

Patented Up-Flow Filtration Process

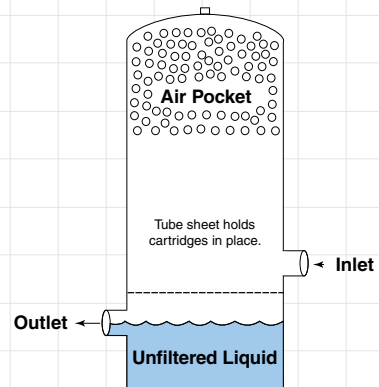
CONVENTIONAL CARTRIDGE FILTER DESIGN

Potential For Air Entrapment

With outlets located **below** inlets, air travels upward so vents are needed to expel air that can accumulate within the filter vessel during operation.

Potential For By-Pass

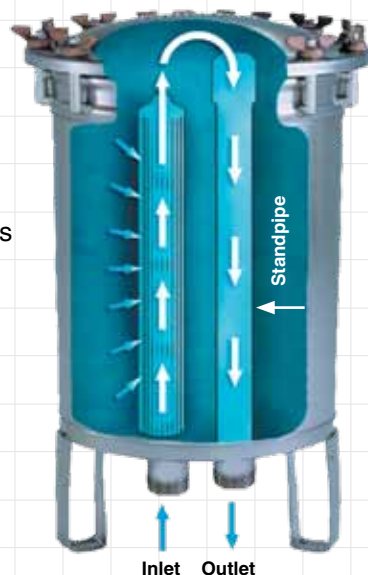
With outlets located **below** inlets, by-pass can occur as unfiltered liquid drains downward to the sump while the cartridges are removed. This may result in by-pass when the filter is put back into service.



HARMSCO® UP-FLOW CARTRIDGE FILTER

No Air Entrapment

Air is self purged from Harmsco® Up-Flow filters because outlets (top of standpipes) are at the high point of the filters.



No By-Pass During Service

No liquid can by-pass Harmsco® filters during servicing because standpipes are the "clean side" of the filter.

