Donaldson introduced Ultra-Web® Technology to industrial applications more than 28 years ago and to the diesel engine market over 17 years ago. The robust nature of its manufacturing process coupled with its patented chemistry means Ultra-Web Technology provides a durable filtration solution in the high temperature and humid environments experienced by diesel engines.

Ultra-Web Technology offers a higher initial efficiency compared to standard cellulose media, has very high efficiency throughout a filter’s life, provides excellent loading in sub-micron particulate (e.g. exhaust soot), and can even be pulse-cleaned in applications such as military vehicles.
Ultra-Web® Technology Delivers
- high initial efficiency
- high soot loading
- longer filter life
- less waste

**Structural Views**

**Comparative Cross Section**

- **Cellulose Media**
  - Cellulose fibers are larger than Ultra-Web® nanofibers, and have larger spaces between the fibers, causing contaminant to load in the depth of the media and plug the airflow path; resulting in higher restriction and less capacity.

- **Ultra-Web® Media**
  - Ultra-Web nanofibers have submicron diameters and small interfiber spaces, which result in more contaminant being captured on the surface of the media and lower restriction.

**Enlarged Top Views of Media (at the same magnification)**

White circles represent the diameter of a 2µ and a 5µ particle.

**Ultra-Web® nanofiber technology causes submicron contaminant to load on the surface rather than dispersing throughout the depth of the filter where there is less area for the air to flow. Therefore, where the contaminant is primarily submicron in size, filters with Ultra-Web technology cause less restriction than conventional filters with cellulose media. The smaller, interfiber spaces of Ultra-Web nanofiber technology have higher efficiency and capture more contaminant. Capturing smaller and more contaminants leads to better engine protection – no matter where your vehicle is operating.**

**Lab Test Results**

**Higher Efficiency = Better Engine Life**

In laboratory and field tests, Ultra-Web air filters provided better engine protection by allowing less contaminant to pass through the media than cellulose air filters. Filters with Ultra-Web Technology can reach 99.99% efficiency.

**Efficiency (Tested with Submicron Particles)**

- Filters with Ultra-Web Technology
- Range of Conventional Cellulose Media

**Higher Contaminant Loading = Longer Filter Life**

Ultra-Web air filters hold up to five times more contaminant than cellulose air filters, making them ideal for extended maintenance intervals for on-highway trucks.

**Capacity (Tested with Submicron Particles)**

- Filters with Ultra-Web Technology
- Range of Conventional Cellulose Media
Intake systems with Ultra-Web and PowerCore® G2 Technology deliver even greater advantages: space efficiency; the freedom to design unique configurations; superior engine protection; and overall design simplicity.

Donaldson has the ability to customize the filtration performance of Ultra-Web technology to match a specific OEM application.

Combined with PowerCore G2 Technology, our second generation of the original PowerCore Technology you can reduce your overall intake system size by nearly two-thirds the space of older, conventional designed intake systems.

PowerCore® Technology works well in many configurations into various shapes - round, obround and panel.

Efficiency Matters!

**Improves Equipment**
End users using Ultra-Web filters see improved engine protection and power plus lower life cycle costs.

**Enhances Filtration**
Ultra-Web Technology adds value by delivering high efficiency filtration for increased engine protection and extended service intervals to reduce your operating costs.

Ultra-Web Technology is durable, robust and designed to perform in extreme temperature and humidity conditions.

**Protects the Environment**
Ultra-Web filters offer a “greener” place to live with fewer filter changes and less waste disposal.
ULTRA-WEB®

17 Years of Proof!

In military vehicles operating in demanding environmental conditions, Donaldson supplies self-cleaning air cleaners with Ultra-Web Technology to meet the demanding specs for engine protection, filter service, improved fuel economy and increased engine protection. Ultra-Web nanofiber technology applied to a PJAC™ (Pulse Jet Air Cleaner) extends the operating time by more than 10 times for the U.S. M1 tank with a turbine engine.

Blue filters with Ultra-Web Technology in Donaldson SRG and SSG air cleaners applied to mining haul trucks deliver: higher capacity (as much as 5x more) for longer filter life; higher efficiency for longer engine life; and extended maintenance intervals for lower operating costs.

For on-road trucks, Ultra-Web Technology in Donaldson Endurance™ air filters extends service intervals. Donaldson offers a “Twice the Life” guarantee for on-road vehicles. Calculate your savings over standard cellulose filters at www.donaldsonendurance.com.

Cabin air filters with Ultra-Web Technology provide twice the life of a similar depth-loading cabin air filter operating at the same pressure drop.

Donaldson Delivers