Application Story

Applying Brakes in Targeted Biopsy

Ogura Zero-Backlash Power-Off Brakes in Targeted Prostate Biopsy is a Major Advance in Cancer Treatment

he new Artemis system uses Ogura hightorque permanent-magnet brakes with highresolution 3D medical imaging to help pinpoint cancer.

Prostate cancer is a killer of men. Approximately 242,000 new cases of prostate cancer are diagnosed each year. Medical Science and Ogura are working hard to fight this terrible disease.

A new Medical device incorporating Ogura's high torque PMB series brakes mark a major advance in Cancer treatment.

The Artemis is a robotic biopsy imaging device. Until its arrival there have been few changes in the last twenty-five years in the way prostate biopsies are administered, the device offers a significant leap forward in the detection and treatment of prostate cancer. Soon it is to be available on a global scale to help save lives.



Artemis robotic biopsy imaging device

A few features of Artemis:

- Patient imaging in 3D
- Integrated patient motion compensation
- Automatic 3D image reconstruction and core recording

For the Artemis system to function, it's imperative that the exact geometric coordinates of the prostate are registered with its software. The stabilizer/tracking arm sensors equipped with Ogura's PM brakes provide this capability. Once the stabilizer arm is locked, the geometrical

coordinates remain constant. They then use unique software to "fuse" the live patient location with MRI images to provide doctors with real time 3D images.



Ogura permanent magnet brake

A few of the advantages of Ogura permanent magnet brakes:

- No power/current required to achieve holding torque.
- They are backlash free.
- Smaller in size and lighter in weight than a comparable spring-applied brake having the same diameter.

Using Ogura's PMB brakes means that the machine is lighter and easier to move around hallways and operating suites.

Cooperation between Eigen and Ogura is strong. Working with a customer like Eigen is a real pleasure for the Ogura team.

Advancements continue to be made based on feedback from physicians at many of its installed locations. The next generation Artemis units with Ogura's PMB brakes will incorporate these enhancements to successfully aid physicians in diagnosing prostate cancer.