

CURRIES

CASE
SUMMARY

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CURRIES/GRAHAM

Mason City, Iowa
Cerro Gordo County

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The Company

CURRIES Division of AADG, INC., located in Mason City, is a leading manufacturer of stock, standard and custom steel doors and frames. CURRIES' parent company is ASSA ABLOY of Stockholm, Sweden, which also owns GRAHAM Manufacturing in Mason City. CURRIES products are sold and marketed nationally by ESSEX, the Total Openings People, with headquarters in New Haven, Connecticut.

Project Background

CURRIES has demonstrated a commitment to waste reduction through the implementation of programs to reduce waste, eliminate hazardous waste, and recycle a number of materials, including steel scrap, abrasive disc, leather gloves, saw coolant, waste oil, cardboard and computer paper.

Incentive to Change

CURRIES desired to recycle used solvent, lubricant from the roll former, and waste polystyrene. In addition, CURRIES wanted to reuse water at possible locations and reduce power usage by identifying leaks in the air compressors used in all the plants.



Results

1. Solvent distillation unit - \$43,020

One step in the construction of CURRIES steel doors involves grinding and finishing welds. In this process, body filler is used to cover the welds and the seam on the door's edge. The filler contaminates the tools the employees use to place the filler on the door and are cleaned with a blend solvent. Approximately 220 gallons of waste solvent per month were generated, with an



annual disposal cost of approximately \$5,280. The proposal was to replace the blend solvent with MEK solvent and to install a MEK recycling unit. Installing the unit saved the cost of virgin solvent and also saved disposal charges. This distillation unit was installed at two of CURRIES' plants, with total estimated savings of \$43,020 per year.

2. Lubricant filtration - \$7,000

CURRIES uses water-based lubricant in the roll formers at its steel frame manufacturing plant. The lubricant becomes contaminated with oil and grease and is disposed after 90 days. An oil-water separator was installed, allowing the lubricant to be reused in another process. As a bonus, solids/fines are also removed during this process.

3. Frame washer, reroute rinse water - \$5,300

CURRIES is implementing a plumbing scheme that takes water from one rinse stage of the frame washer system and uses it in another rinse stage. Water use will be reduced by 2.88 million gallons per year, creating savings in both sewer and water costs.

4. Recycle waste polystyrene - \$3,000

CURRIES reduces polystyrene waste by compacting. This helps reduce the waste volume tremendously and gives a substantial savings. This summer, one of the projects was to find a way to recycle the compacted polystyrene or to find a recycler for this product. A recycling company based in Columbus, Ohio can accept this material, which will avoid landfill costs and generate revenue.

Project Summary Table

Pollution Prevention/ Waste Reduction Option	Waste Reduced	Raw Materials Saved	Cost Savings	Status
Solvent distillation unit	3,930 gallons solvent	3,600 gallons	\$43,020	Implemented
Lubricant filtration	2,600 gallons lubricant	110 gallons	\$7,000	Implemented
Reroute rinse water	2.88 million gallons water		\$5,300	Implementation in progress
Recycle waste polystyrene	50,000 pounds polystyrene		\$3,000	Recommended
Aerosol can removal	6,000 cans		\$10,000	Infeasible
Compressed air leaks	Reduced energy consumption		\$15,000	Implementation in progress