

Question:

You claim that your filter bags and cartridges can save me energy. How?

George S., Maintenance Manager

Answer:

The secret is in our filter media — Donaldson[®] Torit[®] Ultra-Web[®] nanofiber technology for cartridges and Dura-Life[™] media for filter bags.

- Nanofiber technology in our cartridge filters allows for surface retention of collected particulate to reduce depth loading.
- Dura-Life with hydro-entanglement results in uniform pore spacing for good airflow and better surface retentive characteristics than glazed or singed polyester.

As a result, both of these media have a lower stabilized pressure drop when compared to standard polyester bags or cellulose cartridges – meaning that the dust collector fan doesn't need to work as hard to pull the same volume of air through the filters due to less resistance across the system. In addition, at start up, each media provides a higher permeability rate at the same delta P as needle-felted polyester, treated or not treated, and cellulose medias. Dura-Life and Ultra-Web will both provide a lower delta P throughout the entire life of the filter.

To lower energy consumption, a variable frequency drive and an airflow controller can be installed. Or, the fan can be resheaved to slow the

fan down, so it draws the same volume of air through the cartridges or bags as with standard filters at a lower static pressure. This value then results in a lower brake horsepower and less energy usage.

By managing the fan speed, you will reduce energy usage due to the lower stabilized delta P realized with Dura-Life filter bags or Ultra-Web filter cartridges.

Please note that even though it is easier for air to pass through Dura-Life and Ultra-Web media, they also provide a very high level of efficiency: better surface loading of the dust makes it easier for the dust to be pulsed off during cleaning, thus resulting in cleaner filters and lower pressure drop.

Learn more at:

- [Energy Savings calculator for Ultra-Web cartridges](#)
- [Energy Savings calculator for Dura-Life filter bags](#)
- [Tech Article: How to Get Cleaner Air](#)
- [Tech Article: Advanced Baghouse Technology](#)