

# DYNAMIC COMPACTION



**GFWA**

SUSTAINABLE TECHNOLOGY



Dynamic Compaction is one of the techniques invented by Louis Menard for compacting soils to great depths. This technique is applicable to all clean granular soils, and to dry, partially saturated and saturated soils with substantial amounts of fines.

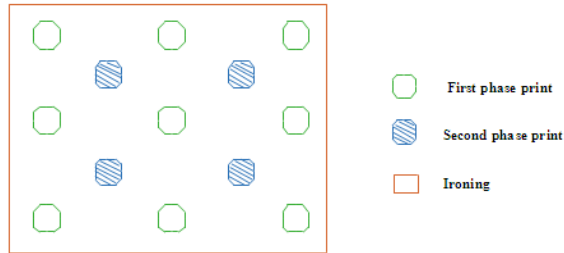
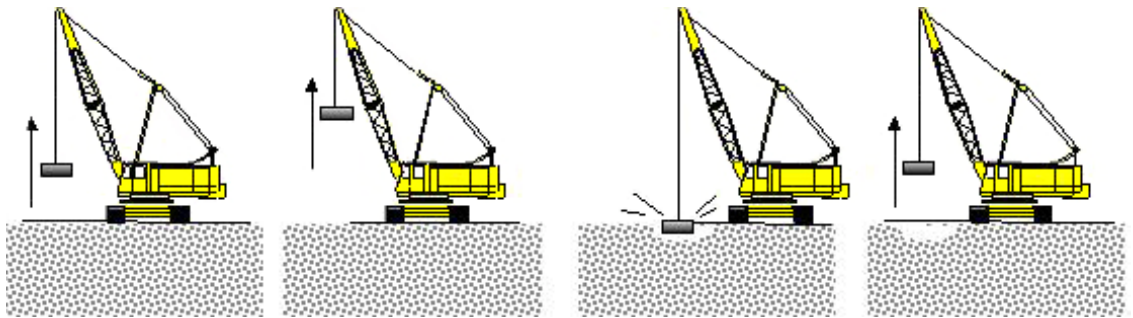
In this method a pounder weighing 15 to 40 tons is dropped 10 to 40 meters. The pounder weight, drop height, arrangement of the impact points, number of phases, number of blows per phase and rest periods depend on the soil characteristics, design criteria, load intensity and load layout.

This ground treatment technique is applicable to the foundations of commercial, residential and industrial buildings, tanks, roads, platforms, reclaimed areas and large embankments.



**DYNAMIC  
COMPACTION**

**Work procedure for Dynamic Compaction**



**Port Botany Expansion**



Dynamic Compaction, proven to be the most affordable and highest production ground improvement method has been used for the treatment of the loose reclaimed soil at Sydney's Port Botany.

Special rigs were used to drop heavy pounders and to improve the ground condition at depth.



**Recent References**

- Al Falah Community (UAE)**- Aldar – new town – 4,850,000 m<sup>2</sup>
- King Abdulla University of Science & Technology (Saudi Arabia)** - Aramco – Buildings - 2,700,000 m<sup>2</sup>
- Changi Airport (Singapore)** – P.S.A. - Airport- 1,700,000 m<sup>2</sup>
- Al Quoa New Township (UAE)** - Al Ain Municipality- Villas, roads & infrastructures- 1,135,000 m<sup>2</sup>
- Port Botany (NSW, Australia)** – Sydney Ports- reclamation– 630,000 m<sup>2</sup>
- Penrith Lake Development (NSW, Australia)** – Penrith Lake Development- Buildings - 100,000 m<sup>2</sup>
- Townsville Sugar Terminal (QLD, Australia)** – Queensland Sugar- Storage
- Cape Bridgewater Wind Farm (VIC, Australia)** – Pacific Hydro – wind power plant

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