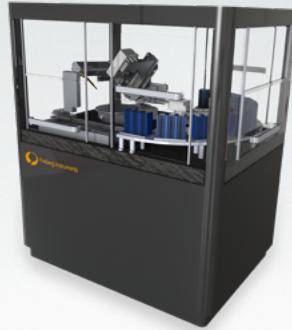
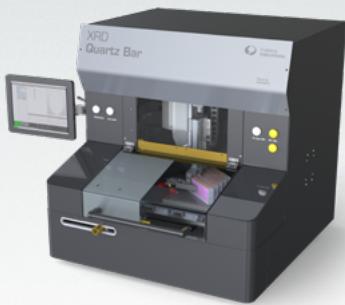




# Production & Quality Control of Quartz Bars, Wafers & Blanks

Bar Alignment,  
Wafer Analysis &  
Blank Sorting using  
X-Ray Diffractometer

Orientations  
AT | SC | IT | TF | X | Y | Z



## Quartz Bar XRD for Aligning

### Samples

→ Quartz bars

### Handling

→ Fully automated uptake and alignment of quartz bars  
→ Automated gluing on adapter plate

Alignment precision:  $\pm 0.03^\circ$  (AT & TF)

## Quartz Wafer XRD for Analysing

### Samples

→ 20 × 20 mm up to 80 × 80 mm  
(automatic sample handling)

### Mapping option for spatial quality check

Modular design allows future automation upgrade

Standard sample holders for input/output: cassettes or stacks

Sorting function available

Throughput: up to 350 wafers/h at standard sorting accuracy

## Quartz Blank XRD for Sorting

### Samples

→ Round, rectangular & square  
→ 4 × 4 mm up to 17 × 17 mm  
(semi-automatic sample handling)  
→ 1 × 1 mm up to 6 × 6 mm  
(automatic sample handling)

### Sorting into quality groups

→  $\pm 7.5$  arcsec (minimum)

Throughput: up to 700 blanks/h at standard sorting accuracy

Fully automated

## Features of Quartz XRD series

### Measurement speed

as low as 2 s (AT quartz)

### Highest precision

$\leq 10$  arcsec standard deviation

### Spatial resolution

1 mm  $\pm 0.1$  mm

**Determination of orientation inclination**  
relative to the sample surface

**Automatic display of angular components**  
(Theta & Phi) including standard deviation

**German engineering**  
robust and modular design

### Software

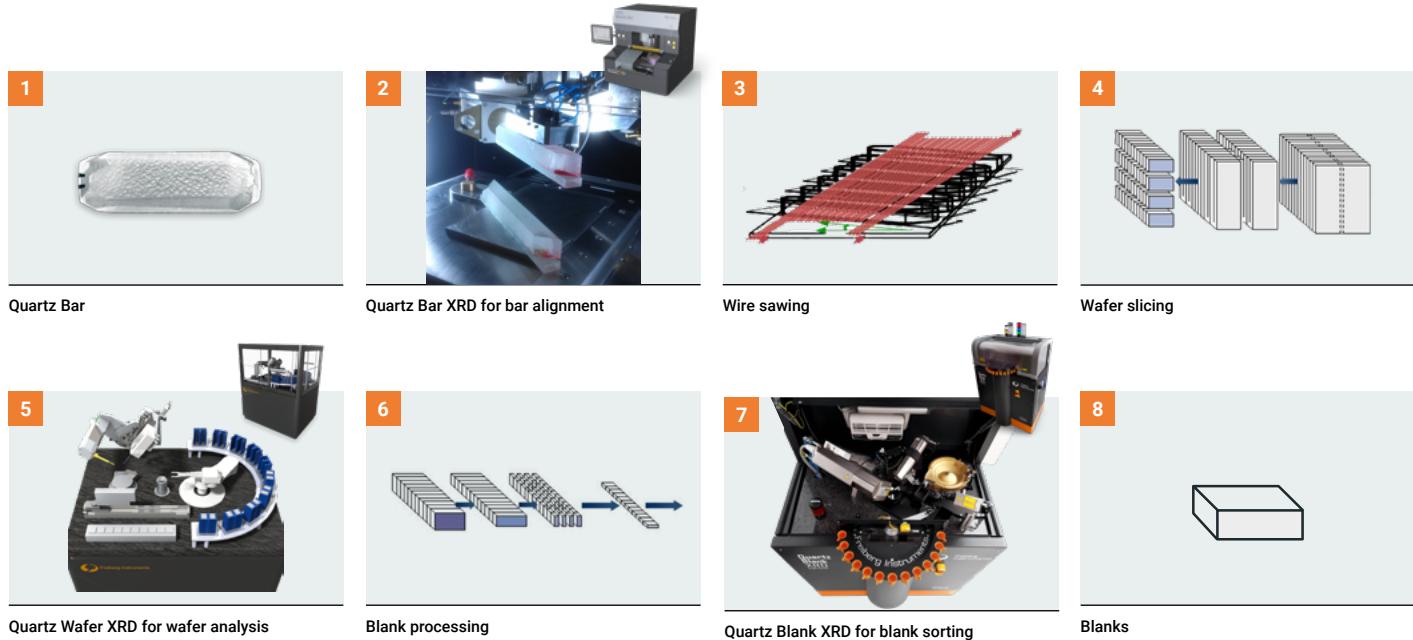
easy-to-use software suite with multiple user levels. Automatic display, recording & reporting of measurement data

### Automation

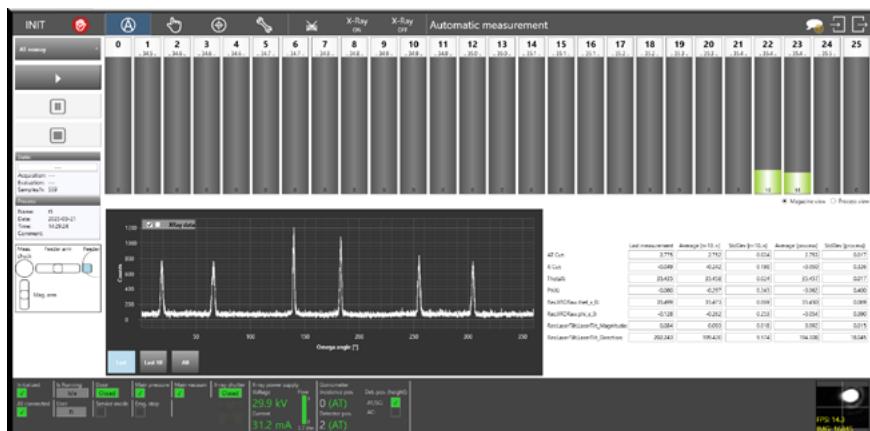
Customized sample handling systems for different size wafers or blanks, including robot, pick & place, vibratory feeder

# Quartz XRD series

## Manufacturing Process from Bar to Blank



## Easy-to-use Interface



Quartz Blank XRD Interface

## Options

- MES interface for Industry
- Mapping (wafers)
- Stereographical projection and more

## Technical Data

- X-ray tube: 1.5 kW, Cu anode
- Power supply: 200 – 230 V, 16 A, single phase

## Contact



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