Table 3.1 Wall displacements required to reach active state

| Investigator | Soil Type | Type of Wall Movement | Max. Wall Displacement Required |
|---|---|---|---|
| Sowers and Sowers (1961) | Loose Sand | RB mode | 0.0020 H |
| | Dense Sand | | 0.0005 H |
| Mackey and Kirk (1967) | Loose Sand | T mode | 0.0040 H |
| | Dense Sand | | 0.0030 H |
| Matteotti (1970) | Sand | RB mode | 0.0008 H |
| Bros (1972) | Sand | T mode | 0.0006 H |
| | | RT mode | 0.0012~0.0018 H |
| | | RB mode | 0.0035 H |
| NAVFAC DM-7.2 (1982) | Loose Sand | — | 0.0020 H |
| | Dense Sand | | 0.0005 H |
| Bowles (1988) | Loose Sand | — | 0.0020~0.0040 H |
| | Dense Sand | | 0.0010~0.0020 H |
| Fang et al. (1997) | Loose Sand | T mode | 0.0015 H |

Note: RB = Rotation about base; RT = Rotation about top; T = Translation; and H = Wall height

Table 3.2 Technical information of the acentric motor

| | |
|---|---|
| Manufacture | Mikasa |
| Type | KJ75-2P |
| Power (Watt) | 75 |
| Voltage (Volt) | 220 |
| Frequency (Hz) | 50/60 |
| Vibration Per Minute | 3000/3600 |
| Mass (kg) | 6.2 |

Table 5.1 Properties of Ottawa Sand (after Chen, 2001)

| Shape | Rounded |
|---|---|
| $e_{max}$ | 0.76 |
| $e_{min}$ | 0.50 |
| $G_S$ | 2.65 |
| $D_{60}$, mm | 0.32 |
| $D_{10}$, mm | 0.21 |
| $C_u$ | 1.48 |

Table 6.1 Study of earth pressure for loose sand

| Distance d between model wall and interface plate (mm) | Test No. | |
|---|---|---|
| | Loose Sand | Compacted Sand |
| 1500 | 0128 | 0529 |
| | 0216 | 0621 |
| 1100 | 0616 | 0706 |
| | 0619 | |
| 900 | 0503 | 0601 |
| 700 | 0428 | 0603 |
| | 0430 | |
| | 0503 | |
| 500 | 0409 | 0515 |
| | 0412 | |
| 400 | 0407 | 0524 |
| | 0413 | |
| 300 | 0324 | 0520 |
| | 0328 | |
| 200 | 0406-1 | 0524 |
| | 0406-2 | 0612 |
| 100 | 0331 | 0614 |
| | 0405 | |
| | 0609 | |
| 50 | 0330 | N.A. |
| | 0331 | |
| | 0609 | |