



### 1. Detection of an engraving mark on a metal plate

An engraving mark which is used for positioning in x-, y- and roll- direction has to be detected.

There is a sufficient gloss difference between the engraving mark and the metal background which allows working in the direct reflection mode with an optical line scan detector type **L-LAS-RL-20-W**. The L-LAS-RL-20-W is directed perpendicular onto the metal plate with the engraving mark. At this connection one of the L-LAS-RL-20-W sensors delivers either the x-, the y- or the roll – position. It must be pointed out, that for calculating the x- and the y- position two of the L-LAS-RL-20-W sensors have to be arranged perpendicular to each other. Whereas in determining the roll – position two of the L-LAS-RL-20-W must be arranged in parallel. As shown in the screen shots the different engraving marks could be detected in a proper way. The distance from the sensor to the object is approximately 55 mm and the detecting range (line) is around 20 mm with the **L-LAS-RL-20-W** and about 10 mm in using the **L-LAS-RL-10-W**. The distance from the **L-LAS-RL-10-W** to the object, however, is around 35 mm.

