Institute For Stem Cell Biology and Regenerative Medicine
Autonomous institute of the Department of Biotechnology, Government Of India

inStem

Ref: **INS/L-5524/2019-2020(Y)** **Date :** 04/10/2019

ENQUIRY

Dear Sirs,
Please let us have your lowest Quotation for the following :

Sl.No	Cat.No	Item Description	Make/Model	Item Qty	UOM
1		Chemical Fume Hood (Specifications Attached)		2.00	Nos.

Remarks: **2 PART TENDER:** The Technical and Financial / Price Bids shall be submitted simultaneously in two (2) cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price / Financial. Technical evaluation will be carried out and those Vendors who score minimum 75% will qualify for Price Bid opening. Thereafter, Financial Proposal shall be evaluated. The Commercially LOWEST BIDDER shall be the first preferred Vendor for award of Order.

Note :

1. The bids shall be enclosed in an envelope , and due date sealed duly marked "Tender for _____" Ref No : _____ . The bids should be addressed and to be mailed to **"THE HEAD-PURCHASE"**. The bids are liable to be rejected if the sealed envelope is not addressed to **"THE HEAD-PURCHASE"** with Tender Ref No and Item Description and due date. The bids delivered in person shall be dropped in Purchase Section. If the bids are sent through courier or mail , it should reach by submission Date and Time and inStem will not be responsible for the delay.

2. **DUE DATE FOR SUBMISSION OF QUOTATION AGAINST THIS ENQUIRY IS 21/10/2019 till 14.45 P.M.**
3. QUOTATIONS RECEIVED AFTER THE DUE DATE SHALL BE REJECTED.
4. The Validity of your quotation should be for 60 days from the date.
5. All duties,taxes,surcharge and cess as currently applicable must be sated in your quotation,seperately.Otherwise your quote is liable to be rejected.
6. Your quotation should indicate delivery period & Warranty period.
7. Delivery to be made to our Stores.Please indicate charges,if any extra.Transit Insurance should be done upto inStem Stores.
8. If you are unable to supply the quality,specifications or brand as mentioned in our enquiry,Please state so and then offer alternative to quality/Specifications.
9. Payment :within one month after delivery & acceptance/satisfactory installation.
10. Please ensure that the enquiry number and the due date is superscribed on the envelope failing which your quotation is liable to be rejected.
11. Since we are a public funded research institution,we are exempted from paying Customs Duty(Except advolerum duty of 5% + 2% cess and CVD @4% vide Notification No.51/96 with latest amendments) and excise duty vide Notification No.10/97 CENTRAL EXCISE dated 01-03-1997 for all scientific equipments,technical instruments,equipments(including computers),their accessories,spares,consumables and software.Hence,please offer your prices taking this option into consideration.

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12.**If the item is covered under DGS&D rate contract,please quote the rate as per the DGS&D rate contract with xerox copy of the DGS&D order.**

13.Any dispute or differences that may arise between the parties shall be referred to the sole arbitration of the Centre Director or his nominees.The decision of the arbitrator shall be final and binding on the parties.The venue for arbitration shall be Bangalore.The provisions of the Arbitration and Concillation Act,1996 as amended from time to time shall apply.The Courts in Bangalore shall have exclusive jurisdiction to deal with any or all disputes between the parties.

Yours faithfully
For and on behalf of Insitute For Stem Cell Biology and Regenerative Medicine

Yesu R

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GKVK, Bellary Road, Bangalore-560065,INDIA
Phone No. : 91-80-23666343/344/345/346 Fax : 91-80-23636662
Email Id: purchase@ncbs.res.in Website : www.ncbs.res.in

2 PART TENDER FOR Chemical Fume Hood -Qty 02 Nos.

P.O. No: INS/L-5524/2019-2020(Y)

Tender Specification for Chemical Fume Hood - Qty 02 Nos

Fume Hood should consist of following features:	
Overall Dimensions with base cabinet:	1500 mm W X 900 mm D X 2400 mm H
Fume Hood dimensions:	1500 mm W X 900 mm D X 1555 mm H
Base Cabinet dimensions:	715 mm W X 535 mm D X 590 mm H
Inside Fume Hood working volume:	1440 mm W X 650 mm D X 1180 mm H
Bed size:	1440 mm W X 650 mm D
Specification	**Description**
Design Basis	American Design Standard: ASHRAE110- 2016 All tests including "Tracer gas containment test" passed.
	European Design Standard: EN-14175- 2003 'Inner Plane Containment test' passed.
Design Structure	Aerodynamic, Floor mounted
Airflow Type	Low Constant Volume *(for A.C. environment)*
Colour Combination	As per approved by client
Powder coating	Complete metallic parts are processed with multi-tank pre- treatment and finished with highly corrosion resistant 'Kansai Nerolac/equiv' epoxy powder coating with 70 - 80 microns thickness. Our Automatic coating plant and fully conveyorized oven ensures that coating surface get appropriate temperature to bond with the surface. The paint surface was tested for quality and longevity out of which 1000 hours salt spray test is important factor.
Material of Construction of superstructure	Galvanized Iron (GI) as per IS 277: 2003 standard of
	• 1.0 ±0.1mm - 1.2 ±0.1mm thickness for all sheet metal panelling converted as main superstructure.
	• Same panel converted as corner post and panel as single piece.
Front Top Panel	Easily openable hinged Top Panel for easy access to Flow Control Valve and Electrical Lighting fixtures for maintenance.
Corner Post	Panel profiled Corner Post is placed on Left and Right Hand Side of the Fume hood
Construction (Interior)	Chemical & Heat Resistant, Fire Retardant, Smooth Finish, Easily Cleanable Panels Made out of durable PRL integral work walls
	(6 mm thick). ASTM flame spread index < 25.
	Entire internal structure is boltless and fixed with premium quality 3M adhesives.
Active Kinetics exhaust system	Interstitial 7-point active kinetics exhaust system (for light, normal & heavy fumes) with baffle to ensure rapid exhaust of fumes.
Airfoil	Aerodynamic Design, Horizontal fixed airfoil mounted on the worktop made of SS 304 (1.2 ±0.1mm thick).
Worktop	Chemical resistant splash & spillage proof dished *'Jet Black Granite'* worktop (18 ±1 mm thick). Skirting of 15 mm from all sides for no chemical spillage.
Sink, Water tap with drain arrangement	Worktop will have sink sealed with silicon sealant for drainage with water tap on left back side of worktop. Sink will have a trap for waste collection.
	• Oval shaped 100 mm X 200 mm sink

Sash (Shutter)	Vertical rising sash counter-balanced with pulley and counter-weight system. Toughened Float Glass sash (5 mm thick). Smooth and light sash operation. Clear openable height = 750 mm. Impact Resistance of the sash (Toughened Glass) is four times higher than other sash materials (like Safety Glass and Polycarbonate). Breaking Stress value for fully toughened glass (Tempered Glass) = 24,000 psi.
Wet & Dry Service valves	Remotely operated Color coded Brass Needle Valves for fine control over utilities (as per DIN 12920 norms) total 4 nos. service valves with PU plumbing with 6 mm internal dia, withstands up to 5kgf pressure (All on LHS)
	• 1 for Raw water
	• 1 for Nitrogen
	• 1 for Vacuum
	• 1 for Compressed Air
Internal nozzles	Brass powder coated fittings are staggered in the fume hood on the back wall to avoid the intermingling of the flexible hoses. Also the taps are tapered in shape to use with flexible tubing of sizes from ¼" to ½" in dia, to provide greater flexibility to the user.
	Note: - Our Scope of supply for utility lines ends at 1/4th BSP male adopter.
Lighting	Fluorescent light (40 watt, 2 Nos.) with vapour-proof fitting for proper illumination. Intensity approx 400 *lux* at worktop level.
Electrical Utilities	3 nos. electrical sockets 'North West or Equivalent' make (230 V, 6/16 A, 50 Hz), 3 nos. 'North West or Equivalent' make MCBs with blower NO/NC switch with built –in starter & light switch on front fascia. Cables & wires 'Fire Retardant' grade. *(All on RHS)*
Built-in Starter	The electrical wiring will have built-in starter of "Telemechanique or Equivalent" make; suitable to blower motor capacity.
Cable entering port	For easy access of cables from fume hood to electrical sockets.
Chemical Storage Base Cabinet	Base cabinet will be ready to receive the fume hood at its top. It will have following features:
(Ventilated & on castors)	1) Completely made from 1mm thick GI sheet with Highly corrosion resistant epoxy powder coating,60-80 microns thickness.
	2) Cabinet integral work walls will be Special chemical & heat resistant, smooth finish, easily cleanable panels made out of durable PRL sheets.
	3) Two exhaust ports connected to the fume hood exhaust system internally.
	4) One removable horizontal partition to store chemicals.
	5) PP Trays for chemical storage.
	6) Cabinets on castors.
	7) Roller catch of "HAFELE or EQUIVALENT" Make for the Base Cabinet doors.
	8) Polyamide Hinges from outside of Base Cabinet.
	Overall Dimensions: 715 mm W X 535 mm D X 590 mm H
Apparatus Holding Grid (Lattice Assembly)	A grid made up of Duralumin Powder coated rod (Dia. 12.7 mm) to hold the apparatus. It will cover the entire length of the fume hood and will be built-in at fume hood backside. Installed at the distance of 150 mm from backside of fume hood.
(Optional - To be ordered separately if required)	
Air Flow Monitor AFA 1000/1 Tel. UK (Optional - To be ordered separately if required)	Model AFA 1000/1'. This device is an accessory for Fume hood to indicate the approximate face velocity of airflow with primary purpose of warning when a low flow condition occurs. Red & green LEDs correspond to low & normal flow rates. When flow decreases from Normal to Low, an audible alarm will also actuate requiring manual acknowledgement for silence.
	Digital display of face velocity in m/sec or fpm
	On screen display for Safe and Alarm conditions with

	Audible alarm and LED indication.
	Push button calibration and configuration
	Plug-in connections for power supply and airflow sensor
	3 programmable output relays
	3 configurable inputs
	Com port for local or PC network connection
	'PPI make model Zenex/Delta'.
Temperature indicator	Size 48 x 48 x 110, mm (Panel cut-out - 44 x 44 mm)
(Optional - To be ordered separately if required)	Accuracy ±0.25% of reading ±1 LSD, ±1°C
	Supply Voltage 85 to 264 V AC, 50 / 60 Hz
	User Interface Display : 2 rows of 3 digit x 7 segment high intensity LED
	Upper Row : Process Value for PID 1
	Lower Row : Process Value for PID 2
	Key Board : 3 front panel keys for settings
Level adjusting screws	Made of SS Bolts to adjust the fume hood level by ± 10 mm.
Exhaust Port	Unique exhaust port design ensures that the fumes will be exhausted smoothly without any turbulence at the exhaust port. Also it ensures low noise level.
Flow control valve	To regulate airflow.
Noise Level	< 70db at 1 meter from fume hood.

CENTRIFUGAL BLOWER: (For air suction in cluster of Fume hood)

Silent PP+FRP high efficiency remote blower consisting of continuous rating motor and chemical resistant impeller. It satisfies international safe velocity norms.

Sr. No	Specification - Description
1	Construction - SISW type, chemical & heat resistant PP + FRP blower with aerodynamically balanced PP impeller, with drain plug.
2	Air Suction Capacity - 1200 CFM confirming to international face velocity norms and as per safe fume hood airflow pattern.
3	Motor -'Crompton / LHP/ Havel's/ Other Reputed' make, 1.5 HP Motor 3 Phase TEFC, IP 55, Class F, continuous rating. As per IS 325.
4	Drive - Direct Drive

'DUCTING:

Chemical resistant PP + FRP (3mm + 2mm) rigid & flexible ductwork from Fume hood to exhaust stack point with weatherproof canopy. Total ducting with horizontal, vertical members, flanges, bends, bracketed supports and gooseneck exhaust stack. (duct work will be carried out by our engineering team)

INSTALLATION:

It should be carried out by skilled team fitting, fixing of blower, commissioning & testing of the same

TESTING:

fume hood to be "factory tested" as per ASHRAE110:2016 face velocity norms. Also, "Onsite Validation" should be carried out to ensure working of fume hood as per international norms.

WARRANTY: 3 years' warranty against all manufacturing defects from the date of installation. Engineer should be Bangalore based, who can install and rectify any issue in future.

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Terms and Conditions:

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2. **first sealed cover – Cover I,** and super scribed as **"Techno-commercial Bid"** and should contain Complete Technical details of the Instrument offered (Specifications, Technical Parameters, Advantages, etc.,)

3. The **second sealed cover** – **Cover II** super scribed **'Price Bid'** should contain **only rates** (should be duly signed with seal and filled with date wherever necessary)

4. THESE TWO COVERS SHALL BE AGAIN PUT INTO A SINGLE WAX SEALED COVER super scribed **"Chemical Fume Hood - Qty 02 Nos." and should reach INSTEM on or before 21-10-2019 before 14.45 hrs".** This should be addressed to the Purchase Officer, inStem, NCBS, GKVK Post, Bellary Road, Bangalore – 65.

5. The tender to be quoted in foreign currencies & any other currencies approved/traded by RBI-USD/Euro/JPY/GBP/SGD/CAD/INR.

6. If the items as per specifications in our P.O. is not supplied (shipped) within the specified delivery schedule, then liquidated damages (not in terms of penalty) will be imposed automatically and shall be deducted from the bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

INFORMATION TO TENDERERS

The Tender shall be evaluated under 2 (Two) Bid System

I Technical Bid

II Financial Bid

TECHNICAL SPECIFICATIONS & EVALUATION CRITERIA WITH MARKS FOR 2 PART TENDER FOR "Chemical Fume Hood - Qty 02 Nos".

TECHNICAL SPECIFICATION Chemical Fume Hood

		Scores
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	Com port for local or PC network connection	
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Temperature indicator	Size 48 x 48 x 110, mm (Panel cut-out - 44 x 44 mm)	
(Optional - To be ordered separately if required)	Accuracy ±0.25% of reading ±1 LSD, ±1°C	
	Supply Voltage 85 to 264 V AC, 50 / 60 Hz	
	User Interface Display : 2 rows of 3 digit x 7 segment high intensity LED	
	Upper Row : Process Value for PID 1	
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	Key Board : 3 front panel keys for settings	
Level adjusting screws	Made of SS Bolts to adjust the fume hood level by ± 10 mm.	
Exhaust Port	Unique exhaust port design ensures that the fumes will be exhausted smoothly without any turbulence at the exhaust port. Also it ensures low noise level.	
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Sr. No	Specification - Description	
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2	Air Suction Capacity - 1200 CFM confirming to international face velocity norms and as per safe fume hood airflow pattern.	15
3	Motor -'Crompton / LHP/ Havel's/ Other Reputed' make, 1.5 HP Motor 3 Phase TEFC, IP 55, Class F, continuous rating. As per IS 325.	
4	Drive - Direct Drive	
'DUCTING: Chemical resistant PP + FRP (3mm + 2mm) rigid & flexible ductwork from Fume hood to exhaust stack point with weatherproof canopy. Total ducting with horizontal, vertical members, flanges, bends, bracketed supports and gooseneck exhaust stack. (duct work will be carried out by our engineering team)		
INSTALLATION: It should be carried out by skilled team fitting, fixing of blower, commissioning & testing of the same		
TESTING: fume hood to be "factory tested" as per ASHRAE110:2016 face velocity norms. Also, "Onsite Validation" should be carried out to ensure working of fume hood as per international norms.		15

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WARRANTY: 3 years' warranty against all manufacturing defects from the date of installation. Engineer should be Bangalore based, who can install and rectify any issue in future.		
	Total	**100**
Evaluation will be carried out and those Vendors who score minimum 75% will qualify for Price Bid opening. Thereafter, Financial proposal shall be evaluated. The Commercially LOWEST BIDDER shall be the first preferred Vendor for award of Order.