

#### INTRODUCTION

Fruit hardness is the universally accepted measure of fruit ripeness. The fruit penetrometer accurately measures fruit hardness by measuring the force required to push a plunger tip (of a certain size) into fruit and vegetables.

The Penetrometer is ideal for testing a wide range of fruits and vegetables. The force measurement provides the necessary information for growers to determine the best picking time, and to monitor fruit ripening and softening during storage.

It can also be assembled on a **special test stand**, which can improve the accuracy of testing and is suitable for professional testing departments.



#### FEATURES

- Using the Screw Drive technology, the operation is stable. The Displacement is stable and the test accuracy is high.
- Handheld Analog Meter
- Easy to read scale
- On-site measurement
- Determine fruit quality during harvest, shipping, receiving, processing, storage.
- Light-weight, portable
- Data Hold Function
- Plunger tip marked for accurate penetration depth

### HARDNESS OF SOME COMMON FRUITS:

Apple : 8.0~9.2 kg/cm<sup>2</sup>

Peach: 10.0~13.5kg/cm<sup>2</sup>

Kiwifruit: 8.2kg/cm<sup>2</sup>

Strawberry: 0.55~0.68kg/cm<sup>2</sup>

Plum: 3.4~4.2 kg/cm<sup>2</sup>

Pear: 7.5~7.7kg/cm<sup>2</sup>

Grape: 0.2~1.3kg/cm<sup>2</sup>

### TECHNICAL SPECIFICATIONS:

<b>Measuring Range:</b>	<b>1 - 24 Kg/cm<sup>2</sup>(×10<sup>5</sup> Pa)</b>	<b>0.5 - 12 Kg/cm<sup>2</sup>(×10<sup>5</sup> Pa)</b>
<b>Resolution / Display:</b>	<b>±0.1 Kg/cm<sup>2</sup></b>	<b>±0.2 Kg/cm<sup>2</sup></b>
<b>Accuracy:</b>	<b>±0.1</b>	
<b>Plunger Diameter:</b>	<b>8mm</b>	<b>11mm</b>
<b>Insertion Depth:</b>	<b>10mm</b>	
<b>Penetrometer Dimensions:</b>	<b>115mm x 52m x 22mm</b>	
<b>Application:</b>	<b>Avocados, Pears, Kiwi</b>	<b>Apples</b>
<b>Display:</b>	<b>Analog</b>	

### USING STEPS:

- *Before measurement: Turn the dial to align the drive pointer with the first calibration line of the dial.*
- *Measurement: Hold the hardness tester in hand, make the hardness tester perpendicular to the surface of the fruit under test, press the test head into the fruit evenly, then drive the pointer to start driving the indicator to rotate, When the test head stops at the scale line (10mm), the reading indicated by the indicator is the hardness of the fruit, and the average value is taken three times.*
- *After measurement: Rotate the knob to reset the pointer to the initial calibration line.*

- Spring Conduction
- Alloy Probe
- Portable Measurement
- High Sensitivity
- Rapid Detection

