

## INKJET MARKING/LASER MARKING COMPARISON

Industrial marking is evolving rapidly and there are many issues at stake:

- The availability rate of the marking system determines the productivity of the production line.
- Industrial marking is demanding: complex logos, Datamatrix, durability.
- The total cost of marking must be minimal over the lifetime of the equipment.

### INKJET MARKING



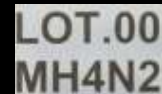
#### PROS

- Plug & play equipment.
- Only works in on-the-fly marking up to 2 m/sec. Minimum accuracy: 40 µm.
- Low initial investment.

#### CONS

- Operating cost dependent on manufacturer consumables.
- Production stoppage due to frequent replacement of consumables (ink and solvent).
- Regular maintenance of the machine environment (ink spraying).
- CMR (Carcinogenic, Mutagenic, Reprotoxic) ink and solvent.
- Inks specific to the marked media and drying time.
- Matrix marking (dots).

### LASER MARKING



#### PROS

- No consumables (laser).
- Low operation and maintenance cost (electricity).
- Intermittent or on-the-fly operation, up to 5 m/sec. Accuracy of 10 µm.
- Tamper-proof and instant marking.
- Robust equipment, no mechanical wear, no clogging.
- Instant production change via marking files.
- Vector marking.

#### CONS

- Regulated integration (laser risk to be treated).
- High initial investment cost.
- Monochrome marking.



### Questions to ask yourself when integrating a marking solution

- What will be the unit cost of my marking?
- What is the production volume?
- Are production interruptions acceptable?

### Key economic points laser vs inkjet

- Availability rate of over 99%.
- Low maintenance cost (no consumables).
- Superior laser cutting quality and definition.
- Low energy cost.

