

GBB BRANCH, SBI

DUCTABLE TYPE AIR-CONDITIONING SYSTEM INCLUDING ALL REQUIRED ANCILLARY WORK

S.No	Description	Unit	Quantity	Unit Rate	Amount
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PART A) ANNEXURE – I : HIGH SIDE : EQUIPMENTS:

Preambles

- 1 All Items shall be quoted in the given format.
- 2 Client reserves the right to take any item as client supplied
- 3 Client reserves the right to add or delete any item from the tender during or after the finalization of the tender.
- 4 Boq items shall be read with the technical specifications
- 5 In case of discrepancy in Boq and technical specifications the stringent shall be followed.
- 6 Control cable from outdoor unit to indoor unit (condenser to evaporator) with necessary insulating tape etc.
- 7 It is advice to visit the site before quoting the boq
- 8 MS Powder coated bracket with fasteners to be fixed on walls / slab with all necessary fixing accessories ALONG WITH ANIT VIBRATION CUSHOR FOOT MOUNTING ONLY.
- 9 The Items in the Boq may or may not be operated as per site conditions.
- 10 Any deviation with respect to boq shall be informed and mentioned while quoting TENDER.
- 11 Insulation shall be done properly with vapour barrier and to provide mechanical protection against abrasion.
- 12 Indoor unit shall be considered with required structural support to hang in ceiling or floor / loft with anchor fasteners, rubber gaskets, nuts, bolts, inlet outlet connections
- 13 Treated fresh air unit shall be considered with MERV 13 pre filter
- 14 Copper piping shall be considered with T and Y joints with insulation.
- 15 All AHUs except VRF ductable unit shall be DX type unless otherwise mentioned.
- 16 Any item missed in the tender for competing the installation, testing, commissioning of the complete HVAC system all also to be included.

1 **CARRIER / BLUE STAR / HITACHI / TOSHIBA / MITSUBUSHI / DAIKIN**

21 TONNE DUCTABLE OUT DOOR AND INDOOR UNITS

SITC of 21 TR side discharge type single/multiple outdoor units equipped with multiple high efficiency scroll type compressor with R410A refrigerant single 21TR ceiling mounted ductable Indoor unit complete with all accessories and electrical and mechanical protections of the following capacities

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|-----|---|------|---|--|--|
| 1.1 | High Static Ductable Air Conditioner of 21 TR Capacity Deliver as per QCO Compliance with Indoor and Out door units | Sets | 2 | | |
|-----|---|------|---|--|--|

2	<u>NON VRF INDIVIDUAL HI WALL AC UNITS</u>		
b	2.0 TR Capacity 5 Star Inverter type AC with 3 mtr piping	Nos	4
c	1.5 TR Capacity 5 Star Inverter type AC with 3 mtr piping	Nos	2

PART B) ANNEXURE – II : LOW SIDE ANCILLARY INSTALLATION WORK :

Schedule of Ancillary Works & Price : FOR INSTALLATION & ITS ANCILLARY WORK :

S.No	Description	Unit	Quantity	Unit Rate	Amount
				Rs.	Rs.
<u>APPROX. INSTALLATION BREAK UP</u>					
1	Hard Copper Piping with 19mm thick nitrile rubber "O" Class insulation and necessary supports : minimum 18 G Hard COPPER PIPES Make Of Copper Pipes : Mandev / Rajco / Max Flow / Totaline Only & With "O" Class 19 mm thick Insulation make "Superlon / Armaflex" : Piping material shall Confirm to ASTM B280 Standards : For VRF System as per following dimension :				
1.1	For Ductable AC(Double circuit suction+discharge)	RMT	120		
1.2	For Split AC(Double circuit suction+discharge)	RMT	150		
2	Control Cabling between Indoor & Outdoor Units				
2.1	For Ductable AC(8 core 1.5sq.mm)	RMT	250		
2.2	For Split AC(4 core 2.5 sq.mm)	RMT	250		
3	Hard UPVC Drain piping with 6 mm Rubber Nitrile Class "O" Insulation Make "Plasto/ Supreme" 32 mm dia.				
3.1	For Ductable AC 32mm	RMT	100		
3.2	For Split AC 25mm	RMT	120		
4	Supply & Laying of 300 mm Width GI Tray fabricated with 16 G Thick perforated sheet for laying of copper piping / electrical cabling / drain piping etc.	RMT	200		
5	MS stand for Outdoor Units WITH PROVISION OF ANTI VIBRATION CUSHOR FOOT MOUNTING FOR MACHINE & Hanging Stand For Indoor Units with required MS frame arrangements only : MS "C" Channel Structure Type as per site requirement only - Fabricated with MS "C" Channel only & fabricated hanging stand for Indoor Units, DX Units for mounting of independent Outdoor units as require.	Nos	2		
5.1	MS stand for Outdoor Units for Split AC	Nos	6		
6	Standard Installation / Pressure Testing / Vaccumissing / Commissioning Leak Testing of Outdoor Machines for Compressors complete with provisiong of anti-vibration isolators pads for complete machine etc.				

6.1	21 TR	Sets.	2
7	Installation, Testing & Commissioning Of Units :		
a	1.5 TR Capacity High wall split AC	Nos	6
8	Drain pump to travel Ductable AC drain to the drain pump	Nos	2
9	Fabrication work for Supporting Indoor units and Ducting	Kgs	700
10	Supply, Fabrication and installation of GI sheet metal ducts		
10.1	22 SWG	SQ.MT R	200
10.2	24 SWG	SQ.MT R	100
	Providing Adhesive Thermal Insulation For Supply/Return Air Duct With 13mm Xlpe Nitrile rubber insulation having R-vale as per the prevailing provisions in ECBC-2007	SQ.MT R	350
11	Providing and applying of acoustic insulation for air ducts with 10 mm thick linear acoustic to reduce sound with all required accessories.	SQ.MT R	120
	Providing and fixing plywood panelling with lamination to cover the AC duct in all visible sides using 12 mm thick MR ply and necessary aluminium frame work and pasting with 1mm laminate of approved make	SQ.MT R	175
13			
13	Supplying and erecting of canvass connection between the Indoor and Duct	Nos	2
	Supplying and installation of linear type grill for the supply size and remaining for return air	SQ.MT R	15
14			
15	Supplying and installation of linear type VCD for the supply size	SQ.MT R	10
16	Refrigerant gas charging for ductable AC	Kgs	25
	Providing Comprehensive annual maintenance for Airconditioning units which includes servicing and repairing of all the Airconditioning units by predefined frequency. The AMC Period will start after completion of 1 year warranty period.		
17	For 1st Year	TR	42
	For 2nd Year	TR	42
	For 3rd Year	TR	42
	For 4th Year	TR	42
	For 5th Year	TR	42

18 Providing Comprehensive annual maintenance for Airconditioning units which includes servicing and repairing of all the Airconditioning units by predefined frequency. The AMC Period will start after completion of 1 year warranty period. For Split AC TR 55

TOTAL COST