



Experience. Technology. Value.

3R-Coalescing Filters

Gas Turbine Air Intake System Filters



For efficient removal of entrained droplets and coarse particles.

Coalescing filters are essential as the initial filtration stage, protecting downstream filters from coarse particulates and water droplets in inlet air. The Coalescer filter media stands out for its exceptional rigidity, far surpassing commonly used synthetic or glass fiber media. Even when exposed to high water content, this robust media maintains its structure without degrading.

A key advantage of the 3R-Coalescing Filter media is its outstanding water resistance, ensuring a long service life. Unlike conventional materials, it can be washed and reused multiple times without compromising its pore structure or filtration efficiency.

Coalescer elements work by capturing and merging entrained droplets from the inlet air, preventing contamination of downstream filters. This process can be compared to how fog forms in ambient air—tiny water droplets (10–40 μm in diameter) accumulate in the coalescer, gradually merging into larger droplets. As they grow in size and weight, gravity separates them from the airstream, effectively removing moisture.

Coalescer media provides highly efficient moisture removal in gas turbine inlet air streams, offering superior durability and extended service life.

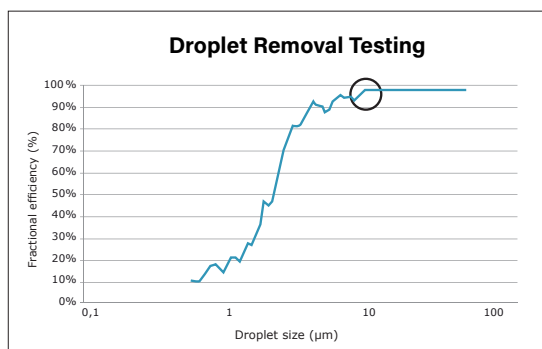
Stable operation even in air with 100% relative humidity

Pore structure not affected by repeated washing

Filter efficiency virtually unchanged even after washing

Can be reused an unlimited number of times

Service temperature range up to 80°C



In the commonly encountered droplet size range of $>10\mu\text{m}$, our coalescers achieve a separation efficiency of 90–100%.