

Serial Report

Terminologies in Press-in Engineering (Part 6)

IPA Editorial Committee

Following Terminologies Press-in Engineering (Part 5) in Volume 4, Issue 2, Part 6 is the last issue as follows:

press-in parameters	operational parameters, such as maximum press-in force, press-in speed and the penetration and extraction lengths during repeated and extraction operation, determined as target values for the control of Silent Piler during pile installation. Those are the items affecting the piling efficiency of the press-in operation and construction time control.
reaction pile	piles/sheet piles previously installed into the ground that are gripped by Silent Piler to obtain reaction force for the next pile installation
reaction stand	a stand for mounting counter weights to obtain reaction force during the installation of initial few piles/sheet piles to commence press-in operation
initial press-in	a piling process to install an initial few piles/sheet piles while reaction pile/sheet piles are not available
driving attachment	an equipment used for avoiding the chuck frame of the Gyro Piler from touching the steel tubular piles previously installed. It is used not only for the installation of steel tubular pile to the design elevation, but for the self-walking of the Gyro Piler. It is also used to install joint members such as equal angle steel between steel tubular piles.
embedded wall(s)/structure(s)	generic term for continuous body of embedded wall(s)/structure(s) with piles/sheet piles and it is mainly utilized for earth retaining function
cantilever type embedded retaining structure(s) / wall(s)	the structure(s)/wall(s) formed by simply embedding piles/sheet piles and steel tubular piles, without tie rods, anchors or braces, usually used as earth retaining structures
combined wall structure by Combi-Gyro Method	wall constructed with a combination of hat-shaped steel sheet piles and steel tubular piles by the Combi-Gyro Method
plugging	situation in which the inside of an open-ended pile is plugged with inner soil during pile installation. It also occurs in a concaved portion of the steel sheet pile. This causes an increase in penetration resistance to pile installation.
interlock/interlocking	a joint adjacent sheet piles in the longitudinal direction to form a continuous wall or structure
prefabricated pile(s)	piles/sheet piles commercially fabricated in a factory as a ready-made use on site
bored pile	pile formed with or without a pile casing by excavating or boring a hole in the ground and filling with plain or reinforced concrete. (EN 1536:2010)
driven pile	pile which is forced into the ground by impact/vibratory hammering
pile toe	bottom edge of pile/sheet pile
pile toe ring bits	a steel ring with cutting bits attached to the toe of a steel tubular pile, used for rotary Press-in with cutting bits
pile top	top edge of pressed-in pile/sheet pile
planned installation line	planned line for pile/sheet pile installation specified in construction plan
hollow bored piling method (pile installation method by inner excavation)	pile formed with a pile casing and installed with simultaneous excavation or displacement of soil inside the casing