

COMMISSIONING

FILLING

Check that the pressure in the expansion vessel is 3 bar (45PSI), i.e. the same as the setting of the pressure reducing valve. The valve is of the car tyre (Schrader) type. Check all the connections for tightness including any factory made connections such as the immersion heater and the temperature and pressure relief valve. Before filling, open the hot tap furthest away from the Ultrasteel to let air out. Open the cold main isolation valve and allow the unit to fill. When water flows from the tap allow it to run for a short while to flush through any dirt, swarf or flux residue. Close the tap and open every other hot tap in turn to purge all remaining air.

DIRECT UNITS

After filling with water and after sterilisation liquid has been purged, switch on the power to the immersion heaters and allow the unit to start to heat. The immersion heater is supplied preset at 55°C. Turning fully to + sets to approx 65°C.

INDIRECT UNITS

Consult the boiler manufacturer's commissioning instructions and fill the primary circuit. Ensure the lever on the two port valve is set to the filling position. When full, move the lever back. Switch the programmer to Domestic Hot Water (DHW) and allow the unit to start to heat. Adjust the dial of the dual thermostat to between 55°C and 65°C as required.

STORAGE TEMPERATURE

The recommended storage temperature for both direct and indirect cylinders is 60-65°C. In hard water areas consideration should be given to reducing this to 50-55°C. In many healthcare applications the guidance on Legionella control and safe water delivery temperatures will require storing the water at 60-65°C, distributing at 50- 55°C and using thermostatic mixing valves to control the final temperature.

For details consult the NHS Estates Guidance on safe hot water temperatures.

SAFETY VALVE CHECKS

During heat-up there should have been no sign of water coming from either the expansion relief valve or the temperature/pressure relief valve. Now hold both of these safety valves fully open, allowing as much water as possible to flow through the tundish. Check that your discharge pipework is free from debris and is carrying the water away to waste efficiently. Release the valves and check that they reseal properly.

SERVICING

GENERAL

Servicing should only be carried out by competent installers and any spare parts used must be purchased from Albion. NEVER bypass any safety devices or operate the unit without them being fully operational.

DRAINING

Isolate from the electrical supply to prevent the immersion heaters burning out. Isolate the unit from the cold mains. Attach a hose to the draining tap ensuring that it reaches to a level below the unit (this will ensure an efficient syphon is set up and the maximum amount of water is drained from the unit). Open the hot tap closest to the unit and open the draining tap.

WARNING: WATER DRAINED OFF MAY BE VERY HOT!

ANNUAL MAINTENANCE

Ultrasteel requires an annual service in order to ensure safe working and optimum performance. It is essential that the following checks are performed by a competent installer on an annual basis. Commonly this is done at the same time as the annual boiler service.

- 1)** Twist the cap of the expansion relief valve on the inlet control set and allow water to flow for 5 seconds. Release and make sure it resets correctly. Repeat with the pressure / temperature relief valve. In both cases check that the discharge pipework is carrying the water away adequately. If not, check for blockages etc. and clear. WARNING: THE WATER DISCHARGED MAY BE VERY HOT!
- 2)** Check that any immersion heaters fitted are working correctly and that they are controlling the water at a temperature between 55°C and 65°C.
- 3)** Check the pressure in the expansion vessel is charged to 3 bar. Turn off the water supply to the unit and open a hot tap first. The air valve on expansion vessel is a Schrader (car tyre) type. Air or CO₂ may be used to charge the expansion vessel.
- 4)** Unscrew the head on the inlet control set and clean the mesh filter within.
- 5)** The Benchmark Log Book supplied with this unit should be updated at each service.

YOUR GUARANTEE MAY BE VOID WITHOUT PROOF OF ANNUAL SERVICING

SPARE PARTS

A full range of spare parts is available from Albion. Tel: 01924 376026.

TS201 - Inlet control set (pressure reducing valve, strainer and expansion relief valve)
TS202 - Temperature & pressure relief valve
TS3 - Tundish
TS105 - Two port valve
TS207 - Dual thermostat
TS9 - Immersion heater (same on all models)
TS212 - 12 litre Expansion Vessel (120 & 150 ltr sizes)

TS219 - 19 Litre Expansion vessel (180 , 210 & 250 ltr sizes)
TS224 - 24 litre expansion vessel (300 ltr size)
TS216 - Wall mounting bracket
TS214 - Expansion vessel hose (¾" M x ¾" F)
TS27 - Single control stat
TS28 - Single high limit stat
T021 - Sensor pocket retaining bungs

FAULT	POSSIBLE CAUSE	SOLUTION
Water escaping from the case.	Compression fitting on hot draw off not sealing	Check/remake joint with sealing paste
Cold water at Hot taps	Direct – immersion heater not switched on or cutout has triggered	Check / reset
	Indirect – boiler not working	Check boiler – consult boiler manufacturers instructions
	Indirect – motorised valve fault	Check plumbing / wiring to motorised valve
	Indirect – cut-out in dual stat has operated	Reset and investigate cause
Water discharges from expansion relief valve	If continual – pressure reducing valve (part of inlet control set) may not be operating correctly	Check outlet pressure from inlet control set is 3 bar.
	If continual – expansion relief valve seat may be damaged	Remove cartridge – check seat and renew if necessary
	If intermittent – expansion vessel charge may have reduced / bladder perished	Check pressure in expansion vessel Recharge to 3 bar if necessary. If bladder perished replace vessel.
	Unit it being back pressurised	With cylinder cold check pressure in cylinder. If this is the same as the incoming mains pressure then you are getting backfeed. Install a balanced cold supply (see page 4)
Water discharges from temperature & pressure relief valve	Unit has overheated – thermal controls have failed	Switch off power to boiler and immersion heaters. Leave water supply on. Wait until discharge stops. Isolate water supply and replace if faulty
Milky / cloudy water	Oxygenated water	Water from any pressurised system will release oxygen bubbles when flowing. The bubbles will settle out.
No hot water flow	Cold main off	Check and open stop cock
	Strainer blocked in pressure reducing valve	Isolate water supply and clean
	Inlet control set may be fitted incorrectly	Check and refit as required
Noise during hot water draw off- typically worse in the morning.	Loose airing cupboard pipework	Install extra clips
Hot or warm water from cold tap	If tap runs cold after a minute or so the pipe is picking up heat from heating pipework.	Insulate / re-route