

Ameridrives

Bauer Gear Motor

Bibby Turboflex

Boston Gear

Delevan

Delroyd Worm Gear

Formsprag Clutch

Guardian Couplings

Huco

Jacobs Vehicle Systems

Kilian

Kollmorgen

Lamiflex Couplings

Marland Clutch

Matrix

Nuttall Gear

Portescap

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Svendborg Brakes

TB Wood's

Thomson

Twiflex

Warner Electric

Wichita Clutch

# Warner Electric Helps Medical Swab Manufacturer Ramp-Up for the Fight Against COVID-19



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In response to the global coronavirus pandemic, many medical equipment manufacturers have been setting up ambitious, fast-paced scale-up activities to boost production and shipment of critical resources. To do that, they require highly responsive and reliable partners, who play a crucial role in the implementation of effective systems to quickly increase volume without compromising on quality. Warner Electric was able to accommodate the urgent need for reliable clutch/brakes that would allow a medical swab manufacturer to rapidly expand its production capabilities to support the growing need for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) testing.

Nasopharyngeal (NP) swabs for respiratory virus detection are highly specialized instruments, whose features greatly differ from conventional swabs, such as the ones typically used for wound care. Made of high-tech medical materials, they have to be long, thin and partially flexible to get to the upper part of the throat, behind the nose. Also, like all medical devices, NP swabs and their production processes need costly cleanroom environments, in addition to meeting stringent regulatory requirements.

Characterized by demanding designs and manufacturing practices, these testing tools are fabricated by a limited number of companies worldwide. These specialized manufacturers are geared to supply the generally stable market needs; however, when researchers found these longer swabs were ideal to collect samples of SARS-CoV-2, the global demand quickly skyrocketed. Therefore, these few manufacturers had to quickly ramp-up production to support medical professionals.

## **Delivering millions of specialized swabs per week**

To address this supply challenge and release millions of NP swabs a week to the U.S. market, one of the world's largest manufacturers of medical swabs committed to retrofitting and equipping a factory in Maine, U.S., within weeks. The facility required 40 new machines, all of which needed to use wrap spring clutch/brakes to provide indexing functionality as the swabs move through the units.

As the braking systems had to be extremely reliable and be delivered within two weeks, the NP swab OEM selected Warner Electric, a leading brand of Altra Industrial Motion Corp., as its supplier. The two companies have a long-standing relationship and the medical device maker had been particularly impressed by Warner Electric's product quality and delivery performance.

The Super Clutch/Brake (SCB) series of self-contained, packaged wrap spring clutch/brake assemblies was identified as the ideal equipment for the 40 processing machines. The solution offers a complete, factory-assembled package that is ready for installation and requires minimum maintenance. Therefore, it could help the medical

device manufacturer to streamline its expansion activities, as well as minimize any future downtime associated with servicing and repair activities.

The specific SCB model selected, Super CB-6, features a response time of 45 milliseconds, supporting high cycle rates for fast-paced applications. In addition, it is able to withstand a maximum operating speed of 500 RPM and a static torque of 56.5 N-m (500 in.lb.).

#### **Exceeding expectations during challenging times**

Despite the tight delivery deadline, Warner Electric's plant in New Hartford, CT, U.S., was able to deliver the equipment well-before the agreed two-week deadline. In effect, the facility was able to prioritize and expedite the order, completing the machining and product assembly activities in a record time of only two days.

As a result, the swab maker could immediately install the parts on its machines to begin production. The new facility, now operational, is enabling the manufacturer to more than double its existing capacity and meet demand for COVID-19 testing components in a remarkably short timeframe.

Scott Galway, Product Manager at Warner Electric, comments: "We are delighted to see our products play a key part in critical medical manufacturing plants as well as to have been involved in such a unique and challenging project. Our team's advanced skills combined with Warner Electric's leading facilities have played an essential role in enabling us to deliver several high-quality key components in a matter of days. We are looking forward to supporting businesses that need to quickly ramp-up production with our solutions and services."

#### **Managing the project with COVID-19 precautions in place**

The project took place during the pandemic, therefore, the safety of everyone involved was a top priority. To address these issues, Warner Electric put measures in place to ensure that all operations were guided by current World Health Organization (WHO) health advice and the U.S. Centers for Disease Control and Prevention (CDC) guidelines, while still meeting a revised schedule. Accomplishing the tight project deadlines was therefore an added achievement in light of the increased challenges caused by the current global health crisis.



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## About Altra Motion

Altra is a leading global designer and producer of a wide range of electromechanical power transmission and motion control components and systems. Providing the essential control of equipment speed, torque, positioning, and other functions, Altra products can be used in nearly any machine, process or application involving motion. From engine braking systems for heavy duty trucks to precision motors embedded in medical robots to brakes used on offshore wind turbines, Altra has been serving customers around the world for decades.

Altra's leading brands include Ameridrives, Bauer Gear Motor, Bibby Turboflex, Boston Gear, Delevan, Delroyd Worm Gear, Formsprag Clutch, Guardian Couplings, Huco, Jacobs Vehicle Systems, Kilian, Kollmorgen, Lamiflex Couplings, Marland Clutch, Matrix, Nuttall Gear, Portescap, Stieber, Stromag, Svendborg Brakes, TB Wood's, Thomson, Twiflex, Warner Electric, and Wichita Clutch.



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