



OFFSHORE PRODUCT OVERVIEW



COLLABORATION. PASSION. TRUST.



IF WE HAVE TO ILLUSTRATE WHAT IQIP STANDS FOR, THESE ELEMENTS WOULD CERTAINLY BE OUR STARTING POINT. AND THEY ARE REFLECTED EVERY DAY IN OUR CORE ACTIVITIES. IN SHORT, WE DELIVER LEADING-EDGE SOLUTIONS THROUGH OUR TECHNOLOGY AND SERVICES. BUT THAT'S ONLY THE BEGINNING...

We not only provide the equipment, but actively listen to your needs to create a service everyone can be proud of – wherever you are in the world. Projects begin to take on a whole new dimension when working with IQIP, and we want to take your operations to the next level. The question is, do you want to come on this journey with us?

By cooperating closely, we don't only manufacture solutions, but build dynamic partnerships. In taking full responsibility for our products and services, we endeavour to deliver tailor-made solutions fit for our rapidly changing markets. We also have a vision to contribute to a more sustainable planet for future generations.

At IQIP, we stand for taking technology to the forefront of today's possibilities and humbly invite you to experience this first hand. Regardless of geographical location or project complexity, we're committed to overcoming any challenge that comes our way. Let's get started and build something incredible together.

WELCOME TO THE WORLD OF IQIP

The story of IQIP begins more than 30 years ago. Three companies, all specialised in installation and foundation projects, decide to work closely together in order to be able to offer their customers total solutions. This successful collaboration is consolidated into the creation of IQIP. Our activities cover foundations, installations and removals in the offshore wind, oil and gas, decommissioning and coastal and civil markets.

LOCATIONS



EUROPE

THE NETHERLANDS

Slidrecht

FRANCE

Verberie

GERMANY

Bremen

ASIA

INDIA

Mumbai

JAPAN

Tokyo

P.R. OF CHINA

Shanghai

REP. OF SINGAPORE

Singapore

AUSTRALIA

Brisbane

MIDDLE EAST

UNITED ARAB

EMIRATES

Dubai

WE ALSO HAVE AGENTS IN

Italy

Canada

Portugal

India

Taiwan

Russia

Czech Republic

Slovakia

Japan

United Kingdom

United Arab Emirates

Philippines

Saudi Arabia

Egypt

Turkey

Korea

NORTH AMERICA

USA

Broussard, LA

OFFSHORE WIND



INNOVATION. PASSION. EFFICIENCY.

We know how important it is for you to have a partner who can deliver cost-effective solutions. With this in mind, our integrated approach is making the offshore wind a more competitive industry. Our aim is to support you with innovative equipment that provides increased efficiency and flexibility.

We work closely together to maximise installation windows, mitigate risk and guarantee a positive result. We want to fully understand your requirements to create the optimal response to your challenges. By meeting you at an early stage of your project, we can ensure that it progresses as seamlessly as possible.



MONOPILES

With our big hammers and handling equipment we are able to install even the biggest monopiles in the market. Wind farms are continuously located in deeper water and with more powerful turbines, the size of monopiles is increasing substantially. Installing these large diameter piles requires powerful and reliable tools.

Monopile plug	42
Flange Pile Upending Tool	64
MaXine	72
Transition Piece Lifting Tool	78
Upending Tool	80
Hydrohammer	84
Integrated Monopile Installer	92
Waterhammer	98
Pile Guide and Positioning Frame	104



JACKETS

Large monopiles are currently dominating the offshore wind market. As the shift to deeper water and larger turbines continues, jackets and tripods are becoming chosen more often as foundation type. For the installation of these foundations IQIP can contribute its experiences and proven technology from the oil & gas market.

Jacket Pile Gripper	38
Levelling tool	40
Hydraulic Release Shackle	66
Internal Lifting Tool	68
MaXine	72
Transition Piece Lifting Tool	78
Upending Tool	80
Hydrohammer	84
Waterhammer	98
Fast Frame	102
Slotted frame	106
Flange Jacket Lifting Tool	120
Template Inclination stick-up	126



FLOATING

IQIP world leading in supplying installation equipment for floating production systems in the oil and gas industry. We can use this experience to provide attractive and cost effective piling spread packages and handling tools for mooring of floating wind turbines as well.

Chain Clamp	36
Internal Lifting Tool	68
MaXine	72
Suction Pile Lifting Frame	76
Hydrohammer	84
Waterhammer	98
Fast Frame	102
Slotted Frame	106



GRAVITY BASED

As offshore wind farms are growing in size and moving towards deeper waters, gravity based wind turbines are becoming more attractive. Gravity based support structures are a concrete based structures which can be constructed with or without small steel or concrete skirts. For installation of these structures we work with proven technology of the oil and gas market.

Flange Pile Upending Tool	64
Hydraulic Release Shackle	66
Transition Piece Lifting Tool	78



OIL & GAS



RELIABILITY. AVAILABILITY. PROACTIVE.

We think this best describes our way of thinking in the competitive oil and gas market, and we have been involved in long providing leading-edge solutions to the industry. Through an integrated approach, our aim is to reduce the number of suppliers you deal with by acting as a full service partner.

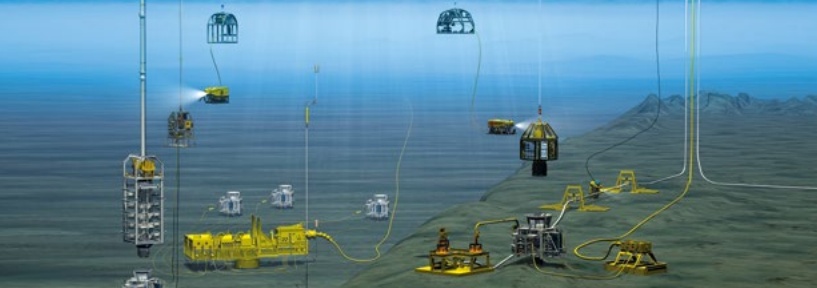
From subsea infrastructures in ultra-deep waters to jackets in shallow waters, we cooperate closely with you to provide a complete package of equipment and services. By focusing on your individual needs, we strive to pass on our experience to give you peace of mind, and enable you to focus on your core business.



MOORING

Floating production systems require reliable mooring because they are applied for oil and gas exploration in deeper water and remote locations far from other infrastructure in often extreme climates. IQIP is world market leader in supplying pile installation equipment and offers complete piling spreads for mooring of floating production systems.

Chain Clamp	36
Pile Anti Running Clamp	44
Internal Lifting Tool	68
MaXine	72
Suction Pile Lifting Frame	76
Hydrohammer	84
Waterhammer	98
Fast Frame	102
Slotted Frame	106
Subsea Connection Frame	108



SUBSEA

Over the years, the oil and gas industry has moved (and still is moving) from shallow to deeper, and even ultra deep waters. Besides deep water activities IQIP's involvement in subsea field development and pipe laying started in the mid 90's with the supply of our first line-up clamps. Since the growth of subsea activities led to a demand for a wide range of equipment, for installation of subsea infrastructure, like templates, manifolds and pipelines.

Pin Release Mechanism	48
External Lifting Tool	62
Hydraulic Release Shackle	66
Internal Lifting Tool	68
Pipe Recovery / Abandonment Tool	74
Hydrohammer	84
Waterhammer	98
Fast frame	102
Slotted frame	106



STRUCTURES

IQIP's long history in the oil and gas industry has a strong connection with the installation of fixed structures. The challenges, faced by our customers led to the design and fabrication of dedicated equipment which is available on a rental or a purchase basis. Besides that IQIP has been involved in driving piles for conductors on- and offshore since the early 1970s, with the invention of our Hydrohammer®.

SPECIFICATIONS

- Pile diameters up to 6,700mm
- Operating depth up to 3,000m
- Certified and designed according Lloyds

LIFTING APPLIANCES

- Available for purchase

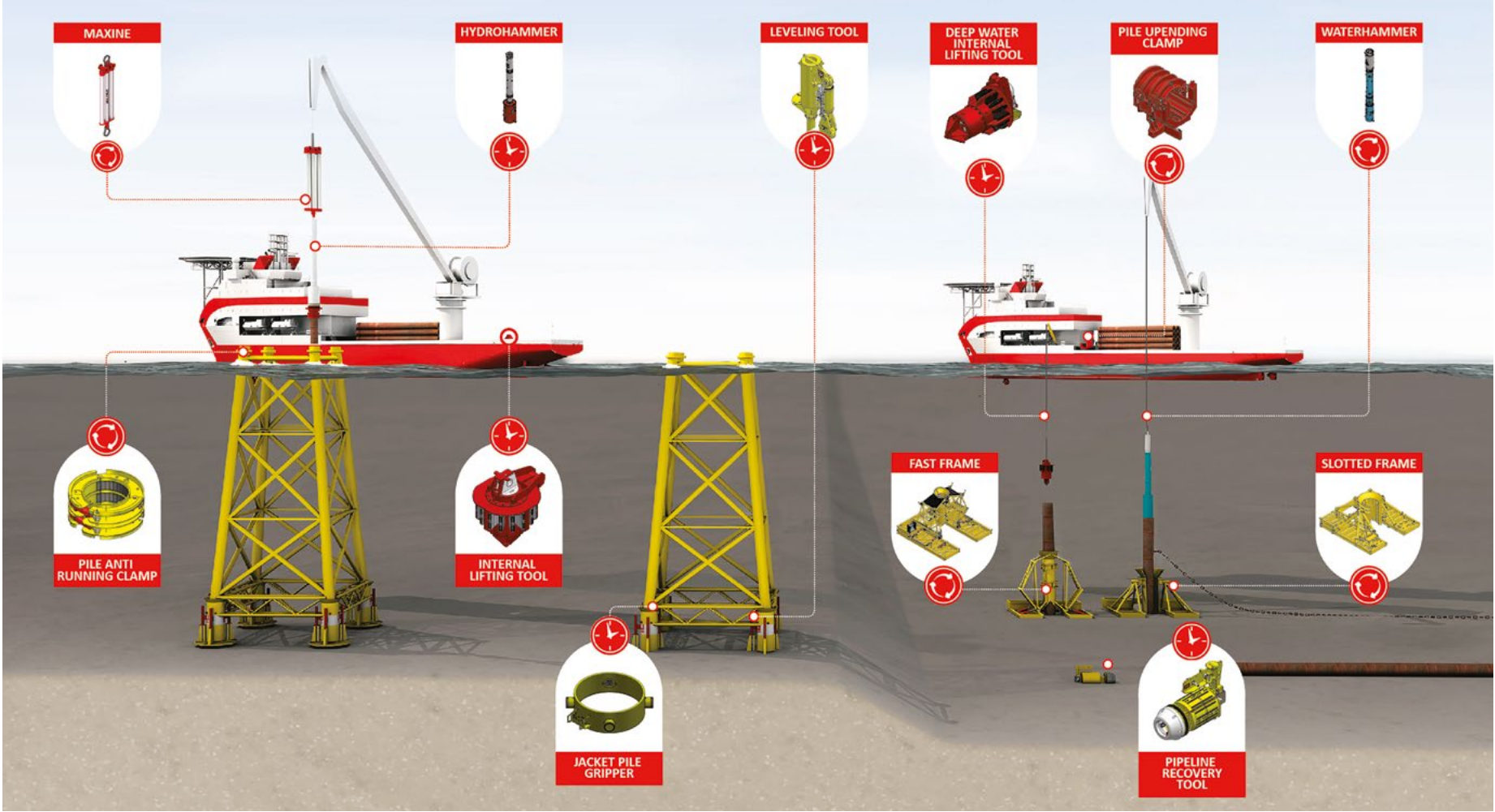
FEATURES

- Upending and positioning of suction piles
- Deepwater applications with accumulator
- ROV operated
- Standard modular design frame adapts to various pile diameters

ADVANTAGES

- ROV operated
- Pile upending and positioning
- Extensive track record for deep water
- Several back up activations available as redundancy

Bear Cage	32
Jacket Pile Gripper	38
Levelling tool	40
Pile Anti Running Clamp	44
Pile Plug	46
Skidding System	54
External Lifting Tool	62
Hydraulic Release Shackle	66
Internal Lifting Tool	68
MaXine	72
Upending Tool	80
Hydrohammer	84
Waterhammer	98
Fast Frame	102



DECOMMISSIONING



PERFORMANCE. FLEXIBLE. DRIVEN.

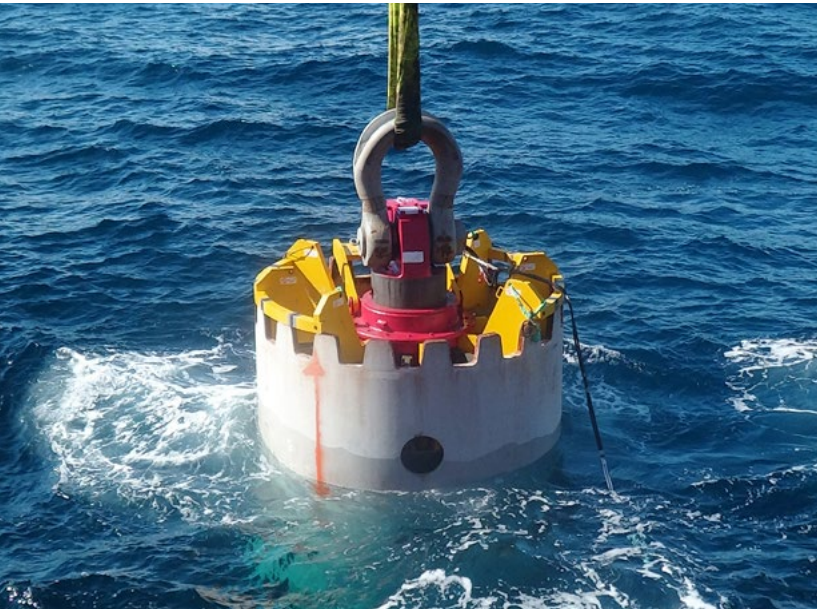
Mitigating risk matters to you, therefore it matters to us. In this relatively new market, tailor-made solutions are the key to making your ideas a reality. Our first decommissioning projects date back from 2001 and we have been active ever since. We're dedicated to safeguarding the success of your project, which is why we cooperate with you to perform all necessary calculations and evaluations. Whether it is the removal of structures, jackets, subsea templates or pipelines, our specialised equipment can be customised to each task. No matter how harsh the conditions or location, our spirit for ingenuity contributes to safer and more efficient operations. We think it's time you benefitted from certainty and peace of mind, don't you?



STRUCTURE & PILE REMOVAL

Like installation in both oil and gas as well as the offshore wind projects, the wide range of existing technologies are widely being used during decommissioning projects. Equipment is available for submerged and above water usage.

External Lifting Tool	62
Hydraulic Release Shackle	66
Internal Lifting Tool	68
Drill Pin connector	116



MONOPILE & MET MAST REMOVAL

The early aged offshore wind parks, based on smaller monopiles, are being installed as the pioneers of today's immense wind projects, however at the end of their (economic) design life. A meteorological mast (Met mast), doesn't have functionality after the offshore wind park is operational, hence removals. As market leader in installation, IQIP can contribute during removal as well.

Hydraulic Release Shackle	66
Internal Lifting Tool	68
Drill Pin connector	116
Mono Tower Lifting Tool	122



CONDUCTOR REMOVAL

Multi-string, single wall or other type of casings and conductors require specialist removal tools. IQIP gained a lot of experience in this part of the decommissioning portfolio. Current new designs and techniques are being developed.

Internal Lifting Tool	68
Drill Pin Connector	116

HANDLING EQUIPMENT



Bear Cage	32
Buoyancy Clamps	34
Chain Clamp	36
Jacket Pile Gripper	38
Levelling Tool	40
Monopile Plug	42
Pile Anti Running Clamp	44
Pile Plug	46
Pin Release Mechanism	48
Saddle & Hook	50
Sea Fastening Clamp	52
Skidding System	54
Stacking Frame	56

HANDLING EQUIPMENT

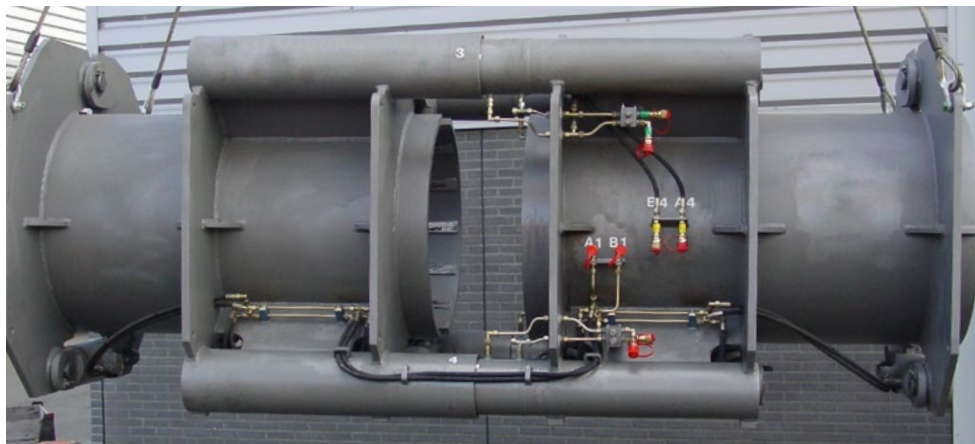
LIFTING EQUIPMENT

PILING EQUIPMENT

SUBSEA PILE GUIDING

CONCEPTS & SERVICES

BEAR CAGE



BEAR CAGES ARE USED TO LINE UP PILES AND PIPE LINES PRIOR TO WELDING.

SPECIFICATIONS

- Suitable for various diameters
- For use at surface only

FEATURES

Features vertical bear cage:

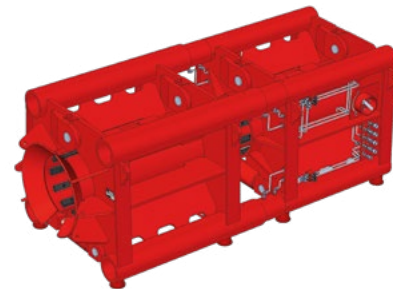
- Line up of two pile sections
- Can operate on battered piles
- Hydraulic clamping
- Capacity to hold full pile section weight
- Welding platform can be integrated in design

Features horizontal bear cage:

- Final weld between landfall and sea pipeline
- Hydraulic clamping
- Hydraulic controlled weld gap adjust
- Clamp and line up of two pipe ends

ADVANTAGES

- Increase of safety during operation
- Hydraulic controllable weld gap
- No use for winches
- Efficiency
- Time saving operation



BUOYANCY CLAMPS

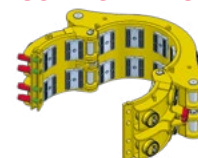


CLAMPING EQUIPMENT INTEGRATED IN BUOYANCY TANKS CAN BE USED FOR THE REMOVAL OF OFFSHORE STRUCTURES IN FLOATING CONDITION.

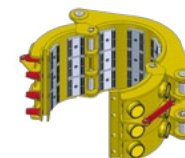
SPECIFICATIONS

- Pull-in mating system
- Leg versus clamp
- Fully computer controlled operation
- Available for purchase

COMPONENTS



UPPER CLAMP



LOWER CLAMP



UPPER PULL
IN SYSTEM (750T)



LOWER PULL
IN SYSTEM (750T)



CHAIN CLAMP



CHAIN CLAMPS ARE USED FOR THE POSITIONING OF MOORING CHAINS.

SPECIFICATIONS

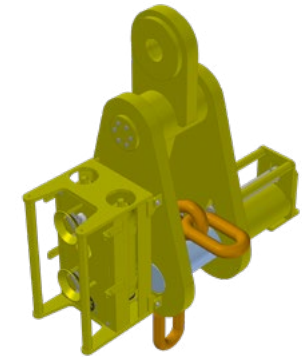
- Project related lifting capacities
- Unlimited operating depth
- Certified and designed according Lloyds Lifting Appliances
- Available for purchase

FEATURES

- Positioning of deep water mooring chain
- Various chain link sizes possible
- Fail safe design
- Hydraulic release by ROV

ADVANTAGES

- Efficient positioning of anchor chains
- Mechanical locked / fail safe possible
- ROV operated



JPG JACKET PILE GRIPPER



JACKET PILE GRIPPERS ARE USED TO CREATE A TEMPORARY CONNECTION BETWEEN THE PILE AND JACKET.

SPECIFICATIONS

- Capacities are limitless
- Pile diameters are limitless
- Hydraulically operated
- 3rd party certification is optional
- Available for purchase

FEATURES

- Securing jacket during bad weather conditions and abandonment
- Retaining elevated position after levelling
- Provides high jacket stability during grouting process
- Operated from surface with subsea redundancy control
- Optional completely subsea controlled
- Optional multiple hydraulic circuits

SPECIALS

- Inside-out Jacket Pile Gripper;
 - Jacket pile gripper which is part of the pile grips internally in skirt sleeve or bucket arrangement

ADVANTAGES

- Extensive track record
- Optional combination with rubber diaphragms
- Several redundancy options possible
- Back-up operation via ROV is standard
- Resistant for shock loads during pile driving



LT LEVELLING TOOL



LEVELLING TOOLS CAN BE USED FOR THE LEVELLING OF JACKETS AND/OR TEMPLATES.

SPECIFICATIONS

- Surface and subsea levelling operations
- Levelling capacity up to 3,000t
- Fail safe design
- Certified and designed according Lloyds Lifting Appliances
- Available for rent and purchase

FEATURES 1,600T - 3,000T EQUIPMENT

- Subsea levelling tool
- Levelling capacity 1,600t - 3,000t
- Pile range 72" - 102"
- Guide cone requires an integrated rolled vertical ring only to facilitate levelling tool
- Levelling tool operates independent from pile stick up
- Operates in combination with a Jacket Pile Gripper
- Free orientation during installation of tool

FEATURES 200T - 1,600T EQUIPMENT

- Above water and subsea use
- Levelling capacity 200t / 800t / 1,600t
- Adjustable to all pile diameters
- Stroke 1,000mm / 1,800mm
- Emergency release via hot-stab (ROV)

- Stick-up height variable
- Recommended to operate in combination with a Jacket Pile Gripper during subsea levelling
- No special preparations to jacket / template structure are required:
 - Connects with pile guide / catcher plate in subsea use
 - Connects with jacket pad eye in surface use

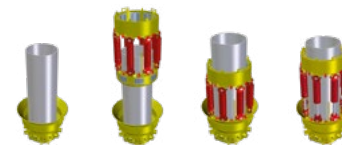
FAIL SAFE PRINCIPLE

The LT is equipped with IQIP's innovative fail safe principle:

- Mechanical load applied on the tool in longitudinal direction results in a transversal force on the pile which creates the 'locking / fail safe' connection

ADVANTAGES

- Above water and subsea use
- Rental option available
- Extensive track record



MONOPILE PLUG



MONOPILE PLUGS CREATE AN AIR AND WATER TIGHT SEAL AT ONE OR BOTH ENDS OF A PILE.

SPECIFICATIONS

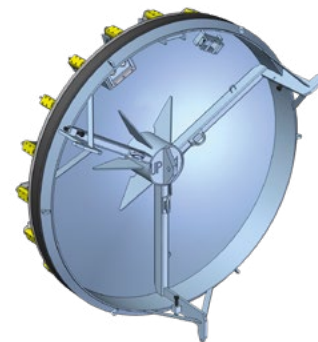
- For monopile diameters up to 9,000mm
- Patented design
- Certified and designed according to Lloyd's Lifting Appliances
- Available for purchase

FEATURES

- Towing directly on plug
- No special preparations to monopiles required
- Can be used in combination with Upending Tool
- Sealing by solid rubber
- Hydraulically operated
- Design includes redundancy

ADVANTAGES

- Use in pile upending and transportation
- Use of plug as towing point
- Custom made



PARC PILE ANTI RUNNING CLAMP



SPECIFICALLY DESIGNED CLAMP TO STOP PILE RUNNING DURING PILE DRIVING.

SPECIFICATIONS

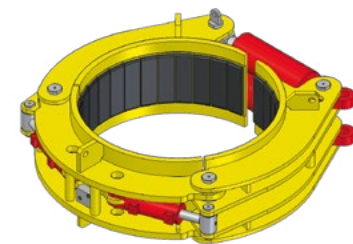
- Pile range 30" - 84"
- To prevent damage to jacket, crane and hammer caused by running piles
- Hydraulically controlled
- Available for purchase

FEATURES

- PARC stops piles from running
- PARC operates in combination with a standard power pack and high pressure accumulator set
- Initial low clamping pressure of PARC during pile driving, to create pile / clamp contact
- When pile running occurs energy from the accumulator package is release in order to stop the pile run within milliseconds
- Automated or manual system
- PARC has the ability to overcome transversal welds between pile sections

ADVANTAGES

- Prevent damage to jacket, crane and/or hammer caused by running piles
- Optional manually or automatic operated
- Transversal pile section welds can remain and are no obstacle



PILE PLUG



PILE PLUGS CREATE AN AIR AND WATER TIGHT SEAL AT ONE OR BOTH ENDS OF A PILE.

SPECIFICATIONS

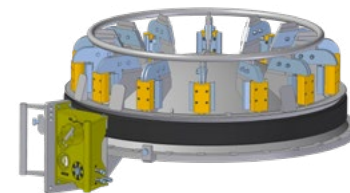
- Can be used in combination with all standard foundation pile sizes
- Hydraulically controlled from surface or by ROV
- Available for purchase

FEATURES

- Suitable for upending and / or transportation
- Suitable for shallow water depths
- Available for straight and angled pipe ends
- Hydraulically operated

LATEST DEVELOPMENT

- Special ILT with a fixed pile plug attached.
- Pile plug integrated with ILT which allows for a combined operation of pile upending and sealing.



PRM PIN RELEASE MECHANISM



PIN RELEASE MECHANISMS ARE OPERATED IN DEEP WATER FOR THE INSTALLATION OF TEMPLATES, STRUCTURES AND SUCTION PILES.

SPECIFICATIONS

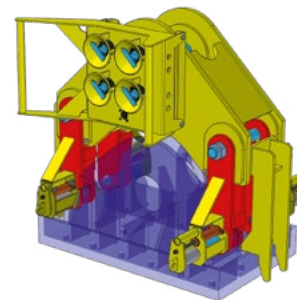
- Custom made design
- Lifting capacities up to 2,000t
- Maximum operating depth of 3,000m
- Certified and designed according Lloyds Lifting Appliances
- Available for purchase

FEATURES

- Can be integrated in any structure or lifting beam arrangement
- Hydraulic operated pin
- Hydraulic energy through accumulators
- Mechanical back-up
- Many additional (back-up) options available
 - Hot Stab
 - Secondary cylinders
 - Separate hydraulic circuits

ADVANTAGES

- Extensive track record
- Several redundancy options
- Several applications:
 - Buoyancy tank connection
 - Spreader bars
 - Template installation
 - Integrated in client construction



SADDLE & HOOK



THE SADDLE AND HOOK SYSTEM CREATES A CONTROLLED FIXED HINGE POINT DURING THE UPENDING OF LONG FOUNDATION PILES.

SPECIFICATIONS

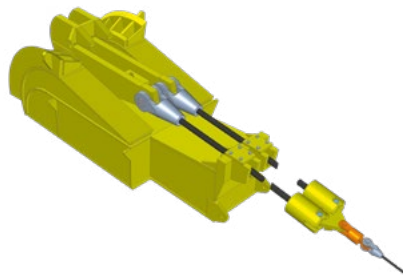
- Provides an extended working window for offshore cranes
- Significant reduction of offshore installation time
- Available for purchase

ADVANTAGES

- Simple mechanical hook and turning point (hinge)
- Efficient
- Extension of crane operating window

FEATURES

- Hook takes axial load of pile
- Saddle to guide piles during upending
- Hook retrievable via a winch
- Lifting capacities up to 1,000t



SEA FASTENING CLAMP



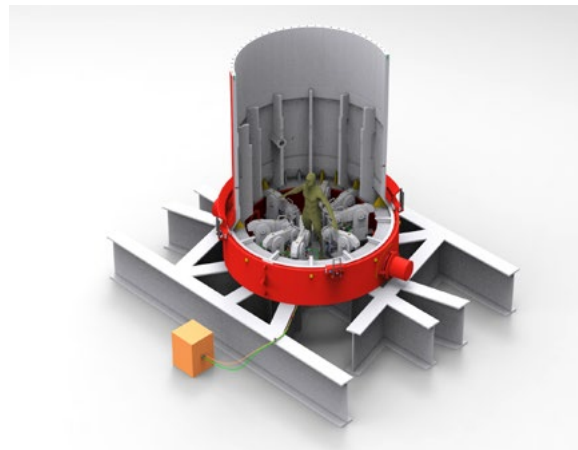
MODULAR CLAMP FOR SEA FASTENING FLANGED STRUCTURES.

SPECIFICATIONS

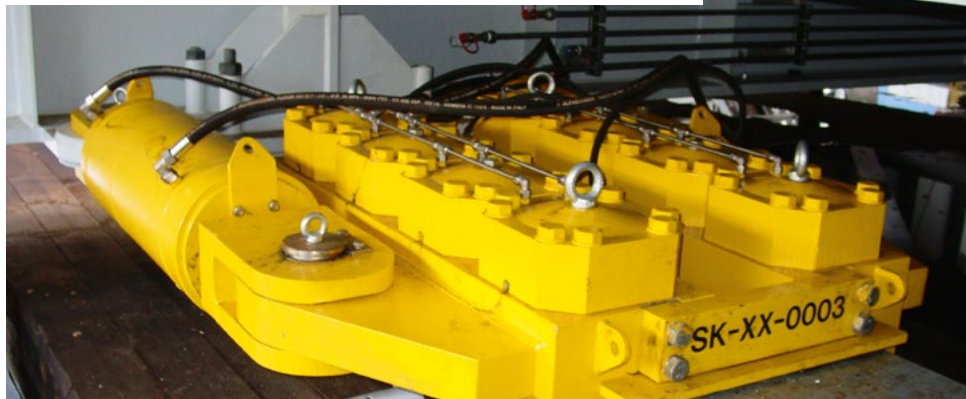
- Clamping force 715t
- Hydraulically operated
- Mechanically locked
- Fail safe

FEATURES

- Load monitoring



SKIDDING SYSTEM



SKIDDING SYSTEMS ARE USED FOR ACCURATE POSITIONING, LOAD OUT OF HEAVY OBJECTS OR LAUNCH OF JACKET STRUCTURES.

SPECIFICATIONS

- Hydraulic push-pull system
- Movement of loads up to 10,000t
- Available for rent and purchase

FEATURES

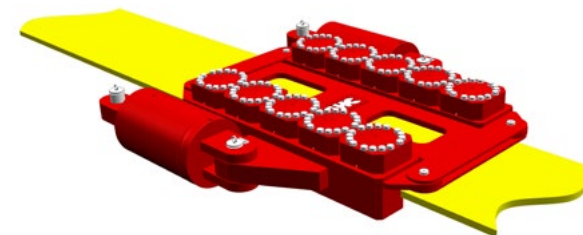
- Double hydraulic system: gripping and push-pull
- Easy to operate
- Controllable and accurate positioning
- No special skid beam preparations
- Low maintenance costs

SKIDDING PRINCIPLE

- Pressurise gripper jacks on beam
- Extend skid jacks (= push object)
- Release gripper jacks
- Retract skid jacks

ADVANTAGES

- Hydraulic push / pull system
- Hydraulic clamping
- Extensive track record
- Hydraulic or electric hydraulic



STACKING FRAME



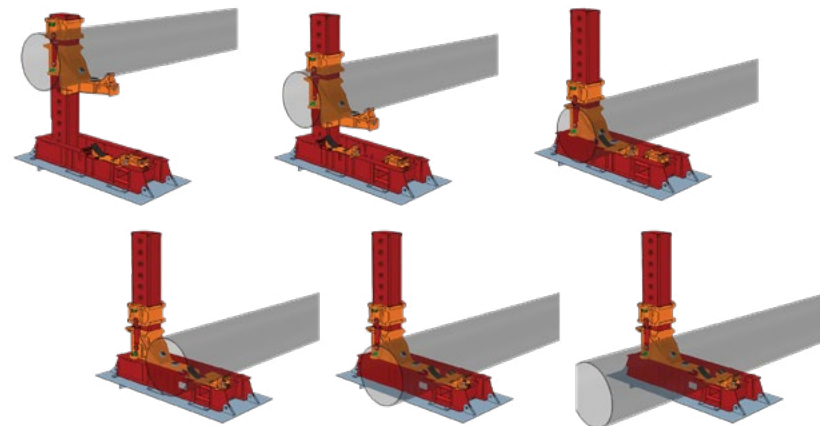
STACKING FRAMES ARE USED FOR STACKING AND HANDLING MULTIPLE FOUNDATION PILES ON DECK OF AN INSTALLATION VESSEL.

SPECIFICATIONS

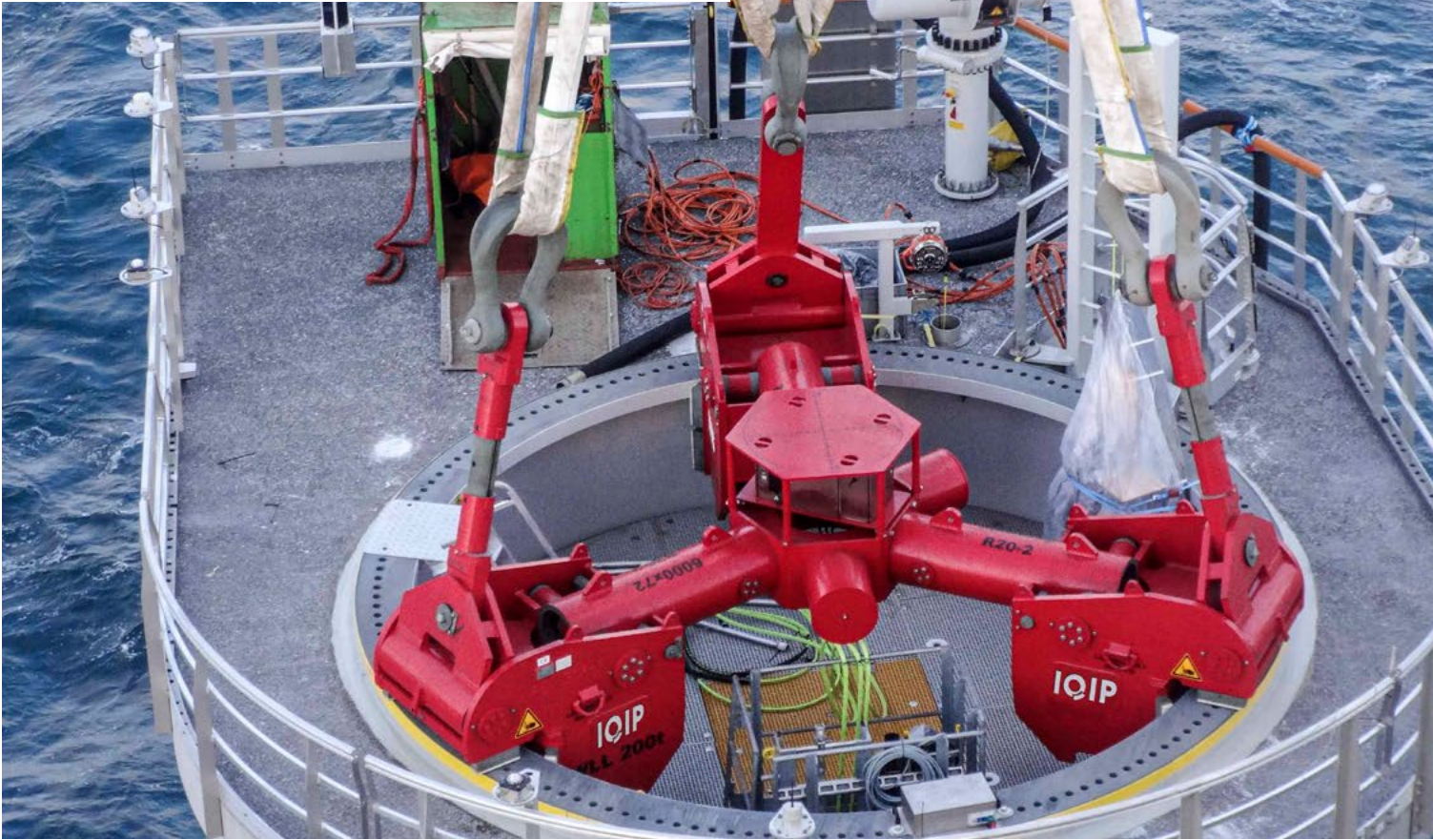
- Storage and handling of foundation piles
- Efficient use of deck space
- Available for purchase

FEATURES

- Fully hydraulically operated
- Option to use in combination with upending support such as:
 - saddle and hook
 - pile guide and positioning frame



LIFTING EQUIPMENT



Acoustic Release Hook	60
External Lifting Tool	62
Flange Pile Upending Tool	64
Hydraulic Release Shackle	66
Internal Lifting Tool	68
MaXine	72
Pipe Recovery / Abandonment Tool	74
Suction Pile Lifting Frame	76
Transition Piece Lifting Tool	78
Upending Tool	80

ACOUSTIC RELEASE HOOK



RELEASE DEVICE FOR LAYING DOWN PIPELINES OR PLET CONSTRUCTIONS.

SPECIFICATIONS

- Custom made design
- Capacities up to 2,000t
- Maximum operating depth of 3,000m
- Certified and designed according to Lloyds Lifting Appliances
- Available for purchase

FEATURES:

- Subsea use
- Power supply by integrated accumulator
- Operation by Acoustic control
- Back up release by ROV ball valve and Hot Stab

ADVANTAGES

- Several redundancy options
- ROV friendly
- Slender design for stinger handling

ELT EXTERNAL LIFTING TOOL



ELT'S ARE USED FOR PILE UPENDING, PILE LIFTING AND AS A HANG OFF CLAMP.

SPECIFICATIONS

- Pile range 20" - 112"
- Lifting capacity up to 1,200t
- Max. operating depth of 250m
- Certified and designed according to Lloyd's Lifting Appliances
- Available for purchase

FEATURES

The ELT has some specific innovative features.

- Subsea operation via ROV or umbilical
- ELT can be optionally delivered with side opening
- Centralising system improving position prior to clamping

APPLICATIONS

- Pile upending in a dual crane operation
- Use as hang-off clamp
- Use as temporary clamping device during welding of leg piles

FAIL SAFE PRINCIPLE

Equipped with innovative fail safe principle:

- Mechanical load applied on the tool in longitudinal direction results in a transversal force on the pile which creates the 'locking / fail safe' connection

ADVANTAGES

- Wide use, great track record in pile handling
- Shorten upending / operation time
- Extremely reliable

FPUT FLANGE PILE UPENDING TOOL



FLANGE PILE UPENDING TOOLS ARE USED FOR THE UPENDING AND LIFTING OF LARGE DIAMETER PILES WITH AN INTEGRATED FLANGE.

SPECIFICATIONS

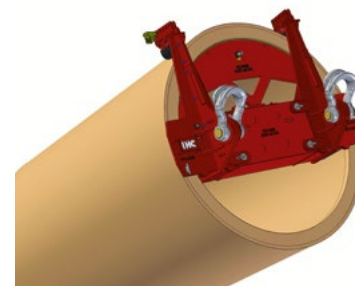
- Using the flange geometry as a support during lifting
- Lifting capacities up to 1,600t
- Certified and designed according to Lloyd's Lifting Appliances
- Available for rent

ADVANTAGES

- Fail safe
- No markings on pile / flange
- Track record
- Remotely wireless operated
- High efficiency

FEATURES

- Remotely operated using integrated power pack
- All contact areas covered with protective material
- Optional tool monitoring systems
- No special preparations of pile
- Integrated redundancy



HRS HYDRAULIC RELEASE SHACKLE



HYDRAULIC RELEASE SHACKLES ARE USED FOR LIFTING AND POSITIONING STRUCTURES BOTH SUBSEA AS WELL AS AT THE SURFACE.

SPECIFICATIONS

- Capacity 17.5t - 2,000t
- Remote controlled engagement and disengagement of shackles
- Available for rent and purchase
- Independent of shackle brand
- Ultra deep water versions available

FEATURES

- Hydraulic operated pin
- Standard suitable for 500m water depth
- Several, optional, back-up activation methods available:
 - Hot Stab
 - Secondary back-up cylinders
 - Accumulators
 - Mechanical back-up

NEW

New patented mechanical pin lock design

ADVANTAGES

- Compact design
- Modular design
- Number of redundancy options
- ROV friendly
- Shackle brand independent
- Possible to modify existing shackles

ILT INTERNAL LIFTING TOOL



USED FOR UPENDING OF PILES, CONDUCTORS LIFTING AND DECOMMISSIONING OF JACKETS, TEMPLATES, BUOYANCY TANKS AND MODULES.

SPECIFICATIONS

- Standard pile range 16" - 96"
- Lifting capacities of 200t - 2,000t
- Standard operating water depth is 500m
- Special modifications allow for:
 - Pile OD 108" - 120"
 - Capacity up to 2,000t
 - Certified and designed according Lloyds Lifting Appliances
- Available for rent and purchase

APPLICATIONS

An evolution in ILT use has taken place over the years from simple pile handling into use during various installations, such as:

- Lifting of buoyancy tanks
- Lifting of jackets
- Lifting of topside modules

- Lifting of subsea manifolds

FAIL SAFE PRINCIPLE

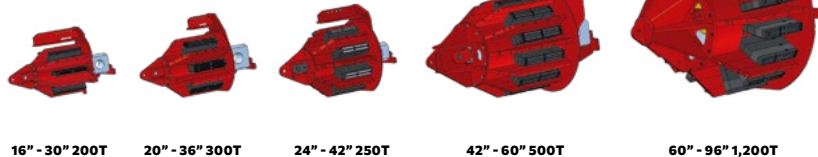
Equipped with innovative fail safe principle:

- Mechanical load applied on the tool in longitudinal direction results in a transversal force on the pile which creates the 'locking / fail safe' connection

ADVANTAGES

- Wide use, great track record in:
 - Pile handling
 - Module and buoyancy lifting
 - Template installation
- Extremely reliable
- Shortens upending / operation time compared to shackles

PRODUCT RANGE



16" - 30" 200T

20" - 36" 300T

24" - 42" 250T

42" - 60" 500T

60" - 96" 1,200T

ILT INTERNAL LIFTING TOOL



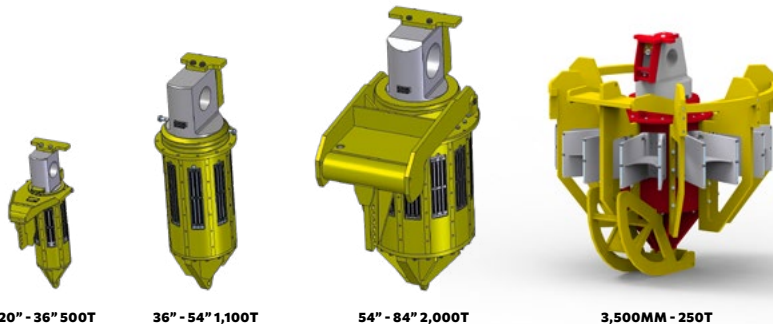
THE INTERNAL LIFTING TOOL CAN BE USED FOR LIFTING STRUCTURES, STRUCTURE SECTIONS AND TOPSIDE MODULES DURING DECOMMISSIONING OPERATIONS.

SPECIFICATIONS

- High longitudinal capacity Internal Lifting Tool
- ILT's are equipped with accumulators to overcome use of hoses
- ILT's are equipped with IQIP's innovative fail safe principle
- Certified and designed according to Lloyd's Lifting Appliances
- Available for rent and purchase

ADVANTAGES

- Wide use, great track record in:
 - Pile handling
 - Module lifting
 - Buoyancy lifting
 - Template installation
- Shortens upending / operation time compared to shackles



20" - 36" 500T

36" - 54" 1,100T

54" - 84" 2,000T

3,500MM - 250T

MAXINE® PHC



IN HEAVY LIFT OPERATIONS WITH NEED FOR HEAVE COMPENSATION THE MAXINE® PASSIVE HEAVE COMPENSATOR SECURES THE LIFTING OPERATION BY REDUCING PEAK LOADS.

SPECIFICATIONS

MaXine® PHC 50

- SWL 50t
- Stroke 3,000mm
- Weight 2.5t
- Yoke to reduce lifting height
- No external power required
- Approved by Lloyds Register of Shipping

AVAILABLE RANGE

- SWL range up to 500t
- Tandem assembly doubles capacity
- Start / stop functionality as an option
- Quick lift option
- MaXine® PHC outside the range can be developed quickly

FEATURES

- Available for rent worldwide
- For use both above water and underwater
- Reduces costs by enabling you to work longer at high sea states
- No special lifting frames required

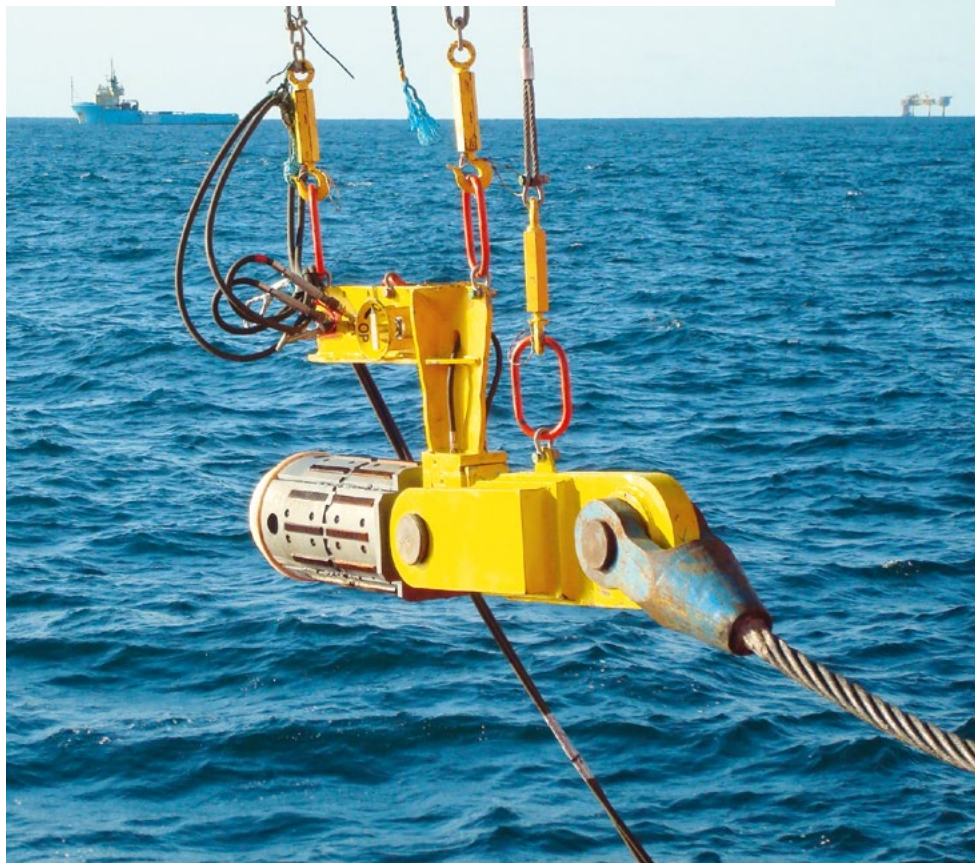
ADVANTAGES

- No loose of lift height with yokes
- With some modification useable at serious / any water depths
- Can be used as Single, Series, Parallel, Series Parallel
- MaXine's lift capacity can be boosted
- No external energy is needed for heave compensation
- No wear in wire and crane system, as a result of the high forces
- Gives protection against shock loads
- Increase of operational weather window



MAXINE 1,100T

PRT PIPE RECOVERY/ ABANDONMENT TOOL



A TOOL SPECIFICALLY DESIGNED FOR THE RECOVERY OF PIPES OR PIPELINES.

SPECIFICATIONS

- Capacity up to 1,000t
- Pipe range 8" - 42"
- Max water depth 3,000m
- Subsea de-watering possible
- Certified and designed according Lloyds Lifting Appliances
- Available for rent and purchase

FEATURES

- Long friction pads prevent overstressing of pipe wall
- Removable lifting arm allows for retrieval via stinger

FAIL SAFE PRINCIPLE

The PRT equipped with IQIP's innovative fail safe principle:

- Mechanical load applied on the tool in longitudinal direction results in a transversal force on the pipe which creates the 'locking / fail safe' connection

ADVANTAGES

- Extensive track record
- Dewatering subsea possible either from tool side or land fall
- Used as Pipe Abandonment tool



SPLF SUCTION PILE LIFTING FRAME



SUCTION PILE LIFTING FRAMES ARE SPECIFICALLY DESIGNED FOR UPENDING AND LIFTING OF SUCTION PILES FOR (DEEP WATER) MOORINGS USED MAINLY FOR FLOATING PRODUCTION SYSTEMS SUCH AS FPSO'S.

SPECIFICATIONS

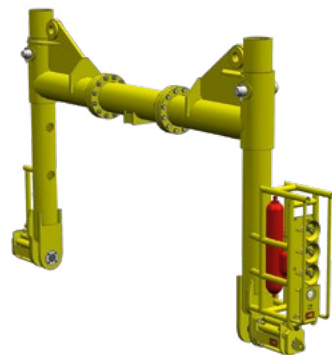
- Pile diameters up to 6,700mm
- Operating depth up to 3,000m
- Certified and designed according to Lloyd's Lifting Appliances
- Available for purchase

ADVANTAGES

- ROV operated
- Pile upending and positioning
- Extensive track record for deep water
- Several back up activations available as redundancy

FEATURES

- Upending and positioning of suction piles
- Deepwater applications with accumulator
- ROV operated
- Standard modular design frame adapts to various pile diameters



TPLT TRANSITION PIECE LIFTING TOOL



TOOL USED TO VERTICALLY LIFT TRANSITION PIECES.

SPECIFICATIONS

- Outside flange diameter range 4,500mm – 6,000mm
- Working load limit (WLL) 400 – 1,200t
- Maximum flange thickness 200mm
- Air temperature -10°C to +45°C
- Sea temperature 0°C to +35°C

ADVANTAGES

- No markings on pile / flange
- Extensive track record
- Remotely wireless operated
- High efficiency
- Center of gravity compensation

FEATURES

- Available for rent
- Quick and safe locking to lifting object
- Fail-safe lifting principle
- Integrated power pack
- Remote and wireless operated
- Proximity switches
- Integrated backups
- Adjustable to any diameter within range
- No steel-to-steel contact

RANGE



TPLT 400T



TPLT 600T

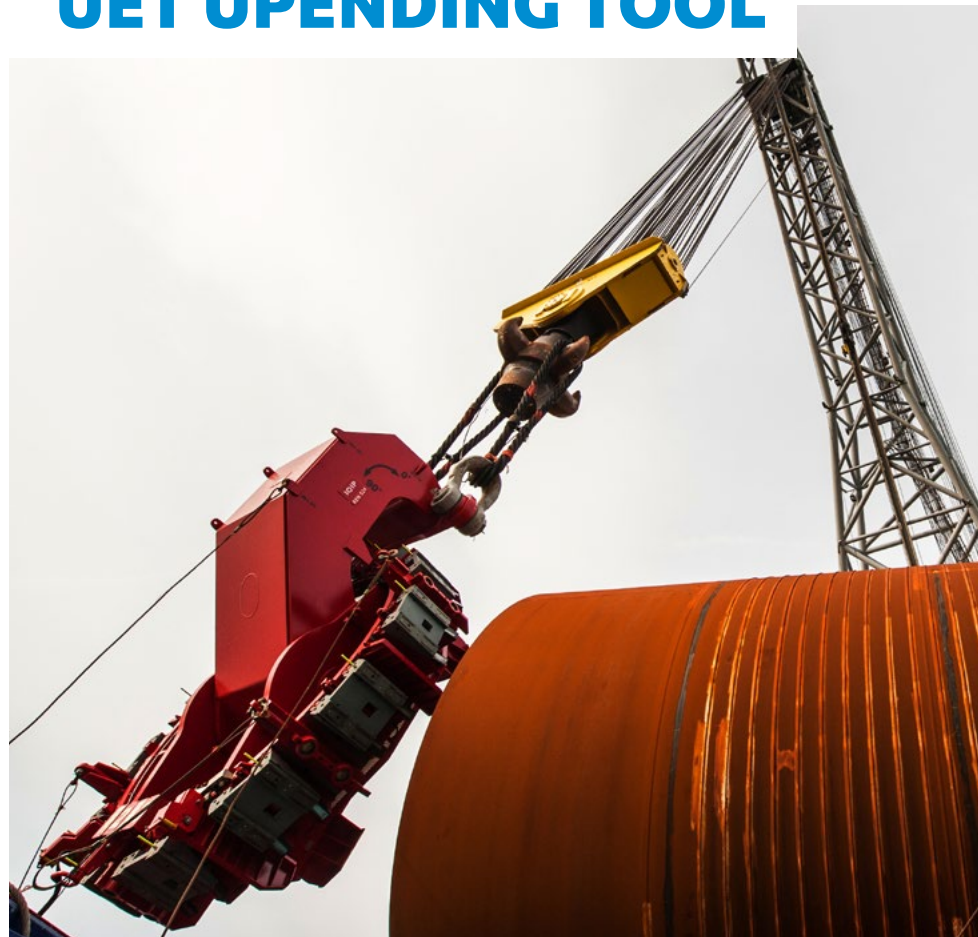


TPLT 800T



TPLT 1,200T

UET UPENDING TOOL



UPENDING TOOL FOR UPENDING LARGE DIAMETER PILES.

SPECIFICATIONS

- Lift diameters up to 6,500mm
- Lifting capacities of 290t, 700t, 1,000t and 1,400t
- Certified and designed according to Lloyd's Lifting Appliances
- Available for rent

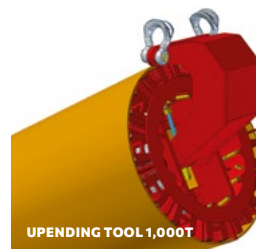
FEATURES

- Adjustable to any diameter (within range)
- Hydraulically operated

- UET's are equipped with IQIP's innovative fail safe principle
- No special preparations of pile
- Compatible with IQIP's Monopile Plugs
- Optional tool monitoring systems

ADVANTAGES

- Extensive track record
- Large rental fleet
- High technical level / intelligence



UPENDING TOOL 1,000T



UPENDING TOOL 1,400T

PILING EQUIPMENT



Hydrohammer	84
Integrated Monopile Installer	92
Sleeves	96
Waterhammer	98

S-SERIES HYDROHAMMER®



HYDRAULIC PILING HAMMER FOR DRIVING STEEL PILES FOR CONDUCTORS, JACKETS, TRIPODS, MOORING SYSTEMS, MONOPILES AND STARTER PILES FOR PIPE LAYING.

SPECIFICATIONS

- Hydraulic impact hammer
- For use above and under water
- Installation of foundation piles for conductors, jackets, tripods, FPS mooring, monopiles and starter piles for pipe laying

ADVANTAGES

- Great track record
- Very low down time rate
- Advanced piling techniques available, such as HiLo (high frequency, low energy) driving in order to minimise fatigue damage

AVAILABLE RANGE

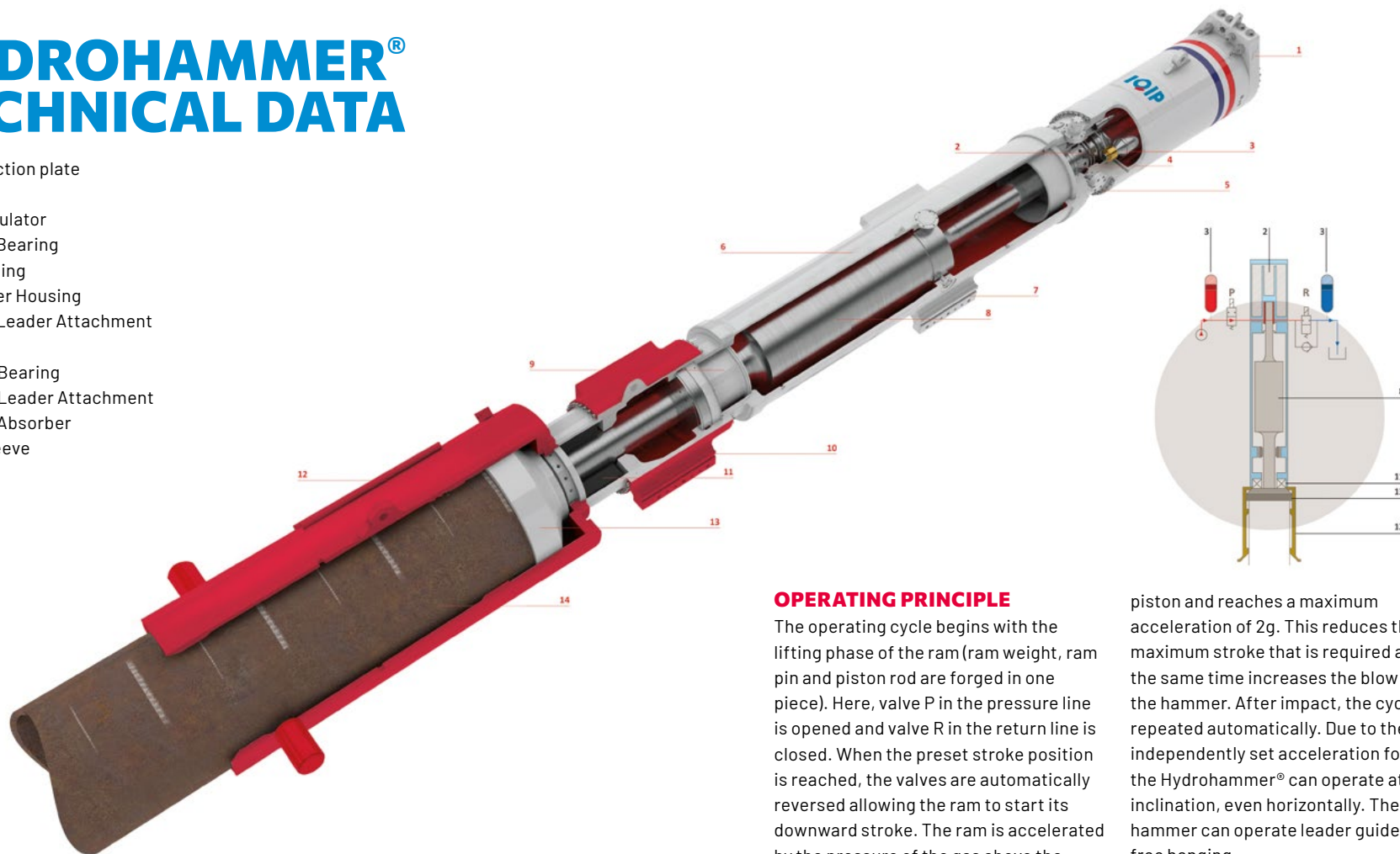
- 30 KJ – 4,000 KJ
- Available for rent and purchase
- Wide range of sleeves up to 7.5 meters

FEATURES

- Additional acceleration of ram weight through Nitrogen gas spring includes Pile Inclination Measurement Equipment (PIME) for measuring the level of inclination
- Can be used for driving free standing anchor piles through the Fast Frame (or pile guide frame)
- Possible to operate at full power at any inclination

HYDROHAMMER® TECHNICAL DATA

- 1 Connection plate
- 2 Piston
- 3 Accumulator
- 4 Upper Bearing
- 5 Valve Ring
- 6 Hammer Housing
- 7 Upper Leader Attachment
- 8 Ram
- 9 Lower Bearing
- 10 Lower Leader Attachment
- 11 Shock Absorber
- 12 Pile Sleeve
- 13 Anvil
- 14 Pile

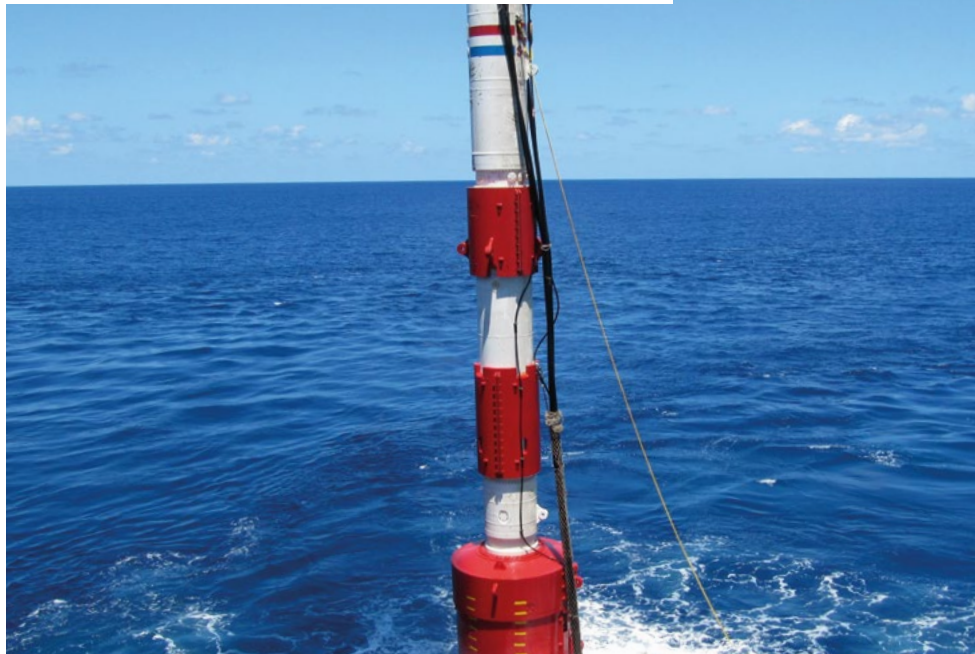


OPERATING PRINCIPLE

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 Hydrohammer® can operate at any inclination, even horizontally. The hammer can operate leader guided or free hanging.

HYDROHAMMER® ADVANTAGES



THE HYDROHAMMER'S UNIQUE DESIGN MAKES IT SUITABLE FOR ALL TYPES OF OFFSHORE PILING AND FOUNDATION WORK, RANGING FROM STARTER PILES FOR PIPE LAYING TO THE BIGGEST MONOPILES IN THE WORLD.

RELIABILITY RESULTS IN VERY LOW DOWNTIME

- **Solid piece Ram:** Forged in one piece to avoid risk of parts separating.
- **Materials:** Forged alloy steel guarantees durability and allows unlimited piling on steel at full power.
- **Shock absorber:** Robust construction sustainably resist the reaction forces from the pile.
- **Bearings:** Lubricated bearings reduces ram wear to a minimum.
- **Limited parts:** Lowers risk of failures and fewer spare parts.

MORE POSSIBILITIES

- **Enclosed hammer housing:** Hammer supplies same energy above and below water.
- **Sleeve design:** Due to flat anvil any pile diameter is possible.
- **Multifunctional:** The Hydrohammer® can operate leader guided and free hanging.
- **Raked pile driving:** Possible to operate at full power at any inclination.
- **Acceleration energy:** Relatively low weight and high peak force ideal to overcome soil resistance.
- **Forged pieces:** Suitable for driving steel on steel because of high-quality forged and alloyed parts.

MORE EFFICIENCY

- **Hammer control:** All hydraulic functions are electronically controlled and monitored, allowing the optimal blow energy to be set.
- **Modular structure:** Parts that could need attention between major services are easily accessible.
- **Oil flow:** Possible to realise a high blow count at a relatively low oil flow.
- **Real time monitoring:** Piling data is directly printed on site or stored in a data logger to allow detailed analysis of the driving operation.

INCREASED SAFETY

- **Environmentally friendly:** The Hydrohammer® can use biodegradable oil.
- **Noise levels:** Noise reduction packages available.
- **Safety provisions:** Signals from the hammer sensors are centrally processed. If the length of the ram stroke is too long or too short, the hammer stops. If the hammer / pile positioning is incorrect, the hammer cannot be started.

HYDROHAMMER® SPREAD POSSIBILITIES

OIL & GAS				OFFSHORE WIND					
	STRUCTURE INSTALLATION	(ULTRA)DEEP WATER	SUBSEAFIELD DEVELOPMENT		CONDUCTOR INSTALLATION	MOORING	MONOPILE (XL) INSTALLATION	JACKETS & TRIPODS	MOORING OF FLOATING WIND TURBINES
HYDROHAMMER®	S-200 to S-4000	S-90w, S-500w and S-90 to S-4000	up to S-280		up to S-280	up to S-800	S-1200 to S-4000	S-800 to S-3000	up to S-800
FOLLOWER	✓	✓	✓		✗	✓	✗	✓	✓
SLEEVE	60" to 120"	30" to 96"	up to 60"		up to "48	up to "96	4.5m to 6.5m	2m to 3.5m	up to "96
CONTROL CABIN	✓	✓	✓		✗	✓	✓	✓	✓
HOSE BUNDLE WINCH	✓	✓	✓		✗	✓	✓	✓	✓
HYDRAULIC POWER PACK	P1100, P2200, P3300	WP1000W	P1100, P2200, P3300		<P1100	P1100, P2200, P3300	P1100, P2200, P3300	P1100, P2200, P3300	P1100, P2200, P3300
UP-END CRADLE	✓	✗	✗		✗	✗	✗	✗	✗
CONTROL CABLE WINCH	✗	✓	✓		✗	✓	✗	✓	✓
HYDRAULIC HOSE REEL	✓	✗	✗		✗	✗	✓	✓	✗
CONTROL CABLE REEL	✓	✗	✗		✗	✗	✓	✗	✗
SPARE PARTS CONTAINER	✓	✓	✓		✗	✓	✓	✓	✓
UP-END AND OVERBOARDING FRAME	✓	✓	✓		✗	✓	✗	✓	✓

HANDLING EQUIPMENT

LIFTING EQUIPMENT

PILING EQUIPMENT
SPREAD POSSIBILITIES-
HYDROHAMMER®

SUBSEA PILE GUIDING

CONCEPTS & SERVICES

INTEGRATED MONOPILE INSTALLER



USED TO MITIGATE UNDERWATER NOISE DURING MONOPILE INSTALLATION AND REDUCE OPERATIONAL TIME AS A HANDLING TOOL.

Additional installation features such as an inclination tool, rotation tool and shelter for wave and current impact save time in the total installation process.

SPECIFICATIONS

- Integrated Monopile Installer based on two principles
- Adjustable for various water depths
- Adjustable for various diameters
- Available for rent

AVAILABLE RANGE

The NMS 'family' consists of three standard size ranges with different diameter capacities:

- NMS-6000 maximum diameter 6,000mm
- NMS-6900 maximum diameter 6,900mm variable
- NMS-8000 maximum diameter 8,200mm

ADVANTAGES

- Unique noise reduction capacity
- Unique tool with integrated multi functionality
- Enlarging weather window

- Safe working conditions
- Proven technology

NMS GUIDING TOOL AVAILABLE

A Integrated Monopile Installer Guiding Tool is available for the positioning and supporting of the NMS for the installation of monopiles.

- NMS outer diameter: 11m
- Push capacity in horizontal plane: 220t
- Skidding distance (tool positioning): 7,320 mm
- Stroke longitudinally: 3,000mm
- Stroke transversally: +/- 3,100mm
- Overall length: 23.2m
- Overall width: 13.5m
- Available for purchase
- Modifications possible on request

INTEGRATED MONOPILE INSTALLER



NOISE MITIGATION DURING PILING

- Noise mitigation to below 160 dB.
- With HiLo and BBC the Integrated Monopile Installer averages (16 piles) a sound level of 155 dB (151 - 156 dB).
- With HiLo but without BBC, the Integrated Monopile Installer averages (4 piles) a sound level of 160 dB (158 - 162 dB).
- The Integrated Monopile Installer mitigates almost all water born noise radiating from a pile. A large portion of the ground born noise is also mitigated. To dampen this noise further, additional measures are required, for instance RUNS (under development) or a BBC.
- Use of the Integrated Monopile Installer reduces contractor risks. After proving that the Integrated Monopile Installer works, the lower risk of a sound violation can be included into the quotation.

REDUCING INSTALLATION TIME

The Integrated Monopile Installer is an installation tool that reduces the installation time per pile:

- Centers the pile by means of an adjustable upper guiding.
- Helps getting piles through the splash zone safer and faster by catching the wave movements.
- Equipped with GPS and inclination tool

to assure piles are installed in the right location.

- Guiding tool and inclination tool enables movement along the longitudinal and lateral axis to ensure vertical pile installation.
- Rotational tool ensures correct monopile heading in less than one minute. This automated process increases on board safety and deck capacity because no additional equipment is needed and there are no wires running across the deck.

LARGER WEATHER WINDOW

The Integrated Monopile Installer can be used with a sea state of up to 2 meters, 0.5 meters higher than a monopile. If wind is not a factor, this could mean potentially 52% more working days.



HANDLING EQUIPMENT

LIFTING EQUIPMENT

PILING EQUIPMENT
INTEGRATED MONOPILE
INSTALLER

SUBSEA PILE GUIDING

CONCEPTS & SERVICES

SLEEVES



SLEEVES ARE USED TOGETHER WITH THE HYDROHAMMER FOR PILING.

The main construction of the sleeve consists of the housing for the anvil and a pile-guiding section that fits over the top of the pile. The purpose of the sleeve is to ensure that the blow energy of the Hydrohammer is transferred with the highest possible efficiency, while remaining fully in-line with the pile.

To safeguard the accurate delivery of the blow energy, the connection flange of the sleeve is bolted to the lower section of the Hydrohammer. The blow of the ram weight is transferred to the anvil, which is located inside the sleeve's housing. The parts are bolted to keep flexibility in hammer energy and sleeve diameter, to use the most optimal combination.

The sleeves are available in the diameter range from 508mm till 6,500mm. Larger diameters are being developed.

SW-SERIES WATERHAMMER



ENVIRONMENTALLY FRIENDLY HYDRAULIC PILING HAMMER RUNNING ON WATER ONLY.

Can be used for all piling jobs, like driving pipeline initiation piles, piles for jackets, conductors and mooring systems. Especially designed for (ultra)deepwater.

SPECIFICATIONS

- Hydraulic impact hammer using water (fresh or salt) as medium instead of hydraulic oil
- Operateable in ultra deep water

AVAILABLE RANGE

- 90 KJ
- 500 KJ
- Available for rent and purchase
- Wide range of pile sleeves from 30" up to 96"

ADVANTAGES

- Reliable technology
- No high voltage cable
- Simple control / wireless
- Water as power transmission medium
 - no hydraulic oil spill
 - single hose (no return hose)

SUBSEA PILE GUIDING



Fast Frame	102
Pile Guide and Positioning Frame	104
Slotted Frame	106
Subsea Connection Frame	108

FF FAST FRAME



USED TO SUPPORT, LEVEL AND ORIENTATE FREE STANDING IMPACT DRIVEN PILES.

FEATURES

- Pile orientation system allows up to 170° alignment window and maintains orientation until adequate soil holding is achieved
- Sleeves are triggered open by the pile without the need for ROV intervention
- Proven levelling system caters for up to 5° inclined seabed
- Allows for protruding pile ancillaries to travel through the frame
- Frame can be used without followers
- Pre-calibrated spacer sets can be changed offshore without the need for survey, allowing multiple pile diameters to be driven in a single campaign

ADVANTAGES

- Proven levelling system
- Extensive track record

APPLICATIONS

- FPSO, FSO and FLNG anchor arrays
- Single Point Moorings for Offshore Loading Systems
- Riser and mid-water arch anchors
- Pipeline initiations and Conductor pre-installation
- Accurate pre-driven installations for wind farm jackets, test piles and anemometer masts

SPECIFICATIONS

- Capacity 20" – 96" Diameter
- Modular & Containerised construction (up to 60" diameter)
- Digital inclinometer for pile sleeve accurate to 0.1 degrees slope
- Fully Automated Pile Release
- Automatic pile orientation
- Levelling up to 5°, ± 0.5° accuracy
- Digital inclination telemetry
- Folding mudmat extensions
- Multiple pile diameters per mobilisation
- DNV Certified
- ROV/Diver contingency intervention
- Opening sleeves for pile ancillaries and seamless operation to seabed

AVAILABLE RANGE

- Levelling capability for pile diameter ranges from 30" to 96" pile diameter
- Non levelling capability from 20" to 96" pile diameter
- Semi-automated option for all frames, negating the requirement for pile plates. Requires ROV intervention
- Custom pile sizes and bespoke adaptations available upon request
- Multiple sized spacer sets for continuous installation
- Mudmats size ranges: from 12m x 12m to 18m x 18m (fixed) and from 5m x 6m to 12m x 12m (folding)

PGPF PILE GUIDE AND POSITIONING FRAME



THE FRAME CAN BE USED FOR GUIDING OF FOUNDATION PILES DURING UPENDING AND FOR POSITIONING OF THESE PILES DURING PILE DRIVING.

SPECIFICATIONS

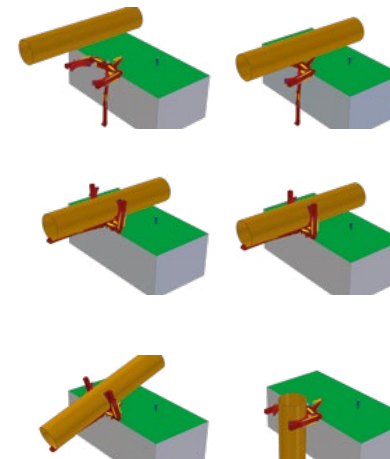
- Increase of crane efficiency, no vertical pile movement after upending
- Significant reduction of offshore installation time
- Accurate positioning of monopile
- Adjusting verticality of monopile after upending
- Available for rent and purchase

FEATURES

- Innovative design
- Handling of pile diameters up to 6,000mm
- Hook holding capacity 700t
- Maximum tilting motion of PGPF $\pm 6^\circ$
- Upending angle range $0^\circ - 93^\circ$
- Option to use in combination with other IQIP deck equipment
- Upending tool required at top of monopile for upending

ADVANTAGES

- Accurate pile positioning
- Pile upending directly on pile position
- No time lost due to extra transfer after upending
- Efficiency



HANDLING EQUIPMENT

LIFTING EQUIPMENT

PILING EQUIPMENT

SUBSEA PILE GUIDING
PGPF - PILE GUIDE AND
POSITIONING FRAME

CONCEPTS & SERVICES

SLOTTED FRAME



USED TO SUPPORT, AND ORIENTATE FREE STANDING IMPACT DRIVEN PILES ON THE SEABED.

APPLICATIONS

- FPSO, FSO and FLNG anchor arrays
- Single Point Moorings for Offshore Loading Systems
- Riser and mid-water arch anchors
- Pipeline initiations and Conductor pre-installation
- Accurate pre-driven installations for wind farm jackets, test piles and anemometer masts

SPECIFICATIONS

- Capacity 24" – 96"
- Remote controlled
- Static Frame with no hydraulics
- Suitable for piles with low padeyes

AVAILABLE RANGE

- Pile ranges between 24" – 96" diameter with larger ranges available
- Sleeve Inserts for installing multiple sized piles
- Mudmats sizes from 12m x 12m to 18m x 18m

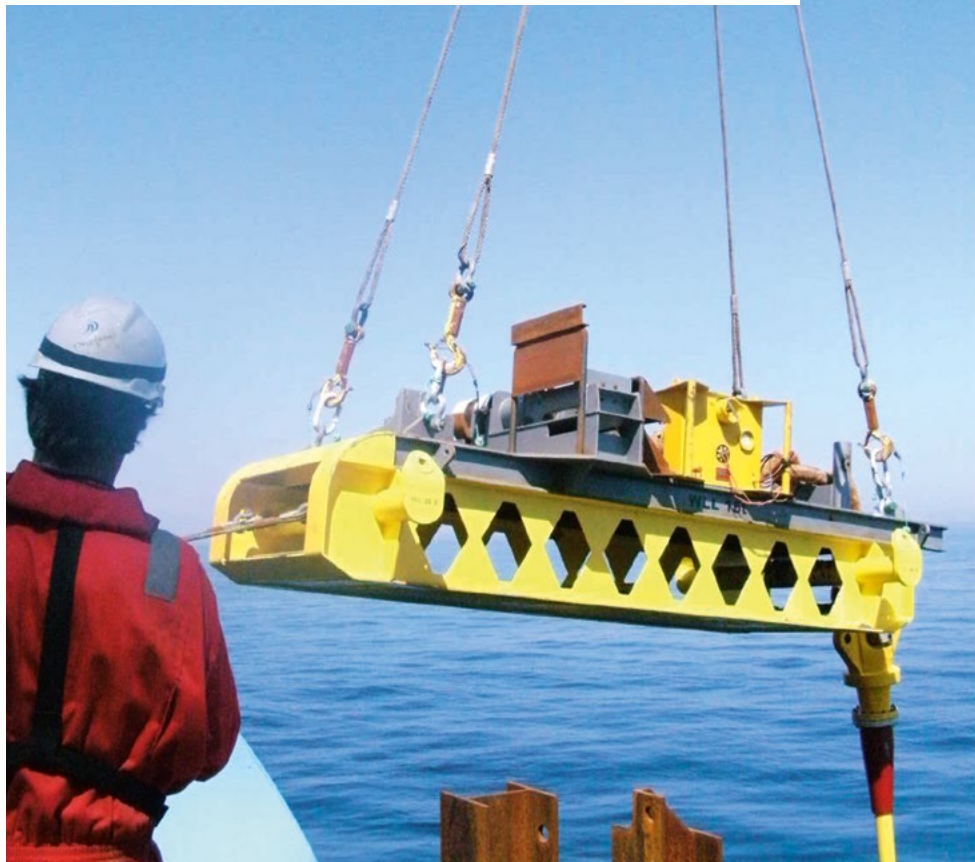
FEATURES

- Pile orientation system allows up to 140° alignment window
- Designed to cater for short piles and low padeye positions
- Allows pre-attached padeye and chain to be used with the frame
- Adaptable for multiple pile diameters without recovering back to deck
- Operates in all water depths
- ROV friendly interaction
- Equipment globally available
- Digital inclinometer for seabed slope

ADVANTAGES

- Low pile padeye compatible
- Soft soil conditions
- Low lift height
- Light weight
- Basic function and cost effective
- Accurate pile orientation

SUBSEA CONNECTION FRAME



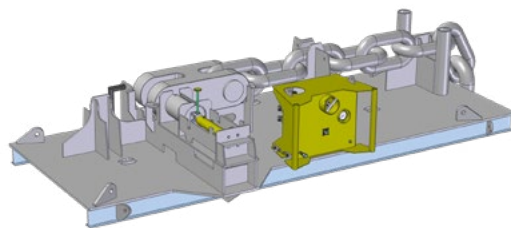
SUBSEA CONNECTION FRAMES CAN BE USED FOR THE CONNECTION OF MOORING CHAINS.

SPECIFICATIONS

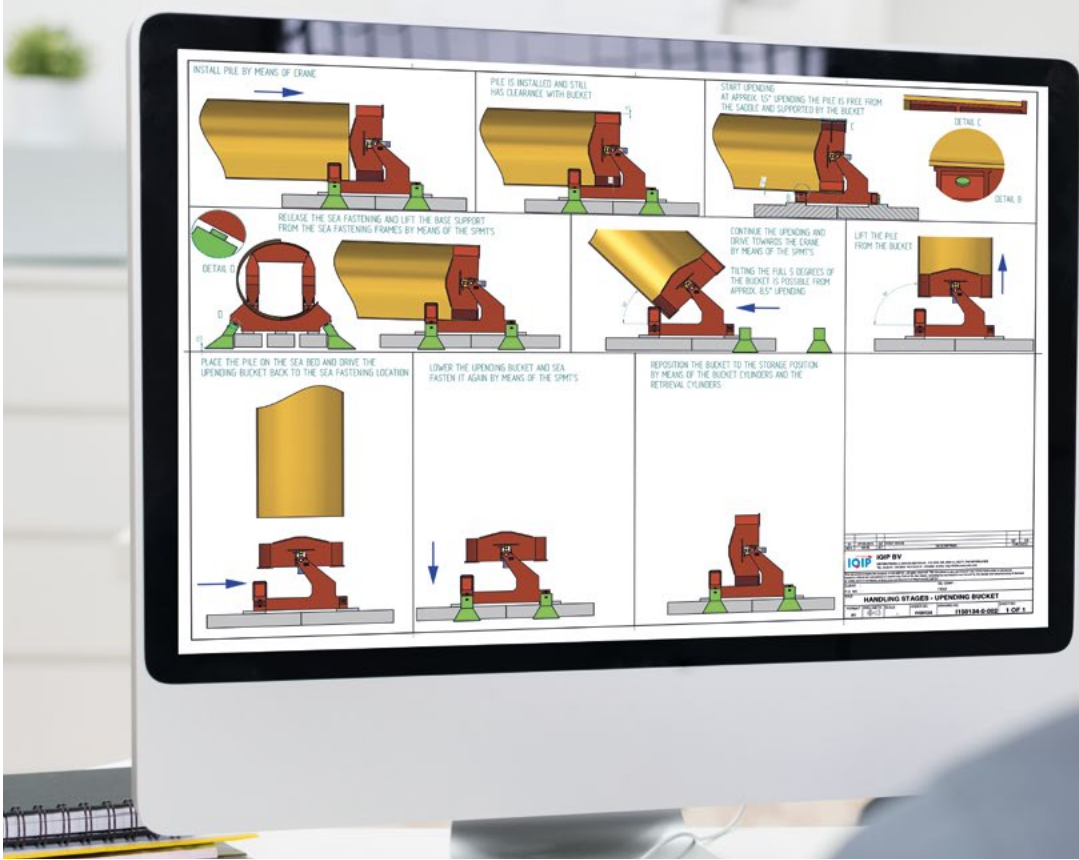
- Used to reconnect mooring chains
- Used during installation of new mooring chains
- Re-usable frame for several link sizes
- Available for purchase

FEATURES

- Integrated system redundancy
- Subsea connection operation
- Operated by ROV from subsea control panel
- Pin locking by ROV
- Designed for re-use



TAYLORED SOLUTIONS CONCEPTS & SERVICES



HANDLING EQUIPMENT

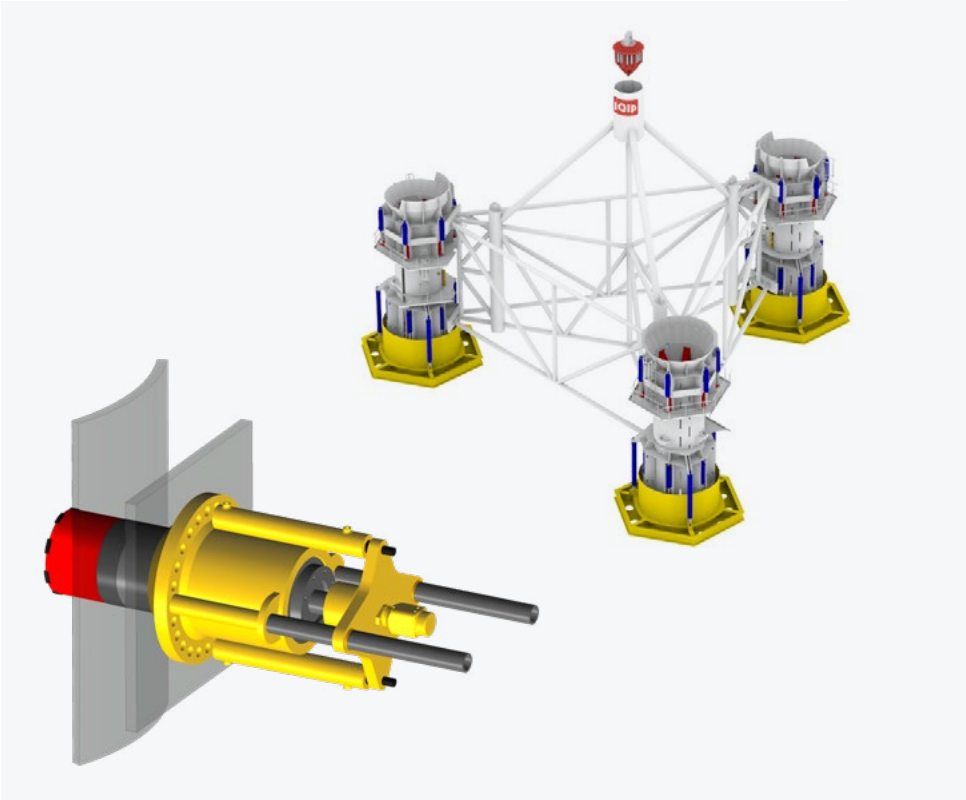
LIFTING EQUIPMENT

PILE GUIDING

SUBSEA PILE GUIDING

CONCEPTS & SERVICES

TAYLORED SOLUTIONS CONCEPTS & SERVICES TABLE OF CONTENT



IQIP HAS A RICH HISTORY AS AN INNOVATIVE ‘PROBLEM-SOLVING’ COMPANY AND HAS GAINED EXTENSIVE EXPERIENCE THROUGH VARIOUS OFFSHORE INSTALLATION OR DECOMMISSIONING ‘CHALLENGES’.

Innovation and thinking in terms of solutions for our customers are deeply entrenched in our company, starting from our experienced sales team, through our engineering and our service department. IQIP is capable of limitless conceptualisation.

CONCEPTS

Combi Lifting Spread	114
Drill Pin Connector	116
Flange Clamp Tool	118
Flange Jacket Lifting Tool	120
Mono Tower Lifting Tool	122
Pipe Cutter	124
Template Inclination Stick-up	126

SERVICES

Advisory Services	128
Service Engineer	130

HANDLING EQUIPMENT

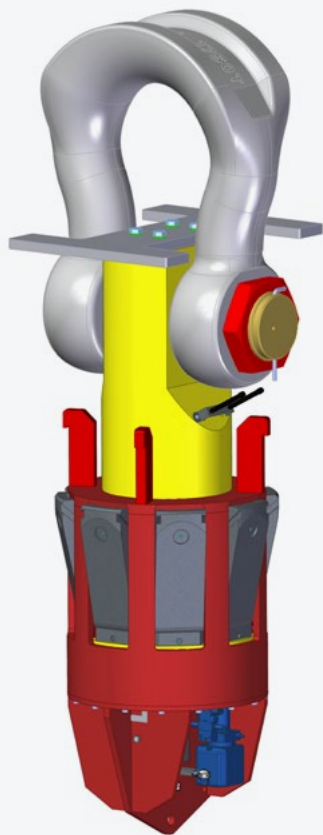
LIFTING EQUIPMENT

PILING EQUIPMENT

SUBSEA PILE GUIDING

CONCEPTS & SERVICES
TABLE OF CONTENT

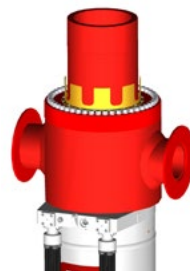
COMBI LIFTING SPREAD



THE LIFTING CONNECTOR IS THE MAIN CONNECTOR BETWEEN CRANE AND TOOLS AND PART OF THE COMBI LIFTING SPREAD.

SPECIFICATIONS

- Connects with sockets on other equipment (as Transition Piece Lifting Tool, Flange Pile Upending Tool , Hydrohammer, Integrated Monopile Installer)
- Reduce the number of interfaces
- Reduce crane movements
- Vertical Lift and handling only
- Time efficient installation



HYDROHAMMER SOCKET



TPLT SOCKET

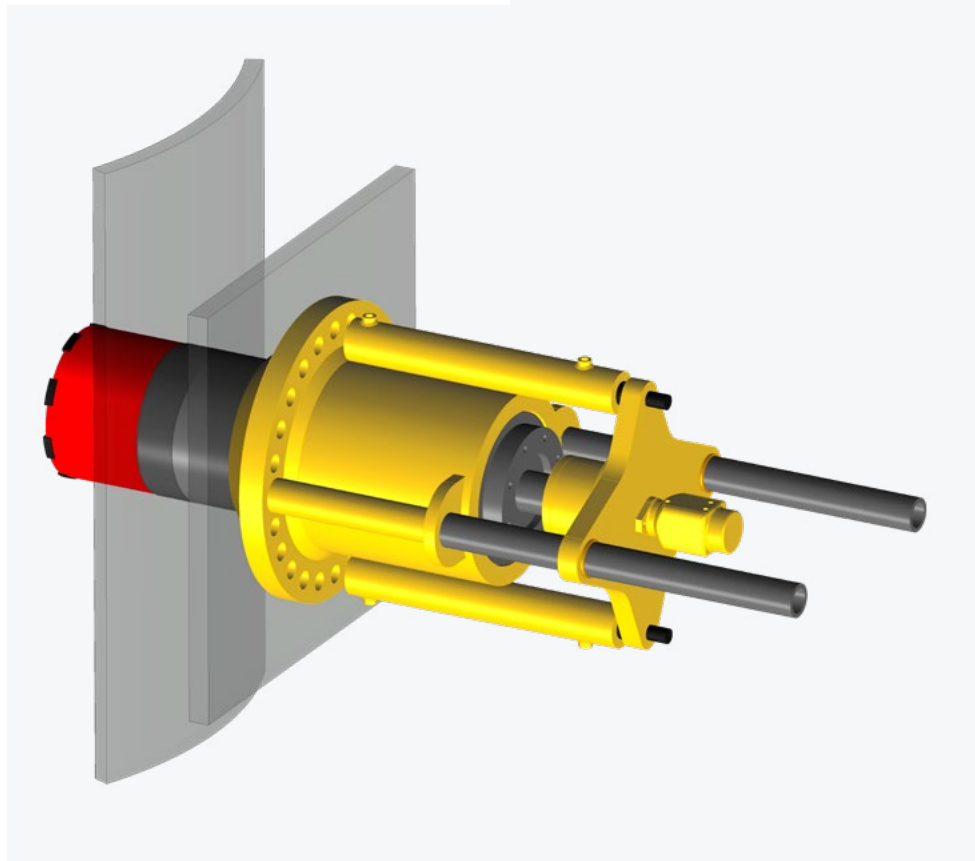


INTEGRATED MONOPILE INSTALLER SOCKET



FPUT SOCKET

DRILL PIN CONNECTOR



SECURING MULTIPLE STRINGS, PILES OR STRUCTURES DURING DECOMMISSIONING LIFTS.

SPECIFICATIONS

- Custom made design
- Capacities up to 2,000t
- Maximum operating depth of 3,000m
- Certified and designed according to Lloyds Lifting Appliances
- Available for purchase

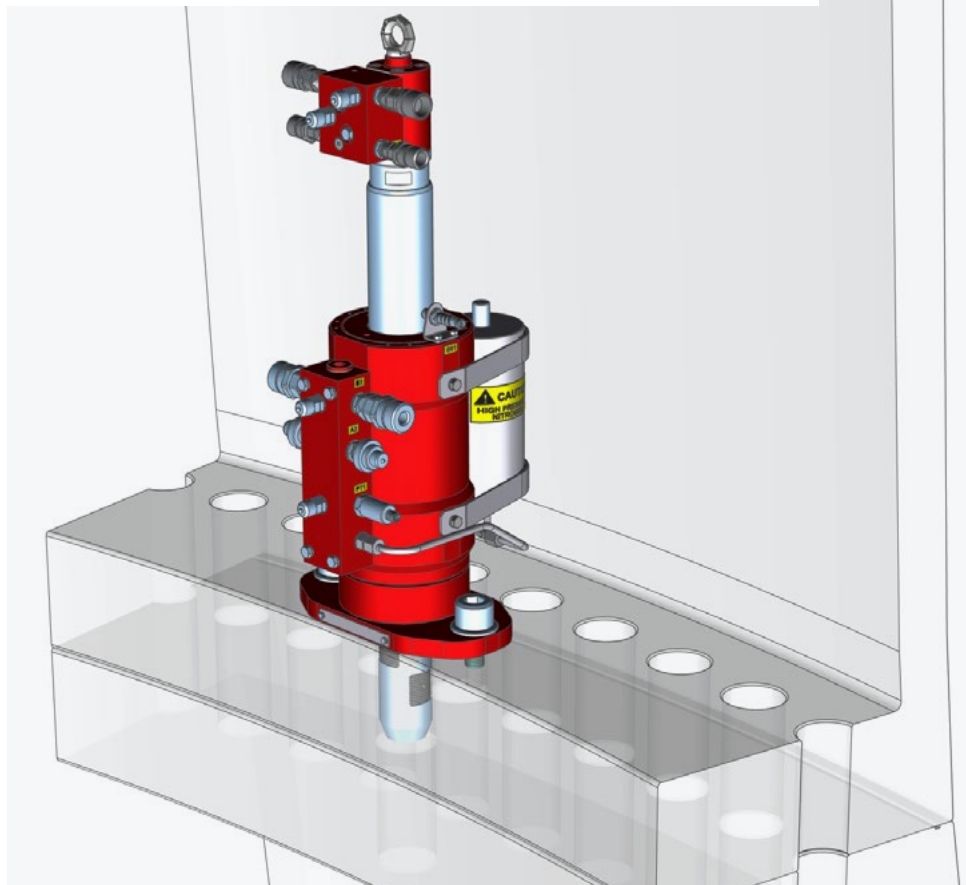
FEATURES

- Subsea use
- Variable diameters
- Power supply by integrated accumulator
- Operation by Acoustic control
- Back up release by ROV ball valve and Hot Stab

ADVANTAGES

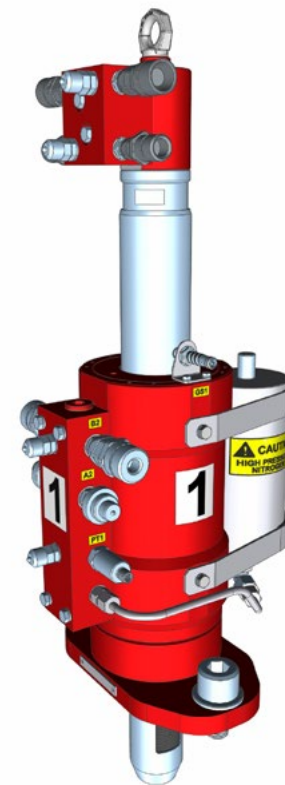
- Several redundancy options
- ROV friendly
- Slender design for stinger handling

FLANGE CLAMP TOOL



THE FLANGE CLAMP TOOLS ARE USED TO TEMPORARILY SECURE THE AXIAL CONNECTION BETWEEN THE FLANGES OF TOWER AND SUBSTRUCTURE OF A WIND TURBINE GENERATOR PRIOR AND DURING THE INSTALLATION OF PERMANENT BOLTING.

After installation of the majority or all of the installation bolts all Flange Clamp Tools are removed. A Flange Clamp Tool system consists of a predetermined number of preinstalled Flange Clamp Tools, preferably equally divided over the circumference of the WTG tower flange. Each system is connected to a Termination Panel and operated / controlled by means of a remote HPU which is connected to a Termination Panel by means of an Umbilical.



HANDLING EQUIPMENT

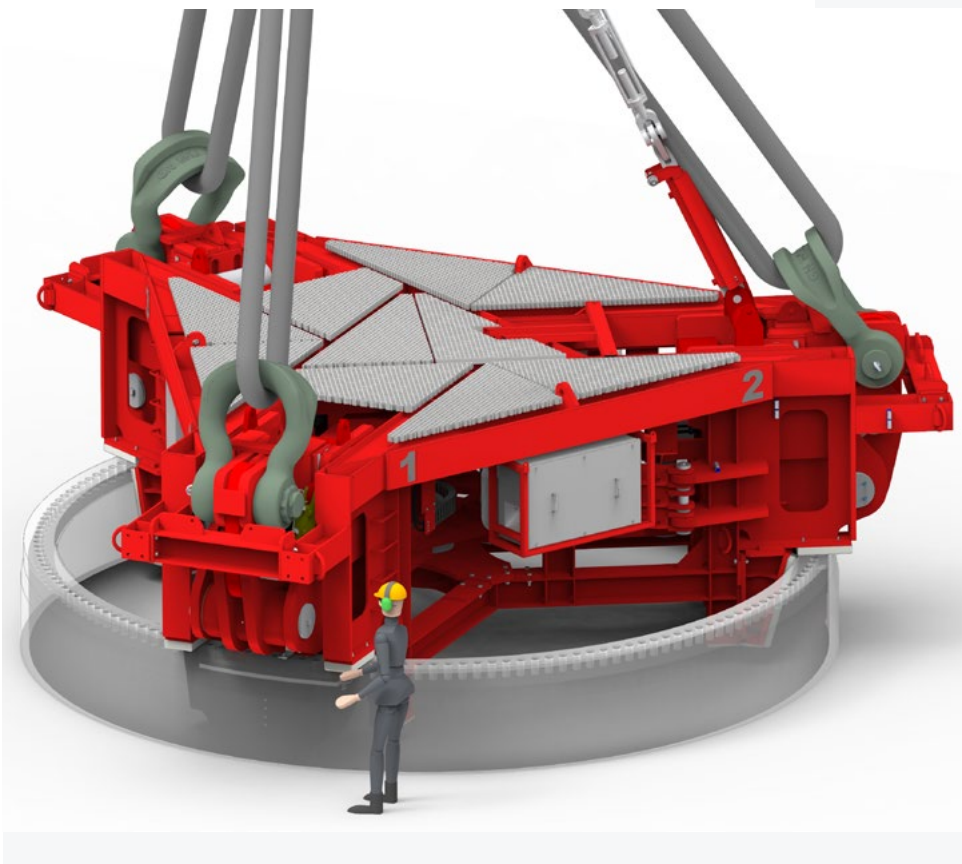
LIFTING EQUIPMENT

PILING EQUIPMENT

SUBSEA PILE GUIDING

CONCEPTS & SERVICES
FLANGE CLAMP TOOL

FJLT FLANGE JACKET LIFTING TOOL



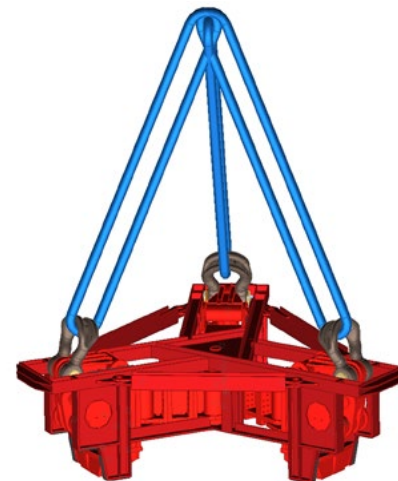
THE FLANGE JACKET LIFTING TOOL IS DESIGNED FOR VERTICAL LIFT OF JACKETS (OR OTHER STRUCTURES) EQUIPPED WITH A CONNECTION FLANGE.

SPECIFICATIONS

- No special arrangement on flange required
- Outside flange diameter range 5,500 – 7,000 mm
- Working load limit (WLL) up to 1,700t
- Certified and designed according Lloyds Lifting Appliances

FEATURES

- Remotely operated using integrated power pack
- Fail-safe lifting principle
- 3 – arm lifting tool
- Reduced bending stress in pile regard to conventional lifting principle
- Minimal penetration in jacket



HANDLING EQUIPMENT

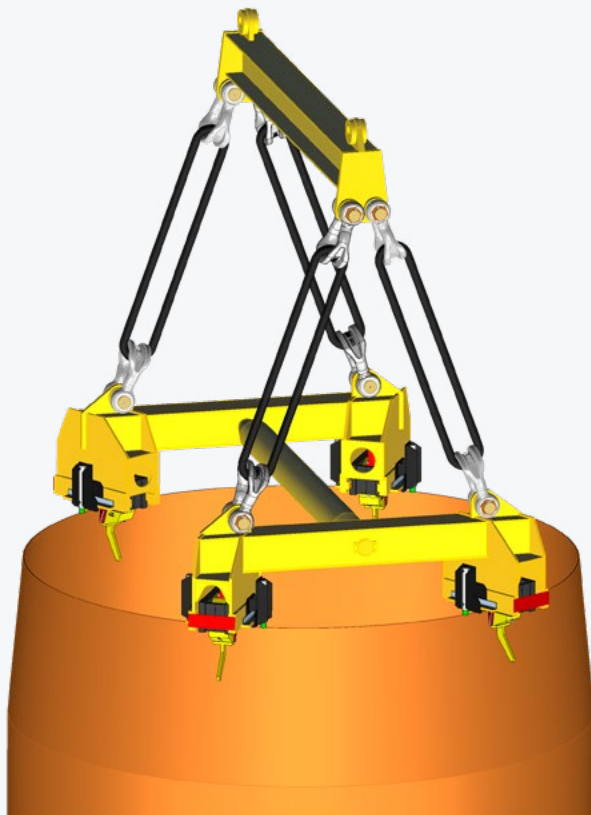
LIFTING EQUIPMENT

PILING EQUIPMENT

SUBSEA PILE GUIDING

CONCEPTS
FJLT-FLANGE
JACKET LIFTING TOOL

MONO TOWER LIFTING TOOL



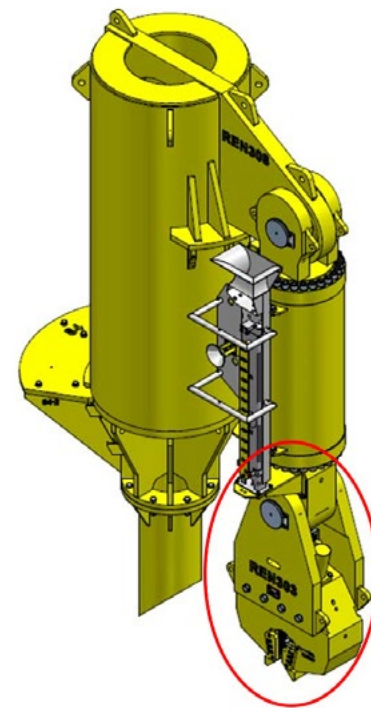
LIFTING LARGE DIAMETER MONOPILES OR MONOPODS (DECOMMISSIONING).

SPECIFICATIONS

- Custom made design, currently 3,000t
- Combining techniques by re-use of existing gripping heads
- Certified and designed according to Lloyds Lifting Appliances
- Available for purchase

ADVANTAGES

- Modular design by using 2 or more gripping heads
- Floating heads for irregular cutting- and ovality tolerances



BASED ON THE PROVEN TECHNOLOGY OF IQIP'S LEVELLING TOOL

HANDLING EQUIPMENT

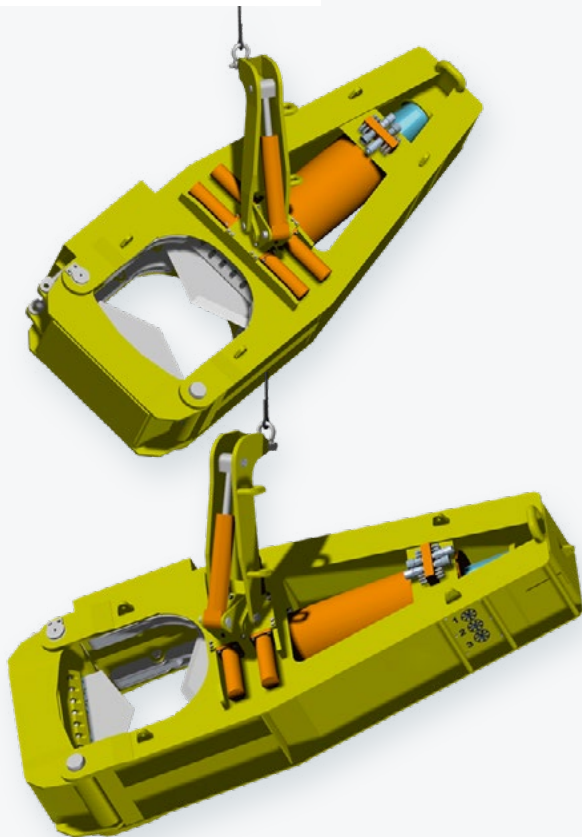
LIFTING EQUIPMENT

PILING EQUIPMENT

SUBSEA PILE GUIDING

CONCEPTS MONO TOWER LIFTING TOOL

PIPE CUTTER



EQUIPMENT DESIGNED TO CUT JACKET AND STRUCTURES.

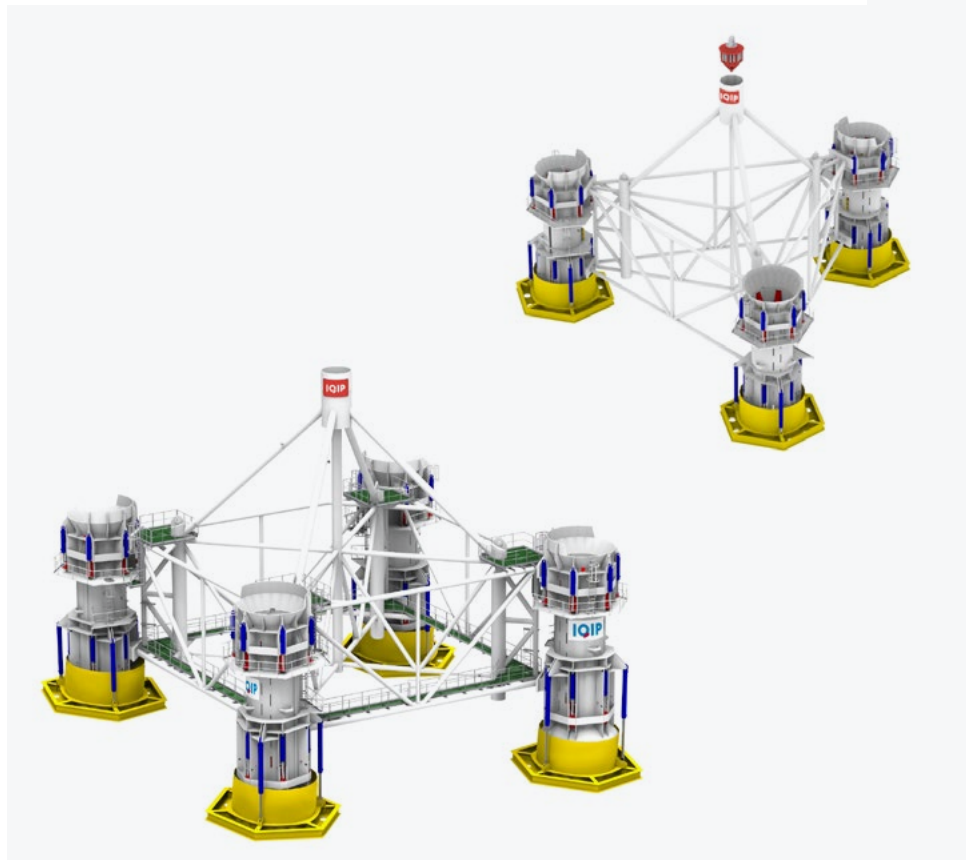
SPECIFICATIONS

- Hydraulically operated
- Innovative manipulator arm allows for subsea repositioning
- Current designs for pipe size 12" - 36" and 24" - 48"
- Pipe cutting forces 1,000t - 1,300t
- Designed for maximum water depth of 150m
- Cost and time effective design compared to existing alternatives

ADVANTAGES

- Hydraulically operated
- Manipulator arm allows for accurate subsea positioning
- Time saving over existing cutting devices
- Efficient

TIS TEMPLATE INCLINATION STICK-UP



SPECIFICATIONS

- Assures accurate footprints for 3-4 leg jacket types
- Accommodates pile diameters from 1,800mm up to 3,000mm
- Available for rent and purchase

FEATURES

- The template is operable with fixed or floating installation vessels
- Reduced risk to assets and personnel due to the piles being supported independently of vessel
- Increased safety and productivity in the field. Vessel not bound to template can detach as required during installation (reloading, crew changes, weather or emergency)
- Template takes care of verticality and alignment across all the installed piles
- Use of a Lifting Connector for subsea connection and lifting method
- Built in survey system for pile height verification
- Designed to work in deeper water depths

NOISE MITIGATION

The TIS is designed to support IQIP's Integrated Monopile Installer.

- The Integrated Monopile Installer into the pre-piling template to achieve 160dB sound levels.

EASY PILING METHOD

- Through sleeve pile driving without obstacles
- Low COG and one hoist option hammer and pile
- Secures compressed first layer, no grout mixing with soil
- No follower involved
- No dredging when driving below see bottom

ADVISORY SERVICES



Today's market leaders are under increasing pressure to manage projects in an efficient and risk-free manner. However, they face numerous complex challenges in achieving this. IQIP helps its customers gain added value from projects by offering expertise, advice and support at every stage. This includes conceptual design, engineering and preparation, as well as the installation work itself, maintenance and decommissioning.

SPECIFICATIONS

Our team provides invaluable support at all levels to help customers reduce costs and risk by making informed choices at the earliest possible stage. Based on over 30 years of design and installation experience in on- and offshore operations, we offer advisory in several areas, such as:

- Site investigations for driveability
- Design of foundation element for installation
- Piling procedures
- Surveying and reporting
- Foundation installation methods

DRIVEABILITY STUDIES

To help customers select the correct hammer for each project, a careful interpretation and assessment of soil properties need to be completed. IQIP's experienced engineers can offer support with either pre- or post-pile-driving analyses. These driveability studies are carried out using the most sophisticated computer programs (GEOWAVE), which enable our design engineers to optimise hammer components.

FINITE ELEMENT ANALYSIS

Through FEA, we can advise on the correct design for foundation elements, which optimises the installation process, as well as the handling of operational loads. In

addition, the behaviour of the Hydrohammer and anvil can be simulated precisely in a FEA package for design optimisation.

HYDRODYNAMICS

As part of the foundation installation method, IQIP can perform comprehensive hydrodynamic studies. We use the ANSYS® AQWA™ software suite, which utilises diffraction-based, hydrodynamic modelling. The results can be used as the basis for sea-fastening designs, overboarding methods, mooring analysis, in-vessel design, or as input for other industry functions.

SURVEYING AND REPORTING

IQIP can facilitate position measurement and dynamic pile monitoring, and provide reports of the status for each foundation installed.

OPERATIONAL ANALYSES

For each specific project a comprehensive time study can be performed for all operational steps of the installation or decommissioning process. Time study is based upon actual experience and project specific conditions of foundations vessel and weather conditions. Detailed risk analyses can be performed as part of the process.

SERVICE ENGINEER



PILE DRIVING, HANDLING AND GUIDING, OFFSHORE STRUCTURE HANDLING AND REMOVAL – OUR EXTENSIVE EXPERTISE IN THESE ACTIVITIES HAS BUILT UP OVER MANY YEARS. BUT WE CAN OFFER MUCH MORE THAN THIS, THANKS TO THE INTEGRATED APPROACH WE TAKE TO YOUR PROJECTS.

WHAT WE DO

In the early stages, we can provide industry leading advice on technical aspects, such as foundation design, installation methods and equipment configuration. For more complex challenges, we can develop new concepts using innovative solutions to meet specific needs. As a full service partner, we cooperate closely with you during each project to realise your goals.

As well as our market-leading equipment, the services we offer can make a real difference to the success of your operation. Even when things don't go as planned, our service technicians will react swiftly to solve unexpected issues, and can be called upon 24/7 worldwide.

The high-quality equipment we develop constantly raises standards, satisfying the latest industry requirements and market demands. It comes with the flexibility to own, rent or lease, this way you can have access to state-of-the-art equipment, without having to make a large investment and incur additional costs.

HANDLING EQUIPMENT

LIFTING EQUIPMENT

PILE DRIVING EQUIPMENT

SUBSEA PILE GUIDING

CONCEPTS & SERVICES
SERVICE ENGINEER

NOTES



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HIGH-QUALITY OFFSHORE

We invite you to step into our world of high-quality offshore equipment in order to learn more about our company and the reason we are proud to say 'No limits, no boundaries'.



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