



# POLISH TECHNICAL REVIEW







# POLISH TECHNICAL REVIEW

**SIGMA**

PUBLISHERS OF TECHNICAL PERIODICALS AND BOOKS SIGMA-NOT CO. LTD.

ul. Świętojerska 5/7, 00-236 Warsaw, P.O.B. 1004. Tel.: (48-22) 31 93 65, Tlx: 814877 WCT WA PL. Fax: 19 21 87. Issued in English

## CONTENTS

### MACHINE BUILDING

The SOKÓŁ helicopter in the rescue service version . . . . .	2
A multi-purpose decked-in fishing boat	4
Heat recovery equipment . . . . .	6
Polish metal working machines industry. Part III . . . . .	8
<b>PROTECTION OF THE ENVIRONMENT</b>	
A non-stripping method of localizing leaks and sealing off underground channels . . . . .	14
Equipment for water treatment and reclamation of shallow water reservoirs	15

### CONTROL AND MEASURING EQUIPMENT

Pneumatic equipment for measuring of length . . . . .	16
A photoresistor-type planimeter (patent) . . . . .	19

### FOOD INDUSTRY

A smoke generator . . . . .	20
-----------------------------	----

<b>BRIEF NEWS</b> . . . . .	cover, 5, 7, 15, 19
-----------------------------	---------------------

<b>BOOKS</b> . . . . .	cover, 22, 23
------------------------	---------------

Indeks for 1992 . . . . .	24
---------------------------	----

<b>PRESS SERVICE</b> . . . . .	I-VIII
--------------------------------	--------

#### A multi-purpose decked-in fishing boat

The multi-purpose fishing boat built at the Agricultural Academy of Szczecin is designed for fishing in the Baltic Sea with the use of a trawl, a pair net, set nets and drift nets as well as hook-and trap-type gear. This vessel has a number of installations which contribute to a considerable reduction of the pollution of the marine environment. The steerability is ensured by a hand-operated hydraulic steering engine. The boat has additionally a rudder crosshead for emergency steering. Details on p. 4

#### Pneumatic equipment for measuring of length

A pneumatic measuring transducer whose design differs from that in common use has been developed by Warsaw Technical University. The new transducer comprises two in-series connected pressure chambers placed between three flow-through elements. The new design of this transducer has become a basis for the construction of a pneumatic measuring instrument which is the object of a Polish Patent Office application. The measuring equipment developed has been used successfully in the Polish industry, e.g. in ball bearings plants, motor industry factories etc. See p. 16

#### A smoke generator

Smoking is a traditional process of preserving foodstuffs and imparting to them a specific appearance and taste. The modular smoke generator developed at the Institute of the Meat and Fat Industry in Warsaw ensures the performance of energy saving and ecologically clean smoking processes. The standard of the smoked products obtained is very high. They feature a good taste and an attractive, permanent cherry-like colour. This generator has made it possible to completely eliminate the emission of smoke to the atmosphere and has ensured high comfort to the operators. The generators can be adapted to all the existing, traditional smoking chambers and the investment costs entailed are small. See article on p. 20

Chief editor: Andrzej Witkowski  
English editor: Ewa Karska  
Production manager: Alicja Dziewulska-Kijas  
Editorial secretary: Maria Bartochowska  
Proof-reader: Danuta Niedbalska

Cover photo: The SOKÓŁ helicopter in the rescue version made by PZL-ŚWIDNIK Transport Equipment the Works Świdnik

Subscription orders should be sent to our editorial office SIGMA-NOT. The price of one copy is 6.- US dollars. Our bank accounts are as follows: PBK III O/W-wa 370015-1573-139-11 Wydawnictwo Czasopism i Książek Technicznych SIGMA-NOT Spółka z o.o. or BRE S.A. O/W-wa, Al. Jerozolimskie 44. No 400002-9944-139-171.

Photosetting: "Fotoskład", ul. Niecała 4a, Warsaw  
Printing: SIGMA-NOT Printing House, ul. Stoleczna 21, Warsaw  
Index No 36915