

SECTION III/A: BILL OF QUANTITIES FOR HVAC WORKS

1	2	3	4	5	6	7	8	9	10
BOQ No.	Specification Reference	Description	Qty.	Unit	Material Unit Rate	Material Cost	Installation Unit Rate	Installation Cost	Total Cost
1	2	3	4	5	6	6 x 4	8	8 x 4	7 + 9
	23 73 13 40 92 49 23 41 00	Installation of Air Handling Unit, including the cost loading, unloading and placing on each floor, material or foundation or any other material or tool and equipment which may be required complete in all respects with necessary fittings and as per schedule and specifications.							
E		AHU - UG - 01	1	No.		-	10,000	10,000	10,000
F		AHU - FF - 01	1	No.		-	10,000	10,000	10,000
		AHU - FF - 02	1	No.		-	10,000	10,000	10,000
G		AHU - FF - 03	1	No.		-	10,000	10,000	10,000
E		AHU - FF - 04	1	No.		-	10,000	10,000	10,000
F		AHU - SF - 01	1	No.		-	10,000	10,000	10,000
		AHU - SF - 02	1	No.		-	10,000	10,000	10,000
G		AHU - SF - 03	1	No.		-	10,000	10,000	10,000
		AHU - SF - 04	1	No.		-	10,000	10,000	10,000
	23 37 13	Supply, Installation and Commissioning of fresh air intake louvers with sand trap, Aluminum constructed and powder coated finished as per specifications.							
		<u>Fresh Air Intake Louvers</u>							
A		3.2 sft (with 33% free area)	1	No.	9,500	9,500	1,000	1,000	10,500
B		3.6 sft (with 33% free area)	1	No.	10,500	10,500	1,000	1,000	11,500
C		1.23 sft (with 33% free area)	1	No.	7,500	7,500	1,000	1,000	8,500
A		4.1 sft (with 33% free area)	1	No.	15,000	15,000	1,000	1,000	16,000
B		3.6 sft (with 33% free area)	1	No.	10,500	10,500	1,000	1,000	11,500
B		1.23 sft (with 33% free area)	1	No.	7,500	7,500	1,000	1,000	8,500
C		4.1 sft (with 33% free area)	1	No.	15,000	15,000	1,000	1,000	16,000
	23 31 00	Supply, Installation and Commissioning of G.I Sheet metal air ducts as per ASHRAE Standards for air ducting, plenums and other sheet fabrications including splitter dampers, take off, vanes elbows and other necessary fittings.							
E		26 Gauge	120	Sq ft.	220	26,400	75	9,000	35,400
E		24 Gauge	2,055	Sq ft.	230	472,650	75	154,125	626,775
E		22 Gauge	442	Sq ft.	240	106,080	75	33,150	139,230
A	23 07 00	Supply, Installation & Commissioning of Glass wool insulation of 1" thickness for ducts. Complete in all respect as mentioned in the schedule & specifications.	2,617	Sq ft.	110	287,870	48	125,616	413,486
B	23 07 00	Supply, installation & commissioning of 0.032" Aluminum cladding over Exposed Ducts complete with all respects as mentioned in the schedule & specifications.	2,617	Sq ft.	370	968,290	100	261,700	1,229,990
C	23 07 00	1" thick Glass Fibre sound liner for Air Ducting including accessories.	1	Job	50,000	50,000	25,000	25,000	75,000
	23 37 13	Supply, installation and commissioning to Air Devices as per drawings and specifications.							
		Sub Total (Page 01)							2,692,381

1	2	3	4	5	6	7	8	9	10
BOQ No.	Specification Reference	Description	Qty.	Unit	Material Unit Rate	Material Cost	Installation Unit Rate	Installation Cost	Total Cost
1	2	3	4	5	6	6 x 4	8	8 x 4	7 + 9
	23 37 13	Supply Air Diffuser (S.A.D) (Contd.)							
		18x18	3	Nos.	6,500	19,500	1,000	3,000	22,500
		15x15	8	Nos.	4,500	36,000	1,000	8,000	44,000
		12x12	8	Nos.	3,000	24,000	1,000	8,000	32,000
		9x9	4	Nos.	1,000	4,000	500	2,000	6,000
	23 37 13	Return Air Diffuser (R.A.D) (Contd.)							
		18x18	2	Nos.	6,500	13,000	1,000	2,000	15,000
		15x15	3	Nos.	4,500	13,500	1,000	3,000	16,500
		12x12	7	Nos.	3,000	21,000	1,000	7,000	28,000
		9x9	10	Nos.	1,000	10,000	500	5,000	15,000
	23 23 00	Supply, Installation & Commissioning of Refrigerant Copper Piping with closed cell elastomeric insulation 20mm thick with supports, fittings, and accessories.							
		1/2" diameter	43	Rft	475	20,425	300	12,900	33,325
		4/5" diameter	43	Rft	750	32,250	300	12,900	45,150
		1/2" diameter	82	Rft	475	38,950	300	24,600	63,550
		2/5" diameter	82	Rft	690	56,580	300	24,600	81,180
		1/2" diameter	47	Rft	475	22,325	300	14,100	36,425
		2/5" diameter	47	Rft	690	32,430	300	14,100	46,530
		1/2" diameter	50	Rft	475	23,750	300	15,000	38,750
		2/5" diameter	50	Rft	690	34,500	300	15,000	49,500
		1/2" diameter	84	Rft	475	39,900	300	25,200	65,100
		4/5" diameter	84	Rft	690	57,960	300	25,200	83,160
		1/2" diameter	98	Rft	475	46,550	300	29,400	75,950
		2/5" diameter	98	Rft	690	67,620	300	29,400	97,020
		1/2" diameter	75	Rft	475	35,625	300	22,500	58,125
		2/5" diameter	75	Rft	690	51,750	300	22,500	74,250
		1/2" diameter	72	Rft	475	34,200	300	21,600	55,800
		2/5" diameter	72	Rft	690	49,680	300	21,600	71,280
		1/2" diameter	105	Rft	475	49,875	300	31,500	81,375
		2/5" diameter	105	Rft	690	72,450	300	31,500	103,950
		Sub Total (Page 02)							1,339,420

1	2	3	4	5	6	7	8	9	10
BOQ No.	Specification Reference	Description	Qty.	Unit	Material Unit Rate	Material Cost	Installation Unit Rate	Installation Cost	Total Cost
1	2	3	4	5	6	6 x 4	8	8 x 4	7 + 9
	23 21 14	Supply, Installation and Commissioning of U-PVC piping Class- D. with closed cell elastomeric 15mm thick Insulation for condensate drain including all cutting, fixing fitting, laying, cleaning, making good and supports complete in all respect as per drawings and specifications.							
		3/4" diameter	35	Rft	160	5,600	80	2,800	8,400
		3/4" diameter	38	Rft	160	6,080	80	3,040	9,120
		3/4" diameter	10	Rft	160	1,600	80	800	2,400
		3/4" diameter	5	Rft	160	800	80	400	1,200
		3/4" diameter	28	Rft	160	4,480	80	2,240	6,720
		3/4" diameter	38	Rft	160	6,080	80	3,040	9,120
		3/4" diameter	10	Rft	160	1,600	80	800	2,400
		3/4" diameter	5	Rft	160	800	80	400	1,200
		3/4" diameter	28	Rft	160	4,480	80	2,240	6,720
		Supply, Installation and Commissioning of Dampers as per SMACNA standards and specifications.							
	23 33 13.13	<u>Voume Control Dapmers (VCD) (Contd.)</u>							
		14"x10"	3	No.	3,000	9,000	1,000	3,000	12,000
		24"x10"	2	No.	5,000	10,000	1,000	2,000	12,000
		12"x8"	3	No.	2,000	6,000	1,000	3,000	9,000
		16"x10"	5	No.	3,500	17,500	1,000	5,000	22,500
		16"x8"	2	No.	3,500	7,000	1,000	2,000	9,000
		12"x6"	4	No.	3,000	12,000	1,000	4,000	16,000
		18"x10"	6	No.	3,750	22,500	1,000	6,000	28,500
		16"x12"	1	No.	3,750	3,750	1,000	1,000	4,750
		12"x10"	2	No.	2,400	4,800	1,000	2,000	6,800
		30"x12"	1	No.	7,500	7,500	1,000	1,000	8,500
		14"x8"	2	No.	2,300	4,600	1,000	2,000	6,600
A	23 09 00	MISCELLANEOUS							
B		Supply, Installation & commissioning of brass tags for Equipment and system including all accessories complete in all respect.	1	Job	35,000	35,000	10,000	10,000	45,000
C		Supply, Installation & commissioning of foundation for pipes and equipment including all noise and Vibration controller as per drawings and specifications.	1	Job	75,000	75,000	25,000	25,000	100,000
D	23 09 00	Supply, Installation & commissioning of hangers and supports for pipes and equipment including all noise and Vibration controller roller type and others as per drawings and specifications.	1	Job	200,000	200,000	28,000	28,000	228,000
		Painting on equipment / Hangers, Supports, Pipe etc as per specifications.	1	Job	15,000	15,000	10,000	10,000	25,000
F		<u>Drawings</u>							
G		Shop Drawings as per specifications.	1	Job	10,000	10,000	5,000	5,000	15,000
		As Built Drawings as per specifications.	1	Job	7,000	7,000	5,000	5,000	12,000
H		<u>Testing (3 months test run) & Commissioning with Air & water balancing</u>							
		HVAC System.	1	Job	200,000	200,000	10,000	10,000	210,000
I		<u>Sundries</u>							
		Supply, installing and commissioning of items not listed in BOQ but required.	1	Job	-	-	-	-	-
		Sub Total (Page 03)							817,930
		GRAND TOTAL FOR HVAC WORKS							4,849,731