

Piggyback Clamping System



During pipe laying operations it may be required to install one or more smaller diameter pipes or cables at the same time as the main larger diameter pipe. Piggyback Blocks can be used in order to ensure that these smaller pipelines are secured and properly supported during installation and lifetime.

Piggyback Blocks

Lankhorst's Piggyback Blocks are designed to be a high-impact resistant support for the secondary pipelines, and can be manufactured from a range of different materials depending on the requirements of the client.

The typical design is a simple two part base and cap, designed to support and guide the piggy line whilst still allowing free axial movement, thus acting as a guide. Designs are available with various gaps between the main pipe and the secondary lines.

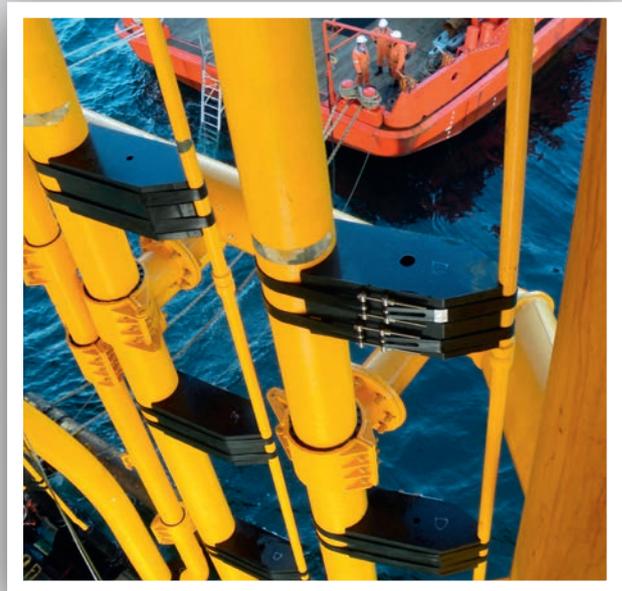
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Optimized for installation

Lankhorst Piggyback Blocks are designed with ease of installation in mind.

The Piggyback Blocks feature finger grips on the side to aid in lifting and handling, whilst also being designed with ribs in order to reduce the product weight.



Material specifications

Piggyback Blocks can be manufactured from a range of materials depending on the needs of the client.

These include virgin polyethylene, polyurethane or polypropylene, or low environmental impact marine grade recycled materials.



Strapping

For Installation Options: High Tensile Carbon Steel .

For Long Term Service Life Loads (25+yrs): Corrosion Resistant Alloy 625.

Other strapping eg Kevlar with super duplex tensioning device also available.

Optional Pneumatic tooling can be supplied.

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References

Many projects all over the world have been executed where Piggyback Blocks have been delivered and installed. Examples of recent projects are:

- ADMA OPCO-Umm Lulu field development Phase 1 installed by NPCC
- BP-Shah Deniz II Phase 1 installed by Saipem
- ONE- P11E installed by Allseas
- Maersk- Culzean by Subsea 7
- BGEPIIL- MB Platform pipeline installed by TL offshore/Sapura



And many others. A full reference list is available upon request.

Lankhorst Mouldings Offshore

Lankhorst Mouldings Offshore have a proven track record in providing the offshore industry with innovative polymer based technical solutions that stand the test of time. Lankhorst Mouldings has for over 30 years been producing products using our unique thick-walled plastic moulding technology. We can supply high-performance innovatively engineered products to

meet the demands of the offshore industry. Lankhorst Mouldings products utilize field proven technology and experience to provide superior technical solutions. The company's technical solutions are designed not only to meet the customers' requirements, but are also foreseen to be used again and again.

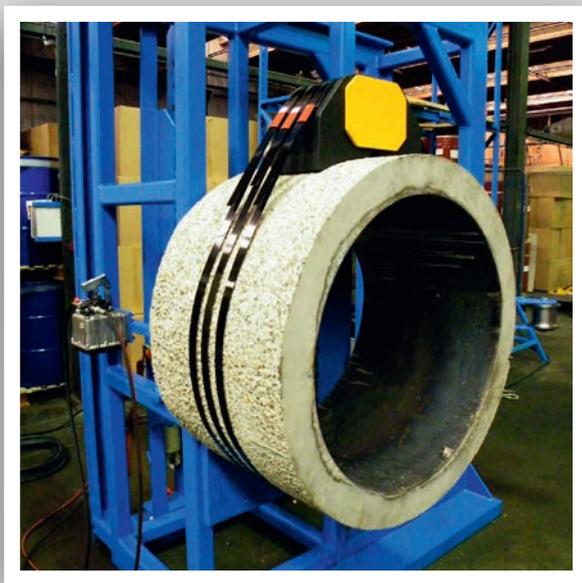
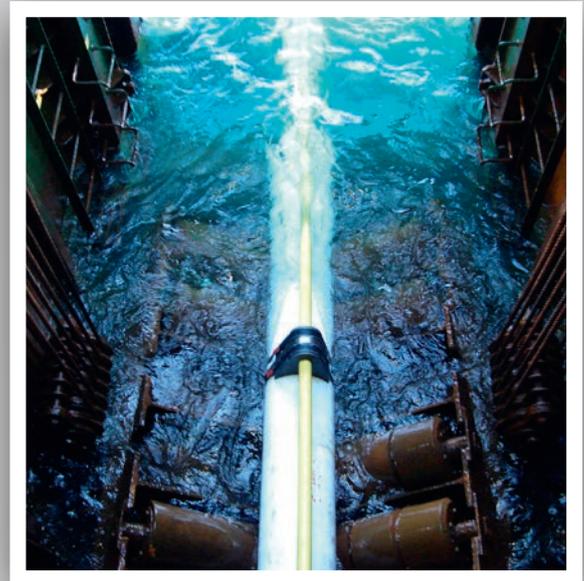


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Special features

Lankhorst Piggyback Blocks can be delivered with additional features, such as:

- Designs available for one or more piggyback lines with varying diameters
- Snap fit cap or flat cap
- Accommodation of coating tolerances
- Restricted axial movement of pipeline, acting as a clamp
- Anti-fouling system for areas where there is normally known to be marine growth
- Side finger holes for ease of handling



Testing

Lankhorst carries out client specific load testing to demonstrate:

- Fast and safe installation in a relatively confined space
- The ability of the strapping system to withstand design loads of 20+ kN
- Free axial movement of the piggy line after attachment
- Clamped piggy line after attachment
- Where required dropped object impact tests up to 20 kJ