

# Aviat Gas Field Development

Lindapter Girder Clamps provided a solution for securing a production riser.

## Project Background

**Location:** Central North Sea  
**Product:** Type AF Girder Clamp  
**Market:** Oil & Gas - Off Shore  
**Client:** Apache North Sea Ltd

Aviat is a shallow gas field located in Block 22/7A of the North Sea which is being developed by Apache.

The gas field will provide a reliable cost effective source of fuel to the Forties Alpha platform, in order to support maximization of its production and maintain low operating costs, through to end of field life beyond 2030.



Type AF girder clamps securing the framework

## Client Requirement

Apache's structural design engineers were tasked with finding a robust connection to secure a production riser to the base support frame which would be more than 330ft below sea-level. The connection needed to withstand high loads and outlive the production riser, while providing a quick way for the divers to install when wearing thick gloves underwater.

Corrosion resistance and fatigue life were important as the connection needed to be able to support high loads and deal with wave action for over 15 years.



Base support frame in position on the seabed

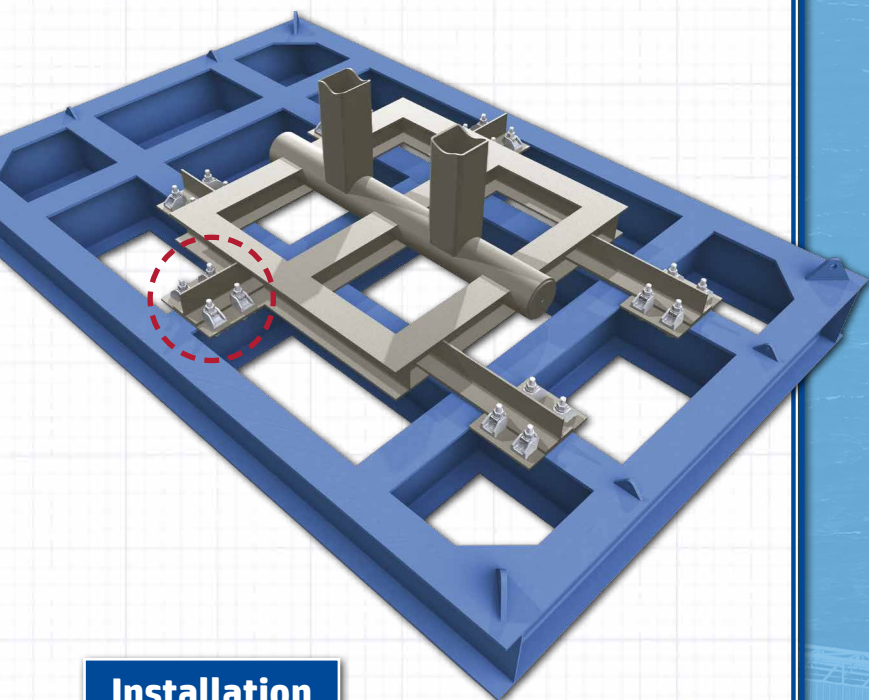


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## Design Solution

Various conventional connections were evaluated and some were immediately rejected because the exact position of the joint was unknown whereas the adjustable Lindapter clamping systems prevented this from being a problem.

The Apache engineers contacted Lindapter's technical team and took advantage of the free connection design service. They quickly received a connection detail drawing proposing heavy duty 1" Type AF Girder Clamps, which are manufactured from SG iron with a hot dip galvanized coating as standard.



## Installation

During installation, the subsea diving engineers benefited from the lateral adjustability of the Type AF which allowed the framework to be quickly positioned and tightened using just simple hand tools. The divers found installing the girder clamps quick and easy even with thick gloves underwater.

[Click here to watch the installation video >>>](#)



## Result

Lindapter Type AF Girder Clamps provided the tensile and slip resistance that was required for the loads anticipated during the life of the production riser.

The solution simplified the design issues, installation process and operational activities for improvements in long term reliability, such as a reduced need for inspection and maintenance. The guaranteed safe working loads and superior corrosion resistance both contributed to a successful subsea installation.



Heavy duty girder clamps with HDG finish

## Key Benefits

- ✓ High slip resistance for tensile & frictional loads
- ✓ Fully adjustable in the field for easy installation
- ✓ No drilling or welding required
- ✓ Hot Dipped Galvanized finish offers a cost effective and low maintenance solution



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