

**BILL OF QUANTITIES OF HVAC WORKS FOR SBI PROPOSED RAILWAY ROAD BRANCH AT SONIPAT, HARYANA**

S.No.	DESCRIPTION OF WORKS	UNIT	QTY	RATE	AMOUNT
	<b>SPLIT/ CASSETTE TYPE AIR CONDITIONERS</b>				
<b>1</b>	Supplying, erection, testing and commissioning following wall mounted Split/ Root mounted cassette units of (Toshiba/ Mitsubishi/ Hitachi/ O-General/ Carrier/ Daikin/ Voltas) with cordless remote complete with all necessary fittings duly insulated with 9 mm thick nitrile rubber pipe insulation with <b>(All coils - copper only)</b> , fan and fan motor, machine control panel improved Refrigerant Joints, Air conditioners shall be fitted with hermetically sealed type suction cooled reciprocating or discharge cooled rotary compressor or scroll compressor. Compressor unit operating on R32/ R-410. All complete as per drawing, approval and instructions of the Architect/ Employer. <b>Item to include powder coated outdoor stands as per the manufacturer specifications.(Rates to be inclusive of Copper refrigerant pipe with insulation up to 3 Mtr length only for Each split AC Unit)</b>				
<b>a</b>	1.0 TR Hi wall split AC, <b>5 star rating inverter type</b> including all necessary fittings and mountings as specified by the manufacturer	Nos.	2.00		0.00
<b>b</b>	1.5 TR Hi wall split AC, <b>5 star rating inverter type</b> including all necessary fittings and mountings as specified by the manufacturer	Nos.	2.00		0.00
<b>c</b>	2.0 TR Cassette <b>AC inverter type, min 3 star rating</b> Ceiling suspended Cassette with 4 way/ round air flow including all necessary fittings and mountings as specified by the manufacturer	Nos.	1.00		0.00
<b>d</b>	3.0 TR Cassette <b>AC inverter type, min 3 star rating</b> Ceiling suspended Cassette with 4 way/ round air flow including all necessary fittings and mountings as specified by the manufacturer	Nos.	1.00		0.00
<b>e</b>	4.0 TR Cassette <b>AC inverter type, min 3 star rating</b> Ceiling suspended Cassette with 4 way/ round air flow including all necessary fittings and mountings as specified by the manufacturer	Nos.	2.00		0.00
<b>2</b>	<b>EXTRA REFRIGERANT PIPING</b>				
	Supplying and laying of Extra copper refrigerant piping with O class nitrile rubber insulation with pipe , both of size as specified by the manufacturer suitable for 1.0/1.5/ 2.0 TR Split type AC and 2.0 TR/ 3.0 TR/4.0 TR Cassette AC - <b>From Indoor to outdoor Units</b> (make as approved by Architect/ Bank)				
<b>a</b>	For 1.0 TR/ 1.5 TR / 2.0 TR ACs as specified by the manufacturer	Mtr.	100.00		0.00
<b>b</b>	For 3.0 TR/4.0 TR Cassette as specified by the manufacturer	Mtr.	80.00		0.00
<b>3</b>	<b>DRAIN PIPING</b>				

	Providing and fixing drain piping up to drain as directed by the engineer incharge with all accessories e.g. elbows, unions, sockets,				
<b>a</b>	25 mm dia PVC drain pipe for Split AC	Mtr.	50.00		0.00
<b>b</b>	32 mm dia PVC drain pipe for Cassette AC	Mtr.	75.00		0.00
<b>4</b>	Providing and fixing of lockable caging for outdoor unit grouted on wall or on roof with open able shutter made of 10 X 10 mm MS square bars placed vertically @ 6" c/c welded with 40 X 3 mm MS flat all- round. Item includes all necessary hardware, priming coat, synthetic enamel paint, hanger, clamps other accessories etc. All complete as per approval and instructions of the Architect/ employer.				
<b>a</b>	For 1.0/ 1.5/ 2.0 TR Hi Wall split units	Nos.	5.00		0.00
<b>b</b>	For 3.0 /4.0 TR ceiling mounted cassette unit	Nos.	3.00		0.00
<b>5</b>	Supplying and laying of Extra Electrical interconnecting control cable from indoor to outdoor of size as specified by the manufacturer suitable for 1.0/1.5/2.0 TR Split/cassette type AC with 2mm Thik FRLS Conduit and all other accessories etc. All complete as per approval and instructions of the Architect/ employer. (make as approved by Architect/ Bank).	Mtr.	110.00		0.00
<b>6</b>	Supplying and laying of Extra Electrical interconnecting control cables from indoor to outdoor of size as specified by the manufacturer suitable for 3.0/4.0 T Cassette type AC (make as approved by Architect/ Bank).	Mtr.	90.00		0.00
<b>7</b>	Supplying, installation and commissioning of Copper Winding voltage stablizer of range 140-280 V for Acs (V-guard/ Livguard/ Servokon make as approved by Architect/ Bank).				
	For 1.0 / 1.5 Tr. Wall mount (4 kVA)	Nos.	4.00		0.00
	For 2.0 Tr. Wall mount (5 Kva)	Nos.	1.00		0.00
<b>8</b>	Supplying, installation and commissioning of automatic 24 HRS. programmable TIMER of required capacity to run A.C. alternately (MDS/ L&T/ make as approved by Architect/ Bank).	Nos.	1.00		0.00
<b>9</b>	Supply & fixing of condensate (self-priming & reciprocating type) drain pump of capacity 20 Ltr./ Hour (minimum). Low and high level cut off and over flow alarm. Brand : SFA / INDOMA / ASPEN / Wipcool or equivalent	Nos	4.00		0.00
<b>B</b>	<b>Toilet Exhaust Ducting works</b>				
<b>1</b>	Supply, Installation of PVC Pipe Complete as required.				
<b>1.1</b>	250mm Dia	Rm	8.00		0.00
<b>1.2</b>	200mm Dia	Rm	6.00		0.00
<b>1.3</b>	150mm Dia	Rm	12.00		0.00
<b>2</b>	Supply, installation, balancing and commissioning of flexible ducting complete as required.				
<b>2.1</b>	100mm Dia	Rm	4.00		0.00
<b>2.2</b>	150mm Dia	Rm	4.00		0.00
<b>3</b>	Supplying & fixing of powder coated extruded aluminium Diffuser (Size: 100/150/200mm) without volume control dampers complete as required.	Nos.	5.00		0.00

4	Supplying and fixing of Inline Circuler Exhaust Fan with following Capacity				
4.1	1000 cfm	Nos.	1.00		0.00
5	Supply and Fixing of PVC Tee for Exhaust Air Complete as required.	Nos.	4.00		0.00
6	Supply and Fixing of PVC Reduser for Tee Complete as required.	Nos.	3.00		0.00
	<b>TOTAL FOR AIR CONDITIONING WORKS</b>				<b>0.00</b>
<b>Note:- The rates quoted includes all other taxes , duties , loading, unloading , transportation, other expenses etc to site. Only GST will be paid Extra</b>					