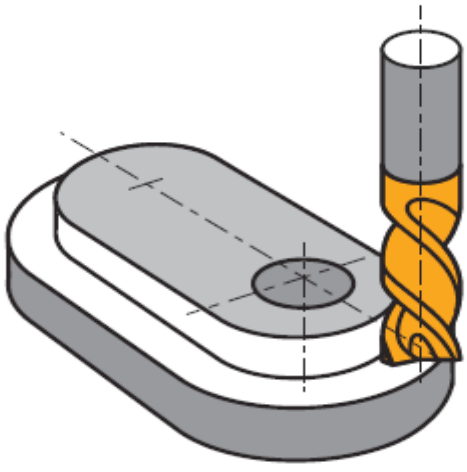
shortcut
Geben Sie Ihren Plänen eine Form

Milling and laser cutting

Simple explanation and comparison of the two processes, in the context of our company.

Milling

With a milling tool - similar to a drill - the material is removed in chips.



Fräser mit Werkstück

What are the variants?

Cutting out
Maximum material thickness 15mm.
Larger thicknesses on request

Engraving (carving lines)
Very filigree engravings possible

Surface milling / pocket milling
(material is removed at a defined depth)

Relatively complex and expensive because the machine runs for a long time

What is important?

The maximum material thickness that can be machined, depends on the diameter of the milling cutter:

Thick material, coarse structures = Large cutter

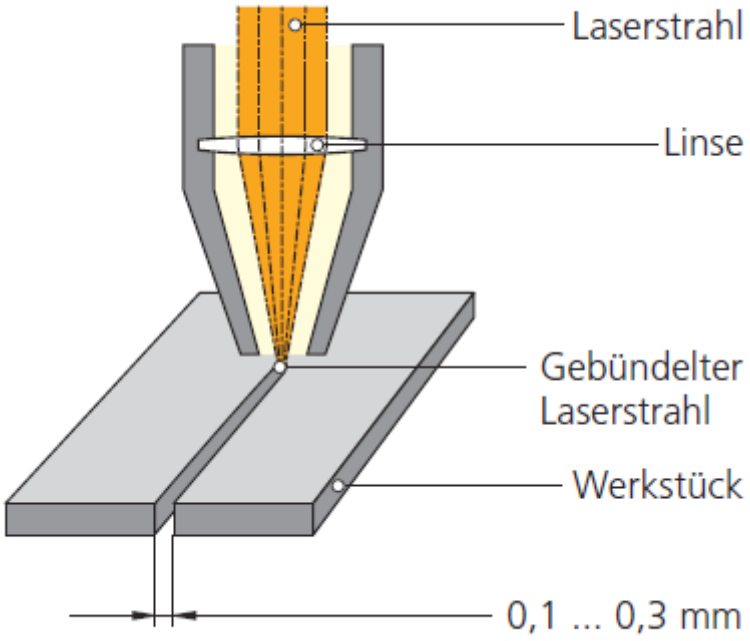
Thin material, fine structures = Small cutter

We mill solid materials in sheet form, e.g. acrylic glass, polystyrene, Dibond ®, etc.

Milling tool Diameter	Maximum Plunge depth
0,4mm	1,0mm
0,6mm	2,5mm
0,8mm	3,0mm
1,0mm	4,0mm
1,5mm	5,0mm
2,0mm	6,0mm
3,0mm	15,0mm

Lasering

A focused beam of light - the laser beam - is used to heat the material until it vaporizes.



What are the variants?

Cutting out

Different edge quality depending on material and material thickness

Engraving

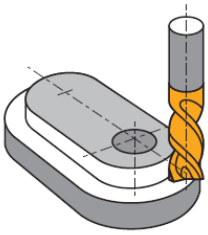
Depending on the material, dark discolorations can occur with two-dimensional engravings, e.g. on wood, cardboard, etc.

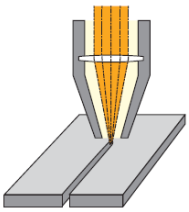
What is important?

The laser can also be used to process porous, fibrous and soft materials.

The laser basically burns the material. Therefore discolorations occur at the cut edges of some materials (fawn to black)

... in comparison:





	Milling	Laserring
Materials	Solid materials	Solid, soft or porous materials; Metal surfaces (marking, no cuts)
Cut edges	100% square; with acrylic glass silk-matt	Due to melting process not 100% rectangular; glossy for acrylic glass
Ideal for	technical parts 3D freeforming	thin materials; filigree forms
Disadvantages	More complex and usually more expensive than lasering	Cut edges discolored depending on Discolored edges depending on material, smear on surface possible.

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