

PAKISTAN AERONAUTICAL COMPLEX, KAMRA MIRAGE REBUILD FACTORY

TENDER NOTICE : OPEN TENDER

Tender reference	:	MRF/Log/24-25/OT-02
Tender No	:	OT-02
Publishing date	:	30 Aug, 2024
Last date of submission of bids	:	16 Sep, 2024 (1000 Hrs)
Opening date & Time	:	16 Sep, 2024 (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 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 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. Firms are requested to attach **Earnest Money** with Technical offer.

(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 favour of **MD MRF PAC, Kamra** along with technical quote. 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 contain 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 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**.

O i/c 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 **16 September, 2024**. 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 O i/c 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. Details of requirements is as follows: -

“Xrf anylizer, jfs test stand (upgraded), camera digital nikon d-90 with accessories, reverse osmosis plant, hose assembly 1/2 inch, hose assembly 1/2 inch, hose assembly 3/4 inch, hose assembly 3/4 inch, shock absorber rubber pad, hose assy p (b), hose assy p (b), hose assy r (b), hose assy p (a), piston seal, piston seal, piston seal, piston seal, piston seal, guage external sp line, guage kit retractable dial snap ext spline pd, stand transportation, compressor oil, oil seprator kit (d) I 132-160, oil seprator kit (d) I 132-160, hydraulic road blocker, hydraulic boom barrier, thermal ptz camera, ptz ip camera 2mp day and night view ir, ptz ip camera 2mp day and night view ir, touch visible a & ir (nvd bi), d ball visible laser & ir (nvd bi), simodrive power supply unit, spacer, Grease, clip, Tube Anti Icing, Silicon Adhesive, stud, interier cleaning, rust removing agent, Strip, Retomer Not For Rudder Servo, polish, grease, Cone Tapped Tightening, connector mobile, connector, Clip, screw, connector, Interior Cleaner, counter rivet, silicone adhesive rivet, Rust Removing Agent, washer split, cotter pin, Polish, pin thread, nut anchor, union half, vertical lathe cnc machine ,Honey Comb (Ox), Arldite, Aradure, Stand Engine Overhaul.”

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 (LP Section) MRF PAC Kamra Distt Attock from **02 September, 2024** during working hours (except holidays).

Yours Sincerely,



(RAFAY JAMAL)

Squadron Leader

for Managing Director

MRF, PAC Kamra

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/24-25/OT-02 Date of Publishing 30 August, 2024 Last Date of Bids Submission 16 September, 2024

S No	Part No	Noun	Qty	UI	Shop	Remarks / Specifications
1	SITTAN	XRF ANYLIZER	1	EA	Mat Lab	Scope Of Work <ul style="list-style-type: none"> • Wide range x-ray generator 50 kv • High performance light element excitation and deterction • Silicon drift detector with light element capability • Light radiation shield to minimize scattered radiations • Light stand and safety shield • Ccd camera Measurement and testing modes including pass/fail mode.
2	D38972	JFS TEST STAND (UPGRADED)	1	Ea	JFS O/H Shop	Scope Of Work JFS Test stand gearbox items (gears, bearings, oil pump, etc,) repaired to be repaired / replaced from local market
3	14A/PAF116-1	CAMERA DIGITAL NIKON D-90 WITH ACCESSORIES	1	Ea	Photo Flt	Part No : 14A/PAF116-1 Noun : CAMERA DIGITAL NIKON D-90 WITH ACCESSORIES
4	RO10000LPH	REVERSE OSMOSIS PLANT	1	EA	BOILER SHOP	Specifications are attached at the end, please
5	GB529-055-050	HOSE ASSEMBLY 1/2 INCH	10	ME	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-050 Noun: HOSE ASSEMBLY 1/2 INCH
6	GB529-055-250	HOSE ASSEMBLY 1/2 INCH	10	ME	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-250 Noun: HOSE ASSEMBLY 1/2 INCH

7	GB529-055-160	HOSE ASSEMBLY 3/4 INCH	10	ME	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-160 Noun: HOSE ASSEMBLY 3/4 INCH
8	GB529-055-360	HOSE ASSEMBLY 3/4 INCH	10	ME	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-360 Noun: HOSE ASSEMBLY 3/4 INCH
9	GB070-008-000	SHOCK ABSORBER RUBBER PAD	4	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB070-008-000 Noun: SHOCK ABSORBER RUBBER PAD
10	GB529-055-460	HOSE ASSY P (B)	1	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-460 Noun: HOSE ASSY P (B) P/N
11	GB529-055-470	HOSE ASSY P (B)	1	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-470 Noun: HOSE ASSY P (B) P/N
12	GB529-055-480	HOSE ASSY R (B)	1	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-480 Noun: HOSE ASSY R (B)P/N
13	GB529-055-450	HOSE ASSY P (A)	1	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB529-055-450 Noun: HOSE ASSY P (A)P/N

14	GB038-001-620	PISTON SEAL	8	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB038-001-620 Noun: PISTON SEAL
15	GB038-001-527	PISTON SEAL	8	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB038-001-527 Noun: PISTON SEAL
16	GB038-001-425	PISTON SEAL	8	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB038-001-425 Noun: PISTON SEAL
17	GB038-001-671	PISTON SEAL	8	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB038-001-671 Noun: PISTON SEAL
18	GB038-001-670	PISTON SEAL	8	EA	AW-139 HELICOPTER O/H PROJECT,RMC (PAF PROJECT)	Part No: GB038-001-670 Noun: PISTON SEAL
19	6799784	GUAGE EXTERNAL SP LINE	1	EA	T56 ENG QUALITY	Gauge Kit, Retractable Dial Snap, External Spline PD, 16/32 Pitch 27,31,35,36 and 57 Teeth, 8/16 pitch 18,28 and 35 teeth, 7/16 pitch 32 teeth. Made in USA (OEM) or Equivalent
20	6799783	GUAGE KIT RETRACTABLE DIAL SNAP EXT SPLINE PD	1	EA	T56 ENG QUALITY	Gauge kit, Retractable dial snap, External spline PD, 32/64 Pitch 11,12,14, 15,16,20,28 and 34 Teeth, 20/40 Pitch 12 Teeth. Made in USA (OEM) or Equivalent
21	6796177	STAND TRANSPORTATION	1	EA	COMPRESSOR BAY T-56	Specifications are attached at the end, please
22	SCW04000	COMPRESSOR OIL	418	LTR	AUX SERVICES SHOP	As per sample

23	CK4290-272	OIL SEPRATOR KIT (D) L 132-160	1	EA	AUX SERVICES SHOP	As per sample
24	CK4290-272	OIL SEPRATOR KIT (D) L 132-160	1	EA	AUX SERVICES SHOP	As per sample
25	5180PK0001344	HYDRAULIC BOOM BARRIER	1	EA	PROVOST SQN MRF	Specifications are attached at the end, please
26	6730PK1110012	THERMAL PTZ CAMERA	1	EA	SURVEILLANCE RECOVERY TEAM(SRT)	Specifications are attached at the end, please
27	NEZ-5230-IRCW4	PTZ IP CAMERA 2MP DAY AND NIGHT VIEW IR	1	EA	SURVEILLANCE RECOVERY TEAM(SRT)	Specifications are attached at the end, please
28	1095PK0990004	TOURCH VISIBLE A & IR (NVD BI)	13	EA	GC SQN	As Per Sample
29	1095PK0990003	D BALL VISIBLE LASER & IR (NVD BI)	12	EA	GC SQN	As Per Sample
30	6SN1145-1BB00-0EA1	SIMODRIVE POWER SUPPLY UNIT	1	EA	MACHINE SHOP(ATAR)	Part No : 6SN1145-1BB00-0EA1 Siemens
31	MY20701-20008	SPACER	50	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : MY20701-20008 Noun : SPACER
32	MIL-PRF-23827	GREASE	8	EA	DA-20 Aircraft O/H Project	Part No : MIL-PRF-23827 Noun : GREASE
33	212	CLIP	25	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 212 Noun : CLIP
34	37D401672P106	TUBE ANTI ICING	190	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 37D401672P106 Noun : TUBE ANTI ICING
35	ATP2030C	STUD	300	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : ATP2030C Noun : STUD
36	DELO-GUM3697	SILICON ADHESIVE	165	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : DELO-GUM3697 Noun : SILICON ADHESIVE
37	NETAL2050	INTERIER CLEANING	10	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : NETAL2050 Noun : INTERIER CLEANING
38	ANDROX-1218	RUST REMOVING AGENT	10	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : ANDROX-1218 Noun : RUST REMOVING AGENT
39	MY20381-1012	STRIP	150	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : MY20381-1012 Noun : STRIP
40	14952H	POLISH	20	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 14952H Noun : POLISH

41	MY20321-1603	RETOMER NOT FOR RUDDER SERVO	150	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : MY20321-1603 Noun : RETOMER NOT FOR RUDDER SERVO
42	MIL-PRF-23827	GREASE	5	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : MIL-PRF-23827 Noun : GREASE
43	85106RC2039S01	CONNECTOR MOBILE	10	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 85106RC2039S01 Noun : CONNECTOR MOBILE
44	CST2BC0602Z	CONE TAPPED TIGHTENING	100	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : CST2BC0602Z Noun : CONE TAPPED TIGHTENING
45	85106RC1832P55	CONNECTOR	1	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 85106RC1832P55 Noun : CONNECTOR
46	212	CLIP	35	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 212 Noun : CLIP
47	NA5517-3-7	SCREW	200	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : NA5517-3-7 Noun : SCREW
48	8510RL106SW55	CONNECTOR	2	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 8510RL106SW55 Noun : CONNECTOR
49	NETAL2050	INTERIOR CLEANER	8	CAN	DA-20 AIRCRAFT O/H PROJECT	Part No :NETAL2050 Noun : INTERIOR CLEANER
50	00036332	COUNTER RIVET	150	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 00036332 Noun : COUNTER RIVET
51	DELO-GUM3697	SILICONE ADHESIVE RIVET	150	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : DELO-GUM3697 Noun : SILICONE ADHESIVE RIVET
52	ANDROX-1218	RUST REMOVING AGENT	8	GL	DA-20 AIRCRAFT O/H PROJECT	Part No : ANDROX-1218 Noun : RUST REMOVING AGENT
53	08S0315001	WASHER SPLIT	200	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 08S0315001 Noun : WASHER SPLIT
54	V6-70	COTTER PIN	45	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : V6-70 Noun : COTTER PIN
55	14952H	POLISH	15	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 14952H Noun : POLISH
56	262-500-02	PIN THREAD	80	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 262-500-02 Noun : PIN THREAD

57	22NA1-82	NUT ANCHOR	170	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 22NA1-82 Noun : NUT ANCHOR
58	3655-12E	UNION HALF	20	EA	DA-20 AIRCRAFT O/H PROJECT	Part No : 3655-12E Noun : UNION HALF
59	SKIQ12CNC	VERTICAL LATHE CNC MACHINE	1	EA	MACHINE SHOP(ATAR)	Specifications are attached at the end, please
60	HRH-10	HONEY COMB (OX)	As Req	EA	Y-12 VIP O/H Facility Shop	L8X6W-6MM/8MM
61	LY-5052	ARALDITE LY-5052	As Req	EA	Y-12 VIP O/H Facility Shop	Part No : LY-5052 Noun : ARLADITE LY-5052
62	5052	ARADURE 5052	As Req	EA	Y-12 VIP O/H Facility Shop	Part No : 5052 Noun : ARADURE 5052
63	6796172	STAND ENGINE OVERHUIL	As Req	EA	T56 ENG QUALITY	Part No : 6796172 Noun : STAND ENGINE OVERHUIL

S No 27 SPECIFICATION OF PTZ IP CAMERA 2MP DAY AND NIGHT VIEW IR

Annexure 'A' to PAC Board letter
No. PACB/1105/DA. (PC) /PACB/1002/58/Org
Pakistan Aeronautical Complex Board Kamra

28 May, 2012

SPECIFICATION OF EQUIPMENT (SURVEILLANCE & INTRUSION DETECTION SYSTEM) FOR PERIMETER SECURITY AT PAC KAMRA

ITEM DESCRIPTION AND GEN SPECS		
1	Active Networking: Edge Switches, Fiber Aggregation Switch, Core Switches, Misc	8 Port PoE Layer 2 Switch with power supplies, 12 Port Fiber aggregation switch with power supplies & SFP SMRGD, 24 port 10/100/1000 Base T (8-ports PoE) + 320W AC PS + Module for SFP + SFP SMRGD 24 PORT Fiber switch + SFP SMRGD + Power Supply, Power Supplies 31SYS-SMRGT SFP for BC2FC
2	Surveillance-Cameras: 5 MP Day / night 9-20 with small housing, 5 MP Day / night 3-10 MM Dome and PTZ Camera	5 Megapixel PTZ with Housing and 9-20 mm Lens, 5 Megapixel HD Dome 3-10mm Lens, Outdoor ready IP66 and MEMA4X rated, PTZ, Dome Camera with 20 x optical zoom, Arabic Temperature Control enables operation and start up from -40 C to + 50 C WDR EIS Auto day / night mode down to 0.5 Lux in color and 0.008 night mode continuous 360° rotation etc and complete mounting brackets & accessories kit.
3	NVR: Hybrid NVR-12TB, NVR Server	Hybrid NVR with recording / playback Supports 34 Channels 4 HDD Bays + 3 TB SATA HDD, Network Video Management System
4	Alarm / Sensors: Fiber IDS Software & IT Equipment, IDS Fence Equipment	Fiber based IDS enterprise software, Full alarm management software development kit Fiber based software development kit, STK for integration development to 3 rd party, Console Drawer IRU, 15" LCD with accessories, 08 terminals (Fts) touchpad & 02 Laser Jet Printer, Rittal TS 3 Rack 19", 800 mm deep with 240 v 1000w air-conditioning, UPS 1400 VA 240 V Rack Mount CAMS Desktop PC 2 GB 320 GB windows 7 with 19" LCD, Fiber based Security Fence TM Controller unit+ 12 Port IRU Rack Mounted Optical Patch Panel+ Duplex Fiber Optic Patch Cord+ Optical Start and Sensors+ Fiber Optical Sensor cable +Cable Ties TM Cable Isolator U. 24 Fiber outdoor enclosures Large Underground Pit and Lid etc
5	Command Centre: 2 17" Monitor Work Stations, 2x52" & 6x52" Monitors	20" LCD, display work station & client viewing software Workstation, Key Board Matrix Decoder 52" or 55" LCD / LED for wall
6	Power CMC UPS Gen Set	04 x 10 KVA UPS and 05X50 KVA Generator
7	Local Material & Works	UTP Cable Work Fiber Work Camera Fitting Poles, Conduit / Pipes Outdoor Cabinet Fencing
8	Service Charges	Design, Deployment Installation Configuration of equipment

S No 26 SPECIFICATION OF THERMAL PTZ CAMERA

Annexure 'A' to PAC Board letter
No MRF/2753/2/Provost/PC-21/PACB/1002/58/Org
Pakistan Aeronautical Complex Board Kamra
Dated 09 April, 2018

SPECIFICATIONS OF THERMAL PTZ CAMERAS AND THEIR RELATED EQUIPMENT

S No	Description	Quantity	Specifications
1.	Thermal PTZ Cameras	02 Ea	(i) Thermal: <ul style="list-style-type: none"> Effective pixels 640x512 or higher, VOX uncooled thermal sensor technology. Athermalized Lens (thermal), Focus-Free. 20-100mm Motorized Varifocal Thermal lens or higher. Detection Range: HUMAN UP TO 3 km & Vehicle up to 8.8 KM or higher. (ii) Visual / Optical: <ul style="list-style-type: none"> 2 Megapixel or higher progressive scan CMOS. 6-180mm or higher Optical Zoom. Up to 300 presets, 5 auto scan. (iii) Operating Temperature: -35°C - +65°C (iv) Fire detection & alarm. (v) Video Analytics: Line crossing, Motion Detection, Tripwire, Intrusion, Object Abandoned / Missing (vi) Micro SD memory for min 12 hour recording on board. (ii) IP 66 complaint IK 10 rated and Lightener protection
2.			16 Channel 4K, H.265 Pro Network Video Recorder <ul style="list-style-type: none"> H.264/MUPEG/MPEG4 codec decoding Max 320 Mbps incoming bandwidth Up to 12Mp resolution preview Playback HDMI/VGA simultaneous video output 3D intelligent positioning



PAZ.AKRAM
Adviser

S NO 25 SPECIFICATION OF HYDRAULIC BOOM BARRIER

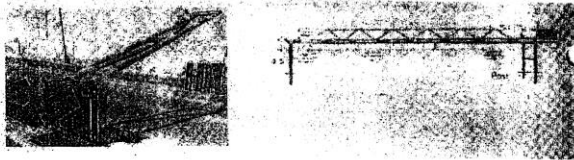
Annexure "A" to PAC Board Letter
 No. MRF/2753/2/Provost/PC-09/PACB/1002/58/Org
 Pakistan Aeronautical Complex Board, Kamra
 Dated 11 March, 2024

SPECIFICATION OF HYDRAULIC BOOM BARRIER

1. The whole mechanism consists of following major points including mechanical / Electrical components: -

- (a) Hydraulic tank (30 litre)
- (b) Hydraulic pump
- (c) Electric pump
- (d) Electric motor (3ø)
- (e) Electric system control cabinet including electric component
- (f) Remote control mechanism
- (g) Boom length 18 ft
- (h) Hydraulic hoses (to carry hydraulic for operation of system)
- (i) NRV (No return valve)
- (k) DCV 9Direction control valve
- (l) Pressure relief valve
- (m) Consumable accessories
- (n) Both side sport Hight 4 ft

Note: - The barrier / blocker system is electrically controlled and hydraulically operated mechanical system. Power requirement is 3 Phase (380 - 440 Volts A/C).



with ZustabTaan

S No 59 SPECIFICATION OF VERTICAL LATHE CNC MACHINE

Appendix A 10
 MRF/2077/1/DCE PPC(E)

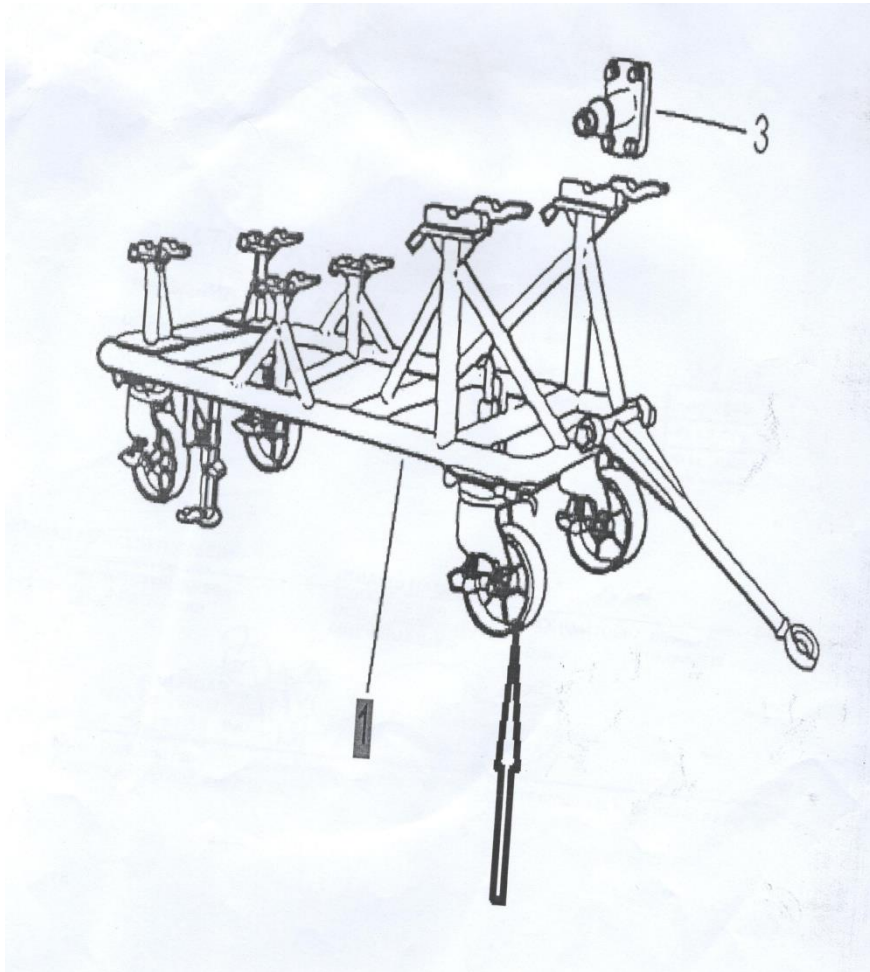
APPENDIX 'C' TO
 SOP No EPPS-001

SCOPE OF WORK: PERFORMA

S NO	PART NO	NOUN	U/I	QTY TO BE REPAIRED/ MANUFACTURED	SCOPE OF WORK
1	SKIQ12CNC	VERTICAL LATHE CNC MACHINE	EA	01	<p>Following is the scope of work for repair of CNC Vertical Lathe Machine at Machine Shop, R&F W</p> <ul style="list-style-type: none"> (a) Simo Drive Unit is unserviceable. Same is to be replaced and integrated with the machine. (b) Error 3000 (Emergency Stop) pops up after n is turned on. Same is required to be troubleshoot & resolved. (c) Power on Sequence system through Emerge activation key is not functional. Same is required to be restored as per default settings. (d) Operating System boot up is not working. Same is required to be rectified. (e) Hand held unit (BHG Transmission) is unserviceable. Same is required to be replaced & integrated machine. (f) Machine load calculation is to be carried out, followed by integration of new AVR (Automate Voltage Controller) is to be carried out for avoid frequent power fluctuations. (g) Any other discrepancies besides listed above, hindering full machine are also to be resolved complete machine serviceability to be ensured turn key basis. (h) One-year warranty of full machine serviceability provided after machine recovery.

3

S NO 21 SPECIFICATIONS OF STAND TRANSPORTATION



S NO 04 SPECIFICATIONS OF REVERSE OSMOSIS PLANT

Appendix 1 to
SOP No EPPPS-00L/Log2

4 Complete specifications for floating in tender (OEM, make, model type, size warranty, prototype etc.)

Specifications

Type	: Double stage membrane system.
Capacity	: 10000 - 12000LPH
Hardness (output)	: 0 ppm
Conductivity (output)	: 0 - 10 µs/cm
Flow Rate	: 10 - 12 m ³ /hour
Rejection	: 95 - 98
Recovery	: 60 - 70%
Membrane	: 8 - 10 Inch multistage thin film composite membranes.
Water pumps	: Stain less steel Multi-stage centrifugal Pump.
Housings	: 8 - 10 Inch FRP membranes housings.
Pressure switches	: Low inlet pressure switch. High inlet pressure switch.
Flow meters	: Product & Concentration.
Product meters	: Hardness & conductivity meters with digital display read out.
Level controller	: System ON/OFF with 2 - level controller.
Storage tank	: 5000 - 6000 liters stainless storage tank with high pressure pump motor
Water filters	: Multimedia filter & Carbon filter.

Requirements

- (a) Commissioning and installation of RO Plant on turnkey basis.
- (b) Foundation and surrounding tiling work (floor, walls and drinking water area) will be at the end of contractor.
- (c) Drain line of plant will be at the end of contractor including pipe and fittings.
- (d) Installation of one or two drinking water point including TDS meter, pipe line and fitting also at contractor end.
- (e) Complete operational / instruction manual, drawings, circuit diagrams parts containing list & maintenance manuals are necessary with plant.
- (f) Chemical dosing pump with storage tank.
- (g) Necessary spare parts including pressure gauges, cartage filters and pump seals.
- (h) Contractor may visit on site for survey of estimates and work details.