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Tender Details

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Basic Details

Organisation Chain	Department of Pharmaceuticals||National Institute of Pharmaceutical Education and Research Hajipur		
Tender Reference Number	NIPER-HJP/Tender/CoE/26-27/04		
Tender ID	2026_MCF_844912_1		
Tender Type	EOI	**Form of contract**	EOI
Tender Category	Goods	**No. of Covers**	2
Payment Mode	Not Applicable	**Is Multi Currency Allowed For BOQ**	No
Is Multi Currency Allowed For Fee	No		

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	As per Notice Inviting Expression of Interest (EOI)
2	Finance	.xls	As per Notice Inviting Expression of Interest (EOI)

Tender Fee Details, [Total Fee in ₹ * - 0.00]

Tender Fee in ₹	0.00		
Fee Payable To	NA	**Fee Payable At**	NA
Tender Fee Exemption Allowed	NA		

EMD Fee Details

EMD Amount in ₹	0.00	**EMD Exemption Allowed**	NA
EMD Fee Type	NA	**EMD Percentage**	NA
EMD Payable To	NA	**EMD Payable At**	NA

Work /Item(s)

Title	NIPER-HJP/Tender/CoE/26-27/04				
Work Description	As per Notice Inviting Expression of Interest (EOI)				
Pre Qualification Details	Please refer Tender documents.				
Tender Value in ₹		**Product Category**	Miscellaneous Goods	**Sub category**	NA
Contract Type	Tender	**Bid Validity(Days)**	90	**Period Of Work(Days)**	30
Location	NIPER Hajipur	**Pincode**	844102	**Pre Bid Meeting Place**	NA
Pre Bid Meeting Address	NA	**Pre Bid Meeting Date**	NA	**Bid Opening Place**	NIPER Hajipur

Critical Dates

Publish Date	15-Jul-2026 12:30 PM	**Bid Opening Date**	03-Aug-2026 02:00 PM
Document Download / Sale Start Date	15-Jul-2026 12:30 PM	**Document Download / Sale End Date**	03-Aug-2026 10:00 AM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	15-Jul-2026 12:30 PM	**Bid Submission End Date**	03-Aug-2026 10:00 AM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	As per tender documents	572.42

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	Additional Documents	EOI.pdf	As per Notice Inviting Expression of Interest (EOI)	572.42

Tender Inviting Authority

Name	Registrar, NIPER Hajipur
Address	Registrar, NIPER Hajipur EPIP Campus, Industrial Area, Hajipur-844102

Tender Creator Details

Created By	Kumar Pankaj
Designation	Finance Officer
Created Date	15-Jul-2026 11:07 AM

Notice Inviting Expression of Interest (EOI)

The National Institute of Pharmaceutical Education and Research (NIPER), Hajipur, an Institute of National Importance established under the aegis of the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Government of India, invites Expression of Interest (EOI) from reputed manufacturers/authorized agents/suppliers for finalization of technical specifications and associated procurement process for advanced Bioprocessing and analytical instruments such as **Bioreactor with Integrated Chiller**, **High-Pressure Homogenizer, CO_2 Shaker Incubator, Bioanalyzer for Cell Culture and Bioprocess Metabolite Monitoring, Lyophilizer (Freeze Dryer), Vacuum Concentrator (Centrifugal Evaporator), Gel Documentation and Chemiluminescence Imaging System.**

Objective of EOI

The objective of this EOI is to discuss and finalize the technical specifications, terms & conditions, and indicative pricing (if applicable) of the proposed scientific equipment, as detailed below. This consultation will facilitate the formulation of tender documents for procurement purposes. Separate EOIs are Invited for the following:

The following guiding principles apply to all equipment covered in this document:

- All equipment shall be of laboratory/research grade and shall conform to applicable ISO, CE, CFR or equivalent certifications.
- Equipment shall be supplied with all necessary accessories, consumables for initial trials, user manuals (in English), and installation/qualification support.
- Manufacturers/suppliers shall provide a minimum warranty of 3-5 years from date of installation and shall have a demonstrated track record of after-sales service and availability of spare parts in India.
- Calibration certificates traceable to national/international standards shall be provided at the time of installation.
- Installation, Operational Qualification (IQ/OQ) support shall be provided by the supplier as part of the purchase.
- Training of laboratory personnel by the supplier's qualified service engineer is mandatory.
- All electrical components shall be compatible with Indian mains supply: 230 V AC, 50 Hz, single or three phase as applicable.

1. Bioreactor with Integrated Chiller

1.1 Scope and Intended Use

The bioreactor system is intended for suspension culture of microbial fermentation (Bacteria, Fungi, Yeast) at laboratory scale. The system shall be capable of batch, fed-batch, and continuous fermentation modes. The integrated chiller shall provide precise temperature control over a wide range, enabling low-temperature bioprocesses.

1.2 Tentative Technical Specifications

Working Volume	2 L to 5 L (minimum; scalable design preferred)
Vessel Material	Borosilicate glass (min. 3.3 grade) or 316L electro-polished stainless steel; autoclavable
Head Plate Material	316L stainless steel; polished, with multiple ports
Number of Ports	Minimum 8 ports for sensors, additions, sampling, gas inlet/outlet, and condensers (Sufficient ports, for standard fittings and extra inlets, immersion tubes and sensors, additional ports for acid, base, feed & 1 free port, sparger, anti-foam system, temperature sensor, sampling/ harvest, pH, pO2, exhaust gas cooler, inoculation, 3 freely available)
Agitation System	Mechanical stirring with dual Rushton turbine impellers; motor-driven overhead stirrer (Top-driven agitation system, Mechanical dry seal, Dual Rushton turbine impellers, Servo motor driven. The agitation system shall be capable of automatic cascade control with dissolved oxygen)
Agitation Speed	100 – 1200 RPM; digital display and automatic PID control
Agitation Motor	Brushless DC motor; minimum 100 W; magnetic bottom-drive or mechanical top-drive
Temperature Control	+ 15 °C (Coolant temperature + 5 °C) to 60 °C; measurement accuracy: ±0.1°C, control accuracy: ±0.2°C; PT100 RTD temperature sensor, automatic PID-controlled heating jacket; chilled water-cooling arrangement, integrated with chiller for cooling, cooling finger assembly
pH Control	pH 0.0 – 14.0; automatic addition via peristaltic pumps (acid/base); pH probe included (sterilisable in-situ)- Autoclavable pH probe, PID control algorithm
Dissolved Oxygen (DO)	Range 0–100%; amperometric or optical DO probe, autoclavable DO probe, Automatic cascade control, Cascade

	strategy shall include: Agitation, Aeration, Oxygen enrichment (optional), Nutrient feed control
Gas Flow Control	Mass flow controllers for air, O_2, N_2, CO_2; 0 – 2 SLPM per channel; minimum 2 channels
Foam Control	Online foam sensor; Automatic foam detection, and antifoam addition via peristaltic pump, Automatic antifoam dosing, Manual override facility
Peristaltic Pumps	Minimum 4 independent peristaltic pump channels (acid, base, feed, antifoam)
Control System	Integrated touchscreen controller or PC-based SCADA with data logging; Real-time monitoring, Real-time control, Data logging, Historical trends, Alarm management, User access management, Audit trail, Batch reporting, Excel export, PDF report generation, Preferred: 21 CFR Part 11 ready architecture
Autoclavability	Complete vessel assembly (glass + head plate) autoclavable at 121°C, 15 psi
Cascade Control	DO cascade with agitation and airflow; pH cascade with pump activation
Connectivity	OPC UA via Ethernet

1.3 Tentative Technical Specifications — Integrated Chiller

Cooling Capacity	Minimum 0.5 kW at 20°C; adequate for bioreactor working volume
Temperature Range	-10°C to +30°C (fluid temperature); suitable for bioreactor cooling
Temperature Stability	±0.1°C
Refrigerant	Eco-friendly (R134a or equivalent); CFC-free

2. High-Pressure Homogenizer

2.1 Scope and Intended Use

The high-pressure homogenizer is intended for cell disruption, emulsification, microencapsulation, nanoparticle preparation, and liposome formation at laboratory scale. The instrument shall be capable of generating high-pressure flow through an interaction chamber to achieve particle size reduction and homogenisation of biological and chemical samples.

2.2 Tentative Technical Specifications

Operating Principle	High-pressure positive displacement pump with fixed or adjustable microfluidic interaction chamber (or valve homogenizer)
Maximum Operating Pressure	Minimum 1500 bar (≥ 15,000 psi); 2000 bar preferred
Processing Volume (per run)	Minimum 10 mL to 500 mL; batch or continuous mode
Flow Rate	10 – 500 mL/min (variable, depending on pressure setting)
Number of Passes	Multiple passes achievable; recirculation loop preferred
Particle Size Reduction	Capable of achieving particle sizes down to 100 nm under appropriate conditions
Wetted Parts Material	Stainless steel 316L; ceramic valve seats preferred; compatible with aqueous, organic, and biological samples
Pump Type	High-pressure piston pump; positive displacement
Pressure Measurement	Digital pressure gauge with ± 2% accuracy; programmable pressure setpoint
Temperature Control	Cooling coil/heat exchanger at outlet to maintain sample below 10°C (ice bath or integrated cooling)

CIP/SIP Capability	Clean-in-place (CIP) compatible; quick-release fittings for cleaning
Safety Features	Pressure relief valve; overload protection; emergency stop
Control Interface	Touchscreen or digital control panel; programmable pressure profiles
Noise Level	≤ 75 dB at 1 m
Electrical Supply	230 V, 50 Hz, single phase; or 415 V, 3-phase (specify)
Footprint	Benchtop or compact floor-standing; suitable for laboratory fume hood or bench use

2.3 Accessories and Inclusions

- Set of interaction chambers / homogenizing valves (minimum 2 types for different applications)
- CIP cleaning kit and procedure
- Spanner set and maintenance tools
- Spare seals and O-rings (2 sets)
- User manual and application notes

3. CO_2 Shaker Incubator

3.1 Scope and Intended Use

The CO_2 shaker incubator is intended for the cultivation of mammalian cells, primary cultures, and suspension cell lines in multi-well plates, flasks, spinner flasks, and Erlenmeyer flasks under controlled temperature, CO_2, humidity, and orbital shaking conditions. It shall be suitable for long-term sterile cell culture work requiring precise environmental control.

3.2 Tentative Technical Specifications

Temperature Range	+5°C above ambient to 50°C; resolution 0.1°C; accuracy ±0.2°C
CO_2 Concentration Range	0.5% – 20% CO_2 v/v; resolution 0.1%

CO_2 Control Method	IR (Infrared) sensor-based; dual-beam preferred for stability and minimal drift
CO_2 Accuracy	±0.1% CO_2 or better
Humidity Control	≥ 95% relative humidity at 37°C; active or passive humidification with water tray
Shaking Motion	Orbital (circular) shaking; vibration-free drive
Shaking Speed Range	30 – 300 RPM; digital display; PID controlled
Orbital Diameter (Throw)	19 mm or 25 mm orbit (specify); adjustable preferred
Internal Volume	Minimum 30 L usable volume (60 L preferred) or better
Shaking Platform Capacity	Capable of holding at least 6 × 500 mL Erlenmeyer flasks or equivalent
Interior Material	Stainless steel 304; rounded corners; easy to clean and decontaminate
UV Decontamination	Built-in UV lamp for decontamination of interior
Door	Single or double glass inner door; outer insulated door; door heater to prevent condensation
Alarms	Temperature, CO_2, and power failure alarms; audible and visual
Data Logging	Built-in data logging with USB/RS-232 export; minimum 30-day logging capacity
CO_2 Supply	Connects to standard gas cylinder (pressure regulator not included); inlet pressure 0.5 – 1.0 bar
Electrical Supply	230 V AC, 50 Hz, single phase
Certification	CE marked; GMP-compatible design

3.3 Accessories and Inclusions

- Universal flask holders/clamps for Erlenmeyer flasks (125 mL, 250 mL, 500 mL, 1 L)
- Microplate platform adaptor
- Water pan/reservoir for humidification
- CO_2 pressure regulator and connection tubing
- Calibration gas (reference CO_2 cylinder, supplier responsibility for initial calibration)
- User manual and service documentation

4. Bioanalyzer for Cell Culture and Bioprocess Metabolite Monitoring.

4.1 Scope and Intended Use

The instrument shall be a dedicated benchtop automated biochemistry analyser for real-time and at-line monitoring of key cell culture metabolites, gases, electrolytes, and cell viability parameters in bioprocessing, upstream cell culture, and fermentation research. The system shall enable comprehensive bioprocess analytical profiling using whole blood, culture media, cell suspensions, and fermentation broth samples.

4.2 Tentative Technical Specifications

Metabolites Measured	Glucose, Lactate, Glutamate, Glutamine, Glycerol, Xylose, Choline, Hydrogen Peroxide, Sucrose, Ethanol, Methanol, Lactose, Galactose, Ammonium (NH4+), LDH (Lactate Dehydrogenase); additional metabolites preferred
Blood Gases	pO2 (partial pressure of oxygen), pCO2 (partial pressure of CO2)
pH	Range 2.00 – 10.00; resolution 0.001; accuracy ±0.01 pH units
Electrolytes	Na+, K+, Ca2+ (ionised); Cl- preferred
Osmolality	200 – 400 mOsm/kg; method: freezing-point depression or vapour pressure preferred
Cell Density / Viability	Viable cell density (VCD), total cell density, and % viability via trypan blue exclusion or fluorescence-based method; range: at least 0.05 × 10^6 to 50 × 10^6 cells/mL
Oxygen Saturation (sO2)	0 – 100%; calculated from pO2 and pH

Sample Volume	Maximum 1.5 mL per measurement cycle (low-volume mode preferred: < 0.5 mL)
Measurement Time	Minimum parameter package reportable within 2 minutes per sample
Sample Type	Cell culture media, fermentation broth, whole blood, plasma; direct aspiration from vials or bioreactor sampling lines
Throughput	Minimum 25 samples per hour (continuous operation)
Calibration	Automated multi-point calibration; on-board calibration standards; one-point and two-point calibration supported
Quality Control (QC)	Automated QC check with Levey-Jennings plotting; operator-lockout on QC failure preferred
Sensor Technology	Electrochemical biosensors (enzyme-based amperometry or potentiometric) for metabolites; ISE for electrolytes; luminescence or Clark-type for pO2
Sensor Lifetime	Minimum 30-day sensor module lifetime (consumable cartridge/ membrane for ease of change)
Data Output	Full numerical report with units, timestamp, sample ID; printable and exportable (CSV, PDF)
Connectivity	USB, RS-232, Ethernet (LAN); compatible with LIMS integration; 21 CFR Part 11 capable preferred
Display	Touchscreen colour display; minimum 10-inch
Software	On-board instrument software with QC trending, run log, export functions; no proprietary PC software dependency required
Operating Temperature	15°C – 32°C ambient; humidity: 15% – 85% RH non-condensing
Electrical Supply	100 – 240 V AC, 50/60 Hz, auto-switching

Dimensions	Benchtop footprint ≤ 500 mm (W) × 500 mm (D); weight ≤ 25 kg (may vary based on model.)

4.3 Accessories and Inclusions

- Starter pack of consumable sensor modules / cartridges (minimum 3 months supply)
- Calibration and QC solution packs (minimum 3 months supply)
- Sample aspiration tubing and waste containers
- User manual, quick reference card, application notes for CHO and microbial culture
- Software (perpetual single-instrument license)

5. Lyophilizer (Freeze Dryer)

5.1 Scope and Intended Use

The freeze dryer shall be used for primary and secondary drying of biological samples including: microbial biomass, cell pellets, enzymes, proteins, peptides, liposomes, nanoparticles, and pharmaceutical intermediates dissolved or suspended in aqueous, organic (e.g., tert-butanol, ethanol, DMSO), or mixed solvent systems. The system shall be of medium capacity and shall incorporate an oil-free vacuum pump to avoid hydrocarbon contamination of sensitive biological samples and to reduce maintenance burden.

5.2 Tentative Technical Specifications

Ice Condensation Capacity	Minimum 4 kg / 24 hours; maximum 6–8 kg / 24 hours (medium capacity)
Condenser Temperature	≤ -55°C (standard); -80°C capability preferred for organic solvent application (e.g., t-BuOH, ethanol/water mixtures)
Condenser Coil Material	Stainless steel 304 or 316; easy to clean and sterilise
Condenser Configuration	Stainless steel internal or external (manifold-type); external preferred for multisampling flexibility
Shelf Area (Stoppering)	Minimum 0.1 m2 usable shelf area; stainless steel shelves with uniform temperature distribution

Shelf Temperature Range	-55°C to +60°C; uniformity ±1°C across shelf
Number of Shelves	Minimum 3 shelves; adjustable shelf spacing
Shelf Heating/Cooling	Active controlled shelf temperature via heat transfer fluid (silicone oil or equivalent); PID-controlled
Chamber Type	Stainless steel 304/316 main drying chamber; cylindrical or rectangular; autoclavable interior preferred
Chamber Volume	Compatible with standard lyophilisation vials (2R to 50R), trays (standard 600 × 400 mm), and Erlenmeyer flasks
Door / Closure	Clear borosilicate glass or acrylic door; vacuum-rated seal; stainless steel frame

Pump Type	Oil-free (dry) vacuum pump — MANDATORY; scroll, diaphragm, or claw type acceptable; no rotary vane oil pump
Ultimate Vacuum	≤ 0.010 mbar (10 mTorr) ultimate blank-off pressure with clean, dry condenser
Operating Vacuum (Process)	0.05 – 1.0 mbar; programmable setpoint
Vacuum Measurement	Capacitance manometer or Pirani gauge with digital display; resolution ≤ 0.001 mbar
Vacuum Control	Automatic throttle valve or bleed valve for controlled vacuum setpoint
Solvent Compatibility	Pump and seals compatible with aqueous, alcoholic, and tert-butanol systems; chemical-resistant exhaust filter required

Controller	Programmable PLC-based or PC-based controller with touchscreen HMI (minimum 7-inch)

Programme Storage	Minimum 20 freeze-drying programme profiles stored on-board
Process Parameters	Programmable ramp and hold for: shelf temperature, vacuum setpoint, duration per step (minimum 10 steps/cycle)
Data Logging	Continuous logging of: shelf temperature, condenser temperature, vacuum level, and time; USB/Ethernet export; minimum 6-month internal storage
Alarms	Audible and visual alarms for: vacuum failure, condenser overtemperature, power failure, door open; alarm history log
Defrost	Automatic defrost cycle with drain valve; condensate drain to waste
GMP/GLP	21 CFR Part 11 compliant data logging preferred; audit trail functionality
Stoppering	Hydraulic or pneumatic stoppering mechanism for vials under vacuum — required for pharmaceutical/protein work

5.3 Accessories and Inclusions

- Set of stainless-steel lyophilisation trays and vial loading racks
- Flask adaptors / manifold with multiple ports (minimum 6-port) for Erlenmeyer and round-bottom flasks
- Stainless steel vials, stoppers, and seals (starter pack, 100 units)
- Oil-free pump maintenance kit (filters, seals)
- User manual, process development guide for proteins and biomass
- Validation documentation package (IQ/OQ protocols)

6. Vacuum Concentrator (Centrifugal Evaporator)

6.1 Scope and Intended Use

The vacuum concentrator shall be used for gentle, solvent-free concentration, evaporation, and drying of biological samples including aqueous buffers, culture supernatants, protein/peptide solutions, oligonucleotides, nucleic acids, and organic/aqueous mixtures. The

system shall combine centrifugal force with vacuum and, optionally, mild controlled heating to accelerate evaporation while preventing sample bumping. A cold trap shall be integrated or provided as an accessory to protect the vacuum pump.

6.2 Tentative Technical Specifications

Operating Principle	Centrifugal vacuum evaporation; rotor spinning generates centrifugal force to prevent bumping while vacuum drives evaporation
Sample Format Compatibility	0.5 mL, 1.5 mL, 2.0 mL microcentrifuge tubes; 15 mL and 50 mL conical tubes; PCR tubes (0.2 mL); 96-well microplates; glass vials
Maximum Capacity (samples)	Minimum 36 × 1.5 mL tubes simultaneously; or equivalent mixed rotor configuration
Rotor Speed	1000 – 2000 RPM (typical centrifugal force for bumping prevention); motor-driven; sealed bearing
Temperature Control	4°C to 65°C; programmable setpoints; digital PID control; ±2°C accuracy
Temperature Modes	Low temp for protein and nucleic acids, Ambient (no heating), mild heat (30–37°C for aqueous), medium heat (45°C), high heat (60–65°C) for organic solvents; programme selectable
Vacuum Range	2 – 20 mbar operating range; adjustable for different solvents
Vacuum Control	Programmable vacuum profiles; solvent-specific vacuum programmes (H2O, EtOH, MeOH, ACN, DMSO, etc.)
Solvent Compatibility	Water, methanol, ethanol, acetonitrile, DMSO, acetone, formic acid, TFA, chloroform/methanol mixtures; chemical-resistant rotor and lid required
Rotor Material	Chemical-resistant plastic (polypropylene or PVDF) or aluminium with chemical-resistant coating

Run Time Control	Programmable end-point time or manual override; automatic vacuum release at end of run
Noise Level	≤ 55 dB (A)
Footprint	Benchtop; ≤ 400 mm (W) × 400 mm (D) (may vary with model type)

Cold Trap Type	Refrigerated solvent trap (dry trap); required to protect vacuum pump from solvent vapour
Trap Temperature	≤ -50°C (minimum); -80°C preferred for organic solvent protection
Trap Capacity	Minimum 1 L solvent collection capacity
Connection	KF-16 or NW-16 vacuum fittings; compatible with vacuum concentrator vacuum line
Defrost	Manual or automatic defrost; drain valve for solvent removal

Pump Type	Chemical-resistant diaphragm pump (oil-free); no rotary vane oil pump acceptable
Ultimate Vacuum	≤ 2 mbar (blank-off)
Flow Rate	Minimum 20 L/min free-flow
Chemical Resistance	PTFE-coated diaphragm and valves; compatible with organic acids, solvents, and aqueous samples
Connection	Integrated with concentrator or supplied as matched separate unit; all connections included

6.3 Accessories and Inclusions

- Interchangeable rotor set: 1.5/2 mL MCT rotor, 15/50 mL tube rotor, microplate rotor, PCR tube adaptor

- Vacuum tubing and KF fittings (complete set)
- Diaphragm pump replacement kit (1 set)
- User manual and application guide (solvent programmes guide included

7. Gel Documentation and Chemiluminescence Imaging System

7.1 Scope and Intended Use

The instrument shall be a fully integrated, multi-application gel and blot imaging system for documentation, analysis, and quantitation of nucleic acid gels (agarose/polyacrylamide), protein gels (SDS-PAGE, native PAGE), Western blots (chemiluminescent, fluorescent, and colorimetric), dot blots, and colony/plate imaging. The system shall be enclosed (dark chamber) to enable sensitive, low-light chemiluminescence detection without requiring a darkroom.

7.2 Tentative Technical Specifications — Imaging and Detection

Detection Method	High-sensitivity CCD or sCMOS camera-based imaging; cooled camera sensor for low-noise chemiluminescence detection
Camera Resolution	Minimum 5 megapixels (≥ 6.3 MP preferred); 12-bit or 16-bit dynamic range
Camera Cooling	Thermoelectrically (TE) cooled CCD/sCMOS sensor; cooled to at least 10–20°C below ambient to minimise dark current noise
Sensitivity	Capable of detecting sub-picogram to femtogram-level chemiluminescent signals (e.g., ≤ 5 pg HRP-conjugate detection limit on standard chemiluminescent substrate)
Dynamic Range	Minimum 4.5 orders of linear dynamic range for accurate quantitation across wide signal intensities
Field of View	Minimum 20 cm × 20 cm (sufficient for standard mini and midi gel formats; large format optional)
Lens	High-aperture, low f-stop zoom/manual-focus lens (f/0.95 – f/1.2 typical); auto-focus and auto-aperture preferred
Applications Supported	Chemiluminescent Western blot, fluorescent Western blot, colorimetric blot (Ponceau/Coomassie), ethidium bromide / SYBR-stained gels, multiplex fluorescence (2–3 colour), colony counting, general photography

UV Transilluminator	302 nm and/or 365 nm UV transillumination; standard for EtBr-stained nucleic acid gels
White Light / Epi-illumination	White light epi-illumination (LED or fluorescent) for colorimetric and Coomassie/silver-stained gels, colony plates
Blue Light / Visible Light Trans-illumination	460–470 nm blue-light transilluminator (LED-based) for safer SYBR Safe/SYBR Green dye excitation without UV exposure (highly recommended for routine work)
Fluorescence Excitation (Epi-white/multiplex)	Minimum 2–3 epi-illumination LED channels covering common fluorophore excitation ranges (e.g., 460–480 nm, 520–545 nm, 625–650 nm) for multiplex fluorescent Western blot applications
Filter Wheel / Emission Filters	Motorised or manual filter wheel/turret with standard emission filters matched to excitation sources (minimum 4 filter positions)
Trans-UV Stage	Standard 20 × 20 cm UV transilluminator stage (302/365 nm) integrated or interchangeable

Chamber Type	Fully enclosed, light-tight dark chamber/cabinet with interlocked door
Safety Interlock	UV exposure interlock; auto shut-off of UV source upon door opening
Sample Tray	Removable sample tray/drawer; compatible with standard gel cassettes, blotting membranes, and Petri dishes
Zoom and Focus	Motorised zoom and auto-focus (preferred) or precision manual focus/zoom with position memory
Chamber Dimensions	Internal chamber sufficient to accommodate standard mini-gels, midi-gels, and standard blot membranes (minimum 20 × 20 cm working area)
UV Protection	UV-blocking acrylic/glass viewing window; operator UV-safety compliant per IEC/CE standards

Image Acquisition Software	Dedicated acquisition software with live preview, auto-exposure, and manual exposure override

Exposure Time Range	0.1 second to maximum preferred (for low-signal chemiluminescence); auto-optimised exposure capability
Analysis Software	Integrated/companion software for: band/lane quantitation (1D gel analysis), molecular weight estimation, colony counting, dot blot quantitation
Image Format Output	TIFF (16-bit), JPEG, PNG, PDF; raw unprocessed data file format for publication-quality export
Data Integrity	Audit-trail / electronic signature capability preferred (21 CFR Part 11 compatible) for regulated research environments
Image Annotation	On-screen annotation, lane/well labelling, automated band molecular weight calculation against loaded ladder/marker
Connectivity	USB 3.0 and/or Ethernet (LAN) for data transfer; compatible with Windows 10/11 PC (PC to be specified/included as per requirement)
Multi-user Support	Multiple user-profile support with adjustable access levels (administrator/user) preferred

Footprint	Benchtop unit; approximate footprint ≤ 500 mm (W) × 500 mm (D) × 600 mm (H) (chamber-dependent)
Weight	≤ 35 kg (instrument only, excluding PC)
Electrical Supply	100 – 240 V AC, 50/60 Hz, auto-switching
Certification	CE marked; laser/UV safety compliance per applicable IEC 60825 / UV safety standards
Noise Level	≤ 50 dB (A) during operation

7.3 Accessories and Inclusions

- Computer workstation (desktop or laptop) with adequate specification to run acquisition/analysis software, pre-loaded and configured
- Colour printer (thermal or inkjet) compatible with acquisition software for direct gel image printing (optional but preferred)
- UV-protective face shield/safety goggles (minimum 2 pairs)
- Standard sample trays for gels and blot membranes
- Software license (perpetual, single-workstation; additional licenses to be quoted separately if required)

- User manual, application notes for Western blot/gel documentation workflows

10. Warranty, Service, and Compliance Requirements.

Parameter	Requirement
Warranty Period	Minimum 3-5 years comprehensive on-site warranty from date of installation
AMC/CMC	Annual Maintenance Contract (AMC) / Comprehensive Maintenance Contract (CMC) shall be available post-warranty; quote to be submitted along with bid
Service Response Time	Within 48 -72 hours (off site/on-site response accordingly to requirement and suitability)
Spare Parts Availability	Supplier to confirm availability of critical spare parts for minimum 7 years from date of purchase
Installation & Commissioning	On-site installation, calibration, and commissioning by manufacturer-trained engineer included in scope
Training	Minimum 2-day hands-on training for laboratory staff at installation site; additional online resources preferred
Certifications (Equipment)	CE mark / ISO 9001 manufacturer certification mandatory; NABL-traceable calibration certificates at supply
Country of Origin	Original Equipment Manufacturer (OEM) product preferred; no refurbished or assembled-from-parts equipment accepted
Documentation	Factory test certificate, certificate of conformance, calibration certificates, user manual, maintenance manual, circuit diagrams (where applicable)
Environmental Compliance	RoHS compliant; WEEE registered supplier preferred/ or equivalent Indian Certifications shall be considered.

A meeting with prospective bidders through hybrid (physical/online) mode will be scheduled for

- **Bioreactor with Integrated Chiller**, **Date: 20/07/2026**
- **High-Pressure Homogenizer, Date: 20/07/2026**
- **CO_2 Shaker Incubator, Date: 21/07/2026**
- **Bioanalyzer for Cell Culture and Bioprocess Metabolite Monitoring, Date: 21/07/2026**
- **Lyophilizer (Freeze Dryer), Date: 22/07/2026**
- **Vacuum Concentrator (Centrifugal Evaporator), Date: 22/07/2026**
- **Gel Documentation and Chemiluminescence Imaging System, Date: 23/07/2026**

at 11:00 A.M. onwards in NIPER HAJIPUR Campus, Export Promotions Industrial Park (EPIP), Industrial area Hajipur, District: Vaishali 844102, BIHAR, INDIA. All the interested agencies/firms/organizations are requested to join this meeting through hybrid (physical/online) mode only. Those who want to show interest via online mode, may request on the following email id: coe@niperhajipur.ac.in/ dmandal@niperhajipur.ac.in/ administrativeofficer@niperhajipur.ac.in

TERMS & CONDITIONS:

i. The EOI must be submitted with:
   - Complete profile of the company.
   - Product brochures, technical literature, and related documents.
   - Details of similar installations in India over the last 3 years, along with purchase order (PO) copies and end-user contact information.

ii. EOIs must be submitted in sealed envelopes super-scribing "EOI for (Instrument Name)", Advertisement Number, and Due Date, addressed to: Registrar (i/c) NIPER Hajipur EPIP, Industrial Area, Hajipur – 844102, Vaishali, Bihar, INDIA

iii. Last date for submission of EOI: 03/08/2026 on or before 10:00 AM.

iv. EOI responses received after the due date and time shall not be considered under any circumstances.

v. NIPER Hajipur reserves the right to:
   - Invite shortlisted vendors for technical discussions and presentations.
   - Accept or reject any or all EOIs without assigning any reason.
   - Modify or withdraw this EOI notice, in part or full, at any stage.

vi. The process does not constitute a commitment to issue a tender or award of contract.

vii. No reimbursement for any costs incurred by the applicant for EOI preparation or meeting attendance will be provided.

Disclaimer

These specifications are generalised reference documents prepared for procurement planning purposes in an academic research institution. No particular make, model, or brand is mandated; reference models if cited are for the purpose of defining the class and functional capability of the instrument required. Equivalent or superior products are equally welcome.

The procuring authority reserves the right to modify, accept, or reject any offer on technical or administrative grounds. The decision on technical compliance shall be the sole prerogative of the Technical Evaluation Committee constituted for this purpose.

Sd/- Registrar (i/c)