

## Reconfigurable Hybrid Wiped-Film & Fractionation Systems

Combines short duration, high vacuum wiped-film evoration with efficient column fractionation.

Extremely heat-sensitive fine chemicals and other substances are safely and efficiently separated with Pope Scientific's Hybrid Still Technology. These systems combine the gentle evaporating principle of high vacuum, dynamically mixed and transported wiped thin films with the highly efficient separation capability of fractional packed columns. Typical examples include purification of edible and essential oils, pharmaceuticals, foods, flavors, polymers, extracts, vitamins, waxes, silicones, specialty fine chemicals, and many others. Versatile design allows on-site reconfiguration for high-vacuum Molecular (short-path) Distillation, Evaporation, or Fractionation. Many heat sensitive compounds can be safely and gently separated with molecular distillation or evaporation alone, however, with their single theoretical plate, levels of desired high purity are not always achieved. Pope Scientific has developed the designs and technology to combine short residence time, high vacuum still bodies with fractional columns to obtain previously unavailable high purity and yield levels for heat sensitive compounds. Comparative results are dramatic in improvement, and already proven in many applications for clients worldwide. No other thermal separation techniques have been shown to provide such results, making the Hybrid Still unique in the processing industries. Available from 1 kg/hr lab bench-top units, to pilot and processing plants with feed rates to 1000 kg/hr, an important feature of this technology is the ability to scale up or scale down a process. Complete multistage turnkey skid mounted systems are a specialty, partial systems and components also available. Short residence time and high vacuum operation provides highest quality, lowest degradation, plus process scale-up not possible with other equipment.



Choice of glass, 316L SS, Hastelloy, other materials. Applications assistance, feasibility testing and custom toll processing support is available. Contact Pope Scientific, Inc. info@popeinc.com www.popeinc.com ph. +1-262-268-9300

Photo shows single-stage wiped-film hybrid still system for pharmaceutical intermediate production. It includes an evaporator, a molecular still, and hybrid fractional column still. The hybrid stages enable the required high purity and yield that could not otherwise be obtained with this heat-sensitive material. Multiple stage units for complex processes also available.



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For 60 years, Pope Scientific Inc. has been at the forefront of manufacturing chemical processing equipment, engineered systems and laboratory apparatus for science and industry. Internationally known, Pope provides specialized technical expertise in the design and manufacturing of chemical processing equipment.

## SOLUTIONS FOR CHEMICAL PROCESSING EXCELLENCE

Lab, Pilot & Large Scale Production Capabilities

- Wiped-Film Molecular (Short Path) Stills and Evaporators
- Batch and Continuous Fractional Distillation Systems
- Hybrid Wiped-Film / Fractional Distillation Systems
- Pressure Vessels, Reactors, and Process Vessel Systems
- Nutsche Filter Dryers
- Sanitary / Pressurizable Mixers
- Cannabis Specialties
- Toll (Contract) Distillation, Process Development and Testing Services

## **POPE - WHEN PROCESS EXPERTISE AND SUPPORT MATTER.**

