

LCI Labvap™ Evaporator

Most Robust Lab Evaporator

Perfect for Lab and R&D!

LCI Corporation's Labvap™ is a small thin-film evaporator for R&D facilities developing products and processes involving the thermal separation of process streams using evaporation.

This versatile tool provides a means for evaluating thin-film processing of your products in the early stages of product development within your own laboratories. Only small quantities of material are needed.

Maximum Versatility!

The LabVap™ can be used to evaluate a broad variety of applications. It can provide qualitative results that will help determine if thin-film evaporation technology is suitable for your needs.

Lease or purchase today!

LCI's Labvap™ system provides an inexpensive means to evaluate thin film evaporation on lab-scale quantities of material for your development or existing products within your own facility.

Customize Your Solution!

In addition to the thin-film evaporator, an LCI Labvap™ System can include any of these additional component options:

- Feed tank
- Feed metering pump
- Vapor condenser
- Vacuum system
- Wheeled cart
- Piping, valves, etc.

Call or email LCI to discuss your application and the benefits of the Labvap™ today!



**LabVap™
System on
wheeled cart**



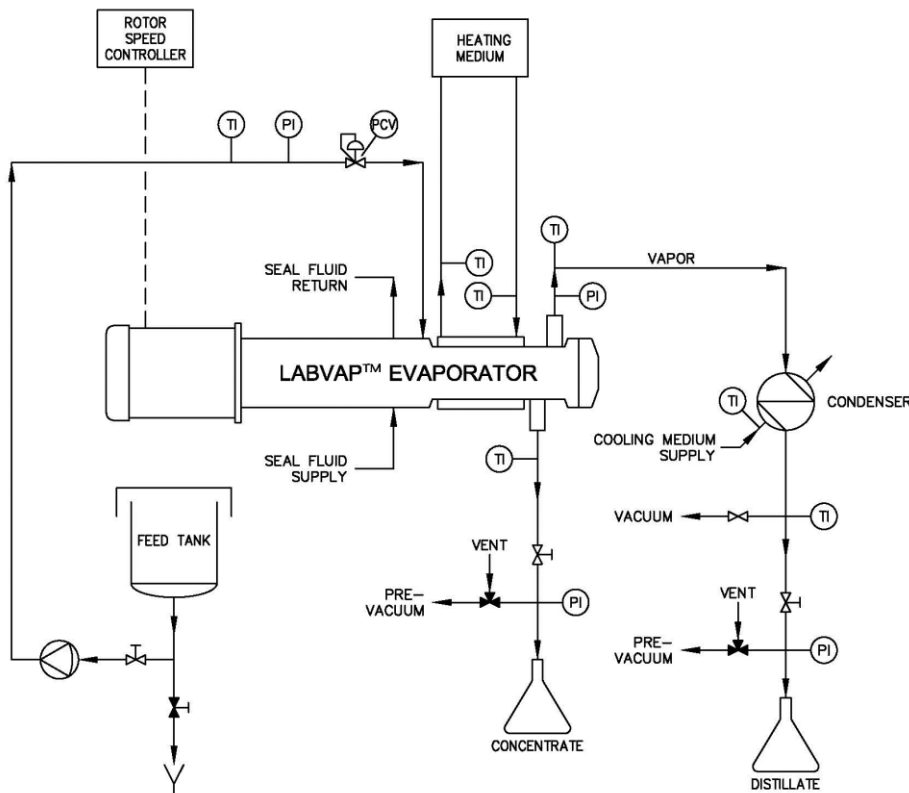
LabVap™ Evaporator with ancillary components



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LabVap™ Thin-film Evaporator



Typical LabVap™ Evaporator Flow Sheet

How it Works...

Feed material is metered into the thin-film evaporator at a steadily controlled rate by a feed system suitable for the particular feed material.

Steam or hot oil is fed into the jacket for indirect, conductive heat transfer through the thermal wall.

Upon entering the evaporator, the feed is immediately distributed onto the thermal wall by the rotor as a thin liquid film. The product is maintained in a turbulent, thin liquid film by the rotor as it travels down the barrel of the evaporator.

Under these very favorable heat and mass transfer conditions, rapid evaporation occurs, and the vapor exits through the top vapor outlet for condensation in a surface condenser. Vacuum is commonly used to reduce the evaporation temperature for temperature sensitive or high-boiling applications.

The concentrate (bottoms) flows by gravity out of the evaporator bottom outlet into a discharge system.

Capacity can be varied by adjusting feed rate, heating temperature, rotor speed, and/or vacuum to achieve the desired product concentration result.

What can you use this for?

- Food processing
- Pharmaceutical (API) concentration
- Botanical extracts
- Stripping solvents from monomers and polymers
- Separating solvents from coal tar
- Silicones
- Stripping residual solvents from epoxy resins
- Polysorbate concentration
- Lecithin Drying

FAST FACTS

Heated Surface Area	0.25 ft ² and 0.5 ft ² options
Material of Construction	316 SS process wetted parts
Process Area P/T Rating	FV to ATM @ 650°F
Jacket P/T Rating	150 psig @ 365°F (steam) 100 psig @ 650°F (liquid)
Feed Rate	2-20 lb/hr (typical)
Viscosity	4,000 cP max (typical)



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