

ABSTRACT

GROUND IMPROVEMENT METHOD AND DECOMPRESSION VESSEL

There is provided a decompression vessel that can be produced in a ground improvement subject area with sufficient strength and airtightness, and a ground improvement method of enabling to install the decompression vessel.

In the ground improvement method, the decompression vessel 20 in the earth is completed through: a step of driving a steel pipe 29 in the earth, the steel pipe 29 including a ring portion 28 projecting from inner surface in an upper portion thereof; a step of removing soils in the driven steel pipe 29; a step of installing a bottom plate 27 on a bottom side of the steel pipe 29; and a step of putting the cover 30 on the ring portion 28 of the steel pipe 28. A drain pipe 25 connected to a lift pump 24 that accommodated in the steel pipe, a suction pipe 26 connected to a vacuum pump 23, and a vertical pipe 21 through which a siphon functions, project through the cover. Then, the cover is brought into close contact with the ring portion 28 of the steel pipe 29 by a negative pressure generated by operating the vacuum pump, and a suction power by the vacuum pump and a suction power by a siphon function of the vertical pipe are exerted to extract and drain pore water in a ground to be improved through the vertical drain member 11 placed in the ground.

Fig. 1