

# SEMICONDUCTOR MANUFACTURING CHEMICAL DELIVERY

## TECHNETICS HELICOFLEX® DELTA SEAL SOLUTION



### THE CHALLENGE: Leak Tight Storage and Transport of Highly Toxic Chemicals

The semiconductor manufacturing process requires the use of highly toxic chemicals. The chemical plant providing these chemicals needed a vacuum-tight seal to transport their product to the semiconductor processing location. The chemical container (canister) required a reliable and durable helium leak tightness seal able to work with both vacuum and positive pressure. Due to the nature of the chemicals, neither plastic elastomer nor elastomer seals are a consideration.

### THE SOLUTION: A Highly Engineered Metal Seal, HELICOFLEX® DELTA

The HELICOFLEX® DELTA seal was identified as an optimal solution for this application. It incorporates two small ridges, or “Deltas,” on the face of the seal. The high-contact stress in the seal track makes the HELICOFLEX® DELTA seal an excellent choice for ultra-high vacuum applications that require ultra-low Helium leak rates. The HELICOFLEX® DELTA seal passed the qualification tests in 2000 and has reached Helium leak-tightness for both vacuum and at positive pressure conditions and recycling solution since then. Technetics continues to supply thousands of precision metal seals yearly to this satisfied customer as the demand for semiconductor processing continues to increase.

To learn more about the HELICOFLEX® DELTA seal, visit our website to contact a specialist for a custom-engineered solution for your application.

