

JNIOSH Centrifuge Mark II

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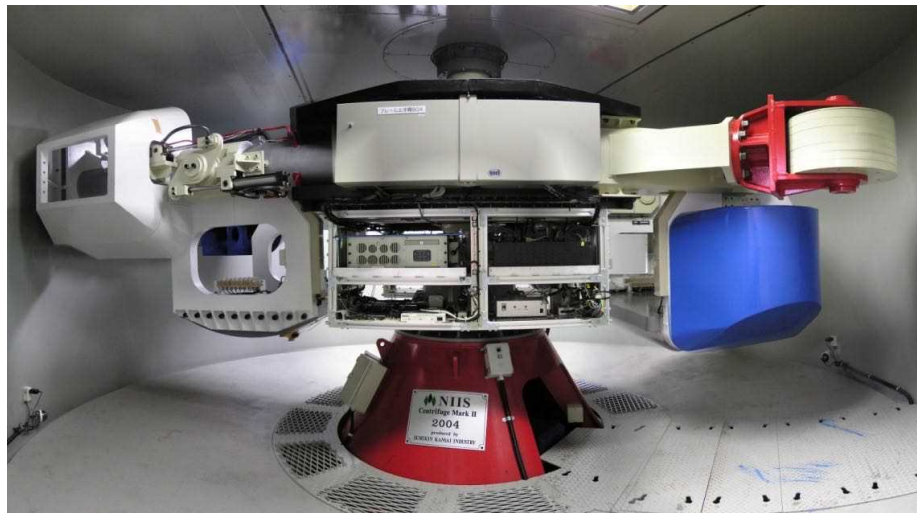
Website: <https://www.jniosh.johas.go.jp>

Owner: National Institute of Occupational Safety and Health, Japan(JNIOSH)

Location: Kiyose City, Japan

Introduction

JNIOSH's centrifuge machine is designed with a 50 gton capacity and can reach a maximum centrifugal acceleration of 100g at a radius of 2.38m. As in other centrifuge, it also has a main shaft, a drive unit, two arms, two swinging platforms, a signal and power supply interface and a control box. But unlike in other centrifuge, its arms (forms) are asymmetric, which is its special feature. JNIOSH has conducted many centrifuge tests to investigate the failure mechanism which are mainly related to the labour accidents.



JNIOSH Centrifuge Mark-II

Key Technical Specifications

Beam Centrifuge	
Manufacturer	Sumitomo Metals (Currently, Nippon Steel Railway Technology)
Year established	2004 (1st centrifuge Mark-I was establish in 1988)
Radius to base of platform	2.38m(static), 2.2m(dynamic)
Capacity	50 gton (0.5tons@100g) (static), 50 ton (1tons@50g) (dynamic)
Bucket area	1.1 m x 1.5 m(static), 0.95 m x 1.1 m(dynamic)
Major equipment	3D Excavation Simulator

3D Excavation Simulator

We have a 3D excavation simulator to simulate excavation of the ground in a centrifuge field. It can be operated remotely from the control room to maneuver the excavating blades in the x, y, and z directions. It also has a pile driving function and can drive a pile at a predetermined location.

