Advanced Filtration for Microelectronics & Semiconductor Manufacturing

Designed to meet the stringent requirements of semiconductor fabs, our filtration solutions control airborne particles and molecular contaminants across critical process environments.

Core Capabilities

- Sub-micron & nano-particle filtration efficiency
- AMC (Airborne Molecular Contamination) control
- ISO Class cleanroom compatibility
- High chemical resistance (acids, solvents, process gases)
- Laminar airflow optimization for wafer processing

Comprehensive Support

- Cleanroom airflow analysis & optimization
- HEPA/ULPA filter integrity & leak testing
- Contamination mapping & diagnostics
- Pressure, airflow & particle count monitoring

Global Expertise in High-Purity Environments

ISO 9001:2015 | GMP CERTIFIED PRACTICE | ISO 45001

Let's connect to discuss filtration solutions for your industry needs.

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SIDDHI FILTER MEDIA™
FILTRATION EXPERT

Advanced Filtration for Microelectronics & Semiconductor Manufacturing

Engineered for ultra-clean environments where precision is critical. Our advanced air and liquid filtration solutions ensure superior contamination control, improved yield, and reliable performance across semiconductor production.

Air & Liquid Filtration | Cleanroom Solutions | AMC Control

Advanced Air Filtration

In microelectronics manufacturing, even the smallest airborne particles or molecular contaminants can impact yield and device performance. Our air filtration solutions are engineered to deliver ultra-clean, controlled environments for critical semiconductor processes.

Our Air Filter Range

- Prefilters:

Energy-efficient prefiltration to extend HEPA/ULPA life and reduce operating costs

- Fine & Secondary Filters

High dust-holding capacity with optimized airflow performance

- HEPA Filters

High-efficiency particulate removal with scan-tested, leak-free reliability

- ULPA Filters

Ultra-high efficiency filtration for ISO Class 1–4 cleanrooms

- AMC Filters (Gas Phase)

Removal of acids, bases, VOCs, and molecular contaminants

Key Features

- Sub-micron & nano-particle filtration
- Low pressure drop for energy savings
- Chemically inert & low off-gassing media
- High durability for cleanroom environments
- Compatible with AHUs, FFUs & process tools

Applications

- Semiconductor fabs & wafer processing
- Photolithography & etching zones
- Cleanroom air handling systems
- Tool enclosures & mini-environments
- Subfab & recirculation systems

High-Purity Liquid Filtration

In semiconductor manufacturing, liquid purity is critical at every stage from ultra-pure water to process chemicals. Even trace particles, dissolved gases, or metal ions can cause defects and reduce yield. Our liquid filtration solutions ensure consistent purity, process stability, and high-performance output

Our Liquid Filtration Range

- Filter Cartridges & Capsules:

Precision filtration for particles, gels, and ionic contaminants

- Ultra-Pure Water (UPW) Filtration Systems:

High-efficiency removal of particles and dissolved impurities

- CMP Slurry Filtration:

Controlled particle size for polishing consistency

- Chemical Filtration Systems:

Filtration of acids, bases, solvents, and etchants

- Dissolved Gas Control Systems:

Membrane contactors for removal of O_2, CO_2, and gas bubbles

Key Features

- Sub-micron & nano-particle removal
- Metal ion & organic contaminant reduction
- High chemical compatibility
- Low extractables & minimal leaching
- Consistent flow and filtration efficiency
- Scalable systems for full process integration

Applications

- UltraPure Water (UPW) systems
- Wet cleaning & chemical processing
- Photolithography chemicals
- Electroplating & deposition processes
- CMP (Chemical Mechanical Polishing)
- Wastewater treatment & recycling