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मानक

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IS 13468 (1992): Apparatus for determination of dry density of soil by core cutter method- [CED 43: Soil and Foundation Engineering]



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भारतीय मानक

कोड काटने की पद्धति द्वारा मिट्टी का शुष्क घनत्व  
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*Indian Standard*

APPARATUS FOR DETERMINATION OF  
DRY DENSITY OF SOIL BY CORE CUTTER  
METHOD – SPECIFICATION

UDC 624.131.431.5

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**BUREAU OF INDIAN STANDARDS**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

Soils and Soil Engineering Sectional Committee, CED 23

#### **FOREWORD**

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Soils and Soil Engineering Sectional Committee had been approved by the Civil Engineering Division Council.

The equipment covered in this standard is meant to be used for the determination of dry density of soils in place by core cutter method covered in IS 2720 ( Part 29 ) : 1975.

## Indian Standard

# APPARATUS FOR DETERMINATION OF DRY DENSITY OF SOIL BY CORE CUTTER METHOD – SPECIFICATION

### 1 SCOPE

1.1 This standard covers the details of the cylindrical core cutter, steel dolly and steel rammer used for the determination of in-place dry density of fine grained natural or compacted soils free from aggregates, using a core cutter.

### 2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard.

| IS No.                    | Title  |
|---------------------------|--|
| 1239<br>( Part 1 ) : 1990 | Specification for mild steel tubes, tubulars and other wrought steel fittings : Part 1 Mild steel tubes ( <i>fifth revision</i> )                |
| 1875 : 1978               | Specification for carbon steel billets, blooms, slabs and bars for forgings ( <i>fourth revision</i> )   |
| 2102<br>( Part 1 ) 1980   | General tolerances for dimensions and form and position : Part 1 General tolerances for linear and angular dimensions ( <i>second revision</i> ) |

### IS No.

4432 : 1988

### Title

Specification for case-hardening steels ( *first revision* )

### 3 MATERIALS

3.1 The material of construction of the various equipment parts shall be as given in Table 1.

### 4 DIMENSIONS AND TOLERANCES

4.1 Dimensions with tolerances of different component parts of the equipment shall be as given in Fig. 1 to Fig. 3. Except where specially mentioned, all dimensions shall be taken as nominal and tolerances as given in IS 2102 ( Part 1 ) : 1980 of medium class shall apply.

### 5 MARKING

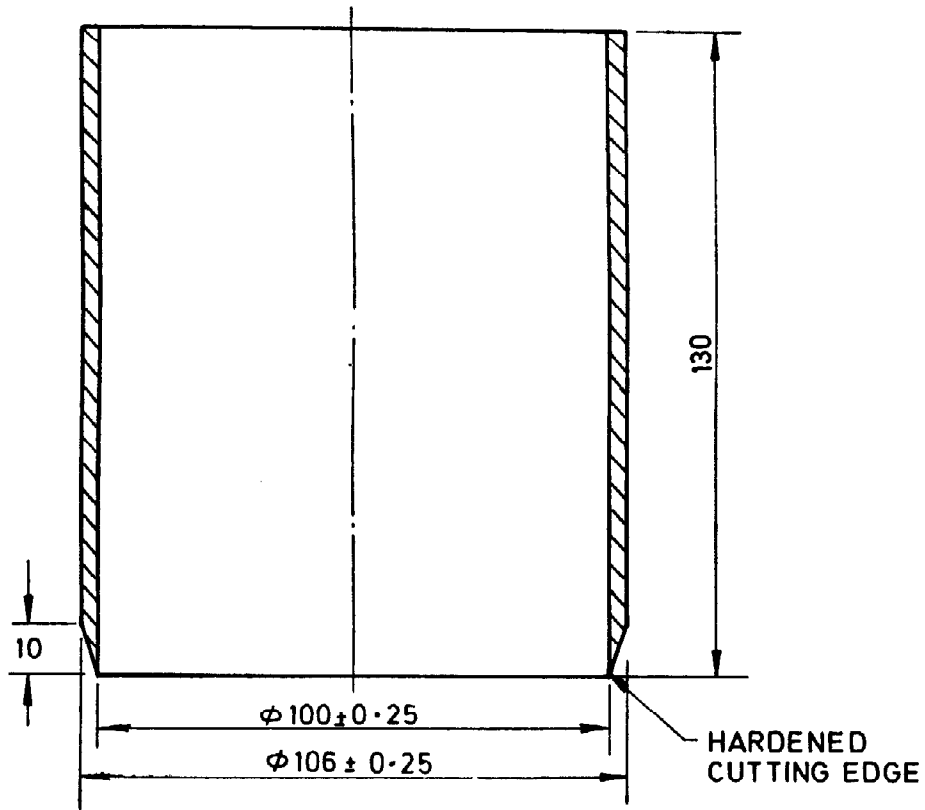
5.1 The following information shall be clearly and indelibly marked on each equipment:

- a) Name of the manufacturer or his registered trade-mark or both ; and
- b) Serial number of the product.

5.1.1 The equipment may also be marked with the Standard Mark.

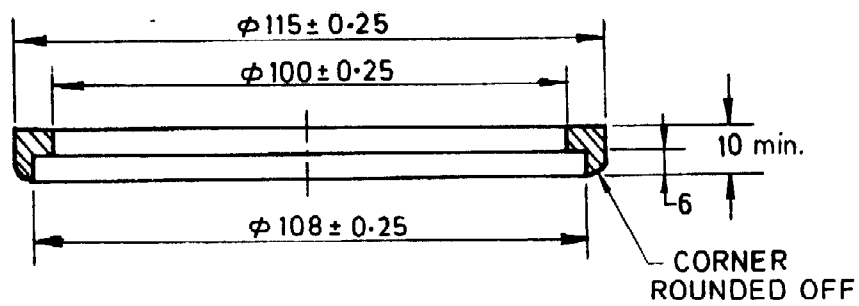
**Table 1 Materials of Construction of Different Component Parts**

| Sl No. | Equipment Parts  | Material Case        | Special Requirement, if any             | Relevant Indian Standard     |
|--------|--|----------------------|---|------------------------------|
| i)     | Cutter-seamless steel tube bevelled one end ( <i>see Fig. 1</i> )                    | Case hardening steel | Tip case hardened to 40 HRC, <i>Min</i> | IS 4432 : 1988               |
| ii)    | Dolly-steel with a lip to enable to be fitted on top of cutter ( <i>see Fig. 2</i> ) | Case hardening steel |   | IS 4432 : 1988               |
| iii)   | Rammer ( <i>see Fig. 3</i> )   | Steel                |   | IS 1875 : 1978               |
| iv)    | Handle for rammer-push fitted or concentrically screwed                              | Mild steel tube      |   | IS 1239<br>( Part 1 ) : 1990 |



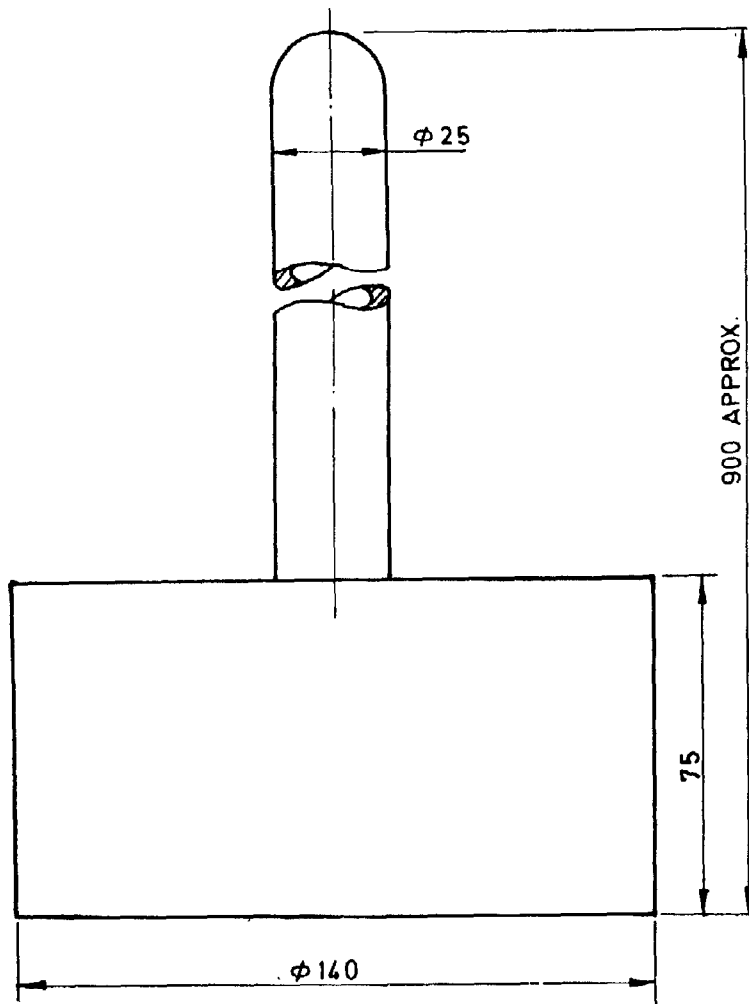
All dimensions in millimetres.

FIG. 1 CUTTER



All dimensions in millimetres.

FIG. 2 DOLLEY



All dimensions in millimetres.

FIG. 3 RAMMER



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Doc : No. CED 23 ( 4903 )

### Amendments Issued Since Publication

| Amend No. | Date of Issue | Text Affected |
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## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha  
( Common to all Offices )

### Regional Offices :

|   | Telephone                                       |
|---|---|
| Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg<br>NEW DELHI 110002             | { 331 01 31<br>331 13 75                        |
| Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola<br>CALCUTTA 700054 | { 37 84 99, 37 85 61,<br>37 86 26, 37 86 62     |
| Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036                            | { 53 38 43, 53 16 40,<br>53 23 84               |
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