

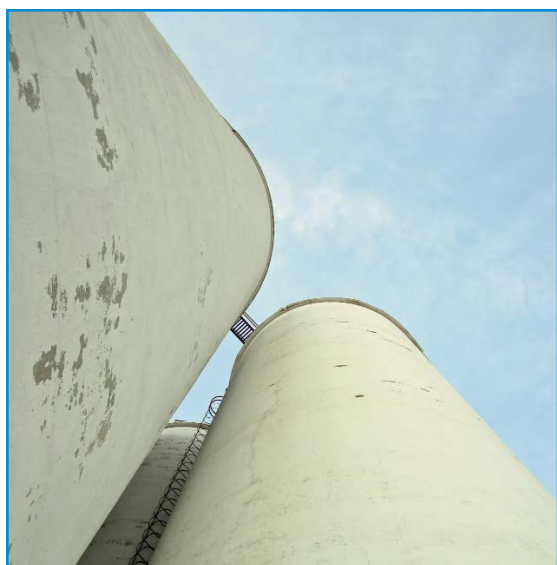


Dura-Life™ Filter Bags Pay Back Thousands in Energy Costs in Only 19 Days!

INDUSTRY: Flour Milling

PROBLEM: This efficiently-run mill needed to cut even more energy usage and operating costs.

SOLUTION: Dura-Life filter bags and a fan controller on the baghouse resulted in dramatic energy use reduction...with ROI payback in only 19 days, and tens of thousands savings every year



By switching to Dura-Life filter bags and reducing the fan speed in the baghouse, one flour mill is saving over \$2300 per year in energy usage on just one baghouse.

Pilot Project Statistics

Filter Bags	Conventional Polyester	Dura-Life
Fan Control	None	Variable Frequency Drive
Baghouse Airflow	5800 cfm	6500 turned down to 5800 cfm
Energy Usage	31 amps	21 amps
Energy Savings	0	\$2,300/yr.

Flour mill managers constantly look for new ways to reduce energy usage. The manager of this Midwestern mill heard that Donaldson® Torit® Dura-Life™ filter bags have greater permeability and improved filtration efficiency. With improved airflow, Dura-Life filter bags can be used in combination with a variable frequency drive on the blower to reduce baghouse energy usage. The manager decided to try the bags.

Dura-Life filter media is made with a unique hydro-entanglement process that uses water jets to blend the fibers. The media is lighter, has greater permeability, and finer pores for effective filtration with greater permeability. The Dura-Life filters start and stay at a lower pressure differential, which means greater airflow and longer filter life.

Donaldson Torit worked with the manager to identify how much of the improved airflow could be captured as energy savings by reducing the amp draw on the baghouse fan with a VFD. Then, the manager installed a variable frequency drive for the existing baghouse fan and benchmarked the airflow at 5800 cfm. When Dura-Life filter bags were installed, the baghouse airflow increased to 6500 cfm. By reducing the fan speed to match the 5800 cfm benchmark, the amp draw was reduced by one third (from 31 amps to 21 amps). This reduction resulted in an energy savings of over \$2,300 per year based on local electricity costs for one baghouse.

The manager was amazed at the return on investment results of this pilot program, as well as potential savings for the future. He stated, “The \$2,300 per year is the savings for only one of our filters, and we have 20 of them at this flour mill. Our ROI on Dura-Life was only 19 days.”

Over the next year, this mill manager converted to Dura-Life bags and variable frequency drives in all of his filters. According to his calculations, the flour mill now saves tens of thousands of dollars in energy costs every year. ○