

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### B23 MACHINE TOOLS; METAL-WORKING NOT OTHERWISE PROVIDED FOR

**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) [4]

#### Note(s)

This subclass covers the working of metal described as "electroerosion".

#### Subclass index

ELECTRICAL DISCHARGE MACHINING.....	1/00
ELECTROCHEMICAL MACHINING.....	3/00
COMBINED MACHINING.....	5/00
COMMON PROCESSES OR APPARATUS.....	7/00
MACHINING PARTICULAR OBJECTS OR OBTAINING SPECIAL EFFECTS OR RESULTS.....	9/00
AUXILIARY APPARATUS OR DETAILS.....	11/00

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|---|--|--|
| <b>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 [4]</b> | 5/10   | • Electrodes specially adapted therefor or their manufacture (B23H 1/04, B23H 3/04 take precedence) [4]            |
| 1/02 • Electric circuits specially adapted therefor, e.g. power supply, control, preventing short circuits or other abnormal discharges [4]   | 5/12   | • Working media [4]  |
| 1/04 • Electrodes specially adapted therefor or their manufacture (B23H 9/00 takes precedence) [4]  | 5/14   | • Supply or regeneration of working media [4]  |
| 1/06 • • Electrode material [4]   | <b>7/00 Processes or apparatus applicable to both electrical discharge machining and electrochemical machining [4]</b> |  |
| 1/08 • Working media [4]  | 7/02   | • Wire-cutting [4]   |
| 1/10 • Supply or regeneration of working media [4]  | 7/04   | • • Apparatus for supplying current to working gap; Electric circuits specially adapted therefor [4]               |
| <b>3/00 Electrochemical machining, i.e. removing metal by passing current between an electrode and a workpiece in the presence of an electrolyte [4]</b>  | 7/06   | • • Control of the travel curve of the relative movement between electrode and workpiece [4]                       |
| 3/02 • Electric circuits specially adapted therefor, e.g. power supply, control, preventing short circuits [4]  | 7/08   | • • Wire electrodes [4]  |
| 3/04 • Electrodes specially adapted therefor or their manufacture (B23H 9/00 takes precedence) [4]  | 7/10   | • • • Supporting, winding or electrical connection of wire-electrode [4]   |
| 3/06 • • Electrode material [4]   | 7/12   | • Rotating-disc electrodes [4]   |
| 3/08 • Working media [4]  | 7/14   | • Electric circuits specially adapted therefor, e.g. power supply [4]  |
| 3/10 • Supply or regeneration of working media [4]  | 7/16   | • • for preventing short circuits or other abnormal discharges [4]   |
| <b>5/00 Combined machining [4]</b>  | 7/18   | • • for maintaining or controlling the desired spacing between electrode and workpiece [4]                         |
| 5/02 • Electrical discharge machining combined with electrochemical machining [4]   | 7/20   | • • for programme-control, e.g. adaptive [4]   |
| 5/04 • Electrical discharge machining combined with mechanical working [4]  | 7/22   | • Electrodes specially adapted therefor or their manufacture (B23H 7/08, B23H 7/12, B23H 9/00 take precedence) [4] |
| 5/06 • Electrochemical machining combined with mechanical working, e.g. grinding or honing [4]  | 7/24   | • • Electrode material [4]   |
| 5/08 • • Electrolytic grinding [4]  | 7/26   | • Apparatus for moving or positioning electrode relatively to workpiece; Mounting of electrode [4]                 |
|   | 7/28   | • • Moving electrode in a plane normal to the feed direction, e.g. orbiting [4]                                    |

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- 7/30 • • Moving electrode in the feed direction (B23H 7/32 takes precedence) [4]
- 7/32 • • Maintaining desired spacing between electrode and workpiece [4]
- 7/34 • Working media [4]
- 7/36 • Supply or regeneration of working media [4]
- 7/38 • Influencing metal working by using specially adapted means not directly involved in the removal of metal, e.g. ultrasonic waves, magnetic fields or laser irradiation [4]

**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) [4]

- 9/02 • Trimming or deburring [4]
- 9/04 • Treating surfaces of rolls [4]
- 9/06 • Marking or engraving [4]
- 9/08 • Sharpening [4]
- 9/10 • Working turbine blades or nozzles [4]
- 9/12 • Forming parts of complementary shape, e.g. punch-and-die [4]
- 9/14 • Making holes [4]
- 9/16 • • using an electrolytic jet [4]
- 9/18 • Producing external conical surfaces or spikes (B23H 9/08 takes precedence) [4]

**11/00 Auxiliary apparatus or details, not otherwise provided for** [4]