Head Office – The Netherlands
Sliedrecht

Shipyards – The Netherlands
Hardinxveld-Giessendam
Heusden
Kinderdijk
Krimpen aan den IJssel
Sliedrecht

Shipyards – P.R. of China
Dalian

Shipyards – Serbia
Belgrade

Sites – The Netherlands
Alblasserdam
Apeldoorn
Delfgauw
Dordrecht
Goes
Hardinxveld-Giessendam
Kinderdijk
Raamsdonksveer
Rotterdam
Sliedrecht

Sites – Europe
Blandford Forum – United Kingdom
Komarno – Slovakia
Stocksfield – United Kingdom
Rijeka – Croatia
Verberie – France

Sites – P.R. of China
Shanghai
Guangzhou

Sites – USA
Houston, TX
Wayne, NJ

Sites – South Africa
Cape Town

Representative offices
Beijing – P.R. of China
New Delhi – India

Regional IHC Organisations
Dubai – United Arab Emirates
Kinderdijk – The Netherlands
Lagos – Nigeria
Mumbai – India
Singapore – Republic of Singapore
Tianjin – P.R. of China

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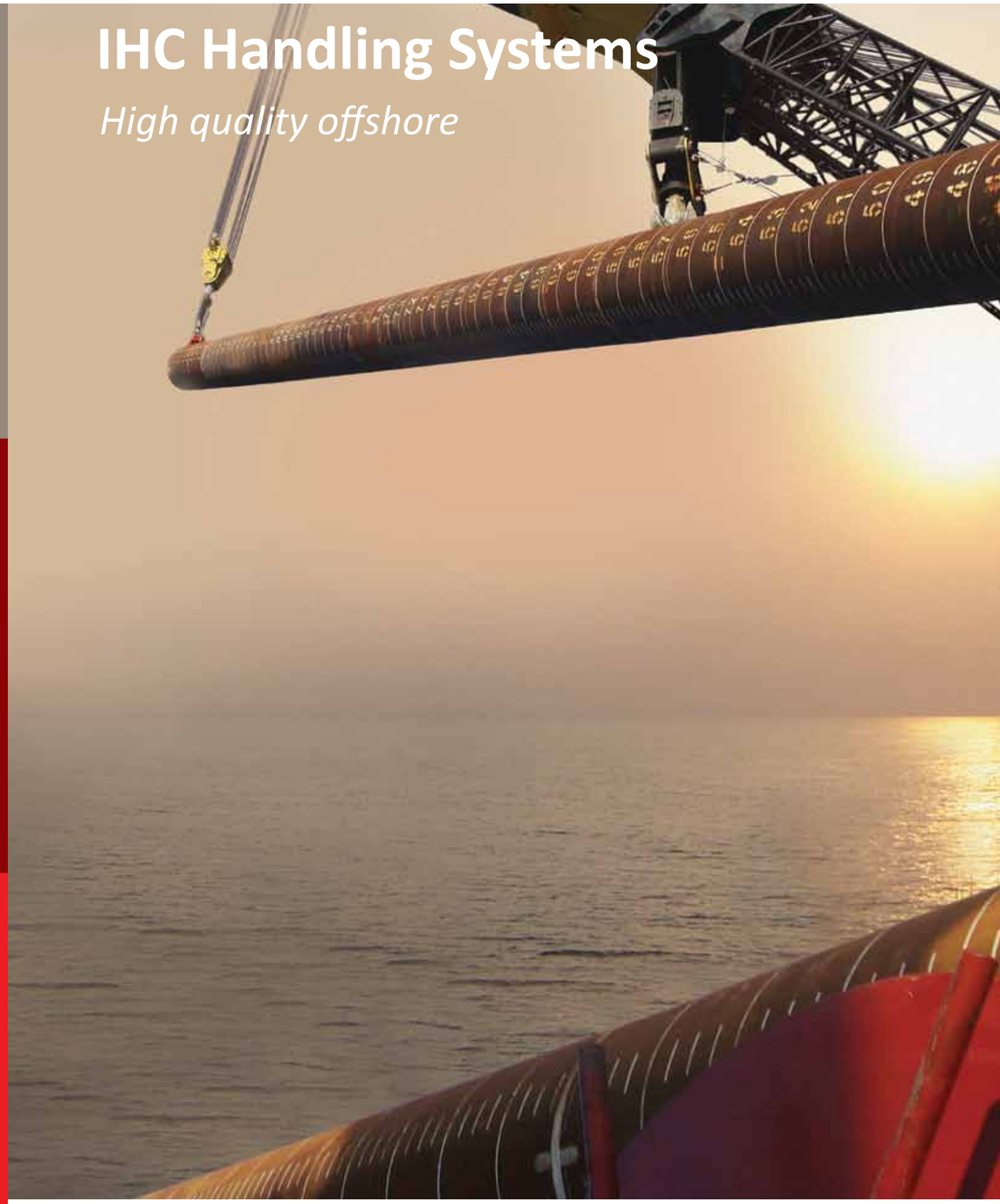
The technology innovator.

IHC Handling Systems

High quality offshore



The technology innovator.

Your world, our challenge

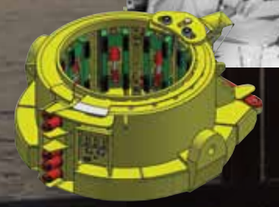
Introduction.

IHC Merwede is specialized in building state-of-the-art offshore and dredging vessels along with equipment utilized on these vessels.
Focusing on a multidiscipline global market the IHC Merwede units are divided in three divisions: Offshore & Marine, Dredging & Mining and the group of sector-related products and service: Technology & Services.

Being part of the Technology & Services division, IHC Handling Systems has a rich history as an innovative 'problem solving' company experienced through various offshore installation or removal 'challenges'.
Together with our sister companies IHC Hydrohammer® and IHC Sea Steel we offer a full package of offshore installation equipment, either from our standard range of products or custom-made.

We invite you to step into our world in order to learn more about our company, products and services and the reason we are proud to say *'Your world, our challenge'.*

'focus on high quality products and services'



Witness the installation of structure

'demands from the market results in design and manufacturing of more handling equipment'

Installation of structures

Since 1955, when our offshore activities began on board the drilling jack-up 'Shelf Driller', our range of services has grown rapidly. At that time IHC Handling Systems operated as a local supplier, now our operational territory covers the entire globe.

On the technical side we have seen the installation of structures move from shallow to deeper, and even ultra deep waters, as far as 3000m. During this evolution the capacities, capabilities and even the design of our equipment changed proportionally. Internal Lifting Tools (ILT), External Lifting Tools (ELT) and Hydraulic Release Shackles, which were the first handling tools in our product program, adapted from working in maximum depths of 200m to being operational at 3000m.

In addition, the demands from the market resulted in design and manufacturing of more handling equipment, including Leveling Tools, Upending Frames, Chain Clamps, Jacket Pile Grippers and Pile Anti Running Clamps.

Equipment shown in this brochure has been designed and fabricated as a response to the installation 'challenges' faced by our customers. Over the years this 'solution driven thinking' has helped IHC Handling Systems to build up their reputation as a innovative 'problem solving' company.

Most of the equipment is also available for hire, allowing customers to benefit from high quality, expertly maintained equipment without costly investments.

Leveling

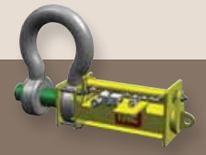
- Leveling of jacket structures or subsea templates
- Capacity up to 3000t
- Standard operational water depth 200m

Pile Anti Running Clamp (PARC)

- To stop running piles during pile driving in bad soil conditions
- Pile sizes up to 84"
- Delivery includes an electric operation/control box and special valve bank

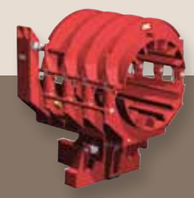
Internal Lifting Tool (ILT)

- Lifting of piles, conductors, small jacket and modules
- Pile diameters from 16" - 102"
- Lifting capacities from 200t - 1750t
- Standard operational water depth 500m, with deep water package up to 2250m



Hydraulic shackle

- Lifting of structures subsea and at surface
- Capacity 17,5t – 1500t
- Standard operational water depth 500m, maximum operational water depth 3000m



Upending frame

- Support during upending of long piles with short boom cranes
- Pile diameters 54" - 108"
- Lifting capacity 600t

Decommissioning

A relatively new market in which IHC Handling Systems is involved is the removal market. The removal of structures, jackets and pipe lines is a rapidly growing market segment as governments and authorities demand that oil companies remove production facilities after shut down.

The first project, in 2005, was the removal of the flare tower of Shell's world famous Brent Spar, and more specialized equipment has been designed since.
Often, standard IHC equipment with special features can be applied in creative ways: Internal Lifting Tools for example, normally used for pile upending, were used for lifting steel segments during the dismantling of jackets offshore.

Other customers require custom-made tools, as demonstrated in our most challenging removal project to date. This involved the removal of a complete jacket structure using buoyancy tanks. IHC's expertise in this project comprised the connection of buoyancy tanks to the jacket structure using external hydraulic grippers in combination with hydraulic pull-in systems. After connection of the buoyancy tanks and pumping out the water the jacket foundation piles were cut and the whole structure was floating again, ready for towage to a scrap yard.




'The removal of structures, jackets and pipe lines is a new market which is growing as well'

Ultimate removal projects

Internal Lifting Tool (ILT)

- Internal lifting tool with special operation module to clamp on structure segments during removal
- 1750t - 54" - 84"

External Clamps

- Custom made external clamps to connect to structures for lifting and handling
- Clamps can be operated at surface or subsea

Buoyancy Clamps

- Custom made clamps for connection of buoyancy tanks
- Removal of structures in floating conditions
- Set of clamps consists of external clamps and hydraulic pull in systems

Deep water operations

'IHC Handling Systems anticipates by designing equipment to withstand extreme conditions and high loads'

Pipe laying

IHC Handling Systems involvement in the pipe laying market originated in the mid 90's with the supply of our first line up clamps.
Since then the supply of equipment related to the pipe laying contractors has increased and encompasses much more than just line up clamps.
Growth of offshore activities resulted in demand for: Pipe Recovery and/or Abandonment Tools, Bear Cages, Pin Release Systems, Abandonment & Recovery Cable Connectors and, in relation to the pipe laying operations, Suction Pile Lifting Frames. In this market we have also seen, over the years, a move into deep and ultra deep waters. With customers laying pipe in water depth of 3000m, IHC Handling Systems anticipated new challenges and responded by designing equipment to withstand these extreme conditions and high loads. Working in water depths up to 3000m with hydraulic equipment is challenging and requires special techniques.

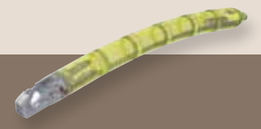
IHC Handling Systems' philosophy in water depths like these is to operate the equipment fully subsea with the use of ROV's. In this case the hydraulic power is generated via the hydraulic power pack of the ROV or via hydraulic energy stored in the equipment itself, controlled by the ROV via a subsea control panel.

Suction Pile Lifting Frames

- Handling of suction piles used in a starting pile configuration
- Operation via ROV in deep and ultra deep waters

Pin Release Mechanism

- Handling of pipe lines and/or PLEM constructions during offshore installation
- Operation via ROV in deep and ultra deep waters



A&R cable connector

- Interface between A&R cable and pipe line complete with hydraulic operated release and pick up hook
- Maximum capacity 1000t in water depths up to 3000m

Pipe Abandonment Tool (PAT)

- To seal off a pipeline in case of abandonment, a double seal arrangement shuts off the pipe
- Major operational savings compared to welding of time consuming A&R heads

Pipe Recovery Tool (PRT)

- To recover abandoned pipe lines during offshore installation
- Recovery in dry or wet condition in water depths up to 3000m
- Pipe sizes various, from 8" - 42"

Job done.

Together we achieve...

Looking back over IHC Handling Systems history, we see an involvement in more than 1500 offshore projects to date. Over the years these projects have varied from simple lifts to innovative and challenging new installation or removal methods from which IHC Handling Systems gained a huge amount of experience and knowledge.

Using this knowledge for new installation ‘problems’ and/or new customers in existing or even new geographic markets helps the industry in general and will contribute to IHC Handling Systems mission statement:

‘Leading supplier of high-quality handling systems and services, problem solver of handling issues’