

Atlas Copco was this year's proud sponsor of Plant Services Best Practices Award in search of excellence in energy efficiency within a US-based production facility.

Efficient Resource Utilization Drives Success of Hull Forest Products

"Hull Forest Products manages over 20,000 acres of woodlands in southern New England and New York. We encourage landowners to view themselves as stewards of the land for future generations. Our land management philosophy is to promote forest health and sustainability within a framework that allows timber harvesting but also emphasizes other goals, such as promoting wildlife habitat, and air and water quality enhancement."

> William B. Hull founder of Hull Forest Products

One hallmark of a well-run sawmill is the operation's ability to utilize every part of its basic resource: trees. "Our wood operations have no wood waste at all," says Bud Rondeau, Operations Manager for Hull Forest Products in Pomfret Center, Connecticut. "Even if we don't use it here, there's a market for it. Wood chips go into playground mulch. Bark goes into landscape mulch. Sawdust is used to generate power, gets used by farmers, or goes to a wood pellet manufacturer. Everything gets used and the basic resource is renewable."

The commitment to resource utilization at Hull Forest Products is company-wide.

"This is an innovative, employee run company," according to Jeff Durst, President. "Decisions are made through a management committee and everything is out on the table. Every couple of weeks, seven of us get together. We all represent our areas of responsibility. If someone has an issue or a project, we discuss it, work through ideas and numbers, and make a decision. We're all part of the decisions, the good ones and the bad ones. Everyone can feel like they've had a hand in getting us where we are, and that gives our employees better buy-in."

One of the products on which Hull Forest Products has built its reputation for quality is timbers. "We mill structural timbers for use in homes, barns, bridges, and buildings around the world," says Durst. "We make

In 2000 **Hull Forest Products** was recognized by the Environmental Protection Agency for its role in organizing and leading the largest private land conservation project in Massachusetts history, which permanently preserved more than 8,000 acres in southern New England from development. timbers up to 26 feet. A lot of these are used in restoring antique houses and building reproduction houses."

Another specialty line is wide plank hardwood flooring milled from red and white oak, hickory, cherry, birch, ash and maple which, as Durst explains, is sold to customers around the globe. "We make great products that we ship all over the world – the Far East and Northern Europe, plus plenty of places closer to Connecticut. For our lower grade lumber, we have to be physically closer to customers to be price competitive largely due to freight costs. The high-grade lumber products tend to go to market through wholesalers or to distributors who sell in lower volume markets than we work with directly. We prefer to deal with things on a trailer load volume basis, although we sell flooring in volumes as small as a few hundred board feet."

The demand for high quality boards and timbers keeps the 50 employees of Hull Forest Products busy year round. The center of production is the sawmill, a 30,000 square foot facility with machinery powered by electricity and compressed air. "Just about every piece of equipment in the mill has compressed air going to it," according to Rondeau. "Air runs the debarkers, the saw grinders, the saw carriages, the saw lube and water purge systems, hooks, gates, tipples, pop-ups and press rolls."







The heart of the compressed air system is an Atlas Copco GA90VSDFF. The full-feature compressor, which has been in service for seven years, has Atlas Copco's energy efficient Variable Speed Drive (VSD) plus a desiccant air dryer that ensures the compressed air that powers the mill's pneumatic equipment is clean and dry.

"The compressor is installed in a room which we also use for knife grinding and maintenance for edgers, chipper knives and planer saws," says Rondeau. "The whole system is a real class installation, and it works great."

Hull Forest Products chose an Atlas Copco VSD compressor for the combination of reliability and operating economy. "We shut down without compressed air," Rondeau explains, "so we wanted a compressor that we could count on. The Atlas Copco unit makes the air we need, as we need it, so we're not running it full bore all the time."

Because VSD continuously matches the production of compressed air to demand, less power is consumed when compared with a compressor running at constant output. By minimizing its demand for electricity, Hull Forest Products gains additional flexibility with its power supplier, Connecticut Light and Power. "We can make our own power with a 2000 hp diesel generator," says Rondeau. "Typically we use it as backup or to boost power as needed, but we also have a contract with Connecticut Light & Power that pays us to be ready to go off the grid during periods of high demand for the utility, usually in the summer."

In the winter, Hull Forest Products finds another way to optimize resource utilization. One result of compressing a gas (such as air) is heat. Hull Forest Products reclaims the heat generated by its air compressor.





"Our mill is an unheated metal building with open ends, so it can get pretty cold in the winter," says Rondeau. "We have to vent the heat from the air compressor somewhere, so in cold weather we send it to the mill. A duct pushes the heat onto the main production floor, which raises the temperature inside the mill by twenty to thirty degrees (F). It's not the same as being in a heated warehouse, but it keeps the chill off the main floor and the employees who work in the mill like the added heat."

And in keeping with the general approach to business at Hull Forest Products, it makes the most of a crucial resource. Hull Forest Products is a family-run sawmill and forest land management service. The company produces 8 million board feet of lumber each year and designs forest management programs to promote sustainable forestry and preserve forestland in New England.

Hull Forest Products began in a backyard in Rhode Island when company founder Bill Hull was a teenager. At age 15 he borrowed the money to purchase his first woodlot —twelve acres of hardwoods. Taking his passion for trees to the University of New Hampshire, Hull earned a degree in Forestry, then got his start in the lumber business on an old fashioned circular sawmill, sawing white oak into whiskey barrel staves. In 1970 Hull incorporated and moved to Pomfret, Connecticut. His tiny operation grew to be the largest and most progressive hardwood sawmill in southern New England. Today the Hull children are also involved in the family business, which continues to expand and remains a leader in the sustainable forestry movement.





Hull Forest Products

Hull Forest Products continues to manufacture premium lumber and wood products while seeking out opportunities to preserve the working landscape of New England forests. Hull Forestlands has permanently protected over 11,000 acres of its prime southern New England forestland from development, helping to preserve the working forests that are the backbone of the region's rural character.

To learn more about Hull Forest Products, visit:

www.hullforest.com