



FLUID-BORNE CONTAMINANT PROTECTION USING A FILTER ASSEMBLY WITH A LEADING EDGE GUIDE SURFACE

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Abstract of the Disclosure

Method and apparatus for protecting a data storage device from fluid-borne contaminants. The device includes a housing in which a rotatable disc is supported, the disc having a data recording surface and an outermost perimeter. A filter assembly includes a first filter adjacent to the data recording surface and a
10 second filter disposed beyond the outermost perimeter of the disc. During disc rotation, fluidic currents are generated and impinge a leading edge guide surface of the first filter. A first portion of the currents passes into a gap between the first filter and the data recording surface. A second portion of the currents passes along the leading edge guide surface to the second filter. The first filter is preferably
15 characterized as a chemical adsorbent filter which adsorbs vapor phase (gaseous) contaminants, and the second filter is preferably characterized as a pass-through recirculation filter which captures particulate contaminants.

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Figure 1



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