

General Production Tolerances Due to Technical Conditions

23.01.2025

Laser Cutting

Material thickness $t = 0.5 - 2.0$ mm Tolerance: ± 0.1 mm
Material thickness $t = 2.5 - 4.0$ mm Tolerance: ± 0.2 mm
Material thickness $t = 5.0 - 8.0$ mm Tolerance: ± 0.3 mm
Material thickness $t = 10.0 - 20.0$ mm Tolerance: ± 0.4 mm

Bending

Material thickness $t = 0.5 - 2.0$ mm Tolerance: ± 0.3 mm
Material thickness $t = 2.5 - 4.0$ mm Tolerance: ± 0.5 mm
Material thickness $t = 5.0 - 6.0$ mm Tolerance: ± 0.8 mm

Bolt Welding

M3 - M8 Minimal Positional Tolerance: ± 0.5 mm
(Otherwise, the standard tolerances apply)

Weld Assembly

When welding, a welding distortion occurs due to the heat input, which can vary depending on the type of material, material thickness, geometry, and size of the part (ranging from tenths to millimeter range).
This welding distortion can only be estimated based on experience in advance and for the first part, but not determined precisely.

Edges, Edge Break

The edges of our parts are burr-free. An edge break is only applied at the customer's request or according to drawing specifications.

Surface

The surface finish is a subjectively influenced characteristic.
Especially with manually created surfaces (grinding, bead blasting), slight differences may be noticeable from part to part. However, these are not quality deficiencies but variations based on manufacturing technology.
Parts that are "pickled" or "electropolished" must be discussed separately.

Raw Materials

Our raw materials are sourced according to the standards:
DIN EN 10088-2 "Technical Delivery Conditions for Sheets and Strips"
DIN EN 10259 / 10258 "Limits and Form Tolerances for Sheets"
DIN EN 59411 "Sizes and Weights of Square and Rectangular Tubes"