



MOULDING EQUIPMENT

The equipment listed under HC 42 series are used for casting by compaction and capping of cement concrete test specimens for carrying out the compressive and transverse strength tests in accordance with various IS Specifications.

CUBE MOULDS

These are used for casting cement concrete test specimens for carrying out compressive strength tests as per IS : 516. These moulds are manufactured as per IS specifications. The faces are machined flat within ± 0.02 mm tolerance and the inside dimensions are accurate within ± 0.2 mm. Each mould is supplied with a base plate. HEICO 70.6 mm and 150 mm cube moulds carry I.S.I. mark.

●● HC42.05

Cube Mould (50 mm) IS : 10086-1982

HC 42.05.1 Cast Iron

HC42.05.2 Mild Steel

●● HC42.10

Cube Mould (70.6 mm) With I.S.I Mark as per IS : 10080-1982

These Cube moulds are made of steel. The tolerance between faces is maintained at ± 0.1 mm and planeness is ± 0.03 mm. Cube Moulds carry ISI mark.



HC42.10

●● HC42.20

Cube Mould (100 mm) IS : 10086-1982

Cube Mould made of cast iron having an internal size of 100mm with a tolerance of ± 0.2 and planeness of ± 0.03 mm. Cube Moulds are ISI Marked.

●● HC42.22

Cube Mould (100 mm) as per BS1881

Cube moulds meet the stringent requirement of the above standard and meet the requirement both diametrically as well as weight wise.

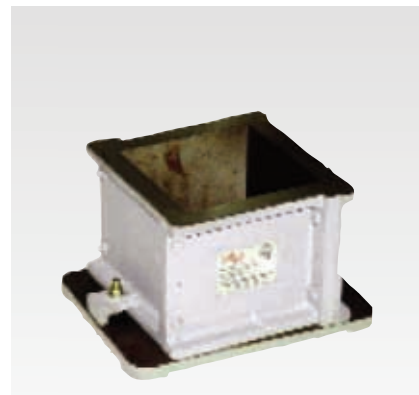


HC42.22

●● HC42.25

Cube Mould (150 mm) With I.S.I Mark as per IS : 10086-1982

Cube Mould made of cast iron having an internal size of 150mm with a tolerance of ± 0.2 and planeness of ± 0.03 mm. Cube Moulds are ISI Marked.



HC42.25

●● HC42.30

Cube Mould (150 mm) As per BS 1881



HC42.30

●● HC42.35

Cube Mould (200 mm) IS : 10086

Cube moulds made of cast iron.

●● HC42.40

Cube Mould (300 mm) IS : 10086

Cube moulds made of cast iron.

●● HC42.41

Cube Mould (450 mm) IS : 10086

Cube moulds made of cast iron.

NOTE:- Cube moulds mentioned above are the standard cube moulds. However special sizes can be made on request.

BEAM MOULDS

IS : 516, IS : 10086-1982

Used for making cement concrete prisms or bars of square cross-section for flexural strength tests. Inside faces are machined flat to within ± 0.02 mm tolerance and inside dimensions are accurate to ± 0.2 mm. Made of cast iron or steel, supplied complete with base plate.

●● HC42.45

40 mm x 40 mm x 160 mm made of Mild Steel.

●● HC42.50

100 mm x 100 mm x 500 mm made of Cast Iron.

●● HC42.55

150 mm x 150 mm x 700 mm made of Cast Iron.

CYLINDRICAL MOULDS

IS : 516, IS : 10086-1982

Used to cast cylindrical cement concrete specimens for compressive strength tests. These moulds are made of cast iron. They can be easily split into two parts. The internal diameter is finished to ± 0.2 mm tolerance and height within ± 1 mm. Supplied complete with a base plate machined flat within ± 0.02 mm tolerance.

●● HC42.80

Cylindrical Mould 100mm dia x 200mm high, Cast Iron.

●● HC42.85

Cylindrical Mould 150mm dia x 300mm high, Cast Iron.

●● HC42.90

Cylindrical Mould 300mm dia x 600mm high, Cast Iron.

●● HC42.93

Cylindrical Mould 450mm dia x 900mm high, Cast Iron.

●● CAPPING SET

The end faces of cylindrical cement concrete test specimens must be plane, smooth and parallel so as to yield correct results during carrying out their compressive strength tests. Any imperfection remaining after casting the specimens, have to be removed by capping the specimens with cement or any other suitable capping compound. 'HEICO' offers two types of capping sets i.e. Horizontal and vertical for this purpose.

●● HC42.95

Capping Set (Horizontal) IS:516-1959

For capping 100 mm dia x 200 mm high cylindrical specimens in the field or in the laboratory.

It consists of the following :-

- i) A machined base fitted with two brackets, one fixed, and the other movable horizontally. Both the brackets carry specimen holders. Each holder has a notch at the top for pouring the molten capping compound.
- ii) Cylinder carrier for carrying the 100 mm dia. cylindrical specimens.



HC42.55

ACCESSORIES :

HC42.45.1 Tamping bar 25 \pm 0.5 mm square x 400 \pm 2 mm long.



HC42.45.1

HC42.45.2 Tamping rod 16 mm dia x 600 mm long with one end rounded, made of mild steel.



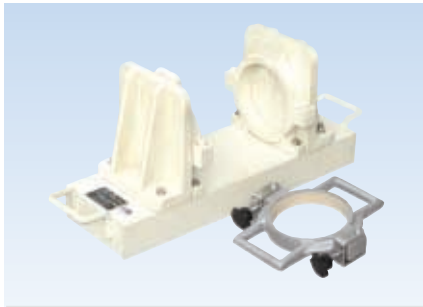
HC42.85

iii) A stainless steel ladle for pouring the molten capping compound into the notches of the capper.

●● **HC42.100**

Capping Set (Horizontal) IS:516-1959

Same as HC42.95 but for capping 150 mm dia x 300 mm high cylindrical specimens in the field or in the laboratory.



HC42.100

●● **HC42.102**

Capping Set (Horizontal) IS:516-1959

Same as HC42.95 but for capping 300 mm dia x 600 mm high cylindrical specimens in the field or in the laboratory.

●● **HC42.105**

Capping Set (Vertical) IS:516-1959

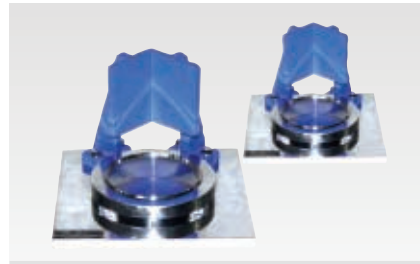
For 100 mm dia x 200 mm high cylindrical specimens. For use in the field or in the laboratory. It consists of the following :-

- i) A machined base with vertical guide for 100 mm dia x 200 mm high cylindrical specimen and a capping plate.
- ii) A cylinder carrier for 100 mm dia specimen.
- iii) A ladle for pouring the capping compound.

●● **HC42.110**

Capping Set (Vertical)

Same as HC42.105 but for capping 150 mm dia x 300 mm high cylindrical specimens.



HC42.105 & HC42.110

●● **HC42.115**

Capping Compound Heater (Electrical)

For melting the capping compound. It consist of an electrically heated bath with an energy regulator for controlling the temperature. Suitable for operation on 220 volts, 50 Hz, Single phase supply.

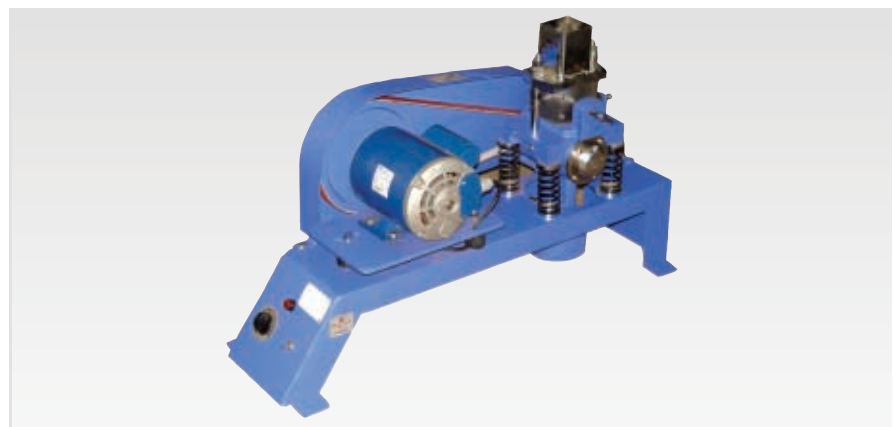
ACCESSORIES :

Capping Compound
Supplied in 5 kg packs.

●● **HC42.135**

Vibrating Machine IS : 10080-1982

The machine is used for compaction of 70.6 mm cube specimens of cement mortar under standard vibration required for determination of compressive strength of cement. The vibration machine consists of a frame mounted on four coiled springs to carry a cube mould and an eccentric revolving shaft mounted in ball and roller bearings. The machine is so balanced that the eccentric imparts simple harmonic motion to mould carrier and the mould. The frequency of vibration is 12000 ± 400 per minute. The



HC42.135

drive from the motor to the eccentric shaft is through an endless flat belt running on crowned pulleys.

Suitable for operation on 220 V, 50 Hz, single phase supply. Supplied complete with a time switch, one 7.06 cm I.S.I. marked cube mould (HC42.10.1) with hopper.

[NOTE : The machine can be supplied with NCCBM/Sriram Test House certification on request.

●● **HC42.5135**

Vibrating Machine IS : 10080-1982

Same as HC42.135 except that the machine is supplied with the digital timer.

ACCESSORIES :

- i) Belts
- ii) Set of Springs.
- iii) HC42.10.1 Cube Mould 7.06 cm (I.S.I. Marked)
- iv) Lubricant - 100cc.

●● HC42.140

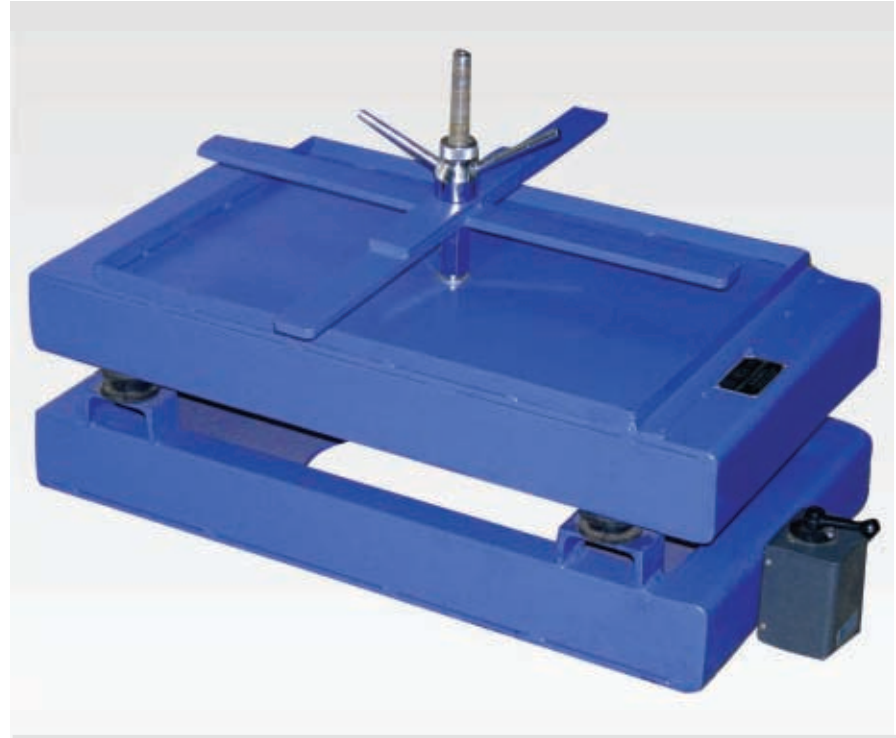
Vibrating Table IS : 2514-1963

The Vibrating Table is used for compaction of cement concrete cubes and cylinders by vibration. The load carrying capacity of the table is about 150 kg. The table is supported on rubber mounting springs and the housing of the eccentric is fitted below the table top.

The table is approx. 710 mm x 500 mm in size and has stops along all its sides to prevent the moulds from sliding away during vibrations. Table can accommodate four numbers of HEICO make 150 mm cube moulds. An operating switch is provided. Suitable for operation on 440 v, 50 Hz, 3 phase supply.

ACCESSORIES :

HC42.140.1 Rubber Springs



HC42.140

●● HC42.142

Vibrating Table IS : 2514-1963

The size of the table is 1000mm x 1000mm. It has a heavy duty vibrator with fixed amplitude and vibrations. Operates on 440 v 3 phase supply.

●● HC42.145

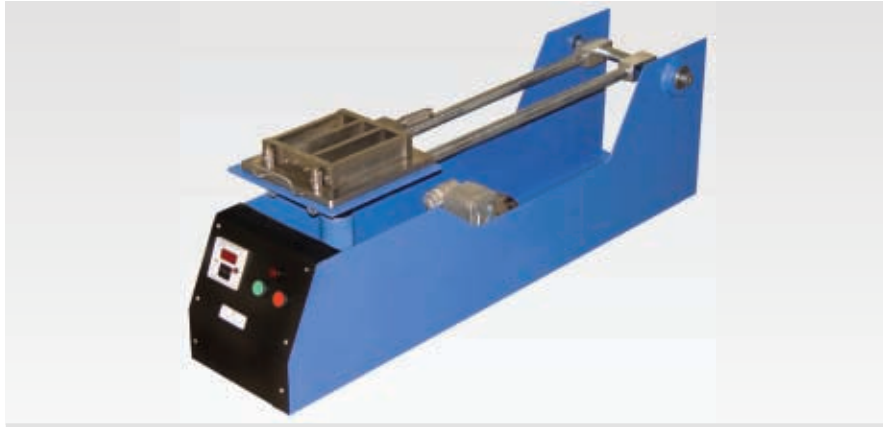
Jolting Apparatus IS : 10078-1982

Used for molding of three standard specimens of 40 mm x 40 mm x 160 mm size from Portland and Pozzolana cement mortar for determination of their transverse strengths. The equipment consists of the following: -

- i) A motorised Jolting Machine, as per IS 10078 specifications, which gives 60 jolts per minute to the rectangular table through a reduction gear and cam drive. A pre-set type counter with a micro switch stops the machine automatically after 60 jolts. The rectangular table has guide pins for properly locating and clamping the moulds.



HC42.142



HC 42.145

- ii) A three compartment mould for preparing three specimens of 40 mm x 40 mm x 160 mm size.
- iii) A three compartment hopper which can be mounted on the mould for pouring the mortar in to the mould.

Suitable for operation on 220 V, 50 Hz, single phase supply.

ACCESSORIES :

HC42.145.1

Standard three-compartment mould for 40 mm x 40 mm x 160 mm specimens.

HC42.145.2

Demoulding Apparatus for test specimens as per IS specifications.

HC42.146

Needle Vibrator, 25 mm dia, motor driven, 3 phase, 440 v.

HC42.147

Needle Vibrator, 25 mm dia, engine driven

HC42.148

Needle Vibrator, 40 mm dia, motor driven, 3 phase, 440 v.

HC42.149

Needle Vibrator, 40 mm dia, engine driven.

●● HC42.150

Mixing Apparatus IS : 10890-1984, IS: 1727-1967

Used for preparation of plastic mortar of cement and pozzolanic materials for making different types of test specimens in the laboratory.



HC42.150

The apparatus comprises the following:-

- i) A motor-driven mixer which simultaneously imparts two motions to the mixing paddle **i.e. revolving and planetary, they being opposite to one another in direction as per IS.** A two speed gear box is incorporated in the drive which makes the paddle revolve at approximately 140 and 285 r.p.m. with corresponding planetary motion of 62 and 125 r.p.m. respectively.
- ii) A stainless steel mixing paddle of the specified shape and dimensions which can be attached or removed easily.
- iii) A stainless steel mixing bowl of about 6 litre capacity. This can be held with the mixing apparatus and its height is adjustable.
- iv) A scraper made from semi rigid rubber blade attached to a handle about 150 mm long. The blade is about 75 mm long and 50 mm wide. Suitable for operation on 220v, 50 Hz, single phase supply.