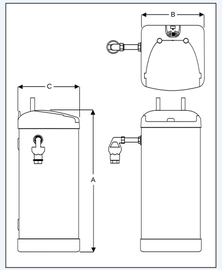
Aqualine

Technical Specification



Dimensions

Model	A (mm)	B (mm)	C (mm)	Weight (kgs) Full	Empty
AL7/3	456	240	240	13.5	6.5
AL10/3	542	240	240	17.5	7.5
AL15/3	517	330	330	26.6	11.6
AL15/4.5	517	330	330	26.6	11.6

Model References / Capacities and Loadings

Ordering Guide

Model	Product Code	Litres	Rating	
AL7/3	94 050 012	7	3.0kW @ 240V	(2.75kW @ 230V) single phase AC
AL10/3	94 050 013	10	3.0kW @ 240V	(2.75kW @ 230V) single phase AC
AL15/3	94 050 014	15	3.0kW @ 240V	(2.75kW @ 230V) single phase AC
AL15/4.5	94 050 015	15	4.5kW @ 240V	(4.1kW @ 230V) single phase AC

Element
Alloy sheathed element, incorporated into an easily removable heater plate, should replacement be necessary.

Inner Container
Heavy gauge copper suitable for a maximum working pressure of 6 bar (pressure tested to 15 bar). A minimum supply pressure of 1 bar is recommended.

Outer Casing
The main body is substantial gauge sheet steel, anti-corrosion treated, and finished in white stoved enamel. End covers are moulded in grey ABS. The back has three fixing points for wall mounting.

Insulation
Approved CFC/HCFC free (ODP ZERO) polyurethane foam.

TMV2 Thermostatic Blending Valve
Precise control of outlet temperature (range 35 - 60°C) and lockable control knob. Temperature stability ± 2°C.

Expansion/Pressure Kits
If the inlet water pressure is in excess of 4.1 bar, it is essential that the Santon unvented kit ALK01 is also installed with the heater. This kit comprises expansion vessel, expansion relief valve, non-return valve and pressure reducer/strainer.

In instances where the water pressure is below 4.1 bar but expansion cannot occur back down the mains, kit ALK02 must be used (comprises expansion vessel, expansion relief valve and non-return valve).

Pressure and Temperature Relief Valve
This is factory fitted to the unit, accessible beneath the removable access cover and is set at 7 bar/90°C.

Thermostat
Rod type, adjustable 10°C - 70°C with integral manually re-settable, over temperature cut-out.

Plumbing Connections
Inlet and outlet are 15mm copper tails. The factory fitted temperature and pressure relief valve discharge pipe must be connected to waste (drain) via the tundish supplied. The drain pipe from the tundish must fall continuously and be 22mm diameter copper pipe. It must discharge in a visible and safe place. The pipe must not be reduced in bore or blocked under any circumstances and should be protected from frost.

Electrical
This unit is supplied with 1 metre of 3 core cable fitted. The installation must comply with BS 7671 'Requirements for electrical installations' (IEE Wiring Regulations). It must be fully earthed and permanently connected to the electrical supply through a double pole linked isolating switch with minimum breaking capacity suitable for the loading.

Approvals
BEAB Approved.
WRAS Approved.
UK manufactured in a BS EN ISO 9001:2000 registered factory.

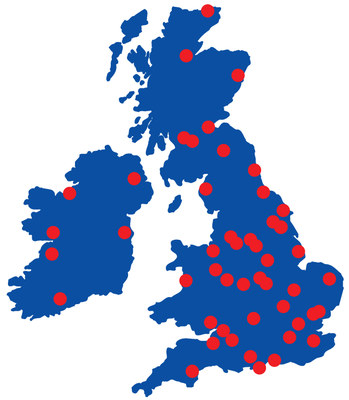
Guarantee
Two years product guarantee, from date of purchase, with on-site service support. Full details are contained in the installation instructions supplied with each unit.

SPECIFICATION ADVICE: 01603 420128 **FAX:** 01603 420229 **E-MAIL: specifier@santon.co.uk** SANTON

Unvented Water Heaters

National Service Network

A nationwide network of experienced engineers is available to provide fast and efficient on-site service support if required. Spare parts for Santon products are readily available through a network of approved spares stockists.



SANTON

Santon, Hurricane Way, Norwich, Norfolk, NR6 6EA

MAIN NUMBER Tel: 01603 420140
SALES Tel: 08700 603263 Fax: 08700 600403 E-Mail: sales@santon.co.uk
SERVICE Tel: 08701 600126 Fax: 08701 600181 E-Mail: santonservice@heateam.co.uk
SPECIFICATION Tel: 01603 420128 Fax: 01603 420229 E-Mail: specifier@santon.co.uk
WEBSITE www.santon.co.uk

part no. 94 900 003

A division of BAXI GROUP

CI/SfB (53.3) x

November 2006

SANTON

Aqualine

Unvented Electric Water Heating

Unvented Water Heaters

Aqualine Unvented Water Heaters

Commercial Unvented Water Heaters - with TMV2 Thermostatic Blending Valve

Aqualine is the ultimate in electric unvented water heating. All operational and safety controls are contained within the case. This includes a TMV2 thermostatic blending valve which allows the unit to store water at a high temperature and dispense at handwash temperature. Water stored above 60°C not only gives more useable blended water output, it also considerably reduces the possibility of harbouring bacteria, making aqualine the ideal product where 'safe' hot water is required - for example schools, nursing homes and nurseries.

The range features 7, 10 and 15 litre models, with the latter available in 3kW and 4.5kW loadings. This enables the specifier and installer to cover applications from light duty commercial handwashing to multi-outlet installations.

Each unit contains a factory-fitted pressure and temperature relief valve, TMV2 thermostatic blending valve, a control thermostat and a resettable over-temperature cut-out for additional safety.

Commercial Unvented Selection Guide

Capacity of Water Heater	Number of Basins
7 litres	1 - 2
10 litres	2 - 3
15 litres	3 - 4

Note: These figures are for guidance only and local conditions should be taken into account when sizing the installation.

For full details contact our Specification Advice Hotline on 01603 420128 or fax 01603 420229

Aqualine

Installing Commercial Unvented Water Heaters and Kit Selector

The following information is intended as a guide - if in any doubt, please contact our Specification Advice Hotline on 01603 420128 or fax 01603 420229.

Aqualine Installation (Up to 15 litres in capacity)

When water is heated, it expands and increases in volume by up to 4%. This increase needs to be accommodated within the system.

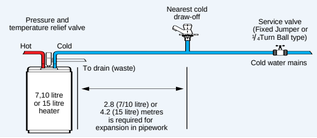
With unvented water heaters below 15 litres in capacity, such expansion may be accommodated within the cold water supply pipe provided all of the following conditions are met:

A. The maximum supply pressure is below 4.1 bar.

B. The minimum length of the supply pipework from the heater to the nearest cold draw-off is not less than that specified for the heater used.

C. The expansion in the cold water mains is not prevented or restricted by a stop valve, non-return valve, water meter or similar device.

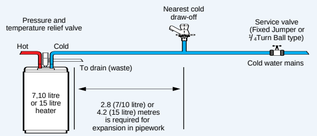
A typical installation of a Santon Aqualine without expansion kit



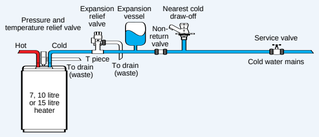
For installations where any of the above conditions cannot be met, an expansion vessel and other relevant accessories must be used to accommodate expansion.

In all installations where the supply pressure exceeds 4.1 bar, a pressure reducing valve must be fitted along with other necessary valves.

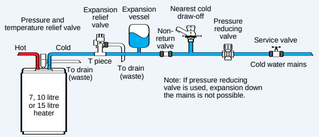
For inlet water pressure up to 4.1 bar (with no additional kits used)



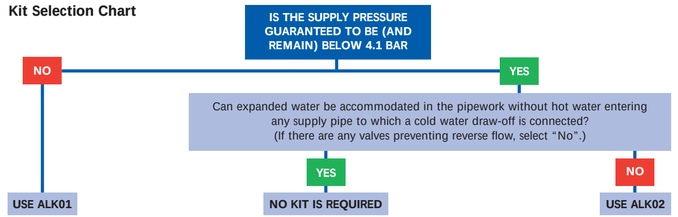
For inlet water pressure up to 4.1 bar where expansion back down the mains is not possible (using kit ALK02)



For inlet water pressure above 4.1 bar (using kit ALK01)



Kit Selection Chart



What is included in each kit?

ALK01 Expansion vessel, expansion relief valve, pressure reducer/strainer and non-return valve.
ALK02 Expansion vessel, expansion relief valve, and non-return valve.

Accessories

A full range of accessories is available for installation with Aqualine unvented water heaters. These are supplied as 'accessory kits' to suit different applications. When installing small unvented water heaters, it is essential that the correct accessory kits are used. A knowledge of the maximum incoming water pressure is an essential requirement; where this is not known, the local Water Authority should be consulted.

ALK01 - Order Code 94 970 008

Expansion vessel, expansion relief valve, pressure reducer/strainer and non-return valve.

For all situations where the mains pressure is greater than 4.1 bar. The pressure reducing valve reduces incoming pressure to 3.5 bar while the strainer filters coarse impurities from the incoming water. The expansion valve acts as a back-up to the expansion vessel, opening at 6 bar. The non-return valve prevents back-flow of hot water which could cause cross-contamination of the inlet water. The pressure reducing valve must be installed on the mains side of the expansion vessel. For balanced hot/cold water supplies, the pack should be fitted on the mains side of the cold water draw off; this is particularly important where mixers are used.

Connections

- Pressure reducing valve ½" BSP female.
- Expansion vessel ½" BSP male.
- Expansion relief valve inlet ½" BSP male, discharge ½" BSP female.
- Non-return valve 15mm x 15mm compression.

ALK02 - Order Code 94 970 009

Expansion vessel, expansion relief valve, and non-return valve.

For heaters where expanded water cannot be accommodated in the pipework and where the mains pressure is guaranteed never to exceed 4.1 bar. The expansion vessel, when fully charged, will absorb all expanded water produced by the heater. Supplied pre-charged to 4.1 bar. The expansion valve acts as a back-up to the expansion vessel, opening at 6 bar. The non-return valve prevents back-flow of hot water which could cause cross-contamination of the inlet water.

Connections

- Expansion vessel ½" BSP male.
- Expansion relief valve inlet ½" BSP male, discharge ½" BSP female.
- Non-return valve 15mm x 15mm compression.

Unvented Water Heaters