



The D-Tect[©] V2

The essential instrument for detecting synthetic colourless diamonds and simulants in melee parcels.

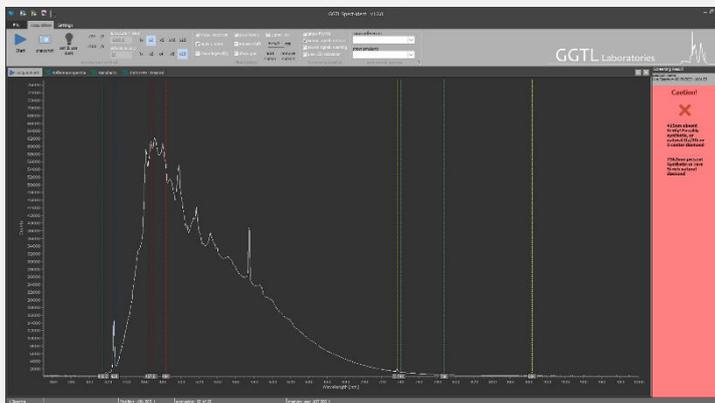
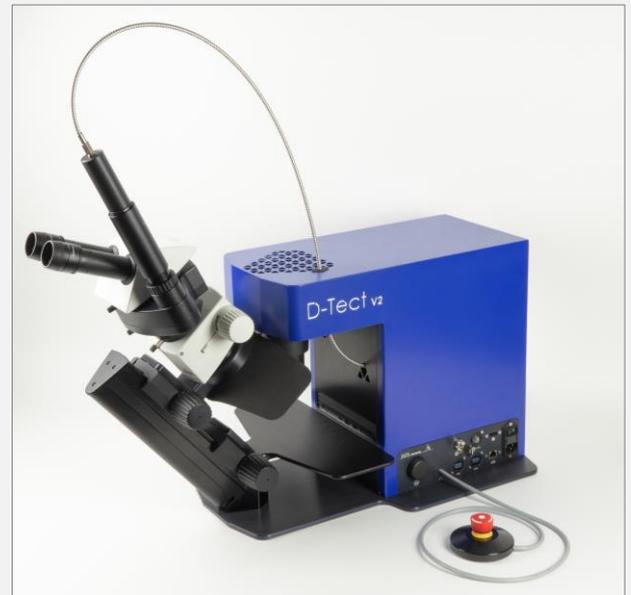
The instrument

During a year of development, the D-Tect[©] was completely redesigned to become the D-Tect[©] V2.

It is now more ergonomic, efficient and compact. Equipped with a new-generation highly sensitive spectrometer, its working speed is almost doubled. Typically, each spectrum is accumulated in 300 milliseconds. The system is always equipped with a Leica microscope (modified) arranged in a specific configuration, which provides excellent vision for sorting diamonds. All the controls and connectors are grouped together on a side panel.

As before, the D-Tect[©] is, along with the DFI[©] (Version 3 planned for 2024), the only instrument on the market which, for colourless diamonds, gives only two answers: 'natural' or 'synthetic'.

No refer to send to a laboratory, so fewer costs and no time wasted.



With Spect-Ident[©], the spectrum displayed on the screen is precisely that of the diamond that the technician is observing at the same time under the microscope, without disturbing vision. Routine analysis does not require any specific conditions.

The software

We have developed Spect-Ident[©], a software especially dedicated to diamond photoluminescence. It monitors the spectra collected during sorting in real time. The operator can choose the assistance between coloured, luminous or audible signals. The work is made easier and the operator can work faster and more confidently. These signals indicate to the technician which stones are 100% natural and draw his attention to those that need to be observed more closely. Spect-Ident[©] is flexible and user-friendly, and all the acquisition parameters can be modified to suit the analysis requirements. With Spect-



The vast majority of stones can simply be analysed at room temperature. For stones whose analysis is more uncertain, an easy-to-use accessory can be used to work at low temperature (77K, or -196°C) in just a few minutes. This method is the same as those used in modern gemmological laboratories.

The database

The D-Tect[®] has a didactic database that can be used to identify the emission spectra displayed on the screen. It includes information sheets, images of spectra or sample spectra that can be superimposed on the diamond being analysed simply by dragging them onto the capture window. This configuration makes it very useful for technicians starting to work with the instrument, enabling them to quickly become independent and work with greater autonomy.

The performances

The D-Tect[®] V2 is initially designed to sort parcels of so-called colourless diamond melee, i.e. from D to Z, but it can also analyse stones of all shapes (baguettes, ovals, pears, etc.) and of course of all sizes, from Ø 0.4 mm, or even less, to... 100 ct and more; it has no size limit.

In terms of productivity, a trained technician can, for example, analyse nearly 1'500 diamonds of Ø 0.8 mm per hour, and even more for diameters greater than a millimetre.

With a dedicated accessory designed by GGTL Laboratories, it is possible to analyse set diamonds at low temperatures by cooling them one by one, without risking damage to other thermally sensitive stones that may be set in the same piece of jewellery.

Finally, the D-Tect[®] V2 also detects Raman scattering spectrometry, making it possible to identify substitutes such as synthetic moissanite, synthetic zirconium oxide, natural zircon, etc.

Information

For further information and quotations, please contact switzerland@ggtl-lab.org.

We have a demonstration unit in Geneva - Switzerland, please do not hesitate to contact us.

Training in diamond photoluminescence analysis can be provided by the laboratory. This training enables a technician with little or no scientific background to become quickly operational.

D-Tect[®] V2 is a technology developed in Switzerland and Liechtenstein in 2018. Its various versions are designed, developed and manufactured in Switzerland.

It is sold exclusively by GGTL Laboratories, Switzerland, Liechtenstein and Antwerp.

Dimensions L 785, W 320, H 625 mm, weight: 25.4 kg, maximum power consumption: 100W.

D-Tect[®] V2 cannot be sold in the following countries: USA, China, India, Russia.

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