

HAT-TYPE STEEL SHEET PILE

ABSTRACT

The present invention provides a hat-type steel sheet pile whose economic efficiency, workability, and integrity are all optimized. In the hat-type steel sheet pile according to the present invention, web portions are continuously formed at both ends of an upper flange portion, and lower flange portions are formed at respective end portions of a pair of web portions. A relationship among geometrical moment of inertia I per 1 m of wall width (cm^4/m) when forming a steel sheet pile wall, weight per unit wall area W (kg/m^2), penetration resistance R , and web angle θ ($^\circ$) is set to satisfy one of the following expression groups (A) and (B).

the expression group (A):

$$(W/I) \times R \leq 0.004 \text{ and}$$

$$2.65 \times 10^{-4} \times I + 22 \leq \theta \leq 2.80 \times 10^{-4} \times I + 48 \quad (20,000 \leq I < 80,000)$$

$$2.65 \times 10^{-4} \times I + 22 \leq \theta \leq 70 \quad (80,000 \leq I < 180,000)$$

the expression group (B):

$$0.004 < (W/I) \times R \leq 0.0075 \text{ and}$$

$$2.80 \times 10^{-4} \times I + 44.6 < \theta \leq 80 \quad (20,000 \leq I < 80,000)$$

$$67 < \theta \leq 80 \quad (80,000 \leq I < 200,000)$$

[Selected Drawing] Fig. 1