



Pipelay vessel with stinger at the rear.

### Encompassing Proven Technology

SeaTec software is compatible with the full range of Gemini multibeam imaging sonars, the most common sonar used is the Gemini 720is. Specially developed algorithms allow the sonar data to be used to reliably lock onto a user-defined target and track its behaviour. The traditional sonar data display is always available to the user, however, SeaTec also allows the user to see a simplified representation of the sonar target and its surroundings. With the sonar locked onto the target, SeaTec is able to provide a simplified visual warning when the target exceeds predefined limits, as well as send customised status messages to the operator's control system.

### How the Technology Works

SeaTec algorithms detect, classify and track a range of target types. Within this version of SeaTec, the objective was to track pipe as it passes the end of the stinger arm of a vessel. The pipe size is user-defined and the algorithms within SeaTec ensure that the sonar locks onto the pipe and maintains the target lock in the most turbid of environments, whilst the multibeam sonar provides the user with a detailed acoustic image covering the sonars full field of view, thus allowing the operator to see the surrounding area. SeaTec is also configured to display an augmented reality image of the pipe position with regard to its surroundings. When the pipe deviates from its optimum position, this is clearly visible within the simplified user display and alarm outputs are then configured to alert the operator of these deviations, without the need for the operator to constantly monitor the sonar image.

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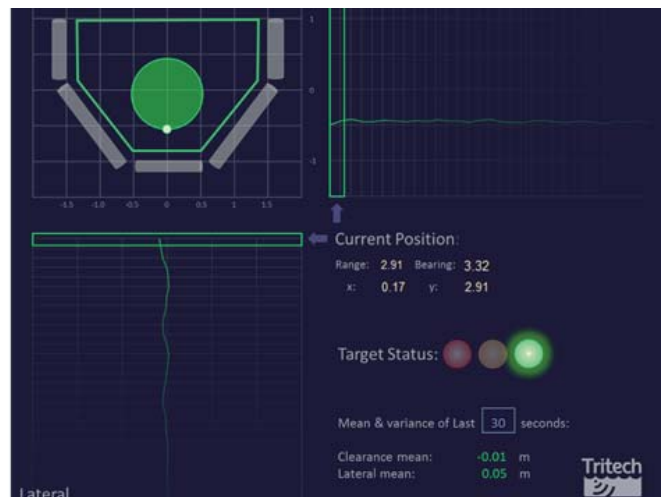
All specifications are subject to change in line with Tritech's policy of continual product development.

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### SeaTec Software - Pipelay Monitoring

Tritech's Pipelay monitoring software interfaces with Tritech's Gemini multibeam sonar technology to provide an automated system capable of alerting operators of the pipe's position during the installation.

As well as providing the conventional sonar image, the SeaTec software also displays an abstracted representation of the pipe within the user defined environment; removing the need for the user to interpret the sonar data.



Augmented Reality (AR) showing an abstraction of the sonar view of the pipe's position, related histograms and status information.

### Benefits

- Automated tracking and monitoring
- Proven software algorithms
- Compatible with Gemini multibeam technology

### Features

- Augmented reality visualisation
- Operator defined target size
- Alarm system

### Applications

- J-Lay Pipelay
- Stinger Pipelay