Slicing and Measuring
of Hard- and Brittle Materials

Specific solutions for bricking/cropping - slicing - measuring

- Efficient solutions for small volume productions or entry level applications
- High productivity products for large scale mass production
- Experience to scale production from low to high volume
- Low cost processes thanks to minimal material loss and optimal use of diamond wire

Customized solutions for distinct requirements

- Flexibility - Application specific process design
- Experience / Know-How - Application lab for cutting and measuring
- Consumables and wear parts
- MES System

Wide range of materials

- Expertise from sapphire to graphite, from glass to YAG crystal
- Excellence in process optimization and measurement
- Handling and automation

Experience with highest precision

- 50 years of experience in processes for hard- and brittle materials
- Equipment designs optimized for high-quality industrial production
- Long-life quality parts
Our Experience – Your Benefit

Our Roots

- Meyer Burger is largely established in various segments such as Photovoltaic, Sapphire and Semi.

Benefit from Experience

- Extensive know-how and understanding along the process line till the final applications
- Correlation studies, cooperation for test series
- Process optimizing consultancy
- Own concepts/vision/ideas for industrial process design
- SEMI® Standard applied

Network

- Extensive network based on various forms of collaborations with:
  - Research institutes and universities
  - Large established reference customers
  - System partners for up- and downstream processes

Equipment Solutions

- Bricking & Cropping
- Slicing
- Measuring
- Process Intelligence
- Consumables & Accessoires
Committed to hard & brittle materials

Extensive experience on a large number of hard and brittle materials

Material examples
(non-exhaustive enumeration)

<table>
<thead>
<tr>
<th>BK-7 glass</th>
<th>Glass tube</th>
<th>YAG crystal</th>
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<tbody>
<tr>
<td>Fiber optic</td>
<td>Magnets</td>
<td>Silicon</td>
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Quartz glass

Showcase
- Diamond wire process on quartz crystal – from slurry to diamond wire
- Strong reduction of process time compared to slurry technology (from 7h to 5h)
- Optimization of surface roughness (Ra < 0.6 µm), and crack density (< 0.06 µm⁻¹)

Graphite compound

Showcase
- Diamond wire process on graphite compound from saw blade to diamond wire
- High throughput thanks to high speed and parallel process (feed > 5 m/min)
- Processability of thin wafers (< 200 µm)

Sapphire for LED

Showcase
- Quality inspection for LED industry
- From general LTV (local thickness variation) to PSS-Ready inspection
- Flexible grid size adjustment possible from 5 x 5 mm fix to 1 x 1 mm – 7 x 7 mm variable

Sapphire for covers

Showcase
- Sapphire wafer inspection
- From manual to automated inspection
- Up to 12” and square inspection
- Including sorting up to 30 bins
Meyer Burger Equipment

Multi Wire Saw

- Large loads and parallel loads possible
- Automated solutions
- MES solutions available

Quality Control

- Best accuracy and precision, high flexibility
- Final inspection for guaranteed quality
- Geometry, surface and inner defects

Diamond Wire

- Reduced cost of ownership and higher throughput
- High quality wafers and wafer topology
- Maintenance and environment friendly

Covered range

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<tr>
<th>Bricking / Cropping</th>
<th>Up to 650 mm</th>
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<tr>
<td>Slicing</td>
<td>Round format: 2&quot; to 12&quot;</td>
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<tr>
<td></td>
<td>Square: up to 210 x 210 mm</td>
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<td>Load length up to 1'000 mm</td>
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<tr>
<td>Measuring</td>
<td>Round format: 2&quot; to 12&quot;</td>
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<td>Square format: ~320 x 320 mm</td>
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<td>Consumables &amp; Accessories</td>
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<td>Diamond wire 140 – 410 µm</td>
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<td>Fluid management including Coolants</td>
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<td>Filtration</td>
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<td>Machine cleaner</td>
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<td>Beam, Adhesives</td>
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