

# microSHAPE™

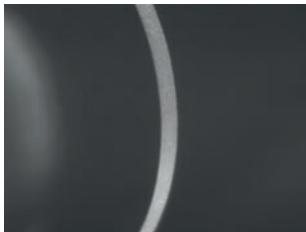
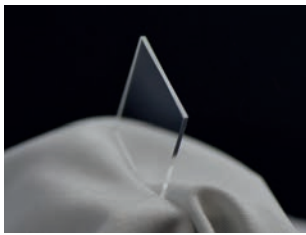
## Highly Flexible Laser Cutting System for Large Glass Panels

3D-Micromac's microSHAPE™ laser system is a modular platform designed for high accuracy separation of glass substrates. The high versatile system allows the processing of glass sheets up to GEN 5. It combines two process steps, material modification - whether by TLS (Thermal-Laser-Separation) or Ghost Cutting filamentation process - and subsequent separation by laser based tempering or mechanical breaking in connected process modules.

The modification processes are non-ablative and particle free. TLS technology is the preferred process for high volume cutting of straight lines with high efficiency and throughput. Ghost cutting is mostly used for generation of free form shapes in chemical strengthened glass.



# microSHAPE™ - System Configuration



## Suitable for:

- Strengthened and unstrengthened glass
- Thickness up to 3mm
- Cutting speed up to 1m/sec
- Laminates and one side coatings possible

## Configuration packages

### microSHAPE™ GC

- Cleaving with ps laser by Ghost Cutting

### microSHAPE™ TLS

- Cleaving with CO<sub>2</sub> laser by Thermal-Laser-Separation
- Set-up with multiple process heads available

## Options

- Process modules for mechanical or laser based breaking
- Transfer (module-to module)
- Quality inspection
- Automatic handling

Panel size:	<ul style="list-style-type: none"> <li>• Up to GEN 5 (1100 mm x 1300 mm)</li> </ul>
Laser sources	<ul style="list-style-type: none"> <li>• microSHAPE™ GC: ps laser source up to 100 W</li> <li>• microSHAPE™ TLS: CO<sub>2</sub> laser source up to 400 W</li> </ul>
Beam delivery unit	<ul style="list-style-type: none"> <li>• Up to 4 parallel beam paths depending on process</li> </ul>
Positioning system	<ul style="list-style-type: none"> <li>• Direct-driven XY positioning system</li> <li>• Travel distance 1100 mm x 1300 mm</li> <li>• Positioning accuracy ± 0.005 mm</li> <li>• Repeatability ± 0.002 mm</li> </ul>
Alignment	<ul style="list-style-type: none"> <li>• Manual, semi-automated or fully-automated work piece alignment with XY system and optical measurement system available</li> <li>• Automatic Z positioning</li> </ul>
Software microMMI™	<ul style="list-style-type: none"> <li>• Control and supervise of all hardware components and machining parameters</li> <li>• Different user levels (administrator, supervisor, operator)</li> <li>• Data input file types: DXF, CSV, Gerber, CLI, others on request</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• Laser class 1 housing with integrated control panel</li> <li>• Certified laser window or overview camera (webcam)</li> <li>• Active exhaust system included</li> </ul>

Changes in accordance to technical progress are reserved.