

## SPECIFICATION FOR HERZ OXFORD DHW ONLY HEAT INTERFACE UNITS

### 1.0 General Requirements

- a) Heat Interface Units (HIU) shall enable LTHW from the central plant to provide DHWS to each apartment and provide complete hydraulic separation with a brazed stainless steel heat exchanger between the LTHW primary and the DHW systems as per **Herz Oxford** pattern HIU. Furthermore the DHW flow temperatures and flow rates shall be controlled.
- b) A **Herz** fixed spring differential pressure control valve shall be fitted across the primary flow and return circuits on **each** HIU to protect the pressure temperature control valve from excessive differential pressure and to govern the primary flow rate. The differential pressure control valve shall form part of the assembled **Oxford** HIU as per BSRIA Guide BG 62/2015.
- c) The HIU shall be a complete package comprising of all components and controls mounted on a frame, factory assembled and tested.
- d) The mounting frame shall be sufficient to support all the components of the HIU. Excess support and metal plate shall be avoided to reduce unnecessary and unwanted heat emission.
- e) The HIU should have an insulated back board and cover to reduce heat loss and to reduce heat rise in the cupboard.
- f) The HIU should be fitted with isolating ball valves which should have the facility to be removed and installed separately to the HIU to allow the shell and core pipework to be installed and tested before introducing the HIU. Each ball valve shall have a drain valve to facilitate draining and have test points fitted on the primary heating to aid additional temperature or pressure measurement if required.
- g) The HIU should have the facility to be installed in either orientation to facilitate top or bottom entry connection for the pipework.
- h) The HIU shall have the option to fit a flushing bypass to the primary flow and return ball valves. As recommended in BSRIA Guide BG 62/2015.
- i) An integral strainer shall be included in the primary flow of the HIU.
- j) A fully insulated white powder coated casing shall be lockable to prevent non-permissible access.
- k) All distribution pipe work within the HIU shall be 18mm stainless steel.
- l) All components in contact with domestic cold and hot water shall be WRAS approved.

### 3.0 Apartment Domestic Hot Water (DHW)

- a) Domestic hot water (DHW) for each apartment shall be generated via a plate heat exchanger mounted in the HIU.
- b) DHW flow rate and temperature shall be controlled via a **Herz** pressure temperature control valve which shall be temperature compensated. When a hot water tap is opened the drop in pressure in the hot water pipe shall open the 4 port pressure temperature controller which in turn shall allow primary hot water into the heat exchanger. When the DHW tap/outlet is closed the pressure temperature controller shall immediately stop the primary flow into heat exchanger thus reducing the risk of high temperatures building up in heat exchanger causing lime scale and bacteria build up. The operation of the pressure temperature controller shall be mechanical and require no auxiliary power.
- c) The temperature of the DHW should be controlled by a thermostatic head with an immersion sensor, the head will control the temperature of the hot water that exits the heat exchanger and regulate the primary water flowrate.
- d) A **Herz** thermostatic primary circulation bypass valve fitted with a return temperature limiter shall be integral to the HIU and be mounted between the primary flow and return to ensure a quick DHW response and maintain primary temperatures at all times.
- e) There shall be no standing losses or meter creepage resulting in the end user being charged for energy they are not using on demand.

### 4.0 Energy Metering

If required the HIU may be provided with a built in energy meter mounted in the primary heating return pipe.

The meter should meet the following minimum specification

- a) Flow measurement using the ultrasonic principle
- b) Measuring accuracy meets EN1434 Class 2
- c) Heat calculator to have read out in kW/hr
- d) 2 x Pt500 sensors mounted in the pipework
- e) Battery operated with 12 year life battery
- f) 24 month data storage
- g) Data collection shall be via M-bus or remote reading via hand held scanner
- h) A 110mm spool piece shall be provided within the incoming cold water supply to the HIU to allow the installation of a cold water meter if required.