

# Purchase Order

## TRAVEL FOOD SERVICES LIMITED

Order Number : TFSPL/PO/24-25/001469

Supplier Detail	Shipped Location	Invoice Location
Mahamaya Engineering Supplier Code : RV232420123 [ V0003000 ]	TRAVEL FOOD SERVICES LIMITED Delhi	TRAVEL FOOD SERVICES LIMITED Delhi
(V0003000)	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 : 07AADCB2762L2ZJ
PAN No : CYEPK7776B Supplier GST No : 07CYEPK7776B1Z9 Supplier Contact No : 9810360460 Contact Person Name : Yash Katoch Supplier Email : mahamaya.engineering1@gmail.com	Cost Center Code : 90192048 Cost Center Name : DEL DWARKA BASE KITCHEN - 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) Against Cheque of Equivalent Amount Or Bank Guarantee. 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

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	8415	Hvac - High side	Hvac - High side	C01	1.00	NOS	1,211,000.00	0.00	1,211,000.00	1,211,000.00	14	14	1,550,080.00
2	Hvac - Low Side	995463	Hvac - Low Side	Hvac - Low Side	C01	1.00	NOS	1,040,100.00	0.00	1,040,100.00	1,040,100.00	9	9	1,227,318.00
3	Fire Sprinkler System	995461	Fire Sprinkler System	Fire Sprinkler System	C01	1.00	NOS	875,000.00	0.00	875,000.00	875,000.00	9	9	1,032,500.00

Total Qty : 3.00

<b>Total Basic PO Amount</b>	<b>3,126,100.00</b>
<b>Total Other Charges</b>	
<b>SGST Amount</b>	<b>341,899.00</b>
<b>CGST Amount</b>	<b>341,899.00</b>
<b>Grand Total PO Amount</b>	<b>3,809,898.00</b>

Amount In Words : Rupees Thirty Eight Lakh Nine Thousand Eight Hundred Ninty Eight Only

**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 :** 13/02/2026

**Retention Percentage :** 5

**Escalation Buyer Detail**

Name	Mobile No.	Email - ID
Pushpak Shewale	8268330691	
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.

ItemCode : Hvac - High side

ItemName : Hvac - High side

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1	b.	8.5TR nominal capacity, split unit with single ductable type indoor unit and factory fitted electrical arrangement corded remote.	No		1.00	175,000.00	175,000.00
2	a.	1.5TR nominal capacity, split unit with single Wall Mounted type indoor unit and cordless control . Price shall be inclusive of copper power cabling from indoor to outdoor unit as required.	No		2.00	40,000.00	80,000.00
3	1.1	SPLIT UNITS			0.00	0.00	0.00
4		SECTION B KITCHEN VENTILATION SYSTEM			0.00	0.00	0.00
5	e.	Filter section complete with 50mm thick aluminium wire mesh viscous metallic filters. Velocity across the filters shall not exceed 500 FPM. Airwasher should be provided with adequate space between eliminator fan to avoid water carryover. The Evaporative Air Cooling Machines (EAC) shall be of following duty parameters M c No Capacity S.P Motor Area to (Cfm) (mmWG) Rating be fed (HP)EAC-1 1x22500 58-60 1x15.0 Kitchen			0.00	0.00	0.00
6	d.	Air washer wet section shall be complete with 300mm thick cellulose based paper fills, drift eliminators, water distribution system complete with FRP spray headers, strainer of fine mesh brass screen, globe valve, float valve, quick fill, over flow drain connections, GI medium class piping and 3 1 phase monobloc pumps of 1HP 1.5HP 2HP motor rating as required according to the capacity of air cooling machines. Inner skin of wet section including fills mounting frame shall be constructed out of stainless steel SS- 304 A grade of appropriate thickness .Sump shall be made out of 1.25mm thick SS-304 A grade stainless steel .Velocity across the paper fills not to exceed 500 FPM.			0.00	0.00	0.00
7	c.	1.5 M long air curtain	No		2.00	35,000.00	70,000.00
8		Supply , Installation, Testing and Commissioning of split units, each comprising of an outdoor and a single indoor unit as shown on the drawings and as per the specifications. Enclosures shall be factory fabricated and painted to a smooth finish. Outdoor unit shall consist of hermetically sealed semi- hermetic scroll rotary compressors, air cooled condenser with fan. Indoor unit shall consist of fan section with dynamically balanced centrifugal fans driven by FHP TEFC squirrel cage induction motor, multirows deep DX- copper cooling coil with aluminium fins, thermostatic expansion valve, synthetic fibre filters, insulated drain pan, safety controls, safety controls, thermostat all complete in a unit. The quoted price shall be inclusive of full charge of refrigerant gas, vibration isolation arrangement.  Refrigerant Shall be R-32 R410A R407C			0.00	0.00	0.00
9	1.2	SCRUBBER (For Kitchen Exhaust)			0.00	0.00	0.00

10	c.	In addition to the above, scrubber shall be provided with adequate vibration isolation pads and fire retardant flexible canvas connections made out of canvas sleeve. The Scrubber Machines (EAC) shall be of following duty parameters M c No Capacity S.P Motor Area to (Cfm) (mmWG) Rating be fed (HP)WS-1 28000 68-70 20.0 Kitchen Area			0.00	0.00	0.00
11	1.3	AIR CURTAINS Supply, Installation and Testing of air curtains with noiseless, statically dynamically balanced aluminium blowers, cleanable type pre-filters, motor powder coated aluminium enclosure as per the specifications. Unit shall be complete with Plug Top necessary power cable.			0.00	0.00	0.00
12	b.	2.1 M long air curtain	No		1.00	40,000.00	40,000.00
13		(Actual size qty of air Curtain shall be as per approved shop drawing)			0.00	0.00	0.00
14	1.4	VENTILATION FANS			0.00	0.00	0.00
15	1.0	EQUIPMENT			0.00	0.00	0.00
15	1.0	EQUIPMENT			0.00	0.00	0.00
16	1.1	DOUBLE SKIN AIR COOLING MACHINES - With Fresh Air Intake Section (AIR WASHERS) Supply, Installation, Testing and Commissioning of double skin type evaporative air cooling machines (packaged type) each comprising of following as per the specifications			0.00	0.00	0.00
17		EAC-1 1x22500 58-60 1x15.0 Kitchen	No		1.00	370,000.00	370,000.00
18	1.2.1	WET TYPE SCRUBBER Supply, Installation, Testing and Commissioning of wet type scrubber (packaged type) comprising of following as per the specifications			0.00	0.00	0.00
19	a.	Fan section complete with backward curved DIDW type centrifugal fans, TEFC squirrel cage induction motor suitable to operate on 415+10%V, 50Hz, 3 phase AC power supply and belt drive package. Casing of wet type scrubber shall be constructed out of 16 gauge GS sheet complete with inspection doors as required. Centrifugal fans shall be coated with epoxy paint as specified. Fan outlet velocity shall not be more than 2000 FPM (10.16 MPS).			0.00	0.00	0.00
20	b.	Wet section complete with double bank spray header in GI construction and nozzles, louvers PVC mist eliminators mist collection tray made out of 16G GSS, strainer of fine mesh brass screen, globe valve, float valve, quick fill, over flow drain connections, GI medium class piping and 3 phase motor pump of 1.5HP motor rating as required according to the capacity of scrubber machines. Wet section including sump will be made of 1.25mm thick SS-304 A grade stainless steel.			0.00	0.00	0.00
21		WS-1 28000 68-70 20.0 Kitchen Area	No		1.00	461,000.00	461,000.00
22	A.	Three phase ductable split units with Scroll compressor Unit should be suitable to handle total 35-40RM inter unit refrigerant piping including 12-15RM vertical length.			0.00	0.00	0.00

23	a.	Casing of air washer shall be in double skin construction. Inner skin shall be constructed out of 24 gauge plain GS sheet outer skin in 24 gauge pre-plasticized GS sheet sandwiched between 50mm thick injected PU foam insulation of density not less than 40 Kg CuM and complete with marine light, limit switch inspection doors including control wiring as required. Air washer shall have access for all parts.			0.00	0.00	0.00								
24	b.	Fan section complete with backward curved DIDW			0.00	0.00	0.00								
25	c	AirWasher shall be provided with Intake Section with F A openings as per approved shop drawing.			0.00	0.00	0.00								
26	1.4.1	<p>INLINE FANS (Single Phase)</p> <p>Supply, Installation, Testing Commissioning of circular rectangular inline fans for exhaust air complete with sheet metal casing, direct driven centrifugal fan, motor with proper protection and inspection door. Fan shall be suitable for operation on 220+6 % volts, 50 Hz, 1 phase AC power supply. Fan shall be installed as shown in the drawings and will be of following characteristics All single phase inline fans shall be provided with factory fitted speed regulators. All Fans Should be complete with Plug Top necessary power cable.</p> <table border="1"> <thead> <tr> <th>Fan No.</th> <th>Capacity (Cfm)</th> <th>S.P (mmWG)</th> <th>Area to be exhausted</th> </tr> </thead> <tbody> <tr> <td>IF-1(Circular)</td> <td>300</td> <td>14-15</td> <td>Pantry</td> </tr> </tbody> </table>	Fan No.	Capacity (Cfm)	S.P (mmWG)	Area to be exhausted	IF-1(Circular)	300	14-15	Pantry	No		1.00	15,000.00	15,000.00
Fan No.	Capacity (Cfm)	S.P (mmWG)	Area to be exhausted												
IF-1(Circular)	300	14-15	Pantry												
<b>Total :</b>					<b>9.00</b>		<b>1,211,000.00</b>								

ItemCode : Hvac - Low Side

ItemName : Hvac - Low Side

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
1	b.	900mm to 1200mm -- 24G GSS with TDC Joints	SqM		10.00	1,100.00	11,000.00
2	c.	1201mm to 1800mm - 22G GSS with TDC Joints	SqM		5.00	1,280.00	6,400.00
3		i. 100 150 200 250 mm High grilles	SqM		1.00	7,500.00	7,500.00
4	4.1.2	<p>Using Fibre Glass</p> <p>Supply and Application of internal acoustic lining of supply return air ducting using resin bonded fibre glass insulation of density not less than 32Kg CuM as per the approved shop drawings and specifications. Quoted price shall be inclusive of GSS channel, metal screws, washers, fibre glass tissue, perforated sheet etc. as required for complete installation.</p>			0.00	0.00	0.00
5	b.	13mm thick insulation	SqM		30.00	480.00	14,400.00
6	2.3	SITE FABRICATED DUCTING			0.00	0.00	0.00
7		b. 0.8 mm (22 gauge) GSS	SqM		5.00	1,180.00	5,900.00
8	2.1	CONDENSATE DRAIN PIPING			0.00	0.00	0.00
9	c.	32mm dia	RM		2.00	300.00	600.00
10	d.	25mm dia	RM		5.00	280.00	1,400.00
11	3	DUCTWORK AIR TERMINALS			0.00	0.00	0.00

12	3.1	FACTORY FABRICATED DUCTING  Supply , Installation and Testing of factory fabricated GSS ducting complete with vanes, splitter dampers, fire retardant gaskets hanging arrangement including fully threaded GI rods and GI C channels, GI C channels etc. as approved by clients consultants in accordance with the approved shop drawings and specifications. Quoted price shall be inclusive of necessary scaffolding charges towards installation of supply exhaust air ducts outside or within building wherever required. Quoted price should also include necessary charges towards duct supports including MS angle channel arrangement as required for ducts being installed outside or within building wherever required. Spacing between duct supports should not exceed 2m. All duct support to be provided with check nuts (lock nuts).  While selecting the duct supports vendor shall ensure vibration free installation.Quoted price shall be inclusive of smoke test using smoke bombs.			0.00	0.00	0.00
13	a.	1mm to 899mm -- 26G GSS with TDC Joints	SqM		5.00	800.00	4,000.00
14		a. Powder coated extruded aluminium grilles.	SqM		0.50	9,800.00	4,900.00
15	3.8	AIR TRANSFER GRILLES			0.00	0.00	0.00
16	a.	25mm thick lining	SqM		10.00	600.00	6,000.00
17	2.0	DUCTWORK AIR TERMINALS - INCLUDING IN SECTION A FACTORY FABRICATED DUCTINGSupply, Installation and Testing of factory fabricated GSS ducting complete with vanes,splitter dampers, fire retardant gaskets, hanging arrangement including fully threaded GI rods and GI C channels rolled steel wires or Gripple Wire Rope Hangers Supports complete with end fixing, GI C channels etc. as approved by clients consultants in accordance with the approved shop drawings and specifications. Quoted price shall be inclusive of necessary scaffolding charges towards installation of supply exhaust air ducts outside or within building wherever required.Spacing between duct supports should not exceed 2m in both cases i.e GI rods with GI C channels Gripple Wire Rope Hanger support . In case of Gripple Wire Rope Hanger support for duct sizes above 1800mm, MS angles duly painted with black enamel paint should be used along with neoprene pad in between the duct MS angle. All duct supports shall be provided with check nuts (lock nuts).While selecting the duct supports vendor shall ensurevibration free installation.Quoted price shall be inclusive of smoke test using smoke bombs. For Air-Cooling ducts			0.00	0.00	0.00
18		a. 0.63mm (24 gauge) GSS	SqM		15.00	1,040.00	15,600.00
19		c. 1.0mm (20 gauge) GSS	SqM		5.00	1,310.00	6,550.00
20	2.6	LINEAR GRILLESSupply, Installation , Testing and Balancing of one way blow linear supply cum return air grilles complete with fixed core as per approved shop drawings and specifications. The grilles shall be of approved colour shade.Powder coated aluminium grilles of extruded sections with integral flanges on both sides ends as required complete with corner pieces  i. 100 150 200 250 mm High grilles	SqM		8.00	5,500.00	44,000.00

21	2.8	Supply, Installation and Testing of GI box type volume control dampers as per the specifications and shop drawings.	SqM		3.50	5,500.00	19,250.00
22	3.0	INSULATION			0.00	0.00	0.00
23	b.	50mm thick insulation	SqM		140.00	480.00	67,200.00
23	b.	50mm thick insulation	SqM		15.00	600.00	9,000.00
24	3.3	<p>THERMAL INSULATION OF DUCTS - Air Washer(Using aluminium foil faced Class O Fire Retardant Properties Closed Cell Elastomeric insulation)Supply and Application of external thermal insulation of supply return air ducting using factory laminated aluminium foil faced closed cell elastomeric nitrile rubber insulation with class O fire retardant properties as per the specifications and drawings.</p> <p>aluminium foil face shall provide protection from mechanical impact, and Scratches etc. Both insulation aluminium foil layer should have built in antimicrobial protection. Expose insulation shall be covered with necessary glass cloth UV protection paint.</p> <p>Adhesive - AC Duct King Eco Fresh</p>			0.00	0.00	0.00
25	4.1	<p>Panels</p> <p>Supply,Installation,Testing and Commissioning of the following cubical type panels made out of 14 guage CRCA structure, base channel, complete with, moulded case circuit breakers, meters, indicating lamps, current transformer etc. Complete in all respects, insulated bus bars with heat shrinkable PVC sleeve in suitable bus chambers, interconnection, small wiring, name plate, danger plate, earth bus etc. comprising of compartments with hinged door for each feeder its accessories, cable alley with hinged doors, bus chamber with bolted door etc. The panel being of dust vermin proof construction with rubber gasket attractively powder coating etc. The panel shall be free standing type wall mounted type as per relevant drawing and comprising with the following Notes 1. All MCCBs shall be with operating handle. 2. CTs burden shall be 15VA accuracy class 1.03. CTs shall be cast resin type .4. All MCCBs shall be with thermal magnetic release.5. All indication lights shall be LED type.6. All meter shall be digital type.7. The outgoing starter feeders for pumps,AHUS ventilation fans shall be provided with push buttons indicating lamps for status indication.8. Proper isolation switches to be provided near air handling units and ventilation fans in weather proof enclosure. 9. Bimetal overload relay for all the starters shall have built-in single phasing prevention feature.10. Electrical interlocking wiring shall be provided as per system requirement.11. Power cabling wiring with necessary earthing from source to each panel and each exhaust fan shall be provided by other agencies.12. All HVAC equipment shall be compatible with BMS and necessary provisions to be made in each panel.</p>			0.00	0.00	0.00

26	4.2	CABLING Supply, laying, affecting connections and Testing of the following sizes of 1.1 KV armoured PVC insulated aluminium copper conductor cables. Cables shall be inclusive of all clamps, saddles, screws, cable identification tags, cable terminal joints including terminal lugs, insulating tapes, affecting terminal connections to the equipment as per the specifications and as required. Quoted prices shall be inclusive of perforated duly painted 2mm thick MS trays to be installed inside and GI trays to be installed outside exposed and 8SWG copper earth wire for all equipment. All power cables shall be FRLS type.			0.00	0.00	0.00
27	b.	3 C x 10 Sqmm cable (Copper)	RM		10.00	650.00	6,500.00
28	c.	3 C x 6 Sqmm cable (Copper)	RM		20.00	650.00	13,000.00
29	e.	3 C x 2.5 Sqmm cable (Copper)	RM		5.00	170.00	850.00
30	2.5	FLEXIBLE CANVASS CONNECTIONS  Supply, Installation, Testing of 125mm deep antivibration flexible joints at the outlet of air handling units ductable split units inline fans. Flexible connections shall be constructed using imported fire retardant fabric with extruded aluminium frame flange on both sides of approved make.	RM		8.50	1,000.00	8,500.00
31	2.9	Supply, Installation and Testing of Aluminium multi blade type louver dampers as per the specifications and shop drawings.	SqM		6.00	4,200.00	25,200.00
32	2.10	Supply, Installation and Testing of fresh air powdered coated anodised extruded aluminium louvers to be installed outside for suction (airwashers), as per approved shop drawings and specifications. Sample of louvers to be got approved from consultants and Clients prior to procurement.	SqM		1.00	5,500.00	5,500.00
33	2.11	Supply, Installation and Testing of Bird Screens with GI wire mesh to be installed at the suction of fresh air discharge of Exhaust air as per the specifications and shop drawings. Sample of bird screen to be got approved from consultants and Clients prior to procurement.	SqM		1.00	4,500.00	4,500.00
34	3.1	THERMAL INSULATION OF DUCTS-(FOR AIR SCRUBBER DUCT)(Using Factory Laminated fibre glass insulation) Supply and Application of external thermal insulation of supply return air ducting using aluminium foil faced fibre glass insulation of density not less than 24Kg CuM and aluminium foil thickness of 22 microns as per the specifications and drawings. Quoted price shall be inclusive of Low VOC adhesive as required, aluminium tape straps.			0.00	0.00	0.00
35	3.2	THERMAL INSULATION OF DUCTS-(FOR AIR SCRUBBER DUCT) - EXPOSED (Using Factory Laminated fibre glass insulation) Supply and Application of external thermal insulation of supply return air ducting using aluminium foil faced fibre glass insulation of density not less than 24Kg CuM and aluminium foil thickness of 22 microns as per the specifications and drawings. Quoted price shall be inclusive of Low VOC adhesive as required, aluminium tape straps. Insulation shall be covered necessary glass cloth UV protection paint.			0.00	0.00	0.00
36	4.0	ELECTRICAL WORKS			0.00	0.00	0.00

37	1.3	REFRIGERANT PIPING Supply, Installation, Testing Commissioning of copper refrigerant piping complete with copper fittings charge of refrigerant gas for the above split units. Piping associated with split units to be insulated with 19mm thick closed cell elastomeric insulation with Class O in tubing form as required. Piping shall be laid over duly painted slotted angle trays fixed with GI clamps. Quoted Price shall be inclusive of UV protection paint for all exposed pipes of approved make. Price shall be inclusive of copper power cabling from indoor to outdoor unit as required. Refrigerant piping shall be epoxy coated to prevent erosion.			0.00	0.00	0.00
38	a.	Pair of hard drawn copper refrigerant piping for the above split units with scroll compressor.	RM		25.00	1,800.00	45,000.00
39	1.6	MS FRAME FOR ODUs			0.00	0.00	0.00
40		Supply and Erection of MS base frame duly applied with red-oxide primer followed by black enamel paint for mounting of outdoor units.	Kg		55.00	140.00	7,700.00
41	2.0	PIPING			0.00	0.00	0.00
42	2.1.2	CONDENSATE DRAIN PIPING -cPVC Supply, Installation, Testing and Commissioning of cPVC pipes cut to required lengths and installed for condensate drain. Quoted price shall be inclusive of supply and fixing in position the necessary fittings like elbows, tees reducers etc. and supporting arrangement in accordance with the approved shop drawings and specifications. Pipes shall be insulated with 9mm thick closed cell elastomeric insulation with class O fire retardant properties in tubing form. Pipes shall be of following sizes			0.00	0.00	0.00
43	b.	40mm dia	RM		10.00	320.00	3,200.00
44	3.2	SITE FABRICATED DUCTING Supply, Fabrication, Installation and Testing of sheet metal ducts complete with vanes, splitter dampers, hanging arrangement including check nuts in accordance with the approved shop drawings and specifications			0.00	0.00	0.00
45		a. 0.63mm (24 gauge) GSS	SqM		10.00	996.00	9,960.00
46		b. 0.8 mm (22 gauge) GSS	SqM		5.00	1,230.00	6,150.00
47		Supply, Installation, Testing of 125mm deep antivibration flexible joints at the outlet of air handling units ductable split units inline fans. Flexible connections shall be constructed using imported fire retardant fabric with extruded aluminium frame flange on both sides of approved make.	RM		4.00	1,000.00	4,000.00
48	3.7	LINEAR GRILLES Supply, Installation, Testing and Balancing of one way blow linear supply cum return air grilles complete with fixed core as per approved shop drawings and specifications. The grilles shall be of approved colour shade. Powder coated aluminium grilles of extruded sections with integral flanges on both sides ends as required complete with corner pieces.			0.00	0.00	0.00
49	3.16	Supply, Installation and Testing of GI multi blade type louver dampers as per the specifications and shop drawings.	SqM		1.00	8,800.00	8,800.00

50	4.2	THERMAL INSULATION OF DUCTS(Using Factory Laminated aluminium foil faced,Class O Closed Cell Elastomeric insulation)Supply and Application of internal external thermal insulation of supply return air ducting using closedcell elastomeric insulation with class O fire retardantproperties as per the specifications and drawings.Adhesive used shall be Low VOC type.			0.00	0.00	0.00
51	a.	1mm to 899mm -- 24G GSS with TDC Joints	SqM		50.00	800.00	40,000.00
52	a.	25mm thick insulation - For AC Duct in Kitchen	SqM		135.00	430.00	58,050.00
53	4.1.1	KVF PANEL -1 (Location Kitchen ) - 13.8KWFor 9700Cfm Air Washers Pump, 12100Cfm SISW Fan ESPIncoming 63 Amps ,TP MCCB with electronic release earth fault relay, door interlock and front drive rotor kit-- 1set(0-500) V digital Voltmeter with built in Selectorswitch -- 1setDigital Ammeter with built in selector switch- 1setCurrent Transformers - 1setLED type RYB phase indication lights- 1setBusbar100 Amps TPN aluminium busbar havingsuitable fault level, with PVC heat shrunk sleeves on SMC DMC supports. Outgoings For Air Washers - (1x11.0KW)40 Amps ,TP MCCB -- 1 setDigital Ammeter with built in selector switch- 1 setCurrent Transformers -- 1 setLED type ON OFF indication lights -- 1 setSTART-STOP Push Buttons -- 1 set15.0HP Star Delta starter with built-in single phasing preventor overload relay adjustable timer-- 1 setAuto-Manual type selector switch to facilitate auto start of unit after restoration of power -- 1 setControl wiring and safety circuit as requiredwith start-stop push buttons stay put orlockable type -1 setFor Air Scrubber - (1x15KW)40 Amps ,TP MCCB -- 1 setDigital Ammeter with built in selector switch- 1 setCurrent Transformers -- 1 setLED type ON OFF indication lights -- 1 setSTART-STOP Push Buttons -- 1 set20HP Star Delta starter with built-in single phasing preventor overload relay adjustable timer-- 1 setAuto-Manual type selector switch to facilitate auto start of unit after restoration of power -- 1 setContactors, Potential Free Contacts, Control wiring and safety circuit as requiredwith start-stop push buttons stay put or lockable type - 1 setFor Pump of Air washer (1x1.0HP)-single phase20 Amps ,TP MCB -- 1 setLED type ON OFF indication lights -- 1 setSTART-STOP Push Buttons -- 1 setAuto-Manual type selector switch-- 1 setContactors, Potential Free Contacts, Control wiring and safety circuit as requiredwith start-stop push buttons stay put or lockable type - 1 setFor Pump of Air Scrubber (1x1.0HP)-single phase20 Amps ,TP MCB -- 1 setLED type ON OFF indication lights -- 1 setSTART-STOP Push Buttons -- 1 setAuto-Manual type selector switch-- 1 setContactors, Potential Free Contacts, Control wiring and safety circuit as requiredwith start-stop push buttons stay put or lockable type - 1 set			0.00	0.00	0.00
54		For 9700Cfm Air Washers Pump, 12100Cfm SISW Fan ESP	No		1.00	69,340.00	69,340.00
55	4.3	Supply and fixing of 1.1 KV grade rubber mat 914.4 mm wide 6mm thick to withstand 1.1 KV dielectric strength in front of each panel.	RM		2.00	600.00	1,200.00
56	4.4	Supply, Installation Testing of TPN isolator in weather proof enclosure near Fans.	No		2.00	7,000.00	14,000.00
57	b.	Pair of Soft refrigerant piping for non ductable split units with rotary compressor.	RM		55.00	900.00	49,500.00
58	a.	50mm dia	RM		5.00	350.00	1,750.00

59	3.5	FLEXIBLE CANVASS CONNECTIONS			0.00	0.00	0.00
60	3.7	DOUBLE LOUVERED GRILLES Supply, Installation ,Testing and Balancing of double louvered supply air grilles as per approved shop drawings and specifications complete with key operated aluminium volume control dampers.			0.00	0.00	0.00
61		Supply, Installation and Testing of extruded aluminium powder coated air transfer grilles to be provided at the door of toilets pantry.	SqM		0.20	9,500.00	1,900.00
62	3.14	Supply, Installation and Testing of GI box type volume control dampers as per the specifications and shop drawings.- For Rectangular Duct	SqM		0.50	10,500.00	5,250.00
63	4.0	INSULATION  ACOUSTIC LINING OF DUCTS Using Open Cell Nitrile Rubber Supply and Application of internal acoustic lining of supply air ducting using open cell nitrile rubber insulation with density within 140-180 Kg m3 as per the approved shop drawings and specifications. Insulation material shall be bonded with the ducts using metal screw and washers to facilitate grip to the GI sheet. Adhesive used shall be Low VOC type.			0.00	0.00	0.00
64	a.	10mm thick lining	SqM		5.00	600.00	3,000.00
65	b.	900mm to 1500mm -- 22G GSS with TDC Joints	SqM		50.00	900.00	45,000.00
66	c.	1501mm to 2100mm - 20G GSS with TDC Joints	SqM		10.00	1,200.00	12,000.00
67	2.2	DUCO PAINT (For Exposed Duct)			0.00	0.00	0.00
68		Supply, Fabrication, Installation and Testing of sheet metal ducts complete with vanes, splitter dampers, hanging arrangement including check nuts in accordance with the approved shop drawings and specifications.			0.00	0.00	0.00
69	2.4	For Kitchen ExhaustSupply, fabrication, Installation and testing of MS ductingfor kitchen exhaust constructed out of 2mm thickMS sheet using MS angle iron flanges in line with good engineering practice. Entire ducting shall be applied with minimum two coats of red oxide primer.Duct shall be provided with oil trap as required	SqM		140.00	2,600.00	364,000.00
70	f.	3 C x 2.5 Sqmm cable( Copper Control cabling)	RM		5.00	170.00	850.00
71	g.	3 C x 1.5 Sqmm cable(Copper Control cabling)	RM		10.00	170.00	1,700.00
<b>Total :</b>					<b>892.20</b>		<b>1,040,100.00</b>

**ItemCode** : Fire Sprinkler System

**ItemName** : Fire Sprinkler System

Sr No	Item Code	Item Name	UOM	Remarks	Quantity	Supplier Rate	Amount
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1	1	Providing, laying, jointing and testing of following sizes of pipes conforming to IS-1239 with all accessories like all fittings (upto 50mm dia threaded M.S.forged fittings and above 50 mm dia MS fittings with welded joints shall be used)fittings including tees, elbows, reducers, flanges, rubber gaskets, nuts bolts, washer. And fixing the pipe on floor wall ceiling with suitable size clamps, hangers, structural steel supports as per specification. And PVC pipe sleeve to be provided wherever the pipes are crossing the walls floors and sealing the sleeves as per consultants requirements including cutting holes and chases in brick, R.C.C work and making good the same to original conditions complete in all respects.Arrows showing direction of flow to be marked(with paint of approved colour) on each pipe at locations as decided at site.			0.00	0.00	0.00
2		a)25 mm dia(4.04mm thickness) screwed joint	RM		90.00	500.00	45,000.00
3		d) 50 mm dia(4.5mm thickness)screwed joint	RM		15.00	750.00	11,250.00
4		f) 80 mm dia	RM		100.00	20.00	2,000.00
5		g)100 mm dia	RM		10.00	20.00	200.00
6	3	Providing and fixing gun metal ball valve suitable for pressure 15 Kg Cm2 and conforming to IS 778 of the following size including providing necessary union flange.			0.00	0.00	0.00
7		c) 100 mm dia	NOS		2.00	6,500.00	13,000.00
8	6	Providing and fixing C.I.'Y strainer with bronze perforated sheet basket tested to a pressure of 15 Kg sqcm including rubber gasket, flanges, nuts, bolts and washers, complete as required.			0.00	0.00	0.00
9	9	Providing and Fixing Hose pipe, 63 mm dia and 15 mts long, duly reinforced, rubber lined suitable for bursting pressure not less than 22 Kg Sqcm. conforming to IS 636-1988 type A with gun metal heavy duty instantaneous type coupling ( Pair male female parts) conforming to IS 903. Complete as required (two nos. for each hydrant)	NOS		2.00	6,500.00	13,000.00
10	10	Providing and Fixing 63 mm dia instantaneous pattern branch short gunmetal pipe, 16 mm dia nozzle conforming to IS 903, suitable for inter connection to hose pipe coupling complete as required.	NOS		1.00	2,500.00	2,500.00
11	13	Providing and fixing 4 mm thick glass door of size 2.1 m x 1.2 m with anodized aluminium frame of size 0.10 x 0.05 M with centre opening for fire hose cabinet. Suitably marked on the outside with the letters FIRE HOSE including locking arrangement. All aluminium work to be in Red P.O. colour.	NOS		1.00	16,500.00	16,500.00
12		a) Capacity 5000 Lts.	NOS		4.00	46,000.00	184,000.00
13	18	Providing Fixing of installation control valve with turbine type automatic Alarm Gong to be connected with control valve , drain test valve as per manufacturer s specifications complete.			0.00	0.00	0.00
14	21	Supply, installation, testing and commissioning of Down comer pump comprising of the following			0.00	0.00	0.00
15	(d)	Suitable cement concrete foundation with plaster, Antivibration arrangement of cushy foot mounting.	NO		1.00	135,000.00	135,000.00
16		b)32 mm dia(4.05mm thickness)screwed joint	RM		10.00	600.00	6,000.00
17		c) 40 mm dia(4.05mm thickness)screwed joint	RM		20.00	650.00	13,000.00
18		e) 65 mm dia(4.5mm thickness)	RM		20.00	900.00	18,000.00

19		g)100 mm dia(5.4mm thickness)	RM		10.00	1,530.00	15,300.00
20		a)25 mm dia	RM		90.00	20.00	1,800.00
21		e) 65 mm dia	RM		20.00	20.00	400.00
22		a) 25 mm dia	NO.		1.00	1,850.00	1,850.00
23	4	Providing fixing of butterfly valve suitable for pressure 15 Kg Sqcm. with flanges, nut bolts gaskets complete required.			0.00	0.00	0.00
24		b) 80 mm dia	NOS		3.00	5,500.00	16,500.00
25	5	Providing and fixing of C.I. wafer type check valve suitable for pressure 15 Kg Sqcm. with flanges, Nut, bolts washers, painting etc. complete as required.			0.00	0.00	0.00
26	12	Providing and fixing inlet breaching having C.I. body Two way gun metal 63 mm dia instantaneous inlets conforming to IS 903 fitted with non return valves, 25 mm dia gun metal drain cock, blank cap, brass chains and 100 mm dia flanges with all accessories suitable for local fire tender complete as required.	NO		1.00	10,500.00	10,500.00
27	15	Supplying, installing, testing and commissioning of HDPE water storage tank including holes for inlet, outlet, overflow level indicator drain and vent points, manhole cover suitable supporting structure complete.			0.00	0.00	0.00
28	20	Providing installing MS 24 gauge fire buckets ( capacity of each bucket = 9 lts) filled with sand including MS stand for hanging the buckets.All MS items shall be painted with two coats of primer two coats of paint of approved colour.			0.00	0.00	0.00
29		Set of four buckets with stand	NOS		2.00	3,450.00	6,900.00
30	(a)	For Fire fighting sprinkler System - M.S. `C Heavy class pipe			0.00	0.00	0.00
31		f) 80 mm dia(4.85mm thickness)	RM		100.00	1,450.00	145,000.00
32		d) 50 mm dia	RM		15.00	20.00	300.00
33		b) 50 mm dia	NO.		1.00	3,500.00	3,500.00
34		b) 100 mm dia	NO.		1.00	9,500.00	9,500.00
35	8	Providing fixing swinging type First Aid hose reel in red colour with 36 mts long and 20 mm dia dia heavy duty rubber water hose, 20 mm dia globe valve stop cock, terminating with G.M. coupling nozzle of 5mm outlet with shut off valve conforming to IS 8090 - 1976 complete with drum and brackets for fixing on wall, bolts nuts conforming to IS 884-1969 complete as required.	NOS		1.00	10,500.00	10,500.00
36	11	Providing and fixing standard firemans axe with heavy rubber handle.	NOS		1.00	1,000.00	1,000.00
37	16	Approval of fire (NOC) system from local fire authority at initial various other stages of works, including preperation of report integration with Fire alarm system and preparation of drawings as per local fire authority. Contractor shall include cost of all liasion works which are not explicitly mentioned above but are mendatory to have fire authority approved.	No		1.00	5,000.00	5,000.00
38	17	Providing fixing C.P.brass quartzoid bulb sprinklers of size 15mm dia to be operated at 68Deg.C complete.Make of rosette plate-Veekay Sainath fire Safeworld approved equal.			0.00	0.00	0.00
39		a) Pendant type with heavy duty adjustable SS rosette plate	NOS.		44.00	950.00	41,800.00

40		b) Side wall extended throw type with heavy duty adjustable SS rosette plate	NOS.		2.00	1,250.00	2,500.00
41		a) 80 mm dia	NO		1.00	9,900.00	9,900.00
42	2	Providing two coats of synthetic enamel paint of approved shade over a coat of primer. Including painting of legends both direction arrow as per the approval of the architects consultants.			0.00	0.00	0.00
43		b)32 mm dia	RM		10.00	20.00	200.00
44		c) 40 mm dia	RM		20.00	20.00	400.00
45		a) 65 mm dia	NO.		1.00	5,500.00	5,500.00
46		a) 80 mm dia	NOS.		1.00	6,500.00	6,500.00
47	7	Providing fixing gun metal fire hydrant valve with 80 mm N.B. flanged inlet, brass spindal, one no. 63 mm dia female instantaneous outlet type. G.M. coupling, blank cap, chain. Conforming to IS 5290. Including tapping from wet riser complete as required.	NOS		1.00	8,500.00	8,500.00
48	19	Providing, jointing and testing of sprinklers through flexible connections(internal diameter 25mm outlet connection15mm dia.) as per requirement at site.Make-SeungJin-Korea.The flexible connectors shall be supported through false ceiling through clamps or as directed at site.The flexible connector shall be suitable for working pressure12 kg sqcm .	NOS		44.00	2,550.00	112,200.00
<b>Total :</b>					<b>647.00</b>		<b>875,000.00</b>