



Replicated delivery

of two stage electrostatic desalter packages.

All four P74 - P77 are part of the first series of FPSOs launched by Petrobras to develop its Franco and North East Tupi prospects in the pre-salt Santos basin. To speed up the pre-salt development program and reduce costs, Petrobras is developing the fields with four similar highly standardized floating production facilities.

Heated crude oil is degassed and dehydrated in two stages in order to reach the export specifications for residual water and salt content. The dehydrators are equipped with inverted trough inlet distributor to provide increased tolerance to high water concentrations in the feed. Wash water is mixed into the dehydrated oil upstream the desalter to reach the export crude oil salt specifications. Baffles are installed in all vessels to dampen sloshing of the water-oil interface during operation in bad weather conditions. Delivery of the equipment took place in November 2014.

Our team was recognized for providing a highly standardized electrostatic coalescer technology which consequently can be offered cost-efficiently. A large empirical data set from operation of the delivered base forms a robust performance model which is used to design accurately.

Project details

Design production rate:
970 000 kg/h oil, 393 000 kg/h water, 36 000 kg/h gas

Operating conditions:
90°C, 7.4 barg

Export crude oil specifications:
Maximum 0.5% vol. water, Maximum 285 mg/l salt

Scope of work

- Two stages of electrostatic dehydrators with upstream piggy-back degasser vessels
- Delivery includes degasser internals, dehydrator internals, transformers (three per dehydrator), and local control panels

Key facts

- End user: Petrobras
- Location: P76, Santos Basin, Brazil
- Client: Technip-Techint JV