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(54) Title: MODULAR COMBINED PUMP, FILTRATION, OXYGENATION AND/OR DEBUBBLER APPARATUS

(57) Abstract

A customized pump, filtration, oxygenation and/or debubbler apparatus includes a first pump module (10), a filtration module (20), an oxygenation module (30), a debubbler module (40) and/or a second pump module (50). Each module (10, 20, 30, 40, 50) is formed of stackable support members (11, 12, 14; 22, 23, 24; 32, 34-36; 41, 43, 44; 51, 53, 52) with filtration, oxygenation and/or degassing membranes (21m, 22m; 31m, 33m, 34m; 42m, 43m) interposed therebetween.

