



De Beers Group Ignite DiamondSure



Overview

DiamondSure is a portable desktop diamond verification instrument for loose and mounted stones, designed to separate diamonds from laboratory grown diamonds. DiamondSure is manually operated but gives an automatic test result.

The instrument tests individual stones and automatically displays one of the following results:

- i) Pass
- 2) Pass (check with thermal pen)
- 3) Refer for further tests
- 4) Refer for further tests (type Ib component)
- 5) Refer for further tests (type II)
- 6) Refer for further tests (possible type IaB)
- 7) Refer (test for moissanite)

The 'Refer' results may include natural diamonds, synthetic diamonds and diamond simulants. These should be further tested for full verification.

Stone Testing Capabilities

Weight range: **0.05 ct to 10 ct**
 Colour range: **D to J***
 Stone shape: **All**
 Diamond simulants: **Yes**
 Mounted stones: **No**

* failsafe across all colours although natural fancy colours will give a higher referral rate.

Instrument Capabilities

Automated feed: **No**
 Automated results: **Yes**
 Automated dispense: **No**
 Detect or Refer (synthetic diamonds): **Refer**
 Detect or Refer (diamond simulants): **Refer**
 Multiple stones at once: **No**
 Training required: **No**

ASSURE 2.0 Performance

Key ASSURE 2.0 test results for the DiamondSure:

	Primary Sample	Smalls Sample	Jewellery Sample
Diamond False Positive Rate <i>(Optimal rate 0%)</i>	0.0% +/- 0.0%	N/A	N/A
Diamond Referral Rate <i>(Optimal rate 0%)</i>	5.3% +/- 0.0%	N/A	N/A
Diamond Accuracy Rate <i>(Optimal rate 100%)</i>	94.7% +/- 0.4%	N/A	N/A
Test Speed <i>(Stones per hour)</i>	203 +/- 5		

Notes:

Uncertainty ranges (+/-) are based on repeatability testing (three trials) and represent spread of results in absolute terms.
Test Speed includes time taken to place the samples on the instrument and to interpret the results.

Instrument Specifications

 17 cm (W) x 26 cm (D) x 10 cm (H)

 3.5 kg

Price: 18,200 USD (Nov 2022)

Contact

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