

Protecting human health, cleaning the environment and improving air quality.



Sparks Technology™

Advanced Filtration

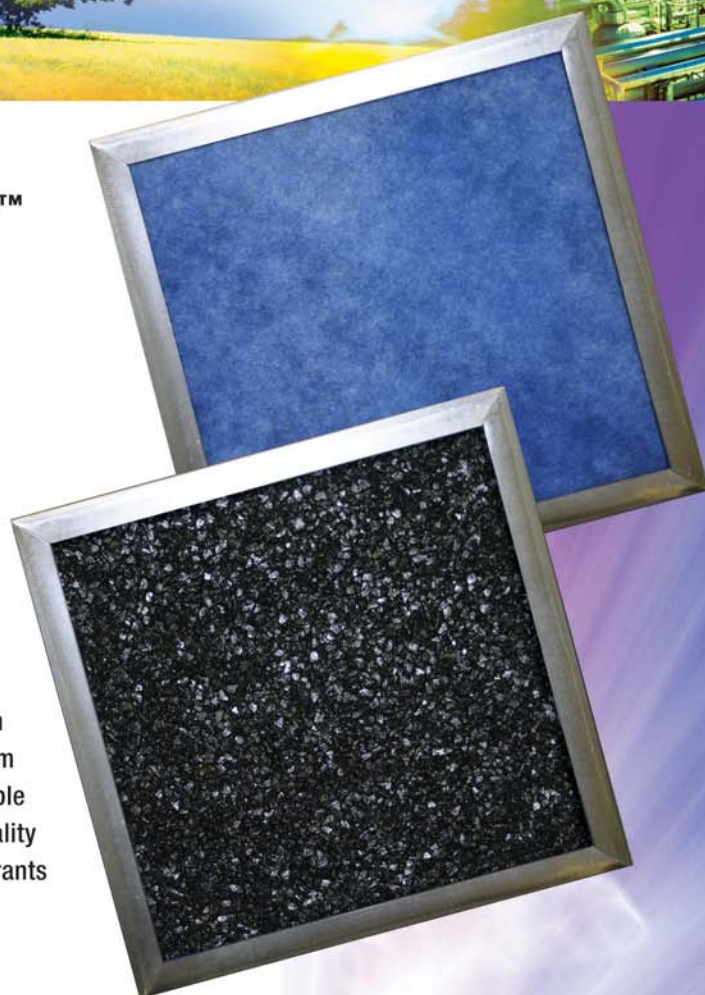
BPS™ Bonded Activated Carbon Filter Panels

APPLICATIONS

Bonded Particulate Structure panels are used extensively for odor control and volatile organic compound removal. BPS panels are ideally suited for environments requiring high contaminant removal and extended service life. With exceptionally low particle shedding characteristics and high performance, the bonded carbon panels require no downstream filters as with loose fill carbon trays or honeycomb style disposable filters. This makes BPS panels ideally suited to solve air quality problems in office buildings, hospitals, museums, airports, restaurants and manufacturing facilities.

BPS BONDING TECHNOLOGY

BPS - BONDED PARTICULATE STRUCTURE is a proprietary process that entails binding activated carbon or other suitable adsorbent or catalyst into a monolithic structure with a polymeric binder while maintaining a very high level of open pore structure. Since no post activation of the carbon is required after bonding, the adsorption properties, i.e. BET surface area, pore size distribution, and CTC activity essentially remain the same. BPS Technology maintains this important pore geometry, thus preserving the adsorptive capacity of the selected activated carbon.



APPLICATIONS

Cooking odors	Fertilizer
Cleaning solvents	Pesticides
Cigarette smoke	Fuel odors
Sewage odors	Ozone
Welding fumes	Animal odors
Formaldehyde removal	Waste processing
Vehicle exhaust	Perfumes
Paint fumes	Confectionary



BPS™ Bonded Activated Carbon Filter Panels

EFFICIENCY AND SERVICE LIFE

BPS panels possess equivalent or higher contaminant removal efficiency compared to loose fill honeycomb panels resulting in higher service life. The tortuous path in the bonded panels allows a longer residence time and also eliminates the "channeling" effect which causes bypass to occur in loose filled or honeycomb panels. The breakthrough curve at the right was generated using 80 PPM toluene at 50 feet/minute face velocity.

PRESSURE DROP

BPS panel pressure drop performance is comparable to loose fill honeycomb panels up to 300 SCFM. Since there is no dusting from the BPS filter, no secondary filter is required, which helps reduce the overall pressure drop of the system.

Benefits

CLEANLINESS IS UNMATCHED

The elimination of dust and carbon fines is a huge advantage. This is critical for cleanrooms, hospitals, paint booths and other high-purity applications.

HIGHER EFFICIENCY

Since the uniform carbon distribution is "locked" in place, it will not settle as in loose fill trays and common honeycomb carbon filters.

MORE ECONOMICAL

Because the filters are disposable, there is no need for a duplicate set of refillable panels. Extra freight and handling are eliminated. The panels are easy to install and cleaner, thus eliminating costly housekeeping after servicing.

MORE CARBON

Since the bonded carbon does not require a supporting enclosure, the carbon content for a given size of panel is greater than the same overall sized loose fill panel. Generally there is approximately 5% more by weight, which means more contaminant adsorption capacity.

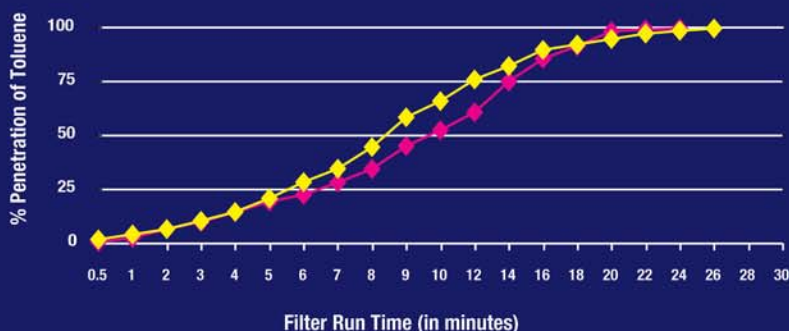
ACTIVATED CARBON

High quality coconut shell with superior pore size distribution is specifically selected for its high adsorptive capacity for a wide selection of contaminants. Impregnated blends are available to target specific VOCs and odors. The amount of activated carbon in each panel is between 27-31 lbs/cu.ft.

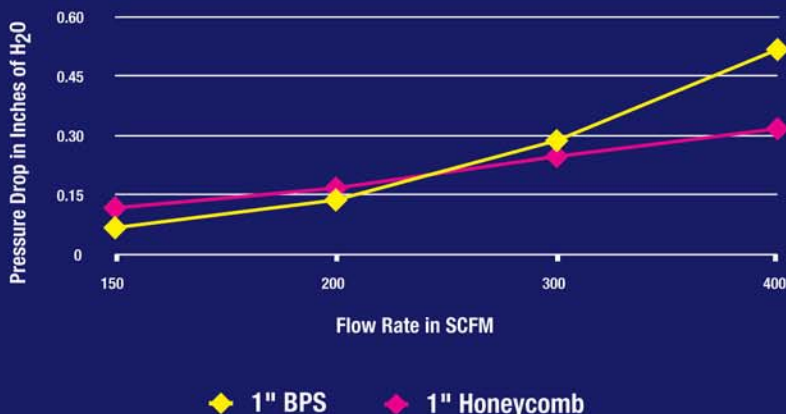
PARTICULATE FILTRATION

The panels come with high loft, non-woven polyester pre and post filter pads. Dual phase filters are available for both particulate and odor removal with efficiencies up to 99.97% HEPA levels.

Efficiency Comparison Between 1" BPS and 1" Honeycomb Filters



Pressure Drop Comparison Between 1" BPS and 1" Honeycomb Filters



UVDI is an ISO 9001:2000 certified manufacturer and supplier of ultraviolet and advanced filtration products for both air, surface and water disinfection. Under the ALTRU-V® brand, UVDI markets a full line of UV-C products for the HVACR market, providing the key benefits of reduced energy consumption and lower maintenance costs while delivering cleaner, healthier air. Sparks Technology advanced filtration brand provides bonded activated carbon and is the exclusive manufacturer using BPS (Bonded Particulate Structure) technology for producing high quality molecular filtration products.

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