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the **power**
of **PARTNERING**

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To better meet supply and inventory needs, two electrical companies form an unusual partnership.

By Jim Mahaffie



Back in 1996, inventory problems were out of control at Universal Systems, an electrical contractor headquartered in Flint, Mich. Company president Gene Dennis was “tearing his hair out,” as project estimates for equipment and parts were only 80% accurate [a typical rate, as a soon-to-be-released study by The Electrical Contracting Foundation will report].

As a result, change orders were numerous, inventory swelled as unused material accumulated, and carrying costs stayed high. Dennis freely admits that Universal’s purchasing and inventory system was out of control.

“We weren’t very good at inventory management,” he says. “We’d run out of material or have way too much. And our purchase order system took way too much time, labor, and money.”

Then, largely due to the urging of Parviz “Perry” Daneshgari, a professor of engineering science at the University of Michigan, the company decided to explore

the possibility of hiring an outside firm to do what Universal wasn’t doing too well.

Searching For A Partner

As its first step, Universal put out a request for proposal (RFP) to five local supply companies that specified the requirements for a single supplier to handle most of Universal’s supply and inventory tasks.

After the suppliers responded to the RFP, Universal concluded that two of the proposals were worth exploring. One came from the local office of Graybar (headquartered in St. Louis), the other from a nearby firm. Universal’s selection team then made unannounced visits to the local offices of the two supply companies.

At the neighboring firm, Dennis recalls, the Universal team was shepherded into a conference room and asked to remain there until someone in the company could figure out who should talk to the team.

“We were held hostage,” is how Dennis puts it. “When the president of the company finally showed up, we saw their warehouse and shipping areas. We were particularly interested in their inventory systems and how they treated their people. But they were disorganized and obviously didn’t have their procedures running smoothly.”

The visit to the Graybar office in Flint was quite different. The employees at the electrical counter already knew about Universal’s search for a supply-and-inventory

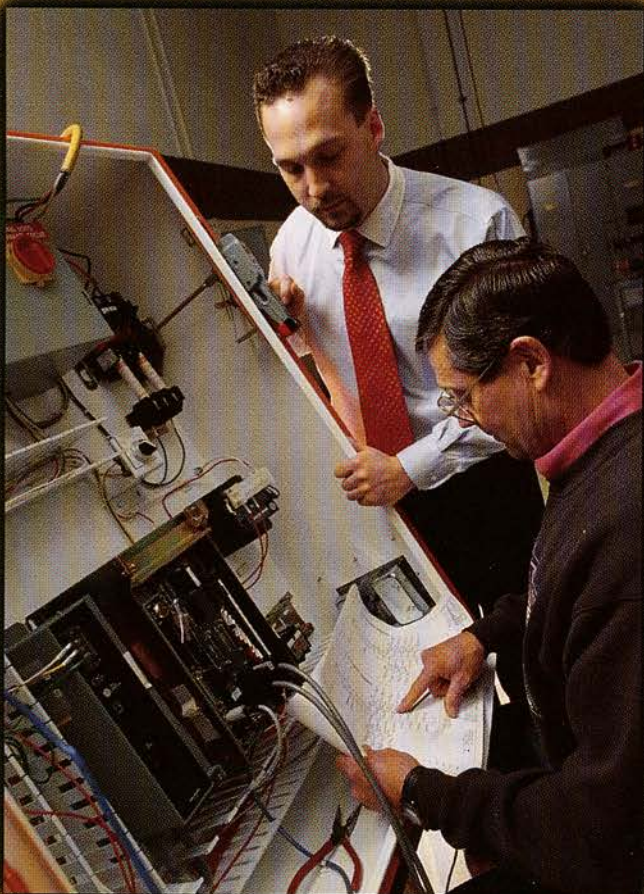
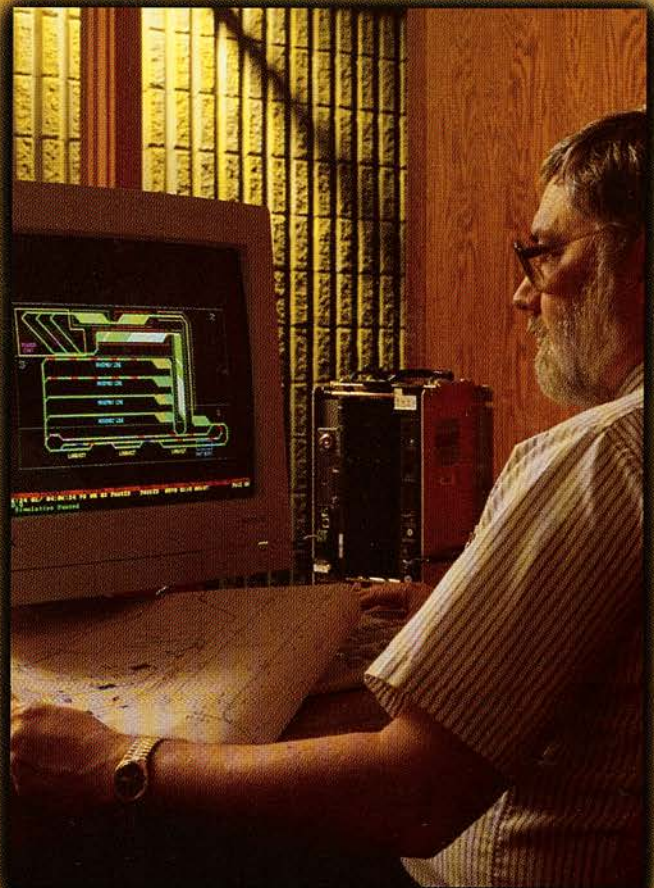
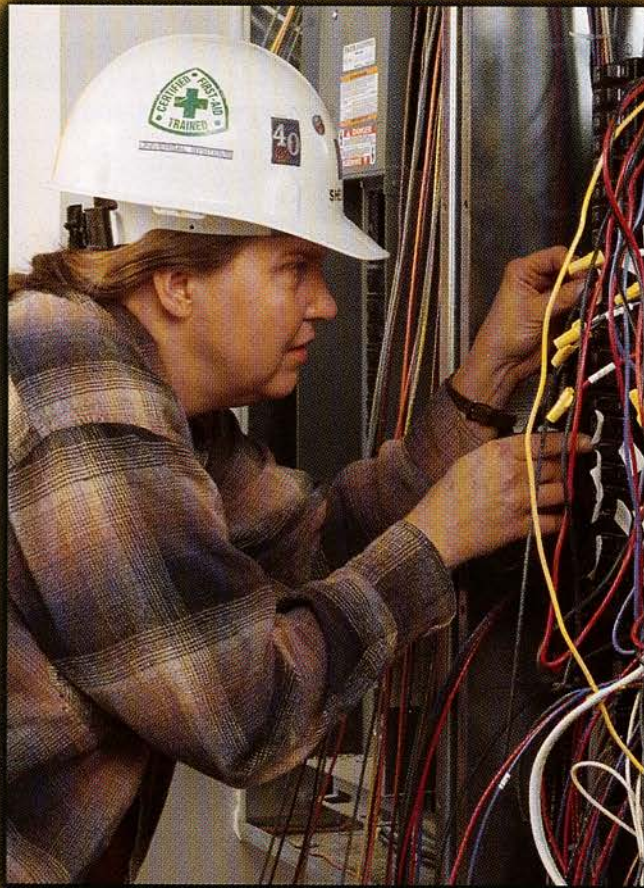
Liberated from concerns about materials supply and inventory, Universal personnel (like those pictured on the opposite page) can concentrate on doing the company’s business.

Upper left: Journeyman electrician Michele Fay of Universal installs circuits on a lighting panel at one of the company’s growing number of commercial projects.

Upper right: Terry Taehl, a senior electrical engineer at Universal, checks blueprint against on-screen display at an AutoCAD workstation.

Lower left: Electrical engineer Milt Richter and journeyman electrician Jim-Ed Floyd (seated) ascertain the functioning of a control panel in Universal’s laboratory.

Lower right and this page (above): A worker in Universal’s stockroom pulls rolls of wiring for installation at a current project.





At the October NECA national convention in Las Vegas, Gene Dennis and Parviz Daneshgari of

Universal Systems and Jim Estis of Graybar will lead a management workshop entitled "Managing Inventory Through Supplier Partnership."

partner, apologized for the absence of the manager, and immediately offered a tour of the warehouse. Although the shelves were neat and aisles were clean, the team also noticed that there weren't many employees on hand. What soon become evident was that the supplier didn't need many employees on the floor because it "had its act together."

Moreover, Graybar's on-time delivery numbers were much better than those of the other company (97% vs. 70%), and a Graybar employee apologized for the 3% of deliveries not made on time.

"Graybar gave an excellent presentation as an efficient organization that would complement ours," says Dennis. "We were alarmed at first that they had so few people on site, but then we realized it was because their policies and procedures were in order. They were lean, like we wanted to be."

To identify ownership, the items were placed into bins with a Graybar bar code number. When these items are requested, a handheld bar code reader records the bar code. That information, along with the number of items taken out of stock, is then transferred immediately via Graybar's Electronic Data Interchange (EDI) system to its headquarters in St. Louis. Graybar invoices Universal on a monthly basis for the items used. And Graybar sees to it that the stock is constantly replenished. When foremen need items that are not in stock, they can order them directly from the local Graybar office. Ultimately, Dennis says, the goal is to meet most of Universal's needs through direct deliveries by Graybar to work sites.

Meanwhile, the rest of Universal's old stock became Graybar's responsibility, and the supplier sold or otherwise disposed of old and obsolete items while incorporating still-useful items into its own inventory.

Cash Rewards For Universal

Universal has reaped substantial financial advantages from the partnership, which went into effect in July 1997. As of March 1, 1998, the electrical contractor calculated that the new arrangement had produced thousands of dollars in direct, documentable savings.

Much of that came from the transfer of inventory items



Universal was the electrical contractor for the library at the University of Michigan's Flint campus, a project completed in 1996.

The Transfer Of Responsibility

In subsequent negotiations, Universal and Graybar worked out an agreement that called for Graybar to take ownership of almost all of Universal's existing inventory, worth about \$200,000. Only about \$16,000 in inventoried parts and materials (specialty and one-of-a-kind items) continued to belong to Universal. Roughly another \$40,000 in basic parts and materials (the most commonly used items) also remained in Universal's stockroom, although the items now were owned by Graybar.

from Universal to Graybar, but there have been other savings as well. Prior to the agreement, Universal had needed 24 worker-days to take inventory and correct stock prices every year; now that task is reduced to eight worker-days. Universal had also required two trucks daily to deliver parts and tools to its foremen at work sites. Now, a Graybar truck performs the task of delivering most of the parts and material, a saving that Dennis calculates at about \$60,000 a year. (Universal still operates one truck to deliver tools and to carry out miscellaneous errands.)

UNIVERSAL SYSTEMS THE ADVANTAGES OF FLEXIBILITY

Founded in 1956, Universal Systems specializes in electrical and automation control systems and design-build for industrial, commercial and institutional clients. Its many recent projects include installing the lighting, electrical wiring, and alarm systems (in a joint venture with an Ohio company) at the \$250 million Genesys Regional Medical Center in Grand Blanc township, Michigan. But ask Gene Dennis, president, if Universal's specialty is in building and installing electrical systems. He's likely to reply that Universal's true expertise is in managing time productively: knowing how to coordinate its work with that of the other companies working at construction sites. Despite his CEO status, Dennis doesn't work in a plush office with windows. Like other employees, he works in a cubicle in the center of the company's building.

"If we manage time, everything else will shake out, and we'll be a better company." That means, among other things, training employees to handle a variety of tasks when the need arises. "People, for instance, aren't stuck in marketing, and that's all they do."

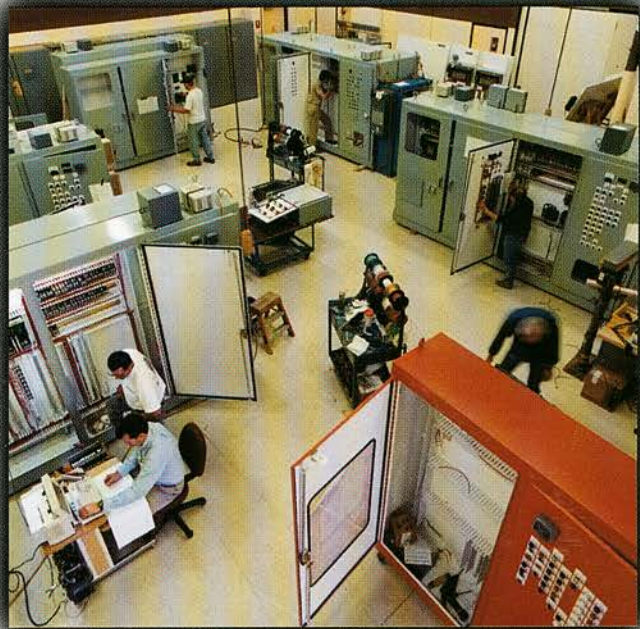
Universal used to have little control over supplier prices. Through the partnership, however, the contractor negotiated a set price for parts in inventory for a year at a time.

NECA studies have shown that 40% of an electrical contractor's labor costs are for the handling of materials. "Compare those costs to a 2% markup on a truckload of conduit, and you'll see we really save big," Dennis says. "Plus, we can get that conduit in smaller, 2,000-pound bundles (on demand) delivered to our site."

In the pre-partnership era, Universal had to pay extra for the shipping of emergency orders, and emergency orders were frequent. "Now," Dennis notes, "we have a list of standard commodity items with Graybar that they always keep available. If they don't have it at a nearby branch, they pay the shipping costs."

Because of its sole-source arrangement with Graybar, Universal has also found a supplier who is willing to go the extra mile to achieve success. At Christmastime in 1997, Universal was confronted with the job of handling the electrical system aspects of a large line changeover at a General Motors plant in Lansing, about 60 miles west of Flint. The work had to be finished in 10 days, and Universal had to hire 75 extra workers for around-the-clock performance.

"Graybar guaranteed that between their branches in



An overview of the room at Universal where technicians build and test the company's automation control panels.

Flint, Lansing, Grand Rapids, and Detroit, they'd get us what we needed," Dennis notes. And Graybar did, making trucks available and keeping its warehouses open day and night.

"I was ready to cancel my Christmas vacation," Dennis says, "but it went smoothly because everyone worked together and good systems were in place from the start."

From Graybar's Viewpoint

There's no doubt in the mind of Jim Estis, a Graybar account representative in Flint, that the partnership has also been good for his company. "This has been a win-win situation for both of us. Universal saves money, and we get more volume. We haven't seen any negatives in this partnership."

Instead of having to concentrate its efforts on selling items to Universal, Graybar has redirected its energy into helping Universal become more competitive. "Instead of wondering how to get the order, now we sit in on job meetings, try to find ways we can help, and look for cost and process savings," Estis notes.

Thanks to its success in transferring much of its supply and inventory tasks to Graybar, Universal is examining the possibility of having Graybar stock its onsite gang-boxes, a logical next step. And Universal is also initiating partnerships with single-source suppliers of electrical system enclosures and internal control components.

As Daneshgari, who prefers to call himself an implementer rather than a consultant, points out, these supply and inventory arrangements are already common in other industries. "Partnership models are nothing new.... They exist in retail, hospitals, and more," he says. "Now these validated models are becoming known in the construction industry, and it can only help us all." To put it another way, when it comes to inventory, Universal no longer has to worry about what Daneshgari refers to as "FISH" in the company stockroom (first in, still here).

Jim Mahaffie, based in Washington, D.C., is a freelance writer.