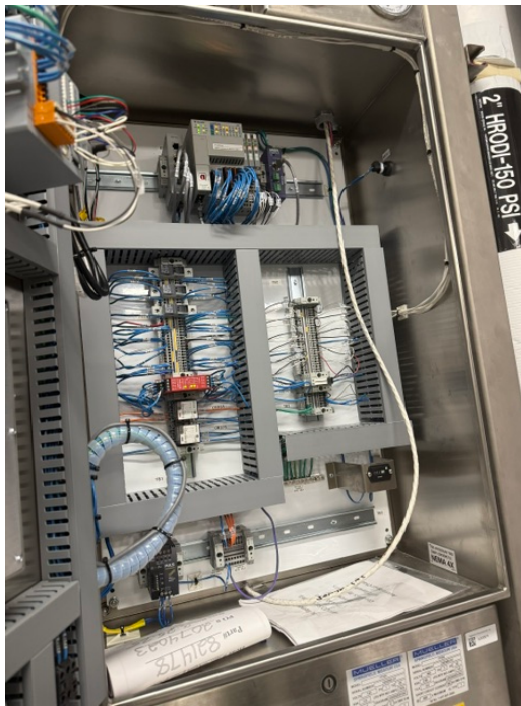


Shipped Loose, Remote Mounted, Missing UPS and More *How Weekly Technology Meetings Kept One Project Ahead of Schedule*

When it comes to process equipment and electrical gear, many projects face the same costly challenges that add up quickly. Instruments that are shipped loose, along with control panels and HMIs that are remote mounted, are two such items that often aren't well defined or located in contract or manufacturer documents. Where exactly does the remote control panel get mounted? What kind of network or control wiring is needed for shipped-loose instruments, and where do they get terminated? All great questions, and ones that too often go unanswered until very late in the project.

Other common project challenges include missing UPS power for control panels, process equipment, and other low-voltage systems with missing network connections, or perhaps pneumatic tubing that still needs to be run between skid components and instruments.



On mission-critical projects, these open and unresolved technical items tend to linger, rolling into system startup and testing and hindering commissioning. What starts as a minor gap can quickly turn into an expensive mad dash to the finish line, complete with finger-pointing.

On a recent large project, our client was tasked by upper management with getting the electrical and process systems up and running as early as possible. The goal was to move through startup, commissioning, and into validation on time, if not ahead of schedule. That mandate created an opportunity to surface open questions and unresolved scope early, so issues could be identified, resolved, and closed out well before startup.

Omni hosted weekly technology meetings that brought together the client, the designer, and the relevant manufacturers, all with one purpose: identify and resolve issues, period. The meetings focused on RFIs and equipment field conditions, using photos and videos to speed things along. As a result, the team was able to resolve complex issues in about an hour that might otherwise have taken weeks.

In-line, remote-mounted instruments, solenoids, and control valve locations, along with their installation and wiring, were resolved quickly, allowing the mechanical contractor to install these items without delay. Remote control panels and HMI locations were identified by the users early in the process. A detailed field review of all process equipment and panels determined where UPS power was needed, and from which panel/circuit. Finally, any missing or additional network connections were identified so cabling could be completed and IP and MAC addresses supplied to get equipment communicating with the network.

In the end, area by area, the process utilities and equipment were ready ahead of schedule, thanks to the focused effort of the technology team.



Did you Fluke it? *Meet the Man Behind the Yellow Meter*



If you've ever grabbed a multimeter off the truck to troubleshoot a circuit, you've used something that traces straight back to one guy working out of his basement.

John Fluke Sr. started the company in June 1948, calling it the John Fluke Engineering Company. He was a Navy veteran and MIT graduate who had worked at General Electric, and he saw a real problem: the test equipment available after World War II wasn't accurate or reliable enough for the fast-moving electronics industry. So he built something better himself. His first product was a meter that measured volts, amps, and watts all in one unit, and General Electric was his first customer. At the time, the whole company was just two people.

In 1952, Fluke moved the operation to Seattle. The company reincorporated the following year as John Fluke Manufacturing Co., Inc., and grew steadily from there, eventually becoming the name every technician recognizes on a yellow meter.

A few things worth knowing about the man himself:

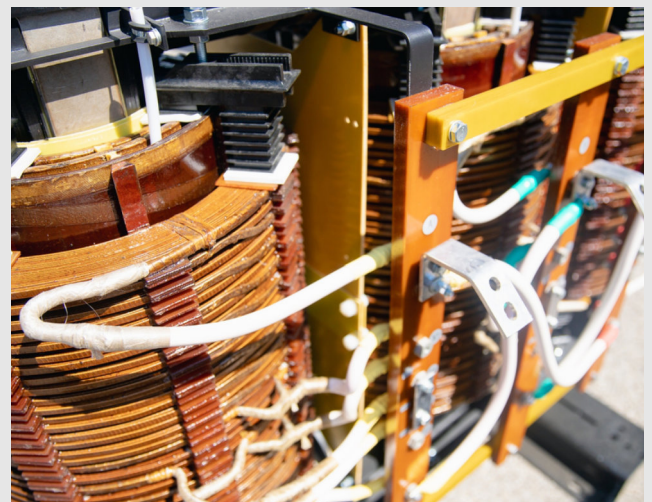
- He roomed with a half-dozen young engineers early in his career, one of whom was David Packard, later of Hewlett-Packard. That friendship lasted a lifetime, and the two companies grew up as competitors in the same industry.
- He served in the Navy under Hyman Rickover, the officer who later became known as the father of the nuclear Navy, and earned the Legion of Merit for his work on shipboard electrical systems.
- His guiding philosophy was simple: always give the customer a little more than they paid for. That mindset shaped how the company built its tools for decades.

Fluke handed the company over to his son, John Fluke Jr., in 1983 and passed away the following year. The business was eventually sold to Danaher in 1998 and later became part of Fortive. But the name on the meter never changed, and neither did the standard it was built on: tools that work, day after day, in the field.

Five-Year Wait: Inside the U.S. Transformer Crunch

The U.S. is facing a serious shortage of electrical transformers, worsened since the pandemic and now compounded by the rapid growth of AI-driven data centers. Lead times for high-capacity transformers have stretched to as long as five years, up from the 24 to 30 months typical before 2020, driven by surging demand and raw material shortages like grain-oriented electrical steel.

Data centers are hit hardest. Nearly half of those planned in the U.S. for 2026 could face delays or cancellation due to a lack of transformers, switchgear, and batteries. The ripple effects reach further too, slowing EV charging and renewable energy projects. Solving it will take strategic planning, domestic manufacturing investment, and new alternative solutions.



Ladder Safety by the Numbers

At Omni, we take safety seriously. Falls are the number one safety issue in our industry, and ladders are involved in a huge share of them. Recognizing where the problem starts is the first step in preventing it. Breaking down where and why ladder falls happen can help all of us stay aware of our surroundings and the risks that come with the job. Be safe out there.

Why these falls happen: The most well-documented cause is an **incorrect setup angle**. Roughly 40% of ladder-related injuries trace back to the base sliding out because the ladder wasn't set at the proper angle (NIOSH recommends 75.5 degrees, and most users set it flatter than that).

Beyond that, a few factors show up again and again:

- **Overreaching.** Studies don't agree on one exact number. Estimates range from 4% to 85% of falls depending on the task and country, but it's consistently flagged as a leading contributor, especially once someone is already standing on the ladder.
- **Improper ladder selection.** Wrong duty rating, wrong height, or using a conductive ladder near live wires.
- **Insufficient inspection.** Damaged rungs, worn feet, and other defects that go unnoticed before use.
- **Lack of training.** Small companies represent as much as 80% of all construction companies, and many don't provide formal ladder safety training.



The takeaway: these incidents are preventable. Using the right ladder for the job, setting it at the proper angle, inspecting equipment before every use, and maintaining three points of contact go a long way toward keeping our teams safe.

AI in Process Instrumentation: 5 Ways It's Making an Impact



AI is making a real impact on process instrumentation, and it's showing up in a few key areas:

Predictive Maintenance: By analyzing sensor data, AI can flag equipment issues before they turn into failures, cutting down on unplanned downtime and repair costs.

Smarter Data Analytics: Advanced analytics tools dig deeper into process performance data, giving teams clearer insight into where operations can run more efficiently.

Automation: AI supports real-time decision-making, helping control processes respond faster and more precisely than manual adjustments allow.

Quality Control: Machine learning can continuously monitor product quality, catching deviations early so teams can correct course before issues escalate.

Energy Management: By tracking usage patterns, AI helps optimize energy consumption, which means lower costs and a smaller environmental footprint.

AI isn't replacing the technicians and engineers running these systems, it's giving them better information to work with. For an industry built on precision, that's just the next tool in the toolbox.