



Challenging wind and waves
Linking hydrodynamic research to the maritime industry

MARIN TECHNOLOGY TRANSFER

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June 2014

TECHNOLOGY TRANSFER

Enabling (selective) access to MARIN's technology and expertise on the setup and operation of hydrodynamic facilities.



Technology Transfer
MARIN



TECHNOLOGY TRANSFER

Our Technology Transfer has two goals:

- Building and maintaining strategic relationships throughout the world;
- Generating money to assist with investment in next generation MARIN knowledge and technology;



TECHNOLOGY TRANSFER ACTIVITIES

- I. Consultancy:
 - Laboratory design and specification assistance;
 - Verification and acceptance assistance;
- II. Equipment delivery:
 - Actuator, data acquisition, measurement technology;
- III. Training (knowledge transfer):
 - Ship & Offshore hydrodynamics;
 - Hydrodynamic laboratory operations;




MARIN'S ADDED VALUE



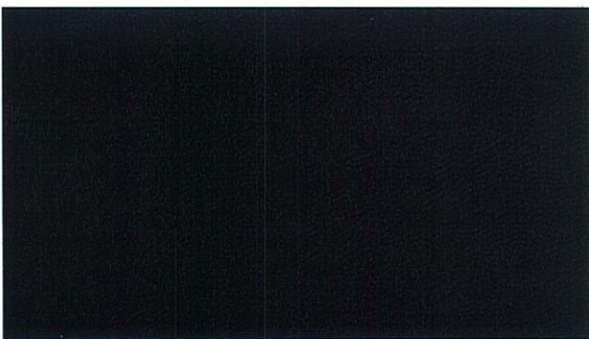
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CONSULTANCY EXAMPLES

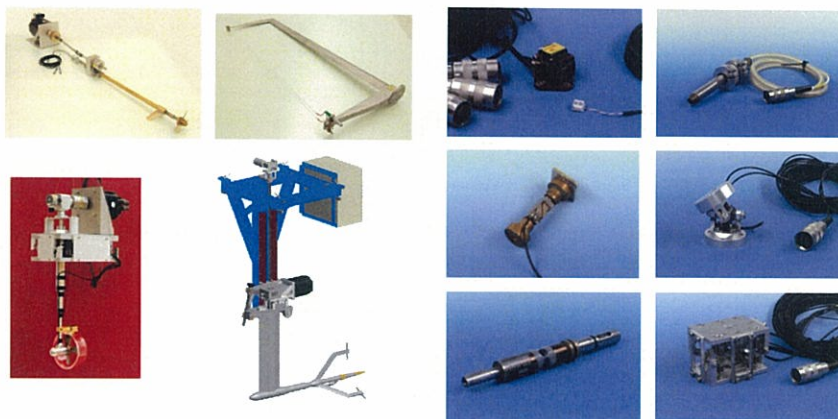
Conceptual design for KSRI offshore and seakeeping basin



[\(link\)](#)



EQUIPMENT EXAMPLES



EXAMPLE COURSES



EXAMPLE COURSES


Course program Ship Hydrodynamics I - 2014

Time	MONDAY 7 April	TUESDAY 8 April	WEDNESDAY 9 April	THU
8:45	Welcome 8:45-9:00 am	Coffee 8:45-9:00 am	Coffee 8:45-9:00 am	Coffi
9:00	Still water Ship Hydrodynamics <i>Klaas Koolker</i> 9:00 – 10:30 am	Cavitation, vibrations and noise <i>Frans Hendrik Lafeber</i> 9:00 – 10:15 am	Fundamentals of ship wave making <i>Hoyte Raven</i> 9:00 – 10:00 am	Seakeep
9:15				
9:30				
9:45				
10:00		Break 10:00-10:15 am		Break
10:15	Break 10:15-10:30 am		Practical aspects on wave making in hull form design <i>Hoyte Raven</i> 10:15 am – 12:00 pm	Seakeep
10:30	Break 10:30-10:45 am	An introduction to propeller design <i>Gert-Jan Zondervan</i> 10:30 – 11:30 am		na
10:45	Hull forms an Introduction <i>Patrick Hooijmans</i> 10:45 – 12:15 am			
11:00		Basics of steady flow around ships <i>Ram Starke 11:30 – 12:15 pm</i>		10
11:15				
11:30				
11:45				
12:00				<i>Bob Grijs</i>

12:45

13:00

Course Dinner (optional)
Onboard 12:00 – 13:00 pm
Including Price Course!



LESSONS LEARNED

You need more than tools:

- Infrastructure, workflow, procedures;
Advantage: MARIN themselves are user and have know-how.
- Skilled and motivated people;
Major part of knowledge is in the people.
- Built experience: you learn best from your mistakes...;
An new facility will require in the order of 3 to 5 years to build adequate experience.









A photograph of a yellow MARIN 8330 boat in a tank, positioned next to a large grey rectangular block. The boat is moving through the water, creating a splash. The text 'MARIN 8330' is visible on the side of the boat. The background shows a blue structure, likely part of the testing facility.

www.marin.nl

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