

Client: Automotive Parts Manufacture

Location: Ohio

Report: CI-214

Problem:

In an effort to control rust and tool life the facility was using a coolant that had to be maintained at a minimum concentration of 10%. Though the price per gallon was very attractive, the high concentration required significant volumes of top up coolant to maintain the system.

Objectives:

- 🔥 Determine the an optimum coolant for the facility that maintains HSE and quality requirements while reducing the overall coolant cost in the facility

Current State:

Product	Landed \$/Gallon	Target Concentration	Initial Charge Volume	Expected Fluid Life	Monthly Consumption	Annual Coolant Cost
Incumbent Coolant :	\$12.50	10%	25 Gallons	1 Year	90 Gallons	\$13,826

*All data from Zimmark's *fluidperformancemanagement.com*

* Data Represents one machine, Unit # 17

Investigation:

Using Zimmark's Independent Fluid Evaluation service (IFE), multiple products were analyzed in Zimmark's lab by stressing them with the facility's fluid contaminants such as oils, lubes, bio & chips, to determine which product show optimum performance in:

- 🔥 Corrosion Resistance
- 🔥 Bio resistance
- 🔥 Oil Rejection Performance
- 🔥 Carry Out Performance
- 🔥 Foaming Resistance

Implemented Changes:

Using Zimmark's IFE recommendations, a higher cost coolant was implemented which demonstrated better operating performance in the evaluation compared to the incumbent product allowing the facility to run at a lower operating target concentration (5.5% at \$15.50/G vs. 10% at \$12.50/G).

Results:

Product	Landed \$/Gallon	Target Concentration	Initial Charge Volume	Expected Fluid Life	Monthly Consumption	Annual Coolant Cost
Incumbent Coolant :	\$12.50	10%	25 Gallons	1 Year	90 Gallons	\$13,826
Recommended Coolant :	\$15.50	5.5%	14 Gallons	1 Year	43 Gallons	\$8,211
% Difference :	-24%	45%	45%	0%	52%	41%

- 🔥 52% Reduction in Monthly Coolant Top Ups

- 🔥 41% Reduction in Annual Coolant Cost

