





### AHU Maintenance Checklist for Hospitals

#### **Daily Tasks**

- Perform a visual inspection of AHU units for unusual noise or vibration.
- Check for alarms or fault indicators on control panels.
- Ensure air intake and discharge areas are free from obstructions.
- Inspect differential pressure gauges to ensure proper filter operation.
- Verify temperature and humidity readings are within required hospital setpoints.
- Confirm airflow direction complies with cleanroom and isolation room standards.

#### **Weekly Tasks**

- Inspect pre-filters and secondary filters for dust buildup; clean or replace if necessary.
- · Check and clean condensate drain pans and lines to prevent microbial growth.
- Inspect fan blades, pulleys, and drive belts for tension, alignment, and wear.
- · Lubricate fan and motor bearings if required.
- · Verify operation of actuators and dampers.
- Check AHU doors, gaskets, and seals for leaks.
- Ensure UV-C lamps are functioning correctly; clean lamp surfaces.
- Inspect sound attenuators and flexible ducts for microbial contamination.

#### **Monthly Tasks**

- Perform detailed cleaning of cooling and heating coils to remove biofilm and dust.
- · Inspect and test HEPA filters for integrity and efficiency using particle counters.
- Verify pressure differentials in cleanrooms and isolation areas.
- Test and calibrate airflow sensors, pressure gauges, and temperature probes.
- Inspect humidifiers and dehumidifiers for proper operation.
- · Check and calibrate control valves and actuators.
- Review BMS data logs for anomalies in performance.

#### **Quarterly Tasks**

- Replace pre-filters and secondary filters as per hospital-specific schedule.
- · Perform microbial swab tests on coil surfaces and filter housings.
- Inspect energy recovery devices, economizers, and heat exchangers.
- · Verify operation of fire and smoke dampers; lubricate linkages.
- · Conduct operational checks for emergency bypass systems.
- · Perform ductwork inspection for leakage or microbial contamination.

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#### **Annual Tasks**

- Shut down AHUs for a comprehensive inspection of all components.
- · Replace HEPA and ULPA filters; record serial numbers for traceability.
- Perform complete airflow validation and leakage testing as per ISO 14644 and ASHRAE standards.
- Inspect and service electrical panels, contactors, relays, and control systems.
- Conduct vibration analysis on fans and motors; balance as needed.
- Repaint or recoat corroded surfaces with anti-microbial protection.
- Clean and sanitize internal AHU components (coil housings, fan sections).
- Perform energy efficiency audit and optimize AHU settings.
- Validate UV-C lamp effectiveness and replace lamps annually.

#### **Documentation and Compliance**

- Maintain signed checklists for daily, weekly, monthly, and annual tasks.
- · Record filter changes, HEPA test results, and microbial test results.
- · Log calibration certificates for sensors and instruments.
- Prepare maintenance reports for GCC Ministry of Health and internal audits.

#### **Important Notes**

- Always power off and lockout system before maintenance
- Only qualified personnel should perform servicing
- Follow original ACS Klima IOM procedures for component-specific instructions
- Use Klima Global-approved spare parts

### AHU DAILY MAINTENANCE CARD

SERIAL NUMBER OF UNIT:		UNIT LOCATION:					
TYPE OF UNIT:							
Maintenance Item	Status	Date Checked	Checked By	Remarks			

# **AHU WEEKLY MAINTENANCE CARD SERIAL NUMBER OF UNIT: UNIT LOCATION: TYPE OF UNIT:** Checked Date Maintenance Item Remarks Status Checked Ву

### **AHU MONTHLY MAINTENANCE CARD SERIAL NUMBER OF UNIT: UNIT LOCATION: TYPE OF UNIT:** Date Checked Maintenance Item Status Remarks Checked Ву

AHU SEMI-ANNUAL MAINTENANCE CARD						
SERIAL NUMBER OF UNIT:		UNIT LOCATION:				
TYPE OF UNIT:						
Maintenance Item	Status	Date Checked	Checked By	Remarks		

# **AHU ANNUAL MAINTENANCE CARD SERIAL NUMBER OF UNIT: UNIT LOCATION: TYPE OF UNIT:** Checked Date Maintenance Item Remarks Status Checked Ву