THE EXPERTS IN INK TRANSFER TECHNOLOGIES

DEEP CLEANING FOR PACKAGE PRINTING OPERATIONS.

Daetwyler

A DAETWYLER/RENZMANN SUCCESS STORY.

D.W. RENZMANN

THE CLIENT:

Rahning, a German-based print operation specializing in gravure and offset printing for flexible packaging, aluminum sealing lids, thermoformed products, and in-mold labels. The company runs a number of presses as well as finishing equipment in its 8,000-square-meter production area. Rahning's workload requires a total of approximately 150 employees, spread across 3 shifts, working 5 days per week.

- 8-color, 9-color, and 10-color gravure print presses
- UV web offset press
- Wide range of stocks and finishes
- Application of several different varnishes - often in large quantities
- Processing of thick foils up to 1,400 µm

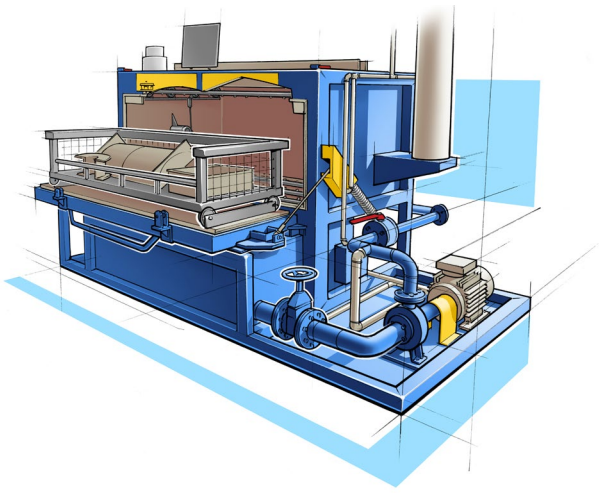
THE NEED:

Every month, Rahning mounts and removes roughly 1,300 gravure cylinders and the associated sets of printing unit parts. About 1,200 of these sets must be cleaned. Cylinders are all cleaned by hand. Other press parts were washed through machines in a two-step process.

1. Pre-wash with high-boiling solvent
2. Secondary wash with ethyl acetate

The process was cumbersome, required significant staffing and personnel, and utilized machines that were installed in separate rooms from both the press floor and each other. Transport of parts during the washing process frequently left oily residues on the floor, increasing the risk associated with slip-and-fall type accidents.

Selected chemicals left a dark gray patina on the parts that would not respond to cleaning. With inks, 2k varnishes, metallic inks with gold and aluminum pigments, and thermoformed products all being developed with even stronger adhesion and barrier-forming properties, something had to be done to improve Rahning's ineffective and inefficient cleaning procedures.



A CLEARLY BETTER APPROACH TO CLEAN PRESS EQUIPMENT.

THE ANSWER:

Renzmann Heat-Insulated Washing Machine 3500W

Using Rahning's own original press parts, the Renzmann 3400W was put to the test. *"We were very surprised by the excellent cleaning results, which far exceeded our expectations,"* says Torsten Wadewitz, one of Rahning's Business Unit Managers. *"Even the stubborn dark gray patina that was so difficult to remove disappeared completely. The parts were spic and span and look as good as new."*

To suit the needs of their operation, Rahning ended up selecting the Renzmann Heat-Insulated Washing Machine 3500. It features:

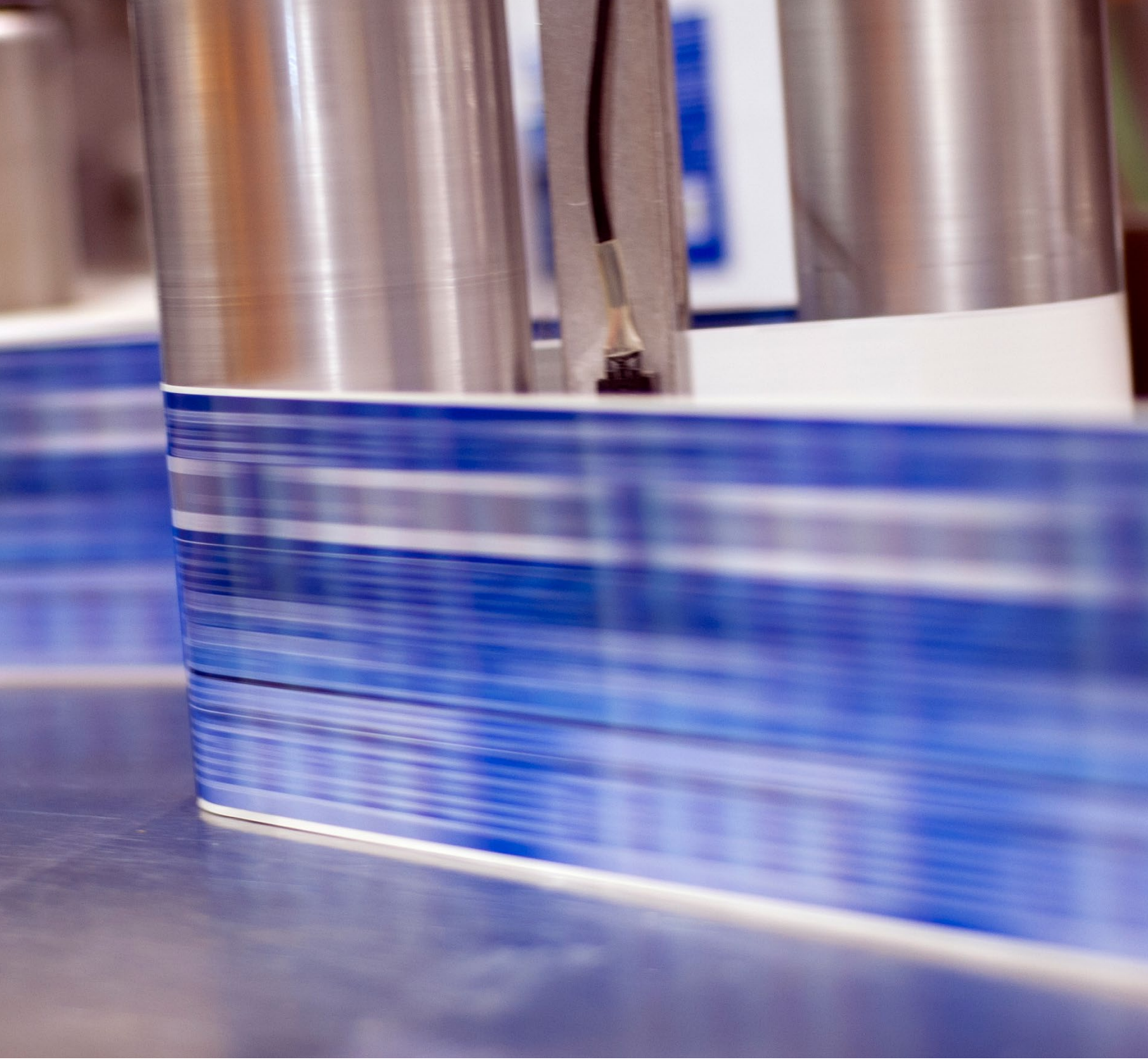
- A washing basket for the dirty parts with adjustable basket support
- Drip pan for collecting excess ink and varnish
- A hose rinsing device
- An internal air extraction system
- Thermal-oil heating of water-based alkaline washing agents
- Convenient inspection and maintenance hatch for easy maintenance
- Choice of one-sided loading or two-sided loading
- Rotating spray pipes revolve around parts to apply alkaline cleaner
- Low exposure to volatile organic compounds (VOCS)

Now, Rahning's cleaning protocols have been automated and simplified. Parts are washed, drained, rinsed, drained again, and then ventilated to dry. The alkaline cleaner, which is heated to 80°C/176°F delivers excellent cleaning results while also being largely free of VOCs. While teams still use gloves, visors, and aprons to ensure their utmost safety, the dangers associated with coming in contact with cleaning solutions have been greatly reduced. Compared to organic solvents, the water-based system also delivers more powerful cleaning and requires less soaking time and less mechanical action to achieve results. The cleaning agent also absorbs higher quantities of dissolved and undissolved substances, which considerably reduces consumption.

CONCLUSION:

Removing all traces of varnishes and printing inks from press parts in everyday printing operations is a considerable challenge that should not be underestimated. Frequently, parts cannot be cleaned completely, leading to negative effects from loose dirt particles in the print run (e.g. damage to doctor blades or gravure cylinders). The optimum cleaning result can only be achieved after several wash cycles, if it can be achieved at all; this makes cleaning a very time-consuming process that involves a lot of personnel.

With the combined action of the D.W. Renzmann washing machine and the alkaline cleaning agent by KS Chemie, Rahning has been able to more than meet the Challenge, with the press parts looking *"as good as new"* after their state-of-the-art *"deep cleaning."*



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