



# GEM-3000



GEM-3000 is a desktop diamond verification instrument for loose and mounted diamonds, designed to separate natural diamonds from synthetic diamonds. GEM-3000 is manually operated and requires the user to interpret the test results.

The following results can be concluded by the operator based on the data generated by the GEM-3000:

- ◇ Natural type Ia diamond
- ◇ Natural type IIa diamond
- ◇ CVD synthetic diamond
- ◇ HPHT synthetic diamond
- ◇ Irradiated treated diamond
- ◇ Moissanite
- ◇ Cubic Zirconia

## Stone Testing Capabilities

Weight of stones:	<b>All</b>
Size of stones:	<b>All</b>
Colour of stones:	<b>D-J</b>
Shape of stones:	<b>All</b>
Diamond simulants:	<b>Yes</b>
Mounted stones:	<b>Yes</b> not yet ASSURE Tested

## Instrument Capabilities

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

## Instrument Performance

The below results demonstrate the performance of the GEM-3000 when tested by an Expert Operator:

	<b>Core Sample</b>	<b>Smalls Sample</b>
<b>Diamond False Positive Rate</b> <i>Optimal rate 0%</i>	<b>3.3%</b>	<b>0.5%</b>
<b>Diamond Referral Rate</b> <i>Optimal rate 0%</i>	<b>2.4%</b>	<b>0.0%</b>
<b>Diamond Accuracy Rate</b> <i>Optimal rate 100%</i>	<b>96.8%</b>	<b>91.5%</b>
<b>Speed</b> <i>Stones tested per hour</i>	<b>565</b>	<b>565</b>

## Instrument Specifications

 **43 cm (w) x 28 cm (h) x 29 cm (h)**

 **12 kg**

**23,000 USD** December 2020

[charles@gzbiaoqi.com](mailto:charles@gzbiaoqi.com)

**+86 13310897669**

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