



Partners in Pollution Prevention Intern: Jonathan Fletcher
Major: Mechanical Engineering
School: University of Nebraska-Lincoln



Company Background: Baldwin Filters started in 1936 when J.A. Baldwin designed a cartridge lube filter and began production in Wisconsin. Today, Baldwin Filters is part of the Parkern Hannifin Corporation Filtration group, and has expanded immensely since its founding. It now operates manufacturing and distribution centers in the United States, Mexico, the United Kingdom, Belgium, China, Morocco, Australia, and South Africa. The goal of Baldwin Filters is to design filters that will meet or exceed OEM specifications. Baldwin Filters produces many different types of filters including, lube, air, fuel, hydraulic, coolant, cabin air, and DAHL filters.

Project Description: During the summer of 2017 Jonathan Fletcher, a P3 intern, worked at Baldwin Filters in Kearney, Nebraska, to assess potential pollution prevention opportunities. Specific areas Fletcher investigated include upgrading lighting to LEDs, forklifts to tuggers conversions, and compressed air system optimization. Baldwin Filters wanted to receive recommendations that would reduce their energy consumption and waste generation, increase their cost savings, and improve overall facility efficiency.

Pollution Prevention Benefits: This report includes recommendations which could result in Baldwin Filters becoming a more environmentally friendly organization by reducing their energy consumption and waste generation, and increasing their cost savings. The recommendations will also result in reduced greenhouse gas (GHG) emissions. Furthermore, the recommendations will create a work environment that is safer and more comfortable for employees which can increase employee morale and improve productivity.

Results: The main pollution prevention benefits and results are summarized in Table 1.

Table 1: Pollution Prevention Results

Description	Annual Cost Savings	Annual Reductions
Switch to electric hand dryers	\$21,000	475 Paper Towel Rolls
Install occupancy sensors	\$710	11.2 MT CO ₂ E
Install LED Lights	\$19,200	302 MT CO ₂ E
Replace forklifts with tuggers	\$32,000	12 MT CO ₂ E
Improve Compressed Air System	\$8,225	129 MT CO ₂ E
Total	\$81,135	