



SmartPro Aura v2



Overview

SmartPro Aura v2 is a diamond verification instrument for loose and mounted stones, designed to separate diamonds from laboratory grown diamonds. It is manually operated and has both an auto-detection mode (for LGDs) and manual screening mode based on visual comparison of UV image to reference images.

The instrument can screen multiple loose or mounted stones at a time arranged on trays, and can return the following results:

- 1) Natural Diamond
- 2) Synthetic Diamond (with red mark indicated on image)
- 3) Refer

Stones without a red mark need to be compared to the fluorescent reference images to confirm stone type. Stones without a clear match are considered 'Refer' and should be further tested for full verification.

The Aura v2 includes 360 degree detection for mounted stones by automatically rotating the Jewelry piece every 90 degrees.

Stone Testing Capabilities

Weight range: **0.002 ct to 12 ct**
 Colour range: **D to K**
 Stone shape: **All**
 Diamond simulants: **Some**
 Mounted stones: **Yes**

Instrument Capabilities

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

* Automated results for LGD's. Natural diamond identification based on comparison to reference images.

ASSURE 2.0 Performance

Key ASSURE 2.0 test results for the Aura v2:

	Primary Loose	Smalls Loose	Primary Mounted
Diamond False Positive Rate <i>(Optimal rate 0%)</i>	2.3% +/- 1.3%	1.0% +/- 0.0%	2.2%
Diamond Referral Rate <i>(Optimal rate 0%)</i>	2.5% +/- 1.9%	2.1% +/- 1.2%	3.7%
Diamond Accuracy Rate <i>(Optimal rate 100%)</i>	97.1% +/- 2.0%	97.1% +/- 2.0%	95.8%
Test Speed <i>Stones per hour</i>	377 +/- 20		

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.
 See Laboratory Report for full set of performance results.

Instrument Specifications

23 cm (W) x 30 cm (D) x 21 cm (H)

5 kg

Price: 8,000 USD (Apr 2023)

Contact

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