Atmospheric Pressure Loading Method

The Atmospheric Pressure Loading Method uses atmospheric pressure, instead of surcharge fill for load consolidation. The method requires the covering of the ground surface with an airtight sheet to produce negative pressure with the ground by utilizing a vacuum pump. Normally, the amount of negative pressure load reaches to 50 to 80^2 kN/m^2.

- Conveniently adoptable in case of scarcity in the supply of soil and sand for filling.
- Ground erosion can be avoided due to non-filling activities.

### Working Procedure

1. Sand blanketing
2. Driving of vertical drains
3. Laying of airtight sheet for surface covering
   - The ends of the sheet are fixed to the ground.
4. Vacuum pump fixed to the sand blanket layer.
5. Collecting of Air and water
6. Discharging to drainage

### Equipment to be Used

- Airtight Sheet
- Sand Blanket Layer

### Completed Projects Record

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Duration</th>
<th>Project Site</th>
<th>Client</th>
<th>Soil to be Handled</th>
<th>Execution Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chubu Electric Power Co., Takeloyo Thermal Power Station</td>
<td>64.10－65.1</td>
<td>Aichi</td>
<td>Chubu Electric Power Company</td>
<td>Cohesive soil</td>
<td>Paper drain pitch: 0.76 m; Improvement area: 790 m²</td>
</tr>
<tr>
<td>Tomi Foundation, Foundation Ground Stabilization Experiment Work</td>
<td>66.3－66.8</td>
<td>Shizuoka</td>
<td>Superhighway Corporation</td>
<td>Humic soil Cohesive soil</td>
<td>Paper drain pitch: 0.76 m; Improvement area: 790 m²</td>
</tr>
<tr>
<td>Soil improvement work for Removal of Australian Establishment</td>
<td>71.8－72.2</td>
<td>Mie</td>
<td>Pollution Prevention Corporation</td>
<td>Reclaimed silt layer</td>
<td>Paper drain pitch: 0.76 m; Improvement area: 790 m²</td>
</tr>
<tr>
<td>Ichikawa Distribution/Processing Base Ground Improvement Work</td>
<td>74.4－74.10</td>
<td>Chiba</td>
<td>Nippon Kokan K.K.</td>
<td>Reclaimed silt layer</td>
<td>Paper drain pitch: 0.76 m; Improvement area: 790 m²</td>
</tr>
</tbody>
</table>