Solvent Recovery - Solvent Recycling - Solvent Distillation

SRS Engineering offers a wide range of solvent recovery, solvent recycling and solvent distillation systems for industrial applications with optimal efficiency, safety and consistent quality.

SRS’ complete line of automatic solvent distillation systems feature precision PLC temperature control in the sludge area, vapor space and thermal oil for optimal efficiency, safety and consistent product quality, making these systems ideal in the most demanding applications in the industry including those involving nitrocellulose.

Standard Features and Options:

- Controlled by a PLC Microprocessor
- Distillation rates to 500 GPH
- 304 stainless steel construction on all wetted surfaces
- Precision PLC controls
- Color Touch screen operator interface displays
- Interlocking safety devices
- RTD in vapor space, sludge and thermal oil
- 316 stainless steel condensers
- Automatic or Manual 6” sludge discharge valve
- Stainless steel elevated base with vent port
- Stainless steel Inspection platform
- Ready for single point connections

Available Options

- Explosion rated for Class 1, Division 1 hazardous environments
- Vacuum systems
- Auto fill
- Auto cool
- Self adjusting scrapers
- Single and dual solvent tanks and transfer tanks to remote locations
- Automated transfer pumps systems
- Nitrocellulose Package

SRS Engineering Corporation’s Solvent Distillation Systems distill and condense solvents, thinners and cleaners. This unique, affordable system will recover approximately 90% – 95% + of the original batch volume for reuse, significantly reducing new solvent purchases as well as the volume of dirty solvents and/or solids to be disposed of.
Some Commonly Recycled Solvents:

- Acetone
- Alcohol
- Amyl Acetate
- Butyl Acetate
- Ethyl Acetate
- Ethylene Glycol Ether
- Isobutyl Acetate
- Isopropyl Alcohol
- Lacquer Diluents
- Methyl Alcohol (Methanol)
- Methyl Ethyl Ketone (MEK)
- Methyl Isobutyl Ketone (MIBK)
- Methylene Chloride
- Mineral Spirits
- N-Methylpyrrolidone
- Toluene (1-2-3)
- Toluol (Aromatic Hydrocarbon)
- Turpentine Gum
- Xylene (1-2-3)
- And many more
- Ethanol
- N-Butyl Alcohol
- Stoddard Solvent
- Ink Solvent
- Glycol
- N Methyl Pyrrolidone

Solvent Distillation is used in the following industries:

- Aircraft Industries
- Auto-Body Shop
- Boat Building
- Car Manufacturers
- Fiberglass Industries
- Furniture Industries
- Hospitals
- Laboratories
- Metal Transformation
- Military Bases
- Paint Companies
- Plastic Industries
- Printing
- Repair Shops
- Schools
- Shipbuilders
- Sign Manufacturers
- Trailer Manufacturers
- Transportation Industry
- Truck Manufacturers
- Wood Industries
- And many more

In the Pollution Prevention Act of 1990, the preferred waste minimization options, as defined by Section 6602(b) of the Act, are prevention and environmentally sound recycling followed by treatment and disposal.

A 1994 guideline document (EPA/625/R-93/017) states that: "recycling should be used where possible to minimize or avoid the need to treat wastes that remain after viable source reduction options have been evaluated and/or implemented."
All of SRS’s solvent distillation systems can utilize a Closed Loop System configuration

SRS’ Closed Loop System

SRS Engineering’s Closed Loop System provides complete integration of washing, solvent recycling, and solvent distillation. This system was designed to create optimal efficiency while cutting operating costs. The Closed Loop System can integrate any of its washer configurations with a suitably sized solvent distillation system.

The unique dual tank design, allows the system to continuously circulate dirty solvent through the distillation system and return it to the clean rinse tank. This distillation process produces clean solvent at a faster rate than produced by rinsing alone. Excess clean solvent automatically returned to the wash tank, providing cleaner solvent for the wash cycle. The end result is a very high efficiency cleaning system with a minimal waste stream.

Operating Control Systems

SRS’ automatic systems are equipped with a Programmable Logic Controller (PLC). The user interface prompts the operator through comprehensive menus to set up the operating system functions. This enables the PLC to operate the system automatically while providing displayed current status information.

The PLC monitors system and auxiliary equipment sensors, flow rates, temperatures, fault conditions, and contacts to verify proper grounding, before initiating the start function.

Fault conditions are diagnosed and clearly displayed on the HMI, to ensure operator safety and ease of operation. The unit will systematically shut down in a fail safe mode in the event of a fault condition or at the end of the cycle.
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