HIGH VELOCITY EVAPORATORS
Thin Film Distillation System
Starting at $85,000
Lab Society has partnered with HVE to bring a revolutionary redesign of the hybridized wiped/thin film evaporator capable of fast and precise distillation, translating to savings in time and resources. This elegant and modular system was engineered with flexibility and ease of use in mind. The HiVE30™ is here to claim its place as the most powerful of any TFD/WFE in its class.

**SYSTEM HIGHLIGHTS**

- 0.30 m² surface area
- 2-6 LPH final distillation feed rate; 2-10+ LPH volatile stripping feed rate
- 230V single phase 6400 watt heat bands, extreme thermal flux density
- 304L stainless steel evaporator body designed for maximum thermal transfer
- High surface area stainless steel, dewar-style cold trap
- Quick swap internal condenser and stripping cone with condenser stand
- Small footprint (36” x 24”) customizable modular frame with adjustable shelves for existing auxiliary peripherals
- Teflon-bladed wiper design with six (6) vectored blades allows precise material flow and residence time
- Universal quick disconnect fittings allows for quick setup and break down
- Wiper basket is 6” wide by 21” long; longest 6” TFD/WFE on the market

**UTILITY REQUIREMENTS**

**Electrical**
- 6400 Watts @ 240V (30 amps max) – Evaporator Heater
- 600 Watts @ 120V (5 amps max) – Feed Tank Heater
- 180 Watts @ 120V (1.5 amps max) – Main Motor

**Vacuum Pump**
- Minimum 20 CFM flow rate with at least 30 mTorr ultimate vacuum rating (LS-RV-36, CRVpro30)

**Heating & Cooling**
- Recirculating Chiller/Heater:
  - Minimum 0°C – 75°C range for standard operation
  - Higher Max. Temp, between 100°C to 200°C can be used
  - Minimum 500 Watts Cooling at 20°C
  - 1000 watts @ 20°C for Improved Performance
- Cold Trap
  - Manual Chilling: Dry Ice + Isopropanol/acetone, or LN2 for Chilling
  - Immersion Mechanical Chilling: Polyscience IP-80 with 1.75” Rigid Coil
**Choose between** volatile stripping at higher rates vs. cutting/polishing with higher quality fractions. Proprietary quick release fittings allow the internal condenser or stripping cone to be swapped within minutes.

**Short Path Thin Film Operation**  
*(Internal Condenser Installed)*

- Best for medium to heavy compound stripping and polishing
- Minimizes vapor path to maximize condensation efficiency

**External Condenser Thin Film Operation**  
*(Stripping Cone Installed)*

- Best used for volatile stripping, higher vapor pressure compounds
- Allows lighter compounds to exit evaporator as vapor path is extended

**Upgrades**

**Continuous Upgrades:**
- Discharge Pump Kit (DPK)- adds two (2) discharge pumps to the system; coupled with the FPK makes unit continuous
- Feed Pump Kit (FPK)- adds a feed pump to the system; coupled with the DPK makes unit continuous

**Pressure & Speed Control:**
- Booster Pump Kit (BPK)- increased vacuum flow rates during stripping or high-vacuum distillation operations
- Dual Cold Trap- improved vacuum pump protection and/or stripping options
- Dual Pump Manifold Kit (DPMK)- adds a pump cart and manifold to quickly switch between vacuum pumps
- Pressure Control Kit (PCK)- adds a precision pressure controller to accurately control high vacuum to atmospheric pressures
Customizable Processing Paths via Unique Configuration Options
The dual-port design allows for co-current and concurrent vapor path configurations, and a reversible wiper motor with vectored blades allows for tailored material residence times.

Fast & Easy Assembly and Cleaning
One tool, one person, 10 minute assembly or breakdown reduces cleaning and system downtimes, increasing your bottom line. Clean with your desired solution, while at high temps, without damage to the evaporator body and/or components.

Faster Cycle Times via High-Quality Materials
Stainless steel construction allows for quick heating and cooling, allowing for accelerated system startup and cooldown cycles. Proprietary Aerogel insulated thermal wrap ensures consistent temperatures while also increasing heat retention resulting in reduced power costs and increased performance.

High Expandability & Portability
Modular 80/20 frame allows for aftermarket upgrade options and mounting auxiliary gear. Locking castor wheels allow for quick relocation with secure placement.