



V3 VAULTZ

Technische Daten V1



TECHNICAL DATA

V3 VAULTZ

V03 | 13.08.2026

V03 | 13.08.2026

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TECHNICAL DATA V3 VAULTZ

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Sundern, August 13, 2026, Version 03

1. Base components

- Machine part, including machine housing, designed as a cascade refrigeration unit, air-cooled (alternatively water-cooled)
- Electrical control cabinet, machine
- Electrical control cabinet, cell
- Special evaporator in the anteroom
- Special evaporator in the treatment room
- Cell combination TYPE ISO 160 in its three-room version
- Emergency door
- Service router with interface for remote monitoring
- Camera in the treatment room
- Music playback in the treatment room
- Intercom system
- Control panel and optional operating options
- Handrail in the treatment room

2. Technical specifications

2.1 Cascade refrigeration unit, air-cooled; alternatively water-cooled

- Highly efficient machine design
- Special heat-resistant and pressure-resistant heat exchanger plates as cascade intermediate coolers
- Additional pre-heaters to reduce the temperature of hot gas
- Control via electronic expansion valves
- Highly efficient oil management system
- All necessary and relevant safety components for monitoring and shutting down individual components for maintenance-friendly operation of the system

Cooling capacity:	6,9 kW
Number of refrigeration circuits:	3 units

Refrigerants:

- | | |
|---|---------|
| 1. Stage for the cooling of the 1st anteroom and condensation of the 2nd stage of cascade | R 449 A |
|---|---------|

2. Stage for the cooling of the 2nd anteroom and condensation of the 3rd stage of cascade	R 23
3rd stage for the cooling of treatment room	R 14
Width approx.:	2,400 mm
Depth approx.:	800 mm
Height approx.:	2,000 mm
Weight approx.:	1,360kg
Ambient conditions:	
Max. ambient temperature:	5/25 °C
Sound pressure level at a distance of 3 meters:	72 dB (A)
Blow-off line cold:	1"/ min.PN 30bar (28 mm CU pipe)
Blow-off line water:	¾"/ min.PN 10bar (fabric hose/CU pipe)

Adequate ventilation and, if necessary, air conditioning of the machine room must be provided.

2.2 Electrical control cabinet, machine

Back-up fuse max.:	63 A
Maximum operating current at operating point*:	47.0 A
RCD installed:	Type A / 30 mA
Total connected load at operating point*:	23 kW
Electrical connection value:	3Ph/N/PE 400 V 50 Hz 63 A
Electrical system type:	TN - Network / TNC Network**
Control unit:	Siemens PLC S71200
Cabinet:	Rittal
Relays / contactors:	Weidmüller / Siemens
Circuit breaker:	ABB
Main switch:	ABB
System test:	according to DIN-EN 60204
Width approx.:	800 mm
Depth approx.:	400 mm
Height approx.:	2,000 mm
Weight approx.:	167 kg

*The operating point is an empirically determined value, which can vary due to various external effects.

**If a residual current circuit breaker is used, it must be designed to be sensitive to universal current.

2.3 Electrical control cabinet, cell

The electrical control cabinet for the cell is powered via the electrical control cabinet for the machine. No power supply by the client necessary.

Cable routes from the machine electrical control cabinet to the cell electrical control cabinet are required.

Control unit:	Siemens PLC S7-1200<
Cabinet:	Rittal
Relays / contactors:	Weidmüller / Siemens
Circuit breaker:	ABB
Main switch:	ABB
System test:	according to DIN-EN 60204-1
Width approx.:	1,000 mm
Depth approx.:	400 mm
Height approx.:	2,000 mm
Weight approx.:	200 - 243 kg

2.4 Special evaporator in anteroom 1 and 2

- Evaporator designed specifically for wall or ceiling mounting
- Evaporator block soldered with silver solder
- Evaporator core tubes internally finned
- Fan specifically designed for low temperature applications
- Electric defrost incl. safety shut-down

2.5 Special evaporator in the treatment room

- Evaporator specifically designed for low temperature applications and wall mounting
- Evaporator block soldered with silver solder
- Evaporator core tubes internally finned
- Fan specifically designed for low temperature applications

- Electric defrost incl. safety shut-down
- 3 pcs of special external fan motors with internal blades. Adjustable, to set the air speed.

2.6 Cell combination TYPE ISO 150/160

Insulation:	150 mm / 160 mm rigid polyurethane foam Foamed free of CFCs/HCFCs
Surface:	Sheet metal, galvanized on the inside and the outside, plastic coated
Pressure compensation:	6 pcs of pressure compensation valves, of which 4 with increased heating
Floor:	0,8 mm stainless steel floor manufactured as a bottom tray. Slip resistance class 11 load capacity 20 kN/m ²
Lighting:	given in every room

Exterior dimensions:

Width approx.:	6,000 mm
Depth approx.:	2,400 mm
Height approx.:	2,550 mm
Weight approx.:	2,050 kg

OR:

Exterior dimensions:

Width approx.:	6,000 mm
Depth approx.:	2,100 mm
Height approx.:	2,800 mm
Weight approx.:	2,150 kg

Other external dimensions are available on request at extra charge.

At least 50 cm of space behind the cell is required for setting up the cell. If there is not enough space behind the cell, at least 50 cm is required above the cell.

The colour is similar to RAL 9010 on the inside and RAL 9006 on the outside, other RAL colours are possible, on request.

Environmental specifications:

Temperature range:	18-23 °C
Rel. air humidity, max.:	50 %

All joint seals on the cell, windows, doors and elements serve as a maintenance joint.

During the production of the cell elements it may occur outgassing in the foam, which can occur bubbles in the single cell elements. We exclude any warranty, because this is only an optical and not a technical defect.

2.6.1 All-glass entrance door

Type: DIN left or right Insulating glass door with frame

Door dimensions approx. 926 x 2,045 mm (W x H)

Internal door dimensions approx.: 869 x 1,991 mm (W x H)

- Circumferential magnetic seal
- Natural anodised aluminium frame with heating
- Continuous handle rail
- Heated triple glazing

2.6.2 Intermediate door 1

Type: DIN left or right

Internal door dimensions approx.: 900 x 1,900 mm (W x H)

- Intermediate door, single-leaf
- Temperature range -10 °C/-60 °C
- Foamed CFC-free, galvanized sheet steel similar to RAL 9010
- Designer handles for opening and closing, powder-coated, similar to RAL 9010
- Circumferential EPDM gasket sealing the frame
- Stainless steel door frame with special frame heating to prevent accumulation of ice
- Maintenance-free hinges and door clamps with aluminium rollers

2.6.3 Intermediate door 2

Type: DIN left or right

Internal door dimensions approx.: 900 x 1,900 mm (W x H)

- Intermediate door, single-leaf
- Temperature range -60 °C/-110 °C
- Foamed CFC-free, galvanized sheet steel similar to RAL 9010
- Designer handles for opening and closing, powder-coated, similar to RAL 9010
- Circumferential EPDM gasket sealing the frame
- Stainless steel door frame with special frame heating to prevent accumulation of ice
- Maintenance-free hinges and door clamps with aluminium rollers

2.6.4 Emergency door

Type:	DIN left or right
Door dimensions approx.	95 x 2,077 mm (W x H)
Internal door dimensions approx.:	869 x 1,992 mm (W x H)

- Temperature range -110 °C/+25 °C
- Foamed CFC-free, galvanized sheet steel similar to RAL 9010
- Designer handles for opening and closing, powder-coated, similar to RAL 9010
- Circumferential EPDM gasket
- Stainless steel door frame with special frame heating to prevent accumulation of ice
- Maintenance-free hinges and door clamps

2.6.5 Deluxe window to the treatment room

Two extra-large windows for the anteroom and the treatment room . Good visual contact between the operator and the user. Breaking up of the space, also suitable for users with a tendency for claustrophobia.

Dimensions: 500 x 1700 mm:

2.7 Service router with interface for remote monitoring

- Internet connection via WAN port
- PLC monitoring with an alert system (via e-mail)
- VPN switch for simplified on-site administration

- Developed in GermanyNetzwerk:

Network:

VPN	OpenVPN server, OpenVPN client
WAN/LAN	2 x RJ 45 10/100 Mbit/s, full and half duplex
WLAN	802.11 b/g/n, access point, WAN client

2.8 Camera in the treatment room

- Special camera incl. housing and window heater
- Special heat-resistant protective housing IP54
- PoE camera



2.9 Music playback in the treatment room

- 2 loudspeakers in treatment room

2.10 Communication from control unit to treatment room

- IP-based
- Advanced audio technology, automatic gain and volume control, and background noise suppression

2.11 Operating unit and additional operating options

Display: large 22 inch touch screen
Software: Microsoft Windows 10

The following functions can be operated via the touch screen:

- Temperature monitoring
- Countdown timer
- Switching the light on and off

- Setting the timer

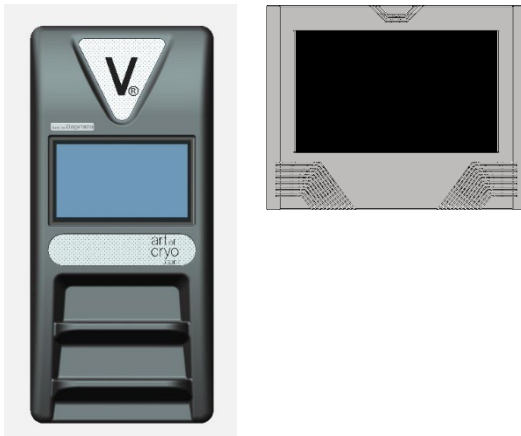
Remote VPN access can be booked optionally.

Example picture: Designer control panel made of carbon by **capristo.de**

Alternatively: stainless steel panel, chrome-plated in 2 different color variations:

Black or bronze chrome plated

Suitable for installation as wall-in mounting, as well as wall-on mounting.



For care instructions, please refer to point 6.

2.12 Handrail in the treatment room

- Made of special hemlock wood

3. Optional components

- water-cooled condenser,  **no city-water (drinking-water)**
- Air-cooled condenser

3.1 Water-cooled condenser

 **Attention: no city-water (drinking-water)**

Intake/discharge connections:	1" R-AG
Cold water volume flow	3.5 m ³ /h
Water intake min./max.	5/20 °C
Water pressure min./max.	1.5/5 bar

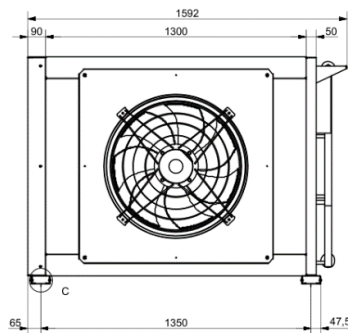
Option: connection with town water, cold water set or with glycol (on request)

3.2 Air-cooled condenser

- High-efficiency compact vertical condenser
- Housing: galvanized steel, similar to RAL 7035
- EC-fan which meets the efficiency requirements of Directive 2009/125/EC

Width approx.:	1,600 mm
Depth approx.:	800 mm
Height approx.:	1,400 mm
Weight approx.:	175 kg

Max. ambient temperature:	34 °C
Sound pressure level at a distance of 10 meters, approx.:	48 dB (A)



4. Chooseable components

- Hybrid cooling (switchable air and water cooling)
- Without emergency door (lower price)
- Wood panelling incl. handrail in the anteroom
- Wood panelling incl. handrail in the treatment room
- Chiller
- Special dimensions, V3 cell
- Big condenser
- Camera in the anterooms

- Music playback in the anterooms
- Heat recovery
- Division of the cooling unit
- Frost heave protection

4.1 Hybrid cooling

- Manually switchable air and water cooling on request for extra price

4.2 Wood panelling incl. handrail in the treatment room

- Special hemlock wood panelling
- Cold-resistant
- Provides a pleasant ambience

4.3 Chiller

- Customised according to client requirements

4.4 Special dimensions, V3 cell

- there are various options here, please contact us to find out more

4.5 Big condenser

For high ambient temperature up to:

40 °C

Length approx.:

2,950 mm

Width approx.:

770 mm

Height approx.:

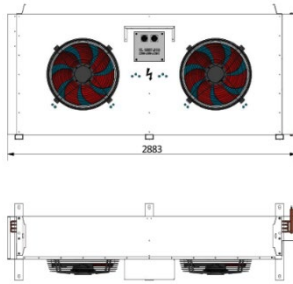
1,450 mm

Sound pressure level at a distance
of 10 meters, approx.:

56 dB (A)

Weight approx.:

278 kg



4.6 Camera in the treatment room

- Special camera incl. housing and window heater
- Special heat-resistant protective housing IP54
- PoE camera



4.7 Music playback in the anteroom

- Loudspeaker: 2-way Hi-Fi coaxial loudspeaker.
- Amplifier: 2x 15 / 10 W / 4 Ohm / 8 Ohm or 1x 30 W / 8 Ohm; power supply 12-24 V incl. convection cooling
- Pairing through Bluetooth receiver

4.8 Heat recovery

The condensation capacity is 16 kW.

- | | | |
|-------------------------|-----|----------------|
| • Delta | 5 | K |
| • Connection nozzle | 1 | INCH |
| • Pressure drop approx. | 0.3 | bar |
| • Flow rate | 4.5 | m ³ |

The heat output depends on the desired water temperatures. High water temperatures lead to partial liquefaction in the heat recovery heat exchanger, the remaining liquefaction takes place in the downstream condenser.

Example with a condensation power of 16 kW

100% heat recovery at a water temperature of up to 38 °C:	approx. Q = 16.0 Q kW
approx. 60% heat recovery at a water temperature of up to 45 °C:	approx. Q = 13.0 kW
approx. 40% heat recovery at a water temperature of up to 50 °C:	approx. Q = 9.0 kW
approx. 20% heat recovery at a water temperature of up to 55 °C:	approx. Q = 4.0 kW

Information: When using chlorinated water in operation, an intermediate circuit must be installed to separate the system. A titanium heat exchanger can be used as an option (on request).

4.9 Division of the cooling unit

- The unit can be divided in width for better set-up, e.g. in narrow rooms (for extra price)

4.10 Frost heave protection

Our low-temperature rooms give off cold to their surroundings. If this takes place next to foundations that are partially or completely embedded in the ground, the ground picks up the cold. If the natural heat flow from the environment and the soil is not sufficient, the moisture in the soil will freeze, expand and heave the soil up. Depending on the soil conditions, this can cause considerable damage to the building. The use of frost heave protection must be verified before installation.

5. On-site services

In order to ensure optimal introduction, installation and commissioning of V3, please meet the following prerequisites:

5.1 Connections

1. Current:

Back-up fuse max.:	63 A
Operating voltage:	3Ph/N/PE 400 V 50 Hz
Electrical system type:	TN - Network / TNC Network

2. Network / Internet:

The service router sets up an outbound TCP connection to the address.

<https://vpn.kaeltecloud.de> (IPv4: 128.140.2.254, alt. IPv6: 2a01:4f8:c2c:3e7f::1)

In order to establish a secure connection to the server, the following requirements must be met:

- a DNS server must be accessible in your network
- the above IP address (IPv4: 128.140.2.254) must be enabled
- the following TCP-Port must be enabled for the VPN tunnel: TCP-Port 443
- the following TCP-Port must be enabled for the Cloud-function: TCP-Port 8883
- UDP port 123 should be open for synchronisation

The system is fitted with an RCD Type A / 30 mA.

5.2 Set-up

- Unloading and bringing in of the components
- Container or similar for the disposal of the packaging material
- Free routes for bringing in
- If necessary floors should be protected (no warranty for damage)
- Fire safety measures
- Masonry, chiselling, earthworks, roofing and coating

- Lifting equipment such as cranes, scaffoldings, mobile working platforms, forklift trucks etc.
- Installation on level floor with flowing screed or tiles, 2 cm tolerance over a total length of 6 m
- Breakthrough as hole for condenser/glycol incl. drain line: 200 mm diameter (for all variants).

Breakthrough between machine and cell:

single Vaultz:	200 x 500 mm
vario Vaultz:	300 x 700 mm

All breakthroughs must be sealed by the customer after our installation according to local fire standards.

In order to guarantee problem-free function of V3, the following points must be taken into account:

5.3 Ambient conditions

1. Installation room cell:
 - Air exchange rate of five times of the volume of the room within the cell. DIN EN 16798 Part 3 must be complied with for office premises.
 - Temperature range: 18-23 °C
 - Rel. humidity: 50%
 - If a dehumidifier is used, please ensure automatic water drainage.
 - It is possible that moisture (e.g. condensation or water due to snow formation) may escape from the cell. The manufacturer accepts no liability for any damage to the substrate and/or parts such as walls or drywall components. Please take appropriate precautions here.

2. Machine room:

Sufficient intake and exhaust ventilation and, possibly, air conditioning of the machine room, to make sure that an ambient temperature of min./max.: 5 / 25 °C is maintained.

Please note that

- a) the heat emission of the cooling unit and control cabinets is: 8 kW
- b) There are other heat sources and a buffer.
- c) We expressly point out that the machine may transmit disturbing vibrations and noises to the building during operation. If necessary, precautions against the transmission of

vibrations and noises to the building must be organized by the customer. This is not the responsibility of the manufacturer.

Notes when using a container as a machine room:

- Up to max. 22°C outside temperature, the machine room can be ventilated and de-aerated via the fans and the ventilation grids
(Note: the ventilation grilles must be regularly checked for dirt and cleaned if necessary)
- From 22°C outside temperature, fans must be switched off via the thermostat and the ventilation grilles must be closed.
- Air-conditioning must be switched on from 22°C
(Note: the air conditioning must be checked regularly for proper functioning)

6. General provisions

- Design and documentation of the machine according to the L&R standard and CE certification
- The limit values specified in EN 50160 must be observed for supply voltage

Note on water quality:

Various processes can take place in water-bearing systems, which can lead to corrosion, mineral deposits and also biological problems. We reject any claims for malfunctions or damage to systems or system components caused by insufficient water quality. In order to achieve proper and trouble-free operation of water-bearing systems, the water quality must therefore be checked and, depending on system-relevant data, water treatment and water treatment must be carried out.

On request, we can provide you with a reference value table for the recommended water quality.

Care instructions for the stainless steel operating unit:

Please note that aggressive cleaners must not be used. We recommend using a chrome cleaner with a care function. We also recommend using a microfiber cloth.

Technical changes:

Our systems, machines and components are state-of-the-art. We reserve the right to introduce technical changes that do not impair the performance and functions of the system.

Cable lengths

Machine to cell	= 10 m
Machine to condenser	= 10 m

General note:

The shorter the pipes between the machine and the cell, the more energy-efficient the machine.

7. Pictures



8. Certificates

ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICATO ◆ CERTIFICADO ◆ CERTIFICAT ◆ 認証証書 ◆



ZERTIFIKAT
gültig bis: 07.05.2034
CERTIFICATE
valid until: 07.05.2034

EU-Baumusterprüfung (Modul B) - Baumuster - nach Richtlinie 2014/68/EU

EU Type examination (module B) - production type - according to Directive 2014/68/EU

Zertifikat-Nr.: Z-IS-TAK-MUC-24-05-3337919-08094822
Certificate No.:

Name und Anschrift des Herstellers: L & R Kältetechnik GmbH & Co. KG
Name and address of manufacturer: Hachener Straße 90a-c
59846 Sundern, Germany

Hiermit wird bescheinigt, dass das unten genannte Baumuster die Anforderungen der Richtlinie 2014/68/EU erfüllt.
We hereby certify that the type mentioned below meets the requirements of the Directive 2014/68/EU.

Prüfbericht Nr.: P-IS-TAK-MUC-24-05-3829363-3
Evaluation report No.: vom 07.05.2024

Geltungsbereich: Baugruppen Kaskaden Kälteanlagen und Baugruppen Kaskaden Wärmepumpen
Scope of examination: zusätzliche Angaben siehe Anlage
Cascade refrigerating system assemblies and cascade heat pump assemblies
additional information see Appendix

Fertigungsstätte: L & R Kältetechnik GmbH & Co. KG
Manufacturing plant: Hachener Straße 90a-c
59846 Sundern, Germany

München, 08.05.2024
(Ort, Datum)

Einhaltsprüfung durch App TÜV SÜD Verify
Verification of Certificate by TÜV SÜD App Verify

Notifizierte Stelle, Kennnummer 0036 Dokument ID: 3337919VH06
Notified Body, No. 0036
TÜV SÜD Industrie Service GmbH
Westendstr. 109
80888 München
GERMANY

TÜV SÜD Industrie Service GmbH
Zertifizierungsstelle für Druckgeräte
Johannes Steiglechner

Seite 1 zum Zertifikat Nr. / Page 1 of the certificate No. Z-IS-TAK-MUC-24-05-3337919-08094822

ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICATO ◆ CERTIFICADO ◆ CERTIFICAT ◆ 認証証書 ◆

CERTIFICATE



International Certification Management GmbH



L&R Kältetechnik GmbH & Co. KG
Innovative Kältetechnik
D-59846 Sundern Hachen, Hachener Str. 90a

Standard: DIN EN ISO 9001:2015

Scope:
Development, installations, distribution of refrigeration systems, switch and control cabinets, refrigeration and cryogenic systems for process engineering and manufacturing operations in industry

With this certificate it is confirmed, that the L&R Kältetechnik GmbH & Co. KG Innovative Kältetechnik applies a management system which meets the requirements of DIN EN ISO 9001:2015

Jutta Deinbeck
Jutta Deinbeck, Leiterin Zertifizierungsstelle
Oberbühnenstr. 17, 11.2025



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Straubinger Straße 19
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www.ic-management.com

ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICATO ◆ CERTIFICADO ◆ CERTIFICAT ◆ 認証証書 ◆

FACHUNTERNEHMERBESCHEINIGUNG

KÄLTE KLIMA FACHBETRIEB

L & R Kältetechnik GmbH & Co. KG

Hachener Str. 90a-c

59846 Sundern

Ein Unternehmen wird mit dem Vollhandwerk „Kälteanlagenbauer“ in die Handwerksrolle eingetragen, wenn der Betriebsleiter die Voraussetzungen für dieses Gewerbe erfüllt. Dem Betriebsleiter eines solchen Unternehmens ist die entsprechende Sach- und Fachkunde zur Installation, Prüfung und Wartung von Kälteanlagen insbesondere im nachfolgenden Sinne zuzurechnen:

- Er erfüllt die persönlichen Voraussetzungen zur Erlangung von Zertifikaten gemäß der Chemikalien-Klassifizierungsverordnung / Durchführungsverordnung (EU) 2024/2215, Folgende Tätigkeiten: darfen gemäß Artikel 3 Abs. 2 a) i. V. m. Artikel 2 Abs. 1 dieser Durchführungsverordnung an ortsfesten und mobilen Kälteanlagen, Klimaanlage und Wärmepumpen, in Bezug auf fluorierter Treibhausgasen und Kohlenwasserstoffe durchgeführt werden: Dichtheitskontrolle, Kältemittelrückgewinnung, Installation, Reparatur, Instandhaltung und Wartungen.
- Er besitzt die erforderliche Sachkunde im Sinne des § 5 Abs. 2 Nr. 2 i. V. m. § 5 Abs. 1 Satz 1 Nr. 1 der Chemikalien-Ordnungsverordnung.
- Er weist die notwendige Berufsausbildung einer zur Prüfung befähigten Person im Sinne des § 2 (6) Betriebsstättenverordnung auf.
- Er besitzt die notwendige Fachkunde zur Durchführung einer energetischen Inspektion an Kälteanlagen gemäß § 77 Nr. 3 des Gebäudeenergiegesetzes und zur Betriebsprüfung an Wärmepumpen gemäß § 65a Abs. 4 Nr. 3 des Gebäudeenergiegesetzes.

Das Kälteanlagenbauhandwerk ist ein zulassungspflichtiges Handwerk gemäß § 1 Abs. 2 i. V. m. Anlage A Nr. 18 der Handwerksordnung.

Bezeichnung gültig bis:  (Befristungszeitraum)

 Verband Deutscher Kälte-Klima-Fachbetriebe e.V.

Der VDFK e.V. ist mit über 1000 Mitgliedsbetrieben seit 1962 der führende deutsche Wirtschaftsverband der Kälte-, Klima- und Wärmepumpenbranche und Partner des Kälteanlagenbauhandwerks (40.000 Mitarbeiter, Umsatz 6,8 Mrd. Euro). Der VDFK ist Mitglied in vielen nationalen und europäischen Organisationen und versteht sich als Schnittstelle zwischen Politik, Verbänden, Industrie, Handel und Handwerk.

Verband Deutscher Kälte-Klima-Fachbetriebe e.V. • Josef-Bauer-Haus • Kaiser-Friedrich-Straße 7 • 53103 Bonn
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ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICATO ◆ CERTIFICADO ◆ CERTIFICAT ◆ 認証証書 ◆

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Hachener Str. 90c
D-59846 Sundern-Hachen




ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICATO ◆ CERTIFICADO ◆ CERTIFICAT ◆ 認証証書 ◆

EU Konformitätserklärung / EU Declaration of conformity
DGRL 2014/68/EU Anhang VII / PED 2014/68/EU, Annex VII

Hiermit erklären wir, dass die benannte Baugruppe/Maschine allen einschlägigen Bestimmungen dieser Richtlinie entspricht / We hereby declare that the machine assembly complies with all relevant provisions of this Directive.

Bezeichnung / Designation: Kryo-Kältekammer / Cryo cold chamber
Kältemittel / Refrigerant: R 448 A / R508B
Typ / Type: Vault V1
Projekt-Nr. / project-no.:
Baujahr / Year of manuf.: 2024

Kategorie II, Modul B (Baumuster) / Category II, Module B (type examination) / C2
Notifizierte Stelle / Notified body: TÜV Süd Industrie Service GmbH
Rickenstraße 75
80036 München

Zertifikat Nr. / Certificate no.: Z-IS-TAK-MUC-24-05-3337919-08094822
Modul B (Baumuster) / Module B (type examination): Z-IS-TAK-MUC-24-05-3337919-08113505

Dokument mit der Baugruppenbeschreibung und den angewandten Konformitätsbewertungsverfahren / Document with description of assembly and the applied conformity assessment procedures: 0010685 Vers. 1

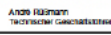
Andere angewandte Richtlinien / Other applied directives:
Maschinenrichtlinie 2006/42/EG, Anhang II A
Machinery Directive 2006/42/EG, Annex II A
Richtlinie 2014/53/EU Elektromagnetische Verträglichkeit
Directive 2014/53/EU Electromagnetic Compatibility

Angewandte harmonisierte Normen / Applied harmonized standards:
EN 378-2:2018, Kälteanlagen und Wärmepumpen / Refrigerating systems and heat pumps
EN ISO 12100:2011, Sicherheit von Maschinen / Machinery safety
EN 61000-6-1 und 2:2019, Störfestigkeit / Immunity

Angewandte nationale technische Spezifikationen, insbesondere:
Applied national technical specifications, in particular:
DIN 8901:2002, Schutz von Erdreich, Grund- und Oberflächenwasser / Protection of soil, groundwater and surface water
DIN 2805:2023, Rohrleitungen in Kälteanlagen und Kälteversorgungsanlagen, Kennzeichnung / Piping in refrigeration systems and cooling equipment, labelling

Bei einer Änderung der Baugruppe/Maschine, die nicht mit uns abgestimmt ist, verliert diese EU-Konformitätserklärung ihre Gültigkeit.
This declaration of EU conformity shall become null and void when the assembly is subjected to any modification that has not met with our approval.

Sundern, 25/04/2024

Bevollmächtigte Person:  Andre Käßmann
Technischer Geschäftsführer

L & R -Anforderung: CC - Y23-0010 - 3448
Modul-Nr.: IS-Nr.

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