



# HUMBOLDT

## Vibrating Tables



### Vibrating Tables for Cement Sample Compaction

ASTM C109; EN 196-1

These Vibrating Tables are designed specifically for the compaction of 40 x 40 x 160mm samples fresh concrete for cement testing samples in the form of 3-gang, prism molds, in accordance with EN 196 T1 and ASTM C109 standards. They also can be used to prepare 3- and 6-gang cube mold samples.

Vibrating Tables are available in 3 different models to facilitate the choice of a table based on the type of mold you wish to use. These models are:

Table w/ Fast-action Clamp for Prism Molds: **HC-3253.4F**

Table w/ General Clamp for Prism Molds: **HC-3254.4F**

Table w/ Feeding Hopper for Cube Molds: **HC-3255.4F**

(Note: other molds and feed hoppers can be ordered separately as accessories, if other molds are needed. A total vibrating mass of 35.0 +/- 1.5 kg according to EN 196-1 can only be guaranteed by utilizing the precision three-gang mold with feeding hopper: HC-3253.1)

The vibrating plate is 400 x 300mm in size and is built into a powder-coated steel cabinet. The power switch box is mounted on a post attached to the top of the cabinet. Oscillation frequency is 50Hz with a sinusoidal waveform and controlled with a digital timer. Peak-to-peak value is  $0.75 \pm 0.05$ mm.

The control housing is conveniently-mounted above the vibration surface for ease-of-use, as well as to protect the circuitry from vibrations. The vibratory function is pro-

## Vibration Tables

duced by a periodic, reciprocal motion of a spring-mass system. In general, the frequency is in a fixed ratio to the frequency of the applied voltage. A magnetic field produced by the exciter coil initiates the vibration action. An electromagnetic vibrator with a frequency of 3000 vibrations per minute drives the system. A controller enables infinitely variable adjustments of the amplitude range between 0.4 and 1.0mm. The vibratory plate executes a single-axis, vertical vibration.

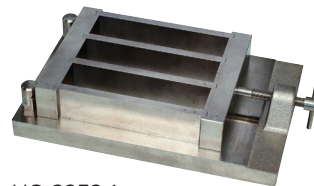
The sealing clamp has been prepared for moulds (40 x 40 x 160mm). The vibration time is set on a timer switch, and when the set time runs out, the timer will switch off the vibrating table. You can set the amplitude of the vibrations up to 1mm, on an infinitely variable basis.

This Vibrating Table is intended for operation only in dry rooms. Any use of this Vibrating Table that is not in conformity with the operating instructions and requirements. If the application requires the table to operate in a special manner, or under special conditions, the purchaser is required to first obtain advice and approval from the manufacturer.

One of the components of the Vibrating Table is a sealing clamp with a fast-action clamping system. This clamping system fastens the molds, so that they are securely held in the center of the working surface. The maximum vibrating mass, including an empty mold clamped in place, is 35kg  $\pm$  1.5.

Vibration magnets are electromagnetic devices that undergo periodic movement when they are excited by AC voltage. The magnet system is completely embedded, and enables optimal application for drives with vibration systems. Vibration magnets operate practically without wear in an electromagnetic vibrator, and they produce little noise.

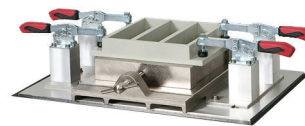
Specifications	
Dimensions approx.	750 x 750 x 850mm
Weight approx.	120kg
Power Requirements	230V / 50Hz
Power Consumption	100-250W / 0,5-1A
Amplitude Range	0.4mm – 1.0mm infinitely variable
Vibration Frequency	3000 vibrations / min. (at 50Hz main frequency)
Drive System	Electromagnetic Vibrator
Vibration Type	Sine Wave
Timer Switch	1 sec. – Digital Display
Display	Digital
Table Plate	400 x 300mm; stainless; ground finish



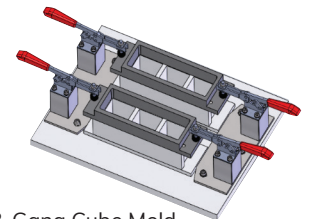
HC-3253.1  
Precision 3-Gang Mold



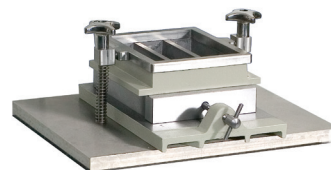
HC-3253.3  
2" Cube, 3-Gang Mold



Fast-Action Clamp, shown  
with 3-Gang Mold



3-Gang Cube Mold  
Feeding Hoppers, shown  
with Fast-Action Clamp



General Clamp, shown  
with 3-Gang Mold