



**Building tomorrow's  
infrastructure in the Middle East**

profile

# Introduction



2

**Van Oord is an international dredging and marine contracting company with a worldwide reputation for building tomorrow's infrastructure.**

It is a private, family-owned company with more than 150 years of experience in the marine construction industry and a solid shareholding structure. Van Oord employs approximately 4,000 well-trained professionals and owns one of the largest state-of-the-art dredging fleets in the world. It is based in Rotterdam, the Netherlands and has regional offices in all corners of the globe.

Van Oord is renowned for its know-how, innovative technical solutions and versatile equipment. It offers design, engineering and the execution of works for the public and private sector in five areas of expertise: dredging, offshore services, coastal construction, marine infrastructure and land infrastructure. It has built a strong reputation in these areas, especially when a project calls for the integration of various approaches.



## Capabilities



3

### Van Oord Gulf FZE

Van Oord is a well-known name in the Middle East. Its first project was the construction of the Mina Saqr Port at Ras Al Khaimah in 1976. Since then Van Oord has established offices in Qatar, Bahrain, Kuwait, Saudi Arabia, Abu Dhabi and Dubai, and has been awarded numerous dredging and marine projects throughout the Middle East.

Examples of projects in this region are briefly outlined in this brochure.

They reflect Van Oord's extensive presence in the Gulf and demonstrate the diversity of marine services the company can provide.

### Our wide range of capabilities includes:

- maintenance dredging
- land reclamation
- port development
- coastal and shore protection
- subsoil consolidation
- offshore construction
- offshore dredging and trenching
- seabed preparation
- subsea rock installation
- laying and burial of cables and pipelines
- construction of landfalls and shore approaches
- construction of quay walls

# Middle East

## Bahrain

In the shallow waters off the coast of Manama, Van Oord supplied sand for reclamation purposes as well as road construction to the Seef Interchange project for the Ministry of Works and Housing. During the first half of 2004, approximately 750,000 m<sup>3</sup> of marine sand was delivered to the project sites. In February 2006, Van Oord (in joint venture) started working on the North Bahrain New Town project, reclaiming ten islands from the sea on the Northern side of Bahrain. The reclamation of the islands and the dredging of the channels between them, together involves 38,000,000 m<sup>3</sup> of sand. 5,600 m of artificial beaches will be constructed and 930,000 tonnes of rock will be used for the slope protection of the islands. The contract will be completed by mid 2008.

## Oman

In 2004, Van Oord chartered marine drilling and blasting services and supervision to the main contractor (Interbeton) for the Qalhat liquid natural gas plant in Sur. The work involved drilling and blasting limestone in two trenches with a bottom width of 4.5 m and total length of 860 m.

The Sohar Port project was awarded to Van Oord (in consortium) by the Ministry of Transport and Communications of Oman in July 2006. The project involves the construction of quay walls and the execution of dredging activities at the industrial port and the fishery harbour of Sohar. A total of 23,600,000 m<sup>3</sup> of sand are to be dredged for this project, which includes the deepening of the approach channel and turning basin. Van Oord will utilise the large volumes of dredged material to reclaim the land for the future container terminal and extend the near by fishery harbour. An additional 1,700,000 tonnes of rock will be used in the fishery harbour and for bund construction in the main harbour. The project is scheduled to be completed in October 2008.

## Iran

Van Oord has been working in Iran on several projects involving trenching and backfilling works. The early phases of the giant South Pars field development resulted in a subcontract for Hyundai Heavy Industries to perform trenching and backfilling works for the shore approach of two 32 inch pipelines near Assaluyeh. The works were executed by a cutter suction dredger, which was assisted by a backhoe dredger and various pieces of auxiliary equipment.

## Iraq

In May and June 2003, after major combat operations in the second Gulf War had ended, Van Oord dredged sediment from the approaches to the harbour at Umm Qasr in order to create safe access to the port. 500,000 m<sup>3</sup> of marine deposits were removed in an emergency program that supported the efforts of the U.N. Development Programme to reconstruct Iraq.

## Kuwait

In 2003, the Kuwait National Petroleum Co. contracted with Hyundai Engineering & Construction Co. to construct a new oil pier as part of the expansion of the marine facilities at Mina Al Ahmadi, New Oil Pier & Associated Topside Facilities at MAA Refinery Kuwait. In early 2004, Van Oord executed the dredging works associated with the construction. To guarantee safe berthing facilities, 110,000 m<sup>3</sup> of marine deposits were removed from the original seabed.





5

## Qatar

Increasing demand for imported rock and aggregates led to a crushed-stone import facility being constructed at Mesaieed. In two separate efforts, Van Oord participated in the dredging works associated with the project, which was managed by Qatar Petroleum. The efforts were aimed at deepening the harbour basin and the facility's approach channel. In 1997 and 2001, respectively, approximately 2,500,000 and 7,500,000 m<sup>3</sup> of rock and other predominantly hard material was dredged. In February 2005 Van Oord started working on the New Doha International Airport. When finishing the project in September 2007 a total of 60,000,000 m<sup>3</sup> of sand and 2,200,000 tonnes of rock were placed and 18.5 km of revetments built, to create the platform for the new airport.

## Saudi Arabia

Between 1975 and 1985, Van Oord was heavily involved in reclaiming the Jubail industrial port. In the same period various pipeline shore approach dredging works were executed for Saudi Aramco. In 1991 and 1992, Van Oord carried out the reclamation of the 6 km<sup>2</sup> of land off shore the island of Tarut, on the east coast of Saudi Arabia. At Al Fanar, east of Dammam, Van Oord was responsible for the dredging and reclamation of

4,000,000 m<sup>3</sup> to create an area of 1,300,000 m<sup>2</sup> for Rikaz development. The project started end 2001 and was finalised in May 2002. From 2002 to 2004, Ham Saudi Ltd., Van Oord's affiliate in Saudi Arabia, reclaimed land for a housing complex near Dammam operated by the Rikaz Property Development Co. A total of 6,800,000 m<sup>3</sup> of sand and cap rock were dredged and later used as fill.

## Yemen

In Masila, at Ash Shihr terminal, service harbour maintenance dredging was carried out for Canadian Occidental Petroleum, using the water injection dredging technique. 1,000,000 m<sup>3</sup> of material was removed.

## United Arab Emirates

In the period 1976 to 1978 Van Oord started its work in the UAE with the development the new port of Mina Saqr in Ras Al Khaimah. In 2003 Van Oord supplied over 900,000 m<sup>3</sup> of sand, dredged at sea and placed behind a quay wall in Jebel Ali Port, Dubai. In addition to several pipeline shore approach works during the past decades, Van Oord installed various Single Point Mooring Systems (SPM) in the region.



6



7

## Projects in Dubai

### Palm Jumeirah

Van Oord's first major project in Dubai was the construction of Palm Jumeirah, an extensive offshore community and tourist site in the shape of a giant palm. Van Oord started construction in August 2001 and completed its work approximately four months ahead of schedule, in October 2003. 110,000,000 m<sup>3</sup> of sand was used in the reclamation. As the project developed, several fronds and the trunk have been extended and widened. Additionally, Van Oord assisted in dredging the trench for the tunnel that connects the Palm with its surrounding crescent.

### Logo Islands

Van Oord's success with Palm Jumeirah earned the company a contract to design and build two additional islands, shaped as palm leaves, on each side of the Palm. 4,400,000 m<sup>3</sup> of sand and 1,000,000 tonnes of rock were used to build both islands, which measure 1 km long and 200 m wide. One island features a 270 m long quay wall. Construction of the Logo Islands was completed in February 2005.

### Dubai Promenade

With the expected increase in boat traffic and one of the new Logo Islands right at the entrance of the port Mina Seyahi it was necessary to alter the entrance of port. In April 2004, Nakheel awarded Van Oord a contract to convert Mina Seyahi into a marine complex that would be well-equipped to serve the Palm Jumeirah and create more room for new office and residential high-rises at the same time. In June 2006 the client revealed a new masterplan for Dubai Promenade. Van Oord reclaimed land on which to build a second 'seven star' icon hotel, a new beach and an underwater reef. The project is scheduled to be completed in May 2008. Van Oord has then designed and built a 265 m long quay wall, replenished 250,000 m<sup>3</sup> of sand behind the quay wall, designed and built new breakwaters, constructed a peninsula for the new hotel and created a beach by depositing approximately 1,000,000 m<sup>3</sup> of sand.



8



9

## The World

Following the success of Van Oord in constructing Palm Jumeirah, the company was awarded the contract to build The World, an archipelago of over 300 islands that forms a map of the continents. The configuration measures 7 km by 9 km and is protected by a breakwater 27 km in length, the longest ever constructed.

Preparation for construction of The World began in August 2003, the same month that Van Oord received the contract. In February 2008 Van Oord completed the project and transported 34,000,000 tonnes of rock to build the breakwater and dredged, transported and placed 320,000,000 m<sup>3</sup> of sand to construct the islands, triple the amount required for the construction of Palm Jumeirah.

## Dubai Beaches and Glass Palace Island

From October 2003 to October 2005 Van Oord has refurbished seven of Dubai's beaches along 8 km of coast line in order to create a wider margin between land and sea. Offshore breakwaters have been added to shield the beaches from further erosion. Ongoing maintenance to preserve the reclamation work will continue.

At the same time Van Oord built a private island just off the coast from these beaches. Glass Palace Island involved reclaiming 2,7000,000 m<sup>3</sup> of sand and building a revetment using 780,000 tonnes of rock.



10



11



12

## Fleet



13

Van Oord owns one of the largest state-of-the-art fleet of dredging and offshore construction equipment in the world including:

- trailing suction hopper dredgers
- cutter suction dredgers
- backhoe and grab dredgers
- water injection dredgers
- flexible fall pipe and side stone dumping vessels
- vertical drainage installation rigs
- self propelled and towed barges, tugs, launches and survey vessels



## Photo legend

- 1 Palm Jumeirah and Logo Islands
- 2 Dubai Maritime City
- 3 Multipurpose pontoon Litsa
- 4 North Bahrain New Town
- 5 Side stone dumping vessel Pieter
- 6 New Doha International Airport
- 7 Cutter suction dredger Castor
- 8 Palm Jumeirah
- 9 The World
- 10 Dubai Beaches
- 11 Dubai Promenade
- 12 Grab dredger VOW 703
- 13 Trailing suction hopper dredger HAM 310
- 14 Backhoe dredger IJzeren Hein
- 15 Palm Deira Developments
- 16 Dubai Maritime City

## Palm Deira Developments

Palm Deira Developments consists of five Islands and a palm island. The five islands will provide the supporting infrastructure for the largest manmade island in the world. Project developer Nakheel initially awarded Van Oord the project of Deira Corniche in August 2003. In November 2005 in the presence of His Highness Sheikh Mohammed bin Rashid Al Maktoum, ruler of Dubai and Mr. J.P. Balkenende, Dutch Prime Minister, Nakheel's chairman Sultan bin Sulayem and Van Oord's chairman of the board, Mr. Koos van Oord, signed the contract for the construction of the third and largest palm shaped island: Palm Deira. The dredging and land reclamation for Palm Deira Developments will entail moving about 1,140,000,000 m<sup>3</sup> of sand. For the surrounding breakwater, protecting the



island from harsh weather conditions, over 110,000,000 tonnes of rock will be used. The development will be 7.5 times bigger than Palm Jumeirah and 5 times bigger than Palm Jebel Ali. It will take ten years for Van Oord to create these unique islands in the sea.

## Rock transport

The large quantities of rock used for the Van Oord projects in Dubai come from the quarries in the Northern and Eastern side of the UAE. In 2003 Nakheel awarded the management of the over-sea transport of these rocks to Van Oord. From the ports in Ras Al Khaimah Van Oord used large rock barges and tow tugs to transport a total of 32,000,000 m<sup>3</sup> tonnes of rock to The World, 20,000,000 tonnes to Deira Islands and 45,000,000 tonnes to Palm Deira Developments.

## Dubai Maritime City

In order to complete the land reclamation for Dubai Maritime City, a 2 km<sup>2</sup> peninsula, in November 2006, some 31,000,000 m<sup>3</sup> of sand was placed on the sea bed. Additionally, in February 2006, Nakheel awarded the



contract for the design and construction of a quay wall to a Van Oord joined venture. The quay wall, covering the Northern side of the island, has a total length of 2,980 m. Van Oord installed the foundation for the future quay wall and reclaimed the hinterland. In total some 570,000 m<sup>3</sup> rock and some 5,100,000 m<sup>3</sup> of sea sand were installed. This part of the project was completed in spring 2007. Part three of Dubai Maritime City is the creation of a ferry terminal. In November 2007 Nakheel awarded Van Oord the contract for building an additional 250 m long quay wall and installing two large pontoons. The completion of this part of the project is expected for mid 2008.

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