



**HVAC**

HVAC Maintenance Proposal

**P**fizer **P**akistan **D**olmen **M**all **C**lifton **K**arachi

(Year 2024-25)

## CONTRACTOR:

### Pioneer Services

2-C, Sunset Lane 1, Phase II, Ext. D.H.A, Karachi.

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## CLIENT:

**M/S Pfizer Pakistan**

24th Floor, Sky Tower East Wing, Dolmen City Karachi.

**LIST OF EQUIPMENT**

|  |  |
| --- | --- |
| **S. No** | **EQUIPMENT** |
| 1 | Fresh Air Handling units |
| 2 | Ducted Fan coil unit. 03 Nos |
| 3 | Water Cooled Package Units. 01 No |
| 4 | VAVs (Variable Air Volume systems). 17 Nos |
| 5 | CAVs (Constant Air Volume systems). 26 Nos |
| 6 | Exhaust Toilet 01 No |
| 7 | HVAC Deep Clean and Disinfection 01 No |

**SCOPE OF WORK:**

### Fan Coil Units (FCUs):

1. Cleaning or replacing filters regularly to maintain indoor air quality.
2. Inspecting and cleaning coils for efficiency and preventing blockages.
3. Check motorized valve functioning properly
4. Check room temperature maintaining
5. Check thermostat working properly.
6. Removal and cleaning of chilled water strainers if required
7. Lubricating fan motors and checking for any abnormal noises.
8. Testing thermostat and control settings for accurate operation.

### Water-Cooled Package Units:

1. Checking refrigerant levels and inspecting for leaks.
2. Inspecting and cleaning condenser and evaporator coils.
3. Check motorized valve functioning properly
4. Check room temperature maintaining
5. Check thermostat working properly.
6. Removal and cleaning of chilled water strainers if required
7. Examining & maintaining water circulation systems, including pumps & valves.
8. Testing controls and safety features for proper functionality.

### Fresh Air Handling Units

1. Cleaning or replacing filters regularly to ensure proper air quality and system efficiency.
2. Inspect for dust, dirt, or debris that could block airflow.
3. Lubricate fan bearings to reduce wear and tear.
4. Check the fan belts for any wear or slackness and adjust/replace if necessary.
5. Ensure fan motors are functioning smoothly without excessive noise or vibration.
6. Inspect and clean dampers to ensure proper air volume control.
7. Make sure louvers are free from obstructions, allowing unimpeded airflow.
8. Inspect ducts for leaks or damage that could lead to air loss or inefficiency.
9. Clean the ducts periodically to remove any buildup of dust or debris.

**VAVs and CAVs:**

* 1. Calibrating and testing airflow sensors and controllers.
  2. Inspecting and adjusting damper positions for proper air balancing.
  3. Ensuring proper operation of controls and actuators.
  4. Check for any visible signs of damage, leaks, or wear on the VAV & CAV boxes, damper assemblies, and associated components.
  5. Ensure the area around the VAV & CAV is clear and unobstructed.
  6. Check and calibrate airflow sensors, pressure sensors, and controllers.
  7. Test the VAVs' response to changes in setpoints and temperature variations.
  8. Verify damper movement and adjust if necessary for proper airflow
  9. Inspect motors and actuators for signs of wear or malfunction.
  10. Check electrical connections and wiring for any issues
  11. Check and verify the setpoints for temperature, airflow rates, and pressure differentials to ensure they align with building requirements and occupancy needs
  12. Clean dust and debris from the VAV & CAV boxes, ductwork, and associated components.
  13. Ensure the dampers, sensors, and actuators are free from dirt and obstruction.

### Exhaust Toilet fans:

1. Inspection and cleaning of fan blades and housings.
2. Check motor and blower ball bearing change if necessary
3. Check belts, bearings, and motors for wear and tear.
4. Inspect belts, pulleys, and drives for wear, proper tension, and alignment.
5. Inspect the motor for signs of wear, overheating, or abnormal noises.
6. Perform vibration analysis to detect any abnormal vibrations in the fan system.
7. Check and adjust the alignment of the fan blades if necessary to ensure smooth operation and airflow efficiency
8. Ensure air circulation is optimal and adjust dampers if necessary.

**HVAC Deep Clean and Disinfection**

1. Replace all air filters with new ones or clean reusable filters thoroughly.
2. Clean evaporator and condenser coils using approved coil cleaning solutions.
3. Disinfect the coils to eliminate any microbial growth, mold, or bacteria.
4. Perform deep cleaning of ductwork to remove dust, dirt, debris, and contaminants that may accumulate.
5. Apply disinfectant inside ducts to prevent mold or microbial growth.

# Maintenance Schedule

* 1. Quarterly Maintenance.
  2. Semi Annually Maintenance.
  3. Annual Maintenance.

**Scheduling and Timing:**

1. Preventive maintenance activities, including inspections, cleaning, and adjustments, will be scheduled **after regular duty hours**. This timing ensures that maintenance work does not disrupt normal operations or occupants' daily activities during working hours.
2. Additionally, maintenance will take place on **Saturdays and Sundays**, when the facility or building is likely to have reduced occupancy or be vacant, minimizing any inconvenience caused by maintenance activities.

# QUARTERLY HVAC PREVENTIVE MAINTENANCE

**CHARGES**

|  |  |
| --- | --- |
| Quarterly Charges: | 275,000 |
| SST 15%: | 41,250 |
| Grand Total Amount Rs: | 316,250 |

**Terms & Conditions**

1. Quarterly advance payment will be released against the Invoice / bill.
2. Prices include Sindh services Tax.
3. Prices are valid for a One-year contract, and a new contract will be arranged a month before the current one ends.
4. Repairing or replacing parts/components will incur additional charges.
5. Transportation costs will generally be based on actual expenses.
6. Any specialized work done by a third party will have separate charges.
7. There will be an annual increase in charges.
8. Changes in government taxes will result in adjusted charges.
9. Our proposal is based for only maintenance activity, any materials or consumable parts needed for maintenance will be charged separately

**M/S PIONEER SERVICES M/S Pfizer Pakistan**

(Contractor) (Client)