

TENDER REFERENCE NO.: KK/114/2026/ESTETMOH

**MINISTRY OF HEALTH
NEGARA BRUNEI DARUSSALAM**

**PROVISION OF COMPREHENSIVE MAINTENANCE
SERVICES FOR REFRIGERANT AIR-CONDITIONING AND
VENTILATION EXHAUST FOR BRUNEI MUARA DISTRICT
SERVICES, HEALTH CENTRES AND CLINICS FOR A
PERIOD OF ONE (1) YEAR**

TENDER FEES : \$30.00

RECEIPT NO. :

CLOSING DATE : ON Tuesday, 16th June 2026

TIME : 2.00 PM

FOA :

**THE CHAIRMAN
MINI TENDER BOARD, TENDER BOX
GROUND FLOOR, MINISTRY OF HEALTH
COMMONWEALTH DRIVE
BANDAR SERI BEGAWAN BB3910
NEGARA BRUNEI DARUSSALAM**

(CLUSTERING)

MINISTRY OF HEALTH

**PROVISION OF COMPREHENSIVE
MAINTENANCE SERVICES FOR
REFRIGERANT AIR-CONDITIONING
AND VENTILATION EXHAUST FOR
BRUNEI MUARA DISTRICT
SERVICES, HEALTH CENTRES &
CLINICS FOR PERIOD OF ONE (1)
YEAR**

Prepared by
ESTATE MANAGEMENT
MINISTRY OF HEALTH

SECTION 2

SPECIFICATIONS

PROVISION OF COMPREHENSIVE MAINTENANCE SERVICES FOR REFRIGERANT AIR-CONDITIONING AND VENTILATION EXHAUST FOR BRUNEI MUARA DISTRICT SERVICES, HEALTH CENTRES & CLINICS FOR PERIOD OF ONE (1) YEAR

SCOPE OF WORKS

1. GENERAL

- Tenderers are sought from suitably qualified contractors who wish to be considered for the provision of maintenance services (hereinafter referred to as “Maintenance Services”) for Refrigeration, Air Conditioning and Ventilation (hereinafter referred to as “the System”) at the locations set out in **SUMMARY OF TENDER – List of Equipment** for a duration of Six (6) Months.
- The Tenderer shall provide Maintenance Services for the System inclusive of all necessary spare parts and replacement parts to ensure that the System is kept in good working order and condition and functioning efficiently within the manufacturer’s specification. The Maintenance Services consist of:
 - ✓ Preventive Maintenance
 - ✓ Corrective Maintenance
- All prices to be quoted shall include labor, parts and transport charges.
- The Tenderer shall also ensure that technical services shall be available twenty-four (24) hours a day for the convenience of the Government to provide assistance for any emergency service. In the event that any attended calls are made during the preventive maintenance period, there shall not be any charges for the replacement of parts.

2. MAINTENANCE SERVICES

2.1 PREVENTIVE MAINTENANCE

- Scheduled or routine preventive maintenance, which includes testing, troubleshooting and inspection, on the system shall be performed during Government working hours (07.45 am – 12.15 pm and 01.00 pm – 04.30 pm).
- The Tenderer shall dispatch his technician to a site specified by the Superintending officer or his representative within 2 hours (hereinafter “Response Time”) after being notified in writing or telephone that a fault is reported via a “Service Call Slip” which the Tenderer shall collect prior to commencing the repair or replacement works. This Service Call Slip must be certified by the Superintending officer or his representative with an official stamp, time in, time out and date.
- Preventive maintenance shall be performed in accordance with the maintenance schedules set out in **Schedule B – Plan Preventive Maintenance Schedules (PPM) recommended** by the manufacturers’ service manuals.
- Although the maintenance schedules may not include instructions for every component of each item of the equipment, the Tenderer is expected to carry out the usual maintenance process in accordance with the normal trade practices and to meet specific requirements of the respective equipment’s manufacturer’s recommendations.
- The frequencies of the preventive maintenance may be adjusted by mutual agreement, to suit the duty and conditions of operation of the system’s equipment.

- Where follow – up work is considered necessary and involves further repairs the Tenderer shall notify the Superintending Officer of the extent of the repairs before proceeding with the work.
- The Tenderer shall ensure that downtime of any of the equipment within the system is kept to a minimum. The maximum period for which any equipment to be continuously out-of service shall be **three (3) days**.
- The Tenderer is also required to submit monthly reports covering details (by mentioning Brand, Modal, serial Number and Tagging Number stated etc) of periodic inspection servicing and repairs. The monthly report shall include, but not limited to, a log showing time when fault notice was received, nature of fault, time when rectification works was initiated, actual time taken for repair, materials and parts used.

2.1 CORRECTIVE MAINTENANCE

- This Service shall be provided free of charge with unlimited breakdown call as per contract year.
- Corrective maintenance shall be performed AT ANY TIME (inclusive of public holiday) upon notification by S.O or representative.
- After Responding to the response time, the contractor and/or his personnel shall produce and submit detailed technical report of the fault or breakdown to S.O prior to proceed with the rectification of the fault or breakdown.
- To ensure immediate response (refer to scope of work) by the contractor and/or his personnel, the contractor shall submit contact numbers of his personnel to enable the S.O or his representative for reporting faults and breakdown.

2.2 ADDITIONAL SERVICES

- The Tenderer shall service the existing control panels such as tightening the cable, terminations, replacement of fused indicating lights, faulty meters, tidying up the internal wirings, relays, components and boards.
- The Tenderer is also required to provide necessary protection against the existing plants and equipment in the adjacent working areas while carrying out the Maintenance Services.
- The Tenderer is also to carry out troubleshooting, if necessary, by following S.O instruction and approval.

3. SUPERVISION & PERSONNEL

- To ensure the proper and efficient execution of the maintenance services, the Tenderer shall provide and employ **qualified and competent workers** to perform the Maintenance Services as follows:
 - ✓ One (1) registered Engineer
 - ✓ Four (4) registered technician/supervisor consisting of:
 - Two (2) Electrical
 - Two (2) Aircon
 - ✓ Two (3) tradesmen
- The Tenderer shall ensure that such personnel are properly trained and employed (if they are employed outside of Brunei Darussalam) by the Tenderer throughout the contract duration.
- The Tenderer is required to submit a list of names, addresses, qualification, experiences

and other relevant information that the Superintending Officer may require.

- The Superintending Officer **reserves the right to remove, reject or replace any persons employed by the Tenderer**, who in the opinion of the Superintending Officer is not competent to execute the maintenance Services and shall direct the Tenderer to replace such person/s.
- All personnel employed by the Tenderer shall be neatly and properly attired in uniforms and equipped with proper tools and safety equipment to enable them to carry out their work safely, accurately and without any risk of causing damage to the system or any part of the building within the contract.

4. INSURANCE

- The Tenderer shall warrant that he will maintain at his own expense, comprehensive general liability, errors and omissions, workers' compensation, public liability, property damage and automobile liability insurance. Upon request by the Government, the Tenderer shall furnish certificates showing that such insurance is in effect and will not be cancelled or changed in the absence of a prior 30-days' written notice to the Government.

5. LOG BOOKS AND REPORTS

- A record of the work done on each maintenance visit for each location in **Schedule A** shall be noted in a log book by the Tenderer.
- The log book must show the date, time and duration of work performed; a description of work performed and the name of the Tenderer's personnel responsible for performing the work.
- Completion of the maintenance visit shall be affixed via the technician's signature and shall be confirmed in writing by the Superintending Officer or his representative or End-User.
- The log book must be available for inspection by the Government at any time.
- The Tenderer shall also submit Maintenance Service Reports in a format acceptable the Government and shall include the following information.
 - ✓ Reference number of any equipment of the system;
 - ✓ Job number;
 - ✓ Date of completion of job;
 - ✓ Date, time and total time any equipment of the system is made unavailable to the Government;
 - ✓ Name of Tenderer's technician/personnel responsible for carrying out the job; and
 - ✓ Comments of the person requesting the Maintenance Services.
- Any verbal reports made by the EMS on any breakdown shall be made available to the Superintending Officer or his representative within twenty-four (24) hours of receiving the complaint. Such report must state the nature of the fault, work done and whether any further work is required.

6. EQUIPMENT AND TOOLS

- The Tenderer shall ensure that all technicians working on site are equipped with adequate equipment and/or tools to enable them to carry out their work safely, accurately and without risk of causing any damage to the system or any of the buildings. Such equipment and tools include as listed out in **Schedule C - List of Tools** but are not limited to the following:

- ✓ Multitester
- ✓ Insulation Tester
- ✓ Test pin
- ✓ Fuse
- ✓ Indicator panel bulbs
- ✓ General Tool kit

7. CONTRACT PRICE AND PAYMENT

- The Tenderer shall quote the cost of an annual service contract which shall consist of the maintenance services charges and the cost of parts replaced (if any), upon receipt of:
 - ✓ One (1) original invoice;
 - ✓ One (1) duplicate invoice;
 - ✓ Service Call Slip;
 - ✓ A detailed Maintenance service Report
- The Contractor shall submit the invoice of the previous month **on the first week of the following month.** All claims shall be addressed to:

*Head of Section,
Brunei Muara Estate Management
Ong Sum Ping
Ministry of Health
Negara Brunei Darussalam*

- Payment will be made within forty-five (45) days after submission of the invoice and other related documents, subject to any deduction under the Contract and satisfactory certification by the Government during the preceding month.

8. CONSUMABLES

- Consumable items as listed out in **Schedule D - Consumables items** shall be deemed to be included in the rates and prices for the maintenance services. No additional claims shall be entertained for these items.

9. USE OF SITE

- The Tenderer shall not use the site for any purpose other than that of carrying works in connection with the performance of the contract
- The Tenderer shall at all times keep the site clear and free from all surplus materials, rubbish, debris arising from the execution of the works and shall keep the site in a clean condition.

10. HEALTH AND SAFETY, PRECAUTION AGAINST CONTROL

- The Tenderer shall provide all necessary measure, comply with all health and safety regulations and rules that are force, and comply with all orders and instructions given to him from time to time by the Superintending Officer in regard to health and safety persons in the vicinity of the site and including safety and other regulation in force in the Hospital, Health Centers and Clinics and any requirements of local authority and/or public service authority. **No claim** by the Tenderer for additional payment shall be allowed on the grounds of any misunderstanding or misinterpretation due lack of knowledge of these conditions, regulations and requirements.

SCHEDULE A1

**PLANNED PREVENTIVE
MAINTENANCE**

SUMMARY OF LOCATION:

A) BRUNE MUARA DISTRICT SERVICES

- RIMBA DIALYSIS CENTRE
- KIARONG DIALYSIS CENTRE
- TUBERCULOSIS, KIARONG
- NATIONAL DENTAL CENTRE
- BERAKAS HEALTH SCREENING CENTRE
- PHARMACY SERVICES, MADARAS
- VECTOR BUILDING, MADARAS
- SUMBILING RESEARCH LAB

B) HEALTH CENTRE & CLINICS

- BERAKAS HEALTH CENTRE
- P.A.P.H.M.W.H.B GADONG HEALTH CENTRE
- PENGKALAN BATU HEALTH CENTRE
- SENGKURONG HEALTH CENTRE
- MUARA HEALTH CENTRE
- P.A.P.H.R SUNGAI ASAM HEALTH CENTRE
- BUNUT HEALTH CENTRE
- SG. BESAR CLINIC

SUMMARY OF TENDER (LIST OF EQUIPMENTS)

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
1.	WATER COOLED CHILLER UNIT C/W CONTROL PANEL	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	04	\$
2.	CHILLED WATER PUMP AND MOTOR C/W CONTROL PANEL	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	04	\$
3.	AIR HANDLING UNIT INCLUDING DUCTING C/W CONTROL PANEL	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	08	\$
4.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	19	\$
5.	AIR-CURTAIN 3" & 4" LENGTH	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	06	\$
6.	CEILING GLASS & WALL MOUNTED EXHAUST FAN	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	18	\$
7.	AIR COOLED VRV 11 CONDENSING UNIT	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	01	\$
8.	FAN COIL UNIT COMPLETE SET	BERAKAS HEALTH CENTRE	\$ x 2	\$ x 1	\$	-	\$
9.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	BERAKAS HEALTH SCREENING CENTRE	\$ x 2	\$ x 1	\$	15	\$
10.	AIR COOLED DX (3 CONDENSING UNIT) COMPLETE SET	BERAKAS HEALTH SCREENING CENTRE	\$ x 2	\$ x 1	\$	03	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
11.	AHU AND CONTROL PANEL (PRIMARY FILTER WASHABLE)	BERAKAS HEALTH SCREENING CENTRE	\$ x 2	\$ x 1	\$	02	\$
12.	CEILING GLASS & WALL MOUNTED EXHAUST FAN	BERAKAS HEALTH SCREENING CENTRE	\$ x 2	\$ x 1	\$	-	\$
13.	AIR COOLED DX (4 CONDENSING COMPLETE SET UNIT)	SENGKURONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	07	\$
14.	AHU AND CONTROL PANEL	SENGKURONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	05	\$
15.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	SENGKURONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	128	\$
16.	CEILING / GLASS & WALL MOUNTED EXHAUST FAN	SENGKURONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	14	\$
17.	AIR CURTAIN 3' AND 4' LENGTH	SENGKURONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	06	\$
18.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	P.A.P.H.R SUNGAI ASAM HEALTH CENTRE	\$ x 2	\$ x 1	\$	76	\$
19.	AIR CURTAIN 3' AND 4' LENGTH	P.A.P.H.R SUNGAI ASAM HEALTH CENTRE	\$ x 2	\$ x 1	\$	04	\$
20.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	P.A.P.H.R SUNGAI ASAM HEALTH CENTRE	\$ x 2	\$ x 1	\$	31	\$
21.	SPLIT UNITS COMPLETE SET	MUARA HEALTH CENTRE	\$ x 2	\$ x 1	\$	32	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
22.	WATER COOLED CHILLER UNIT C/W CONTROL PANEL	MUARA HEALTH CENTRE	\$ x 2	\$ x 1	\$	03	\$
23.	AHU INCLUDING DUCTING AND CONTROL PANEL	MUARA HEALTH CENTRE	\$ x 2	\$ x 1	\$	07	\$
24.	CHILLED WATER PUMP AND MOTOR C/W CONTROL PANEL	MUARA HEALTH CENTRE	\$ x 2	\$ x 1	\$	03	\$
25.	AIR CURTAIN 3' AND 4' LENGTH	MUARA HEALTH CENTRE	\$ x 2	\$ x 1	\$	02	\$
26.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	MUARA HEALTH CENTRE	\$ x 2	\$ x 1	\$	32	\$
27.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	SG, BESAR CLINIC	\$ x 2	\$ x 1	\$	15	\$
28.	AIR CURTAIN 3' AND 4' LENGTH	SG, BESAR CLINIC	\$ x 2	\$ x 1	\$	01	\$
29.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	SG, BESAR CLINIC	\$ x 2	\$ x 1	\$	10	\$
30.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	BUNUT HEALTH CENTRE	\$ x 2	\$ x 1	\$	35	\$
31.	AIR CURTAIN 3' AND 4' LENGTH	BUNUT HEALTH CENTRE	\$ x 2	\$ x 1	\$	04	\$
32.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	BUNUT HEALTH CENTRE	\$ x 2	\$ x 1	\$	11	\$
33.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	89	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
	COMPLETE SET						
34.	AIR COOLED DX (1 UNIT) CONDENSING COMPLETE SET	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	5	\$
35.	AHU INCLUDING DUCTING AND CONTROL PANEL	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	3	\$
36.	AIR COOLED VRV CONDENSING UNIT	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	11	\$
37.	FAN COIL UNIT COMPLETE SET, INCLUDING DUCTING AND CONTROL PANEL	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	-	\$
38.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	15	\$
39.	AIR CURTAIN 3' AND 4' LENGTH	PHARMACY SERVICES, MADARAS	\$ x 2	\$ x 1	\$	-	\$
40.	AIR COOLED DX CONDENSING UNIT (COMPLETE SET)	PAPHMWHB GADONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	29	\$
41.	FAN COIL UNIT COMPLETE SET, INCLUDING DUCTING AND CONTROL PANEL	PAPHMWHB GADONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	-	\$
42.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	PAPHMWHB GADONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	65	\$
43.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	PAPHMWHB GADONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	33	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
44.	AIR CURTAIN 3' AND 4' LENGTH	PAPHMWHB GADONG HEALTH CENTRE	\$ x 2	\$ x 1	\$	06	\$
45	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	NATIONAL DENTAL CENTRE	\$ x 2	\$ x 1	\$	77	\$
46.	AIR COOLED DX CONDENSING UNIT (COMPLETE SET)	NATIONAL DENTAL CENTRE	\$ x 2	\$ x 1	\$	08	\$
47.	AHU INCLUDING DUCTING AND CONTROL PANEL (PRIMARY FILTER WASHABLE)	NATIONAL DENTAL CENTRE	\$ x 2	\$ x 1	\$	04	\$
48.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	NATIONAL DENTAL CENTRE	\$ x 2	\$ x 1	\$	28	\$
49.	AIR CURTAIN 3' AND 4' LENGTH	NATIONAL DENTAL CENTRE	\$ x 2	\$ x 1	\$	06	\$
50.	AIR COOLED VRV CONDENSING UNIT	SUMBILING RESEARCH LAB	\$ x 2	\$ x 1	\$	11	\$
51.	FAN COIL UNIT COMPLETE SET	SUMBILING RESEARCH LAB	\$ x 2	\$ x 1	\$	-	\$
52.	SPLIT UNITS CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	SUMBILING RESEARCH LAB	\$ x 2	\$ x 1	\$	78	\$
53.	AIR CURTAIN 3' AND 4' LENGTH	SUMBILING RESEARCH LAB	\$ x 2	\$ x 1	\$	05	\$
54	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	SUMBILING RESEARCH LAB	\$ x 2	\$ x 1	\$	38	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
55.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	12	\$
56.	AHU INCLUDING DUCTING AND CONTROL PANEL (PRIMARY FILTER WASHABLE)	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	02	\$
57.	AIR COOLED DX CONDENSING UNIT (COMPLETE SET)	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	03	\$
58.	AIR COOLED VRV CONDENSING UNIT	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	10	\$
59.	FAN COIL UNIT COMPLETE SET, INCLUDING DUCTING AND CONTROL PANEL	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	02	\$
60.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	95	\$
61.	AIR CURTAIN 3' AND 4' LENGTH	PENGKALAN BATU HEALTH CENTRE	\$ x 2	\$ x 1	\$	04	\$
62.	CHILLER C/W CONTROL PANEL	RIMBA DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	02	\$
63.	CHILLER WATER PUMP AND MOTOR C/W CONTROL PANEL	RIMBA DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	03	\$
64.	AHU INCLUDING DUCTING AND CONTROL PANEL	RIMBA DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	08	\$
65.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	RIMBA DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	69	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
66.	AIR CURTAIN 3' AND 4' LENGTH	RIMBA DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	06	\$
67.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	RIMBA DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	13	\$
68.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	KIARONG DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	26	\$
69.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	KIARONG DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	04	\$
70.	AIR CURTAIN 3' AND 4' LENGTH	KIARONG DIALYSIS CENTRE	\$ x 2	\$ x 1	\$	-	\$
71.	CEILING/GLASS AND WALL MOUNTED EXHAUST FAN	TUBERCULOSIS KIARONG	\$ x 2	\$ x 1	\$	11	\$
72.	ROOM AIR CONDITIONER (RAC) AND STARTER	TUBERCULOSIS KIARONG	\$ x 2	\$ x 1	\$	-	\$
73.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	TUBERCULOSIS KIARONG	\$ x 2	\$ x 1	\$	23	\$
74.	ROOM AIR CONDITIONER (RAC) AND STARTER	KLINIK KAMPONG BOLKIAH B	\$ x 2	\$ x 1	\$	06	\$
75.	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	KLINIK KAMPONG BOLKIAH B	\$ x 2	\$ x 1	\$	02	\$
76	EXHAUST FAN	VECTOR BUILDING, KG MADARAS	\$ x 2	\$ x 1	\$	06	\$

ITEM NO.	PLANT/EQUIPMENT	LOCATION	SERVICE PRICE RATE		TOTAL AMOUNT SERVICE RATE (A + B)	QTY	TOTAL AMOUNT SERVICE RATE (A + B) X QUANTITY
			2 MONTHLY (A)	6-MONTHLY (B)			
	SUMMARY OF TENDER (LIST OF EQUIPMENTS)						
77	SPLIT UNIT / CASSETTE TYPE / SUSPENDED CEILING COMPLETE SET	VECTOR BUILDING, KG MADARAS	\$ x 2	\$ x 1	\$	20	\$
	TOTAL PRICE (B\$)						

GRAND TOTAL PLANNED PREVENTATIVE MAINTENANCE (A):	B\$
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NOTE:

1. In the 6 months' contract period, 2 monthly service will be done 2 times every 2 month.
2. In the 6 months' contract period, 6 monthly service will be done 1 time.
3. Contractor must comply with Schedule A specification / Scope of Works item no 8 and to include list of consumable items in the quoted service rate.
4. Any units or system that no longer operate and run the contractor shall provide detailed technical report and should not carried out any servicing and claim.

SCHEDULE A2

PREVENTIVE MAINTENANCE SCHEDULE

**PREVENTIVE MAINTENANCE
SCHEDULES / CHECKLISTS**

Equipment AHU & FCU	Maintenance 2-Monthly Service	2M/AHU
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1. Switch off plant. Remove and clean filters by washing. If disposable – replace as necessary.
 2. Check cooling coil for dust and algae. Clean by using approved cleaner, soft brush (and pressure spray pump for AHU's). Straighten damaged fins with fin comb.
 3. Check condensate line, pan and trays for damage, blockage. Clean as necessary with chemical and test for easy water flow. Replace approved condensate pan treatment tablets for FCU's (consumable).
 4. Check and service controls and devices for correct operation ie. Motorized valves and dampers, step controllers, thermostat, humidistats, smoke detectors, duct heaters, air flow switch, high temperature cutout etc. report/repair if faulty.
 5. Check and record temperature/humidity and settings ie. SA and RA temperature, chilled water in and out temperature, humidity etc.
 6. Check V-belts for correct tension and wear. Replace worn belts from stock (consumable). Re-adjust tension where necessary. As a guide V-belt tension should be ¾" to 1¼" deflection or see manufacturers information.
 7. Pulley drives to be checked for secure fixing, if loose to be tightened. Alignment of pulleys to be checked and adjusted as necessary using straight-edge or string line.
- Note: Recheck tension of v-belts after adjustment.
8. Check motor and Fan Bearings for wear, noise and lubrication Lubricate. Failed bearing are over lubricated will be replaced at the contractors expense. Noise and wear to be investigated and reported. If found to be too severe, unit should be left switched off and reported immediately. Shaft couplings, if fitted, to be checked for wear and secure fitting.
 9. Fans and fan housing to be checked for secure fitting & cleaned by brush and vacuum. Fan blades to be inspected for any signs of damage, looseness and reported if found.
 10. Check electrical connections for damage or looseness; repair or tighten as required. Clean any dust build up on motors and electrical panels and clean. Check for noisy contractors, timers, change-over relays-service. Check carbon brushes and replace if necessary (consumable). Check and record running amps. Replace any defective indicator lights, fuses etc.
 11. Check, fix back or report internal and external duct insulation if loose or damaged.
 12. Check AHU panels for secure fixing. Replace any missing screws (consumable). Check panel seals and repair/replace if leaking.
 13. Check AHU panels for rust/corrosion, wire brush and repaint affected area with anti-rust paint. Report any damage.
 14. Clean AHU panels and the plant room and leave it tidy. (AHU room is not to be used as a "store").
 15. Replace plant room lighting as necessary.

Equipment AHU & FCU	Maintenance 6- Monthly Services	6M/AHU
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1. Carry out monthly service.
2. Conduct vibration analysis: Check all alignments to specifications.
3. Check Motor amperage should not exceed manufacturer's specification.
4. Perform analysis on oil and filter. Change if necessary. Check oil pump and seals. Check oil heater an thermostat.
5. Check for condenser and evaporator tube corrosion and clean as needed.
6. Indications include: poor water quality, excessive fouling, and age of chiller.
7. Clean coil with cleaner using a pressure jet pump
8. Any other manufacturer's recommendation for six-monthly maintenance

Equipment AHU & FCU	Maintenance Annual Services	Y/AHU
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1. Carry out monthly service.
2. Change all V-belts.
3. Dry base of unit and paint internally with anti-rust paint.
4. Paint external surface, including fresh air intake grille, with quick drying glossy paint of similar colour to original.
5. Test smoke damper manually; report if defective.
6. Meg the AHU/FCU motor and record.
7. Re-surfacing of slip ring and changing of shaft bearing, (both front and back). Carry out insulation testing (> 1 meg).
8. Replace carbon brush for all slip ring motor. (to be replaced in complete sets)
9. Clean coil with cleaner using a pressure jet pump

NOTE: Where cooling coils are very dirty and clogged up special cleaning procedure shall be carried out: discharge air duct shall be disconnected (if possible) or a temporary bypass shall be provided between the supply and return air side; the coil shall be sprayed (with the blower running) with approved concentrated cooling coil cleaning chemical and washed down repeated until the coil is clean;

Equipment Ductwork AHU, FCU & Ventilation Fan	Maintenance 2-Monthly Services	2M/D
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1. This service is to be done together with the AHU, FCU & Ventilation fan service at no additional cost.

2. Visually inspect for air leaks, condensation; repair or report. Visually inspect internal and external duct installation and vapour barrier for damage repair or report. Check flexible connections for secure fixing and damage.
3. Clean diffusers and grilles by soft brush and vacuum.
4. Washable filters should be removed from the unit for cleaning. Filters should be cleaned with air / water hose passing through the filters in the opposite direction.
5. After washing, the filters must be installed following the direction of the airflow arrow.

Equipment Ductwork	Maintenance 6-Monthly Services	6M/D
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1. This service is to be done together with the AHU, FCU & Ventilation fan service at no additional cost.
2. Carry out monthly service.
3. Lightly brush and vacuum clean internally where possible (including volume dampers, control sensors air heaters etc in duct).
4. Wash all return and supply grilles and diffusers with mild non-abrasive cleaner, do not dirty walls or ceiling whilst cleaning grilles and diffusers.

Equipment Electrical Control Panels/Switch Board	Maintenance 2-Monthly Services	2M/EP
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1. This service is to be done together with the Plant (AHU, Pumps, Cooling Towers etc.) service at no additional cost.
2. Check electrical connections for looseness and damage, retighten as necessary or report. Inspect indicator lights and fuses; replace any defective.
3. Check proper operation of controls and safety devices, noisy contractors, timers, change-over relays, etc. and record settings.
4. Check contractors for burnt or dirty contacts, service or report. Spray clean contacts with contact cleaners if still usable; otherwise replace.
5. Clean out dust, cobwebs etc.

Equipment Electrical Control Panels/Switch Board	Maintenance 6-Monthly / Annual Services	6M/A /EP
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1. This service is to be done together with the Plant (AHU, Pumps, Cooling Towers etc.) service at no additional cost.
2. Carry out 2 monthly services.
3. Prepare external surface (including conduits and trunking) and repaint with quick drying glossy paint of similar colour to original.

Equipment DX Air Cooled Condensing Unit (more than 25TR)	Maintenance Daily Service	D/DXACCU
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1. Daily check and record operating conditions ie. Temperature, pressures, amps, oil level, suction and discharge temperature/pressure, air on/off temperatures etc., Oil level in sight-glass should be ½ to 2/3 full. If low -top up as necessary and record amount used.
2. Check operation of crankcase heaters. Inspect sight glass for moisture and bubbles and report. Check and record suction superheat.

Equipment DX Air Cooled Condensing Unit (more than 4TR)	Maintenance 2-Monthly Service	2M/DXACCU
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1. Carry out 1D Maintenance (unit more than 25TR only).
2. Check condensing coil for dust/dirt build up. Clean by using approved cleaner, soft brush and pressure spray pump. Straighten damaged fins with fin comb.
3. Check Condensing unit for vibration and damage; test pipework for leaks with leaks with leak detector.
4. Check operating and safety controls and record settings. Check electrical connections for damage or looseness, repair or tighten as required. Clean any dust build up on motors and electrical panels.
Check for noisy contractors, timers, change-over relays.
Check and record running amps. Replace any defective indicator lights, fuses etc.
5. Check V-belts for correct tension and wear. Replace worn belts from stock (consumable). Readjust tension where necessary as a guide V-belts tension should be ¾" to 1¼" deflection or see manufacturers information.
6. Pulley drives to be checked for secure fixing, if loose to be tightened. Alignment of pulleys to be checked and adjusted as necessary using straight-edge or string line.
Note: Recheck tension of V-belts after adjustment.
7. Check motor and Fan Bearings for wear, noise and lubrication Lubricate. Failed bearing are over lubricated will be replaced at the contractors expense.
Noise and wear to be investigated and reported. If found to be too severe, unit should be left switched off and reported immediately. Shaft couplings, if fitted, to be checked for wear and secure fitting.
8. Fans and fan housing to be checked for secure fitting & cleaned by brush and vacuum. Fan blades to be inspected for any signs of damage, looseness and reported if found.
9. Check condensing unit for secure fixing, replace missing screws/fasteners.
10. Clean condensing unit panels and area.

Equipment DX Air Cooled Condensing Unit (more than 4TR)	Maintenance 6 monthly / Annual Service	6M/Y/DXACC
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1. Carry out Monthly Maintenance.
2. Meg compressor windings and fan motors.
3. Check and clean electrical contractor all electrical connections, check and replace any defective fuse-holder and service electrical components.
4. Check compressor oil by chemical analysis.
Change compressor oil and refrigerant filter; Test run and trim refrigerant charge.

5. Prepare external surface (including conduits and trunking) and repaint with quick drying glossy paint of similar colour to original.

Equipment DX Air Cooled Split Unit	Maintenance 2-Monthly Services	2M/ACSU
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1. Switch off plant. Remove and clean filters by washing. If disposable-replace as necessary.
2. Check cooling coil and condensing coil for dust and algae. Clean by using approved cleaner, soft brush and pressure jet pump. Straighten damaged fins with fin comb.
3. Check condensate line, pan and trays for damage, blockage. Clean as necessary with chemical and test for easy water flow. Replace approved condensate pan treatment tablets (consumable).
4. Check and service controls and devices for correct operation ie. Motorized valves and dampers, step controllers, thermostat, humidistats, smoke detectors, duct heaters, air flow switch, high temperature cutout etc. report/repair if faulty.
5. Check and record supply/return air temperature and room humidity and settings.
6. Check V-belts for correct tension and wear. Replace worn belts (consumable). Readjust tension where necessary as a guide V-belts tension should be $\frac{3}{4}$ " to $1\frac{1}{4}$ " deflection or see manufacturers information.
7. Pulley drives to be checked for secure fixing, if loose to be tightened. Alignment of pulleys to be checked and adjusted as necessary using straight-edge or string line.
Note: Recheck tension of V-belts after adjustment.
8. Check motor and Fan Bearings for wear, noise and lubrication Lubricate. Failed bearing are over lubricated will be replaced at the contractors expense.
Noise and wear to be investigated and reported. If found to be too severe, unit should be left switched off and reported immediately. Shaft couplings, if fitted, to be checked for wear and secure fitting.
9. Fans and fan housing to be checked for secure fitting & cleaned by brush and vacuum. Fan blades to be inspected for any signs of damage, looseness and reported if found.
10. Check electrical connections for damage or looseness; repair or tighten as required. Clean any dust build up on motors and electrical panels. Check for noisy contractors, timers, change-over relays. Check and record running amps. Replace any defective indicator lights, fuses etc.
11. Check panels for secure fixing. Replace any missing screws. Check panel seals and repair/replace if leaking.
12. Check panels for rust/corrosion, wire brush and repaint affected area with anti-rust paint. Report any damage.

Equipment DX Air Cooled Split Units	Maintenance 6 –Monthly / Annual Service	6M/Y/ACSU
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1. Carry out monthly service.
Note: For wall, floor, ceiling, cassette type split unit the refrigerant should be pump-down and the FCU must be brought down for general servicing. Prior to the completion the FCU must be reinstalled with adequate Freon charge any additional Freon will be included in annual servicing price.
2. Change all V-belts.

3. Dry base of unit and paint internally with anti-rust paint where applicable.
4. Paint external surface with quick drying glossy paint of similar colour to original (including conduits and trunking).
5. Test smoke damper manually; report if defective.
6. Meg compressor windings and fan motor.

Equipment	Maintenance	2M/WP
Water pumps	2-Monthly Service	

1. Check shaft seal glands for excessive water leaks. For packing type gland adjust/replace so as to allow a steady drip of water. For mechanical seal report for replacement.
2. Check coupling, pulleys, anti-vibration connection, insulation and mountings, insulation etc. for secure fixing and wear, rectify and/or report for repair. Check pump and motor bearings and signs of wear.
3. Check and record suction and discharge pressure running amps, direction of rotation.
4. Check electrical connections for damage or looseness; repair or tighten as required. Clean any dust build up on motors and electrical panels. Check for noisy contractors, timers, change-over relays. Check and record running amps. Replace any defective indicator lights, fuses etc.
5. Clean motor vents, slip ring, inspect and replace carbon brush holder, carbon brushes as necessary (consumable). Check and tighten electrical connections.
6. Valve glands to be checked for leaks, packing to be tightened or replaced as necessary.
7. Change over to standby pump as schedule.

Equipment	Maintenance	6M/WP
Water pumps	6 –Monthly Service	

1. Carry out monthly service.
2. Clean water pump strainers.
3. Lubricate pump and motor bearings sparingly.
4. Wire brush rust/corrosion and repaint with red oxide/anti rust paint.
5. Check operation of non-return water valves.

Equipment	Maintenance	A/WP
Water pumps	Annual Services	

1. Carry out 6-Monthly service.
2. Meg pump motor and record.
3. Prepare and repaint outer surface with similar colour paint to original.
4. Re-surfacing of slip ring and changing of shaft bearing, (both front and back). Carry out insulation testing (> 1 meg).
5. Replace carbon brush for all slip ring motor (to be replaced in complete sets).

Equipment Condenser/Chilled Water Pipe work/Expansion Tank	Maintenance 2-Monthly Service	2M/MP
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1. This service is to be done together with the pumps, cooling towers, water chiller plants etc. service at no additional cost.
2. Check correct level of extension tank and make up water (1/3 height of tank).
3. Check pipe work, flexible joints, brackets, supports etc. for secure fixing and vibration; make good/report as necessary.
4. Inspect and rectify or report water leaks, damaged pipe insulation.
5. Inspect all valves for gland packing leaks; replace or tighten gland packing as necessary.
6. Check correct operation of flow-switch, air vent, flow meters, water pressure gauges etc.

Equipment Condenser/Chilled Water Pipe work/Expansion Tank	Maintenance 6-Monthly / Annual Service	6M/Y/P
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1. This service is to be done together with the pumps, cooling towers, water chiller plants etc. service at no additional cost.
2. Carry out 2-monthly service.
3. Drain and clean out make up tank and expansion tank; treat with anti-rust paint. Test valve operation, examine and report any leakage.
4. Operate all valves and record number of turns on valve spindle and return to original setting.
5. Open all air-vents and bleed system; report/service any defective automatic air-vents.
6. Prepare and repaint outer surface with similar color paint to original.

Equipment Ventilation Fans (wall/ glass/ceiling mounted)	Maintenance 2-Monthly Service	2M
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1. Clean inlet/outlet grilles and fan blades, fan housing etc. clean air filter or replace as necessary.
2. Check V-belts for correct tension and wear. Replace worn belts as necessary (consumable). Readjust tension where necessary as a guide V-belts tension should be ¾" to 1¼" deflection or see manufacturers information.
3. Pulley drives to be checked for secure fixing, if loose to be tightened. Alignment of pulleys to be checked and adjusted as necessary using straight-edge or string line.
Note: Recheck tension of V-belts after adjustment.
4. Check motor and Fan Bearings for wear, noise and lubrication Lubricate. Failed bearing are over lubricated will be replaced at the contractors expense. Noise and wear to be investigated and reported. If found to be too severe, unit should be left switched off and reported immediately. Shaft couplings, if fitted, to be checked for wear and secure fitting.
5. Check electrical connections for damage tighten as required. Carry-out as per service/4.
6. Clean the plant room and leave it tidy (Plant room not to be used as a 'Store').

7. Replace plant room lighting as necessary.

Equipment Ventilation Fans	Maintenance 6-Monthly / Annual Service	6M/A/VF
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NOTE: Not required for window mounted exhaust fans (small)

1. Carry out Monthly service.
2. Lubricate bearings sparingly.
3. Change all V-belts.
4. Prepare and repaint outer surface with similar colour paint to original.
5. Check and record running amps. Meg fan motors and record.

Equipment Cold Room	Maintenance 2-Monthly Services	2M/CR
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1. Inspect indicating lights and cold room lights; replace as necessary.
2. Check defrost heaters, door heaters, drain pipe heaters etc. check and record running amps of the compressor condenser fans, evaporator fans and heaters.
3. Inspect fan and motor bearings.
4. Check and record store temperature gauge reading.
5. Inspect store insulation, doors, floor etc for damage and report.
6. Clean the condensing unit, comb straight dented fins. Check system for leaks, noise and vibration. Check oil level and top up as necessary.
7. Carry-out as Service/4.

Equipment Cold Room	Maintenance Annual Services	A/CR
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1. Carry out 2-monthly service.
2. Clean condensing coil and evaporate with approved chemical if necessary.
3. Meg compressor windings and fan motor.
4. Prepare and repaint outer surface with similar colour paint to original.

Equipment Room Air Conditioners / Split Unit / Cassette Type / Suspended Ceiling	Maintenance 2-Monthly	2M/RAC
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1. Wash the air filter or replace if necessary.
2. Brush and vacuum clean the cooling coil and comb straight fins if found dented.
3. Check for noise and vibration. Correct any loose fasteners, mounting etc.
4. Check any coil freezing during operation.

5. Clean condensate drain pan, drain pipe of sludge and slime etc.
6. Check and record running current of the compressor and fan motor.
7. Inspect and service controls and safety components.

Equipment Room Air Conditioners / Split Unit / Cassette Type / Suspended Ceiling	Maintenance 6-Monthly / Annual Service	6M/A/RAC
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1. Remove from installed site to workshop, replace with service unit if required and carry out 2-monthly service.
2. Meg compressor windings and fan motors.
3. Clean coil with proper chemical cleaner using a pressure jet pump. Do not dirty the wall while cleaning.
4. Prepare and repaint outer surface with similar color paint to original.

Equipment Monitoring Panel	Maintenance 2-Monthly Service	2M/SMP
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1. Inspect indicator bulbs, replace defective.
2. Check for noisy contractors.
3. Clean out dust within panels.
4. Inspect and tighten electrical and control wire connection etc.
5. Check condition and operation of fuses, overloads, timers, earth fault relays, circuit breakers, smoke detector, transformers, metering devices etc. and replace or report any defective.
6. Check for correct sequence of operation of the controls.

Equipment Monitoring Panel	Maintenance 6 Monthly / Annual Service	6M/A/SMP
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1. Carry out monthly service.
2. Prepare and repaint outer surface with similar colour paint to original.

Equipment Air cooled Liquid Chillers	Maintenance Daily Service	D/ACLC
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1. Daily Record system operating conditions. Report any trend or adverse conditions for example:
Oil, suction and discharge pressure. Entering and leaving water temperature and pressure, check compressor oil level oil pressure should be 20 to 30 PSI above suction pressure. Record chiller running amps and compressor running amps.
2. Inspect indicator lights, gauges etc. and replace any found defective. Check system for leaks, noise, vibration etc. Carry out area cleaning.

Equipment Air cooled Liquid Chillers	Maintenance 2-Monthly Service	2M/ACLC
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1. Carry out daily maintenance.
2. Check panels for secure fixing. Replace any missing screws. Check panel seals and repair/replace if leaking.
3. Clean condensing coil; comb fin straight if found dented. Clean the Plant room area.

Equipment Air cooled Liquid Chillers	Maintenance 6-Monthly / Annual Service	6M/Y/ACLC
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1. Carry out monthly service.
2. Meg compressor windings and fan motors.
3. Tighten all electrical connections, check and clean contactors. Check all fuse clips and replace defective fuse holder, inspect and service all electrical safety components.
4. Perform chemical analysis of oil.
5. Inspect cooler tubes and clean if necessary.
6. Change compressor oil and refrigerant filter.
7. Test run and trim the refrigerant charge.
8. Prepare and repaint outer surface with similar colour paint to original.

Note:

Manufacturer's instructions for maintenance shall be followed in conjunction with these guides

SCHEDULE B

CORRECTIVE MAINTENANCE

SPARE PARTS LIST

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.

Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
1.	Oil Heater Thermometer For R134A a Chiller			
2.	Chiller Power Fault Relay PFR-1 031-0090C			
3.	Chiller Oil Pump 026-20169			
4.	Chiller Gasket York 028-00781 2½"OD 031-0090C			
5.	Chiller Pilot Light Indicator Amber/Red/White 025-14025/025-13551/025-15708			
6.	Pumps, Coupling STE Hyperlex 1500 Rpm (1 set c/w Rubber insert)			
7.	Pumps, Coupling Falk 80T 1500 Rpm (1 set c/w Rubber insert)			
8.	Pumps, Coupling 7F 1500 Rpm (1 set c/w Rubber insert)			
9.	Pumps, Coupling 5F 1500 Rpm (1 set c/w Rubber insert)			
10.	Pumps, Coupling 4F 1500 Rpm (1 set c/w Rubber insert)			
11.	415V, 3 Tapping Resistance Bank (Any Brand)			
a.	45 Kw			
b.	30 kW			
c.	22 kW			
d.	18.5 kW			
e.	11 kW			
12.	Modutrol Motor (whole) Honeywell M904E, 24V, 17w c/w valve linkage			
13.	Modutrol Motor (whole) Honeywell Q455A, 24V, 17w c/w valve linkage			
14.	3-Way Valve Motor (only) Honeywell 24V, 1-2			
15.	3-Way Valve Motor (only) Honeywell 24V, 1-2 c/w valve linkage			
16.	FCU Motor Control 240V, 5-6 Rpm (Any Brand)			
17.	3-Way by-pass valve suitable for York FCU complete set 1ph, 240V, 50Hz			
18.	Cooling Thermostat Honeywell T991A, 24V, Series 90-30/+30°C			
19.	AHU Smoke Detector (Any Brand) 220V-240V			
20.	FCU Blower Wheel York DB084			
21.	FCU Blower Wheel York DB124			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.

Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
22.	FCU Blower Wheel York DCP064			
23.	FCU Blower Wheel York DCP0084			
24.	Lockout or Pilot relays 240V 1ph 50Hz (Any Brand)			
25.	Duct Heater (Any Brand)			
a.	600 watts			
b.	900 watts			
c.	1000 watts			
d.	1200 watts			
e.	2000 watts			
26.	Duct Heater (Any Brand)			
a.	110V, 0-60 secs			
b.	230V, 0-60 secs			
c.	240V, 0-60 secs			
27.	24hrs + 7 days Programmable Timer Switch with spring reverse or Quartz			
28.	Control Relay (or equivalent)			
a.	Omron MKF-P (Flicker) 24			
b.	Omron 14pin 24V DC including base			
c.	Siemens 3TJ50-00-0A, 24V			
d.	Siemens 3TJ10-02-0AF,24V			
e.	Takamisawa 14 pin 24 V DC including base			
f.	Essex 129117-73802, 24 V			
29.	Magnetic Line Relays 240V 1ph 50 Hz Essex/RBM contact			
30.	Magnetic Line Relays 240V 1ph 50 Hz Essex/RBM contact			
31.	Pumps Repair Kit			
a.	PACO, 29-40117-745-89-06			
b.	PACO, 29-80151-745-071-13			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
c.	PACO, 29-50125-745-071-07			
d.	PACO, 29-30145-745-071-06			
e.	PACO, 29-80125-745-071-07			
f.	EBARA P1990036-51			
g.	EBARA P1990036-50			
h.	WORTHINGTON LRA 13, 2½ & 10 5/8 Dia			
SLIP RING INDUCTION MOTOR & A				
32.	Motor, TECO DW250 55kw			
33.	Motor, brook DW180lbd 18.6 /15kw (whole Assy)			
34.	Motor TECO DW200LBD 22kw			
35.	Motor TECO DW180M 15kw			
36.	Motor TECO DW200LX 22kw			
37.	Motor TECO DW225 45kw			
38.	Motor Cramptan DW180L 15 kw			
39.	Motor for Cooling Towers 30Hp			
40.	Motor for Cooling Towers 15Hp			
41.	Motor for AHU2-5 Hp			
42.	Motor for AHU 6 -10Hp			
43.	Motor for AHU 11 -15Hp			
44.	Motor for AHU 16-20Hp			
45.	Motor for AHU 21 -25 Hp			
46.	Motor for Barrel Fan 380/240V 50Hz 0.5 - 1Kw			
47.	Motor for Barrel Fan 380/240V 50Hz 1.25 - 2Kw			
48.	Motor for Barrel Fan 380/240V 50Hz 2Kw above			
49.	Magnetic Contractor			
a.	15 -35 Amps			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
b.	36 – 55 Amps			
c.	56 – 75 Amps			
d.	76 – 55 Amps			
e.	96 – 115 Amps			
f.	116 – 135 Amps			
50.	Coil Voltage 220V			
a.	15 -35 Amps			
b.	36 – 55 Amps			
c.	56 – 75 Amps			
d.	76 – 55 Amps			
e.	96 – 115 Amps			
f.	116 – 135 Amps			
51.	Coil Voltage			
a.	15 -35 Amps			
b.	36 – 55 Amps			
c.	56 – 75 Amps			
d.	76 – 55 Amps			
e.	96 – 115 Amps			
f.	116 – 135 Amps			
52.	To rewind Motors c/w resurfacing, new Bearings, Mounting, Rotor & Stator any Rpm & 1Ph 240/415V 50Hz with 6 months warranty			
a.	5 – 7.5 Hp			
b.	10 – 15 Hp			
c.	16 – 29 Hp			
d.	30 – 40 Hp			
e.	41 – 50 Hp			
f.	51 – 60 Hp			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.

Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
g.	61 – 75 Hp			
53.	Re-winding of Semi-hermatic Compressor c/w new gaskets, overloads & other necessary parts with 6 months warranty			
a.	10 – 15 TR			
b.	20 – 25 TR			
c.	30 – 60 TR			
d.	61 – 75 TR			
54.	Compressor Motor Whole Assy. c/w Thermiseter Thermostat 415V,3PH, 50Hz			
a.	Compressor Motor York KA13-0075-CAG/J6636Q504CS			
b.	Compressor Motor 10TR any brand			
55.	Refrigerant Gas, etc.....			
a.	Refrigerant R11 /Kg			
b.	Refrigerant R12 /Kg			
c.	Refrigerant R22 /Kg			
d.	Refrigerant R134a, 407, 404, R410A /Kg			
e.	Nitrogen /Kg			
56.	Compressor Oil (YORK/SUNISO/CARRIER) suitable for Refrigerant Systems R407, R11, R12, R22 & R134a /litre			
57.	Moisture & Liquid Indicator (Sight Glass)			
a.	3/8" - 1/2"			
b.	5/8 – 1 1/8"			
58.	Re-insulation of Ducting with 2"/2ibs. Fiber glass & aluminum foil			
59.	To fabricate, supply & install Ducting c/w 2"/2ibs. Fiber glass & aluminum foil			
60.	To fabricate, supply & install Ducting aeroflex			
61.	Re-insulation of AHU panel with 1" thick Aeroflex or Superlon			
62.	Re-insulation of AHU panel with 2" thick Aeroflex or Superlon			
63.	Re-insulation of suction line and drain line with Aeroflex /Superton c/w denso tape			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.

Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
64.	Re-insulation of Chilled water pipe or ither approved pipe insulation c/w 22G Aluminium sheet cladding & painting wall thickness 3" density 2ibs / m ²			
a.	Pipe size 3 -5 "dia			
b.	Pipe size 6 -9" dia			
c.	Pipe size 10 -12" dia			
d.	Pipe size below 3" dia. (with approved insulation for indoor use, 1½ - 2" thick c/w vapour barrier).Aeroflex/Superlon /m ²			
65.	Re-insulation of Chilled water pipe c/w pre-formed polystyrene foam pipe insulation with steel wire mesh and and hard setting cement for pipe greater than 3"/m ²			
66.	Liquid line solenoid valve c/w solenoid coil (24/110/240V 50Hz) any size			
67.	Hand valves for Refrigerant line size less than 2"/m ²			
68.	PVC drain pipe c/w fittings (bends, elbows, traps, tees etc.)			
a.	Pipe size below 1½" dia.			
b.	Pipe size below 1⅝" – 2" dia.			
c.	Pipe size below 1¼" – 4" dia.			
69.	G.I drain pipe c/w fittings (bends, elbows, traps, tees etc.)			
70.	Hi pressure cut out seitch 0-400 psig auto /manual reset			
71.	Lo pressure cut out seitch 0-400 psig auto /manual reset			
72.	Oil pressure control switch auto/manual reset			
73.	Dial pressure gauge 3-4 inch dia. 0-60 psig			
74.	Compressor unloader solenoid coil 120/240 VAC 50Hz York or equivalent			
75.	Refrigerant suction line filter drier			
a.	¼" - ⅝" OFT			
b.	¾" - ⅞" OFT			
c.	⅛" - ⅝" OFT			
76.	Replaceable core type filter drier shell only			
a.	C485 ⅝" OFT			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
b.	C487 7/8" OFT			
c.	C489 1 1/8" OFT			
d.	C9611G 1 3/8" ODF			
e.	C9613G 1 5/8" OFT			
f.	C19217 2 1/8" OFT			
77.	Supply & install cooling tower intake louvers			
a.	Kuken 300, 400, 1000			
78.	Gate Valve			
a.	3" Dia.			
b.	4" Dia.			
c.	5" Dia.			
d.	8" Dia.			
e.	10" Dia.			
f.	12" Dia.			
g.	14" Dia.			
79.	Cooling tower infill			
a.	Kuken 300, 400, 1000			
80.	Strainer whole assembly			
a.	Strainer 1/2"			
b.	Strainer 5/8"			
c.	Strainer 2"			
d.	Strainer 3"			
e.	Strainer 4"			
81.	Air Vent 1/2" Dia			
82.	Air Vent 1" Dia			
83.	Single PVC cable surface wiring in G.I metal conduit with trunking breaking rate 600VAC b50Hz			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.

Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
a.	1.5 mm ²			
b.	2.5 mm ²			
c.	4 mm ²			
d.	6 mm ²			
e.	10 mm ²			
f.	16 mm ²			
g.	25 mm ²			
h.	35 mm ²			
i.	50 mm ²			
84.	4-core armoured cable PVC/SWA/PVA, XPLE wiring on heavy gauge epoxy coated G.I metal trunking c/w aluminium, saddles, steel brackets, gland, cable lug, shrinking insulation, etc Rating: 1000VAC, 3Ph, 50Hz			
a.	1.5 mm ²			
b.	2.5 mm ²			
c.	4 mm ²			
d.	6 mm ²			
e.	10 mm ²			
f.	16 mm ²			
g.	25 mm ²			
h.	35 mm ²			
i.	50 mm ²			
j.	70 mm ²			
k.	95 mm ²			
l.	120 mm ²			
m.	150 mm ²			
n.	185 mm ²			
o.	240 mm ²			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
85.	310 Replaceable air pre-filters, disposable, adhesive coated fiber glass with resistance not less than 80%			
a.	24" x 24" x 2"			
b.	12" x 24" x 2"			
86.	Replaceable air pre-filters, as above in roll form 2" thick and approx 65 ft long by 6 ft wide or offer			
87.	Medium efficiency filter ultra fine glass fiber media suitably supported and reinforced, initial resistance (clean) shall be 4"w.g @500rpm air velocity dust spot efficiency 85% suitable for insulation in AA ASTROSEAL or as approved by BESS			
a.	24" x 24" x 12"			
b.	24" x 12" x 12"			
88.	High efficiency filter HEPA type in metal frame water proofed, fire retardant, efficiency not less than 95% by DOP initial resistance not less than 1"w.g			
a.	24" x 24" x 12"			
b.	24" x 12" x 12"			
89.	Fine dust filters LUWA FP-85-P305			
90.	Fine dust filters LUWA FP-85-P610			
91.	Ultra Fine V- filters LUWA 412350070			
92.	Bearing over 4" including holes (pillow, block flange and others)			
93.	Resurfacing of shaft for AHU motors			
94.	Resurfacing of shaft for pumps motors			
95.	Materials for repairing leaks. To provide all the required materials to repair all leaks, install new compressor c/w oil & gas or overhaul to working order as instructed by designated officer, Labour charge are no chargeable.			
96.	Cooling tower (LBC 1000, 400, 300)			
a.	Repair cooling tower basin leaks with fiber glass and resin (whole)			
b.	Float valve c/w float assembly			
	Spares for York Screw chiller R22 Model			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
c.	No YSDBDA S35 CFA capacity 250 TR			
97.	Valve butterfly 300 R22 S3 compressor part no. 022-08848-000			
98.	Shim motor mounting part no. 066-87439-000			
99.	Shim motor mounting part no. 066-92388-000			
100.	Shim motor mounting part no. 066-92389-000			
101.	Compressor S3 oil separator part no. 376-74210-000			
102.	Cooler with standard compant water boxes DB (cooler code)			
a.	1 pass channel (gasket type)/m			
b.	2 pass channel (gasket type)/m			
c.	3 pass channel (gasket type)/m			
103.	Condenser with standard compant water boxes DA (condenser code)			
a.	1 pass channel (gasket type)/m			
b.	2 pass channel (gasket type)/m			
104.	Packing 1250 GPM crane			
105.	ACR smart reader data logger			
106.	Camfil absolute filters type MDEPA, air velocity 0.186m ³ /S670m ³ /h, 250Pa			
a.	Size 457mm x 457mm x 150mm			
b.	Size 610mm x 610mm x 150mm			
107.	Alpha cell HEPA filters ACG2-122412 Size 12' x 24' x 11.5'			
108.	Supply and install screw chiller solenoid coil part No. 951A0056H03 (451850)			
109.	Fan Motor DX Condensing Unit P/N 024-18397-700			
110.	S.C.R Controller for Solid Sate Starter			
	Spares for Carrier Centrifugal Chiller R134a			
113.	Pressure Transducer P/N HK05YZC02			
114.	Transducer-sensor HH79NZ147			
115.	By pass contractor			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
116.	Starter management module CES0121319-01			
117.	Chiller visual control (CVC)			
118.	P.S.I.O 19XR04006001			
119.	Fining card			
120.	Impeller			
121.	Thrust bearing (whole Assembly) 19XR660031			
122.	Actuator motor HF26BB026			
123.	Oil pump 02XB34008902			
124.	Oil filter 02XB66004			
125.	Oil heater 02XR05001801			
126.	02XTransformer 115/24V or 115/12V			
127.	Oil pressure switch HR06UB011			
128.	Local interface device CES013C036			
129.	S.C.R			
130.	Thermostatic expansion valve			
a.	5 – 10 TR			
b.	11 – 30 TR			
c.	31 – 50 TR			
d.	51 – 75 TR			
e.	76 – 96 TR			
131.	Electronic expansion valve (Carrier Chiller) Mod no: 30GT120-910			
132.	Thermistor			
133.	Microprocessor board			
134.	C.P.C sensor			
135.	Relay board			
136.	Compressor service valve			
a.	½ - ¾"			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
b.	7/8 - 1 1/8"			
c.	1 3/8 - 2 1/8"			
137.	Semi hermetic compressor (Carrier) D6E4265-275-299			
138.	York air cooled chiller			
a.	York compressor 70 – 85 TR complete set			
b.	Power relay board			
c.	Microprocessor board			
d.	Transducer oil, LP. HP			
e.	Condenser fan speed controller			
139.	Capacitor running/starter 370-440VAC, 50Hz any brand			
a.	2 – 5 MFD			
b.	6 – 15 MFD			
c.	16 – 29 MFD			
d.	30 – 50 MFD			
e.	51 – 70 MFD			
140.	RAC starter 220/440 coil single or three phase c/w overhead			
a.	Suitable for 3/4 - 1 1/2 hp (4 – 10 Amp)			
b.	Suitable for 2 - 1 1/2 hp (11 – 25 Amp)			
c.	Filter drier sporlan 1/4" - 1/2"			
d.	Filter drier sporlan 5/8" - 7/8"			
141.	To supply & install exhaust fan c/w making opening either through glass or concrete, mounting plate, bracket as required and to provide power supply c/w on/off switch from nearest the DB			
a.	6"			
b.	8"			
c.	10"			
d.	12"			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
e.	15"			
f.	18"			
g.	24"			
142.	To service glass/wall mounted exhaust fan			
a.	6 – 12"	-----	± \$3	
b.	15 – 24"	-----	± \$4	
143.	To rewind motors c/w resurfacing, new bearings, rotors, stators & mounting any rpm 1ph or 3Ph, 240/415V, 50Hz with 9 months warranty			
a.	1/3 - ½ Hp			
b.	¾ - 1 Hp			
c.	2 – 4 Hp			
d.	5 – 5.7 Hp			
144.	Thermal overload relay for fully hermetic compressor for RAC & split unit			
a.	¾ - 1 Hp			
b.	1½ - 2 Hp			
c.	2½ - 3 Hp			
145.	Liquid line solenoid valve c/w solenoid coil (24/110/240V, 50Hz) any brand & size less than 2"			
146.	Change bush to bearing fan motor, FCU, RAC etc			
147.	G.I drain pipe c/w fittings (bends, elbows, traps, tees etc. including welding & brazing)below 1½"			
148.	Refrigerant suction line filter Drier			
a.	½ - ⅝ ODF			
b.	¾ - ⅞ ODF			
c.	1⅞ - 1⅝ ODF			
149.	RAC filter roll ½" x 16" x 50' (or offer)			
	Spares for RAC & Split Unit Air Cond. Any HP			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
150.	Thermostat including sensor as required			
151.	Air filter, soft foam/sponge type			
152.	Air filter, hard PVC mesh frame type			
153.	Air blower, evaporator fan			
154.	Over load relay, for compressor			
155.	Fan motor bush			
156.	Fan motor bearing			
157.	Filter drier			
158.	Remote control for split unit			
159.	High pressure switch			
160.	Low pressure switch			
161.	Service valve			
162.	Refrigerant piping connector coupling			
163.	Front cover			
164.	Flexible hose, ½" Ø/m			
165.	Remove to wire type including necessary parts			
166.	Fully hermetic compressor for RAC R22 any make c/w filter drier valve, motor protector, crankcase heater, capacitor + 9 months warranty including testing & commissioning			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
167.	Fully hermetic compressor for split unit R22 any make c/w service valve, motor protector, crankcase heater, capacitor + 9 months warranty including testing & commissioning			
a.	8,000 Btu/hr – 12,000 Btu/Hr			
b.	12,500 Btu/hr – 16,000 Btu/Hr			
c.	16,500 Btu/hr – 24,000 Btu/Hr			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
d.	24,500 Btu/hr – 30,000 Btu/Hr			
e.	30,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
168.	Fan blade for condenser, split unit any make			
a.	8,000 Btu/hr – 12,000 Btu/Hr			
b.	12,500 Btu/hr – 16,000 Btu/Hr			
c.	16,500 Btu/hr – 24,000 Btu/Hr			
d.	24,500 Btu/hr – 30,000 Btu/Hr			
e.	30,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
g.	48,500 Btu/hr – 60,000 Btu/Hr			
h.	65,500 Btu/hr – 72,000 Btu/Hr			
169.	Micro-computer control for split unit any make			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
170.	Electrical printed circuit boards for split unit any make			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
171.	FCU fan scroll for split unit any make			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
172.	New condenser fan motor for split unit any make			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
173.	New fan motor for RAC any make			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
174.	New evaporator fan motor for split unit any make			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
175.	To rewind fan motor for split unit any make c/w bearings			
a.	8,000 Btu/hr – 13,000 Btu/Hr			
b.	13,500 Btu/hr – 18,000 Btu/Hr			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
c.	18,500 Btu/hr – 28,000 Btu/Hr			
d.	28,500 Btu/hr – 38,000 Btu/Hr			
e.	38,500 Btu/hr – 48,000 Btu/Hr			
176.	To rewind fan motor for RAC any make c/w bearings			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
177.	Removal of existing split unit & deliver to BEST store			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
178.	Removal of existing deliver & deliver to BEST store			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
179.	Re-installation of used split unit from BEST store or another location within RIPAS Hospital c/w materials required by BEST			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
180.	Re-installation of used RAC from BEST store or another location within RIPAS			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
	Hospital c/w materials required by BEST			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
181.	To fabricate, supply & install Drip tray for RAC			
182.	Plug top MK or approved equivalent (to supply only)			
a.	13 amps			
b.	15 amps			
183.	3-core flexible cable suitable for the following rating			
a.	15 amps			
b.	20 amps			
c.	30 amps			
184.	Refrigerant piping for split unit c/w Armaflex insulation and Denso tape			
a.	Below 1"			
b.	1½" – 2"			
185.	Replace refrigerant piping insulation using Armaflex for split unit			
a.	Below 1"			
b.	1½" – 2"			
186.	Metal trunking			
a.	2" x 2" x 6"			
b.	2" x 3" x 6"			
c.	2" x 4" x 6"			
187.	PVC trunking			
a.	2" x 2" x 6"			
b.	2" x 3" x 6"			
c.	2" x 4" x 6"			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
188.	New receiver for			
a.	RAC's			
b.	Split units			
189.	Flare nuts any size for split unit and RAC			
190.	Flare union any size for split unit and RAC			
191.	Flare elbow any size for split unit and RAC			
192.	Flare tee any size for split unit and RAC			
193.	Air curtains any makes			
a.	Air flow 2" x throw			
b.	Air flow 3" x throw			
c.	Air flow 4" x throw			
194.	Alteration of an opening as requested by the Department			
195.	Banking off an opening using ½ thick painted plywood, properly fixed to cover the opening fully			
196.	Materials for repairing leaks, to provide all the required materials to repair any leaks, install new compressor or overhaul to working order as instructed by the designated officer. Labour charge are not chargeable			
197.	To supply and install metal support brackets for RAC and split type air conditioning where the brackets shall be rigidly fixed and painted to match the external wall of the building (for ducting & condensing unit various size)			
198.	To construct an opening where it should be rigid and correctly size at a location as requested by the designated officer of the department. The type of walls are as follows:			
a.	On timber/wooden wall			
b.	Within louvers/NACO window frame			
c.	On brick or concrete wall less than 6" thick			
d.	On brick or concrete wall 6 to 12" thick			
e.	On fixed glass window frame or on window with frame			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
200.	To supply, install, excavate and making good etc Of concealed drain pipe as follows:			
a.	On concrete floor only			
b.	On concrete floor with mosaic tiles			
201.	Supply and installation of new RAC (carrier) units on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
202.	Supply and installation of new RAC (National) units on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
203.	Supply and installation of new RAC (Toshiba) units on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
204.	Supply and installation of new RAC (General) units on to a location as			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
	requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
205.	Supply and installation of new RAC (Mitsubshi) units on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
206.	Supply and installation of new RAC (Daikin) units on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	7,000 Btu/hr – 11,000 Btu/Hr			
b.	12,000 Btu/hr – 17,000 Btu/Hr			
c.	18,000 Btu/hr – 24,000 Btu/Hr			
207.	To supply & install external security grills for RAC c/w accessories etc.			
208.	To install drip tra for newly installed RAV units c/w associated materials and workmanship. Where possible the PVC pipe shall be fixed with saddles and where PVC pipes crosses the walkway etc..... it should be installed flushed to the walkway.			
209.	To replace a compressor with another working compressor salvaged from a			

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Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
	written-off unit, including all necessary related works. The works shall also include testing of the unit repainting of the unit using two coats of red lead oxide paint and a final coat to match the original colour. The price should only be chargeable as labour charge.			
210.	Supply and installation of new split units A/C (Carrier) with varied capacity and size on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
211.	Supply and installation of new split units A/C (National) with varied capacity and size on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
212.	Supply and installation of new split units A/C (Toshiba) with varied capacity and size on to a location as requested by designated			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
	officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
213.	Supply and installation of new split units A/C (General) with varied capacity and size on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
214.	Supply and installation of new split units A/C (Mitsubishi) with varied capacity and size on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	8,000 Btu/hr – 10,000 Btu/Hr			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
215.	Supply and installation of new split units A/C (Daikin) with varied capacity and size on to a location as requested by designated officer of the department, where the wall are either already available or done by others. The prices should includes all materials such as wiring, starter, plug top etc and works related, testing/commissioning and 5 years warranty for compressor			
a.	8,000 Btu/hr – 10,000 Btu/Hr			
b.	10,500 Btu/hr – 13,000 Btu/Hr			
c.	13,500 Btu/hr – 18,000 Btu/Hr			
d.	18,500 Btu/hr – 28,000 Btu/Hr			
e.	28,500 Btu/hr – 38,000 Btu/Hr			
f.	38,500 Btu/hr – 48,000 Btu/Hr			
216.	Thermostat for refrigerator/Freezer any type			
217.	Defrost timer for refrigerator/freezer any type			
218.	Filter Drier for refrigerator/freezer any type 3½" – 5" long			
219.	Filter Drier for refrigerator/freezer any type ¼" flare type			
220.	Defrost heater for refrigerator			
221.	Door gasket for refrigerator/freezer			
222.	Compressor 110V			
223.	Timer for ice maker			
224.	Timer for non frost refrigerator			
225.	To supply and install Rotary Hermetic Compressor for Non frost Domestic Refrigerator (R12) any type and capacity c/w necessary materials such as Filter drier,			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.

Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
	charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
226.	To supply and install Reciprocating Hermetic Compressor for Non frost Domestic Refrigerator (R12) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
227.	To supply and install Rotary Hermetic Compressor for Non frost Domestic Refrigerator (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
228.	To supply and install Reciprocating Hermetic Compressor for Non frost Domestic Refrigerator (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
229.	To supply and install Rotary Hermetic Compressor for Non frost Domestic Refrigerator (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
230.	To supply and install Reciprocating Hermetic Compressor for commercial Refrigerator ie Drug Fridge (R12) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/ commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
231.	To supply and install Reciprocating Hermetic Compressor for commercial Refrigerator ie Drug Fridge (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/ commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
232.	To supply and install Rotary Hermetic Compressor for commercial Refrigerator ie Drug Fridge (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
233.	To supply and install Reciprocating Hermetic Compressor for commercial Refrigerator ie Drug Fridge(R12) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty **Compressor supply by BEST RIPAS Hospital			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
234.	To supply and install Reciprocating Hermetic Compressor for commercial Refrigerator ie Drug Fridge(R12) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty **Compressor supply by BEST RIPAS Hospital			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
235.	To supply and install Reciprocating Hermetic Compressor for Refrigerator ie Drug Fridge (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty **Compressor supply by BEST RIPAS Hospital			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
236.	To supply and install Rotary Hermetic Compressor for commercial Refrigerator ie Drug Fridge (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
237.	To supply and install Reciprocating Hermetic Compressor for Refrigerator ie Drug Fridge (R134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/commissioning and 9 months compressor warranty **Compressor supply by BEST RIPAS Hospital			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
a.	75 watts – 100 watts			
b.	210 watts – 250 watts			
c.	210 watts – 250 watts			
d.	210 watts – 250 watts			
238.	To supply and install Reciprocating Hermetic Compressor for commercial Refrigerator ie Drug Fridge (R12) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/ commissioning and 9 months compressor warranty. Compressor supply by BESS RIPAS Hospital			
a.	75 watts – 100 watts			
b.	110 watts – 150 watts			
c.	160 watts – 200 watts			
d.	210 watts – 250 watts			
e.	260 watts – 300 watts			
239.	To repair commercial Refrigerator ie. Drug Fridge (12) any type and capacity c/w necessary materials such as Filter drier, changing port etc. and recharge refrigerant to fully running capacity, including testing/commissioning without changing compressor			
240.	To repair commercial Refrigerator ie. Drug Fridge (134a) any type and capacity c/w necessary materials such as Filter drier, changing port etc. and recharge refrigerant to fully running capacity, including testing/commissioning without changing compressor			
241.	To supply and install condenser fan motor for commercial Refrigerator ie. Drug Fridge (134a) any type and capacity, including testing/ commissioning			
242.	To supply and install door gasket for commercial Refrigerator ie. Drug Fridge (R12/134a) any type and capacity, including testing/ commissioning			
243.	To repair domestic Refrigerator ie Drug Fridge (12) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
	to fully running capacity, including testing/ commissioning without changing the compressor			
244.	To repair domestic Refrigerator ie Drug Fridge (134a) any type and capacity c/w necessary materials such as Filter drier, charging port etc and recharge refrigerant to fully running capacity, including testing/ commissioning without changing the compressor			
245.	To supply and deliver non frost domestic refrigerator (R12) to any location within Brunei Muara under Ministry of Health and 9 months comprehensive warranty and 5 years compressor warranty			
a.	Up tp 100 liters			
b.	10 liters – 150 liters			
c.	15 liters – 200 liters			
d.	20 liters – 250 liters			
e.	25 liters – 300 liters			
246.	To supply and install Meranti Timber (sawn)			
a.	1" x 2" x 12"			
b.	2" x 2" x 12"			
c.	2" x 4" x 12"			
247.	To supply & install plywood			
a.	3/6" x 4' x 8'			
b.	1/4" x 4' x 8'			
c.	1/2" x 4' x 8'			
248.	To supply silicone			
249.	To supply and deliver non frost domestic refrigerator (R134a) to any location within Brunei Muara under Ministry of Health and 9 months comprehensive warranty and 5 years compressor warranty			
a.	Up tp 100 liters			
b.	110 liters – 150 liters			
c.	151 liters – 200 liters			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
d.	201 liters – 250 liters			
e.	251 liters – 300 liters			
f.	301 liters – 350 liters			
250.	To supply and deliver commercial refrigerator ie. Drug Fridge (R134a) to any location within Brunei Muara under Ministry of Health and 9 months comprehensive warranty and 5 years compressor warranty			
a.	Up tp 100 liters			
b.	110 liters – 150 liters			
c.	151 liters – 200 liters			
d.	201 liters – 250 liters			
e.	251 liters – 300 liters			
f.	301 liters – 350 liters			
251.	To supply and install door gasket for commercial Refrigerator ie. Drug Fridge (R12/134a) any type and capacity, including testing/ commissioning			
252.	Evaporate fan motor c/w blade			
253.	Condenser fan motor c/w blade for commercial fridge			
254.	Heater for non frost refrigerator any capacity			
255.	Thermistor non frost refrigerator			
256.	Overload protection relay for refrigerator			
257.	Door bushing/hinges for non frost refrigeration/ commercial frigde			
258.	Filter drier for non frost refrigerator			
259.	Capacity Tube for non frost refrigerator			
260.	Rechargeable battery 12Volt = 7.0 Amperes Hours pn/HK022B038			
261.	To supply and deliver glass mounted exhaust fan			
a.	6"			
b.	8"			
262.	To supply and deliver wall mounted exhaust fan			

ALL PRICES ARE FOR SINGLE UNIT – 1 No, OR 1 M, OR 1 M2 etc.				
Ref No	PARTS DESCRIPTION (As described below or approval equivalent)	RATE PARTS ONLY	RATE LABOUR TO INSTALL	NETT PRICE TO SUPPLY & INSTALL
a.	6"			
b.	8"			
263.	Actuator motor c/w valve 3-way			
264.	To supply and deliver sling psychrometer			
GRAND TOTAL				\$

Note:

- List of the items that are require throughout the contract term must be available within the commencing works or contract starts.
- Any items that are not listed (that may be useful and require for future use), Tenderer are required to fill/add in the blank.
- If the price item not stated, the price will be consider covered by the tenderer within the contract term without any consent require.
- The tender must submit and attach all require documentation etc before installation/replacement.

SCHEDULE C
LIST OF TOOLS

**LIST OF TOOLS AND INSTRUMENTS TO BE USED
THROUGH OUT THE CONTRACT PERIODS**

ITEMS NO.	NAMES OF TOOLS/INSTRUMENT	SIZE/RANGE	QUANTITY	Y/N
1.	Vacuum Pump	For Commercials/ Domestic Plant	2 nos	
2	Screw Driver	Various Sizes	4 Sets	
3.	Philip Screw Driver	Various Sizes	4 Sets	
4.	Alan Key	Various Sizes	4 Sets	
5.	Ratchet	1/4 " - 3/8 "	4 Sets	
6.	Socket Set (metric)	Various Sizes	4 Sets	
7.	Open End /Ring Spanner	Various Sizes	4 Sets	
8.	Adjustable Spanner	6" 8" 10" & 12"	4 nos each	
9.	Torque Wrench	80-250lbs	1set	
10.	Manifold Gauge for R12 & R134 Machines	-	2 set each	
11.	Pipe Wrench	12" & 24"	2 nos each	
12.	Oxygen & Acetylene Set (small cylinder)		1 set	
13.	Pressure Pump (Complete Set)	800-1200 watts	2 sets	
14.	Ladder	8 steps & 12 steps	2 nos each	
15.	Flaring Set	Various Sizes	1 set	
16.	Torch Light		4 nos	
17.	Extension Light		2 nos	
18.	Extension Wire complete (3 core)	10m & 30m (long)	2 set each	
19.	Long nose Plier, Side cutter Plier & Plier		4nos each	
20.	Portable Arc Welding (complete)		1 set	
21.	Hose	20- 30m (long)	4 nos	

ITEMS NO.	NAMES OF TOOLS/INSTRUMENT	SIZE/RANGE	QUANTITY	Y/N
22.	Wet and Dry Vacuum Cleaner		2 nos	
23.	Vernier Clipper		2 nos	
24.	Hack saw		2 nos	
25.	Junior Hacksaw		2 nos	
26.	Bearing Puller	3-12kg	2 nos	
27.	Ball Hammer and Mallet		2 nos each	
28.	Water Flow Meter		1 no	
29.	Air Velocity Meter		1 no	
30.	Sling Physcrometer		2 nos	
31.	Multi Meter Tester		4 nos	
32.	Amps Meter		2 nos	
33.	Megger Meter		2 nos	
34.	Safety Shoes		19 nos	
35.	Overall/Uniform with clear logo/name of the company		38 nos	
36.	Hand Gloves		19 nos	
37.	Eye protection (glass/plastic)		8 nos	
38.	Ear Muff/ Protector		8 nos	
39.	Safety Helmet		8 nos	
40.	First Aid Kit (Complete)		2 sets	
41.	Fire extinguisher	BFC 2.5Kg)	2 sets	
42.	Halide Detector		2 nos	
43.	Electric Drill & Rechargeable Battery Drill		2 nos each	
44.	Drill bit	Various size for Concrete, Metal and wood	2 sets	
45.	Push Car/ trolley		2 nos	

ITEMS NO.	NAMES OF TOOLS/INSTRUMENT	SIZE/RANGE	QUANTITY	Y/N
46.	Grease Gun		2 nos	
47.	Thermo-hydrograph		4 nos	
48.	Roto jet Machine Complete Set (Chillers Annual Servicing)		1 no	

Note:

List of item (1- 48) are require through out the contract and must be available within 14 days of commencing works/ contract starts. Any items are not listed, may be useful and require, Tenders are required to fill in the blank form provided.

SCHEDULE D
CONSUMABLES ITEMS

LIST OF CONSUMABLES ITEMS

Consumables items to be paid within the contract conditions including labour, supervision, testing and commissioning. To be used at any time when required throughout the contract period.

1. Replace Belting of all types and various sizes
 - a) Air Handling Units
 - b) Fan coil Units
 - c) Central Exhaust Fan
 - d) Cooling Towers
 - e) All Refrigeration, Air conditioning and Ventilation Plant
2. Bearing/ Bush of All Refrigeration, Air conditioning and Ventilation Plant (Any types and sizes)
3. Painting and Cleaning material to all Refrigeration, Air conditioning and Ventilation Plant, piping, electrical grade contact spray for all switch board, Control Panel and etc.
4. Motor terminal & compressor thermal overload ie klixon , etc
5. Any type of air filters.
6. Rubber mounting for compressor, motor etc
7. Flare nut, Flare Union, crews, fastener, nuts and bolts (any types and sizes)
8. Approved chemicals for cleaning coil (in any amount) when ever required.
9. Service valves or charging port for compressor.
10. Fuses, Cables lugs, Connector and etc (any types and amps)
11. 13A and 15A Plug Top
12. Repair leaks c/w recharge refrigerant to full running capacity for all refrigerant, air-conditioning system and Ventilation Plant (The item shall be used when ever the unit not cooling / undercharge due to leak in the system) for R22, R11, R12, R134A, R407, R410A and etc.
13. Nitrogen at any amount when required
14. Denso / Duct and Refrigerant Pipes insulation Tape (to repair damage of All Refrigeration, Air conditioning and Ventilation Plant)
15. Roll Filter for AHU, FCU, etc
16. Indicator bulbs for all type of switch board, indicator panel etc.
17. All type of Battery for remote Control.

SECTION 2

SPECIFICATIONS

PROVISION OF COMPREHENSIVE MAINTENANCE SERVICES FOR REFRIGERANT AIR-CONDITIONING AND VENTILATION EXHAUST FOR BRUNEI MUARA DISTRICT SERVICES, HEALTH CENTRES & CLINICS FOR PERIOD OF ONE (1) YEAR

SCOPE OF WORKS

1. GENERAL

- Tenderers are sought from suitably qualified contractors who wish to be considered for the provision of maintenance services (hereinafter referred to as “Maintenance Services”) for Refrigeration, Air Conditioning and Ventilation (hereinafter referred to as “the System”) at the locations set out in **SUMMARY OF TENDER – List of Equipment** for a duration of Six (6) Months.
- The Tenderer shall provide Maintenance Services for the System inclusive of all necessary spare parts and replacement parts to ensure that the System is kept in good working order and condition and functioning efficiently within the manufacturer’s specification. The Maintenance Services consist of:
 - ✓ Preventive Maintenance
 - ✓ Corrective Maintenance
- All prices to be quoted shall include labor, parts and transport charges.
- The Tenderer shall also ensure that technical services shall be available twenty-four (24) hours a day for the convenience of the Government to provide assistance for any emergency service. In the event that any attended calls are made during the preventive maintenance period, there shall not be any charges for the replacement of parts.

2. MAINTENANCE SERVICES

2.1 PREVENTIVE MAINTENANCE

- Scheduled or routine preventive maintenance, which includes testing, troubleshooting and inspection, on the system shall be performed during Government working hours (07.45 am – 12.15 pm and 01.00 pm – 04.30 pm).
- The Tenderer shall dispatch his technician to a site specified by the Superintending officer or his representative within 2 hours (hereinafter “Response Time”) after being notified in writing or telephone that a fault is reported via a “Service Call Slip” which the Tenderer shall collect prior to commencing the repair or replacement works. This Service Call Slip must be certified by the Superintending officer or his representative with an official stamp, time in, time out and date.
- Preventive maintenance shall be performed in accordance with the maintenance schedules set out in **Schedule B – Plan Preventive Maintenance Schedules (PPM) recommended** by the manufacturers’ service manuals.
- Although the maintenance schedules may not include instructions for every component of each item of the equipment, the Tenderer is expected to carry out the usual maintenance process in accordance with the normal trade practices and to meet specific requirements of the respective equipment’s manufacturer’s recommendations.
- The frequencies of the preventive maintenance may be adjusted by mutual agreement, to suit the duty and conditions of operation of the system’s equipment.

- Where follow – up work is considered necessary and involves further repairs the Tenderer shall notify the Superintending Officer of the extent of the repairs before proceeding with the work.
- The Tenderer shall ensure that downtime of any of the equipment within the system is kept to a minimum. The maximum period for which any equipment to be continuously out-of service shall be **three (3) days**.
- The Tenderer is also required to submit monthly reports covering details (by mentioning Brand, Modal, serial Number and Tagging Number stated etc) of periodic inspection servicing and repairs. The monthly report shall include, but not limited to, a log showing time when fault notice was received, nature of fault, time when rectification works was initiated, actual time taken for repair, materials and parts used.

2.1 CORRECTIVE MAINTENANCE

- This Service shall be provided free of charge with unlimited breakdown call as per contract year.
- Corrective maintenance shall be performed AT ANY TIME (inclusive of public holiday) upon notification by S.O or representative.
- After Responding to the response time, the contractor and/or his personnel shall produce and submit detailed technical report of the fault or breakdown to S.O prior to proceed with the rectification of the fault or breakdown.
- To ensure immediate response (refer to scope of work) by the contractor and/or his personnel, the contractor shall submit contact numbers of his personnel to enable the S.O or his representative for reporting faults and breakdown.

2.2 ADDITIONAL SERVICES

- The Tenderer shall service the existing control panels such as tightening the cable, terminations, replacement of fused indicating lights, faulty meters, tidying up the internal wirings, relays, components and boards.
- The Tenderer is also required to provide necessary protection against the existing plants and equipment in the adjacent working areas while carrying out the Maintenance Services.
- The Tenderer is also to carry out troubleshooting, if necessary, by following S.O instruction and approval.

3. SUPERVISION & PERSONNEL

- To ensure the proper and efficient execution of the maintenance services, the Tenderer shall provide and employ **qualified and competent workers** to perform the Maintenance Services as follows:
 - ✓ One (1) registered Engineer
 - ✓ Four (4) registered technician/supervisor consisting of:
 - Two (2) Electrical
 - Two (2) Aircon
 - ✓ Two (3) tradesmen
- The Tenderer shall ensure that such personnel are properly trained and employed (if they are employed outside of Brunei Darussalam) by the Tenderer throughout the contract duration.
- The Tenderer is required to submit a list of names, addresses, qualification, experiences

and other relevant information that the Superintending Officer may require.

- The Superintending Officer **reserves the right to remove, reject or replace any persons employed by the Tenderer**, who in the opinion of the Superintending Officer is not competent to execute the maintenance Services and shall direct the Tenderer to replace such person/s.
- All personnel employed by the Tenderer shall be neatly and properly attired in uniforms and equipped with proper tools and safety equipment to enable them to carry out their work safely, accurately and without any risk of causing damage to the system or any part of the building within the contract.

4. **INSURANCE**

- The Tenderer shall warrant that he will maintain at his own expense, comprehensive general liability, errors and omissions, workers' compensation, public liability, property damage and automobile liability insurance. Upon request by the Government, the Tenderer shall furnish certificates showing that such insurance is in effect and will not be cancelled or changed in the absence of a prior 30-days' written notice to the Government.

5. **LOG BOOKS AND REPORTS**

- A record of the work done on each maintenance visit for each location in **Schedule A** shall be noted in a log book by the Tenderer.
- The log book must show the date, time and duration of work performed; a description of work performed and the name of the Tenderer's personnel responsible for performing the work.
- Completion of the maintenance visit shall be affixed via the technician's signature and shall be confirmed in writing by the Superintending Officer or his representative or End-User.
- The log book must be available for inspection by the Government at any time.
- The Tenderer shall also submit Maintenance Service Reports in a format acceptable the Government and shall include the following information.
 - ✓ Reference number of any equipment of the system;
 - ✓ Job number;
 - ✓ Date of completion of job;
 - ✓ Date, time and total time any equipment of the system is made unavailable to the Government;
 - ✓ Name of Tenderer's technician/personnel responsible for carrying out the job; and
 - ✓ Comments of the person requesting the Maintenance Services.
- Any verbal reports made by the EMS on any breakdown shall be made available to the Superintending Officer or his representative within twenty-four (24) hours of receiving the complaint. Such report must state the nature of the fault, work done and whether any further work is required.

6. **EQUIPMENT AND TOOLS**

- The Tenderer shall ensure that all technicians working on site are equipped with adequate equipment and/or tools to enable them to carry out their work safely, accurately and without risk of causing any damage to the system or any of the buildings. Such equipment and tools include as listed out in **Schedule C - List of Tools** but are not limited to the following:

- ✓ Multitester
- ✓ Insulation Tester
- ✓ Test pin
- ✓ Fuse
- ✓ Indicator panel bulbs
- ✓ General Tool kit

7. CONTRACT PRICE AND PAYMENT

- The Tenderer shall quote the cost of an annual service contract which shall consist of the maintenance services charges and the cost of parts replaced (if any), upon receipt of:
 - ✓ One (1) original invoice;
 - ✓ One (1) duplicate invoice;
 - ✓ Service Call Slip;
 - ✓ A detailed Maintenance service Report
- The Contractor shall submit the invoice of the previous month **on the first week of the following month.** All claims shall be addressed to:

*Head of Section,
Brunei Muara Estate Management
Ong Sum Ping
Ministry of Health
Negara Brunei Darussalam*

- Payment will be made within forty-five (45) days after submission of the invoice and other related documents, subject to any deduction under the Contract and satisfactory certification by the Government during the preceding month.

8. CONSUMABLES

- Consumable items as listed out in **Schedule D - Consumables items** shall be deemed to be included in the rates and prices for the maintenance services. No additional claims shall be entertained for these items.

9. USE OF SITE

- The Tenderer shall not use the site for any purpose other than that of carrying works in connection with the performance of the contract
- The Tenderer shall at all times keep the site clear and free from all surplus materials, rubbish, debris arising from the execution of the works and shall keep the site in a clean condition.

10. HEALTH AND SAFETY, PRECAUTION AGAINST CONTROL

- The Tenderer shall provide all necessary measure, comply with all health and safety regulations and rules that are force, and comply with all orders and instructions given to him from time to time by the Superintending Officer in regard to health and safety persons in the vicinity of the site and including safety and other regulation in force in the Hospital, Health Centers and Clinics and any requirements of local authority and/or public service authority. **No claim** by the Tenderer for additional payment shall be allowed on the grounds of any misunderstanding or misinterpretation due lack of knowledge of these conditions, regulations and requirements.

CONTENTS

SCHEDULE B	TENDER FORM	1
SCHEDULE C	INFORMATION SUMMARY	3
SCHEDULE D	SUB-CONTRACTS	4
SCHEDULE E	COMPANY'S BACKGROUND	5
SCHEDULE F	REFERENCES	6
SCHEDULE G	LETTER OF DECLARATION	7

SCHEDULE B – TENDER FORM

To:

TENDER REFERENCE NO: KK/114/2026/ESTETMOH

**INVITATION TO TENDER
PROVISION OF COMPREHENSIVE MAINTENANCE SERVICES FOR REFRIGERANT AIR-
CONDITIONING AND VENTILATION EXHAUST FOR BRUNEI MUARA DISTRICT SERVICES,
HEALTH CENTRES & CLINICS FOR PERIOD OF ONE (1) YEAR**

TENDER OF (*name of tenderer*) _____

Company/Business Registration No _____

Tender Closing Date: _____

ITEM NO.	DESCRIPTION	REFER PAGE	TOTAL PRICE (B\$)
1	PLANNED PREVENTIVE MAINTENANCE (A)	SCHEDULE A1 PLANNED PREVENTIVE MAINTENANCE	
2	CORRECTIVE MAINTENANCE (B)	SCHEDULE B CORRECTIVE MAINTENANCE - SPARE PARTS LIST	
GRAND TOTAL COST FOR ONE (1) YEAR			

1. We offer and undertake on your acceptance of our Tender to provide the above mentioned services in accordance with your Invitation To Tender.
2. Our Tender is fully consistent with and does not contradict or derogate from anything in your Invitation To Tender. We have not qualified or changed any of the provisions of your Invitation To Tender.
3. We shall execute a formal agreement in the appropriate form set out in Section 4 – Contract of the Invitation to Tender together with such further terms and conditions, if any, agreed between the Government and us.
4. OUR OFFER IS VALID FOR **SIX (6)** CALENDER MONTHS FROM THE TENDER CLOSING DATE.
5. When requested by you, we shall extend the validity of this offer.
6. We further undertake to give you any further information which you may require.

Dated this _____ day of _____, 2026.

Signature of authorised officer of Tenderer

Name:

Designation:

Tenderer's official stamp:

SCHEDULE C – INFORMATION SUMMARY

2.1 Tenderers shall provide in this Schedule the following information:

- a. Management summary
- b. Company profile (including Contractor and sub-contractor(s), if any)
- c. Years of experience (as of the Tender Closing Date) of the Contractor and sub-contractor(s) in relation to the project:
 - *Provision of Comprehensive maintenance services for air conditioning and ventilation*
- d. Other information which is considered relevant

SCHEDULE D – SUB-CONTRACTS

- 3.1 Tenderers shall complete Table 3.1 with information about all the companies involved in the provision of the services and items specified in this tender. This shall include details about the Contractor and each sub-contractor involved, as well as their respective responsibilities.
- 3.2 Tenderers shall also indicate in Table 3.1 any alliance relationship established with each sub-contractor. An alliance is defined as a formal and binding business relationship between the allied parties.

Table 3.1 - Responsibility Table

Company Name	Responsibility Description	Alliance Relationship between Contractor and Sub-contractor(s)		
		Alliance Exists? (Y/N)	Date Established	Alliance Description
Contractor				
		Not Applicable	Not Applicable	Not Applicable
Sub-contractor(s)				

SCHEDULE E – COMPANY’S BACKGROUND

- 4.1 Each of the companies involved in this tender, including Contractor and sub-contractor(s) (if any), shall provide information on the company’s background, scope of operations, financial standing and certified copy of its Certificate of Incorporation or Certificate of Registration (as the case may be).

SCHEDULE F – REFERENCES

5.1 Tenderers shall submit a list of customers in Table 5.1 to whom the Contractor has provided similar services and items as specified in this tender in the recent 5 years as of the Tender Closing Date.

Table 5.1 - References of previous customers

Customer Name and Address	Customer Type (Govt or Quasi Govt)*	Contact Person	Title	Contact Number, Fax Number and E-mail Address

***Note: Tenderers shall indicate whether the customer is a Government or Quasi Government organisation. A Quasi Government is defined as an organisation which (1) is managed and controlled by the Government; or (2) has at least 50% shares being held by the Government. Please leave the column blank if the customer is neither a Government or Quasi Government organisation.**

5.2 The Ministry of Health shall treat all the information submitted under this schedule in strict confidence.

5.3 The Ministry of Health reserves the right to contact the references for tender assessment purposes.

SCHEDULE G – DECLARATION

**PENGAKUAN PENENDER
*TENDERER'S DECLARATION***