

Package No: 0482-MI20-36PO-8200

Package Name: **HVAC System for Accommodation**

Scope of Work

A central HVAC system shall be designed for the FPSO accommodation block which accommodates a permanent crew of 140 personnel. Dedicated package air conditioning units are to be provided for control rooms, muster area, galley, engine room workshop, battery rooms, etc.

The design conditions below shall be applied to accommodation areas, control rooms, temporary safe refuge area and electrical equipment rooms:

Temperature °C (dry bulb)	Relative humidity %
Range 21 to 23	Range 45 to 60

HVAC Contractor shall be responsible for the following aspects of the HVAC System but not limited to:

- Functional design of all HVAC systems and provision of diagrammatic drawings.
- Heat & Cooling Load Calculation.
- Leakage Calculations to ensure pressurization of +25Pa to +60Pa for Accommodation.
- System Design.
- Ducting One Line Diagrams.
- Equipment Layout Drawing.
- PDMS Modeling of all the HVAC equipment in scope.
- Cable Schedule / Block Diagrams.
- Equipment Sizing.
- HVAC noise prediction
- Documentation in accordance with SDRL (Supplier Data Requirements List).
- Production & Delivery Schedule during various stages.
- Supply of equipment as per the HVAC Master Equipment & Bulk Material List.
- Commissioning of all HVAC Contractor supplied equipment.
- Commissioning of all HVAC Contractor designed systems.

HVAC Contractor shall supply major equipment as listed below. The equipment parameters are for reference only and should be checked and confirmed after heat load calculation.

No.	Description	Q'ty	Capacity (preliminary)	Remark
1	Accommodation Air Handling Units	2	Cooling 1380 kW Air flow: 78190 m3/h	2x100%
2	Accommodation Compressor & Condensing Units	2	Cooling 1380 kW DX open type.	2x100%
3	Control Space Air Handling Units & air cooled type Condensing Units	2	Cooling 360 kW Air flow: 32180 m3/h	2x100%
4	Galley Deck Type A/C Unit	1	Cooling: 160kW, Air volume: 7570 m3/h	1x100%

5	Packaged Air Conditioner For Primary Muster Area	1	Cooling capacity: 10kW air cooled type Condensing unit ex proof(if air cooled type)	1x100%
6	Packaged Air conditioner For Workshop	1	Cooling capacity: 10kW FW cooled type	1x100%
7	Packaged Air conditioner For Forward TR	1	Cooling capacity: 10kW Air cooled type Condensing unit ex proof	1x100%
8	Packaged Air conditioner For Battery Rm	2	Cooling capacity: 10kW FW or air cooled type, Indoor unit ex proof	2x100%
9	Hospital Exh. Fan	1	Air flow: 1940 m3/h Duct	1x100%
10	Galley Exh. Fan	1	Air flow: 15130 m3/h Centrifugal	1x100%
11	Laundry Exh. Fan	1	Air flow: 4030 m3/h Centrifugal	1x100%
12	Elevator Machinery Rm Sup. Fan	1	Air volume: 1150 m3/h Axial	1x100%
13	Dry Provision Store Exh. Fan	1	Air volume: 1480 m3/h Duct	1x100%
14	Garbage Store Exh. Fan	1	Air volume: 540 m3/h Duct	1x100%
15	Main Deck Battery Rm Exh. Fan	2	Air flow: 5460 m3/h, EX Centrifugal	2x100%
16	B Deck Battery Rm Exh. Fan	2	Air flow: 2900 m3/h, EX Centrifugal/axial	2x100%
17	Sanitary Space Exh. Fan	2	Air volume: 17280 m3/h Centrifugal	2x100%
18	HVAC Rm Sup. Fan	1	Air flow: 19180 m3/h Axial	1x100%
19	Transformer Rm Mech. Sup. Fan	1	Air flow: 2510 m3/h Axial	1x100%
20	Galley Mech. Sup. Fan	1	Air flow: 6910 m3/h Duct	1x100%
21	Stairway Escape Sup. Fan	1	Air flow: 1180 m3/h Duct	1x100%
22	Cabin Unit (Air Terminal Unit)	1 set	Quantity and parameter to be confirm during detail design	

The Supplier shall take note of the following requirements in their design:

- Provide an HVAC system with 25 years working life capability, based upon regular maintenance and servicing in accordance with the equipment manufacturers' recommendations.
- All equipment shall be suitable for offshore marine environment.
- Only cooling fluids with HFC are acceptable to be used as Refrigerants in any Refrigerating equipment (Air Conditioning, Package Units, Standalone Units, etc.). Cooling fluids with HCFC and CFC are not acceptable.
- HVAC noise limits to be in accordance with good practice as per NOPSEMA guidance.

Contract Award Q2 2020; Delivery Q4 2020

Project Registration

ConocoPhillips is committed to ensuring Australian Industry full, fair and reasonable opportunity to participate in the Barossa Offshore Project. Expressions of Interest are invited from contractors and suppliers with the relevant capability and capacity to undertake the scope of work.

This is a request for specific expressions of interest. Contractors and suppliers will be considered for prequalification and tender if suitably qualified against this package.

Note that an important part of the project registration process is to register an Expression of Interest at the correct Scope level.

Scope level definition:

Full scope: Able to produce / supply the entire package.

Partial scope: Able to produce / supply one or more of the sub-packages.

All registrations are to be completed via ICN Gateway BarossaOffshore.icn.org.au. Please contact the ICNNT if registration assistance is required. Contact details: (08) 8922 9422 or admin@icnnt.org.au.

Project Website: ConocoPhillips Australia