

MACHINING



MILLING, DRILLING, COUNTERSINKING, THREAD TAPPING, PUNCHING, ENGRAVING

We use our modern 3-axis CNC milling machines to machine enclosures, tuning knobs and accessories from our extensive standard range.

The use of special tools allows burr-free cutting edges.

The maximum travel distances are 650 mm in the X direction, 375 mm in the Y direction and 350 mm in the Z direction.

ADVANTAGES

- Delivery of enclosures including machining from a single specialist source.
- Machining can be adapted to process components such as PCBs, switches, connectors, etc.
- Technical advice and support from production planning staff.

PARTICULARLY SUITABLE FOR

Thermoplastic enclosures, plastic sheets and aluminium parts.

NOT SUITABLE FOR

Duroplastic enclosures are not suitable for mechanical processing due to the brittleness of the material.

TPE parts can only be machined to a limited extent because of their rubber-like elasticity => drilling holes in TPE parts is only possible on special request.

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SPECIAL NOTES

TOLERANCES

Ideally, dimensioning should be carried out from the centre in order to reduce the tolerances of the enclosure parts, but other reference points are also possible.

With our equipment, we can maintain the following tolerances:

- For all dimensions <30 mm to the reference edge of the enclosure, the tolerance is ± 0.3 mm.
- All other non-toleranced dimensions are subject to DIN ISO 2768m T1.

If tighter tolerances are required, consultation is required. These special tolerances shall be documented in a drawing. The smallest possible tolerance within the milling pattern is ± 0.05 mm for plastic and ± 0.1 mm for aluminium.



MACHINING

SPECIAL NOTES

RADI

The smallest possible radius is R=0.8 mm for plastic and R=1.5 mm for aluminium.

SHARP-EDGED CORNERS

For an additional charge, the corners of cutouts and milled sections can be stamped with sharp edges. However, this is only possible with plastic parts.

MINIMUM DRILL SIZES

Ø 1 mm for plastic and Ø 2 mm for aluminium.

RESIDUAL WALL THICKNESS FOR RECESSES

The residual wall thickness should not be less than 0.7 mm.

RESIDUAL WALL THICKNESS FOR BACKLIT/PARTIALLY LIT SURFACES

The residual wall thickness should not be less than 0.6 mm +/- 0.1 mm.

RESIDUAL WALL THICKNESS AT PREDETERMINED BREAKING POINTS

The residual wall thickness should not be less than 0.5 mm.

ENGRAVING

Only single-line fonts and symbols are possible.

Laser marking offers a cost-effective alternative to engraving.

Engraving depth	Engraving width	Character height
Min. 0.5 mm	Plastic min. 0.8 mm	Min. 3 mm
	Aluminium min. 1 mm	Min. 3 mm

WHAT INFORMATION DO WE REQUIRE AT THE INQUIRY STAGE?

Provide at least a detailed description of the required machining along with a dimensional sketch or PDF drawing specifying the size of the cut-outs (length, width, diameter).

WHAT INFORMATION DO WE REQUIRE AT THE ORDER STAGE?

Provide at least a detailed dimensional drawing/sketch containing all dimensions required for machining (including clearance dimensions). Alternatively, 3D data, preferably in the file formats .sldprt, .step oder .iges.

