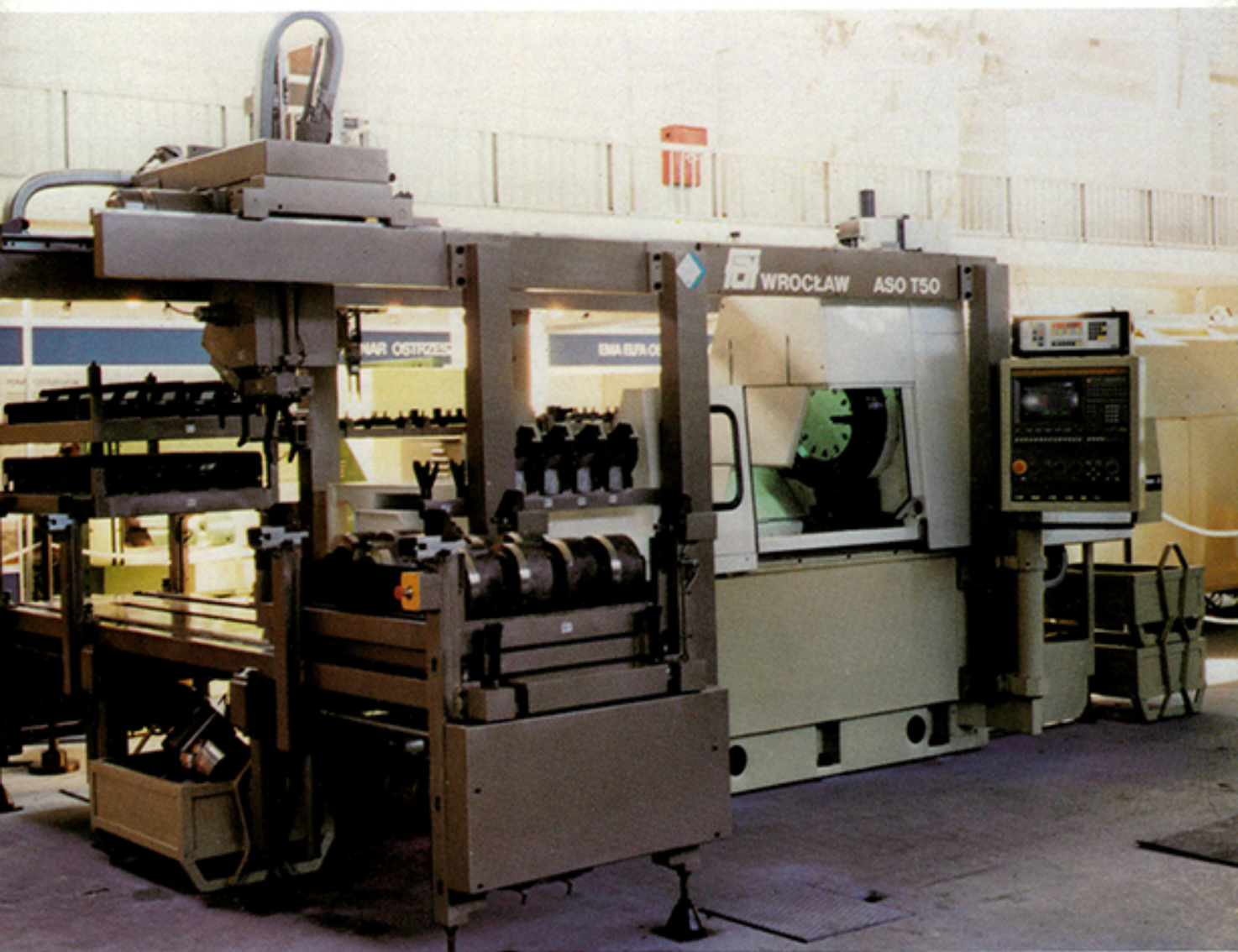




# POLISH TECHNICAL REVIEW





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**SIGMA**

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### The PZL-10W helicopter engine

The PZL-10W helicopter engine designed at the PZL-RZESZÓW Transport Equipment Works, Rzeszów, is one of the best designs in this class in the world in terms of fuel consumption and specific weight, it ensures an enhanced degree of take-off, flight and landing safety. In emergency conditions, i.e. should one of the power unit engines break down when the helicopter engine is operating, extraordinary power range is switched on automatically, that possibility being a novelty on a world scale. For details see p. 2.

### A Polish process for pentaerythritol manufacture

The new manufacturing process of pentaerythritol developed by the BLACHOWNIA Institute of Heavy Organic Synthesis, Kędzierzyn-Koźle does not present any danger to man's natural environment. The streams of wastes leaving the plant can be utilized readily and effectively. The Polish pentaerythritol manufacturing process is the first in which traditional alkaline crystalizers are not applied. The catalyst in this case is constituted by an ion exchange resin. As a result two uncontaminated streams of aqueous solutions of pentaerythritol and sodium formate are obtained. See article on p. 15.

### TAR system road surfaces

TAR surfaces which are an original technology developed by Polish experts, can find a wide application in the road-making sector. They yield considerable technological and economical advantages. Their load-carrying ability is 3 to 6 times greater than that of standard slabs and their service life is from 3 to 4 times longer. Surface smoothness is better, too. Moreover, the reduction of steel consumption is approx. 50% and savings of concrete approx. 32%. See p. 22.

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Front cover photo: Autonomous machining centre T50 made by the Automatic Lathes Factory FAT in Wrocław (winner of a gold at the 61st Poznań International Fair).

Back cover photo: CNC type SPG40 plane grinder, made by the Grinders Factory PONAR-GŁÓWNO in Głowno (winner of a gold medal at the 61st Poznań International Fair).