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# POLISH TECHNICAL REVIEW



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### **X** SIGMA

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#### Hanging mercury drop electrode

Theoretical electrochemistry and electro-analysis, especially polarography have found a new instrument in the form of a hanging mercury drop electrode WK-1 (patented) used in cyclic and inversion voltammetry for, among other things, the trace analysis of metals, for testing the mechanisms of oxidation and reaction, for measurements in organic solvents, for detecting metal compounds formed in amalgams, etc. For details see p. 2. Many other genuine methods and installations are discussed in the section of chemistry.

#### A flat hydraulic engine

Small dimensions, small weight, easy start-up, possibility of overload, high hydraulic and mechanical efficiency, high durability are only some advantages of the new Polish circulating-cam hydraulic engine (patent). The design details of the engine which has already found application for driving winches, cranes, capstans (i.e. also on ships) as well as conveyors, building machinery, road-building, mining and farming machines can be found on p. 11.

#### Process equipment for the electronic industry

Automatic soldering of electronic equipment by means of a wave of liquid solder and a semi-automatic tinning device for soldering one- and double-sided conductor tracks of printed circuit boards with non-metallized holes by the twin-roller method are the two process lines produced by UNITRA-UNIMA for the Polish electronic industry. See p. 20–21.

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