

# Vibro Compaction Sand Columns

DEEP SOIL STABILIZATION

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## Cost Effective Ground Improvement

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Helicon's vibro sand columns (vibro compaction) solution uses vibration to compact weak soils. A vibrator hung from a crane is used to dig into the ground, often with the help of high pressured water jets.

Installing vibro sand columns often times dramatically strengthens weak soils at a lower cost than other deep foundation alternatives or replacing weak soils with engineered fill. We can provide the most cost-effective and technically appropriate solution for your project's needs.

## Advantages

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- Highly Cost Effective
- Increased Load Bearing Capacity
- Faster Than Other Options
- No Excavations Needed
- Higher Densification Levels
- Reduces Differential Settlements



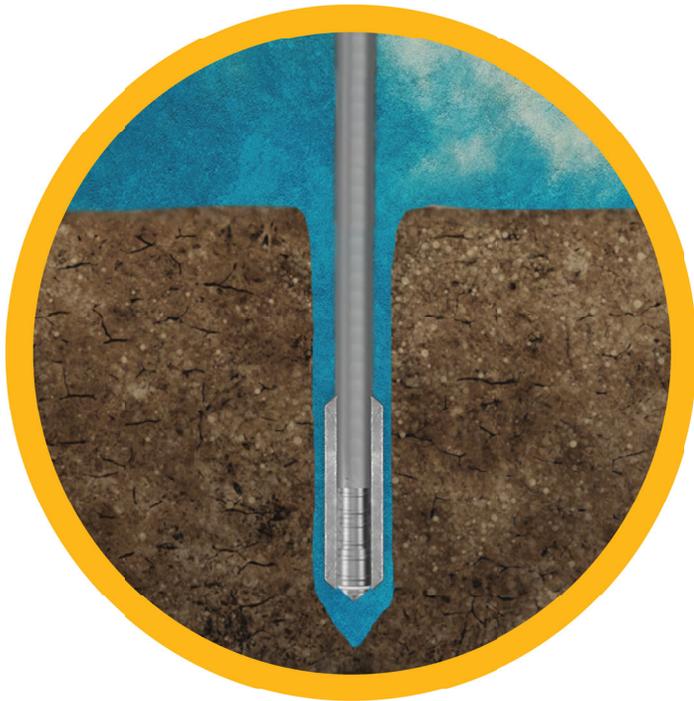
## Installation Procedure

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Our commercial geotech construction team will know if this is the best method to densify your soil. Vibro compaction is mostly used on grainy or loose soils that tend to be more difficult to build on. A high-powered vibrating machine is rigged to a crane and lowered into the earth. The vibrations and water jets allow the machine to move easier.

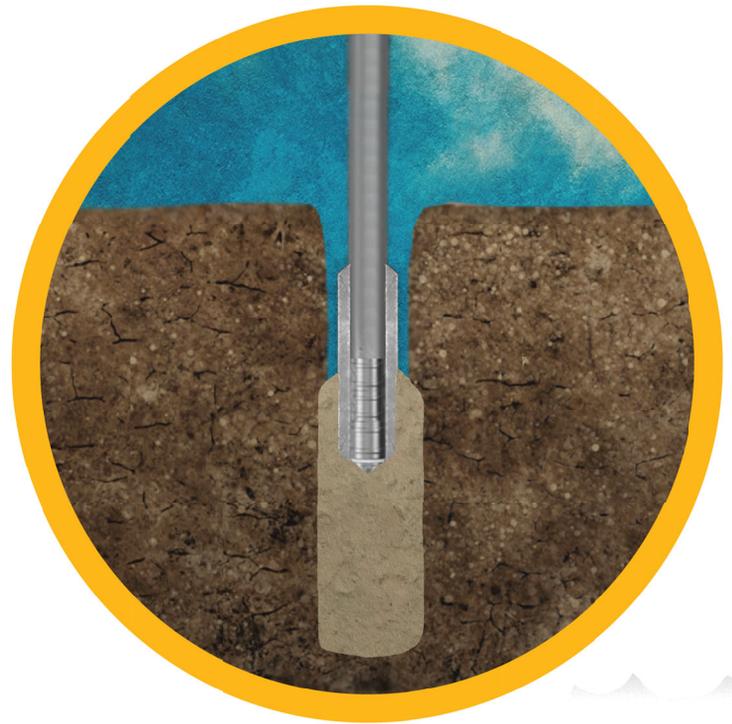
Once the predetermined depth is reached, sand infill or another material is added in piles on the surface. The machine's vibrations move the infill down into the ground in various increments so the soil below can be compacted properly. The machine then moves up in lifts, and this process is repeated until the soil below has been treated.

# Vibro Compaction Overview

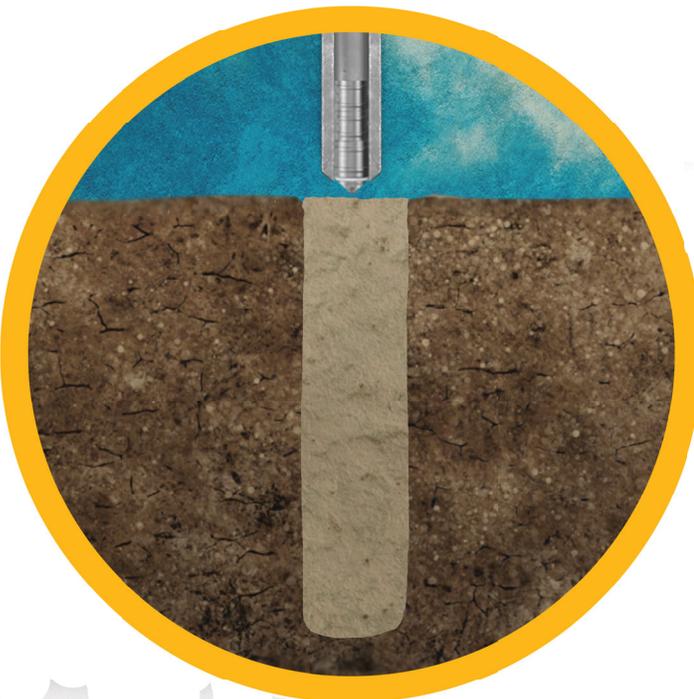


**Depth Vibrator Lowered  
Into Ground Assisted  
by Air or Water Injection**

**Air or Water Injections  
Stopped and Sand Added**



**Depth Vibrator Raised  
and Sand Column  
Completed**



# Vibro Compaction Applications



**Retail Buildings**



**Apartment Buildings**



**Warehouse Buildings**