



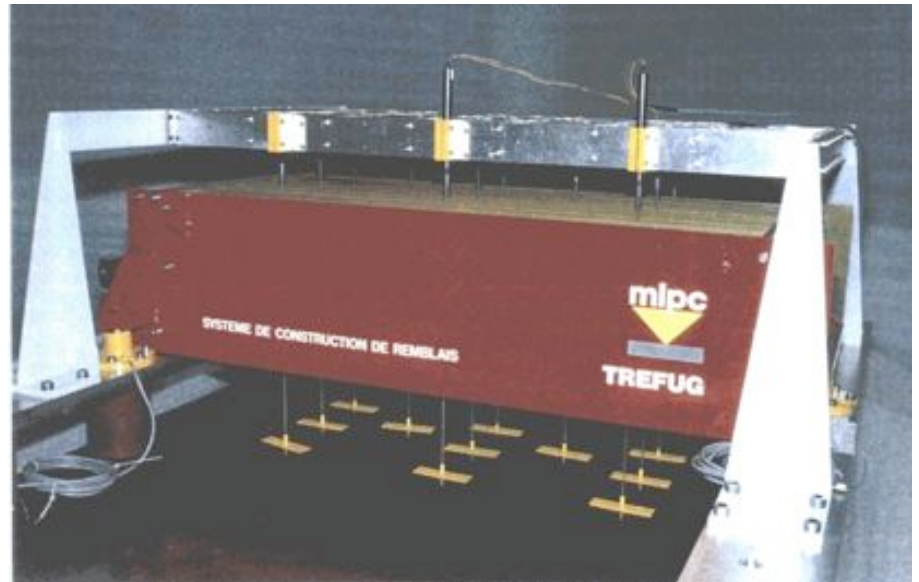
Laboratoire Central des ponts et Chaussées

Equipments for test in centrifuges IN FLIGHT SAND HOPPER

The in-flight sand hopper is designed to perform the construction of soil embankments or levees models while the centrifuge is in rotation in order to verify the soil behavior and in particular its settlement.

A clay model is prepared and consolidated in a rectangular container.

The sand hopper containing the sand required to simulate the embankment shape is positioned on top of the container over the clay soil.

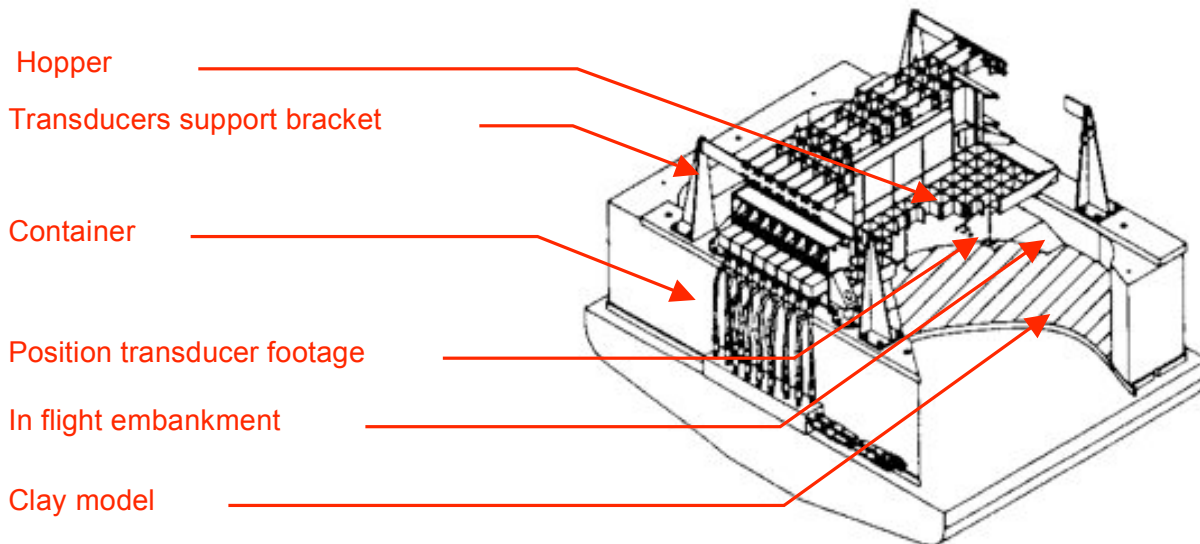


The hopper and the model contain all necessary transducers to measure the soil settlement.

During the centrifuge rotation at the scaled acceleration the ore-hopper delivers the sand, which rains on the clay soil, and create the expected embankment.

The operator from the control room initializes the command.

The soil settlement under the embankment pressure is measured by linear position transducers (L.V.D.T.) and the sand flow by force gages integrated in hopper supporting structure.



Technical Data	Model	C61	C65-C67	C80	C84-C85
Outer dimensions					Per request
Width	mm	600	700	760	
Depth		300	400	400	
Height		250	250	250	
Other parameters					
Sand height max.	mm	132	132	132	
Sand volume max.	dm ³	1.5	2.2	2.5	
Nb of usable transducers		10	20	20	
Simulated Model mass	kN	40	72	80	
Environment					
Line Voltage	V	410 / 480	410 / 480	410 / 480	410 / 480
Power consumption	kW	1	1	1	2
Frequency	Hz	50 to 60	50 to 60	50 to 60	50 to 60
Operating temperature	°C	15 to 35	15 to 35	15 to 35	15 to 35
Humidity (non condensing)	%	20 to 80	20 to 80	20 to 80	20 to 80