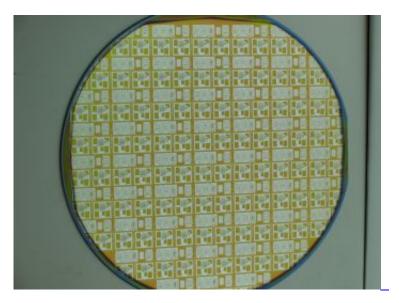
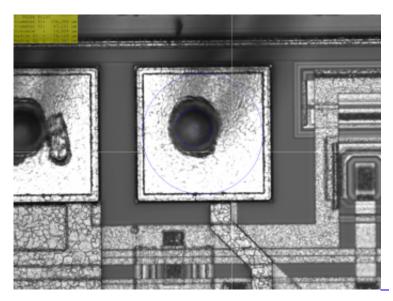
#### **Macro Inspection**



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**



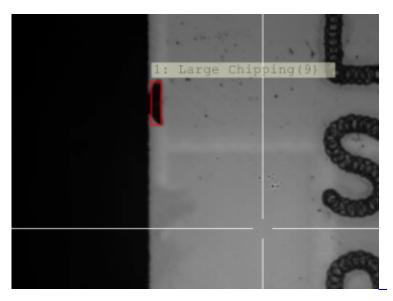
Testing of wedgebonds and ballbonds with 3D microscopy.

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

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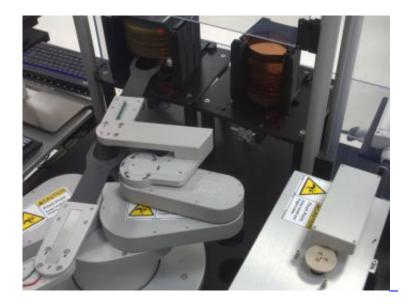
AOI control of the printed image with imported CAD data.

# **Chipping Inspection**



Example: Chipping examination with infrared camera.

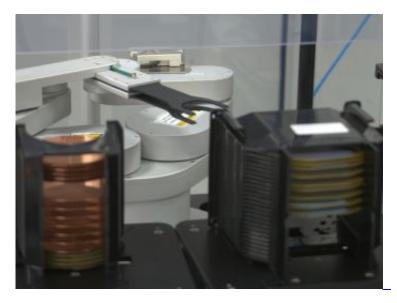
## Wafer Handling



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

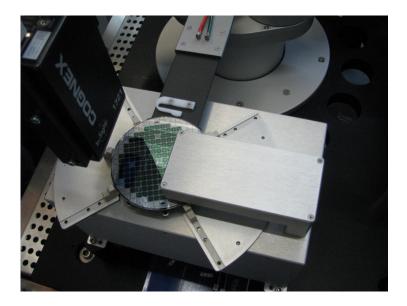
- Vacuum backside handling
- Vacuum edge handling

## Vacuum Gripping Technology



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

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 according to requirements and customer request.



## **Bonded Wafers**



Bonded wafers are considerably thicker than single wafers and can have an offset. They may be noncircular. 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.

Bow & Warp Wafer



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

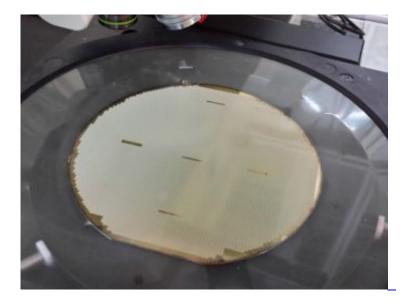
By using corresponding soft- and hardware modules, the measurement and graphic representation of the wafer bow / warp is possible as well.

## 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



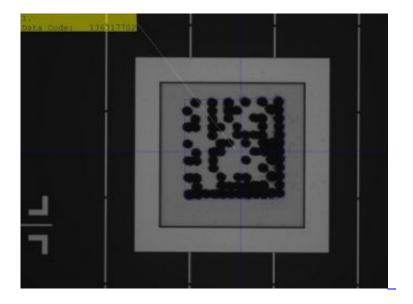
Vakuum Chucks with a finest porous surface for sawn wafers on blue tape. Even wafers with minute dies are sucked in safe and even.



## Wafer Dicing Inspection

Inspection and metrological control of the sawing lines on:

- Missmatch or alignment error
- Saw depth
- Chipping



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**

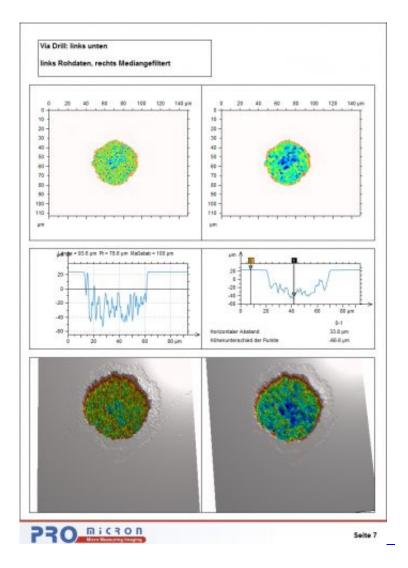


Inspection of masks used to produce wafers.

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.



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