



ARI



ARI is a portable diamond verification instrument for loose and mounted stones designed to separate natural diamonds from synthetic diamonds and moissanites. ARI is manually operated but gives an automatic test result.

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

- ◇ Diamond
- ◇ CVD/HPHT/Type IIa
- ◇ Moissanite

The 'CVD/HPHT/Type IIa' results could contain potential synthetic diamonds and natural Type IIa diamonds. These referrals should be tested further for full verification.

Stone Testing Capabilities

Weight of stones:	0.02 ct+
Size of stones:	1.7 mm+
Colour of stones:	D-J
Shape of stones:	All
Diamond simulants:	Yes moissanite
Mounted stones:	Yes not yet ASSURE Tested

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

Instrument Performance

The results demonstrate the performance of ARI tested by a novice operator:

	Core Sample
Diamond False Positive Rate <i>Optimal rate 0%</i>	6%*
Diamond Referral Rate <i>Optimal rate 0%</i>	4.5%
Diamond Accuracy Rate <i>Optimal rate 100%</i>	95.5%
Speed <i>Stones tested per hour</i>	185

*As some of the test stones are likely to fall outside the instrument parameter for table size, it is possible that the Diamond False Positive Rate is somewhat compromised by the inclusion of stones that are out of the instrument parameters.

Instrument Specifications

 **4.6 cm (w) x 2.5 cm (h) x 19 cm (h)**

 **0.12 kg**

1,199 USD March 2021

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