**Media Release**

**13mm Brushless DC motor re-design**

The maxon 13mm Brushless DC Medical application motor in both 30W and 50W power levels has undergone a re-design and now offers even higher performance levels.

The EC13 from maxon motor is a sterilisable brushless DC motor for use in medical devices. The motor can be driven to a top speed of 90,000rpm with very low noise levels making it an attractive solution for medical and dental hand tools. Recently, advances in manufacturing technology have allowed for further improvements to the design of both the 30 Watt and 50 Watt motors. One of the manufacturing technologies that has improved significantly is automated laser welding. This specialist equipment has allowed for the complete encapsulation of the motors rotor, this improves the motors ability to withstand more of the autoclave cycles when used in medical hand tool applications. This cycle can be for 20 minutes at a time at temperatures of 130+ degrees Celsius and 100% humidity. The heat build-up of DC motors when used inside the small enclosure of a hand tool is also a critical aspect of motor selection. This warming effect does not just come about via the motor efficiency but there are also sometimes unforeseen factors. For example, if the motor mount and tool housing is metallic any excessive eddy currents from the motor can have a heating effect on the tool. The EC13 brushless DC motor now has a completely optimised design that reduces this to a minimum. The new design has improved the performance of the motor torque by 10% and up to 20% better performance of the of the speed torque gradient. Small quantities of the motor can already be ordered for prototyping and test purposes and updated data sheets are available on the maxon motor website.

Contact maxon motor Australia Pty Ltd at our Sydney office for further information and assistance with brushless DC motors for medical applications.

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