

# ATS 500

Automated Thin Film Coating System



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Technologies



The ATS 500 features a global design that is suitable for research and small batch production in semiconductors, organic electronics, photovoltaics, optical coatings, lift-off coatings, and various other metallic and dielectric depositions. The system comes with a full color, touch-screen interface with integrated process recipe driven control, and data logging functions. The system is highly flexible and can be customized with a range of vacuum pumping options, chamber height options and modular process accessories to suit the specific end-user's applications.

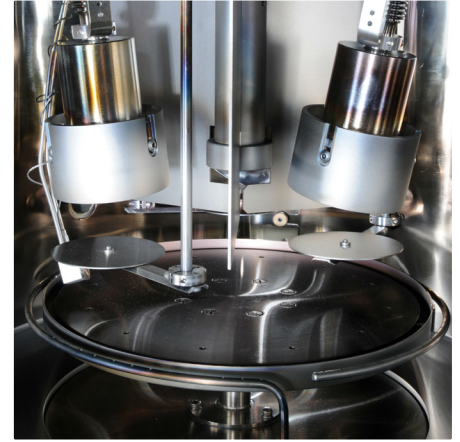
# CHAMBER CONFIGURATIONS



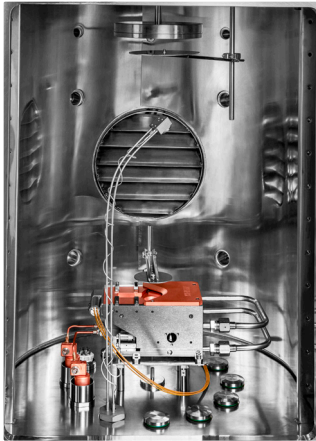
Thermal Evaporation



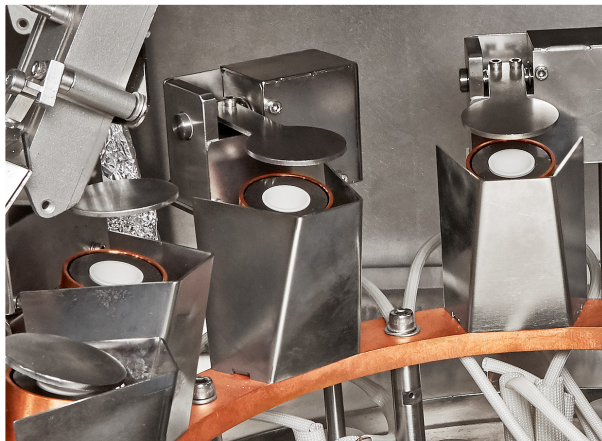
Upward Sputtering



Downward Sputtering



Electron Beam Evaporation



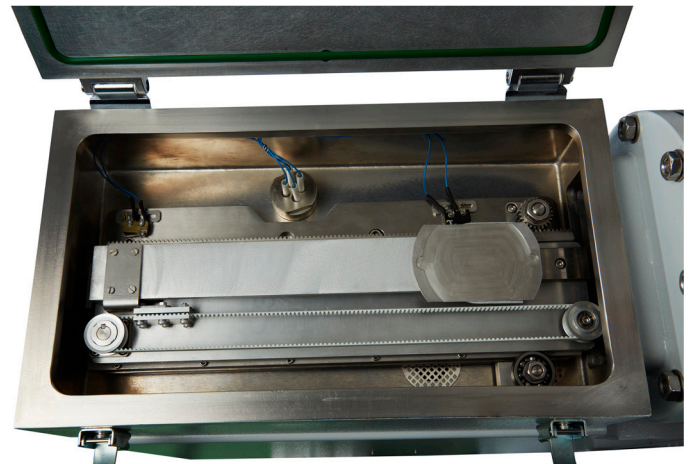
Controlled Evaporation



Hybrid Configuration



Sample Holder

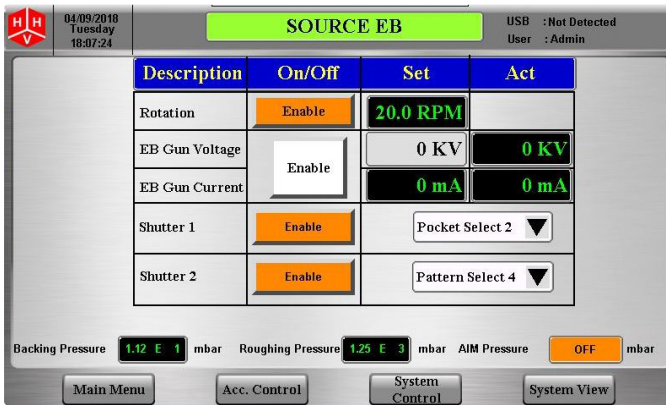


Load Lock

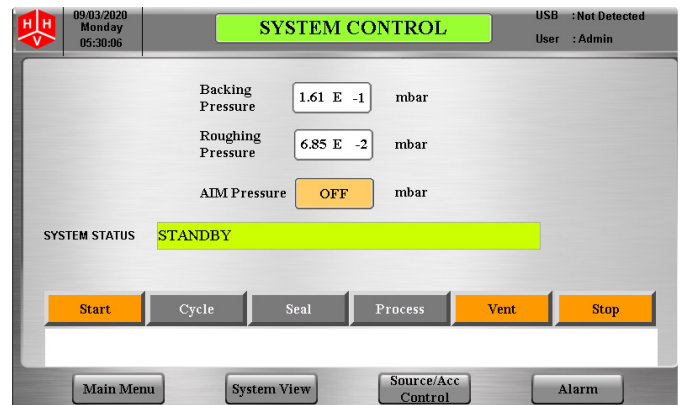
# SPECIFICATIONS

CHAMBER SIZE	500 mm x 500 mm (d x h), custom chamber height for lift off
HV PUMPING OPTIONS	400 l/s to 1000 l/s Turbo, 1500 l/s Cryo Pump
PRIMARY PUMPING OPTIONS	Rotary/Dry
BASE PRESSURE	$10^{-7}$ mbar, ATM to $1 \times 10^{-6} < 40$ min
SUBSTRATE SIZE	Up to 200 mm diameter
SUBSTRATE HOLDER OPTIONS	Rotary, Watercooled, Heated, Bias and Z shift

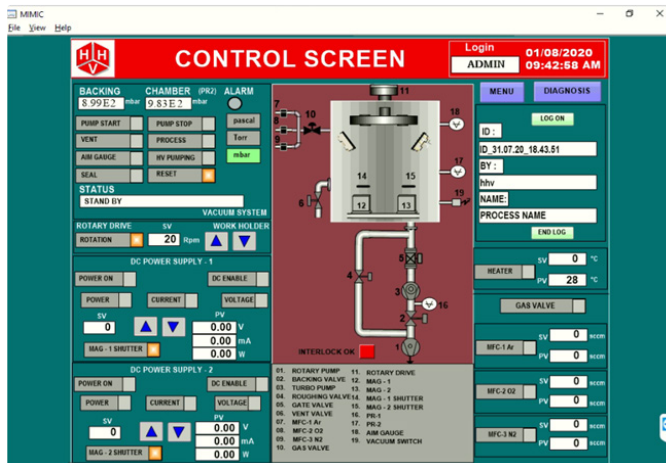
# CONTROL OPTIONS



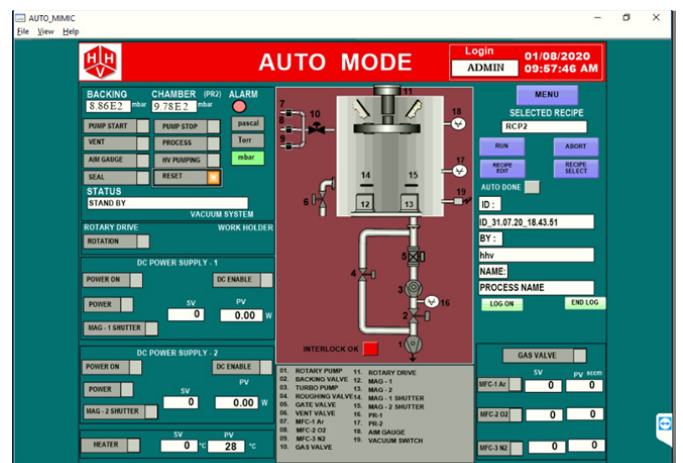
Touch Screen HMI Operation



Touch Screen HMI Operation



Recipe Builder



Data Logging

# RESULTS

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

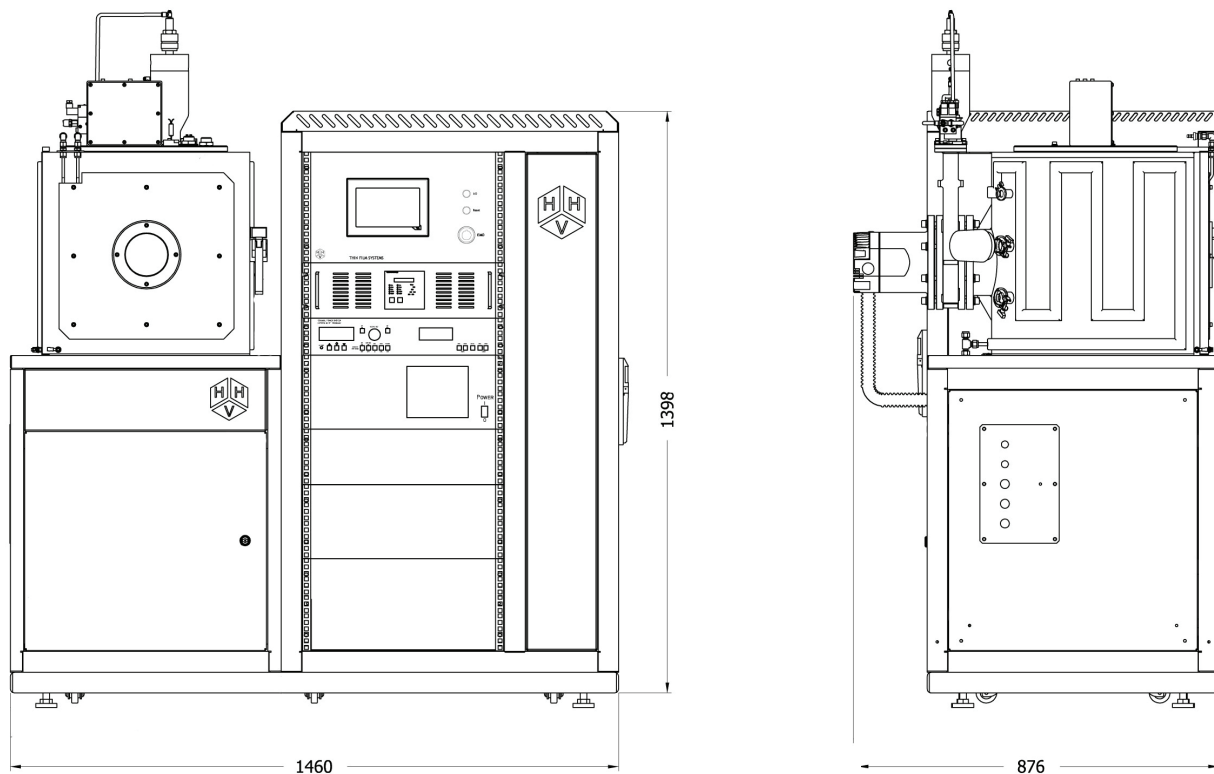
## FEATURES

- Wide range of processes in a single system
- Ion beam process for optical coatings
- Customizable chamber height
- Accommodates range of work holders
- Fully interlocked for operator safety
- Compact unit minimizing footprint

## APPLICATIONS

- Semiconductors
- Optical coatings
- Metal coatings
- Organic electronics
- Hard coatings
- Lift-off coatings

## LAYOUT



All dimensions in mm



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