



## OPTIMUM-I



Optimum-I is a portable desktop diamond verification instrument for loose and mounted stones designed to separate diamonds from synthetic diamonds and moissanite. Optimum-I is manually operated but gives an automatic test result.

The user calibrates the tester then places the loose stone on the stone-tray. Touch the 'START' button on the screen to start testing then place the probe tip onto the stone within the table facet area of the gemstone perpendicularly and Optimum-I will start testing and interpret the results automatically.

Optimum-I makes a measurement and displays one of the following results:

- ◇ Diamond
- ◇ CVD/HPHT
- ◇ Moissanite

### Stone Testing Capabilities

Weight of stones:	<b>0.015 ct - 10 ct</b>
Size of stones:	<b>1.5 mm - 13.5 mm</b>
Colour of stones:	<b>D-M</b>
Shape of stones:	<b>Round brilliant and most fancy cuts</b>
Diamond simulants:	<b>Yes</b> not yet ASSURE Tested
Mounted stones:	<b>Yes</b> not yet ASSURE Tested

### Instrument Capabilities

Automated feed:	<b>No</b>
Automated results:	<b>Yes</b>
Automated dispense:	<b>No</b>
Detect or Refer (synthetic diamonds)	<b>Detect</b>
Detect or Refer (diamond simulants)	<b>Detect</b>
Multiple stones at once:	<b>No</b>
Training required:	<b>No</b> review user manual

### Instrument Performance

The below results demonstrate the performance of the OPTIMUM-I with the ASSURE Core Sample by a **Novice Operator\***:

	<b>Core Sample</b>
<b>Diamond False Positive Rate</b> <i>Optimal rate 0%</i>	<b>3.5%</b>
<b>Diamond Referral Rate</b> <i>Optimal rate 0%</i>	<b>4.3%</b>
<b>Diamond Accuracy Rate</b> <i>Optimal rate 100%</i>	<b>95.7%</b>
<b>Speed</b> <i>Stones tested per hour</i>	<b>133</b>

### Instrument Specifications

 **5.7 cm (w) x 17.75 cm (d) x 3 cm (h)**

 **0.16 kg**

**1,190 USD** December 2020

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