



**ERIKS**  
Seals and Plastics

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## Spring Energized Seals for Robotic-Assisted Surgery

### Industry

Medical

### Application / Products

Spring Energized Seals for remote surgery equipment

### Challenge

Robotic-assisted surgery is an emerging technology that has seen rapid growth over the past decade. One company on the leading edge and a global leader in the field contacted ERIKS with their idea for a new device they were developing. Requirements for the seals on this very expensive device were complex and would require a vast knowledge of materials and engineering expertise not found at a typical seal company. The customer specified that the seal not only needed to be dry running, but also must have very low friction in order for the equipment to operate properly. Additional challenges included dealing with both vacuum and pressure as well as the ability to withstand contact with harsh chemicals, such as vaporized hydrogen peroxide, used during the system cleaning process.



### Solution

The highly knowledgeable and experienced team from ERIKS worked very closely with the customer's own engineering team to develop a solution. Balancing sealing with concerns about friction, the team's recommendation was a spring energized seal. Spring energized seals offer extreme sealing for the most demanding applications. The performance of spring energized seals is unmatched in high-pressure, high-temperature environments, as well as providing the best chemical resistance.

### Results

The customer was thrilled with the unbiased approach used by the ERIKS team. They appreciated that they were not just sold a product; rather, offered a complete solution customized to their specific needs. In addition, because ERIKS has the manufacturing capabilities to produce the spring energized seal, the customer was able to work directly with ERIKS to optimize the quality of the final product.

knowledgeable

responsive

unbiased

innovative

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