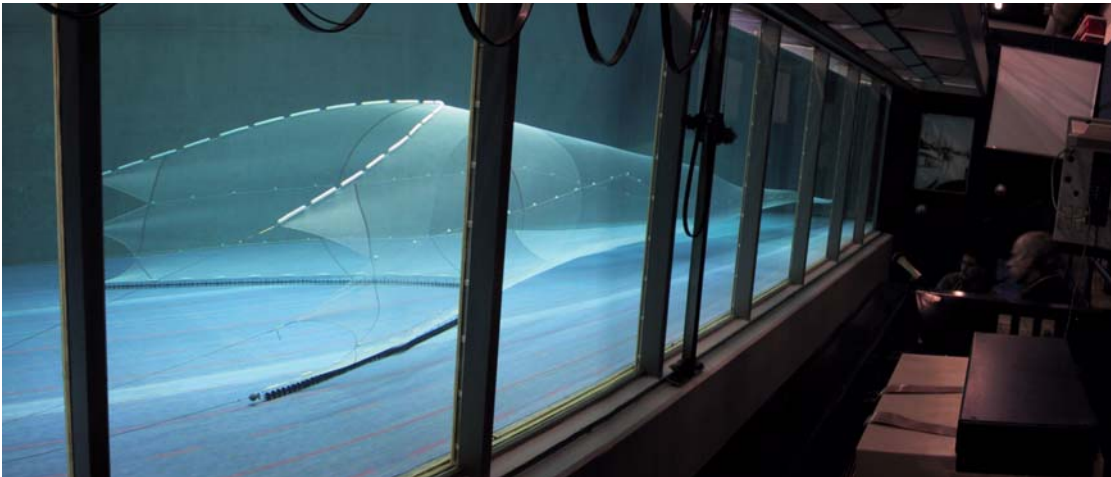


# The North Sea Centre Flume Tank

**Managed and operated by SINTEF Fisheries and Aquaculture**

Modern testing facility for fishing gear with a long history of servicing the net manufacturers and fishermen from all over the World



## Technical information:

### *Dimensions*

Over-all: L: 30, H: 6, W: 8 m  
 Measuring section 21.3, 2.7, 8 m.  
 Volume of water: 1200 m<sup>3</sup>.  
 Windows: 20 2x3 m

### *Propulsion*

Four propellers and motors of 64 KW generate the flow.

### *Velocity*

Maximum water speed: 1 m/s  
 Max. simulated towing speed in scale 1:5: 4,5 knots  
 Max. simulated towing speed in scale 1:20: 12 knots

### *Artificial bottom*

Conveyer belt type made of nylon. Speed adjustable, can be locked with water speed.

### *Equipment for measuring*

Object measuring: A full measurement of geometry in three dimensions is made by remote controlled video system.

Resistance and drag: Load cells using strain gauge technology. Series of load cells can measure strain from a few grams to 100 kg. Measurements are monitored by a data-logger system and converted to full-scale values.

### *Lights*

Above the tank: 18 x 400 W daylight floodlights.  
 Movable on a 3x2 m frame: 6 x 1.500 W floodlights.

### *Video*

Movable cameras are permanently displaying: Front view, in colour, top view (two cameras for spread measuring), side view (for height measuring). Professional studio camera for documenting tests. Video hardcopy printer making prints on paper from all the installed cameras.

### *Video conference*

The tank is fully equipped with a video mixer and fixed and movable cameras to transmit training, testing and demonstrations via videoconference to customers sitting in classrooms or videoconference studios abroad.

### **Associated facilities**

#### *Net loft*

SINTEF has its own staff of skilled net makers and a net loft for constructing and altering the models.

#### *Video editing*

Video film for instruction or advertising can be edited on DV-Cam video editing system with text generator. Films are converted into the type and system required by the customer.

**Activities and Services**

*Testing fishing gear*

Trawl manufacturers and research institutions from all over the world have tested more than 700 different designs of fishing gear; mainly trawls, but also Danish seines, Scottish seines and gill nets.

*Training and courses*

The flume tank is ideal for demonstrating the performance of fishing gear for an audience. SINTEF run workshops for fishermen, researchers, administrators and others interested to know about fisheries technology, fishing gear performance, selectivity of cod-end and trawls, etc.

*Research projects*

The flume tank is a vital instrument in a vast number of research projects.

*Testing other equipment*

The constant and even flow makes it possible to test other equipment than fishing gear, i.e. specific components of fishing gear, underwater vehicles, propellers etc.

**Costs 2004**

The hire is calculated on an hourly basis. Please ask for a quotation. A normal full day is around 3400 ECU (2004) including a staff of 3 (1 scientist, 2 technicians).

