# **\*RENTOCEAN**

### Rental of Marine Assets











## About RentOcean

RentOcean owns and operates from its deepwater base in Velsen, The Netherlands a large pool of carousels including up to 4000t portable modular carousel systems, up to 15t tensioners and a variety of burial equipment. Over the years we have built up a broad client base worldwide to which we successfully rent out our equipment and support their offshore cable, pipeline and umbilical installations, transport and storage projects.

Our aim is to meet the needs of our clients by combining our know-how with new technologies and translate this to a complete package of fully certified equipment. Our experienced technical management is also available for customisation services.

RentOcean, through its close co-operation with KCI BV in the Netherlands, provides full engineering design and consultancy services to clients in the onshore and offshore oil and gas and renewable industries. In addition, we can provide services for complex structures both onshore and offshore. With the in house engineering experience and expertise we ensure that our clients contract the most effective vessel & equipment solutions for their projects. We can provide high level assistance and give support on every aspect of the vessels & equipment we manage.

Lex van Doorn: lex@rentocean.nl Saskia Tans: saskia@rentocean.nl



## Carousels

The RentOcean carousel systems consist of a basket, spiderframe, gooseneck tower and 20ft Containerised HPU. The basket can be raised or lowered via jacking cylinders on the spider frame so that during vessel transit the basket can be lowered into storage position. Rotation speed is varied by means of proportional hydraulic valves on the HPU. Our carousels can be deliverd within a 3 month timeframe.

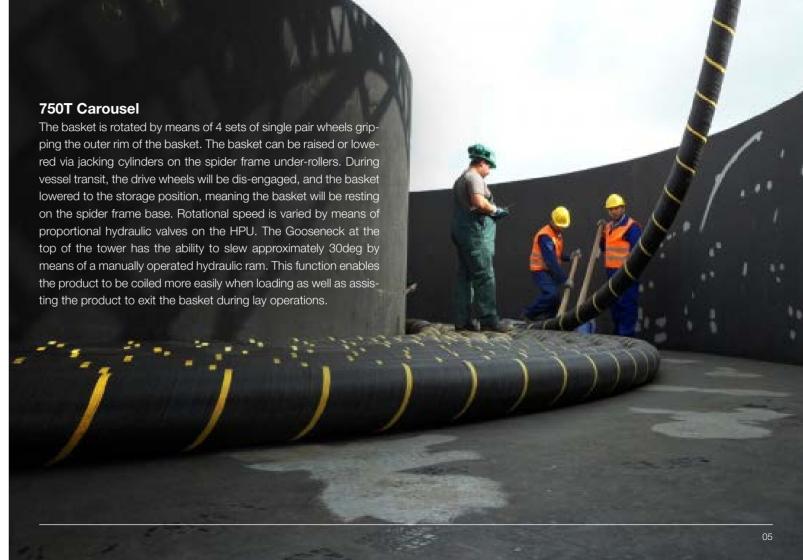
### 1250T, 2000T & 4000T Portable Modular Carousel

The new patented carousel series are designed for flexibility and quick mobilisation on standard psv/csv with limited deck load. Our carousels have fully loaded a maximum deck load of 8t m2 which can avoid under deck reinforcement. The modular systems are delivered to the mobilisation site in 40ft containers. All system components are 'plug and play' and interchangeable. The 2000t carousel is delivered in such a way that it can be extended to a 4000t load capacity carousel in a short period of time.

As a result of this new philosophy the equipment is sea and road transportable and can be mobilised to any port around the world in a highly cost effective manner.







### OJ 900 ROV Jetting System

The Oceanjet 900 trenching system offers a reliable and proven high trenching performance using its 900 kW output power, and has performed trenching operations on a variety of products; including power cable, umbilical's, and pipelines in varying soil conditions.

Oceanjet 900 has a burial/deburial capacity of nominal 0.5 - 2.0 metres depth, with variable trenching width of nominal 0.10 - 0.75 metres utilising 2m swords. Oceanjet 900 has successfully completed post lay trenching of some 45km of export and infield power cables on a Dutch Wind farm Project. Additionally the Oceanjet 900 has successfully trenched 12" and 14" pipelines with 2" piggyback lines attached.

The Oceanjet 900 system consists of the Trenching ROV, a self-contained Control Cabin, Transformer Van, Umbilical Winch, Snubber Assembly and 20t A-Frame, along with its own Electrical and Mechanical workshops and Environmental container.

### **Loading Tower**

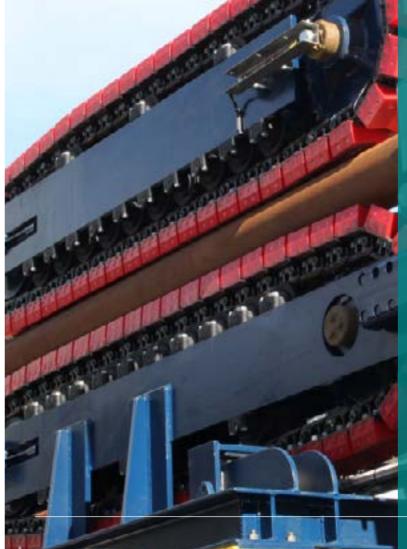
Fully containerised offshore cable loading tower with a pulling capacity of 15 mton and adjustable product diameter range of 50 to 630 mm OD. To be used in conjuction with RentOcean's 2000T carousel.



### EB SEA Stallion 2M Plough

This plough is designed to trench fibre-optic and small power cables to a depth of max 2m in soils varying from sands and soft clay up to stiff clays. The plough can be operated via its plough monitoring system from any suitable barge or Vessel.





### Tensioners

#### **10T Tensioners**

RentOcean has available two 10te Baricon tracked tensioners for installation of power cables and umbilicals. The tensioners are delivered with a control cabin and HPU. New to the equipment pool are our 10te OTS tensioners with a 3,185mm track contact length. These robust systems can be easily bolted or welded to the deck and are road transportable.

#### **15T Tensioner**

RentOcean has available a 15te Caterpillar tensioner for installation of a variety of cables with a diameter ranging from 70 - 630mm. The tensioner is delivered with a control cabin and HPU and has a 3,000mm contact length and a maximum opening of 700mm. The cable is always positioned in the centre line, and can be set to speed-mode or tension mode, depending on the specific site and situation. The lower track is fixed, and it is possible to load and unload the cable from the side.

This robust system can be easily bolted or welded to the deck and is road transportable.

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# Ploughs

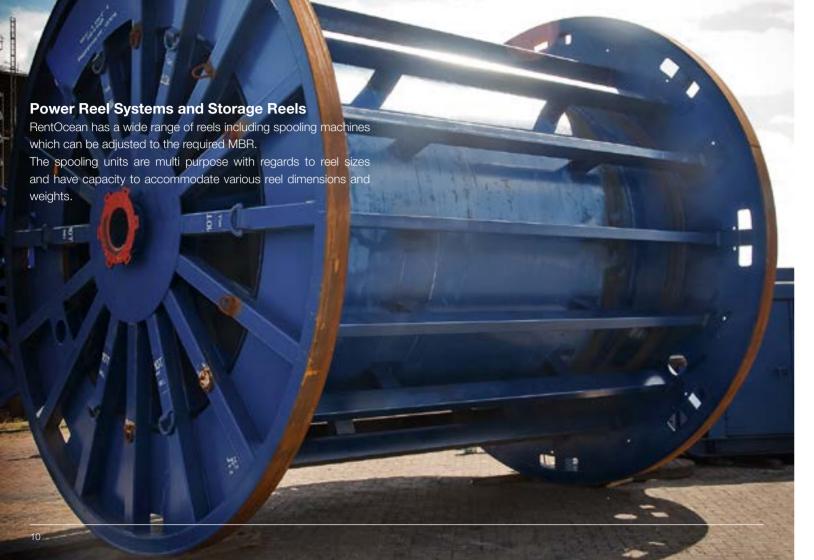
### SMD HD 3M Plough

This Heavy Duty Flexible Plough is designed to trench large diameter flexible products in a wide range of soils. Used for post or simultaneous lay and trench, it is able to continuously vary its trench depth - up to 3m - through a combination of an articulated chassis and skid control. The high bollard pull of the plough enables it to trench through stiff and firm clays. In sand, the performance of the plough can be enhanced – in terms of speed and depth – through a subsea jetting facility, which injects water through the share's leading edge and tip.

### SMD MD3 Plough

This Flexible Plough is designed to trench flexible products in a wide range of soils. Mainly used for simultaneous lay and trenching, it is able to continuously vary its trench depth - up to 3m - through a combination of an articulated chassis and skid control. In sand, the performance of the plough can be enhanced – in terms of speed and depth – through a subsea jetting facility, which injects water through a jetting blade and the share's leading edge and tip.





## Velsen Base

#### **Facilities**

We operate from our deepwater base in Velsen,

• Situated immediately behind the North Sea of IJmuiden, in the direct proximity of Amsterdam.

Key details of our base include:

- Non-tidal port
- 400 meters of quay
- Maximum draught 12 meter
- Maximum beam 42 meters
- 100 ton capacity crane on the premises, cranes with more capacity on request
- Closed compound under surveillance

### Workshop

Our workshop and outside storage facilities have easy access to quaysides suitable for vessel mobilistations. The workshop's infrastructure can support equipment fabrication, repairs, maintenance and pre-mobilisation activities.





# KCI Engineering

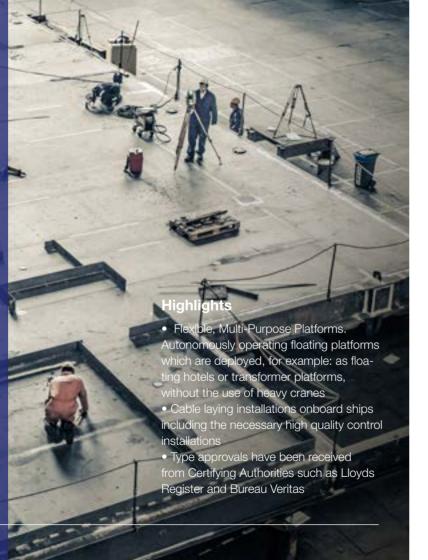
KCl is a company firmly rooted in the oil, gas and renewable industry. Not only do we come up with fullscale oil, gas and renewable concepts, we also guide our customers from development right through to the systems being taken into operation for the first time.

#### What we do

- we design and build complete oil and gas development concepts
- we design and build complete renewable energy concepts
- we develop complex and special structures for both industries
- we create contemporary solutions for complex environmental challenges

#### **Mission**

Is to be the first choice engineering partner for clients in the upstream oil and gas, complex structures and offshore renewable industries. The development of offshore wind farms means that new methods are required to install foundations and cables on the seabed with more efficiency. To this end, KCl has developed special installations onboard ships which are modified for this purpose. Spools, roller boxes and lifting systems make it possible to lay long stretches of cable on the seabed and install foundations with great accuracy, directly from the ship. KCl has also developed autonomously operating floating platforms, such as transformer platforms, which can be deployed for many other purposes.



# Cablelaying

Energy generated by wind turbines has to be converted and then transported ashore. Due to experience gained in the oil and gas industry KCl has become a specialist in the sub-sea installation of cables and pipelines. KCl has sophisticated in-house developed software to carry out seabed analyses in order to determine the most efficient cable or pipeline routes. These analyses also indentify the type of cable or pipeline to be used. The location of, and manner in which the cables or pipelines are brought ashore is predetermined through a detailed design.

### **Highlights**

- KCI works with contemporary analysis software developed inhouse
- Specialist in the installation of cables and pipelines in demanding maritime conditions
- KCI designs also incorporate the conversion of energy in order to bring it ashore
- Familiar with and working in accordance to; current local legislation, regulations and procedures
- KCl specialises, not only in cable lay equipment, but also cablelay analysis and procedures

### KCI Oil & Gas

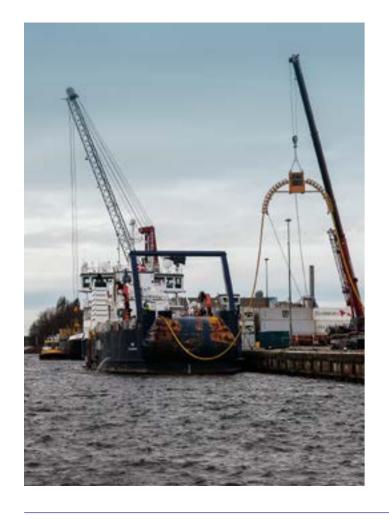
KCI generates installations for oil and gas gathering, from the initial design stages right through to the complete field development, inhouse. This process comprises all the necessary concept designs, risk analyses, calculations and identification of factors such as the influence of wind and water on production, drilling and installation. To facilitate this, KCI uses the most up to date software, which includes software develope in-house and enables accurate assessments of an installation's technical feasibility and economic yield.

### **Highlights**

- Feasibility study is based on client specifications and self developed innovative concepts and ideas
- Evaluation of the size and composition of the gas or oil field
- Marginal fields require cost effective solutions
- Fully integrated design process which comprises all necessary studies and analyses
- Calculation of the location's economic feasibility and yield regarding low cost, low risk and high return
- All undertakings are in accordance with local legislation and regulations, and all safety requirements
- Knowledge of reservoir and production
- Cost estimate assurance

Visit www.kci.nl for more information.





# Joint Venture OceanWind

OceanWind facilitates the submarine cable industry by offering its clients a full and integrated range of services comprising cable storage, cable handling, and cable transport:

- Short and long term storage at facilities in Velsen, with fast access to the North Sea
- Hub for ship-to-ship cable transfers
- Vessel mobilisation/de-mobilisation
- Transport to and from any worldwide port
- Various sizes of turn tables and static tanks readily available
- Cable transfer equipment and experienced cable handling crews available

OceanWind is a joint venture between Oceanteam Shipping and WIND.

Please visit our website: www.oceanwind.nl

OCEANWIND
CABLE STORAGE SOLUTIONS





#### **Back Office**

Herengracht 209 1016 BE Amsterdam The Netherlands + 31 20 535 75 70 info@rentocean.nl

### **Equipment Base Facilities**

Concordiastraat 84
1951 AS Velsen Noord
The Netherlands
+31 251 225 018
info@rentocean.nl

www.rentocean.nl