

## Project Case Study

### EnQuest Thistle

<b>Client:</b>	EnQuest PLC
<b>End User:</b>	Thistle Platform
<b>Capacity:</b>	65 m <sup>3</sup> /d
<b>Contract Value:</b>	circa £300K
<b>Scope:</b>	Design, manufacture & commission
<b>Contract Completion:</b>	June 2012 to January 2013



#### **General**

The existing fresh water maker on EnQuest Thistle offshore platform had reached the end of its serviceable life. As part of EnQuest's field redevelopment and life extension project, a new fresh water maker was required.

A proposal was provided by Salt Separation Services and a subsequent recommendation to replace the old plant was made. EnQuest PLC invited Salt Separation Services to bid for the project. The technology proposed by Salt Separation Services was based on packages previously supplied into the North Sea oil and gas industry with a proven track record of performance and serviceability.

#### **Project Details**

EnQuest PLC awarded the contract for the replacement fresh water maker in June 2012.

The package comprises of a single skid incorporating a drip tray and access for maintenance. Filter vessels were designed with flanged bases rather than dished ends to reduce the height of the package to facilitate installation.

The plant is not fitted with an RO membrane cleaning system, instead the RO membrane elements will be treated as disposable units to be replaced every 6 to 12 months. This results in a reduced package size, weight and cost whilst simplifying piping. It also means that no hazardous chemicals need to be used or disposed of and results in more 'up-time' for the RO plant. To facilitate this, the RO membrane array has been designed at a lower flux rate, with side ported RO pressure vessels to speed up RO membrane change-out.



The package was designed, manufactured and tested at our Rochdale works, including all Carbon Steel, Stainless Steel, Duplex and Super Duplex Stainless Steel fabrications.

Prior to despatch, the package was subject to a comprehensive client witnessed Factory Acceptance Test at our Rochdale works.

The plant has been designed to require minimal man power and is highly automated.

Our engineers commissioned the package offshore and the plant was producing potable quality water within one hour of start-up.



### Process Flow

