

Clearing The Air

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H. R. 554 Addresses Emerging Nanotechnology Safety Concerns

Recent action in Congress to reauthorize the U.S. federal nanotechnology research program offers the chance to address the social and ethical issues concerning the emerging scientific field. The new bill (H.R. 554) is almost identical to legislation that passed the House last year with overwhelming bi-partisan support by a vote of 407 to 6. The Senate is expected to mark up similar legislation. "It is crucial to address social and ethical issues now as we consider both the substantial potential risks of nanotechnology and its possible significant contributions to our well-being and environmental sustainability," says Ronald Sandler, Northeastern University philosophy professor and author of a new report released in January. The report, *Nanotechnology: The Social and Ethical Issues*, emphasizes ways in which such topics intersect with governmental functions and responsibilities, including science and technology policy, as well as research funding, regulation and work on public engagement. To obtain a copy of the report, visit

www.nanotechproject.org/news/archive/ethical_evaluations_nanotechnology/.

Revolutionary Filter Media Contains No Nano-Fibers

The introduction of Fiber-Lite™ high-performance, three-layer structure has revolutionized the technology of air pollution control. This unique, innovative concept is far superior to the usual filtration media for particulate removal and mist elimination. As a result, industries around the world have increased production, reduced energy and maintenance costs, and reduced emissions to comply with ever more stringent air and water pollution control standards.

The Fiber-Lite™ three layers structure is simple, yet surprisingly effective. The basic structure of the mesh forms a ladder-like arrangement of filaments, forming double-V systems that intersect each other at right angles. The engineered mesh construction has a large surface area and void space. The stacking of micro-fibers into mesh layers optimizes the effectiveness and range of solid or liquid particle removal for continuous service at 300° F to 350° F. The unique media eliminates problems associated with corrosion, contamination, and erosion. The lightweight material is flexible and strong. While Fiber-Lite™ fabrics contain no nano-fibers, they meet PM 2.5 tests. Fiber-Lite™ products are so effective they make both traditional and nano-fiber filter media obsolete.

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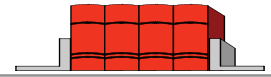
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Filtration Media

POLYESTER - available in woven or felt, this product is the most widely used media for dust collection, it is capable of operating up to 275 F

POLYPROPYLENE - available in woven or felt, this product provides enhanced chemical and moisture absorption resistance, it is capable of operating up to 200 F

HOMOPOLYMER ACRYLIC - available in woven or felt, this product provides chemical resistance similar to polypropylene while allowing operation up to 250 F

COTTON - available in woven media only, this product is most commonly used in shaker collectors operating as silo vents, capable of operating up to 180 F (82 C).

ARAMID (Conex ®, Nomex ®) - available in woven or felt, this product performs at high temperatures while retaining strength, abrasion resistance, and dimensional stability, capable of operating up to 400 F

PPS Ryton ®, Torcon ®, Procon ® - available in woven or felt, this product provides chemical resistance similar to polypropylene and acrylic while allowing operation up to 375 F

P-84 ® - available in woven or felt, this product was designed to provide enhanced efficiency and maximize airflow while allowing operation at temperatures up to 500 F (260 C).

MEMBRANE RZ-all the above fabrics are available with our own PTFE laminate. This product provides the maximum chemical resistance available in bag filtration today, capable of removing 99.9996 % of PM 2.5 particles.

Filter Bags

PULSE JET COLLECTORS

- SNAP BAND TOP- flexible steel band with double beaded gasket to create dust tight seal.
- FLANGE TOP- a gasketing collar that forms dust tight seal when compressed against tubesheet.
- RING TOP- steel ring sewn at top to secure bag to tubesheet.
- RAW TOP- primarily used in bottom load collectors, utilizes clamp to create seal.
- WEAR CUFF- used at bottom of bag to prevent bag to bag wear, and bag to cage wear.
- DISC INSERT BOTTOM- using two needle lockstitch to provide maximum strength and durability.

REVERSE AIR COLLECTORS

- SNAP BAND TOP- flexible steel band with double beaded gasket to create dust tight seal.
- CAP TOP- closes top of bag and connects to tensioning assembly.
- BEADED CUFF TOP- attaches to thimble with clamp.
- POCKET TOP - holds hardware for hanging of bags.
- TAIL TOP- used for hanging and tensioning of bags.
- EXPANSION RINGS- resist collapse of bag during cleaning cycle.
- CUFF BOTTOM- standard bottom connection, requires clamp.

SHAKER COLLECTORS

- LOOP TOP- for hanging and tensioning of bags.
- GROMMET TOP- for hanging and tensioning of bags.
- STRAP TOP- for hanging and tensioning of bags.
- SNAP BAND BOTTOM- flexible steel band with double beaded gasket to create dust tight seal.
- CUFF BOTTOM - standard bottom connection, requires clamp.