

Abstract

In a bubble lift system 10, a pressurized chamber 21 is provided at an upper end portion of a riser pipe 11, and applies a pressure to an upper portion inside the riser pipe 11 to suppress an increase in the volume ratio of bubbles to a fluid mixture rising inside the riser pipe 11 in a shallow water region. In this configuration, the upper end of the riser pipe 11 is not opened to the atmosphere but is inserted into the pressurized chamber 21 under a high pressure to thereby prevent expansion of the bubbles and gas. In addition, a deaerator 14 for discharging bubbles separated by a centrifugal force is also provided in a middle portion of the riser pipe 11 in a shallow water region to thereby make the bubbles distributed more evenly inside the whole riser pipe 11. Thus, provided are the bubble lift system 10 and a bubble lift method that are efficient and employable even in a deep water region.