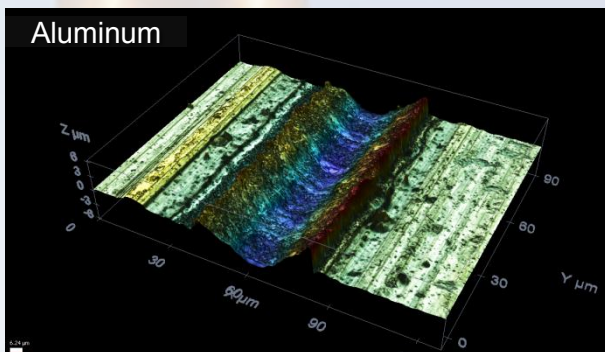
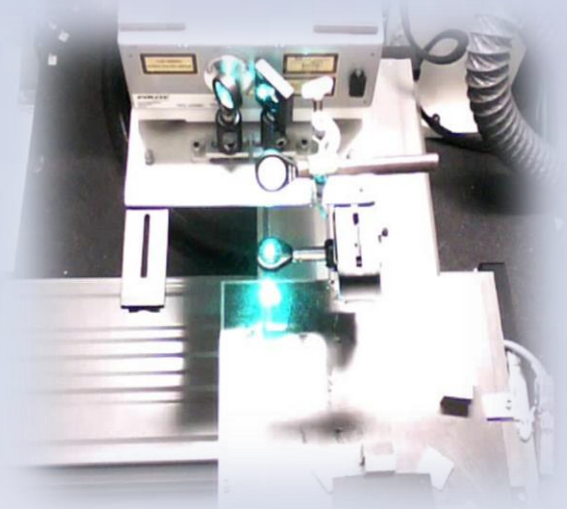


packaging industry

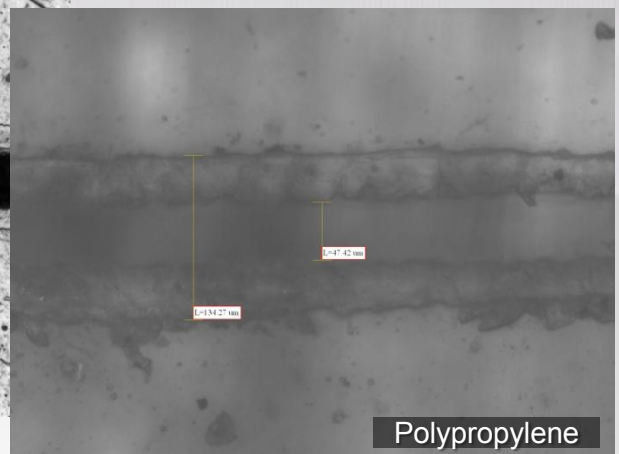
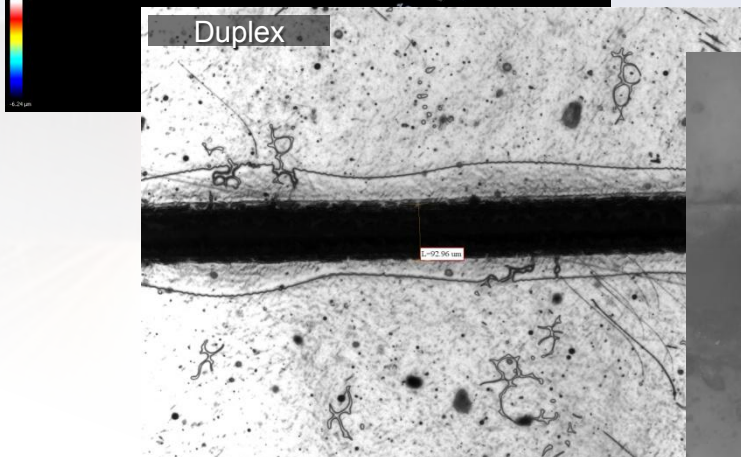
laser cutting

Pulsed laser radiation for cutting of thin metal films offers a number of **advantages** over mechanical cutting methods: **improved precisions, operational flexibility and cost-effectiveness.**

There is potential to achieve such gains in the packaging industry, where thin single and multi-layers materials frequently contain aluminum layers of thickness $\leq 20 \mu\text{m}$.



Aluminum foils, **polypropylene** and **polyethylene** films, as well as multi-layer composites, such as **Triplex** and **Duplex**, and aluminum/paper multi-layer materials, such as **Alufoil** and **Metalized Paper**, can be processed.



Laser cutting lab

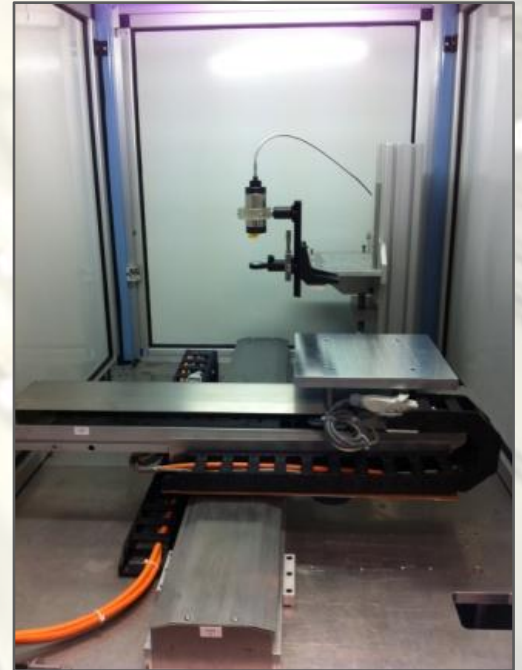
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laser processing lab

Our lab is equipped with **solid-state** and **fiber lasers**, mounted on machines with 2D-translation stages, for the processing of multi-layer materials.

The lab hosts lasers with emission wavelength in the **infrared** and **green**. Pulses duration between 600 ps and 100 ns, with repetition rate from 50 kHz to 250 kHz and average **output power up to 30 W** are available.



The **very high beam quality** of our lasers, with an M^2 factor close to 1, allows **extremely precise cuts** and for a reduction of the heat affected area. Our lasers can operate with very different output power levels without causing the beam to change its position and focus, allowing to obtain very smooth processing.

