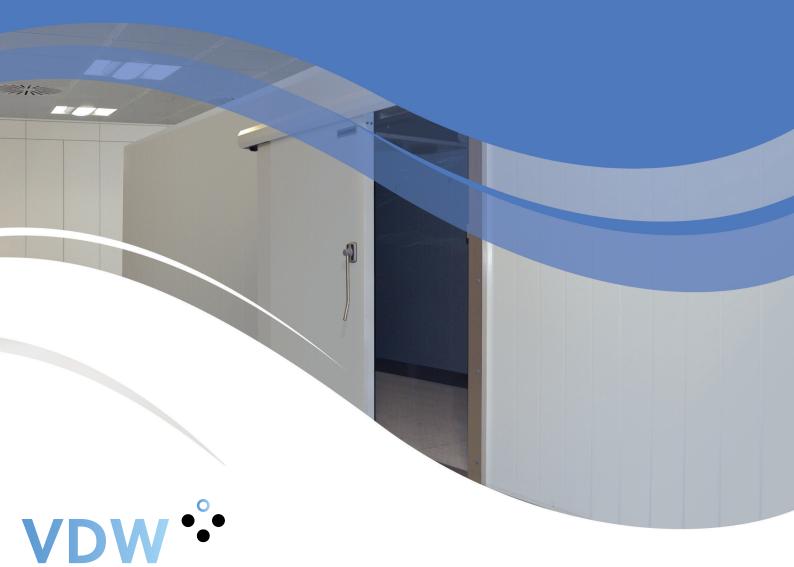
# PORKKA

**Crucial Temperature Solutions** 



# Installation and operation manual Vaccine Storage Rooms



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#### 1. GENERAL

These instructions are intended for installation and operation of vaccine storage cold and freezer rooms.

It is very important to read these installation and operating instructions carefully before you start using the equipment for the first time. Also, please keep these instructions in a safe place for future reference or use by another operator.

Modular cold and freezer vaccine storage rooms are manufactured for the storage of chilled and frozen items. They are not designed for freezing or chilling down of hot foodstuffs, or other items.

In this instruction manual, measures have been described relating to the installation and daily use of the product. Yearly maintenance and repairs have to be done by an authorized service company. All the covers of the product have to be properly fastened in place before switching on the product.

By following these instructions you can improve the product's performance and reduce unnecessary repair costs. Please note: it is important to have your equipment regularly maintained by a professional engineer.

You will find the terms of guarantee in this manual (see the Table of Contents).

#### 1.1. Placement (ventilation)

Before erecting the room, ensure that there is sufficient ventilation in the area where the room is to be located. During operation, the room will dissipate a heat load of 1 - 2,1 kW per hour in the area in question. This heat must be removed from the area by means of ventilation, such as louvers or extraction systems. If impractical, consult your supplier for the possibilities of using our heat disposal system. The refrigeration systems are designed to operate satisfactorily in ambient max. +43 °C. Ensure that the floor area to be used is level. Requirement of the evenness is max ±3 mm/m. Correct any unevenness at this time. It is recommended to leave a gap of 50 mm minimum between a freezer room and the surfaces of the surrounding building for air circulation purposes.

The floor under the freezer room should be treated against moisture and ice. If needed, the floor elements can be delivered with floor heating elements (optional accessory). Before unpacking, ensure that there is sufficient space where the room is to be assembled, including sufficient height.

3

#### 2. SAFETY

DANGER!

Follow general rules and regulations concerning occupational safety.



### 2.1. Occupational safety

Always wear a safety helmet, safety shoes, protective gloves, and protective clothing in the installation work.



Be careful when working near lifting devices.







Before use, ensure proper operation and condition of scaffolds, ladders, and lifting devices and equipment.







#### Caution!

Risk of injury! Be extra careful during lifting work.





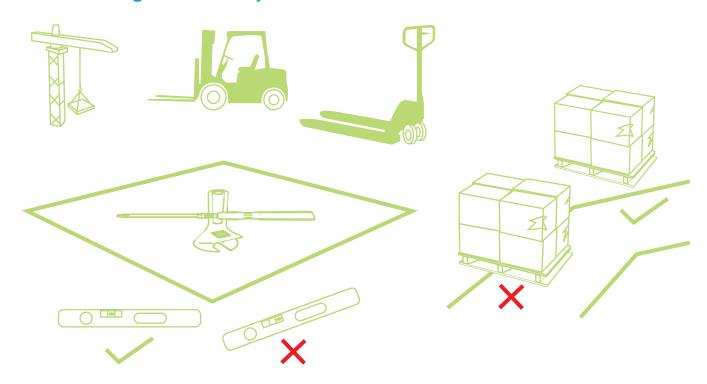


Electrical appliances are to be installed and repaired only by experts qualified in maintaining electrical devices.



#### 3. RECEIVING AND STORING THE DELIVERY

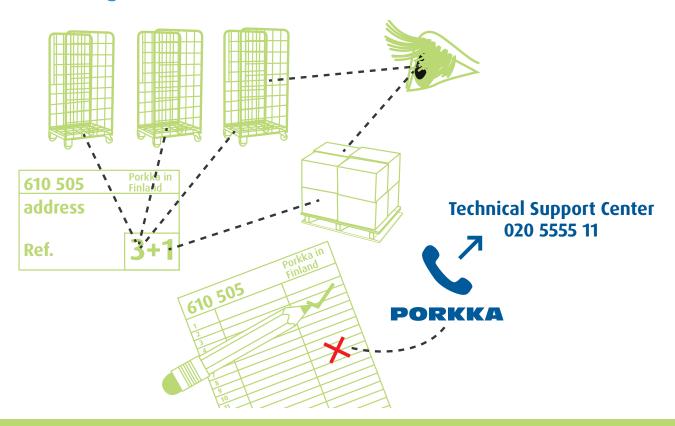
### 3.1. Receiving the delivery



#### Attention!

The manufacturer's guarantee does not cover damages caused by transportation!

### 3.2. Storage

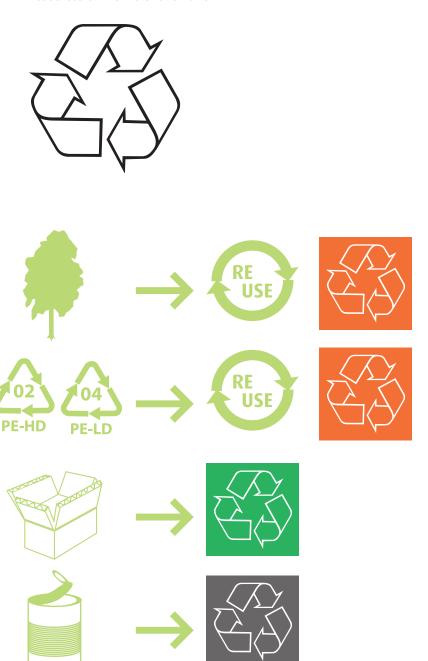


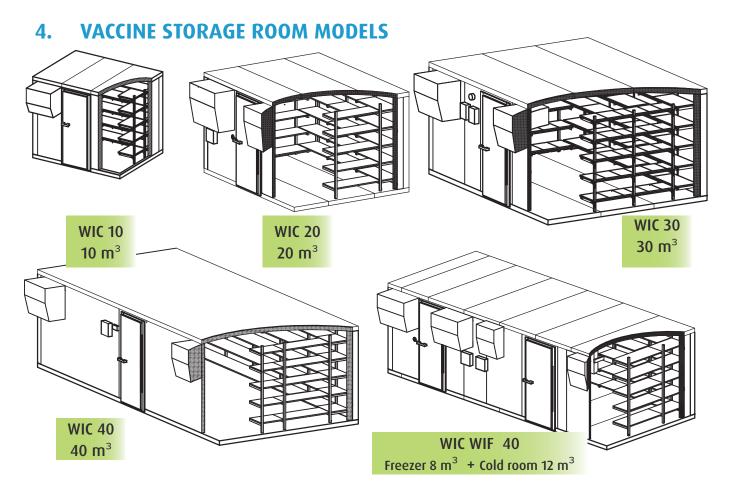
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### 3.3. Disposal of packaging material

#### Note!

The packaging material must be recycled as efficiently as possible given the resources of the installation site.





### 4.1. Delivery content and main parts

Wall, ceil	ing, and floor panels
Panel mo	ounting accessories
	-balancing valve ded as standard for freezer rooms and by special order for cold rooms as well
Parts list	of elements, door installation and installation materials for panels (See Panel Unijoint manual)
Doors	
Floor pla	n
Refrigera	ation units
Electrical	accesories
Tempera	ture logging accessories (Temperature recorder) (optional)
Special d	rawings
Mounting	g instructions
Lights	
Spare pa	rts of Euromon
Control b	ox
Special s	ervice equipment
Refrigera	nnt, refrigerant units
Shelving	s
Valve set	t (Only in WIC WIF 40)

### Example of a delivery parts list.

			PARTS	LIST			
Qty.	Code Stze		De	escription	Note	Crate	
		VALV	É SET (FACTOR	RY INSTALLED :	IN PANEL W1)		
l PC	AP75			PRESSURE REL.VALVE)		_	
1 PC BQ18			KYTKENTÄRASIA PTV MINI ELEBAR LT 2	220V 50H7 7			
ı ru	DQIO		MINIELEBAR PRESSURE	RELIEF VALVE, 230 V		} 1	
6 PC	AM69		LEVYRUUVI LIERIÖK. 4 PLATE SCREW 4,2×16 /		DIN 7981 RIS	TIU	
		INS		TERIAL FOR PAN	NELS		
70 PC AN76 PEITET.9,5-11 TUCKER P-208/0 VALK							
IO PC	AS86		PLASTIC PLUG, WHITE				
IU FC	AJOO		BUTYL SEALANT WHITE	BUTY-MASSA VALKOINEN PLASTINEN BUTYL SEALANT WHITE 0.31 L			
1 PC	AS87		SEALANT PRESS 1/3 L SEALANT PRESS 1/3 L				
2 PC	AS99		SOUDAL SILIRUB N 0.3	BL VÄRITÖN			
10 m	AY97		Silicon neutral TIIVISTE PE-PROF.20)	VEO 120702/0=2			
10 111	NI37		GASKET, SOFT 20×68 m	nm 7 ST L=2400 mm		} 5	
15 m	BA21		TIIVISTE KOVA PU-50				
PC	BC49		GASKET, HARD 20X68 mm PIKALUKON AVAIN 100				
CAM-LOCK KEY 100 mm 30445							
2 PC CA35 TREMSIL 500 0.3L valkoinen TREMSIL 500 0.3L WHITE SILICON E SEALANT							
PC	CD69		TREMSIL 500 0.3L HAF				
TREMSIL 500 0.3L GREY SILICONE SEALANT  1 PC YY90 PIIRUSTUS JA OSALUETTELO							
	WALK-IN MOUNTING AND OPERATION MANUAL						
1 PC UN01 LIGHTS							
15 M	AK37		WIRE MMJ 2X1,5 N 040 SÄHKÖJOHTO	064127			
2 PC	AE85		LIGHT EQUIPMENT AVR 10 E27/60 W 4211418				
PC AJ74		VALAISIN BULB 60 W H 230V E27		4731413			
1 PC	PC BT78		VAKIOLAMPPU LIGHT SWITCH 2-N MV ORANGE		2004282		
			VIPUPAINOKYTKIN		2001202		
1 PC	PC BTB1 PASS-THROUGH PIPE 16x95 A13684-6 LÄPIVIENTIPUTKI			} 5			
2 PCS	PCS AJ37 PIPE END COVER JAPP-16, JPP-16 11		1131013				
50 PCS	AX83		PUTKENPÄÄTE FASTENER FOR WIRE TKIO-14		1310114		
			JOHDON KIINNITIN		1010111		
50 PCS	PR60		SCREW 4.2X13 SZN WRONIC-RUUVI				
B PCS AMB9 PLATE SCREW 4.2X22 SZN		ZN	DIN 7504-N, DIN 798	31			
18470			LEVYRUUVI ITSEPOR.			V	
Drawn	TTa	Order	550933	Prof.m: TOM	Room Number:	550933-01	
Drawn date	2015-12-0	)7 Project		L	1	/	
	2016-01-1	14 Room	45143637,Customer Re	ef.:			
PORKK.	ORK A FINLAND Box 127 3101 Tampe 020 5	OY ore Finland					
Fax +358 20 5555 360 www.huurre.com			Drawing number 550933-01 -os			2/5	

#### 5. MOUNTING

### 5.1. Room assembly

Assemble the room according to the following assembly instructions.



PANELS UNIJOINT



**HMSS SHELVES** 



S01-D00R



REFRIGERATION UNIT



DICKSON KT (optional) See temperature recorder at www.dicksondata.com



GLAMOX I25-800 LED 2400 HF 840 OP Light

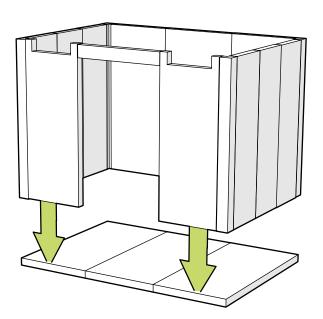
### 5.2. Mounting cold room without ceiling

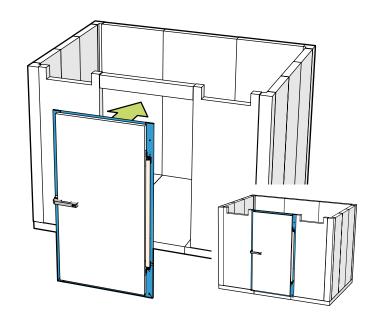
#### Attention!

Make sure the floor is flat/even!

#### Note!

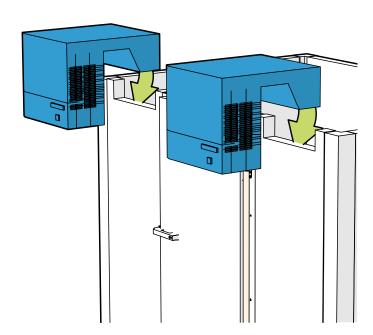
See the list of 'Required equipment' and 'Most common mounting accessories' in document WI\_Rooms\_Manual\_Panels\_Unijoint\_EN.pdf



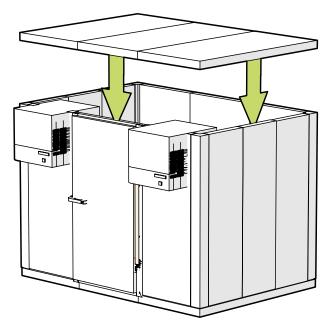


### 5.3. Mounting refrigeration cooling units

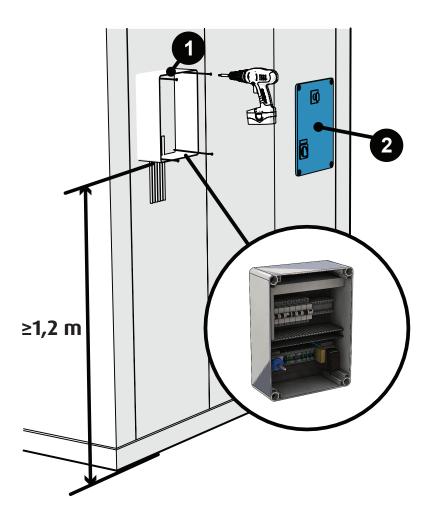
Please see the refrigeration Installation Instructions.



### 5.4. Mounting ceiling

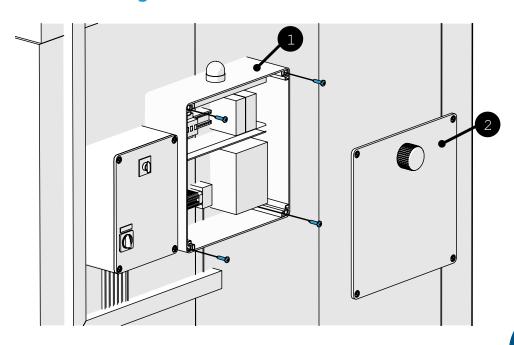


### 5.5. Mounting control box unit





### 5.6. Mounting Alarm Unit





### 5.7. Mounting temperature sensor

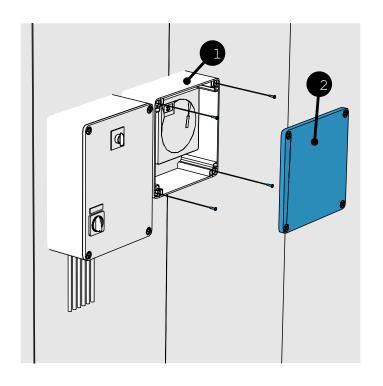
Temperature sensor is included in alarm unit.

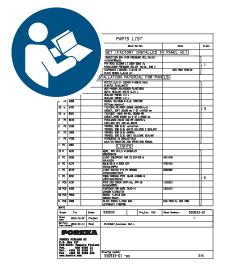
Install the sensor inside the cold room and the location must be in the center area vertically.

#### Note!

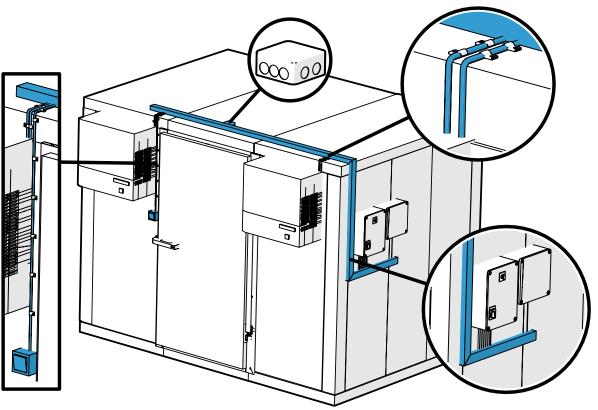
Sensor should not be behind the shelving or near the evaporator, or door opening.

### 5.8. Mounting Dickson KT 7 temperature chart recorder (optional)





### 5.9. Routing of cables

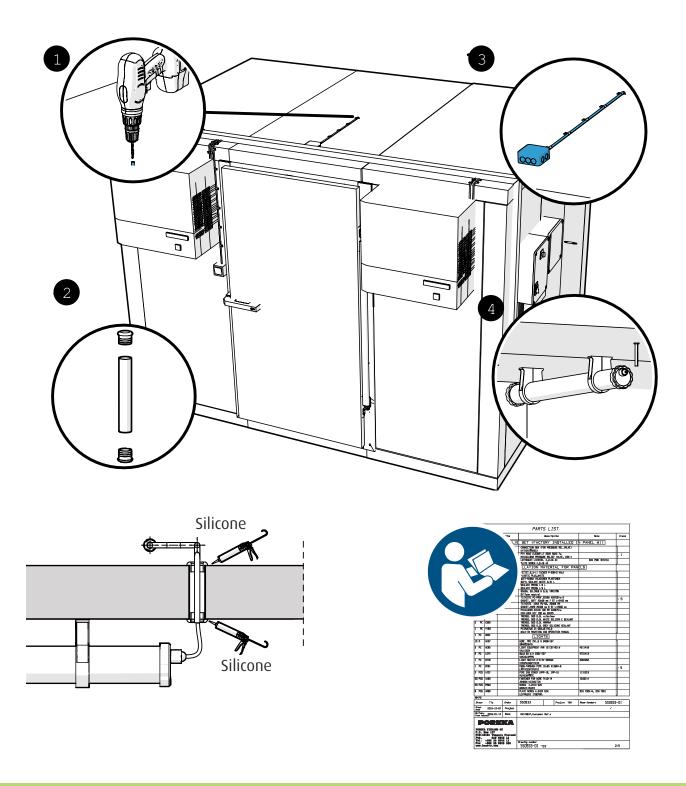


### 5.10. Mounting lamps

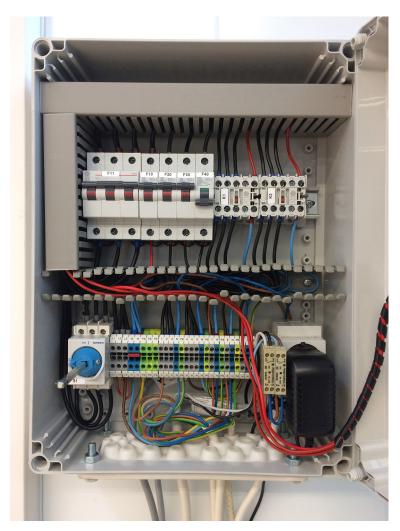
Only a qualified electrician is allowed to open the luminaire dome for installation and adjustment purposes. In case of breakage, only the manufacturer is allowed to repair the product.

It is recommended to install the cables for the lamp on the outside surface of the room. The cables can also be installed inside the room, if needed (see the following page).

For further information on mounting and adjusting the lamp, see light fitting mounting instructions.

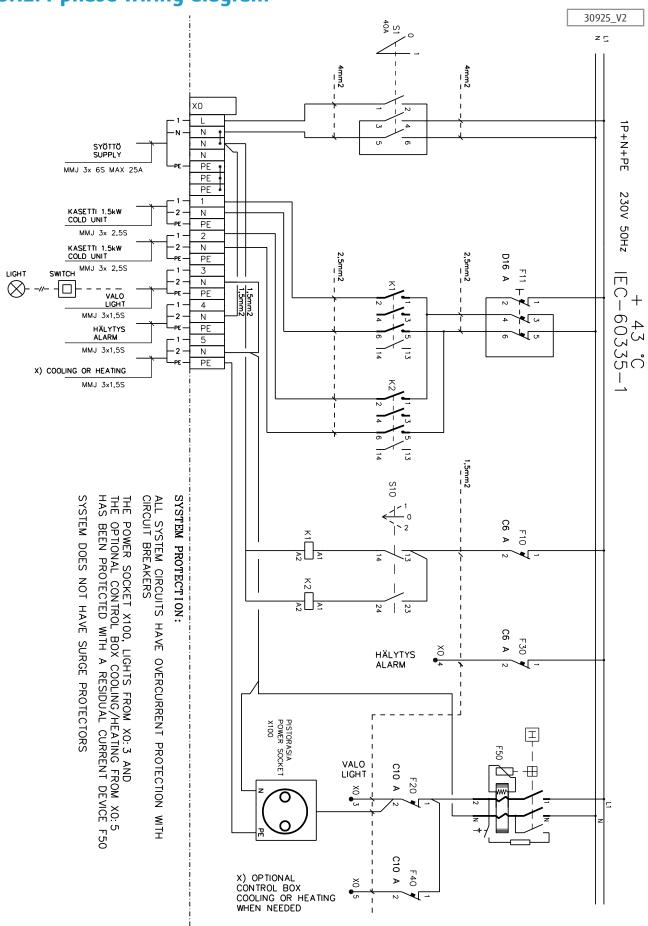


### 5.11. Installing/connecting electricity system

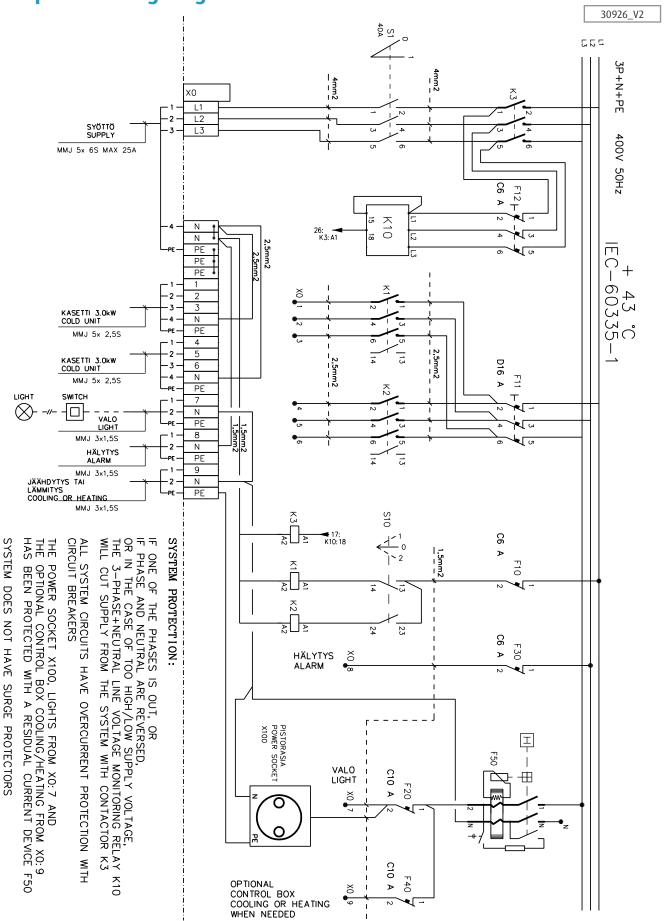




### 5.12.1-phase wiring diagram

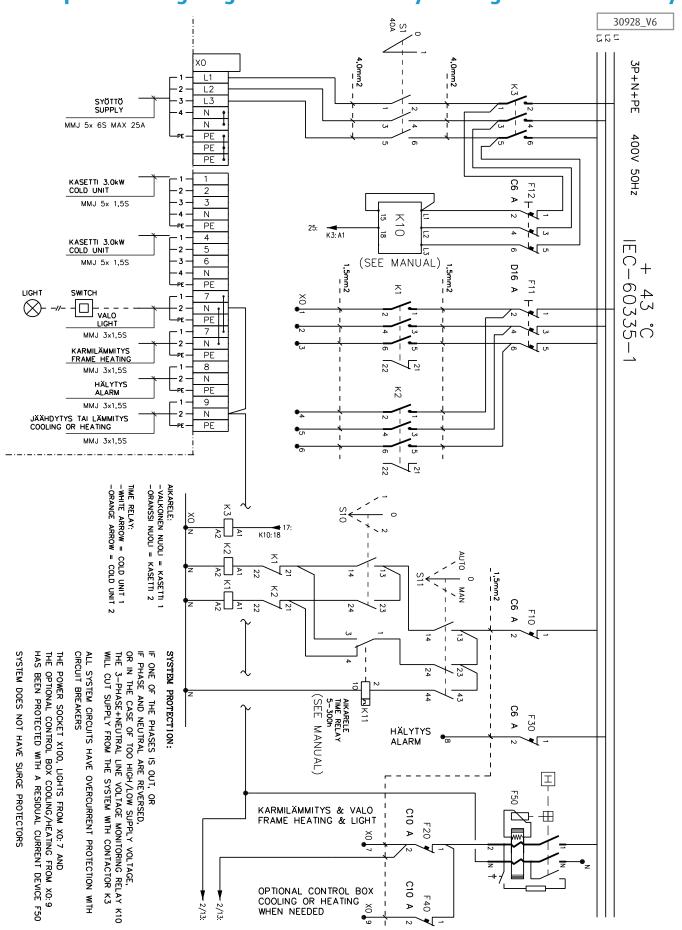


#### 5.13. 3-phase wiring diagram

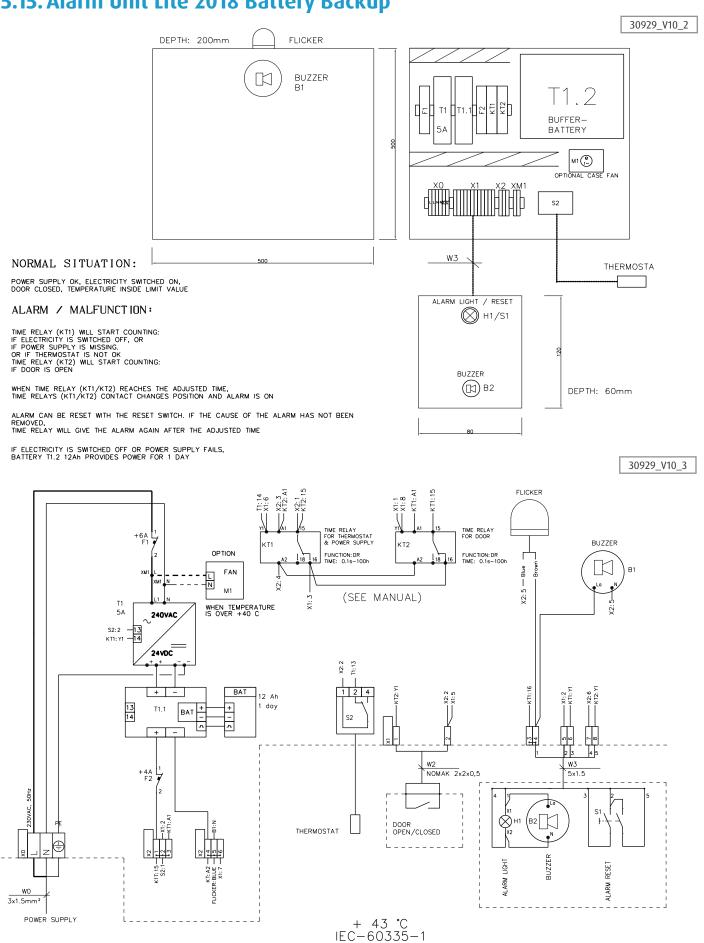


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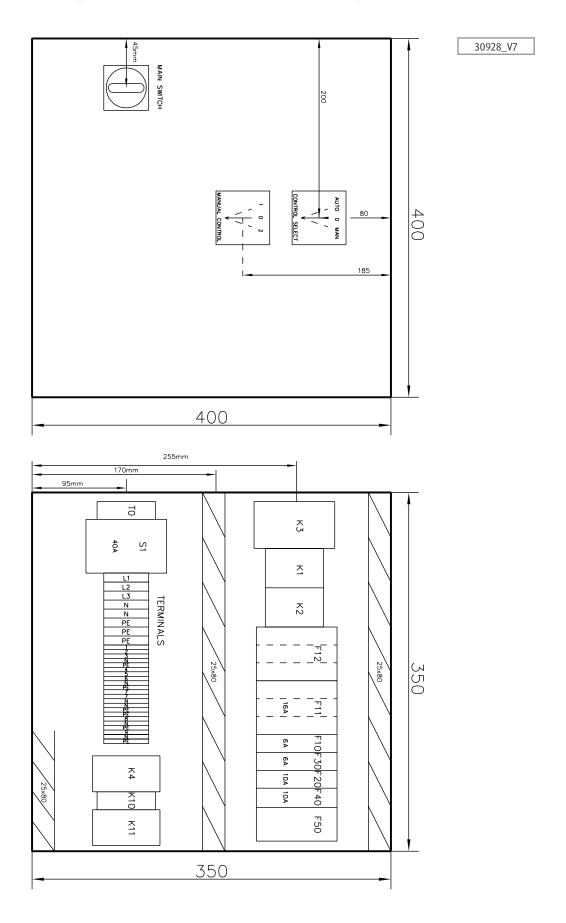
### 5.14.3-phase wiring diagram automatic duty sharing with a timer relay



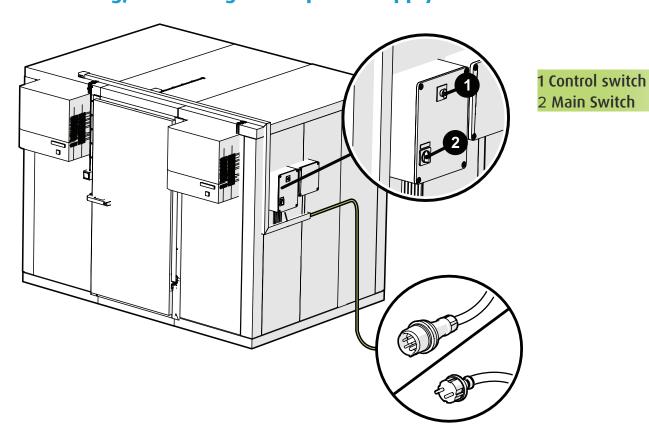
### 5.15. Alarm Unit Lite 2018 Battery Backup



### 5.16. Lay-out of control box electricity

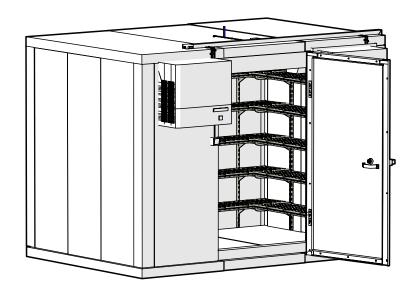


### 5.17. Installing/connecting mains power supply



### 5.18. Installing shelves

Please see Manual\_WI-rooms\_Shelving\_HMSS.pdf



#### 5.19. Testing and comissioning

- 1. Ensure that the power cable is connected to the mains
- 2. Turn the main switch to ON position/Turn the main switch on
- 3. Set Control switch to 1 on the control unit
- 4. Ensure that all motorised fans rotate freely,
- 5. Set the temperature at +4 °C for the positive unit and -20 °C for the negative unit,
- 6. Press the ON/OFF button on the refrigeration unit regulator
- 7. Refrigeration unit No. 1 starts up when it must be colder,
- 8. Emergency stop: Ensure that the main power switch button is working properly,
- 9. Check that the lighting inside the cold room functions properly.
- 10. Set the Manual Change over switch to position No. 2 to test that refrigeration unit No. 2 functions correctly (in the event that refrigeration unit No. 1 is malfunctioning or requires maintenance),
- 11. Press the ON/OFF button on the refrigeration unit regulator,
- 12. Repeat the measures you made to refrigeration unit No. 1 to refrigeration unit No. 2.
- 13. Set the temperature to +4  $^{\circ}$ C for the positive unit and -20  $^{\circ}$ C for the negative unit.

#### 6. OPERATION

#### 6.1. Placing items in the cold/freezer rooms

When placing items, especially in the freezer room, pay special attention to sufficient free air space around each package to ensure proper air circulation. Do not place or stack packages or boxes in front of the air movement fan. Items should be stored in closed packages.

#### 6.2. Operation

All refrigeration units are pre-tested in the factory and the operational temperatures can be adjusted as follows:

a) cold rooms (C) +2...+8 °C (+36... +46 °F) c) freezer rooms (F) -28...-15 °C (-18... +5 °F)

Before using the room, check that the operational temperature is reached. If the operational temperature is not reached, see the "Operational Faults" section of these instructions before you call in a maintenance engineer. A strong smell caused by cleaning agent or silicon mastic may appear in the room, in which case the room should be washed with a mild detergent suitable for the purpose, then dried and ventilated for at least 24 hours.

Do not remove any panels or guards or the electrical control panels before disconnecting the unit from the mains supply by removing the plug or the fuse from the socket!

#### 7. FEATURES

#### 7.1. Electrical connections

Before connecting the machinery to the mains electricity, ensure that the voltage is the same as that shown on the refrigeration unit serial plate. Ensure that a separate supply is provided for each room being installed. Refrigeration unit is connected to a control box unit.

Please see manual of refrigeration unit's technical data for power supply and fuse.

The refrigeration unit is supplied with a flexible cable with a molded electrical plug top with fuse. Three phase models require an isolating switch fuse.

In conformity with EN 61000-3-11, the maximum value of supply impedance Zmax is 0,27ohm at Flicker test.

#### 7.2. Operational faults

If the operational temperature is not reached or the alarm is activated, check the following:

- The door has not been left open for a long period.
- Electrical supply has not been cut off.
- Defrosting is not switched on.
- The equipment is not overloaded with hot items.
- An attempt has not been made to get the equipment colder than the manufacturer's stated operational temperature.
- Excess ice has not formed on the evaporator. If this has happened, carry out a complete defrosting.
- The "CSD"-warning is not displayed.
- The ambient temperature is not too high nor too low.
- The unit is not in STAND-BY -mode ("OFF" on display).

If the operational faults continue after you have checked the above-mentioned points, transfer the stored items to an appropriate back-up storage to prevent them from spoiling and call your refrigeration supplier or service agent.

#### 7.3. Combined electronic control board and temperature display

The equipment is fitted with a combined digital temperature display with many built-in features, including data connections for monitoring of equipment temperatures and alarms. The potential-free relay is either normally open or closed for a connection to a building maintenance alarm system or a supervising system.

During normal operation, the display indicates the internal air temperature of the room. When 'dEF is displayed, the room's automatic defrost period is ongoing.

#### **7.4.** Keys





The key shows the highest thermostat value registered. In the programming mode, you navigate inside the program or use the key to raise the selected value.



The key shows the lowest thermostat value registered. In the programming mode, you navigate inside the program or use the key to lower the selected value.



Manual defrosting starts when you press and hold the key for 3 seconds.



The key for checking and changing the settings. In programming mode, the key is used to select the value and to check the programming function. The registered value of the highest and lowest temperature can be deleted by pressing the key for 3 seconds when the value is displayed.



Light switch (Note! Used only in cabinets with lights)



Power switch





The keylock prevents unintended use of the keys. The lock is switched on by holding the keys down at the same time for 3 seconds. The display momentarily shows the letters "PoF". With the keylock on, you can still check the lowest and highest temperature registered. The light switch function can still be used when the keypad is locked (only on cabinets fitted with lights). To unlock the keyboard, press the keys at the same time for more than 3 seconds. The "Pon" message will be displayed and the keyboard is unlocked.

### 7.5. Function of key lamp lights

KEY	MODE	FUNCTION
Green light on Manual defrosting is on		Manual defrosting is on
SET	Green light flashing	Set temperature is displayed and can be changed
<u>*</u>	Green light on	Light inside the cabinet is on
O	Red light on	The equipment is on standby mode, ON/OFF

#### 7.6. Function of the display lights

LIGHT	MODE	FUNCTION	
*	On	Compressor is running	
*	Flashing	Time delay to protect compressor after start-up	
*	On	The fan of the evaporator is on	
*	On	Defrosting is on	
*	Flashing	Time delay after defrost	
<b>(!)</b>	On	ALARM	
<b>⊗</b>	On	The fan of the condenser is on	

#### 7.7. Stand-by

When pressing the (ON/OFF) button the controller will display 'OFF' for 5 seconds. After this, the light at the top right hand of the switch will be illuminated. Note: when switched 'OFF', all relays are shut down and the unit will not record either the controller data or alarms. Note: The light switch will still operate as normal. To switch the power on (for example, after deep clean), simply press the ON/OFF button again.

#### 7.8. Adjusting the temperature

Push and immediately release the key. The display will show the set temperature. You can then change the set temperature by pushing either the key or key to the temperature required. Note: this must be done within 10 seconds. To memorise the new set temperature, press the key again. After this the newly set temperature and the set key light will start to flash, or wait for 10 seconds when the display reverts to the true temperature within the equipment.

#### 7.9. Defrost

The equipment is designed to initiate automatic defrosts. During this period, 'DEF' is displayed on the controller. After the defrost period, the unit will revert to display the actual temperature. Chiller units defrost every 12 hours, and freezer versions defrost every 6 hours.

#### 7.10. Manual defrost

Press the key for more than 2 seconds to start a manual defrost. Manual defrost resets the automatic defrost counter, and the unit continues to operate automatically after thel defrost has completed. Initiating a manual defrost may be necessary for instance when the door has been left open by accident, causing extra formation of ice.

#### 7.11. Checking minimum temperature

Press and release the key. "Lo" will appear on the display, followed by the minimum temperature logged. Press the key again or wait for 5 seconds and the display will revert to the actual temperature within the equipment.

#### 7.12. Checking maximum temperature

Press and release the key. "Hi" will appear on the display, followed by the highest temperature logged. Press the key again or wait for 5 seconds and the display will revert to the actual temperature within the equipment.

NOTE! After installation, reset the temperature stored.

#### 7.13. Resetting maximum and minimum temperature recorded

To reset the stored temperature, when maximum or minimum temperature is displayed: Press the key until the "rST" label starts blinking.

#### 7.14. Alarm signals

CODE REASON

"HA" HIGH TEMPERATURE ALARM

The equipment has detected high temperature (warm items have been placed in the equipment, door left open, etc.) The alarm will automatically stop when the temperature reverts to the set temperature, or defrost is initiated.

"LA" LOW TEMPERATURE ALARM

Check that the items stored within the equipment are at the required temperature. If necessary, move the stored items to safety to prevent any damage to them. Initiate manual defrost (see chapter Manual defrost, page 21). If the alarm continues, silence the buzzer relay and contact your authorised service dealer immediately.

Reset the alarm signal by pressing any button (expect ON/OFF)!

"cSd" CONDENSER TEMPERATURE ALARM

The alarm is caused by high condensing temperature (e.g., abnormally high ambient temperature or condenser blocked). Put the controller on standby and unplug or disconnect the equipment from the electrical supply. Clean the condenser filter by washing or replacing if required. Also clean the finned condenser with a soft brush or vacuum as necessary.

"EE" DATA OR MEMORY FAILURE \*

The controllers are provided with an internal checking system for data integrity. The alarm 'EE' flashes when a failure in memory data occurs. In this instance the alarm output is activated. To reset 'EE' alarm status and restart normal function, press any button. The display will show 'rSt' for approximately 3 seconds.

NOTE! If necessary, remove stored items to a back-up storage as required. Porkka and/or its distributors and/or its service contractors will not, under any circumstances, be liable for deterioration or loss of stored items, however it may occur. Stored items should be insured by the equipment operator.

<sup>\*</sup> The control unit will operate in backup mode. Reset the alarm and contact the authorised service dealer immediately.

#### 8. MAINTENANCE

#### 8.1. Cleaning

Do not use detergents or disinfectants containing chlorine, solvents, scrubbing products, a knife, or other sharp tools.

Refer to the product description of the disinfectant to see which materials it is suitable for. Do not let it splash on sensitive parts, such as thermostat regulator or door hinges. Dry the equipment after disinfecting and leave it to ventilate.

#### Room with standard floor:

Vaccine storage rooms should be completely defrosted two to three times a year. Clean all surfaces in the room (even the shelves) carefully with a wet cloth and a mild water soluble detergent. Do not use corrosive detergents including chlorine or acetic acid.

Remove detergent remnants by cleaning the surfaces once again with a wet cloth and clean water. Wipe the surfaces dry with a dust-free cloth. Do not use running water or a power washer to clean the room.

In connection with this comprehensive cleaning, it is useful to organize the periodic overhaul of the refrigeration equipment. Regular yearly maintenance guarantees long trouble-free operation of the equipment. Maintenance carried out periodically will save energy and reduce running costs. Inspecting correct operation of the equipment is the user's responsibility.

#### Room without standard floor:

Rooms without standard floor should be defrosted and serviced according to the instructions above. Running water can be used to clean the floor. After the floor has been cleaned, wipe all surfaces dry with a dust-free cloth. Do not use a pressure washer or corrosive detergents.

Put back all parts removed during cleaning and switch on the equipment.

Ensure that the temperature has returned to normal storage level before using the equipment again.

#### 8.2. Guarantee

Check the guarantee period from your supplier.

The guarantee does not cover faults caused by:

- Transportation
- · Overloading or user's negligence
- Negligence due to not reading manuals, negligence of proper care and maintenance
- Changes in current (max  $\pm$  10% allowed) caused for example by lightning etc.
- · Modifications or repairs performed by an unauthorized service agent
- Use of parts not supplied and approved by the manufacturer

#### The guarantee does not cover:

• Incidental scratches/marks or other minor faults which appear during unpacking or installation and which do not affect the operation or performance of the equipment.

The manufacturer or their selling agent is not at any time, or under any circumstances, liable for the loss of stored items. The owner/user of the equipment must ensure that the contents are insured at all times.

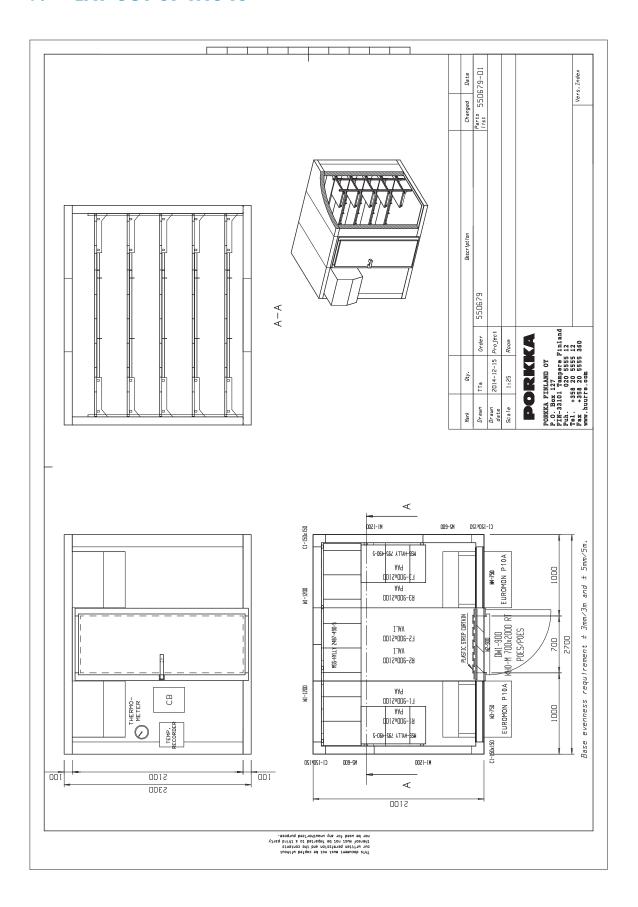
All goods are supplied under our terms and conditions of sale, a copy of which may be obtained upon request.

#### 8.3. Disposing of the unit

Dispose of the unit responsibly at the end of its working life, as it contains WEEE waste.

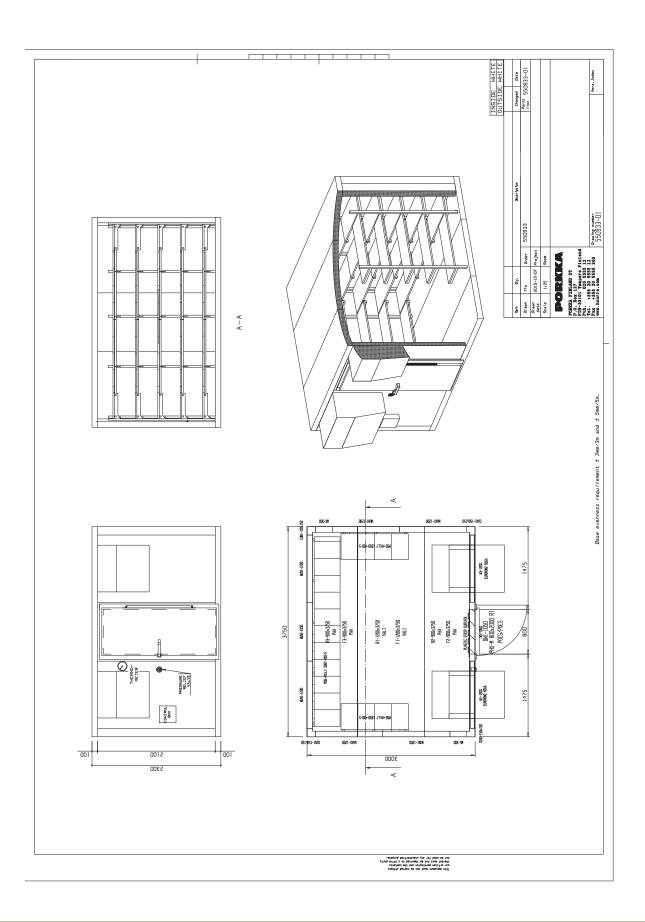


#### 9. LAY-OUT OF WIC 10

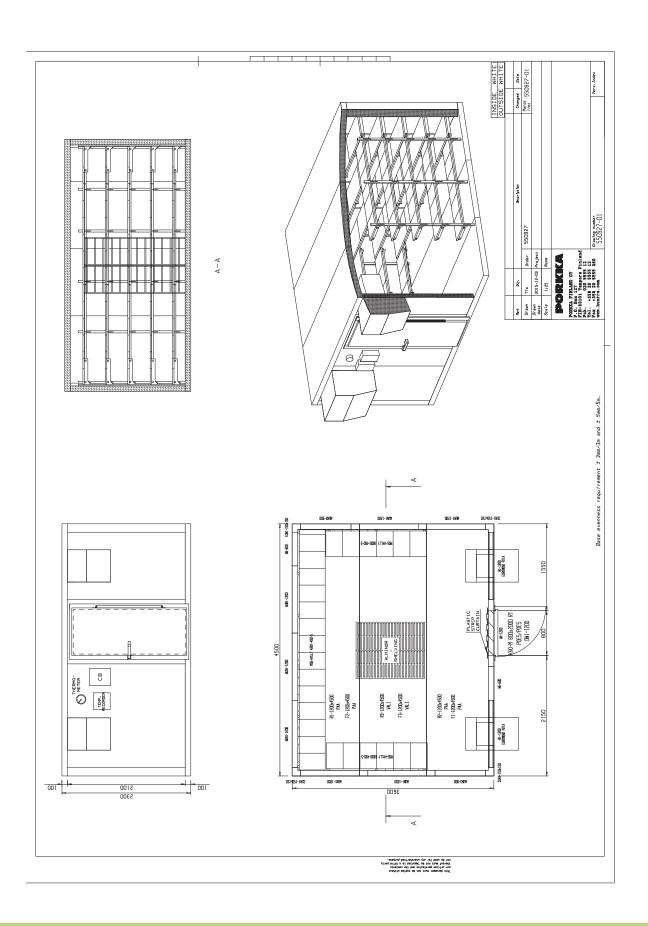


30

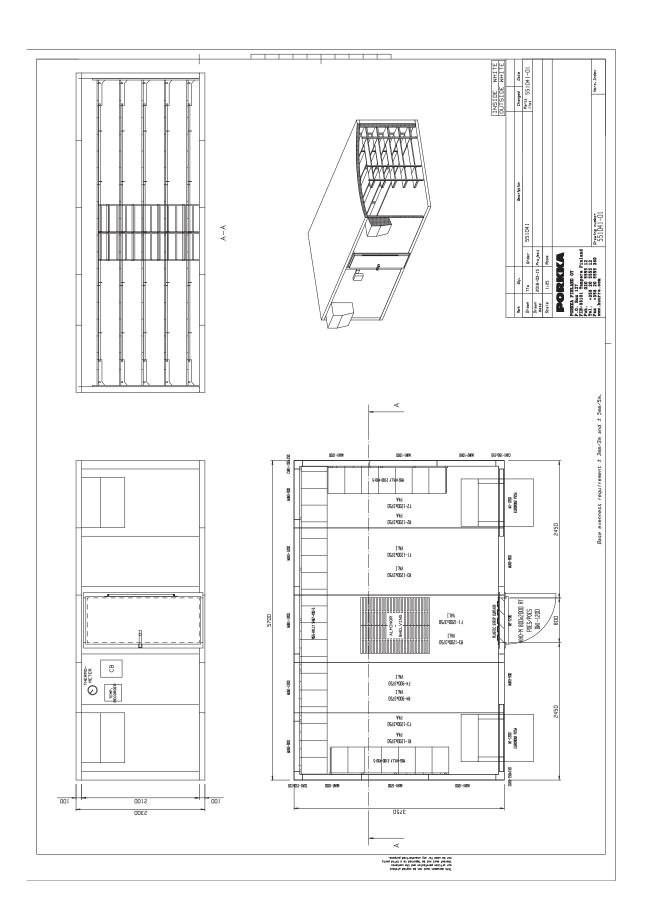
### **10. LAY-OUT OF WIC 20**



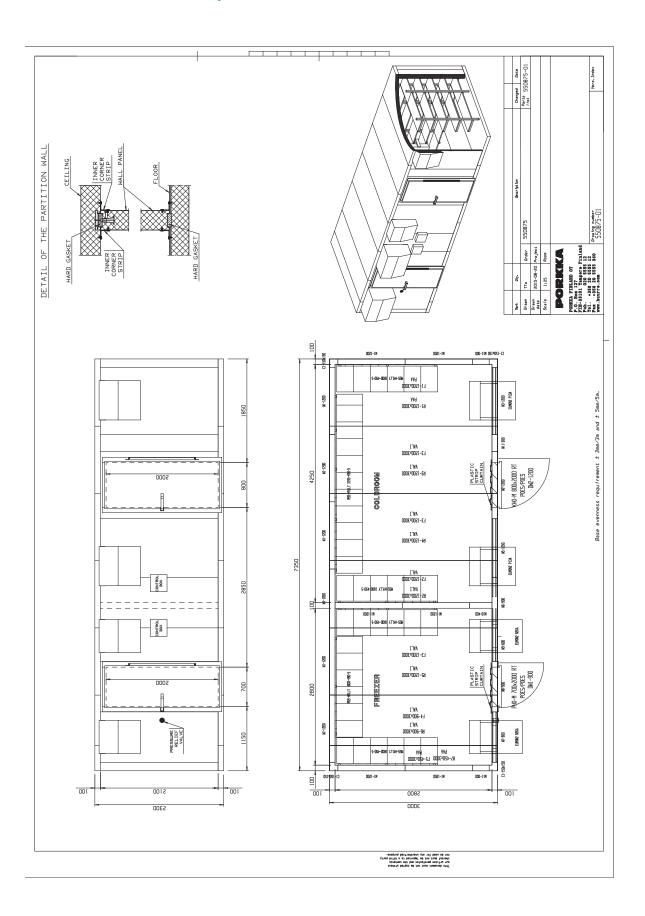
### **11. LAY-OUT OF WIC 30**



#### 12. LAY-OUT OF WIC 40



### 13. LAY-OUT OF WIC/WIF 40



# Huurre in Finland is an internationally recognised designer and manufacturer of Porkka insulated panels for cold room construction.

Huurre in Finland is an internationally renowned designer and manufacturer of insulated panels for cold room construction. As well as insulated doors, both hinged and sliding, marine fire retardant doors and specialist insulated enclosures with access hatches for food production. Clean rooms for the pharmaceutical and electronics industries is another sector where we excel.

Our factory is based in Ylöjärvi, Finland and has 14,000m2 dedicated to insulated panel manufacturing and where our specialist doors and enclosures also are produced.

Huurre has over 70 years' experience in both design and production and has supplied rooms worldwide for numerous applications. Huurre will continue to invest in both research and development to ensure our customers purchase efficient, cost effective and environmentally friendly products.

Porkka is a strong brand of Huurre, well known for both supply and service in the refrigeration sector.



Huurre designs and manufactures to a quality standard ISO 9001 which is controlled and certified by Lloyd's Register Quality Assurance. We also hold the environmental certificate ISO 14001 which also has been issued by LRQA, where environment impact in production is kept to a minimum.

**C E** marked products. The manufacturer through continuous research and development reserves the right to change technical specification and design without notice.

Huurre reserves the right to make any changes without prior notice.



