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**EID**

## **21<sup>ST</sup> ANNUAL EXCELLENCE IN DESIGN**

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# Twenty First Annual EID

■ Gold Award Winner

## ■ Medical/Test & Measurement Equipment GOLD

*The Tono-Pen AVIA™ Applanation Tonometer from Reichert, Inc., Depew, N.Y., and the industrial design firm Metaphase Design Group, St. Louis, Mo.*

The Tono-Pen AVIA is an easy-to-use portable, handheld instrument that measures intraocular pressure – the fluid pressure inside the eye – to evaluate ocular conditions such as glaucoma. It is an alternative solution to the larger, bulky instruments, and allows the unit to be brought to the patient and used successfully with minimal training.

Through intensive user research, the design team explored ways to improve usability and reliability of the device by minimizing human error. Studies on grip postures, user technique and instrument ergonomics resulted in an intuitive design featuring a new size, form and grip architecture. The handle was shortened and optimized for virtually all hand sizes by creating a smooth curve with the center of gravity located in the primary

grip zone. The width dimensions were expanded and soft elastomeric co-molding was added for thumb and fore-finger placement, minimizing grip forces and increasing stability and comfort.

The unit features a stainless steel tip with a bead-blasted finish, a glossy white body finish and a blue elastomeric co-molding. To make it easier to use, two large LCDs were incorporated in the center with visibility from either side to ensure both left and right-handed users can effectively view the results in low-light conditions.

**Key Players from Metaphase Design Group:** Marc Hunter and Brian Bone, ergonomics; Jeff Feng and David Kusch, designers. **Supplier:** Craig Drager, Vice President, R & D, Medtronic XOMED.

