

The internal tracking of diamonds at HRD Antwerp is achieved using 3 different scanning methods.

One of them is the Team Reader, a reading point with USB interface that identifies small boxes and plastic envelopes containing diamonds when they arrive at and leave the different teams.



Europe's
leading authority in
diamond certification



RFID tracing and localisation of diamonds

The customer

HRD Antwerp is a leading certification body for diamonds which has laboratories in Antwerp (HQ), Mumbai and Istanbul. They are using the most advanced technology and can count on the extensive expertise of their research department.

The challenge

HRD Antwerp was looking for a customised solution for the internal tracing and localisation of diamonds.

The challenge for Aucxis was to elaborate an RFID solution which automatically registers the diamonds and communicates with the newly developed LIMS package of the customer, and this within the determined turnaround time.

The solution

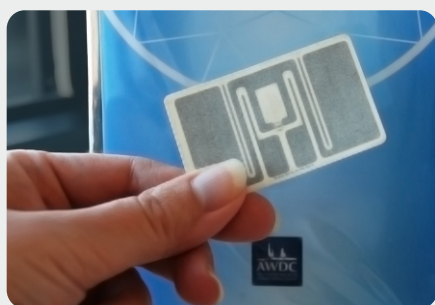
The internal transport of the diamonds takes place in plastic containers carrying several small boxes or plastic envelopes that include:

- a batch note with diamond
- a unique sample code from LIMS (through printer)

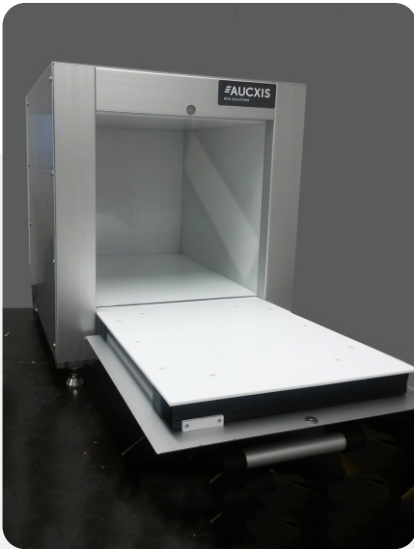
In order to identify the diamonds, an RFID label is stuck to the batch note. The label is attached when entering the diamond in the system. At that moment, the RFID label is read and linked to the diamond. This unique ID (TagID) stays – throughout all processes – with the diamond and goes together with the batch note to the end customer.



Diamond certificate set in plastic envelope



RFID label that is stuck to the batch note



Scan tunnel for bulk reading



Aucxis provided the following detection methods to record the movements of the diamonds at the desired locations:

Desktop Reader

For scanning the diamonds per work station, a short range reader with USB interface was chosen which can read 3 boxes at a time.

Team Reader

For scanning diamonds when leaving/receiving between the teams, a reading point with USB interface was chosen which can read 36 boxes and several plastic envelopes at a time.

Bulkreader

For scanning diamonds when leaving the floor, a bulk reader was chosen – scan tunnel – which enables bulk reading up to 200 diamonds in boxes.

The result

- HRD Antwerp has a clear, real-time overview of the exact location of the diamonds in the turnaround time process: search times are reduced to a minimum.
- The inventory by means of hand scanners takes place in a fraction of time compared to manual inventory.

Aucxis cvba

Zavelstraat 40
9190 Stekene
Belgium
T: +32 3 790 17 17
F: +32 3 790 17 18
info@aucxis.com
www.aucxis.com