the cooling circuit tested / Étanchéité du circuit réfrigérant attestée	
Technische Änderungen vorbehalten / Technical modifications subject to change without notice / Réserve de modifications techniques	



Viessmann Kältesysteme GmbH
 Dr.-Vießmann-Straße 1
 D - 95030 Hof
 Tel.: +49 (0) 9281 / 814 - 0
 kuehlsysteme@vi-css.de
www.viessmann-cold.com

- BARCODE -

The type plate provides the following information:

- Manufacturer (name and address)
- Design
- Serial number or reference number
- The year when the manufacturing process was completed
- Maximum permitted pressure

1.6.2 Notice and safety signs

	Read the operating manual.
	Unplug the mains plug before opening the housing.
	Warning - flammable substances
	Warning - risk of electric shock
	Warning - sharp object.
	Note: QR code label for user manual and assembly and operating manual.

2 Safety and hazards

⚠ DANGER!	Risk of fatal electric shock!
	➔ Before commencing work on the refrigeration unit, unplug the mains plug and wait for at least 2 minutes. ➔ Ensure that the refrigeration unit cannot be switched back on accidentally. ➔ Observe national standards and regulations before working on electrical equipment.

⚠ DANGER!	Risk of fatal explosion!
	In the event of a gas leak, explosive concentrations of gas build up around the machine. ➔ Do not perform any activities that may generate sparks (e.g. operating electrical equipment). ➔ Reduce the gas concentration by ventilating the area or opening doors.

⚠ DANGER!	Risk of death if the refrigeration unit falls!
	➔ Make sure that the refrigeration unit is secured during commissioning or when carrying out work on it. ➔ Make sure that the wall panels have sufficient load-bearing capacity. ➔ Create perforations exclusively in accordance with the specifications (See 7.5.2 Making perforations on page 13).

⚠ WARNING!	Risk of injury from refrigerant leakage!
	➔ Wear protective equipment when working on the refrigeration unit.

⚠ WARNING!	Risk of injury from inhaling refrigerant!
	➔ Make sure the operating location is adequately ventilated.

NOTE	Damage caused by inadmissible repairs!
	➔ Do not use any objects/auxiliary equipment to speed up the defrosting process.

NOTE	Incorrect setup!
	➔ Please observe the site-specific setup requirements for refrigeration systems using R290 (propane).

- ➔ Please follow the assembly and operating manual.
- ➔ Assembly, maintenance, cleaning and repair work must be carried out exclusively by authorised qualified personnel.

2.1 Procedure in the event of an eye injury

- ➔ Do not touch eyes.
- ➔ Remove contact lenses immediately.
- ➔ Rinse eyes thoroughly with water.
- ➔ Call emergency services immediately.

2.2 Procedure in the event of refrigerant burns

- ➔ Take off clothing.
- ➔ Rinse contaminated skin with plenty of water.
- ➔ Do not apply fabric, dressings or oil to contaminated skin.

2.3 Procedure following inhalation of refrigerant

- ➔ Make sure that the affected person gets plenty of fresh air.
- ➔ Move the person into a position that makes breathing easier.
- ➔ Call the emergency services if necessary.

2.4 Procedure for safe operation

- ➔ Make sure that operating area is adequately ventilated and that there are no sources of ignition within a radius of 3 m.
 - ➔ Make sure that a dry powder fire extinguisher with a capacity of at least 2 kg is available.
 - ➔ Use exclusively extraction equipment approved for flammable refrigerants.
 - ➔ The vacuum pump must be exclusively operated in a ventilated area.
 - ➔ Switch the vacuum pump on before plugging in the mains cable, while ensuring it is outside the 3-metre boundary.
- ⓘ It is possible to release a quantity of R290 refrigerant of less than 150 g into the ambient air.

2.5 Procedure for extracting the refrigerant

- ➔ Create a vacuum by evacuating the cylinder.
- ➔ Do not mix flammable refrigerants with other refrigerants.
- ➔ Do not charge cylinders with refrigerant to more than 45 % of the safe filling weight for HFCs.
- ➔ Label extraction cylinders.

2.6 Before starting any soldering work on the refrigeration circuit

- ➔ Continuously monitor the workplace using a detector for flammable refrigerants.
- ➔ Pump all the refrigerant out of the system and release it into the atmosphere.
- ➔ Before carrying out soldering work, charge the system with oxygen-free, dry nitrogen to a pressure of 0.1 bar.
- ➔ Before soldering, make sure that the system has at least one opening.

2.7 Procedure for charging with refrigerant

- ➔ Evacuate the charging lines.
- ➔ Clean the charging lines (open and close the cylinder valve).
- ➔ Do not overcharge the system.
- ➔ Observe the refrigerant quantity specified by the manufacturer.

3 Intended use

Use refrigeration unit exclusively:

- For commercial purposes
 - For the specified temperature range
 - Exclusively for cooling enclosed spaces
- ➔ Please observe the setup specifications (See 7.5.1 Installation requirements on page 12).
 - ➔ Observe operating limits (See 16 Operating limits on page 26).

4 Foreseeable misuse

- ➔ Do not operate the machine in a corrosive or flammable atmosphere.
- ➔ Please observe the setup specifications and environmental conditions.
- ➔ Do not use the machine outdoors.

5 Personal protective equipment

Assembly personnel, qualified electricians, maintenance personnel and assistants are responsible for the following:

- Wearing personal protective equipment.
- Cleaning and maintaining protective equipment on a regular basis.
- Replacing damaged parts of the protective equipment immediately.

Components of the protective equipment:

- Safety helmet
- Safety goggles
- Hearing protection
- Respiratory protection mask
- Protective gloves
- High-vis clothing (reflective, in high-vis colours)
- Safety footwear
- Special protective clothing
 - Against burns
 - Against hypothermia
 - Against chemical burns
 - Against puncture wounds and cuts

6 Product designation

- Standard normal-cooling refrigeration unit: TectoCore WMCS
- Standard deep-freeze refrigeration unit: TectoCore WMF5

7 Transport and installation

7.1 Notes regarding transport

- ➔ Transport exclusively in an upright position.
- ➔ Do not tilt the refrigeration unit.
- ➔ Please follow the information on the packaging.
- ➔ The refrigeration unit must be exclusively lifted and transported while still on the transport pallet.
- ➔ Exclusively unpack the refrigeration unit at the installation site.

7.2 Scope of delivery

- Refrigeration unit
- EC Declaration of Conformity
- Technical documentation
- Assembly template
- 2 sheets and 2 hexagon head sheet metal screws for securing the refrigeration unit to the storage cell
- 1x hose connector for drain hose
- Bottom cover, including fixing screws
- Insulation 15 x 8 hose for sealing the beam cut-outs against the ceiling panel
- Mouldable butyl putty
 - For sealing the gap between the drainpipe and the cold room panel
 - For sealing the beam cut-outs inside the cold storage cell
- Sealing cap for condensation drain

① Viessmann K hlsysteme GmbH supplies a ready-to-connect refrigeration unit.

7.3 Goods inspection

- ➔ Check the delivery against the delivery note / order to ensure it is complete.
- ➔ Check the machine (in the presence of the shipping agent) for transport damage, loose parts, dents, scratches and any visible loss of operating media.

In the event of visible damage or missing components:

- ➔ Note any damage on the transport documents (delivery note), providing the manufacturer's data and model number.
- ➔ Ask the shipping agent to countersign (date and signature).
- ➔ Take photos to document the goods inspection.
- ➔ Notify the manufacturer of the documented defects.

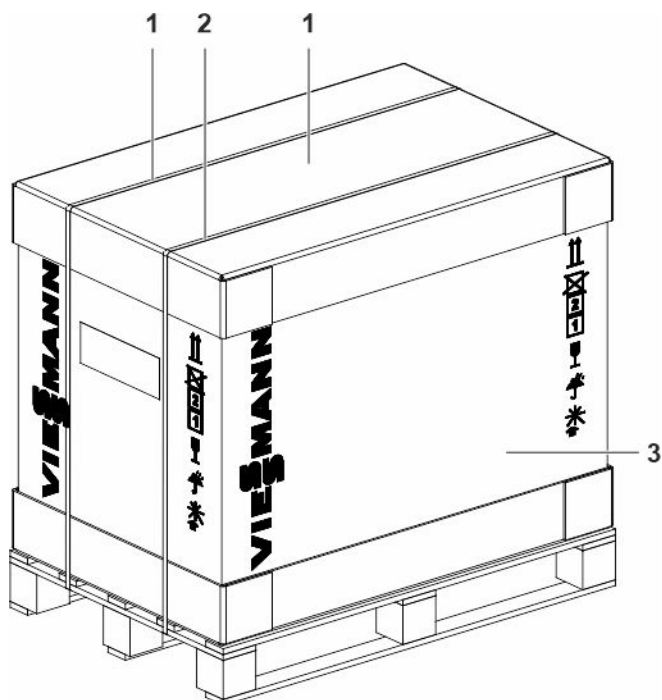
7.4 Unpacking

NOTE

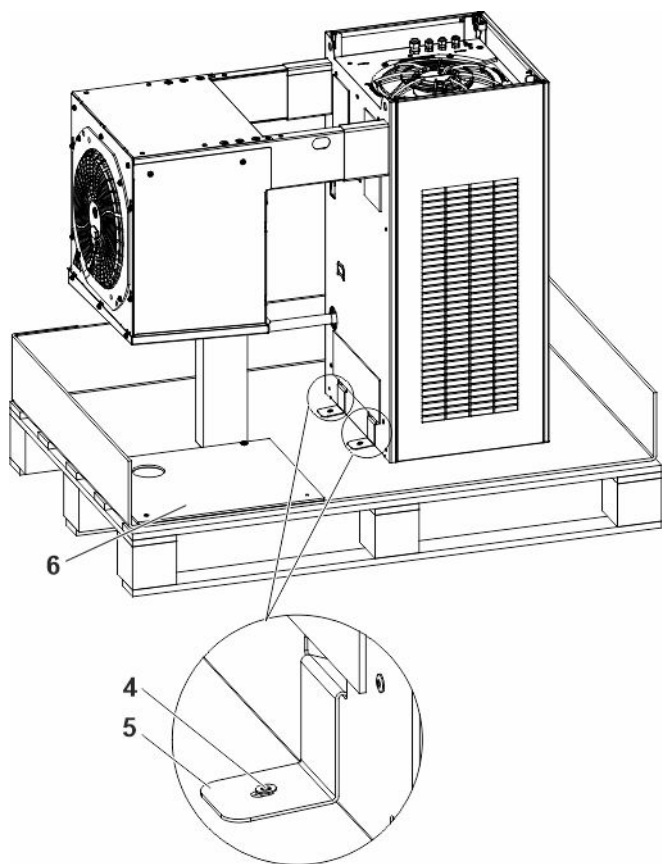
Damage caused by inadmissible unpacking!

- ➔ Do not tilt the refrigeration unit.

- ➔ Comply with safety and environmental regulations at the place of installation.



- Remove the strapping **1**, cover **2** and outer packaging **3**.



- Undo the screws **4**.
- Remove the retaining bracket **5**.
- Lift the unit from the designated load-bearing points on the pallet, See 7.5.4 Crane transport on page 14.

- Loosen the securing screws on the bottom unit cover **6**.
- Remove the bottom cover and set it aside until you are ready to assemble it.
- Make sure that the evaporator and condenser are not damaged.
- Dispose of packaging material in accordance with the regulations, guidelines and applicable local laws.

7.5 Installation

7.5.1 Installation requirements



WARNING!

Risk of injury from sharp-edged and pointed components!

- Wear suitable protective equipment (protective gloves, safety footwear, safety goggles, hard hat, etc.).

NOTE

Damage caused by inadmissible installation!

- Install the refrigeration unit exclusively indoors.

NOTE

Malfunctions caused by inadmissible installation!

- Do not make any cut-outs around the upper turnbuckles (connection between the storage cell wall and the storage cell ceiling).
- Make sure that the wall thickness does not exceed 150 mm.
- Use the assembly template.

- Observe operating limits (See 16 Operating limits on page 26).

- Keep the humidity below 85 %.

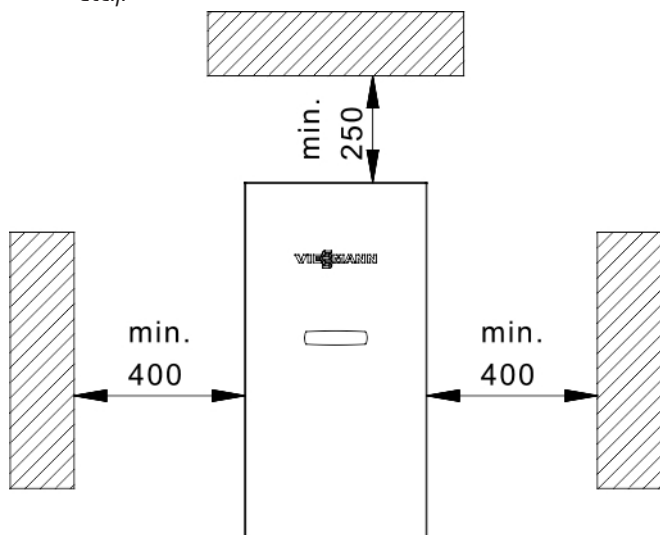
- Make sure that the installation room has a volume of at least 19.7 m³.

If, for example, the room where you want to install the unit is 2.2 m high:

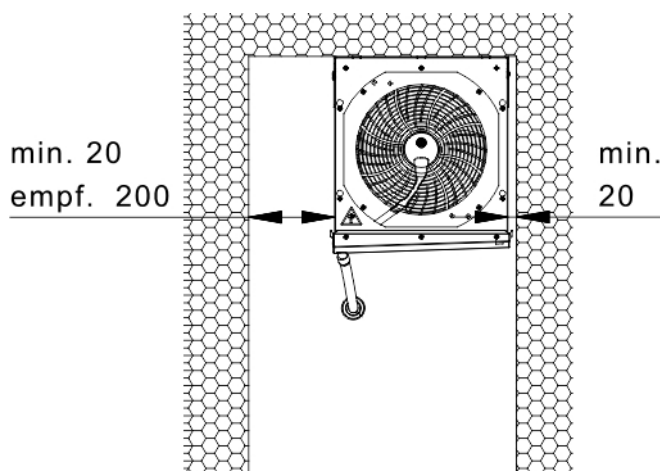
- Make sure that the clear floor area is 9.0 m².
- Take into account any items stored in the installation room that may reduce the available floor space.
- Make sure there is a gap of 250 mm above the air outlets at the top.
- Make sure there is a 400 mm clearance in front of the air inlets and outlets at the side.

If the specified distances cannot be maintained:

- Have the air ductwork planned by a company specialising in refrigeration.
- Make sure you have adequate air circulation by taking appropriate measures (additional fans, air deflectors, etc.).



- Ensure that any heat generated is properly vented from the room where the unit is installed.
- Avoid sources of heat and direct exposure to heat.
- Ensure there is a clearance of at least 20 mm between the unit and the right-hand inner wall of the cold room.
- ① The recommended clearance to the left inner wall of the cold room is 200 mm. If necessary, this clearance can be reduced to 20 mm.
- ① Reducing the clearance limits accessibility (e.g. for maintenance).



- Prevent warm, damp ambient air from penetrating the cold room.

- Do not install the refrigeration unit in areas exposed to magnetic radiation.
- Do not install the refrigeration unit in areas where there is a risk of explosion.
- Do not install the refrigeration unit in an operational facility at risk of fire.
- Comply with all local regulations, guidelines and laws relating to installation, operation, maintenance and disposal.

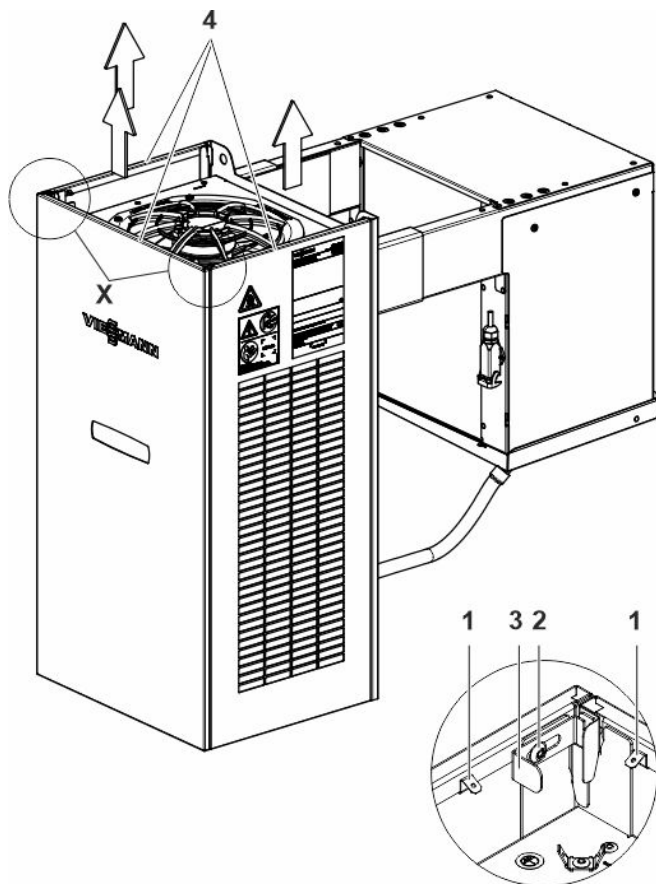
7.5.2 Making perforations

- ① This step is exclusively necessary if the cold storage cell has no perforations.
- Observe dimensional drawings, See 22 Dimensional drawings of the perforations and drill holes on page 33.
- Place the assembly template on the outside of the storage cell wall, with the side corresponding to the unit facing outwards.
- Align the assembly template with the top edge of the wall panel and secure it to the storage unit cell (e.g. using masking tape).
- Cut out perforations for the supports.
- If the wall thickness is > 100, stick additional sealing strips (see scope of delivery) onto the beams of the refrigeration unit.
- Drill a passage hole for the condensate drain pipe.
- Deburr the cut-outs.
- Seal the cut edges with zinc-rich paint.

7.5.3 Dismantling the cladding panels

⚠ WARNING!	Risk of injury from sharp-edged and pointed components!
➤ Wear suitable protective equipment (protective gloves, safety footwear, safety goggles, hard hat, etc.).	

- ① The cladding panels are secured with bolts.
- Unplug the mains plug before dismantling the housing.

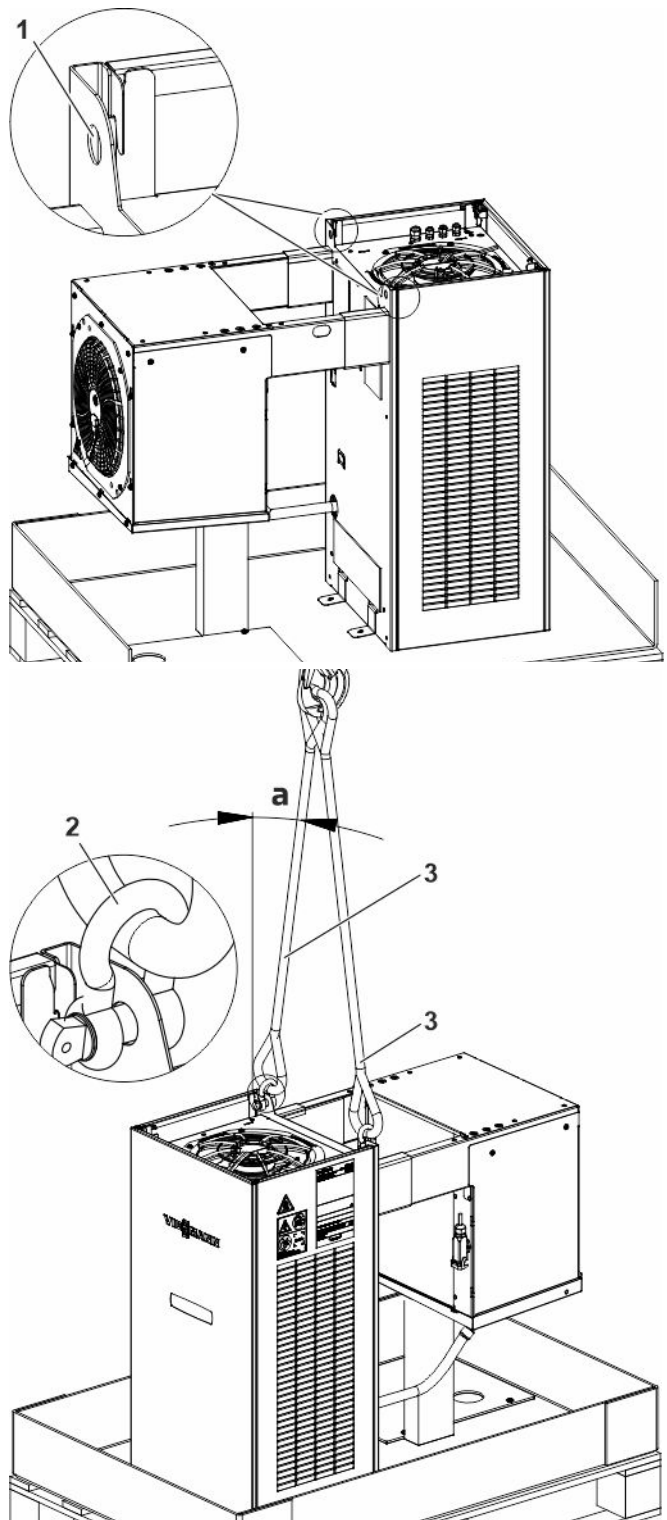


- ➔ Disconnect the earthing cables **1** from the cladding panels **4**.
- ➔ Undo the screws **2**.
- ➔ Slide the bolt **3** backwards.
- ➔ Push up the cladding panels **4** and remove them.

7.5.4 Crane transport

⚠ WARNING!	Risk of injury from sharp-edged and pointed components! ➔ Wear suitable protective equipment (protective gloves, safety footwear, safety goggles, hard hat, etc.).
⚠ WARNING!	Risk of injury from falling components! ➔ Wear suitable protective equipment (protective gloves, safety footwear, safety goggles, hard hat, etc.).
NOTE	Damage caused by using inadmissible lifting equipment! ➔ Exclusively lift the refrigeration unit using suitable lifting equipment.

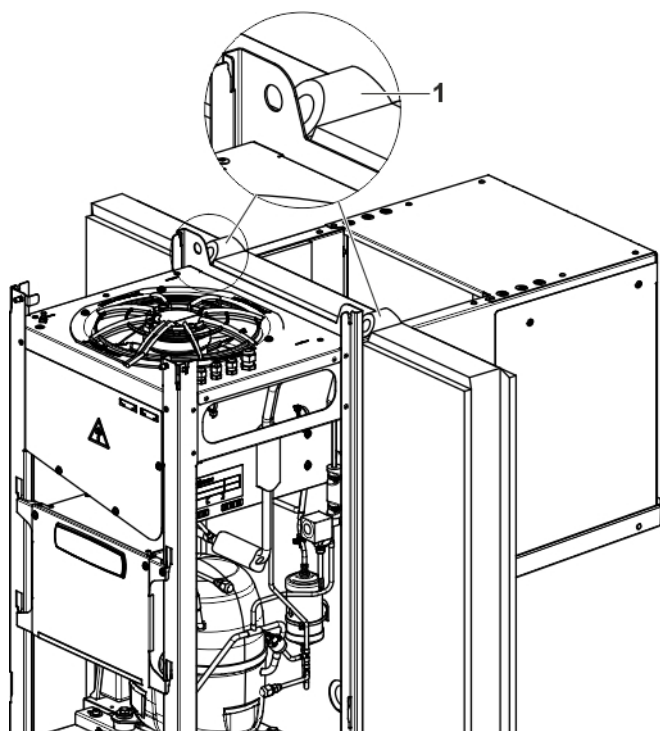
➔ Be aware of how much the unit weighs, See 15 Technical data on page 23



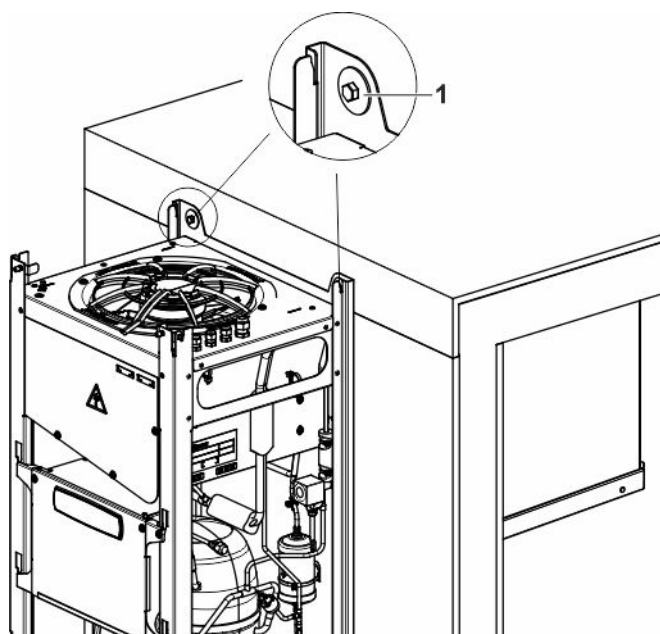
- ➔ Use the designated load-bearing points **1**.
- ➔ Use a shackle **2** with a shank diameter of 16 mm.
- ➔ Use suitable round slings **3**.
- ➔ Avoid subjecting the load to an inclined pulling angle **a** > 35°.

7.5.5 Installing the refrigeration unit

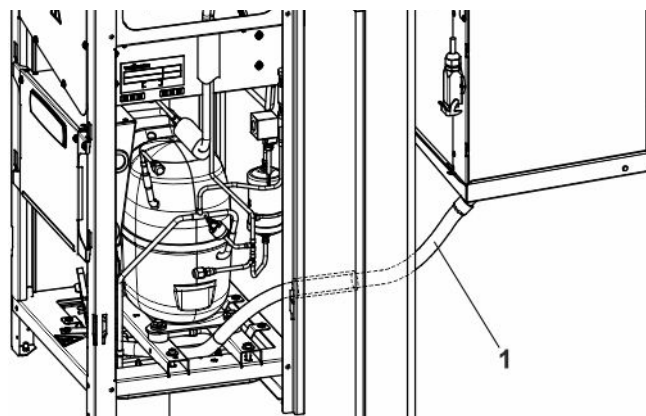
- ➔ Insert the refrigeration unit into the cut-outs prepared in the wall panel.



- ➔ Cut the insulation hose **1** to size to fit into the cut-outs in the beams.
- ➔ Fit the ceiling panel of the cold room.



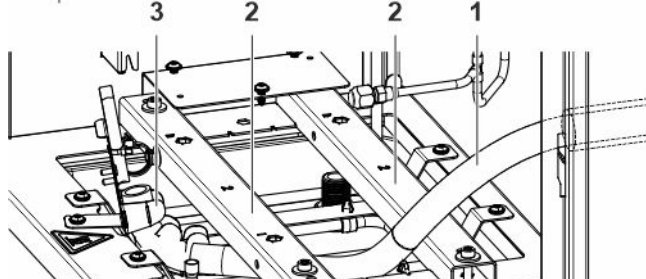
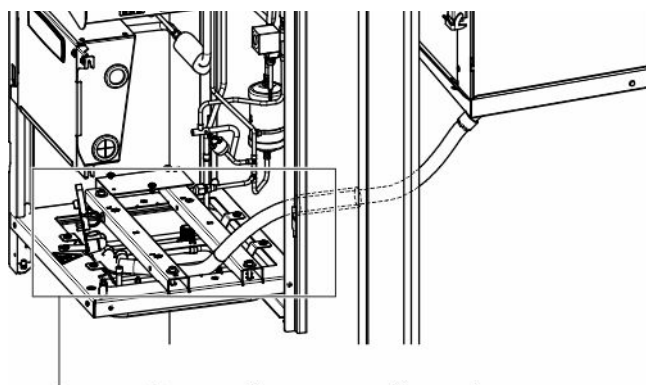
- ➔ Attach the refrigeration unit to the ceiling panel using two hexagonal sheet metal screws (Ø 6.3 x 19 mm) and washers **1**.
- ① The condensate drain pipe has already been routed and connected in the warm section.



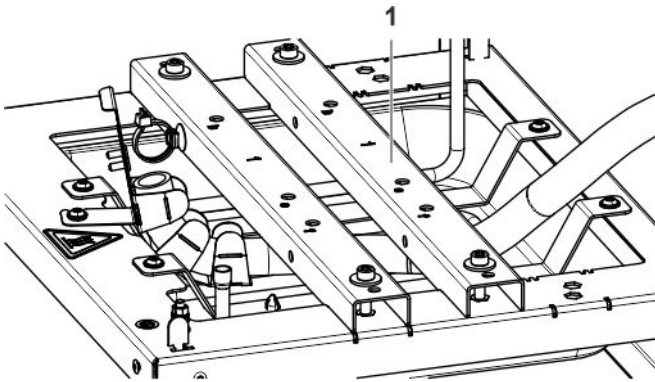
- ➔ Pass the loose end of the condensate drain pipe **1** through the hole in the wall panel.
- ➔ Push the condensate drain pipe over the drain connection on the cold section.
- ➔ Make sure that the condensate drain pipe slopes towards the warm section.

For units with a condensate drain heater:

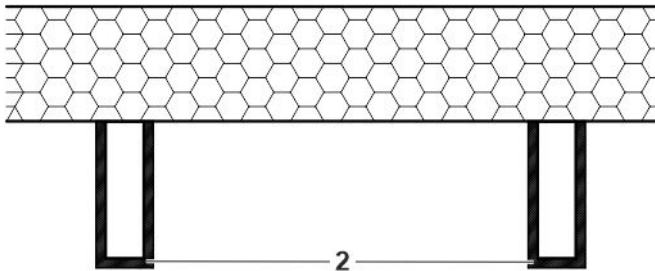
- ➔ Make sure that the condensate drain heater is correctly fitted into the condensate drain pipe and sits flush with it.
- ➔ Make sure that the condensate drain heater extends as far as the connection on the cold section.



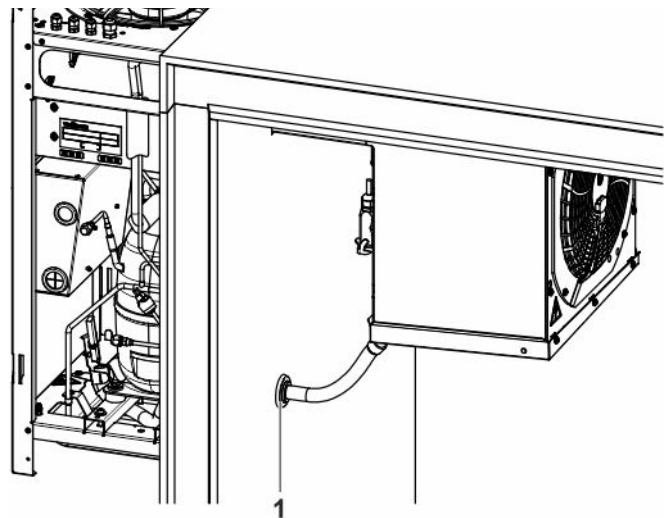
- ➔ Tie the condensate drain heater to the bracket **3** using the cable ties supplied.
- ➔ Make sure that the condensate drain pipe **1** is routed in the warm section as shown in the diagram and is securely connected to the bracket **3**.
- ➔ Condensate drain pipe routing for TectoCore WMC 900 / 1100 between the compressor rails **2**.



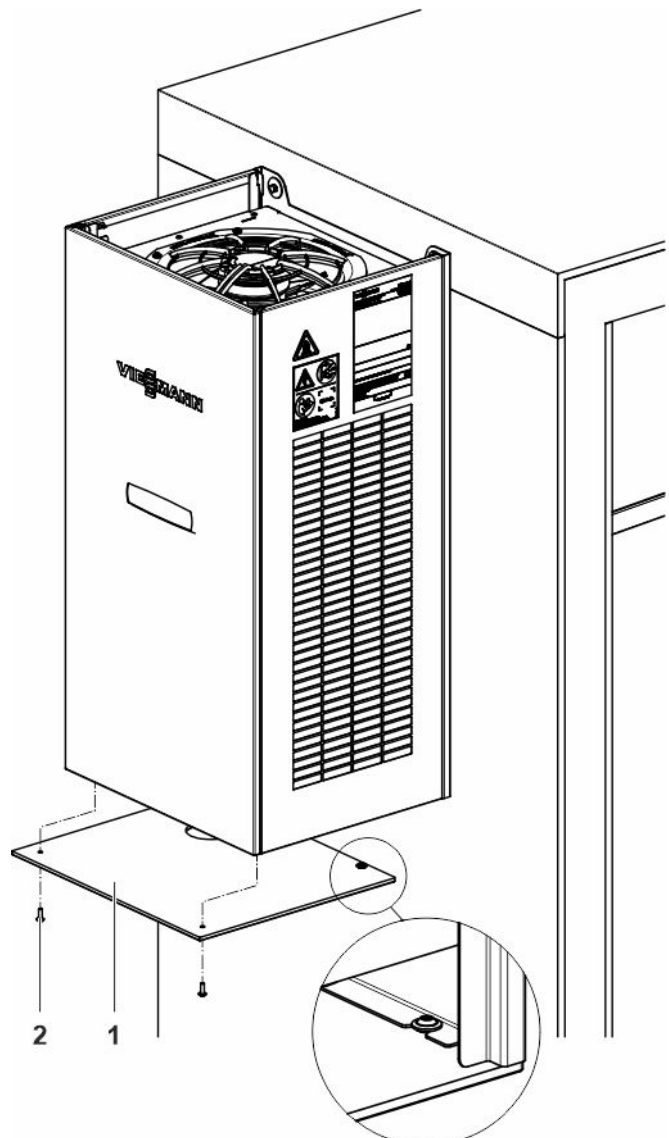
- Condensate drain pipe routing for TectoCore WMC 1300 and TectoCore WMF 1050 / 1300 between the rear wall and the rear compressor rail **1**:
- Make sure that the condensate drain pipe is not kinked.
- Make sure that the bracket **3** is securely screwed in place.



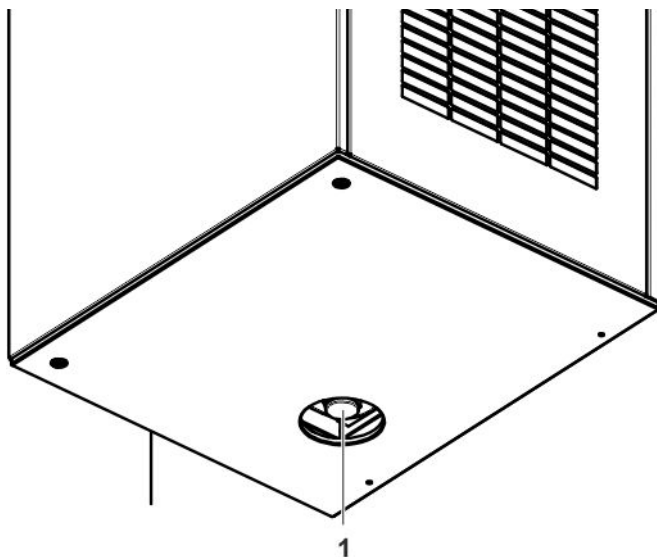
- Seal the gap between the condensate drain pipe and the cold room panel on both the inside and outside **1** using butyl putty.
- Use butyl putty to seal the frame cut-outs **2** on the inside of the cold storage cell, facing the beams.



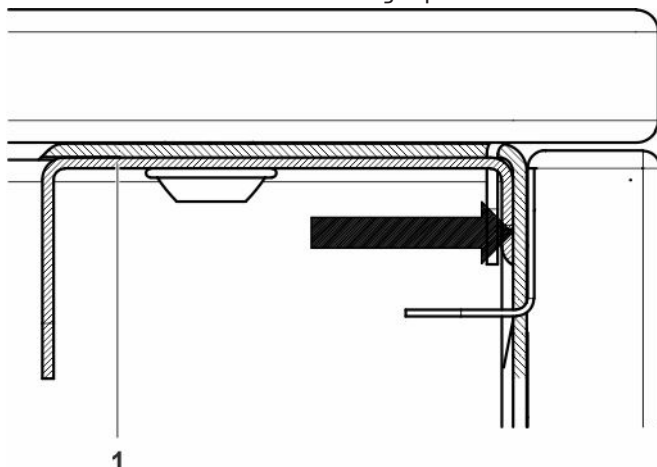
- Cover the hole with the rosette **1** on the inside of the cold room panel.



- Fit the bottom housing cover **1** and secure it with screws **2**.



➔ Fit the condensation drain sealing cap **1**.



- ➔ Install the cladding panel in reverse order, See 7.5.3 Dismantling the cladding panels on page 13.
- ➔ Make sure the bolts **1** are pushed all the way in.
- ➔ If necessary, push the cladding panels down.
- ➔ Make sure the earthing cables are connected.

7.6 Connecting the refrigeration unit



DANGER!

Risk of fatal electric shock!

- ➔ Unplug the mains plug before commencing work on the refrigeration unit.
- ➔ Ensure that the refrigeration unit cannot be switched back on accidentally.
- ➔ Work must be carried out exclusively by authorised qualified personnel.

7.6.1 Power supply



DANGER!

Risk of fatal electric shock!

- ➔ Install a residual current device.

➔ Make sure that WMF series models (deep-freeze refrigeration unit) are connected exclusively to a power supply with a network impedance of less than 0.168Ω (Z_{max}).

➔ If necessary, contact the relevant electrical utility company (see IEC 61000-3-3).

The refrigeration unit has a 5-metre-long connecting cable.

➔ Changes to the connecting cable must be carried out exclusively by qualified electricians.

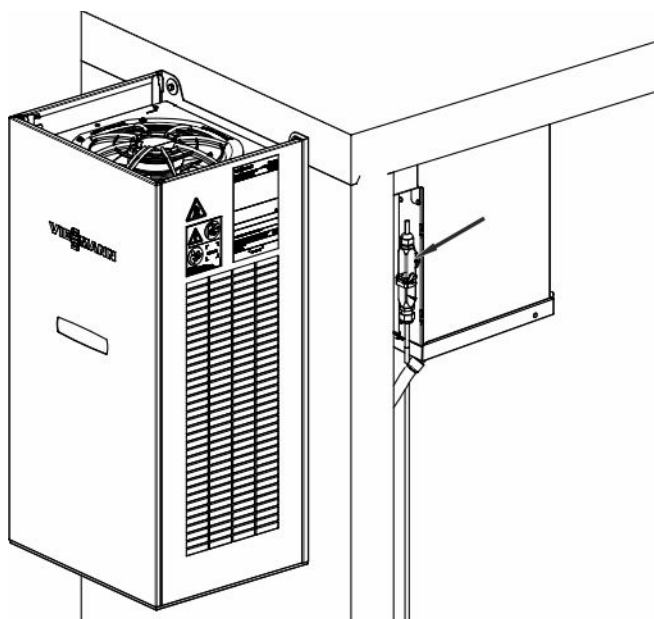
➔ Have any damaged connecting cables replaced immediately by the manufacturer or a qualified electrician.

Depending on the rated output and country-specific version of the refrigeration units, they are fitted with one of the following plugs:

- CEE 7/7 (earthed plug, 250 V)
- CEE plug (2P+E, 230V, 16A, 6h, blue)
- CEE-plug (3P+N+E, 400V, 16A, 6h, red)

➔ Make sure that suitable sockets are provided on site. Fuse See 15 Technical data on page 23.

7.6.2 Connecting the power supply to the cold room and the door contact switch



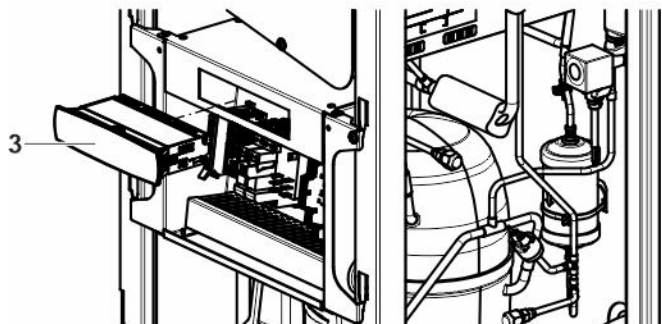
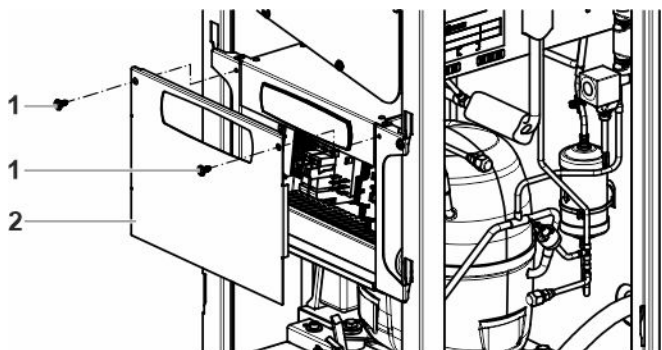
The cold room is supplied by the refrigeration unit via a special connection with the following characteristics:

- 4-pin connection on the evaporator side
- Power supply for the door heater and interior light
- Door contact switch

- ① To switch off the evaporator fan when the cold room door is opened, Viessmann K hlsysteme GmbH recommends installing a door contact switch rated at 230 VAC/0.5 A.
- ➔ Make sure that there is no electromagnetic interference when routing the connecting cable for the door contact switch.
- ➔ Connection via the refrigeration unit's 4-pin connector; siehe circuit diagrams available in the media library (accessible via the QR code on the unit).
- ➔ Connect the connector on the door contact switch to the plug-in connection on the evaporator.
- ➔ Once the door contact switch has been connected, follow the operating manual for the control system.
- ① You can connect units with a total power rating of 250 W to the connector.

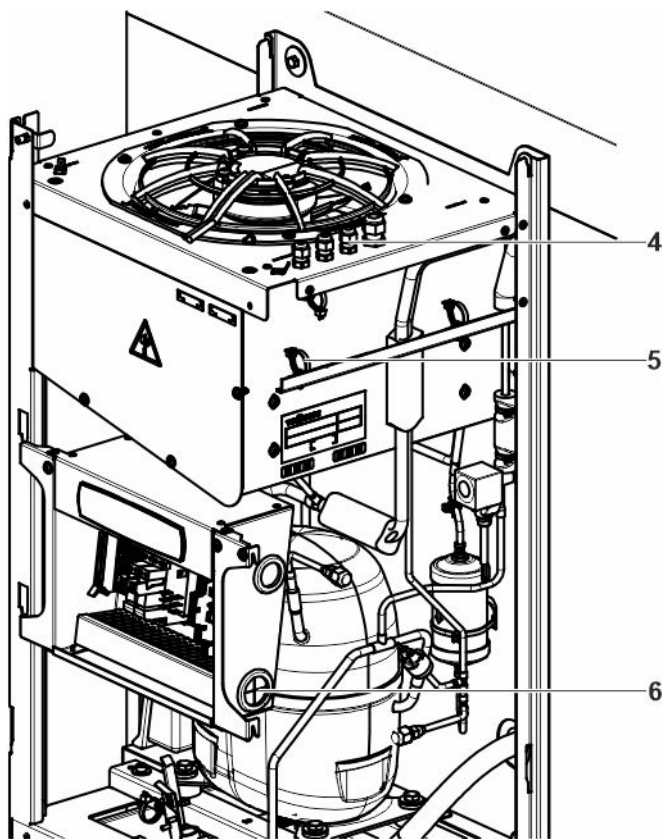
7.6.3 Connecting the alarm

The alarm connection is located on the rear side of the control system (socket J2d). The connection is labelled **Alarm**; siehe Circuit diagrams are available in the media library (accessible via the QR code on the unit).

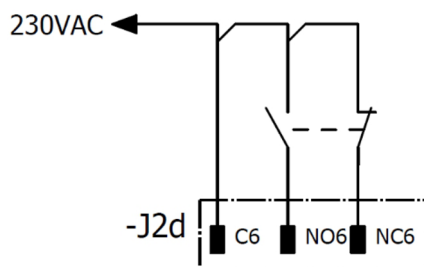


- ➔ Undo the screws **1** of the junction box.
- ➔ Take off the cover **2**.
- ➔ Pull back the fixing clips on the sides of the control system and remove the control system **3** by pulling it forwards.

- ① There is no need to unplug cables.



- ➔ Run the connection cable ($2 \times 1.5 \text{ mm}^2$) through the cable glands **6** and out of the junction box.
- ➔ Run the connection cable through the cable gland **4** and out of the refrigeration unit's housing.
- ➔ Tie the connection cable with cable ties **5**.
- ➔ Connect the connection cable to the rear side of the control system.



In the event of an alarm, contacts C6 and NO6 are closed. The contacts are not potential-free (230 V AC).

- ① It is possible to connect an alarm rated at 230 V AC/0.5 A.

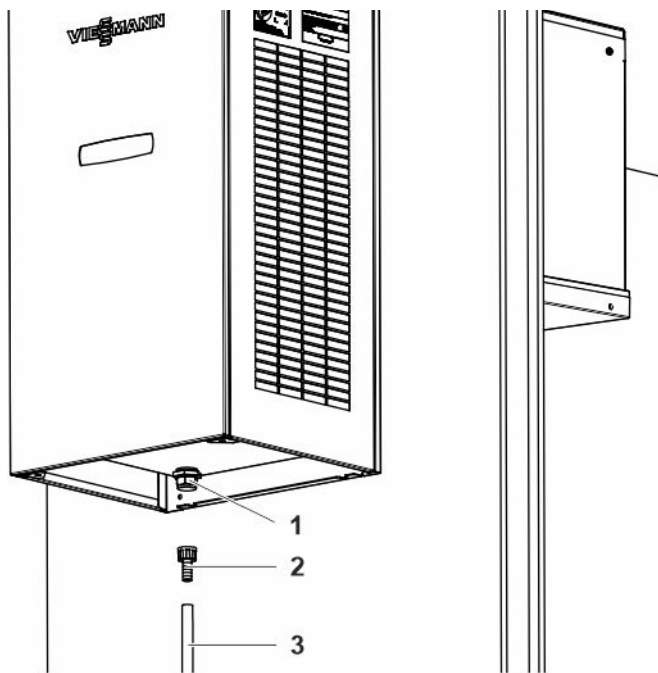
7.6.4 RS485 interface

The J5 connector for connecting the refrigeration unit to an RS485 network is on the rear side of the control system.

- ➔ To configure the RS485 interface, please refer to the control system manual or the Service app manual.
- ➔ To remove the control system and run the cables See 7.6.3 Connecting the alarm on page 18
- ① If you have any questions regarding the installation and user manual, please contact your local Viessmann specialist partner. The current address is available on the back.

7.6.5 Connect the condensate overflow (optional)

- ① The refrigeration unit removes condensation by evaporation in a tray fitted with a coiled pipe through which hot gas flows (See 15 Technical data on page 23). If the relative humidity is too high, the refrigeration unit is unable to perform this function effectively and requires a condensate drain pipe.



If there is a hazard that condensate overflow will overflow:

- ➔ Fit the condensate drain pipe to the bottom of the refrigeration unit.
 - Unscrew the threaded cap **1** and replace it with the hose nozzle **2**.
 - Fit the condensate drain pipe **3** to the hose nozzle.
- ① To improve accessibility, it is possible to remove the bottom cover of the warm section, See 7.5.5 Installing the refrigeration unit on page 15.

8 Commissioning



DANGER!

Risk of fatal electric shock!

- ➔ Commissioning work must be carried out exclusively by authorised qualified personnel.
- ➔ Be sure that nobody is working on the refrigeration unit when the power is switched on.



WARNING!

Damage caused by unauthorised operation!

If the unit is operated using an emergency generator, there is a risk of damaging the unit's internal electronics.

- ➔ Use exclusively inverter-type power generators.

- ➔ Plug in the power supply.

The refrigeration unit starts up after a start-up delay.

- ➔ To set the start-up delay, refer to the control system's operating manual.

9 Operation



WARNING!

Risk of burns due to incorrect operation!

- ➔ Make sure that all ventilation openings are clean and unobstructed.
- ➔ Do not use any electrical appliances that have not been approved by the manufacturer for use in the cold room.

NOTE

Damage caused by inadmissible operation!

- ➔ Operation must be carried out exclusively by authorised qualified personnel.
- ➔ Make sure that the refrigeration unit is operated exclusively in perfect working order and in its original technical condition.

NOTE

Damage caused by inadmissible operation!

- ➔ There must be no products blocking the airflow in the evaporator.

- ➔ For information on how to set the target temperature, refer to the control system's operating manual.

The refrigeration unit has an automatic defrosting function.

If manual defrosting is required:

- ➔ Please refer to the control unit's user manual.

If the refrigeration unit is disconnected from the mains during operation at ambient temperatures between -5 °C and 5 °C:

- ➔ Operate the refrigeration unit in standby mode for at least 20 minutes to ensure that the compressor oil has reached a sufficient temperature when the compressor kicks in again.
- ➔ Make sure that the refrigeration unit is in standby mode before disconnecting it from the mains.

9.1 Locked refrigeration unit

If the refrigeration unit is started when the ambient temperature is 43 °C and the cold room temperature is 43 °C, the high-pressure switch may trip three times an hour, causing the refrigeration unit to be locked.

- ➔ Disconnect the refrigeration unit from the mains.
- ➔ Reconnect the power supply.

The refrigeration unit starts up again.

10 Cleaning

	DANGER!	Risk of fatal electric shock!
		➔ Cleaning must be carried out exclusively by authorised qualified personnel. ➔ Be sure that nobody is working on the refrigeration unit when the power is switched on.

	WARNING!	Risk of burns due to incorrect cleaning!
		➔ Do not apply manual force to defrost the evaporator. ➔ Do not damage the refrigeration circuit.

10.1 Working equipment

	Wear protective clothing to protect yourself and avoid injury!
	➔ Wear protective clothing. ➔ Wear protective gloves. ➔ Wear protective footwear.

	Working equipment for all surfaces! ➔ Use a mild, neutral detergent. ➔ Use water. ➔ Use non-abrasive sponges. ➔ Use soft cloths.
	Damage or malfunctions caused by improper cleaning! ➔ Do not use detergents with a strong odour or corrosive properties. ➔ Do not use detergents with a high solvent content. ➔ Do not use scouring agents. ➔ Do not use highly acidic detergents. ➔ Do not use alkaline cleaning products (in exceptional cases, you can use a highly diluted solution, with a maximum concentration of 3 %). ➔ Please refer to the safety data sheets for the detergent. ➔ Do not use a high-pressure washer. ➔ You may only wet the surfaces with tap water exclusively where it is permitted. ➔ Do not use cleaning tools with sharp edges. ➔ Do not damage the surface.

10.2 Notes regarding cleaning

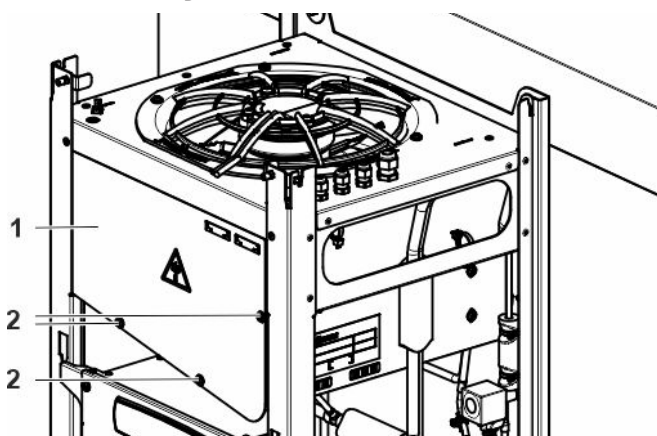
- ➔ Disconnect the refrigeration unit from the mains supply 20 minutes before cleaning.
- ➔ Do not clean the machine with a high-pressure washer.
- ➔ Clean the machine using a cloth moistened with a suitable detergent.
- ➔ Cleaning tasks must be carried out exclusively by authorised qualified personnel (refrigeration engineers).
- ➔ Before carrying out cleaning work, disconnect the power supply and ensure it cannot be switched on again accidentally.
- ➔ Check the refrigeration unit regularly for dirt, and clean it if necessary.
- ➔ Clean the refrigeration unit once a year.
- ➔ The cleaning interval depends on:
 - The degree of contamination
 - Environmental conditions
- ➔ Remove the cladding to clean individual components (See 7.5.3 Dismantling the cladding panels on page 13).

- Clean the evaporator and condenser exclusively with a vacuum cleaner using a soft attachment, or else with compressed air or a soft brush.
- Remove any greasy residue using a suitable industrial detergent.
- Do not damage the fins.
- Check the evaporator for frost build-up.
- In the event of heavy frost build-up, reduce the defrosting intervals.

10.3 Cleaning

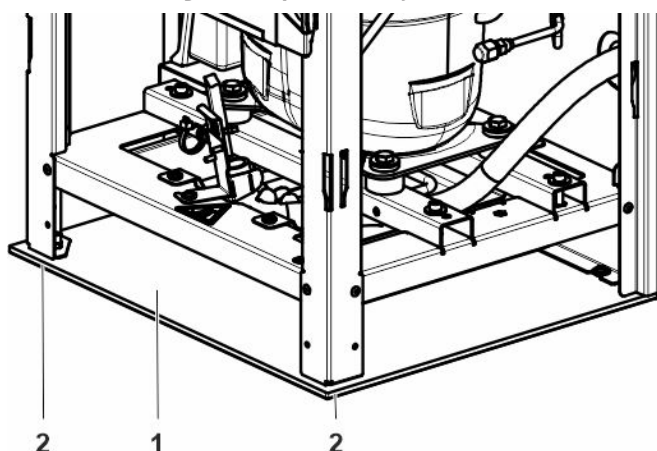
- Remove the cladding panels from the warm section (See 7.5.3 Dismantling the cladding panels on page 13).

10.3.1 Cleaning the condenser

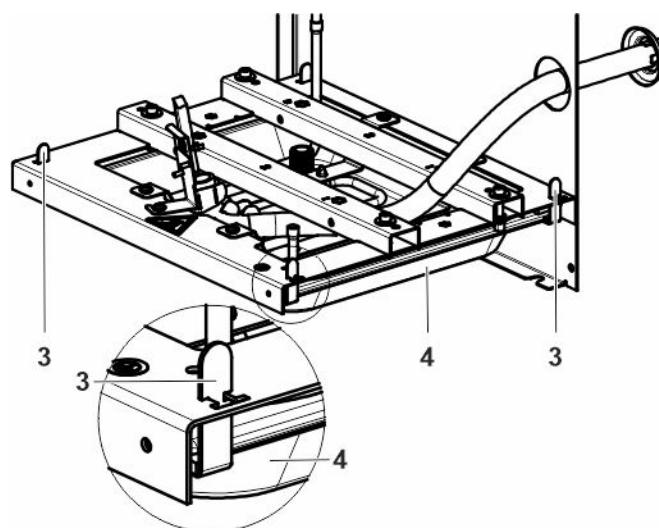


- Undo the screws **2**.
- Take off the cladding panel **1** by pulling it to the front.

10.3.2 Cleaning the evaporator tray

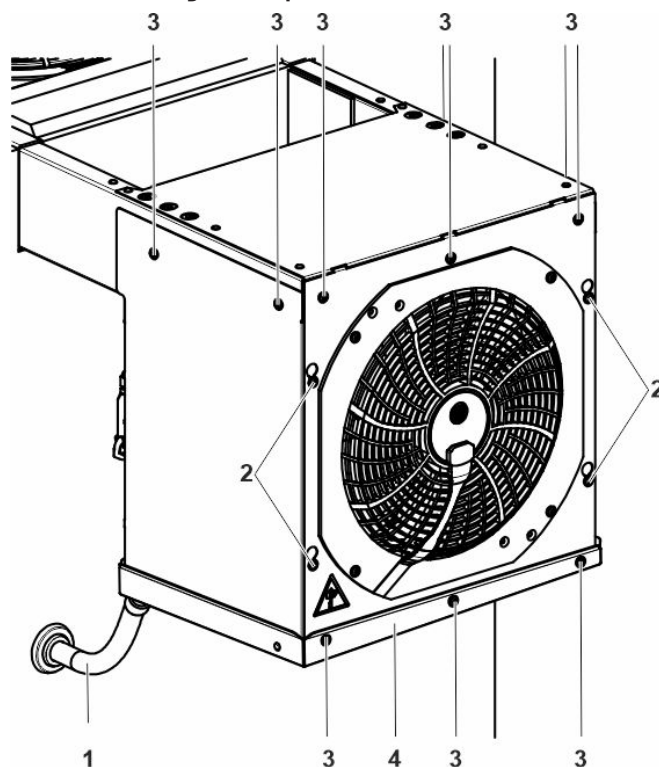


- Undo the screws **2**.
- Remove the floor cover **1** by pulling it forward and to the bottom.

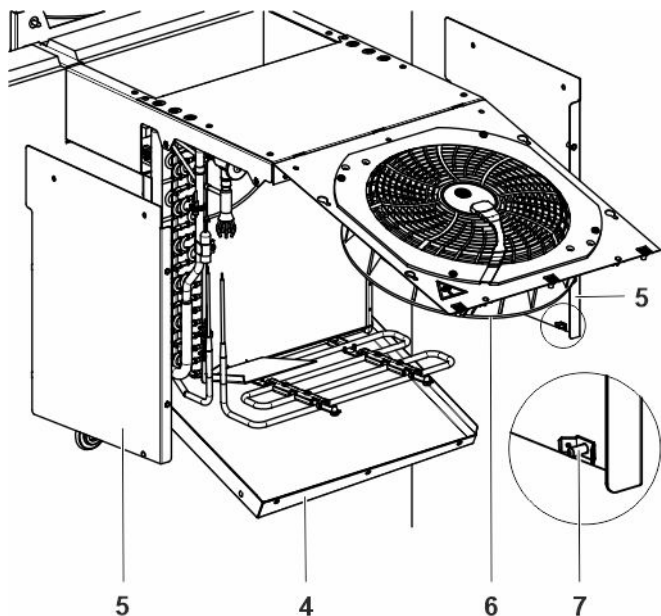


- Unhook the retaining bracket **3** and remove it by pulling it to the bottom together with the evaporator tray **4**.

10.3.3 Cleaning the evaporator



- Release the condensate drain pipe **1** from the drip tray.
- Untighten the screws **2**.
- Remove the screws **3** and fold the drip tray **4** to the bottom.



- ➔ Slide the side panels **5** upwards and remove them.
- ➔ Fold the ventilation flap **6** upwards or remove it.
- ➔ Disconnect the earthing cables from the earthing points **7**.

11 Maintenance

11.1 Safety notes

⚠ DANGER!	Risk of fatal electric shock! ➔ Maintenance must be carried out exclusively by authorised qualified personnel. ➔ Be sure that nobody is working on the unit when the power is switched on.
⚠ DANGER!	Danger of explosion! ➔ Make sure that the pipework is undamaged. ➔ Make sure that no refrigerant is leaking.
⚠ WARNING!	Risk of injury from sharp-edged and pointed components! ➔ Wear suitable protective equipment (protective gloves, safety footwear, safety goggles, hard hat, etc.).

11.2 Notes regarding maintenance

- ➔ Maintenance tasks must be carried out exclusively by authorised qualified personnel (refrigeration engineers).
- ➔ Remove the front cover (See 7.5.3 Dismantling the cladding panels on page 13) to access the compressor components and the refrigeration circuit.
- ➔ Remove the condenser cladding panel (See 10.3.1 Cleaning the condenser on page 21).
- ➔ Remove the rear cover of the evaporator (See 10.3.3 Cleaning the evaporator on page 21).
- ➔ Observe maintenance plan.
- ➔ Replace any illegible signage with new signage.
- ➔ Service the refrigeration unit once a year.
- ➔ Complete the maintenance checklist (See 23.1 Maintenance checklist on page 34).

12 Taking out of service

- ➔ To temporarily take the system out of service, follow the instructions in the operating manual.

13 Decommissioning

- ① Viessmann products are recyclable.

- ➔ Do not dispose of any components or operating fluids from the system with household waste.
- ➔ Disconnect the refrigeration unit from the mains electrical supply.

When dismantling the cold room or replacing the refrigeration unit, please note the following:

- ➔ Unplug the mains plug of the refrigeration unit.
- ➔ Unplug all electrical connections.
- ➔ Remove front cover (See 7.5.3 Dismantling the cladding panels on page 13).
- ➔ Remove the connection of condensate drain pipe connection.
- ➔ Remove the condensate drain pipe connection.
- ➔ Remove the fixing screws from the refrigeration unit.
- ➔ Remove roof panel.
- ➔ Lift out the refrigeration unit.

14 Disposal

14.1 Refrigeration unit

- ➞ Make sure that individual refrigeration unit components are disposed of appropriately at the end of their service life.
- ➞ Dispose of the individual refrigeration unit components in accordance with the applicable country-specific waste disposal guidelines and relevant legislation.
- ➞ Remove operating fluids and lubricants from all components before disposal.
- ➞ Collect and store operating fluids and lubricants in suitable containers before disposal.
- ➞ When disposing of operating fluids and lubricants, follow the relevant manufacturer's instructions.
- ➞ Have operating fluids and lubricants disposed of at a waste oil recycling centre.
- ➞ Have metal parts disposed of at a scrap metal recycling centre.
- ➞ Have plastics disposed of at a recycling centre for plastic waste.
- ➞ Have rubber disposed of at a rubber recycling centre.
- ➞ Have electronic components disposed of at an electronics recycling centre.

14.2 Refrigerant

- ➞ Have the refrigerant disposed of at a refrigerant recycling centre.
- ➞ When disposing of the refrigerant, refer to its safety data sheet.

15 Technical data

- The performance figures are based on refrigeration units with clean heat exchangers.
- Tolerances for the values in accordance with DIN EN 12900:1213.
- Cooling capacity in accordance with DIN EN 17432:2021.

15.1 Standard refrigeration unit TectoCore WMC5

		900	1100	1300
Size ¹		1		
Cold room temperature control range	°C	(-5) ¹³ 0bis +15		
Perm. ambient temperature	°C	(-5) ¹⁴ +10 bis +43		
Cooling capacity at nominal point ²	W	900	1100	1300
Heating capacity at nominal point ²	W	1369	1664	1916
Power consumption at nominal point ²	W	469	564	616
EER ³		1.92	1.95	2.11
Evaporation capacity ⁴	l/d	3.6		
Amount of refrigeration circuits		1		
Refrigerant		R290		
Refrigerant charging quantity for Circuit I	g	110	120	150
GWP acc. to the IPCC's 6th Assessment Report ⁵	CO ₂ e	0.02		
Refrigerant safety class ⁶		A3		
Refrigeration circuit ⁷		Permanently sealed		
Expansion valve		Thermostatic expansion valve		
Rated pressure of high-pressure switch	bar (g)	17.8		
Rated pressure of low-pressure switch	bar (g)	1.5		
Fresh air required ⁸	m³/h	720	860	1000
Condenser fan ²	Amount	1		
	Type	Axial		
	Rated air flow	1250		1270
	Power consumption	70		72
	Rotational speed	2390		2430
Evaporator fan ²	Amount	1		
	Type	Axial		
	Rated air flow	700	780	840
	Power consumption	16		
	Rotational speed	900		
	Air throw ⁹	6		
Defrosting type ¹⁰		Hot-gas defrosting		
Condensate drain heater power	W	240 ¹²		
Voltage/Phases/Frequency	V/-/Hz	230/1/50		
Max. operating current	A	3.8	4.3	5.3
Fuse required	A	C10		
Length of mains cable	m	5		
Protection class	-	I		
Protection rating		IP 2X		
Sound pressure level ¹¹	dB(A)	38	39	40
Dimensions D x W x H ⁹	mm	960 x 430 x 840		
Weight excluding packaging ¹²	kg	51	52	54

¹ Applies exclusively to this assembly and operating manual.

² Nominal point in accordance with EN 17432. NR: L0°/L32°; heating capacity: the heat flux emitted by the unit into the ambient environment during cooling operation.

³ EER: Energy Efficiency Ratio - ratio of cooling capacity to electrical power consumption.

⁴ Evaporation capacity based on nominal point L0 °C/L32 °C, 30 % relative humidity and an operating time of 18 h/day.

⁵ Different operating points and running times may affect the evaporation capacity.

⁶ GWP: Global-Warming Potential (IPCC AR6).

⁷ In accordance with EN 378-1.

⁸ In accordance with EN 378-2, EN 14276-1, EN 14276-2.

⁹ Fresh air required for the necessary ventilation of the condenser at the nominal point when the ambient temperature rises by 6 K (NR).

¹⁰ This may vary due to optional ShutUp accessory pack.

¹¹ This is assisted by an auxiliary heating system (tubular heater) and can optionally be assisted by condensate trace heating in the area of the condensate tray.

¹² A-weighted sound pressure level measured at a distance of 10 m at the operating point L0 °C/L20 °C. Any deviations are due to the specific conditions of the room.

¹³ This may vary due to optional accessories.

¹⁴ Expandable with an optional auxiliary heating system accessory pack.

¹⁵ Expandable with an optional Winter accessory pack.

15.2 Standard deep-freeze refrigeration unit TectoCore WMF5

			1050	1300
Size ¹			1	
Cold room temperature control range		°C	-25 to -5	
Perm. ambient temperature		°C	(-5) ¹³ +10 bis +43	
Cooling capacity at nominal point ²		W	1050	1300
Heating capacity at nominal point ²		W	1988	2587
Power consumption at nominal point ²		W	938	1287
EER ³			1.12	1.01
Evaporation capacity ⁴		l/d	5.3	
Amount of refrigeration circuits			1	
Refrigerant			R290	
Refrigerant charging quantity for Circuit I		g	150	
GWP acc. to the IPCC's 6th Assessment Report ⁵		CO ₂ e	0.02	
Refrigerant safety class ⁶			A3	
Refrigeration circuit ⁷			Permanently sealed	
Expansion valve			Thermostatic expansion valve	
Rated pressure of high-pressure switch		bar (g)	17.8	
Rated pressure of low-pressure switch		bar (g)	0.1	
Fresh air required ⁸		m³/h	760	1000
Condenser fan ²	Amount		1	
	Type		Axial	
	Rated air flow	m³/h	1320	1720
	Power consumption	W	77	140
	Rotational speed	1/min	2500	3090
Evaporator fan ²	Amount		1	
	Type		Axial	
	Rated air flow	m³/h	800	1240
	Power consumption	W	16	34
	Rotational speed	1/min	900	1300
	Air throw ⁹	m	6	
Defrosting type ¹⁰			Hot-gas defrosting	
Condensate drain heater power		W	265	
Voltage/Phases/Frequency		V/-/Hz	230/1/50	
Max. operating current		A	9.0	12.2
Fuse required		A	C16	
Length of mains cable		m	5	
Protection class		-	I	
Protection rating			IP X2	
Sound pressure level ¹¹		dB(A)	42	47
Dimensions D x W x H ⁹		mm	960 x 430 x 840	
Weight excluding packaging ¹²		kg	64	66

- ¹ Applies exclusively to this assembly and operating manual.
² Nominal point in accordance with EN 17432. DF: L-20 °/L32 °, heating capacity: the heat flux emitted by the unit into the ambient environment during cooling operation.
³ EER: Energy Efficiency Ratio - ratio of cooling capacity to electrical power consumption.
⁴ Evaporation capacity based on nominal point L-20 °/L32 °C, 30 % relative humidity and an operating time of 16 h/day.
⁵ Different operating points and running times may affect the evaporation capacity.
⁶ GWP: Global-Warming Potential (IPCC AR6).
⁷ In accordance with EN 378-1.
⁸ In accordance with EN 378-2, EN 14276-1, EN 14276-2.
⁹ Fresh air required for the necessary ventilation of the condenser at the nominal point when the ambient temperature rises by 8 K (DF).
¹⁰ This may vary due to optional ShutUp accessory pack.
¹¹ This is assisted by an auxiliary heating system (tube heater) and condensate auxiliary heater in the area of the condensate tray.
¹² A-weighted sound pressure level measured at a distance of 10 m at the operating point L-20 °/L20 °C. Any deviations are due to the specific conditions of the room.
¹³ This may vary due to optional accessories.
¹⁴ Expandable with an optional Winter accessory pack.

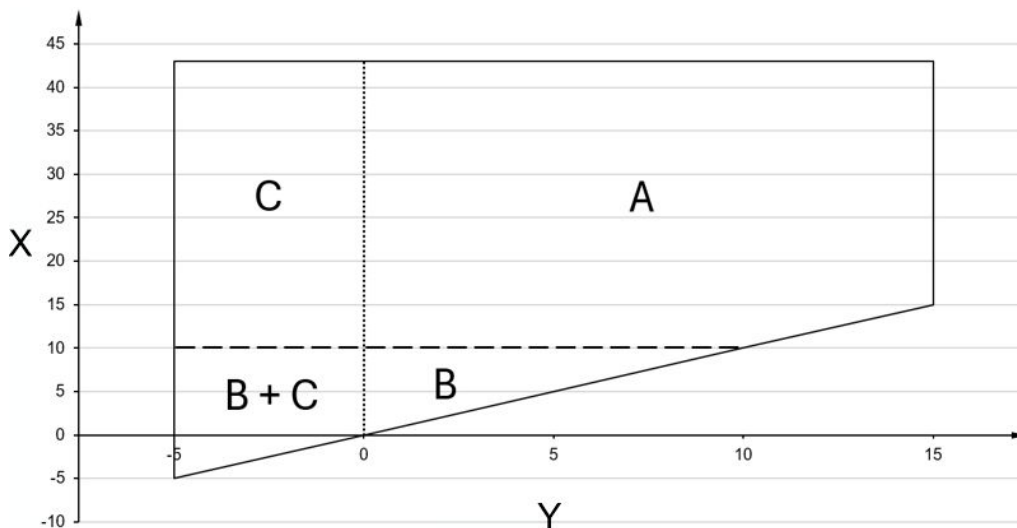
16 Operating limits

The diagrams show the operating limits of normal-cooling refrigeration units and deep-freeze refrigeration units as a function of ambient and cold room temperature.

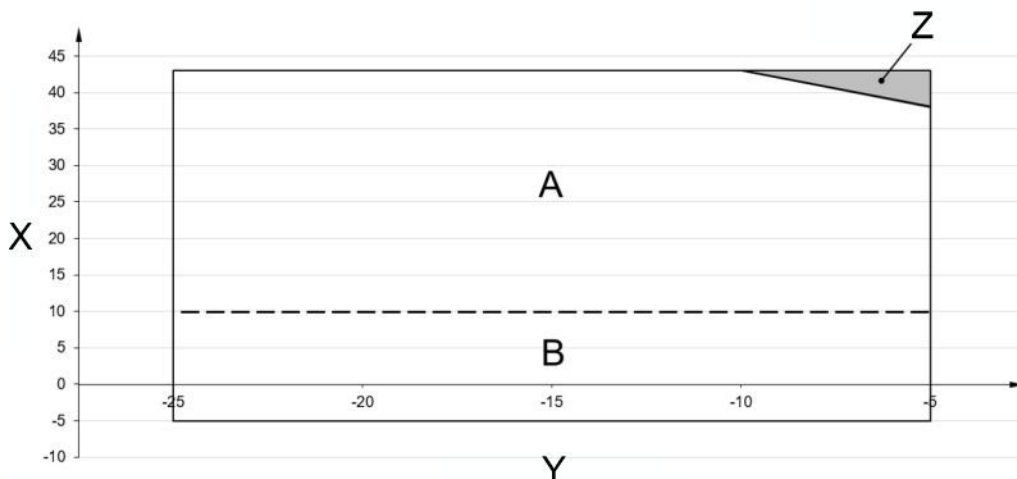
The following applies to all values in the diagrams:

- Temperatures measured in accordance with DIN EN 17432:2021
- A = standard model without accessories
- B = expandable with the Winter accessory pack (oil sump heater)
- C = expandable with the optional auxiliary heating system (condensate drain pipe trace heating)
- X = ambient temperature in °C
- Y = cold room temperature in °C
- Z = exclusively for the WMF5 1050 - not for the WMF5 1300
- Since the refrigeration unit does not provide heating, it is not possible for the cold room temperature to exceed the ambient temperature.
- We reserve the right to make technical changes.

16.1 Normal-cooling refrigeration units



16.2 Deep-freeze refrigeration units



17 Standards and laws

Refrigeration units are manufactured and tested in accordance with the applicable standards and laws.

Refrigeration units are tested for leaks in the refrigeration circuits and checked for proper functioning.

The following standards and laws apply:

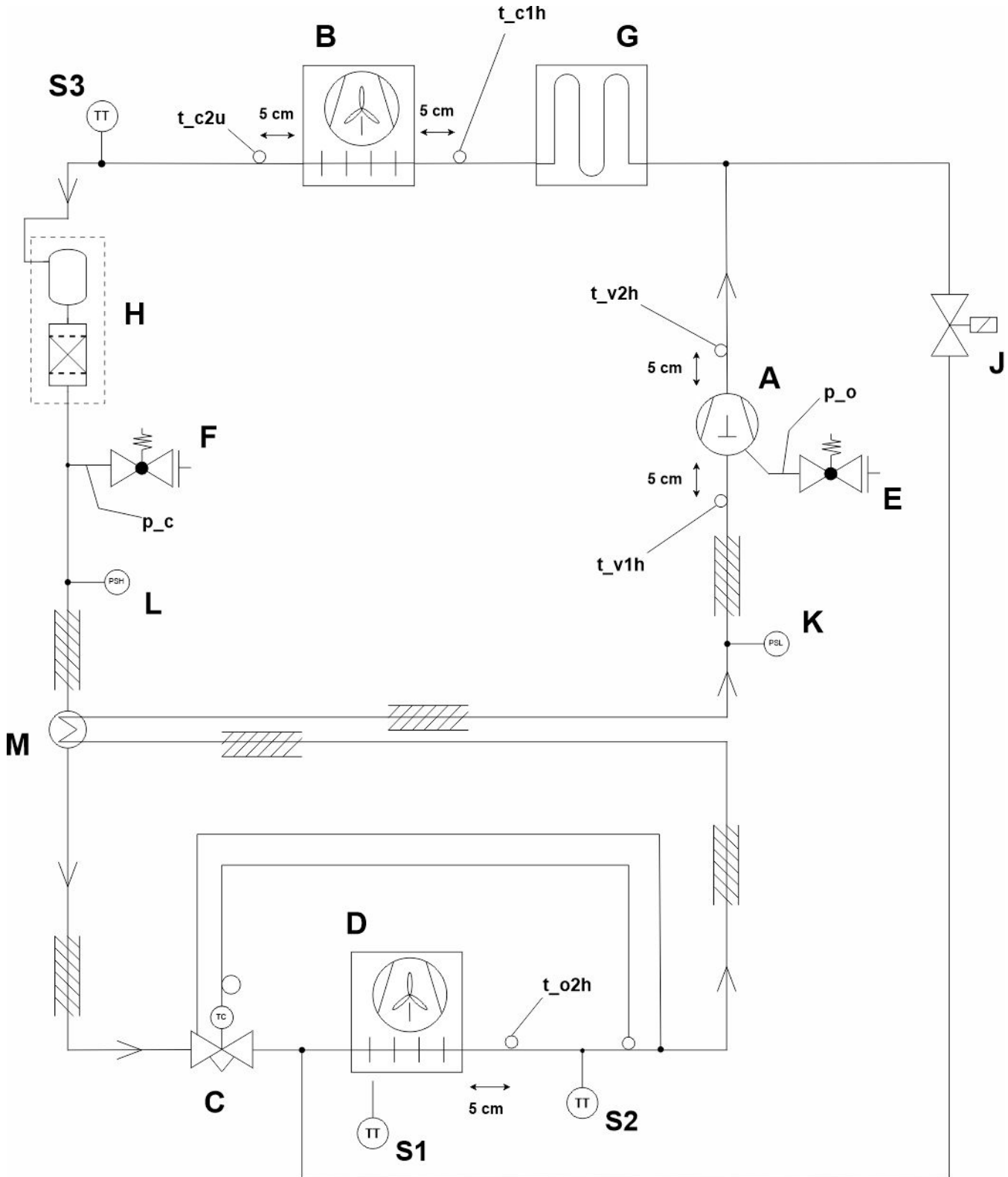
- Electromagnetic Compatibility (EMC) 2014/30/EU
- Low Voltage Directive (LVD) 2014/35/EU
- Radio Equipment Directive (RED), 2014/53/EU
- EN IEC 60335-2-89:2023
- EU Machinery Directive 2006/42/EG bis 12/26
- EU Machinery Regulation (EU) 2023/1230 from 01/27
- EN 378-1:2021+A1:2020
- EN 378-2:2018
- EN 378-3:2020+A1:2020
- EN 378-4:2019+A1:2019
- Regulation 2024/573/EU on fluorinated greenhouse gases

18 Spare parts

- Always use original spare parts if possible.
- Spare parts can be ordered using the specifications below.
 - Part number, serial number and model designation of the refrigeration unit
 - Specifications as per the type plate (see control cabinet)
- ① If you have any questions about spare parts, please contact your local Viessmann specialist partner. The current address is available on the back.

19 Refrigeration circuits and measurement points

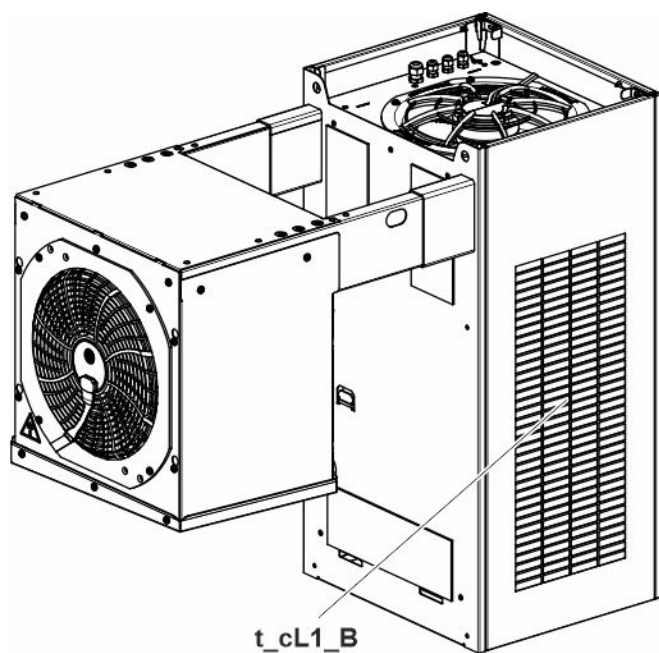
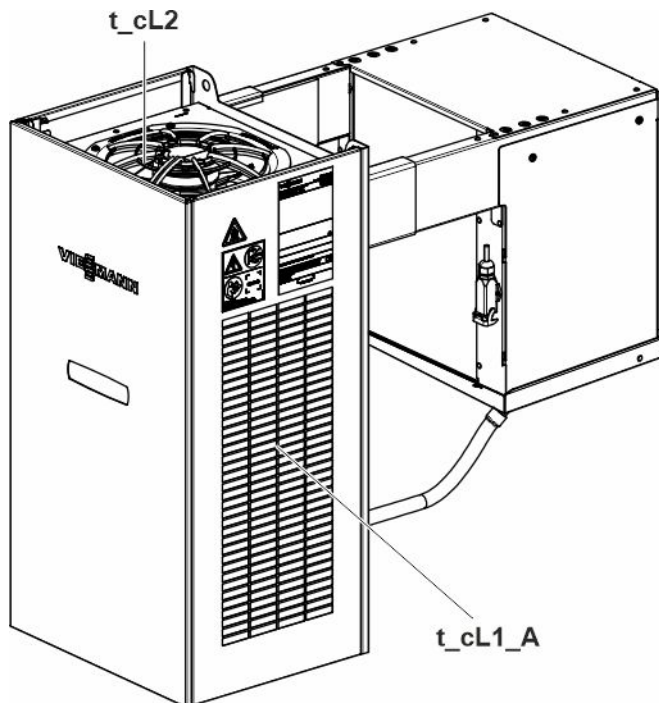
19.1 TectoCore WMC5 single-circuit and TectoCore WMF5 single-circuit



Item	Component	Item	Measuring point	
A 1/2	Compressor 1/2	t_v1h_1 t_v1h_2	Temperature, compressor input 1/2	°C
B 1/2	Condenser 1/2	t_v2h_1 t_v2h_2	Temperature, compressor output 1/2	°C
C 1/2	Thermostatic expansion valve 1/2	t_c1h_1 t_c1h_2	Temperature, condenser input 1/2	°C
D	Evaporator	t_c2u_1 t_c2u_2	Temperature, condenser output 1/2	°C
E 1/2	Refrigerant charging port, low-pressure side (compressor) 1/2	p_c_1 p_c_2	Condensing pressure 1/2	bar
F 1/2	Refrigerant charging port, high-pressure side 1/2	t_cl1	Temperature, condenser air intake	°C
G	Condensation water, evaporator tray	t_cl2	Temperature, condenser air outlet	°C
H 1/2	Filter dryer 1/2	t_o2h_1 t_o2h_2	Temperature, evaporator output 1/2	°C
J 1/2	Solenoid valve, hot gas line 1/2	p_o_1 p_o_2	Evaporation pressure 1/2	bar
K 1/2	Low-pressure switch, circuit 1/2	t_ol1	Temperature, evaporator air intake	°C
L 1/2	High-pressure switch, circuit 1/2	t_ol2	Temperature, evaporator air outlet	°C
S1	Cold room sensor			
S2	Evaporator sensor			
S3	Condenser sensor			

20 Measuring points

20.1 Condenser



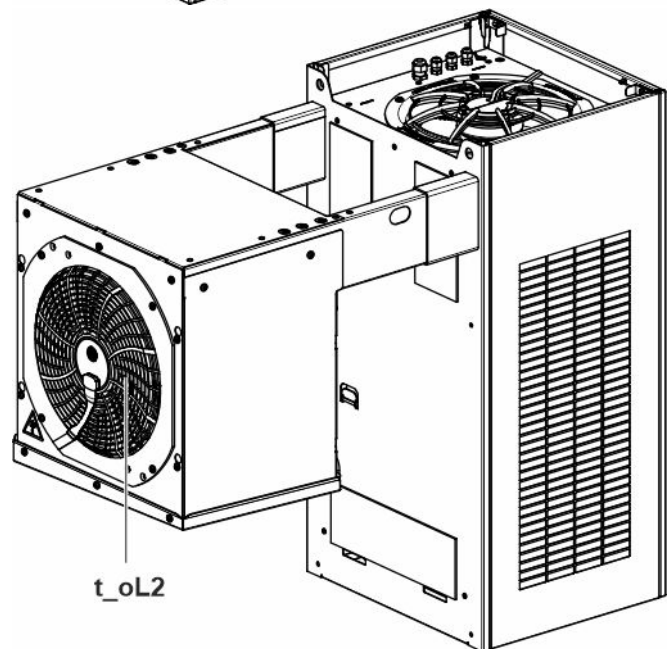
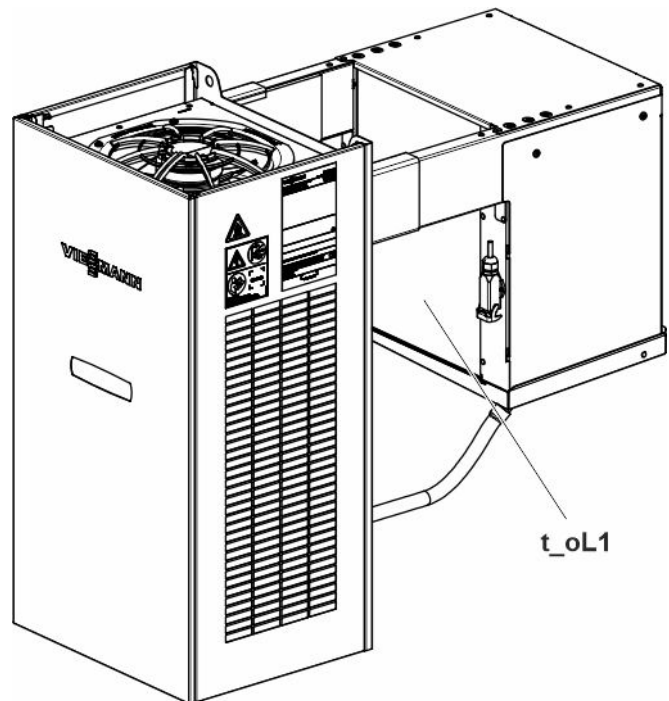
Temperature, condenser air intake:

- Fit the temperature sensors **t_{cL1_A}** and **t_{cL1_B}** 1 cm above the cover, as shown the diagram.
- Measure temperatures and calculate the average.

Temperature, condenser air outlet:

- Fit the temperature sensor **t_{cL2}** 1 cm above the cover, as shown the diagram.
- Measure temperature.

20.2 Evaporator



Temperature, evaporator air intake:

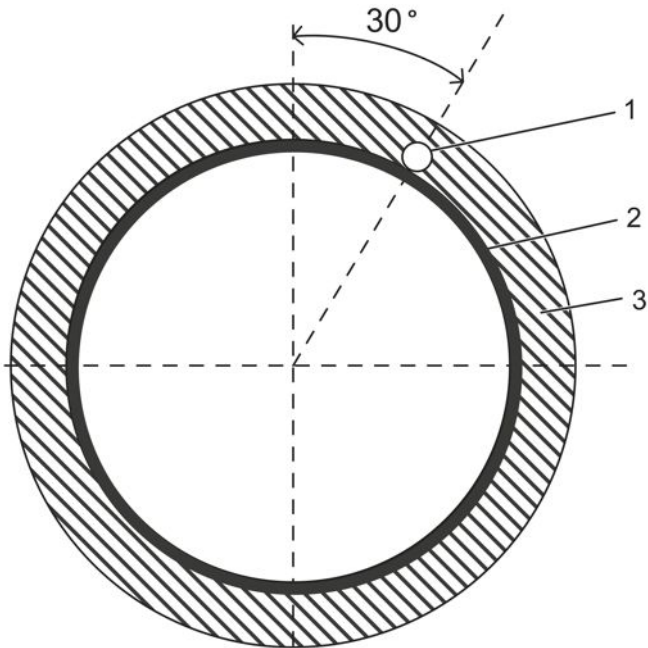
- Fit the temperature sensor **t_{oL1}** in the air intake as shown in the diagram.
- Measure temperature.

Temperature, condenser air outlet:

- Fit the temperature sensor **t_{oL2}** to the air outlet (fan) as shown in the diagram.
- Measure temperature.

20.3 Temperature sensor positioning

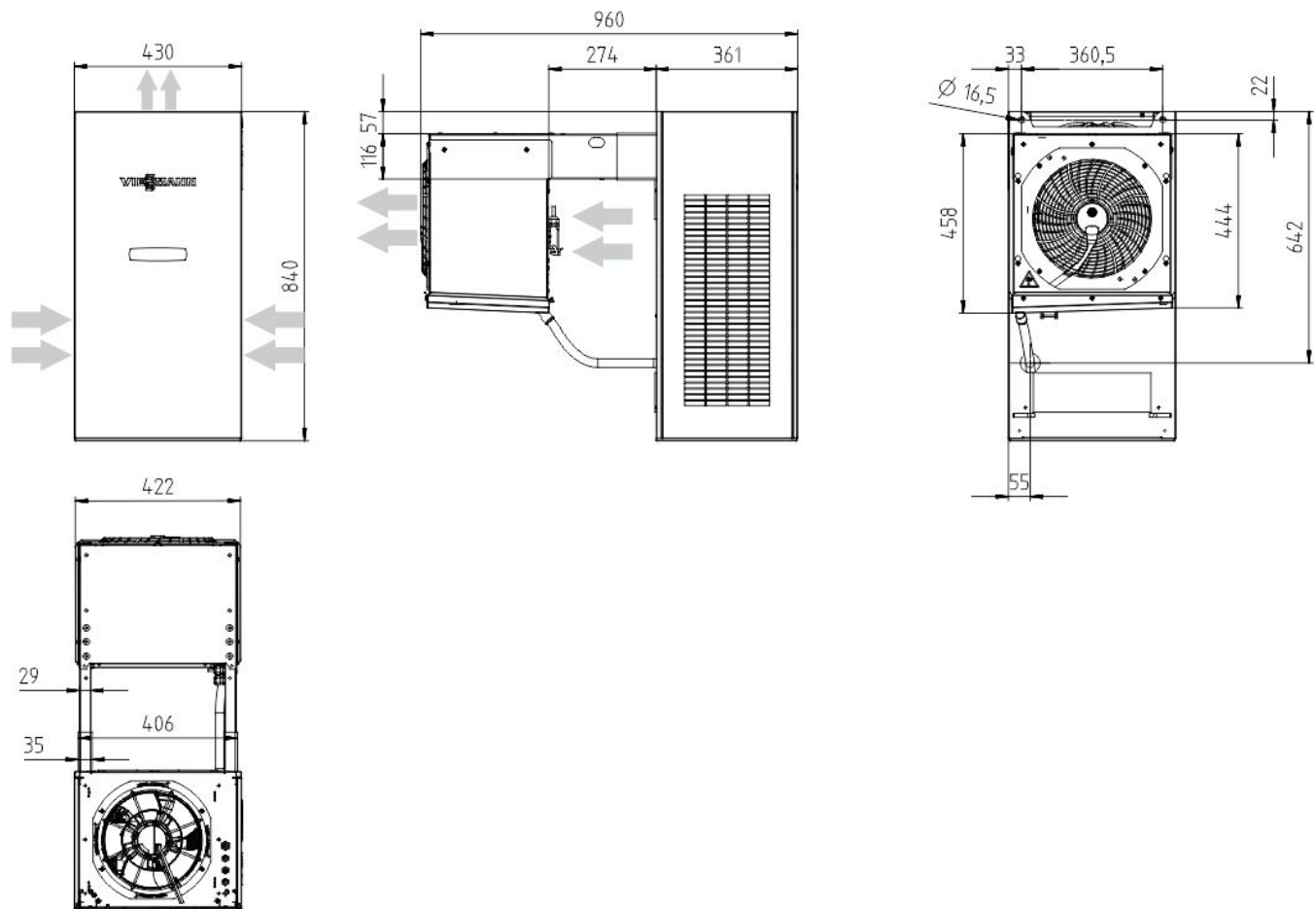
- The measuring points are used to determine the temperature during maintenance (See 19 Refrigeration circuits and measurement points on page 28).
- Use exclusively calibrated temperature sensors.



- Remove insulation **3** at the measuring point, if installed.
- Fit a suitable temperature sensor **1** to the refrigerant line **2**.
- Make sure that the temperature sensor is lying flat.
- Insulate the measuring point before taking the measurement (minimum thickness of 5 mm).
- Measure temperature.
- After taking the measurement, remove the temperature sensor and insulate the measuring point.

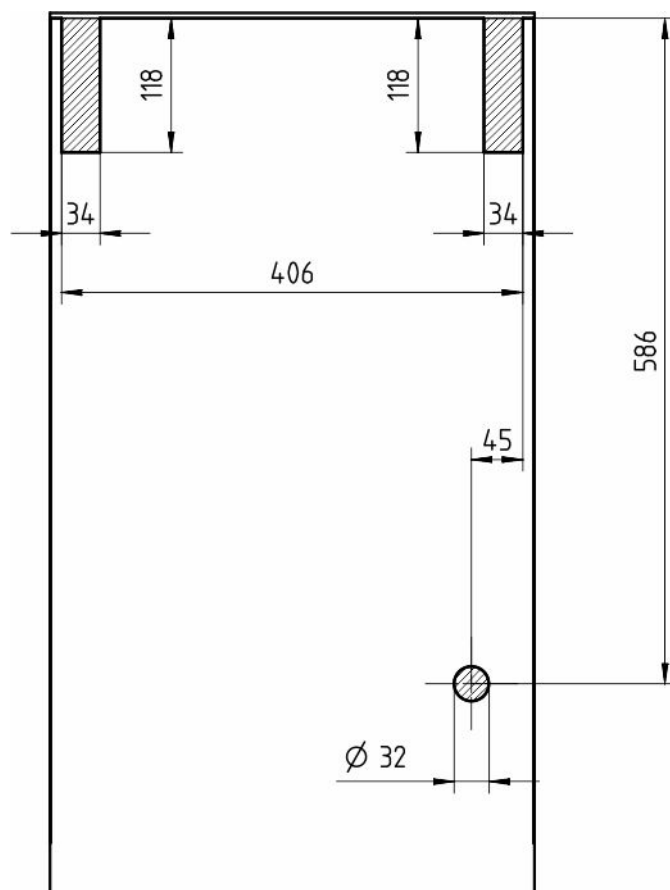
21 Dimensional drawings

21.1 TectoCore WMC5 size 1 / TectoCore WMF5 size 1



22 Dimensional drawings of the perforations and drill holes

22.1 TectoCore WMC5 size 1 / TectoCore WMF5 size 1



23 Maintenance

⚠ WARNING!	Risk of injury due to improper maintenance!
➡ Maintenance tasks must be carried out exclusively by authorised qualified personnel.	

- ① The manufacturer accepts no liability for improper maintenance or repair work.
- ① The warranty claim against the manufacturer shall become void if it is proven that maintenance and repair work has been carried out incorrectly.

23.1 Maintenance checklist

➡ Copy the maintenance checklist and complete it.

Company		Tel.		Started work	Model
Dept.		Cold room size			
Address		Installation date		Finished work	Serial number
Post code		Year of maintenance			

☐	1	Check the cold room and refrigeration unit for damage (visual inspection of panels and impact protection).
☐	2	Check the parameters in the control system, with the owner's approval.
☐	3	Make sure all accessories are working properly (door contact switches, light sources, door frame heating, etc.).
☐	4	Check the evaporator for continuous frost build-up. If frost is building up, refer to point 20 in this list and, if necessary, adjust the defrost parameters.
☐	5	Switch off refrigeration unit. Unplug mains plug. Remove front housing cover.
☐	6	Check that the air intake, air outlet, fan and filter mats are clean and clean them if necessary.
☐	7	Check the evaporator/condenser and sensors for dirt or damage and clean them if necessary.
☐	8	Check and clean condensate drain pipe drain hose leading to the evaporator tray.
☐	9	Clean drip tray, drip pan and evaporator tray.
☐	10	Check and seal the refrigerant pipe ducts.
☐	11	Check that the fan is securely fitted and not damaged.
☐	12	Check that the accessories have been assembled correctly (door contact switch, condensate drain, etc.).
☐	13	Check the area around the refrigeration circuit for dripping oil.
☐	14	Check the pipework and insulation for damage. It is vital to ensure that the insulation bonding does not permit any diffusion (intake line).
☐	15	Check that all electrical connections and plug-in connections have been assembled correctly.
☐	16	Fit the housing and plug in the mains plug.
☐	17	Switch on control system.
☐	18	Check the compressor for unusual noises and vibrations.
☐	19	Check that the evaporator and condenser fans are working.
☐	20	Check defrost function. Check the internal condensate drain heater and the defrosting auxiliary heater.
☐	21	Check refrigeration function. Check for any deviations in evaporator air temperature and power consumption.
☐	22	Check that the maintenance label is available and legible.
☐	23	Update the maintenance label.

Date/Signature - Customer Service	Date/Signature - Head of Dept.
-----------------------------------	--------------------------------

24 Recommendations for refrigerated and deep-frozen storage

24.1 Refrigerated storage

24.1.1 Meat products

Refrigerated goods	Temperature in °C	Relative humidity in %
Meat, fresh	-1/+1	85-90
Cooked sausage	+1/+3	80-85
Poultry, fresh	-1/+1	85-90
Game, fresh	-2/+2	70-85

24.1.2 Fish

Refrigerated goods	Temperature in °C	Relative humidity in %
Fish, fresh off the ice	0/+1	90+100
Conserved fish	0/+1	75-80

24.1.3 Milk and dairy products

Refrigerated goods	Temperature in °C	Relative humidity in %
Milk	0/+2	80-85
Butter	-1/+4	75-80
Soft cheese	0/+2	80-85
Swiss cheese	+2/+4	70

24.1.4 Vegetables

Refrigerated goods	Temperature in °C	Relative humidity in %
Lettuce	0/+1	85-90
Cauliflower	-1/0	90
Tomatoes, ripe	0/+1	80-90
Spinach	-1	90
Cucumbers	0/+4	85
Asparagus	+1	85-90

24.1.5 Fruit

Refrigerated goods	Temperature in °C	Relative humidity in %
Apples	-1/+3	90-95
Pears	-1/+2	85-90
Cherries	-1/+1	90
Strawberries	-1/+1	90
Bananas	+12	85

Source of values: Pohlmann, Taschenbuch der Kältetechnik (Technical manual of refrigeration), Vol. 2 Breitenbach, Der Kälteanlagenbauer (The refrigeration engineer), Vol. 1

24.2 Deep-freeze storage

24.2.1 Meat products

Refrigerated goods	Temperature in °C	Relative humidity in %
Meat, frozen	-15/-18	85-90
Offal, frozen	-15/-18	80-85
Bacon, fresh (green)	-18/-22	85-90
Sausage	-18	90
Game	-12/-18	80-90
Poultry, gutted	-12	85-90

24.2.2 Fish

Refrigerated goods	Temperature in °C	Relative humidity in %
Oily fish, frozen	-23/-25	90-95
Lean fish, frozen	-20	90-95
Filletts, frozen	-23/-25	80-90

24.2.3 Baked goods

Refrigerated goods	Temperature in °C	Relative humidity in %
Bread	-18	90
Bread rolls	-18/-20	80
Cakes	-18	85-90
Small pastries	-18	85-90
Cream cakes	-18	85-90

24.2.4 Miscellaneous

Refrigerated goods	Temperature in °C	Relative humidity in %
Butter, long-term storage	-10/-20	80-85
Frozen vegetables	-18/-23	85
Fruit	-23/-25	80-90

Further [information, images, manuals and prices for this product](#) and many other products are available from your specialist dealer [Kühlzelle24](#).

Viessmann Kühleysteme GmbH

Dr.-Vießmann-Strasse 1
95030 Hof, Germany
+49 9281 814 0
cleancold@vi-ccs.com
www.viessmann-cold.com

Viessmann Kältetechnik Österreich GmbH

IZ NÖ Süd Strasse 7, Objekt 58c, Stiege 3, Top
5, A-2355 Wiener Neudorf, Austria
+43 2236 677656
vk.at.info@vi-ccs.com

Viessmann Kältetechnik Schweiz AG

Industriestrasse 124
8957 Spreitenbach, Switzerland
+41 56 418 67 11
info.ch@vi-ccs.com

Viessmann Technique du Froid

27 rue du Champ de Mars, CS 60919 57209
SARREGUEMINES Cedex, France
+33 3 87 13 08 13
refrigeration-france@vi-ccs.com

Viessmann Refrigeration Solutions Benelux

Nijverheidsweg-Noord 60-94, NL-3812 PM
Amersfoort, The Netherlands
+31 85 018 7460
info-ref-nl@vi-ccs.com

Viessmann Refrigeration Systems Ltd.

Suite 22, Lake View House, Wilton Drive,
Warwick CV34 6RG, United Kingdom
+44 1952 457 157
uksales@vi-ccs.com