

HIGHEST FIRE SAFETY FOR STAFF ACCOMMODATION AT THE 9 BILLION USD EXPANSION IN AL RUWAIS



KEEP UP THE DEVELOPMENT

State owned Abu Dhabi National Oil Company (ADNOC), one of the largest energy producers in the world, recently expanded their Ruwais refinery, located 240 km West of Abu Dhabi city, United Arab Emirates (UAE).

The enlargement forms part of the 9 billion USD expansion that doubled overall Ruwais processing capacity in the last years. The majority of supply from the enlarged refinery is expected to meet rising domestic demand for petrol, diesel and jet fuel, as well as to meet specifications for export markets and to feed an expanding petrochemical plant.

Once fully commissioned, the refinery is expected to produce an additional 8 million tonnes a year of diesel and 4 million tonnes a year of jet fuel. The refinery

currently produces 5 million tonnes a year of diesel and 6 million tonnes a year of jet fuel.

Those large numbers need extra hands. To provide the best conditions for their employees, ADNOC commissioned the Bachelors Accommodation at their newly expanded Ruwais refinery.

The Bachelors Accommodation comprises a construction of 14 residential accommodation buildings with a total of 672 units, each consisting of three floors, with a total area of 48,500 m².

SAFETY MATTERS

NOVENCO Building & Industry (NBI) was awarded the contract for design and delivery of a complete staircase pressurization system for all 14 escape staircases of the residential buildings in the

Bachelors Accommodation to comply with UAE life and safety regulations. The system creates positive pressure within the escape staircases in the buildings in case of fire. The resulting airflow over the open doors prevents smoke from entering the staircases.

In addition to the life safety systems, NBI designed and delivered a kitchen ventilation system of nearly 170 units for the residential buildings.



Ruwais Refinery

HIGHEST FIRE SAFETY FOR A PART OF THE 9 BILLION USD EXPANSION IN AL RUWAIS

FACTS:

- 240 KM WEST OF ABU DHABI
- 48.500 M² TOTAL AREA
- 14 RESIDENTIAL BUILDINGS

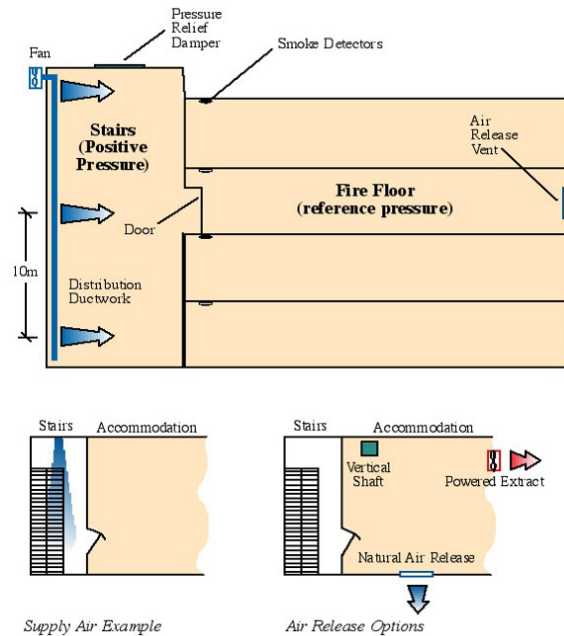
STAIRCASE PRESSURIZATION

To create a safe and reliable staircase pressurization system for 14 escape staircases of residential buildings in the Bachelors Accommodation, NOVENCO Building & Industry (NBI) supplied 28 NovAx™ axial flow fans ACN 560.

The objectives of a pressure differential system are two-fold, to maintain tenable conditions within the protected space for means of escape and to enable fire-fighting operations to proceed efficiently by protecting access routes. To achieve this, NBI's high temperature certified NovAx axial fans were combined with pressure differential sensors and air dampers to provide positive pressure in the escape staircases.

KITCHEN VENTILATION

For the kitchen ventilation of the residential buildings, NBI delivered 168 robust and reliable CNA 250 centrifugal fans with motors mounted out of the air stream to provide effective ventilation for the communal kitchen areas.



Staircase Pressure Differential system



Axial flow fan NovAx ACN 560



Centrifugal fan CNA 250