In front of you; a future full of energy, behind you; the certainty of your warm home, the safe haven.

Step-by-step initially, you go in search of a strong base that gives you confidence and helps you keep going. The combination of keeping going and growth helps broaden your horizons. The world gradually becomes bigger and more challenging. This requires curiosity, enterprise and guts.

You increasingly examine your options and test the boundaries. This goes a lot better if you can count on the tried & tested knowledge and experience of your home base. That confidence makes you take extra steps earlier. Where is your horizon anyway? Does it even exist? Those not satisfied with the crutch of the familiar, always go in search of the new. That makes the future boundless.

With bare feet in the sand

IHC Hydrohammer®
Due to urbanisation there are more buildings, less space and there is more environmental legislation. Larger, higher and unconventional structures require more complex foundations. Hurricanes, rising sea levels, earthquakes, extreme temperatures and land reclamation result in foundations facing increasingly stringent requirements. Since the inception of IHC Hydrohammer® technology, the IHC Hydrohammer® has found application in the offshore industry. IHC Hydrohammer® designs, manufactures and supplies hydraulic piling hammers, for on- and offshore use and is known throughout the world for its innovative approach.

Our markets

Coastal & Civil
Hurricanes, rising sea levels, earthquakes, extreme temperatures and land reclamation result in foundations facing increasingly stringent requirements.

Renewable Energy
The demand for alternative energy sources has increased rapidly. Centuries-old wind energy in its modern incarnation is a promising growth market.

Construction
Due to urbanisation there are more buildings, less space and there is more environmental legislation. Larger, higher and unconventional structures require more complex foundations.

Natural Oil & Gas
Since the inception of IHC Hydrohammer® technology, the IHC Hydrohammer® has found application in the offshore industry.

Success comes with our values

Services
Extensive service guaranteed by a global network, training, technical services & parts and aftersales support. Any time. Any hour. Anywhere.

Possibilities
IHC Hydrohammer® is the global standard in the field of pile driving hammers. Why? Because we think in solutions. After oil, in practice, every problem on the market demands its own, innovative solution. It is in our nature to think in opportunities.

Synergy
Alongside our product specific expertise, there is a great deal of synergy between complementary IHC Merwede units. The IHC Hydrohammer® is attuned to use in combination with equipment from IHC Sea Steel, IHC Fundex Equipment, IHC Handling Systems and IHC Offshore Systems.

Technique
The design of the hydraulic IHC Hydrohammer® does not compromise, reliability, efficiency, options and safety are of primary importance. It is the result of billions of strikes worth of experience both on and offshore.
In front of you, a future full of energy, behind you; the certainty of your warm home, the **safe haven**.

Hurricanes, rising sea levels, earthquakes, extreme temperatures and land reclamation result in foundations facing increasingly stringent requirements. More complex problems demand a great deal from pile driving equipment. That is why we continually adapt our Hydrohammers® to changing demands. This keeps them one step ahead. Hydrohammers® from IHC Hydrohammer® are often used for foundation building activities for container terminals, bridges, viaducts and jetty and mooring posts. Recently, interest has primarily increased with regard to the hammer rock breaker combination for the dredging industry.

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**Coastal & Civil**
In front of you, a future full of energy, behind you; the certainty of your warm home, the safe haven.
Construction

In front of you, a future full of energy, behind you; the certainty of your warm home, the safe haven.

Due to urbanisation there are more buildings, less space and there is more environmental legislation. Larger, higher and unconventional structures require more complex foundations. Pile driving locations are often hard to reach in inner city areas. Tunnelling is used more often, even tunnels running underneath tunnels, in order to lessen the burden on the aboveground environment. Noise pollution guidelines have been tightened. There are an increasing number of challenges. It is in IHC Hydrohammer®'s nature to test the limits. That is what makes the impossible possible. You can build on that!
In front of you, a future full of energy, behind you; the certainty of your warm home, the safe haven.
LIFE CYCLE SUPPORT

IHC Hydrohammer® introduces Life Cycle Support. At next to no cost, this agreement provides you with solutions for the optimum use of your equipment anywhere in the world. This is implemented globally by various, Regional IHC Organisations (RIOs) that provide high-quality service and complete support. Both onshore and offshore.

Expertise and skill are central to IHC Hydrohammer®. For decades now, we have been successfully developing the own production of our pile hammers. If necessary, we utilise the additional knowhow of other IHC Merwede units. Our own production ensures an ample rental fleet which makes the desired hammers rapidly available. We also have sufficient parts in stock. IHC Hydrohammer® does not limit itself to supplying technological products. Our long experience at very different locations and under many different conditions means we can provide or support project and logistics management with high-quality service. This is implemented globally by various, Regional IHC Merwede Organisations (RIOs) that provide high-quality service and complete support for complicated projects both onshore and offshore.

We provide comprehensive pile driving technology. If so desired, this starts with geotechnological advice. Furthermore, we have a global network of IHC Hydrohammer® trained service engineers and a wide range of common spare parts. If operational support is desired for a project we can provide or mediate. IHC Hydrohammer® provides training for the operation, maintenance, malfunction resolution and possibly overhaul of equipment. This training can also be provided on site and can be tailor made to suit your company's needs.
IHC Hydrohammer® is the global standard in the field of pile driving hammers. Why? Because we think in solutions. After all, in practice, every problem on the market demands its own, innovative solution. It is in our nature to think in opportunities. Our years of experience, our empirical approach and – in particular – our intensive cooperation with many onshore and offshore clients means we always see room for improvement. For example, in recent decades we have broadened our horizons. On the one hand, by not compromising and only being satisfied with the best. On the other, by entering into joint ventures and partnerships with users. Elevating each other, creating opportunities and subsequently capitalising on them. Success starts with the right attitude. It makes you think in solutions.

You increasingly examine your options and test the boundaries.
This goes a lot better if you can count on the tried & tested knowledge and experience of your homebase. That confidence makes you take extra steps earlier.
**IHC Hydrohammer® technical data**

**OPERATING PRINCIPLE**

The operating cycle begins with the lifting phase of the ram (ram weight, ram pin and piston rod are forged in one piece). Here, valve P in the pressure line is opened and valve R in the return line is closed. When the preset stroke position is reached, the valves are automatically reversed allowing the ram to start its downward stroke. The ram is accelerated by the pressure of the gas above the piston and reaches a maximum acceleration of 2g. This reduces the maximum stroke that is required and at the same time increases the blow rate of the hammer. After impact, the cycle is repeated automatically. Due to the independently set acceleration force, the IHC Hydrohammer® can operate at any inclination, even horizontally. The hammer can operate leader guided or free hanging.
**Less is more...**

Bearings. This reduces ram wear to a minimum. The ram is guided above and below by lubricated shock absorber. allows unlimited piling on steel using full power.

**More possibilities**

Enclosed hammer housing. The energy supplied by the Hydrohammer® is the same both above and below water. The hammers can be equipped with rock chisels, noise bellow and sheet piling and pile guides in all sizes. Sleeve design. Due to the flat anvil, the sleeves can be adjusted to suit any pile diameter.

Free hanging. The Hydrohammer® can operate leader guided and free hanging (fitted with a pile sleeve).

Clamp system. A special clamp system rigidly connects the pile head and the hammer housing. As a result, only one Hydrohammer® is needed to drive and to extract piles. This makes the Hydrohammer® ideal for the installation of cast-in-situ (vibro) piles.

**More efficiency**

Hammer control. All hydraulic functions of the Hydrohammer® are electronically controlled and monitored. This contributes to allowing the optimal blow energy to be set. Modular structure. All parts that could possibly need attention between major services are easily accessible from the outside.

Oil flow. Due to the accelerated ram weight, it is possible to realise a high blow count at a relatively low oil flow.

Real time monitoring. The piling data are directly printed on site or stored in a data logger. This allows a detailed analysis of the driving operation to be conducted.

**Increased safety**

Safety provisions. Signals from the hammer sensors are centrally processed in the control box. If the length of the ram stroke is too long or too short, the hammer is stopped. If the hammer/pile positioning is incorrect, the hammer cannot be started.

Environmentally friendly. The Hydrohammer® can use biodegradable oil. Noise reduction is optimised by fitting the Hydrohammer® with the available noise reduction packages.

**Universal and unique**

There are no compromises in the design of the hydraulic Hydrohammer® where reliability, efficiency, possibilities and safety are the focus. A design forged from billions of hammer strokes, both onshore and offshore.

The Hydrohammer® combines a solid one-piece ram with a fully enclosed hammer housing. The result is an elegant yet robust and reliable hammer. IHC Hydrohammer®'s unique design makes it suitable for all types of piling and foundation work, ranging from piling impact sensitive concrete piles, to piling large and long offshore caisson piles. The hammer can even be used to break rock (also under water).

**Hydrohammer® is the same both above and below water.**

The hammer cannot be started.

If the length of the ram stroke is too long or too short, the hammer is stopped. If the hammer/pile positioning is incorrect, the hammer cannot be started.

Environmental friendly. The Hydrohammer® can use biodegradable oil. Noise reduction is optimised by fitting the Hydrohammer® with the available noise reduction packages.

**Hammer S series**

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**Power pack type**

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**Accessories**

- Field cleaner
- Hose reels
- Arrows
- Winches
- File cap
- Printers
- Sheet legs
- Control cabinets
- Leader chain
- Monitoring equipment
- Chisels
- Noise reduction packages

**Notes**

1. When using recommended power pack.
2. Hammer weight without anvil/pile cap and pile sleeve.
3. Sleeve and anvil dimensions and weight depend on application. Information on request.
4. Length hammer up to lifting point.
5. All hammers and power packs can be operated using bio-degradable oil.
Any time. Any how. Anywhere

Kinderdijk, The Netherlands

IHC Hydrohammer®
Piling Equipment | Worldwide