

MEMBRANE CLEANING DEVICE AND MEMBRANE CLEANING METHOD

ABSTRACT

The membrane cleaning device uses treated water
5 filtered through an MBR separation membrane (2) as
dissolution water, and performs a first process of dissolving
ozone gas in the dissolution water under a neutral or
alkaline condition, and a second process of dissolving ozone
gas in the dissolution water under an acidic condition, to
10 generate ozone water. At this time, whether to shift from
the first process to the second process is determined on the
basis of the organic substance concentration in the
dissolution water, and whether to start feeding the ozone
water to the separation membrane (2) is determined on the
15 basis of the dissolved ozone concentration in the dissolution
water. Therefore, even when the organic substance
concentration in the dissolution water varies depending on
the MBR operation conditions, the treatment times in the
first process and the second process can be optimized. Thus,
20 ozone water can be efficiently generated and the cost needed
for generating ozone water can be reduced.

Fig. 1