



by courtesy of Hydro Soil Services NV

# Samsø Wind Farm

The wind farm off the island of Samsø in Denmark consists of ten 2.3 MW Bonus windmills with rotors of 82.4 m in diameter and a tower height of 56 m above water level, installed in 7 m depth of water.

Monopiles, being the most secure and economical solution for offshore wind farm foundations, were selected for this project.

MENCK was contracted to install the monopiles. With an OD of 4.5 m and a weight of up to 300 t, they are the largest piles ever used on an offshore wind farm.

A special pile adaptor was designed and built to work with the MENCK MHU 600B, a hydraulic hammer that generates 600 kJ energy. A surface power pack delivers 1,100 L/min oil flow at 230 bar operating pressure.

The MENCK operators responsible for the piling operations on site delivered the 10 piles in place and on time.

In order to meet future requirements, MENCK has developed equipment to drive piles with diameters of up to 6 m.

<b>Project name</b>	Samsø
<b>Client (end customer)</b>	Samsø Havvind A/S
<b>Contractor</b>	Hydro Soil Services, Belgium
<b>Location</b>	South of Danish island Samsø
<b>MENCK operational start</b>	October 4th, 2002
<b>MENCK operational end</b>	November 5th, 2002
<b>Water depth</b>	7 m
<b>Installation vessel</b>	Vagant Self-Elevating Platform
<b>Quantity of piles</b>	10
<b>Pile diameter</b>	4.5 m
<b>Number of blows per pile</b>	3,000–4,000
<b>Hammer</b>	MHU 600B, 4.5 m
<b>Power pack</b>	MHP1100
<b>Mobilisation/Demobilisation by</b>	Hydro Soil Services, Belgium
<b>Mobilisation harbour</b>	Aarhus, Denmark
<b>Demobilisation harbour</b>	Aarhus, Denmark
<b>MENCK's scope</b>	Equipment rental
<b>MENCK engineering</b>	4.5 m pile adaptor design



MENCK MHU 600B with 4.5 m pile adaptor

Windmill installation

MENCK GmbH  
 Industrial Area Moorkaten  
 Am Springmoor 5a  
 24568 Kaltenkirchen  
 Germany  
 Tel. +49 (0) 4191-911-0 or  
 +49 (0) 1805-GET MENCK  
 Fax +49 (0) 4191-911-100  
 info@menck.com  
 www.menck.com