

THE EXPERTS IN INK TRANSFER TECHNOLOGIES



A CLEANING SOLVENT
REVOLUTION.



Daetwyler

A DAETWYLER/RENZMANN SUCCESS STORY.



THE CLIENT:

The Kneho-Lacke company specializes in the production of materials for finishing wood, plastics, and similar surfaces — primarily for the furniture industry, but also for a few other purposes as well.

THE NEED:

At the decision of the company's leadership, Kneho-Lacke made a change to their corporate policy to minimize the use of solvents and their associated emissions. At the same time, the company was finding that solvent-based cleaning was no longer suitable with modern paint systems. Water-based and low-solvent cleaning methods had to be found that could produce superior results without the risks to personal health and the environment.

THE ANSWER:

Renzmann cabin-type spray washing machine SKM-W

Designed to clean both the inside and outside of barrels, the Renzmann SKM-W uses a specially developed, aqueous solution that chemically destroys varnish polymers and then physically dissolves any remaining residues. The solution itself has an alkaline pH of 14 and breaks down non-water-soluble binding agents into water-soluble fragments at a temperature of 80° C/176° F. Combined with a powerful washing pump and high-powered sprayers, mechanically complex brush technology is completely unnecessary in Kneho-Lacke's cleaning operation.

Renzmann offers:

- Flexible water or solvent-based options
- Spray or brush solutions
- Quick loading and faster cleaning

The self-contained closed unit holds all removed paints, varnishes, and other substances, along with removed residues in a water suspension that flows directly to a waste-water treatment unit, the Split-O-Mat neutralization and flocculation system by EnviroChemie. Emissions and risks to employees are dramatically reduced due to the closed system, and the filtered, treated solids from the wastewater are environmentally safe and can be released into the sewage system.



Resetting the machine for a new cleaning session takes only 7 to 12 minutes depending on the substance being removed. And, since water-based alkaline cleaning systems can absorb more dissolved and undissolved substances than organic solvents, less cleaning solution is needed to achieve the same effect. At Kneho-Lacke, staff can clean 600 to 700 containers with only 1,200 liters of solution, reducing overall costs. Speed of operations has also benefited with up to 30 mixing containers and eight barrels cleaned per shift as a standard benchmark.

BETTER CLEAN. LESS RISK. THE POWER OF LOW-SOLVENT AND WATER-BASED CLEANING SOLUTIONS IN TODAY'S INK AND PAINT INDUSTRIES.



CONCLUSION:

With the change to water-based cleaners, Kneho has taken a big step towards solvent-free production. Whereas before, the company was operating at the limits of legality and stated regulations, it can now easily comply with statutory regulations regarding emissions from solvent use – without the need to install an expensive exhaust air treatment system.

Cleaning costs have increased slightly to approx. 15 euros per washing cycle. But this is offset by better and faster cleaning and the great ecological benefits offered by the new system. This streamlining has delivered better cost efficiencies further down the line, making the Renzmann system a sustainable solution for ongoing operations.





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