

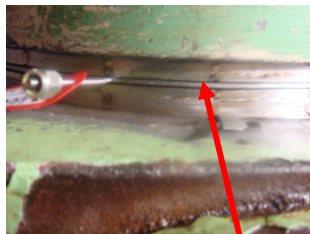


NORTH SEA CHALLENGE



At ThinJack we are used to being presented with the really difficult flange separation challenges - but solving them is what we do and what we are known for! But on this project in the southern North Sea we were called in to separate a 2.8 tonne spool-piece from the shoulder of a XMT, so that produced water could be directed into the XMT through a replaced spool. The 7 1/16 inch, 5M flange was not only badly corroded but was also located at a 45° angle to the horizontal. Previous attempts to separate the unit with flange spreaders,

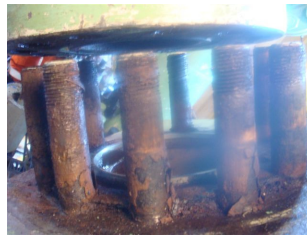
levers and wedges had failed. There were significant forces to be overcome, especially from rust in the annuli between the bolts and their holes, and the cantilevering effect of the spool-piece's pipe arm and other flanges.



First set of ThinJacks inserted between ThinShims in the 10mm gap before inflation

After first securing the spool-piece arm with straps and chain blocks, the ThinJack system was deployed with the aim of ensuring that the flange block would be raised evenly from the 45° face and that it would not get

jammed on the studs. By using 20 ThinJacks which delivered approximately 146 tonnes of force, the gap was opened from 10mm to 33mm. At this point the friction had been reduced and by using our special Flange Lifters delivering nearly 35 tonnes of force, the spool-piece was lifted to the end of the studs and then removed under the control of the crane and chain blocks.



The separated flange

This whole operation took only 16 hours to complete. A second similar project followed and was completed in 11 hours.

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- *Spool-piece challenge in North Sea*
- *Angola Project gains speed*
- *First FTS project in US Gulf of Mexico*

WHAT IS THINJACK™?

ThinJack is a TIG-welded 2mm thick, grade 316L steel envelope.

- ThinJack works by hydraulically inflating the envelope with up to 2,500 bar pressure.
- ThinJack expands by up to 10-15 mm during inflation and exerts hundreds of tonnes of force.
- ThinJack is the ideal solution to separating and jacking problems in hazardous, difficult to access or restricted areas.
- ThinJack *increases productivity through faster operations*, and *reduces costs* - less time and resources are needed.
- ThinJack *improves safety* - no sparks from welding, cutting or hammer tools and reduced physical risk to personnel.
- ThinJack provides a *full service package* from survey to performing the task: offshore-certificated field technicians with all the ThinJacks, energizing systems, tools and spares required for international on-and offshore flange separation projects.
- ThinJack is CE marked and designed for use in Ex zones.

THINJACK PROJECT IN GULF OF MEXICO

ThinJack's U.S. associates, Francis Torque Service of Luling, Louisiana [FTS], have conducted their first solo ThinJack flange separation project in the Mobile Bay field in the U.S. Gulf of Mexico.

The problem flange was on a well being serviced and required 218,000 lbs of force to separate. FTS technicians Vic Williams and Cory Meeks had two sets of ThinJacks with them

when they went to site on a routine bolting project just in case the 11" 10M flange proved a real challenge. It did, and the customer decided to use ThinJacks to shorten the time needed to separate the seized flange. The operation went smoothly and the flange began to separate in only 3 hours and much faster to mobilize than an equipment package for alternative systems. Vic, who had

recently been through his first course of ThinJack training at the FTS works in Luling, was duly proud of successfully performing their first ThinJack project. ThinJack Director Alastair MacDonald said: "This shows the excellent synergy between FTS bolting services and ThinJack technology, and the value of our strategy of maintaining a local inventory of ThinJacks for the US Gulf of Mexico".

THINJACK™



THINJACK LTD

Unit 6
Arnhall Business Park
WESTHILL
Aberdeen, AB32 6UF, Scotland

Phone: 44 1224 330645
E-mail: arm@thinjack.info
www.thinjack.co.uk

THINJACK™

- Simple engineering concept
- Sound technical solution
- Applies powerful forces exactly where needed
- Delivers significant savings
- CE & Ex Certified

A HELPING HAND IN ANGOLA.



In 2010, whilst in Angola completing ThinJack's first contract there, director Guy Bromby became aware of a ground-breaking project to provide basic education to some of the nation's poorest children on the outskirts of Luanda the capital city. Since then, ThinJack with the support of many businesses based in the Aberdeen area has raised quantities of

essential supplies to help the school's founder Kisuka Baltazar make great improvements to the school. This will be an ongoing project and anyone wishing to help us with this cause with donations of materials or supplies is warmly invited to contact us.

HEAVY METAL.

Recycling of packaging waste reaches new levels. ThinJack is now recycling an even higher percentage of materials both from actual flange separation operations and from the workshop, office and warehouse. Once energised to up to 36260 psi [\sim 2500 bar] ThinJacks can not be re-used, so they are being recycled. This photo [right] shows some of last year's steel ready for recycling. Email us with your best guess of the weight of the steel in these two barrels! Whilst we already re-use some packaging plastics and plastic bottles, ThinJack recycles nearly 1 tonne of plastics every year. Our objective is to improve our recycling even further so that we reduce the company's "trade waste" to a negligible amount.



OUT AND ABOUT...SPREADING THE WORD...

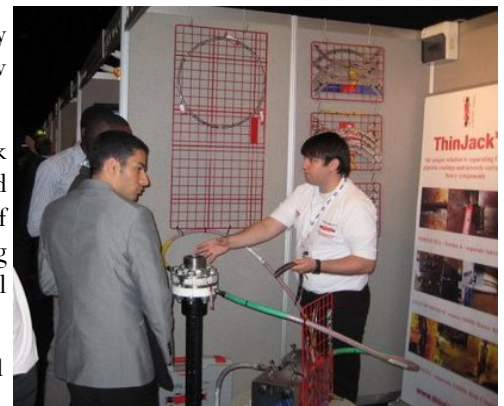
ThinJack's stand at the DEVEX show in Aberdeen during May 2011 was really busy, and we introduced the ThinJack service to a large number of new potential customers.

ThinJack Technician Richard Mearns [right] is shown discussing the ThinJack systems on display. Our unique solution to delivering significant time and cost savings to the problem of separating seized flanges created a great deal of interest. This was not only from seasoned industry professionals learning about ThinJack for the first time, but also from the many international students who were on a fact finding visit.

ThinJack exhibited at Offshore Europe held in Aberdeen in September 2011 and had a really busy and productive time meeting customers old and new.

We also gave a talk to the Aberdeen City Council-hosted meeting on our experiences of working in the energy sector of Western Australia, in support of the Government of Western Australia's mission to attract more energy industry expertise.

Our U.S. distributors Francis Torque Service exhibited a full service system with ThinJacks at the U.S. Gulf of Mexico event LAGCOE, held in Lafayette, Louisiana in October 2011. This was followed by ThinJack exhibiting once again at the annual SPE ICoTA European Well Intervention Conference in Aberdeen during November 2011. We will be at more technical conferences soon and look forward to meeting you and helping solve your flange separation problems.



THINJACK™ SEPARATES
SEIZED FLANGES...FAST!!

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