ThermStar System™

Dirty Air. Clean Energy.

Lepido is Engineered for Particulate-laden exhaust airstreams

The patented Particle Repellent Geometry (PRG) prioritizes contaminant pass-through while maintaining heat transfer performance—enabling consistent operation with minimal fouling over time.

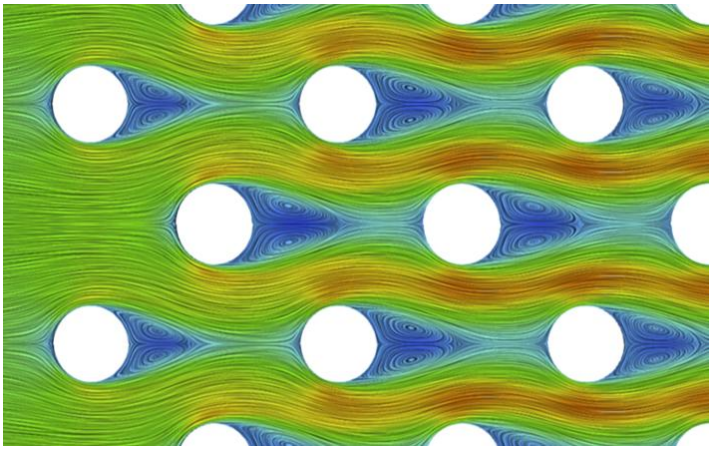
Traditional Heat Exchangers

- ❖ **High Surface Obstruction (fins)**
- ❖ **Rapid Fouling in real conditions**
- ❖ **Large Pressure Drop Increases over time**
- ❖ **Limited Airflow Channels**



ThermStar ™ Lepido Heat Recovery Unit

- ❖ **Low Surface Obstruction (no fins)**
- ❖ **Particle pass through design (PRG)**
- ❖ **Stable, low pressure drop over time**
- ❖ **Significant Airflow Channels**



Particulate-Laden Exhaust. High Humidity. No Problem.

How it Works

- **Particle Repellency by Design:** Leverages the relative size difference between particles (100–2 µm) and 10-mm tubes (vs. traditional 40-mm tubes), significantly reducing fouling risk—a patented advantage validated in real-world applications.
- **Staggered Bare-Tube Geometry:** Minimizes particle trapping zones and creates pass-through corridors
- **100% Counter-Flow:** Liquid and air patterns optimized for thermal efficiency, offsetting the inherent trade-offs of bare-tube systems.



