

N-Methyl-2-pyrrolidone Recovery Solutions



Class I Div I Certified



Sizing for All
Applications



Recover NMP solvent
& vapor up to 99.9%



Full Automated
Remote Control



Seamless
Integration

NMP Recovery Solutions - Liquid Recovery

High Purity
NMP
Recovery

Fractional
Separation
of NMP
and Water

Solutions
Available
for Any
Solvent

Reduce Solvent
Purchasing
and
Disposal Costs

Key Equipment Features

- Sizing for all applications
- Greater than **99% purity** available - solvent dependent
- Purify and reuse NMP, alcohols, acetone, and all other solvents via direct condensation
- Single, multistage, and fractional distillation equipment available
- Modern digital control systems supporting Allen-Bradley, Siemens, and others
- 304 and 316 stainless steel (other alloys available)
- Remote access & support, data logging, and fully automatic unattended operation
- Class I Div I explosion proof certification

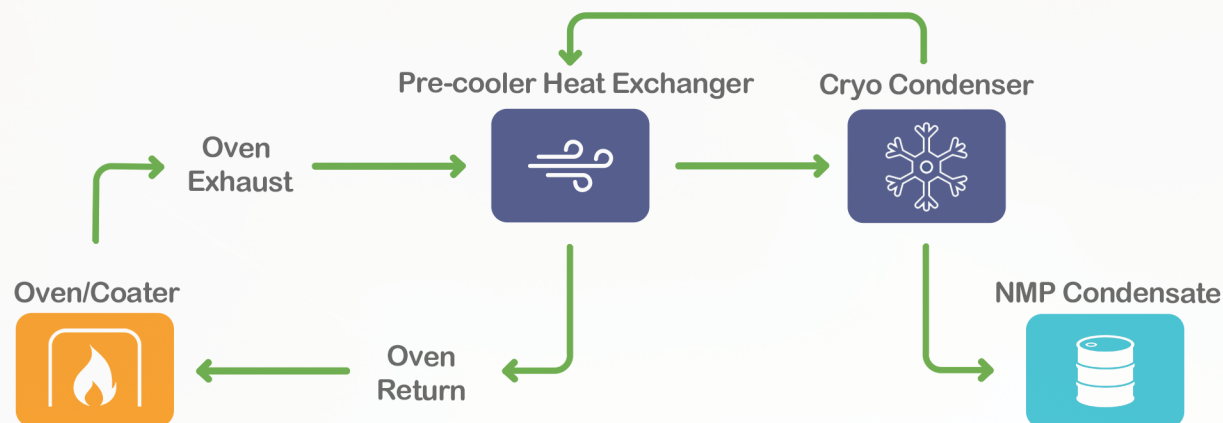


Cost Effective Separation of NMP from Water and Other Solvents

When your NMP is mixed with water or other solvents it can be difficult to reuse or recover. With Maratek's 50+ years of experience and a wide variety of recovery solutions available, we are confident we can provide you with a safe, **cost effective**, and environmentally friendly recycling solution.

*Non-disclosure agreements are required before technical discussions

NMP Recovery Solutions - Vapor Recapture



Key Equipment Features

- Recovered condensate is **100% pure** without using scrubbers, molecular sieves, or carbon filters
- Closed loop direct insertion to ovens
- Greater than 99% volatile organic compound reduction and recovery achievable
- Capture NMP, alcohols, acetone, and all other solvents
- Refrigerated and cryogenic condensation options
- Modern digital control systems supporting Allen-Bradley, Siemens, and others
- 304 and 316 stainless steel construction (other alloys available)
- Remote access & support, data logging, and fully automatic unattended operation
- Class I Div I explosion proof certification

Ground Breaking NMP Vapor Recapture

NMP vapors are produced as a byproduct during lithium battery cathode production. Maratek's equipment recaptures and condenses NMP vapor **without thermal oxidizers and scrubbers**. This helps to reduce VOCs aiding in regulatory compliance and lowering solvent costs through recovering high purity NMP solvent for reuse in your operation.

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Maratek Engineering Solutions

Maratek is not simply an equipment provider, we are a **solutions provider**. After reviewing your application, we will use our years of engineering experience, modern computer modeling & simulation technology, and world-class control systems to provide you with a state-of-the-art automated solution with consistent results. Our manufacturing facility and team of in-house engineers places us at the forefront of design, implementation, integration, and service.

Founded in 1967, our history as a company comes from the solvent processing and recycling industries. We have worked with automotive, pharmaceutical, food, aerospace, paint, printing, cabinetry applications and more. In these 50+ years, we have handled many different applications and developed unique solutions as a result.

- Our products are designed to help automate and optimize your production process
- Closed loop systems and solvent recovery save on production and input costs
- Our experienced engineers build systems designed specifically for your operation
- End-to-end project management support allows for tailored customization
- Maratek's diverse range of experience enables the development of software designed to address unique challenges



Initial
Project



Renders and
Sketches



Cost
Reduction



Integration
with Site



Operational
Facility

Plant Engineering Consulting and Services

- Plant engineering, layouts & design services
- Project management
- Safety consulting
- Building and room design
- Production optimization
- Explosion proof safety
- Compliance verification
- Equipment training & education
- Utility optimization & energy reduction
- Custom equipment engineering
- Automated sample collection
- Research & development agreements and engineering contracts
- Intellectual property agreements & sharing
- Engineered compliance certification
- Data logging and tracking

References available upon request with installation in facilities across the US, Canada, and globally.

Contact us to discuss your application.

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maratek
Automate | Optimize | Scale