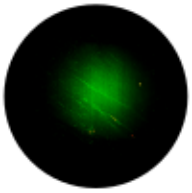
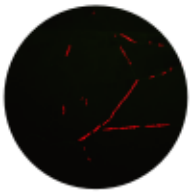
SapphiroScan™
for the watch industry

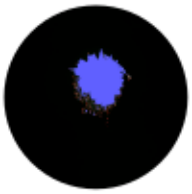
What is detected
in non-polished material?


Bubbles


Clouds | Voiles


Porosity | Smoke

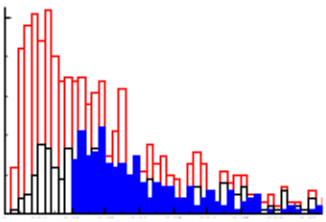

Structures


Bulk Deformations

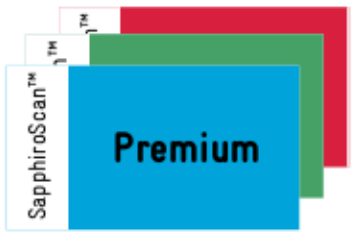
Designed for watch cover manufacturers, this workstation unveils internal defects in non-polished covers as you would see it after polishing.

Early identification of defects increases the yield and improves production consistency by eliminating defective pieces before the grinding and polishing process. Revealing material defects in non-polished sapphire allows for grading it according to predefined quality thresholds.

Automatic sorting of defective pre-forms before they enter costly processing.



Warning of growth process drift through high sensitivity production monitoring.



Objective and repeatable quality grading allowing for smooth relations with customers.

What is inspected?	Sapphire, spinel, mineral glass
Shape	Disk or rectangle
Size	25 – 50 mm
Thickness	1.8 – 5 mm
Surface	Non-polished or polished

Quality Control Laboratory of Scientific Visual offers service of automated quality grading for non-polished and polished sapphire, spinel, and optical crystals. Contact us for a service offer today.

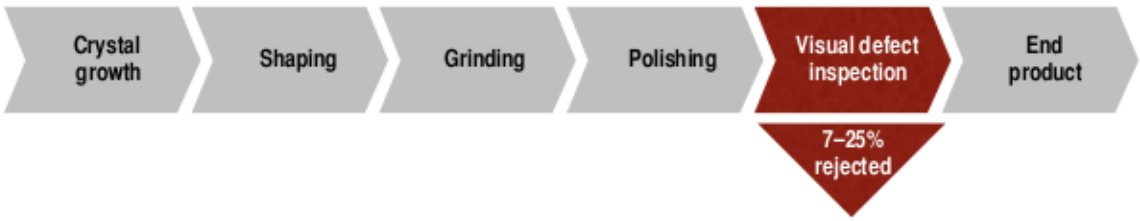
Scientific Visual SA | www.scientifcvisual.ch | welcome@scientificvisual.ch | Chemin du Closel 5, Renens CH-1020, Switzerland

Automated Sapphire Inspection Solutions

Scientific Visual supplies workstations to **visualise defects in non-polished sapphire** such as HEM and KY crystals, ingots and watch covers. Performing quality control at the start of manufacturing process ensures that only the best quality material enters the costly processing stream.

Traditional sapphire production

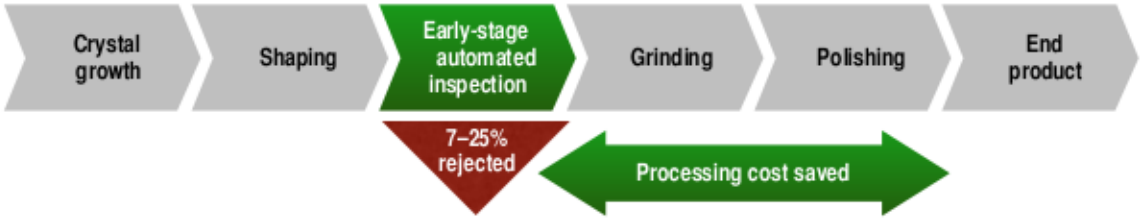
Typical sapphire factory spends half a day per week machining initially defective junks.



Traditionally quality control relies on visual observation by a human expert after the full processing i.e. slicing, grinding and polishing. From 7 to 25% of the sapphire pieces are rejected due to internal material flaws, such as cracks or bubbles, which become trapped during the crystal growth stage.

Production with Scientific Visual tools

Automated tools detects >96% of internal flaws and ensure that only quality material enters production chain.



With Scientific Visual stations the defect inspection process is automated and takes place prior to coring, slicing or polishing, therefore only quality sapphire goes to processing. Unlike human ocular inspection, the instrumental quality control sets an objective standard and ensures quick diagnostic feedback to the crystal growing unit.

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