

PulsePleat* filter upgrade provides \$15,749 in savings while improving overall dust collector performance.

Challenge

The customer operated multiple bin vent dust collectors used to vent silos. The plant needed solutions to address the following issues:

- **Increased Operating Costs**

Due to bottom bag abrasion, the existing filters required replacement every six months, increasing overall operating costs.

- **Overactive Pressure Relief Hatch**

High differential pressure and an undersized bin vent caused the relief hatch to open frequently. The air-to-cloth ratio was higher than ideal for a silo application.

- **Difficult Installation and Removal**

Restrictive access made installation and removal very challenging. Also, filter bags would adhere to the cages and had to be cut for removal, thereby adding to the dust collector downtime.



Solution

To reduce bag bottom abrasion, GE Energy recommended the installation of PulsePleat filter elements. At half the length of the original bags and cages, PulsePleat filters do not extend as far into the inlet area, reducing the potential for abrasion and wear.

With two and a half times the cloth area, pleated filter elements allowed the dust collector to operate as designed. The additional cloth area allowed the silo to accommodate the extra slug of air at the end of a conveying run without affecting the pressure relief hatch.

All this was achieved while reducing the total number of filters in the bin vent from 38 to 20.

Results

- **Increased cost savings** by reducing the number of filters by 52%
- **Eliminated bag bottom abrasion**, allowing the silo to operate at peak performance
- Substantially **reduced compressed air usage**, helping the silo to operate efficiently
- The differential pressure for the silo dropped from 6"+ w.g. to 3-3.5" w.g. **completely eliminating the relief hatch from opening**
- **Reduced labor costs** by extending the time between filter change-outs from every six months to 36 months with PulsePleat filter elements

Cost Savings

The client is now saving \$1,069.88 every six months with **an actual savings of \$15,749.72 in 36 months.**



For more information, contact your GE representative at (800) 821-2222 or visit www.ge-energy.com/pulsepleat.

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