



AMS2



Overview

AMS2 is a desktop fully automated diamond verification instrument that is designed to screen large quantities of loose stones at high speed. AMS2 automatically separates diamonds, synthetic diamonds and diamond simulants.

The operator loads up to 500 carats of loose polished stones into a the AMS2 within a specific size range. The instrument then automatically processes the stones and physically dispenses them into their respective categories:

- 1) Pass (i.e. natural diamond)
- 2) Synthetic Diamond
- 3) Non-diamond
- 4) Refer

Stones reporting to 'Refer' should be tested further, and may include potential synthetic diamonds and natural diamonds.

AMS2 requires periodic calibration.

Stone Testing Capabilities

Weight range:	0.0033 ct to 0.2 ct (round brilliant) 0.01 ct to 0.2 ct (fancy shapes)
Colour range:	D to J*
Stone shape:	Round brilliant and some fancy shapes
Diamond simulants:	Yes
Mounted stones:	No

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

Instrument Capabilities

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

ASSURE 2.0 Performance


Key ASSURE 2.0 test results for the AMS2:

	Primary Loose	Smalls Loose	Primary Mounted
Diamond False Positive Rate <i>(Optimal rate 0%)</i>	0.0% +/- 0.0%	0.0% +/- 0.0%	N/A
Diamond Referral Rate <i>(Optimal rate 0%)</i>	0.7% +/- 0.1%	0.6% +/- 0.0%	N/A
Diamond Accuracy Rate <i>(Optimal rate 100%)</i>	99.3% +/- 0.1%	98.6% +/- 0.2%	N/A
Operating Speed <i>Stones per hour</i>	2,300 +/- 87		

Notes:

Uncertainty ranges (+/-) are based on repeatability testing (three trials) and represent spread of results in absolute terms. Operating Speed is measured for fully automated instruments, and reflects the speed when device is operating at steady state.

Instrument Specifications

 **31.5 cm (W) x 40 cm (D) x 55 cm (H)**

 **25 kg**

Price: **45,000 USD (Apr 2023)**

Contact

URL: <https://ignite.debeersgroup.com/products-services/ams2/>

email: dvisales@debeersgroup.com

tel: +44 2078915539 (Sales Administration)
During United Kingdom (UK) Business Hours