

ATLAS™ GAS ABATEMENT SYSTEMS

Atlas™ from Edwards: the range of combustion gas abatement solutions that offers semiconductor, flat panel display, Solar and MOCVD manufacturers reduced operating costs and enhanced ease-of-use.

Atlas abatement technology specific to your process:

- *Atlas TCS for common CVD gases (NF_3/F_2)*
- *Atlas TPU for PFC gases (ClF_3 , C_2F_6 , C_3F_8) in CVD processes*
- *Atlas Kronis for the low-k CVD gases in next-generation processes*
- *Atlas Etch for semicon etch and flat panel display processes (CF_4 , SF_6 and high flow PFC's)*
- *Atlas Helios for safe treatment of hydrogen processes in epitaxy and MOCVD*



Atlas™ systems have **low fuel consumption** compared with previous-generation gas abatement devices and utilize proven Alzeta™ inward-fired combustor technology to achieve significantly **reduced cost of ownership**. With one to six inlets with a number of options, including a temperature management system (TMS), they can treat a flow capacity of **up to 600 slm** and they offer enhanced ease-of-use and more efficient maintenance.

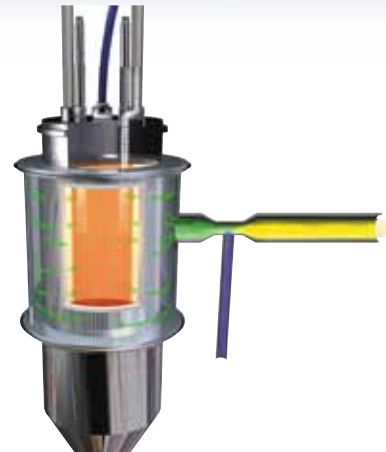
Features and Benefits

- *Low cost of ownership*
 - Low fuel consumption
 - Reduced running costs
- *Excellent powder handling*
- *Excellent corrosion resistance*
- *Outstanding reliability, even on the harshest applications*
- *Ease of maintenance*
- *Third party certification*
 - SEMI® S2, CE marked, ETL listed
- *Unrivalled abatement performance for deposition and clean gases*
- *Flame retardant plastic used in wet stage*
 - No corrosion from acidic by-products
 - Lower risk of thermal discharge

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Inward-fired Combustion Technology

Used by most major semiconductor manufacturers, the inward-fired combustor has become a world standard in gas abatement since 1994. This unique combustion technology operates with less fuel, producing a clean, uniform burn chamber. Low temperature combustion ensures very low NOx emissions and the inward flow of gas prevents process material contact with the chamber walls, minimizing blockage by solids. Ceramic construction material is used to ensure the combustors' immunity to corrosion and unrivalled reliability and safety.



Outstanding performance, DRE's typically:

SiH₄ and other Halides below TLV

NF₃ : >99% / <TLV

F₂ : >99% / <TLV

CF₄ : >90%

Other PFC's : >99%



Connections

| | |
|---------------------------------------|---|
| Process connections | |
| Process gas inlets | NW40 stainless steel |
| Bypass outlet | NW40 stainless steel |
| Abatement system exhaust outlet | 75 mm diameter polypropylene |
| Cabinet extraction outlet | 150 mm diameter x 150 mm deep, painted mild steel |
| Services connections | |
| Nitrogen inlet | ½ inch Swagelok, stainless steel |
| Oxygen inlet * | ¼ inch Swagelok, stainless steel |
| Compressed dry air inlet [§] | ¼ inch Swagelok, stainless steel |
| Fuel gas inlet | ¾ inch Swagelok, stainless steel |
| Cooling-water supply inlet | 25 mm GF union, polypropylene |
| Cooling-water return outlet | 25 mm GF union, polypropylene |
| Make-up water inlet | 25 mm GF union, polypropylene |
| Acid water drain outlet | 25 mm GF union, polypropylene |
| Electrical connections | |
| Electrical supply cable leadthrough | 32 mm cable-gland, suitable for 5-core double insulated cable |
| Customer interface cable leadthroughs | 16 mm cable-glands |
| Customer interface connections | Screw terminals |

* Atlas-TPU, Atlas-Kronis and Atlas-Etch systems only

§ Harsh Duty Purge option only

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