

ABSTRACT

A membrane element (3) having a filtration main body (31) used for membrane separation, a header (a water collection portion) (32) that collects treated water having undergone the membrane separation from an end portion of the filtration main body (31) and a treated water lead-out portion (34) that leads out the treated water coming from the header (32) is used. The treated water lead-out portion (34) is connected to a tubular peripheral wall (21) of a water collection pipe (2A) that collects treated water solid-liquid-separated by the membrane element (3), and communicates with an inside of the tubular peripheral wall (21). The tubular peripheral wall (21) has a thick portion (24) that is thicker in a horizontal direction (in an arrow X1X2 direction) among a radial direction of the tubular peripheral wall (21) at an upper-side peripheral wall portion (22) located at an upper side in the radial direction of the tubular peripheral wall (21) (or at a lower-side peripheral wall portion (25) located at a lower side in the radial direction of the tubular peripheral wall (21)), and also has a connecting hole (23) that penetrates the thick portion (24) in an inward-and-outward direction of the tubular peripheral wall (21).

FIG. 4