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भारतीय मानक

कोड काटने की पद्धति द्वारा मिट्टी का शुष्क घनत्व  
ज्ञात करने के उपकरण – विशिष्ट

*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**  
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Price Group 2

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 ( 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 ( 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

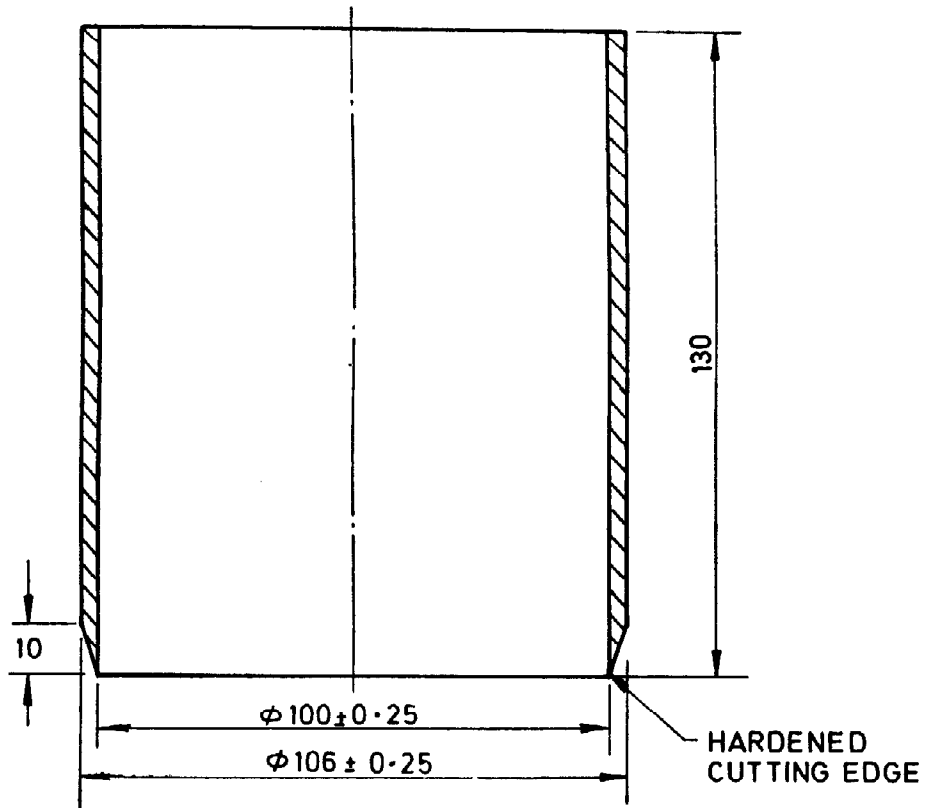
5.1 The following information shall be clearly and indelibly marked on each equipment:

- 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.

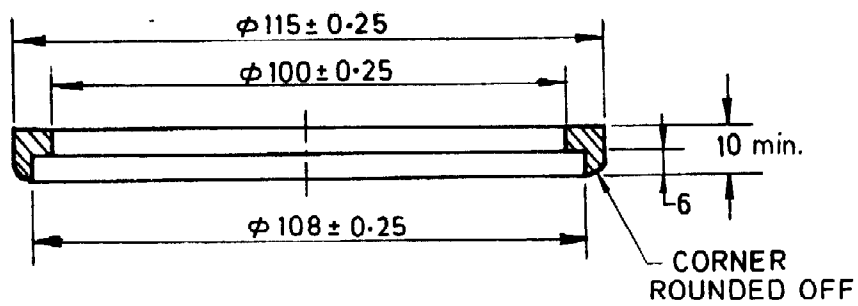
**Table 1 Materials of Construction of Different Component Parts**

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 ( Part 1 ) : 1990



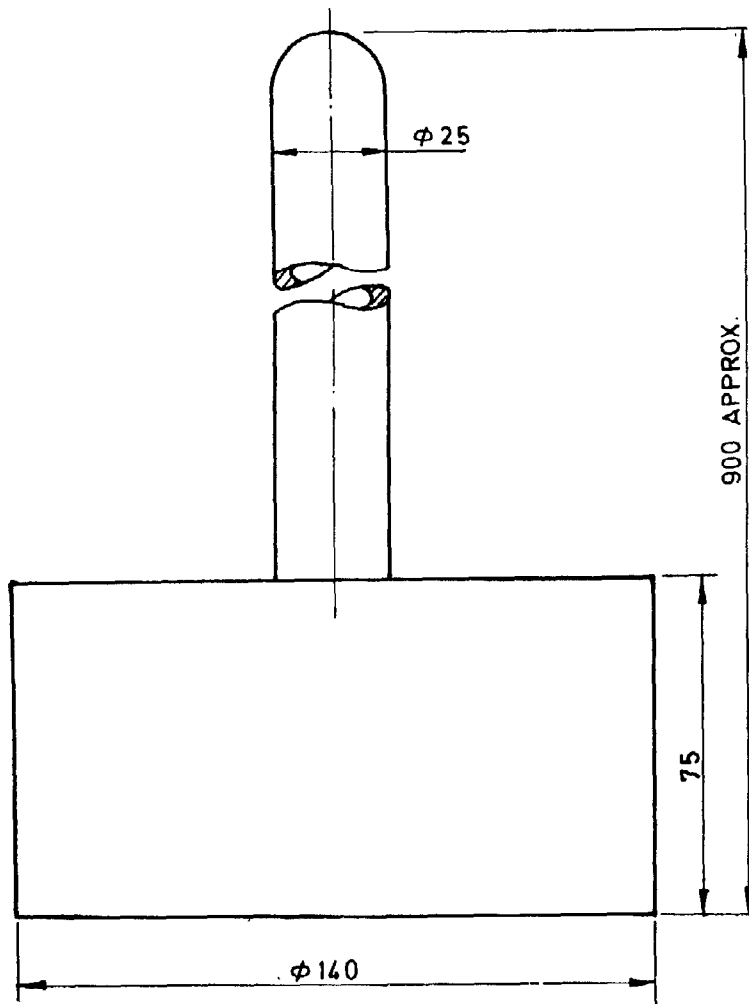
All dimensions in millimetres.

FIG. 1 CUTTER



All dimensions in millimetres.

FIG. 2 DOLLEY



All dimensions in millimetres.

FIG. 3 RAMMER

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