Product description

Keeping the surfaces of electrochemical microelectrodes clean will ensure more active and longer useful life of your Thomas RECORDING electrochemical microelectrodes. Depending on the variation of usage, methods, and compositions for maximum results it is recommended to polish the electrode regularly especially when the voltammetric data begin to deteriorate. The most common method for surface preparation is mechanical polishing. Therefore Thomas RECORDING has developed the precision microelectrode polishing machine EPM-1. This machine usually is used with diamond grinding discs with different particle sizes.
The grinding and polishing are carried out on a horizontally rotating disc with 50mm diameter for special polishing paper. The device consists on a motor driven rotating grinding disc. Parts of this type typically require flatness and parallelism tolerances of approximately some micron. Rotating the part in a controlled motion by using a special disc driving motor and precision mechanic **Made in Germany** are the keys to achieving this level of accuracy.

The working microelectrode usually needs polishing if response has declined and one suspects that the microelectrode is fouled. Then one can insert the electrode in the electrode holder shown in the figure on the left side. A manual micromanipulator is used to move the electrode down on the rotating polishing disc. This is done under microscopic control with a monocular microscope that is part of the **EPM-1**. The micromanipulator allows also an electrode movement in the lateral direction to ensure that the tip is not always at the same position on the polishing disc.

The grinding disc rotation speed and the rotation direction is controlled by a special electronic motor control device that is also mounted on the EPM-1 base plate.

The EPM-1 is delivered together with micromanipulator, motor control unit, grinding unit, monocular microscope (monoscope) and an ac power supply unit.

**Article-Number: EPM-1**

**Price: On request**