1. Excavation
Use a boring machine to drill to the target depth.

2. Ground resistance check
Fill the borehole with water and measure the ground resistance value of the boring rod to see if the target grounding resistance value is obtained.

3. Adjusting the digging rod
When two rods are used for excavation, pull out the inner rod to bring it into the condition of the outer rod only.

4. Preparation of ground electrode
Connect IV wire for startup and the bare copper wire for grounding using a T-connector, etc.

5. Inserting the ground electrode
Insert the ground electrode into the borehole and pull it down to the bottom.
At that time, if a weight such as a ground rod is fixed to the tip of the ground electrode, insertion will be easier.
Also, if you are going to bury the injection tube, tie the ground electrode and the injection tube together and insert them together.

6. BIO SAN-EARTH agitation
Pour the water into the container, and then add the BIO SAN-EARTH to stir.
Use a hand mixer to agitate uniformly so that there is no residual melting.
Approximately 32L water consumption per bag is a guideline.
The fluidity varies depending on the season (temperature and humidity).
Adjust the viscosity while observing the actual viscosity.
A bag of BIO SAN-EARTH can be installed for about 4m, but the actual length depends on the diameter of the borehole, the porosity of the soil, and the amount of water added during agitation.

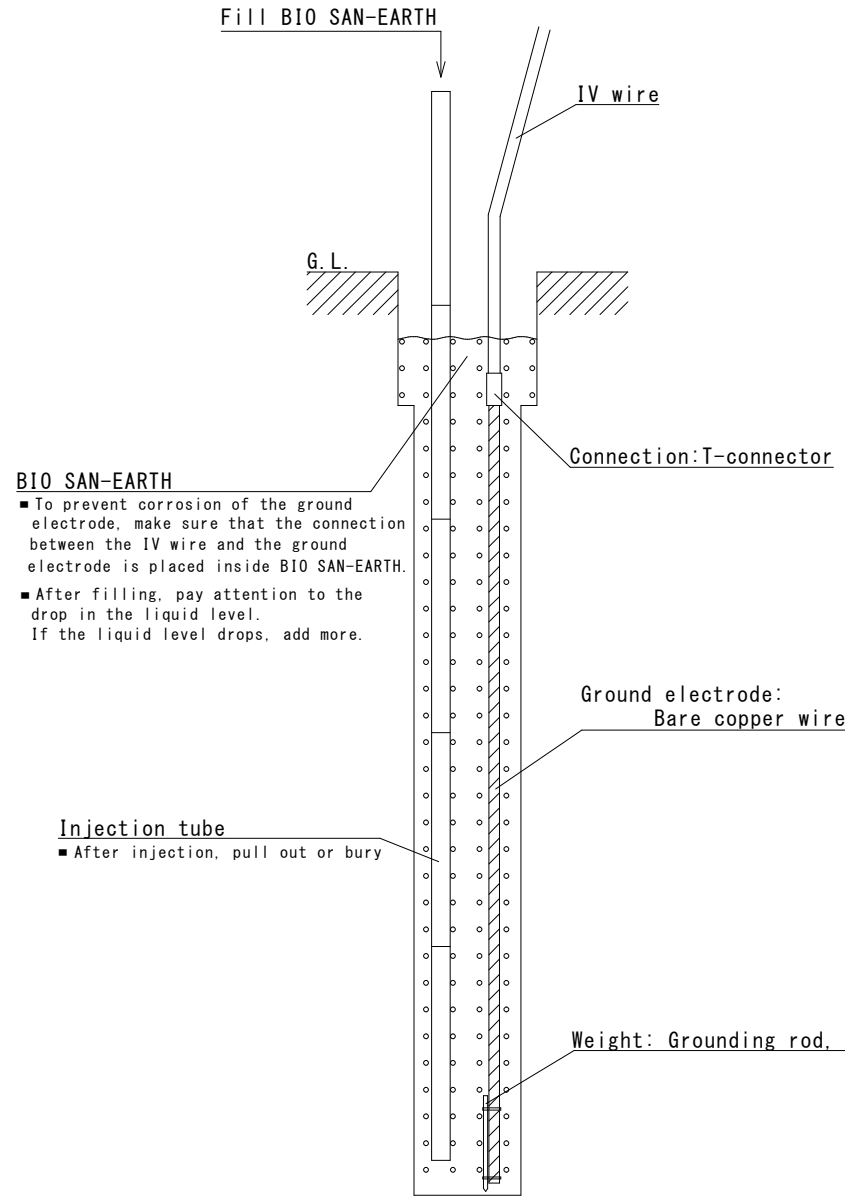
7. Filling the borehole
Insert the dosing pipe (hose or gas pipe) into the borehole and fill it with water-kneaded BIO SAN-EARTH using a submersible pump. The diameter of the suction port should be equal to or larger than 5mm to prevent clogging.
A device (e.g., a two-vessel structure) that transfers from the bottom of the vessel through a wire mesh filter to another vessel Grout mixer) should not be used.
Bio-charcoal particles may accumulate in the filter section and piping, causing clogging.

8. Treatment after completion of filling
Pull out the outer rod after completing the BIO SAN-EARTH filling to the ground surface.
When filling in several days, the Bio-San Earth in the filled area will solidify, so pull out the outer rod to that depth.
Also, when pulling out the injection tube, pull it out together with the outer rod.

9. Backfill
Fill back the borehole. If the BIO SAN-EARTH liquid level is low, add an additional splice.
Be sure to insert the connecting part of IV wire and the grounding pole into the BIO SAN-EARTH.
※ It is recommended that the backfill be carried out the day after the BIO SAN-EARTH filling.

10. Final ground resistance measurement
After completing the backfilling, measure the grounding resistance and confirm that the target value is satisfied.

BIO SAN-EARTH Boring Method
Schematic Diagram



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SANKOSHA