

### Kiss cut your materials

Laser kiss cutting allows to cut the top layer of a material without cutting through an attached material. A typical application is laser kiss cutting sticker labels. By using the right settings, the label can be cut without cutting the backing material like an adhesive foil. Typically, CO2 lasers are used for kiss cutting applications. Laser kiss cutting can also be combined with perforating or “through cutting” on a single application.

With a laser you can do all in one process: engrave, kiss cut and perforate or cut through. A cost effective process with low operating and material costs and high flexibility:

- Virtually unlimited cutting path. The laser beam can be moved in any direction in 2D, unlike other processes that use knives or saws.
- Sticky materials that would otherwise adhere to a blade can be kiss cut.
- Very hard or abrasive materials can be kiss cut.
- High speed cutting with accuracy.
- Digital process, no expensive dies required.

Create stickers and labels – in different colours and designs! We used 3 differently coloured sheets of LaserLights. Parameters are the same for all colours.

#### Material used:

3 sheets of the 2-ply acrylic based foil LaserLights with an acrylic pressure sensitive adhesive on the back, size of each 610 x305 mm

#### Trotec Laser used:

Speedy 400 CO2, 80 Watt, 2" lens

#### Step-by-step guide:

##### 1. Graphic:

Open graphic – modify according to your wishes.

3 cutting lines are defined:

Red: cutting line for laser kiss cut: only foil but not adhesive backing will be cut

Blue: cutting line for perforated cutting around each single label: links are set so that the labels don't fall but that they can be taken away from basis material

Yellow: cutting line for each stripe of labels: cuts through foil and adhesive backing



2. Laser settings:

Send the graphic to the laser and use the following settings:

	engrave black	kiss cut red	cut each blue	cut stripe yellow
<b>Laser power</b>	60	12	20	40
<b>Laser frequency</b>		6000	1000	1000
<b>Speed</b>	100	2	2	4
<b>dpi</b>	600			
<b>Air Assist</b>	on	on	on	on
<b>Passes</b>	1	1	1	1
<b>Focus</b>	2mm			
<b>Format</b>	915x50 mm	915x50 mm	915x50 mm	915x50 mm
<b>Time</b>	5,57 min	0,54 min	0,56 min	0,16 min
<b>Correction</b>	15	50	5	5
<b>Other</b>	high quality		links	

Parameter are valid for engraving 3 sheets next to each other at the same time – no different parameters for different colours necessary:



## → Laser Kiss Cut – How-To

### Tips:

- Table: Use a vacuum table and acrylic cutting table. All parts not covered by the sheets, cover with paper and/or tape in order to make the vacuum work perfectly
- Focus: First switch on the vacuum and focus afterwards.
- Engraving direction: Engrave from bottom to top. Like that the core will not be coloured by the removed layer above.
- Engraving only one sheet: Of course you can engrave only one colour/sheet as well. If you process only one sheet, optimize parameters by lowering the power by 10 %.