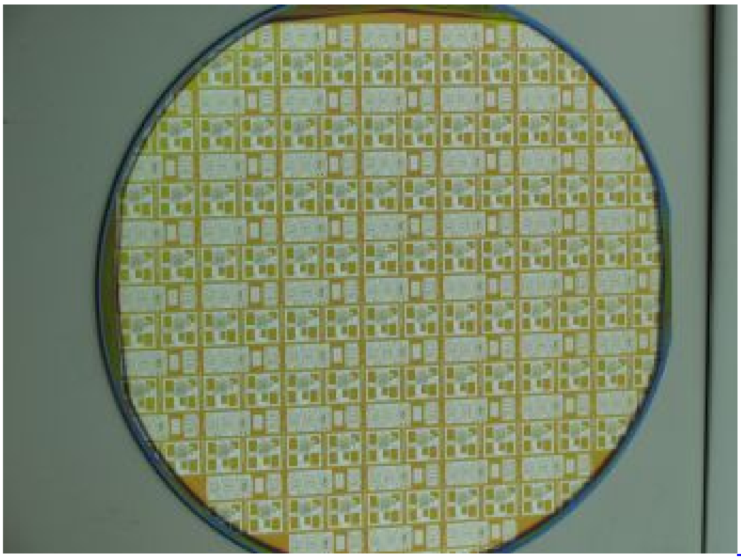
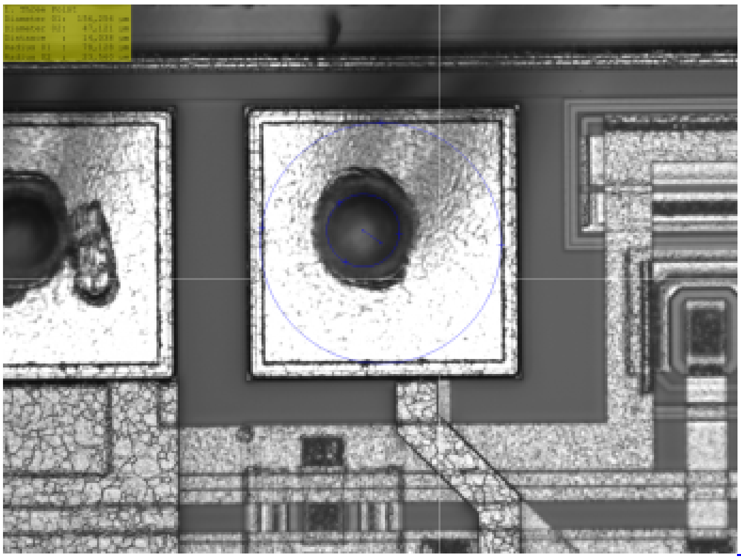
Macro Inspection



Macro inspection and documentation: The wafer handling system is equipped with different selectable light sources. On the one hand with a homogeneous light field plate for bright field inspection and on the other hand with a dark field light source for the inspection for particles, scratches etc.

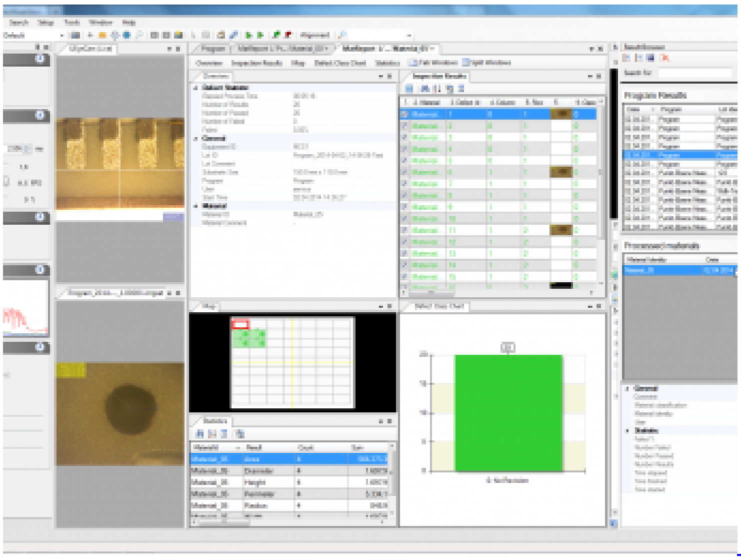
3D Bond Control



Testing of wedgebonds and ballbonds with 3D microscopy.

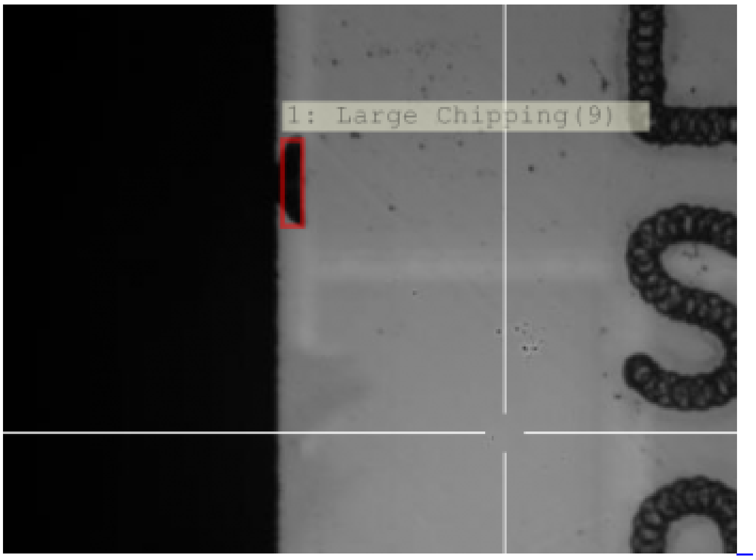
White light interferometrie and confocal microscopy in conjunction with special software modules.

Screen Printing Control



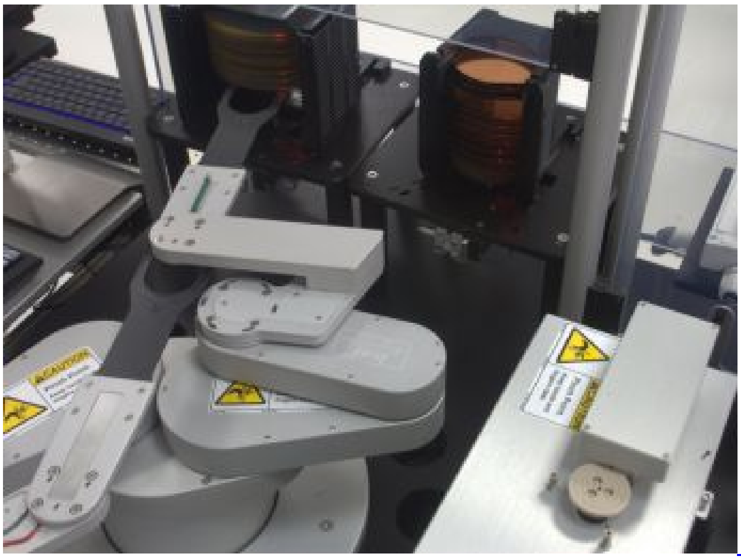
AOI control of the printed image with imported CAD data.

Chipping Inspection



Example: Chipping examination with infrared camera.

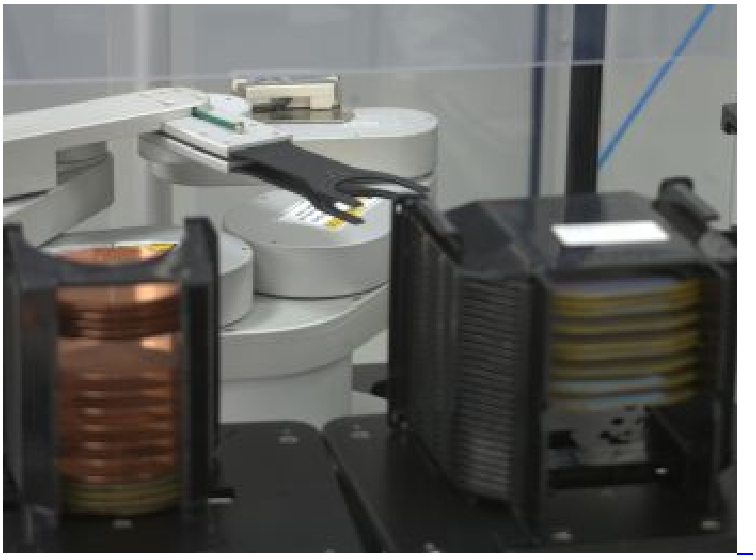
Wafer Handling



Robots and prealigner according to the requirements and eligible accessories for:

- Vacuum backside handling
- Vacuum edge handling

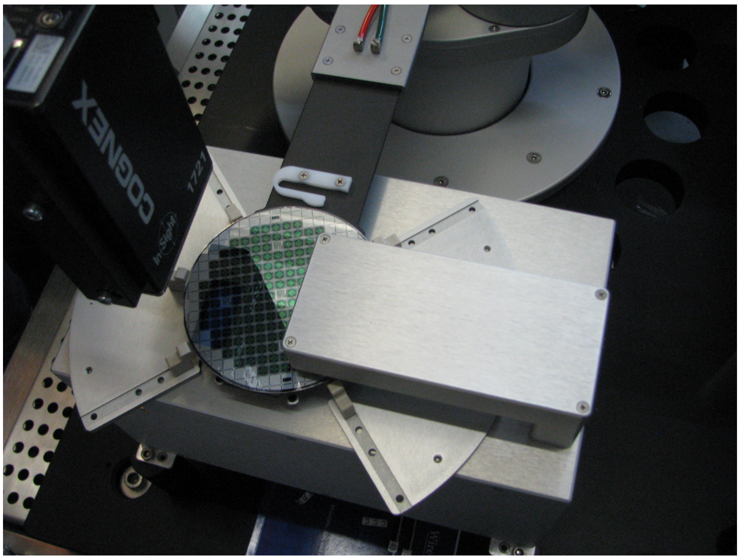
Vacuum Gripping Technology



To solve various measurement and inspection tasks, Promicron relies on a large number of optical methods . They are combined according to requirements and customer request.

Edge Gripping

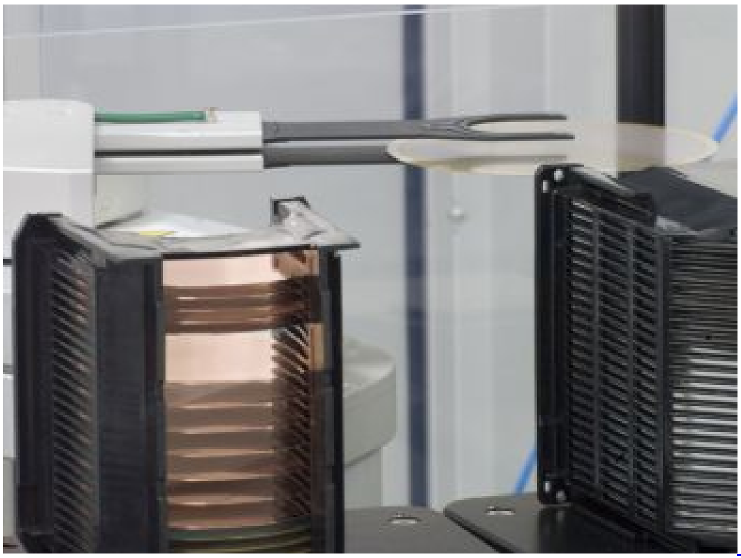
An edge gripper takes up a substrate (such as a wafer) and releases it again. To solve various measurement and inspection tasks, Promicron relies on a large number of optical methods. They are combined acoording to requirements and customer request.



Bonded Wafers

Bonded wafers are considerably thicker than single wafers and can have an offset. They may be non-circular. To solve various measurement and inspection tasks, Promicron relies on a large number of optical methods. They are combined acoording to requirements and customer request.

Bow & Warp Wafer



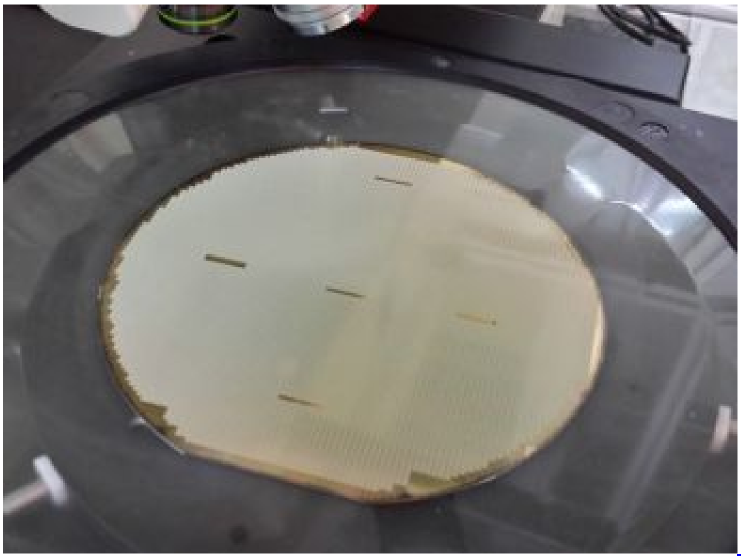
Promicron offers proven solutions for safe wafer handling, even for those with clear bow/ warp, to ensure a safe handling.

By using corresponding soft- and hardware modules, the measurement and graphic representation of the wafer bow / warp is possible as well.

Wafer Chuck

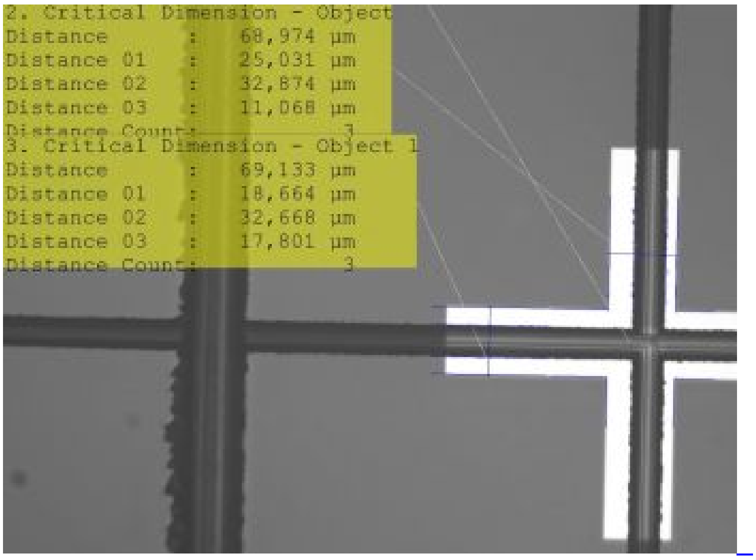
Promicron uses various methods (e.g. friction or vacuum) and adapts them according to the given requirements and the customer' request.

Wafer on Tape



Vakuum Chucks with a finest porous surface for sawn wafers on blue tape. Even wafers with minute dies are sucked in safe and even.

Wafer Dicing Inspection

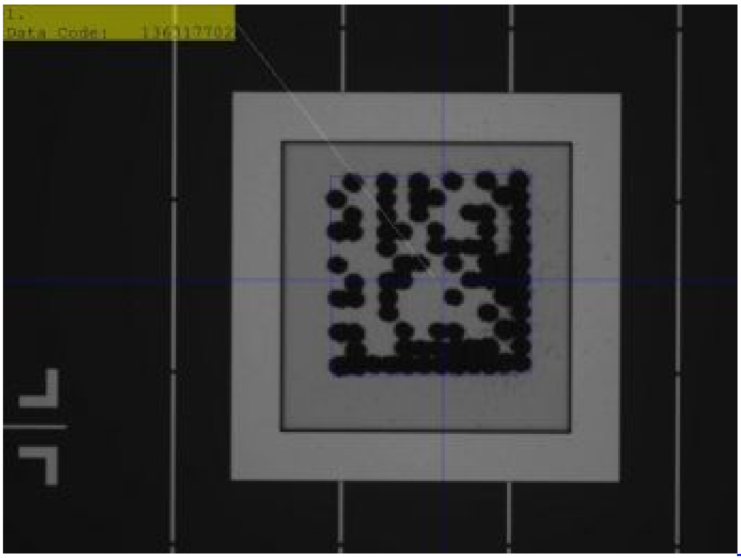


```
2. Critical Dimension - Object
Distance        :    68,974 µm
Distance 01     :    25,031 µm
Distance 02     :    32,874 µm
Distance 03     :    11,068 µm
Distance Count:              3
3. Critical Dimension - Object 1
Distance        :    69,133 µm
Distance 01     :    18,664 µm
Distance 02     :    32,668 µm
Distance 03     :    17,801 µm
Distance Count:              3
```

Inspection and metrological control of the sawing lines on:

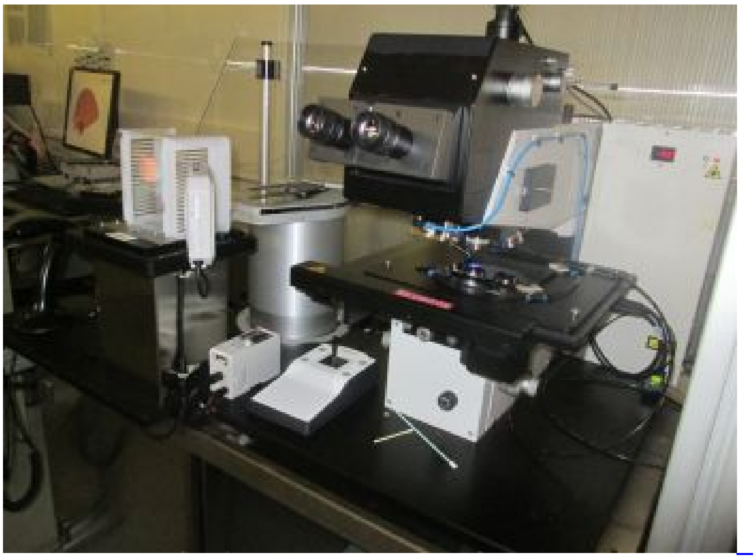
- Missmatch or alignment error
- Saw depth
- Chipping

QR Code Reading



QR codes and barcodes or plain text can be read automatically through external adapted reading devices (code reader) or possibly in the camera image of the microscope.

Mask Inspection



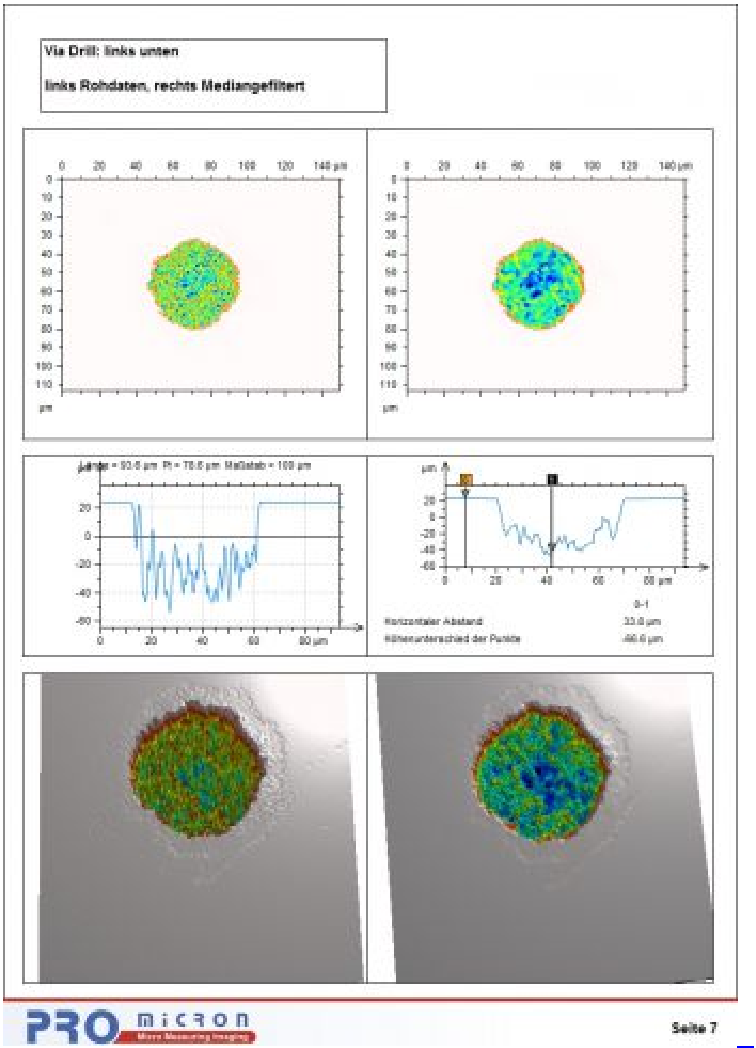
Inspection of masks used to produce wafers.

The task of the inspektion is to detect random errors (scratches, particles) and systematic / structural faults.

Chrome on glass substrates are usually inspected in transmitted light - incident light and dark field can also be used.

Within the scope of the **measurement**, quality parameters of existing masks (e.g. abrasion) can also be checked.

3D VIA Inspection



Via Drill: links unten

links Rohdaten, rechts Mediangefiltert

Länge = 93.6 µm Pt = 78.6 µm Maßstab = 100 µm

	0-1
Horizontaler Abstand	33.0 µm
Höhenunterschied der Punkte	-66.6 µm

Seite 7

Inspection of VIA's with 3D microscopy: white light interferometry and confocal microscopy in combination with special software modules.