

Purchase Order

Order Number PO/SKPL/23-24/001337

05-10-2023 11:10:24

Shipped Location

Invoice Location

Corporate Address

Vendor No. V000200
 VART INFRACON PRIVATE LIMITED
 Second Floor, 229, Neha Industrial Premises
 Cooperative Society Ltd, Dattapada Road, Borivali
 MUMBAI, 400066
 India

MUM T1 Josh
 T2,Chhatrapati Shivaji Int
 Airport, Santacruz East
 MUMBAI, 400099
 India

MUM T1 Josh
 T2,Chhatrapati Shivaji Int
 Airport, Santacruz East
 400099
 India
 IN

SEMOLINA KITCHENS PVT LTD
 1ST FLOOR, Block A, Shiv Sagar Estate,
 Dr Annie Besant Road,Worli, Mumbai
 MUMBAI, 400018

P.A.N. No. AAICV6164F
 State Code

Contact Person
 Contact No. 022-43224304
 E-Mail kumar.dhulap@travelfoodser
 vices.com

022-43224304
 kumar.dhulap@travelfoodservices.com

State 32
 State Name Kerala
 Comp GST No. 32ABICS8699F1ZS

Vendor GST No. 27AAICV6164F1Z2
 Vendor Inv. No. 1
 Vendor Fax No.
 Vendor Email accounts@vartinfra.com
 Vendor Phone No. 9004034613/9869011799

ETA:
 Order Address

Payment Terms Net 15 days
 GSTIN 27ABICS8699F1ZJ
 No.

Requisition No.
 PO Entry Date 04-10-2023
 Project ID GEN

HSN\SAC										Total Tax	Total Amount		
SNo	Item Code	Code	Item Description	Description 2	Item Category	UOM	Unit Cost	Qty	GST%	VAT %	Excise	Amount(ININR)	(ININR)
1	7000027	995463	HVAC WORKS	Amendment HVAC works		NOS	11,19,735.00	1	18.00	0.00		0	1119735.00
								Total Unit					1.00

Final Payment - 100% After work completion & submission of invoice. Advance & invoice paid against work order no. 000650 to be adjusted against this order. Balance Payment to be made against submitted invoice post deduction of overall invoice.

Total Taxable INR 11,19,735.00

Excise Amount 0.00
 CGST Amount 1,00,776.15
 SGST Amount 1,00,776.15
 Cess 0.00

- a) Products to be Supplied by Supplier at own cost
- b) Any deficiency in Documents and Process will be liability of the supplier only
- c) Delivery schedule to be taken from the Buyer before Despatching the mater
- d) PLEASE SEND THE ORIGINAL COMMERCIAL/GST INVOICE ALONG WITH THE MATERIAL TO THE DELIVERY ADDRESS.
- e) The Payment of taxes will be Released once the Taxes is Credited to our Account or the GST Portal

Total INR Incl. Taxes 13,21,287.30

Disclaimer - 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.

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MUM T1 Josh
T2,Chhatrapati Shivaji Int
Airport, Santacruz East
MUMBAI, 400099
India
India
Contact Person
Contact No. 022-43224304
E-Mail kumar.dhulap@travelfoodser
vices.com

ETA:
Order Address

Invoice Location

MUM T1 Josh
T2,Chhatrapati Shivaji Int
Airport, Santacruz East
400099
India
IN
022-43224304
kumar.dhulap@travelfoodservices.com

Payment Terms Net 15 days
GSTIN 27ABICS8699F1ZJ
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Corporate Address

SEMOLINA KITCHENS PVT LTD
1ST FLOOR, Block A, Shiv Sagar Estate,
Dr Annie Besant Road,Worli, Mumbai
MUMBAI, 400018
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Vendor Email accounts@vartinfra.com
Vendor Phone No. 9004034613/9869011799

JOSHH @T1 MUMBAI											
VENTILATION ABSTRACT SHEET											
Sr. No.	Description Items	Unit	Qty	PO			Revised				Difference
				Supply Rate	Installation Rate	Total Amount	Qty	Supply Rate	Installation Rate	Total Amount	
Note:	Prices shall be based on supply, installation, testing & commissioning (SITC) at site including all taxes, duties, transportation & insurance etc.										
1	VENTILATION SYSTEM										
1.1	KITCHEN EXHAUST AIR FAN										
	SITC of Cabinet type SISW Centrifugal Blower, Direct Drive, Statically & Dynamically Balanced, Backward Curved Impeller fan, Dunlop Anti- Vibration Pads etc. Motor should be outside stream with TEFC squirrel cage, weather protection shield, IP 55 rating with Class H Insulation motor, suitable for 3phase, 415volts, 50hz power supply. Sound level should be 65dB @ 3mtr distance. Fan should be painted with 2 coat of zinc chromate primer and 2 coats Epoxy paint. The quote shall include with all required accessories. (Vendor to crosscheck static pressure calculation).										
	Make : Kruger / Nicotra / Systems Air										
a	4750 CFM, 60mm TSP	No.	1	1,75,000.00	25,000.00	2,00,000.00	1	1,75,000.00	25,000.00	2,00,000.00	
1.2	KITCHEN DRY SCRUBBER										
	SITC of Dry scrubber – Electrostatic Air cleaner with starter panel as per specifications, suitable for following capacities, including electrical starter panel . The Air filtration efficiency should be between 90 to 95% & units shall be staked one above other or side by side as per site requirement, if vendor will propose multiple units.										
	Finishing - Power coated, Dark Blue										
	Operating voltage - 220 Vac+/-10%, 50 Hz (Single phase)										
	Features - Short circuit, arc protection and auto restore power supply, BMS (Building Management System) terminals provided, Auto power cut-off when door is opened, Indicator LEDs for normal or wash indicator, Set of Terminals for remote LED normal or wash indicator										
	Efficiency - Upto 95%, meets NIOSH 5026 Oil Mist Test										
	Particle Size - Collects particles as small as 0.01 microns										
	Motor - Sealed ball bearings UL, single phase.										
	Cell - Ionizing voltage - 12 KVdc										
	Collector voltage - 6 KVdc										
	One cell comprising of 9 ionizing wires and 25 collection plates										
	Controls - Auto cut-off when door is opened. Indicator lights for fault, normal or wash function.										
	Pre-filter - Aluminium mesh, washable Dry contact for BMS.										
	Make: Rydair / Espair										
	CFM - 6100	No.	1	2,35,000.00	15,000.00	2,50,000.00	1	2,35,000.00	15,000.00	2,50,000.00	
1.3	KITCHEN FRESH AIR FAN										

JOSHH @T1 MUMBAI											
VENTILATION ABSTRACT SHEET											
Sr. No.	Description Items	Unit	Qty	PO			Revised				Difference
				Supply Rate	Installation Rate	Total Amount	Qty	Supply Rate	Installation Rate	Total Amount	
	SITC of Cabinet type Fresh air fan with Centrifugal Blower, Belt / Direct Drive, Statically & Dynamically Balanced, Backward Curved Impeller, MERV 8 filter, Dunlop Anti- Vibration Pads, filters etc. Motor should be TEFC squirrel cage, IP 55 rating with Class F Insulation, suitable for 3phase, 415volts, 50hz power supply. Sound level should be 65dB @ 3mtr distance. Fan should be painted with 2 coat of zinc chromate primer and 2 coats Epoxy paint. MERV 8 / G4 pleated pre-filters should be made of 100% synthetic media to capture common airborne contaminants as per ASHRAE Standard 52.2. (Vendor to crosscheck static pressure calculation)										
	Make : Kruger / Nicotra / Systems Air										
a	4000 CFM, 30mm TSP	No.	1	1,65,000.00	25,000.00	1,90,000.00	1	1,65,000.00	25,000.00	1,90,000.00	
1.4	FRAMEWORK FOR FANS										
	Supply, Fabrication and Installation of MS frame using channels/angle iron sections as required for mounting of ventilation fans & scrubber in areas shown in the layout. The frame work shall be applied with red oxide primer and thereafter, two coats of enamel paint of approved colour. The general arrangement drawing for frame work shall be got approved from the Architects/ Structural Engineers prior to commencement of fabrication.	Kg	200	120.00	30.00	30,000.00	239	120.00	30.00	35,850.00	5,850.00
	Note:										
a.	Fan outlet velocity - 1600 FPM										
b.	All cabinet fans should have plenum section.										
c.	Fresh air fan should to have 6mm thick synthetic media washable filter with framework.										
d.	Contractor shall submit static pressure calculation for all above units to Client/Consultant for their approval. Also, the total static drops across the systems shall cover the overall length from suction / discharge to grille (inside the outlet).										
e.	Any change in motor HP or coil selection shall be made at no extra cost to client.										
f.	Fan efficiency shall be minimum 75%										
g.	The cost shall be included lifting & shifting of each equipment / material with all necessary arrangement. Also, it shall be included the cost of scaffolding required for Installation of such material / equipment.										
	SUB-TOTAL					6,70,000.00				6,75,850.00	5,850.00
2	SHEET METAL WORKS:										
2.1	FACTORY FABRICATED G.I RECTANGULAR DUCT										
	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 Installation as per SMACNA 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.										

JOSHH @T1 MUMBAI											
VENTILATION ABSTRACT SHEET											
Sr. No.	Description Items	Unit	Qty	PO			Revised				Difference
				Supply Rate	Installation Rate	Total Amount	Qty	Supply Rate	Installation Rate	Total Amount	
	GI Sheet Makes : Tata, Jindal, SAIL, Ispat										
	Make: Rola Star, Zeco & Ductofab										
a	18 Gauge GI Sheet Metal Duct (Above 2251mm & Plenum)	Sq.mtr	RO				RO				
b	20 Gauge GI Sheet Metal Duct (1501-2250mm)	Sq.mtr	RO				RO				
c	22 Gauge GI Sheet Metal Duct (751-1500mm)	Sq.mtr	50	1,300.00	220.00	76,000.00	20	1,300.00	220.00	30,400.00	-45,600.00
d	24 Gauge GI Sheet Metal Duct (0-750mm)	Sq.mtr	100	1,200.00	220.00	1,42,000.00	90	1,200.00	220.00	1,27,800.00	-14,200.00
2.2	EXTRUDED ALUMINIUM CEILING GRILLES										
	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.	Sq.mtr	1.5	9,100.00	400.00	14,250.00	1.5	9,100.00	400.00	14,250.00	
	Make: Cosmos, Air Master & System Air										
2.3	MULTI LEAF VOLUME CONTROL DAMPER										
	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	1.5	6,700.00	450.00	10,725.00	1.5	6,700.00	450.00	10,725.00	
	Make: Cosmos, Air Master & System Air										
2.4	FUSIBLE LINK TYPE FIRE DAMPER FOR FRESH AIR DUCTS & EXHAUST AIR DUCT										
	Motorised fire dampers consist of 16G GI frame, 20G GI interlocking blades secured with SS springs, blades outside airstream clamped with fusible link UL-555 listed with melting point 165 / 225°F, etc; as per the approved shop drawings and specifications.	Sq.mtr	1.5	7,750.00	500.00	12,375.00	1.5	7,750.00	500.00	12,375.00	
	Make: Cosmos / System Air / Air Master										
2.5	EXTRUDED ALUMINIUM LOUVER with BIRD SCREEN										
	SITC of Aluminium extruded powder coated Louver with four side flanges, wire mesh bird screen etc.	Sq.mtr	1.5	5,600.00	450.00	9,075.00	1.5	5,600.00	450.00	9,075.00	
	Make: Cosmos, Air Master & System Air										
2.6	OPPOSED BLADE DAMPER										
	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	7,750.00	500.00	8,250.00	1	7,750.00	500.00	8,250.00	
2.7	CANVAS CONNECTION										
	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).										
a	For Kitchen Ventilation Fan	Nos.	4	2,750.00	250.00	12,000.00	4	2,750.00	250.00	12,000.00	
	NOTES:										

JOSHH @T1 MUMBAI												
VENTILATION ABSTRACT SHEET												
Sr. No.	Description Items	Unit	Qty	PO			Revised				Difference	
				Supply Rate	Installation Rate	Total Amount	Qty	Supply Rate	Installation Rate	Total Amount		
	The ducting support should be as per tender specification and additional supports are to be provided by Contractor as decided by Consultant.											
	Muslin cloth cover for all air outlets during construction.											
	Pressure testing of complete duct work as per DW/ SMACNA standard.											
	Silicon sealant for longitudinal & transverse joints as per specification.											
	Diffusers & grilles shall be powder coated as per colour approved by Architect.											
	SUB-TOTAL					2,84,675.00					2,24,875.00	-59,800.00
3	THERMAL INSULATION:											
3.1	THERMAL INSULATION FOR KITCHEN VENTILATION DUCTS											
	SITC of 50mm thick Glass Fibre Blanket Insulation material bonded with Thermosetting Resin, with factory applied laminated aluminium foil of 22 microns with fibre glass backing. Further, wire mesh along with 7 mil cloth shall be applied on above the insulation with proper adhesive. Nominal density : 32 Kg/CuM. Thermal conductivity, < 0.033 W/m.K at 24 degreeC. All Insulation material and adhesives shall be as per Class I for surface spread and in accordance with BS 476, & Class O for non-combustible grade.	Sq.mtr	150	900.00	150.00	1,57,500.00	120	900.00	150.00	1,26,000.00		-31,500.00
	Make: Armaflex & K-flex											
	Note:											
a.	Insulation work to be coordinated with other agencies and repair to be included by contractor as per site requirement.											
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.											
c.	Thermal insulation shall be internal for Elliptical / Exposed ducting.											
	SUB-TOTAL					1,57,500.00					1,26,000.00	-31,500.00
4	ELECTRICAL WORKS:											
4.1	STARTER PANEL											

JOSHH @T1 MUMBAI											
VENTILATION ABSTRACT SHEET											
Sr. No.	Description Items	Unit	Qty	PO			Revised				Difference
				Supply Rate	Installation Rate	Total Amount	Qty	Supply Rate	Installation Rate	Total Amount	
	SITC of indoor / outdoor, wall mounting type 3PH, 415VAC MOTOR STARTERS IN CRCA SHEET STEEL ENCLOSURE with necessary 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.										
a	Suitable for 4750 CFM Kitchen Exhaust Fan, DOL Starter Panel	No.	1	25,250.00	2,750.00	28,000.00	1	25,250.00	2,750.00	28,000.00	
b	Suitable for 4000 CFM Kitchen Fresh Air Fan, DOL Starter Panel	No.	1	23,750.00	2,750.00	26,500.00	1	23,750.00	2,750.00	26,500.00	
4.2	POWER CABLING										
	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.										
a	Suitable Power Cable:										
	Suitable for 4750 CFM Dry Scrubber, 1 ph	Rmt	5	200.00	50.00	1,250.00	5	200.00	50.00	1,250.00	
	Suitable for 4750 CFM Kitchen Exhaust Fan, DOL Starter Panel	Rmt	5	400.00	50.00	2,250.00	5	400.00	50.00	2,250.00	
	Suitable for 4000 CFM Kitchen Fresh Air Fan, DOL Starter Panel	Rmt	5	400.00	50.00	2,250.00	5	400.00	50.00	2,250.00	
b	Earthing:										
	8 SWG	Rmt	30	110.00	40.00	4,500.00	30	110.00	40.00	4,500.00	
4.3	CABLE TERMINATION :										
	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, meggering 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.										
	Suitable for 4750 CFM Kitchen Exhaust Fan	Nos.	2	750.00	200.00	1,900.00	2	750.00	200.00	1,900.00	
	Suitable for 4000 CFM Kitchen Fresh Air Fan	Nos.	2	750.00	200.00	1,900.00	2	750.00	200.00	1,900.00	
4.4	CABLE TRAYS										

JOSHH @T1 MUMBAI											
VENTILATION ABSTRACT SHEET											
Sr. No.	Description Items	Unit	PO				Revised				Difference
			Qty	Supply Rate	Installation Rate	Total Amount	Qty	Supply Rate	Installation Rate	Total Amount	
	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.										
a	50mm wide x 50mm Height x 1.6mm thick	Rmt	15	650.00	100.00	11,250.00	15	650.00	100.00	11,250.00	
	SUB-TOTAL					79,800.00				79,800.00	
5	Additional Items										
2.2	EXTRUDED ALUMINIUM CEILING GRILLES										
	Supply, 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.	Sq.mtr					0.6	9,100.00		5,460.00	5,460.00
2.6	OPPOSED BLADE DAMPER										
	Supply 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	7,750.00		7,750.00	7,750.00
	SUB-TOTAL									13,210.00	13,210.00
	GRAND TOTAL					11,91,975.00				11,19,735.00	-72,240.00
	Add GST @ 18%					2,14,555.50				2,01,552.30	-13,003.20
	TOTAL INCLU. TAX					14,06,530.50				13,21,287.30	-85,243.20

JOSHH @T1 MUMBAI												
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Sr. No.	Description Items	Unit	Qty	Supply Rate	Installation Rate	Total Amount	Quantity			Amount (Rs.)		
							Previous	Present	Cummulative	Previous	Present	Cummulative
Note:	Prices shall be based on supply, installation, testing & commissioning (SITC) at site including all taxes, duties, transportation & insurance etc.											
1	VENTILATION SYSTEM											
1.1	KITCHEN EXHAUST AIR FAN											
	SITC of Cabinet type SISW Centrifugal Blower, Direct Drive, Statically & Dynamically Balanced, Backward Curved Impeller fan, Dunlop Anti- Vibration Pads etc. Motor should be outside stream with TEFC squirrel cage, weather protection shield, IP 55 rating with Class H Insulation motor, suitable for 3phase, 415volts, 50hz power supply. Sound level should be 65dB @ 3mtr distance. Fan should be painted with 2 coat of zinc chromate primer and 2 coats Epoxy paint. The quote shall include with all required accessories. (Vendor to crosscheck static pressure calculation).											
	Make : Kruger / Nicotra / Systems Air											
a	4750 CFM, 60mm TSP	No.	1	1,75,000.00	25,000.00	2,00,000.00		1	1		2,00,000.00	2,00,000.00
1.2	KITCHEN DRY SCRUBBER											
	SITC of Dry scrubber – Electrostatic Air cleaner with starter panel as per specifications, suitable for following capacities, including electrical starter panel . The Air filtration efficiency should be between 90 to 95% & units shall be staked one above other or side by side as per site requirement, if vendor will propose multiple units.											
	Finishing - Power coated, Dark Blue											
	Operating voltage - 220 Vac+/-10%, 50 Hz (Single phase)											
	Features - Short circuit, arc protection and auto restore power supply, BMS (Building Management System) terminals provided, Auto power cut-off when door is opened, Indicator LEDs for normal or wash indicator, Set of Terminals for remote LED normal or wash indicator											
	Efficiency - Upto 95%, meets NIOSH 5026 Oil Mist Test											
	Particle Size - Collects particles as small as 0.01 microns											
	Motor - Sealed ball bearings UL, single phase.											
	Cell - Ionizing voltage - 12 KVdc											
	Collector voltage - 6 KVdc											
	One cell comprising of 9 ionizing wires and 25 collection plates											
	Controls - Auto cut-off when door is opened. Indicator lights for fault, normal or wash function.											
	Pre-filter - Aluminium mesh, washable Dry contact for BMS.											
	Make: Rydair / Espair											
	CFM - 6100	No.	1	2,35,000.00	15,000.00	2,50,000.00		1	1		2,50,000.00	2,50,000.00
1.3	KITCHEN FRESH AIR FAN											
	SITC of Cabinet type Fresh air fan with Centrifugal Blower, Belt / Direct Drive, Statically & Dynamically Balanced, Backward Curved Impeller, MERV 8 filter, Dunlop Anti- Vibration Pads, filters etc. Motor should be TEFC squirrel cage, IP 55 rating with Class F Insulation, suitable for 3phase, 415volts, 50hz power supply. Sound level should be 65dB @ 3mtr distance. Fan should be painted with 2 coat of zinc chromate primer and 2 coats Epoxy paint. MERV 8 / G4 pleated pre-filters should be made of 100% synthetic media to capture common airborne contaminants as per ASHRAE Standard 52.2. (Vendor to crosscheck static pressure calculation)											
	Make : Kruger / Nicotra / Systems Air											
a	4000 CFM, 30mm TSP	No.	1	1,65,000.00	25,000.00	1,90,000.00		1	1		1,90,000.00	1,90,000.00
1.4	FRAMEWORK FOR FANS											

JOSHH @T1 MUMBAI												
VENTILATION ABSTRACT SHEET												
Sr. No.	Description Items	Unit	Qty	Supply Rate	Installation Rate	Total Amount	Quantity			Amount (Rs.)		
							Previous	Present	Cummulative	Previous	Present	Cummulative
	Supply, Fabrication and Installation of MS frame using channels/angle iron sections as required for mounting of ventilation fans & scrubber in areas shown in the layout. The frame work shall be applied with red oxide primer and thereafter, two coats of enamel paint of approved colour. The general arrangement drawing for frame work shall be got approved from the Architects/ Structural Engineers prior to commencement of fabrication.	Kg	200	120.00	30.00	30,000.00		200	200		30,000.00	30,000.00
	Note:											
a.	Fan outlet velocity - 1600 FPM											
b.	All cabinet fans should have plenum section.											
c.	Fresh air fan should to have 6mm thick synthetic media washable filter with framework.											
d.	Contractor shall submit static pressure calculation for all above units to Client/Consultant for their approval. Also, the total static drops across the systems shall cover the overall length from suction / discharge to grille (inside the outlet).											
e.	Any change in motor HP or coil selection shall be made at no extra cost to client.											
f.	Fan efficiency shall be minimum 75%											
g.	The cost shall be included lifting & shifting of each equipment / material with all necessary arrangement. Also, it shall be included the cost of scaffolding required for Installation of such material / equipment.											
	SUB-TOTAL					6,70,000.00					6,70,000.00	6,70,000.00
2	SHEET METAL WORKS:											
2.1	FACTORY FABRICATED G.I RECTANGULAR DUCT											
	Supply, Fabrication, Testing, and Commissioning of Factory Fabricated GI Sheet Metal 120GSM Rectangular boxed ducting, Plenums, Cows, Elbows with turning vanes, Splitters, Reducers, Flanges, Collars etc as per IS and Installation as per SMACNA 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.											
	GI Sheet Makes : Tata, Jindal, SAIL, Ispat											
	Make: Rola Star, Zeco & Ductofab											
a	18 Gauge GI Sheet Metal Duct (Above 2251mm & Plenum)	Sq.mtr	RO									
b	20 Gauge GI Sheet Metal Duct (1501-2250mm)	Sq.mtr	RO									
c	22 Gauge GI Sheet Metal Duct (751-1500mm)	Sq.mtr	50	1,300.00	220.00	76,000.00	18.285	18.29		27,793.20	27,793.20	
d	24 Gauge GI Sheet Metal Duct (0-750mm)	Sq.mtr	100	1,200.00	220.00	1,42,000.00	86.415	86.42		1,22,709.30	1,22,709.30	
2.2	EXTRUDED ALUMINIUM CEILING GRILLES											
	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.	Sq.mtr	1.5	9,100.00	400.00	14,250.00	0.41	0.41		3,895.00	3,895.00	
	Make: Cosmos, Air Master & System Air											
2.3	MULTI LEAF VOLUME CONTROL DAMPER											

JOSHH @T1 MUMBAI												
VENTILATION ABSTRACT SHEET												
Sr. No.	Description Items	Unit	Qty	Supply Rate	Installation Rate	Total Amount	Quantity			Amount (Rs.)		
							Previous	Present	Cumulative	Previous	Present	Cumulative
	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	1.5	6,700.00	450.00	10,725.00		0.9	0.9		6,435.00	6,435.00
	Make: Cosmos, Air Master & System Air											
2.4	FUSIBLE LINK TYPE FIRE DAMPER FOR FRESH AIR DUCTS & EXHAUST AIR DUCT											
	Motorised fire dampers consist of 16G GI frame, 20G GI interlocking blades secured with SS springs, blades outside airstream clamped with fusible link UL-555 listed with melting point 165 / 225°F, etc; as per the approved shop drawings and specifications.	Sq.mtr	1.5	7,750.00	500.00	12,375.00		0.78	0.78		6,435.00	6,435.00
	Make: Cosmos / System Air / Air Master											
2.5	EXTRUDED ALUMINIUM LOUVER with BIRD SCREEN											
	SITC of Aluminium extruded powder coated Louver with four side flanges, wire mesh bird screen etc.	Sq.mtr	1.5	5,600.00	450.00	9,075.00		0.78	0.78		4,719.00	4,719.00
	Make: Cosmos, Air Master & System Air											
2.6	OPPOSED BLADE DAMPER											
	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	7,750.00	500.00	8,250.00		2.65	2.65		21,862.50	21,862.50
2.7	CANVAS CONNECTION											
	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).											
a	For Kitchen Ventilation Fan	Nos.	4	2,750.00	250.00	12,000.00		3	3.00		9,000.00	9,000.00
	NOTES:											
	The ducting support should be as per tender specification and additional supports are to be provided by Contractor as decided by Consultant.											
	Muslin cloth cover for all air outlets during construction.											
	Pressure testing of complete duct work as per DW/ SMACNA standard.											
	Silicon sealant for longitudinal & transverse joints as per specification.											
	Diffusers & grilles shall be powder coated as per colour approved by Architect.											
	SUB-TOTAL					2,84,675.00					2,02,849.00	2,02,849.00
3	THERMAL INSULATION:											
3.1	THERMAL INSULATION FOR KITCHEN VENTILATION DUCTS											
	SITC of 50mm thick Glass Fibre Blanket Insulation material bonded with Thermosetting Resin, with factory applied laminated aluminium foil of 22 microns with fibre glass backing. Further, wire mesh along with 7 mil cloth shall be applied on above the insulation with proper adhesive. Nominal density : 32 Kg/CuM. Thermal conductivity, < 0.033 W/m.K at 24 degreeC. All Insulation material and adhesives shall be as per Class I for surface spread and in accordance with BS 476, & Class O for non-combustible grade.	Sq.mtr	150	900.00	150.00	1,57,500.00		119.2125	119.21		1,25,173.13	1,25,173.13
	Make: Armaflex & K-flex											

JOSHH @T1 MUMBAI												
VENTILATION ABSTRACT SHEET												
Sr. No.	Description Items	Unit	Qty	Supply Rate	Installation Rate	Total Amount	Quantity			Amount (Rs.)		
							Previous	Present	Cummulative	Previous	Present	Cummulative
	Note:											
a.	Insulation work to be coordinated with other agencies and repair to be included by contractor as per site requirement.											
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.											
c.	Thermal insulation shall be internal for Elliptical / Exposed ducting.											
	SUB-TOTAL					1,57,500.00					1,25,173.13	1,25,173.13
4	ELECTRICAL WORKS:											
4.1	STARTER PANEL											
	SITC of indoor / outdoor, wall mounting type 3PH, 415VAC MOTOR STARTERS IN CRCA SHEET STEEL ENCLOSURE with necessary 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.											
a	Suitable for 4750 CFM Kitchen Exhaust Fan, DOL Starter Panel	No.	1	25,250.00	2,750.00	28,000.00		1	1		28,000.00	28,000.00
b	Suitable for 4000 CFM Kitchen Fresh Air Fan, DOL Starter Panel	No.	1	23,750.00	2,750.00	26,500.00		1	1		26,500.00	26,500.00
4.2	POWER CABLING											
	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.											
a	Suitable Power Cable:											
	Suitable for 4750 CFM Dry Scrubber, 1 ph	Rmt	5	200.00	50.00	1,250.00		5	5		1,250.00	1,250.00
	Suitable for 4750 CFM Kitchen Exhaust Fan, DOL Starter Panel	Rmt	5	400.00	50.00	2,250.00		5	5		2,250.00	2,250.00
	Suitable for 4000 CFM Kitchen Fresh Air Fan, DOL Starter Panel	Rmt	5	400.00	50.00	2,250.00		5	5		2,250.00	2,250.00
b	Earthing:											
	8 SWG	Rmt	30	110.00	40.00	4,500.00					-	-
4.3	CABLE TERMINATION :											
	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, meggering 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.											
	Suitable for 4750 CFM Kitchen Exhaust Fan	Nos.	2	750.00	200.00	1,900.00		2	2		1,900.00	1,900.00
	Suitable for 4000 CFM Kitchen Fresh Air Fan	Nos.	2	750.00	200.00	1,900.00		2	2		1,900.00	1,900.00

JOSHH @T1 MUMBAI												
VENTILATION ABSTRACT SHEET												
Sr. No.	Description Items	Unit	Qty	Supply Rate	Installation Rate	Total Amount	Quantity			Amount (Rs.)		
							Previous	Present	Cummulative	Previous	Present	Cummulative
4.4	CABLE TRAYS											
	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.											
a	50mm wide x 50mm Height x 1.6mm thick	Rmt	15	650.00	100.00	11,250.00						
	SUB-TOTAL					79,800.00					64,050.00	64,050.00
	GRAND TOTAL					11,91,975.00					10,62,072	10,62,072
	Add GST @ 18%					2,14,555.50					1,91,173	1,91,173
	TOTAL INCLU. TAX					14,06,530.50					12,53,245	12,53,245

PROJECT : JOSH														
TITLE : Ducting Measurement (Rectangular)														
Sr.No.	Remark	Size						Qty (Nos.)	Area (SQ MT)	G.I. Ducting				Thermal Insulation 50 MM
		Width 1	Height 1	Width 2	Height 2	Perimeter	Length			24 G	22 G	20 G	18 G	
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)							
EXHAUST														
1	Taper	1100	400	1000	400	2900	600	1	1.74	0.00	1.74	0.00	0.00	1.89
2	Taper	1100	400	1500	450	3450	600	1	2.07	0.00	2.07	0.00	0.00	2.22
3	Taper	1500	450	700	400	3050	750	1	2.29	0.00	2.29	0.00	0.00	2.48
4	ST	700	400	700	400	2200	1200	1	2.64	2.64	0.00	0.00	0.00	2.94
5	Elbow	700	400	700	400	2200	600	1	1.32	1.32	0.00	0.00	0.00	1.47
6	ST	700	400	700	400	2200	2400	2	10.56	10.56	0.00	0.00	0.00	11.76
7	ST	700	400	700	400	2200	1200	1	2.64	2.64	0.00	0.00	0.00	2.94
8	Elbow	700	400	700	400	2200	750	1	1.65	1.65	0.00	0.00	0.00	1.84
9	ST	700	400	700	400	2200	1200	1	2.64	2.64	0.00	0.00	0.00	2.94
10	Elbow	700	400	700	400	2200	750	1	1.65	1.65	0.00	0.00	0.00	1.84
11	ST	700	400	700	400	2200	2400	1	5.28	5.28	0.00	0.00	0.00	5.88
12	Taper	700	400	500	300	1900	650	1	1.24	1.24	0.00	0.00	0.00	1.40
13	ST	500	300	500	300	1600	2400	1	3.84	3.84	0.00	0.00	0.00	4.44
14	De	600	0	0	600	1200	600	1	0.72	0.72	0.00	0.00	0.00	0.87
15	Coller	650	150	500	150	1450	150	1	0.22	0.22	0.00	0.00	0.00	0.26
16	ST	500	150	500	150	1300	2400	1	3.12	3.12	0.00	0.00	0.00	3.72
17	Elbow	500	150	500	150	1300	750	1	0.98	0.98	0.00	0.00	0.00	1.16
18	ST	500	150	500	150	1300	1800	1	2.34	2.34	0.00	0.00	0.00	2.79
19	De	600	0	0	0	600	600	1	0.36	0.36	0.00	0.00	0.00	0.51
20	Droper	400	400	400	400	1600	1200	7	13.44	13.44	0.00	0.00	0.00	15.54
		0	0	0		TOTAL QTY.	SQ. MT.		60.7	54.6	6.1	0.0	0.0	68.9
FRESH AIR														
1	Taper	900	400	700	400	2400	650	1	1.56	0.00	1.56	0.00	0.00	1.72
2	Coller	900	400	1000	550	2850	150	1	0.43	0.00	0.43	0.00	0.00	0.47
3	PLE	1000	600	1000	600	3200	1200	1	3.84	0.00	3.84	0.00	0.00	4.14
4	De	1000	0	0	1000	2000	1000	2	4.00	0.00	4.00	0.00	0.00	4.50
5	Taper	700	400	450	450	2000	650	1	1.30	1.30	0.00	0.00	0.00	1.46
6	ST	700	400	700	400	2200	2400	1	5.28	5.28	0.00	0.00	0.00	5.88
7	Taper	700	400	400	350	1850	650	1	1.20	1.20	0.00	0.00	0.00	1.37
8	ST	400	350	400	350	1500	2400	1	3.60	3.60	0.00	0.00	0.00	4.20
9	De	800	0	0	800	1600	800	1	1.28	0.00	1.28	0.00	0.00	1.48
10	Coller	800	150	700	150	1800	150	3	0.81	0.00	0.81	0.00	0.00	0.92
11	ST	700	150	700	100	1650	1500	3	7.43	7.43	0.00	0.00	0.00	8.55
12	Coller	800	150	700	150	1800	150	1	0.27	0.00	0.27	0.00	0.00	0.31
13	ST	700	150	700	100	1650	2100	1	3.47	3.47	0.00	0.00	0.00	3.99
14	Droper	300	300	300	300	1200	300	1	0.36	0.36	0.00	0.00	0.00	0.44
15	Coller	550	150	450	150	1300	150	2	0.39	0.39	0.00	0.00	0.00	0.47
16	ST	450	150	450	100	1150	1200	2	2.76	2.76	0.00	0.00	0.00	3.36
17	DE	550	0	0	550	1100	550	2	1.21	1.21	0.00	0.00	0.00	1.49
17	Droper	400	400	400	400	1600	350	2	1.12	1.12	0.00	0.00	0.00	1.30
Cancel Ducting														
1	ST	400	350	400	350	1500	1800	1	2.70	2.70	0.00	0.00	0.00	3.15
2	Elbow	500	150	500	150	1300	750	1	0.98	0.98	0.00	0.00	0.00	1.16
						TOTAL QTY.	SQ. MT.		44.0	31.8	12.2	0.0	0.0	50.3
						GRAND TOTAL	SQ. MT.		105	86.4	18.3	0	0	119
						BOQ QTY	SQ. MT.		150	100	50			150
						BOQ Item No			2.1 - d	2.1 - c				3.1

BOQ Item No	JOSH PROJECT				
2.2	GRILLE				SQMT
	400	400	2	NOS	0.32
	300	300	1	NOS	0.09
	SITC TOTAL SQMT				0.41
	1200	100	2	NOS	0.24
	2900	100	1	NOS	0.29
	SUPPLY TOTAL SQMT				0.53
2.5	LOUVER				SQMT
	700	400	1	NOS	0.28
	1000	500	1	NOS	0.5
	TOTAL SQMT				0.78
2.6	COLLAR DAMPER				SQMT
	400	400	14	NOS	2.24
	400	400	2	NOS	0.32
	300	300	1	NOS	0.09
	TOTAL SQMT				2.65
	1000	100	1	NOS	0.1
	800	100	3	NOS	0.24
	VOLUME CONTROL DAMPER				SQMT
	700	400	2	NOS	0.56
	TOTAL SQMT				0.9
2.4	MOTORISED DAMPER				SQMT
	700	400	1	NOS	0.28
	1000	500	1	NOS	0.5
TOTAL SQMT				0.78	
2.7	CANVAS CONECTION				NOS
	900	250		NOS	3.00

Cancel
Cancel

Cancel
Cancel

Cancel

Sr. No.	Description	Qty In Rmt	Unit	Weight In Rmt	Total Kg
11	SUPPORT ANGLE				NOS
1	10 x 50 x 5mm	25	Rmt	9.56	239
BOQ Qty					200