

## Why OEM Controls?

### Introduction

In today's competitive market, engineers, contractors, owners and specifiers are looking for the right control solution for their HVAC systems. Traditional building management systems integrate many aspects within the building, including HVAC, Lighting, Boiler and Chiller plants. The challenge for more energy efficient control has required the technology to become more advanced while at the same time becoming more complex. In most markets the local equipment controls are provided by the building management system controls company, exclusively locking in one company for the design, manufacture, installation and services of the control system.

Building Management Systems by nature are very flexible and tailored to the specific building and application, but these advantages add more expense due to programming requirements, engineering and the need for specifically trained installers.

What vital advantages can OEM's bring to local equipment control while meeting the Building Management System requirements?

At VES our extensive history of controls design, manufacture, installation and maintenance spanning four decades ensures we achieve optimal performance from our own air handling units. Our focus is to provide competitive solutions whilst offering many advantages including our knowledge, energy efficiency strategies, integrated controls, communication and commissioning.

### Knowledge

Our in house team provide engineering design, CAD generated construction drawings, software programming, controls commissioning, training and on-going support.

All systems are designed by specialists having extensive "real world" experience in the many variables that can affect any given buildings operating systems, both economic performance and occupancy comfort. We bring this knowledge into each of our air handling systems; the specific goal of delivering the best controls for the right application, with emphasis on the overall building performance and the longer term integration of our HVAC system into the entire Building Management.

We understand the positive impact that a prudent controls strategy can have on any building, and being experts of energy efficient air handling systems we are able to develop application specific control with optimised functionality to achieve the highest level of performance contributing to occupancy comfort and overall building performance.

In addition, the option to seamlessly integrate into the Building Management System simplifies the installation and negates the need for building system designers to focus on HVAC control strategies, but the important building automation and management processes which deliver the real benefits to the Building.

### Integral Equipment Controls

The benefit of factory fitted Controls is to eliminate costly, time consuming and often marginal quality, encountered with the field mounting of controls and safety devices. Factory mounted controls also enables skilled staff to do what they do best, with the design and installation of controls work being carried out at the factory leaving the Mechanical & Electrical installer to complete their job of installing and commissioning the M&E services. Coupled with expert Controls field commissioning from VES, the air handling unit functions can be optimised for performance and energy consumption. The added benefits of onsite support and training improves

the handover process and future operation of the equipment – this benefits all parties, the user, contractor and equipment manufacturer.

### **Building Systems Integration**

It is known that building managers and owners have an ever growing demand and financial incentives for taking a proactive approach to energy management and the building automation process. Having immediate access to building-wide information, such as HVAC equipment performance and usage data, financial data, energy prices and security data, provides the tools to facilitate successful management strategies.

VES feel passionately about providing equipment that is energy efficient, adaptable and forms part of the building objectives. The ability to integrate into any open protocol Building Management System forming a fundamental part of the management system means that equipment from VES can be easily integrated into the management strategy by the overall Building Controls supplier.

VES has the skill and knowledge to utilise controls devices from many equipment vendors and we possess the capability to engineer these solutions so that they can be integrated between VES controls and the building controls systems. This is achieved by providing a wealth of connectivity and interoperability options, including BACnet, Modbus, KNX or TRENDS. We also have the ability to provide a Client web interface for applications that do not have a Building Management System but require remote control and management of the HVAC system.

### **Controls for the Future**

Many building owners have had the unpleasant and expensive experience of purchasing a controls system that cannot be upgraded for future requirements or worse still within a few years are no longer supported with local parts or service.

VES have demonstrated ongoing support for parts, training and services, our aim is to ensure that our air handling equipment is sustainable and adaptable for future demands. Using components from a variety of world leading vendors ensures future product progression, upgradability and ongoing support in an ever enhancing technology driven industry. Our core values of peace of mind and security guarantee controls system from VES are designed and built for life, with support easily available through VES or any other trained providers as well as the benefit of up to 5 year warranty – protecting your investment.

### **Commissioning Maintenance**

On site Controls commissioning is vital to achieve the optimal equipment performance – who is better to do this than the equipment manufacturer. We at VES have extensive knowledge and can get the best out of our systems.

We also understand that training on the air handling digital control systems is a need that must be met if the customer is to achieve maximum benefit and the system is to continue to respond to meet the constantly changing need of the modern facility. It is a known fact that the first year's actual building energy usage increases by up to 25% above the expectations during design stage – this can be contributed to poor equipment handover, minimal system commissioning and inadequate end user training.

At VES we make every effort to explain the benefits of Controls Commissioning for our ventilation systems and offer a Post-Installation Commissioning service to meet commissioning needs. Our skilled and knowledgeable staff attend site to ensure the system has been installed and is set-up to achieve maximum performance, and as part of the onsite service we provide customer training and client demonstration; working directly with the user to verify system parameters meet the design requirements, ensuring we leave the system in optimal performance. This improves the handover process, ensuring the right data is provided in a meaningful way, but

what's more, site specific training reduces the need to trail through lengthy Operation and Maintenance manuals when the contractor and equipment supplier have left site.

Concluding, factory mounted controls from VES provide:

- Energy efficient equipment that removes the burden of site installation and Controls commissioning.
- Competitively engineered solutions for any application without sacrificing the overall Building System control or quality.
- Guaranteed compatibility with the air handling equipment.
- Simple installation and integration, reducing the risk and increasing the peace of mind for the installer.

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