OPSYDIA

Securing the Identity of Diamonds

Opsydia is a leading innovator in diamond security, combining cutting edge technology with immutable microscopic identifiers that form a physical link between a specific diamond and its grading report, blockchain record or branded jewellery origins.

Using next generation sub-surface laser techniques, Opsydia provides a secure and tamper-proof way of confirming a diamond's identity and empowers all stages of the diamond supply chain to protect the integrity of diamonds.

Natural Diamonds | Laboratory-Grown Diamonds

Diamond Identification | Anti-Counterfeiting

The Future of Diamond Security

Our pioneering technology supports diamond authenticity and transparency initiatives by placing a permanent identifier beneath the surface of a stone. This can't be removed without re-cutting a diamond or significantly reducing its carat weight, which makes efforts to do so uneconomical.

These unique identity features can be incorporated into melee and large stones, both at loupe visible and microscopic sizes, without affecting a diamond's surface.

Opsydia sub-surface identifiers can be used to guard against counterfeiting; distinguish natural and laboratory-grown diamonds; underpin mine-to-market traceability programmes; and increase the confidence of high jewellery consumers.

HOW IT WORKS

The Opsydia System uses a high-precision, ultrafast laser to place an identifier as small as one micron in diameter at a depth of up to 0.25 millimetres below the surface of a diamond.

This laser is tightly focused only once it passes the surface of a diamond, therefore creating marks internally at a selected depth without affecting the surface condition or polish. It can be used below any part of a diamond's surface, such as the table or a specific facet.

LOUPE ID

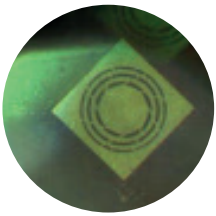
Our most visible sub-surface identifiers can be placed within a diamond to be intentionally visible when viewing using a standard 10x magnifying loupe.

NANO ID

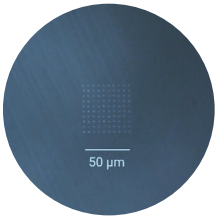
The Opsydia System can place nano-scale identifiers beneath the surface of a diamond that are not detectable even with a grading microscope. These Nano ID features have no effect on clarity grades, even for internally flawless diamonds. This has been independently confirmed by two leading laboratories, including the Swiss Gemmological Institute (SSEF). Nano IDs can be read using Opsydia viewing technology.

WHAT DO IDENTIFIERS LOOK LIKE?

Alphanumeric Identifier



Logo Identifier



Coded Identifier

Coded Identifier

Our identifiers are highly configurable and can be adapted to suit your business needs. Choose from serial numbers, brand logos, hallmarks, images and encoded data.

Identifiers can be placed beneath the surface of all diamonds, even melee stones, as well as some coloured gemstones.

THE OPSYDIA D5000

The Opsydia System is capable of volume processing and can be deployed across the globe for use by diamond manufacturers, grading houses and luxury jewellery brands.

Protect against luxury brand counterfeiting

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Tell an innovative story to your customers

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Securely link a specific diamond to its grading report

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Distinguish between laboratory-grown and natural diamonds

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Close loopholes in blockchain initiatives

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Permanently secure a diamond's identity

Take the Next Step in Securing Your Diamonds

The Opsydia System can be deployed across the globe for use by jewellers, miners, manufacturers and grading laboratories. Secure encryption ensures that only authorised identifiers can be placed by each machine, giving your business protection against counterfeiting and complete peace of mind.

The Opsydia System is designed for volume operation within diamond processing facilities and is capable of marking 100,000 stones per year. Now, businesses can instil trust in their entire product offering by placing an immutable and tamper-proof identity feature inside every single stone.

By tackling the future needs of the diamond industry today, we attract those ready to take the next step in diamond security.

OPSYDIA

Visit **opsydia.com** to find out more +44 (0)1865 309620 info@opsydia.com

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