



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B01D 63/00		A1	(11) International Publication Number: WO 98/09718
			(43) International Publication Date: 12 March 1998 (12.03.98)
(21) International Application Number: PCT/US97/15181		(74) Agent: FISH, Robert, D.; Suite 706, 1440 North Harbor Boulevard, Fullerton, CA 92835 (US).	
(22) International Filing Date: 28 August 1997 (28.08.97)			
(30) Priority Data:		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
08/708,249 3 September 1996 (03.09.96) US 08/722,868 26 September 1996 (26.09.96) US 60/033,342 21 November 1996 (21.11.96) US 60/033,343 21 November 1996 (21.11.96) US 60/032,863 21 November 1996 (21.11.96) US 60/036,739 27 January 1997 (27.01.97) US 60/036,740 27 January 1997 (27.01.97) US 08/834,916 7 April 1997 (07.04.97) US 60/043,001 14 April 1997 (14.04.97) US 60/044,189 25 April 1997 (25.04.97) US 60/051,192 30 June 1997 (30.06.97) US 60/051,223 30 June 1997 (30.06.97) US		Published With international search report.	
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(54) Title: MODULAR FILTRATION SYSTEM

(57) Abstract

The weight of a fluid is used to drive a plurality of semi-permeable membranes or other filter material to produce a permeate, and in at least some level of the apparatus more than 30 % of the permeate produced is collected within a single casing (32). In other aspects, the filter material is at least partially contained within series production modules (40), which may contain transport zones for transporting feed or flushing fluid. In other aspects the ends of adjacent production modules may be designated to mate with one another using a slip fit, and the production modules may be maintained in matting relationship through connections to supporting cables or rods (23). In other aspects of the inventive subject matter a submerged pump (53) may be used to raise permeate towards the surface, and the pump may advantageously operate at least partially using centrifugal force and/or air lift principles. In still other aspects feed fluid can be provided from salty or brackish water source such as an ocean or bay using pipes having removable inlet plugs which resist clogging, and it is contemplated that such pipes can be laid using an underwater sled which digs a trench while concurrently laying the pipe.

