

VAV Control Assemblies

The Holyoake Series HCV range of controlled volume assemblies and accessories has been specifically designed to meet the requirements of either of two major design concepts commonly used:

(1) Velocity Reset Control

Controlled flow through fixed orifice diffusers.

The assembly may be set to maintain constant volume flow, irrespective of fluctuations in upstream static pressures. The selected flow may be automatically reset, as directed by a space temperature thermostat, or sensor, with minimum flow pre-determined by factory, or field adjustment, down to zero if required.

Refer to Section B (Ceiling Slot Diffusers), Section C (Light Air Boots) and Section D (Ceiling Round Adjustable), (Ceiling Swirl), (Ceiling Multi-Pattern), (Square Face Round Neck) and (Ceiling Perforated), for diffusers compatible with above.

(2) Static Pressure Control

Flow controlled by constant static pressure behind variable orifice diffusers.

The assembly may be set to maintain constant downstream static pressure, irrespective of fluctuations in upstream pressures, or the rate of draw off required by thermostatically controlled variable orifice diffusers.

CSS VAV and CSS VAV E within Section D (Swirl) and CSR-VL and CVT, within Section D (Square Face Round Neck), are variable orifice diffusers compatible with above. Other fixed orifice diffuser types may be used, but generally with restricted turndown ratios, to avoid dumping.

Construction

Special attention is given to construction of the basic assembly to minimise radiated and airborne noise generation and air leakage. Extruded full airfoil aluminium damper blades are mounted with mechanically locked acetal two piece bearings. This high precision damper offers extremely low leakage, whilst providing optimum control performance. Low profile units may also be available by special request.

Outer Casing: 0.75mm Galvanised Steel with 0.55 mm inlet neck.

Insulation: 25 mm Non-Woven Acoustic Polyester Insulation.

Damper: Multi blade damper. Blades 6063 T5 full airfoil extruded aluminium with inflatable blade edge seals and convex aluminium side seals. Stainless Steel Axles.

Bearings: Two piece acetal with locating ribs.

Note: Your local Holyoake branch has automatic calculation programmes to input raw data and assist in making accurate product selections.

Note

Velocity Reset or Static Pressure control are/may be a feature of the selected controls.

Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.



Accessories

To accommodate varying design requirements, HCV assemblies are available as basic volume, or static pressure control units only, or with any, or all of the following accessories:

- Attenuator
- One, or two row hot water heating coil
- Electric heater
- Multiple dampered outlet adapter
- Round outlet adapter

Each accessory is finished ready to accommodate standard slip and drive cleats matching the basic unit. Cleats are furnished for field assembly. If drive cleat, or duct flange are required on all four sides of the components, please contact the factory.

Controls

A range of controls can be provided, from stand alone analog control to a full DDC set up:

Code 1 Siemens

Code 2 Honeywell

Code 3 Alerton

Code 4 Belimo

Code 5 KMC

Code 6 Delta

Code 7 Schneider Electric

Code 8 CSI

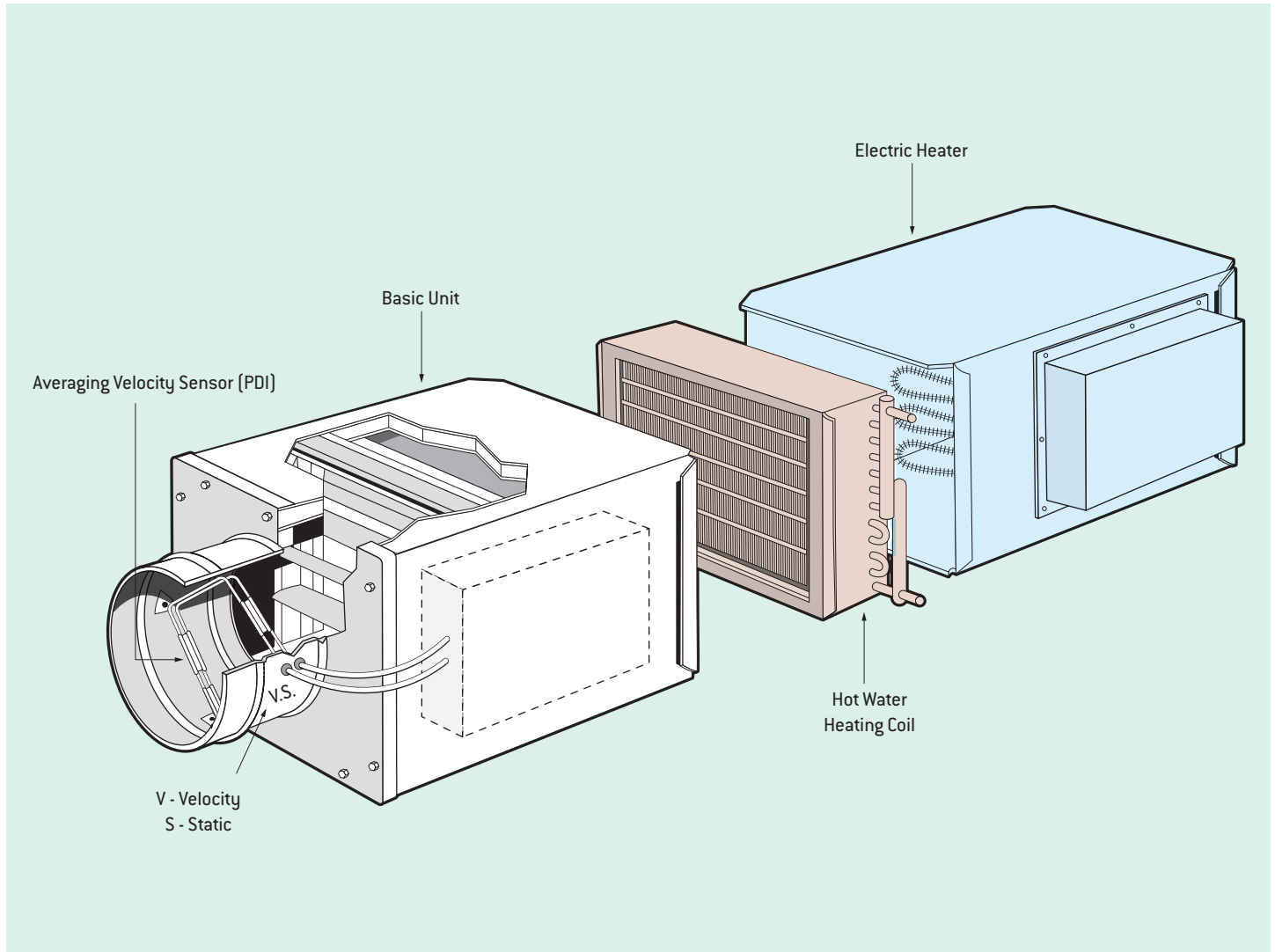
Code 9 Other Manufacturers (Please Specify).

The following pages detail the more common control applications. Other control methods are available to special order – contact factory.

Note that control requirements are included in the model number key.

Variable Air Volume Control Assemblies

An HCV terminal can consist of a basic unit alone or with any combination of accessories.



Guide Product Weights		
Case Size	Description	Approximate Weight in Kg.
150	HCV (Inc Square Flange)	6
200	HCV (Inc Square Flange)	7
250	HCV (Inc Square Flange)	9
300	HCV (Inc Square Flange)	11
200	HWC Hot Water Coil - 1 Row	3
350	HWC Hot Water Coil - 1 Row	6
200	HWC Hot Water Coil - 2 Row	4
350	HWC Hot Water Coil - 2 Row	7
350	HCV + Electric Heater (Square Inlet)	37
200	Electric Heater - 3.75 Kw (inc Flanges x 4)	22
250	Electric Heater - 6.00 Kw (inc Flanges x 4)	27
200	Discharge Attenuator	10
250	Discharge Attenuator	11
350	Discharge Attenuator	15