

Soil Stabilization System



1.PRODUCT INTRODUCTION

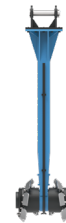
With nearly 20 years of experience in the development of excavator attachments and the production of solid material treatment equipment. In 2015, YICHEN independently designed and developed the world's leading soil stabilization technology, and is the first company in the world to use a more environmentally friendly solid to liquid stabilizer construction technology. Based on the premise of environmental protection and energy saving, the technology realizes the in situ solidification of soft foundation, sludge and soft soil of roadbed, swamp, landfill, beach coating, river course and engineering mud through the perfect cooperation between power mixer, excavator, control center and material storage equipment, so as to form a composite and stable base.

2.INTRODUCTION OF SOIL STABILIZATION SYSTEM FOR SOFT SOIL

Soil stabilization system we also call it as soft soil in situ solidification and remediation system is a new construction scheme that uses soil solidifying agent to directly act on soft soil (such as sludge, sludge, beach, swamp, etc.) to solidify soft soil in situ to form a composite stable base. The system is composed of storage bins, an control center and one or two power mixers. Combined with large and medium-sized excavators, the soil solidifying agent is directly transported to the soft soil which need to be solidified, evenly mixed and stirred to form a semi-rigid stabilized soil material.



YM-VF



YM-TF



Storage bin



Control Center

APPLICATIONS



Solidification of Soft Soil



Remediation of Contaminated Soil

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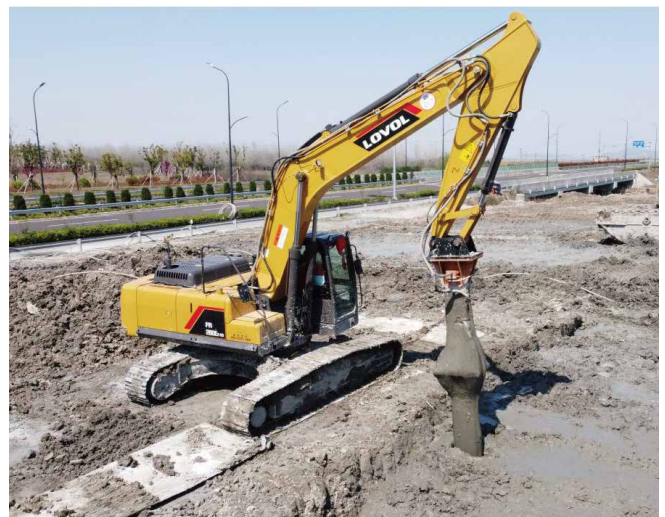


3. PRODUCT APPLICATION

- Construction of roadbed: the settlement and deformation of the base layer of the highway, after excavating the surface layer, the soft mud of the foundation is hardened about 1 meter deep, so as to complete the repair of the roadbed.
- Site hardening: hardening treatment of parking lots, stockyards for material or goods, drilling well sites, production and processing plants, etc.
- Anti-sedimentation and solidification of pipe corridors and ditches: when the pipeline construction passes through the silt land, there is no need to excavate the silt out and transport it to elsewhere, just solidify and then excavate, finally backfill the solidified soil.
- Solidification of marshland: solidification of marshland to build constructable land, build large factories, no need to excavate and transport the sludge, just solidify and reuse sludge on site.
- River bed solidification: After solidifying the river bed silt, then leveled it to build a beautiful river.
- Bridge and tunnel: The surface foundation solidification of the bridge, and the tunnel sludge is solidified and then excavated as a filling material.
- Solidification in the landfill: The landfill has accumulated various corrosive substances such as sludge, oil and plastic for a long time, we can built a park on it after solidification and burying.
- Remediation and improvement of heavy metal contaminated soil: soil heavy metal stabilization, engineering remediation of contaminated soil, vegetation restoration, and reduction of the potential dangers of heavy metals in contaminated soil to the ecological environment and human health.
- Contaminated soil remediation and acid-base neutralization: soil heavy metal content exceeds the standard and is alkaline, and acid-base neutralization is carried out through our soil stabilization system equipment.

4. PRODUCT FEATURE

- Reduce the amount of commonly used materials such as gravel and crushed stone, thereby reducing project costs and saving resources and energy.
- Solve the problems of soft soil mining, transportation and stacking, avoid secondary pollution, and contribute to environmental protection.
- The system adopts computer fully automatic control, automatic deployment and delivery of soil stabilizer, one-button start and stop, simple operation.
- The stabilization period is short, and a stable base can be formed 3-5 hours after mixing, which is convenient for later construction.
- The stabilization effect is excellent, and the new stable base layer formed after stabilization has a certain bearing capacity without the risk of subsidence.
- GPS positioning throughout the construction process, accurately locate the location of the excavator, and monitor the progress of the project.
- Adopt green environment-friendly soil stabilizer to improve the ecological environment and reduce the harm of polluted soil to human health.



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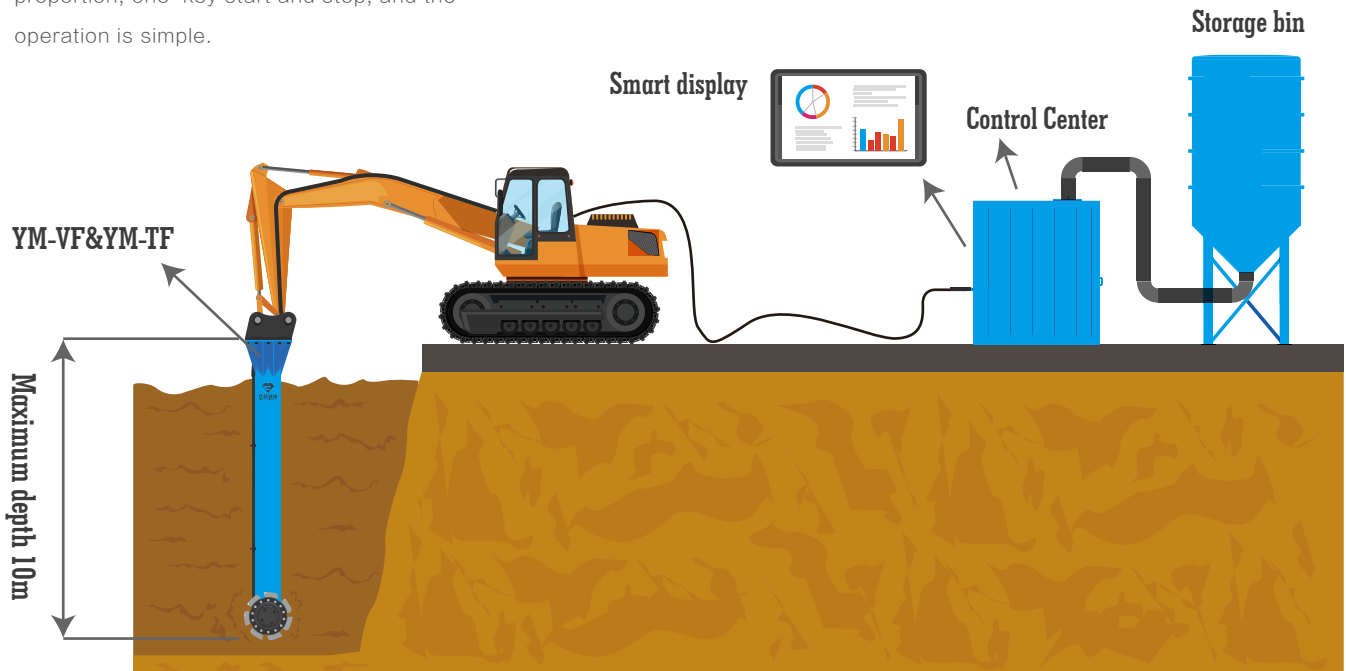
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5.ADVANTAGES

The soil stabilization system developed by Yichen Environmental has created a new concept, overturned the requirements of traditional equipment for the jobsite, realized in-situ treatment, reduced the difficulty of engineering construction, and improved the treatment efficiency and effect. The composite stabilized soil formed after in-situ solidification of soft soil can obtain local materials and turn waste into treasure, which has many advantages:

- After in-situ solidification of soft soil, the amount of commonly used inorganic binding materials such as sand and gravel can be reduced, so as to reduce the project cost and save resources and energy.
- In situ solidification can solve the problems of soft soil excavating, transportation and stacking, avoid secondary pollution and help the effort of environmental protection.
- The system adopts computer full-automatic control, conveying the solidifying agent according to the preset proportion, one key start and stop, and the operation is simple.
- The solidification period is short. After mixing the solidifying agent and soft soil for 3-5 hours, the soft soil can form a stable base, which is convenient for later construction.
- The solidification effect is excellent. The new stable base formed after solidification has a certain bearing capacity, which can ensure that heavy machines enter the site for construction without trapping risk.
- By changing the composition, ratio and amount of solidifying agent, solidification and remediation can be carried out at the same time, reducing the treatment process.
- The system is equipped with GPS positioning system, which can accurately locate the position of the excavator and monitor the construction progress in a large-area operation scene.
- Adopt green environmental protection remediation agent to solve the problem of soil pollution, improve the ecological environment and reduce the harm of polluted soil to human health..



APPLICATIONS



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6.APPLICATION CASE

Solidification Application

1. Roadbed construction

When the roadbed appears settlement and deformation. Repair by excavating its surface and hardening the soft soil about 1m deep.



2. Jobsite hardening

Hardening treatment of parking lot, stockyard, drilling well site, production and processing plant, etc.



3. Anti- subsidence and solidification of pipe trench and ditch

When the pipeline passes through the sludge ground during construction, there is no need to excavate and transport the sludge outside. solidified the sludge first and then excavation and backfill it.



Remediation Application

1. Remediation and improvement of heavy metal contaminated soil

Stabilization and remediation of heavy metals in soil, engineering treatment of polluted soil and vegetation restoration, so as to reduce the potential danger of heavy metals in polluted soil to ecological environment and human health.



2. Contaminated soil remediation and acid-base neutralization

The content of heavy metals in the soil exceeds the standard and is alkaline. Acid and alkali neutralization is carried out through our soil stabilization system equipment.



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