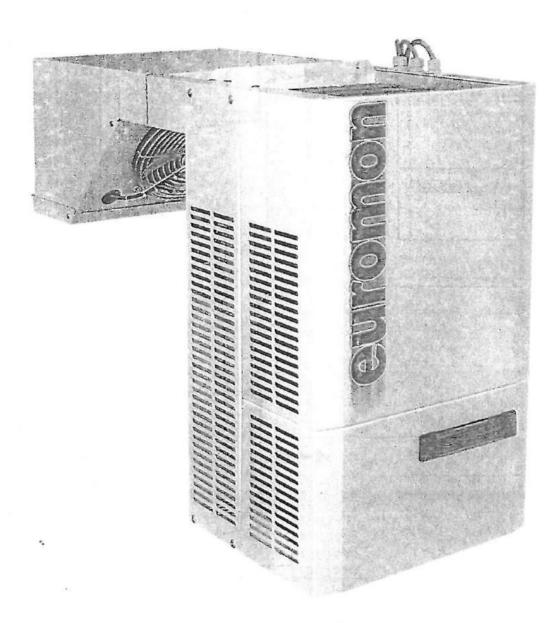
EUROMON2

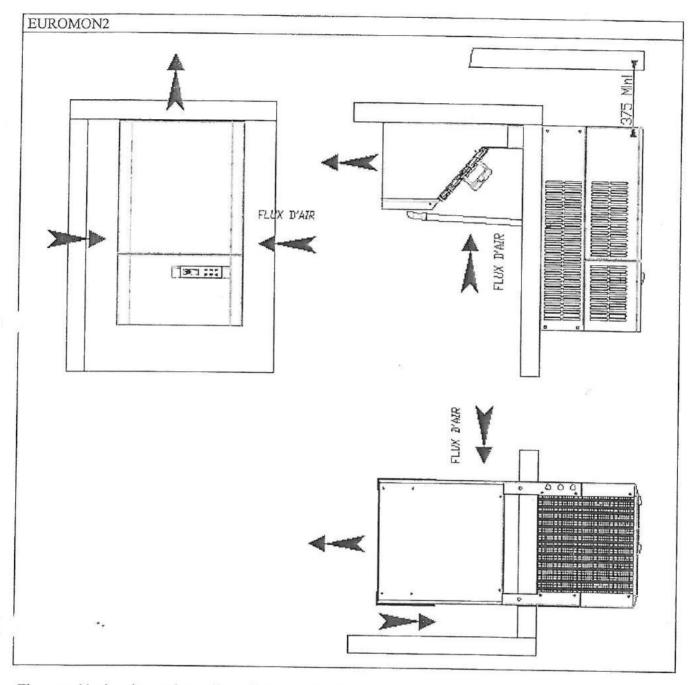


# NOTICE TECHNIQUE D'INSTALLATION INSTALLATION INSTRUCTIONS

egn x 9



#### 1. Monoblock layout



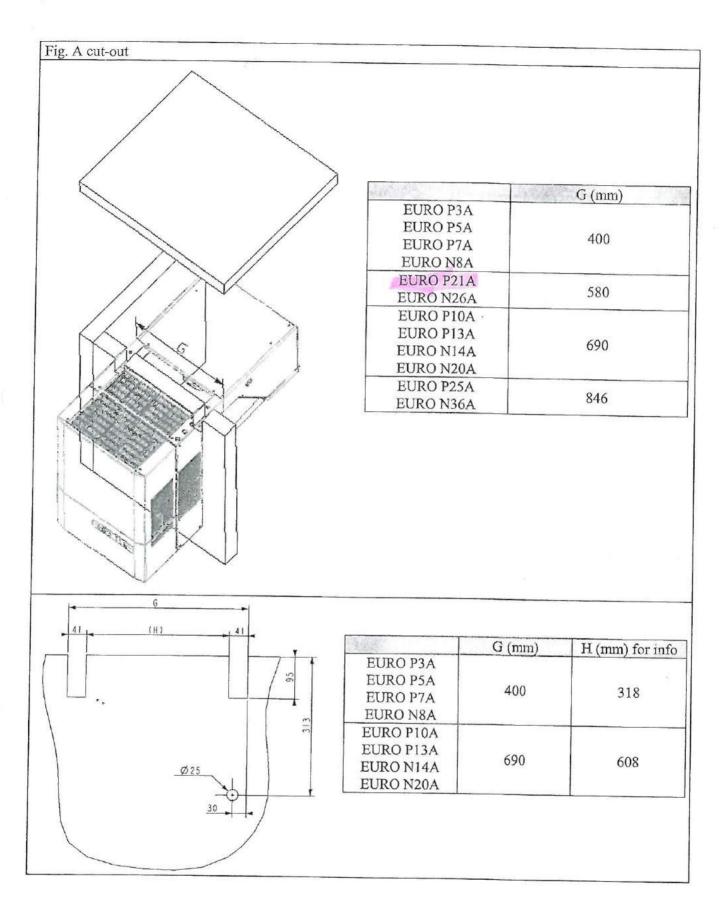
The monoblock unit may be easily wall-mounted in the cold storage room. At least two fastening points have been incorporated on the compressor side to fasten the monoblock unit (outside the cold storage room).

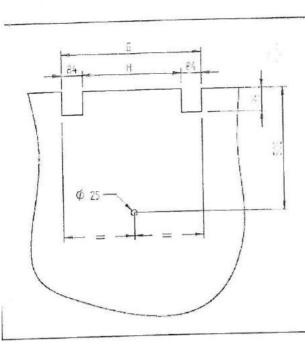
Attention: The monoblock unit must be installed with a spirit level to ensure the inclination required for evacuation of defrost water is respected.

#### 2. Cutting the cold storage room wall

The monoblock unit is installed in the cold storage room wall either by creating two recesses in the top panel section (see fig. A), or by cutting a panel to suit the unit cooler dimensions. This panel is then fastened to the rear support of the monoblock unit (see fig. B).

In both cases, final scaling is achieved with a mastic seam.

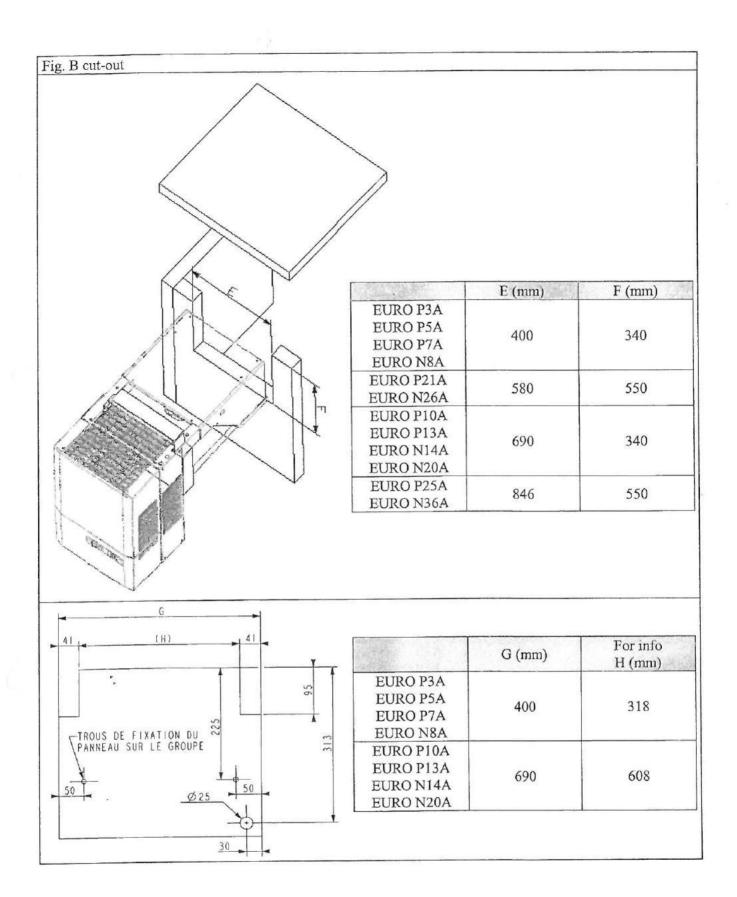




	G (mm)	H (mm) for info
EURO P21A EURO N26A	580	412
EURO P25A EURO N36A	846	678

Before installing the ceiling panel on the cold storage room, two notches and a Ø25 hole must be made. After having removed the foam and folded back the metal tabs, insert the arms of the monoblock unit in the grooves.

Fit the cold storage room ceiling panel.



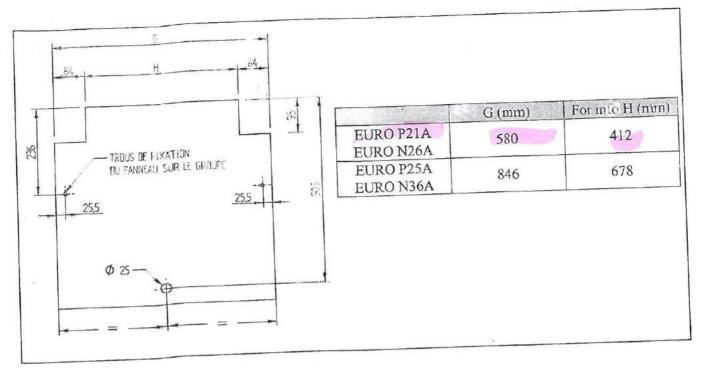


Image text "Holes for fastening the panel onto the unit"

After installation of the ceiling panel, cut the panel to suit the unit cooler dimensions. Allow for passage of the arms. Fasten the monoblock unit to the cut-out section. Insert the unit cooler section into the cold storage room.

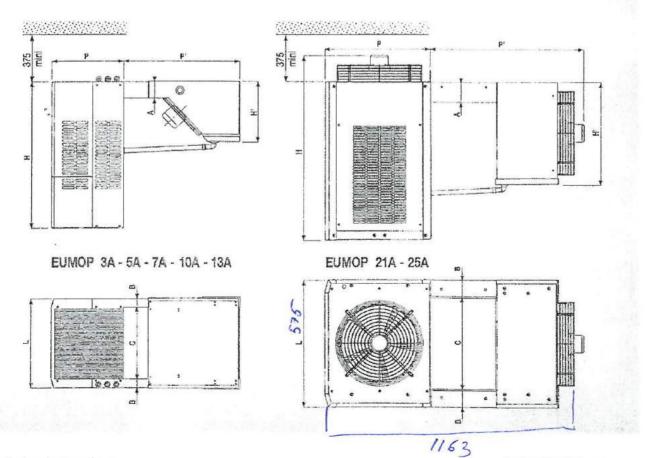
# 3. Technicals characteristics of the monoblock unit

EUMOP							and the same		hill range
		Room tempe	rature +4°C	Outside ten	p talung +32	0			
		EUMOP	3A	5A	-7A	10A	13A	- 21A	25A
Capacity R494A (1)		kW	1,04	1,28	1,63	2,21	2,72	3,72	4,53
Input power (1)		kW	0,62	0,72	0,97	1,10	1,35	1,53	1,90
Compressor		CV	3/8	1/2	7/8	1	1 3/8	1,8	2,3
Room volume (indication)		m <sup>3</sup>	4	7	11	17	23	29	46
Mari Sanud Arramal	230V/1/50Hz+T	A	5,2	5,8	6,1	7,8	9,7	-	-
Max. input current	400V/3+N/50Hz	Α	-		-			5,9	7,1
Unit cooler air flow		m³/h	600	600	600	1160	1160	1700	2260

		EUMOR	3/4/8	mporature +3 <b>5AD</b>	7AD	10AD	18AD	21AD	2540
Capacity RADIA (1)		kW	0,93	1,17	1,47	1,98	2.44	3,30	25,\D 4,03
Input power (1)		kW	0,59	0,69	0,92	1,05	1,28	1,42	1,79
Compressor		CV	3/8	1/2	7/8	1	1 3/8	1,8	2.3
Room volume (indication)		m <sup>3</sup>	3	5	8	12	17	20	26
	230V/1/50Hz+T	Α	5,2	5,8	6,1	7,8	9,7	-	
Max, input current	400V/3+N/50Hz	Α	-				-	5,9	7.1
Unit cooler air flow		m³/h	600	600	600	1160	1160	1700	2260

		EUMOP	3AVAD	5A/AD	7A/AD	10A/AD	13A/AD	ZIAVAD	25A/AD
	Н	mm	649	649	649	649	649	836	836
	H'	mm	278	278	278	278	278	462	462
	P	mm	320	320	320	320	320	472	472
Dimensions	Pi	mm	506	506	506	506	506	691	691
Dimensions	L	mm	399	399	399	689	689	575	841
	Α	mm	90	90	90	90	90	89	89
	В	mm	38	38	38	38	38	81	81
	C	mm	319	319	319	609	609	414	680
Net weight		kg	46	48	52	65	71	85	100

<sup>(1)</sup> Cooling capacity with: 10K superheat - 3K subcooling



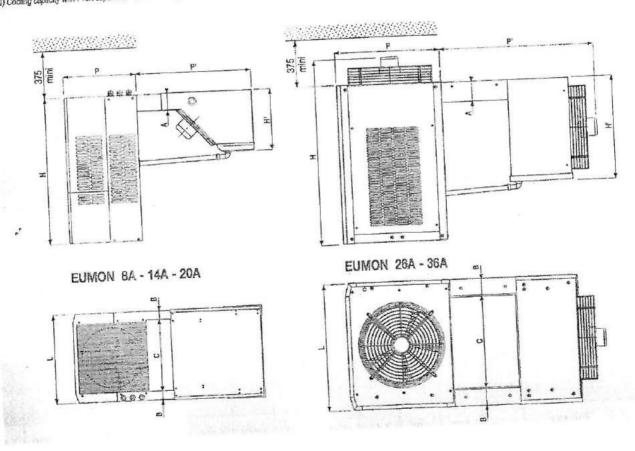
	Low temperature range
THE FAR!	

	- ES 45 /5	0.0	12A	200	and the second	See all a section
	an Well		4 44	1.46	1,90	2,78
	kW	and the same of th	0.01		1,46	2,47
	kW	- Lagrange - Company		2	2,3	3,3
	CV	3/4	1 1/2	15	27	54
manufacture and manufacture and a state of	m³	5	9	10		-
0001/14/E0Hz.T	A	5,2	7,2	9,0	83	9,3
400V/3+N/50Hz	Δ		1160	1160	1750	2240
	230V/1/50Hz+T	230V/1/50Hz+T A	kW         0,80           kW         0,75           CV         3/4           m8         5           230V/1/50Hz+T         A         5,2	kW     0,80     1,11       kW     0,75     0,91       CV     3/4     1 1/2       m3     5     9       230V/1/50Hz+T     A     5,2     7,2	kW         0,80         1,11         5+0           kW         0,75         0,91         1,19           CV         3/4         1 1/2         2           m³         5         9         15           230V/1/50Hz+T         A         5,2         7,2         9,0	EUV,   O   O   O   O   O   O   O   O   O

are cooler on the	ement agreement of the	Room langua	ure -25 °C - Out	side temperature +	32°C	266	35A
近点 医 <b>有</b> 门系统 "克 第		EUMON	BA	144	20A	2.00 1.59	2,36
THE RESERVE AND PARTY AND PARTY AND PERSONS ASSESSMENT OF THE PERSONS ASSESSMENT ASSESSMENT OF THE PERSONS ASSESSMENT ASSE		kW	0,68	0,92	1,23	1,30	2,23
apacity R404A (1)		kW	0,69	0,83	2	2,3	3,3
put power (1) ompressor		CV	3/4	7	8,5	15	30
oom volume (indication)	mall T	<u>m3</u>	5.2	7,2	9,0	- 00	9,3
ax. input current	230V/1/50Hz+T 400V/3+N/50Hz	^	-			8,3 1750	2240
The second secon	400V/0+1V/0011Z	m³/h	600	1160	1160	1,00	
nit cooler air flow	-1 N-				THE COLUMN TWO IS NOT THE	264	36A

	EUMON		14A	20A	26A	5072525
The second second		The state of the s	240	649	836	836
r.i	mm	649	649	278	462	462
<u>n</u>		278	278	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO	to the last terminal and the second s	472
H	The state of the s	320				691
P		506	A CONTRACTOR OF THE PARTY OF TH	And the second s		841
<u> </u>	production to the second secon	399	689	The second secon		89
<u> </u>		90	90	90	01	81
Α		38	38	38	414	680
В	- the said of the	319	609		The state of the s	110
С		57	71	80	00	
	H' P L A B	H' mm P mm P' mm L mm A mm B mm C mm	P mm 320 P mm 506 L mm 399 A mm 90 B mm 38 C mm 319	H' mm 320 320 P mm 320 506 P' mm 506 506 L mm 399 689 A mm 90 90 B mm 38 38 C mm 319 609 C 71	H¹ mm 2/8 2/0 320 320  P mm 320 320 320  P¹ mm 506 506  L mm 399 689 689  A mm 90 90 90  A mm 38 38 38  B mm 319 609 609  C mm 57 71 80	H¹ mm 2/8 2/0 320 320 472  P mm 320 320 320 472  P¹ mm 506 506 506 691  L mm 399 689 689 575  L mm 90 90 90 89  A mm 90 90 90 89  B mm 38 38 81  B mm 319 609 609 414  C mm 57 71 80 85

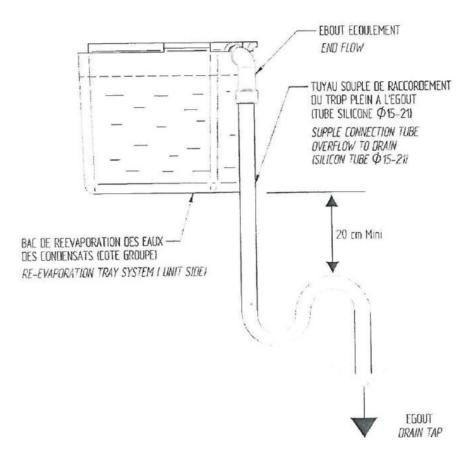
(1) Cooling capacity with : 10K superheat - 3K subcooling



### 4. Evacuation of defrost water

Our monoblock units are equipped as standard with a defrost water recuperation system enabling the evaporation of 100 g of water per hour (thermister) at an ambient temperature of 20°C and a relative humidity of 60%.

When the monoblock unit is located in an environment with 100% relative humidity, the re-evaporation tray is equipped with an overflow for connection to the waste water system.



# 5. Electrical connections

<u>Important:</u> It is recommendable to include a protection circuit-breaker in the power supply line of the monoblock unit.

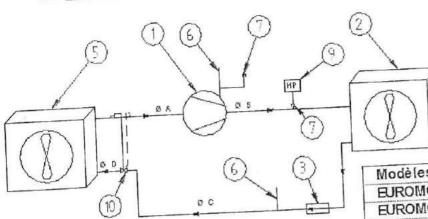
Attention: If the door contact controlling the unit lighting is not connected, change the parameter I2P to CL otherwise the fault message "DA" will be displayed.

## 5.1 Unit fill chart (R404A)

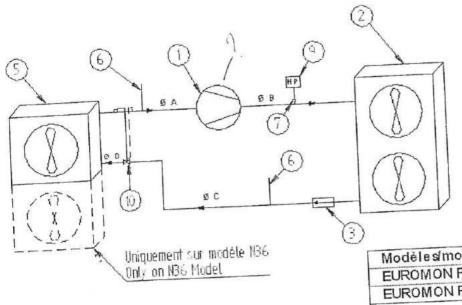
Fill (g)	420	400	380	695	700	1050	1450	350	690	760	1000	1450
NEGATIVE MODELS								8 A	14 A	20 A	26 A	36 A
POSITIVE MODELS	3.A	5 A	7 A	10 A	13A	21A	25A					

Please refer to the commercial documentation and/or product selection software for further details.

# 5.2 Cooling characteristics



The literal models	ØA	ØB !	ØC	ØD
Modèles/models	3/8"	1/4"	1/4"	1/2"
EUROMON P03A EUROMON P05A	3/8"	1/4"	1/4"	1/2"
EUROMON PO7A	3/8"	1/4"	1/4"	1/2"
EUROMON P10A	1/2"	3/8"	1/4"	1/2"
EUROMON P13A	1/2"	3/8"	3/8"	1/2"
EUROMON NOSA	3/8"	1/4"	1/4"	1/2"
EUROMON N14A	1/2"	3/8"	3/8"	1/2"
EUROMON N20A	1/2"	3/8"	3/8"	1/2"



ØA	ØВ	ØС	ØD
1/4"	1/4"	1/4"	1/2"
3/8"	1/4"	1/4"	1/2"
3/8"	3/8"	1/4"	1/2"
1/2"	3/8"	3/8"	1/2"
	1/4" 3/8" 3/8"	1/4" 1/4" 3/8" 1/4" 3/8" 3/8"	1/4" 1/4" 1/4" 3/8" 1/4" 1/4" 3/8" 3/8" 1/4"

	Tot i salon	Designation		
N°	Désignation	Compressor		
1	Compresseur	Condenser		
2	Condenseur	Liquid filter		
3	Deshydrateur liquide	Capillary expansion valve		
4	Détendeur capillaire	Evaporator		
5	Evaporateur	Tube of load 1/4" Pressure socket 1/4"		
6	Tube de charge 1/4"			
7	Prise de pression	Defrost solenoid valve		
8	Electrovanne dégivrage gaz chaud	High safety pressure switch		
9	Pressostat HP sécurité	Expansion valve		
10	Détendeur	Expansion valve		

# 6. Commissioning

Three types of controls are available:

- Positive monoblock air defrost
- Positive monoblock electrical defrost
- Negative monoblock electrical defrost

Note: The regulators are factory preset to the values corresponding to the application required.

# 7. Display presentation



Display and modify the target value. In the programming mode, select a parameter or confirm an operation. If this button is pressed for 3 seconds when the maximum or minimum temperature is displayed, then this value will be deleted.

Display the maximum temperature recorded. In the programming mode, scroll through the parameters list or increase the value displayed. Press this button for 3 seconds to start a fast cooling cycle.

Display the minimum temperature recorded. In the programming mode, scroll through the parameters list or decrease the value displayed.

Press this button for 3 seconds to start a defrost cycle.

Switch the cold storage room lighting on or off. This switch has priority over the "door open" function.

Switch the unit on or off.

# Designation of LEDS

The meaning of each LED is described in the table below (LEDs located top left hand side of the buttons):

LED	MODE	FUNCTION		
*	ON	Compressor on.		
* Blinking		Programming phase (blinking with %) Anti-short cycle on		
e.	ON	Fan on.		
ş, ş,	Blinking	Programming phase (blinking with **)		
***	ON	Defrost on.		
*	Blinking	Drain in progress.		
	ON	Fast cooling cycle on.		
(b)	ON	Alarm indication		
\$	ON	Lighting on		

# Button combinations



(0)

To lock (message "POF") or unlock (message "PON") the keyboard. To access the programming mode.



programming mode.

To quit the programming mode.

# Start a manual defrost cycle



Press the DEF button for 3 seconds to start a manual defrost cycle.

## ON/OFF function



When the ON/OFF button is pressed, the regulator displays "OFF" for 5 seconds and the ON/OFF LED is on.
When OFF, all relays are disabled and regulation is interrupted; if a remote control system is connected, no data or alarm messages will be recorded.
N.B.: When OFF, the lighting button is enabled.

### To enter the programming mode



Access the programming mode by pressing the buttons SET and DOWN at the same time for several seconds.

( and blinking)

The regulator displays the 1st parameter present

(Parameters accessible to the user)

#### Change a parameter value

- 1 Access the programming mode
- 2. Select the parameter with or or





- 3. Press SET to display the value (the LEDs \* and \* blink).
- 4. Use or to change the value.
- 5. Press SET to save the new value and go to the next parameter

To quit: Press SET + UP or wait 15 seconds without touching a button.

## List of parameters

REGULATION

- Differential (0.1 ÷ 25.5°C/1 ÷ 45°F). Set Hy point differential, always positive. The compressor functions when set point + differential (Hy). The compressor is switched off when the temperature attains the set point.
- Set point lower limit (-50.0°C ÷ SET/-58°F LS ÷ SET). Minimum value accepted by the set
- Set point upper limit (SET ÷ 110°C/SET ÷ US 230°C). Maximum value accepted by the set point.
- Activation timer for outputs at start-up (0 OdS ÷ 255 min). This function is enabled during initial regulator start-up and prevents activation of the outputs for the duration set with this parameter. (The lighting may be
- Anti-short cycle timer (0 ÷ 30 min). The AC time between compressor stoppage and restart.
- CCt Force thermostat (0 min ÷ 23 h 50 min). Enables setting of the continuous cycle duration. May be used, for example, when the cold storage room is filled with new produce.
- Compressor ON duration in case of a Con sensor fault (0 ÷ 255 min). The time period during which the compressor is enabled in the case of a sensor fault. With Con = 0, the compressor is always OFF.
- COF Compressor OFF duration in case of a sensor fault (0 ÷ 255 min). Time period during which the compressor is disabled in the case of a sensor fault. With COF = 0, the compressor is always ON.

#### DISPLAY

- Measurement unit: °C = Celsius, °F = CF Fahrenheit. When the measurement unit is changed, the set point as well as several parameter values must be changed.
- Resolution (in °C): in = 1°C, de = 0.1°C. rES Display the decimal point.
- Local display: Select the sensor displayed Lod by the regulator: P1 = ambient sensor P2 = unit cooler sensor 1r2 = difference between P1 and P2 (P1 -P2).

#### FANS

- FnC Fan operating modes:
  - C-n = operation with the compressor, OFF during defrost C-y = operation with the compressor, ON during defrost O-n = in continuous mode, OFF during

defrost

- O-y = in continuous mode, ON during defrost.
- Fan timer after defrost (0 ÷ 255 min). Fnd Time between the end of defrost and startup of the unit cooler fans.
- Fan stoppage temperature (-50 ÷ 110°C, FSt -58 ÷ 230°F). Indicates the temperature detected by the unit cooler sensor above which the fans are always OFF.

#### **EFROST**

Type of defrost:

rE = electrical defrost (compressor OFF) in = hot gas (defrost compressor relay ON).

Defrost mode: dF

in = interval mode. Defrost starts when the «Idf» time period has expired. Sd = Smartfrost mode. The IdF duration (interval between 2 defrosts) only increases when the compressor is on (even

intermittent).

SMARTFROST set point SdF (-30 ÷ 30°C/-22 ÷ 86°F). In SMARTFROST mode, the unit cooler temperature which enables IdF metering (interval between 2 defrosts).

End of defrost temperature: (-50.0 ÷ dtE  $110.0^{\circ}\text{C}/-58 \div 230^{\circ}\text{F}$ ) (active only when the unit cooler sensor is present). Indicates the temperature measured by the unit cooler sensor triggering the end of defrost.

Interval between defrost cycles (0 ÷ 120 Ič h). Defines the interval between the starting point of two defrost cycles.

MdF Maximum defrost duration (0 ÷ 255 min). When P2P = n (no unit cooler sensor), it indicates the defrost duration. When P2P = y (end of defrost according to temperature), it indicates the maximum defrost duration.

dFd Display during defrost:

rt = real temperature it = initial temperature read at the beginning of defrost

Set = set point

dEF = code "dEF"

dEG = code "dEG"

dAd End of defrost display (0 ÷ 255 min). Indicates the maximum time between end of defrost and re-display of the real cold room temperature.

Defrost start-up timer (0÷99 min.) Useful dSd not to overload the installation when several defrost cycles are required.

Drain duration (0 ÷ 60 min). Time between Fdt attaining of the end of defrost temperature and the normal regulator restart. This interval enables the unit cooler to eliminate droplets which could have formed during defrost.

dPO 1st defrost after start-up: y = immediately

 $\mathbf{n}$  = after the time in IdF

dAF Defrost timer after a fast cooling cycle (0 min ÷ 23 h 50 min). The first defrost cycle will be delayed by this time.

## MISCELLANEOUS

PbC Type of sensor ptC = PTC sensorntC = NTC sensor

Rel Software version (in read-only): Microprocessor software version

Table of parameters (in read-only). Indicates the initial mother board code of the parameters

Prd Sensors display (in read-only). Display the values of unit cooler sensor Pb2 and auxiliary sensor Pb3.

Pr2 Access the protected parameters list (in read-only).

# SENSOR INPUTS

- Ambient sensor range (-12.0 ÷ 12.°C / -Ot 21 ÷ 21°F). Enables adjustment of the sensor value.
- Unit cooler sensor range (-12.0 ÷ 12.°C / OE -21 ÷ 21°F). Enables adjustment of the sensor value.
- Presence of the unit cooler sensor: P2P n = not present; defrost stoppage with timer only y = present; defrost stoppage with temperature and timer.
- HES Temperature increase during energy-saving cycle (-30.0°C ÷ 30.0°C / -22 ÷ 86°F). Indicates the increase in set point value during the energy-saving cycle.

#### DIGITAL INPUTS

- ALC Temperature alarm configuration:

  rE = set point high and low level alarms

  Ab = Absolute temperature high and low level alarms.
- ALU Maximum temperature alarm (ALC = rE, 0 ÷ 50°C or 90°F; ALC = Ab, ALL ÷ 110°C or 230°F). The alarm HA is triggered when this temperature is attained, after the "ALd" time period.
- ALL Minimum temperature alarm (ALC = rE, 0 ÷ 50°C or 90°F; ALC = Ab, -50°C or -58°F ÷ ALU). The alarm LA is triggered when this temperature is attained, after the "ALd" time period.
- AFH Fan differential and temperature alarm (0.1 ÷ 25.5°C; 1 ÷ 45°F). Switching differential for the temperature alarm set point and the fan regulation set point, always positive.
- ALd Temperature alarm timer (0 ÷ 255 min). Time between detection of an alarm and transmission of an alarm signal.
- dAO Start-up temperature alarm timer (0 min ÷ 23 h 50 min). Time between detection of a start-up alarm and transmission of an alarm signal.
- EdA End of defrost alarm timer (0 ÷ 255 min). Time between detection of an end of defrost alarm and transmission of an alarm signal.
- dot Temperature alarm after door closing timer (0 ÷ 255 min). Time before transmitting an alarm signal after closing the door.
- doA Door open alarm timer (0 ÷ 255 min). Time between detection of an open door and transmission of an alarm signal: The message "dA" blinks.
- nPS Pressure switch number (0 ÷ 15). Number of times the pressure switch is enabled during the "did" interval before an alarm is triggered (I2F = PAL).

- odc Compressor and fan status when the door is opened:
  - no = normal
  - Fan = fan OFF
  - CPr = compressor OFF
  - F C = compressor and fan OFF.
- I2P Configurable digital input polarity:
  - CL = the digital input is enabled when the contact is closed
  - OP = the digital input is enabled when the contact is opened.
- I2F Digital input operating mode:
  - dor = door switch
  - EAL = general alarm
  - bAL = major alarm mode
  - PAL = pressure switch
  - dFr = start defrost
  - AUS = not used
  - $\mathbf{E}\mathbf{s} = \mathbf{E}\mathbf{n}\mathbf{e}\mathbf{r}\mathbf{g}\mathbf{y}$  saving
  - onF = ON/OFF
  - Hdf = not used
- did Digital input alarm timer/interval (0 ÷ 255 min). Time required to calculate the number of times the pressure switch was activated when I2F = PAL. If I2F = EAL or bAL (external alarm). The "did" parameter defines the time between alarm detection and transmission of an alarm signal.

Door switch input (I2F = dor)

Indicates the door status as well as that of the corresponding relay output with the "odc" parameter:

no = normal (no change)

Fan = fan OFF

 $\mathbf{CPr} = \mathbf{compressor} \ \mathbf{OFF}$ 

F\_C = compressor and fan OFF.

When the door is open and after the time parameter set in "dOA", the alarm output is activated and the message "dA" displayed. The alarm is acknowledged as soon as the external digital input is disabled. During this period and the time set in "dot" after closing the door, the high and low temperature alarms are disabled

#### Alarm signals

Message	age Cause	
"P1"	Ambient sensor fault	
"P2"	Unit cooler sensor fault	
"HA"	High temperature alarm	
"LA"	Low temperature alarm	
"EE"	Memory fault or failure	
"dA"	Door open alarm (or HP safety pressure switch for model P3/5/7/10/13 and N8/14/20 only)	
"EAL"	External alarm	
"BAL"	Major external alarm	
"PAL"	Pressure switch alarm	

The alarm message is displayed until the alarm condition has been corrected.

All alarm messages are displayed alternately with the ambient temperature except "P1" which blinks.

Press any button to reset the "EE" alarm and restart normal operation. The message "rSt" is displayed for 3 seconds.

#### Stop buzzer

When an alarm signal is detected, the buzzer may be switched off

by pressing any button.

#### Alarm "EE"

The regulator contains an internal memory check system. The alarm "EE" blinks when an internal memory fault is detected. In this case, the alarm output is enabled.

## Alarm reset procedures

Sensor "P1" (sensor fault), "P2" alarms: these alarms stop automatically 10 seconds after the sensor returns to normal operation. Check the connections and replace the sensor.

HA" and "LA" temperature alarms: They stop automatically as soon as the regulator temperature returns to a normal value or when defrost is started.

he door switch alarm "dA" stops as soon as the door is closed.

The external alarms "EAL", "BAL" stop as soon as the external digital input is disabled; the alarm "PAL" is reset by switching off the regulator.

The door switch alarm PAL is reset by switching off the regulator.

# 8. Default parameter settings

ode	Designation		P. S. Voy St. H. C.	Factory settings		Negative appl. elec.		Level
900	Designation		Positive appl.	Positive appl. elec.		Negative appl. elec.		
		ÿ	air defrost	defro		N8/14/20	N26/36	1
	REGULATION			P3/5/7/10/	P21/25	N8/14/20	1420/30	
1				13		-20	<u> </u>	User
0.4	Set point	°c	4	2		2		User
Set	Differential	°c	2	2		-2:		Installer
Hy_	Set point lower limit	°c	2	-5	_	-1		Installer
LS	Set point rower limit	°c	10	10				Installer
US	Output activation timer at start-up	min	1	1		1		Installer
OdS	Anti-short cycle timer	min	3	3		3		User
AC	Compressor ON during fast cooling	min	0	0		0		Installer
CCt	Compressor ON in case of sensor fault	min	15	15	_	1:		Installer
COn	Compressor OFF in case of sensor fault	min	15	15		1.	5	installer
COF_	DISPLAY					1		7
			°c	00		0		Installer
CF	Temperature measurement unit		de	de	,		)e	User
rES	Resolution (with/without decimal point)		PI	P		P	1	Installer
Lod	Local display		1	TO THE REAL PROPERTY.				
	ALARMS	107 17	rE	rl	3		E	Installer
ALC	Temperature alarms configuration	°c	5	5			5	Installer
ALU	Maximum temperature alarm	°c	5	5			5	Installer
ALL	Minimum temperature alarm	°c	2	2	_		2	Installer
AFH	Temperature and fan differential alarm		45	4			15	Installer
ALd	Temperature alarm timer	min	1.5	1		1	.5	Installer
dAO	Start-up temperature alarm timer	<u>h</u>	30	3		The second second	30	Installer
EdA	End of defrost alarm timer	min		14.11	0		10	User
dot	Temperature after closing door alarm timer	min	10		2		2	User
dOA	Door open alarm timer	min	2		0		0	Installer
nPS	Number of pressure switch activations		0	-				
***	ANALOGUE INPUTS		-	-	0		0	Installer
Ot	Ambient sensor rating	°c	0			-	0	Installer
OE	Unit cooler sensor rating	°c_	0	0		y		Installer
P2P	Unit cooler sensor present		n		<u>y</u>	-	0	Installer
HES	· Junio an energy caving	°c	0		0		U	1110111111
HES	cycle							
	DEFROST				.12		rЕ	Installer
tdF	Type of defrost		rE		rl? in		in	Installer
EdF	Defrost mode		in		1N	4	111	Installer
-	SMART DEFROST set point	°c			T 0	4	8	Installer
SdF dtE	End of defrost temperature	°c	4	4	8	12	8	User
-	Time between defrost cycles	h	6	12	8	30	45	Installer
IdF	Maximum duration of 1st defrost	min		30	45		dEG	Installer
MdF	Display during defrost	1	dEG		IEG	_	Accessed to the last of the la	Installer
dFd	Maximum display time after defrost	min			10		10	Installer
dAd	Time before defrost	min			0		0	Installer
cd	Drain time	min			3		3	Installer
Fdt	Drain time  1st defrost after start-up		n		n		n	
dPO	Defrost time after fast cooling	h	0		0	-	0	Installer
dAF	Defrost time after last cooling  FANS	1 -				-		74 11
		1	О-у		O-n		O-n	Installer
FnC	Fan operating mode	min			5	5		Installer
Fnd	Fans after defrost timer	°c			110		110	Installer
FSt	Fan stoppage temperature	+		5400	355			
	MISCELLANEOUS	-	ntC		ntC		ntC	Installer
Pbc	Type of sensor	-						Installer
rEL	Software version	+	-					Installer
Ptb	List of parameters code	-						Installer
Prd	Sensor display	-						Installer
Pr2	List of parameters accessible	-						
	DIGITAL INPUTS	-	FC	-	FC		FC	Installer
Ode	Door open monitoring	-	OP OP		OP	-	OP	User
12P	Configurable digital input polarity	-			dor	dor		Installer
i2F	Digital input configuration		dor		0	_	0	Installer
1 444	Digital input alarm timer	m	in 0		T.			200000000000000000000000000000000000000

# PORKKA PANEL

# Walk-in cold and freezer rooms



# Mounting and operation

#### E090811EN

# Walk-in cold and freezer rooms Mounting and operation



# 

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# Walk-in cold and freezer rooms Mounting and operation

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# Walk-in cold and freezer rooms Mounting and operation



#### 1. GENERAL

The purpose of these mounting instructions is to provide directions for erecting a walk-in cold room or freezer room made by Porkka Finland Oy. The instructions describe the mounting step by step, including the most important mounting tips. Read the instructions carefully and completely before mounting, and follow the instructions throughout the work. In addition, follow the information in any plans, structural drawings, or other instructions included in the delivery - even if it differs from what is stated in these mounting instructions.

Porkka products use CFC- and HCFC-free foamed hard polyurethane as insulation. Porkka Finland Oy takes part in international co-operation projects that aim to minimise the environmental impact of products.

The polyurethane for the panels is foamed between the surface sheets in a mould, forming a light and extremely rigid structure without separate frame components. The polyurethane's density is about. 40 kg/m3. The maximum width of the panels is 1.2 metres. Free span length in ceilings can be up to six metres, depending on insulation thickness. Porkka panels comply with the hygiene requirements set for surfaces on premises where food is stored.

These mounting instructions are guidelines only. Porkka Finland Oy reserves the right to make changes with respect to materials and working procedures.



Please keep this manual for future use!

#### 2. OCCUPATIONAL SAFETY ISSUES AFFECTING MOUNTING

#### **General safety instructions**



Follow the general rules and regulations concerning occupational safety.

Make sure that your insurance is up to date.

Use protective devices required for the working site, the working methods, and the environment.

Ensure the safety of passage routes.

Make sure that the working locations are clean and orderly.

#### Lifting situations



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

Do not use a flat jack for lifting persons.

Be careful when working near lifting devices.

Make sure that lifting eyes are straight and in good condition.

Warn others near you, before lifting: do not unnecessarily lift anything above people.

Do not leave your fingers under the object that has been lifted.

Always wear a safety helmet during lifting work.

#### Scaffolds and ladders



Before use, make sure that ladders are in good condition.

Before their use, make sure that ladders are in good condition.

The lower steps of ladders must have anti-slipping treatment.

Do not reach when on a ladder; instead, move it as necessary.

#### **Machinery and devices**



Make sure that devices are maintained properly.

Consider instructions for use, as well as other rules and regulations specified by the device manufacturers.

Acquaint yourself with the devices before using them.

Before use, make sure that the devices are properly mounted.

Defective electrical appliances are to be repaired only by experts qualified in maintaining electrical devices.

Do not cut or damage the electrical connection cable.

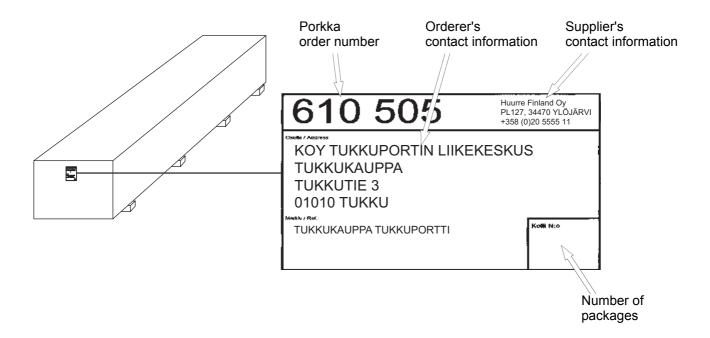


#### 3. RECEIPT AND STORAGE OF PANELS

#### 3.1. Receipt of panels

- Reserve proper lifting equipment on site for moving the packages: jack, forklift, pump wagons, etc.
- The storage location should be level and stable.
- Place the panels in a location where they are not susceptible to denting.

## 3.2. Storage of panels



- Check that you have received the same number of packages as mentioned in the waybill.
- The panels are delivered to the work site in packages, with the contents indicated on the packages.
- Perform a visual check of the packages as soon as the delivery arrives. Note possible defects and notify the supplier.
- If you need to store panels from the packages outside, protect the panels from sunlight and the possibility of snow or rain.
- Open the packages and check that their contents match the accompanying parts list.
- The packages include small packages that contain installation accessories. Gather the packages in one location and check the numbers against the parts list.



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

# Walk-in cold and freezer rooms

Mounting and operation

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### 3.3. Delivery content

#### The delivery for a walk-in cold and freezer room includes:

• Wall, ceiling, and floor panels, coated according to the orderer's specifications:

POES = Polyester-coated steel sheet
 RST = Stainless steel sheet (SS)
 PVDF = PVDF-coated steel sheet
 KS = Galvanised steel sheet

The above coating codes can be found in the parts list.

- Panel mounting accessories
- Pressure-balancing valve
  - comes as standard for freezer rooms and by special order for cold rooms as well
- Parts list
- Doors
- Floor plan
- Mounting instructions
- Special drawings

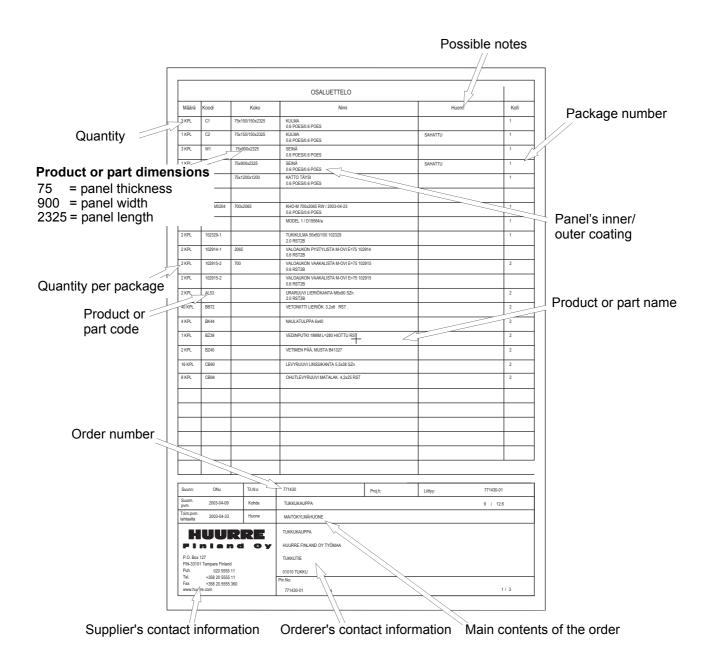
#### Also available:

- · Refrigeration units
  - unit installed on-site
  - ready-made refrigeration cassette unit
- Miscellaneous accessories
- Mounting service



#### 4. PRIOR TO MOUNTING

# 4.1. Reading the parts list



- Before each work stage, collect and prepare the equipment for that stage.
- The product code in the parts list refer to the code on the item. The same code is found in the detail diagram.
- The codes are marked on the panels with a felt-tip marker. Smaller accessories are collected in bags with codes on them. The profile codes are marked with stickers attached to each profile bundle.



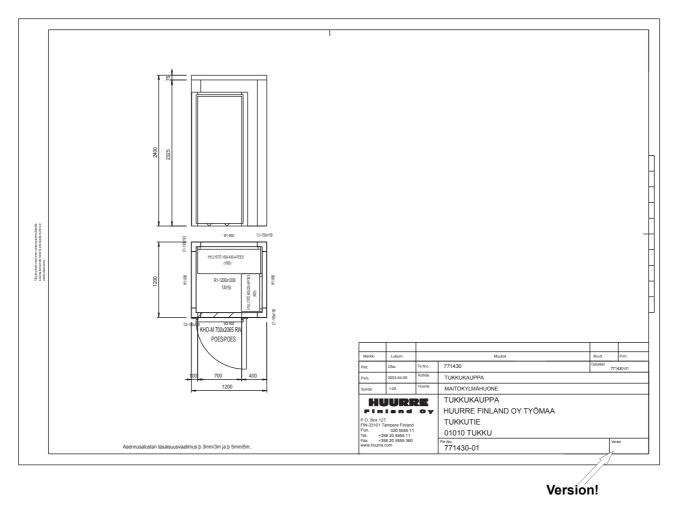
All parts must be mounted in accordance with the drawings!



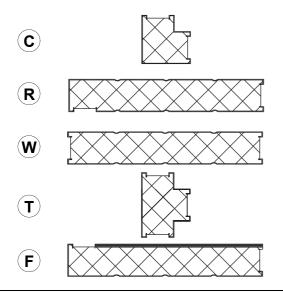
# Walk-in cold and freezer rooms Mounting and operation

## 4.2. Reading the drawings

Check the location of the walk-in cold room or freezer room to be installed from the main drawings. The drawings are read from left to right and from the outside if side-view drawings of the walls are provided.



# 4.3. Drawing markings



C = Corner panel

R = Ceiling panel

W = Wall panel

T = T-wall panel

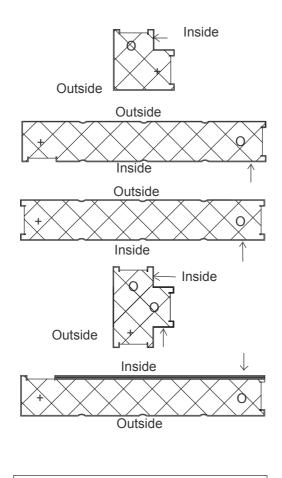
F = Floor panel

Basic details on these can be found at the end of these mounting instructions.



# 4.4. The location of the quick-action locks and quick-action lock pins on the panels

The measurements shown in the drawings refer to the outer dimensions of the panel. The panels are secured to each other with locks from inside; the holes are inside the panel.



+ = PIN.

= HOLE

The holes inside the panel are the holes for the quick-action lock key (indicated with arrows in the drawings). In the wall panels, the quick-action lock key holes are always at the right-hand side and in the upper portion when the panel is viewed from the inside of the room. If the room is to be assembled with profiles, usually no locks are placed at the upper end.

The quick-action lock pins are on the left-hand side; consult the drawings to detect possible abnormalities. Each panel has a code. The corresponding codes can be found from consulting both the parts lists and drawings. Any special drawing markings are explained in the drawing. Compare the panel codes in the drawing to the codes in the parts list.



O= LOCK.

Any exceptions regarding the location of quick-action locks and bores are shown separately in the room drawings.

#### 5. REQUIRED EQUIPMENT

Reserve the required tools for use at the installation site before starting the work. This leaves you more time for the actual mounting work.

#### Basic equipment

- Battery drill for attaching the screws
- Appropriate work clothes
- Brush
- Personal protective equipment
- Pen
- Caulking gun for applying sealants
- Tin snips
- Jigsaw with a suitable carbide-bit blade for sheet metal
- Riveter for blind rivets
- Bolt gun
- Stanley knife or similar for cutting the seals and removing the protective plastic sheets
- Tape measure
- Crow bar
- Protective gloves
- Chisel
- Levelling device for checking the levelness of the foundation
- Hammer
- Spirit level
- · Chalk line

#### Auxiliary and lifting devices

- Personnel hoists, if the rooms to be installed are tall
- Flat jack for lifting the ceiling panels
- Ladders

#### Electric equipment

- Welding machine for any welding work
- · Hammer drill
- Angle grinder with a cutting disc
- Circular saw with a carbide-bit blade for cutting steel sheet metal
- Electric wires
- Lights
- Ohmmeter

When working at low temperatures, reserve a heater and warm clothes - for example, thermal overalls – for use at the installation site.

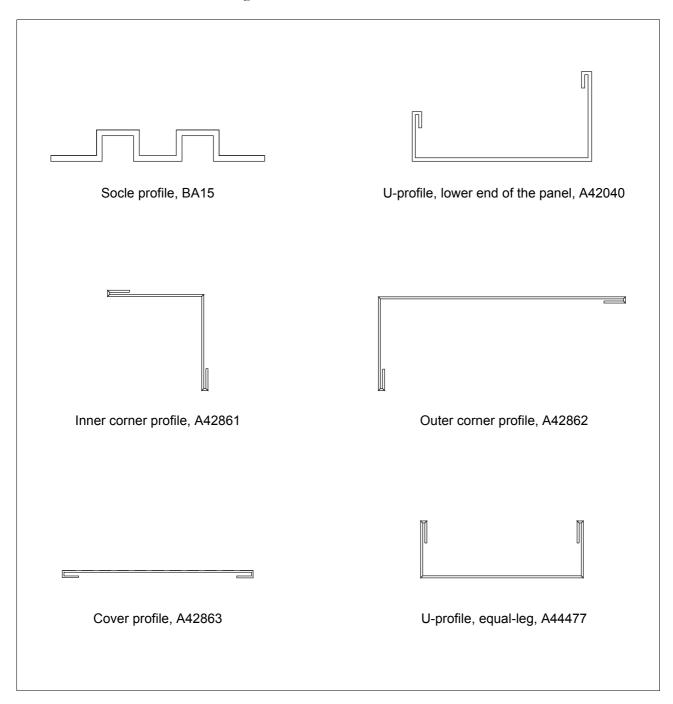


# 5.1. Most common mounting accessories

CODE	PRODUCT	SIZE	APPLICATION
AS86	Butyl mastic		Moisture barrier, for the outer edge of the joint
AS99	Silicone sealant, colourless		Sealant for the joint of the wall and floor
AT01	Silicone sealant, white		Hygienic sealant, outer and/or inner joints
AT02	Silicone sealant, grey		Hygienic sealant, outer and/or inner joints (SS) Floor joint / grey floor
AS87	Caulking gun		Applying silicone or butyl sealant
BA15	Socle profile	L = 2,000 mm	Wall bottom profile, no floor panels, $E=75 \text{ mm}$
BA04	Seal, hard	20 x 33	Floor to wall, wall to ceiling, E = 65 mm
BA20	Seal, hard	20 x 43	Floor to wall, wall to ceiling, E = 75 mm
BA21	Seal, hard	20 x 68	Floor to wall, wall to ceiling, E = 100 mm
BA22	Seal, hard	20 x 118	Floor to wall, wall to ceiling, E = 150 mm
AY96	Seal, soft	20 x 33	Panel joint, E = 65 mm
AL38	Seal, soft	20 x 43	Panel joint, E = 75 mm
AY97	Seal, soft	20 x 68	Panel joint, E = 100 mm
AY99	Seal, soft	20 x 118	Panel joint, E = 150 mm
CF85	Seal, soft	10 x 33	Semi-seal for joints, E = 65 mm
BY14	Seal, soft	10 x 43	Semi-seal for joints, E = 75 mm
BY13	Seal, soft	10 x 68	Semi-seal for joints, E = 100 mm
AD43	Wire nail	60 x 25	Attaching the seals
BC49	Quick-action lock key	100 mm	Opening and attaching the panel locks
BC50	Quick-action lock key	200 mm	Opening and attaching the panel locks
AN76	Cover plug, white	9,5 - 11	For the lock holes with white surfaces
CC15	Cover plug, grey	9,5 - 11	For the lock holes with a SS surface
BB72	Blind rivet, SS	3.2 x 8	Attaching the profiles
AH68	Blind rivet, white	3.2 x 8	Attaching the profiles
BT34	Wronic screw, white	4.2 x 13	Attaching the profiles
BK44	Nail plug	6 x 40	Attaching the bottom profiles

## 5.2. Standard profiles

The profile dimensions depend on, for example, panel thickness. The combination of a letter and numbers indicate the code or drawing number.



#### 6. IMPORTANT MOUNTING ISSUES

## 6.1. Ensuring vapour tightness

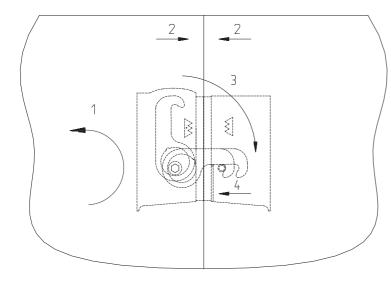
The cold spaces must be vapour-tight. Otherwise, the water vapour coming from outside condenses on the cooling radiators and other cold surfaces. This increases energy consumption, causes condensation problems, and in some cases even causes ice to form on these surfaces.

In Porkka walk-in cold and freezer rooms, the vapour tightness is ensured by applying butyl mastic that remains plastic to the warm side of the joints between the panels.



Always follow the instructions!

## 6.2. Operating principle of the quick-action lock



- 1. Turn the quick-action lock to the fully open position to set the lock catch so it is ready for operation.
- 2. Join the panels together.
- 3. Turn the quick-action lock to the 'close' position so that the catch goes behind the lock pin.
- 4. Turn further to tighten the quick-action lock to the final tightness.

The pulling power of the lock is 2.0 kN.

#### 7. MOUNTING



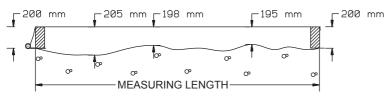
The panel surfaces do not withstand hard mechanical wear, so handle the surfaces with care.

#### 7.1. Mounting of floor

Before starting the mounting work, familiarise yourself with the relevant main drawings showing the location of the room to be installed.

#### Checking the levelness of the mounting foundation

Check that the mounting foundation visually and, if necessary, with an alignment wire or levelling device. The levelness tolerance for the mounting foundation is  $\pm 1$ mm/m.



# Example of checking the foundation for levelness with an alignment wire

- Place suitable blocks (e.g., square timber) on the foundation.
  - 2. Tighten an alignment wire between the blocks.
  - 3. Measure the height of the wire at the block (for example, 200 mm).
  - 4. Measure some distances between the foundation and wire (for example, 195, 198, and 205 mm).
  - 5. In the example, the level difference is  $\pm$  5 mm at the measured length.
  - If the length measured is 10 m and the foundation levelness is ± 0.5 mm/m, THE LEVELNESS IS ACCEPTABLE.
  - If the length measured is 4 metres and the foundation levelness is ± 1.25 mm/m, THE FOUNDATION MUST BE LEVELLED.

Level the foundation by grinding or using a filler.



**MEASURING LENGTH** 

THE FOUNDATION

LEVELNESS TOLERANCE: ±1 mm/m



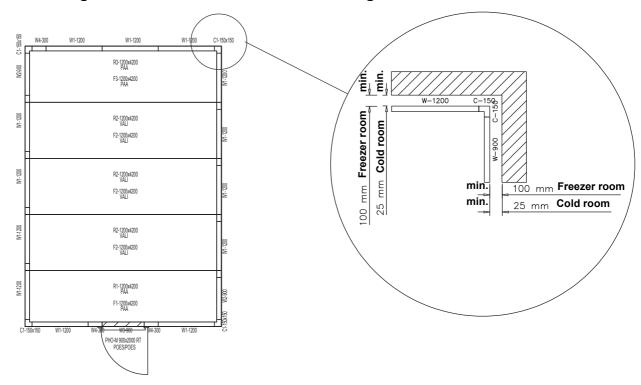
Never start mounting the room before the foundation is level. The levelness tolerance for the mounting foundation is  $\pm 1$  mm/m.

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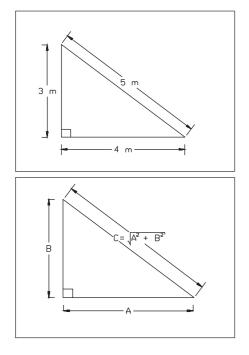
# Walk-in cold and freezer rooms Mounting and operation

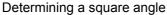


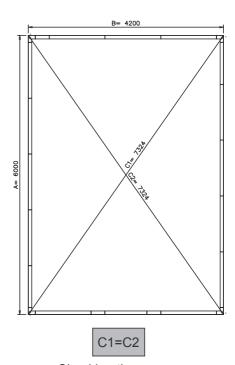
#### Determining the location of the room and marking the foundation



Mark the room's wall lines on the slab with a chalk line. Note the minimum ventilation gaps between adjacent structures: 100 mm and 25 mm for the freezer and cold rooms, respectively. Also note any irregularities when making the wall lines and, if necessary, change the mounting location, if possible. Otherwise, chisel off any irregularities.







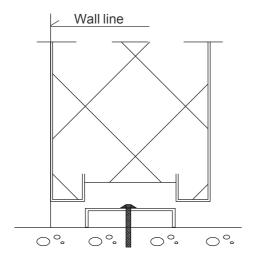
Checking the cross-measurement



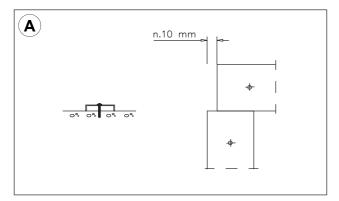
Cross-measure the marked wall lines and check that the corners are at a right angle. Never start mounting before the wall lines are cross-measured and aligned.

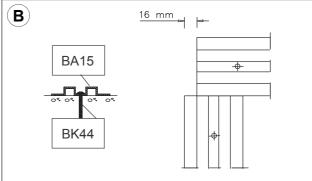


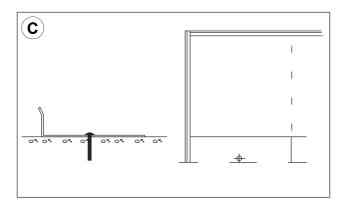
#### Attaching the bottom profiles (no floor panels to be installed)

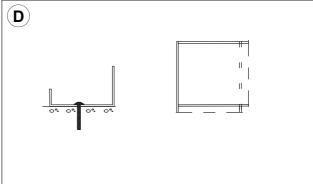


- 1. When determining the bottom profile location, note the thickness of the panel to ensure that the profile is placed in the correct location at the wall line.
- 2. Attach the bottom profile (**BA15**) with nail plugs (**BK44**) to concrete. Secure the profile more firmly near the door frame (for example, c/c = 100 mm).
- 3. Mount the profiles at the corners as shown in the drawings that follow (A-D).







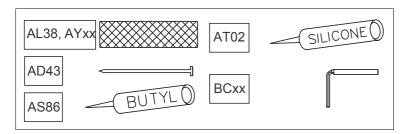


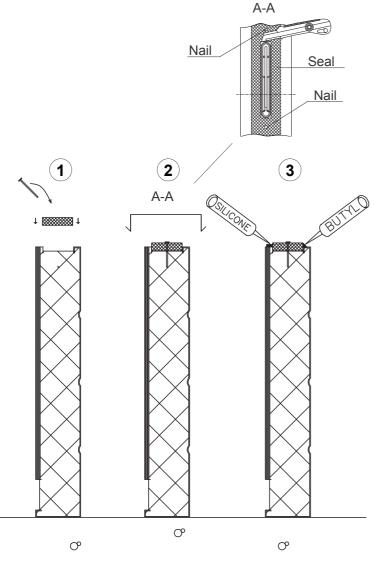


Before drilling the holes for the nail plugs, check the location of any heating cables (freezer rooms); attach the profile with a bolt gun, if necessary.



#### Mounting the floor panel

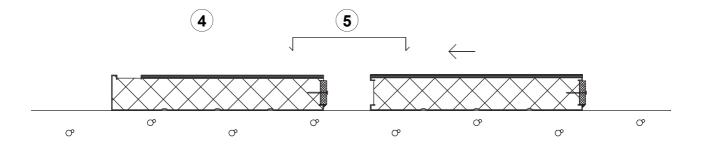




- 1. Attach the seals (**AYxx**) to the panels with nails (**AD43**), using a nail spacing of about one metre; also nail both sides of the locks.
- 2. Cut the seal off at the locks with a Stanley knife (section A-A).
- 3. To form a vapour seal, apply butyl mastic (**AS86**) to the outer joint (= the joint facing the foundation). Seal the inside joint by applying silicone sealant, selecting the sealant colour according to the floor colour.
- 4. Place the panels on the floor.
- 5. Check the quick-action locks for proper operation by turning the locks to the open and closed positions. Tighten the quick-action locks.
  - If the holes have polyurethane in them, remove it with the quickaction lock key. For the operating principle of the quick-action lock, see page 15.
- 6. Apply silicone sealant to the quickaction lock holes, selecting the sealant colour according to the floor colour.
- 7. Check the floor for flatness.

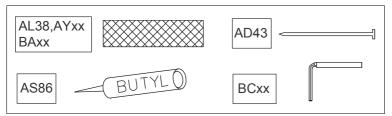


Keep the site clean!



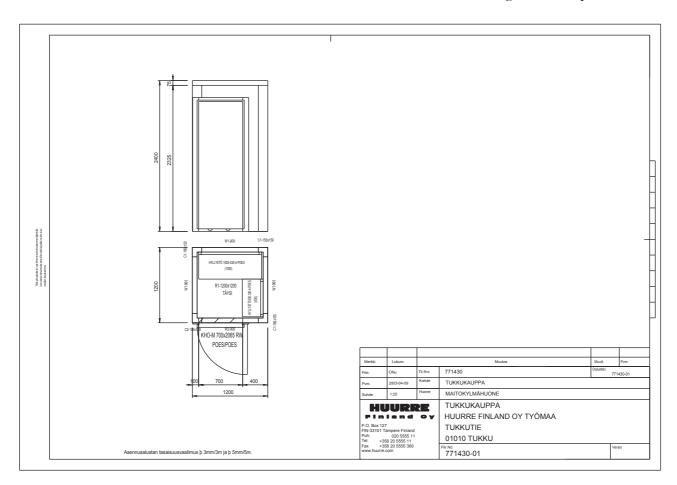


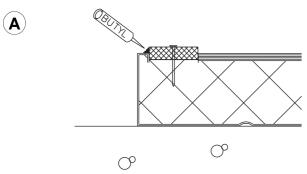
#### 7.2. Mounting the outer walls



Plan the mounting order of the panels carefully. See 'Mounting order', page 23.

Before starting the mounting, familiarise yourself with the appropriate technical drawings and floorplans.



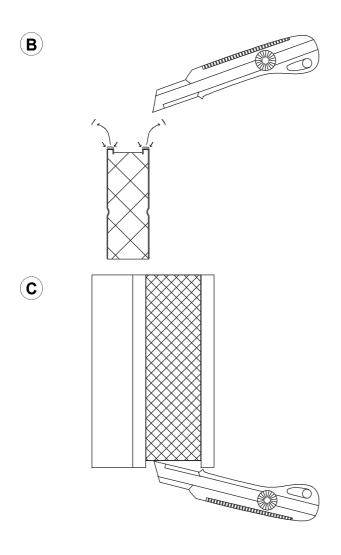


1. When you are ready to place the wall panels on the floor panels, first install the hard seal (BAxx) in the seal groove in the floor panel and apply the butyl mastic (AS86) to form a vapour seal. (Figure A) (NOTE! If the room is equipped with floor heating, see pages 24-25.)

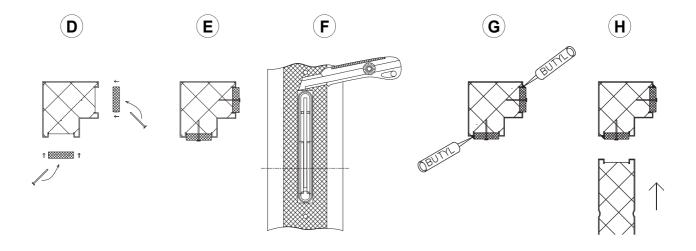


When the wall panels are viewed from the inside, the lock holes are always in the upper right-hand corner. If the room to be mounted features floor panels, lock holes are provided in the lower end also.





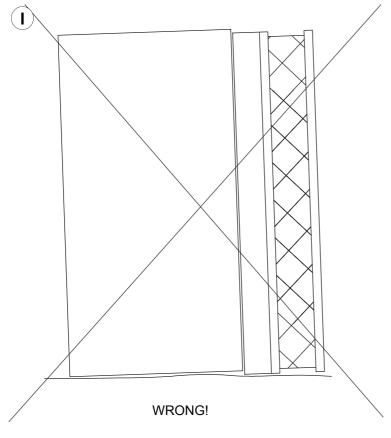
- 2. Remove the plastic from the panel edges by cutting it with a knife. Be careful not to scratch the visible surface of the panel. Clean both edges. (Figure B)
- 3. Start with the corner panel at the rearmost corner. Remove any excess polyurethane with a knife.
- 4. Fit the seals (**AYxx**) to the panel; fit them to both sides of the first corner panel. Cut the seal so that it is level with the bottom of the groove. (Figure C)
- 5. Attach the seals with nails (**AD43**), using a nail spacing of about one metre, and also nail both sides of the locks. (Figures D and E)
- 6. Cut a hole in the seal at the hole with a Stanley knife (Figure F).
- 7. Apply the butyl mastic (**AS86**) to the outer joint to form a vapour seal (Figure G). Do not smear the panels with the butyl mastic!
- 8. Lift the corner panel into place. Place the following panels similarly (Figure H).

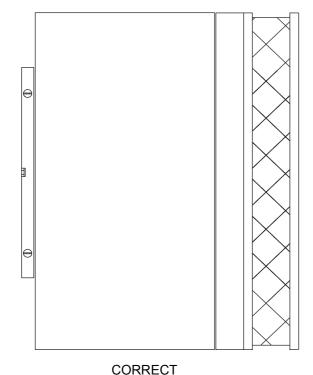




If the room features floor heating, see 'Mounting the floor heating cables', page 24.







- 9. The upper ends of the panels must be level before the locks are tightened, starting from top. Pay constant attention to the vertical alignment of the walls. Slight misalignment can be corrected by carefully using a chisel or crowbar, for example, as a wedge.
- 10. Close the quick-action lock catch by turning. Before starting, familiarise yourself with the operation of the quick-action lock by turning the catch to the fully open and closed positions. ('Operating principle of the quick-action lock', page 15). The quick-action lock hole can might some excess polyurethane, which can be easily removed by moving the key about in the hole.

If the panels step out of place (Figure I), open the quick-action lock at the top and tighten the middle lock. Then align the panel and close all locks. **Never continue panel mounting before the first panel is vertical!** 

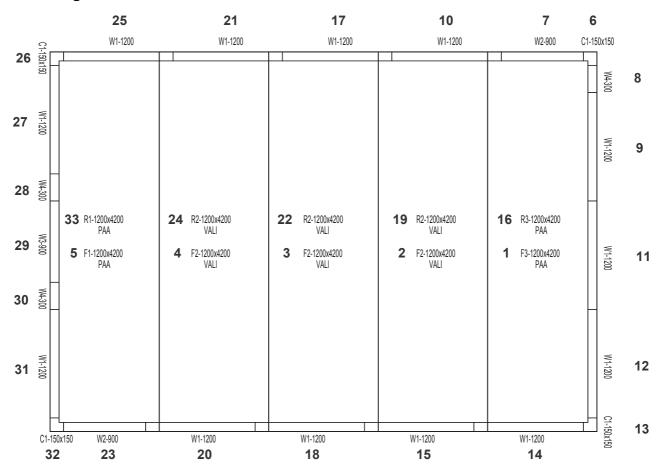
If you have to apply wedging to attain correct alignment, the floor is not level. Check the reason immediately. Is the whole foundation uneven and in need of levelling?



Always remember to fit the seals and apply the butyl mastic to the joints!

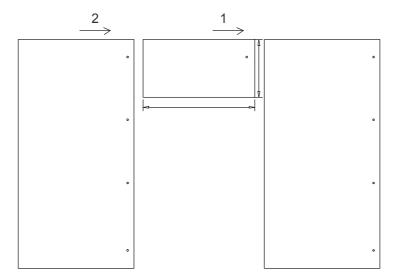


### **Mounting order**



Mount the wall panels so that you can fit the first ceiling panels to make the room rigid. Mount the ceiling panels along with the wall panels. The mounting order is indicated by the numbers 1 to 33.

### Mounting the door opening panel



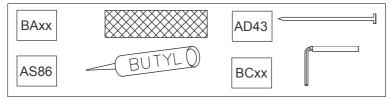
Ensure that the opening width and height are as indicated in the parts list and match the door's top panel and the door opening.

Lift the panel into place and ensure that the top edges of the panels are level. Tighten the quick-action locks.



The panels must be mounted as shown in the drawings.

### Mounting the floor heating cables

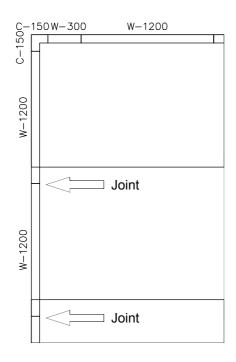


The floor heating for the freezer room is installed when no ventilation has been arranged for under the floor. This is to prevent condensation and therefore water freezing on the bottom surface of the freezer room.

The heating cables are located inside the floor panel, on the bottom surface. In mounting the panels, special care must be taken to prevent damaging the cables.

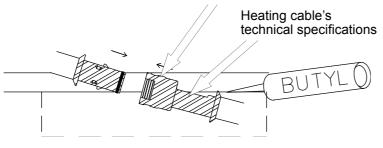


Check the condition of the heating cables before and after mounting by measuring the insulation resistance between the phase advance and the earth wire, and the resistance of the heating cables. The correct resistance values can be found from the connection cable for the heating cable (see step 2). Operating voltage is 230 V.



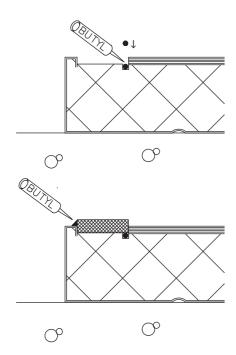
1. Mark the wall panel joint locations on the floor panels.

Heating cable's connection cable

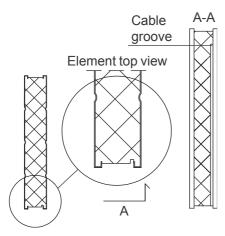


2. Connect the heating cable to the supply cable. Fit the connector to the notch in the seal groove and apply butyl mastic (**AS86**) in the notch.

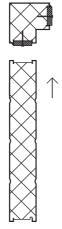




3. Saw a groove for the cable in the seal groove. Fit the cable into the groove and fill this cable groove with butyl mastic. (AS86) Install the hard seal (BAxx) in the seal groove. Notch the seal at the wall panel cable groove and fit the supply cable into the notch. Apply butyl mastic (AS86) to the outer joint as usual.

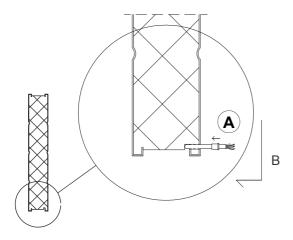


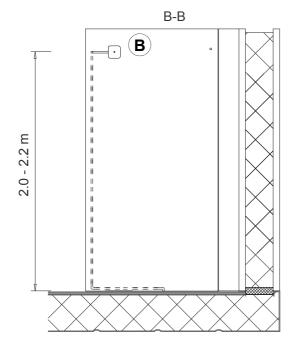
4. Saw a cable groove in the inner edge of the wall panel's vertical joint.



5. Join the corner panel and the first wall panel together. See 'Mounting the outer walls', page 20, steps 1 to 8.







6. Press the supply cable into the cable groove. Drill a hole in the panel edge at a height of about 2-2.2 metres for routing the cable inside the room. Fit a grommet (A) into the hole and route the cable to the box (B). Attach the box with plate screws (3.5 x 13).



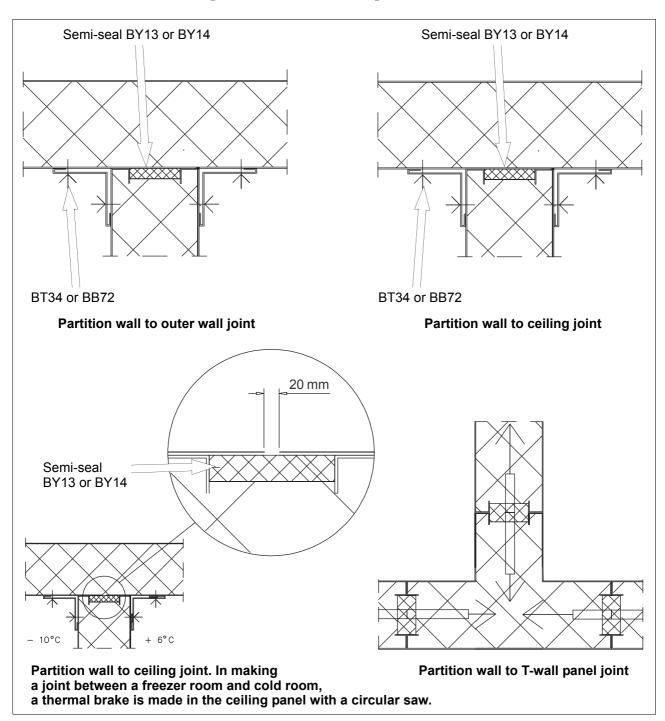
Remember to route the cables from all floor panels up to the box. Connect the cables according to instruction A36507.



## 7.3. Mounting the partition walls

Generally, the partition walls are mounted like the outer walls except for some differences in joints. The partition walls are joined to the outer walls with corner profiles and to the T-wall panels like other panels are.

Start mounting the partition walls as soon as possible, i.e., when a sufficient number of outer walls are erected. This makes the room rigid and facilitates mounting of other walls.

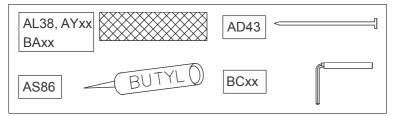




For partition wall details, see the end of this manual!

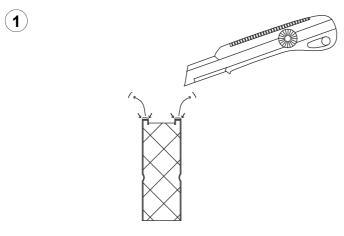


### 7.4. Mounting the ceiling panels

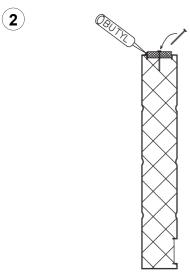


Start mounting the ceiling panels as soon as it is possible alongside mounting of the wall panels. With this technique, the ceiling panels stiffen the room.

Before mounting, check the drawings for the correct direction for mounting the ceiling panels.

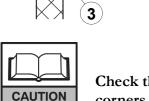


1. Remove the plastic from the panel edges.



(4)

- 2. Fit the seals (**AYxx**) and apply butyl mastic (**AS86**) to the outer joints as with the wall panels.
- 3. Before lowering the ceiling panel onto the wall panels, fit the hard seal (**BAxx**) in place and apply butyl mastic (**AS86**) on top of the wall panels.
- 4. If necessary, use a flat jack to mount the ceiling panel. Ensure that the jack does not scratch the panel.
- 5. Fit the ceiling panels and check the joints for tightness. Always secure the ceiling panels to each other with the quick-action locks first and then attach them to the wall panels. Mount the last ceiling panel from the outside of the room by guiding it from the inside as well.



Check the vertical alignment of the walls whenever possible, especially at corners.

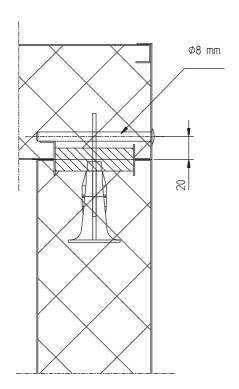
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## Walk-in cold and freezer rooms Mounting and operation



### Mounting of loose pins

AUxx or AT24



- 1. Pin location = lock hole location.
- 2. Mark the pin locations in the ceiling panel and drill the pin holes (Ø 8 mm) in these locations.
- 3. Make a notch in the polyurethane at the both sides of the pin so that the lock catch can turn over the pin.
- 4. Install the pin (AT24).

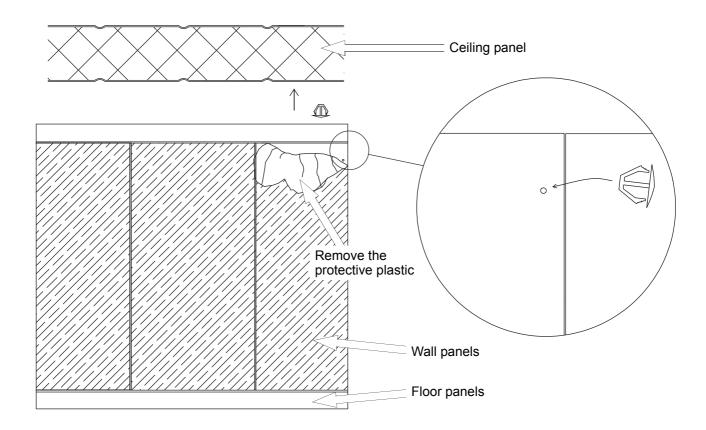
### Supporting of the ceiling panel at its long span

Project-specific drawings of support solutions are presented with the room drawing.



## 7.5. Mounting the cover plugs





When the panels are mounted and the quick-action locks are closed, remove the protective plastic and mount the cover plugs. (AN76)

If you want to protect the panels for a longer time, remove the protective plastic from the cover plug locations only. Removing the plastic under the plug is difficult.

# 31 (39)

### 7.6. Lead-throughs

#### Lead-throughs for the meltwater pipe and intake line

The contractor who needs the lead-through determines the location of the hole in the panel, marking the centre and the size of the hole. Make the lead-through holes according to the dimensions specified by the contractor and applying the following instructions.



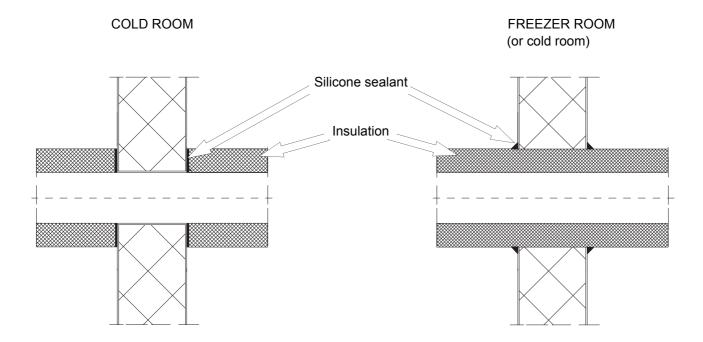
Round the edges of the sheet metal to prevent the pipe from being damaged.

#### If the hole is small (< 150 mm):

- 1. Drill a hole through the panel with a hollow drill or similar tool.
- 2. After installing the pipe, finish the lead-through hole with silicone sealant.
- 3. Mount possible insulation.

#### If the hole is large (> 150 mm):

- 1. Outline the hole/opening with, for example, callipers.
- 2. Drill a starting hole.
- 3. Saw the hole with a jigsaw from both sides of the panel. Use a blade suitable for sawing steel sheeting.
- 4. After installing the pipe, finish the lead-through hole with silicone sealant.
- 5. Mount any insulation at this time.



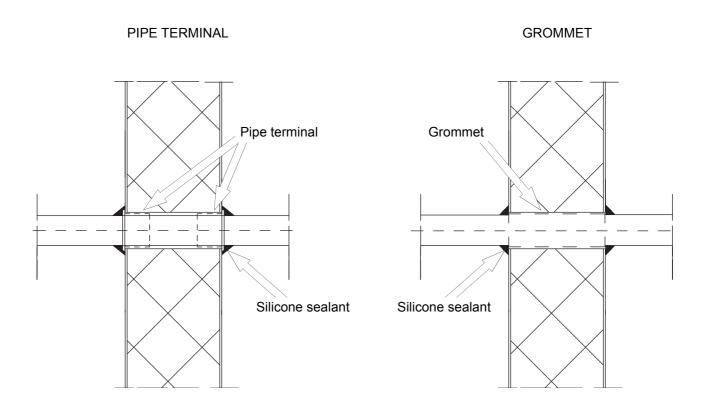


Remember to centre the pipe in the hole with, for example, silicone so that the pipe does not touch the edge of the steel sheet.

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#### Lead-through for a fluid line and electrical cable

- 1. Make a suitable hole for the pipe terminal or grommet.
- 2. Install the pipe terminal or grommet.
- 3. Install the pipe.
- 4. Seal the joint with silicone sealant, paying special attention to the **outer joint of the freezer room.**



## 7.7. Mounting the doors

Mount the door in the sawn opening where the profiles are fitted with a separate frame. Mount the door according to the separate door mounting instructions. If the delivery includes doors from other manufacturers than Porkka Finland Oy, follow the manufacturer's instructions.

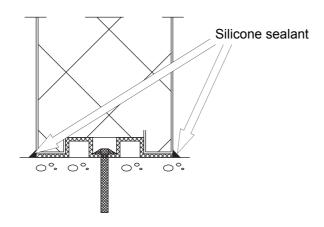
## 7.8. Mounting the windows

Attach the window to the sawn opening with profiles. Mount the windows according to order-specific details.



#### 7.9. Final touches

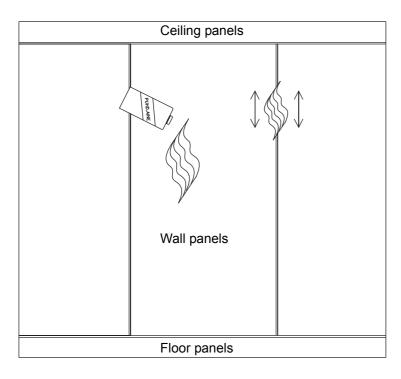
Finish the panel joints with silicone sealant as necessary, or according to case-specific special instructions.



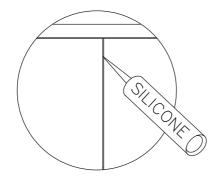
The purpose of silicone sealant is to keep the joints clean and hygienic.

Use the white silicone sealant (**AT01**) for the plastic-coated panels. For the stainless steel panels, use either grey (AT02) or colourless (**AS99**) sealant. Use the grey silicone sealant (**AT02**) for the floor panel joints.

If no floor panels are mounted, apply colourless silicone sealant (AS99) to the floor to wall joint.



Before sealing the joints, remove any dirt and grease from the joints with a suitable detergent.



Apply silicone sealant to the joint and smooth the bead out with your finger.

While applying the sealant, check the panels for dents etc. and apply touch-up paint to the locations spotted.



Follow the silicone sealant manufacturer's instructions.

## Walk-in cold and freezer rooms

Mounting and operation

E090811EN

### 7.10. Refrigeration units

The refrigeration unit can be mounted on-site or it can be a ready-made refrigeration cassette unit.

With the ready-made refrigeration units, follow the unit manufacturer's connection and mounting instructions.

#### 8. ACCESSORIES

- Ramp
- Various collars and hatches
- Various floor coatings
- Special doors
- Meat bars and hooks
- Thermometer
- Steel shelves (coating codes: POES or RST)
- Bump protectors
- · Reinforced floor

Accessories are supplied according to the customer's specifications. If you have any questions regarding cold or freezer rooms, contact Porkka Finland Oy personnel. Our experts are happy to help you.

#### 9. COMMISSIONING AND MAINTENANCE

- Check all doors for proper operation.
- Clean the walls with a mild detergent solution and cloth; do not use abrasive detergents.
- Check the refrigeration units for proper operation.
- Do not wash the cold room walls with a high-pressure cleaner using too high a pressure since this can damage the silicone joints.
- Clean all surfaces and seals regularly. Use ordinary mild detergents. **Do not use strong solvents.**
- The wall surfaces cannot withstand hard mechanical wear, so handle the surfaces with care.
- If the wall coating is damaged, cover the damage with suitable touch-up paint. Porkka supplies touch-up paints suitable for each coating for easy fixing of small scratches. Follow the paint manufacturer's instructions.



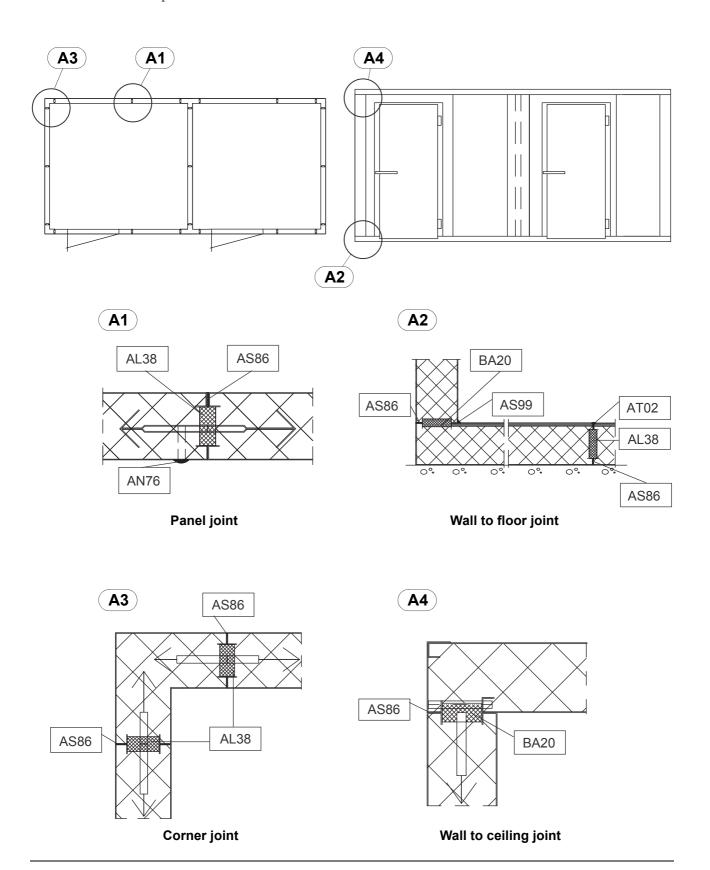
Do not leave the doors of the walk-in cold or freezer rooms open unnecessarily since this wastes energy and causes unnecessary formation of ice.



## 10. DETAILS

## 10.1. Walk-in panel system

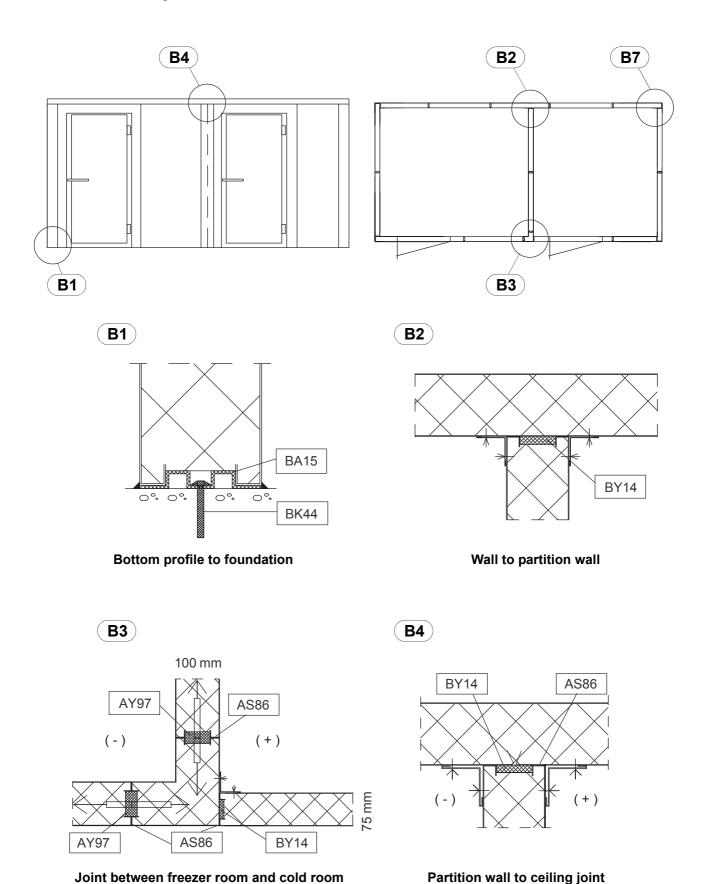
The thickness of the panels shown in the details is 75 mm - codes are based on this!



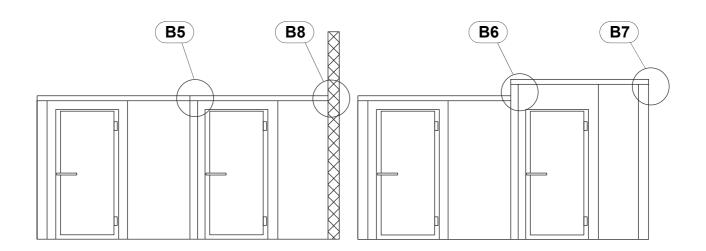


## 10.2. Mounted with profiles

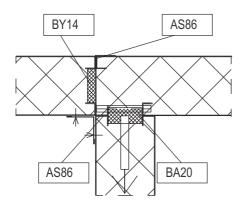
The thickness of the panels shown in the details is 75 mm - codes are based on this!



## PORKKA PANEL

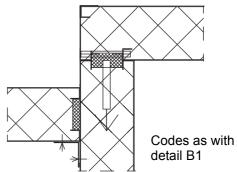


**B5** 



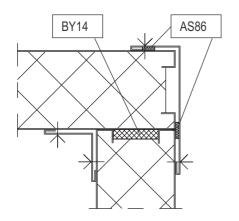
Joint between panels for ceilings of the same height

**B6** 



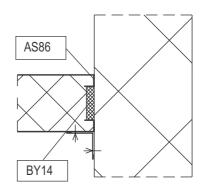
Joint between panels for ceilings of different heights

**B7** 



Wall to ceiling joint or cold room corner

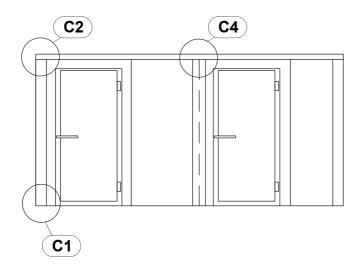
**B8** 

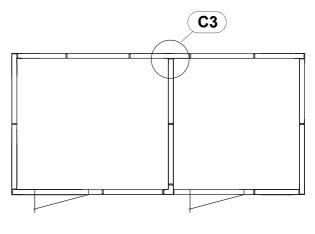


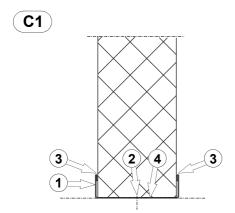
Joint between existing wall and ceiling



## 10.3. Continuously foamed panels

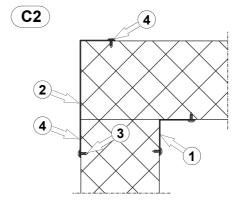






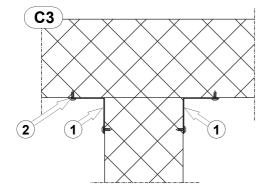
#### Wall to floor joint

- 1. U-profile, 30 x 104 x 30 0.8 RST
- 2. Nail plug 6x40
- 3. Silicone sealant
- 4. Butyl mastic, white



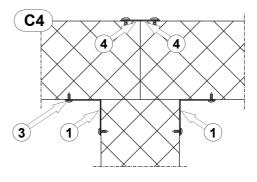
#### Wall to wall joint

- 1. Profile, 45 x 45 0.6 POES
- 2. Profile, 45 x 150 0.6 POES
- 3. Sheet metal screw, 4.2x13, white
- 4. Butyl mastic, white



#### Partition wall joint

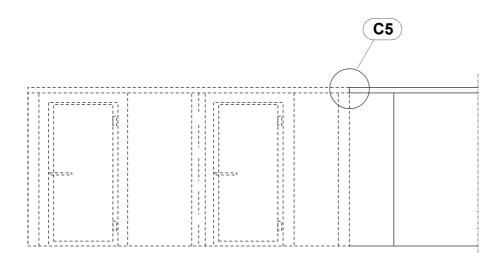
- 1. Profile, 45 x 45 0.6 POES
- 2. Sheet metal screw, 4.2 x 13, white



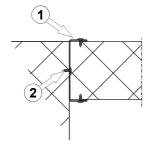
#### Partition wall to ceiling joint, at ceiling joint

- 1. Profile, 45 x 45 0.6 POES
- 2. Profile, 50 0.6 POES
- 3. Sheet metal screw, 4.2 x 13, white
- 4. Butyl mastic, white





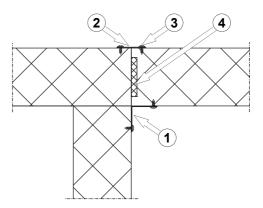
C5



**Ceiling extension from** the side of the completed room

- 1. U-profile,  $30 \times 104 0.6 \text{ POES}$  2. Sheet metal screw, 4.2 x 13, white

**C5** 



**Ceiling extension from** the side of the completed room

- 1. Profile, 45 x 45 0.6 POES
  2. Profile, 50 0.6 POES
  3. Sheet metal screw, 4.2 x 13, white
  4. Mounting profile, 10 x 68

Manufacturer Porkka Finland Oy

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