Intersurgical, Europe’s leading manufacturer and supplier of single use respiratory care products for hospital use, is using PLCs from Mitsubishi Electric on a newly developed test machine for their flexible breathing systems. The Intersurgical range of products is used in anaesthesia, conscious care, critical care and emergency care for the delivery of gas, aerosols and anaesthetics to the lungs.

Since 1998 all medical products supplied within Europe need to be CE marked indicating that the product has been designed and manufactured under controlled conditions and that the manufacturer claims that they are safe and effective.

The newly developed test bed forms part of the process of ensuring that the Intersurgical range meets this requirement by individually testing for leaks and occlusions across the entire range of more than 6000 product variations. A Mitsubishi FX PLC controls air flow and pressure to a variety of nozzles and hose fittings which are used on the test bed to suit the wide product range. The individual test parameters for each hose are programmed by a security cleared supervisor and loaded to the PLC via a 16 colour Mitsubishi E700 HMI (Human Machine Interface).

Since using the FX and E700 for controlling the test beds, output from one assembly and test area has shown a measured improvement from 1,000 items per 8 hours to 2,500 for the same period.

According to Luke Bedggood of Intersurgical, “The Mitsubishi PLCs have the flexibility to allow us to achieve our aims. We need to increase the level of automation in our production and test areas to support the company’s significant growth.”

The Mitsubishi PLCs have the flexibility to allow us to achieve our aims

Luke Bedggood
Intersurgical

Business benefits to Intersurgical from the current level of automation have included access to more detailed management information, lower reject rates and higher output. Also fewer operators are needed for each process so experienced operators are freed up for other jobs as the company grows. Installation is now underway in preparation for a complete Mitsubishi SCADA system for monitoring and supervising the production and test facilities factory wide.