





BY LEIGH SAVAGE

PHOTOS BY AMY RANDALL PHOTOGRAPHY

At AFL's tree-lined headquarters in Duncan, Jody Gallagher is showing off the small yet powerful products that have driven his company's annual sales to more than \$1 billion.

The tube in his hand, about an inch in diameter, contains 1,728 multicolored optical fibers, each the thickness of a strand of hair. These fibers, and others like it, build the optical pathways that make telecommunications possible.

"We want to take all of those strands and package them in unique ways," says Gallagher, president and CEO of AFL. With more than 1,000 employees in the Upstate, AFL manufactures, engineers, and installs fiber optic products and equipment, and also offers outsourced services such as engineering, installation, and testing.

Tier 1 companies like AT&T and Verizon, along with utilities like Duke Energy, rely on AFL for their optical networks. "Wireless networks converge with optical networks," he says. "These are reliable, secure, faster. That's what everyone wants."

The numbers back that up, with IBISWorld reporting that the fiber optic cable manufacturing industry grew 11.8 percent in the past five years. That figure should top \$4 billion in revenue in 2019.

The 1,728 fiber optic cable is used by customers running cloud data centers, each strand carrying the 1s and 0s that power the digital world. The fibers are composite structures, made primarily of glass, that transmit light. Reels of the cable can be up to six miles long, which can then be spliced to cover longer distances.

Copper cables, once predominant, would need to be 10 times the diameter of the fiber cable, and much heavier, to carry the same amount of information, Gallagher says. Fiber is faster, experiences less signal loss, and is less susceptible to interference. "The cloud, where people are moving data and storing data—they need optical infrastructure," he says. "They are transmitting via optical technologies, and optical is changing from copper to fiber."

MAKING THE CONNECTION

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AFL got its start in 1984, when Alcoa Inc., an aluminum company, joined forces with Fujikura of Japan to create a joint venture. In 1986, Gallagher joined AFL after working at Alcoa. “To go from aluminum to optical technology, I was fascinated,” he says. “I could see the growth as companies migrated from copper to fiber.”

He ran sales, and the company was experiencing rapid growth, leaping to just under \$800 million in sales in 2000. Then the stock market collapsed in 2001, and sales plummeted by half. The AFL management team regrouped and, as part of a new strategy, began to unwind the joint venture. Gallagher was named president in 2003, and Fujikura assumed full ownership in 2005, moving AFL’s headquarters to Duncan.

Growth is now back on track, and today, its products—including fiber optic cable, hardware, transmission and substation accessories, test and inspection equipment, and fusion splicers—are in use in more than 130 countries. In addition to Duncan, where the company operates six facilities, AFL has manufacturing facilities in Mexico, the UK, Germany, Asia, and Australia.

Gallagher says continued growth is expected, as “there is so much data and growth in the cloud space, plus the wireless transition to 5G.” He points out that wireless technology is expected to change every seven to 10 years, with each transition bringing data speeds at least 10 times faster than the previous iteration. Each transition “requires more infrastructure, and more fiber deeper in the network. The fiber needs to be closer to the end user.” He likens it to an interstate system, with rural roads that need to be built out to expand connections.

In addition to telecom and data centers, top customers include electric utilities, who use an updated version of AFL’s first product, optical ground wire. Often used on high-voltage towers, the dual-purpose product offers lightning protection and a secure, reliable optical path for communications and security.

While 70% of the company’s revenue stems from manufacturing, the remainder comes from a growing services sector. With locations throughout the U.S. and Canada, the services arm leverages its expertise in feasibility studies, installation, splicing testing, and outsourced work for many well-known companies. “It gives us access to new customers as the market moves to 5G,” Gallagher says.

With so much growth, Gallagher says hiring has been a challenge due to low unemployment and “the perception that manufacturing jobs aren’t attractive.” But by partnering with high schools and colleges, his team is working to show prospective employees that their vision of manufacturing may be outdated, and when they see clean, air-conditioned workspaces, along with good salaries, they often change their thinking.

In 2018, AFL was recognized as an economic visionary by Spartanburg Community College, in part due to its Operational Workforce Program, which introduces high school students to manufacturing.