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**TECHNOORG
L I N D A**

ISO 9001:2000 CERTIFIED

ELECTROEROSION UNIT

Model EE4

For making holes and slots into hard metals



v5 (0703)

1. DESCRIPTION

1.1. General

If one has to create a hole in a metal part, the conventional approach is to do it using an electric drill with an appropriate boring bit. But when the cross section of the hole is not circular or we need a metal disc or the metal is harder than the bit itself (e.g. a broken tap drill in a semifinished part), the solution is not so simple. The electroerosion unit has been created for solving these types of tasks.

1.2. Specifications

Power Supply Unit

Power Input	100-120 V AC, 50-60 Hz, 1 A or 220-240 VAC, 50-60 Hz, 0.5 A
Power Output	approx. 1.5-20 V DC, 2A (average)
Dimensions	100 x 170 x 235 mm

Head Unit

Power Input	approx. 1.5-20 V DC, 2A (average)
Dimensions	140 x 260 x 290 mm

1.3. Technical description

Operation of the device is based on an electrochemical process. The drilling tool and the work-piece are connected to a power supply, the **positive pole** to the work-piece, and the drill through an electromagnetic coil to the **negative pole**. By switching on the power supply, an electric current flows through the circuit consisting of the work-piece, the electromagnetic coil and the drill. When the electric current exceeds a certain limit, the magnetic field of the coil lifts up the drill and the current is cut off. The drill is then forced back to the work-piece by a spring in the head unit, and the cycle starts again. The drilling is effected by the electrochemical process taking place at the moment that the electric circuit is stopped. Because of the basic operating principle, it is relatively obvious that the device can only be used for high-conductivity materials (with the exception of aluminum). The work-piece holder accessory can hold 5 mm wide metal bands. Work-pieces of different size require modification of the holder.



The device is not suitable for drilling of aluminum work-pieces!