

CASE STUDY - ESSENTIAL OIL PURIFICATION

Need:

Customer needed to isolate high value compounds (essential oils) out of resins from natural products.

Process:

TMC uses a combination of centrifugal molecular distillation (CMS) followed by fractionation in a glass column still.

Centrifugal Molecular Distillation

Rate: 20 lbs. / hr. (pilot stills) to 200 lbs. / hr. (production stills)

Temp: Processed under vacuum between 100° - 250° C

Duration: 1-2 seconds

Fractional Distillation

Rate: up to 30 lbs. / hr.

Temp: 25° - 300° C

Theoretical Plates: 20 - 50

Benefits:

- Isolation of high valued compounds
- Purity levels > 90%
- No capital outlay
- Rapid turnaround
- Improved aroma
- Removed color
- Better clarity



Our Centrifugal Molecular Distillation selectively concentrates the desired compounds while removing the unwanted impurities. Through our process, we gently accomplish decolorization, purification and/or concentration of your products without danger of oxidation, decomposition or thermal degradation.

For more information on how TMC Industries Inc. can benefit your company as a tolling partner, please contact: