

Gear Blanking Gets Bigger at Forest City Gear

Forest City Gear is doubling down on its strategy to produce most of its critical gear blanks in-house by adding new capacity, and capabilities, to its state-of-the-art 8,500 sq. ft. precision gear blanking facility. The facility, equipped with the latest turning, milling and inspection equipment, gives the company complete control over the quality and delivery of the blanks that are the 'near net shape' starting point for the fine- and medium-pitch cylindrical gears and shafts the company produces. Most importantly, Forest City Gear has succeeded in eliminating a significant bottleneck in its 'Make Complete' value stream and cut turn-around time for blanks from as many as 12 weeks to as little as one or two. That's no mean task given that several dozen different customer orders are usually in the queue, for gears ranging from 1/8" to 8" in diameter, shafts up to 16" long — all in lot sizes as small as one or as many as a thousand.

"We responded to this challenge in typical Forest City Gear fashion: invest in the best, most productive equipment for the job," said Forest City Gear Director of Operations Jared Lyford. "Case in point: our Mazak Quick Turn Turning Centers. They give us a multitasking capability so both the critical turning and milling operations can be done on a single machine in one setup for shorter lead times and greater accuracy. Most recently, we've added a Mazak VCN 430A Vertical Machining Center with the added benefit of a fourth-axis rotary table that allows us to process numerous parts that would normally require multiple setups."

The company has also made significant investments in its parts programming capability in support of its blanking operations — most recently in a CIMCO DNC-Max client/server, which Lyford said is the ideal solution for ensuring fast, secure and error-free parts program management and networking. "This DNC system gives us complete control over program transfers, reduces the downtime of having to transfer programs machine to machine via flash drive and allows all our machines to download programs at the same time," Lyford said. "Most importantly, any program changed by the operator and sent back to DNC-Max can be automatically raised in version and/or stored in a quarantine area. This gives us the ability to track changes and revert to any previous version if necessary and mitigate risk downstream."

Next up: The addition of five-axis machining to completely machine products such as gear housings and small planetary carriers.

For more information:

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