

# HİRA TESTING EQUIPMENT

## LENGTH CHANGE (SHRINKAGE AND EXPANSION)

STANDARDS: EN 12808-4, EN 1367-4, EN 12617-4, ASTM C151, C490

Used to measure the length variations of mortar specimens after autoclave soundness tests.

It also measures the linear shrinkage/expansion of specimens having different dimensions.

The set consists of Length Measuring Frame, Steel Mould according to the related standard, Steel Inserts for mould (pack of 10) and Reference Rod. The set is available in four models; with 0,01 mm Analogue Dial Gauge, with 0.01 mm Digital Dial Gauge, with 0.001 mm Digital Dial Gauge and Heidenhain Digital Readout Unit with 30x0,0001 mm Length Measuring Sensor which can be connected to Length Measuring Frames.

40x40x160 mm Three Gang Mould, complete with steel inserts, used for the determination of linear shrinkage of cement mortar. Made from hardness steel.

25x25x285 mm Two Gang Prism Mould, complete with steel inserts, used for the determination of linear shrinkage of cement mortar.

Length Comparator; the top beam is adjustable to suit the specimen's length.

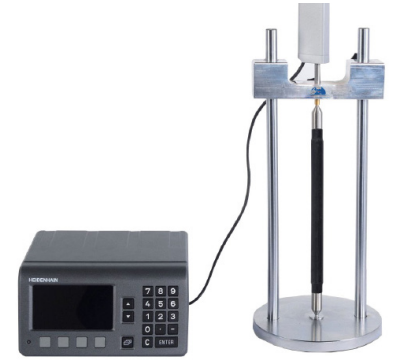
Analog Dial Indicator; 10 x 0,01 mm division.

### Technical Specifications:

Product Code	Product Name
HR-CE0905/AS	Analog Drying Shrinkage Set with HR-CE9000/T & HR-G0875
HR-CE0915/DS	Digital Drying Shrinkage Set with HR-CE9000/T & HR-G0877
HR-CE0905/DS	Digital Drying Shrinkage Set with HR-CE9000/T & HR-G0879
HR-CE0910/AS	Analog Drying Shrinkage Set with HR-CE9010 & HR-G0875
HR-CE0920/DS	Digital Drying Shrinkage Set with HR-CE9010 & HR-G0877
HR-CE0910/DS	Digital Drying Shrinkage Set with HR-CE9010 & HR-G0879
HR-CE0913/DS	Digital Drying Shrinkage Set with HR-CE9000/T & HR-G0890
HR-CE0914/DS	Digital Drying Shrinkage Set with HR-CE9010 & HR-G0890



HR-A0905 with HR-G0877



HR-A0905 with HR-G0890

### Spare Parts & Accessories:

Product Code	Product Name	Dimensions (mm)	Weight (kg)
HR-CE9000/T	Three Gang Mould, 40x40x160 mm	300x190x70	12
HR-CE9000/1	Steel Insert for HR-CE9000/T (Pack of 10)	---	---
HR-CE9000/2	Reference Rod, 160 mm	160	---
HR-CE9010	Two Gang Prism Mould, 25x25x285 mm	90x340x40	4
HR-CE9010/1	Steel Insert for HR-CE9010 (Pack of 10)	---	---
HR-CE9010/2	Reference Rod, 305 mm	305	---
HR-A0905	Length Comparator	180x180x450	6
HR-G0875	Analog Dial Indicator, 10 x 0,01 mm	---	---
HR-G0877	Digital Dial Indicator, 12.7 x 0,01 mm	---	---
HR-G0879	Digital Dial Indicator, 12.7 x 0,001 mm	---	---
HR-G0890	Heidenhain Digital Readout Unit with Length Measuring Sensor	---	---



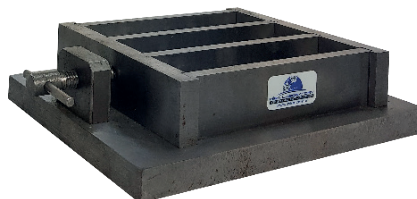
HR-CE9010



HR-CE9010/2



HR-CE9010/1



HR-CE9000/T



HR-A0905 with HR-G0875