

ABSTRACT

There are provided a reverse osmosis device which is installed on the front stage of a reverse osmosis membrane module which configures an existing seawater desalination plant and is able to easily promote high recovery rate attainment by mutually connecting pipes and a seawater desalination plant which is provided with it. The reverse osmosis device 1 is provided with, in one container 11, a plurality of first pressure vessels 12 in which a plurality of reverse osmosis membrane elements 13 are filled and are contained in parallel with one another, a supply water connection pipe 16 one end of which is connected to inlets of the first pressure vessels 12 so as to supply pressurized supply water thereto, wherein the supply water is membrane-separated into filtered water and high-pressure concentrated water by the reverse osmosis membrane elements 13, a concentrated water high-pressure connection pipe 18 one end of which is connected to first outlets of the first pressure vessels 12 and in which the high-pressure concentrated water passes and flows, and a filtered water connection pipe 17 one end of which is connected to second outlets of the first pressure vessels 12 and in which the filtered water passes and flows. A supply water connection pipe connector 16a, a concentrated water high-pressure connection pipe connector 18a, and a

filtered water connection pipe connector 17a are arranged so as to locate on the same side face of the container 11.

Fig. 1