

# OPERATING INSTRUCTIONS

## Aggregate Impact Value (AIV) Apparatus

### 42-4005

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<p><i>In the interests of improving and updating its equipment, ELE reserves the right to alter specifications to equipment at any time</i> <b>ELE International 2018 ©</b></p>		

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## 1 Introduction

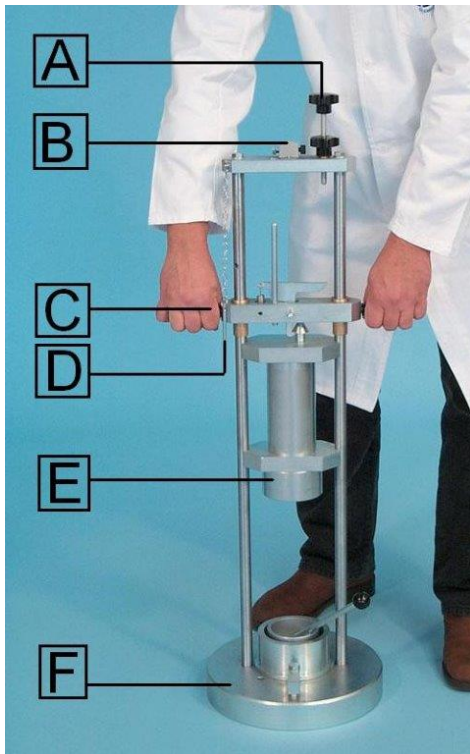
The apparatus has been designed in a particularly heavy duty form, with specially hardened steel surfaces for minimum wear. The assembly is heavily plated to ensure corrosion resistance and forms a rigid frame around the quick-release trigger mechanism which ensures an effective free fall of the hammer when released.

A built-in counter automatically indicates the number of blows delivered.

The apparatus is supplied complete with cylindrical measure 75 mm diameter x 50 mm deep, and a steel tamping rod 16 mm diameter x 600 mm long.

Weight 52 kg.

## 2 Operation



- A DROP HEIGHT  
By screwing or unscrewing this knob it is possible to raise or lower the drop height.
- B BLOW COUNTER DEVICE  
Calculates/counts a blow each time the hammer is lifted to the drop height.
- C HAMMER LIFTING DEVICE  
Used to lift the hammer up to the desired drop height.
- D SECURE SCREWS  
Used to block the lifting device at the desired height.
- E HAMMER  
Mass drops from a specific drop height and strikes against the specimen.
- F BASE  
Base on which the mould is placed during the test (accessory not supplied with the machine).

- 2.1 Below is an "example procedure" which allows an inexperienced operator to complete a whole test.

The operator can proceed as follows:

- a. Place the specimen in the centre of base "F".
- b. Adjust the drop height.
- c. Engage the hammer "E" with the hammer lifting device "C".
- d. Raise the hammer lifting device "C" up to the drop height previously set; the lifting device will automatically release the hammer "E" which will impact on the mould (accessory not supplied with the aggregate impact value apparatus).

Consult the relevant International Standards in force for information about the hammer impact numbers.

### 3 Safety Instructions

**Important:** when using this equipment ensure that safety shoes, safety glasses and ear protectors are worn.

**Note:** the action of lifting the cross beam to the top automatically releases the weight and operates the counter.

**Caution:** extreme care **must** be taken to ensure that no loose clothing could get trapped in the mechanism. Ensure that the safety pin is correctly inserted into position before the sample is placed. Avoid placing hands or feet near the apparatus when the safety pin has been removed. Provision has been made in the form of a hole in the counter mounting plate in which to "park" the safety pin while operating the apparatus.

When operating the apparatus care **must** be taken to observe the correct lifting procedure so as not to cause back strain and injury.

### 4 Spares and Accessories

42-4005/10 Cylindrical Measure, 75 mm diameter x 50 mm deep

42-4005/12 Blow Counter

34-0130 Tamping Rod