

## Laser technology

A laser is an optical amplifier that focuses a beam of light in a narrow frequency range to produce an extremely high output. The beam of laser light generated in this way can, for example, be used to cut, weld or decorate a very wide variety of materials, including textiles, leather, ceramics, wood, paper, plastics and glass.



A laser beam is used to give textiles a high-quality finish. In contrast to printing, this method achieves a tactile effect. Laser processing involves no contact and no tools. Nothing touches the textiles and fabrics, which means that they do not show any marks. The laser beam melts the material, resulting in clean, sealed edges and finishes, with no fraying in the end product. Almost any design can be produced with a laser. The patterns are prepared using CAD systems, and a special computer program controls the laser.

The laser technology applied to textiles is used to produce three types of finish:

**Laser Cut:** This technique involves small cut-out areas in the textiles. We have used this technique for years for decoration fabrics, for Systems and for GECKO.

**Laser Engraving:** This technique involves making slight incisions on the surface of the textiles only.

**Laser Perforation:** Small, individual perforations are fired into the textile in this variant.



Synthetic materials react very well to laser processing. The laser beam subjects the fibres to a controlled form of melting, producing sealed, non-fraying edges. In organic textiles such as cotton, silk and linen, however, a brownish discolouration appears on the cut edges. These materials are unsuitable.