

SEMICONDUCTOR CHAMBERS

Unveiling the Power of Semiconductor Chamber Front End

Astrodyne TDI
Now you have power.

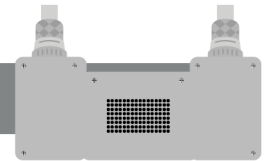
Power and RF filter systems that exhibit reliability and high performance

DC POWER DISTRIBUTION



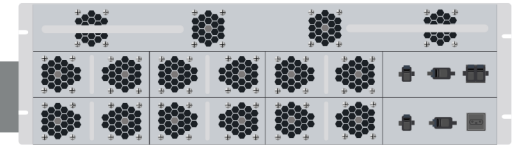
Astrodyne TDI Custom DC Power Distribution Units are designed to support power for multiple chambers. With an input of 208VAC, it delivers a reliable output of +24VDC and +/-15VDC, ensuring smooth equipment operation. These units are designed with efficiency in mind and are built to last. Trust in our expertise for a tailored power distribution solution with a quick turnaround.

RF "BLOCKING" FILTERS



RF Blocking Filters prevent the escape of operational frequencies from the semiconductor chamber, ensuring high impedance at the fundamental frequency. They can effectively capture and contain RF energy from the plasma, minimizing disruptions to the power supply caused by RF energy.

MULTI-CHANNEL PEDESTAL HEATER

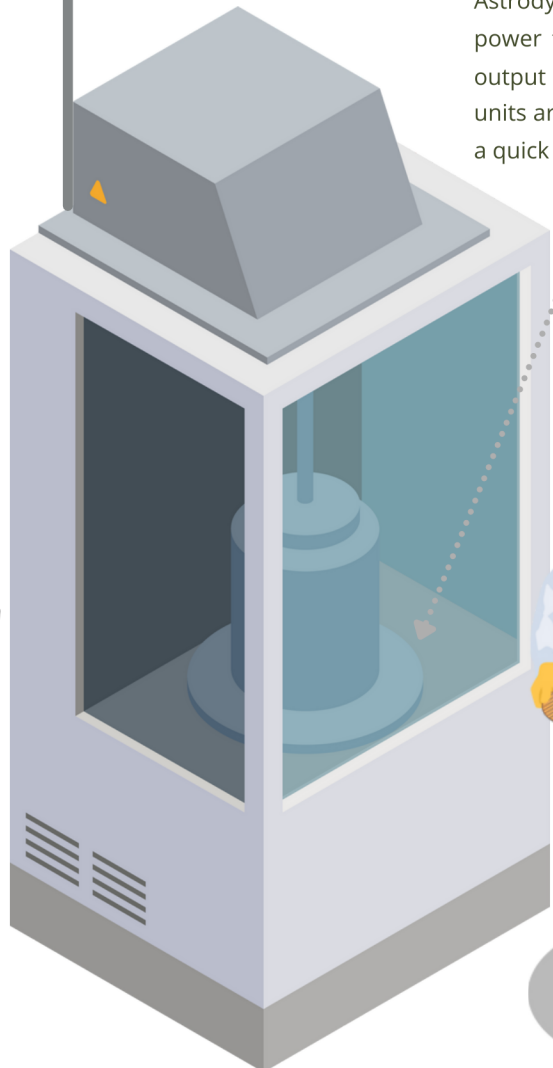
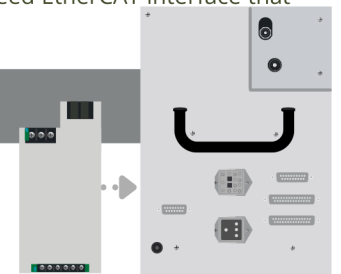


Multi-channel Pedestal Heating systems are derived from the renowned Mercury Flex technology. These multichannel heaters have CV/CI/CP control equipment and a high-speed EtherCAT interface that offers remarkable accuracy and reliability.

INTEGRATED E-CHUCK POWER SYSTEM

Our power supplies offer up to 4 channels with reversible polarity, allowing unmatched flexibility. With an input of 208VAC, they deliver an adjustable output ranging from up to 2500VDC.

Choose from three current options (up to 350mA) to suit your needs perfectly. Our power supplies also feature an integrated RF filter, effectively blocking frequencies like 350Khz, 13.56 Mhz, 27.12Mhz, and 40MHz to prevent interference. Whether you prefer analog or EtherCAT controls, our power supplies seamlessly communicate with your system.



POWER SOLUTION FOR SEMICONDUCTOR PROCESSES

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Front-end semiconductor manufacturing relies on advanced technology to ensure accurate and precise results. Voltage and current precision are crucial factors that demand careful control and communication. This process's power and filter systems must exhibit reliability and high performance without compromising cost-efficiency. A critical aspect is achieving Copy Exactly (CE!) standards, ensuring consistency and reproducibility. Integration of power, RF, EMI filters, and PDU (Power Distribution Unit) is also essential for streamlined operations and optimal functionality.

Astrodyne TDI offers a wide range of capabilities to meet the unique power requirements of Semiconductor Manufacturing, including:

- ✓ Application expertise to solve unique and complex technical challenges, including high power density, programmability, and high-current DC control
- ✓ Quick-turn PDU development to meet customer project timelines
- ✓ A broad range of PSU for easy configuration at short lead times
- ✓ Product features are designed to meet wafer fab requirements including Semi F47 and Semi S2, 3-phase high voltage input, liquid-cooling, variable outputs and higher voltages, RF energy filtering, and copy exact (CE!)



Download our product brochure for more information

