JENOPTIK – VOTAN® W

3D laser solutions for lightweight automotive exterior components.
3D bumper cutting with JENOPTIK—VOTAN® BIM

The JENOPTIK—VOTAN® BIM offers you a flexible solution for 3D laser cutting. The robot-based laser cutting machine provides a sophisticated way to manufacture a variety of products with high efficiency at lower cost of ownership. The unique robot integrated beam delivery ensures necessary precision at highest speeds.

Highest flexibility for volume series

- Precise cut edges on painted plastics of holes for park distance control, turn lights, mounting openings etc.
- Dedicated software for high accuracy hole circularity
- No surface contamination
- No rework necessary
- Brilliant contour accuracy at highest repeatability
- Increased throughput on the same floor space by using a double robot system
- Offers higher flexibility than punch process
- One fixture for several bumper variations

Technical specification

Materials to be cut
- Materials like PP, ABS
- Material thickness: 1.5 mm – 5 mm

Performance
- Typical cutting time 1 sec/hole
- Position repeatability down to ± 50 µm

Design benefits due to laser cutting

Laser cut without taper
Punched with taper
3D bumper welding with JENOPTIK – VOTAN® W

In order to expand the applications of laser beam welding, Jenoptik has developed a unique welding technology by using diode lasers. The JENOPTIK – VOTAN® W offers you a flexible solution for laser welding of components, e.g. sensor holders for parking & side-line assistance (PDC, SLA), for headlight cleaning systems (SRA) and many more. The laser welding machine provides a sophisticated way to process thinner and lighter bumpers with no visible marks on the A-surface.

Automotive trend – lightweight bumper

- Thin wall technology for significant savings
- Weight reduction of several 100 g
- High tensile strength without any markings on already painted parts (class A surfaces)
- Highly flexible manufacturing solution for the constantly increasing product variety
- Increased throughput on the same floor space by using a double robot system

Technical specification

Materials to be welded
- Materials like PP, EPDM, TPO
- Free of markings from material thickness of bumper > 2 mm

Performance
- Welding speed up to 50 mm/s
- Pull forces for sensor holder up to 800 N for lamp brackets up to 2000 N
We support you worldwide.