

## **HIGH VELOCITY EVAPORATORS**

Thin Film Distillation System Starting at \$65,000







**Lab Society has partnered with HVE** to bring a new revolutionary redesign of the hybridized wiped/ thin film evaporator in a smaller footprint yet still 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 HiVE15™ is here to claim its place as the most powerful benchtop TFD/WFE in it's class.

# SYSTEM HIGHLIGHTS

- ✓ 0.15 m² surface area
- 1-2 LPH final distillation feed rate:2-4+ LPH volatile stripping feed rate
- 240V single phase 4800 watt heat bands, extreme thermal flux density
- ☐ High surface area stainless steel, dewar-style cold trap
- Quick swap internal condenser and stripping cone with
- Small footprint (20" x 24") customizable modular tabletop
  frame
- ☐ 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 3.75" wide by 21" long; longest 6" TFD/WFE on the market

## **UTILITY REQUIREMENTS**

#### **Electrical**

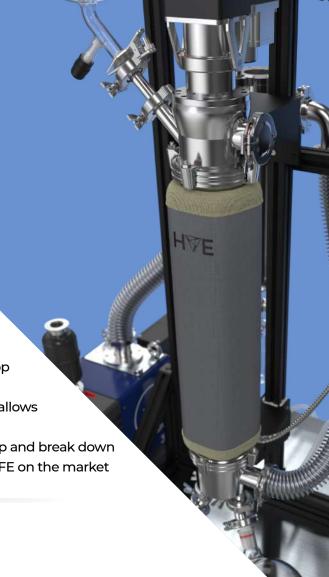
- 4800 Watts @ 240V (20 amps max) Evaporator Heater
- 200 Watts @ 120V (5 amps max) Feed Tank Heater
- 120 Watts @ 120V (1 amps max) Main Motor

#### Vacuum Pump

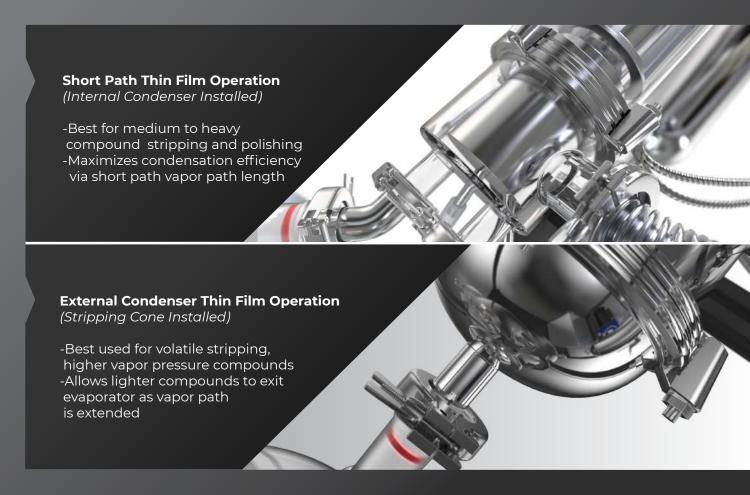
Minimum 10 CFM flow rate with at least 30 mTorr ultimate vacuum rating (LS-RV-18, CRVpro30)

#### **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 1800 Watts Heating
  - -Minimum 300 Watts Cooling at 20°C
  - -500 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. Quick release fittings allow the internal condenser or stripping cone to be swapped within minutes.



## **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 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



#### **COMPETITIVE ADVANTAGE**

#### **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**

Adhering to the "one tool, one person, 10 minutes [assembly]" motto, the HiVE15 delivers easier cleaning and assembly via the swing out frame and hinged pin releases for the main still body. Another first in its class.

#### **Faster Cycle Times via High-Quality Materials**

Stainless steel construction with the new HDT (heat dispersion technology) and powerful electric heater bands allows for quicker 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. Smaller footprint and height allows for benchtop placement.



