protecting the environment • protecting your equipment • filtration • separation • silencing

Complete Vacuum Filtration Solutions

For Photovoltaic Manufacturing Processes

SOLBERG®

Filtration - Separation

Jamieson Equipment Company
www.jamiesonequipment.com
toll free 800.875.0280

Protecting Vacuum Pumps and Systems

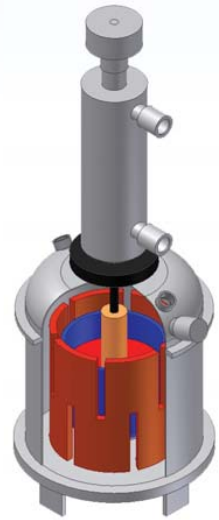
Application Specific Solutions

Solberg is a worldwide leader in filtration and separation technology. We design, engineer and manufacture inlet and discharge filtration solutions for the complete assortment of vacuum equipment found in photovoltaic manufacturing processes. Inherent in these processes are a range of filtration challenges from capturing abrasive dust particles to managing pyrophoric or hazardous materials. We are committed to meeting the challenges of protecting mission critical equipment while safe guarding the surrounding environment.

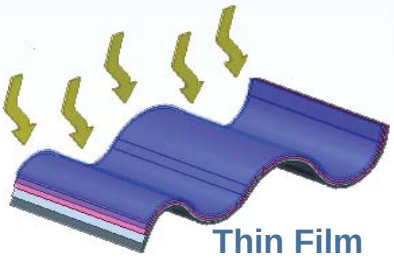
Solutions for

Adixen-Alcatel, Busch, Ebara, Edwards, Oerlikon-Leybold , Tuthill, Ulvac, Varian and more.

Filtration Solutions for Photovoltaic Manufacturing Processes

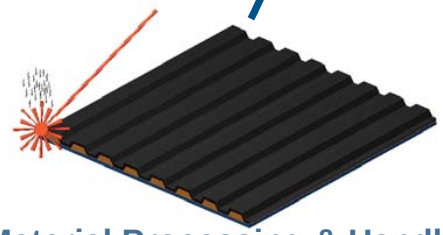


Crystal Growing
Mono/Single Crystalline
Self Cleaning Inlet Vacuum Filtration



Thin Film
CVD, PVD, Sputtering, Etching
Foreline Traps, Filters & Exhaust Filtration

Polycrystalline Ingot Production
High Efficiency Particulate Vacuum Filters



Material Processing & Handling
Ablation, Edge Deletion, Scribing, Vacuum Lifting,
Inlet Vacuum Filtration

Oven Lamination
Severe Duty Inlet Vacuum Filtration

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High Efficiency Vacuum Filters and Traps

Purpose & Benefits

Removing harmful particles from the process flow stream is critical to longevity and reliability for vacuum equipment used during Polycrystalline Ingot Production, Thin-Film Manufacturing, and Solar Cell Lamination. Abrasive particles quickly destroy pumps resulting in down time and costly rebuilds. Preventing back streaming during high vacuum operation is critical to protecting a manufacturing process from contamination.

Solberg's comprehensive line of inlet vacuum filtration products and traps are designed to work with both wet and dry vacuum pump technologies. A variety of media options, connection styles and materials of construction are available to protect both pump and process.

Self-Cleaning Filtration

Purpose & Benefits

In Mono/Single crystalline PV manufacturing applications, dust and particles can overwhelm conventional inlet vacuum filters. Solberg Manufacturing has adapted its proven Reverse Pulse Technology into a Solar Market Specific solution, our RX Series.

The RX Series extends maintenance intervals and improves process productivity by rapidly introducing atmospheric air or inert gas into the system. This process purges dust from loaded filters and allows the particles to settle in the bottom chamber for easy disposal. Depending on application conditions, either our PTFE quick release media or a Stainless Steel Dutch Twill element are available to enable optimal performance for the vacuum pump via maximized conductance and increased pump life.

Design Features and Specifications

- PTFE media achieves 99.97% @ 0.3 micron
- Dutch Twill media achieves 99% @ 5 micron
- Carbon and Stainless Steel construction options
- Application specific filtration and coating solutions
- Helium leak testing standard for deep vacuum applications
- Back streaming protection available

Oil Mist Capture and Recovery Filters

Purpose & Benefits

Solberg's Single and Multi-Stage Oil Mist Eliminators are designed to eliminate visible oil mist from the discharge of oil lubricated vacuum pumps. These eliminators capture and coalesce oily aerosol mist and incorporate a draining mechanism to recycle oil back to the pump. In addition to reducing operating costs, mist eliminators mitigate potential health, safety and environmental hazards associated with discharging the mist directly into the surrounding environment.

Edwards Vacuum Pump: Glass Coating Application
Two-Stage Straight Through Discharge Oil Mist Eliminator

Design Features and Specifications

- Efficiencies to 99.97% @ 0.3 micron
- Two-Stage systems available for extreme duty applications
- Application specific solutions offered

Filtration Solutions for Your Specific Applications

Reverse Pulse Vacuum Filter
See-Through Housing with Self-Cleaning Revese Pulse Technology

Heavy Duty Inlet Vacuum Filter
Industrial Grade Filter available in Carbon Steel and Stainless Steel

Single-Stage Oil Mist Eliminator
Heavy Duty Discharge Eliminator
Captures Oil Mist, Vapor & Smoke

SOLBERG®