Thermal Separation with Thin Film and Short Path Distillation

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AGITATED THIN FILM

- Turbulent film
- Wiper element
- Bow wave
- Heating media
- Product film
Wiped film evaporator

Increase of turbulence

- increased heat transfer by turbulent film
- short residence time
- wiping of viscous and solidified films possible
- achievable pressure 1 mbar
Short Path Evaporator

- short residence time due to turbulent film
- very small pressure drop for vapors
- achievable pressure $10^{-3}$ mbar

but:

- limited viscosities, no solidifying products distillable
ROTOR DESIGNS

SKR BLOCK ROTOR DESIGN

ROLLER WIPER SYSTEM
PENDULUM DRYING ROTOR

RIGID THIN FILM ROTOR
InChem is a specialty chemical supplier with a contract manufacturing business as well as our own proprietary products.

VTA is a supplier of Wiped Film and Short Path (Molecular Distillation) Equipment and Systems with tolling facilities in Germany.
InChem and VTA operate wiped film and short path distillation plants for contract manufacturing.

Lab and pilot scale testing (liters to drums).

Comprehensive range of analytical services for evaluating distillation efficiency and product purity.

Access to outside testing services for specialized testing.

Distributed control systems with data logging on the pilot and commercial scales.

Preapproved cleaning, setup and operating protocols.
• Glass Plant for testing separation feasibility or small specialized campaign runs.
• Pilot Plant for intermediate production needs and developing overall product throughput.
• Commercial Plant for tank truck quantities.
• Wide operating temperature and vacuum ranges 50 °C to 350 °C, 100mmHg to 0.1 mmHg
• Condenser temperature ranges from -10 °C to 150 °C.
• Jacketed transfer and feed systems if required.
• Campaign sizes from 20 kg to 2,000 Tonnes.
TYPICAL APPLICATIONS

Fats and Oils

Separation of FFA from Vegetable Oil
Glycerin Recovery
Isolation of Fatty Acid Monoglycerides
Purification and Deodorization of Fish Oil
Post Distillation of Biodiesel
TYPICAL APPLICATIONS

Chemical/Petrochemical

Purification of Waxes
Solvent Separation from Silicone Oils
Concentration of Pesticides
Purification/Concentration of Monomers
Purification of Spent Lubricants
TYPICAL APPLICATIONS

Food / Flavor / Fragrances

Essential Oils

Separation and Removal of Solvents

Concentration of Tocopherols

Deodorization / Pesticide Removal
QUALITY/SAFETY

Fully Permitted for Industrial Operations
ISO 9000.2008 - Certification Jan 2011
OSHA Compliant Health & Safety Program
Chemtrec Member
DOT Registration for Hazardous Materials
Tax Stamp for Denatured Alcohols
FIFRA Registered
RMP Level 3
SOCMA Member
CONTACT INFORMATION

COME VISIT

InChem & VTA

BOOTH NUMBER 1929