

[Laser hardening]

Laser hardening is a process in which the tip of the cutting line is hardened by a laser, controlled by a specially developed computer controlled procedure. This gives maximum possible lifetime of the flexible die.

Laser hardening is recommended generally for 'cutting through' as well as for difficult to cut (foil) materials and long runs.



Advantages

- maximum possible lifetime (hardness at top of cutting line: 66-68 HRC)
- trouble-free kiss-cutting and cutting through, also with difficult materials
- no impairing of the flexibility
- no magnetic adhesion loss
- no additional tolerance differences

Figure 1:

The complete cutting line is tempered by laser in its upper part, and then cooled off.

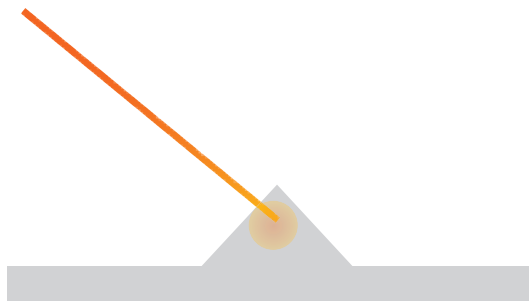


Figure 2:

The result: A harder steel structure at the tip of the cutting edge, with homogeneous transition to the residual die.

(left picture: microscopic view)

