# Geotechnical Centrifuge

Highly precise simulation of the real object's behavior with a small-scale model

## What is a Geotechnical Centrifuge?

A geotechnical centrifuge is a tool used in model experiments to understand the behavior of the ground, soil-structures, and underground structures. A small-scale model is mounted on a swing platform at the end of an arm that extends from the rotating axis. By rotating the device at high speed, the swing platform is swung up by centrifugal force, which can apply a large gravitational acceleration to the small-scale model. By adjusting the gravitational acceleration according to the scale of the model, it is possible to simulate behavior equivalent to the actual scale.



#### **Overview of Geotechnical Centrifuge**

## Geotechnical Centrifuge of Hazama Ando Corporation

Hazama Ando Corp.'s Geotechnical centrifuge can apply a maximum centrifugal acceleration of 100G, enabling highly precise simulation of the behavior of real structures 100 times the size of the model. A shaking table is mounted on the swing platform, facilitating vibration experiments such as earthquake simulations. Utilizing this device allows for efficient and accurate design, construction, and development of new technologies for structures related to the ground in the civil engineering and architecture fields.





Geotechnical centrifuge Lab.

## **Geotechnical centrifuge**

### **Geotechnical centrifuge specification**

Items		Specification
Effective rotation radius		3.5m
Maximum centrifugal acceleration		100G
Maximum loading weight		200G/t
Loading space		$L1.2m \times W1.2m \times H1.0m$
Shaking table	Adjustable centrifugal acceleration	25~100G
	Size	L1.1m×W0.5m
	Maximum acceleration	50G
	Maximum loading weight	370kg

## HAZAMA ANDO CORPORATION