

**TERM CONTRACT FOR PREVENTIVE MAINTENANCE FOR AIR-COOLED CHILLER AROUND
UNIVERSITI BRUNEI DARUSSALAM FOR A PERIOD 1 YEAR**

UBD/Q/255/2024 - [G]

List of Air-Cooled Chiller

1. Institute of Innovation, Leadership and Advancement (ILIA)
2. Chancellor Hall
3. Institute of Health Science (I.H.S)
4. Institute of Health Science Extension (I.H.S extension)
5. Integrated Science Building (ISB)
6. Information Communication Technology Centre (ICTC)

Preventive Maintenance

General

To provide technician for general checking of Air Cooled Chiller for routine operational function of the system and planned maintenance works shall not limited to

- Condensation pressure/temperature
- Evaporation pressure/temperature
- Chiller Set point temperature
- Flowrate for inlet/outlet water temperature
- Suction temperature for all compressors
- Oil temperature and pressure, acidity and humidity
- Superheat and sub cooling values
- Line Voltage on each phase
- Absorbed current
- Check the operation and abnormal noise/sound level for Chilled Water Pump
- Check gland & mechanical seals for leakage for Chilled Water Pump
- Check and record all operating temperatures and pressures. Ensure all the numbers matching with normal operating conditions.
- Ambient temperature for Chiller Environmental area
- Visual inspection, assure all equipment is operating and that safety system are in place
- Checking for leakages. Ensure the water and refrigeration pipework's have no leakages, and there are no observed spill of refrigerant, oil or water.
- Detecting any sources of abnormal vibrations and unusual sounds, if any.

1. To carry out **Monthly** works to air cooled chiller according to schedule of works including servicing works.

- Inspection of the condenser fans should be carried out with emphasis on bearing for signs of wear
- Check insulation for damages.
- Assess chiller component for fouling especially condenser coils and fan assemblies and electrical component cabling.
- Check and grease the Chiller Water Pump Bearing
- Check and inspect for coupling wear for Chiller water Pump
- To check and clean filter drier.
- To check and clean cooling coils, inspect for distortion in fins and any sign of corrosion
- To check and clean condensing fan, bearing check for any sign of wear, poor lubrication, belts and coupling should be check and to be adjusted when necessary.
- Check and clean condenser coils and inspect for leaks, corrosion, and areas of kinking or blockage.

2. To carry out **Three Monthly** servicing works for air-cooled chiller according to schedule of works.

- To perform general servicing to air cooled chiller, cleaning the condenser coils, and brushed using chemically cleaned and anti-corrosion chemical.
- To do cleaning and housekeeping to Chiller Plant, ensure the surrounding area are in clean and safe condition.
- To perform check for all compressor fittings.
- To check fastening, tightens when necessary
- Check chiller components for corrosion especially pipework and electrical connections
- Cleaning return air dampers ensuring optimal operation, calibration coupled with check for bearings alignment and lubrication.
- Fresh air damper should be check and inspected the same way as return air dampers.
- To check all the condition of Variable Speed Drives including calibrations
- To check the conditions of all PCB Board, Control Panel.

3. To perform **Six Monthly** Chiller maintenance.

- To carried out refrigerant leak test when necessary and also heat exchanger cleaning.
- To provide Lubrication services to the chiller including changing oil filter.
- To clean the purge and capture system.
- To perform motor/wiring insulation test, vibration test and performance test.
- To change oil filters.
- To check conditions of terminal lugs, cable connection, sensor cable, replace them if necessary.
- To check alignment and repaint including cleaning inside casing for Chiller Water Pumps
- Check and inspect for mechanical Seal Leaks for Chiller Water Pump

RINGKASAN QUOTATION
SUMMARY OF QUOTATION

Tajuk / Title : **TERM CONTRACT FOR PREVENTIVE MAINTENANCE FOR AIRCOOLED CHILLER AROUND UNIVERSITI BRUNEI DARUSSALAM FOR A PERIOD OF 1 YEAR.**

Bil. Sebutharga : **UBD/Q/255/2024 - [G]**

Quotation No.

Muka 1 Dari 1
page of

| Bil. No. | Keterangan / Description | Unit Unit | Kadar Rate | Kuantiti Quantity | Jumlah Amount | |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|-------------------|---------------|---|
| | | | | | \$ | ¢ |
| A | Performance of category A (Monthly) Maintenance Works as per specification and in accordance with manufacturer's recommendation. | | | | | |
| 1 | Institute of Innovation, Leadership and Advancement (ILIA) | sum | | 12 | | |
| 2 | Chancellor Hall | sum | | 12 | | |
| 3 | Institute of Health Science (I.H.S) | sum | | 12 | | |
| 4 | Institute of Health Science Extension (I.H.S Extension) | sum | | 12 | | |
| 5 | Information, Communication and Technology Centre (I.C.T.C) | sum | | 12 | | |
| 6 | Integrated Science Building (I.S.B) | sum | | 12 | | |
| B | Performance of category B (Three Monthly) Maintenance Works as per specification and in accordance with manufacturer's recommendation. | | | | | |
| 1 | Institute of Innovation, Leadership and Advancement (ILIA) | sum | | 4 | | |
| 2 | Chancellor Hall | sum | | 4 | | |
| 3 | Institute of Health Science (I.H.S) | sum | | 4 | | |
| 4 | Institute of Health Science Extension (I.H.S Extension) | sum | | 4 | | |
| 5 | Information, Communication and Technology Centre (I.C.T.C) | sum | | 4 | | |
| 6 | Integrated Science Building (I.S.B) | sum | | 4 | | |
| C | Performance of category C (Six Monthly) Maintenance Works as per specification and in accordance with manufacturer's recommendation. | | | | | |
| 1 | Institute of Innovation, Leadership and Advancement (ILIA) | Sum | | 2 | | |
| 2 | Chancellor Hall | Sum | | 2 | | |
| 3 | Institute of Health Science (I.H.S) | Sum | | 2 | | |
| 4 | Institute of Health Science Extension (I.H.S Extension) | Sum | | 2 | | |
| 5 | Information, Communication and Technology Centre (I.C.T.C) | Sum | | 2 | | |
| 6 | Integrated Science Building (I.S.B) | sum | | 2 | | |
| JUMLAH KESESELURUHAN BAGI RINGKASAN TAWARAN INI DIBAWA KEDEPAN TOTAL AMOUNT FOR THIS SUMMARY OF TENDER CARRID FOWARD | | | | | | |

Contract period:

12 months

Validity Offer:

6 (Six) Months (from closing date of quotation)

From:.....

.....
(Official Chop / Signature)

Contractor / Address:

.....
.....

Tel. (off):.....

H/phone:.....

Class / Category: I and above / E01, E02, M01

Fax. No:.....