Characteristics of Standard Sheet Metal Fabrication Technologies in the Company INTEC MKD

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1 COMPANY PRESENTATION

INTEC MKD is one of the leading Central European companies in the field of R&D and manufacture of metal structures, parts and housings for industrial electronic devices, machinery and other equipment. As a **systemic and R&D supplier** that caters to some major industrial customers, the company offers prototype development and production, small- and medium-batch production, and through the use of progressive tool technology also large-batch production. The parts, structures and housings manufactured by INTEC MKD are used mainly in the field of **industrial automation**, **medical equipment**, equipment for the **food processing and pharmaceutical** industries, **telecommunications devices**, **transportation** and **mechanical engineering**.

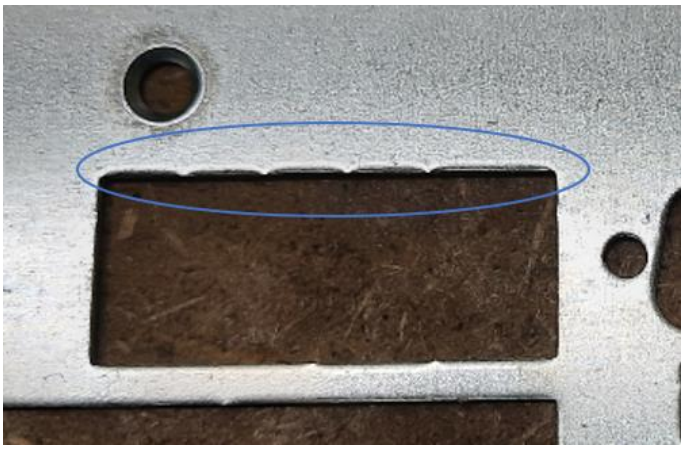
2 PURPOSE OF THIS DOCUMENT

- The purpose of this document is to present the characteristics of standard sheet metal fabrication technologies used by INTEC MKD. The aim is to make our partners familiar with standard technology capabilities and the expected results, and to make sure our customers' expectations are in line with the actual capabilities of the selected technologies from the initial stages of our cooperation onwards. This will allow us to avoid any misunderstandings about the achieved and expected product characteristics. Higher standards in terms of product appearance or other functional characteristics can be achieved by making appropriate adjustments or incorporating special technologies.

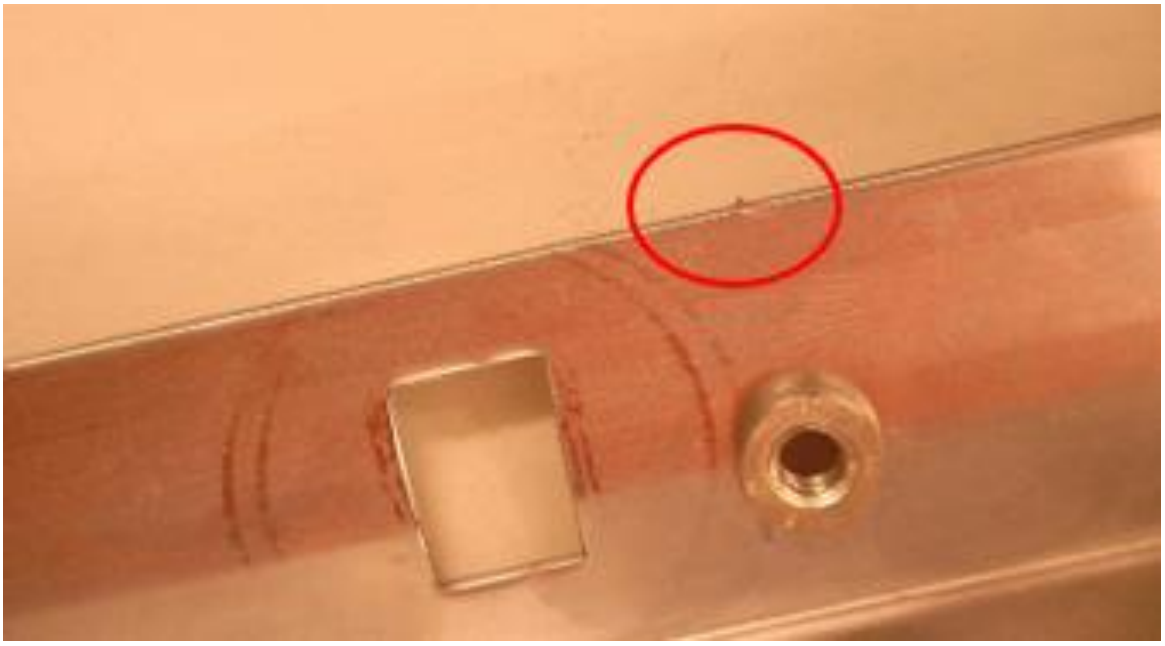
3 CHARACTERISTICS OF STANDARD TECHNOLOGIES

3.1 CNC PUNCHING

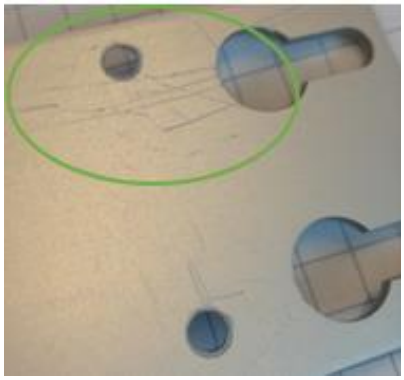
- visible punching tool marks on straight longitudinal edges (punching transition marks)

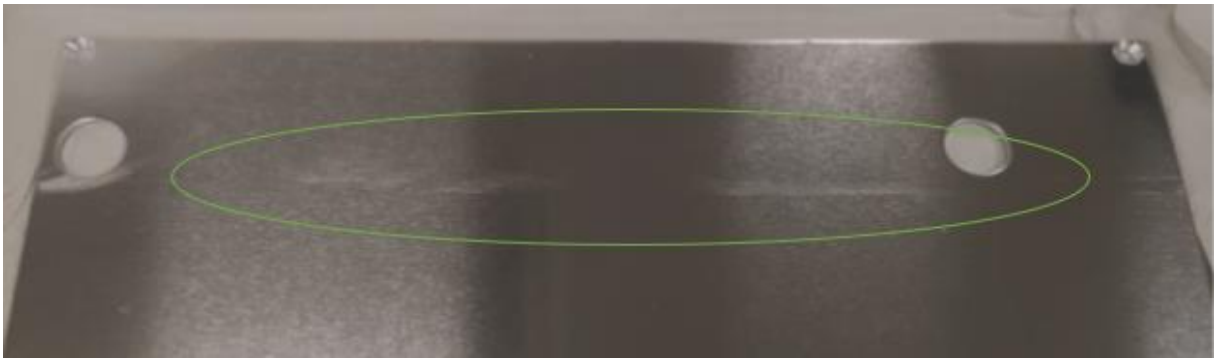


- visible remains of micro-joints

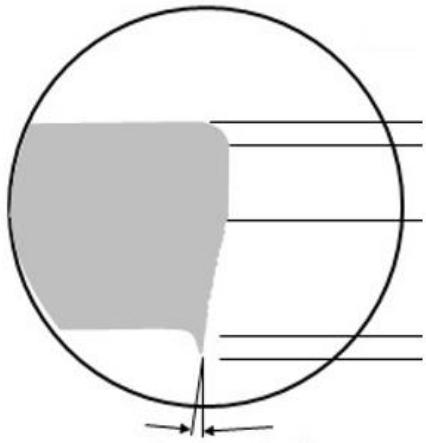


- Possibility of visible scratches on the sheet metal surface (the scratches do not affect the product's functionality)





- rounded punched edge on the side where the tool enters the punched edge



- deviation in the material’s appearance within the supplier's standard deviations

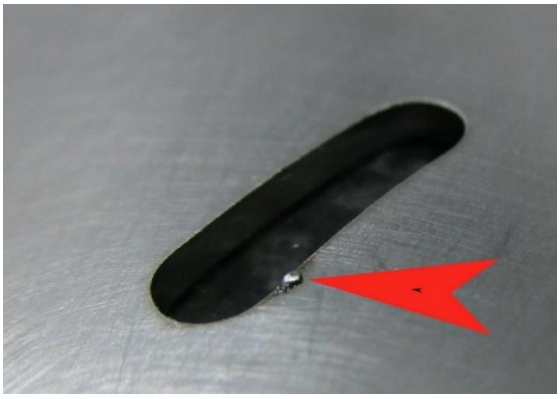
3.2 SHEET METAL BENDING

- visible bending tool marks

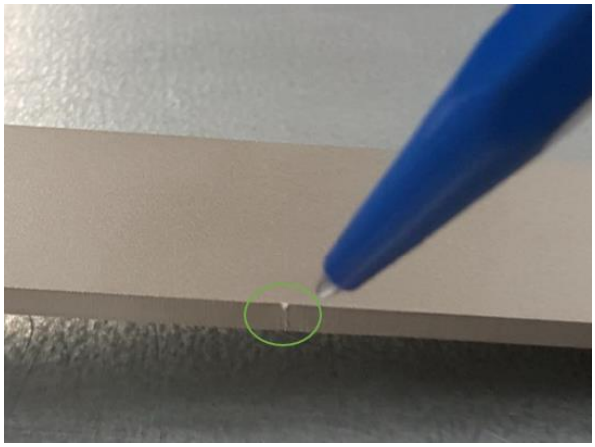
- deformation of the holes near bends (shape deformation, bending tool imprint)
- bending radius can only be confirmed after the samples have been made (we reserve the right to change the bending radius)

3.3 LASER CUTTING

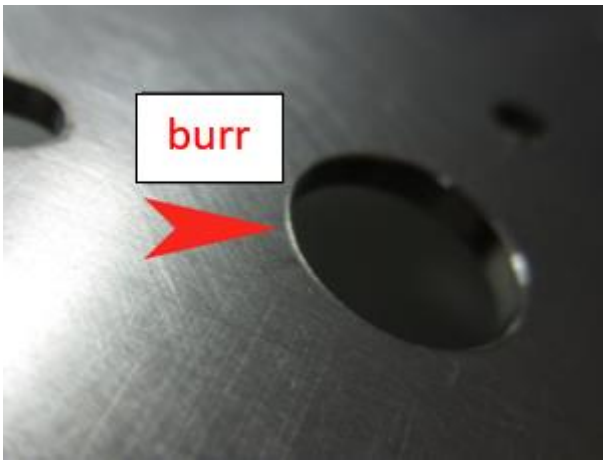
- the remains of laser piercing on the sheet metal underside



- the remains of start/stop points

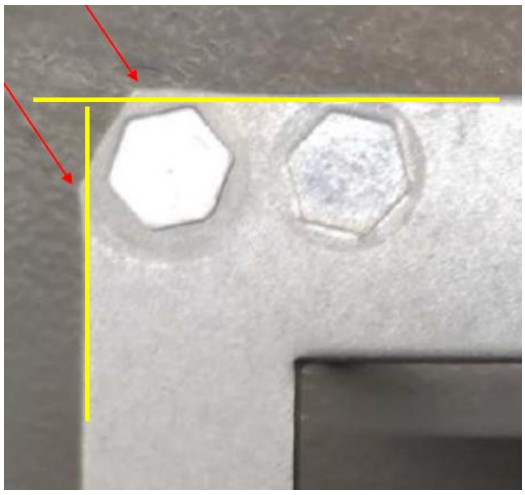


- a burr on the underside of the cut-out contour



3.4 PRESS-IN ELEMENT ASSEMBLY

- edge deformation when the distance is smaller than the required minimum distance from the edge of the sheet metal



3.5 CHARACTERISTICS OF ALUMINIUM SHEET METAL (EN 485-1: 2016/5.2.4)

- The product must be free from defects that could impair its use under appropriate conditions of use.
- Minor surface defects, such as scratches, rings (circles), roll marks, longitudinal lines, roller strokes, discolouration and slightly uneven surface quality resulting from heat treatment etc., which cannot be completely avoided, are usually allowed on both sides of the product.

3.6 CHARACTERISTICS OF ELECTROLYTICALLY ZINC-COATED STEEL

- Visual deviations in surface colour and structure are possible.