



Laboratoire Central des ponts et Chaussées

Equipments for test in centrifuges

CLAY MIXER

The purpose of this equipment is the preparation of saturated clay.

LCPC mixer in operation



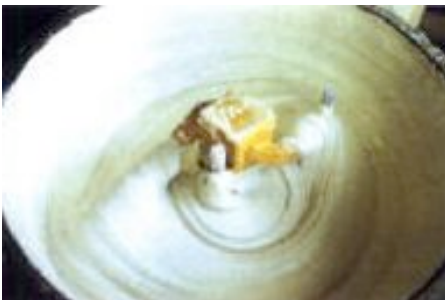
The classical methodology used for the construction of clay soils consists of two successive operations :

- Preparation of a slurry by mixing clay and water
- Consolidation of the mix under pressure.

This methodology permits the construction of a soil material with a precisely defined geotechnical profile.

The total duration of the total consolidation is about 4 weeks for a 0.5 meter thick soil model.

Vacuumed clay slurry



The LCPC method consists of mixing the clay with water under a vacuum in order to create a fully-saturated homogeneous slurry.

This apparatus is equipped with two adjustable height mixing blades and a scraping blade.

As a must compared to classical clay mixer, this system uses a vacuum pump in order to create a light depression in the tank.

The purpose of this depression is to minimize the air concentration in the preparation to obtain a fully saturated slurry.

Technical Data Model		C61	C65-C67	C72-C80	C84-C85
Mainframe					
Length	m	1.2	1.2	1.2	Specification Per Request
Width	m	1.1	1.1	1.1	
Height	m	1	1	1	
Weight	kg	150	150	150	
Performances					
Tank usable volume	m ³	0.2	0.2	0.2	
Blade rotation speed	rpm	45	45	45	
Vacuum pressure	MPa	8*10 ²	8*10 ²	8*10 ²	

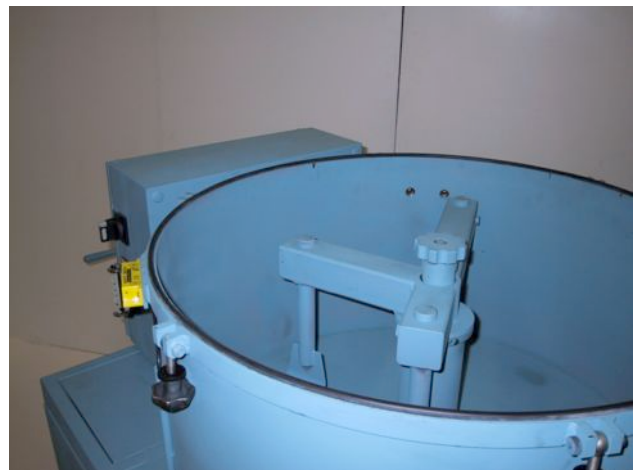
ACTIDYN clay mixer



Blades detail



Seen from top



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