

<b>Client:</b>	<b>BIO - INCUBATOR ,DEPT OF BIO TECH, IIT,Madras.</b>
<b>Project:</b>	<b>PROPOSED INTERIORS FOR BIO - INCUBATOR @ IITMRP &amp; IIT,Madras.</b>
<b>Location:</b>	<b>3rd FLOOR @ IITMRP &amp; 2nd FLOOR @ IIT,Madras.</b>
<b>B.O.Q</b>	<b>B.O.Q FOR CLEAN ROOM WORKS</b>
<b>Architects:</b>	<b>VARSHA &amp; PRADEEP ARCHITECTS</b>

	<b>NOTES</b>
1	<b>Areas: Clean room and air lock. However panels are to be provided for the Kitchen as also walkable ceiling for the kitchen shall also form part of the scope of works.</b>
2	<b>Scope of work includes clean room panels, return air riser panels, all accessories like trims, flashings, covings, sealnts at all horizontal and vertical juntions and openings. Scope of work also includes all fenestrations, light fittings, HVAC work, walkable false ceiling incl provision for making trap doors, dummy single skin sheets</b>
3	<b>CLASS = CLASS 10000</b>
4	<b>Rate to include supply, installation and 3rd party VALIDATION</b>
5	<b>Rate to include all taxes</b>
6	<b>Please note that the quantites mentioned are indicative. The contractors are expected to visit the site and study the drawings and make their own computation of the quantites.</b>

S. no.	Item Description	Qty.	Unit	Rate	Amount
				( Rs. )	( Rs. )
1	<b>CLEAN ROOM PANELS</b>				
	Sandwich wall panel - Providing and fixing in place sandwich type panel of minimum thickness 60mm, wiith PUF insulation for clean room along with panel sheet thickness 0.5 mm precoated. Rate to include finishing all ends properly with reqd. trims, beadings, sealant, PVC covings; making openings for windows, doors as reqd., making provision reqd. for clean room false ceiling fixing etc. Rate to include sealing all joints with other surfaces using covings, sealants as reqd.	28.00	sqm.		
2	<b>RETURN AIR RISER PANELS</b>				

	Riser panel - Same specifications as item 1 but for Return air riser panels. Please note rate shall be paid for elevation are of the visible riser panel. The hidden panels shall be paid for in Item 1.	4.32	sqm.		
	<b>3 DOOR - CASE 1</b>				
	Supplying and fixing door in sandwich panel . <b>Case 1 clean room on 1 side of sandwich panel.</b> Clean room GSS precoated door with EPS as insulation. Door to include hinges, handles , locks, vision panel of size 300 x 600 mm. Door frame to be a built up section of folded precoated GI sheet of overall size 100 x 50 mm with necessary rebate etc. as required. Door shutter to be 40mm thick built up section with powder coated skin on either sides. Rate also to include door stopper, door closer etc. all complete.Rate also to include drop seal in door shutter. Doors to be fully sealed at junctions of wall and door frame / sandwich panel by using covings, sealants etc. all complete.				
	1000 x 2100. Single leaf shutter opening inwards.	2.00	no.		
	<b>4 DOOR - CASE 2</b>				
	Supplying and fixing door in sandwich panel. <b>Case 2 clean room on both sides of panel.</b> Specifications same as mentioned above except that the door frame to be equal in width to the wall thickness as the case may be so that no wall jamb is visible.				
	1000 x 2100. Single leaf shutter opening inwards.	1.00	no.		
	<b>5 WINDOW - CASE 1</b>				

	<p>Supplying and fixing Clean room windows in sandwich panel. <b>Case 1 clean room on 1 side of the panel.</b>          Providing and fixing in place double glazed assembly in sandwich panel . Fixed glazing to have 6mm glass on either sides flushed with the panel edges so that the air gap in center is equal to the panel thickness ; air gap to be provided with suitable dessicant. Window frame to be equal in width to the panel jamb to allow for a future clean room on the other side. All joints etc. to be fully sealed between window frame / wall / sandwich panel as per clean room standards.</p>				
	1500(W)x1200(H) double fixed glass	2.00	no.		
	<b>6 WINDOW - CASE 2</b>				
	<p>Supplying and fixing double glazing in sandwich panel.  <b>Case 2 clean room on both sides of the panel.</b>          Specifications same as above.</p>	QRO	sqm		
	<b>7 WALKABLE CLEAN ROOM FALSE CEILING</b>				

	Supply and erection of walkable false ceiling at a height of 2400mm from FFL. False ceiling with suitable grid and metal / sandwich panels. Panels to have suitable EPS insulation of TF grade. Rate to include making all cut outs for light fixtures, a/c supply grills etc and any other requirement. Rate also to include all coordination required with other contractors like a/c , electrical etc. Responsibility to be taken for sealing all joints / gaps at light fixture edges / ac grills / false ceiling edge / junction with wall by using any hardware reqd. like sealants , any accessories etc. all complete. You are expected to check after installation of lights etc. and then seal the joints and ensure that clean room standards are met. Rate also to include making any cut outs in the ceiling for other agencies and then sealing the joints with adequate sealant, coving etc. all complete. Rate to also include making trapdoor in the false ceiling in the kitchen to allow access to space above walkable false ceiling.	20.00	sqm		
	<b>TOP OPENABLE CLEAN ROOM LIGHT</b>				
	<b>8 FITTINGS</b>				
	Suppling and erecting in place top openable clean room light fittings in false ceiling. Fittings to be 600 x 600mm. Model no. of fitting to be mentioned. Consider a T5 / CFL lamps (to be included) and electronic ballast. Fitting to have mirror optics. Please mentin nos. reqd. also to achieve 300 lux inside the clean room. (Note electrical wiring and connections shall be done by other contractor	3.00	nos.		
	<b>9 CEILING SUSPENDED AIR COOLED AC UNIT:</b>				

	Supply, Installation, testing and commissioning of Factory assembled, CSU of suitable tonnage and cfm (calculation to be submitted with the quote) to maintain inside design conditions as 23+or- 1 deg celcius with an RH between 55-60%. Rate to include suitably sized Hepa filters to achieve class 10000 clean room conditions. Rate to include insulated refrigerant and drain piping, suspension supports from true ceiling etc all complete.Rate to also include necessary provision to provide a ducted fresh air intake and suitable sized fan to facilitate the same. Rate to include the ODU necessary. This unit is to be placed in the AHU room allocated in the main core area of the building.				
<b>10</b>	<b>DUMMY PANELS ABOVE FALSE CEILING</b>				
	Dummy panels above 2.4m upto bottom of true ceiling (~3.72M). These can be 0.5 mm thick precoated sheets with profile and colour matching the sheets used for the clean room	18.48			
<b>11</b>	<b>VALIDATION</b>				
	Validation - Validation of clean room from 3rd party agency. The credentials and background of the thrid party validating agency to be submitted to the architects for approval prior to their engagement. Rate to include submission of forms etc., follow up , submitting a time line to client for completion of process of validation etc. all complete.		L.S		100,000.00
<b>Sub Total - Basic</b>					
<b>TAX</b>					
<b>Grand Total</b>					