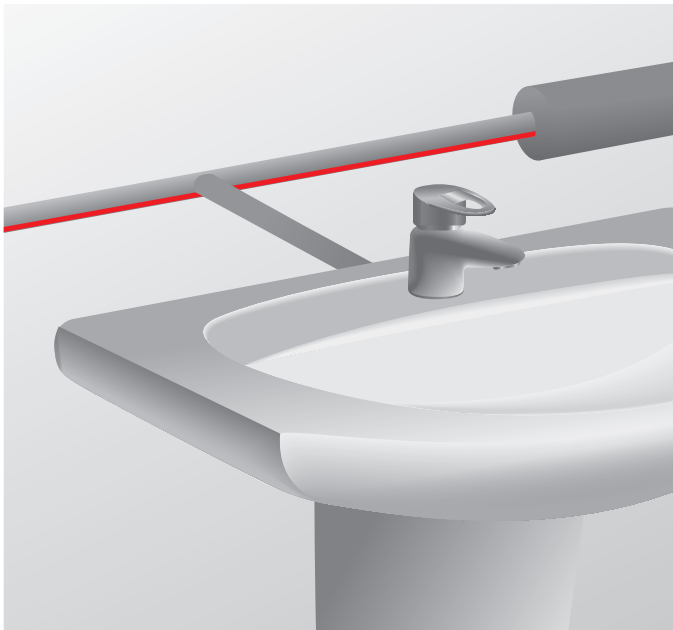


Specification guideline single pipe hot water system



- The domestic hot water supply has been designed as a single pipe system. No return pipes shall be fitted.
 - All hot water service pipes shall be fitted with an energy efficient, self-regulating heating cable system, Raychem HWAT R, as manufactured by Chemelex, to compensate for heat losses and maintain pipe temperatures in the range 50-65°C.
 - The system shall be complete with cold components, energy efficient controls and a 5 year product warranty.
 - The self-regulating heating cables shall be specifically designed for this application, comply with HSE HS (G) 70 and capable of demonstrating a lifetime in excess of 25 years.
 - The self-regulating heating cables shall have modified polyolefin (radiation cross-linked, to ensure long life expectancy) electrical insulation, laminated aluminium foil layer, tinned copper braid and modified polyolefin over jacket with metre marks for ease of installation.
-
- Interconnection and termination shall be with cold applied, insulation displacement connectors and gel type end seals, UV resistant, IP 68, 65°C rated, with audible and visual installation confirmation, as manufactured by Chemelex and known as RayClic.
 - Control of HWAT circuits shall be via an energy saving, programmable controller to provide adjustable maintained temperatures in the range 50-65°C, HWAT ECO, as manufactured by Chemelex. The controller shall have a boiler temperature sensor and alarm system, 7-day programmable temperature v time function, integrated clock, pre-set specific building programs, thermal shock program, LCD user interface, password protection, optical and acoustic alarm fault messages. It shall be capable of receiving 1-10V dc signals from the building management system, overriding the functions of the controller.
 - The HWAT cables shall be installed 'straight traced', within their maximum circuit lengths, tested and commissioned strictly in accordance with the manufacturer's instructions, preferably by a specialist installer named by the supplier. The commissioning report must be registered to gain benefit from the 5 year product warranty. The system should be installed to within 1000mm of each outlet or blending valve, or as close as is reasonably practicable, and in accordance with hot water maintenance regulations.
 - Insulation selection and thickness shall be in strict accordance with the HWAT design guide, take into account variations in ambient temperature, be applied without delay after the heating cable installation, affixed with suitable warning signs, placed less than 3 m apart, on alternate sides of the pipe and visible from all sections.
 - All HWAT circuit shall be controlled and monitored via a multi circuit control panel, SBS-xx-HV-ECO-10, by Chemelex, integrated with MCB's (BS EN 60898 type C/D) and RCD (30 mA sensitivity, tripping within 100 ms). All connections between the electrical supply, control panel and HWAT circuits shall be installed by an approved electrical contractor.

IN ENGINEERING NOTES COLUMN

- The domestic hot water supply has been designed as a single pipe system. No return pipes shall be fitted.
- All hot water service pipes shall be fitted with the energy efficient, selfregulating heating cables, HWAT R, as manufactured by Chemelex to maintain an adjustable temperature in the range 50-65°C.
- Termination of the self-regulating heating cables shall be with insulation displacement type connectors and gel type end seals, Rayclix, as manufactured by Chemelex.
- The circuits shall be controlled via an energy saving, programmable controller, HWAT ECO, as manufactured by Chemelex, to provide adjustable temperatures in the range 50-65°C.
- The HWAT circuit shall be controlled and monitored via the multi circuit control panel, SBS-xx-HV-ECO-10, by Chemelex, integrated with circuit protection.
- The HWAT cables shall be installed 'straight traced', insulated, tested and commissioned strictly in accordance with the HWAT design guide and preferably by a specialist installer named by Chemelex.
- The cables shall be installed to within 1000 mm of each outlet or blending valve, or as close to the draw-off point as is reasonably practicable.
- Insulation selection and thickness shall be in strict accordance with the HWAT design guide.

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