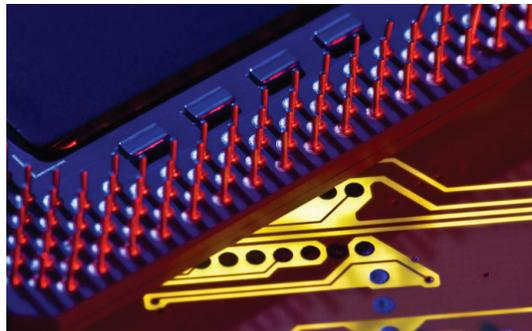




# DENTON DESK V

THE GOLD STANDARD IN ELECTRON  
MICROSCOPY SAMPLE PREPARATION



## 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.

### Denton's Gold Standard in Electron Microscopy Sample Preparation

- Productivity
- Repeatability
- Ease of use
- Minimize sample charge on non-conductive samples
- Reduce e-beam damage
- Increase secondary electron emissions

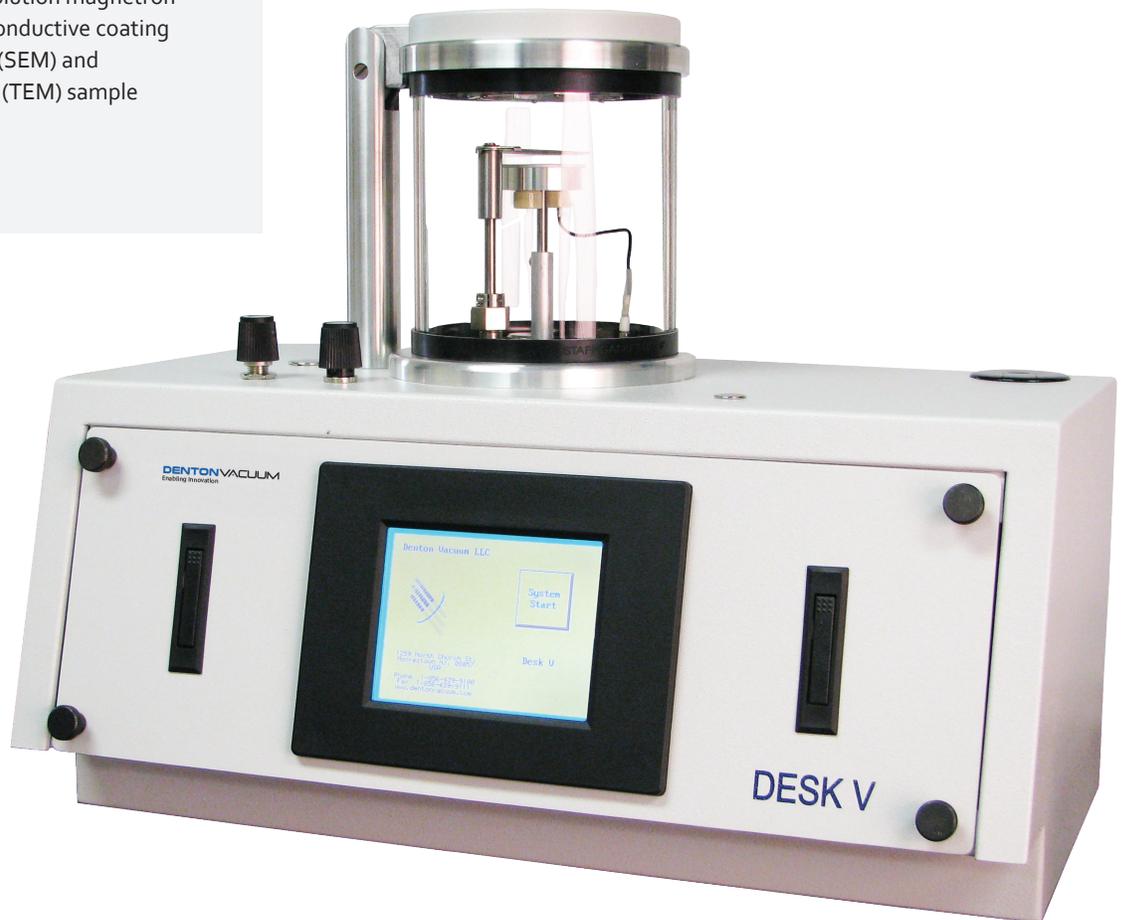
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**DENTON VACUUM**  
Enabling Innovation

# DENTON'S GOLD STANDARD IN ELECTRON MICROSCOPY SAMPLE PREPARATION

## THE DENTON DIFFERENCE

Desk V coating systems are available in two versions: Desk V HP and Desk V TSC. The Desk V TSC, the turbo molecular-pumped sputter coater option, is a high resolution unit suitable for oxidizing and non-oxidizing metals. Its high resolution magnetron sputter unit precisely deposits a conductive coating for scanning electron microscopy (SEM) and transmission electron microscopy (TEM) sample preparation.



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Denton's Desk V series deposition systems are the gold standard for electron microscopy sample preparation. Equipped for both evaporation and sputtering, the Desk V is a high productivity research tool that delivers exceptional, consistent and highly repeatable results.

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## CAPABLE

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Desk V sputters with a 2" cathode, driven by a DC power supply with a maximum output of 100 milliamps. Use the tilting/rotating table to achieve superior sample coverage, especially with rough surfaces. The Desk V can also pre-clean samples before deposition with the etch table and shutter. Don't need to sputter? You can evaporate using either carbon rod or yarn.

The Desk V includes a rugged mechanical pump that quickly brings the system to its 50 mtorr operating pressure. Want more capability? Choose the Desk TSC with its steel chamber and turbo molecular pump to sputter and avoid oxidizing metals for your high resolution coating requirements. You can even choose a film thickness monitor for real-time readings.

## VERSATILE

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The Desk V deposits a broad choice of coating materials (including iridium), while the adjustable rotating and tilting stage ensures a highly uniform coating with excellent conformity and coverage, even on samples with highly irregular surfaces. The Desk V converts easily from metal sputter to carbon evaporation.

The Desk V includes an easy-to-change, drop-in style, insulated rotating specimen table. A unique stage rotation design varies the degree of table tilt to assure exceptional uniformity, conformity and coverage. The stage height can be adjusted from 3.5" (90 mm) to 5" (130 mm), allowing you precise control over the source-to-substrate distance.

## COMPACT

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At 130 lbs (58 Kg) and occupying a mere 23" of your desk top space, Denton's Desk V makes your work space roomier. Less footprint—more lab space.

## EASY

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The Desk V's plug and play eliminates much of the learning curve for you.

One press of your 7" touch-screen manages the system at every point—pumping to deposition to process control to venting. The Desk V's new full-color touch-screen control provides intuitive and simple operation, including timed sputter and etch process set-points for power, pressure, duration and venting.

Designed and built for the busy researcher and microscopist, with the Desk V's new capability to create, store and run up to 10 coating recipes, process runs can now achieve even better consistency, more precise layers, and more uniform, repeatable coating results. In today's multi-user environment, this advanced recipe programming and storage capability also provides for easy switching of materials and the ability to store a variety of process recipes for different samples. All of which results in greater productivity, repeatability and ease of use.

## SAFE

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Automated interlocks ensure safe operation at all times; hard-wired safety features and an emergency stop button protect both operator and machine.

# DESK V OPTIONS

DESK V STANDARDS AND OPTIONS	DESK V HP	DESK V TSC
DC sputtering	Y	Y
Carbon evaporation	O	O
Sputter etch samples	Y	Y
Tilting/rotating table to achieve superior sample coverage, especially with rough surfaces (removes ability to sputter etch samples)	O	O
Up to 4" (100 mm) diameter substrate with shutter (not available with film thickness monitor option)	O	O
Etch table with shutter allows user to pre-clean samples prior to deposition	Y	Y
PLC full-color touch-screen capable of storing up to 10 user-defined recipes	Y	Y
Color touch-screen to monitor and change process in real time	Y	Y
Mechanical pump to reach 50 mtorr process pressure	Y	Y
6" diameter glass process chamber	Y	N/A
6" diameter stainless steel chamber	O	Y
Steel chamber with turbo molecular pump to achieve base pressure on 10e <sup>-6</sup> torr scale to sputter oxidizing metals for high resolution coatings	N/A	Y
Ability to set pressure set-points	N/A	Y
Film thickness monitor for real time reading of thickness	O	O
Dry scroll pump (oil-free) to lower contaminants in vacuum system	O	O
High resolution for oxidizing and non-oxidizing metals	N/A	Y

Y = Available O = Option N/A = Not available

In addition to the Desk V, Denton Vacuum offers the following Research Productivity Products:



BenchTop Turbo



Desktop Pro



DV-502

## ABOUT US

All Denton Vacuum solutions are backed by a 12-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.