PAKISTAN AERONAUTICAL COMPLEX, KAMRA
MIRAGE REBUILD FACTORY

TENDER NOTICE : OPEN TENDER

Tender reference	:	MRF/Log/26-27/OT-06
Tender No	:	OT-06
Publishing date	:	26 November, 2026
Last date of submission of bids	:	**10** December, 2026 (1000 Hrs)
Opening date & Time	:	**10** December, 2026 (1100 Hrs)

1. Sealed tenders for purchase / repair of items as per enclosed list are invited from sales tax registered Suppliers who are on Active Taxpayers List (ATL) of FBR.

Pattern of Quotations

2. The quotation shall comprise a single package containing 02 separate envelopes. Tender reference along with due date of opening and Category Number must be clearly marked. Each envelope shall contain separately, the Financial proposal and the Technical proposal respectively. Each bid (financial / technical) will be on separate leaf against single line item, envelope cover must be marked with "Item name". **Quotations with multiple line items on single page will be dropped**. **Quotations should be on original letter head (color printed)**. The quotations shall be addressed to Managing Director MRF, PAC Kamra as per terms given below:-

(a) **Technical Offer**: It should be without prices and contain all relevant essential specifications along with literature / brochures. Tender number, date of submission, date of opening and word (**Technical offer**) should be clearly marked. The tendered Part No should be mentioned against quoted item / offer. Any details of equivalent / variables being quoted should be clearly mentioned against Part No being tendered. **NSN / OEM Part No** should be mentioned on both technical and commercial quotations. All quoted products must have traceable local / foreign OEM. **Country / Place of Manufacture / OEM** of stores is to be provided along with Technical / Commercial offer. **Certificate of Conformance** (where applicable), **Technical Data Sheet (TDS)** and **Material Safety Data Sheet (MSDS)** along with any other relevant literature by OEM are must for all Aviation Items, Chemicals, Material and Equipment. All precision measuring equipment must be quoted with provisioning of fresh **Calibration Certificate**. Spectrometric analysis report against raw material / hardware items may be required to establish conformity of delivered product. All Chemicals, lubricants and any item of shelf life **(remaining life not less than 75 % at time of delivery)** range must be quoted with provisioning of **MSDS** along with fresh **Laboratory Test Reports** against corresponding LOT No, Batch No, Date of Production, Date of Expiry of delivered stores. **Part Catalogues, IPBs (Illustrated Part Breakdown), User Guides, Operating / Maintenance Manuals, Brochures, Prices** which ever available / applicable would be provided free of cost along with delivered stores. **Unit of issue** must be same as mentioned in tender notice. Confirmation to this effect is to be furnished by written certificate along with quotation. License keys, activation / access passwords and source codes are to be provided along with all software whether purchased individually or as a part of any system/equipment or machinery.

(b) **Financial Offer**: It should indicate price of quoted item (**to be delivered at MRF, Kamra premises with all liabilities on Suppliers**) and confirmation to the terms and condition of MRF tender inquiry. The words **"Financial Offer"** should be clearly marked. The Quoted prices are to be exclusive of GST levied by the Government and these should be in accordance with the current Local market prices. GST must be mentioned separately. All other charges must be incorporated in offered price. Rates must be mentioned in both **"words" and "figures"**. Following documents must accompany financial offer:-

(i) Proof of being on **active taxpayers list**
(ii) Sales tax registration certificate
(iii) NTN certificate

(iv) Professional Tax certificate of the province where the contract is being concluded as per MAG letter No 54/AT/S/1687-Vol-XXVII/P-29 dated 22 April, 2013 and Taxation department Punjab letter No SO (TAX) 1-33/77 (P-IV) date 28 August, 2003.

(v) Any specific SRO / Tax exemptions if applicable must be notified along with commercial offer.

(c) **Bid Money / Earnest Money**: The **unregistered firms with PACB** (Pakistan Aeronautical Complex Board, Kamra) will have to furnish **earnest money @ 5%** of the quoted value through **Bank Draft / CDR** in favor of **Public Fund Account MRF PAC, Kamra**. The earnest money instrument should indicate Tender reference and firm/company name. In case where the exact Quantity has not been mentioned the earnest money should be calculated against MOQ / market available standard OEM packaging. The exact bid money in this scenario will have to be furnished within 01 week of intimation of being technically accepted, lowest financial bidder. The confirm purchase order will be furnished upon receipt of earnest money. Earnest money of bidders backing out of submitted quote or failing to provide in time delivery will be forfeited along with initiation of disciplinary actions.

Quantity

3. Quantity can be increased / decreased at the time of order as per MRF requirement without change of financial quotations. Bids once submitted will not be allowed to be changed and will be binding on suppliers for delivery of stores if purchase order is furnished, however, clarifications may be sought.

Offer requirement / validity

4. The quotation should be valid if it contains under mentioned information.

(a) Quote Validity should be minimum **90 days** and extendable on request. Quotations with less validity will be rejected.

(b) EDD must be available on Commercial Quote. Quotation will not be accepted without delivery period.

(c) Picture and TDS must be available with technical quote.

(d) Separate quote for every single line item.

(e) Mentioning of date on commercial / technical quotes is mandatory.

(f) Terms & Conditions should be mentioned on commercial / technical quotes.

Delivery Period

5. **Items are to be delivered at MRF, PAC KAMRA premises with all liabilities on Suppliers.** Stores are required within minimum possible delivery period. Offer with minimum delivery period are likely to be preferred. However, the delivery period should be factual as no subsequent extension will be granted except under extreme / un-avoidable circumstances. **Delivery period will invariably start from furnishing of written (provisional / firm) purchase order whichever is earlier**. Delivered stores must be in **standard packing** (free of any separate cost). Delivery of items shall be strictly made as per timeline mentioned in purchase order. In case of failure, MRF reserves the right to cancel any PO.

6. **Acceptance of Stores / General Terms & Conditions**

(a) **Certificate of Conformance**, **TDS** and **MSDS** by OEM is must for all aviation items, Materials and Equipment.

(b) All precision measuring equipment must accompany fresh **Calibration Certificate either from OEM or any certified credible facility.**

(c) All Chemicals, lubricants and any item of shelf-life **(remaining life not less than 75 % at time of delivery)** range must accompany **MSDS** along with fresh **laboratory test reports against corresponding LOT number, Batch number, date of production, date of expiry of delivered stores.**

(d) In case of life items, the remaining shelf life must be at least **75 %** at the time of delivery.

(e) Stores will be accepted after inspection by concerned user / Quality Control **Directorate as per QMS of MRF**.

(f) Supplier will be made responsible for **warranty / guarantee** of newly purchased items **at least one year or maximum possible**. In case of rejection of item on receipt or any defect / anomaly found within warranty period whether before use or while in use, the supplier will provide free of cost repair / replacement (which applicable) at MRF Kamra premises bearing all liabilities.

(g) All repair works / services will INVARIABLY be under at least **06 months warranty,** unless contracted otherwise and depends upon case-to-case basis.

(h) **Part Catalogues, IPBs (Illustrated Part Breakdown), User Guides, Operating / Maintenance Manuals, Brochures, Prices** which ever available / applicable would invariably be provided **free of cost** along with delivered stores.

(j) Items should be current year's production.

(k) Supplier will retain record of all products delivered to MRF karma, for at least 03 years.

(l) MRF reserves the right to visit / inspect any premises of supply chain against required / offered products.

(m) The supplier will be responsible for in time payment of all applicable taxes and duties to relevant agencies as per in vogue GOP regulations. The supplier must be able to furnish / produce such record as and when demanded by MRF.

(n) Any item being tendered if obsolete / discontinued by OEM may please be communicated along with said certification by OEM. Suitable replacements / substitutes / interchangeable may also be communicated along with complete technical / operational details.

(p) All quotations/ bids, correspondence and clarifications / queries must be on company letter head duly signed by authorized signatory authority. Active contact / correspondence details (phone no. mobile no. email & postal address must be mentioned).

(q) All quotations, bids, clarifications, queries, correspondence and product will be kept strictly confidential.

Release of Payment

7. Payment will be released by Dte of Budget and Accounts, MRF PAC, Kamra on submission of Sales Tax invoice along with copies of GST registration, NTN certificate and Professional Tax certificate. Sales Tax Return against previous transactions (if any) during current financial year and copy of relevant SRO (if applicable) will also be required. All payments are to be received after successful acceptance of delivered stores by user and upon furnishing of requisite documentation. After receipt of payment, supplier is to furnish monthly sales tax return declaration along with Annexure "C" (DOMESTIC SALES INVOICE DETAIL) duly depicting invoice number against which payment has been received from MRF, Kamra. Specified amount of GST and Income tax will be withheld/ deducted at source as per GOP instructions in vogue. Any exemption in this regard will only be entertained upon furnishing of FBR issued EXEMPTION certificate in name of Firm / Company against specified item.

Terms and Conditions

8. The terms and conditions mentioned in this document will be integral part of any purchase order furnished against this tender, whether or not mentioned again.

Clarifications of Queries

9. Queries if any may be cleared by contacting **051-90994414, 90994727**.

Rejection

10. Offers are liable to be rejected if:

(a) There is a deviation from any instruction.

(b) Offers are found conditional or incomplete in any respect.

(c) Overwriting / erasing in prices.

(d) Firm **BLACKLISTED / UNDER EMBARGO / DELISTED** by any ***Government Organization***.

(e) Any terms and conditions not in conformity with tendered terms and conditions.

Delivery of Tender

11. **Each quotation (financial / technical) shall be on separate leaf against single line item.** Both the envelopes of **Technical and Commercial** offers should be enclosed in one cover properly sealed**, envelope cover must be marked with "Item name"** and bear the following address of Indigenous Provisioning office, MRF with **tender Inquiry number and opening date.**

Officer In charge Indigenous Provisioning
Mirage Rebuild Factory,
Pakistan Aeronautical Complex, Kamra
District Attock

Opening of Tender

12. The quotations must be in original and are to reach at this factory by **1000 Hrs** on **10 December, 2026.** All quotations are to be dropped in the tender box placed at the MRF Guard Room. No quotation will be accepted in photocopy, through Fax and after due date and time. Tender will be opened on **same day at 1100 Hrs** in the presence of witnessing officers and available representatives of the firms in Officer In charge Indigenous Provisioning. MRF reserve the right to cancel or reject any or all bids / proposals against complete tender or any part thereof, at any time without any liability. In case of official holiday, the Tender will be opened on next working day.

13. List of items can also be downloaded from PPRA website **www.ppra.org.pk** and as well as PACB website **www.pac.org.pk** free of cost or can be collected from Dte of Log (Local Purchase Section) MRF PAC Kamra Distt Attock from **27 November, 2026** during working hours (except holidays).

Yours Sincerely,

MRF QUALITY SYSTEM REQUIREMENTS

Following are the requirements to be satisfied by the Supplier (External Provider) / Sub-Contractor (Local Vendor) of MRF:-

1. The processes, products, and services to be provided including the identification of relevant technical data (e.g., specifications, drawings, process requirements, work instructions).
2. The approval of products and services, methods, processes, equipment, and the release of products and services.
3. Provide inspection and testing criteria for acceptance by MRF.
4. Obtain approval from MRF of changes in product / process.
5. Provide Objective evidence of the quality of product.
6. To ensure product conformance to specified requirements.
7. To provide manufacturing date and Lot number.
8. To provide shelf life and expiry date as applicable
9. Competence, including any required qualification of persons.
10. The external providers' interactions with the organization.
11. Control and monitoring of the external providers' performance to be applied by the organization.
12. Verification or validation activities that the organization, or its customer, intends to perform at the external providers' premises.
13. Supplier (External providers) apply appropriate controls to their direct and sub-tier Suppliers (external providers), to ensure that requirements are met.
14. Design and development control.
15. Special requirements, critical items, or key characteristics.
16. Test, inspection, and verification (including production process verification).
17. The use of statistical techniques for product acceptance and related instructions for acceptance by the organization.
18. To provide Material / Metallurgical test reports along with raw material for traceability through Lot / Batch No. External Provider will also provide date of manufacture of provided Lot / Batch No of raw material.
19. The need to:
    (a) Implement a Quality Management System.
    (b) Use customer-designated or approved external providers, including process sources (e.g., special processes).
    (c) Notify the organization of nonconforming processes, products, or services and obtain approval for their disposition.
    (d) Prevent the use of counterfeit parts.
    (e) Notify the organization of changes to processes, products, or services, including changes of their external providers or location of manufacture, and obtain the organization's approval.
    (f) Flow down to external providers applicable requirements including customer requirements.
    (g) Provide test specimens for design approval, inspection/verification, investigation, or auditing.
    (h) Retain records (documented information), including retention periods and disposition requirements.
20. Ensuring that persons are aware of:
    (a) Their contribution to product or service conformity.
    (b) Their contribution to product safety.
    (c) The importance of ethical behavior.

MRF/Log/2026-27/OT-06 Date of Publishing 26 November, 2026 Last Date of Bids Submission 10 December, 2026

S No	Part No	Noun	U/I	Qty	Remarks / Specifications
1		All in One Core i7 / i5 with NVME	EA	As Required	As Per Attached Specification
2		Normal Specs CPU based with 24" LED Monitor	EA	As Required	As Per Attached Specification
3		PC High End with Standard 24" LED Monitor	EA	As Required	As Per Attached Specification
4		Developer Work Station with Standard 24" LED Monitor	EA	As Required	As Per Attached Specification
5		Printer Heavy Duty	EA	As Required	As Per Attached Specification
6		Printer Light Duty	EA	As Required	As Per Attached Specification
7		Scanner	EA	As Required	As Per Attached Specification
8		Shredder	EA	As Required	As Per Attached Specification
9		Modular/stackable L3, 48×10/25GbE + 6/8×100GbE (Core Switch)	EA	As Required	As Per Attached Specification
10		48 Port Managed Optical L3 Fiber Channel Switch (Aggregation Switch)	EA	As Required	As Per Attached Specification
11		48 Port Managed PoE+ 10 Gigabit Switch (Access Switch)	EA	As Required	As Per Attached Specification
12		All in One PC	EA	As Required	As Per Attached Specification
13		55" LED	EA	As Required	As Per Attached Specification
14		Lap Top	EA	As Required	As Per Attached Specification
15		NDR appliance / platform	EA	As Required	As Per Attached Specification
16		NAC solution	EA	As Required	As Per Attached Specification
17		42U with PDU and accessories	EA	As Required	As Per Attached Specification
18		Patch Panels 48 Port	EA	As Required	As Per Attached Specification
19		Fiber/Copper Cable Management (Vertical / horizontal managers)	EA	As Required	As Per Attached Specification
20		Cable Manager	EA	As Required	As Per Attached Specification
21		Temperature / humidity Rack Sensor	EA	As Required	As Per Attached Specification
22		SFP 1G Single Mode	EA	As Required	As Per Attached Specification
23		SFP 10G Single Mode	EA	As Required	As Per Attached Specification
24		3 KVA (Minimum 2 hrs Backup)	EA	As Required	As Per Attached Specification
25		5 KVA (Minimum 2 hrs Backup)	EA	As Required	As Per Attached Specification
26		5 KVA (AVR)	EA	As Required	As Per Attached Specification
27		250 Line Intercom Exchange (Panasonic KX-TDA600D)	EA	As Required	As Per Attached Specification
28		IP/VoIP conference phone (Logitech VC950)	EA	As Required	As Per Attached Specification
29		Enterprise-grade wireless (Huawei Air Engine 8760-X1-PRO)	EA	As Required	As Per Attached Specification
30		Telephone Sets (IP/Analog) Grand stream GRP 2670	EA	As Required	As Per Attached Specification
31		Telephone Sets (IP/Analog) Grand stream GRP 2614	EA	As Required	As Per Attached Specification
32		Telephone Sets (IP/Analog) Grand stream GRP 2611G	EA	As Required	As Per Attached Specification
33		Telephone Sets (IP/Analog) Uniden 8402	EA	As Required	As Per Attached Specification
34		NDT Lab Equipment	EA	As Required	As Per Attached Specification

SPECIFICATION S No 1 : PERSONAL COMPUTER ALL IN ONE

Personal computer Allin-One Core i7 / Core i5 with NVME
(for Secure net / Internet / Standalone Users)

	Specification
Processor	Ultra 5 / Ultra 7 or Core i5 / Core i7 (**14th Gen**) or higher
Chipset	Intel Q670 (Equivalent or Higher)
Memory	16 GB DDR5 (Quoted model to be mentioned)
Storage	**256 GB** NVMe / SSD
Display Size	23" – 24"
Graphic Card	Integrated Graphis
Power Supply	Standard
Network Card	Must be Standard LAN Card (**WiFi / Bluetooth is not required**)
Mouse & Keyboard	Branded (**Optical USB**) with **Mouse Pad**
Additional Accessories	Surge Protector with 3 Pin Shoe (**Minimum 03 Ports**) (Branded) Power Cords Must be 3 Pins for PC & Printer
Additional HDD Port & Socket	Option of installing Qty 01 **HDD SATA (2.5")** along with the basic storage should be available.
Warranty	03 Years Official with keep your Hard Drive

SPECIFICATION OF S No 2 : - PERSONAL COMPUTER

PC Core i7 / Core i5 with NVMe
(for Securenet / Internet / Standalone Users)

	Specification
Processor	Ultra 5 / Ultra 7 or Core i5 / Core i7 **(14th Gen)** or higher
Chipset	Intel Q670 (Equivalent or Higher)
Memory	16 GB DDR5 (Quoted model to be mentioned)
Storage	**256 GB** NVMe / SSD
Display	22" LED
Graphic Card	Integrated graphics
Power Supply	Standard
Form Factor	Tower
Network Card	Must be Standard LAN Card **(Wireless network / Bluetooth is not required)**
Mouse & Keyboard	Branded (**Optical USB**) with **Mouse Pad**
Additional Accessories	Surge Protector with 3 Pin Shoe **(Minimum 03 Ports)** (Branded) Power Cords must be 3 pins for PC & LED
Additional HDD Port & Bay	Option of installing Qty 01 **HDD SATA (3.5")** alongwith the basic storage should be available.
Warranty	03 Years Official with keep your Hard Drive

SPECIFICATION OF S NO 3 - HIGH END WORKSTATION (PC)

Specification	
Processor	Ultra 7 / Ultra 9 or **Core i7 / Core i9 (14th Gen)** or Higher 8 Core, 16 MB Cache, 3.80 GHz, 5.0 GHz Turbo
Chipset	Intel Q670 (Equivalent or Higher)
Memory	32 GB DDR5 (Quoted model to be mentioned)
Storage	512 GB NVMe / SSD
Display	22" LED
Graphic Card	NVIDIA ® Quadro ® RTX 5060 8GB (Equivalent or Higher)
Power Supply	650 Watt or Higher
Form Factor	Tower
Network Card	Must be Standard LAN Card **(Wireless network / Bluetooth is not required)**
Mouse & Keyboard	Branded Wired Keyboard & Mouse with Pad
Additional Accessories	Surge Protector with 3 Pin Shoe **(Minimum 03 Ports)** (Branded) Power Cords must be 3 pin
Additional HDD Port & Bay	Option of installing Qty 01 **HDD SATA (3.5")** alongwith the basic storage should be available.
Warranty	03 Years Official with keep your Hard Drive

SEPECIFICATION OF S NO 4 : - DEVELOPER WORKSTATION (AI)

General Specifications			
Processor		Core i9 (**14Th Gen**), 24C/32T Cache 36 MB	
Chipset		Intel Z790 Express Chipset or Higher	
Memory		64GB (2x32GB) DDR5, 6400 MHz	
Storage	**SSD**	**Qty 01** x 1TB PCIe NVMe	
	SATA III	**Qty 01** x 2TB (RPM 7200 Min)	
Display		**Qty 02** x 24 Inch IPS, FHD (1920x1080p), 180 Hz with Qty 01 Ea DP & HDMI	
Graphics Card		**NVIDIA RTX 4500 ADA Gen or Higher**	
		Memory speed	21.0 Gbps
		Standard Memory Config	24 GB GDDR6X
		Ports	Display Port 1.4, HDMI 2.0
		NVIDIA Encoder (NVENC)	Yes (Turing)
Thermal power specs		**Max GPU Temperature**	89 ºC
		Graphics Card Power (W)	500
		Supplementary power	As per OEM
Motherboard (Z790)		**Chipset**	Intel Z790 Express Chipset or Higher
		Memory sockets (DDR5)	4 (with 32 GB single DIMM capacity)
		DDR5 support	3200/6400 memory modules
		LAN Ports	• 10 GbE LAN chip (10 Gbit/5Gbit/2.5Gbit/1Gbit /100Mbit) • 2.5 GbE LAN Chip (10/100/1000 Mbit)
		PCI Exp Expansion Slots	PCIe 4.0 x 4, PCIe 5.0 x 16
Back panel Connectors		**Thunderbolt 4.0**	01 (Minimum)
		USB 3.2 Gen 2 Type-A	02
		USB 3.2 Gen 1 ports	02
		USB 2.0/1.1 ports	02
		DisplayPort / HDMI	02 / 02
		RJ-45ports	02
		Audio jacks	02
		Form factor	E-ATX
		WiFi	External WiFi 6e 802.11ax compatible with PCIe slots
Casing, Power supply unit and cooling system:			
Adequate power supply unit, casing and cooling system with respect to the abovementioned system specifications of CPU, 01 GPU and other components (OEM approved).			
Accessories			
Keyboard & Mouse		Standard Compatible (Branded) with Mouse Pad	
Warranty		03 years with keep your Hard Drive	

S NO 5 : HEAVY DUTY A4 COLOR LASERJET PRINTER SPECIFICATION

Printing method	Laser
Printing Speed	Min: 42 ppm on A4 and 45 ppm on letter-size or above
Resident Font	Not less than 25 scalable fonts
Print Resolution	1200 dpi or more
Paper Feed / Handling	Tray 1 (100-sheet capacity) or above Tray 2 (500-sheet capacity) or above
Media Sizes	A4, Letter, Legal, Envelopes
Connectivity / Interface	Hi-Speed USB 2.0, Gigabit Ethernet
Power supply	AC 220/240 Volts and 50 Hz
Duplex	Automatic duplex printing
Duty cycle (monthly)	Up to 120,000 pages;
Processor speed	800 MHz or above
Control-panel display	Standard Display LCD
Cables	USB printer cable, Power cable and Ethernet cable
Accessories	At least one toner cartridge should be supplied with the printer.
OS Compatibility	All
Manuals / Software / Drivers	Operating manual and User manual/Driver CD(s)
Warranty	Manufactures **(OEM)** Warranty for minimum one (1) year, inclusive of replacement of all defective parts free of charge.

S NO 6 : LIGHT DUTY A4 COLOR LASERJET PRINTER SPECIFICATION

Printing method	Laser
Printing speed	A4: upto 20 ppm at 1200dpi
Resident Font	Not less than 25 scalable fonts
Print Resolution	1200 dpi or more
Paper Feed / Handling	Tray for A4 plain papers (at least 150-sheet tray)
Media Sizes	A4, Letter, Legal, Envelopes
Connectivity / Interface	USB / Ethernet
Power supply	AC 220/240 Volts and 50 Hz
Cables	USB printer cable, Power cable and Ethernet cable
Accessories	At least one toner cartridge should be supplied with the printer.
OS Compatibility	All
Manuals / Software / Drivers	Operating manual and User manual/Driver CD(s)
Warranty	Manufactures (OEM) Warranty for minimum one (1) year, inclusive of replacement of all defective parts free of charge.

SPECIFICATION S No 8 : - PAPER / DVD SHREDDER

SPECIFICATION	
Type	Heavy Duty
Shred type	Cross Cut, Papers, CDs & PVC / RFID cards
Shredder mouth	4x40mm
Waste Bin (Liters)	26 Liters (Minimum)
Average Speed	1.8 Meters / Minute or higher
Sheet Capacity	10 Sheets (Minimum)
Reverse Function	Jam-Free (Auto reverse)
Noise Level	60dB (Minimum)
Overload / Overhead protection	Yes
Power Feature	Auto Power off energy saving
Warranty	**01 Year** official

SNo : 9 To 33

Modular/stackable L3, 48×10/25GbE + 6/8×100GbE (Core Switch)		Cisco / Juniper / Huawei	1	Latest model available in market
48 Port Managed Optical L3 Fiber Channel Switch (Agregation Switch)			4	
48 Port Managed PoE+ 10 Gigabit Switch (Access Switch)			17	
Central Syslog Server (Centralized logging)		SolarWinds (Kiwi Syslog Server) / Cisco System / HP / Juniper	1	-
Central network monitoring/configuration	All In One PC	Lenovo / HP	4	-
	55" LED	Samsung / Sony / Eco Star	3	-
	Lap Top	HP / Dell	2	-
NDR appliance / platform		Cisco System / Fortinet / SANGFOR	1	-
NAC solution		M/S Nationals	1	-
42U with PDU and accessories		Totan	22	-
Patch Panels 48 Port		3M	16	-
Fibre/Copper Cable Management (Vertical / horizontal managers)		-	7	As per requirements
Cable Manager		3M	22	-
Temperature / humidity Rack Sensor		Elitech	21	-
SFP 1G Single Mode		Cisco / Juniper / Huawei	78	As per network switches
SFP 10G Single Mode		Cisco / Juniper / Huawei	16	As per network switches
3 KVA (Minimum 2 hrs Backup)		Vertiv / APC	21	-
6 KVA (Minimum 2 hrs Backup)		Vertiv / APC	3	-
6 KVA (AVR)		Servo Matik	1	-
250 Line Intercom Exchange (Panasonic KX-TDA600D)		Panasonic KX-TDA600D	1	-
IP/VoIP conference phone (Logitech VC950)		Logitech VC950	2	-
Enterprise-grade wireless (Huawei AirEngine 8760-X1-PRO)		Huawei AirEngine 8760-X1-PRO	73	-
Telephone Sets (IP/Analog)		Grandstream GRP 2670	50	-
		Grandstream GRP 2614	20	-
		Grandstream GRP 2611G	20	-
		Uniden 8402	60	-
Network installation / Configuration and services		-	As per requirements	

S No 34 : List of NDT Equipment

S No.	Lab	Equipment	Description	Name	Model	OEM	Remarks
1	Materials & NDT Lab	Ultrasonic Flaw Detector	2-10 MHz A-scan DAC/TCG, data logging	Omni scan MX series Ultrasonic Flaw Detector	Omniscan MX2 / MX Series UT Configuration	Evident (Olympus)	Conventional UT A-scan; DAC / TCG; data logging; portable NDT. Generic straight-beam and angle-beam UT probes, wedges and cables may also be procured
2	Materials & NDT Lab	Eddy Current Flaw Detector	Multi-Frequency, conductivity/crack detection, digital	Omni scan MX series Eddy Current Flaw Detector	Omniscan MX ECA/ECT	Evident (Olympus)	Mult-frequency ECT/ECA; impedance-plane and C-scan, conductivity/crack detection. Generic absolute, differential, reflection and array eddy-current probes as required may be procured.
3	Materials & NDT Lab	Magnetic Particle Inspection Unit	AC/DC yoke/bench unit, wet/dry testing	Magnetic Particle inspection yoke	Y-7 / equivalent AC/DC Yoke	Magnaflux	Portable AC magnetic particle inspection yoke. wet flourescent or visible dry particles may be procured as required. Accessories such as field indicator, Shims etc may also be procured
4	Materials & NDT Lab	Dye Penetrant Testing Kit	Cleaner, penetrant and developer; visible + flouresent	Spotcheck + Zyglo Dual-Method Penetrant Kit	Configured dual-method kit	Magnaflux	Complete visible and flourescent penetrant traning package, cleaner/remover, visible penetrant, flourescent penetrant, developer.
5	Materials & NDT Lab	UV-A Inspection Lamp	365 nm LED, high-intensity NDT inspection	EV6500 High-Intensity Dual-Light UV Lamp	EV6500	Magnaflux	Handheld dual-light LED UV-A lamp; 365 nm UV-A; about 7000 µW/cm² Intensity;board-beam coverage;integraled white-light LEDs for visible inspections.
6	Materials & NDT Lab	NDT Reference Block Set	IIW V1/V2 AWS/ASME and UT calibration blocks	IIW / AWS / ASME UT Calibration Block Set	Configured NDT block set	Evident Scientific	IIW V1/V2 blocks plus suitable AWS/ASME reference blocks and sensitivity/calibration spicemens; engraved traceable IDs; storage case; matched to conventional UT and PAUT training
7	Materials & NDT Lab	Weld Reference Specimens	Welded coupons containing representative defects	Weld Flaw Traning Specimen Set	Configured weld reference set	FlawTech	Welded training coupons with representative discontinuities such as porcsity, slag inclusion, lack of fusion, lack of penetration and cracking; suitable for VT/UT/MT/PT training and procedure demonstrations.
8	Materials & NDT Lab	Digital Vernier Caliber	0-150 mm. 0.01 mm resolution	Marcal Digital Caliper	16 EWRI. 0-150 mm	Mahr	0-150 mm measuring range; 0.01 mm resolution; IP67; integrated wireless data interface; hardened stainless construction; ISO 13385-1 complaint.
9	Materials & NDT Lab	Surface Roughness Tester	Portable, Ra/Rz/Rq, digital	MarSurf PS 10 Portable Roughness Tester	6910232 / MarSurf PS 10	Mahr	Portable tactile stylus tester; Ra, Rq, Rz and 30+ parameters; 0.25/0.8/2.5mm cutoff options; upto 15 mm traverse; integrated roughness standard; data export and PDF reporting.
10	Materials & NDT Lab	NDT Safety & PPE Set	Helmet, googles gloves apron etc	NDT Safety & PPE Kit	Configured lab/Nol set	3M	Safety helmet, safety eyewear, hearing protection, cut resistant/general-purpose gloves chemical gloves and apron;select exact PPE ratings by process; reusable training-lab issue set.
11	Materials & NDT Lab	Eye Wash Station	Emergency wall/bench mounted eyewash	AXION MSR Wall-Mount Eye/Face Wash Or equivalent	7360B-7460B	Haws	Wall-mounted stainless eye/face wash; AXION MSR directional laminar-flow head; 3.7 gpm flow control; stay-open valve; intregral strainer; drain and signage