



Laboratory equipment co.,limited

## POCKET VANE SHEAR TESTER 16-T0175/A

# PRODUCT MANUAL



### C-TECH LABORATORY EQUIPMENT CO., LTD

📍 Building C28, Hegu Technology Industrial Park, Development Zone, Zhuozhou, Hebei, China

☎ +86-312-3868016/3852880

📠 +86-312-3868882

🌐 [www.testmould.com](http://www.testmould.com)

SINCE 2006

## CONTENTS

I. PURPOSE .....	1
II. DESCRIPTION .....	1
III. FIELD APPLICATIONS .....	1
IV. ACCURACY .....	1
V. INSTRUCTIONS FOR USE .....	2



### C-TECH LABORATORY EQUIPMENT CO., LTD

📍 Building C28, Hegu Technology Industrial Park, Development Zone,  
Zhuozhou, Hebei, China

☎ +86-312-3868016/3852880

📞 +86-312-3868882

## I. PURPOSE

The inspection vane tester is used to measure the in situ undrained shear strength in clays. It is primarily intended for use in trenches and excavations at a depth not influenced by drying and excavation procedure.

The range of the instrument is from 0 to 260 kPa when three different sized vanes are used.

The accuracy of the instrument should be within 10% of the reading.

## II. DESCRIPTION

A scientifically designed soil testing instrument for the rapid determination of shear strength of cohesive soils, either in the field or in the laboratory.

It permits the determination of a large number of strength values with different orientation of failure planes. The tester is simple to use and sample trimming is eliminated. All that is required is a reasonably flat surface 25 mm in diameter.

## III. FIELD APPLICATIONS

Suggested applications for evaluations of shear strength are:

- Samples in shelly tubes
- Standard penetration samples
- Split spoon samples

## IV. ACCURACY

The shear strength of a cohesive soil is dependent upon many factors, including rate of loading, progressive failure, orientation of the failure plane and pore water migration during testing.

The vane shear tester does not eliminate the effects of any of these variables. However, it does give repeatable values in a homogeneous clay and extensive laboratory testing indicates excellent agreement between the unconfined compression test and the shear tester.



### C-TECH LABORATORY EQUIPMENT CO., LTD

📍 Building C28, Hegu Technology Industrial Park, Development Zone, Zhuozhou, Hebei, China

☎ +86-312-3868016/3852880

📠 +86-312-3868882

The smallest division on the dial is 0.05 kg/cm<sup>2</sup>, permitting visual interpretation to the nearest 0.01 kg/m<sup>2</sup>.

Measuring range (in kg/cm<sup>2</sup>) of the 3 vanes:

0 - 0.2

0 - 1

0 - 2.5

## V. INSTRUCTIONS FOR USE

1. Move pointer counter-clockwise to zero while holding vane.
2. Select reasonably flat surface at least 25mm in diameter.
3. Using midsize vane. One revolution equals 1kg per square cm (TSF).
4. One revolution using small and large vane respectively 2.5 and 0.2 kg per square cm (TSF).
5. Press PVST into soil to depth of blade; maintain constant vertical pressure while turning knob clockwise at rate to develop failure within 5 to 10 seconds.
6. After failure develops, release remaining spring tension slowly. Pointer will indicate maximum shear value until manually reset (1).



### C-TECH LABORATORY EQUIPMENT CO., LTD

📍 Building C28, Hegu Technology Industrial Park, Development Zone,  
Zhuozhou, Hebei, China

☎ +86-312-3868016/3852880

📠 +86-312-3868882



**Laboratory equipment co.,limited**

CIVIL ENGINEERING TESTING EQUIPMENT MANUFACTURER