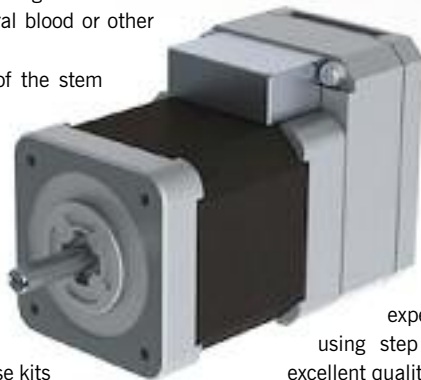


Reliably automating blood and stem cell banking

500 Biosafe Sepax systems, used for automated adult stem cell banking and cell processing applications, rely on Cool Muscle from Reliance Precision, delivering robust and reliable laboratory automation

Headquartered in Switzerland, Biosafe develops, manufactures and supplies innovative solutions for cell processing in bioprocessing, regenerative medicine and stem cell banking. Among its innovative products is the Sepax system, an automated, mobile, closed unit for the efficient and consistent processing of umbilical cord blood, bone marrow, peripheral blood or other cell based products.

Fulfilling the core needs of the stem cell processor, the Sepax systems offers highly efficient and consistent cell recoveries, easy handling and safety of processing, and full traceability with GMP compliance. The combination of the main processing unit, application-specific software and single-use kits allows for the controlled separation of cellular products in a fully automated and secured environment. The PC-based device requires no operator intervention during the separation procedure, virtually eliminating operator influenced processing errors.



Biosafe began trialling Reliance's Cool Muscle motors in 2010 in its Sepax systems, using the motor to help accurately separate the different cell components via the single-use cell separation kits. The Cool Muscle motor senses when the different single-use cryobags are filled with the correct amount of cellular products and was so successful in trials that Biosafe has continued to use it in its Sepax systems, more than 500 of which are now in use world-wide.

Julien Camisani, scientific and technical director at Biosafe explains: "We used to have step motors in our automated blood banking systems but this process was sometimes inefficient. Since adding the Cool Muscle motors to our Sepax systems we have not experienced any of the issues we did when using step motors. We are so satisfied with the excellent quality of the Cool Muscle motors that we intend to continue using them in our Sepax systems and in future development projects."

Stephen Guy, Reliance's business manager for life sciences, comments: "We're delighted to hear that our Cool Muscle motors are making such a difference in the



Sepax systems. Biosafe's continuing use of our motors in this important life science application is an excellent endorsement and demonstrates to laboratory automation suppliers that Reliance can consistently provide high-quality components for producing robust, reliable laboratory automation and processing platforms." www.reliance.co.uk

DC drive makes Dermamill the tool of choice for compounding pharmacists

Ointment milling machines not only need to ensure that the end product is extremely smooth but they also need to be able to be easily cleaned, to avoid contamination. A UK company called Torvine has been trying to produce the ultimate milling machines to solve both these issues. The result is the Dermamill 100, which has become the tool of choice for compounding pharmacists across the world.

Removable rollers mean the mill can be made lab-clean in minutes. Speed control and a roller guide locking mechanism means ointment milling can be controlled with maximum efficiency. The operator can control the two gap sizes manually. Product fineness can be reduced to 20µm, and lower sizes are possible with more passes through the mill. Particles are not crushed (which could result in clogging and the opposite result). They are sheared by the differential speeds of the rollers. The ointment passes through both gaps and receives shearing forces, resulting in particle size reduction, particle

dispersal, and homogenisation. The finer the ointment, the more take-up of the active ingredients occur on the skin, which maximises the benefit to the patient.

When Torvine needed a reliable, quiet motor to drive the ceramic rollers, it contacted Maxon Motor UK. The machine is now manufactured using the Maxon EC45 50W flat brushless DC motor, customised for the application with a longer flexprint cable, and the modular DEC24/2 DC motor controller. Speed control is especially useful when milling thin substances and the Dermamill offers 20 speed increments, ensuring the operator has precise control.

The DEC 24/2 module is specifically designed for OEM applications. The chip is incorporated as part of the PCB



design with a standard pin pitch, to offer ultimate flexibility in form factor for the OEM design. This way the motor controller forms a proper integrated solution at an attractive price. The simple 1Q brushless DC motor controller is simple in operation but offers essential features such as; closed loop operation, fault monitor output, blockage protection and current limiting to prevent damage to

the motor, the mechanics or the operator, also under voltage/over voltage and thermal overload protections.

Torvine managing director Jeff Smith comments: "We have used over 1000 DEC modules without failure. These machines are now going all over the world. We have confidence that both the DC motor and drive will maintain our reputation for high reliability products." www.maxonmotor.co.uk