CLAIMS

[Claim 1] A rotary penetration steel pipe pile configured to be placed so that a pile end is arranged in an intermediate layer without reaching a supporting layer, the rotary penetration steel pipe pile comprising:

a substantially spiral-shaped lowermost wing that is wound in one round and that is disposed in vicinity of the pile end; and an upper wing that is wound in one round and that is disposed above the lowermost wing in a plurality of tiers at regular intervals ranging from 1.25 times to 7.5 times a wing diameter of the upper wing, wherein

an outer diameter of the lowermost wing is larger than an outer diameter of the upper wing and is set to be 1.5 times to 3 times a pile diameter, and

the outer diameter of the upper wing is smaller than the outer diameter of the lowermost wing and is less than or equal to 1.6 times the pile diameter, and a pitch of the upper wing is set to be equal to a pitch of the lowermost wing.

[Claim 2] A method of constructing the rotary penetration steel pipe pile according to claim 1, the method comprising

rotating and penetrating the rotary penetration steel pipe pile, while adjusting downward pushing force applied to the pile from a pile driver so that a degree of penetration per rotation is equal to the pitch of the lowermost wing.