



JENOPTIK Automatisierungstechnik - Innovations of laser material processing

Thermal Laser Separation being readied for series production.

JENOPTIK Automatisierungstechnik GmbH introduces the JENOPTIK-VOTAN™ G system with Thermal Laser Separation (TLS) for series production. Using this method, the machine scribes and breaks brittle materials, such as glass, ceramics and solid state material, or performs full cuts. The patented TLS technology is based upon the locally heating of the surface by a CO₂ laser beam and is then cooled. This causes high tension in the surface of the material which causes a crack of defined depth in the direction in which the laser beam moves.



TLS is a contact less method and due to its unique action principle does not produce any particles. In comparison with conventional laser technologies, such as pulsed laser ablation and laser perforation, TLS produces edges without micro cracks and avoids warps. In addition, TLS achieves process speeds up to 300 % faster.