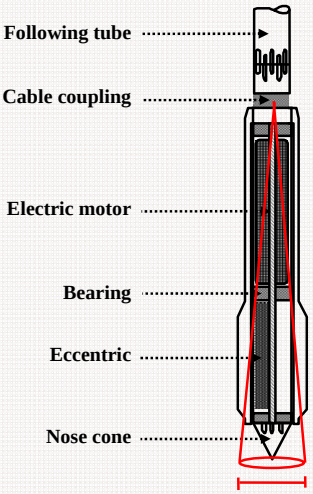
VIBRO COMPACTION

Sustainable Technology

Vibro Compaction

Vibro Compaction provides a method of increasing the density and improving the engineering properties of non-cohesive soils by means of mechanical vibration. The compacting energy is delivered by the introduction of a poker, the leading section of which is the source of vibration and which is fitted also with water flushing outlets. The poker, known as a Vibroflot, penetrates into the soil to depth, thereby treating the soil to depths that surface applied vibration can not reach.



The Vibroflot can be either freely suspended or mounted on a leader for operation and its length can be adjusted to suit the depth of penetration required by the treatment.

Vibro Compaction facilitates the use of shallow foundations for buildings, eliminating the need for the use of more costly deep foundation (piles), where ground conditions suitable for its application exist. This allows the use of rafts and pad footings, where the Vibro Compaction has improved the bearing capacity and settlement characteristics of the soil. This method of ground treatment is most effective when applied to loose granular soils.

The features of the Vibroflot combine, during operation, to create an annular cavity around it as it penetrates the soil. The compacting effort of the vibrations and water flushing is supplemented by the introduction of additional material into this annulus at the ground surface. The Vibroflot is cyclically raised and lowered, progressively being withdrawn from the soil.

Vibro Compaction is conducted on a grid pattern designed to target uniform treatment of the soil and yield a globally improved bearing capacity and settlement characteristic in the soil.

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