

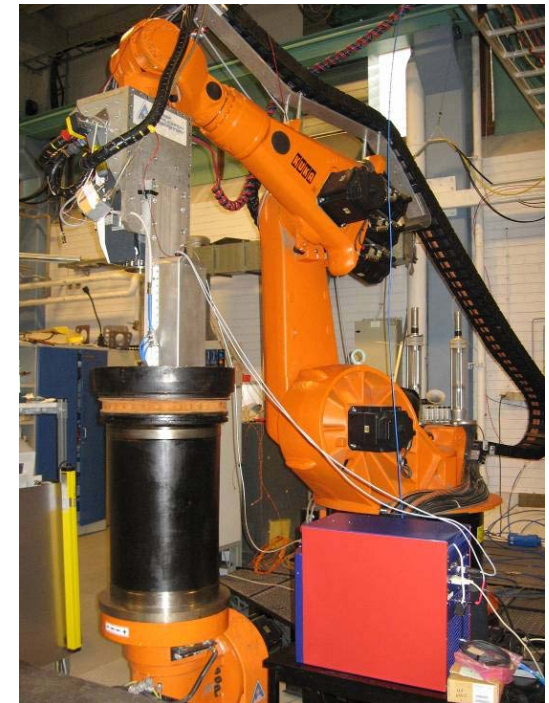
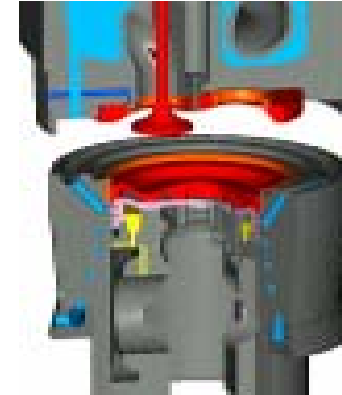
# TASK 4.1: Combined Cycle

## Objectives:

- Development of the “Hot Engine” combined cycle concept
- Prototype tests of concept and components

## Progress Highlights:

- Combined cycle concept evaluation, in progress
- Design of suitable engine components, completed
- Promising new methods against engine fouling tested
- New piston with limited cooling tested and evaluated
- Hot engine cylinder liner with improved tribology,
  - Hardware built (photo), engine testing starts Jan 2007
- New materials resisting hot corrosion under testing



Partners: **ABB**

M.JÜRGENSEN  
FLENSBURG



**MAHLE**  
PISTONS AND ENGINE COMPONENTS  
FILTER SYSTEMS VALVE TRAIN SYSTEMS

  
**WÄRTSILÄ**



I.P. HERCULES

Partners Forum, Copenhagen 5/10/2006