

Accessories

Condensate Pump



High performance condensate pump suitable for air-conditioning units up to 20 kW

Condensate pump with piston technology, specifically designed for removing condensate from air-conditioning systems.

- Drain safe device retains prime and prolongs pump life
- Quiet operation: 20 dB(A) independently tested according to EN ISO 3744
- Mounting bracket to facilitate installation to walls, ceilings or pipework.
Designed to reduce vibration transmission to mounting surface
- Improved performance and high flow rate reduces operation time and energy consumption.

Type		Page
-PWX-...-P1	General information	CP 2
	Technical data	CP 3
	Installation	CP 4

Application

Application

- Condensation pump for the removal of condensation from air-conditioning systems up to 20 kW
- Simple and quick installation on site

Nominal size

- Pump: 44 x 66 x 60 mm (W x L x H)
- Float chamber: 38 x 55 x 38 mm (W x L x H)

Description

Technical data

- Supply voltage: 230V~ 50/60Hz - 14 W
- Max. flow rate: 20 l/hr
- Max. suction head: 3m
- Max. discharge head: 10m (flow rate: 4 l/hr)
- Max. pressure: 14m (flow rate: 0 l/hr)
- Sound level at 1m: 20 dB(A) according to EN ISO 3744
- Sound level in application at 1m: ≤ 27 dB(A)
- Alarm contact: NC 8A resistive - 250V
- Thermal protection (overheating): 115°C (auto-reset)
- Operating conditions: 100% - continuous duty
- Protection: IP20

Materials and surfaces

- Self extinguishing body case (UL94 VO material)

Parts and characteristics

- Piston pump
- Anti-vibration mounting bracket
- Detection unit
- 1.5m Power cable (~1.0m free cable when pre-wired within TROX control enclosure)

Maintenance

- Detection unit must be cleaned and serviced at regular intervals in accordance with the degree of pollution existing within the pump operating environment

Kit contents

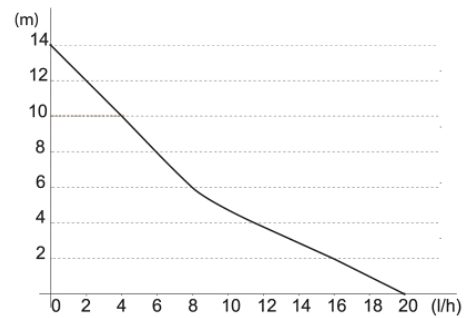
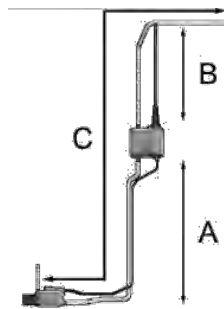


- Piston pump
- 1m long, ØID 6mm clear PVC tube fitted with drain safe device
- Anti-vibration mounting bracket
- 1.5m long (~1.0m free cable when pre-wired within TROX control enclosure), lockable plug-in power cable (2 power wires, 2 alarm contact wires)
- 6 tie wraps, 2.5 x 100mm
- Detection unit (SI2958, 1.5m cable)
- Detection unit installation kit;
 - Rubber elbow, 90°, Ø15mm ID x 60mm
 - Vent tube, Ø4mm ID x 75mm
 - Mounting rail
 - Adhesive

PWX...-P1

Table of true flow rate

Suction head 'A'	Discharge head 'B'	Total hose length [Ø6.0mm ID, 1/4"] - (C)			
		5m	10m	20m	30m
		Flow rate [l/hr]			
0m	0m	20.0	19.0	18.0	17.0
	2m	16.0	15.0	14.0	13.5
	4m	11.5	11.0	10.5	10.0
	6m	-	8.5	7.5	6.5
	8m	-	6.0	5.0	4.0
	10m	-	4.0	3.5	2.5
1m	0m	14.0	13.0	12.0	11.0
	2m	11.0	10.0	9.0	8.0
	4m	7.5	7.0	6.0	5.0
	6m	-	4.5	4.0	-
2m	0m	11.0	10.0	9.0	8.0
	2m	9.0	8.0	7.0	6.0
	4m	-	5.5	5.0	4.5
3m	0m	10.5	9.0	8.0	7.0
	2m	8.0	7.0	6.0	5.0
	4m	-	5.0	4.0	-



Installation guide

Safety warning

- Risk of electric shock. Ensure power supply to the unit/system is disconnected before attempting to install, service or remove any component.
- The pump unit must not be immersed in water, installed outside, stored in a damp environment or exposed to frost
- This pump has not been investigated for use in swimming pool or marine areas.
- **CAUTION:** Pump has been designed for use with water only. All condensate collection elements (collection tray, connecting tubes, outlets etc...) must be cleaned thoroughly prior to installation.
- The pump is supplied with :
 - A self-resetting thermal cut-out set at 115°C (239°F).
 - A self extinguishing body case (UL94 VO Material)

Pump power supply

- Connect pump Phase and Neutral terminals to the FCU unit's power supply or to the mains supply by means of wiring to comply with local wiring regulations. We suggest use of :
- An interconnecting power cable (CE: HO5 VVF 2 x 0.5 mm²; UL/CSA: 2 x 0.5mm² (AWG20) certified UL2464 - 80°C - 300V) which must be fastened securely to the wall, to avoid inadvertent disconnection during installation and later servicing.
- This connection should be equipped with an electrical isolation device (2A fused spur, customer provided) to the Phase and Neutral. The pump must be powered by an electrical circuit protected against overvoltage > 2.5kV.

- **IMPORTANT:** If connected to a power supply that may be switched 'off' when the fan coil unit fan(s) or valve actuator(s) are switched 'off', ensure CHW supply is isolated or in bypass to prevent high level condensate.

Pump alarm contact

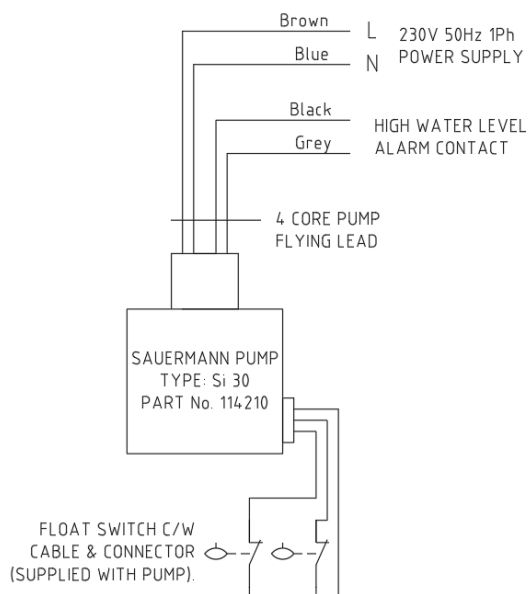
- **IMPORTANT:** Connecting the cable of the alarm contact is indispensable to avoid any risk of overflowing. For correct connection, refer to the appliance instructions. The pump is equipped with a NC high water alarm contact with a maximum rating of 8A/250V (alarm cable CE: 2 x 0.5mm², UL/CSA: 2 x 0.5mm² (AWG20)). This contact may be used to switch off the cooling system where there is a risk of condensate overflow (after thorough verification by the installer of the customer's specific application and the resultant electric wiring diagram).

Initial operational test

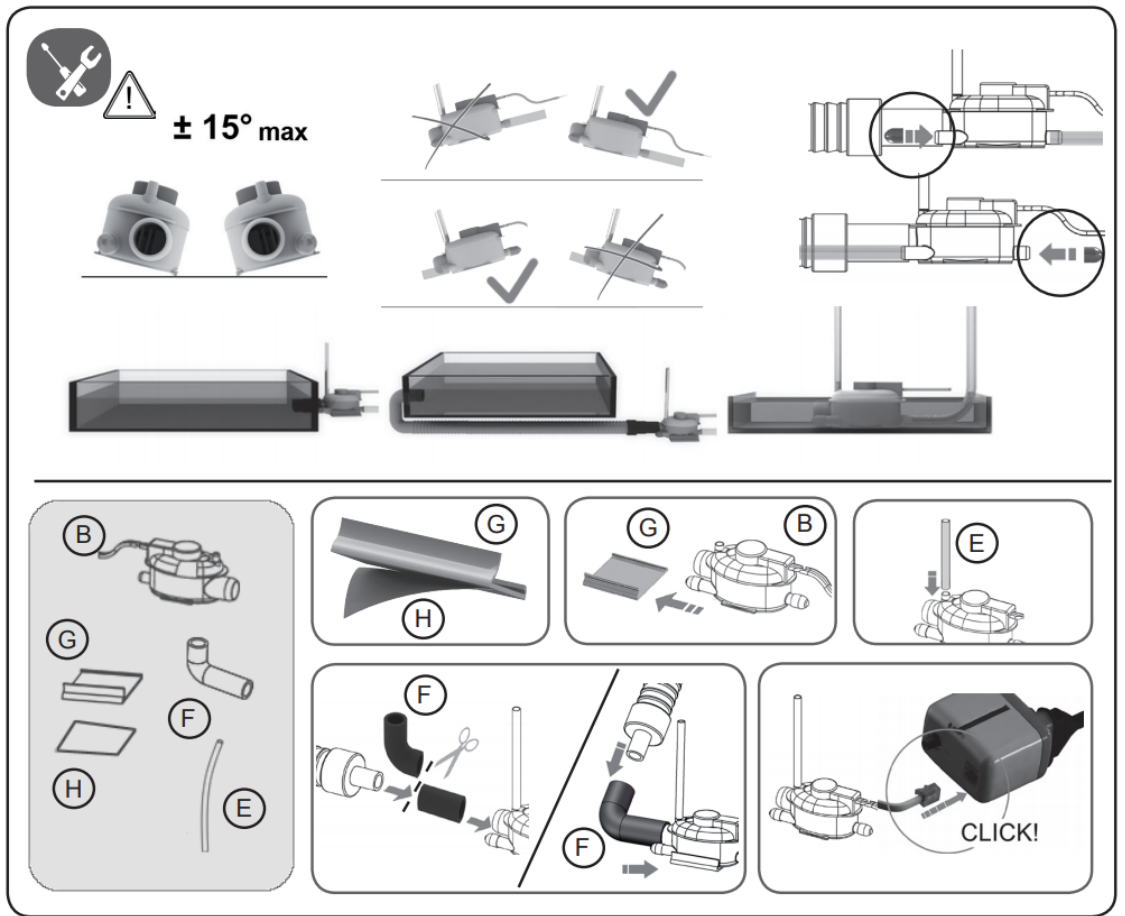
- Clean the condensate tray of any debris leftover from manufacture or unpacking of the fancoil unit
- **IMPORTANT:** To prevent damage to the condensate pump, **DO NOT** connect power supply cable to condensate pump until the drip tray is clean and water is available to prime the pump.
- **IMPORTANT:** To prevent damage to the condensate pump, ensure 'drain safe' connector is installed between pump and building condensate pipework.
- Pour water into the condensate drip tray using a suitable container
- Check that the pump unit starts & then stops as the water level decreases.
- Check alarm contact by continuing to pour water until the alarm triggers (cutting off the compressor, generating an alarm)

High water level alarm contact

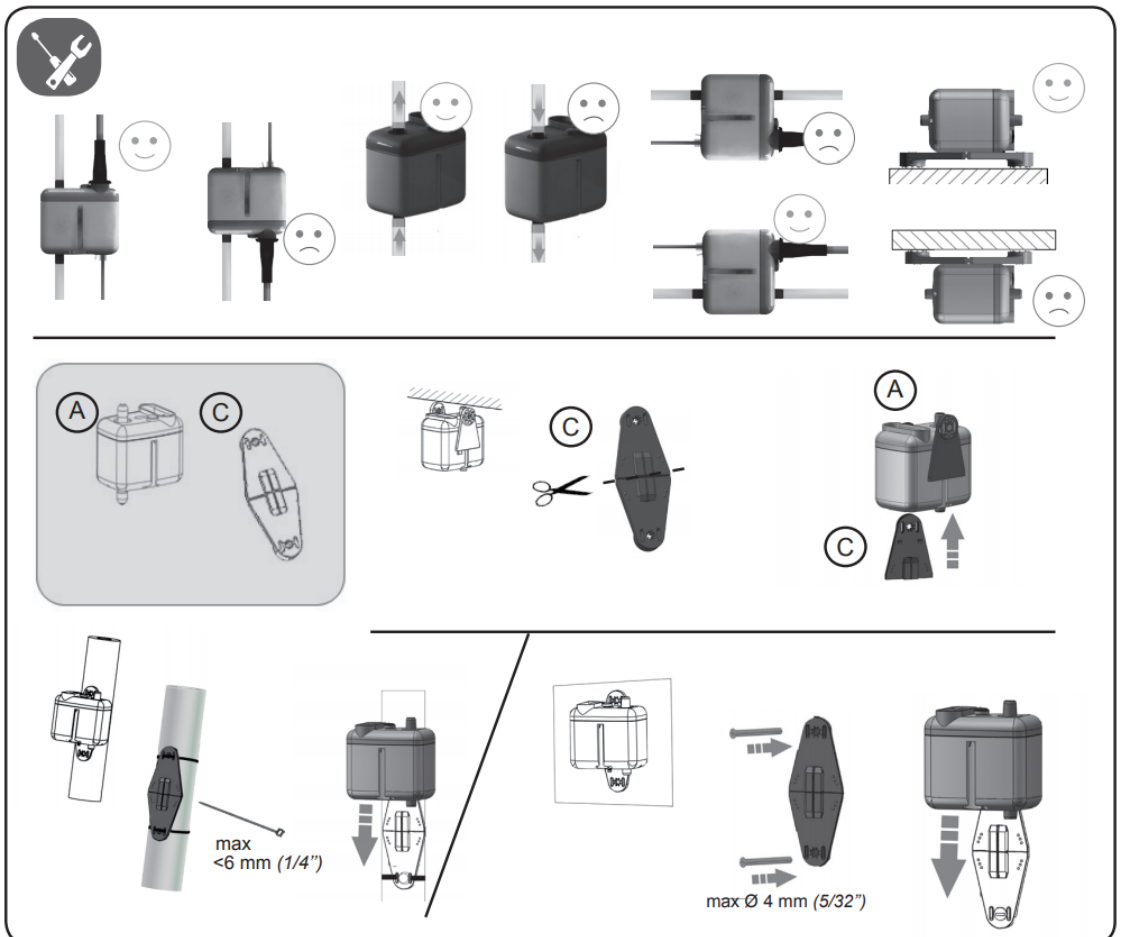
- NC (normally closed) high water alarm contact opens upon high level condensate detection. Max rating: 8A @ 250V.
- Ensure that the condensate alarm contacts are used with a suitable BMS or other alarm system on site to raise fault alarm and switch off the cooling system (fans can remain running to maintain background conditioning of the zone). Once high water level has been cleared, alarm signal will reset.



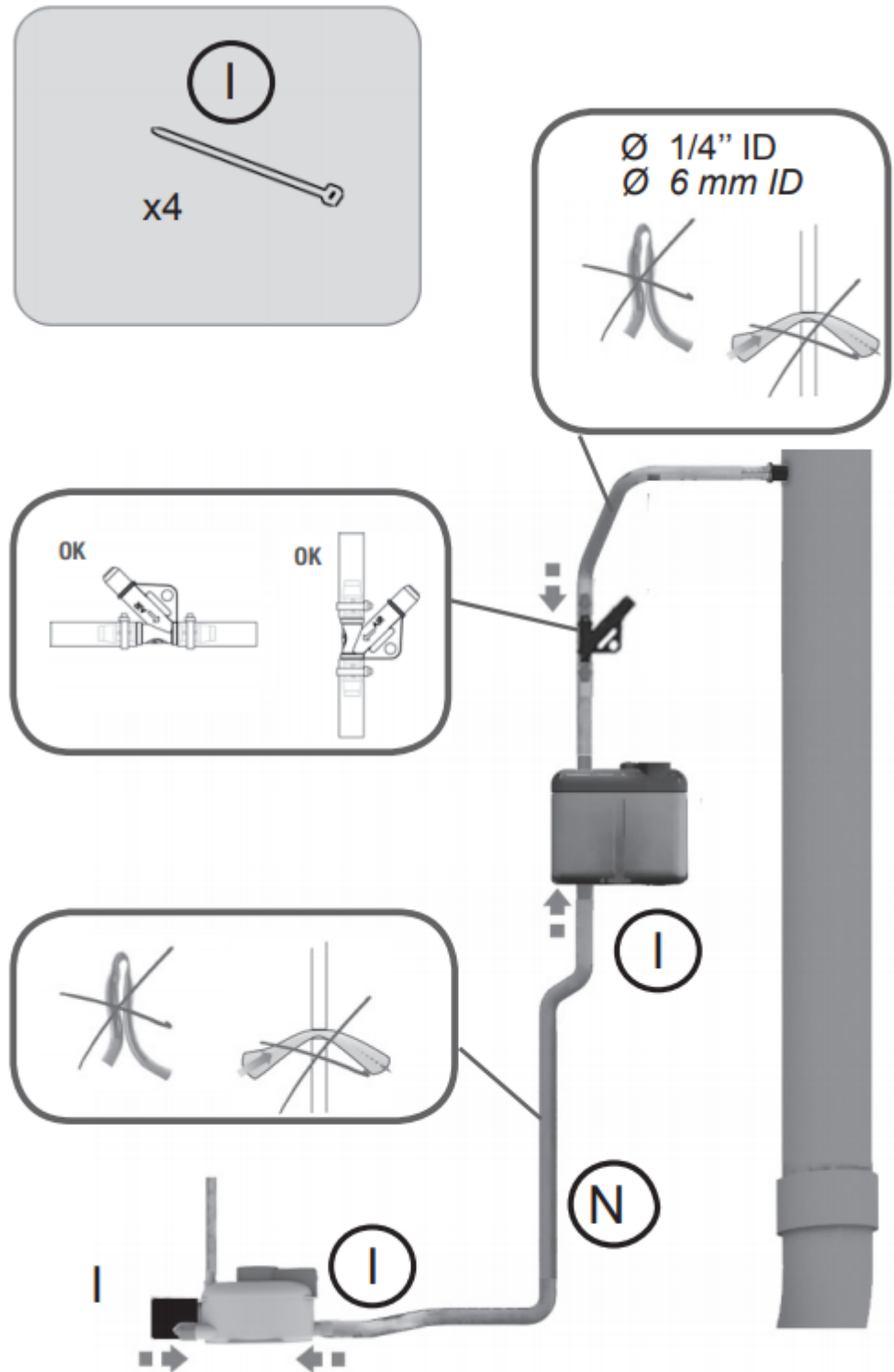
Detection unit



Pump unit

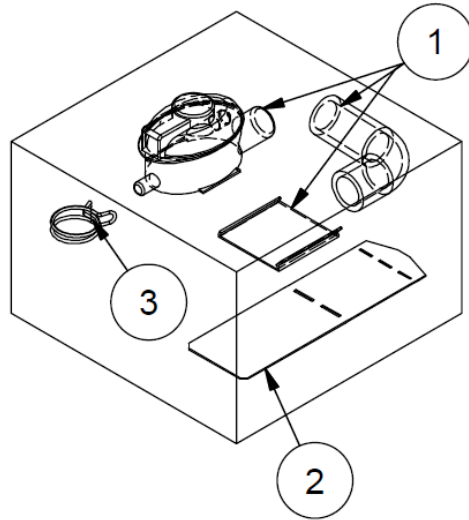


Installation guide

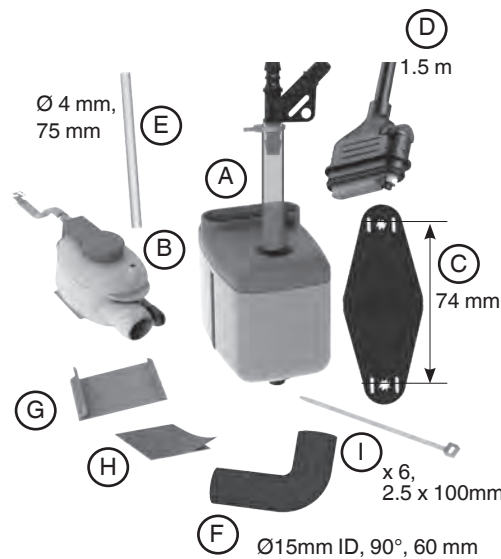
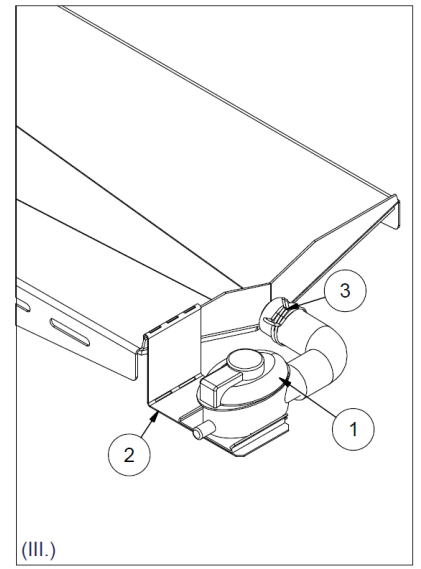
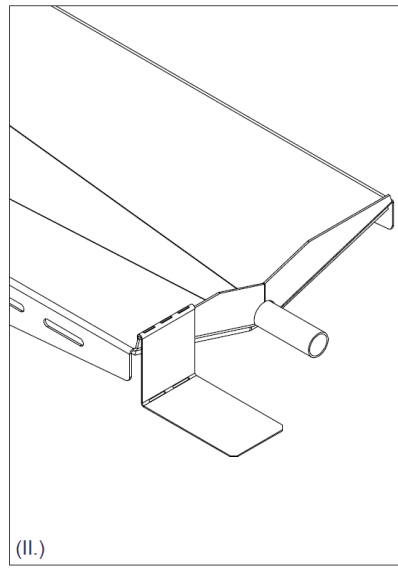
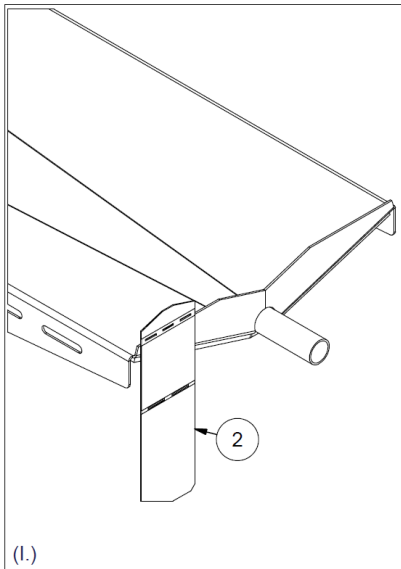


Installation guide

Installation kit



- 1) Detection unit, mounting base & adhesive, rubber elbow.
- 2) Detection unit bracket (TROX Pt. No. 381948)
- 3) Spring clamp (TROX Pt. No. 124164)



- A. Piston pump
- B. Detection unit (1.5m cable)
- C. Anti vibration mounting bracket
- D. 1.5m (~1.0m free cable when pre-wired to TROX control enclosure) lockable plug-in power cable: 2 power wires, 2 alarm contact wires.
- E. Vent tube, Ø4.0mm I.D x 75mm long
- F. Rubber elbow, 90°, Ø15mm I.D x 60mm long
- G. Mounting rail
- H. Self adhesive pad
- I. 6x tie wraps, 2.5mm x 100mm