

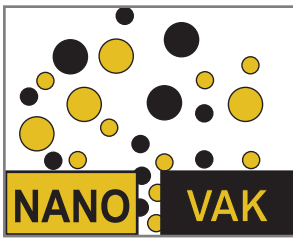
# NANOVAK

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## NVTH-350-4TH-CE Thermal Evaporator

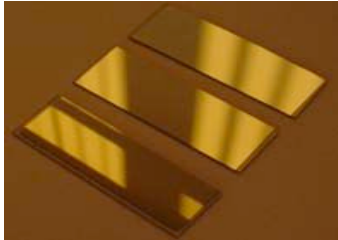


Box type Physical Vapor Deposition system is based on prismatic vacuum chamber. Multi-layered thin films of four different materials can be prepared by NVTH system. System can be tailored to fit user desires in order to produce multilayered, nanosize metallic, oxide, fluoride or nitride films, such as Si, Al, Ti, SiO, Au, Ag, WO, BaF<sub>2</sub>, MgF<sub>2</sub>. System can co-evaporate from any two sources.



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## Thermal Evaporator



- Fully automatic computer control option, touch screen panel control with real time LCD displays
- Prismatic/cylindrical vacuum chamber made of SS304. 30x30x35 cm box size, clean, electro-polished surfaces
- Front viewing window and rotatable shutter
- Standard 1", QF, CF, ISO ports
- Internal lighting and baking of the system, internal baking option up to 120°C,
- $2 \times 10^{-6}$  Torr vacuum level in 30 minutes.  $10^{-7}$  Torr vacuum level in one hour, for fully loaded system
- Turbomolecular + Mechanical pump, and dry pump as option,
- Wide range (1000 -  $10^{-9}$  Torr) vacuum control and measurement system
- 50-300 °C PID controlled sample heating,  $\pm 1^\circ\text{C}$  sensitivity, 1-10 cm sample attachments, 2", 3", 4" wafer loading ability
- 2-30 rpm adjustable sample rotation unit
- Automatic closed loop water cooling
- $0.1 \text{ \AA/s}$  dual-channel precision thickness-rate measuring unit with two QCMs
- 2 channel, 10V - 200A sequential/co-evaporation thermal evaporation sources with voltage current power display
- Isolation valves, chamber backfill with Ar or N<sub>2</sub> as desired
- 1.5 hour experiment cycle-time,
- Power failure protection, the chamber remains under vacuum with isolation valve when not in use.
- Fully automated deposition of each layer of coatings
- 75x120 cm footprint, lockable wheels, system easily passes through standard doors
- One year warranty for design, materials and workmanship