

## **Sterilizable Brushless DC Slotted Mini Motors Provide High Speed, High Torque for Surgical Power Hand Tools**

Portescap is excited to announce the launch of application specific motors for surgical powered hand tools - arthroscopic shavers, ENT microdebriders and large bone drills. Prototypes will be available to ship within 3 weeks of order placement.

Based on 20 years of experience in surgical motor design, application specific motors are designed to precise performance requirements of surgical hand tools. Products are designed using Portescap's standard autoclavable motor design and have the robustness to withstand sterilization. Portescap motor technology has demonstrated autoclavability up to 1000 cycles.

Arthroscopic shaver brushless dc mini motor solutions have been designed to drive powered surgical hand tools used in minimally invasive joint surgery; surgical procedures that are responsible for repairing joints such as hip, knee, and shoulder joints. No-load speed of our arthroscopic shaver motors range from 4,000 to 7,000 RPM, while maximum continuous torque is 117 mNm and 119 mNm. What's more, Portescap solutions maintain high torque without stall better than competing solutions.

Portescap's large bone drill brushless dc mini motor solutions offer a cannulated gearbox and motor combination to allow for in-line pin and k-wire driving and provide high torque at operating speed. These battery powered solutions excel at meeting extreme torque demands without stall during joint replacement surgeries such as those of the knee, hip, and shoulder. Our recommended large bone drill motor offers a no-load speed of 950 RPM with maximum continuous torque of 818 mNm.

Ear, nose, and throat (ENT) brushless dc mini motor solutions provide the high speed and high torque required by powered surgical hand tools used in minimally invasive

surgical procedures of the ear, nose, and throat as well as arthroscopic surgeries of small joints. With no-load speeds of 11,800 RPM and a maximum continuous torque of 39 mNm, these solutions are designed to perform precise cutting of tissue and clean burring of bone. For high-speed drilling in spine, cranial, maxiofacial, and otologic (ear) surgery, Portescap's spine drill motion solution will provide 90,500 RPM of no-load speed and 9.2mNm maximum continuous torque.

Custom windings, bearings, and output shafts are available upon request. To learn more about our new solutions and how we can help you optimize your surgical application, please visit our website at [www.portescap.com/asm](http://www.portescap.com/asm) to download specifications and literature, or contact your closest regional Portescap office to speak with an applications engineer.