

**BOQ ( BILL OF QUANTITY ) IN CANARA BANK AT SAKET NAGAR , BHOPAL ( M.P.)**

**FIRST FLOOR PLAN**

S.N O.	Item Name	Product Specification	unit	Qty/nos	Rate	Amount
( C )		<b>AIR CONDITIONING WORK</b>				
A		<b>VRV / VRF OUTDOOR AC UNIT :-</b> Supply installation testing and commissioning as per site requirement of VRV /VRF /MRV outdoor units with following multiple inverter based Scroll type compressors, electronic expansion valve, R 410A /eco friendly green refrigerant, cooling & heating mode both options, special pre-coated fin type heat exchanger, low noise direct driven propeller condenser fans in each module with top discharge including internal wiring, microprocessor controls, safety. The condensing unit should be capable of providing cooling between +/- 5deg. C. to 48 deg.C & heating within 0 deg.C to 15 deg.C, COP not less than 3.3. Each system should have the provision to combine maximum 3 nos compressor in each outdoor unit ,Every single outdoor unit should not have more than maximum Capacity 20 HP (3 Phase) each compressor complete as per specification. Outdoor/Indoor units should be of same make (Brand). (Single Phase / Three Phase)				
1		20 HP HOT & COLD SYSTEM	Nos.	7		
		140 HP				

B		<b>VRF /VRV INDOOR AC UNIT (CEILING MOUNTED 4 WAY) ;</b> - Supply installation testing and commissioning AS PER SITE REQUIREMENT of 4 Way Round flow Ceiling Suspended / Mounted Cassette type Unit comprising of copper evaporator, electronic expansion valve, blower, motor, filter pad, auto air swing louvers, temperature & ON/OFF display with inbuilt drain pump & decorative panels including internal wiring, controls. Dimension in terms of length & width should not be more than 950 mmX 950mm with wireless remote controller. (Single Phase / Three Phase)				
1		1.05TR	Nos.	2		
2		1.65TR	Nos.	17		
3		2.08TR	Nos.	20		
4		2.64TR	Nos.	10		
5		3.30TR	Nos.	4		
6		4.13TR	Nos.	2		
C		<b>COPPER PIPING :-</b> Supply, installation, testing and commissioning of interconnecting copper refrigerant pipe work (19mm / 13mm thick ) duly insulated with elastomeric nitrile rubber type tubular insulation between indoor & outdoor units as per specifications. And exposed piping should be wrapped with glass woven cloth and lag coating for vapour barrier and weather protection. Joints shall be covered with nitrile rubber tape of 3 mm thick complete as per specification.	Rmt	360		
D		<b>Drain Piping :-</b> Providing and fixing of CPVC, 6Kg/cm <sup>2</sup> drain water piping with fittings, support and insulated with 6 mm thick closed cell elastomeric nitrile rubber insulation complete as per specification.				
1		20 mm dia ID	Rmt	30		
2		25 mm dia ID	Rmt	120		

3		32 mm dia ID	Rmt	70		
4		40 mm dia ID	Rmt	30		
E		<b>REFRIGERANT</b> :- Supply and additional refrigerant charge of Refrigerant R410 / 410A to compensate the additional piping done at site for all systems including testing commissioning as required,	Kg	165		
F		<b>Y JOINTS</b> :- Supply, Installation, testing & commissioning of Ref Nut / <b>Y-joints</b> brass for indoor and outdoor units of suitable size as per requirement,	Nos.	60		
G		<b>CONTROL CABLE</b> :- Supply and laying ,testing & commissioning of following sizes of <b>Copper conductor control cables</b> on existing tray including fixing clamps & proper connections to equipment etc.complete as required.				
1		2C x 0.75 Sq. mm	Rmt	725		
H		<b>OUTDOOR STAND FABRICATION</b> :- Supply, fabrication and erection of Angle/Chanel/Flat iron stand, hanging arrangement for air conditioning machines & ducts etc, Back /Support clamps or other similar work etc. including nut bolts of required size, making holes, fabrication, welding, cutting, etc. and painting with one coat of red oxide paint & two coat of enamel paint as required as per specification.	Kg	280		
I		Core Cutting	Nos.	27		
J		Drain pipe wall chiseling	Mtrs	235		
<b>TOTAL AIR CONDITIONING WORK</b>						<b>0</b>