

# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS: FIRST PRACTICAL EXPERIENCES

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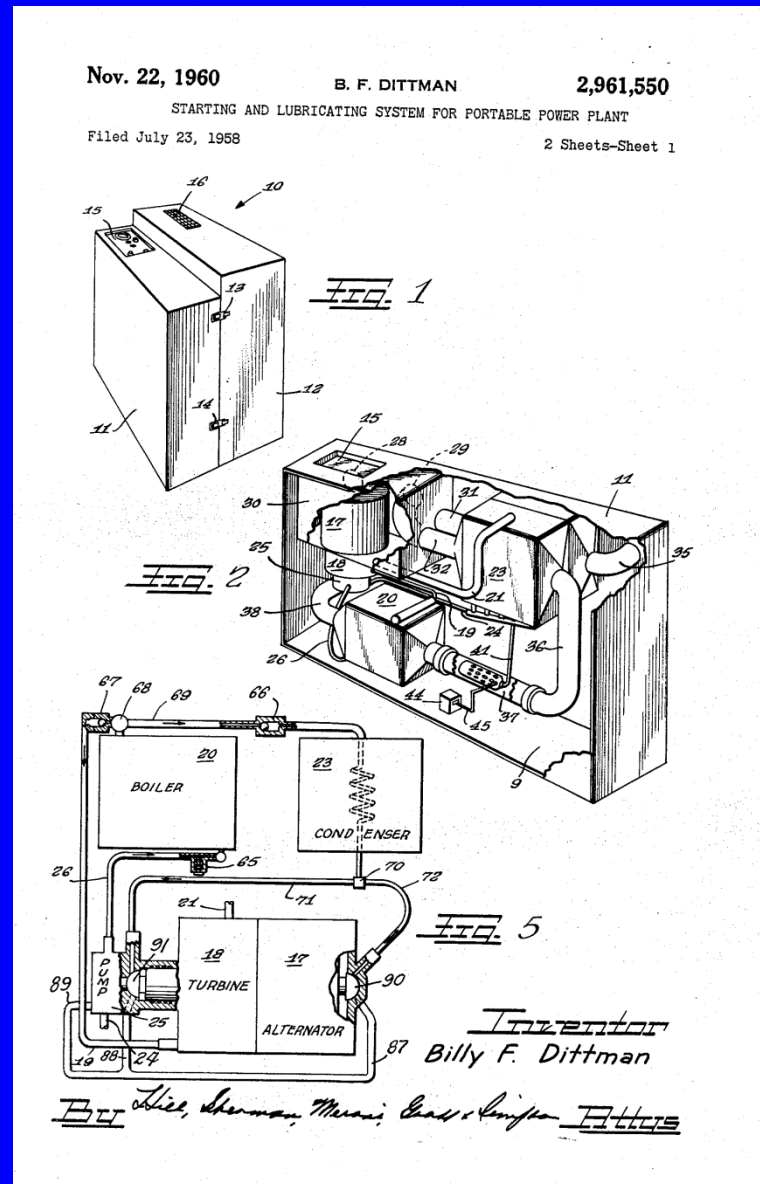
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**ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...**  
**TEST RIG (2008) WITH R227 AND HIGH SPEED TURBINE – PROBLEMS WITH WORKING**  
**FLUID LEAKAGE**



# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

## SEARCH FOR A HERMETIC TURBOGENEATOR SOLUTION- MOBILE POWER PLANT WITH MERCURY AS WORKIN FLUID



# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

## SEARCH FOR A HERMETIC TURBOGENERATOR SOLUTION - COMPLICATED VERTICAL TURBOGENERATOR CONCEPT

U.S. Patent Dec. 7, 1982

Sheet 3 of 6

4,362,020

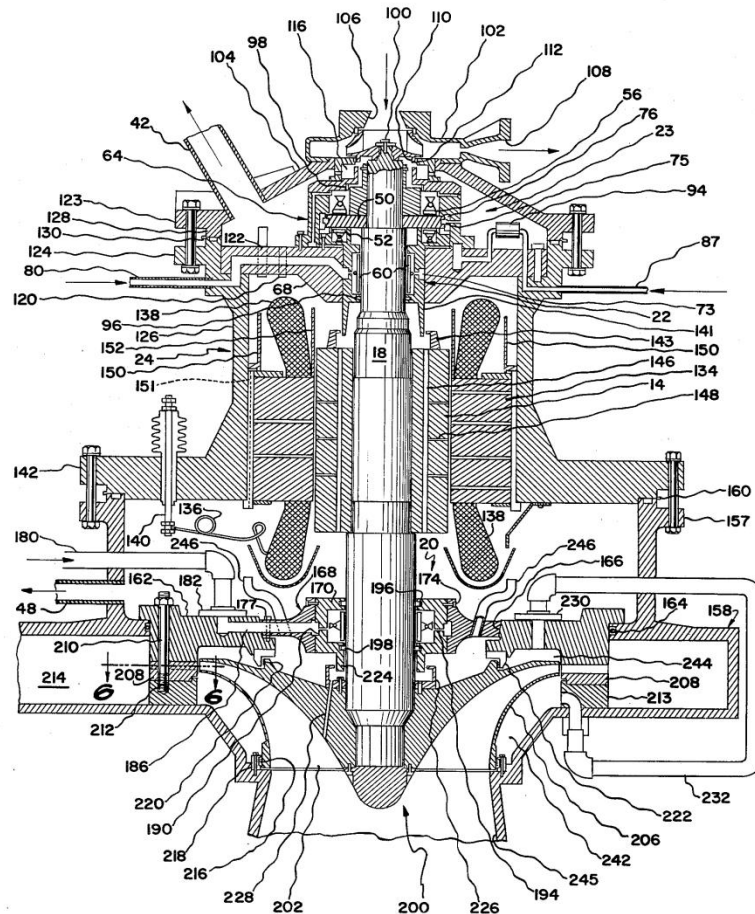
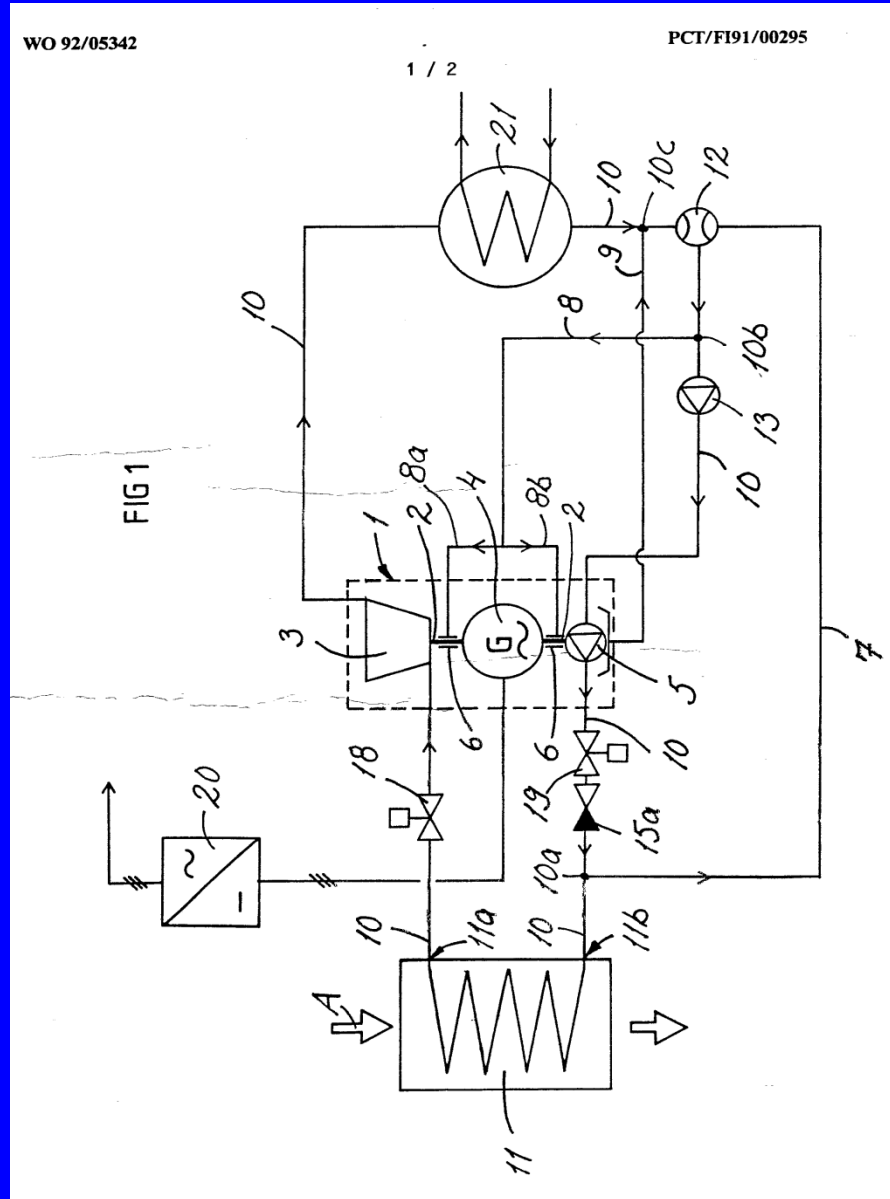


Fig. 3

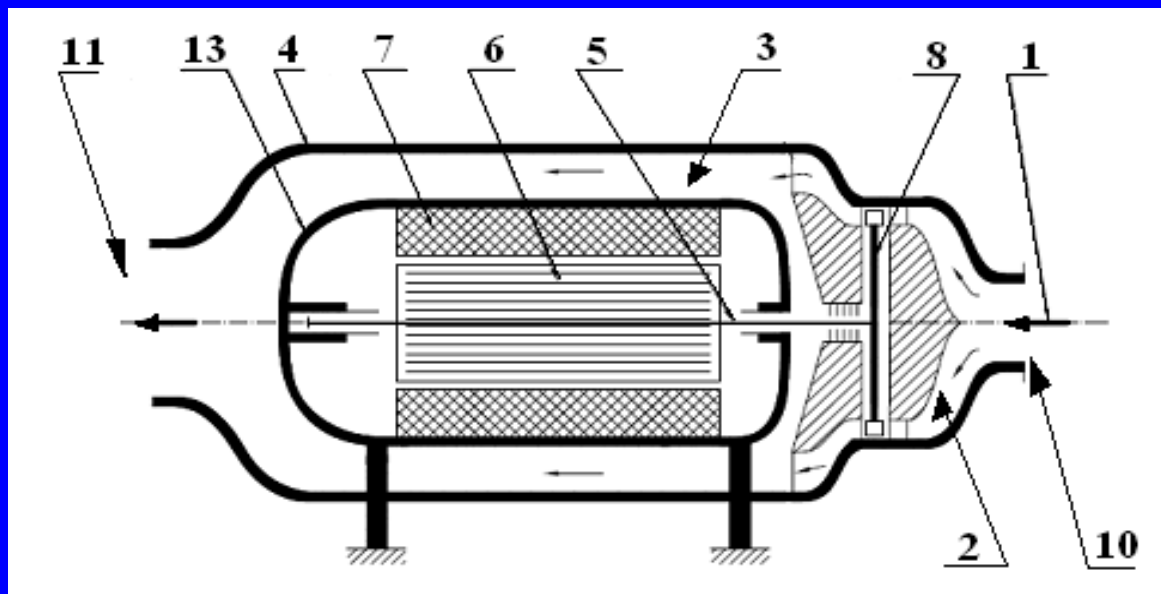
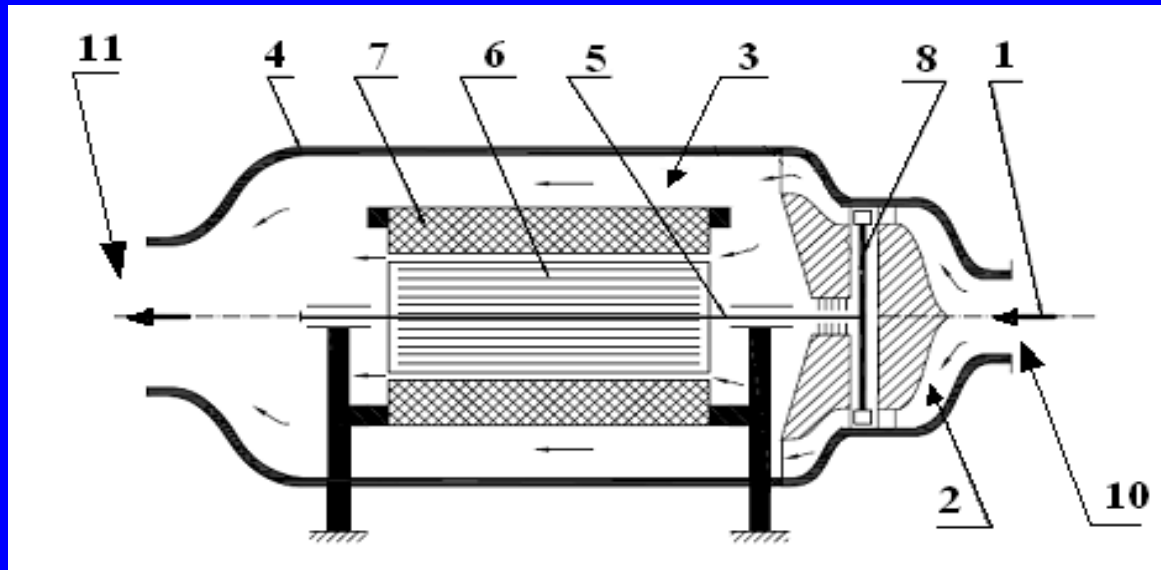
**ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...**  
**SEARCH FOR A HERMETIC TURBOGENERATOR SOLUTION –PROBLEMATIC CONCEPT**  
**OF SLIDE BEARING PRESSURIZING SAFETY**





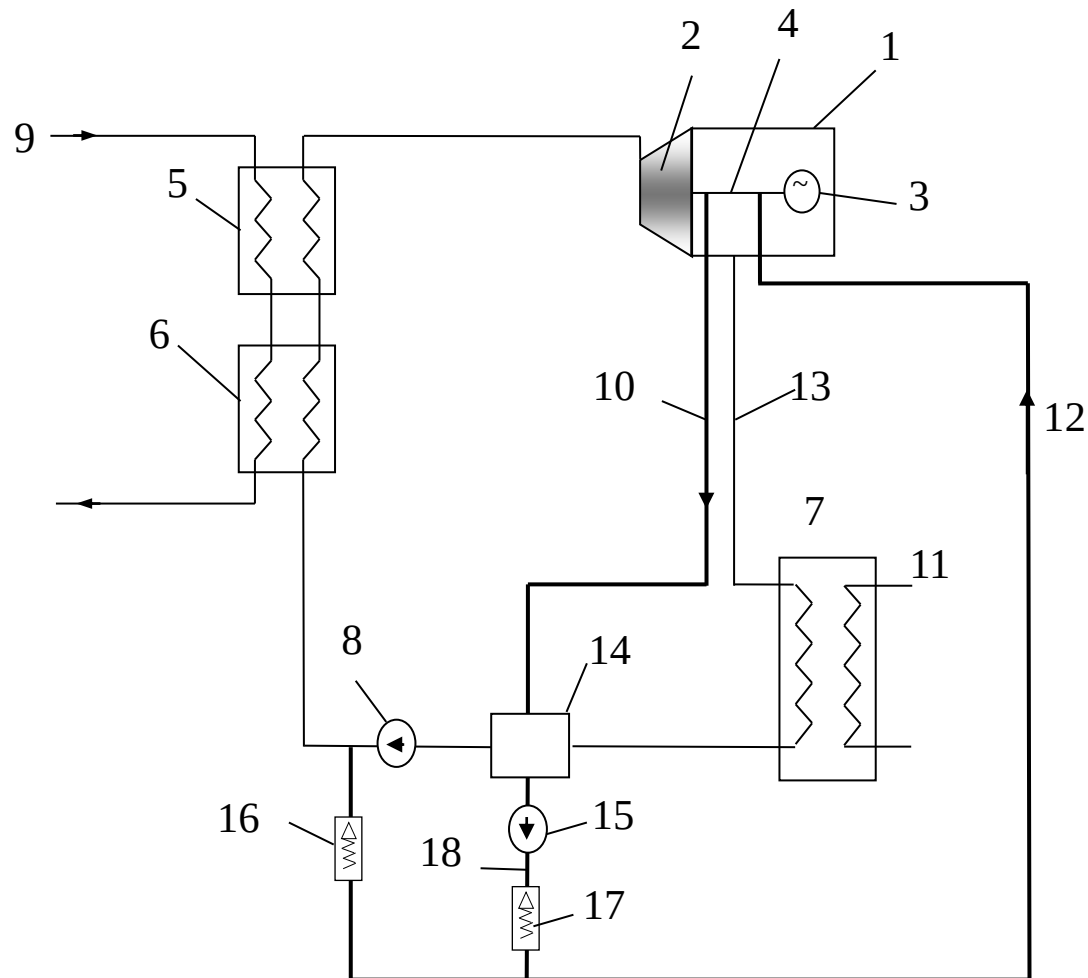
## ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

OWN SOLUTION OF HERMETIC TURBOGENERATOR – ELECTRIC GENERATOR  
COOLED WITH WORKING FLUID VAPOUR (A1 (21) 390 472 PL)



# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

OWN SOLUTION OF HERMETIC TURBOGENERATOR – SLIDE BEARING  
PRESSURIZING SAFETY (WIPO ST 10/C PL 395363)



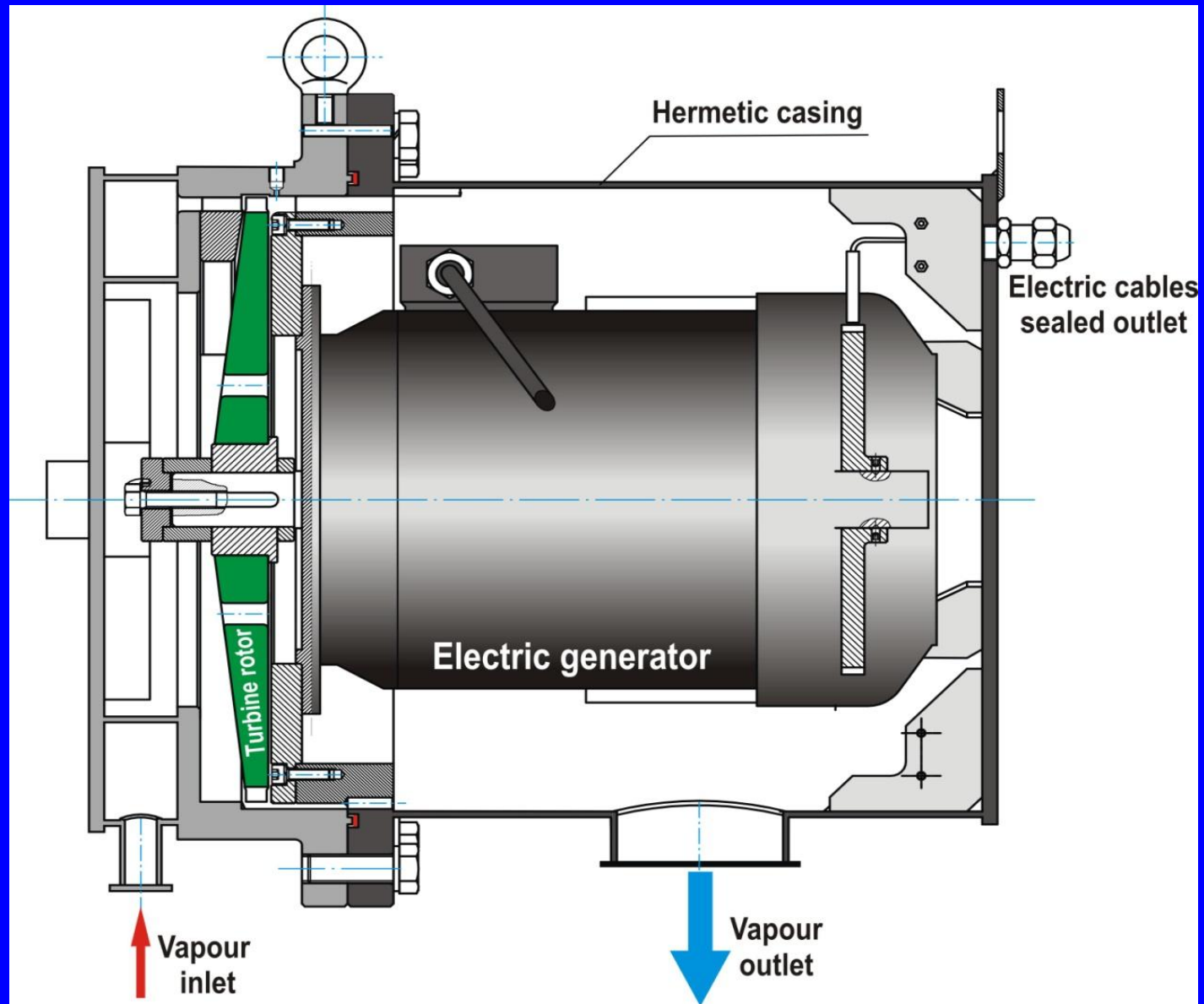
**ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...**  
**ELECTRIC GENERATOR INSULATING MATERIALS VS. WORKINGFLUID VAPOUR –**  
**TEST AND SELECTION**





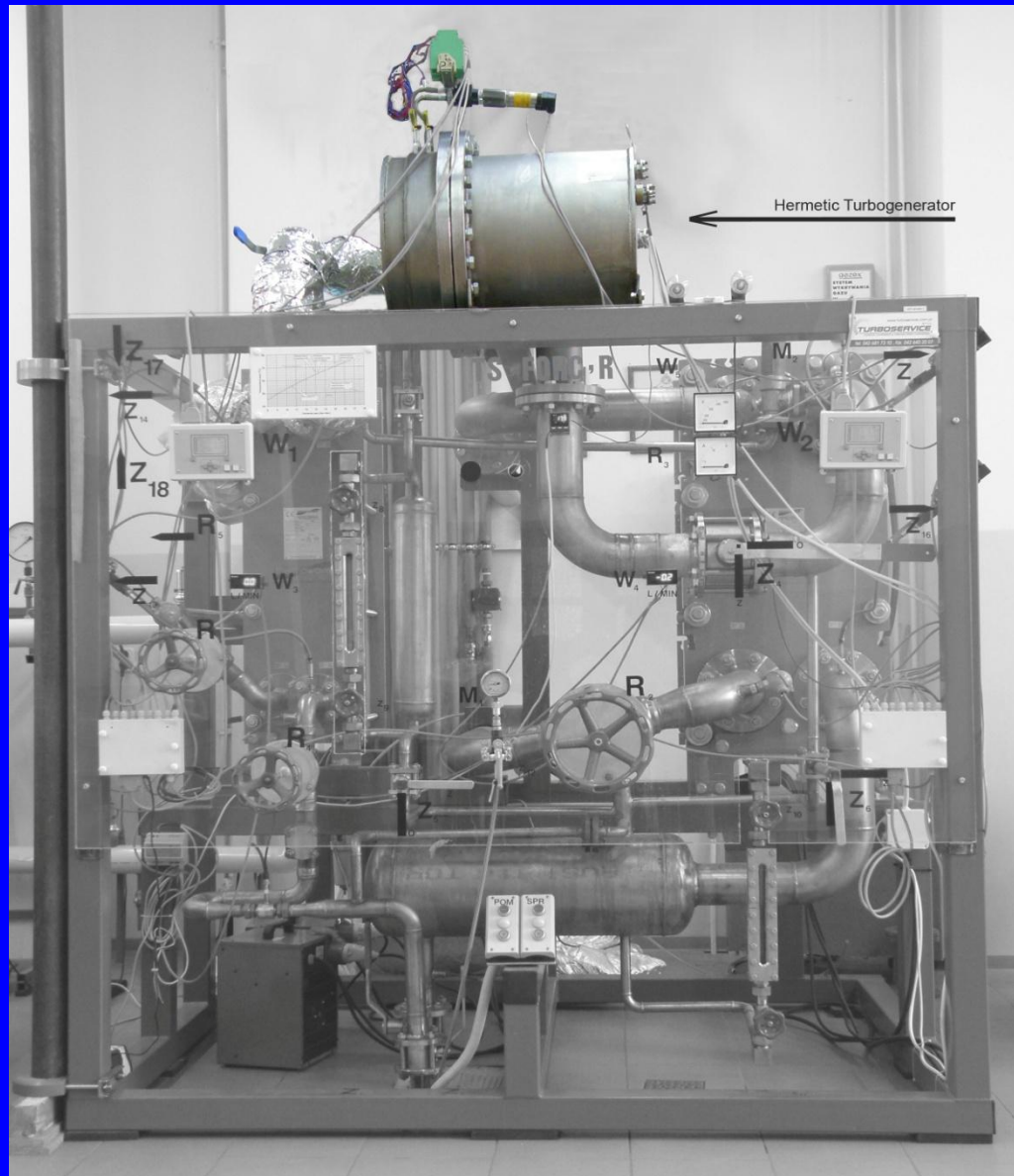
# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

## HERMETIC TURBOGENERATOR FOR SUBCRITICAL R227 CYCLE – DESIGN FOR PERFORMANCE AND COOLING TESTS



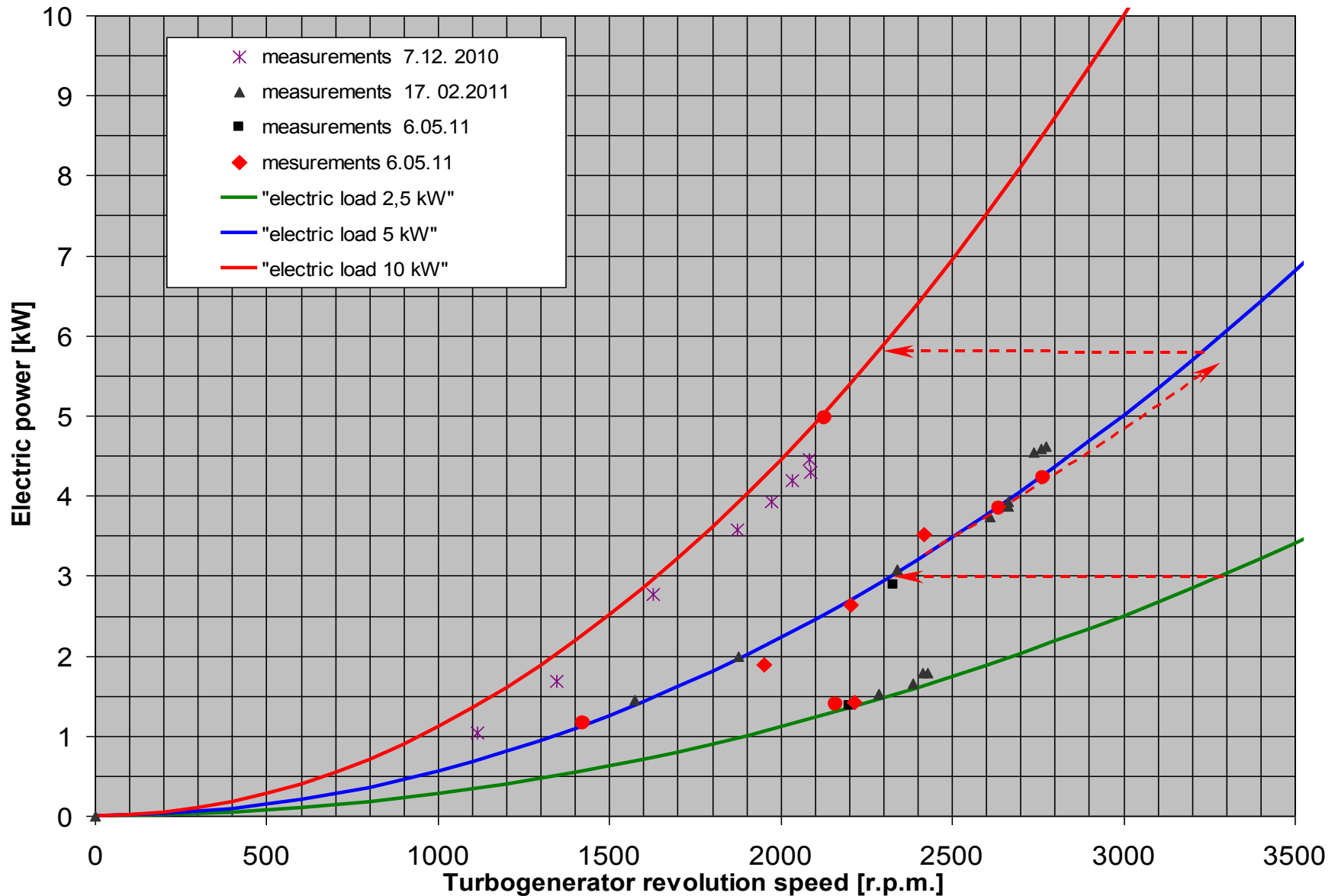
# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

## VIEW OF THE MODERNIZED TEST RIG WITH HERMETIC TURBOGENERATOR



# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

## FIRST PERFORMANCE TEST RESULTS (2010 & 2011) - NO PROBLEMS WITH GENERATOR COOLING ENCOUTRED



# ORC POWER PLANTS WITH HERMETIC TURBOGENERATORS ...

## HERMETIC TURBOGENERATOR FOR SUPERCRITICAL R227 CYCLE – NEW TEST RIG TO BE COMPLETED AT THE END OF 2011

