

Trending!

Prefabricated **Fan Coil Valve Sets**

In March 2019, [UK Construction Online](#) published the 8 major trends which are expected to significantly transform the industry in the years ahead.

For nearly a decade now, the skilled labour shortage in construction has been one of the biggest challenges facing contractors and while all efforts are being made to increase the number of skilled workers, the shortage is likely to continue for some time.

At the same time, prefabricated and modular construction is forecasted to boom. In particular mechanical and electrical contractors have embraced bringing work in house as the construction of modular solutions can occur simultaneously with on-site work, resulting in projects being completed 30% to 50% sooner than traditional construction.

Prefabrication has many benefits, including reductions in material waste and repurposing of materials. It also addresses the skilled labour shortage challenge on-site, preventing costly mistakes in complex mechanical and electrical installations.

UK Fan Coil Manufacturers recognised the advantages of delivering ready-to-install Fan Coil Units to site, including the Fan Coil Unit Valve Package mounted, early on. FloControl Ltd in Burnley was one of the first valve suppliers in the UK to harness this trend, supplying a “Ready-to-Fit” Fan Coil Unit Valve Package directly to Fan Coil Unit Manufacturers and since then, has built the reputation as the leading specialist supplier of Fan Coil Valve Sets in the UK.

At the heart of a Fan Coil Unit Valve Package is typically a Pressure Independent Control Valve, Automatic Balancing Valve or Commissioning Valve, depending on the position and duty of the Fan Coil Valve Set in the installation.

In accordance with BSRIA BG29, a Fan Coil Valve Set has to include the valves and components required to dynamically flush the FCU backward, forward or externally, and to drain, purge, vent, automatically balance the system and control the temperature with the highest possible authority.



Key Considerations for project buyers of Fan Coil Unit Valve Packages

Buying process

Some Fan Coil Manufacturers work with a standard Fan Coil Valve Set supplier and will have developed off-the-shelf packages, which are available on short lead times. Buying a total package decreases the risk for the project buyer as quality remains the responsibility of the Fan Coil Manufacturer.

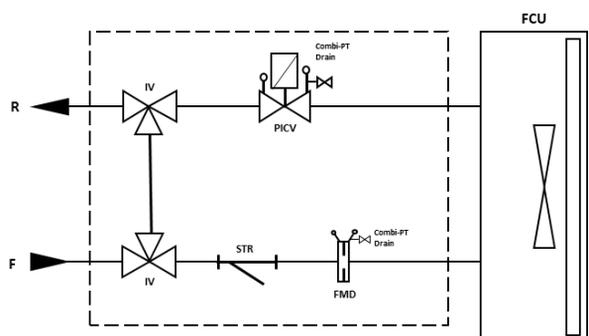
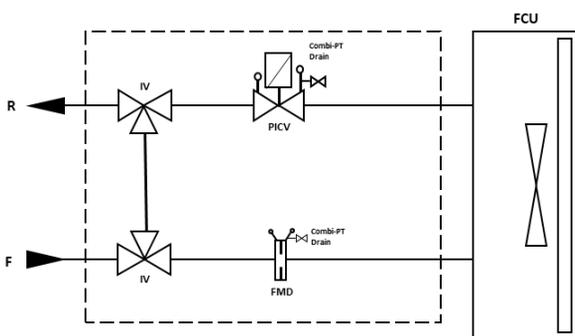
The alternative is to free-issue valves to the FCU manufacturer of choice, which may be cost effective, when all project valves including Fan Coil Valve Sets are bought at the same time.

Configuration Flexibility

Fan Coil Units from the various manufacturers all require slightly different Valve Set configurations. When choosing the Valve Package supplier, it is important to understand the configuration capabilities to keep all options open. Think of slim line FCUs requiring a horizontal configuration, flow measurement in either the flow of return branch, total length of the valve set to fit over the drip tray, avoiding having to add insulation, the centre width, e.g. 40mm centres vs 50mm centres, and lastly the system connection and Valve Set customisation options available, e.g. air vents, strainers.

Fig. 1: Typical compact PICV valve set configuration.

Fig. 2: Typical compact PICV valve set configuration with strainer.



Component Features and Quality

When the terminal unit is controlled using a PICV, look for a solution that includes a full-stroke PICV, which ideally combines automatic balancing, differential pressure and temperature control in one housing, with 100% authority and lowest hysteresis (high repeatability).

The PICV should have a self-adjusting feature to continuously self-balance to ensure the precise delivery of the pre-selected flow rate required by each terminal unit, independent of pressure fluctuations in the system.

Some PICVs come with removable inserts, which makes the Fan Coil Unit Valve Package easy to fill, flush and service.

If you want to know more about the various **Fan Coil Unit Valve Package** options available in the market or if you want to discuss your design with an expert, please contact FloControl Ltd.

