

THE ARTISAN PILOT PLANT

Test Drive our Process Separations Technologies

Artisan offers one of the most comprehensive pilot facilities in the industry for solving complex separation problems. Whether you need to develop a new process or optimize an existing one, we will work closely with you every step of the way – from earliest feasibility testing through full-scale pilot testing and scale up. By offering unparalleled technology in each of the following areas, Artisan is uniquely equipped to meet your multi-step processing challenges:

- **Thin Film Stripping**
- **Devolatilization**
- **Thin Film Evaporation**
- **Polymerization**
- **Liquid-Liquid Extraction**
- **Pervaporation**
- **Continuous Chemical Reaction**
- **Distillation**



Testing includes:

- Customized system, fully assembled for your application
- Engineers and operators with expertise and experience working to optimize
- Demonstration of capabilities to scale-up the process with confidence
- Collect samples at optimum conditions for testing and verification



Pilot Plant Technologies

- ★ ROTOTHERM® with 1/4 sq.ft. to 2 sq.ft. heat transfer area
- ★ 2" diameter Evaporator/Stripper™
- ★ 4" diameter Dualflo® distillation column
- ★ ROTOTHERM® MINI
- ★ 10 stage Controlled Cycle Liquid-Liquid Extractor
- ★ Pervaporation system with 0.05 sq.ft. membrane area
- ★ 1" dia. - 6" dia. packed distillation columns
- ★ Falling film evaporators
- ★ Rising film evaporators
- ★ Reactors, batch and continuous

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Pilot Plant Capabilities

- Continuous Process throughputs from 10 to 500 lb/hr
- Heat transfer medium: Hot water, steam and hot oil available, up to 650 °F
- Chilling down to 30 °F
- Vacuum to 0.1 mm Hg absolute
- VFD's for precise motor control of pumps and other process equipment
- 60 gallon agitated feed tanks/reactors
- Various pumps including progressive cavity, gear, diaphragm, centrifugal and peristaltic for handling a wide range of fluid types
- Opto 22 control system with direct and cascade controlling capabilities, Real-time Data acquisition and logging of over 50 process variables in a single setup.
- Analytical Lab: Karl Fisher Titrator, moisture analyzer, precision balances, fume hood and common laboratory glassware onsite for use during pilot trials, Laboratory space available for onsite analytical testing, including gases and connections for GC and HPLC instruments.

