

Mikrofill 3 Pro + HWB-80LV Pressurisation Kit

Sealed-system pressurisation for heat pumps up to 1,540 litres · Data sheet, page 1 of 2

Mikrofill 3 PRO pressurisation unit + GWS HeatWave HWB-80LV expansion vessel + ¾" service valve, for heat pump systems up to 1,540 litres.

A complete set for keeping a sealed heating system at pressure. The 3 PRO is a pumpless, direct-type unit. It connects straight to the mains, fills the system from empty and tops it up automatically, with WRAS-approved Category 4 backflow protection built in. The HWB-80LV absorbs the expansion as the water heats, and the lockable service valve lets the vessel be isolated and drained for checks.



1,540 L

System size up to

8.7 bar

Max cold fill

80 L

Expansion vessel

What's in the kit

MIKROFILL · MADE IN BRITAIN 3 PRO pressurisation unit (72846)

Pumpless, direct-type unit with 3.95" colour display. Fills to 8.7 bar. Two braided hoses with integrated isolation valves and a wall backplate supplied. 2-year warranty.

GLOBAL WATER SOLUTIONS (GWS) HeatWave HWB-80LV expansion vessel

80 L vertical heating vessel on its own base, high-grade butyl diaphragm. ¾" BSPT, 6 bar, factory pre-charged to 1.5 bar.

INCLUDED

¾" lockable service valve

Isolates and drains the vessel so the pre-charge can be checked. Locked open in normal use.

Features

- No pump and no break tank — uses the pressure in the mains or boosted supply
- WRAS Category 4 backflow prevention (2307805), Kiwa Regulation 4; no separate RPZ needed
- Fills from empty at up to 12 l/min, live flow readings to $\pm 3\%$ and logged fill volume
- Leak detection, smart fault logic, flood protection by run-time limiter
- MODBUS RTU and 4 customisable BMS outputs; 100-event time-stamped log
- IP55, compact wall mounting

Applications

- Sealed heat pump systems up to 1,540 L (60 °C flow)
- Sealed boiler systems up to 860 L (82 °C flow)
- Chilled water and closed-loop HVAC; propylene glycol up to 50%

Not suitable for

- Potable or open-loop systems
- Ethylene glycol mixtures
- System water above 85 °C
- Fill pressures above the incoming supply pressure

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Specifications

Mikrofill 3 PRO (72846)	
Type	Pumpless, direct type
Max inlet pressure	9 bar
Max cold fill pressure	8.7 bar
Max operating pressure	9 bar
Max flow rate	12 l/min
Low inlet pressure cut-out	0.3 bar
Backflow protection	WRAS Category 4 (2307805), Kiwa Reg. 4
Display	3.95" backlit colour LCD
Pressure setting resolution	±0.1 bar
Communication	MODBUS RTU, 4 BMS outputs (5 A max)
Connections	Inlet 15 mm; system 15 mm; drain 22 mm (all compression)
Supplied with	2 × braided hoses with isolation valves; backplate (fixings not included)
Electrical	230 V / 1 ph / 50 Hz, 3 A fuse
IP rating	IP55
Ambient / inlet / system water	5–45 °C / 5–23 °C / 5–85 °C
Max relative humidity	70% non-condensing
Dimensions (W × D × H)	250 × 155 × 290 mm (386 mm to tundish)
Clearances	Left 100, right 170, top 100, front 750 mm
Weight	5.3 kg (without hoses)
Warranty	2 years

Kit	
Part number	WBPK3P80
Application	Sealed heating and chilled water systems (closed loop)
System volume — heat pump	Up to 1,540 L (60 °C flow)
System volume — boiler	Up to 860 L (82 °C flow)
Sizing basis	3 bar safety valve, 1.5 bar vessel pre-charge
Max working pressure	6 bar (set by the vessel)
Max system water temperature	85 °C (set by the unit)
Service valve	¾", lockable, with drain

GWS HeatWave HWB-80LV	
Nominal volume	80 L
Type	Vertical, freestanding on its own base
Connection	¾" BSPT
Max operating pressure	6 bar
Operating temperature	–10 to 99 °C
Factory pre-charge	1.5 bar
Diaphragm	High-grade butyl
Dimensions (H × Ø)	815 × 389 mm
Weight	14.3 kg

Sizing. System volumes assume a 3 bar safety valve and the vessel's 1.5 bar factory pre-charge, at 60 °C flow for heat pumps and 82 °C for boilers. For larger systems see the Mikrofill 3 Pro + HWB-100LV kit and up.

Fill pressure. The 3 PRO has no pump, so it can never fill above the incoming supply pressure. It cuts out if the inlet drops below 0.3 bar. Mikrofill show a pressure reducing valve on the incoming supply.

Closed loop only. Not for potable or open-loop systems. Propylene glycol up to 50%; do not use ethylene glycol. The service valve must be locked open in normal use.