

<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 LAB FURNITURE.</b>
<b>Architects:</b>	<b>VARSHA &amp; PRADEEP ARCHITECTS</b>

### GENERAL NOTES

#### 1. Scope of Work

a	Supply and Installation of Laboratory Workbenches/Storage units including granite worktops and other supporting structures/hardware's based on the specified make List. This includes delivery, unloading the consignment and transporting it
b	Supply & Installation of all utility service outlets and accessory fittings, electrical receptacles, plumbing and electrical switches & fittings identified on drawings as mounted on the laboratory furniture.
c	Supply & Installation of all laboratory sinks, bottle traps, drain troughs etc.
d	Supply & Installation of service structures where specified and setting in place reagent shelves of the type shown in the drawings.
e	Removal of debris, dirt and rubbish accumulated as a result of installation/commissioning of the laboratory furniture and accessories and leaving the premises clean and orderly.

#### 2. Quality Assurance

a	The laboratory furniture manufacturer shall provide work tops and casework all manufactured & shipped with proper packing & should take the full responsibility of the entire Scope of Works as specified in the tender.
b	General Performance: Furniture shall meet the performance requirements and should follow SEFA 8 guidelines

#### 3. Submittals

a	Manufacturer's Data: Submit installation instructions for each type of casework.
b	Samples: Samples if called for shall be provided free of cost and shall be retained at the site office till completion of the works.
c	Shop Drawings – Submit shop drawings for furniture assemblies showing the required details for architects approval. Execution shall proceed only after approval of shop drawings.

#### 4. Warranty

a	An unconditional warranty for a period of one-year from the date of handing over shall be provided by the finalised vendor.
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### B.O.Q

S.NO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
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A **Providing & fixing in position , lab tables with reagent shelf as per following details.**

I **L=1200mm, D=750mm,H=900mm**

24 NOS

II **Furniture to have :**

- 1 Welded cabinet body with flush face construction at intersection of vertical and horizontal members.
- 2 Cabinet should be of square non-sharp edge construction.
- 3 Removable back/ under table panel should be provided to easily access the service lines running behind the cabinet benches
- 4 Toe-space of 90mm X 90mm is provided at front-bottom side of cabinet.
- 5 Levelers are provided for easy leveling of welded cabinet.
- 6 Shelf should be eight-bend panel with 20mm height.
- 7 Drawer tray should be of single piece construction. Drawer should be well supported on LH and RH ball slide suspension system.
- 8 Steel door and drawer front should be of double wall construction with sound dampening material filled inside.
- 9 Doors should be easily removable and hinges should be easily replaceable. Knee space panel should be in 22 gauge construction
- 10 Storage Configurations: 1 Shutter + 1 Drawer
- 11 Thickness:  
LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel is of 0.8mmthk
- 12 Finish: Powder coating pure epoxy, thickness 40-50 microns
- 13 Handle: Anodized Aluminum Recessed-Type, CTC: 160.0mm
- 14 Lock: Units have a locking facility with 180° and 10 lever cam lock mechanism (except for sink and corner unit)
- 15 Hinge: SS Hinge Screw: SS 304
- 16 Coving: PVC Coving is provided all along the metal skirting.  
Shutter should be of twin-type construction with sound dampening effect using profeel. Shutter cover should be equipped with Bump on for sound dampening. Base Moulding should be made of PVC with corner clips. Ball Slide: 500mm Length (Godrej-Make)(required only for drawer unit). Shutter should have provision of roller catch. All sheet metal components shall be manufactured from CRCA confirming to IS Code 513:1994.
- 17 Reagent shelf:

Height adjustable shelves shall be provided between uprights with 1" of height adjustability .Complete modular design consisting of 2 stage horizontal storage shelves. The ends and intermediate vertical supports should be 2mm thick aluminium extrusion with MS brackets of 2 mm thick. Toughened glass shall be put-on over these shelves for taking care of bottle marks/corrosion. DEPTH OF SHELF :300 mm

### **III Tech specs**

- 1 Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The design shall be suitable for sitting and standing nominal heights of 750mm & 900mm respectively.The nominal table depths shall be 620 mm, 770 mm and 920 mm for wall side and 1540mm, 1840mm for Island tables. The Corner Units shall fit well with 770mm & 920mm table depths. All frame-work shall be pre-treated with superior pure epoxy powder coated finish.
- 2 Uprights - The Upright system shall form the back-bone for internal distribution of GDS,Electrical supply systems Shelves and Top Units and should be constructed from 16 gauge CRCA formed steel panels with removable covers. Shelf height shall be adjusted with an increment of 1inch / 25mm. Upright shall also provide support to Top Units for hanging thus eliminating the danger of fixing the Top Units on non-rigid partition wall /panels. Uprights shall be supplied with adjustable feet from -5mm to +20mm.
- 3 Horizontal Service Boom - Horizontal service boom shall be made out of 18 gauge CRCA steel panels and shall span the length between uprights and will be provided with removable service panels. Electrical and GDS supplies shall be supplied through this horizontal service boom. Boom shall be supplied with factory fitted combinations of switch & sockets with 15amps standard grade.

### **WORKTOP- GRANITE**

It should be 20 +/- 2 mm thick, jet black granite with edges having chamfer of 4 x 4 mm on top side. The overhang on the storage cabinet should be 25 mm at the front side and 30 mm at the sides .The backing material used for granite should be a neoprene mat of 6 mm thickness.

### **IV PEGBOARD (MOC: SS)**

These should be Single faced high grade stainless steel pegboard having a tray hole for water drainage and detachable pegs. The essence should be made up of 1 mm thick stainless steel (SS 304) whereas the pegs should be made up of polypropylene and will be adjustable with a minimum 10mm distance between each peg

#### **V ELECTRICAL TRUNKING**

Electrical trunking is made up of 0.8mm thick CRCA MS Sheet.

Godrej & Boyce Mfg. Co. Ltd Laboratory Furniture & Engineering Solutions

The complete M.S. material of cabinet should be pre-treated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance.

The thickness of powder coat should be 45-50 microns, which passes the test of Salt Spray for 1000 hours. It should have a high temperature withstanding capacity with excellent electrical insulation properties. The rear portion of above accessories which is in contact with live metal should be made from thermo set material which will not melt on heating.

#### **VI SWITCHES AND SOCKETS**

These are made of High gloss virgin grade engineering thermoplastics to impart a defect free surface. They impart excellent electrical insulation properties i.e. do not melt on heating or catches fire. Owing to this all electrical switches and sockets are capable of handling higher currents and operating temperatures. Front plates can be changed at any time with ease without disturbing the wiring to quickly and economically match changes in the surroundings.

#### **VII KEY-BOARD PULLOUT TRAY**

KBPT used should have a sliding mouse pad tray. The mounting brackets ensure height adjustment. It also should have a smooth quiet movement because of ball bearings and a load bearing capacity of 12 kg

**B Same as above lab tables but without reagent shelf as per following details. 4**  
**L=1200mm, D=450mm, H=900mm**

**C Writing tables W/O reagent shelf.**

**L=900mm, D=450mm,H=725mm**

**D Independent storages with 4 drawers. 4**  
**600X900X725mm**

**E Sink unit. 1**  
**1200x600x900**

It should be made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents.

PP Bottle-traps should be offered with PP Sinks.

Standard bowl size (L x W x D) should be 500 x 400 x 300 mm

2-way Faucet should be provided (Make: Broen/Watersaver)

	<b>GRAND TOTAL</b>	
	<b>TAX</b>	
	<b>GRAND TOTAL (INCLUSIVE OF TAX)</b>	

**RATE TO INCLUDE ALL TAXES**