

The One Solution The Complete Solution The Only Solution



KWE Technologies Group

Design • Manufacturing • Support

Custom Control Panels

FOUNDATION

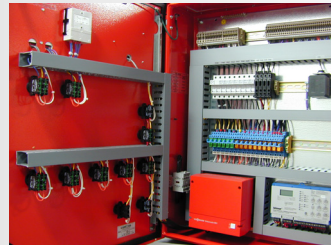
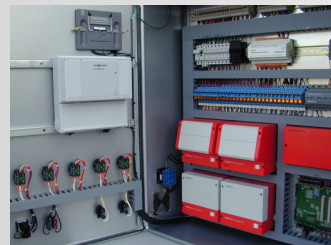
You have taken the time to plan everything. Nothing has been overlooked. Each detail has been scrutinized repeatedly until it is *right* by your standards. Each part that makes up your signature system comes together with the first turn of the power switch of your Vitocontrol-C panel. *Success!*

"How did I do this before?", you ask yourself, going places without your GPS, staying in touch without your smartphone and controlling your systems without a Viessmann Vitocontrol-C Custom Control Panel. You know you'll never return to those "good ol' days". The time savings, control functionality, ease of installation and operation that go into every panel is why you make it part of every system. Your customer will immediately see the pure aesthetic appeal of the Vitocontrol-C panel from the very first moment. They will know they made the right decision by having you take care of all the details.



So, how did you get to this point? You know what your customers expectations are. Your desire is to provide them with a system that works as well as it looks. You have outlined the benefits of complimenting your system with a custom control panel. The Vitocontrol-C custom control panel is an integral part of their Viessmann system. It is the only solution to eliminate unsightly wires strung from one end of the mechanical room to the other. This is the only method to provide a single source for the consolidation of fuses, motor starters or any remotely-mounted control device and the only solution for interconnection of multiple devices.

The moment of truth has come. You check all the electrical connections and turn on the main power disconnect. The authoritative sound of the main power switch and the glow of the power LED indicators light up the panel door. As each successive power and pump circuit is turned on, the panel is brought to life.



DESIGN

Each and every panel design is the end result of the operational intent of the customer's system. It is vital that every control detail is worked out before control panel work begins. This is done to ensure that customer expectations are satisfied, 100 percent.

Composition of the panel is based on components and devices that have provided tried and true performance over time. All of the individual parts must have outperformed KWE's expectations as well as those of our customers. If, however, the design requires the panel to incorporate components that are common to those responsible for care and operation of the panel, those particular manufacturers of components and controls can be utilized.





It all comes down to fulfilling the intent of the panel, based on design, functionality and reliability, to achieve your customer's satisfaction.

NEED

As with any kind of product, the primary consideration is one of need. Determining the need for a Vitocontrol-C is an easy process. It provides the integration for the various systems, such as the boiler plant, solar, snow-melt and biomass. There are numerous advantages it provides the customer, but there are also advantages that are appreciated by those other than the customer. These include, but are not limited to, ease of installation, interconnection to system devices, visual indicators and service friendliness.

The custom control panel packages allow the customer to incorporate features and functionalities that they would not find in a single, off-the-shelf control. In doing so, the panel provides them with a comprehensive and aesthetically pleasing product.

Typical System Selections

	Space Heating	Mixing Valve Control Fan Coil Zoning with Pumps and/or Valves
	DHW Production	Multiple Temperature Storage Zone Valve Control Set Point Control
	Pool/Spa	Set Point Control
	Snow Melt	Snow and Ice Sensor Driveway, Walkway, Patio
	Solar	Single Tank Double Tank DHW, Pool, Space Heating
	Pump Control	System Pump Control

Control Panel Optional Features*

- ▶ VFD Pump Control
- ▶ True Pump Operation Status
- ▶ Counters
- ▶ 3-Phase Pump Output
- ▶ Touch Screen
- ▶ Stand-by Pump Rotation
- ▶ Operation Timers
- ▶ Fault Indication
- ▶ Dual Head Pump Output
- ▶ Plus many other features

Remote Communication

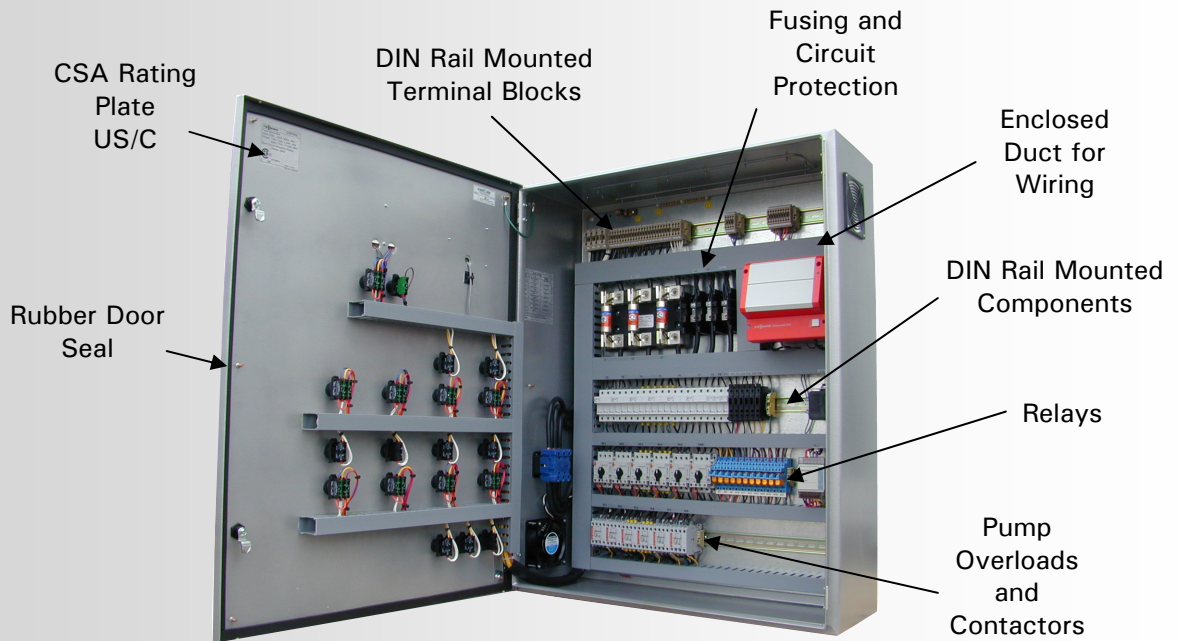
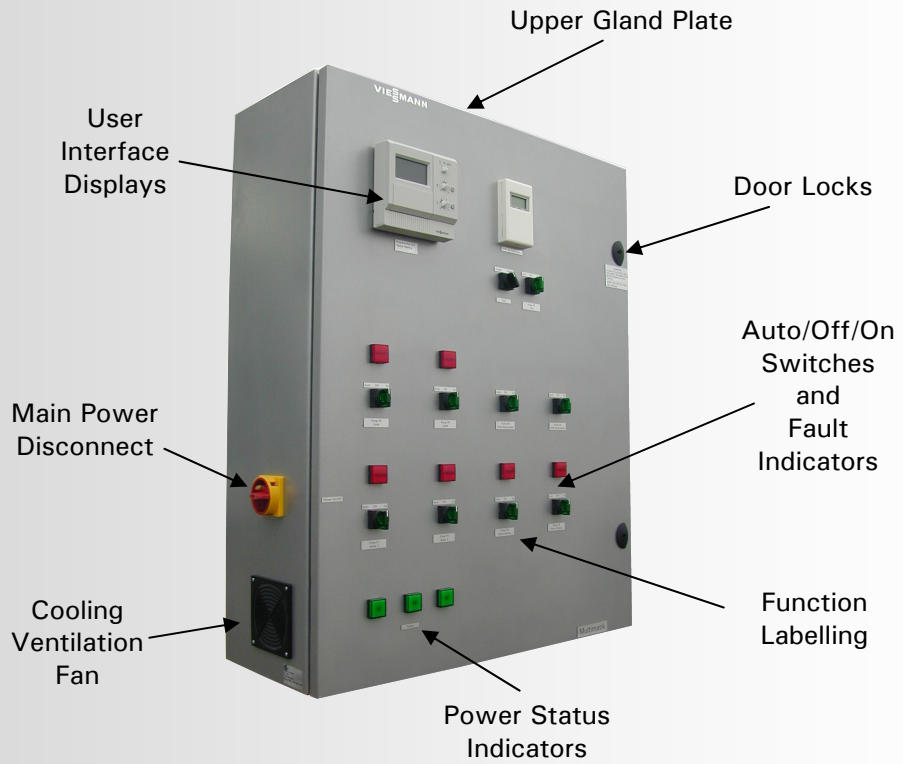
- ▶ Integrated Web Server
- ▶ Temperature Display
- ▶ Remote Adjustment
- ▶ Communication with BMS
- ▶ On/Off Status Input
- ▶ Plus many other features

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*Not all options are available with every panel. Features and options are based on equipment installed.

Custom Control Panel Points



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PACKAGE

Every great piece of art starts as a blank canvas. While we do not work in the world of colour and texture, we do start every panel from a clean slate.

Each panel begins its life as a computer-generated schematic. The schematic comes to life on the metal back-plate of the control panel. The back-plate provides the foundation from which the control is built. All of the panel components are laid out to best organize the panel in terms of maximizing space and functionality.

The majority of the control panel components and devices are mounted on DIN rails within the panel. Using this method of fastening everything from terminal blocks to PLCs provides a secure mounting strategy and easy serviceability.

Wiring throughout the panel is concealed in wire duct, creating a clean and uncluttered appearance. The wire duct is of a wide finger-slot design to allow unobstructed interconnection between duct and electrical components.

All wire terminations are finished with crimp-on terminals or steel ferrules. This aides in long-term operation of the panel and eliminates wire strand breakage.

Wire used in the panel is rated for temperatures of up to 105°C or 221°F. All wire gauge selections are sized according to all applicable electrical codes to satisfy amperage demands of control and output devices.

Operational indicators for pumps, output devices and fault indicators utilize long life and energy efficient LEDs.

All devices within the panel, as well as all of the outputs from the panel, are protected with fuses and/or breakers. The device protection is based on operational norms established by CSA and other associated approval bodies throughout North America. The complete custom control package provides your customer with the ability to tie in as many or as little systems as possible. By design, it provides exactly what is asked of it.



HIGHLIGHTS

Piece of Mind

As with any comprehensive product, the peace of mind of long-term operation and trouble-free functionality cannot be understated. It is absolutely paramount to our way of thinking that every Vitocontrol-C panel functions as it was designed and built to.

Mechanical Aesthetics

Every panel has an aesthetic mechanical beauty unto itself. It is the culmination of functionality and devices which come together and work seamlessly with one another.

Maximize Efficiencies

Competitive advantages in today's working world must be maximized to ensure increased work efficiency. This is true whether it be during installation or long-term usage. For this very reason, the Vitocontrol-C panels are the best choice for providing the tie that binds. The increased work efficiency for electricians is a big benefit. The panels allow them to concentrate on the load end of work while the control panels allow us to concentrate on what we do best.

Long-Term Operation

When the time comes to diagnose a problem, it is a simple matter of referring to the supplied schematic. Time is not wasted tracing wires, but rather being spent getting to the heart of the issue.

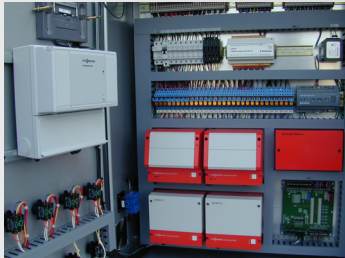
Empowerment

Vitocontrol panels empower its users with lights, sounds and action. You can see the position of the switches as they indicate operation. You see the lights as they provide valuable status operation. You can hear the sound of an alarm, should an issue occur.

The ultimate empowerment is the ability to communicate to the panel. It allows you to keep in touch with one of your many valuable investments. Receive email updates, look at the system with a smartphone or even turn up the heat on your way home.

Sustainability

The design of the control panel lends itself to the replacement of components. When service is required, replace only what is necessary.



TESTIMONIAL

"The selling of commercial boilers in today's market becomes a balancing act of getting the best package for the best price. I have found that controlling boilers and equipment is very important to engineers and owners, who want to have a single source of responsibility. Having KWE Technologies Group build such panels is a great selling point. The combination of custom controls and boiler packages helps provide us with the edge in selling."

"Thane M. LaBarre, P.E., Facilities Mechanical Engineer of Colorado Springs Utilities, has made it a requirement that all custom controls be made by KWE. He said he feels the quality, support, written specifications and drawings are important."

Bruce A. Faul
Shamrock Sales Inc.
Boulder office
Tel: (303)440-4874

WARRANTIES

Under the Limited Warranty, each KWE Product is warranted against defects in workmanship and materials for a period of twenty-four months (**24 months**) following the documented date of installation by a qualified contractor.

For the complete Warranty policy, please go to: www.kwe-tech.com and look for the Terms & Conditions and Warranty Policy download.

APPROVALS

The custom control product that KWE Technologies Group provides its customers are CSA approved for use and installation in the United States and Canada.



KWE Technologies Group is a wholly owned subsidiary of K-W Electronic Service Inc. Please contact us at:

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