

Purchase Order

TFS GURGAON AIRPORT SERVICES PRIVATE LIMITED

Order Number : TFS GURGAON/PO/24-25/000051

Supplier Detail PIONEER PROJECT SOLUTION Supplier Code : RV242523827 [V0000024]	Shipped Location TFS GURGAON AIRPORT SERVICES PRIVATE LIMITED TFS Delhi T1	Invoice Location TFS GURGAON AIRPORT SERVICES PRIVATE LIMITED TFS Delhi T1
(V0000024)	Delhi Terminal 1, Indira Gandhi International Airport, Domestic Departure SHA, Mehram Nagar, New Delhi, 110037	Delhi Terminal 1, Indira Gandhi International Airport, Domestic Departure Sha, Mehram Nagar, New Delhi, 110037 GSTIN No : 07AAKCT9336M1ZL
PAN No : AHQPA6815Q Supplier GST No : 07AHQPA6815Q2ZQ Supplier Contact No : Contact Person Name : MOHD ASHRAF Supplier Email : projectspioneer@gmail.com	Cost Center Code : 91180054 Cost Center Name : DEL GORDON RAMSAY T1 Project ID : 0 PO Category : Capex NSO	Payment Term : Payments Terms: HVAC- Hi Side Advance 100% without GST within 7days of work order acknowledgement(by the vendor) HVAC- Low Side, FAS & Fire Advance - 40% within 7days of Work Order acknowledgement (by the vendor). RA Bill 1- Up to 70% upon 80% work completion & submission on Tax Invoice. Final Bill- Up to 95% upon 100% work completion & signed JMR. PO Creation Date : 06/01/2025 PO Approval Date : 0 PO Currency : INR Buyer Name : Pushpak Mahesh Shewale

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Sr.No	Item Code	HSN\SAC Code	Item Name	Item Description	Pur. Grp.	Qty	UOM	Basic Rate	Dis%	Net Rate	Total Amount	IGST %	Gross Total Amount
1	Hvac - High Side	995463	Hvac - High Side	Hvac - High Side	C01	1.00	NOS	435,000.00	0.00	435,000.00	435,000.00	18	513,300.00
2	Hvac - Low Side	995463	Hvac - Low Side	Hvac - Low Side	C01	1.00	NOS	455,670.00	0.00	455,670.00	455,670.00	18	537,690.60
3	Fire Sprinkler	8424	Fire Sprinkler System	Fire Sprinkler System	C01	1.00	NOS	177,400.00	0.00	177,400.00	177,400.00	18	209,332.00
4	FAS	85103120	FAS	FAS	C01	1.00	%	150,700.00	0.00	150,700.00	150,700.00	18	177,826.00

Total Qty : 4.00

Total Basic PO Amount	1,218,770.00
Total Other Charges	
IGST Amount	219,379

Amount In Words : Rupees Fourteen Lakh Thirty Eight Thousand One Hundred Fourty Eight And Sixty Paise Only

Grand Total PO Amount

1,438,148.60

Remarks : Liquidated Damages:

The CONTRACTOR shall pay liquidated damages as under, for any delay in the physical completion of the works

5% of the contract value for delay during Week 1

7.5% of the contract value for delay during Week 2

10% of the contract value per week for delay from Week 3 onwards.

Standard Terms And Condition :

Completion / Delivery TimeLine : 13/02/2025

Mobilization Date : 13/01/2025

Defects Liability Period : 12/02/2026

Retention Percentage : 0

Escalation Buyer Detail		
Name	Mobile No.	Email - ID
Pushpak Shewale	8268330691	
Stephen P.	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.

ItemCode : Hvac - High Side

ItemName : Hvac - High Side

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1	A	CONNECTING INTEGRATING UNIT MEP SERVICES TO AIRPORT MEP SERVICES BUILDING			0.00	0.00	0.00
2		VENTILATION FANS			0.00	0.00	0.00
3	B.1.1	3500 CFM @ 600 PASCAL - ESP.	Nos		1.00	145,000.00	145,000.00
4	B.2	Supply, installation, testing and commissioning of Double Skinned Ceiling Suspended Air Washer Units of approved make with minimum 25 mm thick panels of minimum 40 Kg m3 density with 0.60 mm precoated GSS outer skin and 0.60 plain inner skin, filter section with EU4 Pre Filter, mist eliminator located on the air leaving end, drain tank shall be 20 gauge SS304 grade, inlet makeup overflow connections with pump also considered. Fan shall be ACMA certified direct driven backward curved Plenum plug fan with aerofoil design blades including control panel. The Fan shall be suitable for 400 ± 15 volts, 50 Hz, 3 phase AC supply. Quote shall be inclusive of all necessary mounting and fixing arrangements for the equipment, including hanging arrangements with vibration isolation as required based on the hanging structure above. Note External Static Pressure (ESP) is calculated based on design drawing however contractor to select fan to match with actual pressure drop based on site condition. Pressure drop calculation and selection to be submitted to consultant for review approval. The procurement shall be processed only after pressure drop calculations selections duly verified from the consultants.			0.00	0.00	0.00
5		AIR CLEANING EQUIPMENTS			0.00	0.00	0.00
6	B.3	Supply, installation, testing and commissioning of Double Skinned ceiling suspended Dry Scrubber of approved make with minimum 25 mm thick panels of minimum 40 Kg m3 density with 0.60 mm precoated GSS outer skin and 0.60 plain inner skin, including EU4 Pre Filter, ionizer, collection plate .The Unit shall be suitable for 230V, 1 Phase, 50 Hz AC supply. Auto power cut-off when door is opened, short circuit, arc protection and auto restore power supply, Quote shall be inclusive of all necessary mounting and fixing arrangements for the equipment, including hanging arrangements with vibration isolation as required based on the hanging structure above.			0.00	0.00	0.00
7	B	HVAC EQUIPMENTS			0.00	0.00	0.00
8	B.2.1	2800 CFM @ 300 PASCAL - ESP.	Nos		1.00	130,000.00	130,000.00

9	B.1	<p>Supply, Installation, Testing and Commissioning of Double Skinned ceiling suspended Kitchen Exhaust Air Fan of approved make with minimum 25 mm thick panels of minimum 40 Kg m³ density with 0.60 mm precoated GSS outer skin and 0.60 plain inner skin. Motor shall be of IE 3, the fan motor should be located outside of the hot air stream, Class H insulation. Fans should be AMCA certified for Air Sound. Manufacturer shall submit "Certificate of conformity for 250 deg for 2 hours operation as per EN12101-3 2002 issued by Internationally recognized Independent Fire Laboratory should be submitted along with type test report. The Type test report should clearly indicate the make of motor used during the testing and the same make model of motor should be supplied by the fan manufacture at the site. The unit shall be suitable for 400 ± 15 volts, 50 Hz, 3 phase AC supply. Including control panel and all necessary cabling and terminations.</p> <p>Quote shall be inclusive of all necessary mounting and fixing arrangements for the fan, including hanging arrangements with vibration isolation as required based on the site condition.</p> <p>Note External Static Pressure (ESP) is calculated based on design drawing however contractor to select fan to match with actual pressure drop based on site condition. Pressure drop calculation and selection to be submitted to consultant for review approval. The procurement shall be processed only after pressure drop calculations selections duly verified from the consultants.</p>		0.00	0.00	0.00
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10		<p>General Guidelines Ducting 1) Ducting shall be in accordance with IS 655, Galvanised Iron sheet to be used for all ducting works. Thermal insulation on ducts shall be 19 mm thick. Closed cell Class "O" BS 476 Part 6-7 FM Approved nitrile rubber elastomeric insulation thermal conductivity 0.033 watts per meter-kelvin (W (M·K)) at 0°C for air conditioning ducting. 2) Thermal insulation on kitchen exhaust ducting shall be 80 mm thick Aluminium foil faced resin bonded fiber Glass wool of density not less than 48 kg m33) Thermal Insulation on Fresh air, Supply Air and Return Air shall be 19mm thick closed cell antimicrobial Class "O" BS 476 and part 6 7 FM approved nitrile rubber elastomeric insulation thermal conductivity 0.033 watts per meter-kelvin (W (M·K)) at 0°C.4) Appropriate number of trap doors shall be provided in kitchen exhaust ducting for oil grease cleaning purpose.5) Ducting installation with respect to fresh air intake, kitchen exhaust out from location up to louvers at façade shall be in the scope of concessioner including air washer, exhaust fan section dry scrubber etc.6) Each and every kitchen exhaust hood should be equipped with UL listed, wet chemical based, mechanically operated, automatic fire suppression system. Separate drawing to be submitted for Hood suppression system.8) Post completion of onsite work, concessionaire has to share testing and commissioning report with DIAL.9) Integration with Fire alarm system, so that AHU get switched off in case of any fire incident. 7) Supporting of ducting to be done with using angle 50x 50 x 5mm and tie rod of size minimum 10 mm dia As per duct size.10) For equipment placement structural details to be approved by structural consultant and same to be share with DIAL. 11) Trap door with proper access to be provided for filter and copper coil cleaning.12) Kitchen ventilation shall comply to NFPA 96 guideline.Chilled Water Piping - 1. Chilled water piping shall be confirming to IS 1239 Part I class 'C' heavy and fitting shall be conforming to ASTM A-105,3000lbs socket weld end (up to 50mm) 1S 1239 Part-II HEAVY ASTM A-234 WPB, Gr.B butt weld fitting (above 50nb pipe size)2. Piping connection should be socket welded up to 50nb size and shall be butt weld above 50nb pipe size. Pipe flanges should be confirming to ASTM A-105 # 150 SORF and flange dimension should be in accordance with ASME ANSI B 16.5 (150 SORF), fitting to fitting welding is not allowed. Nozzle connections thredolets weldolets are not allowed by puncturing the pipe. Only equal unequal Tee's shall be used for branch connection from header. Socket weld end Tee should be used for branch connection (up-to -50nb pipe size) w.r.t to pressure gauge temperature gauge Air vent Drain point etc.3. Post installation clearance by DIAL, CHW piping shall be tested @15kgf cm2 hydrostatics pressure for 24hrs hold time and Testing should be witnessed to DIAL Team.4. Thermal insulation on CHW and condensate drain piping line shall be 25mm thick. Closed cell antimicrobial Class "O" BS 476 and part 6 7 FM approved nitrile rubber elastomeric insulation thermal conductivity 0.033 watts per meter-kelvin (W (M·K)) at 0°C.5. Condensate drain piping shall be complying to IS 4985 Class 3 UPVC pipe. Solvent cement complying with ASTM D2564 shall be used for joints.6. For ceiling suspended chilled water pipe Pipe should be hanged with tie rod of size minimum 10 mm dia. 7. Attached CHW P ID drawing sketch to be followed during onsite work.</p>			0.00	0.00	0.00
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11	A.1	If any termination or connection of the unit services is required outside the site location (i.e., connection termination of the MEP unit to the airport MEP service or airport external façade or roof, etc.), then the contractor has to work in consultation with the airport to plan, design, and detail such connections. The contractor is to do all necessary site surveys to verify the optimal routing for the services in such cases. Finally, the contractor is to make good on any penetrations after installation, including providing fire seals as required as per airport requirements.			0.00	0.00	0.00
12	B.3.1	3500 CFM	Nos		1.00	160,000.00	160,000.00
Total :					3.00		435,000.00

ItemCode : Hvac - Low Side

ItemName : Hvac - Low Side

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1	C	AC PIPING AND ACCESSORIES			0.00	0.00	0.00
2	C.1	Supply, installation and testing of Rigid uPVC drain water piping of approved make with necessary supports and fittings like, U-traps, elbows, tees and reducers.			0.00	0.00	0.00
3		RECTANGULAR DUCTS			0.00	0.00	0.00
4	D.1.1	24 Gauge - (0.70 mm Thick) - Supply Air Duct	Sq.mtr		55.00	1,250.00	68,750.00
5	D.1.4	22 Gauge - (0.85 mm Thick) - Fresh Air Duct	Sq.mtr		4.00	1,350.00	5,400.00
6		AC CONDENSATE DRAIN PIPE			0.00	0.00	0.00
7	D.1.3	24 Gauge - (0.70 mm Thick) - Fresh Air Duct	Sq.mtr		45.00	1,250.00	56,250.00
8	D.2.1	18 Gauge - (1.21 mm Thick) - Kitchen Exhaust Air Duct	Sq.mtr		39.00	1,550.00	60,450.00
9		ROUND DUCTS			0.00	0.00	0.00
10	D.3.1	24 Gauge - (0.70 mm Thick) - Supply Air Duct	Sq.mtr		7.00	1,550.00	10,850.00
11		DUCT ACCESS DOORS			0.00	0.00	0.00
12	D.4.1	300 mm X 300 mm - (MS)	Nos		5.00	1,400.00	7,000.00
13	E	AIR DISTRIBUTION DUCT - THERMAL INSULATIONS ACCOUSTIC LININGS			0.00	0.00	0.00
14		AIR DISTRIBUTION DUCT - THERMAL INSULATIONS			0.00	0.00	0.00
15		DUCT AIR CONTROL DAMPERS			0.00	0.00	0.00
16	F.1.2	Size - 375 x 375 mm	Nos		4.00	1,400.00	5,600.00
17	F.4	Supply, installation, testing and commissioning of Circular Volume Control Damper of approved make with high quality Galvanized steel and Flap Blade fixed with nylon bushes, with hand locking quadrant.			0.00	0.00	0.00
18	G.1.1	Neck Size - 300 mm X 300 mm (Outer Size - 440 mm X 440 mm)	Nos		17.00	1,800.00	30,600.00
19	J	HVAC SERVICE IDENTIFICATION LABELS, SIGNS TAGS			0.00	0.00	0.00
20	J.1.1	Labelling Tagging for Services and Equipment s	Lot		1.00	5,000.00	5,000.00
21	M.1.3	Item 3 - (Contractor to describe only if there are any)	Unit		1.00	0.00	0.00

22	D.6	Supply, installation, and testing of Flexible Duct Connectors (Canvas connection) of approved make to isolate vibrations and noises caused by fans or any other equipments connected to the duct with air tight fittings with all necessary accessories.			0.00	0.00	0.00
23	D.6.2	For Kitchen Exhaust air Fan	Nos		2.00	2,650.00	5,300.00
24	D	AIR DISTRIBUTION DUCTS			0.00	0.00	0.00
25		FLEXIBLE DUCTS			0.00	0.00	0.00
26	F.2	Supply, installation, testing and commissioning of Aluminium powder coated Low Leakage Square Rectangular Volume Control Damper of approved make with aero-foil opposed blades and nylon gears system outside air stream with adjustable handle with position arresting bolt.			0.00	0.00	0.00
27	F.2.2	Size - 550 x 250 mm	Nos		2.00	1,800.00	3,600.00
28	F.3.1	Size - 500 x 400 mm	Nos		1.00	2,400.00	2,400.00
29	G	AIR TERMINALS - (GRILLES, REGISTERS, DIFFUSERS LOUVERS)			0.00	0.00	0.00
30		DIFFUSERS			0.00	0.00	0.00
31	G.1	Supply, installation, testing and commissioning of Extruded Aluminium Square Ceiling Diffuser of approved make with Four way throw with all necessary fixing arrangements. Powder coated finish with RAL Colour as required by ID Designer Architect.			0.00	0.00	0.00
32	H	DISMANTLING OF EXISTING DUCTS			0.00	0.00	0.00
33	H.1	Remove and dispose of the existing supply air duct branch, fittings, insulation, and supports etc. and install new duct sections to match the new design, including necessary supports and hangers.			0.00	0.00	0.00
34	J.1	All services like Ducts, Pipes need to be clearly labelled or tagged at site with service identification flow direction etc. And all equipment needs to be tagged as per Airport requirements.			0.00	0.00	0.00
35	L	SHOP DRAWINGS APPROVALS			0.00	0.00	0.00
36	M.1	The contractor needs to mention any additional items or missing items that are not mentioned in the above BOQ after a detailed site survey or inspection and to be validated by consultants.			0.00	0.00	0.00
37	M.1.1	Item 1 - (Contractor to describe only if there are any)	Unit		1.00	0.00	0.00
38	E.2	Supply, installation of Thermal Insulation of approved make for Kitchen exhaust ducting using Resin Bonded Fibre Glass Wool (Asbestos Free) with Aluminum Foil covering, density of not less than 48 Kg m3. Quoute shall be inclusive of necessary Adhesive.			0.00	0.00	0.00
39	E.2.1	80 mm thicknesses - For Kitchen Exhaust	Sq.mtr		39.00	1,050.00	40,950.00
40	F	AIR DISTRIBUTION DUCT - DAMPERS			0.00	0.00	0.00
41	F.1	Supply, installation, testing and commissioning of aluminum powder coated Opposed Blade Damper Collar Damper of approved make.			0.00	0.00	0.00
42	F.2.1	Size - 350 x 200 mm	Nos		2.00	1,500.00	3,000.00
43	F.2.3	Size - 300 x 200 mm	Nos		2.00	1,400.00	2,800.00

44	L.1	Preparation and submission of a detailed shop drawing for the HVAC system after a thorough study of design drawings, site surveys, and relevant airport standards with correct routing, size, and elevations. The drawings also need to be coordinated with other MEP services like Electrical, Plumbing, and fire services, with the latest Architectural and Interior design drawings, before construction. Necessary amendments to the drawings are to be made and resubmitted in case of any variations on site while at the construction stage of the project. Also prepare relevant detailed connection drawings as per selected manufacturer details and Airport standards, with necessary approval to be obtained from consultants and authority regulatory bodies having jurisdiction, along with material submission approval with airport authorities.			0.00	0.00	0.00
45	C.1.1	32 mm Ø	Mtr		8.00	140.00	1,120.00
46	D.1	Supply, installation and testing of Galvanized Iron (GI) Galvanized Steel (GS) 120GSM Zinc coated factory fabricated Square Rectangular Ducts of approved make with all necessary fittings, connections, vanes, flanges, bracings, gaskets, duct collars, splitter dampers, and all necessary duct supports like MS Angle bars, slotted rails, threaded rods, anchor bolts, nuts, bolts, structural beam clamps as applicable. The ducts shall be fabricated and installed in line with SMACNA or DW-144 as required by Airport local regulatory or approval body having jurisdiction.			0.00	0.00	0.00
47	D.1.2	24 Gauge - (0.70 mm Thick) - Return Air Duct	Sq.mtr		6.00	1,250.00	7,500.00
48	D.2	Supply, installation and testing of Mild Steel (MS) Ducts fabricated with hot rolled or cold rolled black steel sheets Square Rectangular Ducts of approved make with fully welded leak proof construction with Fire rated spay coat conforming to NFPA 96 Standards. with all necessary fittings, connections, vanes, flanges, bracings, gaskets, duct collars, splitter dampers, and all necessary duct supports like MS Angle bars, threaded rods, anchor bolts, nuts, bolts, structural beam clamps as applicable. Duct and all other accessories shall be fire resistant, The ducts shall be fabricated and installed in line with SMACNA or DW-144 as required by Airport local regulatory or approval body having jurisdiction.			0.00	0.00	0.00
49	D.3	Supply, installation, and testing of Galvanized Iron (GI) Galvanized Steel (GS) 120GSM Zinc coated factory fabricated Round Ducts of approved makes with all necessary fittings, round connectors, duct collars, splitter dampers, and all necessary duct supports like MS Angle bars, slotted rails, threaded rods, anchor bolts, nuts, bolts, structural beam clamps as applicable. The ducts shall be fabricated and installed in line with SMACNA or DW-144 as required by Airport local regulatory or approval body having jurisdiction.			0.00	0.00	0.00
50	D.4	Supply, installation, and testing of Hinged type Duct Access Doors as per drawings and to allow easy and convenient access to equipment or any other component within ductwork with all necessary fittings, accessories and airtight gaskets etc.			0.00	0.00	0.00
51	D.5	Supply, installation, and testing of aluminum-polyester casing Round Insulated Flexible Duct of approved make reinforced with spiral wound steel wire, Temperature range -20° C to +140° C, with a standard Insulation with a 25mm thick mineral wool, covered with aluminum-polyester film casing and with all necessary connections, fixing and support arrangements.			0.00	0.00	0.00
52	D.5.1	250 mm Ø	Mtr		5.00	550.00	2,750.00
53	D.6.1	For Air Washer Unit	Nos		2.00	2,650.00	5,300.00

54	E.1	Supply, installation of Thermal Insulation of approved make for duct insulation using closed-cell elastomeric nitrile rubber Class O rated as per BS 476 Part 6 1989 for fire propagation test and for Class 1 as per BS 476 Part 7, 1987 for surface spread of flame test. Water vapour permeability shall be not less than 0.024 per inch (2.48 x 10 ⁻¹³ Kg m.s.Pa i.e. μ>7000 Water Vapor diffusion resistance) as per DIN 53122 part 2, DIN 52615 EN 12086 EN13469. Insulation shall be black Colour with having a density of 50 ± 10 Kg M3. Quote shall be inclusive of necessary Adhesive.			0.00	0.00	0.00
55	E.1.1	25 mm thicknesses	Sq.mtr		117.00	650.00	76,050.00
56	F.1.1	Size - 300 x 300 mm	Nos		9.00	1,200.00	10,800.00
57	F.3	Supply, installation, testing and commissioning of MS powder coated Low Leakage Square Rectangular Volume Control Damper of approved make with aero-foil opposed blades and nylon gears system outside air stream with adjustable handle with position arresting bolt. (For Kitchen Exhaust MS duct)			0.00	0.00	0.00
58	F.3.2	Size - 450 x 250 mm	Nos		4.00	2,200.00	8,800.00
59	F.4.1	Size - 250 mm Ø	Nos		2.00	1,200.00	2,400.00
60	G.1.2	Neck Size - 375 mm X 375 mm (Outer Size - 600 mm X 600 mm)	Nos		4.00	2,000.00	8,000.00
61	H.1.1	Dismantling of existing ducts	Lot		1.00	25,000.00	25,000.00
62	K	TESTING AND BALANCING			0.00	0.00	0.00
63	K.1	Air balancing of Supply, Return, Fresh air and Exhaust air system to arrive as per design air flow rates			0.00	0.00	0.00
64	M	MISCELLANEOUS OR ANY ADDITIONAL ITEMS			0.00	0.00	0.00
65	M.1.2	Item 2 - (Contractor to describe only if there are any)	Unit		1.00	0.00	0.00
Total :					386.00		455,670.00

ItemCode : Fire Sprinkler

ItemName : Fire Sprinkler System

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1	C	FIRE SPRINKLER SYSTEM AUTOMATIC FIRE SPRINKLER HEADS ACCESSORIES			0.00	0.00	0.00
2	C.1	Supply, Installation, Testing Commissioning of Automatic Fire Sprinkler Heads (Bulb-type Sprinklers) of approved make with a standard temperature response with 5mm glass bulb, Temperature rating of 68° C - 93° C, Nominal Thread size of 1 2 NPT (15mm) and a Orifice size of 13mm with a Max. Working Pressure of 12 Bar (Factory hydrostatic test pressure of 35 Bar) and to be Manufactured Certified to UL 199. The quote shall also include suspending arrangements with the ceiling, wall etc.			0.00	0.00	0.00
3		FIRE SPRINKLER PIPING			0.00	0.00	0.00
4	C.4.1	25 mm Dia	Mtr		10.00	750.00	7,500.00
5	C.5.1	Assembly Length of (1500 mm)	Nos		29.00	2,650.00	76,850.00

6	G.2	Sprinkler pipe Pressure testing hydrostatic pressure test of no less than 14 bar (200PSI) for 2 hours with zero loss in pressure at the reference gauge or visual observation of a leak. Testing should be done in the presence of Airport Concerned Persons.	LS		1.00	0.00	0.00
7	G.3	Ensure all extinguishers are properly labelled, mounted, and ready for use. Training for staff on correct usage should be included. Testing should be done in the presence of Airport Concerned Persons.	LS		1.00	0.00	0.00
8	C.1.1	Pendant type of 79° C (Finishing - Chrome Plated)	Nos		4.00	1,450.00	5,800.00
9	C.2	Supply, Installation, Testing Commissioning of Automatic Concealed Fire Sprinkler Heads (Bulb-type Sprinklers) of approved make with adjustable Escutcheon plates (Rosette plates). standard temperature response with 5mm glass bulb, Temperature rating of 68° C, Nominal Thread size of 1 2 NPT (15mm) and an Orifice size of 13mm with a Max. Working Pressure of 12 Bar (Factory hydrostatic test pressure of 35 Bar) and to be Manufactured Certified to UL 199. The quote shall also include suspending arrangements with the ceiling, wall etc.			0.00	0.00	0.00
10	C.2.1	Concealed Pendant type of 68° C (Chrome Finish Plate Cover)	Nos		25.00	2,250.00	56,250.00
11	C.4.3	50 mm Dia	Mtr		8.00	1,250.00	10,000.00
12	C.5	Supply Fixing of UL Listed Stainless Steel Braided Flexible Sprinkler Hose with a working pressure of 12 Bar, Inlet Nipple(1 (25mm) BSPT NPT connection),Outlet Reducer (1 2 (15mm) BSPT NPT connection), Isolation Ring, Gasket, Snap Clamp, T-bar bracket (TBL or TBS),Stock bar and Nuts etc.			0.00	0.00	0.00
13	F.1	Remove and dispose of the existing fire sprinkler pipe branch, fittings and supports etc. and install new fire sprinkler pipe sections to match the new design, including necessary supports.			0.00	0.00	0.00
14	G	TESTING AND BALANCING			0.00	0.00	0.00
15	G.1	Checking the functionality of all installed devices, conducting alarm tests, verifying proper communication between control panels and devices, and other systems. Testing should be done in the presence of Airport Concerned Persons.	LS		1.00	0.00	0.00
16	A.1	If any termination or connection of the unit services is required outside the site location (i.e., connection termination of the MEP unit to the airport MEP service or airport external façade or roof, etc.), then the contractor has to work in consultation with the airport to plan, design, and detail such connections. The contractor is to do all necessary site surveys to verify the optimal routing for the services in such cases. Finally, the contractor is to make good on any penetrations after installation, including providing fire seals as required as per airport requirements.			0.00	0.00	0.00
17	C.3	Supply, Installation, Testing Commissioning of Automatic Fire Sprinkler Heads (Bulb-type Sprinklers) of approved make with a standard temperature response with 5mm glass bulb, Temperature rating of 68° C 93° C, Nominal Thread size of 1 2 NPT (15mm) and a Orifice size of 13mm with a Max. Working Pressure of 12 Bar (Factory hydrostatic test pressure of 35 Bar) and to be Manufactured Certified to UL 199. The quote shall also include suspending arrangements with the ceiling, wall etc.			0.00	0.00	0.00
18	C.3.1	Upright type of 68° C (Finishing - Chrome Plated)	Nos		5.00	1,250.00	6,250.00
19	C.4.2	32 mm Dia	Mtr		5.00	950.00	4,750.00
20	F	DISMANTLING OF EXISTING FIRE SPRINKLER PIPES			0.00	0.00	0.00

21	A	CONNECTING INTEGRATING UNIT MEP SERVICES TO AIRPORT MEP SERVICES BUILDING			0.00	0.00	0.00
22	C.4	Supply, Installation, Testing Commissioning of MS C Class Fire Sprinkler Pipe conforming to IS 1239 with all fittings like bends, tees, flanges, nut, bolt and washers etc, and proper pipe supports to not more than 3 meter apart of the pipe length. The pipe work shall be hydrostatically tested for not less than 2 hours at 15 Bar (or 1.5 times the working) pressure without leak. The pipes are to be applied with 2 coats of primer (indicated film thickness, dry 50 microns) and 2 coats of enamel finish paint of approved colour (indicated film thickness, dry 30 microns)			0.00	0.00	0.00
23	F.1.1	Dismantling of existing fire sprinkler pipe	Lot		1.00	10,000.00	10,000.00
Total :					90.00		177,400.00

ItemCode : FAS

ItemName : FAS

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1	B.4.1	Sounder Strobe - (Wall Partition Mounted)	Nos		1.00	5,500.00	5,500.00
2	B.5	Supply, Installation, Testing, and Commissioning of Addressable Type Response Indicator of approved make conforming by local fire authorities with high bright LED, for Fire Detectors to indicate quickly the source of an alarm signal from detectors, which are not easily accessible or visible with IP30 Ingress Protection, Operating Temperature (-10°C to +50°C) approved by LPCB, with all necessary mounting and fixing arrangements.			0.00	0.00	0.00
3	A.1	If any termination or connection of the unit services is required outside the site location (i.e., connection termination of the MEP unit to the airport MEP service or airport external façade or roof, etc.), then the contractor has to work in consultation with the airport to plan, design, and detail such connections. The contractor is to do all necessary site surveys to verify the optimal routing for the services in such cases. Finally, the contractor is to make good on any penetrations after installation, including providing fire seals as required as per airport requirements.			0.00	0.00	0.00
4		FIRE ALARM SYSTEM - DETECTION DEVICES			0.00	0.00	0.00
5	B.2.2	Heat Detector - 79°C fixed temperature (Above Ceiling)	Nos		2.00	5,250.00	10,500.00
6		FIRE ALARM SYSTEM - AUDIBLE AND VISUAL NOTIFICATION DEVICES			0.00	0.00	0.00
7	B.5.1	Response Indicator Remote Indicator	Nos		10.00	350.00	3,500.00
8		FIRE ALARM SYSTEM - MODULE DEVICES			0.00	0.00	0.00
9	B.6.1	Isolator Module	Nos		1.00	5,400.00	5,400.00
10		FIRE ALARM SYSTEM - CABLING			0.00	0.00	0.00
11	B.8.1	2C x 1.5 Sq. mm Cu Cable	Mtr		130.00	145.00	18,850.00
12	A	CONNECTING INTEGRATING UNIT MEP SERVICES TO AIRPORT MEP SERVICES BUILDING			0.00	0.00	0.00

13	B.1	Supply, Installation, Testing, and Commissioning of Addressable Type Optical Smoke Detector of approved make conforming by local fire authorities, with standard detector mounting Base, IP30 Ingress Protection, suitable area coverage (subject to local standard), 360° Angle Visibility, Operating Temperature (-10°C to +50°C), Approved by LPCB, with all necessary mounting and fixing arrangements.			0.00	0.00	0.00
14	B.1.2	Optical Smoke Detector (Above Ceiling)	Nos		8.00	5,050.00	40,400.00
15	B.3	Supply, Installation, Testing, and Commissioning of Addressable Type Manual Call Point Conforming to EN54 with Break glass, ABS material enclosure, IP30 Ingress Protection, Operating Temperature (-10°C to +50°C) of approved make along with suitable size 2 core cable clipped to structure wall ceiling through GI or Heavy Duty PVC Conduits with suitable cable clips saddles suitable for flush and surface mounting with all necessary mounting, termination and fixing arrangements.			0.00	0.00	0.00
16	B.7.1	Control Module	Nos		1.00	5,400.00	5,400.00
17	B.1.1	Optical Smoke Detector	Nos		9.00	5,050.00	45,450.00
18	B.2	Supply, Installation, Testing, and Commissioning of Addressable Type Fixed Temperature Heat Detector of approved make conforming by local fire authorities, with standard detector mounting base, IP30 Ingress Protection, suitable area coverage (subject to local standard), 360° Angle Visibility with suitable class approved by LPCB, with all necessary mounting and fixing arrangements.			0.00	0.00	0.00
19	B.2.1	Heat Detector - 79°C fixed temperature	Nos		2.00	5,250.00	10,500.00
20	B.3.1	Manual Call Point - (Wall Partition Mounted)	Nos		1.00	5,200.00	5,200.00
21	B.4	Supply, Installation, Testing and commissioning of Addressable type Sounder Strobe with inbuilt Isolator and operating temp (- 10 degrees to + 55 degrees) complete as required and duly approved by LPCB EN54 along with suitable size 2 core cable clipped to structure wall ceiling through GI or Heavy Duty PVC Conduits with suitable cable clips saddles.			0.00	0.00	0.00
22	B.6	Supply, Installation, Testing, and Commissioning of Addressable Type Isolator Module of approved make to identify the shorted and de-wired detectors and devices in the circuit duly approved by LPCB EN54, with all necessary mounting, termination and fixing arrangements.			0.00	0.00	0.00
23	B.7	Supply, Installation, Testing, and Commissioning of Addressable Type Control Module of approved make for connect other sources from fire Alarm Control Panel for evacuation purpose, Address Switch to program the modules, complete approved by LPCB EN54, with all necessary mounting, termination and fixing arrangements.			0.00	0.00	0.00
24	B.8	Supply, Installation, Testing and Commissioning FRLS FP200 PVC insulated and PVC sheathed armoured multi-stranded Copper conductor of approved make RED coloured cable clipped to structure wall ceiling through approved make GI or Heavy Duty PVC Conduits with suitable cable clips saddles suitable for flush and surface mounting with all necessary mounting, termination, tap-off connections and fixing arrangements.			0.00	0.00	0.00
Total :					165.00		150,700.00