

WRITTEN BY POLICY MAKERS USED BY DECISION TAKERS

US INDUSTRY TODAY

THE WORLD OF US MANUFACTURING



**FAST OR
SLOW
GROWTH?**

**TRANSATLANTIC
MERGERS
WORK**

ARE U.S. ALLIES RIGHT TO COMPLAIN?

Pipeline to Success



DEDICATION TO TECHNOLOGICAL ADVANCEMENTS HAS PAID OFF FOR CHARLOTTE PIPE AND FOUNDRY, THE COUNTRY'S LEADING MANUFACTURER OF PIPE AND FITTINGS FOR THE PLUMBING INDUSTRY. APRIL TERRERI INSPECTS THE PIPELINE.

A CENTURY-OLD FOUNDRY producing cast-iron products could conjure up images of Dickensian-drab buildings and Fagan-like taskmasters. Then again, an iron-clad company with a rich and solid heritage of a hundred years' experience is a marvel in today's fickle business landscape. Charlotte Pipe and Foundry Company is an example of the latter.

"A company like ours might lead people to think of an old-line manufacturer," says Hooper Hardison, executive vice president for the Charlotte, N.C.-based company. "But Charlotte Pipe is a forward-thinking, 21st century company that continuously invests in technology, automation and e-business systems to produce superior products while providing excellent service to our customers."

The country's largest manufacturer of pipe and fittings, Charlotte Pipe is the only manufacturer of cast-iron and plastic pipe and fittings. It is the only manufacturer offering complete systems of cast-iron, polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC), acrylonitrile-butadiene-styrene (ABS) and FlowGuard® Gold™ CPVC pipe and fittings for residential and commercial plumbing systems and industrial plumbing applications.

The company's cast-iron products are manufactured in its Charlotte foundry, while its plastic pipe and fittings are manufactured in its 1 million square-foot manufacturing and warehousing facility located in nearby Monroe, N.C. The company is in the process of building an additional plastics manufacturing facility on the Monroe campus, which will be equipped with high-tech molding machines. Three satellite pipe manufacturing plants are located in Muncy, Pa., Wildwood, Fla., and Cameron, Texas.

Charlotte Pipe and Foundry makes a complete line of cast iron and plastic pipe and fittings for the plumbing industry.



Left: Our Disamatic Molding Machines produce high-volume, world class castings; Below: Foundry employees continuously monitor the temperature and chemical composition of the iron in our cupola; Bottom: With more than 625,000 square feet of modern warehouse space, Charlotte Pipe is able to fill and ship orders with short lead times.

Perfect Fits through Technology

No, you won't find Fagan here. In fact, Charlotte Pipe, employing 1,400 people, operates more like a happy family than most companies today. Still privately owned after 100 years, the company's working environment is truly family-oriented, with many generational relatives working side by side. "We really consider our employees our greatest asset and we take good care of them. Many have been with us for as long as 50 years," says Hardison. He adds that more than one-third of the employees had perfect attendance in a year. That in itself is a snapshot of the superior work environment.

Any manager knows that a happy work force results in happy customers. A savvy company, Charlotte Pipe acknowledges its appreciation of its employees in many ways. Its Pursuing Excellence program encourages employees to offer suggestions on how to improve their jobs to make them more efficient and productive. Employees can also receive bonuses in their paychecks every week if they meet certain performance benchmarks.

A world-class manufacturer, Charlotte Pipe is committed to continuous improvement and invests in state-of-the-art production equipment and operations technology on a regular basis. "Our industry used to be very

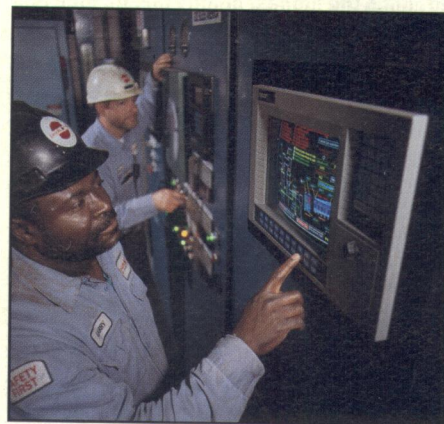
labor-intensive. But we continue to add the latest machinery, technology and automation to our manufacturing processes through our capital reinvestments," says Hardison. Production at each plant is completely automated, with programmable logic controller-operated (PLC) machines and tools. In-house maintenance workers and tool-and-die specialists help eliminate downtime and keep the plants humming. Hardison says, "Our story is really one about investing in technology to maximize our productivity while lowering operating costs.

"We are the only company that can provide a system for all plumbing applications and our tag line, 'You Can't Beat the System,' says it all. We engineer our plastic pipe and fittings to fit exactly together." If a plumber buys pipe from one company and fittings from another, there could still be problems achieving that perfect fit. Even though both materials meet product specs, there is still enough of a range within those specs that could mean the pipe doesn't fit perfectly with the fittings. Hardison says, "But we engineer our products to fit perfectly together and we have control over specs such as wall thickness and outer diameter. Whatever types of materials we use, we know that it fits.

InfoTech Pipeline

Truly a 21st-century business, Charlotte Pipe's operations are technologically driven from the moment it receives an order to the moment customers receive their products. SAP information systems link all departments within the company, providing real-time order entry, inventory management, production scheduling and shipping information.

The company's newest marketing tool is its e-business platform, which facilitates the efficient dissemination of information to customers. "We know distributors and customers are very busy," says Bill Morris, e-business





Above: Charlotte Pipe is committed to employing the industry's latest technology, including state-of-the-art computer equipment housed in our new IS building; Bottom left: From this technologically advanced control room, foundry employees constantly evaluate furnaces and iron quality; Bottom right: Charlotte's dedicated employees help produce the highest quality plastic pipe and fittings in the industry.

director. "Our goal is to make doing business with Charlotte Pipe as easy as possible by offering customers convenient ways to get needed information as quickly as possible."

Charlotte Pipe's Web site, www.charlottepipe.com, "is state-of-the-art and provides a cornerstone to the e-business capabilities we are developing," says Morris. The site offers a password-protected Extranet that

allows customers to access their account information at any time. Price sheets, dimensional product CAD drawings and in-depth technical information are available at the click of the mouse. "Our goal is to build loyalty among our customers by letting them know they can keep in constant touch with us and their orders."

With the new Web site, distributors can check orders and overall account status, track shipments, view invoices and credits, and receive proof of delivery. The site offers a "stay-up-to-date" feature that allows users to register to receive regular updates from Charlotte Pipe. There's also a frequently-asked-questions section where customers' technical questions are matched with responses from a database. Future development will allow customers to place orders from the Charlotte Pipe

catalogue from their desktop PCs. "Along with our fax-on-demand service, the new Web site reduces transaction costs by providing customers with value-added services that make them more profitable," Morris says.

As Charlotte Pipe enters its second century of providing superior products to the plumbing industry, it maintains its heritage of innovation begun in 1901 by founder Willis Frank Dowd. Although the company operated very successfully producing cast-iron pipe and fittings, it quickly accepted what many in the 1950s might have thought of as a strange concept: plastic pipes and fittings. "The founders of our company recognized that plastics were going to be the thing of the future in our industry, and they began producing plastic pipe and fittings when plastic was still in its infancy as an acceptable material for plumbing applications," says Hardison. The corporate management team took that vision in the late 1960s and used it as the foundation of a brand-new facility dedicated exclusively to the production of plastic pipe and fittings.

Today, Charlotte Pipe is run by descendants of the company's visionary founder. Charlotte Pipe foresees a continued bright future and plans to maintain its vanguard position by continuing its practice of reinvesting in technology and automation. ●

