

B23H

WORKING OF METAL BY THE ACTION OF A HIGH CONCENTRATION OF ELECTRIC CURRENT ON A WORKPIECE USING AN ELECTRODE WHICH TAKES THE PLACE OF A TOOL; SUCH WORKING COMBINED WITH OTHER FORMS OF WORKING OF METAL (processes for the electrolytic or electrophoretic production of coatings, electroforming, or apparatus therefor [C25D](#); processes for the electrolytic removal of material from objects [C25F](#); manufacturing printed circuits using precipitation techniques to apply the conductive material to form the desired conductive pattern [H05K 3/18](#))

B23H 1/00

Electrical discharge machining, i.e. removing metal with a series of rapidly recurring electrical discharges between an electrode and a workpiece in the presence of a fluid dielectric

Definition statement

This place covers:

The documents concerned with electrical discharge machining, i.e. the removal of metal with a series of rapidly recurring electrical discharges between an electrode and a workpiece in the presence of a dielectric fluid.

In particular, this group contains documents concerned with:

Electric circuits specially adapted for electric discharge machining, e.g. power supply, control, preventing short circuits or other abnormal discharges, electrodes specially adapted therefore or their manufacture, Working media and their supply or regeneration.

B23H 3/00

Electrochemical machining, i.e. removing metal by passing current between an electrode and a workpiece in the presence of an electrolyte

Definition statement

This place covers:

The documents concerned with electrochemical machining, i.e. removing metal by passing current between an electrode and a workpiece in the presence of an electrolyte

In particular, this group contains documents concerned with:

Electric circuits specially adapted for electrochemical machining, e.g. power supply, control, preventing short circuits, electrodes specially adapted therefore or their manufacture, Working media therefore and their supply and regeneration.

B23H 5/00

Combined machining

Definition statement

This place covers:

The documents concerned with combined machining processes and apparatus applicable to combined processes. In particular it covers processes or apparatus applicable to both electrical discharge machining and electrochemical machining, electrical discharge machining combined with mechanical working.

B23H 7/00

Processes or apparatus applicable to both electrical discharge machining and electrochemical machining

Definition statement

This place covers:

The documents concerned with processes and apparatus applicable to both electrical discharge machining and electrochemical machining:

In particular, it contains the documents concerned with:

- Wire-cutting, i.e. cutting metal with an electrode in the form of a wire and apparatus for supplying current to working gap for wire machining for wire cutting; for control of the travel curve of the relative movement between the wire electrode and workpiece; and the material and shape of the wire electrodes, the supporting, winding and/or electrical connection of wire-electrode;
- Rotating-disc electrodes;
- Electric circuits specially adapted for both electrical discharge machining and electrochemical machining, e.g. power supply, circuits for maintaining or controlling the desired spacing between electrode and workpiece, programme-control of the process or apparatus;
- Electrodes specially adapted for both electrical discharge machining and electrochemical machining or their manufacture;
- Apparatus for moving or positioning electrode relatively to workpiece and mounting of electrode(s);
- Working media and their supply or regeneration of working media;
- Influencing the metal working using specially adapted means not directly involved in the removal of metal, e.g. ultrasonic waves, magnetic fields or laser irradiation.

B23H 9/00

Machining specially adapted for treating particular metal objects or for obtaining special effects or results on metal objects (heat treatment by cathodic discharge [C21D 1/38](#))

Definition statement

This place covers:

Machining especially adapted for treating particular metal objects or for obtaining special effects or results on metal objects.

In particular it concerns:

- Disintegrating
- Making screw-threads or gears
- Machining elongated bodies, e.g. rods

- Cavity sinking
- Surface roughening or texturing
- Trimming or deburring
- Treating surfaces of rolls
- Marking or engraving
- Sharpening
- Working turbine blades or nozzles
- Forming parts of complementary shape, e.g. punch-and-die
- Making of holes
- Producing external conical surfaces or spikes.

B23H 11/00

Auxiliary apparatus or details, not otherwise provided for

Definition statement

This place covers:

This group concerns auxiliary apparatus or details for electric or electrochemical discharge machines, not otherwise provided for.

In particular the group concerns:

- The mounting of workpieces, e.g. working-tables;
- Electrical contacts or wires.