



## Benefits of Oil-Free Pumping

Tired of oil mist, back migration, and difficult maintenance? Consider an upgrade to a Oil-Free Scroll vacuum pump.

### No More Oil Mist

Rotary vane pumps use lubricant oil for seals,

which exhausts to the atmosphere - outside the pump - polluting the air in the pump room.

### No More Back Migration

ISP Oil-Free Scroll pumps contain no lubricating oil or sealing water. By eliminating back migration, the ISP Oil-Free Scroll pump eliminates the potential for vacuum chamber contamination.

The lubricant oil used for rotary vane pumps evaporates near ultimate pressure (depending on the type of oil used). This oil vapor migrates from high to low pressure, causing back migration into the vacuum chamber. A vacuum chamber polluted with oil vapor decreases the ultimate pressure available and can no longer function as a clean space.

## Benefits of the ISP Design from Anest Iwata

### Simpler Maintenance

Oil-Free Scroll pumps are clean. No particles and/or gas molecules can be sucked into the lubricant oil to deteriorate the oil because there is no oil. Oil-free scroll pumps eliminate the oil pollution and smell that accompany oil-sealed pumps. And they put an end to the increased costs and worry about proper disposal of waste oil.

### Low Vibration-Low Noise

Each revolution of the pump provides a continuous process of suction, compression, and discharge. The result is minimal pulsation, virtually no vibration and quiet operation.

### High Efficiency

The ISP's smooth and highly balanced operating mechanism requires low starting torque and generates minimal heat while operating. This low power consumption and heat generation will help you attain your ISO 14,000 goals by conserving energy and placing a minimal load on your air conditioning system.

### Lightweight & Compact

The lightweight, compact, and air-cooled design of the ISP Oil-Free Scroll pump permits a variety of uses not feasible with traditional vacuum pumps.

### Reliability That Keeps Improving

Recent engineering advances include the patented bearing Air Flush system and shaft seal configurations. These features improve durability, extend maintenance intervals, and evacuation performance of light gasses, water vapor, and small particles.

### Flexible for Your Business Situations

Wide operating pressure range means stable pumping during a range of variations between atmospheric and the ultimate base pressure.





**SYNSYS CO**