Revolutionary Laser Glass Cutting Process

The most-advanced, all-laser cutting process for glass, sapphire, ceramics and other brittle materials. IP protected and unique only by ROFIN: SmartCleave™ FI - your first choice!

A True Game Changer

Superior Technology
- Kerfless separation process
- > 300 mm/s cutting speed
- Straight, curved, angled and chamfered cuts
- Glass thickness range 100 µm to 10 mm
- Cutting of chemically and heat strengthened glass
- Suitable for glass, sapphire, crystals, ceramics etc.
- Cutting of tubular or curved parts
- Cutting stacks of brittle material

Unmatched Quality
- Minimal micro-cracking and chipping
- High bend strength
- Surface roughness Ra < 1 µm
- Minimal debris

Compelling Economics
- Low cost of ownership
- Dramatic reduction of process steps
- Process is perfectly suited for thin display glass
- Possible to retrofit into customer’s existing systems
- Green technology without water use
ROFIN SmartCleave™ FI in detail

Superior Technology

- The ROFIN SmartCleave™ FI process utilizes an ultrashort pulse laser with dedicated properties. The base technology is IP protected and uses laser filamentation to separate brittle and transparent materials.

- The field of applications for the new ROFIN SmartCleave™ FI technology is vast and, amongst many others, comprises mobile phone displays, television or computer and tablet displays, LED and OLED products and other microelectronic applications, glass substrates for integrated circuits, optics, watches, architectural and household glass, medical devices, semiconductors or ceramics.

ROFIN offers:

- Integrator package including dedicated ultrashort pulse laser, optics and process license
- Various system solutions with integrated laser, optics and process license