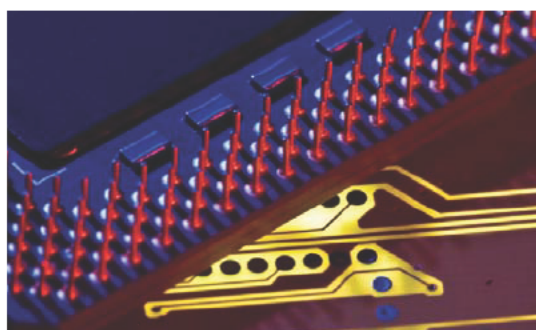


Exhibit 13



DISCOVERY[®]

MULTI-CATHODE SPUTTER
DEPOSITION PLATFORM



DENTON VACUUM ENABLES INNOVATION AND HAS FOR OVER 50 YEARS.

With thousands of thin film deposition tools installed globally — including a large, globally installed base of precision optical deposition systems — engineers and researchers rely on Denton's thin film innovations to drive higher throughputs, better yields and low cost of ownership (COO) while benefiting from comprehensive service and support, and a dedicated R&D program that delivers enabling technologies.

The Discovery[®] series of magnetron sputter deposition systems provides a versatile, turnkey solution for confocal and perpendicular sputtering geometries.

Denton's Multi-Cathode Sputter Deposition Platform

- R & D
- Batch production
- In-line production
- Evaporation
- Sputtering
- PE-CVD

DENTON VACUUM

DENTON'S MULTI-CATHODE SPUTTER DEPOSITION PLATFORM

THE DENTON DIFFERENCE

Your process is our process.

We collaborate with you to design a system that solves your exact thin film coating process needs. When we ship you a tool, it's production ready.

- Our systems scale to meet your production requirements
- We believe in customers for life
- Worldwide support network

AT DENTON, WE CARE ABOUT YOUR SUCCESS

- Factory acceptance tests
- Personalized training
- Remote, real-time support
- CE/UL/CSA compliant systems



TYPICAL APPLICATIONS

SPUTTERING

- Pilot production
- Optical coatings
- Metal coatings
- Nanotechnology
- OLEDs
- Protective coatings



DENTON FLEXIBLE CATHODE CONFIGURATIONS.

The Discovery® accommodates up to 8 cathodes with Triaxis adjustment of radius, distance, and angular presentation to provide $<\pm 5\%$ coating uniformity. Each cathode can be optimized for a different deposition process and target matter.

Independent electro-pneumatic source shutters and chimney assemblies prevent cross contamination of the source material.

POWERFUL CONTROL SYSTEM

Available in semi-manual mode or in fully automatic mode with one push automation to reduce system downtime.

PROCESSPRO UPGRADE OFFERS:

1. **Consistent controls** across all Denton Vacuum products.
2. **Standard software** makes it easy to support and avoid costly customization fees.
3. **Source code** for your programs so you can customize your programs.
4. **Network capabilities** make Discovery a node on your network enabling real-time, remote support and upgrades.



LARGE LOAD LOCKS

Automated to handle substrate as large as 30" in diameter and as heavy as 50lbs.

MULTIPLE PUMPING CONFIGURATIONS

A variety of diffusion, cryogenic, and turbo pump configurations are available to fit your budget and process. Rear or bottom fitted pumps provide easy access for service based on your workspace needs.

DISCOVERY® OPTIONS

	DISCOVERY 635	DISCOVERY 785
MAXIMUM SUBSTRATE UP TO 8" DIAMETER	X	
MAXIMUM SUBSTRATE UP TO 30" DIAMETER		X
RF ETCH/BIAS	X	X
WATER COOLED TABLE	X	X
REACTIVE FLOW CONTROL	X	X
SUBSTRATE FLIP	X	X
IN-SITU ELLIPSOMETRY	X	X
PUMP CONFIGURATION		
CTI CRYOPUMP WITH THROTTLING GATE VALVE	X	X
TURBOMOLECULAR PUMP WITH LN ₂ TRAP ASSEMBLY	X	X
TWO-STATE ROTARY VANE MECHANICAL PUMP	X	X
DRY SCROLL MECHANICAL PUMP	X	X

Specifications subject to change without notice.

ABOUT US

All Denton Vacuum solutions are backed by an 18-month warranty on parts and labor, over 50 years of process knowledge, an in-house process engineering group, worldwide representation and support, and a Global Factory Service Center.