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IISER/ PUR/ 1294/ SK-P/SB/19-20

03.08.2020

CORRIGENDUM

SUB: Supply, Installation and commissioning of IVCs with AHUs and changing stations

Ref: E-Procurement Tender ID No. 2020_IISRT_573294_1

The technical specifications mentioned in tender document at Pg. Nos.19 to 24 are replaced with the Annexure I enclosed herewith.

Bidders are requested to note the above and submit their bids accordingly.

Deputy Registrar (P&S)

IISER-TVM, Govt. of India, Ministry of H.R.D.

Specifications for IVCs with AHUs and changing stations

Part A. Individually Ventilated Caging (IVC) System with AHUs-Mice

Each IVC system should include

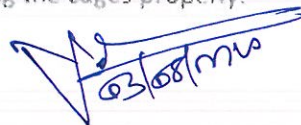
- Air Handling Unit
- Single side racks (Separate quotations for all available sizes of racks with cages 40 and above)
- IVC cages of suitable size for the racks

Air handling Unit:

1. Should be independent and not rack mounting type.
2. Should be able to deliver 50-80 air changes per hour to each individually ventilated cage.
3. Should be able to maintain filter load compensation automatically.
4. Should be made up of rust-free polymer or stainless steel (above SS 304 grade), easily cleanable, compatible with gas/chemical sterilization.
5. Should be compact and easy to move and handle.
6. Should have nylon/steel ball bearing castor wheels with pad lock for easy mobility and positioning.
7. Should have provision to connect upto 4 single sided racks.
8. Should have built-in safety devices/ alarm system for fault indication.
9. Should have microprocessor based control panel for setting and controlling supply and exhaust air quantity, and monitoring average cage temperature, humidity and pressure.
10. HEPA Filters should be DOP Tested. The efficiency level of the filter should be 99.99% to prevent particles ≥ 0.3 micron.
11. Maximum air speed limit is 0.2 m/sec above animal level.
12. Pre-filters must be easily accessible and cleanable.
13. Power supply should be 220-240 V, 50 Hz AC.
14. Should provide validation certificate and reports with all parameters (sensor calibration, aeraulic test etc.) tested.
15. Manufacturer should be ISO certified.
16. Should have silent operation Fans with AC/EC motor and noise level should be ≤ 50 db.
17. Should have the provision to regulate the fan speed.

IVC Racks

1. Frame structure, supply and exhaust air headers with air distribution system should be of stainless steel above SS 304 quality.
2. Castor wheels should be 4 in number and with at least two wheels having locking system.
3. Each single side rack should accommodate minimum of 45 cages.
4. Entire rack with all parts should be easy to clean, disinfect and should be autoclavable.
5. The rack must have self-locking system for docking the cages properly.



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IVC Cages

1. Cages must be individually ventilated and should be able to run in both positive and negative pressure modes.
2. Cages should be of Polysulphone material with good transparency.
3. Each cage should have all necessary components such as cage bottom, cage grill (SS 304 grade), cage lid with breathing filter, cardholder along with water bottles and locking system.
4. All components of the cages must be washable and should be able to withstand repeated autoclaving for at least 150 cycles.
5. Minimum floor area of the cage should be 500 cm².
6. Should have self-locking system onto the rack with a proper docking.
7. Water bottles should be without any ball bearing.
8. Cage lid should be fitted with 0.3µm filter in a retainer to allow air entry in case of power failure.
9. The cages should be fitted with appropriate gasket to ensure efficient air sealing.
10. Water bottle should be of self-centering type and should hold a minimum of 200 ml of drinking water.
11. Bottle cap should maximize water availability to animals.
12. The nozzle should be of high quality (SS 316 grade) and provide perfect sealing once the bottle is placed in position.
13. Air nozzles should be placed above animal height to prevent stress to the animals.
14. Water bottle port should be with self-closing isolators.
15. The vendor should quote for 30% extra cage units (in number) along with the set capacity of the racks.

Desirable specifications:

Air handling unit:

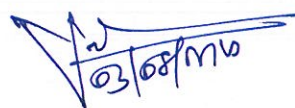
1. Should have provision to control or access through any portable or fixed external device that is equipped with a web browser/application, irrespective of the Operating System and display all the AHU information in the tablet/mobile phone/PC screen.
2. HEPA filter should be H13 or H14 grade and pre-filter should be of grade H4.
3. Provision for system alarm integration with the building management software.
4. Provision for wireless/remote alarm through SMS, data logger, multiple ventilator connectivity with PC for remote monitoring, control and data download either through LAN or Wi-Fi.
5. Provision for external communication ports

IVC racks:

1. Duct couplers, endcaps, cage supply air nozzles & cage exhaust air nozzles in special grade rubber construction.
2. Castor wheels with SS 304 casing should be maintenance free, lockable and should not damage the flooring.
3. Plenums for air supply and exhaust should allow equal air distribution.

Cages:


1. The air supply inlet should be positioned to prevent direct exposure to animals. ✓

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2. Microbiological filter should be third party certified.

General requirements:

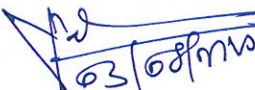
1. The manufacturing company must comply with ISO 9001 (quality management system) and ISO 14001 (environmental management system) standards.
2. Validation for the entire system including cages, racks and AHU along with filter integrity test for HEPA filter is mandatory (Aerobic test, DOP filter integrity test, electrical integrity, sensor calibration for temperature and humidity).
3. The vendor will be responsible for loading, unloading of material and provide installation at specified area.
4. The equipment should come with detailed instruction manual.
5. The vendor should furnish information about the availability of after sales service and ability to attend emergency calls for troubleshooting. Availability of local service support and response time for a service call during and after the warranty should be specified.
6. The vendor must furnish a list of users of the product in India and certificate of performance from users preferably from national level institutions.
7. The vendor should provide at least 5 years warranty.
8. Post warranty AMC charges for three years should be quoted separately.
9. Hands on training should be provided at the site of installation, free of cost.
10. Sufficient numbers of spare parts such as tubing, gaskets, HEPA filters, air-nozzles for bottles and pre-filters etc. should be provided by the vendor for initial period of three years.


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Part B. Cage changing stations

Specifications:

1. Should be suitable to use in GLP standard Lab/Clean Animal facility to change rodent cages.
2. Should be compact in size and over all dimension should not be more than 1400 x 800 x 2000 mm.
3. Should be calibrated and validated.
4. Should be mobile and allow the user to easily move the cabinet inside animal room with lockable castor wheels.
5. Should have dual access so that users can work from both sides.
6. Should ensure protection and should be safe to use during cage changing.
7. There should not be any sharp corners or edges and surface should be clean.
8. Microprocessor driven airflow speed should be adjustable to provide safe working conditions.
9. The Barrier Air Flow Speed should protect the operator from allergens and particles while manipulating cages inside the cabinet.
10. Should ensure protection to the animals from contaminant by minimizing the exposure to aerosols.
11. The Incoming and outgoing air should be filtered through a particulate pre-filter (G4 efficiency) and then through an H13/H14 HEPA filter.
12. Filters efficiency should be of laminar air flow grade.
13. Integrity of HEPA should be DOP Tested and should meet ISO standards.
14. Efficiency should be more than 99.50% at 0.3 μm to create a containment level as per ISO 4 standards.
15. Protective net or equivalent protection should be provided to avoid bedding and dust particles clogging the exhaust pre-filter, preserving the lifespan and the efficiency of the HEPA filters.
16. Should have acoustic and/or optical alarm indicator system according to performance criteria for microbiological safety cabinets. It should indicate when the system is out of range for airflow velocity, front air barrier flow rate, HEPA filters clogging and motor blower fault.
17. Should be equipped with EC motors and energy consumption, noise (<50db) and vibration should be minimum.
18. Should have LED lighting and two power sockets protected with drip-proof covers
19. Work top surface should be scratch resistant stainless steel material of SS 304 grade or above.
20. Power Supply should be 220-240 V, 50 Hz. AC.
21. Power cord should be at least 4 m length with 5/15 Amp. 3 pin plug.
22. Should provide validation certificate and test reports with all parameters.
23. Manufacturer should be ISO certified.
24. The vendor should provide at least 5 years warranty.
25. Post warranty AMC charges for three years should be quoted separately.


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26. The vendor should provide transportation, installation at the designated site and should provide hands on training to the staff free of cost at the installation site.
27. Vendor should furnish details of the local service support and response time for a service call during and after the warranty period.
28. The equipment should come with detailed instruction manual.
29. The vendor must furnish a list of users of the product/s in India and certificate of performance from users preferably from national level institutions.

Desirable specifications

1. Provision to record and save functional data.
2. Provision for adjusting height.
3. Touch screen alpha-numeric display for airflow speed, barrier flow rate for easy monitoring of the working conditions, such as display for airflow velocity, front air barrier velocity, display of residual lifetime of HEPA filters, display of total time of cabinet operation etc.
4. The average airflow must be higher than 0.30 m/s in the whole internal chamber, equally distributed in the working area for animal protection and avoid cross contamination.
5. The vendor should provide a list of installations in India.
6. Should have regional service centre.
7. At least five years of warranty should be provided.


03/07/2020