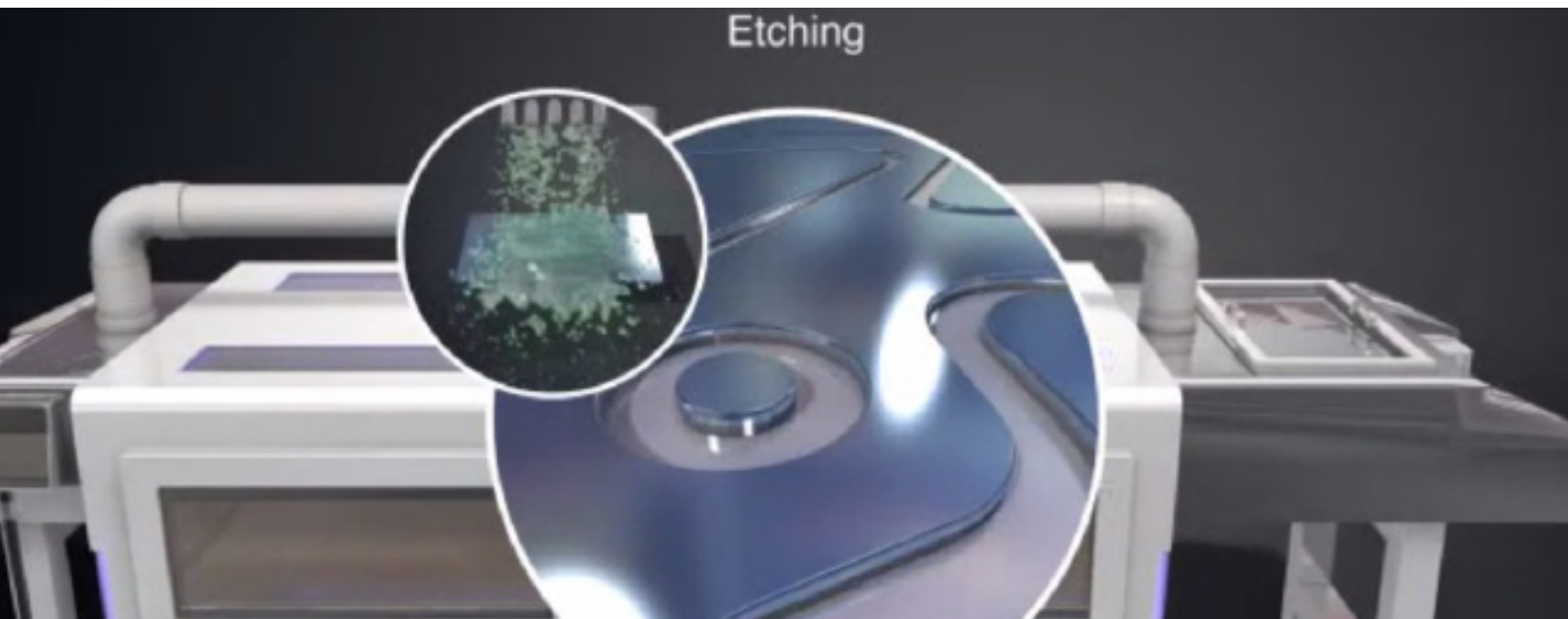


NYSP2I Helps Newcut Investigate Water and Waste Reduction Opportunities



Newcut

Located in Newark, New York, Newcut is one of the leading companies in the photo chemical machining (PCM) industry. The company produces specialty parts from metal foil or sheet metal that are used in a wide range of industries.

Challenge

The PCM process uses cleaners and etching acids, which are treated and disposed of as hazardous waste after use. As a result, Newcut is a large quantity generator, with approximately 50 tons of hazardous waste and 672,000 gallons of wastewater produced in 2018.

The facility currently treats their wastewater on-site with pH adjustments, flocculants, and microfiltration prior to discharge. However, the company must monitor the copper concentration in order to avoid over-limit surcharges. To reduce its environmental impact, Newcut wanted to identify opportunities for reducing its water consumption and waste generation.

Solutions

The New York State Pollution Prevention Institute (NYSP2I) investigated cost-effective approaches for reducing the water usage and waste generation at Newcut's facility. To better understand the operations at Newcut, NYSP2I conducted an on-site assessment and collected water use data. Based on the information gathered, options were then identified that would reduce the water usage and waste generation throughout Newcut's facility. Lastly, an economic analysis was conducted to help determine which solutions are viable for Newcut.

Results

The work performed by NYSP2I led to key findings that can support Newcut's efforts to reduce water consumption and waste generation at its facility:

- The amount of water used for rinsing can be reduced by eliminating certain

Challenge

- Newcut wanted to identify opportunities for reducing its water consumption and waste generation.

Solution

- NYSP2I investigated and identified practical approaches to reduce the water usage and waste generation at Newcut's facility.

Results

- Water consumption in the rinsing operations can be reduced by utilizing low flow spray nozzles, immersion rinse tanks, and timed counterflow rinsing.
- The volume of waste sludge generated can be reduced by 50% with sludge drying.
- Although some of the opportunities require capital investment, the costs can be offset by lower hazardous waste disposal and wastewater treatment costs.

Testimonial

nozzles and/or replacing conventional spray nozzles with low flow spray nozzles.

- Converting the manual spray booths to immersion rinse tanks may reduce the amount of water used for rinsing. Timed counterflow rinsing with the tanks would provide additional savings.
- The weight of the sludge waste generated can be reduced by up to 50% with sludge drying.

Some of the opportunities are low cost while others require capital investment. Equipment costs can be offset by lower hazardous waste disposal and wastewater treatment costs.

"I'm very impressed with the thorough, expert service RIT brought to the table. I highly recommend this program to anyone looking to reduce their hazardous waste or looking for new ways to reduce their carbon footprint."

Virginia Mayville
WWTP/Safety Manager

Newcut

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