

CASE STUDY



Bosch Automotive, Germany

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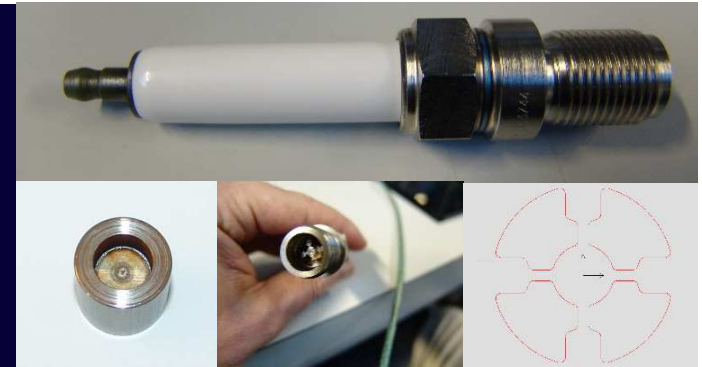
PRODUCT

Platinum spark plugs

When air and fuel start to mix inside of the internal combustion chamber, it needs an electrical spark to ignite. The ignition coil is attached to something called a spark plug, which is responsible for forming a high voltage electrical spark that is necessary for igniting the air - fuel mixture of the internal combustion chamber. Platinum spark plugs last longer than copper, stay cleaner and have a good price

LMJ used for:

- Cutting platinum ignition electrodes



CHALLENGE

Extremely difficult access to cut the platinum electrode

The main challenge was to reach to the electrode which is welded more than 20 mm deep in a cylinder.

Main processing criteria:

- Access to the cut area
- No HAZ
- No oxidation
- No burrs
- No contamination
- Narrow tolerances

Machining technologies able to reach these criteria:

- EDM
- Laser MicroJet (LMJ) - water jet guided laser



SOLUTION

No HAZ, production-proven, better ROI

LMJ advantages versus EDM:

- Much faster
- High flexibility
- No damage on the material
- Long lifetime

Installed machine type:

- 1 x LCS 300
- 100 W green laser

