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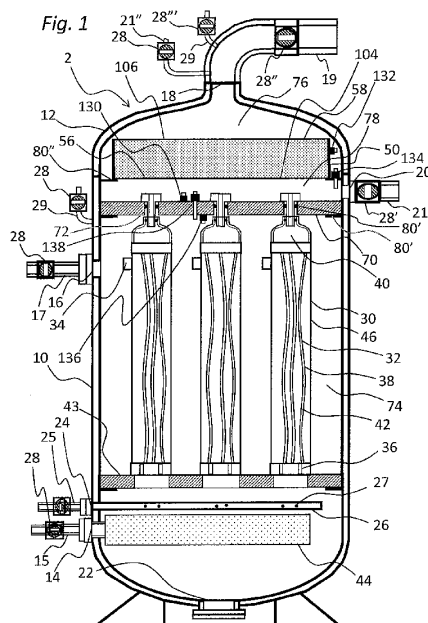
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(54) Title: WATER TREATMENT SYSTEM WITH BIOCONTACTOR



(57) Abstract: A water treatment system (2) comprising a pressure vessel (10), vertically aligned separation elements (30) within the vessel each having at least one porous UF or MF membrane, feed fluid passageways (36), a permeate fluid passageway (40), a concentrate removal port (16), and a biocontactor (50) within the vessel that has biogrowth surfaces surrounding flow paths through the biocontactor. The flow paths have a median ratio of surface area to volume which exceeds 15 cm²/l. The pressure vessel also contains a pressure plate (70) with holes (72) which separates the vessel into two chambers, a first chamber (74) containing membrane elements (30) and a second chamber (76) that contains the biocontactor (50). A sealing means (80 x) contacting the pressure plate prevents fluid flow between the first chamber and second chamber except through the porous membranes.

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