

## CASE STUDY

Category: Semiconductor industry



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## A material change that made a material difference.

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**Client:** The largest pure-play semiconductor foundry in the United States, known for the manufacturing of integrated circuits used in laptop batteries, disk drives, routers, DVD players, MP3 players, digital cameras, cell phones, heart pacemakers and automobile airbags.

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**The Challenge:** The client had long used a fluoroelastomer material in an etching tool for semiconductor wafers. The tool, a highly precise instrument, requires high-performance seals to ensure that the valuable wafers on which it is used are not damaged in the etching process.

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**The Process:**

- A longtime client was advised on features and benefits of switching from using a fluoroelastomer seal to using perfluoroelastomer seals to gain product life, improved seal performance and reduced particle counts.
- Client decides to make the materials switch based on the expertise of, and with assistance from, an experienced Pacific Rubber sales representative.
- Seal material change is made in 18 uniquely sized seals, some with multiple applications in the tool.

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**The Result:** The client has seen many benefits from the switch to a higher quality seal material. Not only do the perfluoroelastomer seals last longer, thus reducing down time associated with preventive maintenance, they also have lower particle counts, a key feature for a precision etching tool. Test results comparing the use of fluoroelastomer seals versus the perfluoroelastomer seals indicated that the perfluoroelastomer seals are a tremendous improvement for the client.



Performance Delivered.

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