

## Product Data Sheet HDP-170 / 06-00

# Actionair Hydropac Series PHW 170

170mm Deep Waterside Control Fan Coil Units  
For Horizontal Applications



## Application

### Hydropac (Series PHW 170)

**Actionair Hydropac horizontal ceiling void mounted draw through chassis type fan coils are waterside control, suitable for operation against moderate duct resistances, using chilled water cooling medium and low pressure hot water heating medium.**

**Temperature control is by means of modulating 4-port diverting valves on heating and cooling, operated via stand alone or BMS temperature controller and room or return air sensor.**

### Features and Design Guide

Flush panelled extra rigid construction.

Externally mounted, ventilated control enclosure with illuminated on/off switch, and 3 speed selector switch.

Eleven speed tapped transformer with pure sine wave fine adjustment for accurate commissioning.

High density class 'O' CFC and HFC free acoustic and thermal insulation.

Integral, multi-spigot, acoustically lined discharge plenum.

Recessed, slotted mounting points for easy installation and greater safety.

All types of stand alone, BMS and commissioning controls available, fitted and wired.

## Specification

### Chassis

The unit chassis shall be manufactured from 1.2mm galvanised sheet steel with 1.6mm fan decks and back plates for stiffness and durability. The construction shall produce a flush external finish to prevent exposure to bare edges or sharp objects, giving unhindered access to filters, controls and fitting of flexible or circular steel ductwork.

Chassis shall incorporate recessed, reinforced slotted mounting points. An integral acoustically lined discharge plenum shall be fitted with easily interchangeable spun steel spigots and insulated blanking plates.

### Access

Access to fans/motors shall be via an insulated bottom panel with keyhole slots for accurate positioning and easy removal in restricted space.

### Insulation

100Kg/m<sup>3</sup> density, class 'O' CFC and HFC free open cell foam shall be utilised for both thermal and acoustic insulation, complying with 'Section 20' requirements. External condensate tray insulation shall be similar specification except closed cell type. External condensate tray insulation shall be similar specification except closed cell type.

### Fans

Fans shall be double or single width, resiliently mounted, direct driven, forward curved centrifugal type with

high efficiency, low noise multiblade galvanised sheet steel impellers housed within heavy gauge galvanised or synthetically treated steel scrolls. Fans shall be separately mounted on 1.6mm galvanised sheet steel easily removable decks.

### Motors

Motors shall be of the permanent split capacitor type external rotor, totally enclosed, speed controllable, high efficiency with a power factor of 0.9 or better.

Bearings shall be sealed for life, maintenance free ball type, having a minimum life expectancy of 50,000 hours, under normal operating conditions.

Auto resetting thermo-contactors shall be built into the windings to ensure overload protection.

Insulation shall be to class 'B' with enclosure to IP44, and electrical supply shall be 230V 1ph 50Hz.

### Speed Control

Speed control shall be by means of a multi-tapped transformer giving eleven settings, three of which shall be pre-wired to a panel mounted selector switch.

Fine adjustment shall be provided utilising a pure sine wave method, obviating adjacent control interaction and electro-mechanical harmonics, and complying fully with BS800. (Radio interference suppression). On/off control to fans shall be by means of a panel mounted illuminated two position switch.

**For installation/commissioning information please refer to Customer Service Office.**

## Coils

Coil matrix blocks shall be manufactured from seamless copper tube mechanically expanded into aluminium fins having die formed collars providing a tight bond to optimise heat transfer. Vents and drains shall be fitted as standard with easily accessible slotted/hexagonal plugs. A plate shall be provided to support and protect the valve assembly and connecting pipework.

## Condensate Tray

Condensate trays shall be one piece, welded, galvanised sheet steel, synthetically treated, foam insulated and extended to cover the entire coil and valve assembly, and shall be easily removed for cleaning without disturbing hot and cold water pipework.

## Filters

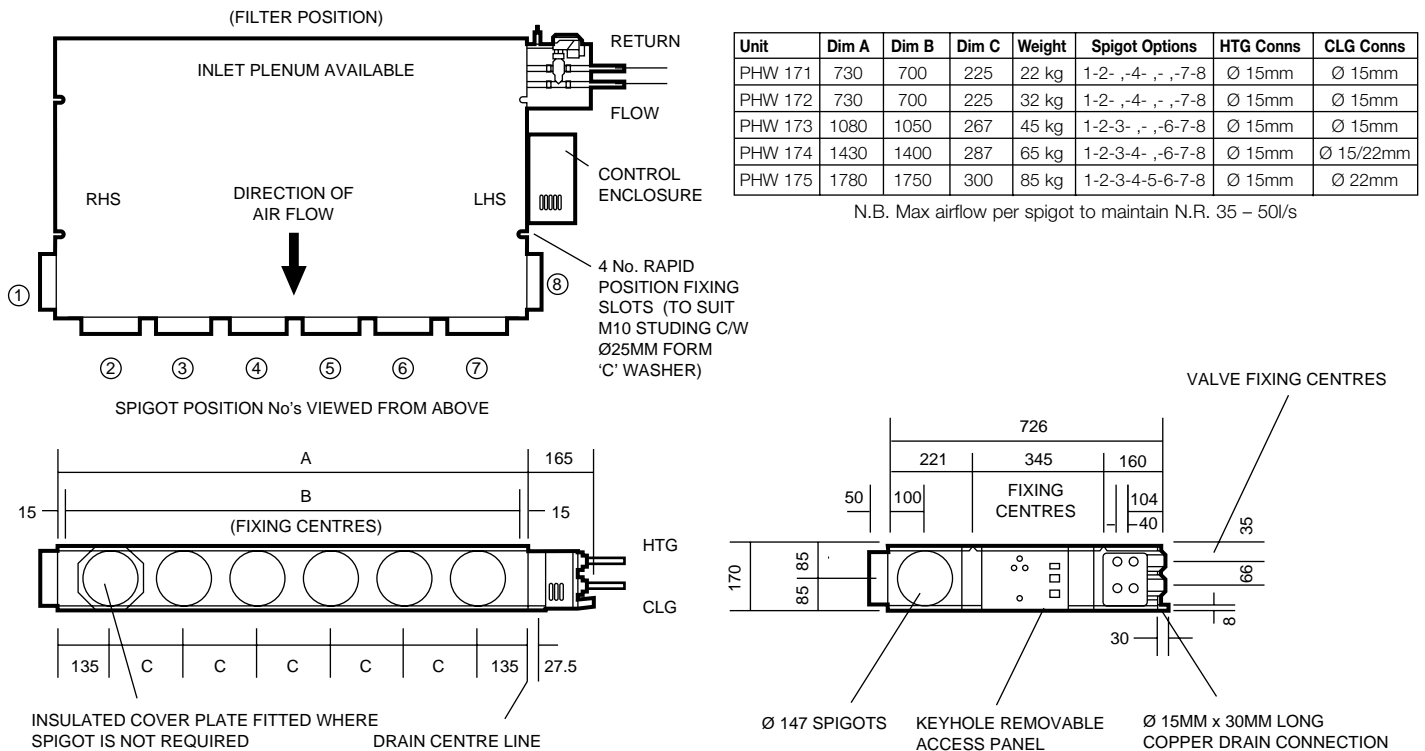
Filters shall be washable EU3, continuous filament media to Eurovent 4/5, with F1 fire resistance to DIN 53438, in a galvanised steel channel frame with steel support mesh, or fine woven vacuum cleanable metal mesh type.

## Control Housing

A purpose designed, ventilated control housing shall be mounted on the side of the chassis for easy access and shall include a hinged/removable cover. The housing shall incorporate the speed control transformer and switches plus a 1m flying lead, for connection to adjacent fused spur, with outputs available for supply to Fan Coil controller.

**Series PHW170** – are Hydropac horizontal ceiling void mounted, draw through chassis waterside type control fan coil units. 5 different unit models are available all being 170mm deep.

## Dimensional Data



The Actionair fan coil unit range also includes:-

**Hydropac Series PHW 230** – 230mm deep Horizontal Waterside control.

**Aeropac Series PHA 230** – 230mm deep Horizontal Airside control.

**Hydropac Series PVW 230** – 230mm deep Vertical Waterside control.

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For further information, please refer to the Actionair Hydropac product catalogue or contact our Customer Service Office.

The information contained herein is subject to change without notice due to continuing research and development