

**PAKISTAN AERONAUTICAL COMPLEX, KAMRA
MIRAGE REBUILD FACTORY**

TENDER NOTICE : OPEN TENDER

Tender reference	:	MRF/Log/26-27/OT-04
Tender No	:	OT-04
Publishing date	:	06 October, 2026
Last date of submission of bids	:	21 October, 2026 (1000 Hrs)
Opening date & Time	:	21 October, 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 Kamra, 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.

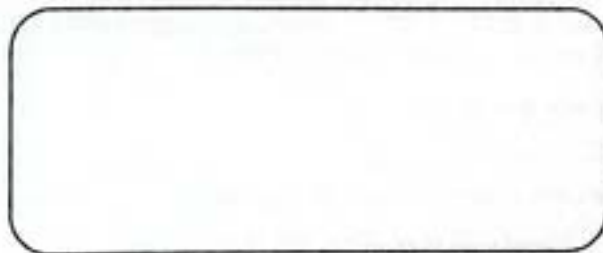
Officer In charge Indigenous Provisioning
Mirage Rebuild Factory,
Pakistan Aeronautical Complex, Kamra
District Attock

Opening of Tender

12. The quotations must be in original and are to reach at this factory by **1000 Hrs on 21 October, 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 **06 October, 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-04 Date of Publishing 06 October, 2026 Last Date of Bids Submission 21 October, 2026

S No	Part No	Noun	U/I	Qty	Shop	Remarks / Specifications
1	600851	Magna Valve	Ea	1	Cleaning Bay (F100)	As per attached list
2	MIL-C-83231TYPEII	Coating Kit	Ea	03	Paint And Pickling Shop	As per attached list
3	MIL-F-14256	Soldering Flux	Ea	01	Accessories T-56	As per attached list
4	3074	Oil Accessories Test Stand	Ea	01	TFE 731 Accessories	As per attached list
5	1538	Fuel Accessories Test Stand	Ea	01		As per attached list
6	5772	Pneumatic Accessories Test Stand	Ea	01		As per attached list
7	MTP25AC	Multipurpose Thickness Planer	Ea	01	GE Shop	As per attached list
8	TC1028	Power Controller	Ea	02	HT Shop	As per user requirement
9	N2966100	Optical Adopter AT120	Ea	01	Inspection Services TFE731	As per attached list & as per sample
10	VOLTAEF3AB1KG	Lubricant Oil Weapons	Ca	2	INST I	As per user sample
11	PINNE1110103	Heating Element	Ea	12	HT Shop	Molibdeniam 99.99% Pure
12	LEATHERINKREMOVER	Cleaner Ink C271	Btl	1	AW-139 RMC	Code: - C271
13	92-244	Signal Conditioners	Ea	1	Fuel Regulator Shop	As per attached list
14	752373	Air Inlet (Empire Shot Peener)	Ea	04	Cleaning Bay (F100)	Part No: 752373 Noun: Air Inlet(Empire Shot Peener)
15	71A/NIV-L-12	GAS HYDROGEN 99.90 %	M3	60	Log Sqn	Part No: 71A/NIV-L-12 Noun: GAS HYDROGEN 99.90 %
16	Q9000FS	Indicator Digital Microval Meter	Ea	1	JFS O/H Shop	Part No: Q9000FS Noun: Indicator Digital Microval Meter

17	0564300271	Flue Gas Analyzer	Ea	1	Boiler Shop	As per attached list & Part No: 0564300271 Noun: Flue Analyzer Model: TESTO 300 KIT 1 FG Probe: L 160 mm, Q-06 mm Capacity: O2, CO & Nitrogen Gases Range: 4000 ppm
18	112/3115-01	Surtonic Duo	Ea	1	Blasting Bay	As per attached list
19	RADIO SCOPY	Radio Scope Sys 225 KV	Ea	1	NDI Bay (Atar)	As per attached list
20	6022RLD	Horizontal Contromag Unit 6022RLD	Ea	1		As per attached list
21	29-099	Moulding Release	Btl	3	MAT Lab	Part No: 29-099 Noun: Moulding Release Spray Make/Model: Metkon (www.metkon.com)
22	6799705	Fix Checking Turb Vane 4th STG	Ea	1	Insp Services T56	Manufacturer: USA (OEM) Cage Code: 73342 NSN : 4920-00-702-0564
23	6799706	Fix Checking Turb Vane 3rd STG	Ea	1		Manufacturer: USA (OEM) Cage Code: 73342 NSN : 4920-00-702-0569
24	6799783	Gauge Kit Retractable Dial Snap Ext Spline PD	Ea	1		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. Manufacturer: USA (OEM) Cage Code: 73342 NSN : 5280-00-756-4751
25	6799784	Gauge External SP Line	Ea	1		Gauge External Spline 16/32 pitch 27, 31, 35, 36 and 57 teeth, 8/16 pitch 18, 28 and 35 teeth, 7/16 pitch 32 teeth. Manufacturer: USA (OEM) Cage Code: 73342 NSN : 5220-00-756-4752
26	6799629	Fix Checking Comp Rotor Lab Seal Rr	Ea	1		Manufacturer: USA (OEM) Cage Code: 24617 NSN : 4920-00-753-1355

27	6796641	Gage Plug Crodd Over Tube	Ea	1		Manufacturer: USA (OEM) Cage Code: 73342 NSN :5220-00-631-8959
28	C4401KLINGER-SIL	Thermoscale Sheet(1.70mm)	Ea	20	AW-139 RMC	Part No: C4401KLINGER-SIL Noun: Thermoscale Sheet(1.70mm)
29	CB-1/CB-2	Cleaning Booth	Ea	1	Mechanical Bay	As per attached list
30	JCHP30A	HIGH BACK SEAT CREAPER	Ea	30	QC (Aircraft) & Metal Shop (ATAR)	Type: Revolving with Arm and Back Quality: Best Quality
31	BA-20-3	Bearing Analyzer	Ea	1	JFS O/H Shop	Part No: BA-20-3 Noun: Bearing Analyzer
32	SDS-0400	Ball Tip Scriber	Ea	1	Bearing Room	As per attached list
33	FF508	Flame Scanner	Ea	1	Boiler Shop	Part No: FF508 Noun: Flame Scanner Brand: LAMTEC
34	306-111-1	Test Bed Atar Engine	Ea	1	Test Bed	As per attached list
35	PTU301	Meteo Station Vaisala	Ea	1	TFE731 Test Cell	Scope of work: Internal RAM memory Checksum error warning displayed on Screen
36	V-622	Sealing Compound	KT	2	Rubber Application Shop	Part No: V-622 Noun: Sealing Compound
37	DM365X	Digital Radio Meter	Ea	1	NDI T-56	As per attached list
38	100953	Gasket	Ea	1	F100R&D Bay	As per sample
39	100549-4	Gasket	Ea	1		As per sample
40	MIL-C-7024	Calibrating Fluid	GI	55	Accessories T-56	Part No: MIL-C-7024 Noun: Calibrating Fluid I/L Part No: MIL-PRF-7024
41	7110PK3550001	Filing Storage Cabinet Steel 1.5'X2'X5'	Ea	2	Paint Shop	As per attached list
42	Installation of CCTV Cameras		Ea	As Req	Dte of Accounts	As per attached list
43	PICO-FLUOR-F/HC-1 (Qty-01)	Semi- Automatic Inspection System With Accessories	Ea	As Req	Quality Control Engine	As per attached list

64	MOD-DFH-4848	Vapour Blasting Dry Honing Machine MOD DFH 4848 Along With Accy	Ea	1	Blasting Bay	As per attached list
65	ZPNA5025-245BN135-02-2	Centrifugal Electro-Pump	Ea	1	Atar Engine Test Bed	Medium: JP-8 Fuel & As per attached list
66	Repair of Met Lab Equipments		As Req		QC Eng	As per attached list
67	H02069	Wind Tunnel T/B	Ea	1	Inst II	Scope of work: Repair of tester circuit.
68	71A/9424903	Gas Accetylene 98%	M3			Part No: 71A/9424903 Noun: Gas Accetylene 98%
69	71A/9424903A	Acetone	Kg			Part No: 71A/9424903A Noun: Acetone
70	71A/9424905S	Argon (Special) Am/6.80m3 Cyl (M3)	M3			Part No: 71A/9424905S Noun: Argon (Special) Am/6.80m3 Cyl (M3)
71	71A/9424913	Comp Nitrogen S.Purity	M3			Part No: 71A/9424913 Noun: Comp Nitrogen S.Purity
72	71A/9424914	Comp.Ind.Oxy Im/6.7960m3	M3			Part No: 71A/9424914 Noun: Comp.Ind.Oxy Im/6.7960m3
73	71A/NIV-L-14	Liquid Nitrogen	Ltr	As Req	Log Sqm	Part No: 71A/NIV-L-14 Noun: Liquid Nitrogen
74	71A/9425143A	Gas Oxy Breathing(Medical)	M3			Part No: 71A/9425143A Noun: Gas Oxy Breathing(Medical)
75	71A/9425143	Breathing Oxy Bp/16.000m3 Cyl	M3			Part No: 71A/9425143 Noun: Breathing Oxy Bp/16.000m3 Cyl
76	71A/9424905A	Argon In Liquid Container XI-45	M3			Part No: 71A/9424905A Noun: Argon In Liquid Container XI-45
77	71A/9424905	H-P Argon Am/6.80m3 Cyl	M3			Part No: 71A/9424905 Noun: H-P Argon Am/6.80m3 Cyl

Part no: 600851 **Noun:** MAGNA VALVE
Model: 578-24 **Power:** 24 Vdc, **Amp:** 01 **Media:**
CW 32 **Flow Rate:** 30 Lb/Min
(I) OEM calibration certificate required on CW-32
Media Range 4 Lbs/Min
(ii) **Warranty:** 01 year replace warranty by OEM is
required
(iii) Installation of Magna Valve by Vendor
(iv) Final acceptance will be made after checking
the Magna valve on the machine

[illegible]

S No 02 Specifications of Coating Kit

AS-PI08 ANTISTATIC TOPCOAT
Thoroughly stir the AS-PI08. Add the Catalyst - mix well. Dilute the activated AS-PI08 in a spray velocity of 22-28 seconds Zahn #2 with the PLT-10 Polyurethane Thinner. Apply a 2 wet coat-then over the 12-16 coat. A dry film thickness of 1-2 mils of CAAPCOAT AS-PI08 will provide a surface resistivity of 0.2-1.5 tribostatic per second.

SMALL QUANTITY ACTIVATION
Small quantities of AS-PI08 can be activated by adding 1 gram of Catalyst A and 10 grams of PLT-10 Polyurethane Thinner. Small quantities of AS-PI08 can be activated by using 3 grams of Catalyst per 100 grams of AS-PI08.

CURING
CAAPCOAT AS-PI08 coating cures in 2-3 days at ambient conditions. After an initial 24 hour-dry-out cure, the cure time can be accelerated by heating at 150°F for 2 hours.

CONVERSION
One liter of CAAPCOAT B-274 will cover 25-30 square feet to a dry film thickness of 11-13 mils depending on application technique as well as the shape of the article to be coated. Film density is 1.18 g/cc. One liter of CAAPCOAT AS-PI08 will cover 100-120 square feet to a dry film thickness of 1 mil. Film density is 1.2 g/cc.

CLEANUP AND REMOVAL OF CURED COATING
All spray equipment should be flushed thoroughly with acetone or methyl ethyl ketone (MEK) immediately after use. Should any material cure within the gun, soaking the affected pieces in acetone or MEK will soften the coating sufficiently for removal. The coating can be stripped with MEK or methyl isobutyl ketone (MIBK). It may be necessary to maintain solvent contact by wrapping the solvent-wetted surface in polyethylene film.

WARNING PRECAUTIONS
Before the MEK is used, CAAPCOAT Polyurethane coatings contain flammable solvents and should not be used in confined areas where there are open flames, welding equipment, hot surfaces, or where smoking is permitted. Avoid all open flames to prevent the accumulation of static charges while spraying. Use caution in the laboratory. Ventilate the work area by means of a mechanical exhaust system. Do not eat, drink, or smoke in the work area. Wash thoroughly with soap and water after use. Do not breathe vapors. Immediately flush eyes or skin with plenty of water for at least 15 minutes; for eyes, get medical assistance. Do not store at temperatures above 38°C (100°F). Contains methyl isobutyl ketone, xylene, and butyl cellosolve.

FOR INDUSTRIAL USE ONLY
No warranty, expressed or implied, is made except that the product conforms to CAAPCO's specifications. The technical data furnished is believed to be accurate and complete. By your actions all risk of use, storage and handling of this product, CAAPCO, INC. shall not be responsible for typical or consequential damage. No other container brand shall be construed as a preparation or recommendation for the use of the product in the infringement of any existing patent.

Liquid Rosin Flux

multicomp

RoHS
Compliant

Description

This is a rosin-based liquid flux with moderate activity. It is composed of pure Water White (WW) grade gum rosin in a unique solvent system with highly effective activators. Post soldering residues are nonconductive, non-corrosive, hygroscopic, non-tacky, and fungus resistant.

It can be used for both automated and manual soldering applications. It is great for general purpose soldering of PCBs, wire, cable and semiconductors. It is also ideal for solder coating or tinning leads. It may be applied by spray, foam, or wave fluxing for wave soldering applications.

Features and Benefits

- Meets IPC J-STD-004B and type RCM1
- For both leaded and lead-free solders
- Fast wetting
- Excellent foaming

Usage Parameters

Properties	Value
Shelf life	5 y
Storage temperature limits	18°C to 27°C (65°F to 80°F)

* Store in a dry area, away from sunlight.

Properties

Flux Properties	Method	Value
Flux classification	J-STD-004B ML-F-14250F	RCM1 RA
Flux type	J-STD-004B	Rosin
Flux activity	J-STD-004B	Moderate
Helices by weight	J-STD-004B	0.44%
Copper mirror	IPC-TM-650 2.3.32	Partial removal
Corrosion	IPC-TM-650 2.6.15	Pass
Cleaning requirements	-	Recommended
Physical Properties	Method	Value
Colour	Visual	Light amber
Solids %	IPC-TM-650 2.3.34	60%
Density	-	0.93 g/ml
Flash point	Closed cup	12°C (53°F)

S No 04 Specifications of Oil Accessories Test Stand

Bauer, Inc.

175 Century Drive, Bristol, Connecticut 06010 • U.S.A.
Tel. 1 860 583 9100 • Fax. 1 860 583 9111 • www.bauerinc.com

Pakistan Aeronautical Complex Board (PACB)

Subject: TTET21 Engine Accessories Test Equipment (QO)

Reference: Bauer Quote 50724.2

Bauer is pleased to provide the following budgetary quotation for your consideration.

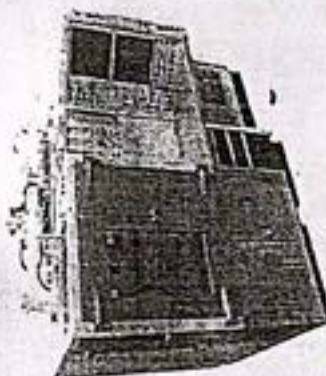
Purchaser agrees to the conditions defined below. All prices are in US dollars (unless otherwise stated) and are valid for the term stated below. Payment terms are defined below, subject to credit approval.

Item Qty Description

1 1 Bauer Model 3074 Oil Accessories Test Stand

Includes:

- MODEL 3074 OIL ACCESSORIES TEST STAND
- TEST PROGRAMS
- SOFTWARE TEST PROGRAMS (STILL) FOR ALL OILS
- TEST STAND CABLES, 11 AMP & CABLES/PLUGS



This document contains proprietary information and is supplied solely to provide software information for technical evaluation and purchasing of the test stand. This information is not to be used for manufacturing or procurement of equipment or service from any source other than Bauer, Inc. and is to be destroyed to prevent other than persons responsible for technical evaluation and purchasing of the equipment to prevent further disclosure, except by the express written permission of Bauer, Inc.

Allegedly Component Test and Support Equipment
"Focused on Our Customer's Success"

The proposed test equipment (shown below) provides test capability for the following TTET21 engine accessories:

ACCT NAME	PART NO	CUM REF
LUBE AND SCVENGE PUMP	3011949-11	CUM 79-20-03
	3011949-12	CUM 79-20-10
OIL TEMPERATURE REGULATOR	3000785-2	
OIL TEMPERATURE CONTROL VALVE	150810-8	CUM 79-20-30
	150445-3	CUM 79-20-58
SURFACE TYPE OIL COOLER (COL TEST)	150000-7	CUM 79-20-31
	150000-9	CUM 79-20-31
FUEL HEATER (OIL TEST)	150010-3	CUM 79-20-38
	150010-5	CUM 79-20-32

SHIPMENT

Thirty (30) weeks after receipt of purchase order. EXW our plant, Bristol, Connecticut, USA, per INCOTERMS 2010

PAYMENT TERMS (Subject to credit approval)

- Progress Payments (Payments are due net 30 days from invoice date):
 - 30% with order placement.
 - 30% at project "halfway" point (15 weeks after placement of order).
 - 30% NET 30 days of shipment.
 - 10% after final acceptance at the end user's facility or 90 days post-shipment, whichever occurs first.

WARRANTY

Bauer's Standard One (1) Year Warranty (see attached Terms and Conditions for details)

QUOTATION VALIDITY

This quote will remain valid for ninety (90) days from the date of issue.

Quotation prepared by:

Rob Michel

Rob Michel
Vice President - Sales
(T) 860 583 9100 ext. 134
(F) 860 583 9111
rob.michel@bauerinc.com

This document contains proprietary information and is supplied solely to provide software information for technical evaluation and purchasing of the test stand. This information is not to be used for manufacturing or procurement of equipment or service from any source other than Bauer, Inc. and is to be destroyed to prevent other than persons responsible for technical evaluation and purchasing of the equipment to prevent further disclosure, except by the express written permission of Bauer, Inc.

Allegedly Component Test and Support Equipment
"Focused on Our Customer's Success"

S No 05 Specifications of Fuel Accessories Test Stand

7.1.1 200 120-0



Bauer, Inc.

175 Century Drive, Bristol, Connecticut 06010 • USA
Tel: 1 860 583-9100 • Fax: 1 860 583-9111 • www.bauerinc.com

November 2, 2010

Pakistan Aeronautical Complex Board (PACB)

Subject: TFE731 Engine Accessories Test Equipment (Fuel)

Reference: Bauer Quote 60724-1, Revision B

Bauer is pleased to provide the following budgetary quotation for your consideration.

Purchaser agrees to the conditions defined below. All prices are in US Dollars (unless otherwise stated) and are valid for the term stated below. Payment terms are described below, subject to credit approval.

Item Qty Description

1 1 Bauer Model 1538 Fuel Accessories Test Stand

Includes:

MODEL 1538 FUEL ACCESSORIES TEST STAND

TEST TOOLING

SOFTWARE TEST PROGRAMS (SOPRO) FOR ALL DATA

TEST STAND CHARTER (SOPRO) & COMMISSIONING

ARTISAN OPERATIONAL INSTRUCTIONS TEST NUT

ARTISAN OPERATIONAL INSTRUCTIONS TEST NUT

2 1 Bauer Model 1059 Portable Fuel Nozzle Test Cart

Used with 1538 Fuel Accessories Test Stand

3 1 Fuel Nozzle Test Tooling

Used with 1538 Fuel Accessories Test Stand

4 1 Bauer Model 1059 Portable Fuel Manifold Test Cart

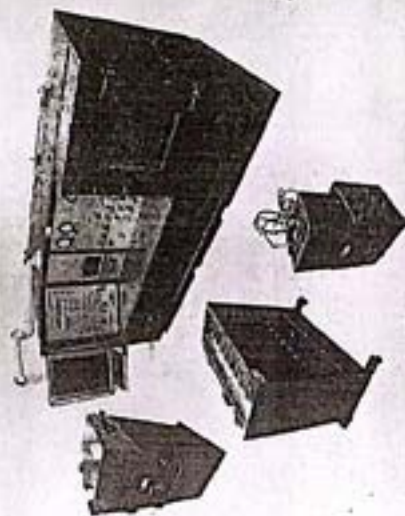
Used with 1538 Fuel Accessories Test Stand

5 1 Portable Proof Pressure Test Cart

Used with 1538 Fuel Accessories Test Stand

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Aircraft Component Test and Support Equipment
"Focused on Our Customer's Success"



The proposed test equipment (shown above), provides test capability for the following TFE731 engine accessories:

ACTY NAME	PART NO	QTY REQD
FUEL CONTROL ASSEMBLY	3070000-31	QTY 75-21-01
MAIN FUEL GEAR TYPE PUMP	3060710-22	QTY 75-21-03
MAIN FUEL VANE TYPE PUMP	3070000-73	QTY 75-21-03A
FUEL MANIFOLD ASSY	3070000-73	QTY 75-10-31
FLOW DIVIDER VALVE	3043000-2-1	QTY 75-10-32
FUEL HEATER (FUEL TEST)	1500710-3	QTY 75-20-32
OIL TEMPERATURE REGULATOR (COOLER)	1500710-3	QTY 75-20-30
ASSY FUEL TEST	1500000-7	QTY 75-20-31
SURFACE TYPE OIL COOLER (FLUSHING WITH FUEL)	1500000-3	QTY 75-20-37
	1500100-3	QTY 75-20-38

SHIPMENT

Thirty-two (32) weeks after receipt of purchase order, EXW our plant, Bristol, Connecticut, USA per INCOTERMS 2010

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Aircraft Component Test and Support Equipment
"Focused on Our Customer's Success"

S No 06 Specifications of Pneumatic Accessories Test Stand

This proposed item equipment (shown above), provides test capability for the following TFE731 engine accessories:

ACCY NAME	PART NO	CMM REF
PRESSURE LIMITER VALVE	2070885-0	CMM 73-11-30
AIR BREATHER VALVE	2071581-9	CMM 73-29-02
SOLENOID CONTROLLER VALVE	106696-4-1	CMM 76-10-31

SHIPMENT

Thirty (30) weeks after receipt of purchase order, EXW our plant, Bristol, Connecticut, USA per INCOTERMS 2010

PAYMENT TERMS (SUBJECT TO CREDIT APPROVAL)

Progress Payments (Payments are due net 30 days from invoice date):

- 30% with order placement
- 30% at project "halfway" point (15 weeks after placement of order);
- 30% NET 30 days of shipment;
- 10% after final acceptance at the end user's facility or 90 days post-shipment, whichever occurs first.

WARRANTY

Bauer's Standard One (1) Year Warranty (see attached Terms and Conditions for details)

QUOTATION VALIDITY

This quote will remain valid for ninety (90) days from the date of issue.

Quotation prepared by:

Rob Michel

Rob Michel
Vice President - Sales
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rob.michel@bauerinc.com

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Aircraft Component Test and Support Equipment
"Focused on Our Customer's Success"

Bauer, Inc.

175 Century Drive, Bristol, Connecticut 06010 • USA
Tel: 1 860 583-9100 • Fax: 1 860 583-8111 • www.bauerinc.com

October 5, 2014

Pakistan Aeronautical Complex Board (PACB)

Subject: TFE731 Engine Accessories Test Equipment (Pneumatic)

Reference: Bauer Quote 60724-3

Bauer is pleased to provide the following budgetary quotation for your consideration.

Purchaser agrees to the conditions defined below. All prices are in US Dollars (unless otherwise stated) and are valid for 90 days from the date of issue. Payment terms are defined below, subject to credit approval.

Item	Qty	Description
1	1	Bauer Model 5772 Pneumatic Component Test Stand

Includes:

- WORKING PNEUMATIC COMPONENTS TEST STAND
- TEST TOOLING
- SOFTWARE TEST PROGRAMS INSTALLED ON ALL EQUIPMENT
- TEST STAND ON-SITE STARTUP & COMMISSIONING



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Aircraft Component Test and Support Equipment
"Focused on Our Customer's Success"

1. Specification of Multipurpose Thickness planar Machine (Estimated Price 2.0 Mill Rs)

SPECIFICATION:

Application	Planing, thickness, moulding, slotting & drilling
Max working width (mm)	490 - 510
Working thickness (mm)	5 - 255
Min working thickness (mm)	4 - 8
Max working length (mm)	200 - 240
Max cutting depth (mm)	8 - 10
Min Cutter head speed (r/min)	4500 - 5500
Min Feed speed (mm/min)	3-18
Main motor (Kw)	7 - 8
Voltage	3 Phase
Note: - One week local training, commissioning & installation to be provided by vendor	

10.3 Optical adapter specifications

■ For insertion tube 4-mm type

When the optical adapter is mounted on the insertion tube.

		AT120V FF-V84	AT120V NF-V84	AT120V FF-V84	AT500V 500-V84	AT9 50S-F
Product abbreviation	120DN V84	1200F V84	1205N V84	1205F V84	50500 V84	5050S
Character color	Red	Green	Red	Green	Blue	Blue
Distal view	120°	120°	120°	120°	50°/50°	50°
Direction of view	Forward	Forward	Side	Side	Forward/forward	Side
Depth of field	4 to 190 mm	25 to ∞ mm	1 to 20 mm	6 to ∞ mm	6 to ∞ mm	4 to ∞
Outer diameter of cable	φ 4.0 mm	φ 4.0 mm	φ 4.0 mm	φ 4.0 mm	φ 4.0 mm	φ 4.0
Rigid distal end length	19.7 mm	19.6 mm	22.2 mm	22.2 mm	25.0 mm	28.8

NOTE

- *1 Indicates the range within which the image can be viewed clearly.
- *2 The adapter can be inserted into a φ 4.0 mm hole when it is mounted on the insertion tube.
- *3 Indicates the length of the rigid portion at the insertion tube's distal end when mounted.

FUEL REG SHOP ACCY

SIGNAL CONDITIONER

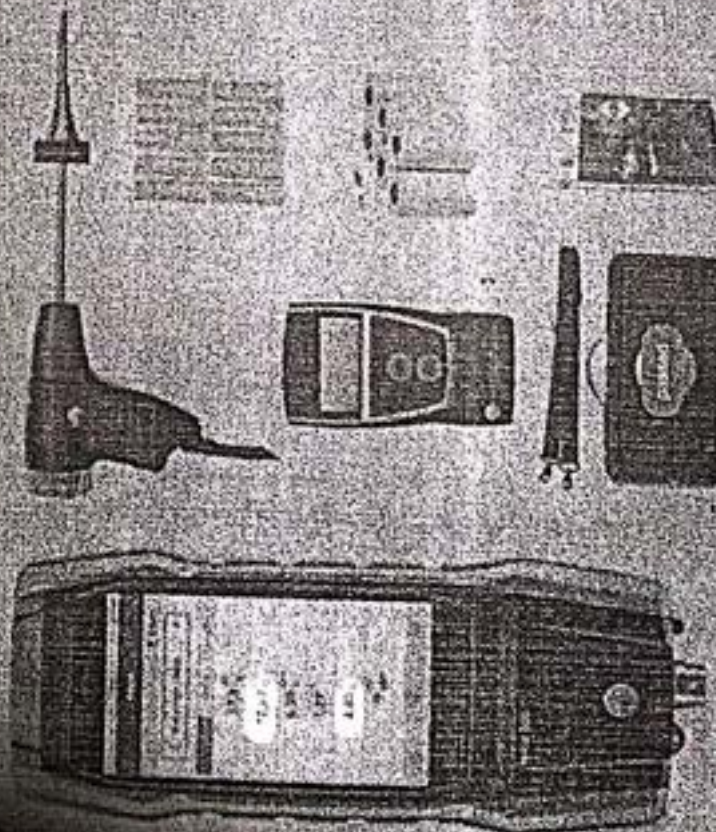
MODELS:92-244:

Cox 92-244 signal conditioner mount directly on to the flow turbine via an explosion prove junction box (y1 enclosure) conditional wiring is accessible through a cap on the junction box. The Integral pick off is wire to the conditional at the factory and three wire configuration is use for power and signal out. Input power range from 18-27-volt vdc with a normal input of 24vdc and maximum current draw of 25ma DC. Output pulse generated is 10v pk. Frequency range of 244 is near zero to 5khz.

SPECIFICATION

MODEL	OP- TEMP RANGE(°)	TYPE	EXP PROOF	MOUNT ORINT	POWER IN	SIGNAL OUT	DIM
92-244	-20-165	MAG	YES	METER	12-30VDC	10V PULSE	Y1 ENCLOSURE

available.



testo 300-Kit 1

- Instrument with power supply
- Measuring range: O₂, CO 4,000 ppm, NO / NO_x sensor that can be subsequently integrated
- Compact flue gas probe (160 mm, Ø6 mm)
- 10 replacement filters
- Bluetooth printer with nr. 6 spare rolls of paper
- Software PC EasyHeat
- "soft case" case
- 2 year warranty

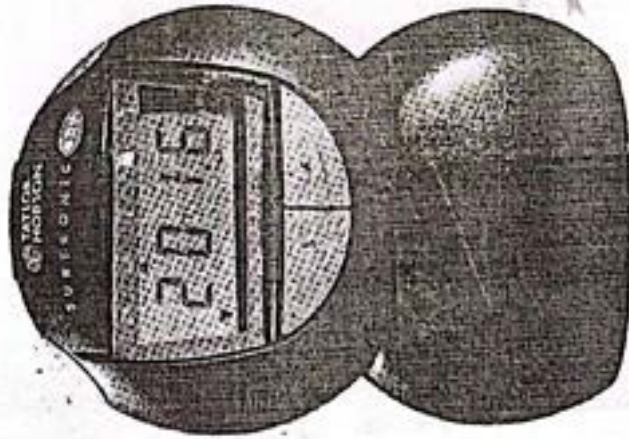
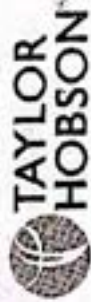
Code:

0564 3002 71

With NO_x Code

0564 3002 74

Similar figure



Surtronic Duo

112-2916 (2 parameter model) and
112-3115 (5 parameter model)
www.taylor-hobson.com
K505-307 Issue 1

Scope of Work

OEM/ MAKE: V. J TECHUSA

Name: Radioscopy SYS-225-KV

Part No: RADIO\$COPY

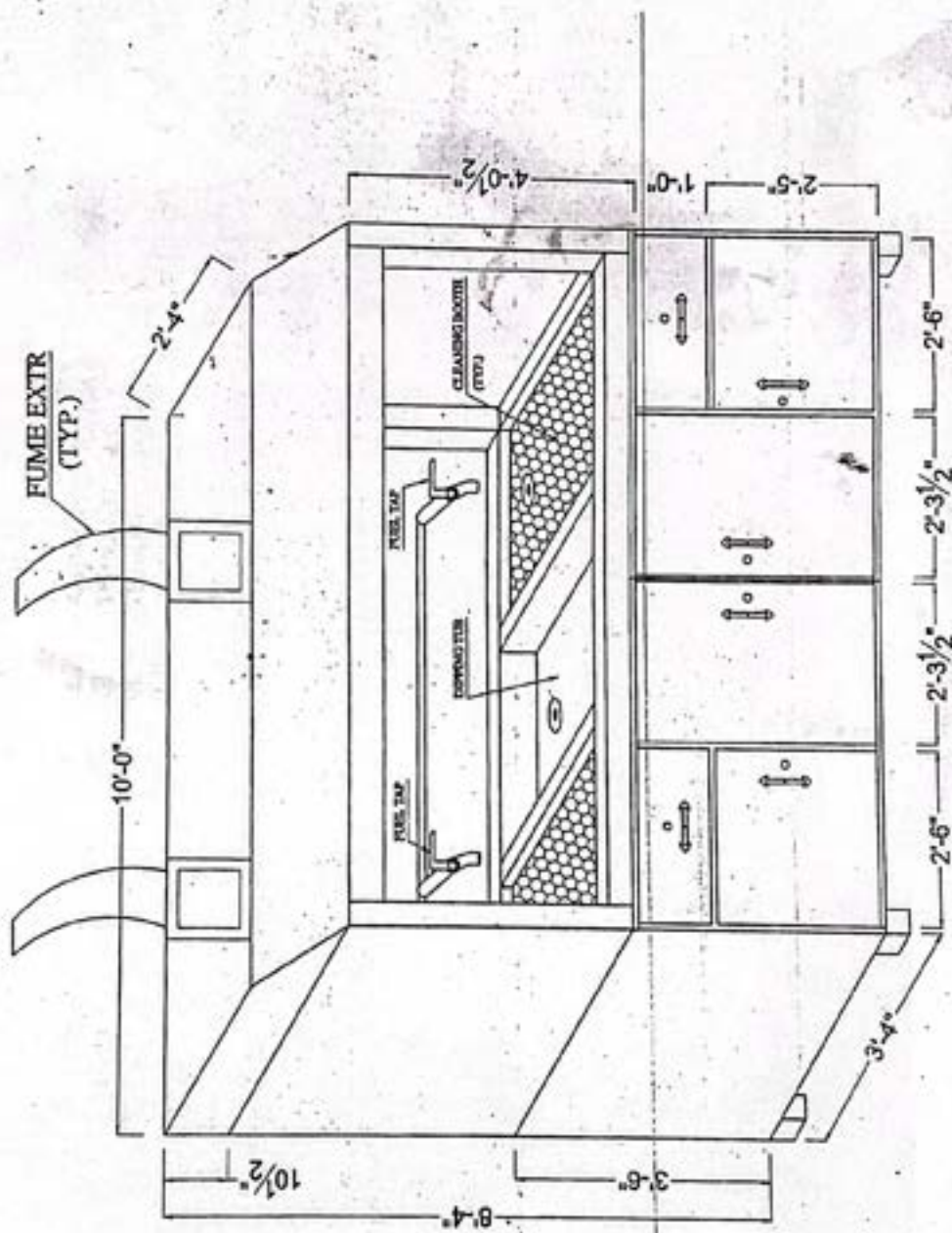
Discrepancy: Power battery Case damage, not working on required KV, Robot error code issue, upgradation of Monitor, CPU. Auto door Hydraulic gauge required

Scope of Work	OEM/ MAKE: Serm France Name: Magnetic Particle Bench Part No: 6022RLD Discrepancy: Short-circuiting of Equipment, Fuse blow off, potentiometer malfunctioning
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S No 29 Specifications of Cleaning Booth

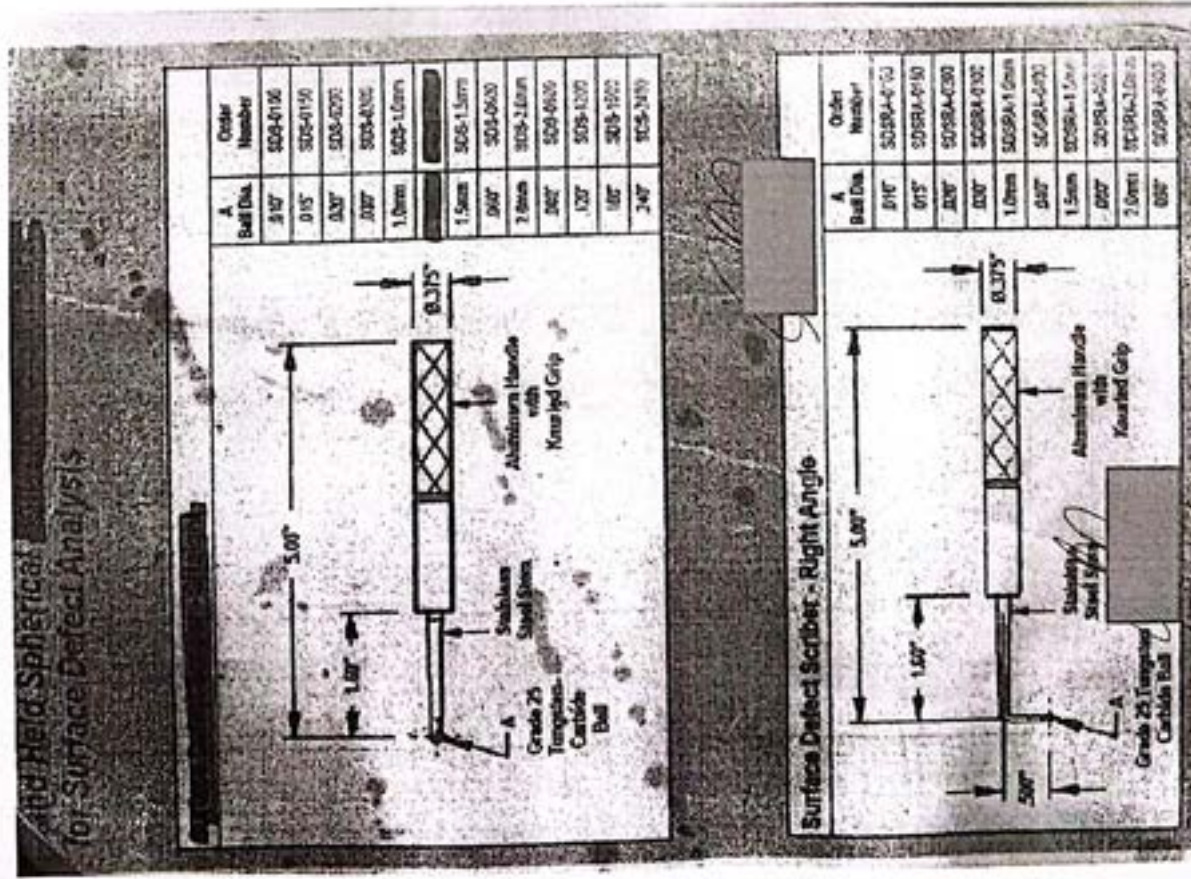
MECHANICAL BAY
STAINLESS STEEL CLEANING BOOTH

PART NO. CB-1/CB-2



SCOPE OF WORK

The Water Fog Fire System, which is an integral part of the Test Bed Fire Protection System, was installed in the Fuel Farm Area to effectively manage emergency situations in a timely manner. Currently the system has become unserviceable and requires repair, it is proposed that the necessary repair work to be carried out from local market.



S No 42 Specifications of Installation of CCTV Cameras

S. No	Description	UI	QTY
1	Cameras 4 MP indoor + IR Facility	EA	02
2	NVR 4 channel / port with 2 TB Hard disks+ dual HDMI Ports	EA	01
3	UTP cable	Mtr	As Req
4	RJ-45 Connector	EA	As Req
5	Extension Board/CB	EA	02
6	Duck putty	EA	As Req
7	UPS for Backup (5 KVA)	EA	01
8	Rawal plug + Screws	EA	As Req
9	LED 43 inch	EA	02
10	Mouse	EA	01
11	Power Cables	Mtr	As Req
12	02 HDMI Cables for display	Mtr	As Req
13	Port POE Switch	EA	04
14	Water Proof Box	EA	02
15	Networking Rack	EA	01

S No 43 Specifications of Semi- Automatic Inspection Sytem With Accessories

Noun	Part No	Scope of Repair
Semi- Automatic Inspection System with Accessories	PICO-FLUOR- F/HC-I (Qty-01)	(a). All air pipes are U/S
		(b). Penetrant spray gun pipe U/S
		(c). Qty 02 water solenoid valve malfunctioning
		(d). Washing system is U/S
		(e). UV-A light in washing cabin issues
		(f). Conveyer sensor malfunctioning, U/S
		(g). Temperature indicator and timers (some u/s)
		(h). Tank and motor Seals of penetrant pumps are leaks beyond repair.

S No 44 Specifications of Vertical Grinder54"

S No 45 Specifications of LUCAS HRZ BORING MA

SCOPE OF WORK	SCOPE OF WORK
Preamble: At present CNC Vertical Grinder is Equipped with SYNEN CNC System. Z-Axis of the Machine is not working due to its US Linear Encoder (A feedback device to computer/M4M). That Linear Encoder is Obsolete and Not available in market. In order to fully Operate the Machine, Following is the scope of work for retrofitting of CNC Vertical Grinder at Machine Shop, R&F Wfng: - Machine needs to be retrofit with accuracy of 0.002 mm. - New updated CNC system with new closed loop compatible feedback devices needs to be installed replacing old obsolete system. - Replace Linear encoders with upgraded version. - Software/Firmware backup is required. - Spares support availability up to 05 years is required. - Any other discrepancies besides listed above hindering full machine serviceability are also to be resolved and complete machine serviceability to be ensured on turn key basis. - One year warranty of full machine serviceability to be provided after machine recovery. - Set of Maintenance Manual with Troubleshooting catalog showing error codes along with remedial action is mandatory required in 02 copies. - Manual Set of Complete Wiring Diagram of Electrical Panel is required in 02 copies. - Set of Operations and Program Manual required in 02 copies. - Software backup is required in USB + CD writeable program in 02 copies. - One week Operational & Maintenance Training is required.	- Machine accuracy (0.001 inch) to be achieved. - Hydraulic system of rotary table is to be rectified (i.e Oil leakage and noisy sound). - Rotary table tilting function/Mechanism is to be rectified. - Cable of Hand-held-unit is required to be replaced. - CNC Controller program parameter (Input/Output) to be geometrically calibrated and password reset is required. In case of software replacement, Software should be OEM Certified and compatible with machine. Moreover backup of software should be provided in USB and CD Writeable program. - One week operational & maintenance training is required. - Review of machine for any other unserviceability and Complete machine repair on turnkey basis is required. - One-year complete machine warranty, after serviceability of machine.

S No 46 Specifications of Camera Type Furnace

SCOPE OF WORK	
1.	Furnace shall be capable of achieving and maintain temperature of 1200 °C with uniformity with in ± 5 °C along with installation of PLC Logic, HMI Screen.
2.	Backup and handover of all control software, verification files and passwords required in USB or CD write.
3.	Detail wiring diagrams of all controls (main panel, zone control panels auxiliary systems qty 02 copies).
4.	Process record system of heating process recorder (Digital Chart Recorder) with integrated color printer (MFP 4303 FDW) along with system to log and print process data including temperature vs time for all zones.
5.	Conduct temperature uniformity survey after completion of all rectifications works, ensuring compliance with uniformity criteria.
6.	Minimum one (01) year comprehensive warranty covering all replaced parts, control components.
7.	Complete serviceability and operational readiness of furnace to be ensured on turnkey basis, including all control system, heating elements, sensors, and safety interlocks.
8.	All unserviceable / damage / missing parts during retrofitting / repair will be replaced with new one by supplier.

S No 47 Specifications of Vacuum Furnace

SCOPE OF WORK

SCOPE OF WORK	
1.	Furnace shall be capable of achieving and maintain temperature of 1200 °C with uniformity with in ± 10 °C along with installation of PLC Logic, HMI Screen.
2.	All unserviceable / damage / missing parts during retrofitting/ repair will be replaced with new one by supplier.
3.	Power controller qty 03 u/s of vacuum furnace replaced with new one and same needs to be integrated with system.
4.	Replacement of Qty 03 "S" type thermocouple with new one.
5.	Festo valve Qty 01 u/s to be replaced with new one.
6.	Hydraulic system of door is required to be repair. All u/s parts during repair need to be replace with new one.
7.	Updating of software with latest version along with latest Computer (HP All in one DT AI 24-cr 2030d Ultra 7) Processor: Intel core ultra 7 2550 up to 5.20 GHz MAX Turbo (12 Cores). Memory (16 GB DDR-5 5600MHz). Storage (512 GB PCle NVMe M.2 SSD). Softwares, PLC HMI SCADA 165 Ethernet communication interface.
8.	Printer (MFP 4303 FDW), UPS (APC Back-UPS CS 350 with 08 hrs. fully discharge time) with battery backup needed to replace with new one.
9.	Backup of software, drivers and all necessary programs to be provided in USB and CD.
10.	All pneumatic valve controller, pneumatic pipes and water channel replaced with new one.
11.	Conduct temperature uniformity survey at 1200 °C with in ± 10 °C after completion of all rectification
12.	Warranty at least one year
13.	Complete serviceability of furnace to be done on turn key basis.
14.	Detail wiring diagrams of all controls (main panel, zone control panels auxiliary systems qty 02 copies).

SCOPE OF WORK

Following is the Scope of work for Retrofitting of CNC Toshulin Vertical Lathe Machine at Machine Shop, R&F Wing:

- a) Replacement / Installation of Simo Drive Siemens 611 or equivalent and system integration with the machine.
- b) Replacement of OEM certified CNC Controller for Retrofitting.
- c) Replacement of CPU / PCU of the machine for all error removals including emergency Error.3000.
- d) Operational sequence of the machine to be rectified and required system modification to be performed if required.
- e) New Hand-held unit is required with the same functions of OEM provided hand held unit and should be compatible with the machine.
- f) 200KVA AVR to be integrated with the machine in order to avoid the frequent power fluctuations including power cable from Machine main supply to AVR and out till the Machine electrical panel.
- g) Backup of software and all related necessary programs in USB and CD writeable needs to be provided with passwords.
- h) Set of operation, maintenance manuals with troubleshooting guide and drawings is required in 02 copies.
- i) Maintenance and operational training for 04 weeks.
- j) Serviceability of Complete Machine including.
 - Machine Geometry
 - Replacement of ON/OFF Switch
 - I/O Modules for the PLC
 - Hydraulic Modules
 - Electrical Relays
 - Electrical Connectors
 - Switches
 - Power Supplies
 - VFDs
 - Rewiring
 - Safety Devices
- k) One-year warranty of full machine serviceability to be provided after machine recovery.

S No 56 Specifications of Corrosion Inhibitor Compound C621

S No 37 Specifications of Digital Radio Meter

Trade name CA1010	5 Supplier trade name code PPG Aerospace	6 Specification references MIL-992-9112	7 Storage information The storage life of CA1010 is at least 12 months when stored at temperatures between 5 °C (41 °F) and 30 °C (86 °F) in original, unopened containers.	8 Packaging information None.	9 Transportation information None.	10 Specification requirements/General characteristics The corrosion inhibitive compound has the physical and chemical properties described in the following table:	Appearance: Uniform composition Color: White Flash point: up 24° C (75.2° F)	11 Disposal information Keep containers properly labeled and tightly closed in a dry, cool and well ventilated area.
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OEM/ MAKE: Spectro line	Name: Spectro-UV ACCU PRO XP-2000A	Part No: ACCU PRO XP-2000A	Mode of Operation: Dual Sensor (UV-A, and Visible Light)	Range: 0 – 100 m Watt / cm*2, 0 – 5382 Lux	Calibration Certificate: 1 year, ISO 17025 NIST.	Warranty: 01 year
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S No 61 Specifications of Wrecker MT Breakdown

S No 63 Dry Seed Blasting Machine With Accy

BROAD SPECIFICATIONS OF WRECKER MT BREAKDOWN		
S No	DESCRIPTION	SPECIFICATIONS
1	Nonsealature	Wrecker MT breakdown (Lorry 3 Ton)
6	Beacon Light Bar	As per international safety standards
7	Winch Cables	- Cable size per winch Minimum 8-12 mm and 40 meters length - High strength steel wire rope suitable for recovery operations - Worm gear winch preferably with hydraulic motor (USA, European, or Japanese origin)
8	Lifting Capacity	03 Ton verified lifting capacity
9	Safety Equipment's & Features	The vehicle shall be equipped with following safety features: - Fog Lights with HID Lamps. - Auto Locking Seat Belts. - Fire Extinguisher as per requirement. - Safety Chains & Suitable Securing arrangements. - Reflective markings and warning lights as applicable. - Parameter setting equipment on the road. The vehicle shall be complete with the following equipment and accessories: - Safety Chains stored in a dedicated box or compartment - Winch-cable tensioners - Spring assisted compartment doors - Three steel-wire towing ropes - Steel towing V-bar for securing and towing damaged vehicles - Front-mounted winch suitable for recovering vehicles standard in hilly or difficult terrain - One set of manually operated rear stabilizing jacks - Federal-standard warning light system comprising an eight-light group - Wooden or rubber lining inside the tools and accessories compartments - Additional lifting and recovery attachments, with complete details to be provided in the technical offer
10	Tool Kit	Places under the body with standard tool kit comprising all the tools required for daily servicing and handling road side defects are to be provided
11	Operation Road Worthiness	Supplier will deliver vehicle to MRF PAC in operational condition without any extra charges

SCOPE OF WORK

1. Repair of reclaimer assembly with carbide coated sheet or equivalent.
2. Cyclone assembly needs to be replaced with new one.
3. Repair of dust collector.
4. Door actuator needs to be repaired.
5. Replacement of Filter Cartridge.
6. 01 Year warranty is required.

S No 64 Specifications of Vapour Blasting Dry Honing Machine
MOD DFH 4848 Along With Accy

S No 65 Specifications of Centrifugal Electro-Pump

SCOPE OF WORK

- 1 Repair of Media reclaimer assembly with carbide coated sheet or equivalent.
- 2 Repair of Cyclone assembly with carbide coated sheet or equivalent.
- 3 Repair of Door and Face Screen
 - (i) The existing sliding door of blasting machine shall be modified and converted into two door panels arrangement to open/close upon its fixed axis. The contractor shall provide suitable mechanical arrangement provide necessary hinges, rollers, guides, support locking arrangement stops and other hardware as required. Ensure proper alignment and secure locking of door during machine operation. Carryout all fabrication, welding fitting, grinding and finishing work as per given dimensions: -
 - Length 42 inch
 - Width 48 inch.
 - (ii) The existing face shield screen of the blasting machine shall be modified to incorporate a replaceable / removable screen mechanism. The arrangement shall be designed in such a way that the worn-out damage shielding screen can easily be removed or replaced without dismantling the major components of the blasting machine. Dimensions are given below: -
 - Length 11 inch
 - Width 19 inch
- Contractor shall design and fabricate a suitable removeable / replaceable arrangement for shielding screen. Ensure that the arrangement maintain the security during blasting operations. Provide proper sealing and fixing around the screen to minimize the escape of blasting media.
- 4 Install rubber mat inside the machine cabinet
- 5 Replacement of filter cartridges.
6. 06-month warranty of repair work is required.

S. No	Fuel Pump Type	Part No	Flow Rate	Motor Capacity
1.	Centrifugal Electro-Pump.	ZPNA5025-245BN135-02-2	19000 Ltr/Hr under 05 bar pressure	15 KW (220-380 Volts) 3-phase

S No 61 Specifications of Wrecker MT Breakdown

S No 63 Dry Seed Blasting Machine With Accy

BROAD SPECIFICATIONS OF WRECKER MT BREAKDOWN		
S No	DESCRIPTION	SPECIFICATIONS
1	Manufacture	Wrecker MT breakdown (Lorry 3 Ton)
5	Beacon Light Bar	As per international safety standards
7	Winch Cables	- Cable size per winch Minimum 8-12 mm and 40 meters length - High strength steel wire rope suitable for recovery operations - Worm gear winch preferably with hydraulic motor [USA, European, or Japanese origin]
8	Lifting Capacity	03 Ton verified lifting capacity
9	Safety Equipment's & Features	The vehicle shall be equipped with following safety features: - Fog Lights with HID Lamps - Auto Locking Seat Belts - Fire Extinguisher as per requirement - Safety Chains & Suitable Securing arrangements - Reflective markings and warning lights as applicable - Parameter setting equipment on the road The vehicle shall be complete with the following equipment and accessories: - Safety Chains stored in a dedicated box or compartment - Winch-cable tensioners - Spring assisted compartment doors - Three steel-wire towing ropes - Steel towing V-bar for securing and towing damaged vehicles - Front-mounted winch suitable for recovering vehicles standard in hilly or difficult terrain - One set of manually operated rear stabilizing jacks - Federal-standard warning light system comprising an eight-light group - Wooden or rubber lining inside the tools and accessories compartments - Additional lifting and recovery attachments, with complete details to be provided in the technical offer
10	Tool Kit	Places under the body with standard tool kit comprising all the tools required for daily servicing and handling road side defects are to be provided
11	Operation Road Worthiness	Supplier will deliver vehicle to MRF PAC in operational condition without any extra charges

SCOPE OF WORK

1. Repair of reclaimer assembly with carbide coated sheet or equivalent.
2. Cyclone assembly needs to be replaced with new one.
3. Repair of dust collector.
4. Door actuator needs to be repaired.
5. Replacement of Filter Cartridge.
6. 01 Year warranty is required.

S No 66 Specifications of Repair of Met Lab Equipments

SCOPE OF WORK FOR "METALLURGICAL LAB EQUIPMENT'S"

S.No	Part No	Noun	Remarks
1	42-1512	Polishing table & Allied equipment's	Polishing Wheel & Motor malfunctioning.
2	46-1511	Polishing table & Allied equipment's	
3	BT718649	Microscope & Accessories	Illumination & magnification issues.
4	10-1050-260	Abrasive Cutter & Allied equipment's	Cutting Motor and shaft malfunctioning.
5	PR-22830-800	Mounting Press & Accessories	Molding shaft and cooling system not working.
6	DMH2	Micro Hardness Tester & Accessories	Turret and mechanical Load system issues.