



GemTrue APEX



Overview

GemTrue APEX is a portable diamond verification instrument for loose and mounted stones designed to separate natural diamonds from synthetic diamonds and diamond simulants. APEX has a dual-probe tip that measures thermal conductivity and UV light absorption to determine stone type. APEX is manually operated but gives an automated result on its built-in display.

When using the device, the probe tip should be held at an upright position 90 degrees perpendicular to the table of the gemstone. The user then fully depresses the tip applying constant pressure until the result is indicated on the built-in screen. User must always ensure the probe tip is kept clean; when necessary it should be cleaned with a microfiber cloth.

The instrument makes a measurement and displays one of the following results:

- i) Diamond
- ii) Type IIa/CVD/HPHT
- iii) Moissanite
- iv) Simulant
- v) Cubic Zirconia (CZ)

Displays of Moissanite, Simulant and CZ are all considered as diamond simulant for the purposes of ASSURE testing.

Stone Testing Capabilities

Weight range:	≥ 0.05 ct (minimum diameter of 2.5mm)
Colour range:	D to M*
Stone shape:	All
Diamond simulants:	Yes
Mounted stones:	Yes

* ASSURE only tests D to K color range.

Instrument Capabilities

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

* stones classified as Type IIa/CVD/HPHT/ are considered referrals and should be submitted for further testing.

ASSURE 2.0 Performance



Key ASSURE 2.0 test results for APEX:

	Primary Loose	Smalls	Primary Mounted
Diamond False Positive Rate (Optimal rate 0%)	0.0% +/- 0%	N/A	0.0%
Diamond Referral Rate (Optimal rate 0%)	6.9% +/- 1.4%	N/A	4.1%
Diamond Accuracy Rate (Optimal rate 100%)	93.1% +/- 1.4%	N/A	92.6%
Test Speed Stones per hour	236 +/- 7		

Notes:

Uncertainty ranges (+/-) are based on repeatability testing (three trials) and represent spread of results in absolute terms.
Test Speed based on time to screen the Primary Loose sample set. Measurement includes time taken to retest referrals.
See Laboratory Report for full set of performance results.

Instrument Specifications

	4.0 cm (W) x 18.0 cm (L) x 2.5 cm (H)
	0.13 kg
Price: 1,099 USD (Jan 2026)	

Contact

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