

OUR CLIENT JURONG SHIPYARD - SINGAPORE  
OPERATORS PETROBRAS - BRAZIL



#### DESCRIPTION OF THE PROJECT

RONCADOR field is located in the northern part of Campos Basin, 125 km off the coast of the State of Rio de Janeiro, Brazil, in water depths varying from 1400 m to 1900 m. It is the deepest development in Campos Basin to date.

The oil will be produced through 13 oil production wells and there will be up to 8 water injection wells. All the wells will be connected to the FPSO through flexible risers free hanging from an external portside balcony.

The FPSO is a result of the conversion of the Crude Carrier "Barao De Maua". P54 will have a peak production of 180 000 barrels of oil per day.

#### THE PROJECT TEAM

Petrobras is the Oil Company that has sub-contracted the vessel conversion to Jurong Shipyard PTE Ltd. in Singapore. Outfitting and commissioning will be done at Maua Jurong Shipyard in Rio de Janeiro.

The project team, run by consulting company Projemar is situated both in Singapore and in Rio de Janeiro.

Novenco that are subcontracting all VAC (Ventilation & Air Conditioning) work for the modules No1 – Hull, No2 – Accommodation, No3 – Office module and the Gas Compression module, have their project team situated in Oslo, Norway.

#### NOVENCO'S SCOPE OF WORK

Novenco's Scope of Work was design review and delivery of all VAC equipment, according to the specifications, and to perform the Mechanical Completion and Commissioning of all the supplied equipment.

#### CHALLENGES

The main challenges for the Novenco project team have been to coordinate the design work with the two design teams in Singapore and in Rio de Janeiro, with the sites in Europe, Asia and South America.

#### ADVANTAGES

With such an all over the world situation, Novenco have big advantages in having personnel situated in both Singapore and in Rio de Janeiro.

Based on Novenco's broad experience with the North Sea Offshore work, has this experience done that the Offshore world outside Norway have a confidence in Novenco, which have made us to the VAC supplier for the following Petrobras projects: P19, P31, P33 P37, P43, P48, P50, P51, P53 og P54.

## SCOPE OF SUPPLY:

## MODULES No1 &amp; No2

08 off Air Handling units  
 62 off Centrifugal and Axial fans  
 63 off Ceiling Fan coils  
 47 off Drop Separators, Air Filter Boxes & Outlet Louvres  
 98 off Acoustic Sound Attenuators  
 03 off Chiller plants  
 03 off Chiller Local Control panels  
 03 off Chiller pumps  
 14 off Tightness Dampers  
 01 off Modulating Damper  
 60 off Fire Dampers  
 60 off Non Return Dampers Dampers  
 41 off Regulating Dampers  
 21 off Damper Control panels  
 265 off Extract & Supply Grilles  
 66 off Diffusers  
 75 off Water Control valves  
 70 off Air Flow Instruments

## MODULES No3

08 off Air Handling units  
 08 off Centrifugal fans  
 19 off Ceiling Fan coils  
 04 off Filter boxes and drop separators & inlet louvres  
 04 off Acoustic Sound attenuators  
 12 off Fire dampers  
 15 off Tightness dampers  
 1 off Modulating dampers  
 16 off Non return dampers  
 19 off Regulating dampers  
 43 off Flow switches, instruments and valves

## GAS COMPRESSION MODULE

4 off Drop Separators, Air Filter Boxes & Outlet Louvres  
 3 off Ceiling Fan coils  
 1 off Centrifugal fans  
 4 off Non return dampers  
 6 off Fire dampers  
 4 off Tightness dampers  
 7 off Damper Control panels  
 8 off Regulating dampers  
 7 off Extract & Supply Grilles  
 1 lot Flow switches, instruments and valves

