The OMNI Transmitter

JANUARY 2012 NEWSLETTER

- INSTRUMENT INSTALLATION
- TECHNICIAN SERVICES
- UL PANEL FABRICATION

INSTRUMENTATION ENGINEERS AND CONTRACTORS

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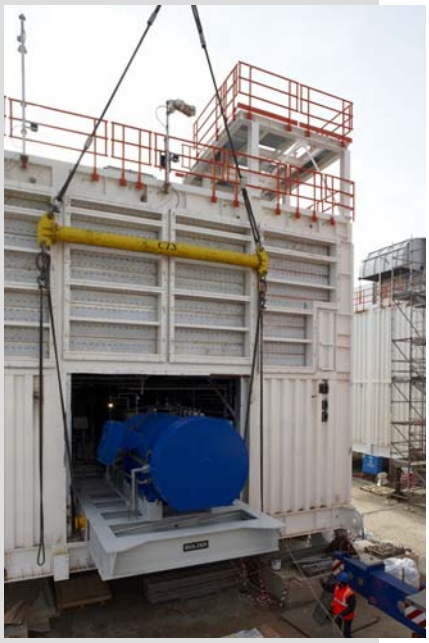

SUPERSKIDS

By: Mike Kornas

Modularization is swiftly gaining in popularity in the biotech and pharmaceuticals industries due to the many advantages offered. Modular projects are typically completed months faster than conventional projects and experience far fewer delays. The large majority are completed within 3% of their original estimated cost.

With skid modules, or "superskids", tanks, pumps, filters, heat exchangers, and all associated piping are assembled on frames or "skids" as standalone sub-systems, rather than having multiple contractors install them in place. This pre-fabricated approach simplifies and streamlines the project, reducing trade stacking and site interference. As a result, there are fewer installation issues, better integration, and more consistency in quality. Electrical functionality is tested prior to site installation, so commissioning and final testing can be completed in a shorter period of time. Superskids can either be assembled in a vendor facility and transported to the project site, or constructed on-site by contractors in an adjacent area in parallel with construction of the building.

On one particular superskid project, Omni worked closely with engineers and the owner to precisely determine the ideal locations for instruments and maintenance access to ensure maximum ease of use. Once instrumentation, controls and network wiring are installed on each skid module, continuity checks, and calibration can be performed. The ultimate goal is for pre-commissioning to proceed swiftly and efficiently. When the superskids are ready for transport and setting, final control and power wiring will be completed and commissioning can begin.

If you are interested in learning more about modules and how they can work for you, please contact Mike Kornas at (908) 412-7130.

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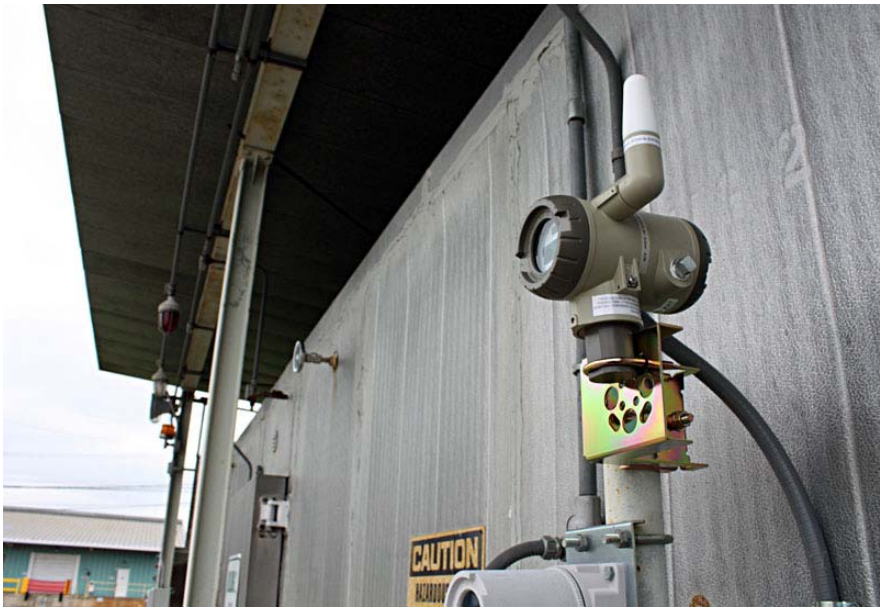
OMNI TECH TALK: Pros and Cons of Wireless Instrumentation

Wireless technology has become a part of our everyday lives, and there are many advantages to its utilization in an industrial setting. While some have been hesitant to use wireless instrumentation, it has proven to be safe and reliable, and is becoming more widely used every day.

There are many advantages to choosing wireless. Wireless is ideal for applications where wiring is difficult or impractical, such as in remote or hard-to-reach areas, on moving or rotating equipment, and extreme or corrosive environments. With the elimination of wires, cables, and logistical challenges, planning, installation and setup are greatly simplified, and installation and maintenance costs are substantially lowered.

Wireless systems are more flexible than traditional networks. Because you are not locked into a fixed setup, changes, additions, upgrades, extensions, etc., can be easily and inexpensively made. Also, the need for time-consuming field measurement is eliminated. In combination, advantages translate to savings, allowing more process information to be gathered far more economically than with wired devices. With more collected data, costly downtime is reduced.



There are drawbacks to wireless instrumentation. Security concerns are sometimes cited when considering wireless, but vast improvements have been made and there are now many effective options available to safeguard wireless networks.

Another challenge is that wireless can sometimes be difficult to integrate with existing systems due to proprietary networking protocols and vendor-defined software that can't be modified. Battery life is another concern. There are tradeoffs between power consumption and the amount of data that can be collected that must be considered when weighing your options. Fortunately, battery life has improved, with some lasting for years, and replacement battery cost has decreased.

TECH TIDBIT: Network Dx

Problems with your network? Likely causes are: excessive network runs; problems with grounding, shields, or drains; intermixing of high and low voltage cables; loose connections; segment overload; incompatible instruments; damaged cables or connectors.

The OMNI Safety Corner

Omni Instrumentation boasts one of the best safety records in our industry, with 10 years of no recordable incidents.

Omni has participated in numerous OSHA VPP projects, and we are ISNetworld approved.

VPP

ISN

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FROM THE PANEL SHOP:

An Expanding Omni Relocates to South Plainfield

By Craig Drabyk

Even in today's slow economy, Omni Instrumentation Services is thriving, and as a result we have outgrown our headquarters in Linden, New Jersey. To accommodate our growing workforce and increasing demand for our products and services, we recently relocated to a new location in South Plainfield, NJ, that features larger office space and an expanded and improved panel shop.

Omni's primary focus has always been to provide 100% satisfaction to every client on every project. We work closely with our customers to determine their precise needs and to provide them with maximum accuracy, efficiency, and ease of use. Our commitment to excellence has resulted in our involvement in more award-winning projects than any other instrumentation and controls contractor, including three ISPE Facility of the Year (FOYA) projects.

Much of the credit for Omni's continued success and growth is owed to our customers for their confidence, loyalty, and invaluable referrals. We sincerely thank you, and look forward to serving you from our new location:

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OMNI INSTRUMENTATION SERVICES, INC.

Five Keys To Panel Design

1. Proper management of wire through panel and wireways.

2. Clear separation between high and low voltage.

3. Spare capacity for future expansion, ideally 20%.

4. Accurate and detailed as-built drawings.

5. Know your client's exact needs, and draw from both experience and lessons learned.