

NOTICE INVITING e-TENDERS
etender.punjabgovt.gov.in
Directorate, Animal Husbandry, Punjab ,Livestock Complex, Sector-68, SAS Nagar.
e-Tender/Notice -2/2017-18

The Department of Animal Husbandry, Punjab, Livestock Complex, Sector-68, SAS Nagar, invites e- tender on Double bid system for following items as per terms and conditions detailed below:-

Sr.No	Name of Item	Quantity	Sr.No	Name of Item	Quantity
1	100mA High Frequency Portable X-Ray Machine for Veterinary Use	1 No.	9	LYOPHILIZER	One
2	Portable Black and White Ultrasound Scanner for veterinary use.	1 No.	10	Diagnostic Kits For Avian influenza and other diseases	As per specifications
3	Biological Microscope With LED ILLUMINATION	4 Nos.	11	100mA Mobile X-Ray Machine with Table for Veterinary Use .	5Nos.
4	Veterinary Computed Radiography System	4 Nos.	12	Phase Contrast Microscope with Heating Stage (biotherm) and accessories	One
5	Consumables of Pre- Fabricated BSL-111 Lab at RDDDL, Jalandhar.	As per specifications	13	Laminar Air Flow Unit (Vertical)	3 Nos.
6	AIR COMPRESSOR	1 No.	14	Double Distillation Plant (Quartz)	One
7	Air curtains (width 4') Air curtains (width 6')	2 Nos. 2 Nos.	15	PHOTOMETER FOR SWINE SEMEN	One
8	FLUORESCENCE MICROSCOPE-UPRIGHT MODEL	One	16	MANUAL FILLING AND SEALING MACHINE (GTB)	One

- E-Tenders are invited for the supply of the machinery/equipment and other items listed from 1 to16 for the department through the e-tendering process of Govt. of Punjab. For additional details such as items specifications, important dates etc visit the website: etender.punjabgovt.gov.in. Tender form, specifications, terms and condition can be obtained from this website on payment of Rs. 20/- (online payment) as per e-tendering procedure.
- The tender will be in double bid system i.e. Technical/Pre-qualification Bids and Financial/Commercial Bids .The Technical Bid should contain comprehensive technical details of the equipment (Brochure/Catalogue), profile of the manufacturer/supplier, main current clients, experience, tentative delivery period. Financial/Commercial Bids should contain the price (inclusive sales tax/VAT etc. as applicable), terms and conditions. Technical Bids would be opened first and Commercial Bids will be opened subsequently of only those tenders who qualify in the Technical Bids. Incomplete/conditional Tenders not received as per e-tendering procedure will be out rightly rejected.
- The e-tenders should be submitted online till 04/07/2017 upto 5:00 pm and the same will be opened on 05/07/2017 at 11:00 am.
- The e-tender must be accompanied with earnest money amounting Rs. 500/- (online payment) as per e-tendering procedure.
- Tenderers are also required to submit a hard copy of the technical bids of this tender on or before the closing date 04/07/2017, upto 5:00 pm at the office of the under signed i.e. Directorate, Animal Husbandry, Punjab ,Livestock Complex, Sector-68, SAS Nagar.
- The undersigned reserves the right to accept or reject one or all offers/tenders and holds the discretion to increase/decrease the quantity of any or all the items.
- Successful tenderers will have to submit a Security deposit of 10 % of the ordered value within the stipulated period of time after issuance of orders.
- For participating in the above e-tender, the contractors shall have to get themselves registered with <http://etender.punjabgovt.gov.in> and get user ID & password. Bidders who have not registered with e-procurement portal need to get registered by paying the requisite registration fee for e-tender participation and obtain Class 3 Digital Signature Certificate (DSC) which are mandatory to participate in the e-tendering process. For any clarification/difficulty regarding e-tendering Process please contact on helpdesk numbers 09257209340, 08054628821, 0172-3934667.
- Bidders are also required to pay tender processing charges of Rs. 2,280/- or an estimated amount as per tender which are to be deposited. (This tender processing fee/charges are other than the firm registration amount for Digital Signature Certificate DSC).
- E- Tender details can also be obtained from the Departmental website www.husbandrypunjab.org.

FAX No: 0172-2217084
Telephone No. 0172-2217083
Website www.husbandrypunjab.org

Director Animal Husbandry,
Punjab.

Tendering Procedure.

It will be a two stage tendering. The technical tenders and financial/commercial tenders will have to be submitted AS PER E -TENDERING PROCEDURE.

The Technical Bids should contained detail information on the following: -

- **Nature of Ownership.**
- **Composition of the Firm.**
- **Bankers Name & Address.**
- **Annual Turnover of last three years.**
- **C.S.T/S.T No./Vat No.**
- **PAN/TAN No.**
- **Tax clearance.**
- **Whether Manufacturer/Sole Selling Agent/Distributor/Authorized Dealer.**
- **Experience in line.**
- **Capability/Capacity to service the requirement.**
- **Details of relevant infrastructure.**
- **Arrangements of after sale service.**
- **List of Clients.**
- **Quality Assurance/Monitoring system followed.**

Certificates where needed should be attached duly attested.

Financial/Commercial Bids.

Financial Bid should contain the price quoted per unit. The following information should be clearly given in the Financial Bid:-

- **Price per Unit.**
- **Place of Delivery.**
- **Status of Taxation/Duties etc.**
- **Lead time/Delivery Period.**
- **Packing & forwarding.**
- **Mode of Transportation.**

- **Payment condition.**
- **Warranty/Guarantee.**
- **Validity of Offer.**
- **Acceptance of Terms of N.I.T.**
- **Details of Earnest money attached.**

Financial Bids will be opened only of those tenderers, who qualify and are found suitable during the processing of Technical Bids.

TERMS AND CONDITIONS

- 1. Tender shall be accepted only from manufacturers/authorized dealers.**
- 2. Rates should be quoted in Indian Rupees only, FOR anywhere in Punjab/Chandigarh.**
- 3. All applicable taxes should be included in the quote.**
- 4. Brochure/leaflets/catalogues for equipments should be submitted alongwith tender.**
- 5. Trouble free performance of the equipment for a minimum period of two years from date of commissioning should be guaranteed . Any defect intimated should be attended to and rectified within 15 days of receipt of such communication within guarantee period. The guarantee shall include cost of spares and labour.**
- 6. The supplier should give an undertaking that they will be responsible to carry out the preventive maintenance and to repair the equipment during guarantee and post guarantee period.**
- 7. The product offered should be supported with AMC for next three years on expiry of the guarantee period. Full details of after sale service offered during the post guarantee period should be furnished alongwith tender specified.**
- 8. Information of actual users of the equipment in India supported with evidences and performances should be furnished alongwith tender.**
- 9. If required the working of the equipment must be demonstrated in any place to be specified by the supplier.**
- 10. The supplier shall train to the satisfaction of the purchaser one or two technicians at site/factory for operating, servicing and undertaking minor repairs without extra cost. Supplier will have to deposit 10% value of the total price of the items in the form of Demand Draft/FDR payable at Chandigarh in the name of Director, Animal Husbandry, Punjab, Chandigarh within 10 days of receipt of supply order as security money.**

Specification for e-tender notice no. 2/2017-18

1 100mA High Frequency Portable X-Ray Machine for Veterinary Use .

1No.

- The machine should have maximum output of 5KW.
- Voltage Range should be 40 to 100 KV with steps of 1KV/ Step
- mA Should have range of 20-100/6 steps.
- mAs Should have range of 0.1 to 100/ 38 steps.
- Tube should have a focal spot of 1.8x1.8 (mm)
- Tube should work on power supply of 200-240 V single phase.
- The machine should not weigh more than 21 kg and should be easily transportable from one place to other.
- Machine should have a remote control function by hand switch.
- Should have Digital display of mAs & KVP
- Machine should be slim and compact.
- It should be provided with built in SID measurement tape.
- It should be provided with a carrying case.
- It should be provided with at least 700 anatomic programming radiography settings .
- Machine should be supplied with three lead apron, one pair lead hand gloves, one patient body thickness measuring scale and 2 neck shields .
- It should be supplied One light weight, durable, movable temporary mounting stand with castor wheels.
- The company should be ISO certified.
- The unit should approved by BIS/ AERB //FDA/ European CE
- The company must provide technical exposure chart of each machine
- The company should provide minimum two year Guarantee/Warranty from the date of installation and subsequent AMC rates may be quoted.
- The company should have local Service center.
- The supplier should be able to demonstrate the product as and when required at the place where specified.

2. Portable Black and White Ultrasound Scanner for veterinary use.

1no.

- The machine should be light weight, easy to handle and should not weight more than 2kg.

- The machine should give a high quality ultrasound image with accurate diagnosis of different stages of reproductive cycle of animal as well as any abnormality in reproductive organs.
- The fixed linear probe should give maximum detail of different reproductive structure so as to determine insemination time and fetal sex in cows.
- The machine should be able to detect early as well as late pregnancy .
- The scanner should give a detailed image.
- The machine should be offered with fixed linear probe of frequency 6-8 MHz.
- The probe should provide detailed image of 6cm, 8cm and 12cm .
- The probe should produce 40 frames/ second across 16 digital channels so there is no lag or image loss while scanning rapidly.
- The machine should have a detachable battery with atleast 6 hours of backup.
- The company should be ISO certified and machine should be FDA/ CE approved.
- The company should provide minimum two year Guarantee/Warranty from the date of installation and subsequent AMC rates may be quoted.
- The supplier should be able to demonstrate the product as and when required at the place where specified.
- The company should provide bug goggles, remote display and carry case along with the product .
- The company should provide the list of veterinary users.

3. BIOLOGICAL MICROSCOPE WITH LED ILLUMINATION

4 Nos.

OPTICAL SYSTEM: Built in LED transmitted illumination system 0.5 W LED

FOCUSING: Stage height movement {Coarse movement stroke. 20mm} Fine focus graduation 2.5um.

Revolving Nose piece: Fixed quadruple nosepiece.

Stage:Wire movement mechanical fixed stage 120x132 mm. Travelling range:76 mm(x) x 30 mm(y). Single specimen holder.

Observation Tube: 30 degree inclined binocular tube. Interpupillary distance adjustment range 48-75 mm.

Condenser:Abba type with aperture iris diaphragm N.A :1.25

Objectives:Plan achromatic objectives(antifungus)

4x N.A: 0.10 WD:18.5mm

10X N.A: 0.25 WD:10.6 mm

40x N.A:0.65 WD:0.6 mm

100x oil N.A:1.25 WD:0.13 mm

Eyepiece: Field Number (F.N): 18 (antifungus)

Accessories: Mirror unit, a pair of 15x eyepiece (FN 18, antifungus), wooden storage box, filar micrometer, wire pointer, filter holder, darkfield stop, cord rest, dust cover, USB cable.

Weight: Approx 6 kg

CE and UL approved . Both certificate should be attached.

Other Requirements:

- The company should provide minimum two year Guarantee/Warranty from the date of installation and subsequent AMC rates may be quoted.
- The supplier should be able to demonstrate the product as and when required at the place where specified.
- The company should have local service center for providing after sale service.

4 Veterinary Computed Radiography System

4 Nos.

- System must achieve minimum through put of 45 plates/hour .
- System must have Veterinary Software and presentation of same with documented proof.
- System must be approved by ECE & USFDA for Radiology application
- System must be desktop/floor stand solution
- System must be Single Plate Scanning CR solution
- System Should be able to upgrade the cassette scan speed in future
- Monitor can be any of the ones available as std LCD ,LED or Touch screen
- Monitor resolution must be at least 1280X1024
- Imaging plates must be flexible type
- System must offer 2no. of plates of size 14x17 and 10x12 each with the capability of system to read plates of 08x10 and 11x14 also for future upgradation.
- Gray scale resolution for image acquisition before processing must be 16 bit
- Gray scale resolution for post processed images must be at least 12 bit
- Cassettes and imaging plates must be available in various sizes
- System is capable of reading QR codes to acquire patient ID
- System allows to associate patient ID with cassettes through a barcode reader or RF device
- Software automatically masks the area outside the collimation edges for better productivity.
- Manual adjustments of the masked area should be possible
- System must be capable to connect to PACS through Dicom Store
- System must be capable to print to dry laser printers through Dicom Print

- System must be capable of running a QA/QC test to verify performance
- Images should be freely rotated
- System must be capable to export images to media such as USB, CD Rom etc
- System must be capable of importing images into the database from various media type such as USB sticks, CD rom etc
- System offers the capability to crop images, zoom and print
- Printer must be Laser technology
- Printer Should Have Single online supply tray.
- Each tray or Draw of the printer must be able to print the following international standard films sizes 8X10,10X12,11X14 and 14X17 without mechanical alteration
- Printing resolution must be 325 dpi/ppi or more standard for all type of DICOM image printing.
- Printer must use day light film box loading technology
- Guarantee/ Warranty of the system should be two years.
- Veterinary user list to be enclosed along with tender .
- The supplier should be able to demonstrate the product as and when required at the place where specified.
- Product catalogue should be enclosed along with the tender .

5 Consumables of Pre- Fabricated BSL-111 Lab at RDDDL, Jalandhar.

Sealed tenders are invited from OEM (Techcomp Limited Hong Kong) or other eligible firms for Consumables of Pre- Fabricated BSL-111 Lab at RDDDL, Jalandhar.

supplied by Techcomp Limited HongKong installed at the RDDDL NZ Jalandhar (Punjab)

Description of Works

S. No.	Name of Work	Description of Work
1.	Consumables of Prefabricated BSL III laboratory supplied by Techcomp Limited HongKong installed at the RDDDL NZ Jalandhar (Punjab)	<p>Consumables / spares for trouble free running of the Prefabricated BSL III laboratory :-</p> <p>Different type of air filters</p> <ol style="list-style-type: none"> 1. Primary efficiency air filters(0001-P3 INDIA-0001) 6 pcs 2. Primary efficiency air filters(0001-P3 INDIA-0002) 6 pcs 3. secondary air filters(0001-P3 INDIA-0003) 4 pcs 4. secondary air filters(0001-P3 INDIA-0004) 4 pcs 5. Supply Hepa filters (555*555*90),mm (0001-P3INDIA-0005) 4 pcs 6. Supply Hepa filters (1165*555*90),mm (0001-P3INDIA-0006) 1 pc 7. Exhaust Hepa filters(843*529*90),mm (0001-P3INDIA-0007)

		<p>1 pc</p> <p>8. Exhaust Hepa filters(530*530*90),mm (0001-P3INDIA-0008) 3 pcs</p> <p>9. Exhaust Hepa filters for BSC (0001-P3INDIA-0042) 1 pcs</p> <p>10. Water heater(1),fan belts, ball bearings, sensors, compressors, batteries and other required spares, refrigant of required specifications</p> <p>11. Validation of laboratory conditions by another qualified agency (3rd party to be engaged by the successful bidder)</p>
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Terms and conditions:

1. Offered rates shall remain valid for one year from date of acceptance of tenders and for any extended period subject to satisfactory services and on mutual agreement.
2. The Prefabricated laboratory can be visited on any working day by prior appointment by the interested bidder before submitting the tender documents (Phone 0181-2242335).
3. Each bidder shall submit an application on the Firm's letter head (and signed by authorized signatory) stating list of works quoted, agreeing to abide by and to fulfill the NIT terms and conditions
4. Eligibility Criteria: Original equipment Manufacturer (OEM) i.e. Techcomp Limited Hongkong,
or Authorized service provider of the OEM,
or For the Indian companies claiming as the local Indian counterpart of the OEM, documentary evidence of such claim has to be established for participation,
or Other concerns/firms providing such services successfully in Central Govt Establishments, Autonomus bodies of GOI/ Corporations of GOI/PSUs of GOI/Public or private organizations of repute are also eligible for participation.
The annual turnover of the firm should not be less than Rs 50.00 lacs/year for the last two years.
5. Each bidder shall furnish self attested copies of IT return for last two years, self declaration of neither been blacklisted nor been suspended for quoting items by any Govt enterprise, Self attested copy of certificate issued by Chartered Accountant stating annual turnover for last two financial years, self attested List of similar works executed during last three years (stating name of the organization, type of the facility, period of service provided, work order and performance certificate and amount of contract), Scanned copies of incorporation certificate, VAT/sales tax certificate and PAN card should be provided along with bid documents.
6. The offered rates for various items should be quoted in BOQ (Bill of quantities) in the dedicated columns with VAT/CST or service tax to be mentioned separately.
7. The rates for Work No 1 has to be quoted inclusive of delivery of spares at FOR destination together with Excise duty, Entry tax and all other incidental charges e.g. loading and unloading , installation, insurance, packaging etc. No additional cost on these stated purposes will be entertained subsequently. The payment shall be made after successful execution of the assigned task. The spares supplied shall carry a warranty of at

least one year. The rates of the spares/ consumables should be quoted separately on individual basis for each item.

8. Enhancement of rate under no circumstance shall be accepted.
9. No advance payment under any circumstance shall be made. No interest charges for delayed payments shall be made. Income tax will be deducted from the eligible payments as per rule.
10. The successful bidder shall have to deposit 10% of the bid amount as security before order is placed. Security shall be forfeited in full if the firm refuses to enter into written agreement or withdraws thereafter or refuse to maintain delivery schedule or nonobservance of terms and conditions of tender or contracted specifications/quantity/quality and shall lead to blacklisting of the firm for three years.
11. The bidder should not have supplied similar spares at lower rate for any other organization and should submit a self declaration thereof.
12. The tendering authority reserves the right to get the supplies tested in any reputed organization having facilities for such testing and the findings shall be binding for taking any action against the bidder/supplier.
13. The approved firm shall ensure compliance of all statutory laws and byelaws of central govt/state govt /municipal authorities related to their staff. The department shall not be held responsible for any such lapse by the firm or for the purpose..
14. Conditional tenders/ tenders not accompanied by required documents shall be summarily rejected.
15. When a tendering firm submitted their tender in response to this notification, they will be deemed to have understood fully the contents, the requirements, terms and conditions of this tender.
16. The undersigned reserves the right to accept or reject one or all offers/tenders and holds the discretion to increase/decrease the quantity of any or all the items.

6 AIR COMPRESSOR

One

The air cooled, silenced, rotary screw compressor with completely wired and equipped with all interconnecting pipe work and fittings. include a direct driven compressor element, a totally enclosed fan-cooled electric motor, together with lubrication, cooling and regulation systems.

The compressors enclosed in a sound-insulated bodywork. The front panel comprises of an electronic control module including the start and stop buttons. An emergency stop button is also provided . it should be provided with an air dryer which removes moisture from the compressed air by cooling the air to near freezing point and automatically draining the condensate.

All rotating components should be totally enclosed and protected against contamination to ensure long and reliable operation. The compressor cooling system is sized to run perfectly in ambient temperatures up to 46°C/115°F.

CONTROL PANEL WITH:

- Suitable Star Delta Starter with contractor and relays.
- Dryer on/off button.
- Regulator with Timer and Relays.
- Hour-meter to indicate total hours of operation.
- Start/Stop button with lamp indicating compressor operation.
- Indicator for auto operation.
- Dew point indicator.
- Easy access for service points.

Heavy duty, dry type air inlet filter. Premium filtration efficiency: 99.9% for particles above 3 micron, Aluminum check valve that closes the inlet when the compressor stops, element using the high efficiency rotor profiles, Cast iron check valve to prevent back flow into the compression element, The welded oil vessel separates the oil from the compressed air. Immediately downstream the oil vessel an ultra fine oil separator filter is mounted to limit the oil consumption and increase the running time. Cast iron check valve that opens at 4 barg. It prevents blow back into the oil vessel and maintains oil pressure for reliable operation. Aluminum block type air after cooler to cool the compressed air. Heat exchanger should be Aluminum block type air aftercooler to cool the compressed air.

Air receiver of Aluminum block type heat exchanger that cools the compressed air to near freezing point using the refrigerant of the dryer and an electronic water drain to discharge condensate, 1 No. Pre filter must be provided for protection against liquid water & oil aerosol to the level of (1 mg/m³) 1 PPM and particles down to 1 Micron

1 No. Fine filter should be provided for protection against liquid water & oil aerosol to the level of (0.01 mg/m³) 0.01 PPM and particles down to 0.01 Micron.

7 Air curtains (width 4')
Air curtains (width 6')

2 Nos.
2 Nos.

Air curtains for entry doors (width 4' and width 6') designed to act as primary dust and thermal barrier by giving out high-speed air jet across the door width from the top.

MOC:MS CRCA powder coated. Motor –AC-220V Single Phase

Outlet velocity – 15+2 m/s, Impeller-Aluminum Dynamically & Statically balanced

- Installation height - 8'
- Sound level blow 68 d BA

8 FLUORESCENCE MICROSCOPE-UPRIGHT MODEL

One

Optical System	:	Universal Infinity Corrected Optical System.
Frame	:	Rigid, vibrations free frame. It should be an upright model for viewing microscopic glass slides.
Focus	:	Vertical stage movement, stage stroke with coarse adjustment stopper. Torque adjustment for coarse adjustment knobs. Stage mounting position variable, high sensitive fine focusing knob with minimum adjustment graduation should be 1 μm .
Illuminator	:	Built-in illumination for transited light with halogen bulb 12W100V (pre-cantered). Light intensity LED indicator, light present switch for photography, Built-in filters.
Revolving nosepiece	:	Sextuple revolving nosepiece with a slot for analyzer or DIC slider.
Observation tube	:	Wide field observation head.
Eyepieces	:	Wide field eyepieces 10X 22mm
Stage	:	Rectangular mechanical Stage, Ceramic-coated coaxial stage with right hand low drive control with rotating mechanism and torque adjustment mechanism.
Objectives	:	Plan Fluor/Semi Apochromat Objectives 10x for immunofluorescence and bright field studies Fluorescence/Semi Apochromat/ Plan fluor objective 20X, (spring) [20x/0.50/ ∞ /0.17/FN26.5 or equivalent] Fluorescence/Universal Plan Semi Apochromat Phase Contrast Objectives 40X/0.75, (Spring) or equivalent Universal Plan Super Apochromat Objective 100X/1.4, (spring, oil) DIC Accessories for all objectives should be provided.
Condenser	:	Universal Turret Condenser for Bright Field & Fluorescent Microscopy.

Fluorescence Unit : Fluorescence with alignment free illumination having bulb life of minimum 2000 hours. Fluorescence axis should have atleast six cube filter turret with Zero Pixel Shift technology.

Filter : Dual band Filters for FITC (green) + EVANS Blue (Red) excitation. (for viewing Green and Red Fluorescence at a time).

Single narrow band filters for UV and Blue excitation should also be provided.

Make : 1. Olympus
2. Carl Zeiss
3. Nikon

1. Microscope should be installed at Punjab Veterinary Vaccine Institute, PAU Campus, Ludhiana.
2. Demonstration is a must at the site of installation.
3. Two years guarantee / warrantee is required.
4. List of at least 50 existing users of the same microscope in India should be provided.

9 Lyophilizer

1 No.

Lyophilizer Specifications :

Sr.No Technical Specifications

01. Vial Capacity of Base Diameter of 23mm

Vial Capacity 5ml

900-1000 Nos

02. Product Chamber and Condenser Chamber

1. Dual Chamber System

With Suitable Size Isolation Valve

2. Rated for High Vacuum YES

3. Material of Construction SS316L

4. Finish Quality 220 Grit

04. Product Shelves

1. No Of Shelves 3 + 1 Radiant
2. Total Available minimum shelf area
Min 0.55m²
3. Inter distance Minimum 65 mm
4. Radiant Top Plate YES
5. No of product sensors Three (one per shelf)
05. Stoppering
 1. Mounting Bottom Up
 2. Operation By Pushbutton
 3. Design Adjustable stoppering pressure relief Valve
06. Doors
 1. Product Chamber Door and Condenser Chamber Door
Full View Acrylic
 2. Material Acrylic Min Thickness 35mm
07. Shelf Temperature and Fluid system
 1. Shelf Ultimate Low -60 0 C
 2. Shelf High Temperature +60 0 C
 3. Shelf Uniformity Across +/- 1.0 0 C
 4. Shelf Uniformity Among +/- 1.0 0 C
 5. Cooling time to -40 0 C Within 60 Min
 6. Control type Heater/Solenoid Valve type
 7. Over temperature Safety Provided
 8. No of Sensors One for shelf
 9. Fluid Reservoir YES
 10. Fluid Type Silicon Oil 5CST
 11. Heating Immersion Heater 2 KW
08. Condenser
 1. Ice capacity Total 16 Kgs
 2. Ice Capacity /24 Hours 12 Kgs
 3. Ice Condenser Temperature -80 0 C
 4. Construction Coil
 5. Cool Down time to -40 0 C 20 Minutes
09. Refrigeration System
 1. Compressor Hermetically Sealed
Cascade Refrigeration
Make : Copeland/Bitzer /Carlyle
 2. Design Standard
 3. Refrigerant R 404A/R508B/R23
 4. Environmental Friendly CFC/HCFC Free
 5. Filter Drier YES
 6. Oil Separator YES

7. Control Valves Danfoss
8. Cooling Air Cooled
10. Fluid circulation
 1. Type Magnetic Driven, Make Grundfos
11. Vacuum System
 1. Vacuum Pump
 2. Corrosion Resistant
Pfeiffer Vacuum/Edwards/Leybold
YES
 3. Capacity Min 15m³/Hour
 4. Pump down time to 100 mTorr Less than 20 Minutes
 5. Vacuum Sensor Pirani
 6. Exhaust Filter Provided
 7. Ultimate Low Vacuum 10 mTorr
 8. Control Range by injecting
Nitrogen
10 to 1000 mTorr in combination with Needle
Valve and solenoid valve
12. Controls and Hardware
 1. Programmable logic Controller
with required analog and digital
modules
OPTO 22/Allen Bradley/Siemens
 2. Software User defined
 3. PLC Configuration YES
 4. Operation (cGMP Feature) Complete with work Station SCADA
 5. Electric Controls TC
 6. Automatic Operation for
 - Fully automatic controlled
recipe for product freeze
drying with data storage
YES
 - Defrosting
 - System Test
 7. Semi Automatic Operation for
 - Shelf temperature
 - Vacuum
 - Condenser
 - Control
 - Vent
YES
 8. Data Storage Complete Data storage in Graphical and Data
in the computer system
 9. List of alarms

- Condenser Overload
- Vacuum Over Load
- Long and short power outage
- Shelf sensor Open
- Condenser Sensor open
- Vacuum Timed out
- Condenser Timed out

YES

10. Computer System DELL/HP, Latest Configuration

11. Data Printer HP

12. UPS for Computer APC or Equivalent

13. Defrosting Automatic defrosting facility by Hot Gas

14. Back Filling Available with set point control for backfilling the nitrogen after cycle is completed. This facility is essential for sensitive vaccines

15. Venting Fully automatic and time based

16. Accessories (Included) Removable bottom type loading trays

Qty: 3

17. Spares

Set of Gaskets

Vacuum Pump Oil – 10 Ltrs

Thermal Fluid – 5 Litres

18. Documentation DQ/IQ/OQ

19. Extra Accessories to be included

Suitable Capacity Servo Stabilizer Standard Make

The Lyophilizer should be of any of the makes below :

(Martin Christ, Virtis Lyophilizer, Lyophilisation Systems Inc.)

10 Diagnostic Kits For Avian influenza and other diseases

a Rapid Avian influenza type –A antigen detection kit (One kit –about 30 tests)

Should be able to detect the Type A antigen within 25 minutes. It should be user friendly and suitable for field situations. There should be no cross reaction against NDV, IBV (infectious bronchitis), IBDV , Mycoplasma etc . The biological should have a shelf life of minimum one year at the time of supply. Kits should be recommended /approved by OIE. A catalogue showing technical specification is to be enclosed with tender document.

b Rapid HPAI H5 antigen detection Kit : (One kit –about 30 tests)

Should be able to detect HPAI H5 antigen within 25 minutes. It should be user friendly and suitable for field situations. There should be no cross reaction against NDV, IBV (infectious bronchitis), IBDV, Mycoplasma etc. The biological should have a shelf life of minimum one year at the time of supply. Kits should be recommended /approved by OIE. A catalogue showing technical specification is to be enclosed with tender document.

c Rapid HPAI H7 antigen detection kit: (One kit –about 30 tests)

Should be able to detect HPAI H7 antigen within 25 minutes. It is should friendly and suitable for field situations There should be no cross reaction against NDV, IBV (infectious bronchitis), IBDV, Mycoplasma etc. The biological should have a shelf life of minimum one year at the time of supply. Kits should be recommended /approved by OIE. A catalogue showing technical specification is to be enclosed with tender document.

d Antibody detection kit against Avian influenza type A- ELISA kit : (Five kits -480 tests each)

Should be able to detect antibodies against avian influenza Type –A virus from the serum of avian species and other animals (multispecies) Kit should be user friendly. For interpretation it should follow simple software and should be compatible with standard Elisa reader. Should contain all required conjugates,diluents, positive and ngative controls etc required for a test. It should also meet the requirements of OIE. The biological should have a shelf life of minimum one year at the time of supply. A catalogue showing technical specification is to be enclosed with tender document.

e Influenza H5 antibody competition ELISA kits (One kit –about 200 tests)

Kit should be able to detect specific antibodies against avian Haemagglutin in H5 of the influenza-A virus from the serum of avian species. Kit should be user friendly. Test should be highly sensitive (>90%) for multiple species. For interpretation it should follow simple software and should be compatible with standard ELISA reader. It should also meet the requirements of OIE. Should contain all required conjugates,diluents, positive and ngative controls etc required for a test. The biological should have a shelf life of minimum one year at the time of supply at the time of supply. A catalogue showing technical specification is to be enclosed with tender document.

f Influenza H7 antibody competition ELISA kits (One kit –about 200 tests)

Kit should be able to detect specific antibodies against avian Haemagglutinin H7 of the influenza-A virus from the serum of avian species. Kit should be user friendly. Test should be highly sensitive (>90%) for multiple species. For interpretation it should follow simple software and should be compatible with standard ELISA reader. Should contain all required conjugates, diluents, positive and negative controls etc required for a test. It should also meet the requirements of OIE. The biological should have a shelf life of minimum one year at the time of supply. A catalogue showing technical specification is to be enclosed with tender document.

g Rapid NDV antigen detection Kit (One kit -30 tests)

Should be able to detect NDV (including all new NDV strains) from avian cloacal or tracheal swabs. Reading time should be within 25 minutes with a sensitivity and specificity (against RT PCR) of >90%. There should be cross reaction against AIV, IBV (infectious bronchitis) IBDV, Mycoplasma etc. with a minimum shelf life of minimum one year at the time of supply. A catalogue showing technical specification is to be enclosed with tender document.

h Rapid antigen detection Kit for IBD in poultry (One kit -30 tests)

Kit should be for pen side use and should give results within 30 minutes. There should be no cross reaction against NDV, IBV (infectious bronchitis) Mycoplasma etc. The biological should have a shelf life of minimum one year at the time of supply. A catalogue showing technical specification is to be enclosed with tender document.

i PPR Antibody ELISA KIT (One kit –about 400 tests)

Diagnosis through serum/plasma. Ready to use components , including coated plates, positive and negative control, conjugate and stopping solution. Should be easy to use: each sample should be deposited only once, and result should be obtainable within a few minutes. CIRAD approved Each kit should be sufficient for a minimum of 300 samples. Must have expiry of at least one year from date of supply.

j PPR Antigen ELISA KIT (One kit –about 200 tests)

Diagnosis of antigen from exudates/tissue/fecal swabs. Ready to use components , including coated plates, positive and negative control, conjugate and stopping

solution. Should be easy to use: each sample should be deposited only once, and result should be obtainable within a few minutes. CIRAD approved Each kit should be sufficient for a minimum of 200 samples. Must have expiry of at least one year from date of supply.

k Elisa Kit for diagnosis of BSE (one kit-400 to 500 Test Kit)

Kit should be OIE/European Union approved for diagnosis of BSE, Elisa kit containing Antigen coated plates, Negative and Positive control, diluents, buffer, conjugate, washer solution, substrate and all components for completion of test procedures. The test procedures to be demonstrated in laboratory by the supplier. should preferably be OIE/EU/FDA recommended. Catalogue showing technical specifications to be enclosed with tender.

Must have expiry of at least one year from date of supply.

l Bovine Brucellosis antibody c- ELISA Kit for Serum (One kit –about 500 Tests).

Complete ELISA Kit containing per antigen coated plates, positive controls, negative controls, diluents, conjugate, substrate, stop solution, Test Procedure Manual etc. Catalogue showing technical specifications to be enclosed with tender should preferably be OIE/EU/FDA recommended. Must have expiry of at least one year from date of supply.

m Classical Swine fever Antibody detection ELISA kit (One kit –about 100 tests)

For detection of antibodies from serum/plasma of swine, with high sensitivity and specificity, provided with coated antigen plates, positive and negative controls, conjugates, diluents, buffers, wash and stop solutions etc. Plates should be compatible with standard ELISA readers, should preferably be OIE/EU/FDA recommended. Catalogue showing technical specifications to be enclosed with tender. Must have expiry of at least one year from date of supply

n BVDV antigen detection ELISA kits: (One kit –about 500 tests)

For detection of bovine viral diarrhoea virus using ear notch sampling. Should have high specificity and sensitivity. Should be ready to use reagents, should be compatible with standard ELISA readers, should preferably be OIE/EU/FDA

recommended. Catalogue showing technical specifications to be enclosed with tender. Must have expiry of at least one year from date of supply.

o Bovine Protein Elisa Kit (One kit –about 100 Tests)

For detection of bovine proteins in the animal feeds. Should have high specificity and sensitivity. Should have ready to use reagents, should be compatible with standard ELISA readers, should preferably be OIE/EU/FDA recommended. Catalogue showing technical specifications to be enclosed with tender. Must have expiry of at least one year from date of supply.

**11 100mA Mobile X-Ray Machine with Table
for Veterinary Use .**

5 Nos.

100mA-100 KVP, full wave rectified X-Ray generator Anode X-Ray tube.

Output Should be 8 KW as per ISI (7620 part-I).

Different radiography rating to be mentioned.

KVP Range should be between 45 to 100 KVP in steps of 5 KVP/step.

Timer should have timing range from 0.04 to 8 sec. in 24 steps.

Digital display of mAs, KVP and Radiographic mA.

Independent Voltmeter to indicate line voltage, mA meter, Voltage compensator to compensate voltage should also be provided.

Tech. Selector for selection of Rad mA, KVP selector from 45 to 100 & time selector switch for selection of Rad. Time.

Ready & X-Ray switches, Bucky selector switch should be provided.

Push to ON/OFF type switches should be provided.

Automatic trip OFF overload circuit breaker should be provided.

Electronic overload protection with simultaneous protection from high input voltage/KVP/mA/Time should also be provided.

Fuses for all circuits must be provided in the machine.

Tube head should be Anode X-Ray Tube BEL having spot 0.8mm x 0.8mm, Compact heavy duty Full Wave Rectified H.T. Transformer High Voltage Silicon Rectifiers etc. all should be immersed in High Grade Transformer oil.

Tube Head Should be tilted 360⁰ degree with full flexibility for use in operation theaters and in ward for bedside radiography.

Manual Light beam-cum-shutter diaphragm. Hand switch with retractable Aluminum filter.

Mobile Stand with large caster wheels should be provided for easy mobility and steering. Counter Balanced stand Should have articulated tube carriage allowing smooth movements of the tube head in Vertical and Horizontal Plane Lead Lined

cassette storage box should be provided. Double steel rope should be provided for safety.

The unit should operable on single phase 220/230 volts AC supply.

Horizontal Bucky Table for over couch and bucky Radiography of various body parts. The Table should consist of motorized reciprocating bucky with Grid of size 17 1/4" x 18 7/8" having Grid Ratio of 6:1,60 lines/Inch & a stainless steel cassette tray. The bucky should travel the entire length of the table and can be locked at any desired position by the lock. The Table top Should be made of low radiation absorption, waterproof material. Compression Bank (Immobilizing device) should be provided with the table. Instrument should be supplied with one lead apron, one pair lead hand gloves, one body thickness measuring scale and one neck shield

Other Requirements:

The company must provide technical exposure chart of each machine .

The company should provide minimum two year Guarantee/Warranty from the date of installation and subsequent AMC rates may be quoted.

The company should be ISO certified.

The unit should approved by BIS, AERB and CE/FDA.

The company should have local Service center.

The company should have proven track record in Govt. sector from last five years in similar equipment and list of veterinary users should be supplied with the tender documents. Proof of this to be submitted alongwith Technical Bid. Catalogue showing technical specification to be enclosed with tender.

The supplier should be able to demonstrate the product as and when required at the place where specified.

**12 Phase Contrast Microscope with Heating Stage (One)
(biotherm)and accessories**

FUNCTIONAL REQUIREMENT:

The phase contrast microscope would be used to assess the sperm cell motility, sperm count and morphology of spermatozoa of fresh and frozen semen samples in the semen processing and quality control laboratories of semen stations.

DESIGN REQUIREMENTS:

- Trinocular Microscope with reversed fixed sextuple nosepiece without relay lens.
- Precentered and Prefocussed, 6V-30W Halogen Lamp.
- Siedentopf type Trinocular Eyepiece Tube F-2 with 100%/100% transmission system.

- Phase Contract Turrent Condensor with four phase position (10x to 100x) one dark field position (10X to 40X) and a bright field with iris diaphragm N.A. 1.25.
- CF DL Objectives 10X, 20X, 40X & 100 X.
- CFWN 10X (pair) eyepieces with eyeguards and cap.
- Focus up / down motion:
 - Drive system: Manual coarse / fine motion
 - Calibration marking for fine motion-1µm/marking
 - Stroke: with one touch refocusing mechanism
- C-Mount Adapter Set
- Supplied with in-built filter (ND8) and light filter (plain/diffused/coloured)
- Heating Stage (Microwarm Plate) with transparent glass plate. The surface temperature of the glass plate is controllable in the range from ambient up to 50 deg. C with calibration at 37 deg. C. Accuracy of temperature. Indicator: ± 0.3 deg. C. The dimensions of Heating Stage should be approximately 4 X 145 X 120 mm (H X W X D), transparent plate of about – 85 X 105 mm, thickness of glass 1 mm.
- Input rating:100-120v AC/230v AC ±50/60Hz, 0.9A/0.5A

INTERMEDIATE ACCESSORIES (Optional):

- Epi-fluorescence illuminator (4 filter positions)
- Magnification module
- Eye level riser
- Double port
- Teaching head

ACCESSORIES (As per requirement):

- CCTV Attachment: will include the colour video camera and TV monitor compatible to the microscope along with all the connecting cables, voltage stabilizer etc. The monitor should be of 36 cm.
- CCD Camera: ½” Colour CCD Camera
- Computer & Image Capture Card for CCD Camera:
Desktop computer with latest configuration and image capture card (latest version) for transfer of images from microscope to PC.
- Printer and UPS: Suitable for use with the system.

Microscope should be supplied with spare bulbs, centering /focusing telescopic eyepiece, eye guard and other essential spares, required for minimum two years operation of the equipment.

13 Laminar Air Flow Unit (Vertical)

(Three)

FUNCTIONAL REQUIREMENT:

The Laminar Air Flow Unit or clean work station would be used for preparation of semen extender, dilution of semen, filling & sealing and printing of semen straws where a localized high quality clean working environment is essential.

DESIGN REQUIREMENTS:

The vertical laminar air flow unit offered should conform to the following technical Specifications:

- Designed to meet the filtration, illumination, noise and vibration requirements providing air to meet class 100 (Class I) conditions, to the extent applicable.
- Designed to provide an atmosphere free from airborne particles with Laminar air flow flowing downward the work table.

- Construction: Made of thick teak wood board, which is termite and insect proof, fire retardant and weather resistant.
 - All exterior surfaces should be covered with white Laminates.
 - Interior surfaces should be epoxy painted.
 - Work table should be made of Satin finish S.S. Top and side panels of thick transparent removable glass
 - Built in UV Germicidal light
 - Two extra plugs with switch
 - Support in centre to bear the weight
 - Transparent front door
 - Static pressure inclined manometer

- Air Flow and Filtration: Atmospheric air is drawn through pre filter and is made to pass through highly effective HEPA (High Efficiency Particular Air) filters having efficiency rating as high as 99.99% with cold DOP and 99.97% with hot DOP, to retain all airborne particles of size 0.3 micron and larger. Double filtered air blows in laminar flow through the work table at designed velocity of 90 ft. min \pm 20%.

- Blower Motor Assembly: Duly balanced, direct drive motor blower units sized to provide adequate air flow volume over the entire surface of HEPA filter. Should be fitted with reputed make motor and should operate with minimum noise level i.e. lower than 65 db on scale and Vibration less than 2.5 um (micrometer)
- Lighting: Work area properly illuminated by diffused, glare free fluorescent light.
- Power Requirement: 230 V. 1 Phase, 50 Hz, Ac Supply.

Sizes	Small Unit
Working Area	4'×2'×2'
Size of HEPA filter	4'×2'×6'
No. of HEPA filter (Supplied with main unit)	1
No. of Pre filter (Supplied with main unit)	2
Illumination	2x40 W

Optional Accessories/Spares (Quote separately):

- Stainless Steel body of top chamber, duly polished.
- Particle dust count validation at site after installation (beyond Guarantee /Warranty period).
- HEPA Filter
- Pre Filter.

14 Double Distillation Plant (Quartz)

(One)

FUNCTIONAL REQUIREMENT:

All Quartz Double Distillation Plant would be used to get ultra pure and pyrogen free water suitable for biological processes.

DESIGN REQUIREMENTS:

The Quartz Double Distillation Plant should be of compact design with maximum safety and easy to operate. The plant should conform to the following technical Specifications:

- Made of Quartz glass, demountable model: first boiler of the Plant can be dismantled from the second boiler and condensing column.
- Output capacity (Approx.): 5.0 Litres/hour
- Power rating: 9.0 KW
- Cooling water consumption (approx.): 150 Litres/hour
- Fitted with Dual Safety cut-out
- Supplied with Micron Filter for feed inlet
- Fitted with Level Sensor - For automatic operation of the Plant.
-

Optional Accessories/Spares (Quote separately):

- Quartz Reservoir (with Teflon Screw cock) for storage of High purity water
- Reservoir Stand (SS)
- Provision for Single Distillation
- Quartz Bulb Condenser for extra cool distillate
- Dechlorite Filter - To remove chlorine particles from water
- Phosphate Cartridge - To prevent scale formation

15 PHOTOMETER FOR SWINE SEMEN

(One)

Photometer is required to determine the Density/Concentration of Swine Semen. The Equipment should be pre calibrated /Standardized for the calculation of Dilution rate and number of doses to be prepared can be immediately ascertained and a printable record can be maintained for future use. The equipment offered confirm to the following technical Specifications:

- Factory Pre-Calibrated with Quadratic Equation.
- Equipped with didymium filter and self calibrate its wavelength each time it is turned ON.
- Should perform an auto test of all optics and electronics upon each boot up sequence with systematic printout with date and time.
- Waterproof Keyboard resistant to aggressive compound and products.
- Permanent real time display of absorbance and wavelength.
- Concentration & Simultaneous display of concentration and absorption.

- Concentration Calculation – Absorption, concentration, extender volume to be added and number of doses to be prepared should be calculated, displayed and printed with sample number, date & time.
- Photometer should perform minimum 20 readings per sample and calculate the average result.
- The result should be expressed according to a second-degree regression curve, making the concentration readings more accurate in comparison to a first-degree equation, which has the tendency to under estimate low concentrations and over estimate high concentrations.
- Provision of use of calibrated filters to test the repeatability of the unit. Mean, Average, and variance of 4 measurements should be calculated for each filter.
- Should have integrated program, which calculates & displays required volume of extender to be added and the number of straws that can be produced per ejaculate (for medium or mini straws) according to the concentration of spermatozoa you want in each straw.
- Should have an option to take print results with Sample Number, Date & time
- Photometer should have also equipped with a RS232 interface for use of thermal printer or be connected with computer.
- Memory – Minimum 50 Performance test memories
- Band Pass - < 10 nm (Nanometer)
- Accuracy – ± 1.5 nm
- Repeatability - ± 1 nm
- Photometric range - 400 to 700 nm
- Standardization CE, ISO 9001 : V2008
- Power Supply-Adaptable to use 230-250V/50Hz AC power supply.

The Equipment must be quoted with two year warranty including onsite training, installation and commissioning. The concern should have experience of installing successfully at least two such units in India, for which necessary documents must be attached. The satisfactory working report from the user also be attached. The manufacturer should have service centre(s) in India to provide after sales services and all relevant details should be provided in the tender. Cuvettes for one year's requirement to be supplied along with the equipment.

16 MANUAL FILLING AND SEALING MACHINE (GTB)

One

The GTB should have following technical features:

It should have GTB Bag sealer

It should made of Stainless steel frame

It should have Semen bucket holder

It should have GTB Bag roll stand

It should have GTB Bag roll stand

It should have adjustable volume target (“Measuring plate”)

It should have holding pin plate

It should have provision of welding power adjustment.

It should have welding sensor (Red led)

Power supply : 230V / 50Hz / 2A

Power consumption: 150 W

Dimensions : 100cm x 40cm x 65cm (L x p x H)

Weight : 16.8 kg

It should be with the following accessories

item description	Qty.
Teflon Strip	2
Sealing wire	1
Sinker Weight	1
Filling nozzle & tubing (bag of 5)	1
Filling clamp	2
Priming bottle	5
GTB Bags	500
Machine (including roll & bucket stand)	1

The Equipment must be quoted with all standard accessories and two year warranty including onsite training & installation. The concern should have experience of installing successfully, for which necessary documents must be attached. The manufacturing firm should have their services center in India to provide after sales services and all relevant details should be provided in tender