



MORE LIGHT

JENOPTIK-VOTAN® A+

Laser Technology that helps saving lives

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Technology

The laser airbag weakening system JENOPTIK-VOTAN® A+ is the latest member of the VOTAN® A family and offers proven technology on a new platform.

Laser airbag weakening is a process to integrate pre-determined airbag tear lines into automotive interior parts, such as instrument panels (3D) or decorative cover materials (2D).

JENOPTIK-VOTAN® A+ offers maximum reliability by a closed loop sensor controlled process. Precise adjustment of the opening behavior of the airbag cover, in combination with the airbag deployment, secures passenger safety.

Features

- Standardized modular technology platform
- Several CO₂ laser sources from 450 W to 2000 W
- Stationary laser cutting head with local exhaust & cleaning system
- Work sensor for closed loop online process control
- Online focal position correction (OFC) included
- 6-axis robot with SafeMove for part handling
- Technology software for precise parameter adjustment
- Laser safety cell with roller gate and operator panel PC with 24" touch display
- Storage space for up to 2 fixtures in basic cell
- Exhaust unit KATASORB® A2.0 activated charcoal filters

Options

JENOPTIK-VOTAN® A+ offers additional options to support specific customer requirements:

- High-sensitivity sensor for very sensitive materials
- HCl protection for applications with PVC material
- Extension of the load and unload station (light curtain)
- Cabin extension for additional fixture storage space
- Additional laser cutting feature (e. g. HUD cut)
- Automatic code readers and color sensors
- RFID login
- Country specific adaptations

Advantages

- Invisible tear line
- 100 % process monitoring and traceability
- Absolute functional reliability of the tear line
- Customizable weakening pattern for adjustable airbag cover opening behavior
- Very flexible integration of weakening lines in any vehicle design
- Automatic compensation of material deviations
- Wide range of processable applications

Applications

With JENOPTIK-VOTAN® A+ all prevalent airbag applications can be processed. The system is appropriate for almost all vehicle interior materials and material combinations:

Single layer material

- Hard instrument panels and carriers
- Artificial leather
- Spacer fabric

Multi-layer material (composites)

- Soft foamed instrument panels (substrate, foam, decorative foil)
- Soft laminated instrument panels (substrate, spacer fabric, decorative foil)

Technical specifications

| | |
|--------------------|---|
| Footprint | Approx. 30 m ² (including peripherals) |
| Laser | CO ₂ laser (in several power classes) |
| Part handling | 6-axis robot with SafeMove |
| Fixture interface | Robot tool change system |
| Operator panel | 24" multi-touch panel with RFID reader |
| Control panel | SIMATEC S7 with safety function |
| Process evaluation | Closed loop sensor process |

We reserve the right to make changes in the interest of technical progress.