

NORBAR RAMPS UP PRODUCTION WITH NEW CNC HOBBING MACHINE



Norbar Torque Tools has invested over £300,000 in a new Gleason-Pfauter CNC gear hobbing machine with robotic feeder in a bid to match demand for increased sales volumes of its Pneutorque® pneumatic torque wrenches and Handtorque™ torque multipliers.

While Norbar's existing gear shaping machines have given many years of good service, the production of gears involves a slow process. Set up time is also a concern as this can take up to an hour and a half. "It was time to move on in terms of production speed, accuracy, consistency and design flexibility," explains Tim Bloor, Design Engineer at Norbar Torque Tools.

The new hobbing machine will produce around 70% of Norbar's gears, for use in the gearboxes in its Pneutorque and Handtorque products. Where it would have previously taken 15-20 minutes to cut a set of three gears, Norbar has just completed trial where a single gear can be cut in about one minute and 20 seconds. Set up times have also been slashed and, with experience, could come down to as little as 15 minutes.

In addition to the gear hobbing machine itself, Norbar also decided to invest in an automatic robotic feed magazine, so rather than having a load time of 20-30 seconds, this is now achieved in just five seconds. This means the machine does not need an operator standing there just to feed the machine and is part of an ongoing plan to maximise manning efficiency.

Having a shorter set up time also means that the company does not need to build up large stocks. Whereas in the past it would have made enough gears to last a month for example, it can now bring this down to a week's worth of stock.

It also gives the company the ability to cut more complex gears than just spur gears, which the gear shaping process is limited to. With the gear hobbing machine Norbar can add intricate details such as crowning to gears, or a slight helical taper. "When a gear is heavily loaded, it will twist," Bloor elaborates. "You can therefore build a negative twist into the gear, so that when it is fully loaded, it will be straight. Gear hobbing gives us the flexibility to look at these techniques for future products."

By making this significant investment in CNC machining technology, Norbar has demonstrated once again that it consistently endeavours to manufacture products of the highest quality in the United Kingdom, using the latest technology to meet the evolving demands of its customers.