

EDWARDS KOREA SEMICONDUCTOR VACUUM PUMP

Technetics Improves Vacuum Seal Performance with Innovative Engineering



Industry leading experts in vacuum and abatement in Semiconductor Manufacturing collaborate with Technetics Group to develop efficient solutions that set new standards.

In the Semiconductor industry, vacuum pumps are essential to limiting impurities in the processing chamber. An effective vacuum pump allows for greater process efficiency. However, this technology has far-reaching implications if it does not work correctly.



A vacuum pump manufacturer came to Technetics needing a casing seal for a semiconductor vacuum pump. The seal is necessary to prevent air leakage into the vacuum chamber. Their pump, which is already high-performing thanks to its unique rotor and stator, provides superior vacuum performance. The intelligent design also reduces noise levels, minimizing operator fatigue, and the all-metal construction ensures long-lasting and reliable operation.

However, with a 200°C vacuum casing temperature and a required 10-6 mbar.l/sec leak rate, they were searching for a sealing solution that could meet the lower leak rate and was still high-performing, efficient, reliable, and durable.

Technetics' HELICOFLEX® Seal successfully reduces leakage

Collaborating with the client's UK Engineering team, the sealing system design for the semiconductor vacuum pump was a success. Through the partnership, they incorporated the Technetics' seal into the manufacturing process in Korea.

The affiliation felt natural because of the trust already established between the companies.

Technetics' HELICOFLEX® Seal successfully limits impurities in Semiconductor Vacuum Pump

Using the Technetics HELICOFLEX® solution, the client's pump maintains a consistent vacuum pressure, preventing catastrophic environmental contamination in the chamber. The seal also helps reduce wear and tear on the vacuum pump components, extending the pump's life.

Once they experienced the efficiency and reliability of our seals through their prototype order, they happily — and eagerly — receive regular manufacturing shipments. With the patented design of the HELICOFLEX® seal, they receive the utmost consistency in their bulk orders.

When considering the long lifetime value of vacuum sealing, we set the industry standard. Our metal seals are innovative, durable, and long-lasting, unlike the average rubber o-ring. Ready to find your sealing solution that will consistently deliver? Contact a specialist today.

