

By Jim Parsons

A Healthy Market Spurs Investment in Plants

Firms being asked to play a bigger role in providing expertise



HOT MARKET Hexcel is allocating capital to expand its carbon fiber manufacturing plant in Utah.

A brutal winter in many parts of the U.S. may have temporarily chilled overall economic growth, but the market for manufacturing-related design services appears to have retained its summer-like intensity. Taking advantage of continued low prices for raw materials such as gas and oil, efficient transportation channels and generally stable consumer spending, manufacturers continue to invest in both new and upgraded facilities and processes.

Juan Hernandez, president of industrial services for Irving, Texas-based Fluor Corp., says the return of automotive and aviation production to U.S. shores means growing demand for domestically made components, particularly those that use

carbon fiber. Among the new facilities is the 18,000-sq-ft, \$17-million design-build expansion of Hexcel's carbon-fiber manufacturing facility in Salt Lake City.

"We can't build lines for companies fast enough," Hernandez says, noting a strong trend toward integrated project delivery among his firm's manufacturing clients. "They like to bring in all the people and parts of project early on to commit to a delivery model that's cheaper and more quality-driven."

Other strong markets, including biotechnology, semiconductors and petroleum-industry support components, share the same emphasis on efficiency.

"Manufacturers have improved productivity in their processes," says David

Sipes, chief operating officer for SSOE Group, Toledo, whose firm is designing a 1.6-million-sq-ft pipe rolling-finishing mill in Gregory, Texas, for China-based TPCO America. "Now, they want the same in construction. There's a big emphasis on the use of sophisticated technologies, such as integrated 3D modeling and laser scanning."

The dynamics of the current market also require consultants to be well versed in technologies and techniques outside the traditional realms of design and construction, ensuring that the facilities and systems they create possess the versatility to adapt quickly to new and evolving process technologies, market shifts, and consumer and workforce demographics.

"A lot of clients are looking for more value-flexible solutions," observes Mike Fenske, senior vice president of the facilities unit at Burns & McDonnell, Kansas City, Mo. "Because they have fewer staff on hand to develop projects, they want expertise in how a facility design will play out [in the] long term and how it will fit with future decisions."

Consultants also are increasingly expected to assume the same risk-reward propositions as their clients. As an incentive to meet or exceed agreed-upon performance measures, a design firm may be asked to risk an agreed-upon percentage of its fee in the form of a penalty or bonus, depending on the outcome. "Owners want to see commitment where our interests are aligned with theirs," says SSOE's Sipes.

While there is general optimism that manufacturing will remain a strong market for the foreseeable future, some issues transcend economic conditions. Among the most important is resource use. Fenske says that while sustainability is as important to manufacturers as other owners, the energy-intensive nature of many production processes often means there are limits to how much consumption can be trimmed. "The overall energy footprint is still important, so owners look for opportunities where improvements in one area can offset energy-intense processes that cannot be changed." ■

TOP MANUFACTURING-TELECOM DESIGN PROJECTS REPORTED BY DODGE

RANK		CURRENT PHASE	PROJ. TOTAL (\$ BIL.)
1	NON-REACTOR NUCLEAR URANIUM PROCESSING FACILITY, TENNESSEE	PLANNING	6.5
2	PETROCHEMICAL PLANT, NORTH DAKOTA	PLANNING	4.0
3	NITROGEN FERTILIZER MANUFACTURING PLANT DESIGN/BUILD, NORTH DAKOTA	FNL. PLANNING	3.0
4	NUCOR STEEL LOUISIANA PLANT (MASTER REPORT) PHASE 1, LOUISIANA	PLANNING	2.7
5	TWIN METALS PGM UNDERGROUND MINE & PROCESSING FACILITY, MINNESOTA	PLANNING	2.5

SOURCE: DODGE DATA & ANALYTICS

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