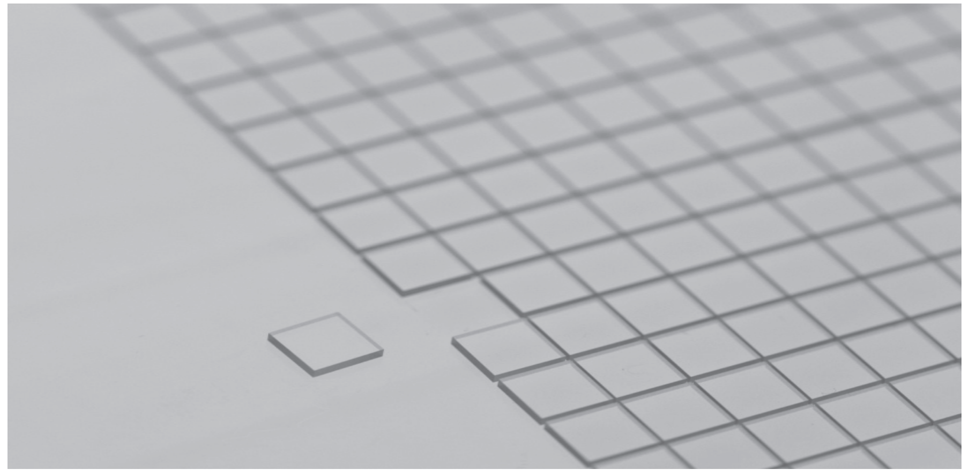
CORNING
Laser Technologies



Dynatex DTX-200 by CLT

Scribe & Break Glass Separation Processing

For over 170 years, Corning has applied its impressive expertise in glass science, ceramic science, and optical physics. Now, Corning Laser Technologies (CLT) is leveraging 25-plus years of experience in precision laser machining with Dynatex International's 60 years expertise in die singulation.

Designed for optimal speed in dicing narrow streets on III-V substrates (like InP or GaAs) and hard materials, dry-process dicing is the optimal solution for high-yield manufacturing. With a fast, user-friendly interface and fully automated processing, the process reduces downtime and human intervention. The precision diamond scribe tool processes 3-5 microns of a 20-micron street, allowing more die-per-wafer, which is efficient and economical. The breaking method enables a precise means of die separation with minimal debris, ensuring better quality cuts and a higher overall device yield.

CLT nanoPerforation & Dynatex DTX-200 by CLT Scribe & Break
The combination of Corning Laser Technologies' nanoPerforation process (e.g., with a CLT 400S-WD) paired with mechanical breaking by a Dynatex DTX-200 expands the processing capabilities for applications involving glass.

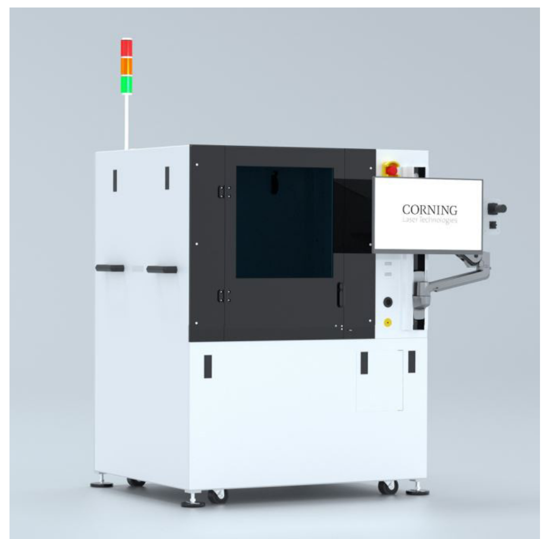
Functionality:

For high precision and high-volume production:

- Maintain in-house control of glass device processing coated and non-coated glass by separating glass panels before or after applying a sensitive coating with no contact at the sensitive or active area of devices
- Provide consistent, repeatable process which yields high-volume production as demand increases

For use in R&D and pilot production of glass-based biomedical devices:

- Eliminate hand-breaking of glass which yields smooth, straight edges for more consistent results, reducing staff time to drive lower production cost and higher efficiency
- Produce highly scalable separation process which allows seamless switching between large-scale production and R&D



Glass substrate material available:

- Borosililcate glass
- Fused silica
- Single & stacked glass

Features:

- Fully Automatic processing; or Operator Driven processing
- Up to 200 mm Wafer, and Small Piece processing
- Interactive/Wizard mode for operator-controlled sequencing / processing
- Multiple Break Types/Assemblies available
- User friendly GUI with touch screen operation for ease of use
- Integrated Scribe and Break Stages available

Applications:

- Wafer-based glass for semiconductor devices/optical systems
- RFICs
- Si-Photonics III-V chips
- Laser Diode Cleaving and Matrix Bar-to-Die separation
- OptoElectronics Devices (PhotoDiodes, Modulators, etc.)
- MEMS and BioMedical devices with sensitive structures/coatings
- LED separation (typically Break Only application)

System Specifications:

Power Required	100/120 VAC 20 A or 220/240 VAC 10 A, 50/60 Hz
Environment	21° C +/- 6° C, 50% r.H. +/- 10% r.H. (non condensing)
Height	1,981 mm (78 inch)
Width	1,448 mm (57 inch)
Depth	1,270 mm (50 inch)
Capacity	up to 200 mm square or round wafer size
Break Time	~0.75 to 1.5 seconds per break

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