EN **Translation of the original Operating Manual**
compliant with EN 82079

K&M HOLLAND GMBH

This operating manual must be reed before assembly/installation/commissioning.

On top cooling unit

Side cooling unit

Waste disposal cooler

Keg cooler

Large-capacity refrigerator

Propane (R290)

Your distributor:

Assembly and installation must only be carried out by a refrigeration specialist.

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Contents

EC Declaration of Conformity

CE

Address:	K. & M. Holland GmbH Industriestr. 14 | D-94327 Bogen
Product:	Cooler/Cooling unit (also in combination with a cooling cabinet)
Model designation:	STFSEIT / STFAUF / KC... / ...FASS / GRK...

The product meets the requirements of the following European Directives:

EN 378	Refrigerating systems and heat pumps – Safety and environmental requirements
2004/108/EC	EMC Directive
2006/42/EC	Machinery Directive
2009/125/EC	Ecodesign Directive
517/214	F-gas Regulation

Compliance with the Directives was accounted for by application of the following standards:

EMC:	EN 55014-1:2006+A1:2009 EN 55014-2:1997+A2:2008 EN 61000-3-2:2006+A1:2009+A2:2009 EN 61000-3-3:2008
Machinery Directive:	EN ISO 12100:2010 EN 60335-2-89:2010 in conjunction with EN 60335-1:2002+A11:2004+A1:2004+A12:2006+ Corr. 2006 + A2:2006+Corr. 2007-01+Corr. 2007-02+A13:2008+ Corr. 2009+Corr. 2010+A14:2010

Responsible for assembling the technical documentation is:

Department: Organisation & Administration Department of K. & M. Holland GmbH
Address: K. & M. Holland GmbH | Industriestraße 14 | D-94327 Bogen

Bogen, 26th November 2020

Martin Holland, General Manager

This declaration only refers to the appliance in the condition in which it was placed on the market; retrofitted parts and/or retrospective interventions and modifications are not taken into consideration. This declaration is no longer valid should the appliance be modified without our consent.

Identification

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About this manual

Date of first edition: 26/11/2020
Version: 3
Last change: 06/2021

Disclaimer

This manual was drawn up with the greatest care; however, K. & M. Holland GmbH accepts no responsibility in connection with its use.
Reproduction, even of extracts, is permitted only with the consent of K. & M. Holland GmbH.
The content of the document is based on the most recent data available at the time of printing. K. & M. Holland GmbH reserves the right, at any time and without prior notice, to make improvements and changes of a functional or aesthetic nature. Please note that these instructions apply to different types of cooling units. It may therefore contain details that your cooling unit may not contain. Due to the wide range of options, the cooling unit may differ from those shown here.
Keep this operating manual for future use!

1. Notices to the user

1.1 Purpose of the manual

This operating manual describes the installation, operation, control and maintenance of the cooling unit. It also gives important instructions and advice for safe and efficient use of the unit.

1.2 Indication of safety notices

Safety notices are indicated by a pictogram and a signal word. The signal word describes the severity of the relevant risk.

WARNING
Potential risk to life and health (severe injuries or death).

DANGER
Potentially dangerous situation (slight injuries or material damage).

IMPORTANT
Special behaviour or action required for safe handling of the unit.

NOTE
Tips for use and particularly useful information.

2. Safety guidelines and warnings

This unit meets the prescribed safety regulations. Improper use can, however, lead to personal injury and material damage.

Read through this operating manual carefully before operating the unit. It includes important instructions for the installation, use and maintenance of the unit. By doing so, you protect yourself and prevent damage to the unit.

Keep the operating manual and pass it on to any subsequent owner!

IMPORTANT
If the device is connected to other devices / systems that are already at the installation site, the customer / installer will take over the CE marking of the entire system.

2.1 Intended use

The cooling unit, in combination with a cooling cabinet, is intended exclusively for the cooling of packaged or hygienically harmless goods, e.g. for use as a drinks, kegs or waste disposal cooler.
All other uses (such as the storage of unwrapped foodstuffs or medicines) are not permitted and can be dangerous.
The large-capacity refrigerator is internally made of stainless steel and can also be used as a meat storage cabinet.

Intended use also includes:
- the observance of all guidelines and warnings in this operating manual,
- the compliance with service and maintenance requirements,
- the exclusive use of original parts.

Persons who, because of their physical, sensory or mental abilities, or their inexperience or ignorance, are not in a position to operate the unit safely, must not use this unit without the supervision of or instruction from a responsible person.

Supervise children in the vicinity of the unit. Never let children play with the unit.

IMPORTANT
Use the unit only as intended and in a faultlessly safe condition!

The manufacturer is not liable for damage resulting from misuse or incorrect operation of the unit.

2.2 Reasonably foreseeable incorrect operation

Use other than as set out under "Intended use" or going beyond such use counts as misuse, e.g.:
- use of the unit in combination with other cooling cabinets/furniture,
- cooling of unwrapped/open foodstuffs or medicines,
- use of the unit in connection with the cooling and storage of animal carcasses

or parts thereof. The owners of thereof and animal by-products have to deliver them to the designated rendering plant.

The large-capacity refrigerator is internally made of stainless steel and can also be used as a meat storage cabinet.

2.3 Damage caused by misuse

- The operator/distributor/refrigeration company is solely responsible.
- The manufacturer accepts no liability.

NOTE
Risks can arise from misuse. Misuse is, e.g. exceeding the limits defined for normal operation of the unit.
See page 13 "Technical data".

2.4 Modifications or alterations

In the event of unauthorised modifications or alterations to the unit, the manufacturer is absolved of any liability!

The electromagnetic compatibility of the unit can be affected by additions or alterations of any kind. You should therefore carry out no modifications or alterations to the unit without consulting the manufacturer and obtaining his written agreement.

2.5 Spare and wearing parts and auxiliary materials

The use of spare parts from third party manufacturers can engender risks. Use only original parts or parts approved by the manufacturer. The spare parts list can be obtained from K. & M. Holland GmbH or downloaded from www.kmholland.com

The manufacturer accepts no liability for damage arising from either the use of spare or wearing parts or auxiliary materials not approved by the manufacturer.

2.6 Risks when handling or using the unit

IMPORTANT
Always keep the operating manual at the place of use of the unit! The operating manual must be freely accessible for operators and maintenance personnel.
Furthermore, general and local regulations for the prevention of accidents and environmental protection are to be observed.

When using the unit, risks and adverse effects can arise:

- for the life and limb of the operator or third parties,
- for the unit itself,
- for other material assets.

The basis for safe handling and fault-free operation of this unit is knowledge of the safety and user instructions contained in this manual.

2.7 Technical safety

▶ Before installation, check the unit for visible external damage. Do not commission or operate a damaged unit. A damaged unit can endanger your safety!

WARNING
If the mains connection cable of the unit is damaged, it must be replaced before operating the unit by the manufacturer or your specialist distributor to avoid endangerment.

This unit contains the refrigerant propane (R290). Propane is a colourless combustible gas and belongs to the hydrocarbons. It has a low global warming potential, no ozone depletion potential and serves as a substitute for R12, R22, R134a and other chlorofluorocarbons.

NOTE
According to version, other refrigerants are possible. Please take into consideration the marking on the cooling unit.

In addition to the running noise of the compressor, flow noises can occur in the whole refrigeration circuit. These effects are, unfortunately, unavoidable but have no influence on the performance of the unit.

▶ When transporting and installing the unit, ensure that no part of the refrigeration circuit is damaged.

▶ The power socket must be positioned so that it is outside the machine compartment and freely accessible at all times.

WARNING
Open fire, ignition sources, electrical appliances and anything that can produce sparks or has a hot surface is not permitted inside the cooling cabinet.

WARNING
Under no circumstances place the cooling unit in areas exposed to direct sunlight or heat sources (e.g. cooker, oven). When placing the unit outdoors, ensure that there is sufficient roofing.

2.8 In the event of damage

- Avoid open flames or sources of ignition.
- Pull out the mains plug.
- For a few minutes, ventilate the room in which the unit is placed.
- Inform the customer service.

Safe operation of the unit is guaranteed only if it is installed and connected in accordance with the manual.

It is essential, before connecting the unit, to compare the electrical ratings (voltage and frequency) on the type plate with those of the supply network. It is indispensable that these data are in agreement in order to avoid damage to the unit. In the event of doubt, please contact the customer service.

The unit may not be connected to the mains via extension cables or socket bars since these do not afford the required safety (e.g., danger of overheating).

The electrical safety of the unit is guaranteed only if it is connected to a system with protective earth, installed in accordance with regulations. It is very important that this basic safety requirement is met. In case of doubt, have the mains installation checked by a specialist.

The manufacturer cannot be held responsible for damage arising from a missing or broken earth conductor (e.g., electric shock).

Installation, maintenance and repair work may be carried out only by specialists authorised by the manufacturer. Incorrect installation and maintenance work or repairs can give rise to significant dangers to the user for which the manufacturer is not liable.

Repair of the unit during the guarantee period may be carried out only by a customer service authorised by the manufacturer, e.g., your refrigeration specialist, otherwise the guarantee becomes null and void.

For installation, maintenance and repair work, the unit must be isolated from the mains supply. The unit is only electrically isolated from the mains if one of the following conditions is fulfilled:

- The unit mains plug is pulled out. Do not pull on the connecting cable but on the plug to isolate the unit from the supply.
- The fuse or circuit breaker of the house installation is switched off.

Defective components may be exchanged only for original components (see spare parts list on page 36). Only for these components does the manufacturer guarantee that they meet the safety requirements.

2.9 Correct use

The unit is designed for a particular climate class (SN: ambient temperatures from +10 to +32 °C, humidity up to 75 %).

Leave the doors open only so long as necessary, otherwise the temperature in the cooled space will rise. Too high a temperature leads to an increase in energy consumption, longer compressor run-times or, in extreme cases, the emergency switch-off of the cooling system by safety elements.

Do not cover the air inlet and outlet openings. This will impede a free flow of air. The electricity consumption will rise, and damage to components cannot be excluded.

Do not treat the door seal with oils or greases. With time, this will render the door seal porous.

NOTE
The manufacturer cannot be held responsible for damage arising from the non-observance of the safety guidelines and warnings.

2.10 Residual risks

The unit is manufactured in accordance with the state of the art and the recognised safety rules.

2.11 Responsibility of the operator

The operator should only permit persons to work on the unit if they:

- are familiar with the basic regulations

for safety at work and prevention of accidents,
- have been instructed in the use of the unit,
- have read and understood this operating manual.

The requirements of the EC Directive on the Use of Work Equipment, 2007/30/EC are to be observed.

2.12 Personal protection equipment

For assembly/disassembly of the unit we recommend the following personal protection:
- protective gloves,
- safety shoes.

2.13 Responsibility of the personnel

All persons charged with working on the unit should, before starting work,
- observe the basic regulations for safety at work and prevention of accidents,
- read and observe the safety chapter and safety guidelines in this operating manual.

For open questions, please contact the manufacturer. See page 5.

2.14 Qualification of the personnel

You should have the following work carried out only by specially trained personnel:
- transport to and from,
- commissioning,
- fault-finding and correction,
- setting up and fitting out,
- maintenance,
- disposal/recycling.

2.15 Safety and protection devices

IMPORTANT
The unit is to be operated only connected and in a finished condition, as only then will all safety devices operate.

Description of the safety and protection devices
- protective earthing of all metallic components in the unit,
- illuminated mains switch,
- water drip protection on the outside of the unit,
- overheat protection on the compressor,
- over-current protection switch on the compressor motor,
- finger penetration protection of the fan,
- all fans in ATEX design,
- all components are approved by the manufacturer for flammable refrigerants.

Controls for shut-down in case of emergency
The following are installed on the unit for shut-down in case of emergency:
- mains switch,
- mains plug.

Warning devices
The following warning devices are installed on the unit:
- cooled volume over or under temperature via thermostat available in option.

In the event of faulty safety and protection devices
Faulty safety and protection devices can lead to dangerous situations. In such case:
- immediately switch off the unit,
- secure against switching on again,
- isolate the unit from the electricity supply.

2.16 Machine markings and warning plates

As a warning of residual risks that cannot be eliminated by design, the following are marked on the unit:

- warning signs


General warning sign


Danger – High voltage

Warning – Highly flammable


Warning –
Crush hazard / Mind your hand

- other markings


Disconnect from mains before opening


Do not clean with splash water

- mandatory signs,
- safety instructions,
- type plate with technical data of the cooling unit.

3. Description

3.1 Functional description

The cooling units STFSEIT and STFAUF are intended exclusively for the cooling of packaged goods or goods presenting no hygiene risk in a cooling cabinet with a room temperature of +4 to +20 °C, e.g., as drinks, kegs and/or waste disposal cooler.

The large-capacity refrigerator is internally made of stainless steel and can also be used as a meat storage cabinet.

These cooling units are units of the "SN" climate class, specified for an ambient temperature of +10 to +32 °C.

The units can also be used outdoors. In this case, only those with winter adjustment are suitable. The place of installation must be roofed.

The units operate with a refrigeration loop filled with Propane (R290). According to version, other refrigerants are possible; please check the marking on the cooling unit.

The continuous air circulation maintains a constant temperature and air distribution in the whole cooling cabinet interior.

The unit is controlled by a thermostat that uses the air circulating in the cooled space as measured quantity.

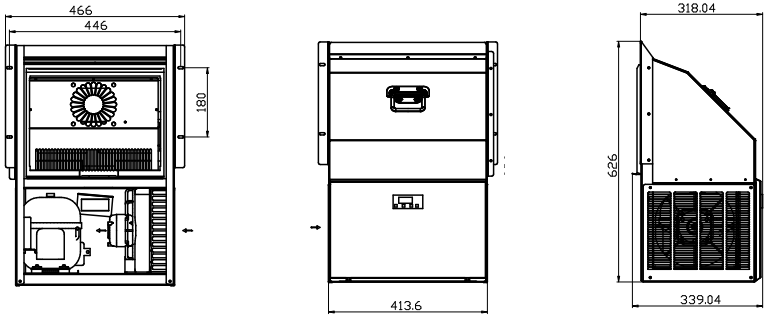
The evaporator is defrosted by switching off the compressor under the cyclical control of thermostats.

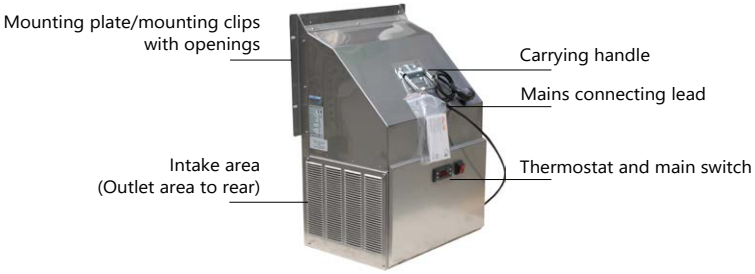
3.2 Technical data, cooling units

	STFSEIT	STFSEIT V	STFAUF	STFAUF V	STFAUF 650V	STFSAT	STFSATV
Cooling power (t_0 = -10 °C)	500 W	575 W	500 W	575 W	675 W	500 W	575 W
Dimensions (W x D x H)	320 x 465 x 615 mm		670 x 420 x 340 mm			670 x 420 x 340 mm	
Opening (W x H)	297 x 367 mm		297 x 367 mm			297 x 367 mm	
Nominal voltage	230 V/50 Hz		230 V/50 Hz			230 V/50 Hz	
Fuse/circuit breaker rating	16 A		16 A			16 A	
Current consumption	1.1 A	1.1 A	1.1 A	1.1 A	1,5 A	0.6 A	0.7 A
Power consumption	250 VA	250 VA	250 VA	250 VA	335 VA	150 W	170 W
Permissible positive operating	21 bar		21 bar			depending on refrigerant	
Refrigerant	Propane (R290)		Propane (R290)			according to version	
Refrigerant quantity	0.08 kg	0.085 kg	0.08 kg	0.085 kg	0.1 kg	---	
CO_2-equivalent	0,000255 t					---	
Operating noise level (from approx. 1 m)	51 dBA		51 dBA			50 dBA	
Weight	27 kg	28.5 kg	27 kg	28.5 kg	30 kg	19 kg	19.5 kg
Electrical protection class	IP20 / IP34*		IP20			IP34	
Climatic class	SN		SN			SN	
Ambient temperature	+10 to +32 °C		+10 to +32 °C			+10 to +32 °C	

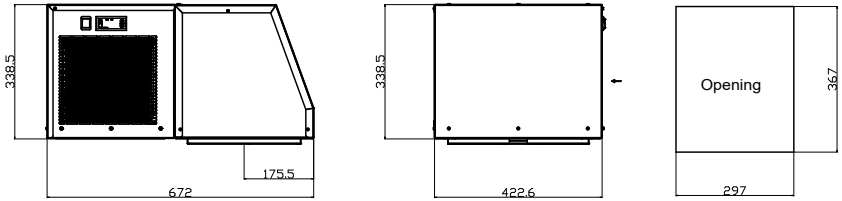
* with correct installation

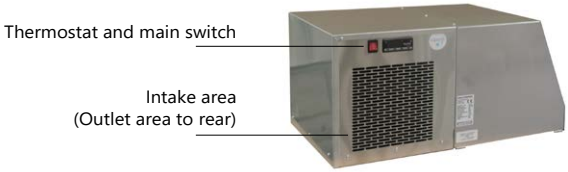
3.3 Drawing, cooling unit STFSEIT



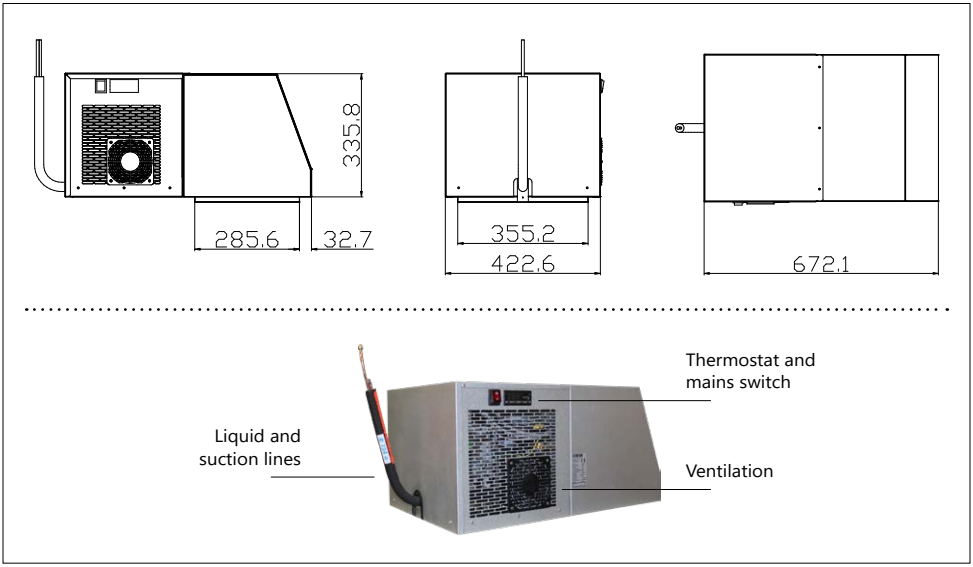


3.4 Drawing, cooling unit STFAUF

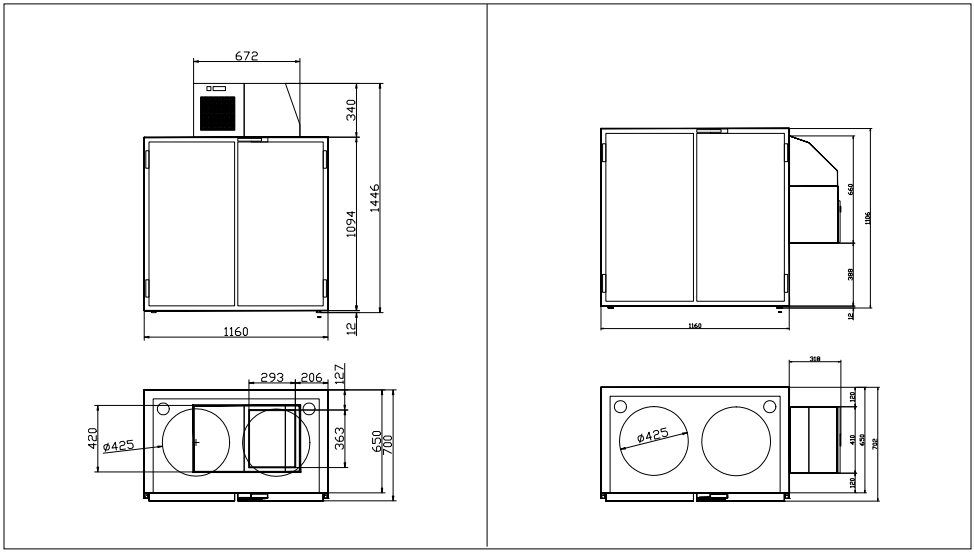




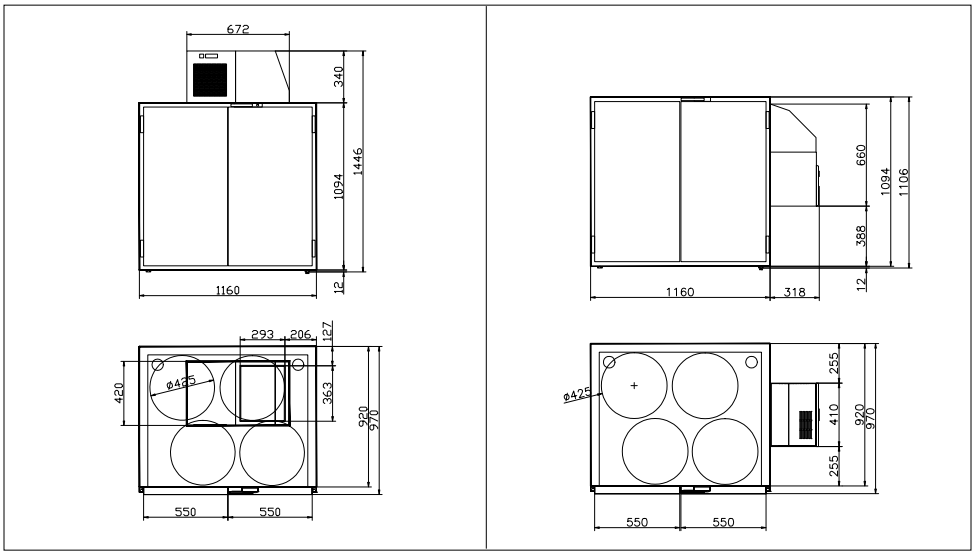
3.5 Drawing, cooling unit STFSAT, for connection to an external cooling system



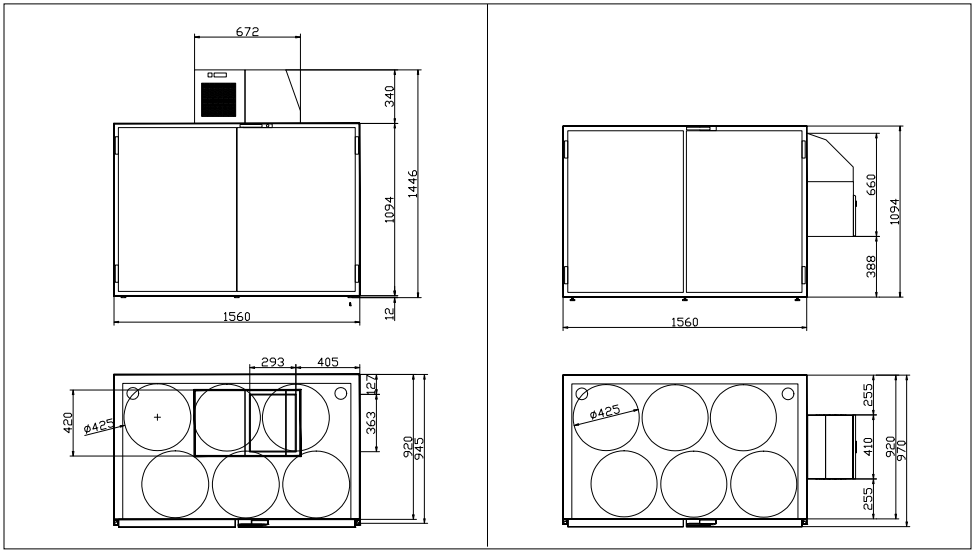
3.6 Drawing, keg cooler (2 kegs) with STFAUF / STFSEIT



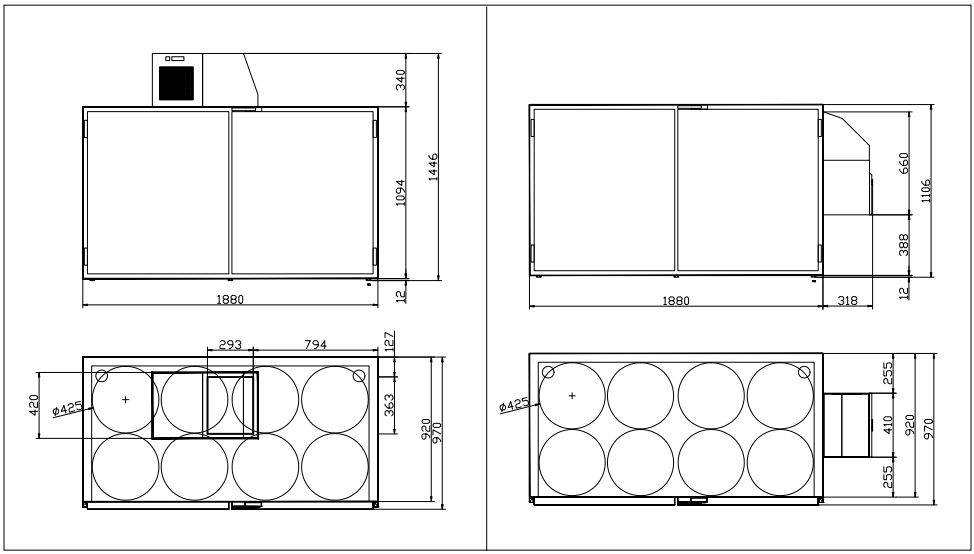
3.7 Drawing, keg cooler (4 kegs) with STFAUF / STFSEIT



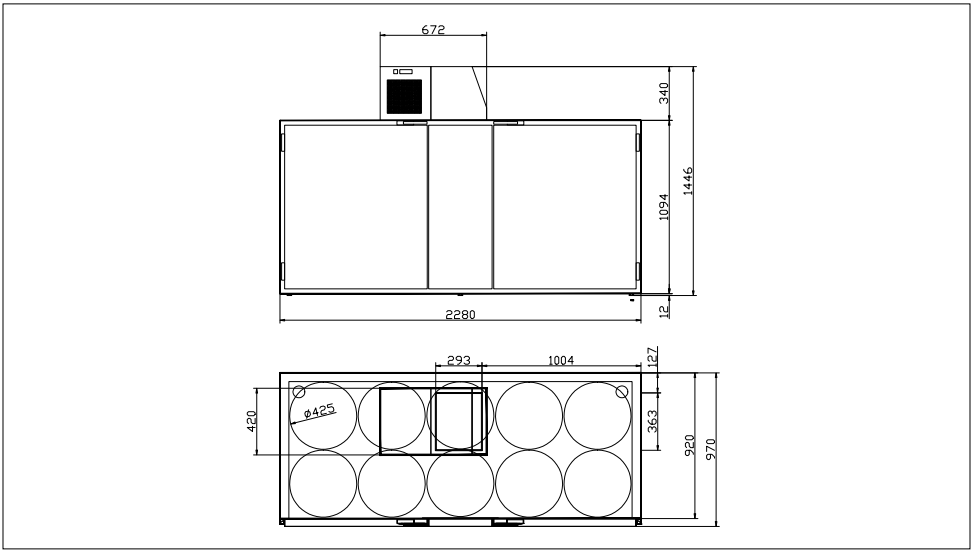
3.8 Drawing, keg cooler (6 kegs) with STFAUF / STFSEIT



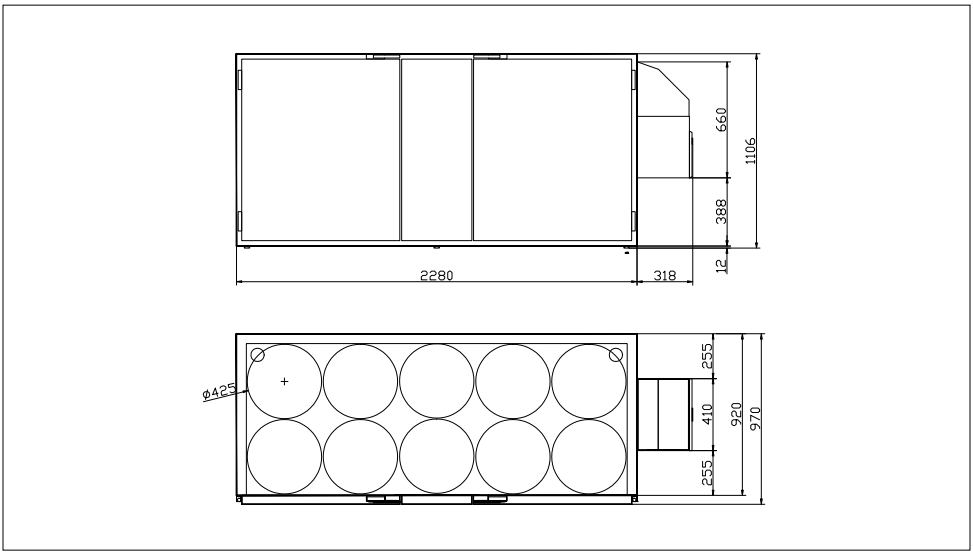
3.9 Drawing, keg cooler (8 kegs) with STFAUF / STFSEIT



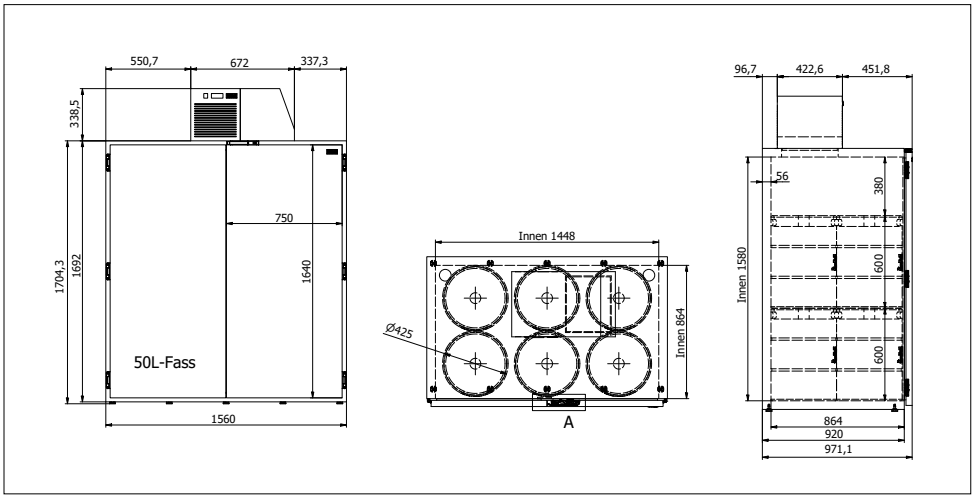
3.10 Drawing, keg cooler (10 kegs) with STFAUF



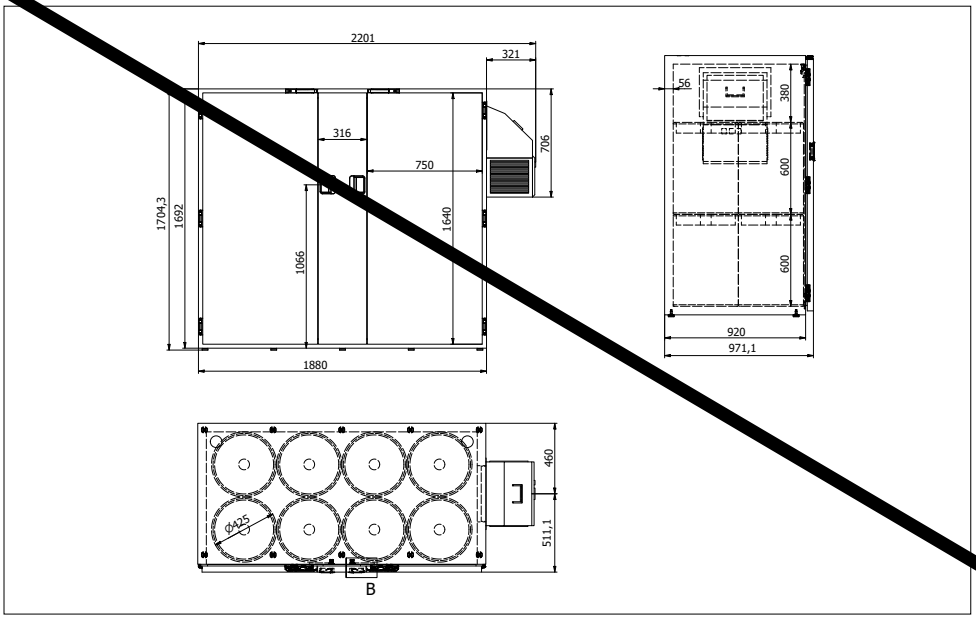
3.11 Drawing, keg cooler (10 kegs) with STFSEIT



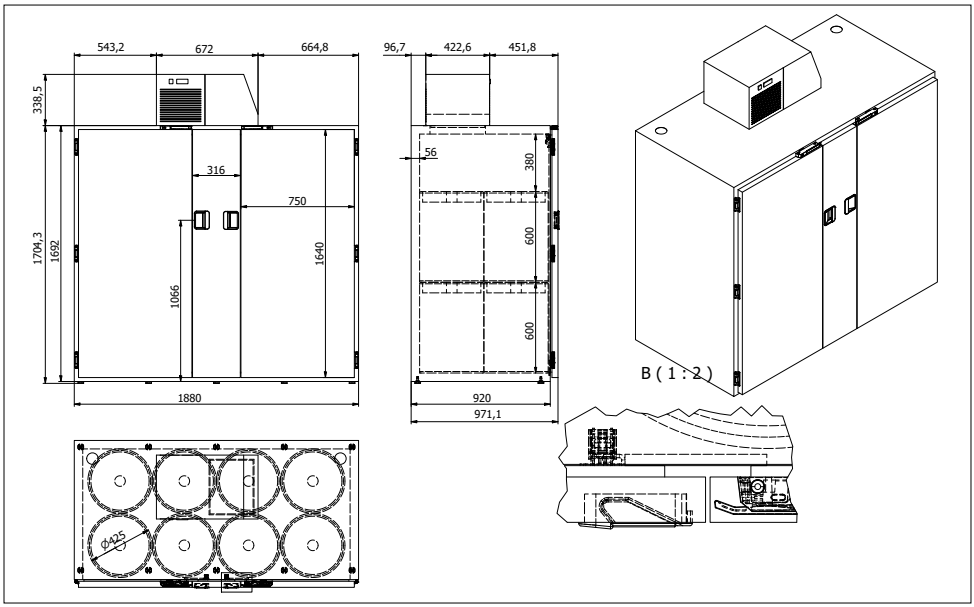
3.12 Drawing, tall keg cooler (6-12 kegs) with STFAUF



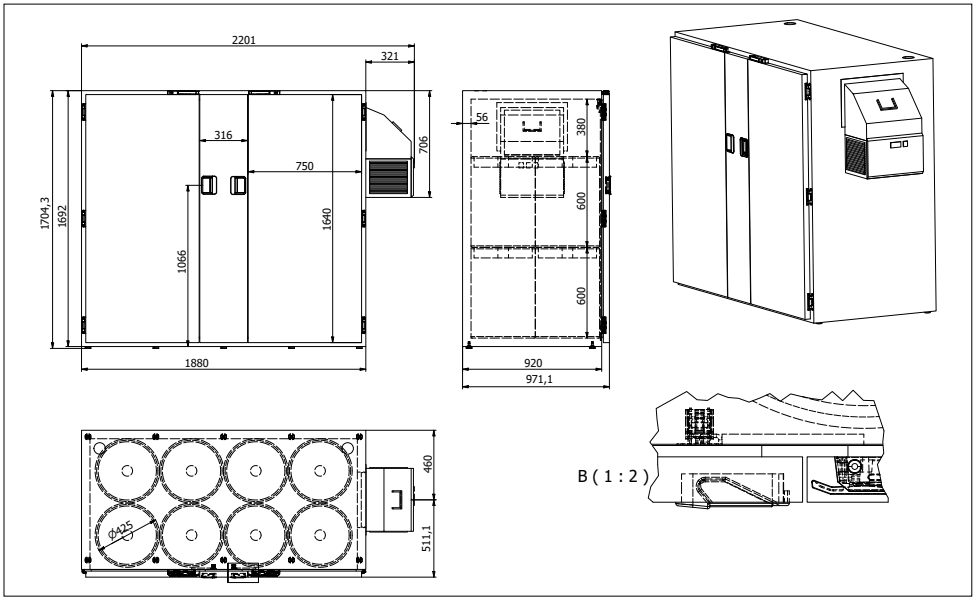
3.13 Drawing, tall keg cooler (6-12 kegs) with STFSEIT



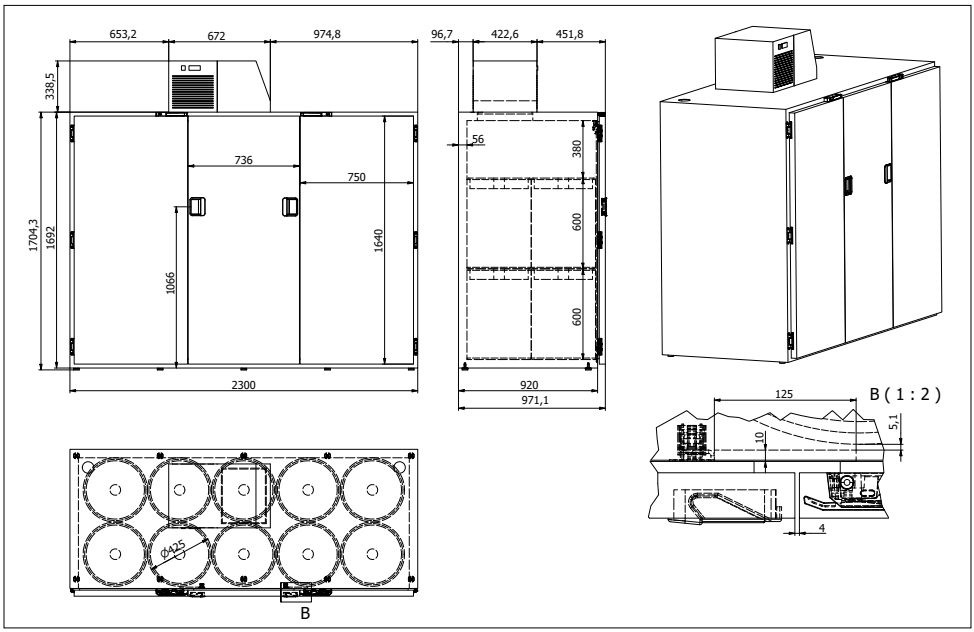
3.14 Drawing, tall keg cooler (8-16 kegs) with STFAUF



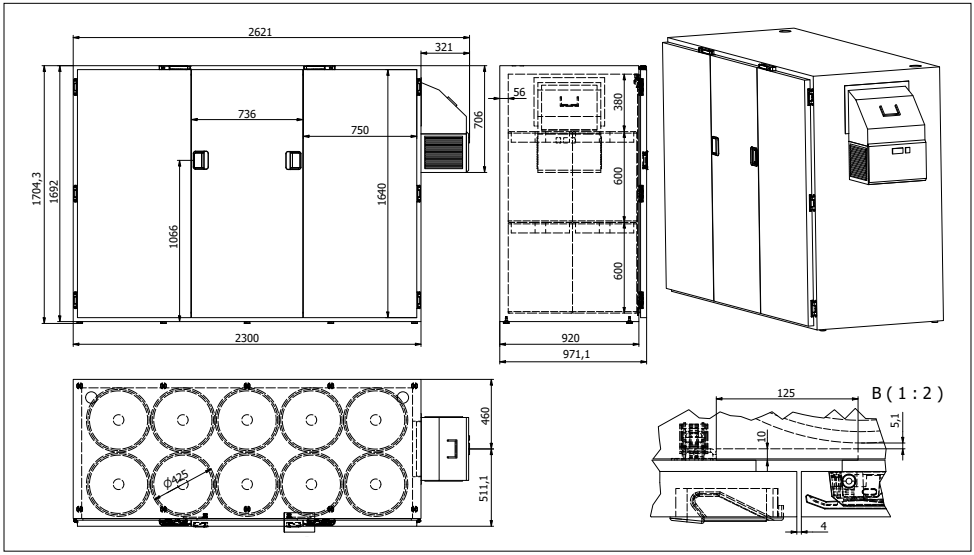
3.15 Drawing, tall keg cooler (8-16 kegs) with STFSEIT



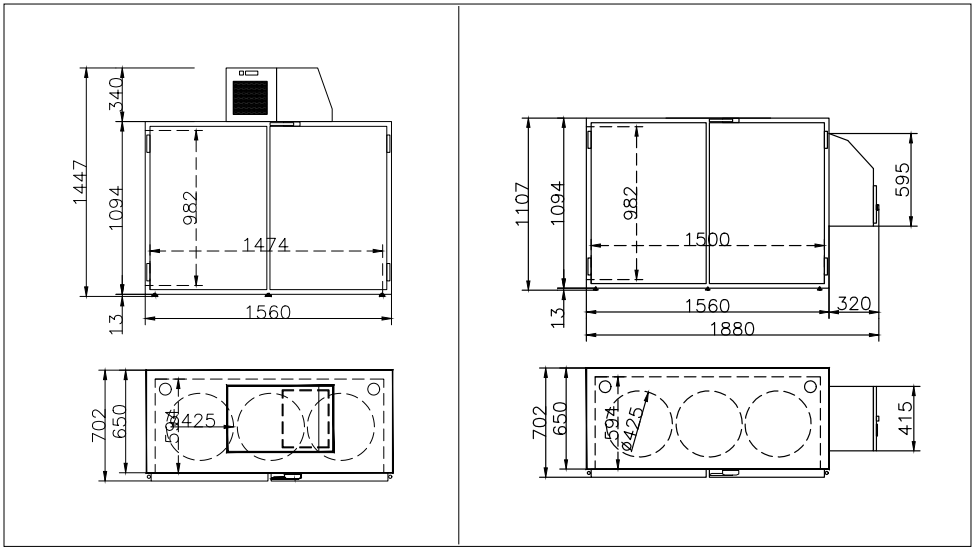
3.16 Drawing, tall keg cooler (10-20 kegs) with STFAUF



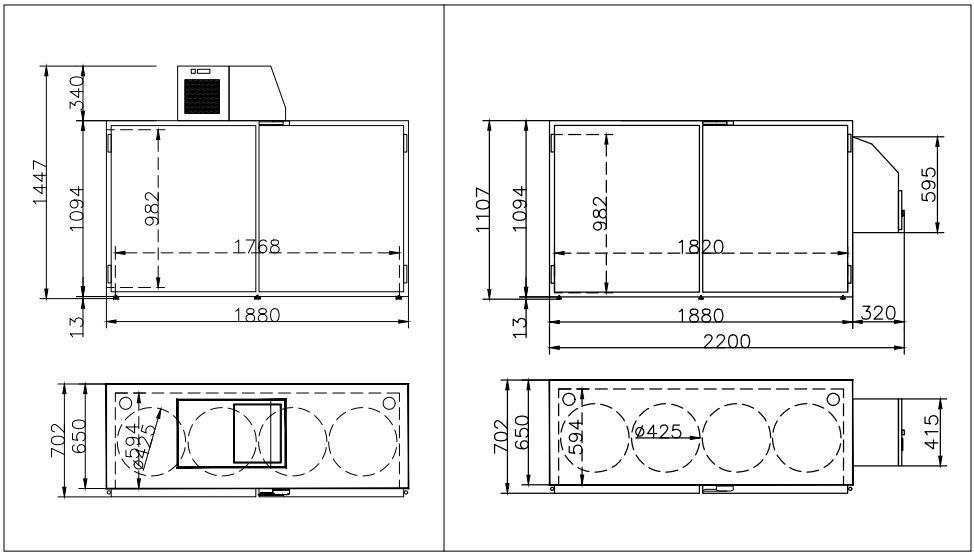
3.17 Drawing, tall keg cooler (10-20 kegs) with STFSEIT



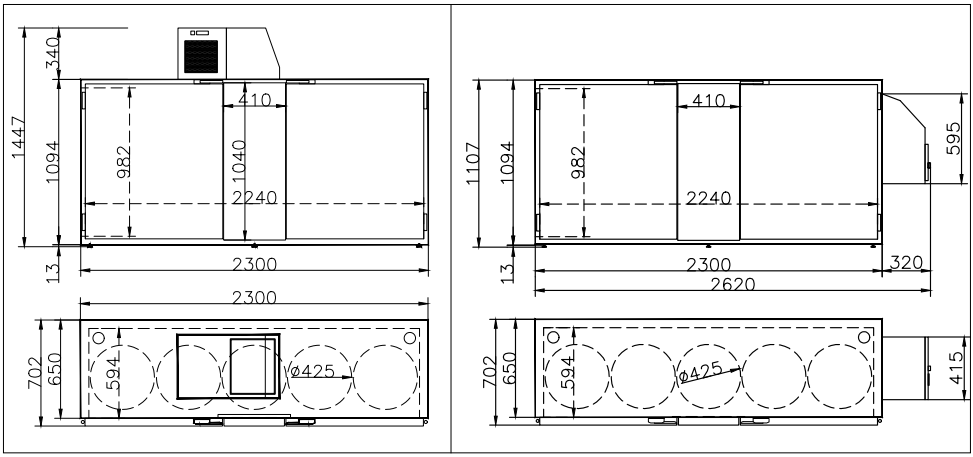
3.18 Drawing, slimline keg cooler (3 kegs) with STFAUF/STFSEIT



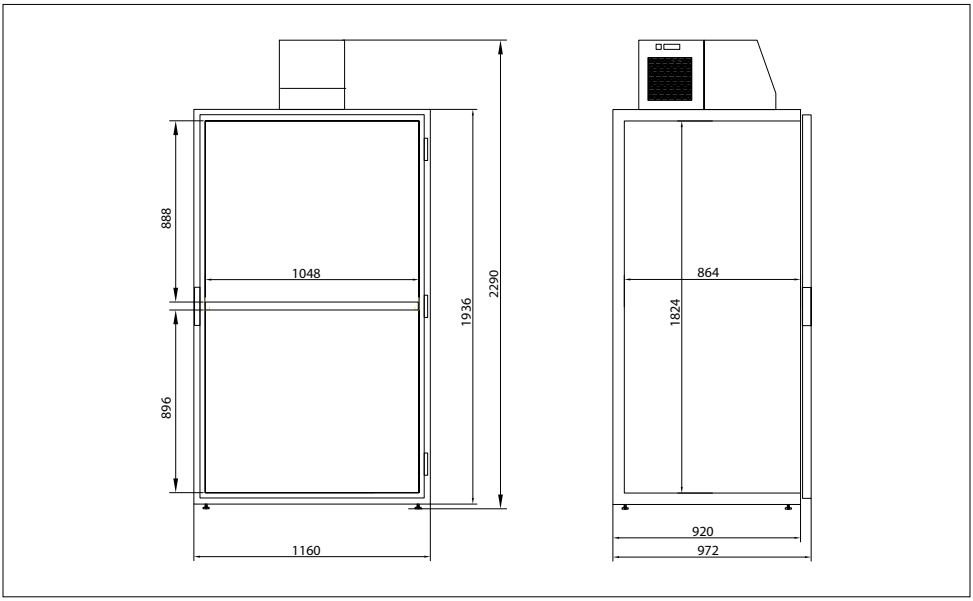
3.19 Drawing, slimline keg cooler (4 kegs) with STFAUF/STFSEIT



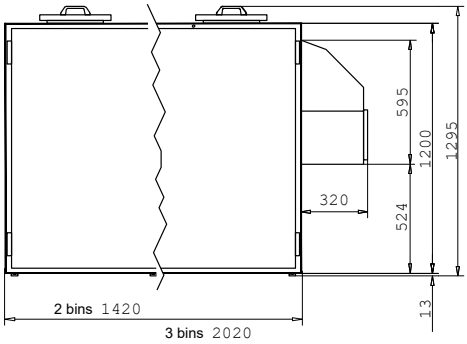
3.20 Drawing, slimline keg cooler (5 kegs) with STFAUF/STFSEIT



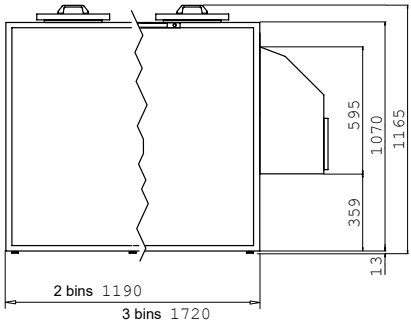
3.21 Drawing, large-capacity refrigerator



3.22 Waste disposal cooler for 240-litre bins



3.23 Waste disposal cooler for 120-litre bins



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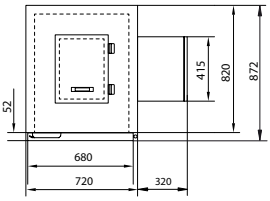

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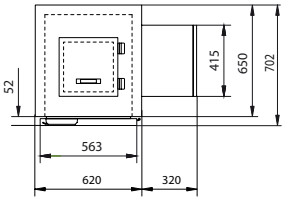

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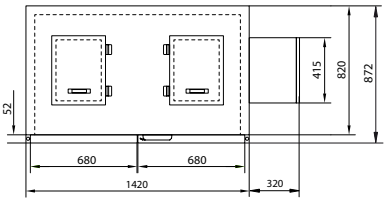
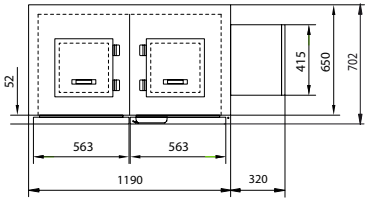
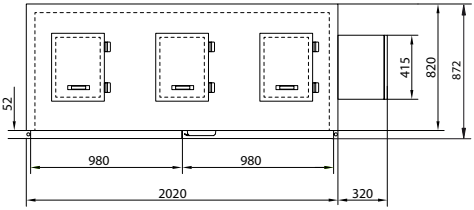


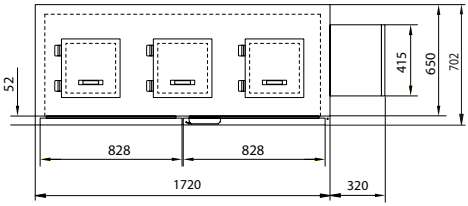
KC1190



KC2020



KC1720



4. Unpacking/Scope of delivery

IMPORTANT
Ensure that the package with the cooling unit is always transported upright as otherwise damage to the refrigeration loop can occur and the functionality of the unit can no longer be guaranteed. It is therefore essential to observe the corresponding markings on the packaging!

The unit is always delivered individually packaged in the carton. In the presence of the delivery driver, check first the packaging and then the unit for visible damage and have this signed off on the spot (with photo if need be). Otherwise, no claim can be made for compensation for damaged goods.

▶ To process damage claims, we need exact details of the defect (photo if need be), the type designation and the manufacturer's serial number.

4.1 Disposal of the transport packaging

▶ Before disposal of the packaging materials, make sure that it contains no loose parts.

The packaging protects the unit from transport damage. The packaging materials are selected from the viewpoints of environmental compatibility and disposability and are therefore recyclable.

4.2 Scope of delivery, cooling units STFSEIT/ STFAUF/STFSAT without cooling cabinet

- Fastening material (only for STFSEIT)
- Operating manual

4.3 Scope of delivery, waste disposal cooler

Waste disposal cooler fully assembled

- Wet cooling cabinet fully assembled, including door(s), waste flap(s) and run-up ramp(s) (depending on model)
- Allen key
- 1, 2 or 3 handles for waste flaps (depending on model)
- Cooling unit STFSEIT
- Fastening material
- 2 keys
- Operating manual

Waste disposal cooler as kit

- Bottom plate
- 4 or 6 feet (depending on model)
- Left side wall with door hinge
- Rear wall
- Right side wall with door hinge and opening for the cooling unit
- Top with waste flap(s)
- Allen key
- 1, 2 or 3 handles for waste flaps (depending on model)
- 1 or 2 doors (depending on model)
- Hinge bolts for mounting the doors
- Cooling unit STFSEIT
- Fastening material
- Round stickers for covering the tightening holes
- 2 keys
- Operating manual

4.4 Scope of delivery, keg cooler

Keg cooler as kit

- Bottom plate
- 6 or 8 feet (depending on model)
- Left side wall with door hinge
- Rear wall
- Left side wall with door hinge
- Top
- Allen key
- 1 or 2 doors (depending on model)
- 1 or 2 blocks (depending on model)
- Hinge bolts for mounting the doors
- Cooling unit STFSEIT or STFAUF (depending on model)
- Air guide plate (depending on model)
- Fastening material
- Round stickers for covering the tightening holes
- 2 or 4 keys (depending on model)
- Operating manual

4.5 Scope of delivery, large-capacity refrigerator

Large-capacity cooling cabinet fully assembled

- Cooling cabinet fully assembled, including door
- shelf grids (depending on model), load capacity ca. 100 kg
- Allen key
- Cooling unit STFAUF
- Operating manual
- 2 keys

Large-capacity cooling cabinet as kit

- Bottom plate
- 4 feet
- Left side wall
- Rear wall
- Right side wall
- Top
- Allen key
- Door
- 3 hinge bolts for mounting the door
- shelf grids (depending on model)
- Cooling unit STFAUF
- Round stickers for covering the tightening holes
- 2 keys
- Operating manual

As a meat storage cabinet, additionally with

- 4 hanger for meat, load capacity ca. 75 kg each
- shelf grid (depending on model), load capacity ca. 100 kg
- drip pan (depending on model)

5. Assembly and connection

The cooling units may only be mounted and assembled in accordance with the manual. Please note that any losses or damages caused by incorrect assembly are not covered by the guarantee!

5.1 Before assembly

WARNING
In rooms smaller than 4 m³ it is recommended to provide a gas warning system. Also in places where propane can accumulate due to poor ventilation, a risk assessment must be carried out on site and, if necessary, adequate ventilation or a gas warning device must be provided. The need for such safety devices must be assessed at installation.

WARNING
Connection of the STFSAT to an external refrigeration system may be carried out only by an authorised refrigeration specialist since, if the work is carried out inexpertly, health and environmental risks cannot be excluded.

IMPORTANT
When choosing where to install the unit, please ensure that the air intake and outlet are completely unobstructed. The air intake and outlet openings must at all times be free and uncovered.

▶ The bottom plate at the place of installation must be even, stable, rigid (not sag under load) and level.

The complete units are supplied with adjustable feet, permitting residual unevenness to be compensated by adjustment with an Allen key.

▶ When setting up, please ensure that the bottom plate or other supporting surface can permanently support the maximum total weight of the unit, including the cooling cabinet.

▶ The temperature of the installation area should lie in the range from +10 to +32 °C (units without winter control) or from -5 to +32 °C (units with winter control). The relative humidity must not exceed 75 %.

▶ Avoid locations subject to direct sunshine and the like. Poorly ventilated areas are not suitable.

WARNING
Hand injuries can be caused by the edges of the mounting tabs on the cooling unit! It is essential to use the carrying handle provided and/or to wear protective gloves.

WARNING
Hand injury possible in the fan area. Please pay attention to the warnings on the cooling unit.

WARNING
Possibility of breathing difficulties/suffocation in the event of escape of refrigerant.

5.2 Mounting

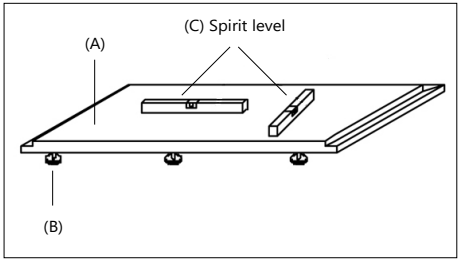
The mounting of the side cooling unit must be carried out by two people; otherwise there is a danger of injury if the cooler slips from the frame.

The clear opening dimensions required for mounting are, for both units, 367 x 297 mm, and it is essential that the opening is completely covered by the cooling unit.

For the electrical connection, a 230 V/50 Hz socket with a fuse or circuit breaker rated at 16 A is required.

5.2.1 Cooling cabinet (if required)

Shown: waste disposal cooler with 2 doors (2 x 240 L, 3 x 240 L), version with side-mounted cooling unit STFSEIT.



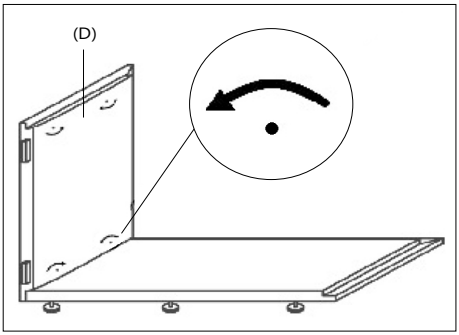
When the package is opened, the bottom plate of the waste disposal cooler (A) lies on top.

1 If need be, screw the adjustable feet (B) into the bottom plate.
The outer screw openings of the adjustable feet in the bottom plate of the waste disposal cooler will later be covered by the side walls.

2 Lay the bottom plate (A) down in the desired final position with the feet (B) downwards.

3 Adjust the bottom plate at its four corners to a level position with a spirit level (C); adjustment range of the feet is 8 to 30 mm.

4 For the larger coolers, please press the foam stoppers and plastic caps provided into the middle holes (D) after adjustment to obtain optimum sealing.



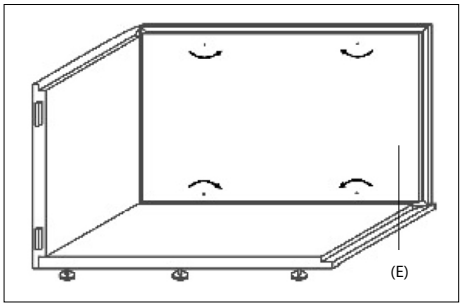
5 Position the side wall (D), ensuring that the adjusting bolts are inserted in the corresponding holes.

IMPORTANT
It is essential that, when tightening the assembly, the quick clamp turn buckles on the insides of the walls are turned with the Allen key in direction of the arrow.

If turned in the opposite direction with force, the mechanism will be destroyed!

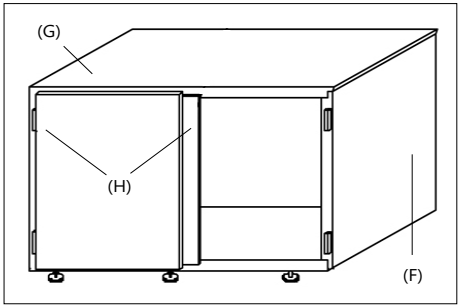
Before assembly, it must be ensured that the closures are in their starting positions! (Starting position of the eccentric: metal bow is loose in its seating).

6 Use the Allen key provided to tighten the two bottom quick fasteners in the direction of the arrow.



7 Position the rear wall (E).

8 Tighten the quick fasteners to the side wall and the bottom plate on the inside using the Allen key – this must be done in the direction of the arrow. Do not, however, tighten the quick fasteners completely!



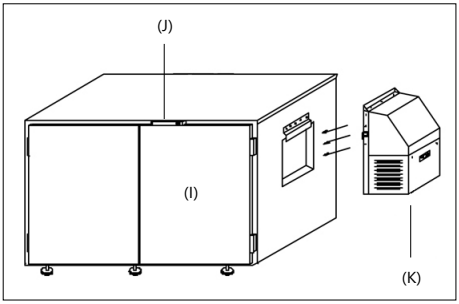
9 Position the second side wall (F) and tighten this, too, in the direction of the arrows! Do not, however, tighten the quick fasteners completely!

10 Lay the top (G) on the cabinet.

11 Now fully tighten all the quick fasteners on the inside.

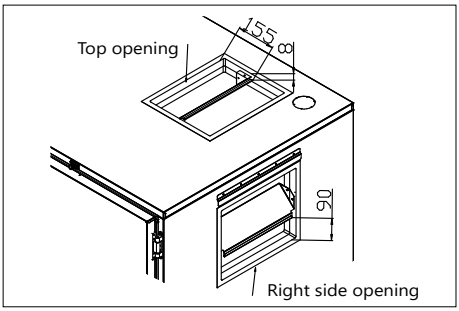
12 To cover the tightening holes, please use the round stickers provided. The glue area must be free from dust and grease.

13 Position the door with the striker bar (H) in the hinges and secure the door with the hinge bolts by hammering them in.



14 Fit the second door (I). The lock (J) must be aligned with its counterpart on the top (block). If necessary, the block position can be adjusted by loosening the fixing screws.

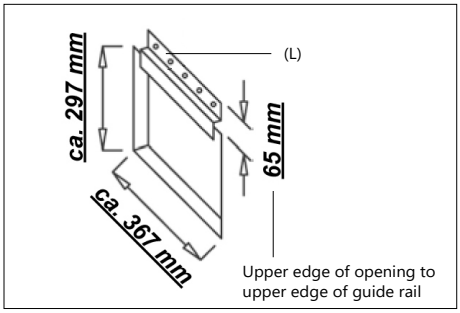
15 For the "8FASS" and "10FASS" keg coolers, it is essential to fit the air deflector plate provided for better air circulation. Mount the air deflector plate in the cooling unit opening exactly as shown in the following drawing.



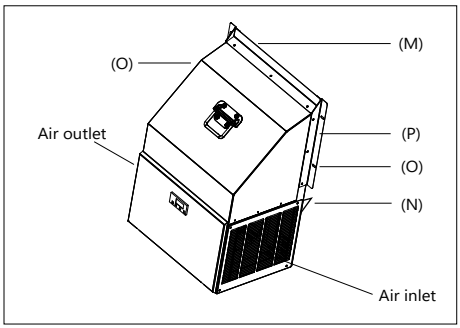
16 Fit the side (K) or top cooling unit as described in the following steps.

5.2.2 Side cooling unit STFSEIT/ STFSAT

1 Strip the protective film off the cooling unit and cooling body.



2 Check that the guide rail (L) has already been factory mounted on the cooling cabinet and, if need be, screw it on as shown in the following sketch.



3 Slightly tilt the cooling unit, slide the upper frame (M) under the guide rail (L) and bring the unit vertically against

4 The seating plate (N) of the front frame must be seated on the opening. The unit is fastened by means of four screws (O) through the height-adjustable mounting plates (P).

5.2.3 Top-mounted cooling unit STFAUF/STFSAT

1 Strip the protective film off the cooling unit and cooling body.

2 Position the unit over the opening (297 x 367 mm) and ensure that the white, foam rubber sealing strip of the cooling unit completely covers the edges of the opening.

3 The cooling unit does not require to be fastened.

WARNING
Before closing the cooling cabinet, always check that no person or other living being is left inside.

6. Commissioning

IMPORTANT
Units that are installed in the open or in unheated areas must be equipped with winter control (oil sump heating).

NOTE
The refrigerant lines of the STFSAT (for connection to an external cooling system) are, as dispatched, filled with nitrogen for leak testing and to avoid corrosion. When the pipes are cut, this flow of escaping gas should be heard.

Before initial use, clean the cooling unit, the cooling cabinet inside and out, and the accessories. For cleaning, use lukewarm water and then wipe everything dry with a cloth.

1 Before commissioning, wipe out the interior with a damp cloth and then wipe dry.

2 Connect the mains plug of the cooling unit to a socket with earth contact, installed in accordance with regulations. The mains voltage must agree with the rating data on the type plate.

3 Turn on at the main switch. The digital thermostat shows the current temperature in the cooling cabinet, and the circulation fan will run continuously. The unit will run until the factory temperature setting of 4 °C is reached.

4 Only for waste disposal coolers: The internally fitted run-up ramp can be folded out for the easy changing of the waste bins.

5 Ensure that the air inlet and outlet are free of obstruction so that the cooling unit can operate correctly.

6 If you do not need the cooling unit for a considerable time, pull out the mains plug. The cooling cabinet doors must be open to avoid odour build-up in the unrefrigerated interior.

7. What to do if...?

... if the unit does not cool?

- Check that the unit is switched on. The temperature display should light up.
- Check that the unit mains plug is properly inserted in the socket.
- Check that voltage is present at the mains socket.

... the frequency with which the cooling unit switches on and the time for which it runs increase?

- Check that the air inlet and outlet openings of the cooling unit are not covered or choked with dirt.
- The cooling cabinet door has been opened frequently or are large quantity of fresh material has been loaded for cooling.
- Check that the cabinet door can be properly closed.
- Check that the door seal is working and correctly seated.

8. Operation

8.1 Requirements for operation

- Unit switched on,
- unit running with factory settings,
- no active error message.

WARNING
The storage of explosives or flammable substances, pressurised containers (spray cans) or other dangerous materials in the waste cooler is not permitted.

IMPORTANT
If you do not need the cooling unit for a considerable time, pull out the mains plug. It is essential, in this case, that the cooling cabinet doors are left open to prevent odour build-up in the unrefrigerated interior.

8.2 Defrosting

Defrosting takes place fully automatically every two hours. The cooling unit stops running for about 12 minutes. The digital display of the thermostat changes to "dfr" (eliwell) or "dEF" (LAE).

The display switches back to temperature indication if either the adjusted cooling cabinet temperature is reached or 10 minutes have passed.

During defrost, the interior temperature may rise slightly, especially if, during this time, the cooling cabinet is opened. This will, however, have little influence on the core temperature of the material being cooled.

8.3 Defrost water

The defrost water from the evaporator is led into the defrost water evaporation bowl heated by the hot gas and there evaporated. The evaporation capacity is matched to normal central European ambient temperature and humidity.

IMPORTANT
In the event of extreme defrost water quantities due to high humidity or excessive air exchange in the cooled space, a direct defrost drain must be installed!

9. Controls and indicators

Installed on your cooling unit is either a LAE AT1-5 or an eliwell EWNext 974 thermostat that should guarantee you optimum temperature and security.

The thermostat is pre-programmed, reprogramming and/or repairs may be carried out only by specialists.

IMPORTANT
If any fault should arise in the cooling unit or the thermostat, please read chapter 11 on page 30.

9.1 Digital thermostat LAE AT1-5 for cooling units without winter control

Display indications

In normal operation, the display shows the measured temperature or one of the following values:

DEF	Defrosting in progress
HI	Temperature in the cooler too high
REC	Re-establishing set temperature after defrost
LO	Temperature in the cooler too low
OFF	Thermostat in stand-by mode
E1	Defect in T1 sensor/probe
CL	Condenser needs cleaning
E2	Defect in T2 sensor/probe
DO	Door open alarm

Changing temperature setting

1 Press & hold the i button ⇨ temperature value will be shown.
2 With the ▼ or ▲ M button, change the temperature.
3 To quit the menu, wait 10 seconds.

Activate/de-activate key-pad lock

1 Press the i button briefly ⇨ Ł will be shown.
2 Press ▼ once ⇨ LOC will be shown.
3 Press and hold the i button. To activate/de-activate, press the ▼ or ▲ M button until the thermostat indicates YES or NO ⇨ keypad lock respectively activated or de-activated.

Turn thermostat on/off

1 Hold the ✕ ⏻ button pressed for at least 3 seconds ⇨ thermostat switches to ON (normal operation).
2 To switch off, use the ✕ ⏻ button (hold for 3 seconds).

Manual defrost

1 Hold the ▼ button pressed for at least 2 seconds ⇨ thermostat starts defrost.

9.2 Digital thermostat eliwell EWNext for cooling units with winter control

EWNext 974 is a microprocessor-based digital instrument for the control of cooling stations that is especially suitable for applications on static units with low or normal temperature.

Changing temperature setting

1 Press the **set** button twice ⇨ temperature setting will be shown.
2 To change the setting, within 15 seconds press the ▽ or △ button.

Activate/de-activate key-pad lock

1 Press the ▽ button for at least 3 seconds until the label „UnL“ is displayed.

NOTE
Detailed operating manuals and descriptions of the digital thermostats can be downloaded from ***www.kmholland.com***.

10. Maintenance and cleaning

In the following you will find information on cleaning and fault-finding in the unit. Regular service in accordance with the service schedule is essential to the efficient use of the unit.

▸ We recommend that you conclude a service contract with your refrigeration specialist. This will also enable your refrigeration system to be optimally adjusted to the local conditions (e.g., re-programming of the thermostat if need be).

If you require various wearing or spare parts, please also contact your specialist distributor.

DANGER
On the "STFSAT" and "STFSEIT" cooling units, there is a risk of burns from the defrost water bowl and the heating element when the cover is open.

NOTE
Some of the above-named work is very dependent on the use and ambient conditions. The cycles stated below are minimum requirements. In individual cases, the maintenance cycles may differ.

In such cases, instruct the operating personnel appropriately.

NOTE
An additional cover inside the cooling cabinet serves as a splash guard. This cover protects the relevant electrical parts from water and allows cleaning with a high pressure cleaner.

10.1 Before cleaning

1 Remove the cooled goods from the cooling cabinet and store them in a suitable place.

2 For cleaning, take out all parts that can be removed.

10.2 Cleaning unit

Clean the cooling unit and the cooling cabinet at least every 4 weeks. The operating personnel can carry out this work after being suitably instructed.

IMPORTANT
For cleaning, lukewarm water with a little washing-up liquid is suitable.

Never use cleaning agents containing sand, scouring agents, soda, acid or chlorides or chemical solvents.

1 Switch off the cooling unit at the main switch. There is no need to pull out the mains plug.

2 Clean the outside of the cooling unit and the cooling cabinet inside and out with lukewarm water (a small amount of washing up liquid can be added), rinse with clear water and dry well with a cloth.

3 Clean the air inlet and outlet openings of the cooling unit with a hand brush.

4 Clean the door seal(s) of the cooling cabinet regularly with clear water and then dry thoroughly with a cloth. Do not treat the door seal with oils or greases. Otherwise, it will slowly become porous.

5 The condenser should be thoroughly cleaned and checked annually by a specialist company.

The door seal can be obtained from the Customer Service (see spare parts list on page 36). Recommendation: regular treatment with talcum powder can prolong the service life of the door seal.

11. Fault finding and correction

If any fault should occur, please first use the following table to check that you have followed all the instructions and advice in this operating manual. A minor detail may be the cause.

DANGER
Whenever working on the cooling unit, the mains connection must be isolated and secured!

11.1 Possible faults

The following summary gives information on faults, their causes and correction.

Fault/Indication	Possible cause	Possible cure
No temperature indication	No voltage at mains plug	Establish mains contact. Fuses/circuit breakers may need checking
Thermostat indicates "dfr" (eliwell) or "DEF" (LAE)	Unit is in defrost phase	Wait for end of defrost phase (max. 15 min). Have length and frequency of defrost corrected by a specialist on the thermostat
Thermostat indicates "REC" (LAE only)	Return to set value after defrost	Wait for end of return to temperature phase
Thermostat indicates "E1"	Fault on temperature sensor/probe	Check contacts on rear of thermostat (specialist electrical knowledge required!)
		Change sensor/probe (specialist electrical knowledge required!)
Temperature in cooled space too low	Setting error on thermostat	Correct thermostat setting

Temperature in cooled space too high	Setting error on thermostat	Correct thermostat setting
	Inadequate ventilation of condenser	Have condenser checked, cleaned if need be (first pull out mains plug!)
	Door seal leaky	Change door seal
	Cooling system defective	Repair by specialist
	Doors or slides standing open too long	Avoid unnecessarily long open times
	Too much icing on evaporator	Have defrost interval or duration corrected (specialist electrical knowledge required!)
		Remove any cooled material that is wet and insufficiently covered

In the event of faults not covered in this table:
- inform trained service personnel,
- if need be, inform your specialist distributor.

WARNING
Please do not try yourself to correct a fault that is not covered in the table. This can make the damage greater and – to the extent that electrified parts are involved – an intervention can be dangerous.

12. Energy savings and care of the environment

▸ A dirt-clogged condenser leads to higher energy consumption. Clean this as described under "Cleaning".

▸ High room temperatures, direct sunlight or installation near a source of heat (cooker, heating) increase the energy consumption.

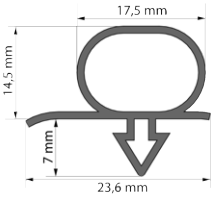
▸ Open the cooling cabinet doors or slide only for as long as necessary.

▸ As a part of regular servicing, have the condition of your door seals checked.

▸ The lower the temperature inside the cooling cabinet, the higher the energy consumption!

13. Wearing and spare parts list

This is only in excerpt of the spare parts list. Go to www.kmholland.com/downloads/price-lists to download the entire spare parts list.



14.1 Seals

▸ Easily changed, large volume, Hollow-chamber press-on seal in PVC; ▸ Colour: RAL7001 silver-grey

Keg cooler		**Art. No.**
Seal T2/4FASS-H1110	550 mm x 1040 mm	45-301-010
Seal T6FASS-H1110	750 mm x 1040 mm	45-301-012
Seal T8/10FASS-H1110	910 mm x 1040 mm	45-301-013
Waste disposal cooler		
Seal KC690/1190	563 mm x 1020 mm	45-301-106
Seal KC720/1420	680 mm x 1150 mm	45-301-101
Seal KC1560	732 mm x 1132 mm	45-301-100
Seal KC1720	828 mm x 1020 mm	45-301-107
Seal KC2020	980 mm x 1150 mm	45-301-102
Seal 620/1190/1720 (KC flap)	342 mm x 342 mm	45-301-120
Seal Z500E (KC flap)	440 mm x 342 mm	45-301-500
Large-capacity refrigerator		
Seal GKR	1104 mm x 1886 mm	45-301-200

14.2 Spare parts

Edge closure for door, silver anodised Al	50-102-111
Block, adjustable, for door and slide	43-300-110
Key HRS 6188/6189, closure 1001	28-002-089
Handle plastic, black, for flap on waste disposal cooler	46-020-003
FATH system hinge, click function, screw cover	50-203-200
Screw-on strip BSW 2008, brown	50-203-000
Electronic temperature controller AT1, with probe 2m	32-106-000
Axial fan	33-306-039
Bottom plate levelling screw	47-103-000

To be ordered through your specialist distributor.

14. Requirements for de-installation, recovery and recycling

Our cooling units do not correspond to 100% to the regenerative system „Circular Economy", but we come close to this.

IMPORTANT
De-installation of the STFSAT (external refrigeration system) may be carried out only by a company certified to handle refrigerants (in accordance with § 5 of the Chemical Climate Protection Order).

1 Switch off the unit.
2 Pull out the mains plug, roll up the supply cable and fasten it securely to the unit.
3 De-installation and transport should be carried out in the reverse order of installation, see chapter 5.
4 Secure the doors against closing.
5 For final decommissioning, the refrigerant propane (R290) must be disposed of by the refrigeration company in accordance with the applicable disposal guidelines.

Disposal of the old unit
If your refrigeration unit should be disposed of, please do so only after consulting a refrigeration technician. The refrigerant used in the cooling unit should only be disposed of by a competent specialist. Ignorant work with propane (R290) can lead to dangerous accidents, as this refrigerant is flammable and, with the correct gas-air mixture, also tends to deflagrate.

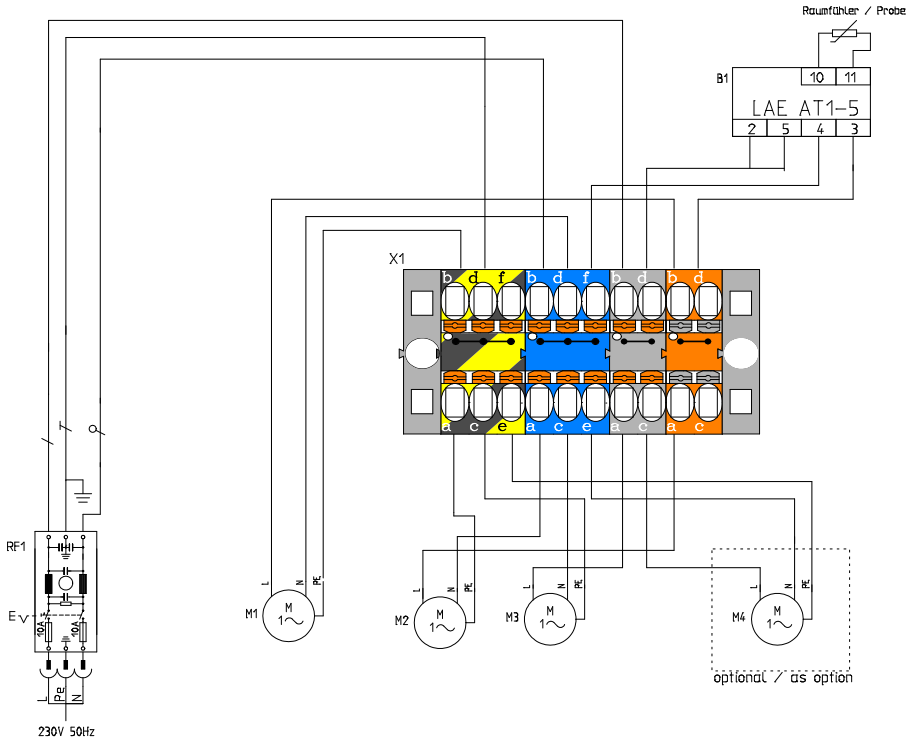
It is best to contact a refrigeration company that disposes of the refrigerant. The rest can then be disposed of by a hazardous waste disposal company.

Please ensure that, until taken away, your waste unit is stored out of reach of children. For more information, see the operating manual, chapter "Safety Guidelines and Warnings" on page 5.

NOTE
For any open questions on disposal/recycling, please contact the manufacturer!

15. Circuit diagrams

15.1 Circuit diagram (LAE) for cooling units WITHOUT winter control

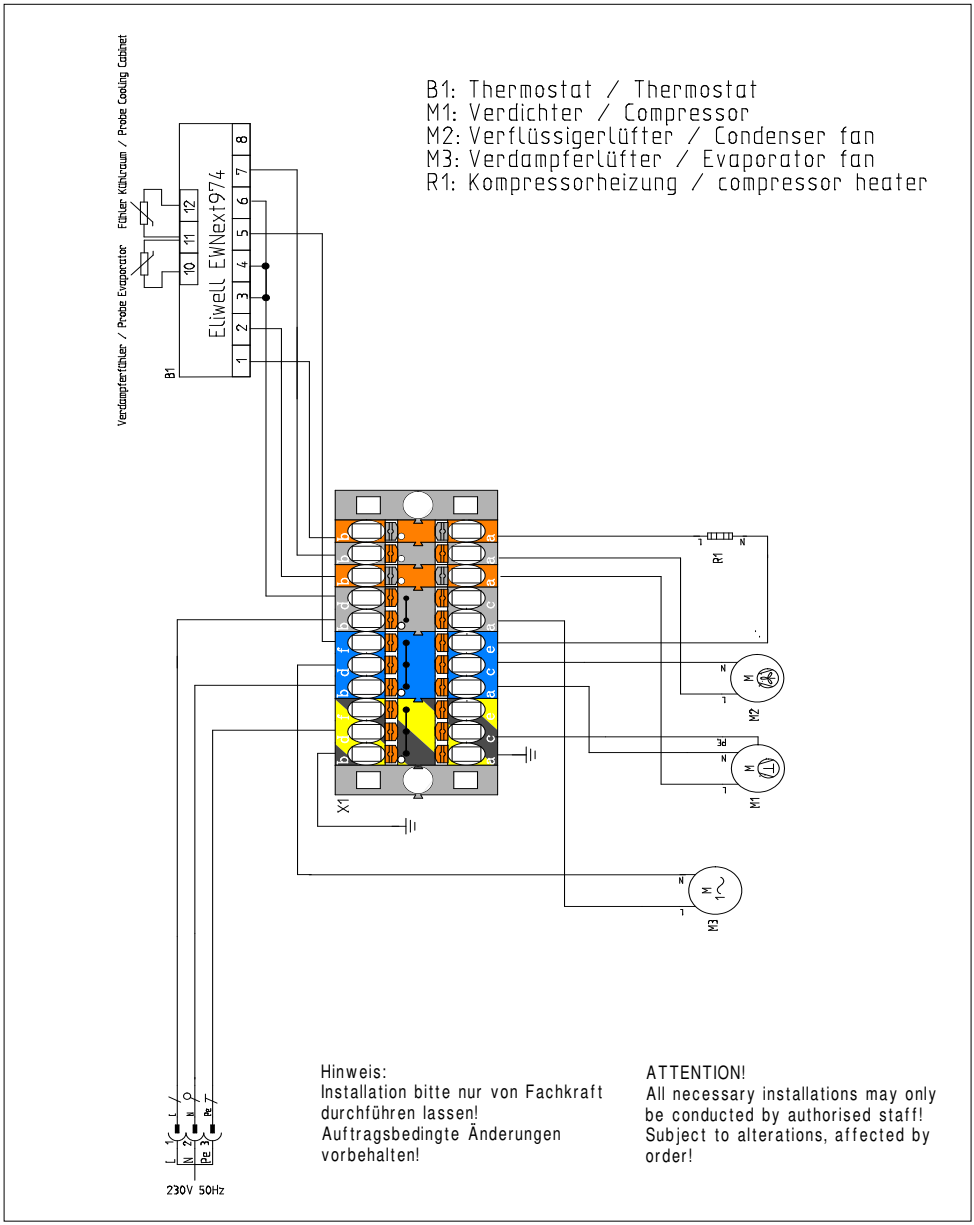


RF1: Sicherungen, Schalter, Netzfilter / fuse, switch, mains filter
B1: Thermostat / Thermostat
M1: Verdichter / Compressor
M2: Verflüssgerlüfter / Condenser fan
M3: Verdamfperlüfter / Evaporator fan
M4: Verdampferlüfter 2 (optional) / Evporator fan 2 (as option)

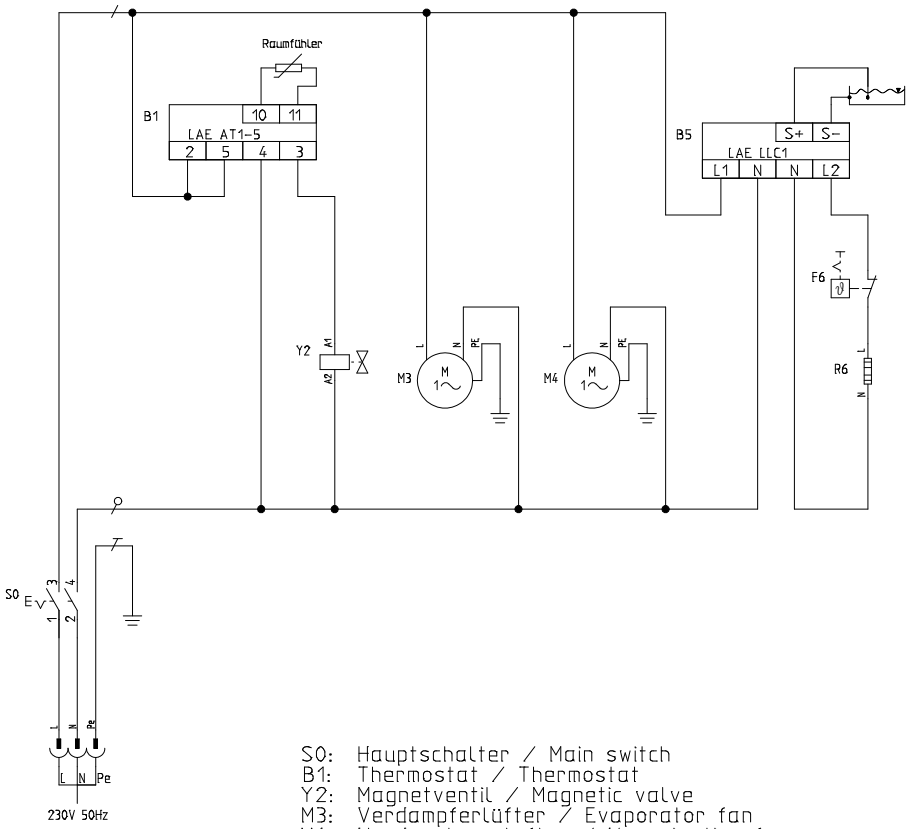
Hinweis:
Installation bitte nur von Fachkraft durchführen lassen!
Auftragsbedingte Änderungen vorbehalten!

ATTENTION!
All necessary installations may only be conducted by authorised staff!
Subject to alterations, affected by order!

15.2 Circuit diagram (eliwell EWNext 974) for cooling units WITH winter control



15.3 Circuit diagram, cooling unit STFSAT, for connection to an external cooling system



S0: Hauptschalter / Main switch
B1: Thermostat / Thermostat
Y2: Magnetventil / Magnetic valve
M3: Verdampferlüfter / Evaporator fan
M4: Verdunstungslüfter / Vaporization fan
B5: Füllstandsregler / Water level controller
F6: Sicherheitsthermostat / Security thermostat
R6: Verdunstungsheizung / Vaporization heating

Achtung:

Sicherheitsthermostat F6 löst bei Überschreiten der zulässigen Temperatur (55°C) aus und darf nur vom Fachmann wieder zurück gestellt werden.
Dazu muss das Gerät allpolig vom Netz getrennt sein, und die Auslöseursache muss geklärt sein.