

# Midwest Firm Saves Oil, Energy & Money with MicroCare Expertise

## The Situation

This client is a large, high-speed contract anodizing company. Since the mid-1960s, they have been making small, beautifully finished parts for customers in hardware, jewelry and cosmetics. The company has eight anodizing lines and produces more than 17 million parts each month.

The anodizing process requires a series of water-based baths or dip tanks. Stamping and machining oils often cover the parts, so nearly every part requires a preliminary degreasing.

Until recently, this degreasing step was accomplished in any one of three giant aqueous cleaners. However, as the machines were reaching the end of their expected service life, the client began looking to lower their costs and protect the environment. They found their best answers at MicroCare Corp., with a new vapor degreasing system and a non-aqueous solvent.

## Client Objectives

1. The key objective was to replace the aqueous system but sustain the quality and the through-put of the current system. This demand led to an engineering requirement of ten-minute cleaning cycles.
2. The company wanted to reclaim the machining oils. In the previous system, this oil was simply lost. But with the new vapor degreaser and a custom-designed oil separator engineered with MicroCare, the oils could be extracted from the cleaning system and re-used.
3. The client also was concerned about their energy consumption. Their energy costs, due to their water-based cleaning systems, were high and increasing. This is not unusual. Water-based cleaning systems use large quantities of electricity to drive heavy-duty pumps, conveyors, water heaters and parts drying sub-systems. In addition, the water purification systems (on the front end of the process) and the water treatment systems (after cleaning) add to the energy burden.



## Results

The new system became operational in mid-2010 and is working very successfully. *The energy savings was so substantial, the company was able to get a grant from the local power utility to buy the new degreaser.* These savings are possible because vapor degreasers are inherently smaller than aqueous systems, have faster cleaning cycles, do not require waste-water treatment systems, do not require high-pressure pumps, and do not require the drying systems typical of aqueous systems.

The oil system is running well, reclaiming approximately 500+ gallons of oil per month.

The smaller, quieter and uncomplicated degreasers have opened up expensive floor space to other uses.

The product quality has remained unchanged, and the new system is so efficient that one of the two remaining aqueous cleaners has been mothballed.

Operationally, the company reports solvent consumption to be approximately one drum of fluid each month.

## Details

Product:	MicroCare HDS degreasing fluid
Cleaning System:	300 gallon fully automatic vapor degreaser, one immersion sump with rotating drum; distillate spray as the final rinse. Advanced emission control system engineered by MicroCare minimizes solvent losses. Cleaning cycle is about 10 minutes.
Cost/Part Cleaned:	Direct costs average \$0.00035/part
Savings:	Approximately \$1,000/month in stamping oils, "much more" than \$10,000/month in electricity; floor space value not computed
Subject Expert:	Mr. Ed Mark, 800.638.0125 or contact by email: TechSupport@MicroCare.com

## About MicroCare®

MicroCare® is a leader in the high-speed, high-performance world of cleaning, coating and lubricating. With products for industries as diverse as electronics, transportation, photonics, medical devices and aerospace, MicroCare is a catalyst for change, lowering costs and improving quality. MicroCare is ISO 9001:2008 registered.

## MicroCare Corporation

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## Innovation

Since 1983, MicroCare has been helping customers improve their products and processes while reducing their costs. To accomplish this task, MicroCare has developed a world-class portfolio of cleaners, additives, processes and packaging. MicroCare offers ready-to-use formulations, eliminating time-wasting and error-prone mixing steps. Customers obtain the latest technology in the most cost-effective package.

## Breadth of Products

Solvents and chemicals are the tools of the trade at MicroCare, and our understanding of these materials is impressive and unique. MicroCare offers cleaners and lubricants in virtually every class: fluorinated, brominated, hydrocarbons, alcohols and siloxanes to name a few. Because of this expertise, customers are assured the best answer for their needs, not just the answer that's in our warehouse.

## Product Stewardship

Using any industrial chemical carries certain risks. To minimize these risks, MicroCare has a rigorous product stewardship program. For example, MicroCare offers a "first fill" training program for vapor degreasers which includes a comprehensive checklist, procedures training and an annual validation program. MicroCare works hard to keep your people safe and your processes efficient.

## Sterling Service

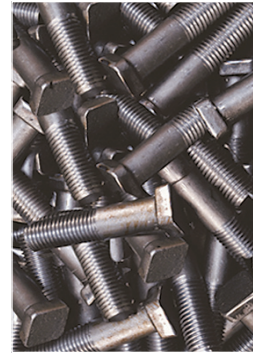
MicroCare customers enjoy extraordinary customer service, and MicroCare works hard to be the most responsive company in the industry. Replies to inquiries usually are handled instantly, and never slower than one business day. Even custom-formulated samples usually are shipped within 48 hours. Generous inventories accommodate unexpected demands. State-of-the-art computers track orders and shipments. And every phone call is answered by a friendly person, not a computerized voice-mail system.

## Environmental Issues

MicroCare has been recognized as a leader in efforts to protect the environment. MicroCare has made extraordinary efforts to minimize the impact of these products on the ozone layer and global warming. For example, most MicroCare cleaners are not listed in SARA Title III Section 313, nor on the NESHAP or RCRA lists.

## Available Globally

All of the MicroCare®, Bromothane™ and Vertrel® cleaning products are made in the United States and are available for immediate delivery from the MicroCare factory in New Britain, CT USA and from selected industrial distributors around the world. Contact MicroCare for pricing and delivery details.



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