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Automation, Quality, and Culture Drive Nansemond's
Bold Move into Pipe Plant Expansion



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Nansemond Pre-Cast Concrete Co. is embracing the future with a bold expansion into pipe production, powered by Afinitas automation. Rooted in a strong family legacy and a culture of quality and customer-first values, NPCC's new plant showcases cutting-edge technology and a commitment to workforce development. Discover how the McConnell family is shaping the next chapter of precast innovation.

For Bo McConnell and his brother Brandon, the key to success, in the precast industry as well as any other venture, is attention to detail and ownership at all levels, backed by a customer-first culture and an unwavering commitment to quality. Their father, Doug, founded Nansemond Pre-Cast Concrete Co. Inc. (NPCC) in 1970, in Suffolk, Virginia. John, Doug's brother, came to NPCC a couple of years later and both worked toward a culture and values that still exist today in NPCC's business model.

The values instilled in Bo and Brandon at a very early age remain central to the company. The brothers assumed day-

to-day operations in the early 2000s and have built a dynamic team of employees that has led NPCC to steady growth.

NPCC has been fortunate that members of the family wanted to follow the mission started 55 years ago, according to Bo McConnell. A third generation is now in place at the plant. Bo's son Dalton is vice president of Pipe Operations, while stepson David Speckhart serves as vice president of Sales. Brandon's nephews, Tyler Whitley, vice president of Operations, and Hunter Whitley, Human Resources manager, are also heavily entrenched. Brandon's son Blake, 14, is also showing interest in helping the company move forward in a few years.

It's that culture that has enabled NPCC to survive and grow a business in a challenging and ever-changing industry. Since NPCC's founding, the company has grown to over 80 employees, located on a 45-acre site with more than 80,000 sq. ft. of production under roof. NPCC also has a fabrication facility in a nearby industrial park that is used to fabricate and repair formwork used in day-to-day production.



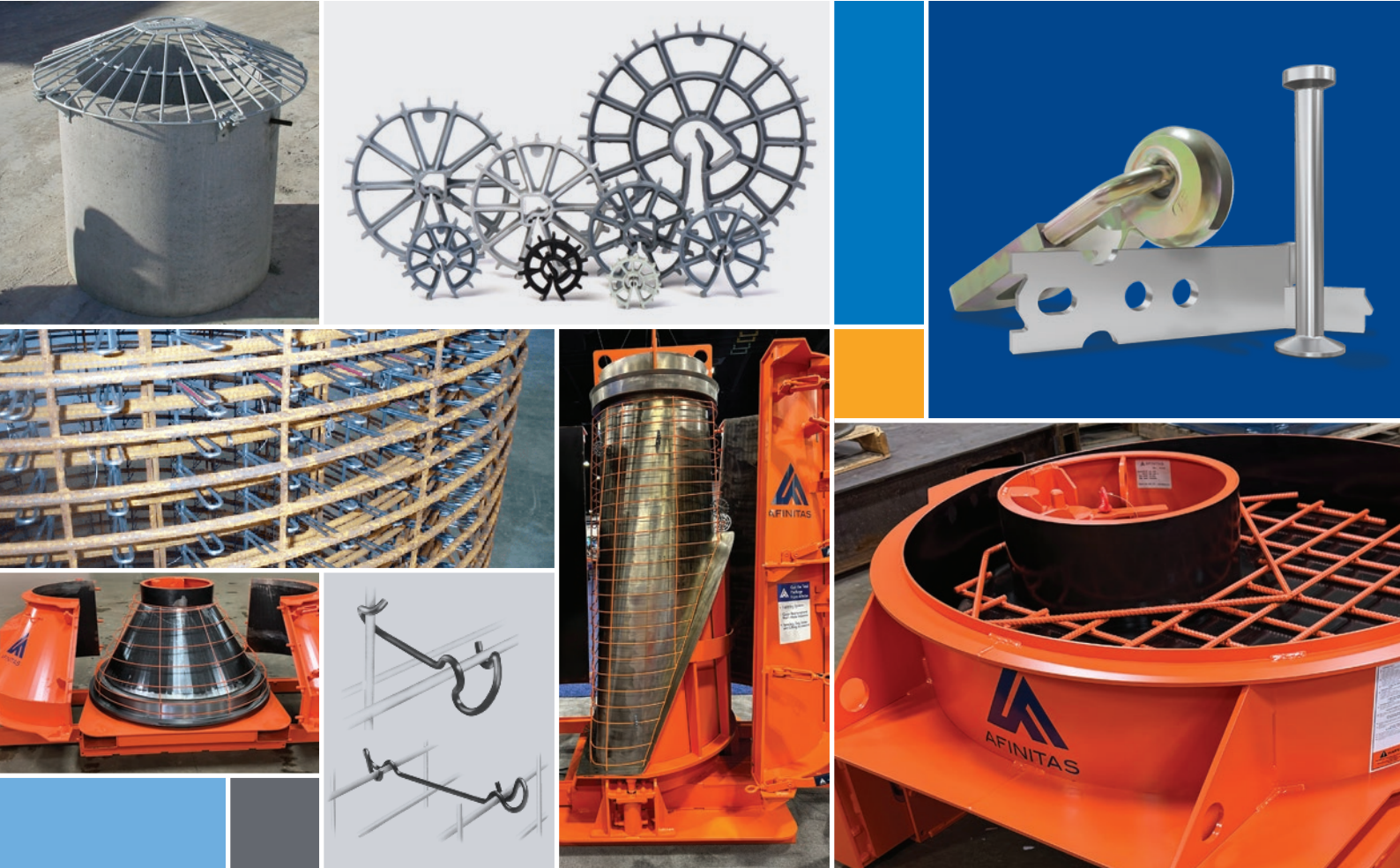
NPCC CEO Bo McConnell (right) with his son Dalton.



Forklift operates powered seam form jackets made by Afinitas.



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The Afinitas ePak machine's sophisticated control hardware continuously provides feedback to the PLC on all parameters.

NPCC produces a diverse range of manholes, pipe, environmental structures, boxes, vaults, trenches, panels, custom-built precast and DOT-specified products. NPCC's versatility and close proximity to the Port of Hampton Roads has enabled the precaster to ship products to Greenland, Spain and Guantanamo Bay, Cuba.

Customers Ask for Pipe

"Our core customers were asking us to make pipe, and in fact NPCC had produced 72", 84" and 96" RCP back in the late 70s for a utility tunnel," Bo McConnell said. With the construction market stressed with demand for RCP in more recent times, McConnell decided it was the right time to look at pipe production.

After much research, NPCC settled on the Afinitas ePak 150, a state-of-the-art packerhead system that features sophisticated control hardware and advanced software algorithms that, along with an ACT batch plant and Wiggert mixer, allowed NPCC to start pipe production in the summer of 2025. Also commissioned was the Afinitas TecLine post-production automation system that executes many manual processes to free employees to perform higher level manufacturing tasks.

Afinitas Relationship Instills Confidence

An existing relationship with Afinitas on the precast side of NPCC's operation gave McConnell the confidence to invest in the ePak 150. The quality of the Afinitas equipment made a big impression.

"With Afinitas, it's like something coming off an assembly line," he said. You get the same thing every time. I can't say enough about the quality of equipment and technology behind their automation."

The ePak features a state-of-the-art electronic direct drive rollerhead that generates higher torques and delivers precise packing control for every size of pipe at speeds up to 25% faster than conventional packerheads. The ePak 150 produces pipe sizes from 12- to 60-inch diameters in 1- to 8-foot lengths.

According to Derek Von Cannon, Afinitas Vice President of Sales for Equipment & Automation, combining the ePak's high output with the TecLine's postproduction automation provided a good fit for NPCC.

"It's all about problem solving," Von Cannon said. "Bo wanted the most amount of pipe that he could get. With the other products NPCC manufactures on the wetcast side, Bo and Brandon did not need the versatility of making different products. They wanted pipe only."



Pipe curing is powered by the Afinitas CurePak direct-fired steam generator and Telekiln system.



The Afinitas ePak is ideal for high production of round concrete pipe.

As the VP of pipe plant operations, Dalton McConnell, Bo's son, said he was impressed with the ePak from the start. "The ePak was built with precision and quality, and user-friendliness in mind," he said. "Superior pipe is guaranteed, with help from the first-class Afinitas team."

The New Plant Includes:

- The ePak 150, production of 12" to 60" RCP
- Two Telekiln curing enclosures
- SS5000 CurePak steam generator
- D-Load test machine, for testing deflection and ultimate load of pipe
- TecLine post-production handling equipment, which removes pallets, cleans, oils and delivers pallets and cages back to the ePak
- MBK BMS 190 with auto longitudinal wire feeder
- DTi wire draw line, which processes wire for cage production to save on material cost

Automation Advantage

The speed of automation enables NPCC to optimize the production of their workforce in an era where manual laborers are hard to find and keep. "With automation, you are not replacing people," McConnell said. "The automation is taking care of jobs that you can't find people to do."

"The marketplace around Hampton Roads, Virginia, has several shipyards and heavy industry that compete for the same skilled and unskilled people that we are trying to hire," McConnell added. "The automation does not mean less staff, but it allows you to pay higher wages to existing staff."

Kyle Hignett, Afinitas regional sales manager, said the McConnell leadership team places a high value on creating a positive culture and a good working environment for their employees.



Nansemond Pre-Cast Concrete Co. has been in operation since 1970 in Suffolk, Va., USA.



NPCC's customers asked them to make pipe. With ePak, they can meet demand and maintain a very high-quality product.

"They're building a skillful team, taking time to select the right people to support their culture and the things they're trying to accomplish, and not just putting warm bodies in place. They're standing up a first-class pipe facility specifically with more automated processes to make it a more inviting environment for their employees."

Aligning Cultures

NPCC has forged a strong relationship with Afinitas over the years. "We find that they align with the same culture we try to achieve and improve on daily," McConnell said. "Working with a group like Afinitas, you're after a certain quality, and they appreciate that. At the end of the day, when that machine is producing quality pipe, it makes them look good as well. So, it's been a good relationship," he said.

"I'm proud that my brother and I have a business where the customer is number one," he added. "It's great to have a business where you have a vision, and where your employees get it. And when you're in our yard, you get the feel of that." That vision included a dynamic new pipe plant that is positioning NPCC for the future. "It's a joy to be able to come to work and be able to work with Afinitas to grow the business," McConnell said.

"It makes a difference across the yard. When your employees know that you're doing positive things, they're positive. That's why I love this business. Being able to provide for our employees and watch them grow, that's enough for me. It completes the circle of what we want to do service-wise, so it was the right step to take for growth, and the right time to do it. We've just been fortunate as a family business to be able to do something like that."

NPCC founder Doug McConnell would agree. Like so many precast company founders, Doug McConnell still keeps his

eyes on the business, though he no longer runs the company. "He's ecstatic about the pipe and he's proud of us, so that certainly makes me feel good about our purchase. He's been very pleased with everything we've done so far" said Bo McConnell.

"When you're in business, it's a gamble to the end, but we've enjoyed it," McConnell said. "Afinitas takes their side of the business as seriously as we take ours. It's a great partnership. At no time did I feel like I was on my own. With Afinitas, we've always felt like we've gotten the proper backing." ■

FURTHER INFORMATION



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