

PROJECT BACKGROUND

Koso Kent Introl is proud to have worked with SBM Offshore on the P-57 project between 2008 and 2010, and to be working on SBM Offshore's Baleia Azul (Blue Whale) project in 2011.

Both projects are FPSO (Floating Production Storage and Offloading) vessel re-fits, for which Koso Kent Introl is required to supply control and choke valves, having successfully completed competitive tendering processes for each.

Both FPSO vessels are operated by SBM.

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CASE STUDY FPSO PROJECTS FOR SBM OFFSHORE



Koso Kent Introl Limited is part of the KOSO Group of companies.

KOSO

SBM OFFSHORE: BALEIA AZUL (BLUE WHALE) PROJECT

In 2011, the FPSO Espadarte is being disconnected from its current location offshore Brazil, to be towed to Singapore for a conversion and upgrade program, before returning to Brazilian waters to produce oil from the Baleia Azul field in 2012. Once back in operation, Espadarte will have an oil production capacity of 100,000 barrels per day and 50,000 barrels of produced water.

The conversion and upgrade project is being run by SBM Offshore, based in Houston, Texas.

THE REQUIREMENT

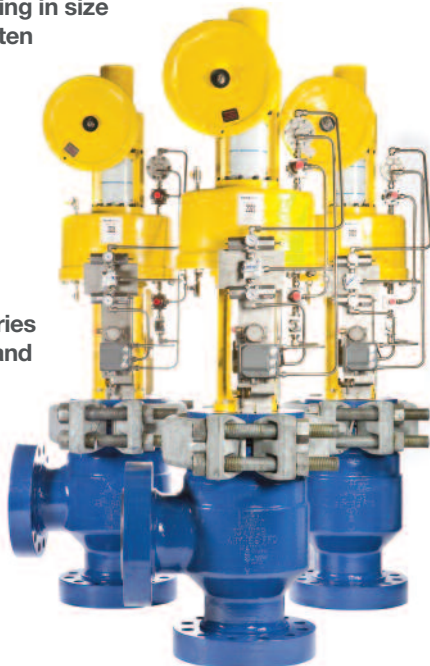
In 2010, KKI was awarded the contract to design and produce both control and choke valves for the Espadarte, which will be processing in very arduous conditions.

50 control valves are needed for the re-fit, ranging in size from 1" to 20", with ANSI ratings of 150 – 2500. Made from materials ranging from carbon steel to super duplex, these valves will predominantly utilise KKI's cage guide Series 1200 range and also feature 6-stage Vector™ velocity control trims to protect the valves on severe service applications.

In addition, 31 manually operated choke valves are required, ranging in size from 1" to 8". With tungsten carbide and velocity controlled trims, each is a bespoke design to accommodate the specific conditions in which it will operate.

PRODUCTION AND DELIVERY

KKI's UK and India factories are currently producing and testing the valves over a 26-week period for delivery in the first half of 2011, ready for onward delivery to Singapore.



SBM OFFSHORE: P-57 PROJECT

P-57 is SBM's largest ever FPSO re-fit project, operating in the Jubarte Field, 70km offshore of the state of Espírito Santo in Brazil.

Having been delivered on time and on budget, P-57 is now anchored at a depth of 1,260m, producing oil of 17 degrees API. At peak, in 2012, it will produce 180,000 barrels of oil and 2 million cubic metres of gas per day.

DEFINING THE REQUIREMENT

In 2008, Holland-based SBM Offshore awarded the contract to KKI to provide both choke and control valves to the P-57 project. Initially, KKI provided engineering project support to help define the valve specifications, spending two weeks within the SBM Offshore project team to ensure the precise details of the requirements were fully understood.

The project would require 114 control valves, ranging from 1" to 18", ANSI 150 to 1500 ratings, of a range of materials including carbon steel, low temperature carbon steel, stainless steel, duplex and super-duplex. Trim styles would include simple top guided contoured designs, micro and multi-spline designs, single cage and 5-stage trims.

The 30 choke valves ordered would range in size from 2" to 10" and would be ANSI 1500 rated. Made of carbon steel they would each incorporate a single stage trim with tungsten carbide internals.

VALVE PRODUCTION

The production of the valves took place at Kent Introl's UK and Indian factories, under the direction of a UK-based Project Manager. Full witnessed inspection was carried out at both facilities prior to the release of the valves to SBM.

INSTALLATION SUPPORT

To ensure the successful installation of the valves, a KKI engineer spent two weeks at SBM's onshore re-fit facility at the BrasFELS shipyard in Angra dos Reis, Brazil.

RECOGNITION OF SERVICE EXCELLENCE

At the end of the project, KKI was delighted to receive a certificate of appreciation from the P-57 Project Manager, commending KKI for "your company's proactive, hard working efforts and site support shown on the P-57 FPSO project".