



## Media Release

July 2020

### Italian OEM produces automated production line for surgical face masks with integrated Optidrive P2 VFDs

The global Coronavirus pandemic created unprecedented demand for critical medical devices and products, including face masks to help stem the spread of the virus and to protect medical staff.

Italian automation and robotics company DBA Robot designed and manufactured one of the first automatic lines for the production of surgical face masks within weeks of the pandemic striking the country.

The objective was to produce a single automated line for manufacturers, capable of producing more than 100,000 masks a day.

The company integrated Invertek Drives high performance Optidrive P2 variable frequency drives into the design which enabled accurate speed control and reliability of the line.

“The team at DBA Robot designed the line within two weeks and constructed the first one within three weeks for testing. They wanted to provide customers with a fast and reliable production line as quickly as possible due to the escalating global pandemic,” said Danilo Riotti AM at Invertek Drives Italy.

“Critical to the process was accurate and reliable motor control to transport the mask through the line’s modules. From the initial calendaring module that created the surgical template and inserts the nasal wire, to the next two modules that weld the elastics, with up to four layers of non-woven fabric capable of being managed,” said Andrea Andreula, Area Manager at DBA Robot.

Andrea added: “The precision and stability in the movements throughout the process using the Optidrive P2 were fundamental in producing the final product.”

Enrico Rebuffi of Invertek Drives Italy said the P2’s accurate vector speed control allowed the VFD to reach exceptional dynamic and torque performances. “The precision and regularity even in open loop, to the Safe Torque Off (STO) for a safe stop, meant DBA Robot could use the drive for both calendaring and for all other motorized movements in the process,” he said.

A packaging station and automatic print and labelling was also added to the line, providing a fully automated production system for surgical face masks.

Invertek Drives has prioritised the manufacture and distribution of VFDs for medical device and product manufacturers throughout the global pandemic.

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Optidrive VFDs have been used for a range of applications, from ventilation systems for hospitals and medical bases, to OEMs involved in the manufacture of systems for medical device manufacturers, such as DBA Robot.

“We ensured the drives could be delivered and commissioned as quickly as possible, aware of the importance of mask production at that time in Italy and globally,” explained Enrico. “The choice of the Optidrive P2, due to the high dynamic performance, is further confirmation of the strength of a drive that combines simplicity and high performance.”

The P2 is one of the highest performing VFDs available on the market, recognised for its world-class motor control in demanding applications across all electric motor types.

Safe Torque Off (STO) functionality is standard on the complete P2 range, providing easy integration into machine critical safety circuits without the need for an Input Contactor.

It is available in an IP20 enclosure up to 250kW, IP55 up to 200kW and the outdoor rated IP66 / NEMA 4X with capability up to 30kW.

Power ratings range from 0.75kW – 250kW, 1HP – 350HP, 220V – 300V in single and 3 Phase depending on the model specification.

The IP20 includes Modbus and CAN on board as standard. The drive can be easily mounted, set up and commissioned within minutes. With Inverterk Drives Optistick Smart (NFC and Bluetooth connectivity) rapid commissioning tool, the copying, backup and restoration of drive parameters can also be undertaken quickly and efficiently. This is particularly useful when commissioning multiple drives.

Other key features include 14 basic parameters for rapid set up and intuitive keypad control providing digital control at the touch of a button.

In 2020 a high-definition TFT display was introduced as standard on the panel-mounted P2 IP20 frame sizes 2 and 3, making it much easier for users to see operating information and parameters from virtually any viewing angle.

The Optidrive P2 is available from Inverterk Drives global sales partner network. Details can be found at [www.inverterkdrives.com](http://www.inverterkdrives.com).

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## **Notes to the Editor**

### **Invertek Drives**

Invertek Drives Ltd is dedicated to the design and manufacturing of electronic variable frequency drives for controlling electric motors. Established in 1998 it has grown year-on-year and is now one of the world's leading innovators in VFD technology.

In November 2019 it was acquired by Sumitomo Heavy Industries Ltd (SHI), a leading global manufacturer and distributor of power transmission and control equipment. Invertek's UK headquarters, located at Welshpool, Powys, UK, houses specialist facilities for research and development, manufacturing and global marketing.

All operations, including research and development, are accredited to the exacting customer focused ISO 9001 quality standard whilst its Environmental Management System is accredited to the ISO 14001 quality standard.

In 2019 a new 5,500 sq metre global manufacturing and distribution facility was opened at the headquarters, allowing production of up to 400,000 VFDs a year. Invertek's products are sold globally by a network of specialist distributors in over 80 different countries.

Invertek Drives unique and innovative Optidrive range is designed for ease of use and meets with recognised international design standards for CE (Europe), UL (USA) and CTick (Australia). More details can be found by visiting [www.invertekdrives.com](http://www.invertekdrives.com).