

Construction machinery

The SAVE CP construction method is suited for construction in urban built-up areas, since the method does not generate vibration or noise. The compact construction machinery developed is capable of performing construction work in narrow and tight locations and is easily brought in and removed.



Model	Ultra-compact construction machinery	Compact construction machinery	Standard machinery
Max. pile length	3.5m	12m	25m
Pile diameter	φ 400~φ 500	φ 700	φ 700
Suitable soil (for sandy foundations)	N-value 0 to 10	N-value 0 to 15	N-value 0 to 15

- * Extended casing pipe can be attached for construction using ultra-compact construction machinery.
- * Pilot drilling can be conducted on soil with N-values that exceed the range of suitable soil.
- * The N-values may vary, depending on the soil and construction conditions.
- * Extended casing pipe can be attached to standard machinery for construction requiring a pile length exceeding 25 m.
- * Construction with a reduced displacement can also be performed.

Silent Sand Compaction Pile Method

SAVE COMPOZER

gently densifies subsurface soils

SAVE (Silent, Advanced Vibration-Erasing) Compozer, a Non-Vibratory Replacement (soil densification) method, has been born by the development of a rotary penetrating system for wave-type implementation that uses a new type of forced driving / lifting device. This allows densification of subsurface soils adjacent to the existing buildings, and significantly widens the applicable area for the densification. Various materials such as stone, sand, crushed concrete, or slag can be used as filling materials for this method.

- 1998: Technical Development Award of the Japanese Geotechnical Society.
- May 31, 2002: Certificate 4 as 'Tested general civil engineering technology' , of Japan Institute of Construction Engineering (JICE).
- September 1999: Ministry of Transport Approval Certificate 99107, as engineering method to counter liquefaction.
- July 21, 1999: Appraisal by Japan Architectural Center (private foundation), Concrete Structure Evaluation Committee Evaluation No: BCJ-C2273
- April 17, 2000: Science and Technology Agency 59th Selected New Developments by with notice.



ISO 9001
ISO14001

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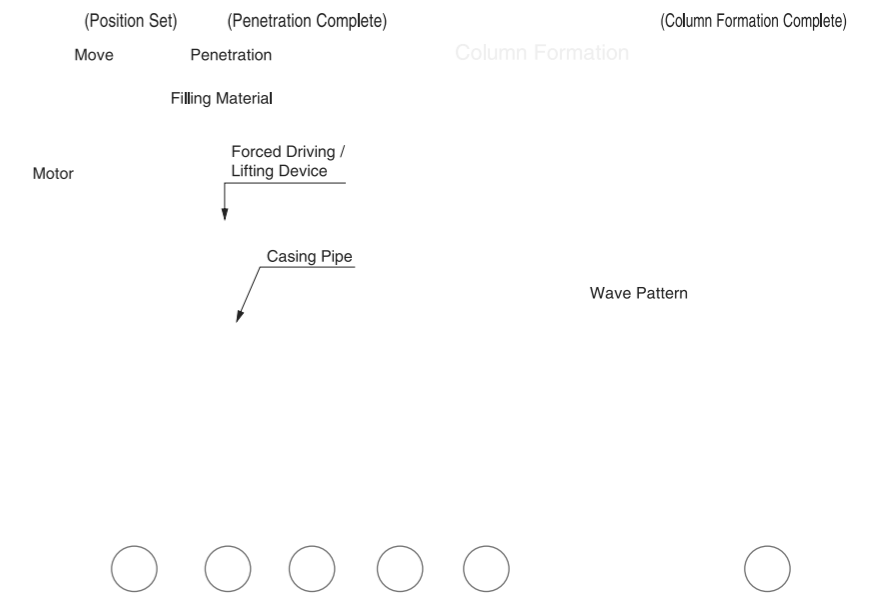
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SAVE CP silently compacts loose sandy foundations.



SAVE COMPOZER

- 1 Casing pipe is positioned and predetermined quantity of filling material is charged into the casing.
- 2 Casing is rotated and driven smoothly into the ground.
- 3 Casing is fully penetrated to the designated depth.
- 4 While casing is lifted by predetermined height, filling material is discharged from the casing.
- 5 Casing is re-driven to compact discharged filling material and surrounding ground.
- 6 Steps 4 and 5 are repeated by using a wave pattern and casing is gradually lifted, consequently formation of an enlarged column is achieved.

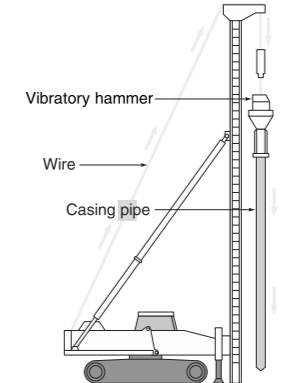


ng, which is performed once the casing pipe has been inserted to the prescribed depth.

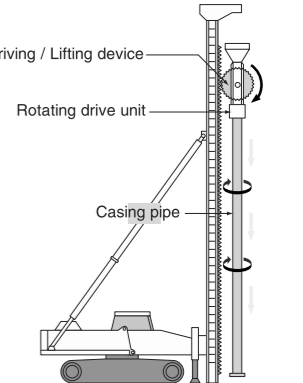
Comparison with sand compaction pile method

With the SAVE CP, method compacting is performed through the rotation of the casing pipe to which pressure is applied, while it is inserted into the soil using a forced lifting device. For this reason, hardly any vibration or noise is generated. The sand compaction pile method requires the use of a vibration unit to provide the driving force to compact the soil.

SCP construction method



SAVE CP



No
vibration

During SAVE Compozer implementation, no vibration can be felt even at very close to the SAVE rig

Low
noise

During SAVE Compozer implementation, ordinary conversation can be made just 10m away.

Densification Zone

SAVE Compozer achieves the same degree of densification as Vibro-Replacement

■ Proximity of construction in built-up areas