

There are no differences
to the naked eye, however,
the correct tool can reveal
a lot beyond the mere
appearances.

DIASYNTH
YOUR DIAMOND FIREWALL.



DIATECHPRO™
ADVANCED ANALYTICAL INSTRUMENTS

www.diatechpro.com

EXCLUSIVE DISTRIBUTER



CAST TECH
INTERNATIONAL

CAST TECH INTERNATIONAL

Classique Centre B- 6&7 Ground
Floor,Nr Paper Box,Off Mahakali Caves
Rd, Andheri East, Mumbai- 400 093
Ph: +91 22 35138473/ +0 22 49765163
Email : sales@cast-tech.in
Web: www.cast-tech.in

DIASYNTH

The Worldys most
advanced device for
Synthetic Diamonds
and **Simulants**
detection

www.diatechpro.com

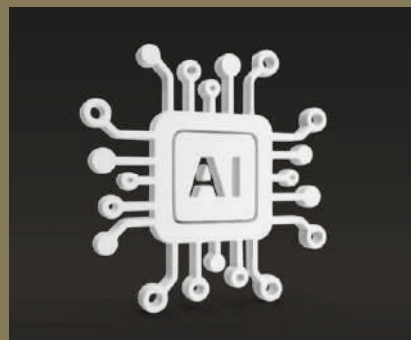
MADE IN ITALY



DIATECHPRO™
ADVANCED ANALYTICAL INSTRUMENTS



CAST TECH
INTERNATIONAL



ARTIFICIAL INTELLIGENCE

DIASYNTH can test gems as small as 0.6 mm, loose or mounted, within colorless to near-colorless grade of color, no matter what cut or shape. The "Photography of UV-Induced Visible Fluorescence (UVIVF)" technique, which DIASYNTH sets the analysis process on, allows observing the fluorescence and phosphorescence of the tested gems. The embedded proprietary Artificial Intelligence identifies more than 130 specific features of each gem so as to classify them into **Natural Diamonds, CVD, HPHT**, and the **most common Simulants** such as **Cubic Zirconia, Moissanite, Sapphire, Topaz** and **many others**.



IMMEDIATE DETECTION

Thanks to the first step of the Artificial Intelligence process, called "Detection", **DIASYNTH autonomously and instantaneously detects the presence, the size and the position of each individual gem deployed on the testing platform, or mounted on your Jewellery**, providing to the subsequent steps of analysis the awareness of *where* and *what* should be analyzed so to classify each single gem individually, even when the test is performed on thousands of gems simultaneously, or on pieces of jewelry with complex design.



PICK THE RIGHT ONE

The Artificial Intelligence locates and records the position of each individual gem in the space and associates the said gems with the symbols corresponding to the results of the tests. Thanks to SMART TRAY, the tray with a built-in LCD display patented by DTP, you will never risk picking the wrong gem. **The results of the classification process are reproduced directly underneath the tested gems**, allowing an easy identification of the good stones and the bad ones, directly on the tray. The removable tray, with its 6 x 6 cm analysis area and the compartments for organizing the stones, guarantees high versatility of use and, at the same time, optimized productivity.



FAST RESULTS

In relation to the number of stones to be analysed, **the analysis time of DIASYNTH is between 15 and 40 seconds**. Practical tests have demonstrated a productivity of 2000 gems/hour (if divided into batches of 80 gems) or 6000 gems/hour (if divided into batches of 1500 gems).



MULTI-WAVE UV STIMULATION

DIASYNTH is equipped with multiple UV light sources and stimulates gems with Long-Wave UV (close to 365 nm) and Short-Wave UV (close to 200 nm). The analysis of the fluorescence, when induced with multiple UV sources, **allows the evaluation even of those gems which, in some cases, show very weak reactions** to UV stimulations.



RINGS AND BANGLES

The auxiliary supports, which can be easily plugged in and interchanged, allow DIASYNTH to **analyze rings and bracelets studded with gems all around**. The rotary motor

does rotate the jewelry 360° under the eye of DIASYNTH, for a quick and safe inspection. In addition to SMART TRAY, DIASYNTH is provided with a second additional tray with a sponge base, a rotating holder for rings, and a rotating holder for bracelets.

You may let DIASYNTH do it all by itself, **or you can ask an hint to the AI... only when you need it.**

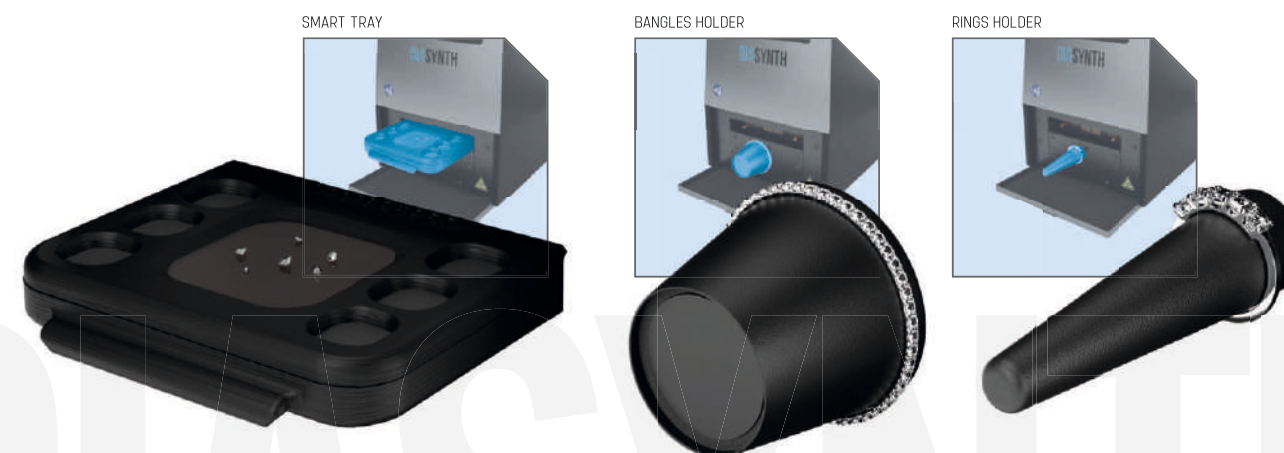


- NAT
- CVD
- HPHT
- SIM
- CZ



MOUNTED STONES DETECTION

DIASYNTH's Artificial Intelligence can recognize gems even when they are mounted on jewels. **The special "MOUNTED STONES- function allows DIASYNTH to test jewels such as rings, bangles, earrings, pendants, etc, with the same ease and immediacy with which loose stones are tested**. The results are shown in correspondence with the stones, so as to allow rapid identification.



DIASYNTH