Located in the heart of the South—just outside Atlanta in Tucker, GA—Dixie Industrial Finishing welcomes visitors as old friends. There is an obvious family feeling among the employees at Dixie, where Southern hospitality and a commitment to quality and service are second-nature. A privately owned jobshop that specializes primarily in zinc finishing for functional applications, Dixie fills the needs of a variety of clients by offering quick turnaround and professional service. The company’s goal of consistently turning out high-quality products—from lawn mower parts and electronics cabinetry to automotive brackets and shelving for storage units—is met and exceeded on a daily basis.

Since 1960, Dixie Industrial Finishing has been offering its services to a diverse marketplace, including the lawn and garden, agricultural, automotive, aerospace, electrical distribution, material handling, Department of Defense, medical and construction industries. Originally housed in a 6,000-ft² warehouse location, the company has grown to more than 60,000 ft² at its current facility in Tucker, which was built in 1977. “With 100 employees on board—many having more than 10 years of service at Dixie—our workforce is highly experienced and dedicated,” said Jim Jones, vice president/sales. “The words ‘quality and service’ are more than a sales pitch here,” he continued. “They represent the way we do business: With integrity and a heart-felt commitment to meet the needs of our customers as a responsive, reliable supplier.”

The second floor of the plant, above the administrative offices, is home to the company’s Employee Training Center, which has been “adopted” by Terry Windham, CEF, Dixie’s manager of technical services and training. A former teacher, he is enthusiastic about the company’s in-house educational programs. “Learning is a continuing process here,” Windham said. “We can all benefit from the experience of others and, here at Dixie, we’re fortunate to have an exceptional management team that recognizes the value of shared knowledge.”

Dixie also designs, builds and continually updates all of its own equipment. The engineering office, also located upstairs, houses state-of-the-art computers to assist technical personnel with design engineering, efficiency tracking and cost accounting. Programmable logic controllers, touch-screen interfaces, AC variable drives, computerized production tracking and
SPC software are just a few examples of the advanced technology utilized to maintain optimum efficiency at all times. If a potential problem on a processing line is identified, adjustments are implemented before trouble can start. It is this type of proactive monitoring that allows the company to remain responsive to its customers’ just-in-time scheduling requirements, as well as stay on top of the latest industry technology.

Dixie Industrial has a superior reputation for meeting the most stringent federal, ASTM, military and customer specifications. The company is also currently pursuing ISO 9000 certification.

**On-site Processes & Capabilities**

Finishing processes and capabilities at the facility’s 24-hour-a-day operation include:

- Alloy-zinc/cobalt
- Chromate conversion on aluminum/chemical film
- Clean & oil
- Glass bead blasting
- Passivating
- Phosphating (manganese & zinc)
- Stress relieving/baking
- Tin (bright acid)
- Zinc (yellow chromate, clear chromate, black chromate & olive drab chromate)

Acrylic polymer can be added to any of the zinc finishes for additional corrosion protection.

The company’s greatest capacity is for zinc plating, with four automatic rack machines that can process parts up to 24 in. wide, as well as two automatic barrel lines that can process up to 10,000 lb/hr, total. Additional equipment includes a dual hoist monorail for chromate conversion on aluminum (parts up to 9 ft long), one manual barrel line for zinc phosphating and alloy-zinc/cobalt, one manual barrel line for bright acid tin, a passivating line and a rack bright acid-tin line.

The company’s largest three-hoist automatic rack line, which was installed about three years ago, has increased Dixie’s rack plating capacity by 40 percent and enhanced its ability to support the numerous manufacturing requests it receives from its wide variety of customers.

A tour of this extremely clean and spacious facility reveals an impressive—and sometimes unique—array of parts being processed. A few examples are:

- Components for the automotive industry
- Automatic bowling pin “spotter” guides
- Clock components
- Miscellaneous wire goods & products
- Lawn mower parts
- Threaded rods & U-bolts for the construction industry

Dixie Industrial also maintains an on-site wet lab for continuous analysis of the facility’s process and waste systems. Process tanks are analyzed twice daily, and wastewater analysis is performed once a day.

**State-of-the-Art Waste Treatment System**

This past year, the company installed a new microfiltration waste treatment system to complement Dixie’s environmentally conscious operation. Installation of this equipment has...
allowed Dixie to eliminate the use of expensive polymers and coagulants, while reducing the total metals in the waste stream by as much as 25 percent. It has also put Dixie in a position to reuse a portion of its wastewater, if needed (for non-critical make-ups and rinses). The sludge generated through the system is then recycled and the metals reclaimed. With this waste treatment system in place, future possibilities include the addition of a reverse osmosis/deionizer (RO/DI) unit to allow reuse of approximately 85 percent of the incoming water.

**A Recipe for Success**

David Henderson, president of Dixie Industrial, gives credit to his employees for the company’s ongoing success.

“We are blessed with an exceptional team of committed people who continually strive to improve all aspects of our business,” Henderson said. “It is our goal to do all we can to make our employees feel that they are a part of a family and that they are vital to the success of our company. Dixie provides support to help our employees maximize their God-given talents, both personally and professionally.”

With ingredients like customer satisfaction, quality products, an environmentally conscious workplace and dedicated employees—along with a healthy dose of Southern hospitality—Dixie Industrial has created a recipe for success that will be passed on for generations. P&SF