

Fluid Maintenance and Recycling Saves Hardware Manufacturer \$ 245,000 Annually

Fluid Service Technologies (FST) conducted a fluids audit at a major hardware manufacturer at the customer's request in order to evaluate the strengths and weaknesses of the existing fluid maintenance program and to identify potential cost savings.

The primary area of concern at the plant was high concentrate usage on one production line, which produces over 100,000 parts per day. The line was using over 3,000 gallons of fluid concentrate per month. Other problem areas which needed to be addressed included sludge collection in the sumps, high levels of bacteria, poor water quality into the plant, excessive water usage, and disposal costs.

After a thorough survey of the plant, FST found that they could easily show cost justification for the purchase of fluid recycling equipment as well as an on-site fluid maintenance program. The customer agreed to a proposal from FST. Fluid recycling equipment was brought in to create a batch system process that removes tramp oils, pasteurizes to kill bacteria, and removes solid particles down to one micron. The result is a clean, recycled fluid ready for reuse.

With the recycling system running, a monthly cost savings of 40% was realized. Concentrate usage went down by over 1,200 gallons per month.

FST technicians continually manage the fluid maintenance program in order to ensure that the equipment is properly utilized and maintained, and that fluid-related costs are kept to a minimum.

FST responsibilities include:

- Monitor and maintain the recycling equipment
- Prepare and mix the fluids according to the manufacturer's specifications
- Monitor and maintain proper fluid concentration
- Monitor fluid for microbial contamination and growth through: water quality, concentration and pH readings, routine maintenance of equipment, addition of biocides, and aeration
- Monitor pH for signs of fluid degradation
- Control tramp oils
- Conduct regular machine cleaning

This fluid maintenance program has resulted in an annual savings of \$ 245,000. The recycling has also greatly reduced environmental liability by bringing waste and disposal down to a minimum.



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