



# SMART COAT 3.0

Smart Thin Film Coaters for R&D



HHV's Smart Coat 3.0 trio are ideal entry level solutions for budding researchers. The platform provides cost-effective solutions for a range of PVD processes such as thermal resistance sources, glow discharge cleaning, electron beam sources, effusion cells, or magnetron sputtering sources. The Smart Coats are versatile and compact research tools which can accommodate a range of operational accessories that can be custom integrated depending on the user's research requirements. The platform allows for future upgrades to keep pace with evolving requirements of the user.

# CHAMBER CONFIGURATIONS



Bell Jar Chamber



Cylindrical Chamber



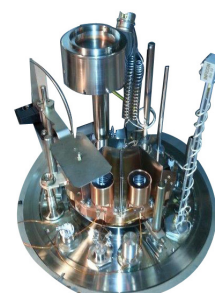
Box Chamber



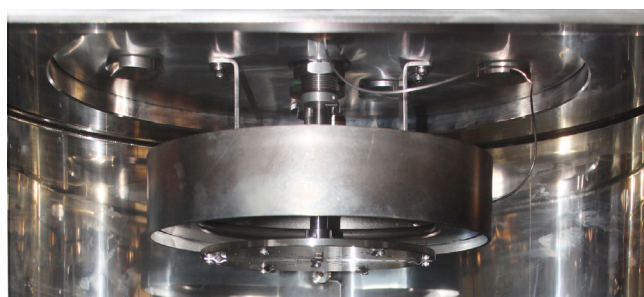
Thermal sources with glow discharge accessory



Electron beam source



Magnetron and organic sources



Rotary work holder with heater



Knudsen Planetary work holder



Glancing angle deposition (GLAD) work holder



Rotatilt work holder

## SPECIFICATIONS

CHAMBER SIZE	Box chamber: 400 mm (Ø) x 500 (H) Bell Jar chamber: 315 mm (Ø) x 354 (H) Cylindrical glass chamber: 300 mm (Ø) x 365 (H)
HV PUMPING OPTIONS	Diffusion/Turbo with built-in liquid nitrogen trap
ROUGHING/BACKING OPTIONS	Rotary / Dry. Optional Booster Pumps
BASE PRESSURE	Up to $10^{-7}$ mbar
SUBSTRATE SIZE	Up to 260 mm (Ø) standard
SUBSTRATE HOLDER	Rotary, Planetary, Knudsen Planetary, Domed, Heating, Biasing, and other custom options

## CONTROL OPTIONS



Manual control



Quartz crystal controller  
based auto sequence

## RESULTS

Uniformity of  $\pm 5\%$  as standard. Custom designed configurations to get better than  $\pm 3\%$

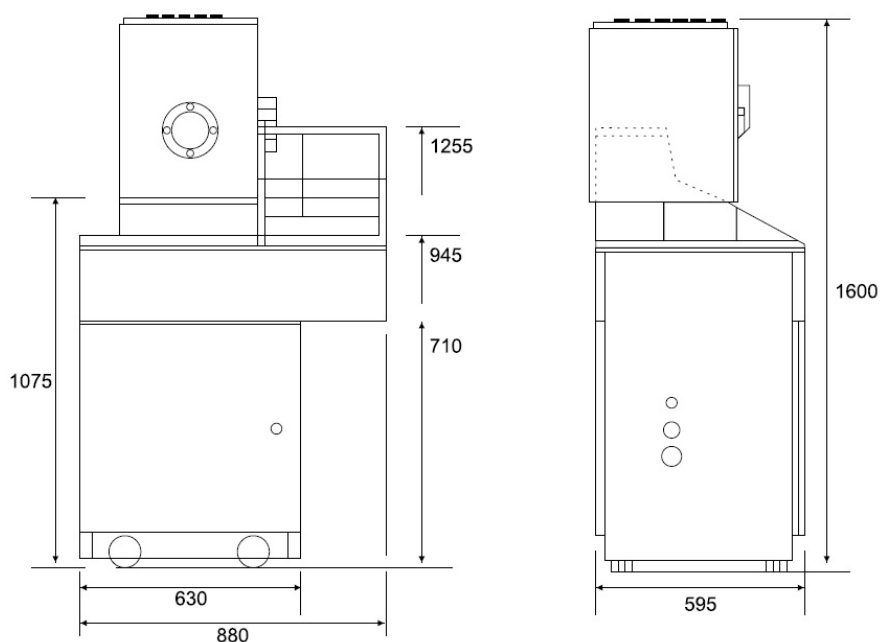
## FEATURES

- Highly versatile and cost-effective platform
- Range of vacuum chambers and work holders to suit applications
- Optional integrated film thickness monitoring/control system
- Intelligent high vacuum valve
- Completely interlocked for user safety
- Compact unit minimizes area required

## APPLICATIONS

- Semiconductor devices
- Optical coatings
- Metal coatings
- Organic Electronics
- Hard coatings
- Solar cells

## LAYOUT



All dimensions in mm  
Representative footprint. Actual dimensions will depend on system configuration



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