



**DEPARTMENT OF BUILDING
UNIVERSITI TEKNOLOGI MARA
(PERAK)**

**PRACTICAL REPORT TITLE:
INSTALLATION AND MAINTENANCE FOR AIR
CONDITIONING**

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FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA
(PERAK)

FEBRUARI 2022

It is recommended that the report of this practical training provided

By

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entitled

INSTALLATION AND MAINTENANCE FOR AIR
CONDITIONING

be accepted in partial fulfillment of requirement has for obtaining Diploma in Building.

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FEBRUARY 2022

STUDENT'S DECLARATION

I hereby declare that this report is my own work, except for extract and summaries for which the original references stated herein, prepared during a practical training session that I underwent at A&A MEGAH SD. BHD. for duration of 20 weeks starting from 23 August 2021 and ended on 7 January 2022. It is submitted as one of the prerequisite requirements of BGN310 and accepted as a partial fulfillment of the requirements for obtaining the Diploma in Building.

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Date : 10 JANUARY 2022

ACKNOWLEDGEMENT

First of all, praise be to Allah who granted me health and long life during this pandemic. I would like to thank my supervisor Encik Mohd Azlan Bin Mohd Jubli who was excellent in supervision and devotion to guide me during practical training. Thanks to him for giving me the opportunity to join his company during this pandemic. He had the kindness to accept me in his company and guide me through my practical training with advice and feedback despite his busy schedule. His untiring assistance, encouragement, continuous guidance, and support throughout this practical training help me to improve my works skill level during my practical training. I spent in this company as a practical student from end of August to January 2022 was a memorable one for me as it was gained me learning new thing from my first day step up in this scene.

I would also like to thank Mohamad Hamdan Bin Hamdan (Ts), my academic supervisor for her valuable guidance and advice. Spending her time to answer any questions concerning about my practical training. I am also thankful and fortunate enough to get constant encouragement, support and guidance from all lecturers of UITM Seri Iskandar who helped me to successfully complete my practical training. Lastly, special thanks to all my friends for sharing their experience, commitment and time especially during finishing this practical training program. I am grateful because I have a lot of friends who are always there for me to help and support me throughout the course of completing this practical training program.

ABSTRACT

To accomplish this diploma course, we must complete 20 weeks of industrial training, which is contained in our course outline and must be completed during our diploma's fifth semester. This industrial training began on August 23, 2021 and will end on January 7, 2022. During the industrial training, the selected supervisor will monitor and supervise us.

My industrial training in A&A MEGAHD SDN. BHD., which is based in Kuantan, Pahang. It is a construction company that provides building maintenance, repair, and other services. The owner of this company, Encik Mohd Azlan Bin Mohd Jubli, founded it on the 20th of June 2020. This business specializes in air conditioning installation, electrical work, and other building services like housekeeping, painting, and laundry.

The project that will be working on involves installing and maintaining air conditioners in all of Telekom Malaysia Berhad's buildings. My managing director, who is also the company's owner, help me in handling all aspects of the business, including office work and tender/quotation preparation, as well as completing all outstanding tasks, such as vendor and supplier registration. Because this was the fifth company from the founder, my team assisted me in completing this work.

The conclusion is that air conditioning maintenance should be performed to avoid any failures or system failures. I'm hoping that this report will come in handy as a reference in the future.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

In building services, air conditioning (also known as AC, A/C, or air cond) is a system that removes heat and moisture from the environment to cool down the temperature in an indoor area. They work by bringing warm air into a system and dispersing cold air, but there's a lot more to it than that.

During the home air conditioning process, evaporation of another fluid, known as the refrigerant, cools a fluid (usually water or air). Your air conditioner quickly converts gas to liquid and back using chemicals, eliminating the warm air from your home. After that, it's dumped outside. An air conditioning system, in a nutshell, controls the temperature, humidity, and air quality in enclosed spaces.

While the basic concept of air-cooling dates back to ancient Egypt, Willis Carrier created the first modern air conditioning machine in 1902 in response to a New York publishing company's air quality concerns.

By cooling the air and sending it via cold coils, the technology not only maintains the temperature of a space, but also the humidity, allowing them to control the moisture in the air. Air conditioning was soon introduced to automobiles as well as homes to improve comfort. Air conditioning equipment sales have soared in recent years as a result of increased client demand.

You can turn your air conditioner on and off whenever you want with manual air conditioning. Because the air conditioning is not controlled by a thermostat, there is no need to wait for it to start. If you want your air conditioning system to run on its own with little input from you, you'll need an automated air conditioning system. You won't have to go back to the controls every day because your system will turn on when you set it to.

The cost of air conditioning systems, like any other thing, varies. Air conditioning units range in price from RM900 to RM2000, with more expensive models costing RM5000 or more. To get a more accurate, personalized quote on which air conditioning system is best for your home, use our 'Find An A/C System' option. It's easy to use and will give you recommendations in less than two minutes.

There are many different types of air conditioning units to choose from, and which one you choose will be based on your specific needs. The size of the area, the amount of heat generated in that area, and the kind of controls required, for example. It's critical to have the right type for your needs if you want to keep your energy bills low and your living space at a comfortable temperature. The most common kinds are as follows:

- i. Wall-mounted, split unit air conditioning system

There are two units in a split system air conditioner: one outside and one inside. The outside unit, which is positioned on or near the outer wall of the space to be cooled, houses the compressor, condenser coil, and expansion coil. The inside unit, which is mounted on the wall, houses the cooling coil and an air filter. Cables and tubes connect the two devices.

Split systems are a great option for families because the compressor and fan are located on the outside unit, allowing many inside units to be connected to a single exterior box.

- ii. Packaged air conditioner

Unlike a typical air conditioning system, which is made up of two parts: an outdoor condenser and an indoor air handler, a packaged air conditioner unit encloses all of the components in a single box that is typically mounted on a buildings outside wall or roof.

Packaged air conditioning systems have a higher cooling or heating capacity, which makes them ideal for use in larger homes or commercial buildings. They work by

putting in a single component and linking it to ducts that are installed throughout many rooms. The machine uses electricity as a power source to circulate the refrigerant via the coils. The evaporator coil is then cooled by a fan that sucks warm air in and circulates it over it. The ducts then force the chilly air into the building.

iii. Central air conditioning system

Large residences or buildings, such as gyms or offices, are typically cooled by central air conditioning systems. Central air conditioning systems are the most common type of air conditioning system because they can cool larger areas quickly and effectively.

An outside-located cooling compressor powers the system. A coil loaded with refrigerant chills the air, which is then pushed out by a fan and circulated throughout the building via ducts fixed on the walls or floors, similar to traditional air conditioners. The ducts will detect heated air in a room and transport it back to the air conditioner to be pushed outside.

iv. Window air conditioner

These window air conditioners are positioned in a window and are used to cool a single room or space. They're ideal for households with only one person living in each room at a time. A window air conditioning system is a self-contained unit that contains all of its components in one box.

The window air conditioner is both affordable to purchase and operate, as well as being quite compact. These devices, which are installed along the bottom half of the window, pull hot air out of the room and push it outside, while forcing cold air into the space to cool it down.

v. Portable air conditioning unit

This small air conditioner does exactly what it claims on the box. It's a portable unit that doesn't have to be fixed in place. They're easy to set up and work by removing heat from the air in your room through a little exhaust. This device may be moved around the room to focus on the areas that need the most attention.

vi. Air Handling Unit (AHU)

The ventilation requirements for purifying, air-conditioning, or replenishing the interior air in a building or premises are housed in an air handling unit, also known as an AHU, which is composed of elements installed in large, accessible box-shaped units called modules. They are commonly installed on building roofs, and air is circulated through ducts to each of the structure's rooms.

Theoretically, there are many different types of air conditioning systems. The purpose of this report, on the other hand, is to learn how the installation and servicing processes in building services are carried out.

1.2 Objectives

There are several objectives have been developed from this construction as follow:

- i. To identify the type of building services and maintenance
- ii. To study the method of installation for air conditioning system
- iii. To identify the problems & solutions during installation of air conditioning system

1.3 Scope of Study

The scope of the study included all of Telekom Malaysia Berhad's buildings and facilities in Terengganu, Pahang, and Kelantan on the east coast. The project began on July 19, 2020 and will be completed on July 19, 2021. The project involves installing new air conditioners, replacing old air conditioners, and maintaining the air conditioners in all of Telekom Malaysia Berhad's buildings and facilities, and it costs one million and two hundred thousand Malaysian Ringgit (RM 1,200,000.00). The project is currently in progress. The study's major goal is to figure out how air conditioners will be installed, replaced, and maintained. Because AHU is used in the majority of Telekom Malaysia Berhad's buildings, this process is conducted. As a result, the study will include not only the method of installation, replacement, and maintenance, but also the benefits of replacing and maintaining outdated air conditioners. In addition, the challenges and solutions are discussed in this research. Despite this, the study does not focus on the quantity of personnel or manpower, the expenditures, or the duration of the project. There were three procedures that needed to be used in order to complete the data: observation, interview, and document reviews. Finally, any additional explanations relevant to the above procedure were given as follows.

1.4 Method of Study

i. Observation

The information was gathered through observation prior to the start of the project and throughout the process of replacing old air conditioners and installing new air conditioners at various locations. Furthermore, observation has been carried out by attending discussion meetings on how to select appropriate air conditioners for various locations that require a large number of air conditioner horsepower to keep some areas cool, such as at TM Stesen Kabel Dasar Laut Cherating. Voice recordings and written notes were used to record the discussion meeting.

ii. Interview

The interview is one of the ways for gathering data by conducting a structured or semi structured interview with a project's trusted individual. It was completed while conducting observations and performing work at the site. The interview was performed with the firm management and the contractor in charge of the project on the job site. This interview was also conducted with personnel who were on the job maintaining air conditioners at the time. Every week in the office, semi-structured interviews with the contractor in charge of the project were performed, which lasted about 10 – 15 minutes on average. Short notes were taken during the semi-structured interview.

iii. Document Review

This strategy entails systematic data collection from existing corporate documents such as the company profile, monthly success report, and photographs taken by employees. The majority of the relevant and secret data about the organisation or project can be obtained and used to meet the report's objectives.

CHAPTER 2.0

COMPANY BACKGROUND



Figure 2.1 show the logo of the company A&A MEGAH SDN. BHD.

2.1. Introduction of Company

A&A MEGAH SDN. BHD. is a Malaysian Construction Industry Development Board-registered firm (CIDB). Under CIDB, this enterprise is graded G4 in category B (building construction) for specialisation B04, CE (civil engineering construction) for specialisation CE21, and ME (mechanical and electrical) for specialisation M15. This company possesses SSM Business Registration certificate (1371743-K), Ministry of Finance Malaysia Company (K10113067222867635), and Bumiputera Company Ministry of Finance Malaysia in addition to being registered with CIDB (BP10113067222911645). A&A Megah has worked with a number of experienced panel companies to satisfy customer needs and to make all construction problems easier. A panel of architects, a panel of surveyors, a panel of engineers, and a panel of contractors are among the professionals involved. There are also some ordinary employees and expert workers with wiring, power, irrigation, and building abilities and experience. With the Malaysian Construction Industry Board (CIDB) recognising A&A Megah as a bumiputera contractor, the company can now oversee and carry out road construction, piping, sewerage, and other civil engineering projects.

2.2. Company Profile

A&A Megah Sdn. Bhd. was founded on June 20, 2020, and operations began immediately once all registrations were granted, with a primary focus on building, engineering, housekeeping, electrical, air conditioner supply and maintenance, and infrastructure construction. It was registered as G4 with the Malaysian Construction Industry Development Board and other government authorities, and it is a totally owned bumiputera firm with several established developers in Malaysia. Lot A1, Tingkat Atas Medan Niaga PKNP, Jalan Kempadang Perdana 1, 25150 Kuantan, Pahang is where this company is located.



Figure 2.2 above shows the location of the company based on the satellite map.

Encik Mohd Azlan Bin Mohd Jubli, the company's founder, is an electrical engineer by profession with extensive experience and expertise in the field of electrical engineering. He is assisted by Nurul Asmidar Binti Mustafa, the civil engineer director, and Juraida Binti Mohd Jubli, the project director. With the company's mission to be one of the bumiputera construction companies capable of providing the best, high-quality, and transparent services to all customers, the company is well on its way to realising its vision of being a bumiputera company that actively contributes to national and international development. The company employs seven people and has worked with a number of building firms. A&A Megah can be reached by email at

aa.megah.sdnbhd@gmail.com or by calling the company's phone number (019-4424241)

Name of Company :A&A MEGAH SDN. BHD.

Registered Office :LOT A1, TINGKAT ATAS MEDAN NIAGA PKNP,
JALAN KEMPADANG PERDANA 1,
25150, KUANTAN, PAHANG.

Handphone No. : 019-4424241

Registered Date : 20 JUNE 2020

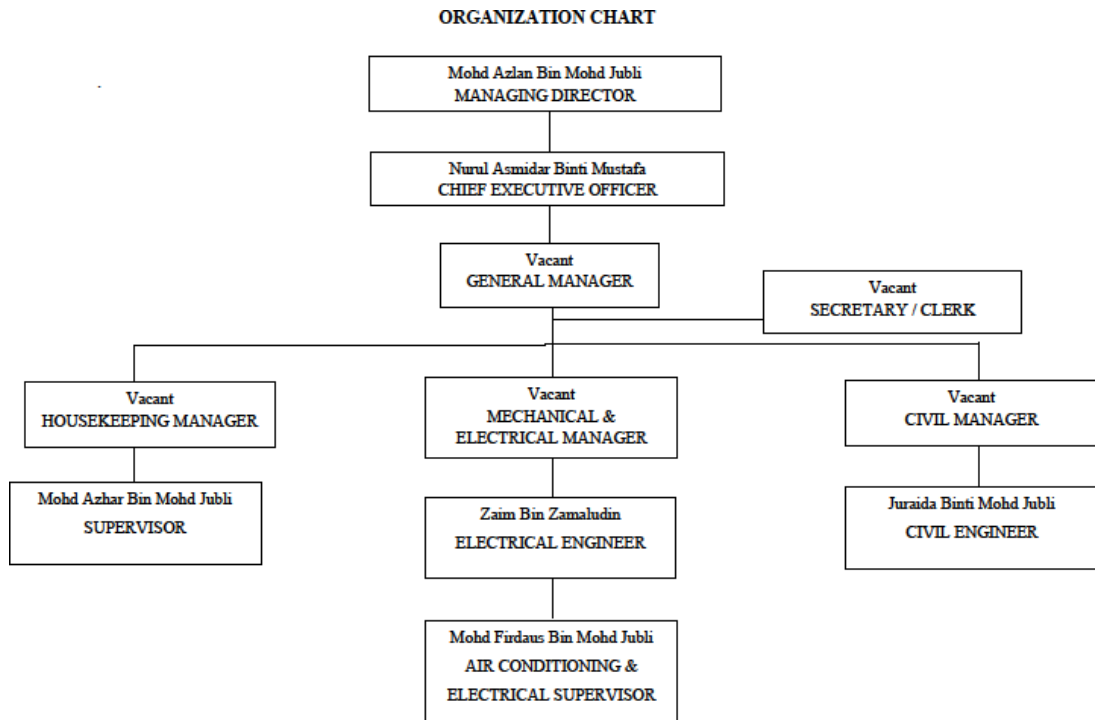
Company Registration No. :1371743-K

Bankers : MAYBANK ISLAMIK KUANTAN BRANCH

Directors : MOHD AZLAN BIN MOHD JUBLI

Registered with : 1. Kementerian Kewangan Malaysia
Government bodies (K10113067222867635)
2. CIDB (0120210504-PH073874)
3. SPKK (0120210504-PH073874)

2.3. Company Organization Chart



The organisational chart serves as a visual representation of data management for employees in the business. It depicts the tasks that must be completed and makes the organisational chart design simple to comprehend. Based on the number of tiers and each employee's role.

Mohd Azlan Bin Mohd Jubli, the director, plays a significant part in this organisational hierarchy. He is in charge of overseeing every work that is completed in accordance with the specifications.

Juraida Binti Mohd Jubli, the senior clerk, is in charge of office management, including handling employee relations and managing all documents and clients that need the company's services.

2.4. List of Projects

2.4.1. Completed Projects

Table 2.1 below shows the list of completed projects

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1.	Kerja – Kerja Membersih Dan Mencuci Bangunan Mahkota Square Untuk Tetuan JMB of MahkotaSquare.	Sixty- Nine Thousand Malaysian Ringgit (RM 69,000)	30 June 2020	29 May2021	11 Months	Joint Management: Body of Mahkota Square
2.	Kerja – Kejra MengecatBangunan Mahkota Square Kuantan Untuk “Joint Management Body of Mahkota Square” dan Lain – LainKerja yang Berkaitan.	Thirty- Nine Thousand Malaysian Ringgit (RM 39, 000)	15 July 2020	17 October 2020	5 Months	Joint Management: Bodyof Mahkota Square
3.	Kerja – Kerja Membekal dan Memasang Perabot Pejabat, Penyelenggaraan Paip di Stesen Minyak Petronas Pekan.	Fifteen Thousand andSixty Malaysian Ringgit (RM 15,060.00)	7 August 2020	10 October 2020	3 Months	Mohd Warikh Bin Hj Ishad Ali

2.4.2. Project In Progress

Table 2.2: List of Project in Progress

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1.	Kerja – Kerja Membekal, Memasang, dan Menyelenggara Penghawa Dingin Di Seluruh Fasiliti Telekom Malaysia Berhad Pantai Timur.	One Million and Two Hundred Thousand Malaysian Ringgit (RM 1,200,000)	20 September 2021	5 November 2024	3 Years and 2 Months	Telekom Malaysia Berhad

CHAPTER 3.0

INSTALLATION AND MAINTENANCE OF AIR CONDITIONING

Telekom Malaysia Berhad (TM) is the country's national connectivity and digital infrastructure provider, as well as the country's major integrated telco. Its goal is to support Digital Malaysia by offering a full range of communication services and solutions in fixed (telephony and broadband), mobility, content, WiFi, Cloud, Data Center, cybersecurity, IoT, and smart services. Depending on the situation, Telekom Malaysia Berhad has a few facilities that use air conditioners to maintain the room temperature cool. For example, at Stesen Kabel Dasar Laut Cherating TM, air conditioners of up to 60 horsepower are used to keep the battery room cool. To keep the temperature down in most of the TM buildings, AHU is used. It is critical to utilise the appropriate air conditioner to keep the room cool, as certain rooms are used to store high-temperature batteries that are prone to overheating. As previously stated, the air conditioner in the room where the batteries are stored is also utilised to keep the batteries cool. However, after the appropriate air conditioner has been selected, it is critical to maintain it in order to keep it functioning at its best and avoid any future losses.

Throughout the process, the challenges of installing, replacing, and maintaining the process will be identified. Following the determination of the process's problem, the remedies to the problems will be given. The method of installation and maintenance, the time spent maintaining the process, and the problem and remedy will all be discussed in this chapter.

3.2. To Identify the Type of Building Services and Maintenance

Building services are the systems that have been put in buildings to make them more comfortable, functional, efficient, and safe. Just a few examples are fire safety, HVAC (heating, ventilation, and air conditioning), lighting, plumbing, and ICT (information and communications technology). The type of building services chosen for this case study is an air conditioner, also known as Air Handling Units (AHU).

An air handling unit, commonly known as an AHU, houses the appropriate ventilation requirements for purifying, air-conditioning, or replenishing the interior air in a building or premises. An AHU is made up of elements mounted in large, accessible box-shaped units called modules. They are frequently installed on building rooftops, and the air is pumped through ducts to each of the structure's rooms.

The primary duty of an air handling unit is to ensure that the inside is appropriately ventilated with outside air. The AHU also performs the following functions: filtration and control of the quality of the air that will reach the interior, thanks to air purification filters, and depending on the retention of these filters, the air will be clean; control of the air temperature, which regulates the air conditioning system in cold or hot, so that the desired thermal sensation in the interior is achieved; and control of the air temperature, which regulates the air conditioning system in cold or hot, so that the desired thermal sensation in the interior is achieved. Apart from that, the AHU serves as a relative humidity metre for increased interior comfort.

Outside air is collected, purified, and circulated throughout the rooms using air handling systems, as well as "recycled" domestic air. Depending on the air purity requirements, the filter used will retain particle, virus, bacterium, smells, and other air contaminants. A fan, on the other hand, is an electromechanical system that drives air from the AHU down the ducts and into the rooms.

Heat exchangers, on the other hand, are devices that use a solid barrier to transfer temperature between two fluids, in this case coolant and air. Furthermore, a cooling coil cools the air that passes through this module. During this process, water droplets can develop, which the built-in droplet separator gathers in a condensate tray. Silencers are coatings that considerably reduce the sound intensity of an installation, whereas plenums are empty spaces with consistent air flow.

Because the primary purpose of an air handling unit is energy efficiency, which has been mandated by European Ecodesign Regulation 1235/2014 since 2016, this sort of air conditioning is appropriate. Because the interior and exterior air are mixed in the exchanger, there is a decreased temperature disparity when the air reaches the coil, lowering the climatic contribution and lowering energy usage. Similarly, because the equipment is variably controlled, the fans may adjust their speed to match the flow rate, minimising their consumption.

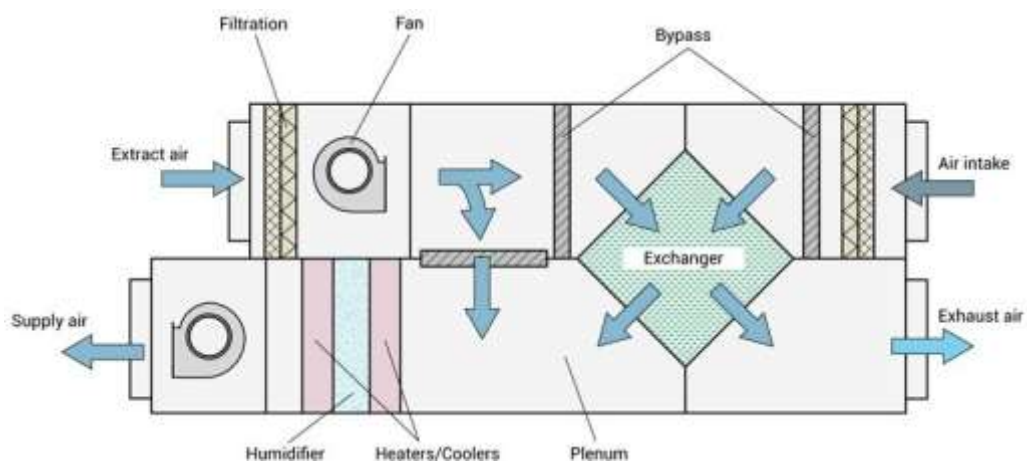


Figure 3.1above shows the components in AHU

3.3. To Studying the Method of Installation of Air Conditioning System

Observations obtained at the AHU installation location will be used to guide the AHU installation. First, a site survey must be completed before to the start of the operation to identify safety precautions and measures. Following the completion of such an investigation, relevant notice boards and barricades will be constructed, including but not limited to the following:

1. Relevant information, advanced signs, warning signs, and mandated signs will be displayed as needed.
2. A radio communication method is utilised when conventional communication is problematic.
3. The safety cones and barricades must be removed once the job is completed.

Required Tools for AHU Installation:

1. Grinding/ Cutting Machine
2. Mechanical Toolkit
3. Drill Machine
4. Crane/ Chane Block
5. Supports, Anti-Vibration Rubber Pads
6. Nuts, Bolts, Gaskets
7. Valves

Preparation and AHU Pre-Installation Requirement

1. The location and reference of the air handling unit must be double-checked on the equipment schedule.
2. Check the area around the foundation to ensure that the AHUs/FAHUs, if appropriate, have access from all sides.
3. Check the foundation of the air handling unit to make sure it's in line with the approved drawing.
4. Check to see if the drainpipe has enough slope for easy condensate drainage.

5. Install the required thickness anti-vibration ribbed rubber pads in accordance with permitted drawings/submittals.
6. The ribs should be at a straight angle to each other, and the pads should be layered one on top of the other when utilising multiple rubber pads.
7. The access and installation sites will be inspected before any work begins to ensure that they are in good functioning order.
8. During installation and until the final connections to the Air Handling Units are established, temporary cover for the openings must be provided.

Units must be loaded and unloaded from containers with extreme caution. Rough handling may harm the metal framework and double-skin panels. The sections can be lifted with slings or a forklift. Slings, ideally nylon, must be looped around the structural base frame. The part can be lifted and removed if everything checks up. When utilising a lifting tube, it must first be inserted into the right hole, and then the tube must be connected to the sling, which must have a specific loop. The portion can then be elevated. Offloading and installation procedures should only be handled by specialists who have the necessary equipment and tools.

Step for Air Handling Unit Installation.

1. Transport the AHUs/FAHUs to the installation site in a safe manner, using a forklift and crane as needed, and ensuring that the correct AHU is transported.
2. The air inlet, outflow, fresh air connection, and chilled water connection are all oriented according to the permitted designs.
3. If the air handling units are delivered in multiple pieces, the AHUs will be assembled according to the manufacturer's instructions, taking into consideration the following factors:
 - The AHUs/FAHUs are installed correctly on the foundation, with vibration isolator side panels in the appropriate positions and the corresponding portions identified and attached together.

4. Place the fan section on the cleaning pad and install gaskets at any bolted connections that must be joined. On the housekeeping pad, carefully insert the next component to be joined, then align the two portions.

5. Jointing brackets will be used to attach the parts from the outside. However, the air handling unit will be inspected again while hosting/shifting to avoid any damage.

6. Any open air/water outputs of the AHUs/FAHUs must be entirely covered and the area cleaned once they have been properly positioned, providing absolute protection in places where other trades are operating.

7. The units will be thoroughly plumbed and aligned using blocks and shims before being fully fastened and securely affixed to the 'Housekeeping' pad.

Following alignment, the in-charge supervisor will validate that the vibration isolators have the required deflection, and final calibration will occur during the pre-commissioning stage.

3.4. To Identify the Problems and Solutions During Installation of Air Conditioning System.

Common central air conditioning difficulties arise when rooms are blocked off and air flow throughout the building is disrupted. The converse is true if the building has a room air conditioner. There's also an issue with the operation. To isolate the room or a group of related rooms from the rest of the building as much as possible, close any building ventilation, such as windows and exterior doors.

Improper installation, service practises, and servicing are also major problems with today's air conditioners. Installing a central air conditioner incorrectly might lead to leaking ducting and insufficient circulation. The refrigerant charge (the quantity of refrigerant in the system) does not always match the manufacturer's specifications. If appropriate refrigerant charge is not performed during installation, the unit's performance and efficiency will be compromised. Unqualified service technicians routinely miss refrigerant charge concerns and, in some cases, exacerbate existing problems by adding refrigerant to a system that is already full.

Air conditioner manufacturers are known for manufacturing durable, high-quality equipment that lasts for years. If the air conditioner fails, first check any fuses or circuit breakers. Before resetting any fuses, allow for a five-minute cooling time. The high-pressure limit switch in a central air conditioner's compressor may have tripped on a hot day; you may reset it by pressing the button in the compressor's access panel.

Solution for the Problem

1. Refrigerant Leak

The air conditioner was either fitted incorrectly or has a leak if it is low on coolant. Simply adding extra refrigerant will not solve the problem if it leaks. A qualified technician should repair any leaks, then test the repair and charge the system with the right amount of refrigerant. Keep in mind that the highest performance and efficiency come from refrigerant charges that are within the manufacturer's guidelines and are neither undercharged nor overcharged. Refrigerant leaks have the potential to harm the environment.

2. Inadequate Maintenance

If the filters and air conditioning coils become dirty, the air conditioner will not perform properly, and the compressor and fans will most likely fail prematurely. Cleaning or replacing air filters every 1-3 months, depending on the type of filter, is the most important maintenance task for an air conditioner. The efficiency of an air conditioner is drastically reduced when airflow is hindered by unclean filters. A clogged air filter will not only make it harder for an air conditioner to operate, but debris will also migrate through the air and settle on evaporator coils, limiting their ability to absorb heat. A system's energy usage can be reduced by as much as 5% to 15% by using clean air filters. Check the air filters in each air conditioner in the building once a month, and if they show signs of excessive debris, replace or clean them.

3. Drainage Problem

If the air conditioning unit was just installed and is leaking, the most likely cause is a faulty air conditioning installation. This means the air conditioning and drainage lines are out of proportion. This causes the water flow from the drainage pan to the exit to be disturbed. If the water is unable to move ahead, it will either flow backward or remain at the same level. During the air conditioner installation, make sure the pipe is lower than the main unit so that the water may flow downwards to the drainage exit. Users must immediately contact a specialist for a complete assessment and, if necessary, reinstallation if the problem is discovered to be the consequence of poor or incorrect air conditioner installation.

Aside from that, an air conditioning unit's drainage line can become clogged with dirt and debris. As a result, the condensate will be unable to flow out through the drainage system. If the water cannot move outwardly, it will overflow into the primary air conditioning unit. As a result, your air conditioner will begin to leak water. Make sure the air conditioner can be cleaned on a regular basis, and if a clogged drainage pipe is discovered, users can use a wet or dry pump to completely empty it out. This will remove the impediment and allow the water to flow freely again.

CONCLUSION

To summarise, testing, inspecting, installing, and maintaining air-conditioning systems is a tough activity that requires the assistance of a professional technician or someone who has worked in this industry for more than a year or at least 8 months with the assistance of a professional guide. This is due to the fact that this job requires electrical wiring, and each wire that connects to the panel system must comply with the requirements. So that if something goes wrong, such as a wire short, the technician can quickly determine the problem's source.

Technicians will be able to determine the actions that must be performed to maintain the system operational by knowing the system's age and maintenance history. Sensing system components that are less than five years old should be simple to fix. In the meanwhile, minor installation concerns such as inadequate grounding or ambient conditions might pose problems with new systems. Testing, determining, and maintaining are some of the processes used by this system. If air conditioners are used severely and frequently, they should be maintained at least once a month.

Air conditioners are vital since they are utilised for a variety of functions in addition to making people feel comfortable. For example, TM has a number of facilities that rely on batteries and generators, which are kept in a separate area. They employ AHU systems to keep the ventilating safe and the temperature of those machines to stay cool so that they can function effectively at any time.

This method of installation and maintenance is similar to what students learn in principle in class. During their internship, however, students will learn something practical and challenging. Furthermore, pupils will be guided by a senior or experienced technician until they are capable of handling or are specialists in this field.

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