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# PRECISE ELECTROCHEMICAL METAL MACHINING

**Precise electrochemical metal machining** is an advancement of electrochemical machining (ECM). This method can be used to precisely machine metals, irrespective of their hardness, within a short period of time and maintaining high component quality. PECM technology is particularly suitable for small- and large-volume production as well as for prototyping.

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## PROCESS FLOW

Similarly to ECM, the PECM method works with an electrolyte solution and contact-free. Here, too, the component is connected to a positive circuit, the materials, however, are dissolved with the aid of an oscillating cathode. Machining is thus not limited to removal, instead, contours and structures with high aspect ratios can be produced by means of a forming cathode and continuous advance of the tool (cathode).

## CHARACTERISTICS

- contract-free, targeted deburring
- machining of thin-walled and sensitive components possible
- method independent of component microstructure or degree of hardness
- no thermal or mechanical influence
- no production of secondary burrs
- excellent surface characteristics (roughness depths of up to Rz 0.2/Ra 0.05, depending on material)
- mapping accuracy < 20 µm possible

## LOCATION:

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