



Treatment of residual process gases and by-products

Mission possible

Thin film processes, commonly used in semiconductor industry and similar applications (like photovoltaic, flat panel display, OLED, MEMS) use gases which can be harmful to the environment. The treatment of the residual process gases and by-products generated in these processes are an integral part of the complete process. The essential issue is to combine high destruction removal efficiency with low costs of investment, installation and operation and without influencing the yield.

Today, over 600 Centrotherm abatement systems installed worldwide in wafer fabs of Samsung, Infineon, AMD and many more as well in research and production sites for flat panel display or photovoltaic (e.g. Shell Solar, RWE-Schott, etc.) guarantee high quality and reliable operation.

Tailored solutions from the shelf

To be an accepted partner in the semiconductor industry means to consider customer specific requirements. Individual local requirements have to be taken into account to provide a 100% matching solutions for the customers. Modularity in product design is the clue.

Following this guideline, Centrotherm developed a new range of products for point-of-use abatement systems.

Dry bed chemisorbers provide specific absorption technology for different gases and different flows. Electrically heated systems are used for thermal decomposition in combination with wet scrubbing and neutralization.

Innovative wet scrubbers, special solutions for epitaxy processes, abatement systems with integrated vacuum pumps (combined abatement and vacuum pump system in one cabinet) as well as customized solutions are just a few example of Centrotherm broad portfolio.

Siemens PLC and operator panels are first choice for Centrotherm



Picture: AMTC
Picture: Centrotherm

Win – win situation

The fast and cost effective achievement of the design targets including the safety concept was only possible due to the consequent realization of the modular design concept and the long term experience over many decades in heating element technology used in diffusion and conveyor furnaces. Another key ingredient for the successful implementation of the new design concept was having a partner who not only understands the technology but also can efficiently turn the requirements into practical solutions – a partner that also is able to guarantee the professional and competent customer support worldwide. For Centrotherm, this partner was and continues to be Siemens.

The strategic decision of Centrotherm to use Simatic controllers and WinCC as visualization platform provides logistic advantages for operating and service activities not only for Centrotherm but also for our customers. ■

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