## **Purchase Order**

Page 1 of 9 20/02/2024 11:26:51

## Order Number : TFSPL/PO/23-24/000251 Supplier Code : RV232414136 [ V0002345 ]

Supplier Detail	Shipped Location	Invoice Location	Corporate Address
PIONEER PROJECT SOLUTION	Delhi	Delhi	TRAVEL FOOD SERVICES PRIVATE
12A/20B GALI NO.10, VIJAY MOHALLA, MAUJPUR,NORTH EAST DELHI,,India Order Address Code :	New Terminal 1, Indira Gandhi International Airport, Domestic Departure SHA, Mehram Nagar, New Delhi, New Delhi, Delhi, 110037	New Terminal 1, Indira Gandhi International Airport, Domestic Departure Sha, Mehram Nagar, New Delhi, New Delhi, Delhi, 110037 GSTIN No : <b>07AADCB2762L2ZJ</b>	1St Floor, Block A South Wing, Shiv Sagar Estate, Dr. Annie Besant Road, Worli, Mumbai Suburban, Maharashtra, 400018 Comp GST No : <b>21AADCB2762L1ZU</b>
PAN No : <b>AHQPA6815Q</b> Supplier GST No : <b>07AHQPA6815Q2ZQ</b> Supplier Contact No : Contact Person Name : <b>Mohd Ashraf</b> Supplier Email : <b>projectspioneer@gmail.com</b>	Cost Center Code : <b>90192029</b> Cost Center Name : <b>T1 BOH Space</b> Project ID : PO Category : <b>Capex NSO</b>	Payment Term : Advance 100% with GST hi side work. Advance 50% Low side work. Ra BILL - Up to 95% after work completion & submission of invoice. Retention 5% DLP till completion of 6 months.	PO Creation Date : <b>13/02/2024</b> PO Approval Date : <b>19/02/2024</b> PO Currency : <b>INR</b> Buyer Name : <b>Jogeswar Sahu</b>

Sr. No	Item Code	HSN / SAC	Item Name	Item Description	Pur. Grp.	Qty	UOM	Basic Rate	Dis%	Net Rate	Total Amount	SGST %	CGST %	Gross Total Amount
1			HVAC-High Side	BOQ for HVAC - High Side for BOH @ T1 DELHI AIRPORT	C01	1.00	NOS	155,000.00	0.00	155,000.00	155,000.00	14	14	198,400.00
2			HVAC - Low side	BOQ for HVAC-Low side for BOH @ T1 DELHI AIRPORT	C01	1.00	NOS	188,500.00	0.00	188,500.00	188,500.00	9	9	222,430.00

Total Qty : 2.00

Total Basic PO Amount343,500.00Total Other Charges38,665.00SGST Amount38,665.00CGST Amount38,665.00Grand Total PO Amount420,830.00

Amount In Words : Rupees Four Lakh Twenty Thousand Eight Hundred Thirty Only

Remarks :

Standard Terms And Condition :

Escalation Buyer Detail								
Name	Mobile No.	Email - ID						
Jogeswar	9082949517							
Stephen	8553338827							

## Disclaimer :

Point 1: Unless informed to us it is assumed that you are not registered as MSME with the respective government authority. If you have not yet provided the MSME details along with proof kindly provide the same at the earliest. Alternatively once you get registered then provide us relevant proof to update our records.

Point 2 : Supplier is requested to acknowledge or decline the order within 24 hours or else it would be considered as accepted.

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1		Prices shall be based on supply, installation, testing commissioning (SITC) at site including all taxes, duties, transportation insurance etc.			0.00	0.00	0.00
2	1	CHILLED WATER TYPE CEILING SUSPENDED AHU (AIR HANDLING UNIT)			0.00	0.00	0.00
3	1.1	CEILING SUSPENDED AHU	Nos		1.00	155,000.00	155,000.00
4		Supply and assembly of Ceiling Suspended Double skin cabinet type AHU Integrated (Air handling units) of following specifications			0.00	0.00	0.00
5		Frame Structure It shall consist of 48mm Extruded Aluminium with thermal break profile.			0.00	0.00	0.00
6		Panel 45mm + - 2mm thick double skin sandwich panels with rockwool insulation of density 64 kg m3 or PUF insulation of 48 kg m3 , The sheet thickness shall be minimum 0.6 mm for the outer skin precoated and 0.8 mm thickness for the inner skin of plain GI.			0.00	0.00	0.00
7		Filtration Section It shall be provided with single stage washable type of prefilter MERV 8 first stage which shall be placed before coil section.			0.00	0.00	0.00
8		Coil Section Chilled water coil Multi row deep constructed with Aluminium fins of min 0.11mm thick 12 Fins per inch, and copper tubes of min 27 Guage thickness HYRDOPHYLLIC coated fins. Copper tube shall be min 12.5mm diameter. AHRI certified coil.The coil face area velocity shall not exceed 2.5m sec (500 fpm).			0.00	0.00	0.00
9		Drain Pan Condensate drain pan shall be fabricated from 18G SS 304 powder coated, insulated with 13 mm thick closed cell elastomeric(nitrile rubber) insulation.			0.00	0.00	0.00
10		Fan Section SISW DIDW Direct drive backward curved fan. The fan section shall be provided with limt switch for safety to shut off fan during Opening of access door. Fan outlet velocity not to exceed 1600 FPM. The sound level shall not be exceed more than 60dB @ 1m from the source. Vibration isolators, Door Limit switch, UV Lamp as per Technical Specifications, AHU Summary Sheet and drawings. Total static pressue has to calculated by Contractor as per the configuration.			0.00	0.00	0.00
11		Other Details AHU to house control box terminal box with Auto-Manual switch and incomer power terminal, with SPP, Over Undervoltage protection, shortcircuit protection and with no-nc contacts (potential free contact) to be provided for tripping on signal from Fire Dampers Fire Alarm Panel. Power cable from Terminal box to motor control cabling of required size upto the thermostat sensor etc. to be provided. Internal electrical and control wiring of AHU to be provided as factory fitted from AHU supplier. The cost shall include all necessary supports accessories required for installation.			0.00	0.00	0.00
12		Contractor shall design the chilled water coil according to the following conditions			0.00	0.00	0.00
13		a. Coil air entering temperature - 75.4°F DB			0.00	0.00	0.00
14		b. Coil air leaving temperature - 54 deg. F DB 52.99 deg. F WB			0.00	0.00	0.00
15		c. Chilled water temperature entering - 6.0 deg. C 42.8 deg. F			0.00	0.00	0.00

16	d. Chilled water temperature leaving - 13.3 deg. C 55.9 deg. F	0.00	0.00	0.00
17	Make VTS Zeco Citizen Waves	0.00	0.00	0.00
18	Type Capacity Tonnage ESP No . of	0.00	0.00	0.00
19	(Cfm) TR (mm WG) Rows	0.00	0.00	0.00
20	CS AHU 2100 3.83 25 46	0.00	0.00	0.00
21	GENERAL NOTES	0.00	0.00	0.00
22	LHS RHS VALVE station location to be confirmed.	0.00	0.00	0.00
23	Fan outlet velocity - 1600 FPM	0.00	0.00	0.00
24	Contractor shall submit static pressure calculation for all above units to Client Consultant.	0.00	0.00	0.00
25	Any change in motor HP shall be made at no extra cost to client.	0.00	0.00	0.00
26	Fan efficiency shall be minimum 75%	0.00	0.00	0.00
27	The cost shall be included lifting shifting of each equipment material with all necesaary arrnagement. Also, it shall be included the cost of scaffloding required for Installation of such material equipment.	0.00	0.00	0.00
	Total :	1.00		155,000.00

## ItemCode :

ItemName : HVAC - Low side

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
28	2	CHILLED WATER PIPING WITH INSULATION			0.00	0.00	0.00
29	2.1	CHW PIPE			0.00	0.00	0.00
30		SITC of MS Heavy duty class C ERW Chilled Water pipe conforming to IS 1239 - 2004 primer painted including bends, tees, MS supports, PUFF saddles, anchor fasteners, steel angles and any other material required to complete the work. The piping flange connection bolts, washers and nuts should be hot dipped galvanised. Flourscent Plastic Sticker paint shall be applied to indicate Water flow directions. Only End flanges to be used for capping of pipes. Table E of BS code for flange thickness to be adhered.			0.00	0.00	0.00
31		Make Jindal Hissar TATA			0.00	0.00	0.00
32	а	F 32 mm	Rmt		15.00	1,050.00	15,750.00
33	2.2	CHILLED WATER PIPING INSULATION - INTERNAL USE			0.00	0.00	0.00
34		SITC of insulation for chilled water. piping. For internal pipe - Stick 25mm thick Nitrile rubber class O Closed cell nitrile rubber with anti-microbial coating on it. Insulation shall have Thermal conductivity of 0.033 W (m.K) and water vapor permeance of 0.10. Joints should be sealed with 50 mm wide 3 mm thick self adhesive tape and putting PVC bands at all supports.			0.00	0.00	0.00
35		Make Armaflex K-flex			0.00	0.00	0.00
36	а	F 32 mm	Rmt		25.00	550.00	13,750.00
37	2.3	BALL VALVE			0.00	0.00	0.00

			_			
38		SITC of following sizes of Ball Valve consist of Cap, Brass Body, Rated for 150 psi SWP, 600 psi WOG Pressure Two-piece construction; with brass body, regular port, B-16 chrome-plated ball and stem, replaceable "Teflon" or "TFE" seats and seals, blowout-proof stem, vinyl covered steel handle, threaded or soldered ends and extended stem for insulated piping. Same valve shall be used as a Drain valve.		0.00	0.00	0.00
39		Make Zoloto Audco Kitz		0.00	0.00	0.00
40	а	F 32 mm	Nos.	3.00	3,250.00	9,750.00
41	2.4	BALL VALVE WITH Y-STRAINER		0.00	0.00	0.00
42		SITC of following sizes of Brass Ball Valve with Y-Strainer consist of Cap, Brass Body, Rated for 150 psi SWP, 600 psi WOG Pressure Two-piece construction; with brass body, regular port, B-16 chrome-plated ball and stem, replaceable "Teflon" or "TFE" seats and seals, blowout-proof stem, vinyl covered steel handle, threaded or soldered ends and extended stem for insulated piping. Filter element shall be of non magnetic SS sheet with perforation.		0.00	0.00	0.00
43		Make Zoloto Audco Kitz		0.00	0.00	0.00
44	а	F 32 mm	No.	1.00	3,850.00	3,850.00
45	2.5	PIBCV VALVES		0.00	0.00	0.00
46		SITC of Pressure Independent Balancing cum Control Valves (PIBCV) including integrated motorised control valve and balancing device for combined flow and water balancing requirement. Valve body to be rated for PN 16. The valve design flow rate should be factory calibrated with + - 5% flow accuracy. Valve shall have necessary measuring ports, drain port, flanges etc., Valve shall also provide temperature sensor with necessary cabling (min 2mtr length to be considered with each valve). The balancing to be done through microprocessor based hand held terminal POT and the same results shall be furnished in the water balancing report as part of commissioning report and handing over manual.		0.00	0.00	0.00
47		Make Oventrop Siemens Danfoss		0.00	0.00	0.00
48	а	F 32 mm	No.	1.00	26,500.00	26,500.00
49	2.6	Auto Air Vent Valves		0.00	0.00	0.00
50		Make Anergy Flamco		0.00	0.00	0.00
51		Providing and fitting Auto Vent Valves.		0.00	0.00	0.00
52	а	SITC of Auto air vent in each risers common headers AHU. 3 4 auto vent valves at each coil riser header.	Nos.	2.00	1,500.00	3,000.00
53	2.7	SITC of Pressure gauges Thermometers		0.00	0.00	0.00
54		Make H Guru Waree		0.00	0.00	0.00
55		Necessary pressure gauges and thermometers 4 Dial type.		0.00	0.00	0.00
56	а	Water Pressure gauges 150mm dial complete with gauge valves, mounting, fittings and copper tubing extension wherever required. Pressure gauges Range 0-10 Kg CM2	Nos.	2.00	1,850.00	3,700.00
57	b	Thermometers of the mercury in glass stem type and copper separable well complete with guard etc., of industrial grade mounting on water lines. Length 9 12 inches, Thermometer, Range 0-50 deg C	Nos.	2.00	1,050.00	2,100.00
58	с	Thermowells	Nos.	4.00	250.00	1,000.00

59	d	SITC of Brass Test Plug of industrial grade mounting on water	Nos.		.00 0.00	0.00
	2.8	INSULATED CONDENSATE DRAIN PIPE	1103.		.00 0.00	0.00
61		SITC of UPVC pipes of following sizes for drain with necessary supports and fittings such as elbows, tees reducers etc. The insulation line to be insulated with nitrile rubber insulation of thickness 25mm and wrapped by weather proof protection tape. The Pipe wherever concealed should also have a parallel line as a standby arrangement in case of block of primary pipe .			.00 0.00	0.00
62		Make Supreme, Prince, Astral			.00 0.00	0.00
63	а	F 25 mm	Rmt	1	.00 120.00	1,200.00
64	b	F 32 mm	Rmt		.00 160.00	0.00
65		NOTES FOR PIPING			.00 0.00	0.00
66	а	Cover all open pipe ends with muslin cloth during construction			.00 0.00	0.00
67	b	Pipe cleaning chemical treatment as per specs shall be included in the piping cost.			.00 0.00	0.00
68	с	Unit rates for all indicated sizes of pipes valves shall be furnished.			.00 0.00	0.00
69	d	Cleaning Painting of pipe before insulation shall be included in piping cost.			.00 0.00	0.00
70	e	The piping support should be as per tender specification and additional supports are to be provided Contractor as decided by Consultant.			.00 0.00	0.00
71	f	All the valves shall be insulated with the same material as that of Chilled water pipng and cost of insulation for valves shall be considered.			.00 0.00	0.00
72		SUB-TOTAL			.00 0.00	0.00
73	3	SHEET METAL WORKS			.00 0.00	0.00
74	3.1	FACTORY FABRICATED G.I RECTANGULAR DUCT			.00 0.00	0.00
75		Supply, Fabrication, Testing, and Commissioning of Factory Fabricated GI Sheet Metal 120GSM Rectangular boxed ducting, Plenums, Cowls, Elbows with turning vanes, Splitters, Reducers, Flanges, Collars etc as per IS and Installaton as per SMACNA and IS 655 standards, The complete ducting shall be provided with MS Supports, Rods, Angles, Flanges, Bracing, Rubber Gaskets, Wooden frames, Canvas Connections, etc. as per drawings and specifications.			.00 0.00	0.00
76		GI Sheet Makes Tata, Jindal, SAIL, Ispat			.00 0.00	0.00
77		Make Rola Star, Zeco Ductofab			.00 0.00	0.00
78	а	18 Gauge GI Sheet Metal Duct (Above 2251mm Plenum)	Sq.mtr		.00 0.00	0.00
79	b	20 Gauge GI Sheet Metal Duct (1501-2250mm) For Kitchen Works	Sq.mtr		.00 0.00	0.00
80	с	22 Gauge GI Sheet Metal Duct (751-1500mm)	Sq.mtr		.00 0.00	0.00
81	d	24 Gauge GI Sheet Metal Duct (0-750mm)	Sq.mtr	2	.00 1,250.00	31,250.00
82	3.2	EXTRUDED ALUMINIUM CEILING GRILLES			.00 0.00	0.00

83		Supply, Installation, Testing and Balancing of Powder coated aluminium supply air grilles complete with removable inner core as per approved shop drawing and specifications. The area of grille can be of any geometrical shape (Square rectangular Linear). The grilles shall be with 15 30 45° deflections as per requirement. The Colour shall be decided and approved by client and architect.		0.00	0.00	0.00
84		Make Cosmos, Air Master System Air		0.00	0.00	0.00
85		Linear Grille	Sq.mtr	1.00	6,000.00	6,000.00
86	3.4	MULTI LEAF VOLUME CONTROL DAMPER		0.00	0.00	0.00
87		SITC of opposed blade aerofoil type 1.2 mm thick Anodized Aluminium volume control dampers for ducts shall be provided with concealed gears, plastic operator and quadrants for manual control of volume of air flow and for proper balancing of the air distribution system as per the approved shop drawings and specifications.	Sq.mtr	0.00	8,000.00	0.00
88		Make Cosmos, Air Master System Air		0.00	0.00	0.00
89	3.5	OPPOSED BLADE DAMPER		0.00	0.00	0.00
90		SITC of Aluminium Opposed blade dampers black powder coated vertical blades type for supply air collar. The damper should be gear operated type.	Sq.mtr	1.00	4,000.00	4,000.00
91	3.6	CANVAS CONNECTION		0.00	0.00	0.00
92		SITC of Flexible connections between mouth piece of Fan and initial piece of ducting with inspection zip. Flexible connections shall be double thickness non-flammable material (Fire retardant type).		0.00	0.00	0.00
93	а	For AHU	No	1.00	2,200.00	2,200.00
94		NOTES		0.00	0.00	0.00
95		The ducting support should be as per tender specification and additional supports are to be provided by Contractor as decided by Consultant.		0.00	0.00	0.00
96		Muslin cloth cover for all air outlets during construction.		0.00	0.00	0.00
97		Pressure testing of complete duct work as per DW SMACNA standard.		0.00	0.00	0.00
98		Silicon sealant for longitudinal transverse joints as per specification.		0.00	0.00	0.00
99		Diffusers grilles shall be powder coated as per color approved by Architect.		0.00	0.00	0.00
100		SUB-TOTAL		0.00	0.00	0.00
101	4	THERMAL ACOUSTIC INSULATION		0.00	0.00	0.00
102	4.1	THERMAL INSULATION		0.00	0.00	0.00
103		Supply fixing of Thermal insulation for supply air duct using 19mm thick class O Closed cell nitrile rubber with anti-microbial coating on it. Insulation shall have Thermal conductivity of 0.033 W (m.K) and water vapor permeance of 0.10. Joints should be sealed with 50 mm wide 3 mm thick self adhesive tape. The duct shall be stick with recommended adhesive.	Sq.mtr	20.00	650.00	13,000.00
104		Make Armaflex K-flex		0.00	0.00	0.00
105	4.2	ACOUSTIC INSULATION		0.00	0.00	0.00

106		Supply fixing acoustic insulation for ducting using Class 1 closed cell elastomeric insulation of 15mm thick Nitrile rubber insulation adhesive, longitudinal transverse joints sealed with adhesive in neat clean manner. Material shall be processed Nitrile Rubber foam with anti-microbial protection. Insulation shall have thermal conductivity of 0.047 W (m.K) and density of 140 - 180 kg m <sup>3</sup> .	Sq.mtr	5.00	1,250.00	6,250.00
107		Make Armaflex K-flex		0.00	0.00	0.00
108		Note		0.00	0.00	0.00
109	a.	Insulation work to be coordinated with other agencies and repair to be included by contractor as per site requirement.		0.00	0.00	0.00
110	b.	Vendors to take care of the installation, if any damages takes place the vendor to repair or replace and hand over to clients in good and acceptable condition.		0.00	0.00	0.00
111	С.	Thermal insulation shall be internal for Elliptical Expossed ducting.		0.00	0.00	0.00
112		SUB-TOTAL		0.00	0.00	0.00
113	5	ELECTRICAL WORKS		0.00	0.00	0.00
114	5.1	STARTER PANEL		0.00	0.00	0.00
115		SITC of indoor outdoor, wall mounting type 3PH, 415VAC MOTOR STARTERS IN CRCA SHEET STEEL ENCLOSURE with necssary supporting brackets and required accessories, etc., The Enclosure shall be provided with knockouts suitable for cable termination at TOP BOTTOM for incoming and outgoing power cables of A2XFY type and size specified. The starters shall be complete with suitable MPCB MCCB, Contactor, Bi-metal O L relay with SPP, ON OFF Push buttons, on off trip indication Lamp, on off push button, phase indication Lamp. Selection of relay, contractor, MPCB MCCB etc. as per Type-2 Coordination. Panel shall have provision to connect with BMS.		0.00	0.00	0.00
116	а	Suitable for 2100 CFM AHU, DOL Starter Panel	Nos.	1.00	24,500.00	24,500.00
117	5.2	POWER CABLING		0.00	0.00	0.00
118		Supply, handling, laying effecting proper connections testing and commissioning of following sizes of 1.1 KV grade XLPE insulated FRLS Aluminium Copper conductor cables laid over MS supports cable racks or fixing on walls including clamping the cable to supports in an approved manner as required complete with Copper earthing as specified for continuous earthing along with cable. All complete as required and as per final instruction as given by Owners Consultants and as per Technical specifications. Earthing shall be measured separately and shall be connected in two runs. Power to ELCB to be provided near each ODU by electrical contractor.		0.00	0.00	0.00
119	а	Suitable Power Cable		0.00	0.00	0.00
120		Suitable for 2100 CFM AHU, DOL Starter Panel	Rmt	10.00	280.00	2,800.00
121	b	Earthing		0.00	0.00	0.00
122		8 SWG	Rmt	20.00	120.00	2,400.00
123	5.3	BTU METER		0.00	0.00	0.00
124		Supply,fixing and testing of inline Btu meter for the flow rate temperature measurement consisting mainly of following 3 parts		0.00	0.00	0.00
125		a) Ultrasonic Flow Meter		0.00	0.00	0.00

126		b) Matched pair of temp sensor			0.00	0.00	0.00
127		c) Flowcell Sensor			0.00	0.00	0.00
128		c) BTU Meter - 4 - 20mA DC from flowmeter			0.00	0.00	0.00
129		Insertion type flowmeter shall be suitable for chilled water application for temp. Ranging from 0 to 50 deg C. Power supply shall be 240V AC (+ -) 15 %. Display shall have 16 characters LCD display with Back light, flow rate, Velocity, totaliser etc. Output shall be BMS Modbus compatible shall have keypad lockout security option. It also should be able to show various units such as gallons, ft^3, lbs, liters, m^3, kg etc			0.00	0.00	0.00
130		Make Honeywell Danfoss Siemens			0.00	0.00	0.00
131	а	Dia 32 mm	No.		1.00	10,500.00	10,500.00
132	5.4	CABLE TERMINATION			0.00	0.00	0.00
133		Supply Making of Cable termination of armoured unarmoured cables 1.1 KV grade including installation of cable glands, cable lugs (Aluminium for A2XFY copper for 2XFY YY Double compression type), heat shrinkable sleeves on long ends, crimping paste etc. The work includes testing commissioning of cables, meggaring values submitting reports of tests. (One set includes termination of all cores of one end only). All crimping tools dies shall be arranged by contractor.			0.00	0.00	0.00
134	а	Suitable for 2100 CFM AHU, DOL Starter Panel	Nos.		2.00	250.00	500.00
135	5.5	CABLE TRAYS			0.00	0.00	0.00
136		Supplying Fixing of following sizes of GI cable tray duly painted perforated type of height 50mm along with necessary bends, reducers etc. anchored along the wall suspended from the ceiling with necessary MS supports.			0.00	0.00	0.00
137	а	50mm wide	Rmt		10.00	450.00	4,500.00
				Total :	162.00		188,500.00